# REMEDIATION UPDATE REPORT
# FOR
# AUGUST 2005 – FEBRUARY 2006

INVISTA S.à.r.l.
NORTH TERMINAL
3325 RIVER ROAD
WILMINGTON, NORTH CAROLINA

SEPTEMBER 29, 2006

PREPARED FOR:

FLINT HILLS RESOURCES, LP

CATLIN PROJECT NO. 201-125

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September 29, 2006

North Carolina Department of Environment
and Natural Resources
Division of Water Quality
Attn: Dr. Charles L. Stehman, P.G.
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Wilmington, North Carolina 28405-3845

Re: Remediation Update Report for August 2005 to February 2006
INVISTA S.à.r.l. - North Terminal
Wilmington, North Carolina
CATLIN Project No. 201-125

Dear Dr. Stehman:

On behalf of Flint Hills Resources, LP, attached is the Remediation Update Report concerning the above-referenced site and time period.

Upon your review of this report, please contact Ms. Elizabeth Page at (817) 685-3424 or myself at (910) 452-5861 if you should have any questions concerning this project.

Sincerely,

Jeffery K. Becken, P.E.
Project Manager

for
Stephan A. Tyler
Project Geologist

Enclosure

cc: Mrs. Elizabeth R. Page, P.G. - Reiss Remediation, LLC (w/ encl.)
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**INVISTA S.à.r.l.**
**NORTH TERMINAL**
**3325 RIVER ROAD**
**WILMINGTON, NORTH CAROLINA**

**SEPTEMBER 29, 2006**

## 1.0 INTRODUCTION

### 1.1 PURPOSE

CATLIN Engineers and Scientists (CATLIN) are submitting this Remediation Update Report on behalf of Flint Hills Resources, LP (FHR) for the North Terminal at 3325 River Road, Wilmington, North Carolina (see Figure 1). FHR sold the operations to an affiliate company, Invista, on June 1, 2006. However, FHR continues to own the Facility Wastewater Treatment Plant (FWTP) Area. Therefore, project site areas of environmental concern outside the FHR FWTP Area within this report and all future correspondences are and will be referred to as the INVISTA S.à.r.l. (Invista) North Terminal.

The purpose of this report is to update the status of the subsurface soil and surficial groundwater remediation activities and to present environmental findings for the period August, 2005 through February, 2006, at four areas of concern within the Invista North Terminal. These areas of concern are the Paraxylene (PX) Facility, the Gasoline/#2 Fuel Oil Facility, the Loading Rack Area and the FWTP Area.

Current remediation activities at the PX Facility and Loading Rack Area are in accordance with the activities presented within the June 2005 Revised Plan of Action. Titles of applicable remedial action documents have been listed in the table below.

| Document | Date | Author | Comments |
|---|---|---|---|
| Corrective Action Plan Addendum (CAPA) | August 9, 2002 | FHR | Document updates remediation plans for the subsurface soils and groundwater remediation at two areas of concern (PX Facility and Loading Rack Area) |
| Statement of General Agreement | October 2002 | NCDENR | Regulatory agreement with August 2002 plan |
| Revised Remedial Actions for FHR North Site (Letter only) | March 5, 2004 | FHR | Revised to include chemical oxidation |
| Revised Remedial Action Plan | June 2, 2005 | FHR | Provided details for chemical oxidation application |

| | | | |
|---|---|---|---|
| Approval of June 2005 Revised Remedial Action Plan | June 7, 2005 | NCDENR APS | Regulatory agreement with revised remedial actions |

NCDENR APS – North Carolina Department of Environment and Natural Resources Aquifer Protection Section

The two other areas of concern, Gasoline/#2 Fuel Oil Facility and FWTP Area, have been included as part of this Remediation Update Report to facilitate reporting and evaluation of the site as a whole. Assessment and remediation activities that were conducted within these areas of concern during the referenced time period are included within this report and will be provided in future reports.

## 1.2 SITE INFORMATION

The Invista North Terminal is a bulk chemical and fuel storage and transfer facility, which occupies an area of approximately 37 acres. Thirty-three of the 37 acres are located on the east side of River Road and the remaining four acres are located west of River Road. The North Terminal is subdivided into four areas of environmental concern as illustrated on Figure 2. These areas of concern are identified as the Paraxylenes (PX) Facility, the Gasoline/#2 Fuel Oil Facility, the Loading Rack Area and the FWTP Area. As previously noted, the FWTP Area is the only area of concern in which FHR currently owns. The following is a brief description of each area:

**Paraxylene Facility** - The PX Facility has seven aboveground storage tanks (ASTs) and associated pipelines for the storage and transfer of PX. In addition, there is a PX truck loading rack and a railcar loading rack area. This facility was active during the reporting period addressed in this report.

**Gasoline/#2 Fuel Oil Facility** – This facility consisted of twelve former ASTs and associated pipelines, which had been utilized for the storage and transfer of gasoline and fuel oil. Gasoline additives were stored in five of the former ASTs. Since April of 2001, the gasoline and fuel oil ASTs, associated pipelines and the truck/railcar loading rack areas have been inactive and no longer contain product. The ASTs and a portion of the associated pipelines were removed during January/February 2005 with the completion of removal of the associated pipelines in January/February 2006.

**Loading Rack Area**- The truck loading rack within the Loading Rack Area was disassembled in the fall of 2003. This truck loading rack was used to load trucks with materials historically stored within the Gasoline/#2 Fuel Oil Facility.

**FHR Facility Wastewater Treatment Plant Area** – The FHR FWTP Area consists of a four-acre parcel of land located on the west side of River Road. This parcel of land is surrounded by River Road to the east, the North Carolina State Port Authority property to the north and the Petroleum Fuel Property (Apex) to the west and south. The FHR FWTP Area consists of: 1) a diked area that formerly contained an AST which was removed in January/February 2005 with associated pipelines removed in January/February 2006; 2) an active wastewater treatment facility consisting of a treatment unit and three polishing/settling ponds; and 3) an inactive remedial system owned by Sunoco, Inc. (Sunoco) that is associated with the remedial activities being performed by Sunoco on the adjacent North Carolina State Port Authority property.

# 2.0 BACKGROUND INFORMATION

## 2.1 PARAXYLENE FACILITY

### 2.1.1 Brief Incident History

Since Phillips Petroleum constructed the North Terminal facility in 1954/1955, it has been utilized to handle various gasoline, additives, #2 fuel oils and PX. Since 1954/1955, there have been several product releases at the subject site. Former and ongoing assessment, remediation and monitoring activities for product releases since 1980 have been well documented and are on file at the NCDENR Wilmington Regional Office (WiRO) APS. This report focuses on the current PX remediation efforts through February 9, 2006.

### 2.1.2 Contaminants of Concern

The primary contaminant of concern (as agreed upon by NCDENR) at the PX Facility is dissolved PX, one of three xylenes isomers (ortho, meta, and para). Currently, analytical laboratories do not have the technology to accurately distinguish between metaxylenes and PX compounds. Since the source is known to be PX, all soil and groundwater samples are analyzed for meta/para (M/P) xylenes and the resulting concentration is assumed to be PX.

The goal for surficial groundwater remediation is to reduce dissolved M/P xylenes concentrations to the 15A NCAC 2L.0202 North Carolina Groundwater Quality Standard (2L GWQS) of 530 micrograms per Liter (µg/L) or for PX remediation data (graphical representation) to reach an asymptotic trend. PX Facility groundwater samples are analyzed by an independent analytical laboratory for M/P xylenes concentration in µg/L per EPA Method 602 or 8260B to monitor the dissolved PX concentrations.

## 2.2 GASOLINE /#2 FUEL OIL FACILITY

### 2.2.1 Brief Incident History

Gasoline/#2 Fuel Oil Facility was initially monitored as an area of concern on a routine basis in the late 1980's and mid 1990's. Once active remediation efforts removed site free-phase product and only trace levels of a few dissolved volatile compounds remained, monitoring activities ceased at this facility. Although it has not been monitored for some time, a surficial groundwater monitoring well network has remained within this facility. As discussed within this report, subsurface findings during a portion of the recent site abandonment activities have indicated the Gasoline/#2 Fuel Oil Facility remains an area of concern within the North Terminal Property.

Gasoline/#2 Fuel Oil Facility ASTs and a portion of the associated pipelines were initially removed during January/February 2005. The associated pipeline removal was completed in January/February 2006. A portion of the pipelines removed in January/February 2006 were underground pipelines that had been used to transfer product to and from the former ASTs. A portion of the underground pipelines that were removed contained contaminated soil and liquids. The soils and liquids were presumably from the infiltration at an upgradient portion of the underground pipelines. The contamination is believed to be from remnant vapors that may have remained inside the underground pipelines. The contaminated soil that was observed in the underground pipes was disposed with the applicable pipe materials as non-hazardous waste. The liquids were removed from the pipelines and properly disposed of. The emptied underground pipelines were then properly disposed of. Additionally, a portion of the underground pipelines were abandoned, capped and left in place due to difficulty in accessibility. The approximate location of these pipelines is illustrated on the attached Figures within Appendix D.

Following removal of the ASTs and pipelines as discussed above, the area was evaluated for the potential presence of remnant contamination within soils and groundwater. This report includes the activities associated with this assessment.

### 2.2.2 Contaminants of Concern (COC)

A specific event that may have caused groundwater or soil contamination is not known for the Gasoline/#2 Fuel Oil Facility. However, it has been assumed that potential contamination in this area would be associated with the materials formerly stored at the facility: gasoline and #2 fuel oil constituents. COC for this facility

include: Benzene, Toluene, Total Xylenes, Naphthalene, 2-Methyl naphthalene, Lead and Bis(2-ehtylhexyl)phalate concentrations in excess of the current 2L GWQS. This report presents the findings of the assessment of this area and the contaminants of concern observed during this time period.

The goal for surficial groundwater remediation is to reduce the above listed COC concentration trends to either below applicable 2L GWQS or asymptotic levels.

## 2.3 LOADING RACK AREA

### 2.3.1 Brief Incident History

A specific event that may have caused the groundwater contamination is not known for the Loading Rack Area. However, since the surficial groundwater has been impacted with dissolved gasoline, fuel oil and PX constituents, it has been assumed that historical operation and maintenance activities of the former truck and railcar loading rack areas resulted in several minor releases.

### 2.3.2 Contaminants of Concern

The initial investigation of the Loading Rack Area surficial groundwater revealed the following dissolved gasoline, fuel oil and paraxylenes constituent compounds or COC: Benzene, sec-Butylbenzene, Ethylbenzene, Isopropylbenzene, Naphthalene, MTBE, n-Propylbenzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and Total Xylenes concentrations in excess of the current 2L GWQS.

The goal for surficial groundwater remediation is to reduce the above listed COC concentration trends to either below applicable 2L GWQS or asymptotic levels.

## 2.4 FACILITY WASTEWATER TREATMENT PLANT AREA

### 2.4.1 Brief Incident History

The FHR FWTP Area was historically considered part of the Loading Rack Area within the Invista North Terminal. In January/February 2005, an AST and a portion of the associated pipelines were removed from the FHR FWTP Area, with the remainder of the pipeline being removed in January/February 2006. Following the removal of the ASTs and associated piping, an evaluation of the potential presence of remnant contamination within soils at the FHR FWTP Area was performed and documented within this Report.

In September 2005, following a significant rain event, free-phase product was observed floating on water pooled on the ground surface and on groundwater in the FHR FWTP Area. A Report of Findings (ROF) dated March 20, 2006 was submitted to document activities conducted to immediately respond to this new contamination. The ROF concluded that the free-phase product was representative of a relatively un-degraded gasoline material and that the source of the free-phase product at the FHR FWTP Area is the Apex property up-gradient of AMW-4.

### 2.4.2 Contaminants of Concern

The COC within the FHR FWTP Area are the dissolved groundwater associated with the remnant contamination from the Loading Rack Area and the recently discovered gasoline material documented in the March 20, 2006 ROF. FWTP Facility COC include Benzene, sec-Butylbenzene, Ethylbenzene, MTBE, Naphthalene, n-Propylbenzene, Toluene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and Total Xylenes concentrations in excess of the current 2L GWQS.

The goal for surficial groundwater remediation is to reduce the above listed COC concentration trends to either below applicable 2L GWQS or asymptotic levels. It is our understanding that Apex personnel have initiated an independent site assessment of subsurface environmental issues originating on their property. Pending the findings of their investigation, the above COC's may not be applicable to FHR's activities.

# 3.0 PARAXLENE FACILITY

## 3.1 ADDITIONAL ASSESSMENT ACTIVITIES

During the time period referenced within this report, other than the scheduled monitoring activities, no additional groundwater assessment activities were conducted at the PX Facility.

## 3.2 PARAXLENE FACILITY MONITORING PLAN

Please note that the chemical oxidation activities previously discussed were completed in conjunction with the following monitoring activities during the time period between August 2005 and February 2006.

***Monthly***
The following monthly activities were completed:

- Check and maintain operation of the air sparge wells.
- Gauge recovery wells for depth to surficial groundwater table and possible free-phase product.
- Manually recover free-phase product, if present.

***Semi-Annual (February and August)***
The following semi-annual activities were completed in addition to the tasks performed on a monthly basis:

- Obtained representative groundwater samples from selected site monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17, MW-18, MW-19, MW-20, MW-28, MW-32, MW-33, MW-34, MW-35, MW-36, MW-37, 101, 102, 105, 106, 107, 108, 113, 117, and 119) for M/P xylenes and MTBE analysis per EPA Method 602 or 8260B. Monitoring wells are selected to provide data concerning PX plume boundary and historical concentration high conditions. Please note that monitoring well MW-7 was no longer able to be sampled due to the presence of sediment within the monitoring well at a level above the water table. The integrity of this monitoring well appeared to have been compromised due to the presence of PX contamination and the vacuum remedial actions implemented to date, which has resulted in the sedimentation of the monitoring well. Therefore, monitoring well MW-7 was properly abandoned on February 27, 2006. Monitoring well MW-10 was sampled as a replacement for monitoring well MW-7, during this sampling period.
- In order to monitor the effectiveness of the air sparge system, dissolved oxygen concentrations are obtained from surficial groundwater of selected monitoring wells (MW-12, MW-14, MW-16, MW-17, MW-18, MW-19, MW-20, MW-32, MW-33, 106, 108, 113, 117 and 121).
- Submit a semi-annual Remediation Update Report.

## 3.3 PARAXLENE FACILITY UPDATE

### 3.3.1 Soil

A SVE system to remove remnant PX from subsurface soils west of AST 301 was operated from March 21, 1995 through January 2003. After an equipment failure, a decision was made to discontinue operation of the soil vent unit because of the minimal M/P xylene concentrations of the SVE exhaust at that time and the planned remediation activities. A description of this SVE approach and the remedial progress prior to shut down has been documented in previous Remediation Update Reports.

### 3.3.2 Surficial Groundwater

#### 3.3.2.1 Groundwater Remedial Approach

The remedial approach implemented within the PX Facility during the time period between August 2005 and February 2006 included the use of air sparge and chemical oxidation techniques.

The air sparge system consists of three networks (Networks A, B and C) as illustrated on the attached Figure 3. Networks A and B were operated as continuous systems as Network C was operated as a pulse system. The air sparge system was operational 99% (assuming 1% off time for general maintenance activities) of the time referenced within this report.

Chemical oxidation activities during this reporting period consisted of the application of a Fenton's reagent with a water chaser via a series of trenches located throughout the PX Facility as illustrated on the attached Figure 3.

#### 3.3.2.2 Surficial Groundwater Recovery Data

The six recovery well locations illustrated on Figure 3 (KRW-3, KRW-4, KRW-5, KRW-6, KRW-7 and KRW-8) were turned off in February of 2005. The recovery wells have remained off during the time period referenced within this report.

#### 3.3.2.3 Surficial Groundwater Table Data

On February 8, 2006 selected monitoring wells were gauged for depth to water and potential free-phase product. The monitoring wells selected for the measurement of surficial groundwater table elevations were based on the recommendations of the previous Remediation Update Report dated February 9, 2006. Table 1 lists the water table data and interpolated surficial water table isocontour elevations have been illustrated on Figure 4. The predominant surficial groundwater migration trend within the PX facility appears to be toward the west-northwest. This migration trend is consistent with historical site groundwater data.

#### 3.3.2.4 Dissolved Oxygen Data

The goal of an air sparge system is to volatilize organic constituents and to maintain aerobic conditions to facilitate biodegradation of the compounds. Aerobic conditions can be assessed by monitoring the dissolved oxygen levels in surrounding monitoring wells. Aerobic conditions are generally indicated by groundwater with dissolved oxygen levels greater than one (1) mg/L.

The latest (February 2006) groundwater DO concentration data has been summarized in Table 2 and illustrated on Figure 5. This data was obtained through the use of an YSI multi-parameter meter. The monitoring wells selected for the measurement of DO were based on the recommendations of the previous Remediation Update Report dated February 9, 2006.

Dissolved oxygen concentrations of monitoring wells associated with the monitoring of the air sparge networks have been summarized as follows:

| Network | Monitoring Wells | DO Range (mg/L) |
|---|---|---|
| A | MW-17, MW-18, MW-19, MW-20 | 0.11 to 9.95 |
| B | MW-14 | 0.32 |
| C | MW-32, MW-33 | 2.83 to 4.66 |
| Background wells | 106, 108 and 113 | 0.18 to 1.03 |

Please note that the selected network and background monitoring wells were likely influenced by the chemical oxidation activities producing elevated DO concentrations in some of the monitoring wells, such as monitoring well 117, at 50.32 mg/L.

#### 3.3.2.5 Dissolved COC Concentration Data

CATLIN personnel obtained the latest representative groundwater samples from selected monitoring wells on February 8 and 9, 2006. Prior to obtaining a groundwater sample, each monitoring well was first developed a minimum of three volumes utilizing either a disposable bailer or a Geopump (peristaltic). The selected monitoring wells were based on the recommendations of the previous Remediation Update Report dated February 9, 2006. All groundwater samples from the February 2006 sample event were submitted to Severn Trent Laboratory (STL) in Savannah, Georgia for analysis of dissolved M/P xylenes and MTBE concentrations per EPA Method 602 or 8260B.

A copy of the laboratory report has been provided in Appendix B. Results of the latest, as well as historical, M/P xylenes concentration data have been summarized on Table 3. Table 4 summarizes the MTBE historical concentration data. The interpolated current horizontal extent of dissolved M/P xylenes within the site surficial groundwater has been illustrated on Figure 6.

Additionally, CATLIN randomly collected groundwater samples for M/P xylenes concentration per EPA Method 602 from selected monitoring wells between February 2005 and August 2006 to evaluate the effectiveness of the chemical oxidation activities. This data has been summarized within a table presented in Appendix C.

As recommended in the previous Remediation Update Report, Fenton's Reagent was applied to the area immediately up gradient of monitoring wells MW-19 and 117 to establish and maintain a low concentration buffer zone along the down gradient property boundary. Based on a review of the February 2006 M/P xylenes concentrations, this approach was very effective near monitoring well 117 while concentrations at MW-19 were a historic high. The historic high M/P xylenes concentration within MW-19 was believed to be due to the release of trapped contamination from within the smear zone. Therefore, an alternative approach within this area was recommended during a meeting with NCDENR-APS on March 30, 2006. This alternative approach was pulse air sparge within a buried relic channel believed to be located perpendicular to River Road and through the area near MW-19. FHR implemented a monthly sampling program of MW-19 in March to monitor the M/P xylenes trend in this area. The laboratory data collected for MW-19 between February 2006 and June 2006 is also included within this report and illustrates a significant reduction from 120,000 µg/L to 3,700 µg/L M/P xylenes. A portion of the pulse air sparge system has been installed as of the submittal of this report. The portion installed was established along the downgradient perimeter of the M/P Xylene plume with the intent of installing additional pulse sparge wells upon evaluation of the August 2006 sampling data from this facility. A discussion of the installation of the pulse air sparge system will be included within the next Remediation Update Report.

### 3.3.3 Free-Phase PX Data

Between August 2005 and February 2006 no free-phase PX was observed in monitoring or recovery wells at the PX Facility. Free-phase product was last detected at a PX Facility monitoring or recovery well on December 8, 2004.

## 4.0 GASOLINE/#2 FUEL OIL FACILITY

As stated previously in Section 2.2.1, new site findings assessed during this August 25, 2005 to February 9, 2006 monitoring period have indicated additional areas of concern within the formerly inactive Gasoline/#2 Fuel Oil Facility. The current layout of this facility is illustrated on Figure 7.

### 4.1 ADDITIONAL ASSESSMENT ACTIVITIES

Samples for total lead analysis were collected from subsurface soils located around the ASTs that had previously stored gasoline within the PX and Gasoline/#2 Fuel Oil Facility. During the collection of the soil samples for lead analysis, a petroleum hydrocarbon odor was noted in two soil borings. Therefore, an investigation of the presence of this odor was initiated. Subsequently, the previously referenced odor observed within the soils around the underground pipelines was also investigated. A copy of the soil investigation data tables, figures, laboratory analytical reports and boring logs are provided in the attached Appendix D. The soil assessment activities conducted are discussed below in Section 4.1.1 through 4.1.3 while the groundwater assessment is discussed within Section 4.3.2.

#### 4.1.1 Soil Sampling Locations

As indicated within Appendix D on Figures D-2 and D-3, respectively, twenty-four hand auger borings were advanced for assessment of the presence of total lead within soils above the vadose zone. Additional soil borings were advanced using hand augers in order to vertically (above the vadose zone) and horizontally delineate total petroleum hydrocarbon (TPH) contamination.

#### 4.1.2 Soil Sample Collection Activities

In November 2005, soil borings were advanced as requested by FHR in order to evaluate the presence of lead in surface soils. The samples were composite samples from ground surface to the vadose zone. Soil descriptions and depths of the vadose zones are indicated on the boring logs included in Appendix D.

In December 2005 and April 2006, additional soil borings were advanced within the Gasoline/#2 Fuel Oil Facility based on the previously referenced areas of potential TPH contamination. These additional soil samples were collected continuously on one foot intervals until termination of the boring. Each increment was analyzed in the field by use of photo ionization detector (PID) as summarized on Table D-2 of Appendix D. Soils from the borehole increment with the highest PID result above the vadose zone were placed in laboratory provided glassware for laboratory analysis of TPH-Gasoline/Diesel Range Organics from selected borings. In the event that elevated PID readings were not identified within the selected borings, then TPH samples were collected from just above the capillary fringe. Please note that laboratory analyses were only performed on samples from a portion of the borings. Based on the field screening and observations, these borings were selected in order to provide a comprehensive delineation of the areas of concern. Soil descriptions and PID field screening results are provided on the attached boring logs in Appendix D.

The site soils identified during the advancement of all borings were characterized predominantly as light to dark brown, fine to medium grained sand throughout the Gasoline/#2 Fuel Oil and PX Facilities.

The hand auger and sampling equipment was decontaminated prior to and upon completion of each boring to prevent possible cross-contamination. Soil cuttings were drummed and properly disposed of as non-hazardous waste. Each borehole was backfilled with a mixture of native soil and bentonite.

### 4.1.3 Sampling Results

Selected soil samples obtained for laboratory analysis were analyzed in accordance with EPA method 6010B (total lead), and EPA Method 8015B (TPH - gasoline and diesel range organics) at STL. Copies of the laboratory analytical reports and chain of custody records associated with this soil sampling are provided in the attached Appendix D. Results are summarized in Tables D-1 and D-3 and Figures D-2 and D-3 of Appendix D.

*Lead*

Laboratory analyses indicated none of the November 2005 soil samples exhibited lead concentrations above the Soil-to-Groundwater (STGW) Maximum Soil Contaminant Concentration (MSCC) from within the Gasoline/#2 Fuel Oil and PX Facilities.

*TPH – Gasoline/Diesel*

Laboratory analysis of site soil samples revealed TPH gasoline/diesel concentrations in excess of applicable action levels at several boring locations within the Gasoline/#2 Fuel Oil Facility. The estimated horizontal extent of TPH soil contamination has been illustrated on Figure D-3.

#### 4.1.4 Groundwater

The additional assessment activities completed during this reporting period is discussed within Section 4.3 of this Report.

### 4.2 GASOLINE/#2 FUEL OIL FACILITY MONITORING PLAN

Since the mid 1990's, a regular monitoring program was not established for this site. A proposed monitoring plan for the Gasoline/#2 Fuel Oil Facility is discussed within Section 7.0 of this Report.

### 4.3 GASOLINE/#2 FUEL OIL FACILITY UPDATE

#### 4.3.1 Soil

The remedial approach for this reporting period was natural attenuation. Since this area was only recently evaluated for soil contamination (Refer to Section 2.2), the remedial effectiveness of natural attenuation can not be measured at this time.

#### 4.3.2 Surficial Groundwater

##### 4.3.2.1 Remedial Approach

The remedial approach for this reporting period was natural attenuation.The selected monitoring wells were based on the available monitoring wells present in the Gasoline/#2 Fuel Oil Facility.

##### 4.3.2.2 Surficial Groundwater Table Data

In December 2005, monitoring wells were gauged for depth to water and potential free-phase product. Table 5 lists the water table data and interpolated surficial water table isocontour elevations have been illustrated on Figure 8. The predominant surficial groundwater migration trend within the Gasoline/#2 Fuel Oil facility appears to be toward the west-northwest.

#### 4.3.2.3 Dissolved Oxygen Data

All of the monitoring wells in the Gasoline/#2 Fuel Oil Facility were measured for dissolved oxygen as part of the low flow sampling method through the use of an YSI multi-parameter meter. The December 2005 DO concentration data has been summarized in Table 6. All of the dissolved oxygen levels measured during this sampling event were above one (1) mg/L which indicates aerobic surficial groundwater conditions are present within the Gasoline/#2 Fuel Oil Facility.

#### 4.3.2.4 Dissolved Volatile Concentration Data

As part of the updated assessment activities, representative groundwater samples were obtained from selected monitoring wells in December 2005 utilizing low-flow sampling techniques. The low-flow sampling equipment was decontaminated prior to and after collection of each sample and all sample tubing was changed between monitoring wells. All site groundwater samples were submitted to STL in Savannah, Georgia for analysis of dissolved volatile compounds per EPA Methods 6010B (lead), 8260B (volatile organics) and 8270C (semi-volatile organics).

*Lead*

A summary of the field measurements collected as part of the low flow sampling are provided in the attached Table 6. Laboratory analysis indicated site groundwater with dissolved lead concentrations in excess of applicable 2L GWQS at site monitoring wells 11, 12, 19 and 21. The site dissolved lead data has been listed in Figure 9.

*Volatile and Semi-Volatile Organics*

Laboratory analysis indicated the presence of Benzene, Toluene, Naphthalene, 2-Methylnaphthalene and Total Xylenes in a portion of the monitoring wells at concentrations slightly above the applicable 2L GWQS. These analytes are indicative of gasoline and/or #2 Fuel Oil. Estimated horizontal extent of the site shallow groundwater contaminants of concern are illustrated on the attached Figure 9. A copy of the analytical laboratory report has been provided in Appendix B and summarized in Table 7.

#### 4.3.3 Free-Phase Product Data

No free-phase product was observed during the December 2005 gauging and sampling of the Gasoline/#2 Fuel Oil monitoring wells.

## 5.0 LOADING RACK AREA REMEDIATION UPDATE

### 5.1 ADDITIONAL ASSESSMENT ACTIVITIES

Other than the scheduled monitoring activities, no additional assessment activities were conducted at the Loading Rack Area during the current reporting.

### 5.2 LOADING RACK AREA MONITORING PLAN

***Monthly***

- Gauging of selected monitoring wells for depth to surficial groundwater table and the potential presence of free-phase product.
- Manually recover free-phase product, if present.

***Semi-Annual (February and August)***

The following activities were completed in addition to the tasks performed on a monthly basis:

- Obtain representative groundwater samples from selected site monitoring wells (KMW-6, KMW-7, KMW-8, KMW-10, KMW-11, KMW-12, KMW-13, KMW-14, KMW-16, KMW-17, AMW-1, AMW-2, AMW-3, AMW-5 and AMW-6) for VOC analysis per EPA Method 8260B.
- Submit a semi-annual Remediation Update Report.

### 5.3 LOADING RACK AREA UPDATE

#### 5.3.1 Soil

The soil remedial approach during the time period referenced within this report was natural attenuation. It is important to note that FHR implemented an ex-situ remedial approach of excavation and disposal of impacted site soils at an approved off-site facility in March 2006. These ex-situ remedial activities will be presented in the next Remediation Update Report.

### 5.3.2 Surficial Groundwater

#### 5.3.2.1 Remedial Approach

The remediation of the surficial groundwater in the Loading Rack Area was proposed in the August 2002 CAPA to be completed by use of a combination of remediation systems. However, as part of the June 2005 Revised Remedial Actions, surficial groundwater remediation remains temporarily on-hold until the effectiveness of the ex-situ soil remediation process is evaluated.

#### 5.3.2.2 Surficial Groundwater Table Data

On February 10, 2006, selected site monitoring wells were gauged for depth to water and potential free-phase product. The selected monitoring wells were based on the recommendations of the previous Remediation Update Report dated February 9, 2006. Table 8 lists the water table data and interpolated surficial water table isocontour elevations have been illustrated on Figure 11. The relatively steep surficial groundwater table gradient across River Road observed during the February 10, 2006 site visit has been prevalent since the site monitoring wells were initially installed for the CAPA.

#### 5.3.2.3 Dissolved Volatile Concentration Data

As previously stated, CATLIN personnel obtained representative groundwater samples from selected monitoring wells in February 2006. The selected wells were first developed a minimum of three volumes utilizing either a disposable bailer or a Geopump (peristaltic). The selected monitoring wells were based on the recommendations of the previous Remediation Update Report dated February 9, 2006. All groundwater samples were submitted to STL in Savannah, Georgia for analysis of dissolved volatile compounds per EPA Method 8260B.

A copy of the laboratory report has been provided in Appendix B. Table 9 provides a summary of the historical volatile compound concentration data. Figures 12, 13 and 14 illustrate the estimated horizontal extent of selected volatile concentrations (BTE and MTBE, Naphthalene and Total Xylenes, respectively) within the Loading Rack Area surficial groundwater. In reviewing Table 9, a comparison of the last two sample events illustrates dissolved volatile concentrations within the site surficial groundwater have

remained generally the same with isolated increases and decreases. Future groundwater analyses will assist with the evaluation of the effectiveness of the soil remediation activities conducted in March 2006 on the reduction of the extent of groundwater contamination.

### 5.3.3 Free-Phase Product Data

During the time period referenced within this report, free-phase product was observed in August, September, October, November and January on occasion in KMW-8 and/or KMW-13.

# 6.0 FHR FACILITY WASTEWATER TREATMENT PLANT AREA

## 6.1 ADDITIONAL ASSESSMENT ACTIVITIES

During this reporting period, additional groundwater assessment was conducted at the FHR FWTP Area as documented in the previously referenced March 2006 ROF. Additionally, the potential presence of remnant lead contamination around the former gasoline AST was evaluated following the removal of the AST and associated piping. During the collection of the soil samples for lead analysis, a petroleum hydrocarbon odor was noted in one soil boring, SB-5. Therefore, an investigation of the presence of this petroleum odor was initiated as discussed below. A copy of the soil investigation data tables, figures, laboratory analytical reports and boring logs are provided in the attached Appendix D.

### 6.1.1 Soil Sampling Locations

As indicated within Appendix D on Figures D-4 and D-5 respectively, soil borings were advanced using hand augers in order to delineate the presence of total lead within soils above the vadose zone. Additional soil borings were advanced using hand augers to vertically (above the vadose zone) and horizontally delineate TPH contamination.

### 6.1.2 Soil Sample Collection Activities

In November 2005 and April 2006, soil borings were advanced within the FHR FWTP Area in order to evaluate the presence of lead in surface soils. The samples were composite samples taken from ground surface to the vadose zone. Soil descriptions and depths of the vadose zones are indicated on boring logs included within Appendix D.

In December 2005, additional soil borings were advanced within the FHR FWTP Area in order to evaluate the presence of petroleum odor noticed during the collection of soil samples for lead analysis. These additional soil samples were collected continuously at one foot intervals until termination of the boring. Each increment was analyzed in the field by use of a PID. Soil samples were collected and placed in laboratory provided glassware for laboratory analysis of TPH-Gasoline/Diesel based on the highest PID results above the vadose zone from selected borings. In the event that elevated PID readings were not identified within the selected borings, then TPH samples were collected from just above the capillary fringe. Soil descriptions and PID field screening results are provided on the attached boring logs within Appendix D.

The site soils identified during the advancement of all borings were characterized predominantly as light to dark brown and orange, fine to medium grained sand throughout the FHR FWTP Area.

The hand auger sampling equipment was decontaminated prior to and upon completion of each boring to prevent possible cross-contamination. Soil cuttings were drummed and properly disposed of as non-hazardous waste. Each borehole was backfilled with a mixture of native soil and bentonite.

### 6.1.3 Sampling Results

Selected soil samples obtained for laboratory analysis were analyzed in accordance with EPA methods 6010B (total lead) and 8015B (TPH). Copies of the laboratory analytical reports and chain of custody records are provided in the attached Appendix D. Results are summarized in Tables D-1 and D-3 and Figures D-4 and D-5 of Appendix D.

*Lead*

Laboratory analyses indicated that soil boring SB-5, which was located in the vicinity of the former AST location, was the only boring location that indicated a presence of lead in excess of the STGW MSCC (270 mg/kg) with a concentration of 640 mg/kg. Soil borings SB-5A through SB-5D were advanced within 10 and 20 feet of SB-5 in order to delineate the extent of soil contamination. These additional borings did not indicate an exceedance of the STGW MSCC; therefore, the lead detected in SB-5 is likely a sampling anomaly. Refer to Section 7.0 of this report for recommendations for future monitoring of the detected lead.

*TPH – Gasoline/Lead*

Laboratory analyses indicated that soil borings SB-3 and SB-3N were observed to contain TPH contaminants in excess of the NCDENR Action Levels. These borings were advanced in the area immediately adjacent to the active wastewater treatment tank. Additional borings can not be advanced beneath the tank. Due to the close proximity to the tank, it is recommended that the remedial approach for the contaminated soil in this area continue to be natural attenuation. Additional monitoring is not recommended unless groundwater contaminants in the nearby monitoring wells increase. However data collected to date indicate this is unlikely.

## 6.2 FHR FWTP AREA REMEDIATION ACTIVITIES

A summary of the on-site soil, groundwater and free-phase product remediation activities are summarized below.

### 6.2.1 Soil

The soil remedial approach during the time period referenced within this report was natural attenuation.

### 6.2.2 Surficial Groundwater and Free-Phase Product

As discussed in the March 2006 ROF, a permanent groundwater and free-phase product recovery trench system was installed at the FWTP on October 21, 2005. The recovery trench system is a trench intersecting the surficial groundwater table. The PVC well screen is surrounded by NCDOT # 57 stone to allow the impacted groundwater and/or free-phase product to migrate toward the collection sump.

In order to impede the movement of free-phase product and the associated contaminated groundwater from the Apex property onto the FHR FWTP Area property, a slurry wall was installed along the southern and western property boundaries. This subsurface barrier was installed during the time period of September 28, 2005 and October 13, 2005. The depth of the slurry wall is approximately 4 feet below the groundwater elevation as it existed at the time of installation. Installation of the slurry wall consisted of the excavation of soils to the target depth followed by the placement of a low permeability flowable fill within the excavated trench. The slurry wall was backfilled with clean material. The backfilling activities included the construction of a berm along a portion of the southern and western property boundary (above the slurry wall).

Free-phase product has periodically been recovered from the ground surface and the recovery trench system by use of vacuum trucks during the time period of this report. A summary of the quantity of free-phase product recovered from this area from September 2005 through May 2006 is provided in Table 12.

## 6.3 FHR FWTP AREA MONITORING PLAN

***Weekly and Monthly***

- Not established prior to this reporting period. Refer to Section 7.0 for a recommended weekly/monthly monitoring plan for this Area.

***Semi-Annual (February and August)***

The following activities were completed:

- Obtain representative groundwater samples from selected site monitoring wells (KMW-1, KMW-2, KMW-3, KMW-4, KMW-5 and KMW-15) for VOC analysis per EPA Method 8260B.
- Submit a semi-annual Remediation Update Report.

## 6.4 FHR FWTP AREA UPDATE

### 6.4.1 Remedial Approach

The soil remedial approach during the time period referenced within this report was natural attenuation.

In order to impede the movement of free-phase product and the associated contaminated groundwater from the Apex property onto the FHR FWTP Area property, a slurry wall was installed along the southern and western property boundaries. This subsurface barrier was installed as described in the March 2006 ROF during the time period of September 28, 2005 and October 13, 2005.

As discussed in the March 2006 ROF, a permanent groundwater and free-phase product recovery trench system was installed at the FWTP on October 21, 2005. Free-phase product has periodically been recovered from the ground surface and the recovery trench system by use of vacuum trucks during the time period of this report.

### 6.4.2 Surficial Groundwater Table Data

On February 8, 2006, selected site monitoring wells were gauged for depth to water and potential free-phase product. The selected monitoring wells were based on the recommendations of the

previous Remediation Update Report dated February 9, 2006. Table 10 lists the water table data and interpolated surficial water table isocontour elevations have been illustrated on Figure 11.

### 6.4.3 Dissolved Volatile Concentration Data

As previously stated, CATLIN personnel obtained representative groundwater samples from selected monitoring wells in February 2006. The selected wells were first developed a minimum of three volumes utilizing either a disposable bailer or a Geopump (peristaltic). The selected monitoring wells were based on the recommendations of the previous Remediation Update Report dated February 9, 2006. All site groundwater samples were submitted to STL in Savannah, Georgia for analysis of dissolved volatile compounds per EPA Method 8260B.

A copy of the laboratory report has been provided in Appendix B. Table 11 provides a summary of the historical volatile compounds with concentrations above the 2L GWQS. Figures 12, 13 and 14 illustrate the estimated horizontal extent of selected volatile concentrations (BTE and MTBE, Naphthalene and Total Xylenes, respectively) within the FHR FWTP Area surficial groundwater. In reviewing Table 11, a comparison of the last two sample events illustrates dissolved volatile concentrations within the site surficial groundwater have remained generally the same with isolated increases and decreases upgradient of the free-phase product plume.

Please note that a groundwater analytical sample was not obtained from the monitoring wells identified as AMW-4 and KMW-3 (Figures 12, 13 and 14) due to the presence of free-phase product. It is also understood that APEX personnel have initiated an independent site assessment of subsurface environmental issues originating on their property.

### 6.4.4 Free-Phase Product Data

During the semi–annual groundwater gauging event on February 8, 2006, 0.15 feet of free-phase product was observed in AMW-4. CATLIN personnel first observed free-phase product (0.8 feet) in monitoring well AMW-4 on August 4, 2004. Laboratory analysis of a free product identification sample obtained on August 11, 2004 from AMW-4 was identified as characteristic of gasoline. It is our understanding that Apex is in the process of evaluating the source of this free-phase product.

The attached Table 12 illustrates the quantity of free-phase product recovered as of May 2006 from this area. The groundwater gauging data collected as of May 2006 is presented in Table 13. The slurry wall and the recovery trench system are working as designed as evidenced by the significant reduction of free-phase product in the FHR FWTP Area from greater than 2 feet in September 2005 to less than 0.2 feet as of May 2006. Please note that additional data outside the time period of this report has been provided to illustrate the known effectiveness.

## 7.0 FUTURE ACTIVITIES AND RECOMMENDATIONS

**PX Facility**

- Monitoring and operating of air sparge system as follows:

  1) Network A as a continuous system. Abandon the air sparge wells in the immediate influence of the proposed pulse wells.
  2) Network B continue to operate as a continuous air sparge system.
  3) Network C convert the pulse wells to a continuous air sparge system.
  4) Install a pulse air sparge system upgradient of MW-19.

- Groundwater recovery wells will remain off. Since free-phase product has not been observed since December 2004, the groundwater recovery wells are recommended to be converted to monitoring wells. Upon approval of NCDENR-APS, this activity will be started.

- Based on the data presented within this report, Fenton's reagent will continue to be used in the areas in which M/P xylenes concentrations exceed 100,000 ppb. Please note as of submittal of this report, this activity has been completed and will be documented in the next Remediation Update Report.

- Based on the data presented within this report, dissolved groundwater contamination within monitoring well MW-19 has been significantly reduced since the February 2006 sampling event. Therefore, additional monthly sampling is not warranted. Monitoring well MW-19 will be sampled as part of the semi-annual monitoring program in the future.

The following monitoring wells will be sampled during the next semi-annual sampling event in August 2006:

MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, MW-28, MW-32, MW-33, MW-34, MW-35, MW-36, MW-37, 101, 102, 105, 106, 107, 108, 113, 117 and 119.

Groundwater at the following monitoring wells will be field gauged for DO: MW-12, MW-14, MW-16, MW-17, MW-18, MW-19, MW-20, MW-32, MW-33, 106, 108, 113 and 117.

**Gasoline/#2 Fuel Oil Facility**

- Continue monitoring site groundwater natural attenuation progress (August 2006).
- Evaluate the necessity of an alternative remedial approach after the August 2006 sampling event.

The following monitoring wells will be field gauged for DO and sampled during the next semi-annual sampling event in August 2006:

1, 2, 3, 6, 7, 8, 11, 12, 14, 15, 19, 20 and 21.

**Loading Rack Area**

- Monitoring as described within this report will continue.
- Complete and report the ex-situ remediation activities.
- Evaluate the influence of these soil remediation activities on the natural attenuation of groundwater contamination.

The following monitoring wells will be sampled during the next semi-annual sampling event in August 2006:

KMW-6, KMW-7, KMW-8, KMW-10, KMW-11, KMW-12, KMW-13, KMW-14, KMW-16, KMW-17, AMW-1, AMW-2, AMW-3, AMW-5 and AMW-6.

**FHR Facility Wastewater Treatment Plant Area**

- Resample boring SB-5 and further evaluate the presence of total lead soil contamination. If lead contamination exceeding STGW MSCC is present, then we recommend evaluation of a remedial approach. However, if lead contamination exceeding STGW MSCC is not detected within this re-sampling event, then the original result should be considered an anomaly and no remediation is necessary.
- Evaluate the necessity of additional TPH soil sampling based on groundwater contamination trends.
- Continue free-phase product recovery efforts through the end of the year. It is assumed that Apex will have completed their evaluation of the source of the free-phase product by that time and will have identified a remedial approach for the contamination originating on their property. Based on diminishing free-

phase product levels as of May 2006, passive recovery efforts are recommended during this time. Pending results of the Apex investigation, further remediation may be considered.

The following monitoring wells will be sampled during the next semi-annual sampling event in August 2006:

KMW-1, KMW-2, KMW-3, KMW-4, KMW-5, KMW-15 and AMW-4.

Stephen A. Tyler
Project Scientist

Jeffery K. Becken, P.E.
Project Engineer

# TABLES

**TABLE 1**

**SUMMARY OF GROUNDWATER ELEVATIONS AT SELECTED MONITORING WELLS – FEBRUARY 8, 2006 to FEBRUARY 10, 2006**

## PARAXYLENE FACILITY

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|
| TYPE II MONITORING WELLS | | | | | |
| MW-1 | 39.45 | 6.49 | NMT | | 32.96 |
| MW-2 | 29.11 | 1.07 | NMT | | 28.04 |
| MW-3 | 37.84 | 6.62 | NMT | | 31.22 |
| MW-4 | 33.84 | 6.29 | NMT | | 27.55 |
| MW-5 | 39.56 | 5.85 | NMT | | 33.71 |
| MW-6 | 38.92 | 5.58 | NMT | | 33.34 |
| MW-7 | 38.71 | ABANDONED | | | |
| MW-8 | 39.85 | 6.35 | NMT | | 33.50 |
| MW-9 | 36.88 | 2.17 | NMT | | 34.71 |
| MW-10 | 35.45 | 3.16 | NMT | | 32.29 |
| MW-11 | 35.14 | 5.70 | NMT | | 29.44 |
| MW-12 | 35.23 | 5.11 | NMT | | 30.12 |
| MW-13 | 33.90 | 5.15 | NMT | | 28.75 |
| MW-14 | 29.39 | 3.02 | NMT | | 26.37 |
| MW-15 | 28.82 | 3.85 | NMT | | 24.97 |
| MW-16 | 28.21 | 4.08 | NMT | | 24.13 |
| MW-17 | 25.57 | 2.61 | NMT | | 22.96 |
| MW-18 | 26.92 | 6.54 | NMT | | 20.38 |
| MW-19 | 27.59 | 5.73 | NMT | | 21.86 |
| MW-20 | 29.29 | 8.99 | NMT | | 20.30 |
| MW-28 | 36.41 | 4.93 | NMT | | 31.48 |
| MW-30 | 35.20 | NOT LOCATED | | | |
| MW-32 | 33.69 | 5.85 | NMT | | 27.84 |
| MW-33 | 35.16 | 6.35 | NMT | | 28.81 |
| MW-34 | 33.89 | 4.56 | NMT | | 29.33 |
| MW-35 | 28.41 | 2.35 | NMT | | 26.06 |
| MW-36 | 35.46 | 4.29 | NMT | | 31.17 |
| MW-37 | 36.26 | 3.65 | NMT | | 32.61 |
| 101 | 28.88 | 2.20 | NMT | | 26.68 |
| 102 | 29.88 | 2.75 | NMT | | 27.13 |
| 104 | 28.10 | 1.89 | NMT | | 26.21 |
| 105 | 29.51 | 2.60 | NMT | | 26.91 |
| 106 | 26.51 | 0.09 | NMT | | 26.42 |
| 107 | 31.33 | 3.58 | NMT | | 27.75 |
| 108 | 31.50 | 4.86 | NMT | | 26.64 |
| 113 | 33.90 | 7.87 | NMT | | 26.03 |

**TABLE 1**

**SUMMARY OF GROUNDWATER ELEVATIONS AT SELECTED MONITORING WELLS – FEBRUARY 8, 2006 to FEBRUARY 10, 2006**

## PARAXYLENE FACILITY

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|
| 114 | 34.74 | NM | | | |
| 116 | 28.76 | NM | | | |
| 117 | 31.33 | 6.69 | NMT | | 24.64 |
| 119 | 26.68 | 3.35 | NMT | | 23.33 |
| 121 | 29.20 | 2.84 | NMT | | 26.36 |
| PTW-1 | 36.67 | 6.46 | NMT | | 30.21 |
| PTW-2 | 36.68 | NM | | | |
| PTW-3 | 36.68 | NM | | | |
| PTW-4 | 36.41 | NM | | | |
| PTW-5 | 36.57 | NM | | | |
| PTW-6 | 36.42 | NM | | | |
| PTW-7 | 36.73 | NM | | | |
| PTW-8 | 36.72 | NM | | | |
| PTW-9 | 36.90 | NM | | | |
| **TYPE III MONITORING WELLS** | | | | | |
| TMW-1 | 30.43 | NM | | | |
| TMW-2 | 35.40 | 3.63 | NMT | | 31.77 |
| **RECOVERY WELLS** | | | | | |
| RW-2 | 36.18 | ABANDONED | | | |
| KRW-3 | 29.07 | NM | | | |
| KRW-4 | 27.82 | NM | | | |
| KRW-5 | 32.58 | NM | | | |
| KRW-6 | 30.90 | NM | | | |
| KRW-7 | 29.47 | NM | | | |
| KRW-8 | 38.01 | 8.03 | NMT | | 29.98 |

Notes:
Specific gravity adjustment for paraxylene is 0.86
NMT = No Measurable Thickness
NM = Not Measured
NA = Not Available

**TABLE 2**

**SUMMARY OF DISSOLVED OXYGEN MEASUREMENTS FROM SELECTED MONITORING WELLS - FEBRUARY 10, 2006**

## PARAXYLENE FACILITY

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | DISSOLVED OXYGEN (mg/L) |
|---|---|---|
| 106 | 2/10/2006 | 1.03 |
| | | |
| 108 | 2/10/2006 | 0.64 |
| | | |
| 113 | 2/10/2006 | 0.18 |
| | | |
| 117 | 2/10/2006 | 50.32* |
| | | |
| 121 | 2/10/2006 | 0.41 |
| | | |
| MW-12 | 2/10/2006 | 0.41 |
| | | |
| MW-14 | 2/10/2006 | 0.32 |
| | | |
| MW-16 | 2/10/2006 | 0.12 |
| | | |
| MW-17 | 2/10/2006 | 0.11 |
| | | |
| MW-18 | 2/10/2006 | 0.24 |
| | | |
| MW-19 | 2/10/2006 | 9.95 |
| | | |
| MW-20 | 2/10/2006 | 1.62 |
| | | |
| MW-32 | 2/10/2006 | 4.66 |
| | | |
| MW-33 | 2/10/2006 | 2.83 |

* - Chemical Oxidant being applied up-gradient is likely the cause of this high dissolved oxygen concentration

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| **TYPE II MONITORING WELLS** | | |
| MW-1 | 12/8/1995 | 29,000 |
| | 2/13/1996 | 11,000 |
| | 6/24/1996 | 9,400 |
| | 1/28/1997 | 340 |
| | 12/4/1997 | 4,000 |
| | 6/13/1998 | 360 |
| | 1/19/1999 | 250 |
| | 7/14/1999 | 26 |
| | 2/29/2000 | <1.0 |
| | 6/13/2000 | 470 |
| | 2/21/2001 | <1.0 |
| | 7/31/2001 | 2.3 |
| | 4/1/2002 | 260 |
| | 7/31/2002 | 4,200 |
| | 2/24/2003 | <1.0 |
| | 8/20/2003 | <1.0 |
| | 2/20/2004 | <1.0 |
| | 8/4/2004 | <1.0 |
| | 2/22/2005 | 950 |
| | 8/25/2005 | <0.31 |
| | 2/9/2006 | <1.3 |
| MW-2 | 2/20/2004 | 140,000 |
| | 8/4/2004 | 360,000 |
| | 2/21/2005 | 130,000 |
| | 8/25/2005 | 69,000 |
| | 2/9/2006 | 150,000 |
| MW-3 | 12/8/1995 | 180,000 |
| | 6/24/1996 | 28,000 |
| | 1/28/1997 | 53,000 |
| | 12/4/1997 | 100,000 |
| | 6/13/1998 | 35,000 |
| | 1/19/1999 | 49,000 |
| | 7/14/1999 | 20,000 |
| | 2/29/2000 | 37,000 |
| | 6/13/2000 | 63,000 |
| | 2/21/2001 | 120,000 |
| | 7/31/2001 | 110,000 |
| | 4/1/2002 | 81,000 |
| | 7/31/2002 | 96,000 |
| | 2/24/2003 | 120,000 |
| | 8/19/2003 | 96,000 |
| | 2/20/2004 | 110,000 |
| | 8/4/2004 | 89,000 |
| | 2/22/2005 | 130,000 |
| | 8/25/2005 | 27,000 |
| | 2/9/2006 | 16,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| MW-4 | 12/8/1995 | 1,600,000 |
| | 2/13/1996 | 140,000 |
| | 6/24/1996 | 140,000 |
| | 1/28/1997 | 190,000 |
| | 12/4/1997 | 220,000 |
| | 6/13/1998 | 180,000 |
| | 1/19/1999 | 190,000 |
| | 7/14/1999 | 300,000 |
| | 2/29/2000 | 100,000 |
| | 6/13/2000 | 45,000 |
| | 2/20/2004 | 66,000 |
| | 8/4/2004 | 80,000 |
| | 2/21/2005 | 36,000 |
| | 8/25/2005 | 25,000 |
| | 2/9/2006 | 24,000 |
| MW-5 | 2/13/1996 | 9,800 |
| | 6/24/1996 | 2,500 |
| | 1/28/1997 | 1,400 |
| | 12/4/1997 | 790 |
| | 6/13/1998 | 7,800 |
| | 1/19/1999 | 2,400 |
| | 7/14/1999 | 4,900 |
| | 2/29/2000 | 2,100 |
| | 6/13/2000 | 2,800 |
| | 7/31/2001 | 12,000 |
| | 4/1/2002 | 2,000 |
| | 7/31/2002 | <5.0 |
| | 2/24/2003 | 1,200 |
| | 8/20/2003 | 630 |
| | 2/20/2004 | 1,400 |
| | 8/4/2004 | 390 |
| | 2/22/2005 | 34 |
| | 8/25/2005 | <0.31 |
| | 2/9/2006 | 1,400 |
| MW-7 | 10/15/1999 | 150,000 |
| | 2/29/2000 | 130,000 |
| | 2/21/2001 | 150,000 |
| | 7/31/2001 | 120,000 |
| | 4/2/2002 | 140,000 |
| | 2/24/2003 | 400,000 |
| | 8/20/2003 | 2,200,000 |
| | 2/20/2004 | 570,000 D |
| | 8/4/2004 | 3,100,000 |
| | 8/6/2004 | 110,000 |
| | 2/22/2005 | 120,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| MW-8 | 10/5/1999 | 4,400 |
| | 2/29/2000 | 12,000 |
| | 2/21/2001 | 5,500 |
| | 7/31/2001 | 8,500 |
| | 4/2/2002 | 17,000 |
| | 2/24/2003 | 15,000 |
| | 8/20/2003 | 16,000 |
| | 2/20/2004 | 6,800 |
| | 8/4/2004 | 5,800 |
| | 2/22/2005 | 20,000 |
| | 8/25/2005 | 38,000 |
| | 2/9/2006 | 21,000 |
| MW-9 | 2/29/2000 | <1 |
| | 2/24/2003 | <1.0 |
| | 8/20/2003 | <1.0 |
| | 2/20/2004 | <1.0 |
| MW-10 | 2/29/2000 | 96,000 |
| | 2/21/2001 | 89,000 |
| | 7/31/2001 | 110,000 |
| | 8/25/2005 | 150,000 |
| | 2/9/2006 | 150,000 |
| MW-11 | 2/29/2000 | 110,000 |
| | 7/31/2001 | 100,000 |
| | 4/1/2002 | 63,000 |
| | 2/24/2003 | 130,000 |
| | 8/20/2003 | 110,000 |
| | 2/20/2004 | 53,000 |
| | 8/4/2004 | 53,000 |
| | 2/22/2005 | 79,000 |
| | 8/25/2005 | 56,000 |
| | 2/9/2006 | 3,300 |
| MW-12 | 2/29/2000 | 56,000 |
| | 2/21/2001 | 170,000 |
| | 7/31/2001 | 140,000 |
| | 7/31/2002 | 140,000 |
| | 2/24/2003 | 86,000 |
| | 8/20/2003 | 17,000 |
| | 2/20/2004 | 92,000 |
| | 8/4/2004 | 35,000 |
| | 2/22/2005 | 100,000 |
| | 8/24/2005 | 22,000 |
| | 2/9/2006 | 59,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| MW-13 | 2/29/2000 | 85,000 |
| | 2/21/2001 | 43,000 |
| | 7/31/2001 | 41,000 |
| | 4/1/2002 | 76,000 |
| | 7/31/2002 | 30,000 |
| | 2/24/2003 | 99 |
| | 8/19/2003 | 7,900 |
| | 2/20/2004 | 6,000 |
| | 8/4/2004 | 13,000 |
| | 2/22/2005 | 54,000 |
| | 8/25/2005 | 110,000 |
| | 2/9/2006 | 51,000 |
| MW-14 | 2/29/2000 | 270,000 |
| | 7/31/2001 | 110,000 |
| | 4/1/2002 | 160,000 |
| | 7/31/2002 | 180,000 |
| | 2/24/2003 | 240,000 |
| | 8/19/2003 | 140,000 |
| | 2/20/2004 | 180000 D |
| | 8/4/2004 | 190,000 |
| | 8/24/2005 | 29,000 |
| | 2/10/2006 | 170,000 |
| MW-15 | 2/29/2000 | 49,000 |
| | 6/13/2000 | 57,000 |
| | 2/21/2001 | 80,000 |
| | 7/31/2001 | 23,000 |
| | 7/30/2002 | 97,000 |
| | 2/24/2003 | 130,000 |
| | 8/19/2003 | 76,000 |
| | 2/20/2004 | 75,000 D |
| | 8/4/2004 | 110,000 |
| | 2/23/2005 | 86,000 |
| | 8/25/2005 | 98,000 |
| | 2/9/2006 | 71,000 |
| MW-16 | 2/29/2000 | 79,000 |
| | 6/13/2000 | 62,000 |
| | 2/21/2001 | 47,000 |
| | 7/31/2001 | 21,000 |
| | 4/1/2002 | 8,700 |
| | 7/30/2002 | 4,300 |
| | 2/25/2003 | 17,000 |
| | 8/19/2003 | 30,000 |
| | 2/20/2004 | 27,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| MW-17 | 2/29/2000 | 24,000 |
| | 6/13/2000 | 2,400 |
| | 2/21/2001 | 3,100 |
| | 8/1/2001 | 290 |
| | 4/1/2002 | 170 |
| | 7/30/2002 | 2,600 |
| | 2/24/2003 | <1.0 |
| | 8/19/2003 | 3.7 |
| | 2/20/2004 | 4,600 |
| | 8/4/2004 | 2,100 |
| | 2/21/2005 | 160 |
| | 8/24/2005 | 92 |
| | 2/9/2006 | 7,800 |
| | 3/2/2006 | 2,800 D |
| MW-18 | 2/29/2000 | 13,000 |
| | 6/13/2000 | 21 |
| | 2/21/2001 | 29,000 |
| | 7/31/2001 | 6,400 |
| | 4/1/2002 | 510 |
| | 7/30/2002 | <10 |
| | 2/25/2003 | 670 |
| | 8/19/2003 | 110 |
| | 2/20/2004 | <1.0 |
| | 2/23/2005 | 1,300 |
| | 8/24/2005 | 160 |
| | 2/9/2006 | 11,000 |
| | 3/2/2006 | 170 |
| MW-19 | 2/29/2000 | 1,400 |
| | 6/13/2000 | 430 |
| | 2/21/2001 | 1,000 |
| | 7/31/2001 | 260 |
| | 4/1/2002 | 11,000 |
| | 7/30/2002 | 5,700 |
| | 2/25/2003 | 27,000 |
| | 8/19/2003 | 9,700 |
| | 2/20/2004 | 5,800 |
| | 2/23/2005 | 1,600 |
| | 8/24/2005 | 42,000 |
| | 2/9/2006 | 120,000 |
| | 3/24/2006 | 162,000 |
| | 4/27/2006 | 26,000 |
| | 5/30/2006 | 16,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| MW-20 | 2/29/2000 | 7,900 |
| | 6/13/2000 | 110,000 |
| | 2/21/2001 | 47,000 |
| | 7/31/2001 | 70,000 |
| | 4/2/2002 | 7,900 |
| | 7/31/2002 | 15,000 |
| | 2/25/2003 | 5,000 |
| | 8/19/2003 | 2,600 |
| | 2/20/2004 | 14,000 |
| | 8/3/2004 | 3,200 |
| | 2/18/2005 | 50,000 |
| | 8/24/2005 | 870 |
| | 2/10/2006 | 15,000 |
| | 3/2/2006 | 26 |
| MW-28 | 4/94 | 2,240 |
| | 2/13/1996 | 370 |
| | 6/24/1996 | 740 |
| | 1/28/1997 | 14 |
| | 12/4/1997 | 2,300 |
| | 6/13/1998 | 59 |
| | 7/14/1999 | <1 |
| | 3/1/2000 | <1 |
| | 6/13/2000 | <1 |
| | 2/21/2001 | 4 |
| | 7/31/2001 | <1.0 |
| | 2/25/2003 | 22 |
| | 8/20/2003 | <1.0 |
| | 2/20/2004 | 530 |
| | 8/3/2004 | 30 |
| | 2/18/2005 | <0.31 |
| | 8/24/2005 | 12,000 |
| | 2/10/2006 | <1.3 |
| MW-30 | 1/19/1999 | <1 |
| | 7/14/1999 | <1 |
| | 3/1/2000 | <1 |
| | 6/13/2000 | <1 |
| | 2/21/2001 | <1 |
| MW-32 | 4/1/2002 | 110,000 |
| | 7/31/2002 | 89,000 |
| | 2/25/2003 | 110,000 |
| | 8/19/2003 | 1,700 |
| | 2/20/2004 | 5,700 |
| | 8/4/2004 | 14,000 |
| | 2/22/2005 | 570 |
| | 8/24/2005 | 430 |
| | 2/10/2006 | 84 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| MW-33 | 4/1/2002 | 15,000 |
| | 7/31/2002 | 21,000 |
| | 2/25/2003 | 22,000 |
| | 8/19/2003 | 22,000 |
| | 2/20/2004 | 3,600 |
| | 8/4/2004 | 13,000 |
| | 2/22/2005 | 2,500 |
| | 8/24/2005 | 17,000 |
| | 2/9/2006 | 33,000 |
| MW-34 | 2/22/2005 | 63,000 |
| | 8/25/2005 | 21,000 |
| | 2/9/2006 | 31,000 |
| MW-35 | 2/21/2005 | 1,400 |
| | 8/25/2005 | 900 |
| | 2/9/2006 | 1,200 |
| MW-36 | 2/22/2005 | 130,000 |
| | 8/25/2005 | 52,000 |
| | 2/9/2006 | 100,000 |
| MW-37 | 2/22/2005 | 1,900 |
| | 8/25/2005 | 35,000 |
| | 2/9/2006 | 4,500 |
| PTW-1 | 8/6/2004 | 2,800 |
| PTW-2 | 8/6/2004 | 7,400 |
| PTW-3 | 8/6/2004 | 660 |
| PTW-4 | 8/6/2004 | 22,000 |
| PTW-5 | 8/6/2004 | 46,000 |
| PTW-6 | 8/6/2004 | 4,800 |
| PTW-7 | 8/6/2004 | 1,200 |
| PTW-8 | 8/6/2004 | 40,000 |
| PTW-9 | 8/6/2004 | 45,000 |
| 101 | 2/24/2003 | 1,300 |
| | 8/19/2003 | 3,900 |
| | 2/20/2004 | 12,000 |
| | 8/4/2004 | 2,200 |
| | 2/21/2005 | 7,700 |
| | 8/25/2005 | 370 |
| | 2/10/2006 | 15 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| 102 | 12/8/1995 | 800 |
| | 6/24/1996 | 200 |
| | 1/28/1997 | 1,100 |
| | 12/4/1997 | 26 |
| | 6/13/1998 | 270 |
| | 1/19/1999 | 49 |
| | 7/14/1999 | 760 |
| | 2/29/2000 | 1,300 |
| | 6/13/2000 | 230 |
| | 2/21/2001 | 100 |
| | 8/1/2001 | 9.1 |
| | 4/2/2002 | <5.0 |
| | 7/30/2002 | <10 |
| | 2/24/2003 | 21 |
| | 8/19/2003 | 5.3 |
| | 2/20/2004 | 150 |
| | 8/4/2004 | 35 |
| | 2/21/2005 | 34 |
| | 8/25/2005 | 99 |
| | 2/10/2006 | 600 |
| 104 | 7/30/2002 | <50 |
| | 2/20/2004 | 860 |
| 105 | 7/30/2002 | <50 |
| | 8/4/2004 | 26 |
| | 2/21/2005 | 5.1 |
| | 8/25/2005 | 1.9 |
| | 2/10/2006 | 67 |
| 106 | 12/8/1995 | 350,000 |
| | 6/24/1996 | <10 |
| | 1/28/1997 | 120,000 |
| | 6/13/1998 | No Data |
| | 1/19/1999 | 140,000 |
| | 7/14/1999 | 29,000 |
| | 3/1/2000 | 130,000 |
| | 6/13/2000 | 87,000 |
| | 2/21/2001 | 97,000 |
| | 8/1/2001 | 35,000 |
| | 8/19/2003 | 180,000 |
| | 2/20/2004 | 87,000 |
| | 8/4/2004 | 46,000 |
| | 2/21/2005 | 120,000 |
| | 8/24/2005 | 100,000 |
| | 2/9/2006 | 120000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| 107 | 6/13/2000 | 96,000 |
| | 7/31/2002 | 240,000 |
| | 8/19/2003 | 160,000 |
| | 2/20/2004 | 88,000 |
| | 8/4/2004 | 66,000 |
| | 2/21/2005 | 120,000 |
| | 8/25/2005 | 7,600 |
| | 2/9/2006 | 51,000 |
| 108 | 4/1/2002 | 130,000 |
| | 2/24/2003 | 150,000 |
| | 8/19/2003 | 97,000 |
| | 2/20/2004 | 120,000 |
| | 8/4/2004 | 120,000 |
| | 2/21/2005 | 140,000 |
| | 8/24/2005 | 48,000 |
| | 2/9/2006 | 110,000 |
| 113 | 1/19/1999 | 11 |
| | 7/14/1999 | BQL |
| | 2/29/2000 | 370 |
| | 6/13/2000 | 460 |
| | 2/21/2001 | <1 |
| | 7/31/2001 | 71 |
| | 4/1/2002 | 3.5 |
| | 7/31/2002 | <1.0 |
| | 2/25/2003 | 2.2 |
| | 8/19/2003 | 1.6 |
| | 2/20/2004 | <1.0 |
| | 8/4/2004 | <1.0 |
| | 2/22/2005 | 0.85 |
| | 8/24/2005 | <0.31 |
| | 2/9/2006 | 1.8 J |
| 114 | 6/13/1998 | 42 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| 117 | 12/8/1995 | 86,000 |
| | 6/24/1996 | 59,000 |
| | 1/28/1997 | 80,000 |
| | 12/4/1997 | 46,000 |
| | 6/13/1998 | 130,000 |
| | 1/19/1999 | 120,000 |
| | 7/14/1999 | 140,000 |
| | 2/29/2000 | 78,000 |
| | 6/13/2000 | 100,000 |
| | 2/21/2001 | 81,000 |
| | 7/31/2001 | 45,000 |
| | 4/1/2002 | 39,000 |
| | 7/30/2002 | 16,000 |
| | 2/25/2003 | 55,000 |
| | 8/19/2003 | 7,100 |
| | 2/20/2004 | 110,000 D |
| | 8/4/2004 | 57,000 |
| | 2/23/2005 | 34,000 |
| | 8/24/2005 | 480 |
| | 2/9/2006 | <1.3 |
| 119 | 6/24/1996 | <2 |
| | 1/28/1997 | 1,500 |
| | 12/4/1997 | 15 |
| | 6/13/1998 | 3,000 |
| | 1/19/1999 | 390 |
| | 7/14/1999 | 420 |
| | 2/29/2000 | 4,900 |
| | 6/13/2000 | 1,300 |
| | 2/21/2001 | 37 |
| | 7/31/2001 | 1,800 |
| | 4/1/2002 | 320 |
| | 7/30/2002 | <100 |
| | 2/24/2003 | 9,000 |
| | 8/19/2003 | <100 |
| | 2/20/2004 | 48 |
| | 8/4/2004 | 590 |
| | 2/23/2005 | 2,300 |
| | 8/25/2005 | <0.31 |
| | 2/9/2006 | 3.7 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| 120 | 12/8/1995 | 1,600 |
| | 6/24/1996 | 600 |
| | 1/28/1997 | 4,300 |
| | 12/4/1997 | 1,500 |
| | 6/13/1998 | 1,500 |
| | 1/19/1999 | 1,000 |
| | 7/14/1999 | 400 |
| | WELL WAS DAMAGED | |
| | 6/13/2000 | 800 |
| | 2/21/2001 | 1,200 |
| | 8/1/2001 | 2,300 |
| | 4/1/2002 | 33,000 |
| 121 | 12/8/1995 | 300,000 |
| | 6/24/1996 | 100,000 |
| | 1/28/1997 | 100,000 |
| | 12/4/1997 | 140,000 |
| | 6/13/1998 | 160,000 |
| | 1/19/1999 | 110,000 |
| | 7/14/1999 | 140,000 |
| | 3/1/2000 | 190,000 |
| | 2/24/2003 | 140,000 |
| D-O | 12/8/1995 | 160,000 |
| | 6/24/1996 | 62,000 |
| | 1/28/1997 | 3,400 |
| | WELL HAS BEEN PERMANENTLY ABANDONED | |
| **TYPE III MONITORING WELLS** | | |
| TMW-1 | 12/8/1995 | 220 |
| | 2/29/2000 | 300 |
| TMW-2 | 2/29/2000 | 4.2 |
| **RECOVERY WELLS** | | |
| RW-2 | 12/4/1997 | 8,100 |
| | 6/13/1998 | 14,000 |
| | 1/19/1999 | 8,200 |
| | 7/14/1999 | 9,200 |
| | 3/1/2000 | 26,000 |
| | 4/1/2002 | 17,000 |
| | 7/31/2002 | 13,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| KRW-3 | 12/4/1997 | 87,000 |
| | 6/13/1998 | 120,000 |
| | 1/19/1999 | 67,000 |
| | 7/14/1999 | 86,000 |
| | 2/29/2000 | 17,000 |
| | 6/13/2000 | 85,000 |
| | 2/21/2001 | 100,000 |
| | 7/31/2001 | 140,000 |
| | 4/1/2002 | 47,000 |
| | 7/31/2002 | 57,000 |
| | 2/25/2003 | 45,000 |
| | 8/19/2003 | 93,000 |
| | 2/20/2004 | 53,000 D |
| | 8/4/2004 | 58,000 |
| | 8/24/2005 | 16,000 |
| KRW-4 | 12/4/1997 | 27,000 |
| | 6/13/1998 | 60,000 |
| | 1/19/1999 | 18,000 |
| | 7/14/1999 | 86,000 |
| | 2/29/2000 | 61,000 |
| | 6/13/2000 | 29,000 |
| | 2/21/2001 | 15,000 |
| | 8/1/2001 | 13,000 |
| | 4/1/2002 | 11,000 |
| | 7/31/2002 | 16,000 |
| | 2/24/2003 | 11,000 |
| | 8/19/2003 | 15,000 |
| | 2/20/2004 | 18,000 |
| | 8/4/2004 | 13,000 |
| | 2/23/2005 | 2,400 |
| | 8/24/2005 | 73,000 |
| KRW-5 | 12/4/1997 | 180,000 |
| | 6/13/1998 | 130,000 |
| | 1/19/1999 | 84,000 |
| | 7/14/1999 | 390,000 |
| | 2/29/2000 | 150,000 |
| | 6/13/2000 | 100,000 |
| | 2/21/2001 | FP |
| | 7/31/2001 | 79,000 |
| | 4/1/2002 | 170,000 |
| | 7/31/2002 | 60,000 |
| | 2/24/2003 | 66,000 |
| | 8/19/2003 | 210,000 |
| | 2/20/2004 | 77,000 |
| | 8/4/2004 | 180,000 |
| | 2/22/2005 | 77,000 |
| | 8/24/2005 | 58,000 |

**TABLE 3**

**SUMMARY OF EPA METHOD 602 (M/P XYLENES) LABORATORY RESULTS - GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | M/P XYLENE (µg/L) |
|---|---|---|
| KRW-6 | 2/21/2001 | 64,000 |
| | 7/31/2001 | 95,000 |
| | 4/1/2002 | 93,000 |
| | 7/31/2002 | 53,000 |
| | 2/25/2003 | 60,000 |
| | 8/19/2003 | 72,000 |
| | 2/20/2004 | 120,000 |
| | 8/4/2004 | 92,000 |
| | 2/23/2005 | 69,000 |
| | 8/24/2005 | 54,000 |
| KRW-7 | 8/21/2003 | 21,000 |
| | 8/4/2004 | 63,000 |
| | 2/23/2005 | 31,000 |
| | 8/24/2005 | 9,000 |
| KRW-8 | 8/21/2003 | 100,000 |
| | 8/4/2004 | 14,000 |
| | 2/22/2005 | 72,000 |
| | 8/24/2005 | 55,000 |
| TEMPORARY MONITORING WELLS * | | |
| HP-1 | 4/94 | 11,900 |
| HP-2 | 4/94 | 11,500 |
| 303TW-1 | 3/28/03 | 480 |
| 303TW-2 | 3/28/2003 | 1 |
| 303TW-3 | 3/28/2003 | 2,200 |
| 303TW-4 | 3/28/2003 | 31,000 |

ND = Not Determined
FP = Free Product
* Temporary wells have been permanently abandoned
D - The reported result is from a secondary dilution.
J - The result is less than the reporting limit, but greater than or equal to the method detection limit and the concentration is an approximate value.

**TABLE 4**

**HISTORICAL MTBE DATA - SURFICIAL GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | MTBE Concentration (µg/L) |
|---|---|---|
| **TYPE II MONITORING WELLS** | | |
| MW-1 | Jun-98 | <20 |
| | Feb-04 | <10 |
| | Aug-04 | <10 |
| | Feb-05 | <21 |
| | Aug-05 | 3.2J |
| | Feb-06 | <0.45 |
| MW-2 | Feb-04 | <40,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| | Feb-06 | <4.5 |
| MW-3 | Jun-98 | <2,000 |
| | Feb-04 | <40,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <2.1 |
| | Feb-06 | <4.5 |
| MW-4 | Jun-98 | <10,000 |
| | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <2.1 |
| | Feb-06 | <4.5 |
| MW-5 | Jun-98 | <1,000 |
| | Feb-04 | <500 |
| | Aug-04 | <200 |
| | Feb-05 | <0.42 |
| | Aug-05 | <0.42 |
| | Feb-06 | <4.5 |
| MW-7 | Feb-04 | <25,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Feb-06 | NS |
| MW-8 | Feb-04 | <1,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| | Feb-06 | <4.5 |

**TABLE 4**

**HISTORICAL MTBE DATA - SURFICIAL GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | MTBE Concentration (µg/L) |
|---|---|---|
| MW-9 | Feb-04 | <10 |
| | Feb-06 | NS |
| MW-10 | Aug-05 | <8.4 |
| | Feb-06 | <4.5 |
| MW-11 | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| | Feb-06 | <2.3 |
| MW-12 | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <8.4 |
| | Feb-06 | <11 |
| MW-13 | Feb-04 | <1,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | 4.2J |
| | Feb-06 | <11 |
| MW-14 | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <8.4 |
| | Feb-06 | <45 |
| MW-15 | Feb-04 | <5,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <8.4 |
| | Feb-06 | <11 |
| MW-16 | Jul-03 | 1,100 |
| | Aug-03 | <500 |
| | Feb-04 | <5,000 |
| | Feb-06 | NS |
| MW-17 | Jul-03 | 2,100 |
| | Aug-03 | 5.9 |
| | Feb-04 | <1,200 |
| | Aug-04 | <200 |
| | Feb-05 | <4.2 |
| | Aug-05 | 5.4J |
| | Feb-06 | 8.8 J |
| MW-18 | Feb-04 | <10 |
| | Feb-05 | <21 |
| | Aug-05 | 0.73J |
| | Feb-06 | <4.5 |

**TABLE 4**

**HISTORICAL MTBE DATA - SURFICIAL GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | MTBE Concentration (µg/L) |
|---|---|---|
| MW-19 | Feb-04 | <1,000 |
| | Feb-05 | <21 |
| | Aug-05 | <4.2 |
| | Feb-06 | <11 |
| MW-20 | Feb-04 | <5,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <0.42 |
| | Feb-06 | <4.5 |
| MW-28 | Jun-98 | <2 |
| | Feb-04 | <100 |
| | Aug-04 | <50 |
| | Feb-05 | <0.42 |
| | Aug-05 | <0.42 |
| | Feb-06 | <0.45 |
| MW-30 | Jun-98 | <1 |
| | Feb-06 | NS |
| MW-32 | Feb-04 | <1,000 |
| | Aug-04 | <200 |
| | Feb-05 | <10 |
| | Aug-05 | <0.42 |
| | Feb-06 | <0.45 |
| MW-33 | Feb-04 | <1,000 |
| | Aug-04 | <200 |
| | Feb-05 | <42 |
| | Aug-05 | <4.2 |
| | Feb-06 | <4.5 |
| MW-34 | Feb-05 | <84 |
| | Aug-05 | <0.42 |
| | Feb-06 | <4.5 |
| MW-35 | Feb-05 | 250 |
| | Aug-05 | 310J |
| | Feb-06 | 57 |
| MW-36 | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| | Feb-06 | <2.3 |
| MW-37 | Feb-05 | <42 |
| | Aug-05 | <0.42 |
| | Feb-06 | <23 |
| 101 | Jul-03 | <100 |
| | Aug-03 | <50 |
| | Feb-04 | 8,500 |
| | Aug-04 | 920 |
| | Feb-05 | 3,300 |
| | Aug-05 | 240 |
| | Feb-06 | 370 |

**TABLE 4**

**HISTORICAL MTBE DATA - SURFICIAL GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | MTBE Concentration (µg/L) |
|---|---|---|
| 102 | Jun-96 | 1,100 |
| | Jun-98 | 420 |
| | Jan-99 | 150 |
| | Jul-03 | 310 |
| | Aug-03 | 200 |
| | Feb-04 | 290 |
| | Aug-04 | <100 |
| | Feb-05 | 830 |
| | Aug-05 | 130 |
| | Feb-06 | 71 |
| 104 | Jul-02 | 5,100 |
| | Feb-04 | <500 |
| | Feb-06 | NS |
| 105 | Aug-02 | 390 |
| | Aug-04 | 20 |
| | Feb-05 | 19 |
| | Aug-05 | <0.42 |
| | Feb-06 | 10 |
| 106 | Jun-96 | 420 |
| | Aug-02 | 1,000 |
| | Aug-03 | <5,000 |
| | Feb-04 | <25000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <8.4 |
| | Feb-06 | <45 |
| 107 | Jul-02 | <500 |
| | Aug-02 | <500 |
| | Aug-03 | <5,000 |
| | Feb-04 | <10000 |
| | Aug-04 | <200 |
| | Feb-05 | <110 |
| | Aug-05 | <0.42 |
| | Feb-06 | <11 |
| 108 | Aug-03 | <5,000 |
| | Feb-04 | <40000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <8.4 |
| | Feb-06 | <23 |
| 113 | Jan-99 | <2 |
| | Feb-04 | <10 |
| | Aug-04 | <10 |
| | Feb-05 | 0.42 |
| | Aug-05 | <0.42 |
| | Feb-06 | <0.45 |

**TABLE 4**

**HISTORICAL MTBE DATA - SURFICIAL GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | MTBE Concentration (µg/L) |
|---|---|---|
| 114 | Jun-98 | 18 |
| | Feb-06 | NS |
| 117 | Jul-96 | <5,000 |
| | Jun-98 | <20,000 |
| | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <0.42 |
| | Feb-06 | <0.45 |
| 119 | Jun-96 | 14 |
| | Jun-98 | <100 |
| | Apr-02 | 2,900 |
| | Jul-02 | 6,400 |
| | Aug-03 | 2,200 |
| | Feb-04 | 990 |
| | Aug-04 | 280 |
| | Feb-05 | <42 |
| | Aug-05 | 5.3J |
| | Feb-06 | 99 |
| 120 | Jun-96 | 38 |
| | Jun-98 | 160 |
| | Jan-99 | 210 |
| | Apr-02 | 1,300 |
| 121 | Jun-96 | <1,000 |
| | Jun-98 | <10,000 |
| **TEMPORARY WELLS** | | |
| M-1 | Aug-02 | 1,500 |
| M-2 | Aug-02 | <50 |
| **RECOVERY WELLS** | | |
| RW-2 | Jun-98 | <1,000 |
| | Apr-02 | <500 |
| | Jul-02 | <500 |
| KRW-3 | Feb-04 | <5,000 |
| | Aug-04 | <200 |
| | Aug-05 | <4.2 |

**TABLE 4**

**HISTORICAL MTBE DATA - SURFICIAL GROUNDWATER**

## PARAXYLENE FACILITY
**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | DATE | MTBE Concentration (µg/L) |
|---|---|---|
| KRW-4 | Jun-98 | <4,000 |
| | Apr-02 | 5,900 |
| | Jul-02 | 2,900 |
| | Aug-03 | 2,700 |
| | Feb-04 | <5,000 |
| | Aug-04 | 670 |
| | Feb-05 | <42 |
| | Aug-05 | 55J |
| KRW-5 | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| KRW-6 | Feb-04 | <10,000 |
| | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| KRW-7 | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | 0.47J |
| KRW-8 | Aug-04 | <200 |
| | Feb-05 | <84 |
| | Aug-05 | <4.2 |
| GASOLINE/FUEL OIL AST AREA MONITORING WELLS | | |
| 2 | Apr-02 | <5 |

J = The result is less than the reporting limit but greater than the method detection limit and the concentration is an approximate value.
NS = Not Sampled

**TABLE 5**

**SUMMARY OF GROUNDWATER ELEVATIONS AT SELECTED MONITORING WELLS AS OF DECEMBER 22, 2005**

## GASOLINE/#2 FUEL OIL FACILITY

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL I.D. | TOTAL DEPTH (in feet) | TOP OF CASING ELEVATION* (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|
| SHALLOW MONITORING WELLS | | | | | |
| 1 | 22.50 | 39.23 | 10.09 | NMT | 29.14 |
| 2 | 22.65 | 42.64 | 12.57 | NMT | 30.07 |
| 3 | 22.50 | 40.88 | 7.25 | NMT | 33.63 |
| 6 | 20.7 | 41.36 | 8.10 | NMT | 33.26 |
| 7 | 22.83 | 43.22 | 8.71 | NMT | 34.51 |
| 8 | 21.0 | 42.54 | 7.55 | NMT | 34.99 |
| 12 | 22.50 | 47.45 | 11.70 | NMT | 35.75 |
| 14 | 21.10 | 45.56 | 10.97 | NMT | 34.59 |
| 15 | 22.50 | 46.22 | 11.21 | NMT | 35.01 |
| 19 | 22.50 | 47.71 | 11.71 | NMT | 36.00 |
| 20 | 22.50 | 40.93 | 7.81 | NMT | 33.12 |
| 21 | 22.50 | 42.06 | 8.18 | NMT | 33.88 |
| Unidentified (11) | 20.50 | 44.66 | 8.61 | NMT | 36.05 |

NA = Not Available

* Top of casing elevation based on an assumed datum of 100.00 feet.

Well Number 11 was not known at time of sampling. Therefore, the sample was labeled as "Unidentified".

**TABLE 6**

**SUMMARY OF GROUNDWATER FIELD MEASUREMENTS FROM LOW FLOW SAMPLING**

## GASOLINE/#2 FUEL OIL FACILITY

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| Well ID | Date Measured | Time of Measurement | pH (Standard Units) | Specific Conductivity (ms/cm) | Temperature (°C) | Oxidation Reduction Potential (mV) | Dissolved Oxygen (mg/L) |
|---|---|---|---|---|---|---|---|
| SHALLOW MONITORING WELLS | | | | | | | |
| 1 | 12/29/2005 | 1025 | 6.52 | 0.226 | 12.90 | 85.0 | NM |
| 2 | 12/22/2005 | 1135 | 5.66 | 0.047 | 11.59 | -110.4 | 1.26 |
| 3 | 12/28/2005 | 1015 | 5.10 | 0.048 | 10.49 | 114.2 | 4.59 |
| 6 | 12/28/2005 | 1140 | 5.80 | 0.045 | 14.62 | 95.8 | 7.53 |
| 7 | 12/22/2005 | 1300 | 5.99 | 0.050 | 12.25 | -0.5 | 8.86 |
| 8 | 12/28/2005 | 1215 | 5.26 | 0.035 | 12.42 | 100.4 | 7.27 |
| 12 | 12/28/2005 | 1330 | 4.99 | 0.071 | 14.32 | 262.3 | 4.48 |
| 14 | 12/28/2005 | 1525 | 5.63 | 0.063 | 15.56 | -90.1 | 1.99 |
| 15 | 12/28/2005 | 1450 | 5.61 | 0.048 | 13.99 | -92.1 | 2.00 |
| 19 | 12/28/2005 | 1413 | 5.41 | 0.079 | 13.87 | 105.7 | 2.89 |
| 20 | 12/22/2005 | 1410 | 5.80 | 0.045 | 13.42 | -92.1 | 2.75 |
| 21 | 12/28/2005 | 1057 | 5.70 | 0.068 | 13.36 | -111.0 | 1.40 |
| Unidentified (11) | 12/29/2005 | 1127 | 6.14 | 0.128 | 14.04 | -17.4 | 3.75 |

°C = Degrees Celsius
ms/cm = Microsiemens per Centimeter
mg/L = Milligrams per Liter
mV = Millivolt
NM= Not Measured
Data presented is the final field measurement recorded immediately prior to collection of laboratory sample.
Well Number 11 was not known at time of sampling. Therefore, the sample was labeled as "Unidentified".

TABLE 7

SUMMARY OF GROUNDWATER LABORATORY RESULTS

# GASOLINE/#2 FUEL OIL FACILITY

INVISTA NORTH TERMINAL
WILMINGTON, NORTH CAROLINA

**Analytical Method: EPA Method 8260B, EPA Method 8270C, EPA Method 6010B**

| Contaminant of Concern → | | Acetone | Methyl Ethyl Ketone | Benzene | Toluene | Ethylbenzene | Total Xylenes | Phenol | 2,4-Dimethylphenol | Naphthalene | 2-Methylnaphthalene | 3 & 4 Methylphenol | Lead | Bis(2-ethylhexyl) phalate | All Other 8260 and 8270 Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample ID** | **Date Collected** | | | | | | | | | | | | | | |
| **2L GWQS (µg/L)** | | **700** | **4,200** | **1** | **1,000** | **550** | **530** | **300** | **140** | **21** | **14** | **38.5** | **15** | **2.5** | Varies |
| 1 | 12/28/2005 | <7.3 | <0.72 | 5.4 | 9.9 | 4.7 | 89 | <0.93 | 1.7 J | 0.79 J | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 2 | 12/22/2005 | <25 | <10 | <1.0 | 2.0 | <1.0 | <2.0 | <10 | <10 | <10 | <10 | <10 | <5.0 | <10 | BDL |
| 3 | 12/28/2005 | <7.3 | <0.72 | <0.54 | <0.62 | <0.62 | <1.3 | <0.93 | <0.94 | <0.72 | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 6 | 12/28/2005 | <7.3 | <0.72 | <0.54 | 1.3 | 3.2 | 13 | <0.93 | <0.94 | 0.89 J | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 7 | 12/22/2005 | <130 | <50 | <5.0 | 110 | 72 | 1,000 | <9.4 | <9.4 | 37 | 10 | <9.4 | <5.0 | <9.4 | BDL |
| 8 | 12/28/2005 | <7.3 | <0.72 | <0.54 | 0.67 J | <0.62 | 2.8 | <0.93 | <0.94 | <0.72 | 9.5 | <0.62 | 10 | <0.92 | BDL |
| 12 | 12/28/2005 | <7.3 | <0.72 | <0.54 | <0.62 | <0.62 | <1.3 | <0.93 | <0.94 | <0.72 | <0.50 | <0.62 | 19 | <0.92 | BDL |
| 14 | 12/28/2005 | 43 | 4.6 J | <0.54 | 15 | <0.62 | 3.5 | <0.93 | <0.94 | <0.72 | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 15 | 12/28/2005 | 17 J | <0.72 | <0.54 | <0.62 | <0.62 | <1.3 | 4.4 J | <0.96 | <0.73 | <0.51 | 17 | 3.5 J | <0.94 | BDL |
| 19 | 12/28/2005 | <7.3 | <0.72 | <0.54 | <0.62 | <0.62 | 1.4 J | <0.95 | <0.96 | <0.73 | 1.4 J | <0.63 | 29 | <0.94 | BDL |
| 20 | 12/22/2005 | <25 | <10 | <1.0 | <1.0 | 6.2 | 6.3 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <5.0 | <9.4 | BDL |
| 21 | 12/28/2005 | <180 | <18 | 370 | 4,800 | 290 | 2,900 | 2.3 J | 13 | 81 | 1.3 J | <0.62 | 22 | <0.92 | BDL |
| Unidentified (11) | 12/29/2005 | <730 | <72 | <54 | 5,200 | 460 | 5,700 | 1.6 J | <0.94 | 140 | 77 | <0.62 | 95 | 52 | BDL |

All results in µg/L
BDL = Below Method Detection Limit
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Shaded concentrations exceed 2L GWQS.
Well number 11 was unknown at time of sampling. Therefore, it was labeled "Unidentified".

**TABLE 8**

**SUMMARY OF GROUNDWATER ELEVATIONS AT SELECTED MONITORING WELLS – FEBRUARY 8, 2006**

## LOADING RACK AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|
| TYPE II MONITORING WELLS | | | | | |
| KMW-6 | 24.90 | 1.84 | NMT | -- | 23.06 |
| KMW-7 | 25.11 | 1.63 | NMT | -- | 23.48 |
| KMW-8 | 25.86 | 2.15 | NMT | -- | 23.71 |
| KMW-9 | 25.73 | KMW-9 was abandoned on August 11, 2004. | | | |
| KMW-10 | 24.92 | 1.94 | NMT | -- | 22.98 |
| KMW-11 | 27.34 | 1.92 | NMT | -- | 25.42 |
| KMW-12 | 24.19 | 9.88 | NMT | -- | 14.31 |
| KMW-13 | 23.84 | 5.38 | NMT | -- | 18.46 |
| KMW-14 | 23.31 | 8.59 | NMT | -- | 14.72 |
| KMW-16 | 30.15 | 7.07 | NMT | -- | 23.08 |
| KMW-17 | 30.56 | 7.41 | NMT | -- | 23.15 |
| FHR TYPE II MONITORING WELLS WITHIN APEX TERMINAL | | | | | |
| AMW-1 | 23.42 | 9.70 | NMT | -- | 13.72 |
| AMW-2 | 23.35 | 9.35 | NMT | -- | 14.00 |
| AMW-3 | 21.72 | 9.43 | NMT | -- | 12.29 |
| AMW-5 | 10.38 | 4.56 | NMT | -- | 5.82 |
| AMW-6 | 11.97 | 7.03 | NMT | -- | 4.94 |

Notes:

Specific gravity adjustment for gasoline is 0.77.

NMT = No Measurable Thickness

**TABLE 9**

**SUMMARY OF GROUNDWATER DISSOLVED VOLATILES DATA**
**EPA METHOD 8260B**

## LOADING RACK AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL ID | DATE | Benzene | n-Butylbenzene | sec-Butylbenzene | Ethylbenzene | Isopropylbenzene | MTBE | Naphthalene | n-Propylbenzene | Toluene | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | m/p-Xylenes | o-Xylene | All Other 8260B Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **T15A NCAC 2L.0202 Groundwater Standards** | | **1** | **70** | **70** | **29** | **70** | **200** | **21** | **70** | **1,000** | **350** | **350** | **530** | | **Varies** |
| T-1** | 8/1/2001 | - | - | - | - | - | - | - | - | - | - | - | **1,100** | - | - |
| T-2** | 8/1/2001 | - | - | - | - | - | - | - | - | - | - | - | 4.9* | - | - |
| T-5** | 8/24/2001 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | **34,000** | <500 | ND |
| T-6** | 8/24/2001 | **8,300** | <500 | <500 | <500 | <500 | **48,000** | **830** | <500 | **4,100** | **1,700** | <500 | **11,000** | **860** | ND |
| T-8** | 8/24/2001 | 20 | <5.0 | <5.0 | <5.0 | <5.0 | 21 | <5.0 | <5.0 | 18 | <5.0 | <5.0 | 22 | <5.0 | ND |
| KMW-6 | 9/17/01 | <4.4 | <8.4 | <6.2 | **410** | <7.4 | <9.3 | <14 | <7.1 | 66 | <9.7 | <7.4 | **160,000** | **270** | 50 |
| | 1/3/02 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | **19,000** | <250 | ND |
| | 2/27/02 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | **37,000** | <500 | ND |
| | 2/28/03 | **67** | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | **6,300** | <50 | ND |
| | 9/16/03 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | **14,000** | <120 | ND |
| | 2/19/04 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <10,000 | <5,000 | <1,000 | <1,000 | <1,000 | <1,000 | **31,000** | <1,000 | ND |
| | 8/5/2004 | <36 | <31 | <24 | <34 | <25 | <31 | **73J** | <32 | <54 | 36J | <21 | **51,000** | **75** | ND |
| | 2/17/05 | <54 | <38 | <60 | <62 | <66 | 54J | **110J** | <45 | <62 | 77J | <49 | **8,100 (Total Xylenes)** | | ND |
| | 8/23/05 | <54 | <38 | <60 | <62 | <66 | <45 | **<12** | <45 | <62 | <44 | <49 | **19,000 (Total Xylenes)** | | ND |
| | 2/10/06 | <54 | <38 | <60 | <62 | <66 | <45 | **79J** | <45 | <62 | 140 | <49 | **13,000 (Total Xylenes)** | | ND |
| KMW-7 | 9/17/01 | **370** | <10 | <10 | **88** | <10 | **330** | **48** | 12 | 450 | 120 | 36 | **570** | **330** | BQL |
| | 1/3/02 | **160** | 5.4 | <5.0 | 24 | <5.0 | 94 | 19 | <5.0 | 44 | 20 | 7.1 | 100 | 16 | ND |
| | 2/27/02 | **270** | <5.0 | 32 | **41** | <5.0 | 110 | **41** | 5.5 | 210 | 33 | 31 | 180 | 140 | ND |
| | 2/28/03 | **120** | <5.0 | <5.0 | **74** | <5.0 | 5.4 | **32** | 7.8 | 31 | 40 | 33 | 180 | 20 | ND |
| | 9/16/03 | **300** | <5.0 | <5.0 | **180** | 12 | <5.0 | **150** | 22 | 14 | 170 | 62 | **560** | 8.2 | ND |
| | 2/19/04 | **110** | <10 | <10 | **120** | 12 | <100 | **190** | 26 | <10 | **410** | 110 | **600** | 12 | ND |
| | 8/5/2004 | **140** | <1.6 | <1.2 | **140** | 10 | <1.6 | **200** | 19 | 5.8 | 150 | 34 | 330 | 28 | ND |
| | 2/17/05 | **96** | 6.5 | 2.4 | **180** | 16 | <0.45 | **200** | 30 | 6.8 | 170 | 24 | 350 (Total Xylenes) | | ND |
| | 8/23/05 | **30** | 7.3 | 3.3 | **130** | 16 | 1.1J | **180** | 28 | 5.7 | 110 | 13 | 220 (Total Xylenes) | | ND |
| | 2/8/06 | **34** | 20 | 5.8 | **250** | 23 | 5.2J | **430** | 50 | 11 | 290 | 85 | **590 (Total Xylenes)** | | 49.6 |
| KMW-8 | 9/17/01 | **3,400** | <200 | **450** | **840** | <200 | **6,300** | **530** | <200 | 600 | **2,300** | 580 | 12,000 | 650 | BQL |
| | 1/3/02 | **1,300** | <100 | <100 | **190** | <100 | **3,700** | **180** | 130 | <100 | **390** | 130 | **930** | <100 | ND |
| | 2/27/02 | **0.17' FREE-PHASE PRODUCT** | | | | | | | | | | | | | |
| | 2/28/03 | **1,400** | <250 | <250 | **550** | <250 | **1,400** | **320** | <250 | <250 | **1,700** | **630** | **8,000** | 340 | ND |
| | 9/16/03 | **1,900** | <250 | <250 | **670** | <250 | **1,600** | **480** | <250 | 680 | **1,200** | **390** | **5,900** | 450 | ND |
| | 2/19/04 | **2,600** | <100 | <100 | **990** | <100 | <1,000 | **680** | **110** | 820 | **1,400** | **380** | **8,800** | **670** | ND |
| | 8/5/2004 | **560** | <31 | <24 | **430** | 40J | **200J** | **560** | 60J | 200 | **1,200** | 310 | **5,500** | **580** | ND |
| | 2/17/05 | **620** | <7.6 | 14J | **480** | 68 | **330** | **690** | **130** | 82 | **860** | 240 | **2,100 (Total Xylenes)** | | ND |
| | 8/17/05 | **0.12' FREE-PHASE PRODUCT** | | | | | | | | | | | | | |
| | 2/9/06 | **900** | <19 | <30 | **780** | 47J | **360J** | **680** | **92** | 160 | **1,300** | 320 | **6,500 (Total Xylenes)** | | ND |
| KMW-9 | 9/17/01 | **6,200** | <200 | **260** | **2,800** | <200 | **3,900** | **540** | **360** | **1,100** | **1,000** | <200 | **3,700** | **440** | BQL |
| | 1/3/02 | **0.21' FREE-PHASE PRODUCT** | | | | | | | | | | | | | |
| | 2/27/02 | **0.12' FREE-PHASE PRODUCT** | | | | | | | | | | | | | |
| | 2/28/03 | **NOT MEASURED, WELL DAMAGED/WELL WAS REPLACED ON 7/2/03** | | | | | | | | | | | | | |
| | 9/16/03 | **1,200** | <250 | <250 | **2,000** | <250 | **540** | **660** | **340** | **1,200** | **2,700** | **830** | **10,000** | **1,200** | ND |
| | 2/19/04 | **560** | <200 | <200 | **830** | <200 | <2,000 | <1,000 | <200 | 310 | **1,400** | **330** | **6,900** | **640** | ND |
| | 8/5/04 | **600** | 45J | <24 | **930** | **89J** | 100J | **550** | **170** | 280 | **1,500** | **350** | **5900** | **510** | ND |
| | 2/17/05 | **NOT SAMPLED, WELL ABANDONED** | | | | | | | | | | | | | |
| | 8/17/05 | **NOT SAMPLED, WELL ABANDONED** | | | | | | | | | | | | | |
| | 2/9/06 | **NOT SAMPLED, WELL ABANDONED** | | | | | | | | | | | | | |

All results in micrograms per Liter - µg/l
- = No data
Bold figure indicates concentration level exceeds applicable 2L Groundwater Standard limit.
Refer to laboratory reports for other 8260B analytes detected.

ND = Not detected
BQL = Below Quantitation Limits

* = Determined with EPA Method 602 analysis
** = Temporary wells have been permanently abandoned
J = Value is estimated concentration that is less than PQL, but greater than or equal to the MDL.
E = The reported result exceeded the calibration range of the instrument.
D = The reported result is from a secondary dilution.

**TABLE 9**

**SUMMARY OF GROUNDWATER DISSOLVED VOLATILES DATA**
**EPA METHOD 8260B**

## LOADING RACK AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL ID | DATE | Benzene | n-Butylbenzene | sec-Butylbenzene | Ethylbenzene | Isopropylbenzene | MTBE | Naphthalene | n-Propylbenzene | Toluene | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | m/p-Xylenes | o-Xylene | All Other 8260B Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KMW-10 | 9/17/01 | **88** | <20 | <20 | <20 | <20 | **750** | <20 | <20 | <20 | <20 | <20 | <40 | <20 | BQL |
| | 1/3/02 | **37** | <10 | <10 | 12 | <10 | 120 | 15 | <10 | 18 | 12 | <10 | 37 | 18 | ND |
| | 2/27/02 | **32** | <10 | <10 | <10 | <10 | 69 | 10 | <10 | <10 | <10 | <10 | <20 | <10 | ND |
| | 2/28/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | ND |
| | 9/16/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | ND |
| | 2/19/04 | **440** | <10 | <10 | **190** | 19 | <100 | **140** | 30 | 28 | 190 | 38 | 260 | <10 | ND |
| | 8/5/04 | **36** | 5.3 | 2.2 | **29** | 9.3 | 2.4J | **94** | 20 | 3.2 | 77 | 9.6 | 17 | 0.69 J | 6.29 J |
| | 2/17/05 | <0.54 | 1 | 0.62J | <0.62 | 1.6 | <0.45 | 6.5 | 1.4 | <0.62 | 0.45J | <0.49 | <1.6 (Total Xylenes) | | ND |
| | 8/23/05 | **6** | <0.38 | 0.79J | <0.62 | 2.3 | <0.45 | 1.7J | 0.46J | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| | 2/9/06 | <0.54 | <0.38 | <0.60 | <0.62 | 0.91J | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| KMW-11 | 9/17/01 | **110** | <80 | <80 | **610** | <80 | <80 | **89** | <80 | **2,000** | **650** | 130 | **2,500** | **1,200** | BQL |
| | 1/3/02 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 19 | 11 | ND |
| | 2/27/02 | **6** | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 32 | 5.2 | <5.0 | 81 | <5.0 | ND |
| | 2/28/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | ND |
| | 9/16/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | ND |
| | 2/19/04 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | ND |
| | 8/5/04 | <0.36 | <0.31 | <0.24 | <0.34 | <0.25 | <0.31 | <0.44 | <0.32 | <0.54 | <0.19 | <0.21 | <0.4 | <0.3 | ND |
| | 2/17/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.6 (Total Xylenes) | | ND |
| | 8/23/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.45 | 0.29J | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| | 2/8/06 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| KMW-12 | 1/3/02 | **0.30' FREE-PHASE PRODUCT** | | | | | | | | | | | | | |
| | 2/27/02 | **1,400** | <5.0 | 14 | **190** | **77** | **670** | **200** | **160** | 39 | **760** | 130 | **1,800** | **47** | Varies |
| | 2/28/03 | **3,500** | <250 | <250 | **730** | <250 | **990** | **340** | <250 | <250 | **1,100** | **360** | **5,800** | <250 | ND |
| | 9/16/03 | **2,000** | <250 | <250 | **680** | <250 | <250 | **370** | <250 | <250 | **950** | 290 | **4,400** | <250 | ND |
| | 2/19/04 | **2,400** | <500 | <500 | **1,600** | <500 | <5,000 | <2,500 | <500 | <500 | **2,700** | **670** | **13,000** | <500 | ND |
| | 8/5/04 | **1,800** | <77 | <60 | **1,500** | **170J** | 160J | **1,300** | **340** | 220J | **3,400** | **860** | **12,000** | **120 J** | ND |
| | 2/17/05 | **1,600** | <76 | 52 | **810** | **180** | 150J | **940** | **380** | 64 | **2,100** | **510** | **2,000 (Total Xylenes)** | | ND |
| | 8/22/05 | **1,700** | <7.6 | 30 | **770** | **130** | 140J | **1,100** | **230** | 73 | **2,700** | **680** | **4,800 (Total Xylenes)** | | ND |
| | 2/8/06 | **2,000** | <1.9 | 12 | **1,100** | **100** | 28J | **920** | **160** | 68 | **2,200** | **470** | **4,100 (Total Xylenes)** | | 56.4 |
| KMW-13 | 1/3/02 | **2.51' FREE PHASE PRODUCT** | | | | | | | | | | | | | |
| | 2/27/02 | **690** | <5.0 | <5.0 | **140** | 24 | **1,800** | **160** | 46 | 34 | 100 | 38 | **35,000** | **74** | ND |
| | 2/28/03 | **690** | <1,200 | <1,200 | <1,200 | <1,200 | **1,100J** | <1,200 | <1,200 | <1,200 | 210J | <1,200 | **19,000** | <1,200 | ND |
| | 9/16/03 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | **20,000** | <1,000 | ND |
| | 2/19/04 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <10,000 | <5,000 | <1,000 | <1,000 | <1,000 | <1,000 | **71,000** | <1,000 | ND |
| | 8/5/04 | <180 | <160 | <120 | <170 | <120 | <160 | <220 | <160 | <270 | <95 | <100 | **68,000** | <180 | ND |
| | 2/17/05 | **920** | <76 | <120 | <120 | <130 | 120J | **240J** | <90 | <120 | 270 | <98 | **57,000 (Total Xylenes)** | | ND |
| | 8/22/05 | **340** | <38 | <60 | **150** | <66 | 58J | **610** | <45 | <62 | 140 | <49 | **71,000D (Total Xylenes)** | | ND |
| | 2/8/06 | **450** | <38 | <60 | <62 | <66 | <45 | **160J** | <45 | <62 | 130 | <49 | **72,000 (Total Xylenes)** | | ND |

All results in micrograms per Liter - µg/l
- = No data
ND = Not detected
BQL = Below Quantitation Limits
Bold figure indicates concentration level exceeds applicable 2L Groundwater Standard limit.
Refer to laboratory reports for other 8260B analytes detected.

* = Determined with EPA Method 602 analysis
** = Temporary wells have been permanently abandoned
J = Value is estimated concentration that is less than PQL, but greater than or equal to the MDL.
E = The reported result exceeded the calibration range of the instrument.
D = The reported result is from a secondary dilution.

**TABLE 9**

**SUMMARY OF GROUNDWATER DISSOLVED VOLATILES DATA**
**EPA METHOD 8260B**

## LOADING RACK AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL ID | DATE | Benzene | n-Butylbenzene | sec-Butylbenzene | Ethylbenzene | Isopropylbenzene | MTBE | Naphthalene | n-Propylbenzene | Toluene | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | m/p-Xylenes | o-Xylene | All Other 8260B Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KMW-14 | 1/3/02 | **8.5** | <5.0 | <5.0 | <5.0 | <5.0 | 38 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | **2,900** | <5.0 | ND |
| | 2/27/02 | **6.9** | <5.0 | <5.0 | **66** | 5 | 27 | 13 | <5.0 | <5.0 | 25 | 11 | **30,000** | **59** | ND |
| | 2/28/03 | <120 | | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | **23,000** | <120 | ND |
| | 9/16/03 | <500 | <500 | <500 | **45,000** | <500 | <500 | <500 | <500 | <500 | <500 | <500 | **38,000** | <500 | ND |
| | 2/19/04 | <1,000 | <1,000 | <1,000 | <1,000 | <1,000 | <10,000 | <5,000 | <1,000 | <1,000 | <1,000 | <1,000 | **62,000** | <1,000 | ND |
| | 8/5/04 | <180 | <160 | <120 | <170 | <120 | <160 | **400J** | <160 | <270 | 140J | <100 | **50,000** | <180 | ND |
| | 2/17/05 | <54 | <38 | <60 | <62 | <66 | <45 | **42J** | <45 | <62 | <44 | <49 | **21,000 (Total Xylenes)** | | ND |
| | 8/22/05 | <54 | <38 | <60 | **74J** | <66 | <45 | <12 | <45 | <62 | <44 | <49 | **47,000D (Total Xylenes)** | | ND |
| | 2/8/06 | <54 | <38 | <60 | <62 | <66 | <45 | <12 | <45 | <62 | <44 | <49 | **14,000 (Total Xylenes)** | | ND |
| KMW-16 | 8/23/05 | 0.80J | <0.38 | <0.60 | <0.62 | 0.66J | 24 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| | 2/8/06 | **190** | <1.9 | <3.0 | <3.1 | 3.8 J | **600** | 13J | 8.6 | 3.2J | 88 | 22 | 7.0J (Total Xylenes) | | ND |
| KMW-17 | 8/23/05 | <0.54 | <0.38 | 0.70J | <0.62 | 3.2 | 8.8J | 0.32J | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| | 2/8/06 | **110** | <0.38 | <0.60 | **55** | 2.9 | 20 | 2.8J | 3.6 | 3.7 | 32 | 5.0 | 170 (Total Xylenes) | | ND |
| AMW-1 | 12/22/03 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3.6 | 2.7 | <2.0 | <1.0 | 2.2 |
| | 2/19/04 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10.0 | <5.0 | <1.0 | <1.0 | <1.0 | 4.3 | <1.0 | <1.0 | 35 |
| | 8/5/04 | <0.36 | <0.3 | <0.24 | <0.34 | <0.25 | <0.31 | <0.44 | <0.32 | <0.54 | <0.19 | 1.2 | <0.40 | <0.35 | ND |
| | 2/16/05 | <0.54 | 2.5 | <0.60 | 1.0 | <0.66 | 3.0J | <0.12 | <0.45 | <0.62 | 3.3 | 4.7 | <1.6 (Total Xylenes) | | 14.07 |
| | 8/22/05 | <0.54 | 0.89J | <0.60 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | 1.2 | <1.3 (Total Xylenes) | | ND |
| | 2/8/06 | <0.54 | 0.38 | <0.60 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| AMW-2 | 12/22/03 | **1,700** | <1.0 | <1.0 | **1,400** | **130** | **300** | **660** | **390** | **1,100** | **2,500** | **710** | **27,000** | **680** | 5.2 |
| | 2/19/04 | **2,200** | <200 | <200 | **1,700** | <200 | <2,000 | <1,000 | **300** | **2,000** | **2,200** | **600** | **39,000** | **940** | ND |
| | 8/5/04 | **2,300** | <62 | <48 | **2,000** | **140J** | **440J** | **750J** | **260** | **1,900** | **2,100** | **560** | **40,000** | **970** | ND |
| | 2/16/05 | **1,200** | <38 | <60 | **1,300** | **130** | 130J | **840** | **260** | **1,700** | **2,100** | **490** | **35,000 (Total Xylenes)** | | ND |
| | 8/22/05 | **1,700** | 48J | <60 | **1,300** | **120** | 190J | **900** | **230** | **1,000** | **1,300** | 340 | **25,000 (Total Xylenes)** | | ND |
| | 2/8/06 | **1,700** | <76 | <120 | **1,300** | <130 | <90 | **370J** | **140J** | **2,100** | **1,100** | 290 | **38,000 (Total Xylenes)** | | ND |
| AMW-3 | 12/22/03 | **220** | <1.0 | <1.0 | **30** | 25 | 10 | **56** | 39 | 12 | 89 | 23 | **1,600** | **8.5** | 7.2 |
| | 2/19/04 | **170** | <50 | <50 | **50** | <50 | <500 | <250 | <50 | <50 | 100 | <50 | **2,800** | **<50** | ND |
| | 8/5/04 | **230** | 10 | 4.8J | **70** | 43 | 4.6J | **170** | 69 | 13 | 94 | 29 | **670** | **5.8** | ND |
| | 2/16/05 | **360** | <19 | <30 | **130** | 42J | <23 | **160J** | 59 | 34J | 250 | 58 | **9,200 (Total Xylenes)** | | ND |
| | 8/22/05 | **200** | 11 | 4.2 | **60** | 42 | 28 | **96** | **72** | 9.8 | 71 | 29 | **530 (Total Xylenes)** | | 3.8J |
| | 2/8/06 | **380** | <19 | <30 | **73** | <33 | <23 | **78J** | 49J | 41J | 63 | <25 | **11,000 (Total Xylenes)** | | ND |
| AMW-5 | 12/22/03 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <2.0 | <1.0 | ND |
| | 2/19/04 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.3 |
| | 8/5/04 | <0.36 | <0.31 | <0.24 | <0.34 | <0.25 | <0.31 | <0.44 | <0.32 | <0.54 | <0.19 | <0.21 | 0.90J | <0.35 | ND |
| | 2/16/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.45 | 0.44J | <0.45 | <0.62 | <0.44 | <0.49 | <1.6 (Total Xylenes) | | ND |
| | 8/22/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | 1.5J | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| | 2/8/06 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | 2.8J | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| AMW-6 | 12/22/03 | **76** | <1.0 | 2.7 | 5.3 | 4.1 | 24 | <1.0 | 1.1 | 1.1 | 3.4 | <1.0 | 11 | <1.0 | ND |
| | 2/19/04 | **66** | 2.6 | 4.2 | 3.5 | 5.5 | 24 | 5.7 | 1.8 | 2.2 | 17 | <5.0 | 23 | 2.2 | ND |
| | 8/5/04 | **210E** | 3.2 | 5.5 | 1.9 | 6 | 59 | 1.1J | 2.4 | 3.5 | 23 | 8.5 | 20 | 2.6 | ND |
| | 2/16/05 | **82** | 3.2 | 3.4 | 2.8 | 12 | 70 | 11 | 3.8 | 2.2 | 35 | 6.9 | 240 (Total Xylenes) | | 1.7J |
| | 8/22/05 | **5.9** | 2.2 | 2.8 | <0.62 | 6.2 | 28 | 6.7 | 0.95J | 1.3 | 9.5 | 2.9 | 3.2 (Total Xylenes) | | ND |
| | 2/8/06 | **20** | 1.8J | <1.2 | <1.2 | 9.4 | 21 | 4.8J | 1.8J | <1.2 | 20 | 2.8 | 370 (Total Xylenes) | | ND |

All results in micrograms per Liter - µg/l
- = No data
ND = Not detected
BQL = Below Quantitation Limits
Bold figure indicates concentration level exceeds applicable 2L Groundwater Standard limit.
Refer to laboratory reports for other 8260B analytes detected.

* = Determined with EPA Method 602 analysis
** = Temporary wells have been permanently abandoned
J = Value is estimated concentration that is less than PQL, but greater than or equal to the MDL.
E = The reported result exceeded the calibration range of the instrument.
D = The reported result is from a secondary dilution.

**TABLE 10**

**SUMMARY OF GROUNDWATER ELEVATIONS AT SELECTED MONITORING WELLS – FEBRUARY 8, 2006**

## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | DATE | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|---|
| TYPE II MONITORING WELLS | | | | | | |
| KMW-1 | 2/8/2006 | 19.62 | 5.54 | NMT | -- | 14.08 |
| KMW-2 | 2/8/2006 | 17.28 | 5.71 | NMT | -- | 11.57 |
| KMW-3 | 2/8/2006 | 14.63 | 4.88 | 0.16 | 0.77 | 9.87 |
| KMW-4 | 2/8/2006 | 20.15 | 9.87 | NMT | -- | 10.28 |
| KMW-5 | 2/8/2006 | 16.29 | 0.88 | NMT | -- | 15.41 |
| KMW-15 | 2/8/2006 | 26.22 | 9.56 | NMT | -- | 16.66 |
| FHR TYPE II MONITORING WELLS WITHIN APEX TERMINAL | | | | | | |
| AMW-4 | 2/8/2006 | 15.16 | 6.14 | 0.15 | 0.77 | 9.14 |

Notes:

Specific gravity adjustment for gasoline is 0.77.

NMT = No Measurable Thickness

**TABLE 11**

**SUMMARY OF GROUNDWATER DISSOLVED VOLATILES DATA**
**EPA METHOD 8260B**

## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL ID | DATE | Benzene | n-Butylbenzene | sec-Butylbenzene | Ethylbenzene | Isopropylbenzene | MTBE | Naphthalene | n-Propylbenzene | Toluene | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | m/p-Xylenes | o-Xylene | All Other 8260B Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **T15A NCAC 2L.0202 Groundwater Standards** | | **1** | **70** | **70** | **29** | **70** | **200** | **21** | **70** | **1,000** | **350** | **350** | **530** | | **Varies** |
| T-3** | 8/24/2001 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 210 | <5.0 | ND |
| T-4** | 8/24/2001 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 44 | <5.0 | ND |
| KMW-1 | 4/1/94 | - | - | - | - | - | - | - | - | - | - | - | **7,900*** | - | - |
| | 2/10/99 | - | - | - | - | - | - | - | - | - | - | - | **780*** | - | - |
| | 2/24/00 | - | - | - | - | - | - | - | - | - | - | - | 66.9* | - | - |
| | 9/21/00 | - | - | - | - | - | - | - | - | - | - | - | 128* | - | - |
| | 2/14/01 | - | - | - | - | - | - | - | - | - | - | - | **16,000*** | - | - |
| | 7/10/01 | - | - | - | - | - | - | - | - | - | - | - | **7,600*** | <500 | - |
| | 8/1/01 | - | - | - | - | - | - | - | - | - | - | - | **4,900*** | - | - |
| | 8/24/01 | <500 | <500 | <500 | **3,400** | <500 | <500 | <500 | <500 | <500 | <500 | <500 | **4,500** | <500 | ND |
| | 9/18/01 | <50 | <50 | **81** | <50 | <50 | <50 | <50 | <50 | <50 | 340 | 170 | **3,000** | <50 | BQL |
| | 1/3/02 | <5.0 | <5.0 | 37 | <5.0 | <5.0 | <5.0 | 5.5 | 9 | <5.0 | 39 | <5.0 | <10 | <5.0 | ND |
| | 2/27/02 | <5.0 | 5.7 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 51 | 43 | <10 | <5.0 | ND |
| | 2/28/03 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | **540** | <50 | ND |
| | 9/16/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 53 | 40 | 22 | <5.0 | ND |
| | 2/19/04 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10 | <5.0 | <1.0 | <1.0 | 26 | 27 | 2.6 | <1.0 | ND |
| | 8/5/04 | <0.36 | 7.7 | 0.81J | <0.34 | 0.27J | <0.31 | 1.9J | 0.85J | <0.54 | 52 | 60 | <0.40 | <0.35 | ND |
| | 2/17/05 | <0.54 | <0.38 | 3.2 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | 69 | 100 | <1.6 (Total Xylenes) | | 1.3 |
| | 8/23/05 | <0.54 | 7.6 | 0.84J | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | 14 | 24 | 6.3 (Total Xylenes) | | ND |
| | 10/14/05 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| | 2/9/06 | <0.54 | <0.38 | <0.60J | <0.62 | <0.66 | 1.0 J | <0.12 | <0.45 | <0.62 | 21 | 42 | <1.3 (Total Xylenes) | | ND |
| KMW-2 | 4/1/94 | - | - | - | - | - | - | - | - | - | - | - | **19,000*** | - | - |
| | 2/10/99 | - | - | - | - | - | - | - | - | - | - | - | 5* | - | - |
| | 2/17/05 | <1.1 | 1.1J | <1.2 | <1.2 | <1.3 | <0.90 | 6.7J | 1.4J | <1.2 | 3.6 | 1.8J | **580 (Total Xylenes)** | | ND |
| | 7/22/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | BQL |
| | 8/23/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.45 | 0.63J | <0.45 | <0.62 | <0.44 | <0.49 | 6.3 (Total Xylenes) | | ND |
| | 10/11/05 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | <0.72 J | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 | <0.49 | BQL |
| | 10/14/05 | <0.54 | NM | NM | <0.62 | NM | NM | NM | NM | <0.62 | NM | NM | 19 (Total Xylenes) | | BQL |
| | 2/9/06 | <1.1 | <0.76 | <1.2 | <1.2 | <1.3 | 1.5J | <0.24 | <0.90 | <1.2 | 1.1 J | <0.98 | 250 (Total Xylenes) | | ND |
| KMW-3 | 4/1/94 | - | - | - | - | - | - | - | - | - | - | - | 6.5* | - | - |
| | 2/10/99 | - | - | - | - | - | - | - | - | - | - | - | 96* | - | - |
| | 2/14/01 | - | - | - | - | - | - | - | - | - | - | - | 62* | - | - |
| | 8/24/01 | <5.0 | <5.0 | <5.0 | **33** | <5.0 | 13 | 6.7 | 5.7 | <5.0 | 17 | <5.0 | 59 | <5.0 | ND |
| | 9/18/01 | <1 | <1 | <1 | **<1** | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <1 | BQL |
| | 1/3/02 | <5.0 | <5.0 | **99** | 17 | 13 | <5.0 | 16 | 48 | <5.0 | 110 | 38 | 32 | <5.0 | ND |
| | 2/27/02 | <5.0 | 8.4 | <5.0 | 12 | <5.0 | <5.0 | 5.3 | 44 | <5.0 | 48 | 29 | 23 | <5.0 | ND |
| | 2/28/03 | <5.0 | <5.0 | <5.0 | 12 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 37 | 11 | 38 | <5.0 | **ND[2]** |
| | 9/16/03 | <5.0 | <5.0 | <5.0 | **120** | <5.0 | <5.0 | 8.1 | 9.4 | <5.0 | 74 | 32 | 250 | <5.0 | ND |
| | 2/19/04 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | ND |
| | 8/5/04 | <0.36 | <0.31 | <0.24 | <0.34 | <0.25 | <0.31 | <0.44 | <0.32 | <0.54 | 0.23J | <0.21 | <0.40 | <0.35 | ND |
| | 2/17/05 | **3.8** | <0.38 | <0.60 | **82** | 39 | <0.45 | **61** | **95** | 1.3 | **640** | 93 | 110 (Total Xylenes) | | 8.9J |
| | 8/23/05 | **11,000** | <380 | <600 | **6,700** | <660 | **340,000** | **340J** | **700J** | **53,000** | **3,800** | **1,100** | **29,000 (Total Xylenes)** | | ND |
| | 10/14/05 | **0.49' FREE-PHASE PRODUCT PRESENT IN KMW-3** | | | | | | | | | | | | | |
| | 2/9/06 | **FREE-PHASE PRODUCT PRESENT IN KMW-3** | | | | | | | | | | | | | |

All results in micrograms per Liter - µg/l
- = No data
Bold figure indicates concentration level exceeds applicable 2L Groundwater Standard limit.
Refer to laboratory reports for other 8260B analytes detected.

ND = Not detected
BQL = Below Quantitation Limits

* = Determined with EPA Method 602 analysis
** = Temporary wells have been permanently abandoned
J = Value is estimated concentration that is less than PQL, but greater than or equal to the MDL.
E = The reported result exceeded the calibration range of the instrument.
D = The reported result is from a secondary dilution.

**TABLE 11**

**SUMMARY OF GROUNDWATER DISSOLVED VOLATILES DATA**
**EPA METHOD 8260B**

## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| WELL ID | DATE | Benzene | n-Butylbenzene | sec-Butylbenzene | Ethylbenzene | Isopropylbenzene | MTBE | Naphthalene | n-Propylbenzene | Toluene | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | m/p-Xylenes | o-Xylene | All Other 8260B Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T15A NCAC 2L.0202 Groundwater Standards | | 1 | 70 | 70 | 29 | 70 | 200 | 21 | 70 | 1,000 | 350 | 350 | 530 | | Varies |
| KMW-4 | 4/1/94 | - | - | - | - | - | - | - | - | - | - | - | **28,000*** | - | - |
| | 2/24/00 | - | - | - | - | - | - | - | - | - | - | - | 9.4* | - | - |
| | 9/21/00 | - | - | - | - | - | - | - | - | - | - | - | 198* | - | - |
| | 2/14/01 | - | - | - | - | - | - | - | - | - | - | - | 110* | - | - |
| | 8/24/01 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | **210** | 7.1 | <5.0 | <5.0 | 7.7 | <5.0 | <10 | <5.0 | ND |
| | 9/17/01 | 1 | 1 | 1 | <1 | 8 | 17 | 8 | 12 | <1 | 12 | 10 | 28 | <1 | BQL |
| | 1/3/02 | <5.0 | <5.0 | <5.0 | **41** | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 52 | <5.0 | ND |
| | 2/27/02 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | ND |
| | 2/28/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 9 | <5.0 | <5.0 | <5.0 | 15 | 11 | <5.0 | <5.0 | ND |
| | 9/16/03 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 12 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | ND |
| | 2/19/04 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 17 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | ND |
| | 8/5/04 | <0.36 | <0.31 | <0.24 | <0.34 | <0.25 | 1.1J | 0.50J | <0.32 | <0.54 | 0.38J | 0.24J | <0.40 | <0.35 | ND |
| | 2/17/05 | <0.54 | <0.38 | <0.60 | <0.62 | 1.2 | 6.0J | 1.2J | 1.2 | <0.62 | 10 | 1.2 | 71 (Total Xylenes) | | ND |
| | 8/23/05 | <0.54 | <0.38 | <0.60 | <0.62 | 1.2 | <0.45 | 0.45J | 1.5 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | ND |
| | 10/11/05 | <0.54 | <0.38 | 5.1 | <0.62 | 1.2 | 0.47J | 1.3J | 2.5 | <0.62 | 6.9 | 3.5 | 51 | 51 | BQL |
| | 10/14/05 | <0.54 | | | <0.62 | | | | | <0.62 | | | 19 (Total Xylenes) | | BQL |
| | 2/9/06 | <0.54 | <0.38 | <0.60 | 1.9 | <0.66 | 63 | <0.12 | <0.45 | 1.5 | <0.44 | <0.49 | 10 (Total Xylenes) | | 0.58J |
| KMW-5 | 9/17/01 | <20 | <20 | <20 | <20 | <20 | <20 | **33** | 26 | <20 | 210 | 56 | **800** | <20 | BQL |
| | 1/3/02 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | ND |
| | 2/27/02 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | **ND[1]** |
| | 2/28/03 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | **78,000** | <500 | ND |
| | 9/16/03 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | <120 | **13,000** | <120 | ND |
| | 2/19/04 | <500 | <500 | <500 | <500 | <500 | <5,000 | <2,500 | <500 | <500 | <500 | <500 | **15,000** | <500 | ND |
| | 8/5/04 | <36 | <31 | <24 | <34 | <25 | <31 | <44 | <32 | <54 | <19 | <21 | **25,000** | <35 | ND |
| | 2/17/05 | <54 | <38 | <60 | <62 | <66 | <45 | <12 | <45 | <62 | <44 | <49 | **46,000 (Total Xylenes)** | | ND |
| | 8/23/05 | <54 | <38 | <60 | <62 | <66 | <45 | <12 | <45 | <62 | <44 | <49 | **19,000 (Total Xylenes)** | | ND |
| | 10/14/05 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| | 2/9/06 | <54 | <38 | <60 | <62 | <66 | <45 | <12 | <45 | <62 | <44 | <49 | **76,000 (Total Xylenes)** | | ND |
| KMW-15 | 8/23/05 | <1.1 | <0.76 | <1.2 | <1.2 | <1.3 | 30 | <0.24 | <0.90 | <1.2 | <0.88 | <0.98 | **530 (Total Xylenes)** | | ND |
| | 10/14/05 | <0.54 | <0.38 | <0.6 | <0.62 | <0.66 | <0.45 | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 | <0.49 | BQL |
| | 2/9/06 | <0.54 | <0.38 | <0.60 | <0.62 | <0.66 | **380** | <0.12 | <0.45 | <0.62 | <0.44 | <0.49 | <1.3 (Total Xylenes) | | 1.1 |
| AMW-4 | 12/22/03 | **200** | 15 | 18 | 11 | 14 | **240** | **26** | 26 | 2.8 | 140 | 110 | 68 | <1.0 | 36 |
| | 2/19/04 | **420** | <10 | 13 | 21 | 28 | **110** | <50 | 34 | 17 | 200 | 93 | 98 | <10 | ND |
| | 8/5/04 | **0.8' FREE- PHASE PRODUCT PRESENT IN AMW-4** | | | | | | | | | | | | | |
| | 2/16/05 | **2.10' FREE- PHASE PRODUCT PRESENT IN AMW-4** | | | | | | | | | | | | | |
| | 8/17/05 | **1.45' FREE- PHASE PRODUCT PRESENT IN AMW-4** | | | | | | | | | | | | | |
| | 10/14/05 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| | 2/8/06 | **0.15' FREE-PHASE PRODUCT PRESENT IN AMW-4** | | | | | | | | | | | | | |

All results in micrograms per Liter - µg/l
- = No data
Bold figure indicates concentration level exceeds applicable 2L Groundwater Standard limit.
Refer to laboratory reports for other 8260B analytes detected.

ND = Not detected
BQL = Below Quantitation Limits

* = Determined with EPA Method 602 analysis
** = Temporary wells have been permanently abandoned
J = Value is estimated concentration that is less than PQL, but greater than or equal to the MDL.
E = The reported result exceeded the calibration range of the instrument.
D = The reported result is from a secondary dilution.
D = The reported result is from a secondary dilution.

**TABLE 12**

**SUMMARY OF RECOVERED TOTAL FLUIDS**

## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATE | TOTAL VOLUME OF WATER AND PRODUCT REMOVED (GALLONS) | ESTIMATED VOLUME OF PRODUCT REMOVED (GALLONS) |
|---|---|---|
| MOBILE VACUUM RECOVERY EFFORT | | |
| 9/17/2005 | 3,000 | >800 |
| 9/18/2005 | 2,966 | 841 |
| 9/18/2005 | 3,016 | 101 |
| 9/19/2005 | 3,290 | 131 |
| 9/19/2005 | 2,811 | 109 |
| 9/20/2005 | 2,966 | 103 |
| 9/21/2005 | 3,330 | 82 |
| 9/27/2005 | 3,159 | 94 |
| 9/28/2005 | 1,702 | 120 |
| 10/1/2005 | 3,016 | 153 |
| 10/2/2005 | 2,184 | 119 |
| 10/4/2005 | 2,244 | 782 |
| 10/5/2005 | 918 | 244 |
| 10/10/2005 | 1,763 | 241 |
| 10/11/2005 | 2,811 | 122 |
| 10/12/2005 | 3,016 | 147 |
| 10/13/2005 | 3,260 | 119 |
| 10/14/2005 | 2,674 | 78 |
| 10/15/2005 | 2,477 | 57 |
| 10/16/2005 | 2,887 | 116 |
| 10/17/2005 | 2,763 | 94 |
| 10/18/2005 | 2,870 | 101 |
| 10/19/2005 | 2,679 | 87 |
| 10/20/2005 | 2,522 | 54 |
| 10/21/2005 | 2,567 | 43 |
| 10/28/2005 | 3,153 | light sheen |
| 11/4/2005 | 3,000 | 25 |
| 11/14/2005 | 3,000 | 25 |
| 11/22/2005 | 3,000 | 25 |
| 12/28/2005 | 3,000 | 25 |
| 1/27/2006 | 3,000 | 25 |
| 2/16/2006 | 1,120 | 400 |
| 3/30/2006 | 2,797 | 219 |
| 4/26/2006 | 2,966 | 319 |
| 5/26/2006 | 2,876 | 246 |
| **TOTAL** | **94,803** | **5,447** |

Data provided by Southeast Response & Remediation, Inc.

Note: Estimated volume of product removed is based on gauging free floating product thickness in vacuum truck containment tank following each recovery effort.

**TABLE 13**

**SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS ASSOCIATED WITH PRODUCT RECOVERY – SEPTEMBER 2005 TO MAY 2006**

## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | DATE | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|---|
| **TYPE II MONITORING WELLS** | | | | | | |
| KMW-1 | 9/21/2005 | 19.62 | 3.70 | NMT | -- | 15.92 |
| | 9/22/2005 | 19.62 | 3.79 | NMT | -- | 15.83 |
| | 10/11/2005 | KMW-1 was underwater at time of sampling event. | | | | |
| KMW-2 | 9/21/2005 | 17.28 | 3.63 | NMT | -- | 13.65 |
| | 9/22/2005 | 17.28 | 3.88 | NMT | -- | 13.40 |
| | 10/11/2005 | 17.28 | 2.41 | NMT | -- | 14.87 |
| | 10/14/2005 | 17.28 | 2.84 | NMT | -- | 14.44 |
| KMW-3 | 9/21/2005 | 14.63 | 5.10 | 2.02 | 0.77 | 11.09 |
| | 9/22/2005 | 14.63 | 5.04 | 1.36 | 0.77 | 10.64 |
| | 10/11/2005 | 14.63 | 1.39 | 1.43 | 0.77 | 14.34 |
| | 10/14/2005 | 14.63 | 4.37 | 0.96 | 0.77 | 11.00 |
| | 11/21/2005 | 14.63 | 4.12 | 0.26 | 0.77 | 10.71 |
| | 11/28/2005 | 14.63 | 4.75 | 0.10 | 0.77 | 9.96 |
| | 12/8/2005 | 14.63 | 4.78 | 0.28 | 0.77 | 10.07 |
| | 12/28/2005 | 14.63 | 4.65 | 0.38 | 0.77 | 10.27 |
| | 1/27/2006 | 14.63 | 5.10 | 0.15 | 0.77 | 9.65 |
| | 2/16/2006 | 14.63 | 5.15 | 0.35 | 0.77 | 9.75 |
| | 3/29/2006 | 14.63 | 4.85 | 0.06 | 0.77 | 9.83 |
| | 4/26/2006 | 14.63 | 5.10 | 0.07 | 0.77 | 9.58 |
| | 5/26/2006 | 14.63 | 4.95 | 0.07 | 0.77 | 9.73 |
| KMW-4 | 9/21/2005 | 20.15 | 8.80 | NMT | -- | 11.35 |
| | 9/22/2005 | 20.15 | 8.92 | NMT | -- | 11.23 |
| | 10/11/2005 | 20.15 | 7.45 | NMT | -- | 12.70 |
| | 10/14/2005 | 20.15 | 8.31 | NMT | -- | 11.84 |
| KMW-5 | 9/21/2005 | 16.29 | KMW-5 was underwater at time of sampling event. | | | |
| | 9/22/2005 | 16.29 | | | | |
| **FHR TYPE II MONITORING WELLS WITHIN APEX TERMINAL** | | | | | | |
| AMW-2 | 9/21/2005 | 23.35 | 6.80 | NMT | -- | 16.55 |
| | 9/22/2005 | 23.35 | 6.88 | NMT | -- | 16.47 |
| AMW-3 | 9/21/2005 | 21.72 | 7.18 | NMT | -- | 14.54 |
| | 9/22/2005 | 21.72 | 7.24 | NMT | -- | 14.48 |
| AMW-4 | 9/21/2005 | 15.16 | 4.16 | 0.04 | 0.77 | 11.03 |
| | 9/22/2005 | 15.16 | 4.32 | 0.04 | 0.77 | 10.87 |
| | 5/26/2006 | 15.16 | 6.59 | 0.10 | 0.77 | 8.65 |
| AMW-5 | 9/21/2005 | 10.38 | 4.09 | NMT | -- | 6.29 |
| | 9/22/2005 | 10.38 | 4.40 | NMT | -- | 5.98 |
| AMW-6 | 9/21/2005 | 11.97 | 6.09 | NMT | -- | 5.88 |
| | 9/22/2005 | 11.97 | 6.17 | NMT | -- | 5.80 |

**TABLE 13**

**SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS ASSOCIATED WITH PRODUCT RECOVERY – SEPTEMBER 2005 TO MAY 2006**

## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | DATE | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|---|
| TEMPORARY WELLS ABONDONED AFTER SAMPLING | | | | | | |
| TW-01 | 9/21/2005 | 19.14 | 5.60 | NMT | -- | 13.54 |
| | 9/22/2005 | 19.14 | 5.78 | NMT | -- | 13.36 |
| TW-02 | 9/21/2005 | 18.76 | 5.59 | 0.09 | 0.77 | 13.24 |
| | 9/22/2005 | 18.76 | 5.81 | 0.08 | 0.77 | 13.01 |
| TW-03 | 9/21/2005 | 18.55 | 5.59 | NMT | -- | 12.96 |
| | 9/22/2005 | 18.55 | 5.80 | NMT | -- | 12.75 |
| TW-04 | 9/21/2005 | 18.21 | 5.44 | NMT | -- | 12.77 |
| | 9/22/2005 | 18.21 | 5.70 | NMT | -- | 12.51 |
| TW-05 | 9/21/2005 | 18.11 | 6.09 | 0.51 | 0.77 | 12.41 |
| | 9/22/2005 | 18.11 | 6.14 | 0.30 | 0.77 | 12.20 |
| TW-06 | 9/21/2005 | 17.72 | 6.13 | 0.68 | 0.77 | 12.11 |
| | 9/22/2005 | 17.72 | 6.22 | 0.50 | 0.77 | 11.89 |
| TW-07 | 9/21/2005 | 13.96 | 3.81 | 1.84 | 0.77 | 11.57 |
| | 9/22/2005 | 13.96 | 4.22 | 2.11 | 0.77 | 11.36 |
| TW-08 | 9/21/2005 | 13.49 | 2.98 | 1.03 | 0.77 | 11.30 |
| | 9/22/2005 | 13.49 | 3.17 | 1.05 | 0.77 | 11.13 |
| TW-09 | 9/21/2005 | 13.98 | 3.35 | NMT | -- | 10.63 |
| | 9/22/2005 | 13.98 | 3.56 | NMT | -- | 10.42 |
| TW-10 | 9/21/2005 | 13.61 | 2.96 | NMT | -- | 10.65 |
| | 9/22/2005 | 13.61 | 3.12 | NMT | -- | 10.49 |
| TW-11 | 9/21/2005 | 13.58 | 3.05 | NMT | -- | 10.53 |
| | 9/22/2005 | 13.58 | 3.10 | NMT | -- | 10.48 |
| TW-12 | 9/21/2005 | 12.98 | 2.55 | NMT | -- | 10.43 |
| | 9/22/2005 | 12.98 | 2.56 | NMT | -- | 10.42 |
| TW-13 | 9/21/2005 | 12.24 | 1.96 | NMT | -- | 10.28 |
| | 9/22/2005 | 12.24 | 1.93 | NMT | -- | 10.31 |
| TW-14 | 9/21/2005 | 12.61 | 2.17 | NMT | -- | 10.44 |
| | 9/22/2005 | 12.61 | 2.13 | NMT | -- | 10.48 |
| TW-15 | 9/21/2005 | 12.74 | 2.66 | NMT | -- | 10.08 |
| | 9/22/2005 | 12.74 | 2.65 | NMT | -- | 10.09 |
| TW-16 | 9/21/2005 | 11.67 | 1.84 | NMT | -- | 9.83 |
| | 9/22/2005 | 11.67 | 1.82 | NMT | -- | 9.85 |
| TW-17 | 9/21/2005 | 11.09 | 3.13 | NMT | -- | 7.96 |
| | 9/22/2005 | 11.09 | 3.18 | NMT | -- | 7.91 |
| TW-18 | 10/11/2005 | NA | 1.12 | 1.54 | -- | NA |
| TW-19 | 10/11/2005 | NA | 2.55 | NMT | -- | NA |

**TABLE 13**

**SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS ASSOCIATED WITH PRODUCT RECOVERY – SEPTEMBER 2005 TO MAY 2006**

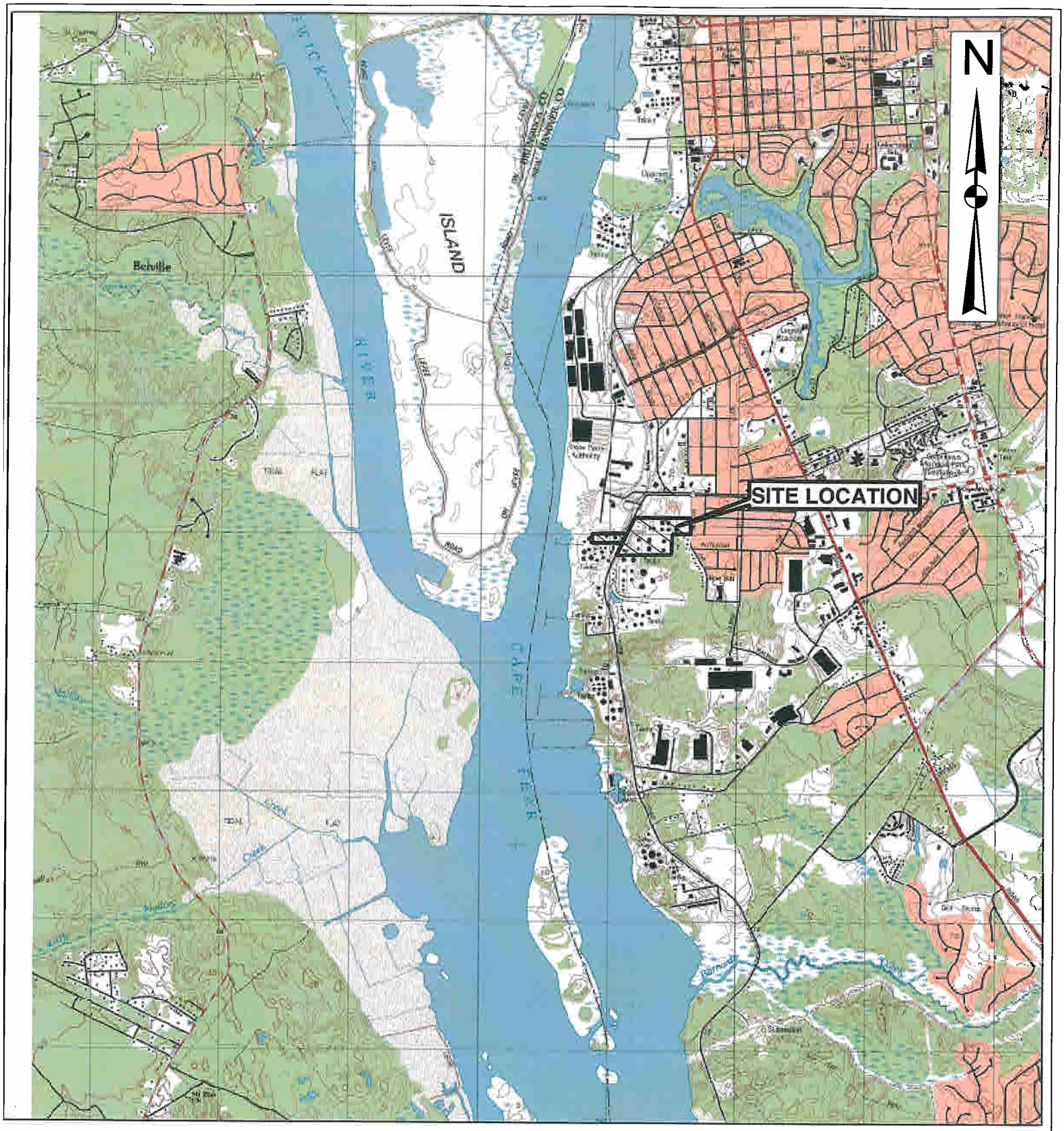
## FHR FACILITY WASTEWATER TREATMENT AREA

**INVISTA NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| DATA POINT | DATE | TOP OF CASING ELEVATION (in feet) | DEPTH TO WATER (in feet) | FREE PHASE PRODUCT THICKNESS (in feet) | SPECIFIC GRAVITY ADJUSTMENT | WATER TABLE ELEVATION (in feet) |
|---|---|---|---|---|---|---|
| Recovery Sump | 11/21/2005 | NA | Could not access due to elevated groundwater table. | | | |
| | 11/28/2005 | NA | 4.11 | NMT | -- | NA |
| | 12/8/2005 | NA | 4.70 | 0.21 | 0.77 | NA |
| | 12/28/2005 | NA | 4.25 | 0.35 | 0.77 | NA |
| | 1/27/2006 | NA | 4.95 | 0.41 | 0.77 | NA |
| | 2/16/2006 | NA | 5.20 | 0.45 | 0.77 | NA |
| | 3/29/2006 | NA | 5.15 | 0.32 | 0.77 | NA |
| | 4/26/2006 | NA | 5.08 | 0.15 | 0.77 | NA |
| | 5/26/2006 | NA | 6.10 | 0.07 | 0.77 | NA |

Notes:
Specific gravity adjustment for gasoline is 0.77.
NMT = No Measurable Thickness
All data collected by CATLIN

# FIGURES




1,000 500 0 1,000 Feet

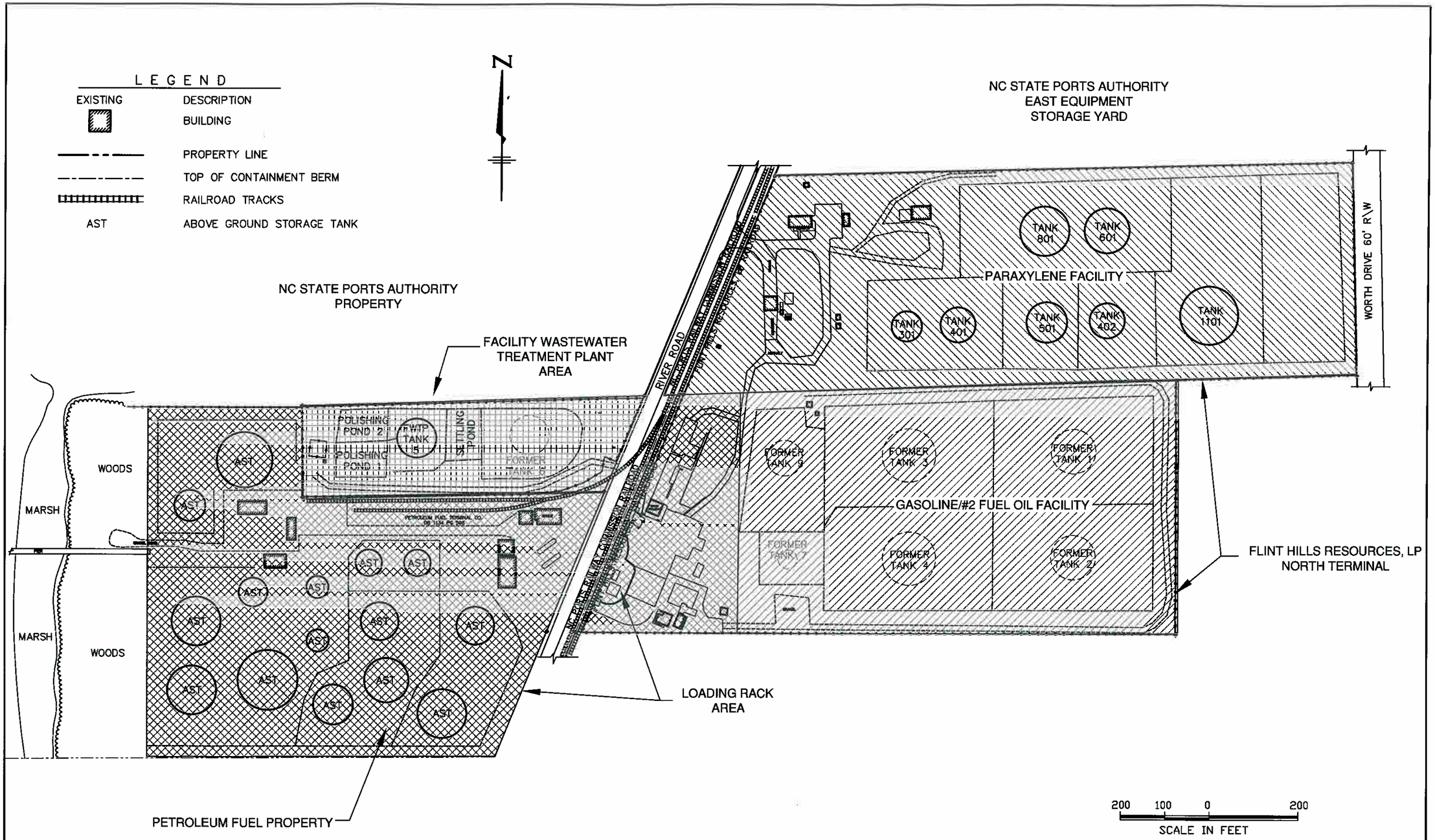
SCALE

Data Source: USGS Topographic Quadrangle, Havelock, NC 1949 (Photorevised 1983).

CATLIN ENGINEERS and SCIENTISTS

| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l.<br>NORTH TERMINAL<br>RIVER ROAD<br>WILMINGTON, N.C. | GENERAL LOCATION USGS TOPOGRAPHIC QUADRANGLE | 1 |

| JOB NO. | DATE | SCALE | DRAWN BY | CHECKED BY |
|---|---|---|---|---|
| 201-125 | FEB 2006 | 1"=500' | KAWS | MC |




NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.

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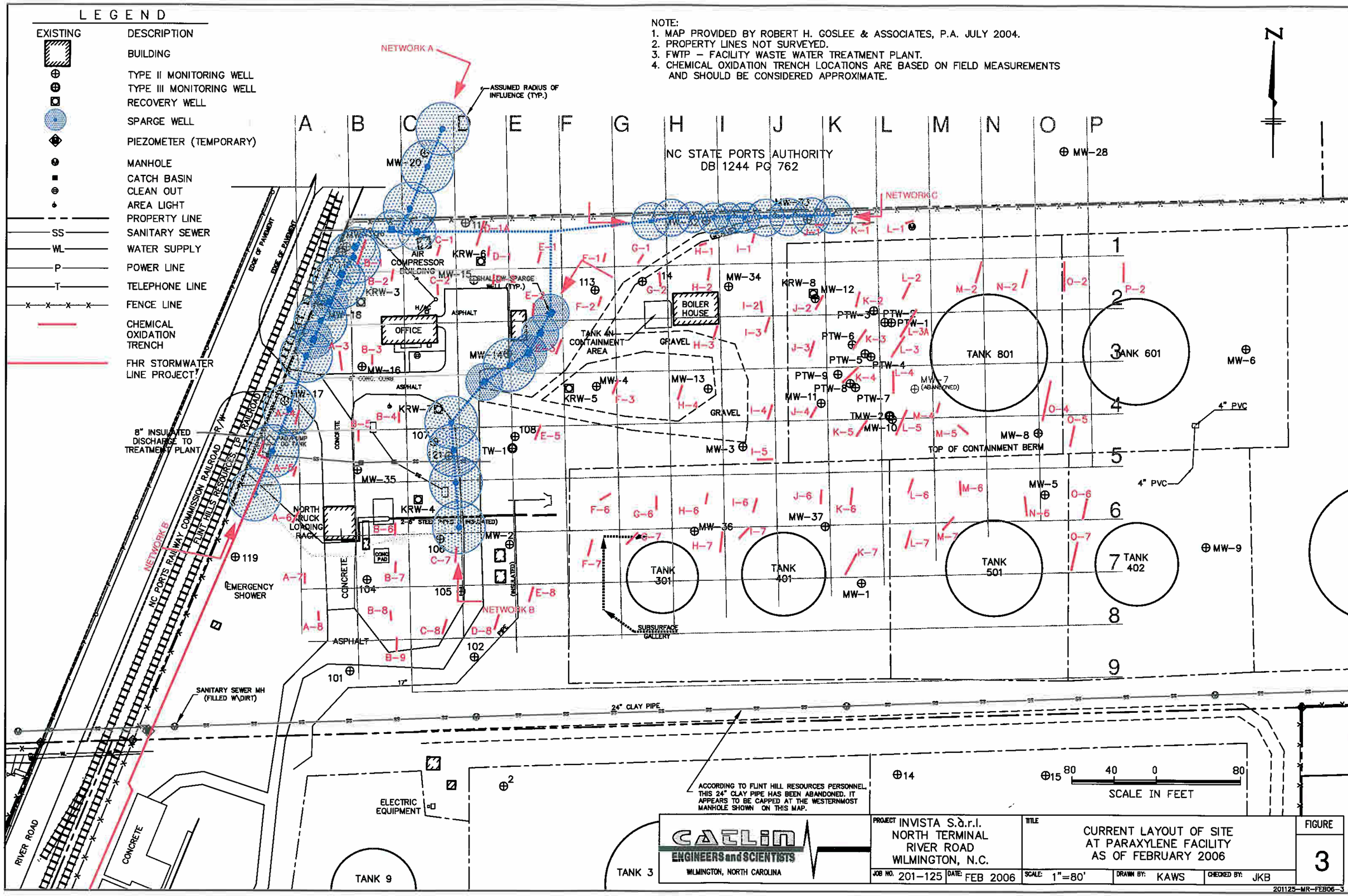
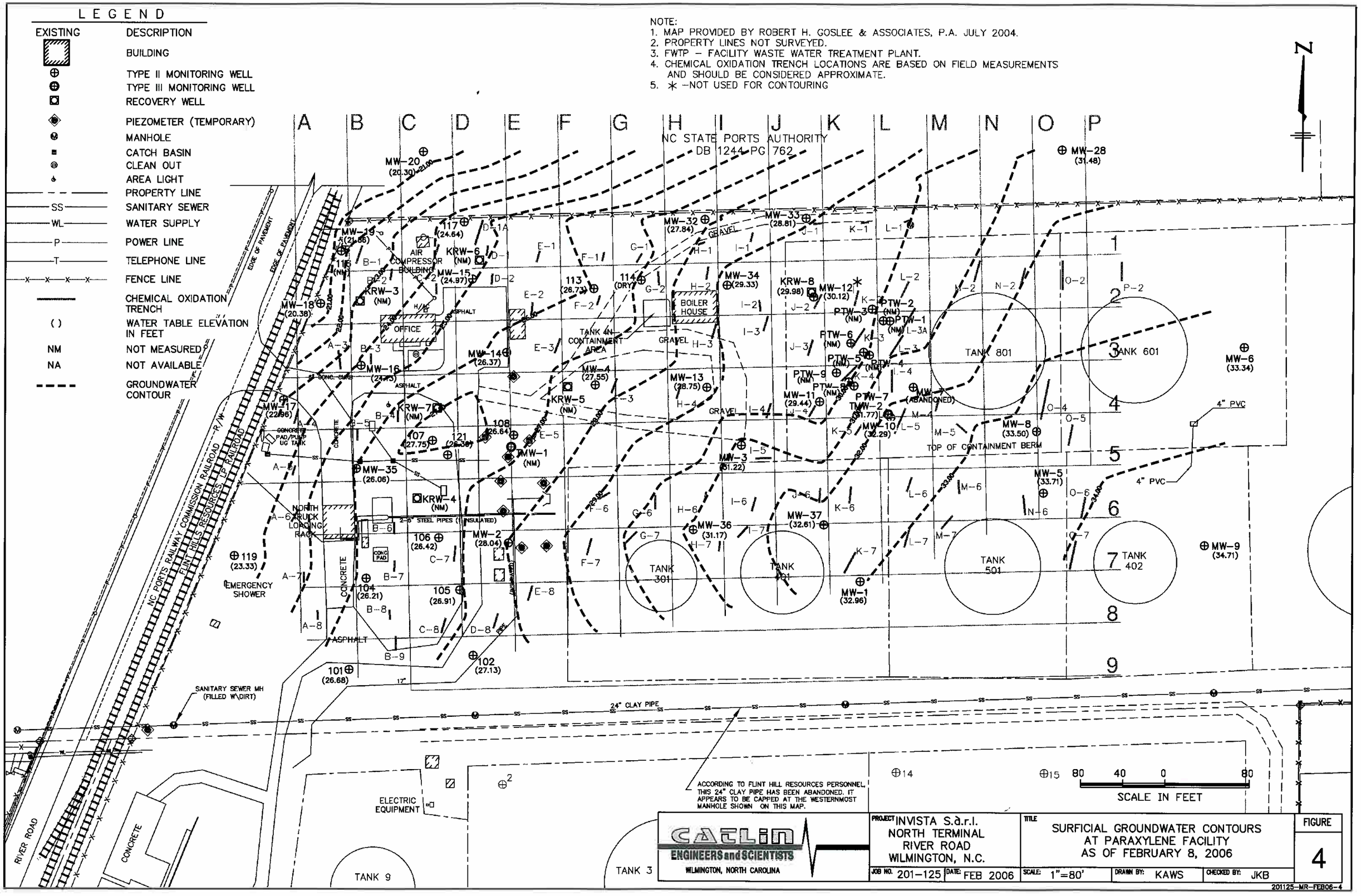
WILMINGTON, NORTH CAROLINA

| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.a.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: SITE MAP | | FIGURE 2 |
| JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=200' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125-MR-FEB06-02

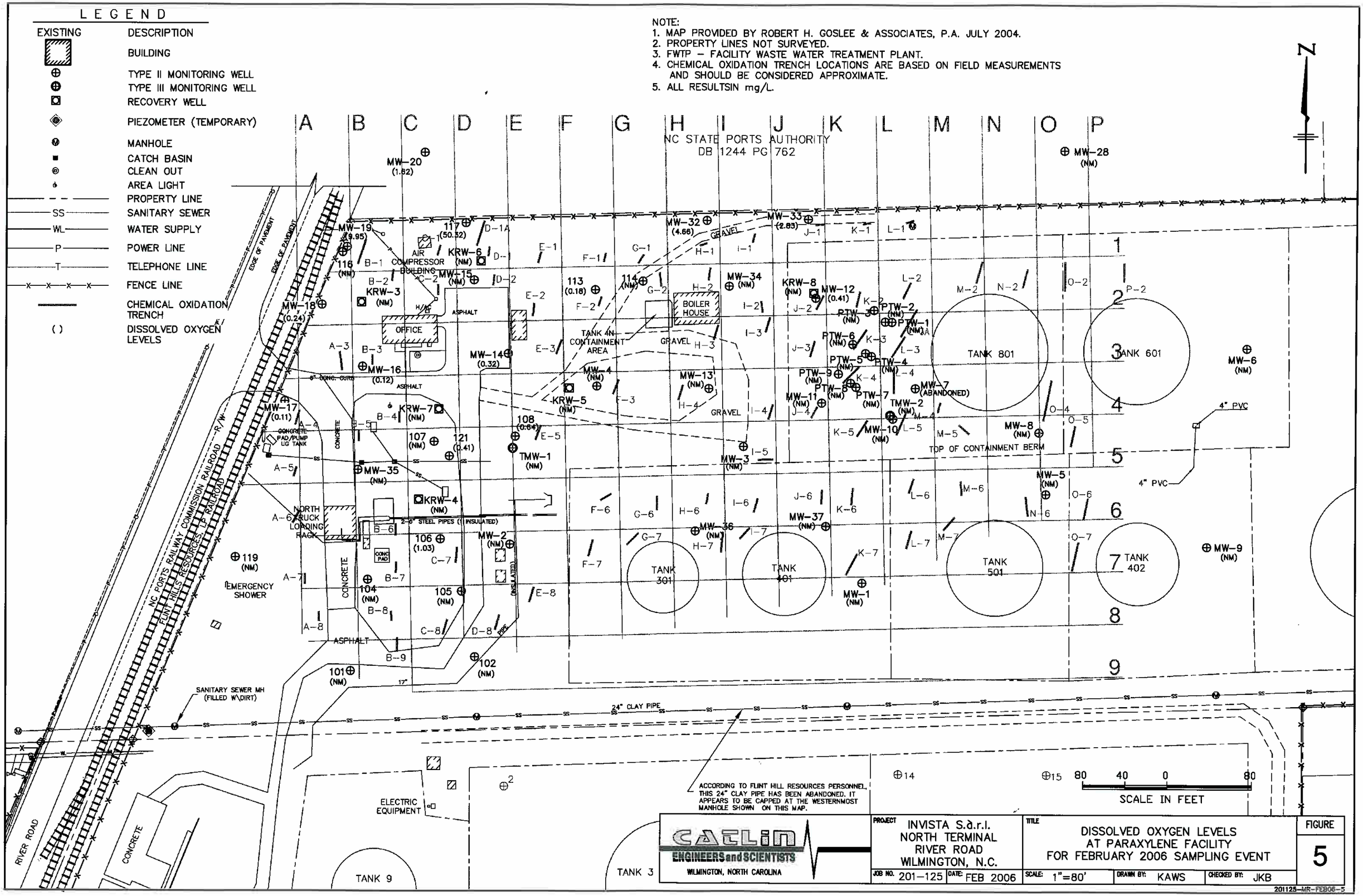

LEGEND
EXISTING
DESCRIPTION
BUILDING
TYPE II MONITORING WELL
TYPE III MONITORING WELL
RECOVERY WELL
SPARGE WELL
PIEZOMETER (TEMPORARY)
MANHOLE
CATCH BASIN
CLEAN OUT
AREA LIGHT
PROPERTY LINE
SANITARY SEWER
WATER SUPPLY
POWER LINE
TELEPHONE LINE
FENCE LINE
CHEMICAL OXIDATION TRENCH
FHR STORMWATER LINE PROJECT
NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
4. CHEMICAL OXIDATION TRENCH LOCATIONS ARE BASED ON FIELD MEASUREMENTS AND SHOULD BE CONSIDERED APPROXIMATE.
N
NETWORK A
ASSUMED RADIUS OF INFLUENCE (TYP.)
NC STATE PORTS AUTHORITY
DB 1244 PG 762
NETWORK C
NETWORK B
AIR COMPRESSOR BUILDING
OFFICE
BOILER HOUSE
TANK 4N CONTAINMENT AREA
GRAVEL
ASPHALT
TANK 801
TANK 601
TANK 301
TANK 401
TANK 501
TANK 402
TOP OF CONTAINMENT BERM
4" PVC
8" INSULATED DISCHARGE TO TREATMENT PLANT
NORTH TRUCK LOADING RACK
EMERGENCY SHOWER
CONCRETE
NC PORTS RAILWAY COMMISSION RAILROAD
FLINT HILLS RESOURCES LP RAILROAD
EDGE OF PAVEMENT
SUBSURFACE GALLERY
SANITARY SEWER MH (FILLED W\DIRT)
24" CLAY PIPE
ELECTRIC EQUIPMENT
TANK 9
TANK 3
RIVER ROAD
ACCORDING TO FLINT HILL RESOURCES PERSONNEL, THIS 24" CLAY PIPE HAS BEEN ABANDONED. IT APPEARS TO BE CAPPED AT THE WESTERNMOST MANHOLE SHOWN ON THIS MAP.
80 40 0 80
SCALE IN FEET
CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA
PROJECT INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C.
TITLE CURRENT LAYOUT OF SITE AT PARAXYLENE FACILITY AS OF FEBRUARY 2006
FIGURE 3
JOB NO. 201-125
DATE: FEB 2006
SCALE: 1"=80'
DRAWN BY: KAWS
CHECKED BY: JKB
201125-MR-FEB06-3


LEGEND
EXISTING
DESCRIPTION
BUILDING
TYPE II MONITORING WELL
TYPE III MONITORING WELL
RECOVERY WELL
PIEZOMETER (TEMPORARY)
MANHOLE
CATCH BASIN
CLEAN OUT
AREA LIGHT
PROPERTY LINE
SS SANITARY SEWER
WL WATER SUPPLY
P POWER LINE
T TELEPHONE LINE
FENCE LINE
CHEMICAL OXIDATION TRENCH
( ) WATER TABLE ELEVATION IN FEET
NM NOT MEASURED
NA NOT AVAILABLE
GROUNDWATER CONTOUR
NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
4. CHEMICAL OXIDATION TRENCH LOCATIONS ARE BASED ON FIELD MEASUREMENTS AND SHOULD BE CONSIDERED APPROXIMATE.
5. * –NOT USED FOR CONTOURING
N
NC STATE PORTS AUTHORITY
DB 1244 PG 762
MW-28 (31.48)
MW-20 (20.30)
MW-19 (21.66)
MW-18 (20.38)
MW-17 (22.96)
MW-16 (24.73)
MW-14 (26.37)
MW-15 (24.97)
MW-32 (27.84)
MW-33 (28.81)
MW-34 (29.33)
MW-12 (30.12)
MW-4 (27.55)
MW-13 (28.75)
MW-11 (29.44)
MW-10 (32.29)
MW-3 (31.22)
MW-35 (26.06)
MW-2 (28.04)
MW-36 (31.17)
MW-37 (32.61)
MW-1 (32.96)
MW-8 (33.50)
MW-5 (33.71)
MW-6 (33.34)
MW-9 (34.71)
KRW-3 (NM)
KRW-6 (NM)
KRW-8 (29.98)
KRW-7 (NM)
KRW-5 (NM)
KRW-4 (NM)
PTW-1 (NM)
PTW-2
PTW-3 (NM)
PTW-4 (NM)
PTW-5 (NM)
PTW-6 (NM)
PTW-7
PTW-8 (NM)
PTW-9 (NM)
TMW-1 (NM)
TMW-2 (31.77)
MW-7 (ABANDONED)
117 (24.64)
113 (26.73)
114 (DRY)
108 (26.64)
107 (27.75)
121 (26.36)
106 (26.42)
105 (26.91)
104 (26.21)
119 (23.33)
101 (26.68)
102 (27.13)
AIR COMPRESSOR BUILDING
OFFICE
BOILER HOUSE
TANK 4N CONTAINMENT AREA
TANK 801
TANK 601
TANK 301
TANK 401
TANK 501
TANK 402
TANK 9
TANK 3
TOP OF CONTAINMENT BERM
NORTH TRUCK LOADING RACK
2-8" STEEL PIPES (INSULATED)
CONCRETE PAD/PUMP UG TANK
EMERGENCY SHOWER
ELECTRIC EQUIPMENT
SANITARY SEWER MH (FILLED W\DIRT)
24" CLAY PIPE
4" PVC
ASPHALT
GRAVEL
CONCRETE
EDGE OF PAVEMENT
NC PORTS RAILWAY COMMISSION RAILROAD
FLINT HILLS RESOURCES LP RAILROAD
R/W
RIVER ROAD
ACCORDING TO FLINT HILL RESOURCES PERSONNEL, THIS 24" CLAY PIPE HAS BEEN ABANDONED. IT APPEARS TO BE CAPPED AT THE WESTERNMOST MANHOLE SHOWN ON THIS MAP.
80 40 0 80
SCALE IN FEET
CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA
PROJECT INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C.
TITLE SURFICIAL GROUNDWATER CONTOURS AT PARAXYLENE FACILITY AS OF FEBRUARY 8, 2006
FIGURE 4
JOB NO. 201-125
DATE: FEB 2006
SCALE: 1"=80'
DRAWN BY: KAWS
CHECKED BY: JKB
201125-MR-FEB06-4

## LEGEND

| EXISTING | DESCRIPTION |
|---|---|
| | BUILDING |
| | TYPE II MONITORING WELL |
| | TYPE III MONITORING WELL |
| | RECOVERY WELL |
| | PIEZOMETER (TEMPORARY) |
| | MANHOLE |
| | CATCH BASIN |
| | CLEAN OUT |
| | AREA LIGHT |
| | PROPERTY LINE |
| SS | SANITARY SEWER |
| WL | WATER SUPPLY |
| P | POWER LINE |
| T | TELEPHONE LINE |
| | FENCE LINE |
| | CHEMICAL OXIDATION TRENCH |
| ( ) | DISSOLVED OXYGEN LEVELS |

NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
4. CHEMICAL OXIDATION TRENCH LOCATIONS ARE BASED ON FIELD MEASUREMENTS AND SHOULD BE CONSIDERED APPROXIMATE.
5. ALL RESULTSIN mg/L.

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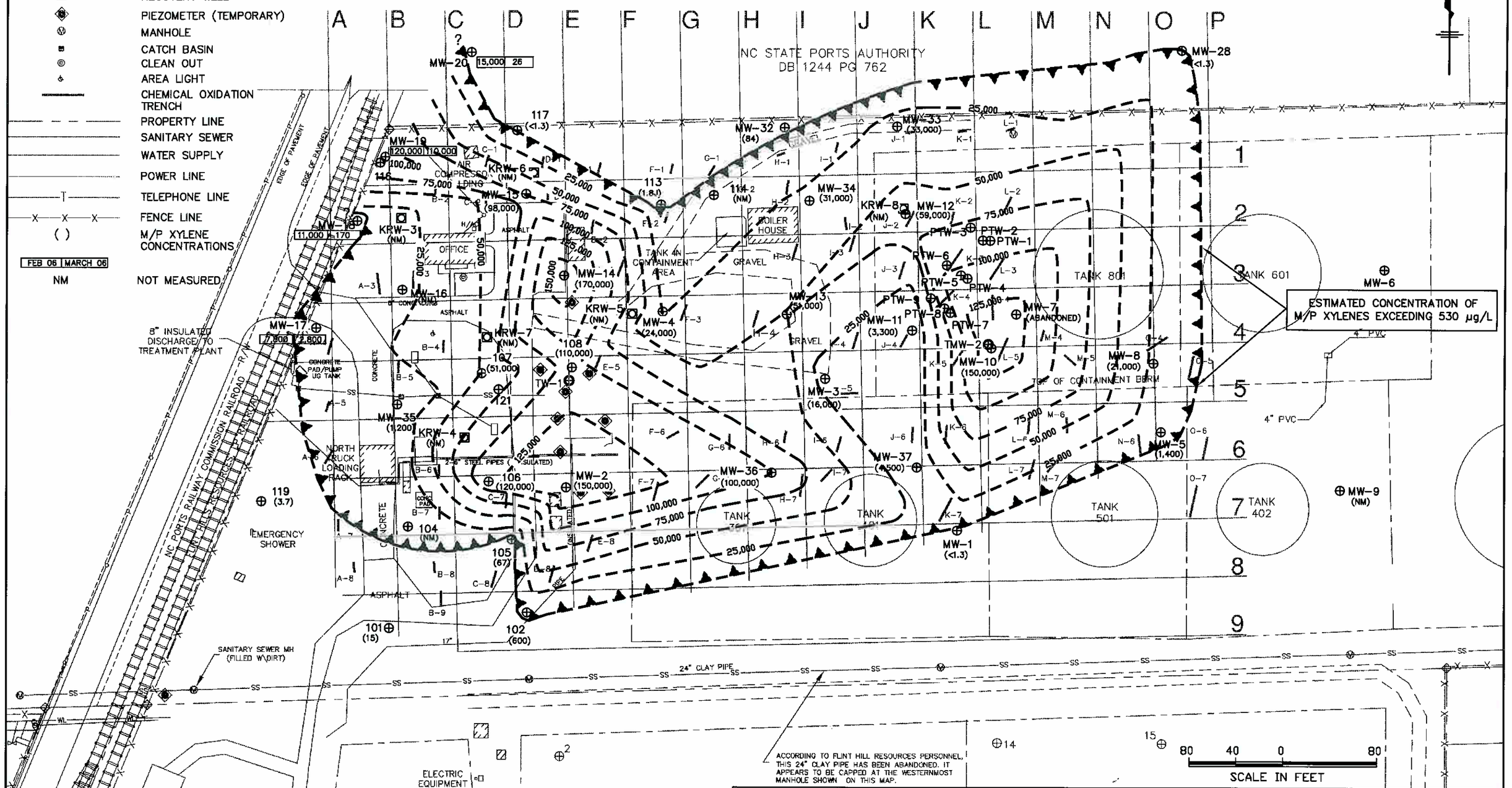
| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: DISSOLVED OXYGEN LEVELS AT PARAXYLENE FACILITY FOR FEBRUARY 2006 SAMPLING EVENT | | FIGURE 5 |
| JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=80' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125-MR-FEB06-5

## LEGEND

| EXISTING | DESCRIPTION |
|---|---|
| | BUILDING |
| ⊕ | TYPE II MONITORING WELL |
| ⊕ | TYPE III MONITORING WELL |
| | RECOVERY WELL |
| | PIEZOMETER (TEMPORARY) |
| | MANHOLE |
| | CATCH BASIN |
| | CLEAN OUT |
| | AREA LIGHT |
| | CHEMICAL OXIDATION TRENCH |
| | PROPERTY LINE |
| | SANITARY SEWER |
| | WATER SUPPLY |
| | POWER LINE |
| —T— | TELEPHONE LINE |
| —X—X—X— | FENCE LINE |
| ( ) FEB 06 \| MARCH 06 | M/P XYLENE CONCENTRATIONS |
| NM | NOT MEASURED |

NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
4. CHEMICAL OXIDATION TRENCH LOCATIONS ARE BASED ON FIELD MEASUREMENTS AND SHOULD BE CONSIDERED APPROXIMATE.
5. ALL RESULTS IN µg/L.
6. CONTOURING BASED ON MOST RECENT DATA ILLUSTRATED FOR EACH MONITORING WELL.

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WILMINGTON, NORTH CAROLINA

| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: SURFICIAL GROUNDWATER M/P XYLENE CONTOURS AT PARAXYLENE FACILITY AS OF FEBRUARY 2006 | | FIGURE 6 |
| JOB NO. 201-125 / DATE: FEB 2006 | SCALE: 1"=80' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125-MR-FEB06-6

## LEGEND

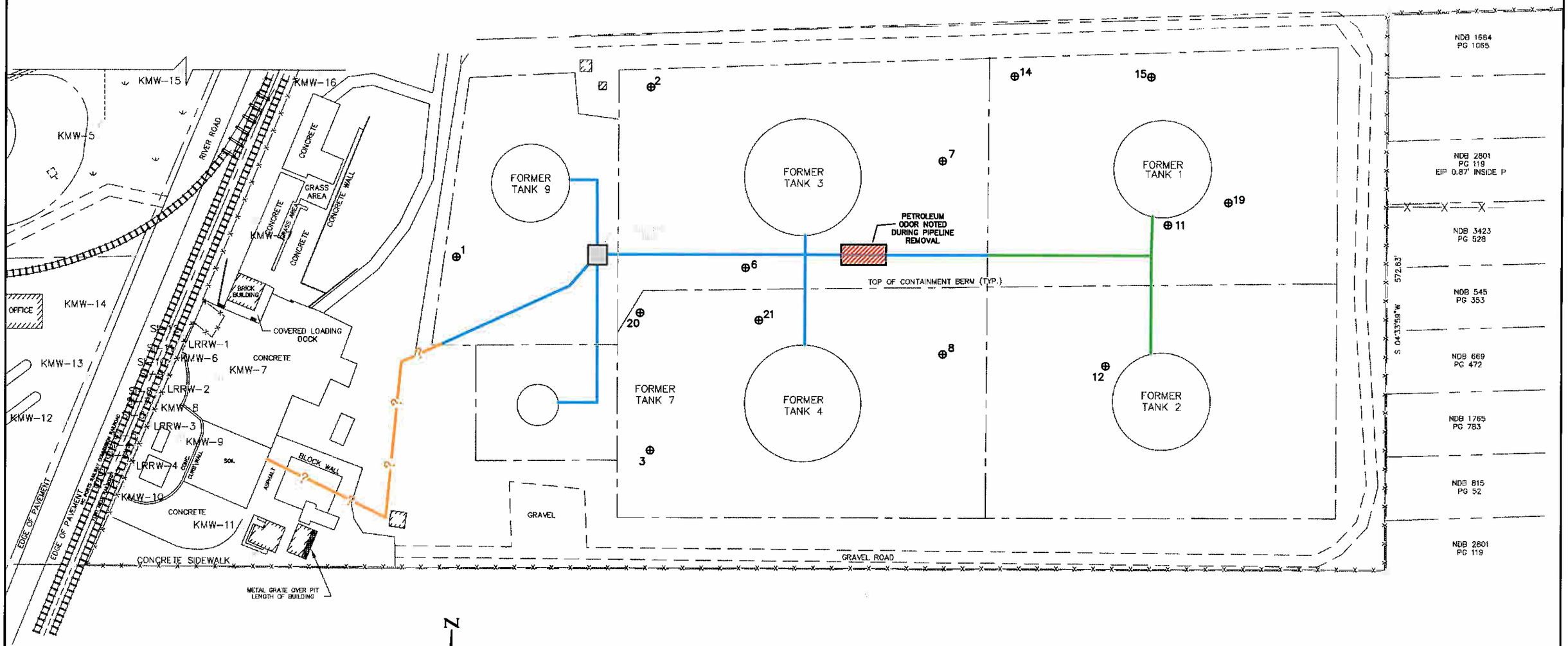
| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| | | BUILDING |
| ⊕ | | TYPE II MONITORING WELL |
| ● | | TYPE III MONITORING WELL |
| | | RECOVERY WELL |
| | | 4"ø RECOVERY WELL (STAINLESS) (INACTIVE) |
| | | PROPERTY LINE |
| | | RAILROAD TRACKS |
| —x—x—x— | | FENCE LINE |
| | | SOIL BORING (HAND AUGER) |

TOP OF CONTAINMENT BERM

UNDERGROUND PIPELINE LEFT IN PLACE – ENDS CONCRETE (EXACT LOCATION UNKNOWN)

UNDERGROUND PIPES REMOVED

UNDERGROUND PIPES WITH CONTAMINATED SOIL REMOVED




NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.

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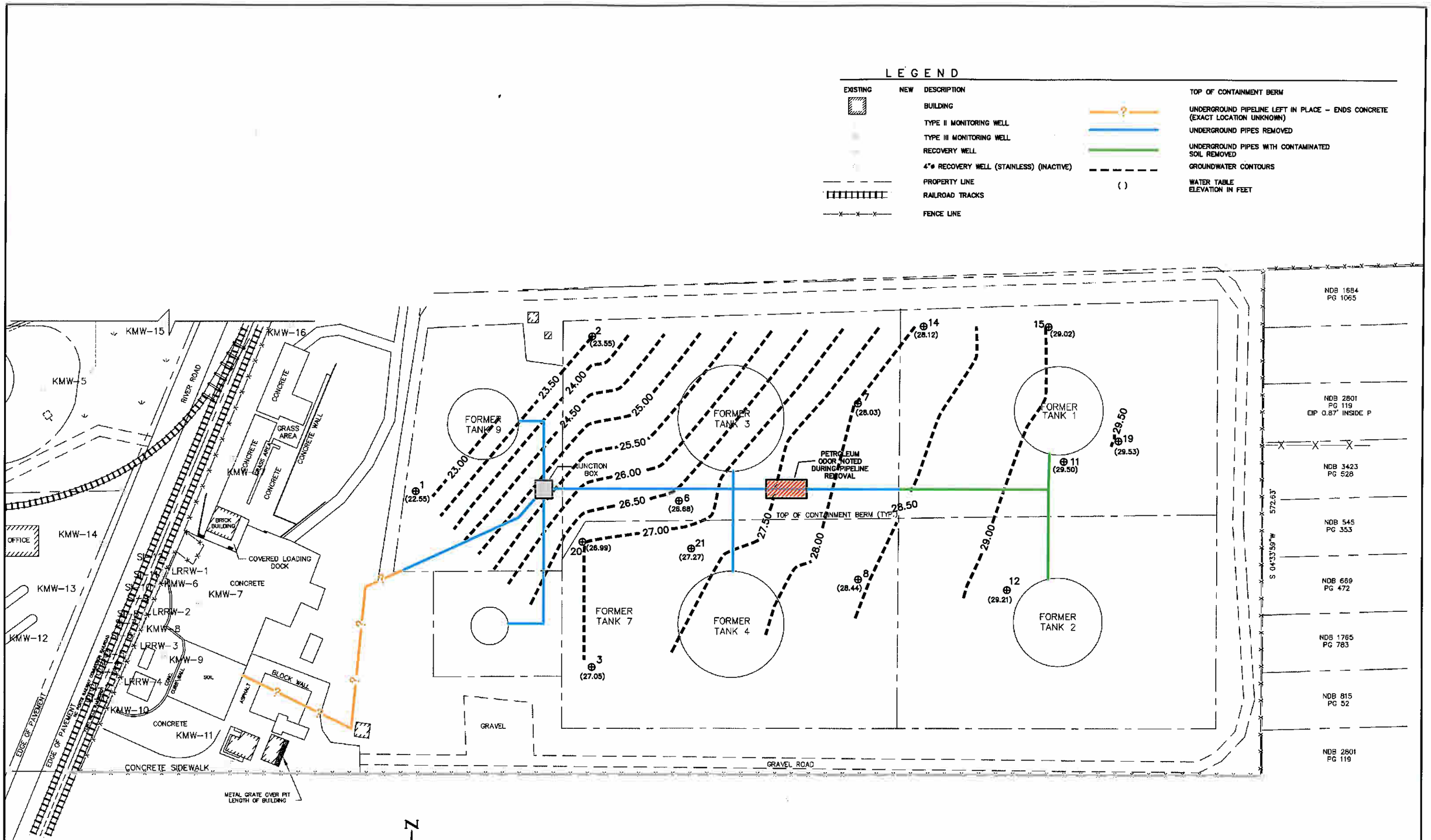
WILMINGTON, NORTH CAROLINA

| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: CURRENT LAYOUT OF SITE AT GASOLINE/ #2 FUEL OIL FACILITY AS OF FEBRUARY, 2006 | | FIGURE 7 |
| JOB NO. 201–125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125–MR–FEB06–07




NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.

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WILMINGTON, NORTH CAROLINA

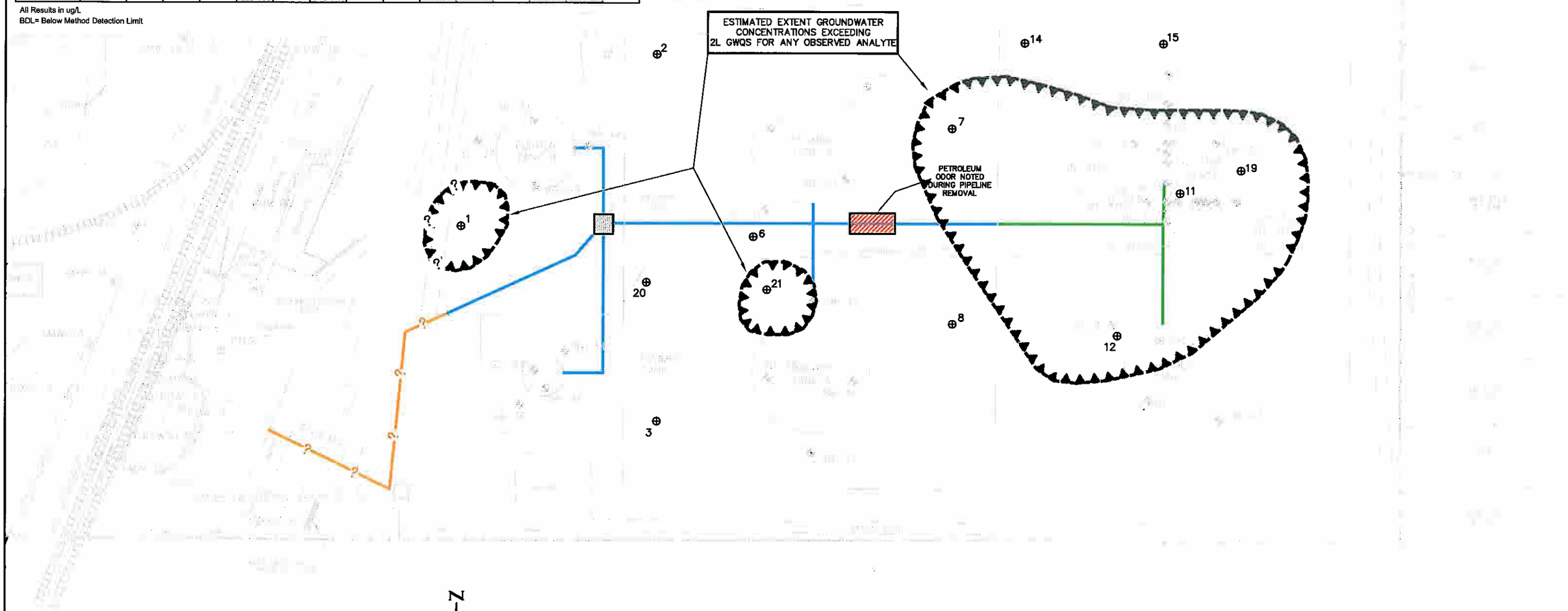
| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: SURFICIAL GROUNDWATER CONTOURS AT GASOLINE/#2 FUEL OIL FACILITY FEBRUARY 2006 | | FIGURE 8 |
| JOB NO. 201-125 / DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125-MR-FEB06-08

Analytical Method: EPA Method 8260B, EPA Method 8270C, EPA Method 6010B

| Contaminant of Concern → | | Acetone | Methyl Ethyl Ketone | Benzene | Toluene | Ethylbenzene | Total Xylenes | Phenol | 2,4-Dimethylphenol | Naphthalene | 2-Methylnaphthalene | 3 & 4 Methylphenol | Lead | Bis(2-ethylhexyl) phalate | All Other 8260 and 8270 Analytes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Date Collected | | | | | | | | | | | | | | |
| 2L GWQS (µg/L) | | 700 | 4,200 | 1 | 1,000 | 550 | 530 | 300 | 140 | 21 | 14 | 38.5 | 15 | 2.5 | Varies |
| 1 | 12/28/2005 | <7.3 | <0.72 | 5.4 | 9.9 | 4.7 | 89 | <0.93 | 1.7 J | 0.79 J | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 2 | 12/22/2005 | <25 | <10 | <1.0 | 2.0 | <1.0 | <2.0 | <10 | <10 | <10 | <10 | <10 | <5.0 | <10 | BDL |
| 3 | 12/28/2005 | <7.3 | <0.72 | <0.54 | <0.62 | <0.62 | <1.3 | <0.93 | <0.94 | <0.72 | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 6 | 12/28/2005 | <7.3 | <0.72 | <0.54 | 1.3 | 3.2 | 13 | <0.93 | <0.94 | 0.89 J | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 7 | 12/22/2005 | <130 | <50 | <5.0 | 110 | 72 | 1,000 | <9.4 | <9.4 | 37 | 10 | <9.4 | <5.0 | <9.4 | BDL |
| 8 | 12/28/2005 | <7.3 | <0.72 | <0.54 | 0.67 J | <0.62 | 2.8 | <0.93 | <0.94 | <0.72 | 9.5 | <0.62 | 10 | <0.92 | BDL |
| 12 | 12/28/2005 | <7.3 | <0.72 | <0.54 | <0.62 | <0.62 | <1.3 | <0.93 | <0.94 | <0.72 | <0.50 | <0.62 | 19 | <0.92 | BDL |
| 14 | 12/28/2005 | 43 | 4.6 J | <0.54 | 15 | <0.62 | 3.5 | <0.93 | <0.94 | <0.72 | <0.50 | <0.62 | <3.5 | <0.92 | BDL |
| 15 | 12/28/2005 | 17 J | <0.72 | <0.54 | <0.62 | <0.62 | <1.3 | 4.4 J | <0.96 | <0.73 | <0.51 | 17 | 3.5 J | <0.92 | BDL |
| 19 | 12/28/2005 | <7.3 | <0.72 | <0.54 | <0.62 | <0.62 | 1.4 J | <0.95 | <0.96 | <0.73 | 1.4 J | <0.63 | 29 | <0.92 | BDL |
| 20 | 12/22/2005 | <25 | <10 | <1.0 | <1.0 | 6.2 | 6.3 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <5.0 | <9.4 | BDL |
| 21 | 12/28/2005 | <180 | <18 | 370 | 4,800 | 290 | 2,900 | 2.3 J | 13 | 81 | 1.3 J | <0.62 | 22 | <0.92 | BDL |
| Unidentified (11) | 12/29/2005 | <730 | <72 | <54 | 5,200 | 460 | 5,700 | 1.6 J | <0.94 | 140 | 77 | <0.62 | 95 | 52 | BDL |

All Results in ug/L
BDL= Below Method Detection Limit




NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.

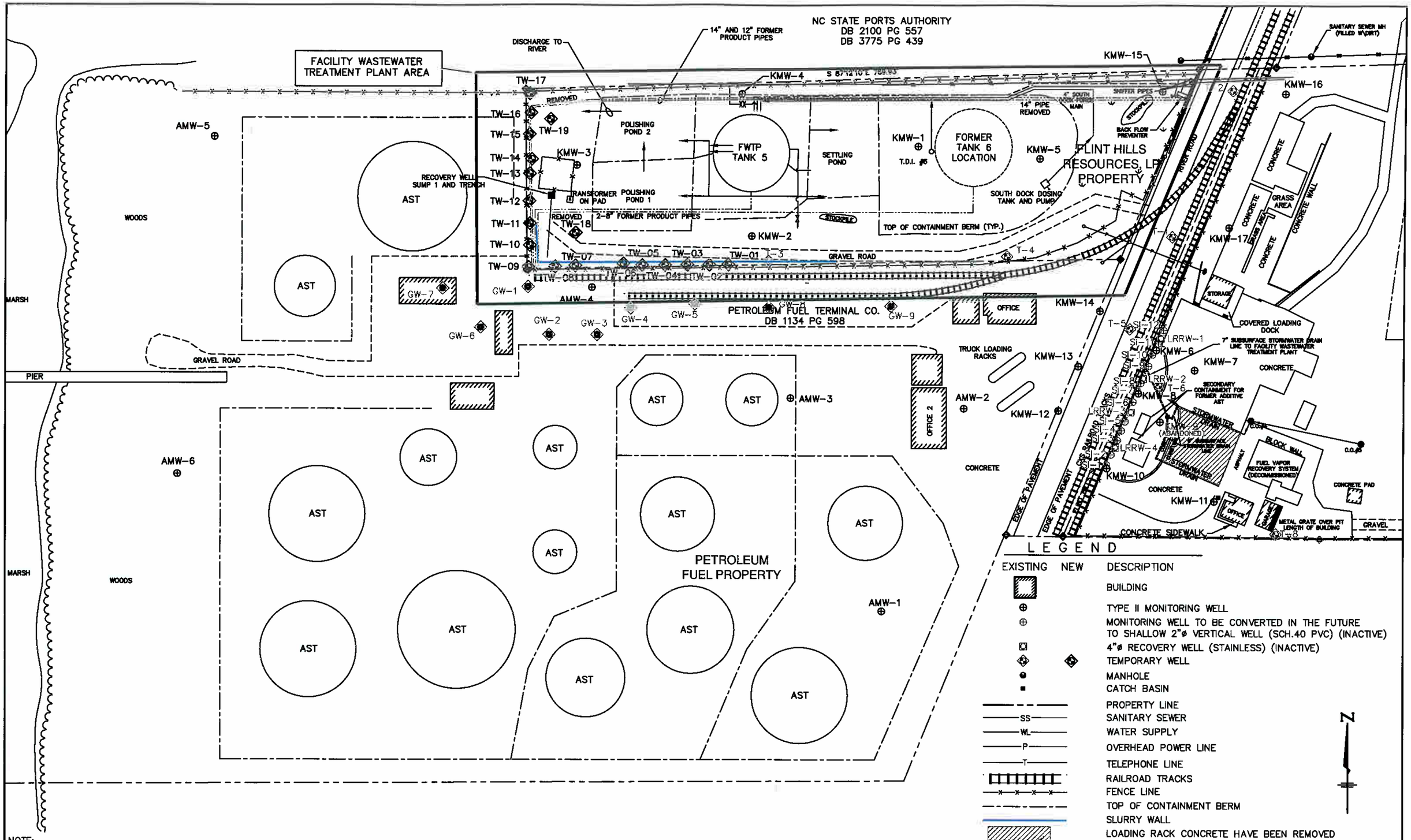
N

100 50 0 100
SCALE IN FEET

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: GROUNDWATER ANALYTICAL LABORATORY RESULTS–GASOLINE/#2 FUEL OIL FACILITY | | FIGURE 9 |
| JOB NO. 201–125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS / CHECKED BY: JKB |

201125–MR–FEB06–09

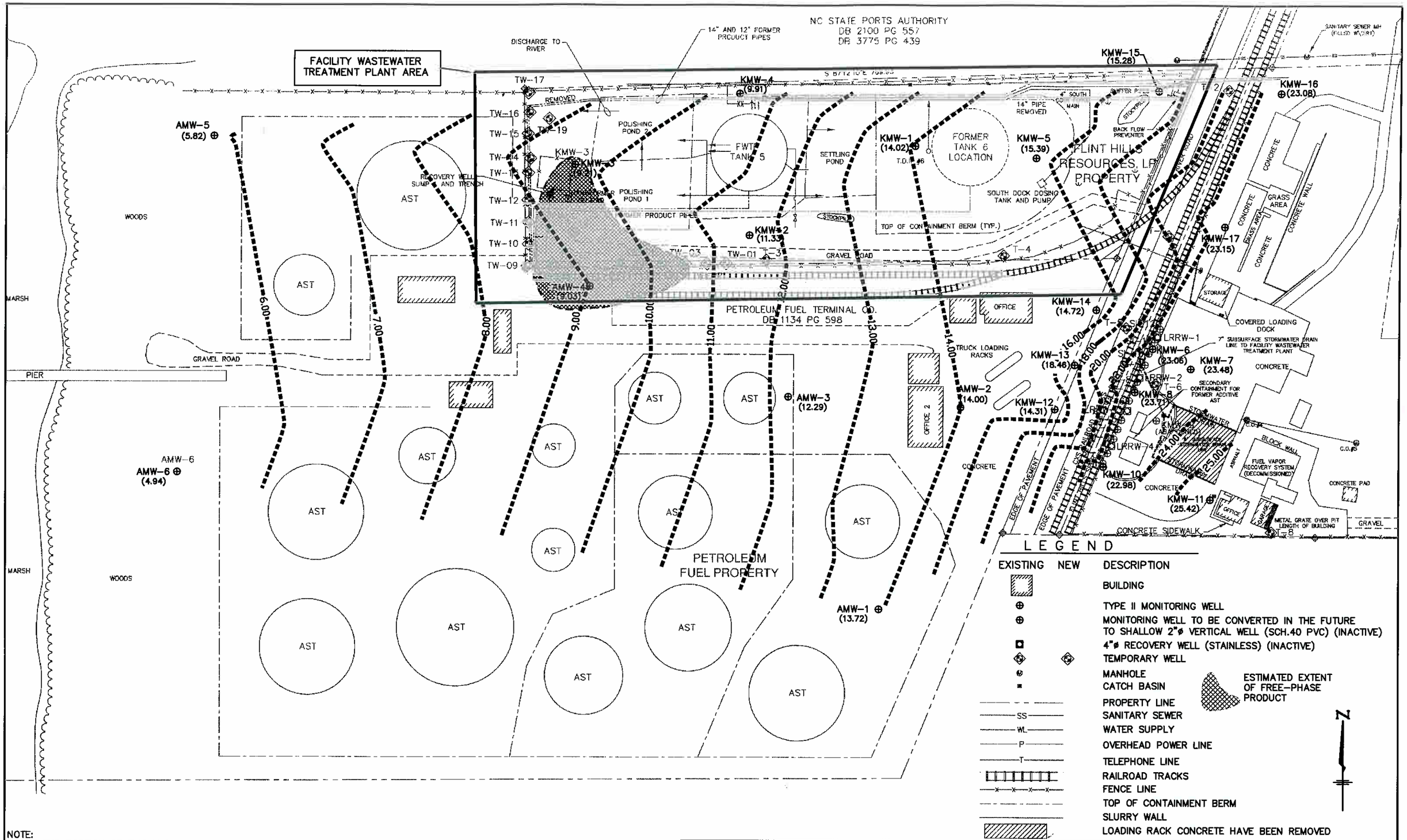



NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTEWATER TREATMENT PLANT.
6. TEMPORARY WELLS ABANDONED WITHIN 5 DAYS OF INSTALLATION.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: CURRENT SITE LAYOUT AT LOADING RACK AND FWTP AREAS AS OF FEBRUARY 2006 | | FIGURE 10 |
| JOB NO. 201-125 / DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125-MR-FEB06-10



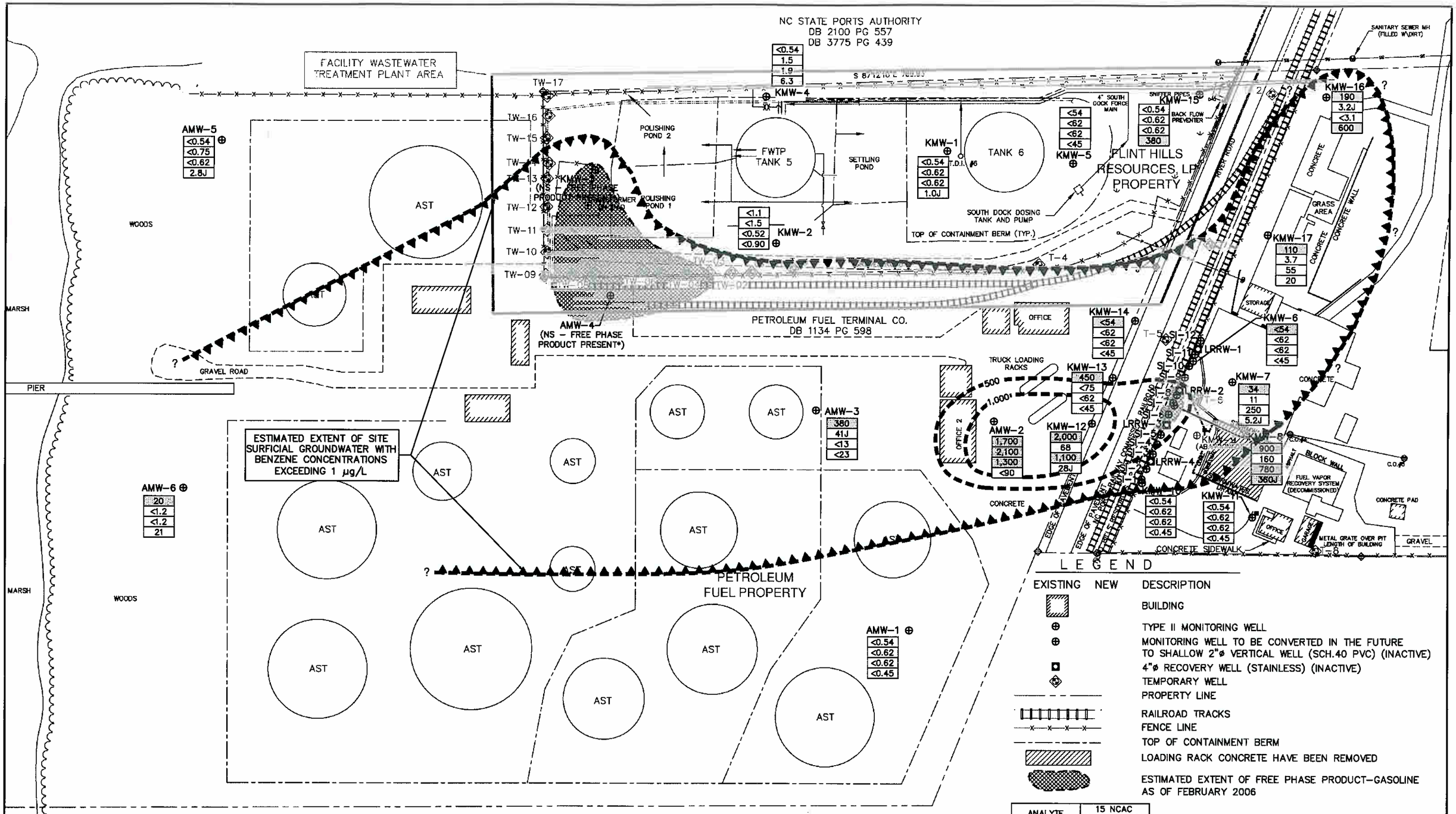

NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTE WATER TREATMENT PLAN.
6. ( ) = GROUNDWATER ELEVATION IN FEET.

SA .5SA 0 SA
SCALE IN FEET

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| | | | | |
|---|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: SURFICIAL GROUNDWATER CONTOURS AT LOADING RACK AND FWTP AREAS AS OF FEBRUARY 2006 | | | FIGURE 11 |
| JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS | CHECKED BY: JKB |

201125-MR-FEB06-11



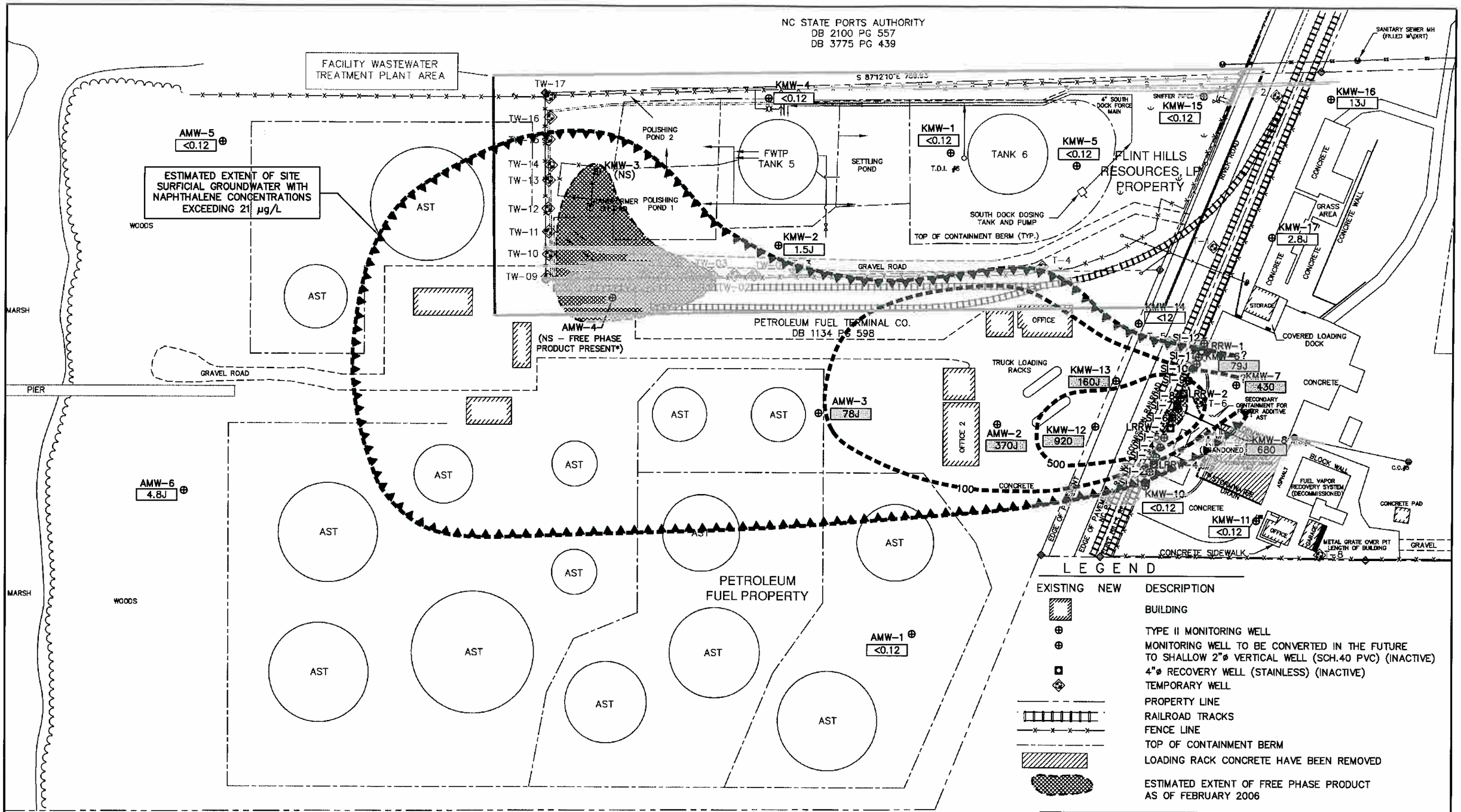

| ANALYTE | 15 NCAC 2L STANDARD |
|---|---|
| BENZENE | 1 |
| TOLUENE | 1,000 |
| ETHYLBENZENE | 550 |
| MTBE | 200 |

NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
6. SHADED CONCENTRATIONS EXCEED CORRESPONDING STANDARD.
7. J = ESTIMATED CONCENTRATION.
8. NS = NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT.
9. ALL RESULTS µg/L.
10. * LABORATORY ANALYSIS REVEALED CHARACTERISTICS OF GASOLINE.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| | | | |
|---|---|---|---|
| PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | TITLE: SURFICIAL GROUNDWATER BTE AND MTBE DATA AT LOADING RACK AND FWTP AREA AS OF FEBRUARY 2006 | | FIGURE 12 |
| JOB NO. 201–125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS / CHECKED BY: JKB |

201125–MR–FEB06–12




| ANALYTE | 15 NCAC 2L STANDARD |
|---|---|
| NAPHTHALENE | 21 |

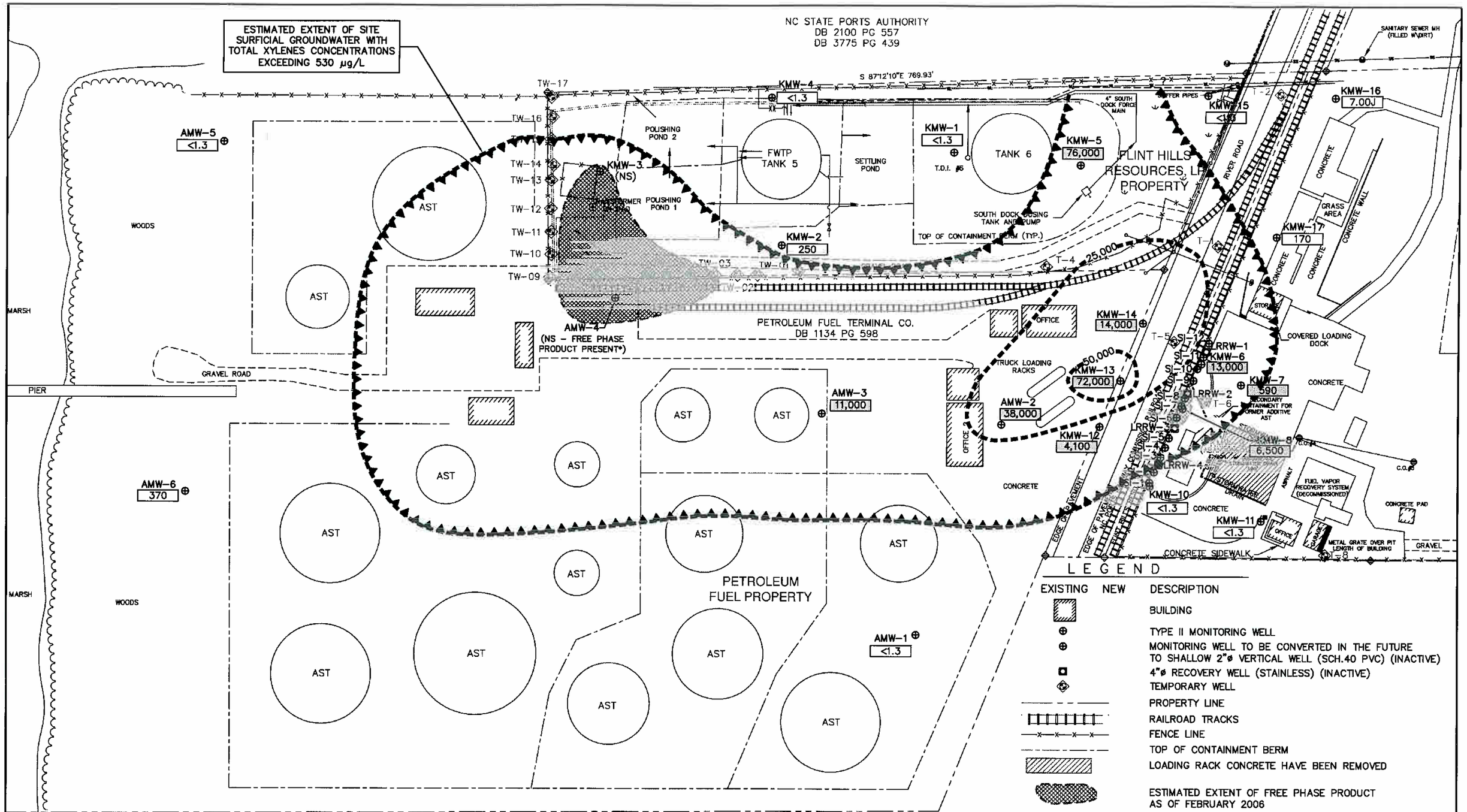
NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
6. SHADED CONCENTRATIONS EXCEED CORRESPONDING STANDARD.
7. J = ESTIMATED CONCENTRATION.
8. NS = NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT.
9. ALL RESULTS µg/L.
10. * LABORATORY ANALYSIS REVEALED CHARACTERISTICS OF GASOLINE.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | SURFICIAL GROUNDWATER NAPHTHALENE DATA AT LOADING RACK AND FWTP AREAS AS OF FEBRUARY 2006 | 13 |

JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS | CHECKED BY: JKB

201125-MR-FEB06-13




| ANALYTE | 15 NCAC 2L STANDARD |
|---|---|
| TOTAL XYLENES | 530 |

NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTE WATER TREATMENT PLANT.
6. SHADED CONCENTRATIONS EXCEED 2L STANDARD OF 21 µg/L.
7. J = ESTIMATED CONCENTRATION.
8. D = THE REPORTED RESULT IS FROM A SECONDARY SOLUTION.
9. NS = NOT SAMPLED.
10. ALL RESULTS IN µg/L.
11. * LABORATORY ANALYSIS REVEALED CHARACTERISTICS OF GASOLINE.

100 50 0 100
SCALE IN FEET

N

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | SURFICIAL GROUNDWATER TOTAL XYLENES DATA AT LOADING RACK AND FWTP AREAS AS OF FEBRUARY 2006 | 14 |

JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: KAWS | CHECKED BY: JKB

201125-MR-FEB06-14

# APPENDICES

# APPENDIX A

## BORING LOGS AND WELL ABANDONMENT RECORDS FOR MONITORING WELLS ABANDONED BETWEEN AUGUST 2005 AND FEBRUARY 2006

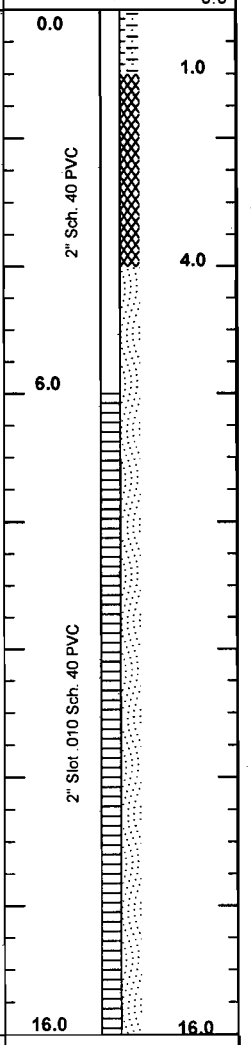
# WELL LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: | WELL ID: MW-7 |
| | | DRILLER: | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: | | T.O.C. ELEV.: |
| DRILL MACHINE: | METHOD: | 0 HOUR DTW: | BORING DEPTH: 16.0 |
| START DATE: | FINISH DATE: | 24 HOUR DTW: | WELL DEPTH: 16.0 |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | OVA (ppm) | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | WELL DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE | 0.0 |
| | | | | | | | | | | Boring Terminated at Depth 16.0 ft | |




Portland Cement | Bentonite Pellets | #2 Medium Sand

CATLIN BORING LOG 201-125.GPJ TEST.GDT 6/28/06

# WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

**WELL CONTRACTOR CERTIFICATION #:** 2927

**1. WELL CONTRACTOR:**

William J. Miller
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

STREET ADDRESS 220 Old Dairy Road

Wilmington | North Carolina | 28405
City or Town | State | Zip Code

( 910 ) - 452-5861
Area code - Phone number

**2. WELL INFORMATION**

**SITE WELL ID # (if applicable):** MW-7
**STATE WELL PERMIT # (if applicable):** N.A.
**DWQ** or OTHER PERMIT # (if applicable):
**WELL USE** (Check Applicable Box): Monitoring ☒ Residential ☐
Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐
Recovery ☐ Injection ☐ Irrigation ☐
Other (list use):

**3. WELL LOCATION:**

COUNTY: New Hanover QUADRANGLE NAME:
NEAREST TOWN: Wilmington

3325 River Road, Wilmington, NC 28412,
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code

TOPOGRAPHIC / LAND SETTING
Slope ☐ Valley ☐ Flat ☒ Ridge ☐ Other:

NORTHING:
EASTING:

May be in degrees, minutes, seconds, or in a decimal

Latitude/longitude source: GPS Topo. map

*(Location of well must be shown on a USGS topo map and attached to this form if not using a GPS.)*

**4a. FACILITY** - is the name of the business where the well is located. Complete 4a and 4b (If a residential well, omit 4a and complete 4b, well owner information only)

**FACILITY ID #** (if applicable)

NAME OF FACILITY:

STREET ADDRESS 3325 River Road, Wilmington, NC 28412

3325 River Road, Wilmington, NC 28412, Wilmington, NC
City or Town | State | Zip Code

**4b. CONTACT PERSON/WELL OWNER:**

NAME: FLINT HILLS RESOURCES, LP

STREET ADDRESS: 3334 River Road

Wilmington | NC | 28412
City or Town | State | Zip Code

(910) "-" 799-0180
Area code - Phone number

**5. WELL DETAILS:**

a. Total Depth: 16 Ft. Diameter: 2 In.
b. Water Level (Below Measuring Point): In.
Measuring point is 0 ft. above land surface

**6. CASING:**

| | Length | | Diameter | |
|---|---|---|---|---|
| a. Casing Depth (if known): | 2 | ft. | 2 | in. |
| b. Casing Removed: | 6 | ft. | 2 | in. |

**7. DISINFECTION:** N/A

(Amount of 70% calcium hypochlorite used)

**8. SEALING MATERIAL:**

**Neat Cement**
Bags of cement
Gallons of water

**Sand Cement**
Bags of cement
Gallons of water

**Bentonite**
Bags of bentonite 1
Type: Slurry Pellets
Gallons of water

**Other**
Type material
Amount

**9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:**

SURFACE POUR Bentonite

**10. WELL DIAGRAM:** Draw a detailed sketch of the well showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depth and types of fill material used.

See attached

**11. DATE WELL ABANDONED** 2/27/2006

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

[signature] 3/07/06
**SIGNATURE OF PERSON ABANDONING THE WELL** **DATE**
(Well abandonment must be performed by a Certified Well Contractor unless the private well owner personally abandons the well in accordance with 15A NCAC 2C .0113).

William J. Miller
**PRINTED NAME OF PERSON ABANDONING THE WELL**

**Submit a copy to the owner and the original to the Division of Water Quality within 30 days, Attn: Information Management, 1617 Mail Service Center - Raleigh, NC 27699167, Phone No. (919) 733-7015 ext 568.**

Modified from Form GW-30 Rev. 11/05

# APPENDIX B

# GROUNDWATER ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY RECORDS

# ANALYTICAL REPORT

Job Number: 680-12091-1

Job Description: FHR North Terminal

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
01/10/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |
| Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) | STL-SAV | SW846 8270C | |
| Continuous Liquid-Liquid Extraction | STL-SAV | | SW846 3520C |
| Inductively Coupled Plasma - Atomic Emission Spectrometry | STL-SAV | SW846 6010B | |
| Acid Digestion of Waters for Total Recoverable or | STL-SAV | | SW846 3005A |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-12091-1 | 2 | Water | 12/22/2005 1135 | 12/28/2005 1115 |
| 680-12091-2 | 7 | Water | 12/22/2005 1300 | 12/28/2005 1115 |
| 680-12091-3 | 20 | Water | 12/22/2005 1410 | 12/28/2005 1115 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** **2**

Lab Sample ID: 680-12091-1
Client Matrix: Water

Date Sampled: 12/22/2005 1135
Date Received: 12/28/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/04/2006 1657
Date Prepared: 01/04/2006 1657

Analysis Batch: 680-32964

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0046.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Chloromethane | 1.0 | U | 1.0 |
| Bromomethane | 1.0 | U | 1.0 |
| Vinyl chloride | 1.0 | U | 1.0 |
| Chloroethane | 1.0 | U | 1.0 |
| Methylene Chloride | 5.0 | U | 5.0 |
| Acetone | 25 | U | 25 |
| Carbon disulfide | 1.0 | U | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| Chloroform | 1.0 | U | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 |
| Methyl Ethyl Ketone | 10 | U | 10 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| Carbon tetrachloride | 1.0 | U | 1.0 |
| Dichlorobromomethane | 1.0 | U | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| Trichloroethene | 1.0 | U | 1.0 |
| Chlorodibromomethane | 1.0 | U | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| Benzene | 1.0 | U | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| Bromoform | 1.0 | U | 1.0 |
| 2-Hexanone | 10 | U | 10 |
| methyl isobutyl ketone | 10 | U | 10 |
| Tetrachloroethene | 1.0 | U | 1.0 |
| Toluene | 2.0 | | 1.0 |
| Chlorobenzene | 1.0 | U | 1.0 |
| Ethylbenzene | 1.0 | U | 1.0 |
| Styrene | 1.0 | U | 1.0 |
| Xylenes, Total | 2.0 | U | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 102 | 79 - 122 |
| 4-Bromofluorobenzene | 102 | 77 - 120 |
| Dibromofluoromethane | 101 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** 7

Lab Sample ID: 680-12091-2
Client Matrix: Water

Date Sampled: 12/22/2005 1300
Date Received: 12/28/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 01/04/2006 1729
Date Prepared: 01/04/2006 1729

Analysis Batch: 680-32964

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0048.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Chloromethane | 5.0 | U | 5.0 |
| Bromomethane | 5.0 | U | 5.0 |
| Vinyl chloride | 5.0 | U | 5.0 |
| Chloroethane | 5.0 | U | 5.0 |
| Methylene Chloride | 25 | U | 25 |
| Acetone | 130 | U | 130 |
| Carbon disulfide | 5.0 | U | 5.0 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 |
| 1,1-Dichloroethane | 5.0 | U | 5.0 |
| cis-1,2-Dichloroethene | 5.0 | U | 5.0 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 |
| Chloroform | 5.0 | U | 5.0 |
| 1,2-Dichloroethane | 5.0 | U | 5.0 |
| Methyl Ethyl Ketone | 50 | U | 50 |
| 1,1,1-Trichloroethane | 5.0 | U | 5.0 |
| Carbon tetrachloride | 5.0 | U | 5.0 |
| Dichlorobromomethane | 5.0 | U | 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | U | 5.0 |
| 1,2-Dichloropropane | 5.0 | U | 5.0 |
| trans-1,3-Dichloropropene | 5.0 | U | 5.0 |
| Trichloroethene | 5.0 | U | 5.0 |
| Chlorodibromomethane | 5.0 | U | 5.0 |
| 1,1,2-Trichloroethane | 5.0 | U | 5.0 |
| Benzene | 5.0 | U | 5.0 |
| cis-1,3-Dichloropropene | 5.0 | U | 5.0 |
| Bromoform | 5.0 | U | 5.0 |
| 2-Hexanone | 50 | U | 50 |
| methyl isobutyl ketone | 50 | U | 50 |
| Tetrachloroethene | 5.0 | U | 5.0 |
| Toluene | 110 | | 5.0 |
| Chlorobenzene | 5.0 | U | 5.0 |
| Ethylbenzene | 72 | | 5.0 |
| Styrene | 5.0 | U | 5.0 |
| Xylenes, Total | 1000 | | 10 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 100 | 79 - 122 |
| 4-Bromofluorobenzene | 105 | 77 - 120 |
| Dibromofluoromethane | 97 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** **20**

Lab Sample ID: 680-12091-3
Client Matrix: Water

Date Sampled: 12/22/2005 1410
Date Received: 12/28/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/04/2006 1800
Date Prepared: 01/04/2006 1800

Analysis Batch: 680-32964

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0050.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Chloromethane | 1.0 | U | 1.0 |
| Bromomethane | 1.0 | U | 1.0 |
| Vinyl chloride | 1.0 | U | 1.0 |
| Chloroethane | 1.0 | U | 1.0 |
| Methylene Chloride | 5.0 | U | 5.0 |
| Acetone | 25 | U | 25 |
| Carbon disulfide | 1.0 | U | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| Chloroform | 1.0 | U | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 |
| Methyl Ethyl Ketone | 10 | U | 10 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| Carbon tetrachloride | 1.0 | U | 1.0 |
| Dichlorobromomethane | 1.0 | U | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| Trichloroethene | 1.0 | U | 1.0 |
| Chlorodibromomethane | 1.0 | U | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| Benzene | 1.0 | U | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| Bromoform | 1.0 | U | 1.0 |
| 2-Hexanone | 10 | U | 10 |
| methyl isobutyl ketone | 10 | U | 10 |
| Tetrachloroethene | 1.0 | U | 1.0 |
| Toluene | 1.0 | U | 1.0 |
| Chlorobenzene | 1.0 | U | 1.0 |
| Ethylbenzene | 6.2 | | 1.0 |
| Styrene | 1.0 | U | 1.0 |
| Xylenes, Total | 6.3 | | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 99 | 79 - 122 |
| 4-Bromofluorobenzene | 102 | 77 - 120 |
| Dibromofluoromethane | 98 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** 2

Lab Sample ID: 680-12091-1
Client Matrix: Water

Date Sampled: 12/22/2005 1135
Date Received: 12/28/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/10/2006 1115
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33262
Prep Batch: 680-32261

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n1848.d
Initial Weight/Volume: 500 mL
Final Weight/Volume: 0.5 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Phenol | 10 | U | 10 |
| Bis(2-chloroethyl)ether | 10 | U | 10 |
| 2-Chlorophenol | 10 | U | 10 |
| 1,3-Dichlorobenzene | 10 | U | 10 |
| 1,4-Dichlorobenzene | 10 | U | 10 |
| 1,2-Dichlorobenzene | 10 | U | 10 |
| 2-Methylphenol | 10 | U | 10 |
| N-Nitrosodi-n-propylamine | 10 | U | 10 |
| Hexachloroethane | 10 | U | 10 |
| Nitrobenzene | 10 | U | 10 |
| Isophorone | 10 | U | 10 |
| 2-Nitrophenol | 10 | U | 10 |
| 2,4-Dimethylphenol | 10 | U | 10 |
| Bis(2-chloroethoxy)methane | 10 | U | 10 |
| 2,4-Dichlorophenol | 10 | U | 10 |
| 1,2,4-Trichlorobenzene | 10 | U | 10 |
| Naphthalene | 10 | U | 10 |
| 4-Chloroaniline | 20 | U | 20 |
| Hexachlorobutadiene | 10 | U | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 10 |
| 2-Methylnaphthalene | 10 | U | 10 |
| Hexachlorocyclopentadiene | 10 | U | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 10 |
| 2-Chloronaphthalene | 10 | U | 10 |
| 2-Nitroaniline | 50 | U | 50 |
| Dimethyl phthalate | 10 | U | 10 |
| Acenaphthylene | 10 | U | 10 |
| 3-Nitroaniline | 50 | U | 50 |
| Acenaphthene | 10 | U | 10 |
| 2,4-Dinitrophenol | 50 | U | 50 |
| 4-Nitrophenol | 50 | U | 50 |
| Dibenzofuran | 10 | U | 10 |
| 2,4-Dinitrotoluene | 10 | U | 10 |
| 2,6-Dinitrotoluene | 10 | U | 10 |
| 3 & 4 Methylphenol | 10 | U | 10 |
| Diethyl phthalate | 10 | U | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 10 |
| Fluorene | 10 | U | 10 |
| 4-Nitroaniline | 50 | U | 50 |
| 4,6-Dinitro-2-methylphenol | 50 | U * | 50 |
| N-Nitrosodiphenylamine | 10 | U | 10 |
| 4-Bromophenyl phenyl ether | 10 | U | 10 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** **2**

Lab Sample ID: 680-12091-1
Client Matrix: Water

Date Sampled: 12/22/2005 1135
Date Received: 12/28/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/10/2006 1115
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33262
Prep Batch: 680-32261

Instrument ID: GC/MS SemiVolatiles - N
Lab File ID: n1848.d
Initial Weight/Volume: 500 mL
Final Weight/Volume: 0.5 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Hexachlorobenzene | 10 | U | 10 |
| Pentachlorophenol | 50 | U | 50 |
| Phenanthrene | 10 | U | 10 |
| Anthracene | 10 | U | 10 |
| Di-n-butyl phthalate | 10 | U | 10 |
| Fluoranthene | 10 | U | 10 |
| Pyrene | 10 | U | 10 |
| Butyl benzyl phthalate | 10 | U | 10 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 |
| Benzo[a]anthracene | 10 | U | 10 |
| Bis(2-ethylhexyl) phthalate | 10 | U | 10 |
| Chrysene | 10 | U | 10 |
| Di-n-octyl phthalate | 10 | U | 10 |
| Benzo[b]fluoranthene | 10 | U | 10 |
| Benzo[k]fluoranthene | 10 | U | 10 |
| Benzo[a]pyrene | 10 | U | 10 |
| Indeno[1,2,3-cd]pyrene | 10 | U | 10 |
| Dibenz(a,h)anthracene | 10 | U | 10 |
| Benzo[g,h,i]perylene | 10 | U | 10 |
| Carbazole | 10 | U | 10 |
| bis(chloroisopropyl) ether | 10 | U | 10 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 59 | 55 - 104 |
| 2-Fluorophenol | 65 | 56 - 100 |
| 2,4,6-Tribromophenol | 98 | 55 - 126 |
| Nitrobenzene-d5 | 79 | 60 - 102 |
| 2-Fluorobiphenyl | 79 | 59 - 103 |
| Terphenyl-d14 | 57 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** 7

Lab Sample ID: 680-12091-2
Client Matrix: Water

Date Sampled: 12/22/2005 1300
Date Received: 12/28/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/09/2006 1341
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33155
Prep Batch: 680-32261

Instrument ID: GC/MS SemiVolatiles - T
Lab File ID: t1842.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Phenol | 9.4 | U | 9.4 |
| Bis(2-chloroethyl)ether | 9.4 | U | 9.4 |
| 2-Chlorophenol | 9.4 | U | 9.4 |
| 1,3-Dichlorobenzene | 9.4 | U | 9.4 |
| 1,4-Dichlorobenzene | 9.4 | U | 9.4 |
| 1,2-Dichlorobenzene | 9.4 | U | 9.4 |
| 2-Methylphenol | 9.4 | U | 9.4 |
| N-Nitrosodi-n-propylamine | 9.4 | U | 9.4 |
| Hexachloroethane | 9.4 | U | 9.4 |
| Nitrobenzene | 9.4 | U | 9.4 |
| Isophorone | 9.4 | U | 9.4 |
| 2-Nitrophenol | 9.4 | U | 9.4 |
| 2,4-Dimethylphenol | 9.4 | U | 9.4 |
| Bis(2-chloroethoxy)methane | 9.4 | U | 9.4 |
| 2,4-Dichlorophenol | 9.4 | U | 9.4 |
| 1,2,4-Trichlorobenzene | 9.4 | U | 9.4 |
| Naphthalene | 37 | | 9.4 |
| 4-Chloroaniline | 19 | U | 19 |
| Hexachlorobutadiene | 9.4 | U | 9.4 |
| 4-Chloro-3-methylphenol | 9.4 | U | 9.4 |
| 2-Methylnaphthalene | 10 | | 9.4 |
| Hexachlorocyclopentadiene | 9.4 | U | 9.4 |
| 2,4,6-Trichlorophenol | 9.4 | U | 9.4 |
| 2,4,5-Trichlorophenol | 9.4 | U | 9.4 |
| 2-Chloronaphthalene | 9.4 | U | 9.4 |
| 2-Nitroaniline | 47 | U | 47 |
| Dimethyl phthalate | 9.4 | U | 9.4 |
| Acenaphthylene | 9.4 | U | 9.4 |
| 3-Nitroaniline | 47 | U | 47 |
| Acenaphthene | 9.4 | U | 9.4 |
| 2,4-Dinitrophenol | 47 | U | 47 |
| 4-Nitrophenol | 47 | U | 47 |
| Dibenzofuran | 9.4 | U | 9.4 |
| 2,4-Dinitrotoluene | 9.4 | U | 9.4 |
| 2,6-Dinitrotoluene | 9.4 | U | 9.4 |
| 3 & 4 Methylphenol | 9.4 | U | 9.4 |
| Diethyl phthalate | 9.4 | U | 9.4 |
| 4-Chlorophenyl phenyl ether | 9.4 | U | 9.4 |
| Fluorene | 9.4 | U | 9.4 |
| 4-Nitroaniline | 47 | U | 47 |
| 4,6-Dinitro-2-methylphenol | 47 | U * | 47 |
| N-Nitrosodiphenylamine | 9.4 | U | 9.4 |
| 4-Bromophenyl phenyl ether | 9.4 | U | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** **7**

Lab Sample ID: 680-12091-2
Client Matrix: Water

Date Sampled: 12/22/2005 1300
Date Received: 12/28/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/09/2006 1341
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33155
Prep Batch: 680-32261

Instrument ID: GC/MS SemiVolatiles - T
Lab File ID: t1842.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Hexachlorobenzene | 9.4 | U | 9.4 |
| Pentachlorophenol | 47 | U | 47 |
| Phenanthrene | 9.4 | U | 9.4 |
| Anthracene | 9.4 | U | 9.4 |
| Di-n-butyl phthalate | 9.4 | U | 9.4 |
| Fluoranthene | 9.4 | U | 9.4 |
| Pyrene | 9.4 | U | 9.4 |
| Butyl benzyl phthalate | 9.4 | U | 9.4 |
| 3,3'-Dichlorobenzidine | 19 | U | 19 |
| Benzo[a]anthracene | 9.4 | U | 9.4 |
| Bis(2-ethylhexyl) phthalate | 9.4 | U | 9.4 |
| Chrysene | 9.4 | U | 9.4 |
| Di-n-octyl phthalate | 9.4 | U | 9.4 |
| Benzo[b]fluoranthene | 9.4 | U | 9.4 |
| Benzo[k]fluoranthene | 9.4 | U | 9.4 |
| Benzo[a]pyrene | 9.4 | U | 9.4 |
| Indeno[1,2,3-cd]pyrene | 9.4 | U | 9.4 |
| Dibenz(a,h)anthracene | 9.4 | U | 9.4 |
| Benzo[g,h,i]perylene | 9.4 | U | 9.4 |
| Carbazole | 9.4 | U | 9.4 |
| bis(chloroisopropyl) ether | 9.4 | U | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 73 | 55 - 104 |
| 2-Fluorophenol | 70 | 56 - 100 |
| 2,4,6-Tribromophenol | 97 | 55 - 126 |
| Nitrobenzene-d5 | 80 | 60 - 102 |
| 2-Fluorobiphenyl | 76 | 59 - 103 |
| Terphenyl-d14 | 52 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID: 20**

Lab Sample ID: 680-12091-3
Client Matrix: Water

Date Sampled: 12/22/2005 1410
Date Received: 12/28/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1856
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33139
Prep Batch: 680-32261

Instrument ID: GC/MS SemiVolatiles - T
Lab File ID: t1827.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Phenol | 9.4 | U | 9.4 |
| Bis(2-chloroethyl)ether | 9.4 | U | 9.4 |
| 2-Chlorophenol | 9.4 | U | 9.4 |
| 1,3-Dichlorobenzene | 9.4 | U | 9.4 |
| 1,4-Dichlorobenzene | 9.4 | U | 9.4 |
| 1,2-Dichlorobenzene | 9.4 | U | 9.4 |
| 2-Methylphenol | 9.4 | U | 9.4 |
| N-Nitrosodi-n-propylamine | 9.4 | U | 9.4 |
| Hexachloroethane | 9.4 | U | 9.4 |
| Nitrobenzene | 9.4 | U | 9.4 |
| Isophorone | 9.4 | U | 9.4 |
| 2-Nitrophenol | 9.4 | U | 9.4 |
| 2,4-Dimethylphenol | 9.4 | U | 9.4 |
| Bis(2-chloroethoxy)methane | 9.4 | U | 9.4 |
| 2,4-Dichlorophenol | 9.4 | U | 9.4 |
| 1,2,4-Trichlorobenzene | 9.4 | U | 9.4 |
| Naphthalene | 9.4 | U | 9.4 |
| 4-Chloroaniline | 19 | U | 19 |
| Hexachlorobutadiene | 9.4 | U | 9.4 |
| 4-Chloro-3-methylphenol | 9.4 | U | 9.4 |
| 2-Methylnaphthalene | 9.4 | U | 9.4 |
| Hexachlorocyclopentadiene | 9.4 | U | 9.4 |
| 2,4,6-Trichlorophenol | 9.4 | U | 9.4 |
| 2,4,5-Trichlorophenol | 9.4 | U | 9.4 |
| 2-Chloronaphthalene | 9.4 | U | 9.4 |
| 2-Nitroaniline | 47 | U | 47 |
| Dimethyl phthalate | 9.4 | U | 9.4 |
| Acenaphthylene | 9.4 | U | 9.4 |
| 3-Nitroaniline | 47 | U | 47 |
| Acenaphthene | 9.4 | U | 9.4 |
| 2,4-Dinitrophenol | 47 | U | 47 |
| 4-Nitrophenol | 47 | U | 47 |
| Dibenzofuran | 9.4 | U | 9.4 |
| 2,4-Dinitrotoluene | 9.4 | U | 9.4 |
| 2,6-Dinitrotoluene | 9.4 | U | 9.4 |
| 3 & 4 Methylphenol | 9.4 | U | 9.4 |
| Diethyl phthalate | 9.4 | U | 9.4 |
| 4-Chlorophenyl phenyl ether | 9.4 | U | 9.4 |
| Fluorene | 9.4 | U | 9.4 |
| 4-Nitroaniline | 47 | U | 47 |
| 4,6-Dinitro-2-methylphenol | 47 | U * | 47 |
| N-Nitrosodiphenylamine | 9.4 | U | 9.4 |
| 4-Bromophenyl phenyl ether | 9.4 | U | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID:** **20**

Lab Sample ID: 680-12091-3
Client Matrix: Water

Date Sampled: 12/22/2005 1410
Date Received: 12/28/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1856
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33139
Prep Batch: 680-32261

Instrument ID: GC/MS SemiVolatiles - T
Lab File ID: t1827.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Hexachlorobenzene | 9.4 | U | 9.4 |
| Pentachlorophenol | 47 | U | 47 |
| Phenanthrene | 9.4 | U | 9.4 |
| Anthracene | 9.4 | U | 9.4 |
| Di-n-butyl phthalate | 9.4 | U | 9.4 |
| Fluoranthene | 9.4 | U | 9.4 |
| Pyrene | 9.4 | U | 9.4 |
| Butyl benzyl phthalate | 9.4 | U | 9.4 |
| 3,3'-Dichlorobenzidine | 19 | U | 19 |
| Benzo[a]anthracene | 9.4 | U | 9.4 |
| Bis(2-ethylhexyl) phthalate | 9.4 | U | 9.4 |
| Chrysene | 9.4 | U | 9.4 |
| Di-n-octyl phthalate | 9.4 | U | 9.4 |
| Benzo[b]fluoranthene | 9.4 | U | 9.4 |
| Benzo[k]fluoranthene | 9.4 | U | 9.4 |
| Benzo[a]pyrene | 9.4 | U | 9.4 |
| Indeno[1,2,3-cd]pyrene | 9.4 | U | 9.4 |
| Dibenz(a,h)anthracene | 9.4 | U | 9.4 |
| Benzo[g,h,i]perylene | 9.4 | U | 9.4 |
| Carbazole | 9.4 | U | 9.4 |
| bis(chloroisopropyl) ether | 9.4 | U | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 72 | 55 - 104 |
| 2-Fluorophenol | 74 | 56 - 100 |
| 2,4,6-Tribromophenol | 94 | 55 - 126 |
| Nitrobenzene-d5 | 76 | 60 - 102 |
| 2-Fluorobiphenyl | 75 | 59 - 103 |
| Terphenyl-d14 | 70 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID: 2**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12091-1 | Date Sampled: | 12/22/2005 1135 |
| Client Matrix: | Water | Date Received: | 12/28/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33022 | | Instrument ID: | ICP/AES |
| Preparation: | 3005A | Prep Batch: 680-32443 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/05/2006 2223 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 12/29/2005 1044 | | | | |

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Lead | 5.0 | U | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID: 7**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12091-2 | Date Sampled: | 12/22/2005 1300 |
| Client Matrix: | Water | Date Received: | 12/28/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33022 | | Instrument ID: | ICP/AES |
| Preparation: | 3005A | Prep Batch: 680-32443 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/05/2006 2228 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 12/29/2005 1044 | | | | |

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Lead | 5.0 | U | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Client Sample ID: 20**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12091-3 | Date Sampled: | 12/22/2005 1410 |
| Client Matrix: | Water | Date Received: | 12/28/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33022 | | Instrument ID: | ICP/AES |
| Preparation: | 3005A | Prep Batch: 680-32443 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/05/2006 2241 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 12/29/2005 1044 | | | | |

| Analyte | Result (ug/L) | Qualifier | RL |
|---|---|---|---|
| Lead | 5.0 | U | 5.0 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| GC/MS Semi VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | * | LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits |
| Metals | | |
| | U | Analyte was not detected at or above the reporting limit. |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-32964/3 | LCS | 99 | 102 | 104 |
| MB 680-32964/4 | MB | 104 | 96 | 98 |
| 680-12091-1 | 2 | 102 | 101 | 102 |
| 680-12091-2 | 7 | 105 | 97 | 100 |
| 680-12091-3 | 20 | 102 | 98 | 99 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

## Surrogate Recovery Report

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (2FP) (%Rec) | (FBP) (%Rec) | (NBZ) (%Rec) | (PHL) (%Rec) | (TBP) (%Rec) | (TPH) (%Rec) |
|---|---|---|---|---|---|---|---|
| LCS 680-32261/17-A | LCS | 83 | 84 | 101 | 92 | 113 | 90 |
| MB 680-32261/16-A | MB | 84 | 80 | 88 | 82 | 94 | 97 |
| 680-12091-1 | 2 | 65 | 79 | 79 | 59 | 98 | 57 |
| 680-12091-2 | 7 | 70 | 76 | 80 | 73 | 97 | 52 |
| 680-12091-3 | 20 | 74 | 75 | 76 | 72 | 94 | 70 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (2FP) | 2-Fluorophenol | 56 - 100 |
| (FBP) | 2-Fluorobiphenyl | 59 - 103 |
| (NBZ) | Nitrobenzene-d5 | 60 - 102 |
| (PHL) | Phenol-d5 | 55 - 104 |
| (TBP) | 2,4,6-Tribromophenol | 55 - 126 |
| (TPH) | Terphenyl-d14 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Method Blank - Batch: 680-32964**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-32964/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/04/2006 1319
Date Prepared: 01/04/2006 1319

Analysis Batch: 680-32964
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq218.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | RL |
|---|---|---|---|
| Chloromethane | 1.0 | U | 1.0 |
| Bromomethane | 1.0 | U | 1.0 |
| Vinyl chloride | 1.0 | U | 1.0 |
| Chloroethane | 1.0 | U | 1.0 |
| Methylene Chloride | 5.0 | U | 5.0 |
| Acetone | 25 | U | 25 |
| Carbon disulfide | 1.0 | U | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| Chloroform | 1.0 | U | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 |
| Methyl Ethyl Ketone | 10 | U | 10 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| Carbon tetrachloride | 1.0 | U | 1.0 |
| Dichlorobromomethane | 1.0 | U | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| Trichloroethene | 1.0 | U | 1.0 |
| Chlorodibromomethane | 1.0 | U | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| Benzene | 1.0 | U | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| Bromoform | 1.0 | U | 1.0 |
| 2-Hexanone | 10 | U | 10 |
| methyl isobutyl ketone | 10 | U | 10 |
| Tetrachloroethene | 1.0 | U | 1.0 |
| Toluene | 1.0 | U | 1.0 |
| Chlorobenzene | 1.0 | U | 1.0 |
| Ethylbenzene | 1.0 | U | 1.0 |
| Styrene | 1.0 | U | 1.0 |
| Xylenes, Total | 2.0 | U | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 98 | 79 - 122 |
| 4-Bromofluorobenzene | 104 | 77 - 120 |
| Dibromofluoromethane | 96 | 75 - 123 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Laboratory Control Sample - Batch: 680-32964**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-32964/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/04/2006 1146
Date Prepared: 01/04/2006 1146

Analysis Batch: 680-32964
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq212.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Chloromethane | 50.0 | 47 | 94 | 51 - 133 | |
| Bromomethane | 50.0 | 49 | 97 | 21 - 176 | |
| Vinyl chloride | 50.0 | 46 | 93 | 59 - 136 | |
| Chloroethane | 50.0 | 53 | 107 | 40 - 171 | |
| Methylene Chloride | 50.0 | 50 | 100 | 67 - 128 | |
| Acetone | 100 | 97 | 97 | 20 - 183 | |
| Carbon disulfide | 50.0 | 48 | 97 | 60 - 130 | |
| 1,1-Dichloroethene | 50.0 | 51 | 102 | 64 - 132 | |
| 1,1-Dichloroethane | 50.0 | 51 | 101 | 70 - 127 | |
| cis-1,2-Dichloroethene | 50.0 | 50 | 100 | 69 - 126 | |
| trans-1,2-Dichloroethene | 50.0 | 51 | 102 | 67 - 130 | |
| Chloroform | 50.0 | 51 | 103 | 74 - 124 | |
| 1,2-Dichloroethane | 50.0 | 49 | 99 | 68 - 130 | |
| Methyl Ethyl Ketone | 100 | 98 | 98 | 51 - 142 | |
| 1,1,1-Trichloroethane | 50.0 | 50 | 99 | 70 - 132 | |
| Carbon tetrachloride | 50.0 | 51 | 101 | 64 - 137 | |
| Dichlorobromomethane | 50.0 | 50 | 100 | 74 - 128 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 50 | 99 | 71 - 127 | |
| 1,2-Dichloropropane | 50.0 | 50 | 101 | 74 - 123 | |
| trans-1,3-Dichloropropene | 50.0 | 52 | 105 | 75 - 126 | |
| Trichloroethene | 50.0 | 50 | 100 | 75 - 122 | |
| Chlorodibromomethane | 50.0 | 52 | 104 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 51 | 103 | 75 - 122 | |
| Benzene | 50.0 | 50 | 100 | 74 - 122 | |
| cis-1,3-Dichloropropene | 50.0 | 52 | 104 | 76 - 126 | |
| Bromoform | 50.0 | 52 | 103 | 64 - 132 | |
| 2-Hexanone | 100 | 100 | 102 | 58 - 139 | |
| methyl isobutyl ketone | 100 | 99 | 99 | 62 - 130 | |
| Tetrachloroethene | 50.0 | 51 | 101 | 70 - 133 | |
| Toluene | 50.0 | 52 | 104 | 75 - 122 | |
| Chlorobenzene | 50.0 | 52 | 103 | 75 - 123 | |
| Ethylbenzene | 50.0 | 52 | 103 | 77 - 123 | |
| Styrene | 50.0 | 52 | 104 | 75 - 125 | |
| Xylenes, Total | 150 | 150 | 101 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Method Blank - Batch: 680-32261**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: MB 680-32261/16-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/05/2006 1045
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33129
Prep Batch: 680-32261
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - T
Lab File ID: t1788.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | RL |
|---|---|---|---|
| Phenol | 10 | U | 10 |
| Bis(2-chloroethyl)ether | 10 | U | 10 |
| 2-Chlorophenol | 10 | U | 10 |
| 1,3-Dichlorobenzene | 10 | U | 10 |
| 1,4-Dichlorobenzene | 10 | U | 10 |
| 1,2-Dichlorobenzene | 10 | U | 10 |
| 2-Methylphenol | 10 | U | 10 |
| N-Nitrosodi-n-propylamine | 10 | U | 10 |
| Hexachloroethane | 10 | U | 10 |
| Nitrobenzene | 10 | U | 10 |
| Isophorone | 10 | U | 10 |
| 2-Nitrophenol | 10 | U | 10 |
| 2,4-Dimethylphenol | 10 | U | 10 |
| Bis(2-chloroethoxy)methane | 10 | U | 10 |
| 2,4-Dichlorophenol | 10 | U | 10 |
| 1,2,4-Trichlorobenzene | 10 | U | 10 |
| Naphthalene | 10 | U | 10 |
| 4-Chloroaniline | 20 | U | 20 |
| Hexachlorobutadiene | 10 | U | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 10 |
| 2-Methylnaphthalene | 10 | U | 10 |
| Hexachlorocyclopentadiene | 10 | U | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 10 |
| 2-Chloronaphthalene | 10 | U | 10 |
| 2-Nitroaniline | 50 | U | 50 |
| Dimethyl phthalate | 10 | U | 10 |
| Acenaphthylene | 10 | U | 10 |
| 3-Nitroaniline | 50 | U | 50 |
| Acenaphthene | 10 | U | 10 |
| 2,4-Dinitrophenol | 50 | U | 50 |
| 4-Nitrophenol | 50 | U | 50 |
| Dibenzofuran | 10 | U | 10 |
| 2,4-Dinitrotoluene | 10 | U | 10 |
| 2,6-Dinitrotoluene | 10 | U | 10 |
| 3 & 4 Methylphenol | 10 | U | 10 |
| Diethyl phthalate | 10 | U | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 10 |
| Fluorene | 10 | U | 10 |
| 4-Nitroaniline | 50 | U | 50 |
| 4,6-Dinitro-2-methylphenol | 50 | U | 50 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Method Blank - Batch: 680-32261**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: MB 680-32261/16-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/05/2006 1045
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-33129
Prep Batch: 680-32261
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - T
Lab File ID: t1788.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | RL |
|---|---|---|---|
| N-Nitrosodiphenylamine | 10 | U | 10 |
| 4-Bromophenyl phenyl ether | 10 | U | 10 |
| Hexachlorobenzene | 10 | U | 10 |
| Pentachlorophenol | 50 | U | 50 |
| Phenanthrene | 10 | U | 10 |
| Anthracene | 10 | U | 10 |
| Di-n-butyl phthalate | 10 | U | 10 |
| Fluoranthene | 10 | U | 10 |
| Pyrene | 10 | U | 10 |
| Butyl benzyl phthalate | 10 | U | 10 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 |
| Benzo[a]anthracene | 10 | U | 10 |
| Bis(2-ethylhexyl) phthalate | 10 | U | 10 |
| Chrysene | 10 | U | 10 |
| Di-n-octyl phthalate | 10 | U | 10 |
| Benzo[b]fluoranthene | 10 | U | 10 |
| Benzo[k]fluoranthene | 10 | U | 10 |
| Benzo[a]pyrene | 10 | U | 10 |
| Indeno[1,2,3-cd]pyrene | 10 | U | 10 |
| Dibenz(a,h)anthracene | 10 | U | 10 |
| Benzo[g,h,i]perylene | 10 | U | 10 |
| Carbazole | 10 | U | 10 |
| bis(chloroisopropyl) ether | 10 | U | 10 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 82 | 55 - 104 |
| 2-Fluorophenol | 84 | 56 - 100 |
| 2,4,6-Tribromophenol | 94 | 55 - 126 |
| Nitrobenzene-d5 | 88 | 60 - 102 |
| 2-Fluorobiphenyl | 80 | 59 - 103 |
| Terphenyl-d14 | 97 | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Laboratory Control Sample - Batch: 680-32261**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: LCS 680-32261/17-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/04/2006 2106
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-32924
Prep Batch: 680-32261
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3034.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Phenol | 100 | 78 | 78 | 46 - 106 | |
| Bis(2-chloroethyl)ether | 100 | 80 | 80 | 48 - 108 | |
| 2-Chlorophenol | 100 | 78 | 78 | 54 - 106 | |
| 1,3-Dichlorobenzene | 100 | 66 | 66 | 38 - 97 | |
| 1,4-Dichlorobenzene | 100 | 65 | 65 | 40 - 92 | |
| 1,2-Dichlorobenzene | 100 | 69 | 69 | 42 - 98 | |
| 2-Methylphenol | 100 | 90 | 90 | 57 - 110 | |
| N-Nitrosodi-n-propylamine | 100 | 95 | 95 | 49 - 135 | |
| Hexachloroethane | 100 | 66 | 66 | 35 - 89 | |
| Nitrobenzene | 100 | 91 | 91 | 57 - 110 | |
| Isophorone | 100 | 94 | 94 | 60 - 113 | |
| 2-Nitrophenol | 100 | 89 | 89 | 59 - 114 | |
| 2,4-Dimethylphenol | 100 | 76 | 76 | 51 - 111 | |
| Bis(2-chloroethoxy)methane | 100 | 92 | 92 | 55 - 115 | |
| 2,4-Dichlorophenol | 100 | 87 | 87 | 62 - 112 | |
| 1,2,4-Trichlorobenzene | 100 | 74 | 74 | 46 - 99 | |
| Naphthalene | 100 | 96 | 96 | 42 - 108 | |
| 4-Chloroaniline | 100 | 43 | 43 | 22 - 107 | |
| Hexachlorobutadiene | 100 | 80 | 80 | 43 - 109 | |
| 4-Chloro-3-methylphenol | 100 | 98 | 98 | 58 - 118 | |
| 2-Methylnaphthalene | 100 | 87 | 87 | 51 - 110 | |
| Hexachlorocyclopentadiene | 100 | 29 | 29 | 1 - 84 | |
| 2,4,6-Trichlorophenol | 100 | 83 | 83 | 61 - 118 | |
| 2,4,5-Trichlorophenol | 100 | 87 | 87 | 62 - 119 | |
| 2-Chloronaphthalene | 100 | 78 | 78 | 58 - 111 | |
| 2-Nitroaniline | 100 | 96 | 96 | 60 - 122 | |
| Dimethyl phthalate | 100 | 87 | 87 | 64 - 112 | |
| Acenaphthylene | 100 | 85 | 85 | 53 - 117 | |
| 3-Nitroaniline | 100 | 79 | 79 | 46 - 114 | |
| Acenaphthene | 100 | 89 | 89 | 49 - 117 | |
| 2,4-Dinitrophenol | 100 | 160 | 157 | 13 - 176 | |
| 4-Nitrophenol | 100 | 100 | 101 | 30 - 139 | |
| Dibenzofuran | 100 | 87 | 87 | 65 - 109 | |
| 2,4-Dinitrotoluene | 100 | 120 | 123 | 45 - 140 | |
| 2,6-Dinitrotoluene | 100 | 110 | 115 | 65 - 124 | |
| 3 & 4 Methylphenol | 100 | 88 | 88 | 49 - 114 | |
| Diethyl phthalate | 100 | 90 | 90 | 61 - 115 | |
| 4-Chlorophenyl phenyl ether | 100 | 86 | 86 | 59 - 112 | |
| Fluorene | 100 | 90 | 90 | 43 - 124 | |
| 4-Nitroaniline | 100 | 91 | 91 | 47 - 127 | |
| 4,6-Dinitro-2-methylphenol | 100 | 160 | 161 | 42 - 155 | * |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Laboratory Control Sample - Batch: 680-32261**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: LCS 680-32261/17-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/04/2006 2106
Date Prepared: 12/28/2005 0756

Analysis Batch: 680-32924
Prep Batch: 680-32261
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3034.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| N-Nitrosodiphenylamine | 100 | 87 | 87 | 30 - 130 | |
| 4-Bromophenyl phenyl ether | 100 | 75 | 75 | 50 - 112 | |
| Hexachlorobenzene | 100 | 84 | 84 | 60 - 122 | |
| Pentachlorophenol | 100 | 110 | 106 | 44 - 132 | |
| Phenanthrene | 100 | 90 | 90 | 58 - 120 | |
| Anthracene | 100 | 87 | 87 | 57 - 118 | |
| Di-n-butyl phthalate | 100 | 93 | 93 | 58 - 122 | |
| Fluoranthene | 100 | 97 | 97 | 51 - 125 | |
| Pyrene | 100 | 86 | 86 | 49 - 135 | |
| Butyl benzyl phthalate | 100 | 94 | 94 | 62 - 124 | |
| 3,3'-Dichlorobenzidine | 100 | 72 | 72 | 29 - 101 | |
| Benzo[a]anthracene | 100 | 88 | 88 | 55 - 119 | |
| Bis(2-ethylhexyl) phthalate | 100 | 94 | 94 | 57 - 125 | |
| Chrysene | 100 | 85 | 85 | 56 - 122 | |
| Di-n-octyl phthalate | 100 | 86 | 86 | 55 - 128 | |
| Benzo[b]fluoranthene | 100 | 97 | 97 | 44 - 130 | |
| Benzo[k]fluoranthene | 100 | 84 | 84 | 47 - 129 | |
| Benzo[a]pyrene | 100 | 89 | 89 | 36 - 128 | |
| Indeno[1,2,3-cd]pyrene | 100 | 87 | 87 | 40 - 132 | |
| Dibenz(a,h)anthracene | 100 | 93 | 93 | 47 - 126 | |
| Benzo[g,h,i]perylene | 100 | 87 | 87 | 45 - 128 | |
| Carbazole | 100 | 90 | 90 | 60 - 120 | |
| bis(chloroisopropyl) ether | 100 | 82 | 82 | 45 - 114 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 92 | 55 - 104 |
| 2-Fluorophenol | 83 | 56 - 100 |
| 2,4,6-Tribromophenol | 113 | 55 - 126 |
| Nitrobenzene-d5 | 101 | 60 - 102 |
| 2-Fluorobiphenyl | 84 | 59 - 103 |
| Terphenyl-d14 | 90 | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12091-1

**Method Blank - Batch: 680-32443**

**Method: 6010B**
**Preparation: 3005A**
**Total Recoverable**

Lab Sample ID: MB 680-32443/6-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/05/2006 2147
Date Prepared: 12/29/2005 1044

Analysis Batch: 680-33022
Prep Batch: 680-32443
Units: ug/L

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | RL |
|---|---|---|---|
| Lead | 5.0 | U | 5.0 |

**Laboratory Control Sample - Batch: 680-32443**

**Method: 6010B**
**Preparation: 3005A**
**Total Recoverable**

Lab Sample ID: LCS 680-32443/7-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/05/2006 2151
Date Prepared: 12/29/2005 1044

Analysis Batch: 680-33022
Prep Batch: 680-32443
Units: ug/L

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 500 | 480 | 97 | 75 - 125 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 75336

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT STL®


STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165


Alternate Laboratory Name/Location

Phone:
Fax:

| | | |
|---|---|---|
| PROJECT REFERENCE: FHR North Terminal - Gas/Fuel Oil Facility | PROJECT NO. | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: Kathy Smith | P.O. NUMBER | CONTRACT NO. |
| CLIENT (SITE) PM: Jeff Becken | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: JBECKEN@CHARTER.NET | |
| CLIENT ADDRESS: Wilmington, NC | | |
| COMPANY CONTRACTING THIS WORK (if applicable): Reiss Remediation - Elizabeth Page | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | 8270 | 8260 | Lead | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NA | HCl | $HNO_3$ | | | | | | | | |
| | | | | | | | | (2) | (4) | (1) | | | | | | | | |
| 2/22/05 | 1135 | 2 | | ✓ | | | | ✓ | ✓ | ✓ | | | | | | | | |
| 2/22/05 | 1300 | 7 | | ✓ | | | | ✓ | ✓ | ✓ | | | | | | | | |
| 2/22/05 | 1410 | 20 | | ✓ | | | | ✓ | ✓ | ✓ | | | | | | | | |

TEMP. 4.8

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | | 12/27/05 | 12:30 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| | 122205 | 1109 | YES ○ NO ○ | | 680-12091 | |

STL8240-680 (12/02)

# ANALYTICAL REPORT

Job Number: 680-12192-1

Job Description: FHR North Gas/Fuel Oil Facility

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
01/16/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |
| Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) | STL-SAV | SW846 8270C | |
| Continuous Liquid-Liquid Extraction | STL-SAV | | SW846 3520C |
| Inductively Coupled Plasma - Atomic Emission Spectrometry | STL-SAV | SW846 6010B | |
| Acid Digestion of Aqueous Samples and Extracts | STL-SAV | | SW846 3010A |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-12192-1 | 3 | Water | 12/28/2005 1015 | 12/30/2005 1115 |
| 680-12192-2 | 21 | Water | 12/28/2005 1057 | 12/30/2005 1115 |
| 680-12192-3 | 6 | Water | 12/28/2005 1140 | 12/30/2005 1115 |
| 680-12192-4 | 8 | Water | 12/28/2005 1215 | 12/30/2005 1115 |
| 680-12192-5 | 12 | Water | 12/28/2005 1330 | 12/30/2005 1115 |
| 680-12192-6 | 19 | Water | 12/28/2005 1413 | 12/30/2005 1115 |
| 680-12192-7 | 15 | Water | 12/28/2005 1450 | 12/30/2005 1115 |
| 680-12192-8 | 14 | Water | 12/28/2005 1525 | 12/30/2005 1115 |
| 680-12192-9 | 1 | Water | 12/28/2005 1025 | 12/30/2005 1115 |
| 680-12192-10 | Unidentified | Water | 12/29/2005 1127 | 12/30/2005 1115 |
| 680-12192-11 | Trip Blank | Water | 12/29/2005 0000 | 12/30/2005 1115 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 3

Lab Sample ID: 680-12192-1
Client Matrix: Water

Date Sampled: 12/28/2005 1015
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1614
Date Prepared: 01/06/2006 1614

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0122.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 102 | 79 - 122 |
| 4-Bromofluorobenzene | 104 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 21**

Lab Sample ID: 680-12192-2
Client Matrix: Water

Date Sampled: 12/28/2005 1057
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 01/06/2006 1645
Date Prepared: 01/06/2006 1645

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0124.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 13 | U | 13 | 25 |
| Bromomethane | 23 | U | 23 | 25 |
| Vinyl chloride | 23 | U | 23 | 25 |
| Chloroethane | 22 | U | 22 | 25 |
| Methylene Chloride | 11 | U | 11 | 130 |
| Acetone | 180 | U | 180 | 630 |
| Carbon disulfide | 19 | U | 19 | 25 |
| 1,1-Dichloroethene | 23 | U | 23 | 25 |
| 1,1-Dichloroethane | 14 | U | 14 | 25 |
| cis-1,2-Dichloroethene | 14 | U | 14 | 25 |
| trans-1,2-Dichloroethene | 20 | U | 20 | 25 |
| Chloroform | 13 | U | 13 | 25 |
| 1,2-Dichloroethane | 7.0 | U | 7.0 | 25 |
| Methyl Ethyl Ketone | 18 | U | 18 | 250 |
| 1,1,1-Trichloroethane | 20 | U | 20 | 25 |
| Carbon tetrachloride | 23 | U | 23 | 25 |
| Dichlorobromomethane | 11 | U | 11 | 25 |
| 1,1,2,2-Tetrachloroethane | 5.3 | U | 5.3 | 25 |
| 1,2-Dichloropropane | 6.5 | U | 6.5 | 25 |
| trans-1,3-Dichloropropene | 9.0 | U | 9.0 | 25 |
| Trichloroethene | 18 | U | 18 | 25 |
| Chlorodibromomethane | 10 | U | 10 | 25 |
| 1,1,2-Trichloroethane | 9.3 | U | 9.3 | 25 |
| Benzene | 370 | | 14 | 25 |
| cis-1,3-Dichloropropene | 10 | U | 10 | 25 |
| Bromoform | 9.0 | U | 9.0 | 25 |
| 2-Hexanone | 9.8 | U | 9.8 | 250 |
| methyl isobutyl ketone | 11 | U | 11 | 250 |
| Tetrachloroethene | 19 | U | 19 | 25 |
| Toluene | 4800 | | 16 | 25 |
| Chlorobenzene | 10 | U | 10 | 25 |
| Ethylbenzene | 290 | | 16 | 25 |
| Styrene | 11 | U | 11 | 25 |
| Xylenes, Total | 2900 | | 33 | 50 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 101 | 79 - 122 |
| 4-Bromofluorobenzene | 103 | 77 - 120 |
| Dibromofluoromethane | 97 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 6

Lab Sample ID: 680-12192-3
Client Matrix: Water

Date Sampled: 12/28/2005 1140
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1716
Date Prepared: 01/06/2006 1716

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0126.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 1.3 | | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 3.2 | | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 13 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 99 | 79 - 122 |
| 4-Bromofluorobenzene | 108 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 8

Lab Sample ID: 680-12192-4
Client Matrix: Water

Date Sampled: 12/28/2005 1215
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1746
Date Prepared: 01/06/2006 1746

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0128.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.67 | J | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 2.8 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 101 | 79 - 122 |
| 4-Bromofluorobenzene | 103 | 77 - 120 |
| Dibromofluoromethane | 98 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **12**

Lab Sample ID: 680-12192-5
Client Matrix: Water

Date Sampled: 12/28/2005 1330
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1817
Date Prepared: 01/06/2006 1817

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0130.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 102 | 79 - 122 |
| 4-Bromofluorobenzene | 107 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 19

Lab Sample ID: 680-12192-6
Client Matrix: Water

Date Sampled: 12/28/2005 1413
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1848
Date Prepared: 01/06/2006 1848

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0132.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.4 | J | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 104 | 79 - 122 |
| 4-Bromofluorobenzene | 104 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **15**

Lab Sample ID: 680-12192-7
Client Matrix: Water

Date Sampled: 12/28/2005 1450
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1919
Date Prepared: 01/06/2006 1919

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0134.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 17 | J | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 103 | 79 - 122 |
| 4-Bromofluorobenzene | 99 | 77 - 120 |
| Dibromofluoromethane | 98 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **14**

Lab Sample ID: 680-12192-8
Client Matrix: Water

Date Sampled: 12/28/2005 1525
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 1950
Date Prepared: 01/06/2006 1950

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0136.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 43 | | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 4.6 | J | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 15 | | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 3.5 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 107 | 79 - 122 |
| 4-Bromofluorobenzene | 103 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 1

Lab Sample ID: 680-12192-9
Client Matrix: Water

Date Sampled: 12/28/2005 1025
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/06/2006 2021
Date Prepared: 01/06/2006 2021

Analysis Batch: 680-33214

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0138.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 5.4 | | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 9.9 | | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 4.7 | | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 89 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 102 | 79 - 122 |
| 4-Bromofluorobenzene | 105 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **Unidentified**

Lab Sample ID: 680-12192-10
Client Matrix: Water

Date Sampled: 12/29/2005 1127
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 01/11/2006 0903
Date Prepared: 01/11/2006 0903

Analysis Batch: 680-33436

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0219.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 53 | U | 53 | 100 |
| Bromomethane | 93 | U | 93 | 100 |
| Vinyl chloride | 92 | U | 92 | 100 |
| Chloroethane | 89 | U | 89 | 100 |
| Methylene Chloride | 44 | U | 44 | 500 |
| Acetone | 730 | U | 730 | 2500 |
| Carbon disulfide | 75 | U | 75 | 100 |
| 1,1-Dichloroethene | 93 | U | 93 | 100 |
| 1,1-Dichloroethane | 56 | U | 56 | 100 |
| cis-1,2-Dichloroethene | 55 | U | 55 | 100 |
| trans-1,2-Dichloroethene | 80 | U | 80 | 100 |
| Chloroform | 52 | U | 52 | 100 |
| 1,2-Dichloroethane | 28 | U | 28 | 100 |
| Methyl Ethyl Ketone | 72 | U | 72 | 1000 |
| 1,1,1-Trichloroethane | 79 | U | 79 | 100 |
| Carbon tetrachloride | 91 | U | 91 | 100 |
| Dichlorobromomethane | 42 | U | 42 | 100 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 21 | 100 |
| 1,2-Dichloropropane | 26 | U | 26 | 100 |
| trans-1,3-Dichloropropene | 36 | U | 36 | 100 |
| Trichloroethene | 71 | U | 71 | 100 |
| Chlorodibromomethane | 40 | U | 40 | 100 |
| 1,1,2-Trichloroethane | 37 | U | 37 | 100 |
| Benzene | 54 | U | 54 | 100 |
| cis-1,3-Dichloropropene | 41 | U | 41 | 100 |
| Bromoform | 36 | U | 36 | 100 |
| 2-Hexanone | 39 | U | 39 | 1000 |
| methyl isobutyl ketone | 45 | U | 45 | 1000 |
| Tetrachloroethene | 75 | U | 75 | 100 |
| Toluene | 5200 | | 62 | 100 |
| Chlorobenzene | 41 | U | 41 | 100 |
| Ethylbenzene | 460 | | 62 | 100 |
| Styrene | 42 | U | 42 | 100 |
| Xylenes, Total | 5700 | | 130 | 200 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 98 | 79 - 122 |
| 4-Bromofluorobenzene | 98 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **Trip Blank**

Lab Sample ID: 680-12192-11
Client Matrix: Water

Date Sampled: 12/29/2005 0000
Date Received: 12/30/2005 1115

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/11/2006 0832
Date Prepared: 01/11/2006 0832

Analysis Batch: 680-33436

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0217.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 96 | 79 - 122 |
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 96 | 75 - 123 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 3

Lab Sample ID: 680-12192-1
Client Matrix: Water

Date Sampled: 12/28/2005 1015
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1427
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7346.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 0.94 | U | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 0.72 | U | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 0.50 | U | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 3

Lab Sample ID: 680-12192-1
Client Matrix: Water

Date Sampled: 12/28/2005 1015
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1427
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7346.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 66 | 55 - 104 |
| 2-Fluorophenol | 61 | 56 - 100 |
| 2,4,6-Tribromophenol | 76 | 55 - 126 |
| Nitrobenzene-d5 | 79 | 60 - 102 |
| 2-Fluorobiphenyl | 69 | 59 - 103 |
| Terphenyl-d14 | 79 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 21

Lab Sample ID: 680-12192-2
Client Matrix: Water

Date Sampled: 12/28/2005 1057
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1452
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7347.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 2.3 | J | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 13 | | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 81 | | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 1.3 | J | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **21**

Lab Sample ID: 680-12192-2
Client Matrix: Water

Date Sampled: 12/28/2005 1057
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1452
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7347.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 67 | 55 - 104 |
| 2-Fluorophenol | 61 | 56 - 100 |
| 2,4,6-Tribromophenol | 77 | 55 - 126 |
| Nitrobenzene-d5 | 86 | 60 - 102 |
| 2-Fluorobiphenyl | 67 | 59 - 103 |
| Terphenyl-d14 | 36 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 6

Lab Sample ID: 680-12192-3
Client Matrix: Water

Date Sampled: 12/28/2005 1140
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1518
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7348.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 0.94 | U | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 0.89 | J | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 0.50 | U | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 6

Lab Sample ID: 680-12192-3
Client Matrix: Water

Date Sampled: 12/28/2005 1140
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1518
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7348.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 80 | 55 - 104 |
| 2-Fluorophenol | 75 | 56 - 100 |
| 2,4,6-Tribromophenol | 77 | 55 - 126 |
| Nitrobenzene-d5 | 97 | 60 - 102 |
| 2-Fluorobiphenyl | 82 | 59 - 103 |
| Terphenyl-d14 | 90 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 8

Lab Sample ID: 680-12192-4
Client Matrix: Water

Date Sampled: 12/28/2005 1215
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1543
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7349.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 0.94 | U | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 0.72 | U | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 9.5 | | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 8

Lab Sample ID: 680-12192-4
Client Matrix: Water

Date Sampled: 12/28/2005 1215
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1543
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7349.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 85 | 55 - 104 |
| 2-Fluorophenol | 78 | 56 - 100 |
| 2,4,6-Tribromophenol | 86 | 55 - 126 |
| Nitrobenzene-d5 | 99 | 60 - 102 |
| 2-Fluorobiphenyl | 90 | 59 - 103 |
| Terphenyl-d14 | 95 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 12**

Lab Sample ID: 680-12192-5
Client Matrix: Water

Date Sampled: 12/28/2005 1330
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1609
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7350.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 0.94 | U | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 0.72 | U | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 0.50 | U | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 12

Lab Sample ID: 680-12192-5
Client Matrix: Water

Date Sampled: 12/28/2005 1330
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1609
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7350.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 87 | 55 - 104 |
| 2-Fluorophenol | 80 | 56 - 100 |
| 2,4,6-Tribromophenol | 90 | 55 - 126 |
| Nitrobenzene-d5 | 97 | 60 - 102 |
| 2-Fluorobiphenyl | 84 | 59 - 103 |
| Terphenyl-d14 | 97 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 19

Lab Sample ID: 680-12192-6
Client Matrix: Water

Date Sampled: 12/28/2005 1413
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1635
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7351.d
Initial Weight/Volume: 1040 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.95 | U | 0.95 | 9.6 |
| Bis(2-chloroethyl)ether | 0.69 | U | 0.69 | 9.6 |
| 2-Chlorophenol | 0.69 | U | 0.69 | 9.6 |
| 1,3-Dichlorobenzene | 0.53 | U | 0.53 | 9.6 |
| 1,4-Dichlorobenzene | 0.50 | U | 0.50 | 9.6 |
| 1,2-Dichlorobenzene | 0.96 | U | 0.96 | 9.6 |
| 2-Methylphenol | 0.67 | U | 0.67 | 9.6 |
| N-Nitrosodi-n-propylamine | 0.60 | U | 0.60 | 9.6 |
| Hexachloroethane | 0.96 | U | 0.96 | 9.6 |
| Nitrobenzene | 0.89 | U | 0.89 | 9.6 |
| Isophorone | 0.64 | U | 0.64 | 9.6 |
| 2-Nitrophenol | 0.70 | U | 0.70 | 9.6 |
| 2,4-Dimethylphenol | 0.96 | U | 0.96 | 9.6 |
| Bis(2-chloroethoxy)methane | 0.75 | U | 0.75 | 9.6 |
| 2,4-Dichlorophenol | 0.63 | U | 0.63 | 9.6 |
| 1,2,4-Trichlorobenzene | 0.52 | U | 0.52 | 9.6 |
| Naphthalene | 0.73 | U | 0.73 | 9.6 |
| 4-Chloroaniline | 0.50 | U | 0.50 | 19 |
| Hexachlorobutadiene | 0.96 | U | 0.96 | 9.6 |
| 4-Chloro-3-methylphenol | 0.53 | U | 0.53 | 9.6 |
| 2-Methylnaphthalene | 1.4 | J | 0.51 | 9.6 |
| Hexachlorocyclopentadiene | 4.8 | U | 4.8 | 9.6 |
| 2,4,6-Trichlorophenol | 0.67 | U | 0.67 | 9.6 |
| 2,4,5-Trichlorophenol | 0.61 | U | 0.61 | 9.6 |
| 2-Chloronaphthalene | 0.60 | U | 0.60 | 9.6 |
| 2-Nitroaniline | 0.66 | U | 0.66 | 48 |
| Dimethyl phthalate | 0.57 | U | 0.57 | 9.6 |
| Acenaphthylene | 0.56 | U | 0.56 | 9.6 |
| 3-Nitroaniline | 0.66 | U | 0.66 | 48 |
| Acenaphthene | 0.62 | U | 0.62 | 9.6 |
| 2,4-Dinitrophenol | 4.8 | U | 4.8 | 48 |
| 4-Nitrophenol | 3.3 | U | 3.3 | 48 |
| Dibenzofuran | 0.66 | U | 0.66 | 9.6 |
| 2,4-Dinitrotoluene | 0.54 | U | 0.54 | 9.6 |
| 2,6-Dinitrotoluene | 0.55 | U | 0.55 | 9.6 |
| 3 & 4 Methylphenol | 0.63 | U | 0.63 | 9.6 |
| Diethyl phthalate | 0.57 | U | 0.57 | 9.6 |
| 4-Chlorophenyl phenyl ether | 0.54 | U | 0.54 | 9.6 |
| Fluorene | 0.53 | U | 0.53 | 9.6 |
| 4-Nitroaniline | 0.82 | U | 0.82 | 48 |
| 4,6-Dinitro-2-methylphenol | 0.96 | U | 0.96 | 48 |
| N-Nitrosodiphenylamine | 0.77 | U | 0.77 | 9.6 |
| 4-Bromophenyl phenyl ether | 0.82 | U | 0.82 | 9.6 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 19**

Lab Sample ID: 680-12192-6
Client Matrix: Water

Date Sampled: 12/28/2005 1413
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1635
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7351.d
Initial Weight/Volume: 1040 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.1 | U | 1.1 | 9.6 |
| Pentachlorophenol | 2.4 | U | 2.4 | 48 |
| Phenanthrene | 0.71 | U | 0.71 | 9.6 |
| Anthracene | 0.85 | U | 0.85 | 9.6 |
| Di-n-butyl phthalate | 0.79 | U | 0.79 | 9.6 |
| Fluoranthene | 0.96 | U | 0.96 | 9.6 |
| Pyrene | 0.96 | U | 0.96 | 9.6 |
| Butyl benzyl phthalate | 0.67 | U | 0.67 | 9.6 |
| 3,3'-Dichlorobenzidine | 0.96 | U * | 0.96 | 19 |
| Benzo[a]anthracene | 0.56 | U | 0.56 | 9.6 |
| Bis(2-ethylhexyl) phthalate | 0.94 | U | 0.94 | 9.6 |
| Chrysene | 0.96 | U | 0.96 | 9.6 |
| Di-n-octyl phthalate | 0.77 | U | 0.77 | 9.6 |
| Benzo[b]fluoranthene | 0.75 | U | 0.75 | 9.6 |
| Benzo[k]fluoranthene | 0.70 | U | 0.70 | 9.6 |
| Benzo[a]pyrene | 0.96 | U | 0.96 | 9.6 |
| Indeno[1,2,3-cd]pyrene | 0.60 | U | 0.60 | 9.6 |
| Dibenz(a,h)anthracene | 0.96 | U | 0.96 | 9.6 |
| Benzo[g,h,i]perylene | 0.96 | U | 0.96 | 9.6 |
| Carbazole | 0.79 | U | 0.79 | 9.6 |
| bis(chloroisopropyl) ether | 0.79 | U | 0.79 | 9.6 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 76 | 55 - 104 |
| 2-Fluorophenol | 72 | 56 - 100 |
| 2,4,6-Tribromophenol | 79 | 55 - 126 |
| Nitrobenzene-d5 | 94 | 60 - 102 |
| 2-Fluorobiphenyl | 79 | 59 - 103 |
| Terphenyl-d14 | 49 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 15

Lab Sample ID: 680-12192-7
Client Matrix: Water

Date Sampled: 12/28/2005 1450
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1700
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7352.d
Initial Weight/Volume: 1040 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 4.4 | J | 0.95 | 9.6 |
| Bis(2-chloroethyl)ether | 0.69 | U | 0.69 | 9.6 |
| 2-Chlorophenol | 0.69 | U | 0.69 | 9.6 |
| 1,3-Dichlorobenzene | 0.53 | U | 0.53 | 9.6 |
| 1,4-Dichlorobenzene | 0.50 | U | 0.50 | 9.6 |
| 1,2-Dichlorobenzene | 0.96 | U | 0.96 | 9.6 |
| 2-Methylphenol | 0.67 | U | 0.67 | 9.6 |
| N-Nitrosodi-n-propylamine | 0.60 | U | 0.60 | 9.6 |
| Hexachloroethane | 0.96 | U | 0.96 | 9.6 |
| Nitrobenzene | 0.89 | U | 0.89 | 9.6 |
| Isophorone | 0.64 | U | 0.64 | 9.6 |
| 2-Nitrophenol | 0.70 | U | 0.70 | 9.6 |
| 2,4-Dimethylphenol | 0.96 | U | 0.96 | 9.6 |
| Bis(2-chloroethoxy)methane | 0.75 | U | 0.75 | 9.6 |
| 2,4-Dichlorophenol | 0.63 | U | 0.63 | 9.6 |
| 1,2,4-Trichlorobenzene | 0.52 | U | 0.52 | 9.6 |
| Naphthalene | 0.73 | U | 0.73 | 9.6 |
| 4-Chloroaniline | 0.50 | U | 0.50 | 19 |
| Hexachlorobutadiene | 0.96 | U | 0.96 | 9.6 |
| 4-Chloro-3-methylphenol | 0.53 | U | 0.53 | 9.6 |
| 2-Methylnaphthalene | 0.51 | U | 0.51 | 9.6 |
| Hexachlorocyclopentadiene | 4.8 | U | 4.8 | 9.6 |
| 2,4,6-Trichlorophenol | 0.67 | U | 0.67 | 9.6 |
| 2,4,5-Trichlorophenol | 0.61 | U | 0.61 | 9.6 |
| 2-Chloronaphthalene | 0.60 | U | 0.60 | 9.6 |
| 2-Nitroaniline | 0.66 | U | 0.66 | 48 |
| Dimethyl phthalate | 0.57 | U | 0.57 | 9.6 |
| Acenaphthylene | 0.56 | U | 0.56 | 9.6 |
| 3-Nitroaniline | 0.66 | U | 0.66 | 48 |
| Acenaphthene | 0.62 | U | 0.62 | 9.6 |
| 2,4-Dinitrophenol | 4.8 | U | 4.8 | 48 |
| 4-Nitrophenol | 3.3 | U | 3.3 | 48 |
| Dibenzofuran | 0.66 | U | 0.66 | 9.6 |
| 2,4-Dinitrotoluene | 0.54 | U | 0.54 | 9.6 |
| 2,6-Dinitrotoluene | 0.55 | U | 0.55 | 9.6 |
| 3 & 4 Methylphenol | 17 | | 0.63 | 9.6 |
| Diethyl phthalate | 0.57 | U | 0.57 | 9.6 |
| 4-Chlorophenyl phenyl ether | 0.54 | U | 0.54 | 9.6 |
| Fluorene | 0.53 | U | 0.53 | 9.6 |
| 4-Nitroaniline | 0.82 | U | 0.82 | 48 |
| 4,6-Dinitro-2-methylphenol | 0.96 | U | 0.96 | 48 |
| N-Nitrosodiphenylamine | 0.77 | U | 0.77 | 9.6 |
| 4-Bromophenyl phenyl ether | 0.82 | U | 0.82 | 9.6 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **15**

Lab Sample ID: 680-12192-7
Client Matrix: Water

Date Sampled: 12/28/2005 1450
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1700
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7352.d
Initial Weight/Volume: 1040 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.1 | U | 1.1 | 9.6 |
| Pentachlorophenol | 2.4 | U | 2.4 | 48 |
| Phenanthrene | 0.71 | U | 0.71 | 9.6 |
| Anthracene | 0.85 | U | 0.85 | 9.6 |
| Di-n-butyl phthalate | 0.79 | U | 0.79 | 9.6 |
| Fluoranthene | 0.96 | U | 0.96 | 9.6 |
| Pyrene | 0.96 | U | 0.96 | 9.6 |
| Butyl benzyl phthalate | 0.67 | U | 0.67 | 9.6 |
| 3,3'-Dichlorobenzidine | 0.96 | U * | 0.96 | 19 |
| Benzo[a]anthracene | 0.56 | U | 0.56 | 9.6 |
| Bis(2-ethylhexyl) phthalate | 0.94 | U | 0.94 | 9.6 |
| Chrysene | 0.96 | U | 0.96 | 9.6 |
| Di-n-octyl phthalate | 0.77 | U | 0.77 | 9.6 |
| Benzo[b]fluoranthene | 0.75 | U | 0.75 | 9.6 |
| Benzo[k]fluoranthene | 0.70 | U | 0.70 | 9.6 |
| Benzo[a]pyrene | 0.96 | U | 0.96 | 9.6 |
| Indeno[1,2,3-cd]pyrene | 0.60 | U | 0.60 | 9.6 |
| Dibenz(a,h)anthracene | 0.96 | U | 0.96 | 9.6 |
| Benzo[g,h,i]perylene | 0.96 | U | 0.96 | 9.6 |
| Carbazole | 0.79 | U | 0.79 | 9.6 |
| bis(chloroisopropyl) ether | 0.79 | U | 0.79 | 9.6 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 71 | 55 - 104 |
| 2-Fluorophenol | 69 | 56 - 100 |
| 2,4,6-Tribromophenol | 83 | 55 - 126 |
| Nitrobenzene-d5 | 90 | 60 - 102 |
| 2-Fluorobiphenyl | 73 | 59 - 103 |
| Terphenyl-d14 | 32 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **14**

Lab Sample ID: 680-12192-8
Client Matrix: Water

Date Sampled: 12/28/2005 1525
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1726
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7353.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 0.94 | U | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 0.72 | U | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 0.50 | U | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 14**

Lab Sample ID: 680-12192-8
Client Matrix: Water

Date Sampled: 12/28/2005 1525
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1726
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7353.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 73 | 55 - 104 |
| 2-Fluorophenol | 72 | 56 - 100 |
| 2,4,6-Tribromophenol | 88 | 55 - 126 |
| Nitrobenzene-d5 | 97 | 60 - 102 |
| 2-Fluorobiphenyl | 79 | 59 - 103 |
| Terphenyl-d14 | 22 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 1

Lab Sample ID: 680-12192-9
Client Matrix: Water

Date Sampled: 12/28/2005 1025
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1752
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7354.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 1.7 | J | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 0.79 | J | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 0.50 | U | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** 1

Lab Sample ID: 680-12192-9
Client Matrix: Water

Date Sampled: 12/28/2005 1025
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1752
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7354.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 0.70 | U | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 0.92 | U | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| Phenol-d5 | 83 | | 55 - 104 |
| 2-Fluorophenol | 76 | | 56 - 100 |
| 2,4,6-Tribromophenol | 91 | | 55 - 126 |
| Nitrobenzene-d5 | 103 | * | 60 - 102 |
| 2-Fluorobiphenyl | 84 | | 59 - 103 |
| Terphenyl-d14 | 39 | | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **Unidentified**

Lab Sample ID: 680-12192-10
Client Matrix: Water

Date Sampled: 12/29/2005 1127
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1817
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7355.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 1.6 | J | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 0.66 | U | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 0.94 | U | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 140 | | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 77 | | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 0.60 | U | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 0.62 | U | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 0.52 | U | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **Unidentified**

Lab Sample ID: 680-12192-10
Client Matrix: Water

Date Sampled: 12/29/2005 1127
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/06/2006 1817
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7355.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 5.7 | J | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U * | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 52 | | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| Phenol-d5 | 64 | | 55 - 104 |
| 2-Fluorophenol | 54 | * | 56 - 100 |
| 2,4,6-Tribromophenol | 80 | | 55 - 126 |
| Nitrobenzene-d5 | 89 | | 60 - 102 |
| 2-Fluorobiphenyl | 74 | | 59 - 103 |
| Terphenyl-d14 | 32 | | 10 - 154 |

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/13/2006 1326
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Run Type: RE

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3079.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.93 | U | 0.93 | 9.4 |
| Bis(2-chloroethyl)ether | 0.68 | U | 0.68 | 9.4 |
| 2-Chlorophenol | 0.68 | U | 0.68 | 9.4 |
| 1,3-Dichlorobenzene | 0.52 | U | 0.52 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **Unidentified**

Lab Sample ID: 680-12192-10
Client Matrix: Water

Date Sampled: 12/29/2005 1127
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/13/2006 1326
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Run Type: RE

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3079.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | 0.49 | U | 0.49 | 9.4 |
| 1,2-Dichlorobenzene | 0.94 | U | 0.94 | 9.4 |
| 2-Methylphenol | 16 | | 0.66 | 9.4 |
| N-Nitrosodi-n-propylamine | 0.58 | U | 0.58 | 9.4 |
| Hexachloroethane | 0.94 | U | 0.94 | 9.4 |
| Nitrobenzene | 0.88 | U | 0.88 | 9.4 |
| Isophorone | 0.63 | U | 0.63 | 9.4 |
| 2-Nitrophenol | 0.69 | U | 0.69 | 9.4 |
| 2,4-Dimethylphenol | 11 | | 0.94 | 9.4 |
| Bis(2-chloroethoxy)methane | 0.74 | U | 0.74 | 9.4 |
| 2,4-Dichlorophenol | 0.62 | U | 0.62 | 9.4 |
| 1,2,4-Trichlorobenzene | 0.51 | U | 0.51 | 9.4 |
| Naphthalene | 140 | | 0.72 | 9.4 |
| 4-Chloroaniline | 0.49 | U | 0.49 | 19 |
| Hexachlorobutadiene | 0.94 | U | 0.94 | 9.4 |
| 4-Chloro-3-methylphenol | 0.52 | U | 0.52 | 9.4 |
| 2-Methylnaphthalene | 61 | | 0.50 | 9.4 |
| Hexachlorocyclopentadiene | 4.7 | U | 4.7 | 9.4 |
| 2,4,6-Trichlorophenol | 0.66 | U | 0.66 | 9.4 |
| 2,4,5-Trichlorophenol | 0.59 | U | 0.59 | 9.4 |
| 2-Chloronaphthalene | 0.58 | U | 0.58 | 9.4 |
| 2-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Dimethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| Acenaphthylene | 0.55 | U | 0.55 | 9.4 |
| 3-Nitroaniline | 0.65 | U | 0.65 | 47 |
| Acenaphthene | 1.9 | J | 0.60 | 9.4 |
| 2,4-Dinitrophenol | 4.7 | U | 4.7 | 47 |
| 4-Nitrophenol | 3.2 | U | 3.2 | 47 |
| Dibenzofuran | 0.65 | U | 0.65 | 9.4 |
| 2,4-Dinitrotoluene | 0.53 | U | 0.53 | 9.4 |
| 2,6-Dinitrotoluene | 0.54 | U | 0.54 | 9.4 |
| 3 & 4 Methylphenol | 12 | | 0.62 | 9.4 |
| Diethyl phthalate | 0.56 | U | 0.56 | 9.4 |
| 4-Chlorophenyl phenyl ether | 0.53 | U | 0.53 | 9.4 |
| Fluorene | 2.3 | J | 0.52 | 9.4 |
| 4-Nitroaniline | 0.80 | U | 0.80 | 47 |
| 4,6-Dinitro-2-methylphenol | 0.94 | U | 0.94 | 47 |
| N-Nitrosodiphenylamine | 0.75 | U | 0.75 | 9.4 |
| 4-Bromophenyl phenyl ether | 0.80 | U | 0.80 | 9.4 |
| Hexachlorobenzene | 1.0 | U | 1.0 | 9.4 |
| Pentachlorophenol | 2.4 | U | 2.4 | 47 |
| Phenanthrene | 3.6 | J | 0.70 | 9.4 |
| Anthracene | 0.83 | U | 0.83 | 9.4 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID:** **Unidentified**

Lab Sample ID: 680-12192-10
Client Matrix: Water

Date Sampled: 12/29/2005 1127
Date Received: 12/30/2005 1115

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 01/13/2006 1326
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Run Type: RE

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3079.d
Initial Weight/Volume: 1060 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Di-n-butyl phthalate | 0.77 | U | 0.77 | 9.4 |
| Fluoranthene | 0.94 | U | 0.94 | 9.4 |
| Pyrene | 0.94 | U | 0.94 | 9.4 |
| Butyl benzyl phthalate | 0.66 | U | 0.66 | 9.4 |
| 3,3'-Dichlorobenzidine | 0.94 | U | 0.94 | 19 |
| Benzo[a]anthracene | 0.55 | U | 0.55 | 9.4 |
| Bis(2-ethylhexyl) phthalate | 20 | | 0.92 | 9.4 |
| Chrysene | 0.94 | U | 0.94 | 9.4 |
| Di-n-octyl phthalate | 0.75 | U | 0.75 | 9.4 |
| Benzo[b]fluoranthene | 0.74 | U | 0.74 | 9.4 |
| Benzo[k]fluoranthene | 0.69 | U | 0.69 | 9.4 |
| Benzo[a]pyrene | 0.94 | U | 0.94 | 9.4 |
| Indeno[1,2,3-cd]pyrene | 0.58 | U | 0.58 | 9.4 |
| Dibenz(a,h)anthracene | 0.94 | U | 0.94 | 9.4 |
| Benzo[g,h,i]perylene | 0.94 | U | 0.94 | 9.4 |
| Carbazole | 0.77 | U | 0.77 | 9.4 |
| bis(chloroisopropyl) ether | 0.77 | U | 0.77 | 9.4 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 68 | 55 - 104 |
| 2-Fluorophenol | 72 | 56 - 100 |
| 2,4,6-Tribromophenol | 79 | 55 - 126 |
| Nitrobenzene-d5 | 76 | 60 - 102 |
| 2-Fluorobiphenyl | 71 | 59 - 103 |
| Terphenyl-d14 | 39 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 3**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-1 | Date Sampled: | 12/28/2005 1015 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2125 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 3.5 | U | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 21**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-2 | Date Sampled: | 12/28/2005 1057 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2130 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 22 | | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 6**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-3 | Date Sampled: | 12/28/2005 1140 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2135 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 3.5 | U | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 8**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-4 | Date Sampled: | 12/28/2005 1215 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2150 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 10 | | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 12**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-5 | Date Sampled: | 12/28/2005 1330 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2155 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 19 | | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 19**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-6 | Date Sampled: | 12/28/2005 1413 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2159 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 29 | | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 15**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-7 | Date Sampled: | 12/28/2005 1450 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2204 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 3.5 | J | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 14**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-8 | Date Sampled: | 12/28/2005 1525 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2209 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 3.5 | U | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: 1**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-9 | Date Sampled: | 12/28/2005 1025 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2214 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 3.5 | U | 3.5 | 5.0 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Client Sample ID: Unidentified**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-12192-10 | Date Sampled: | 12/29/2005 1127 |
| Client Matrix: | Water | Date Received: | 12/30/2005 1115 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-33180 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-32758 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 50 mL |
| Date Analyzed: | 01/06/2006 2219 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 01/04/2006 0817 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Lead | 95 | | 3.5 | 5.0 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| GC/MS Semi VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | B | Compound was found in the blank and sample. |
| | * | LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| Metals | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-33214/3 | LCS | 107 | 98 | 100 |
| LCS 680-33436/3 | LCS | 96 | 96 | 98 |
| MB 680-33214/4 | MB | 103 | 98 | 103 |
| MB 680-33436/4 | MB | 97 | 93 | 92 |
| 680-12192-1 | 3 | 104 | 100 | 102 |
| 680-12192-2 | 21 | 103 | 97 | 101 |
| 680-12192-3 | 6 | 108 | 100 | 99 |
| 680-12192-4 | 8 | 103 | 98 | 101 |
| 680-12192-5 | 12 | 107 | 100 | 102 |
| 680-12192-6 | 19 | 104 | 100 | 104 |
| 680-12192-7 | 15 | 99 | 98 | 103 |
| 680-12192-8 | 14 | 103 | 100 | 107 |
| 680-12192-9 | 1 | 105 | 100 | 102 |
| 680-12192-10 | Unidentified | 98 | 93 | 98 |
| 680-12192-11 | Trip Blank | 96 | 96 | 96 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

## Surrogate Recovery Report

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (2FP) (%Rec) | (FBP) (%Rec) | (NBZ) (%Rec) | (PHL) (%Rec) | (TBP) (%Rec) | (TPH) (%Rec) |
|---|---|---|---|---|---|---|---|
| LCS 680-32689/22-A | LCS | 85 | 97 | 110 * | 88 | 91 | 94 |
| LCS 680-33446/6-A | LCS | 76 | 78 | 81 | 79 | 85 | 91 |
| MB 680-32689/21-A | MB | 80 | 92 | 101 | 83 | 83 | 95 |
| MB 680-33446/5-A | MB | 81 | 83 | 83 | 79 | 71 | 101 |
| 680-12192-1 | 3 | 61 | 69 | 79 | 66 | 76 | 79 |
| 680-12192-2 | 21 | 61 | 67 | 86 | 67 | 77 | 36 |
| 680-12192-3 | 6 | 75 | 82 | 97 | 80 | 77 | 90 |
| 680-12192-4 | 8 | 78 | 90 | 99 | 85 | 86 | 95 |
| 680-12192-5 | 12 | 80 | 84 | 97 | 87 | 90 | 97 |
| 680-12192-6 | 19 | 72 | 79 | 94 | 76 | 79 | 49 |
| 680-12192-7 | 15 | 69 | 73 | 90 | 71 | 83 | 32 |
| 680-12192-8 | 14 | 72 | 79 | 97 | 73 | 88 | 22 |
| 680-12192-9 | 1 | 76 | 84 | 103 * | 83 | 91 | 39 |
| 680-12192-10 | Unidentified | 54 * | 74 | 89 | 64 | 80 | 32 |
| 680-12192-10RE | Unidentified | 72 | 71 | 76 | 68 | 79 | 39 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (2FP) | 2-Fluorophenol | 56 - 100 |
| (FBP) | 2-Fluorobiphenyl | 59 - 103 |
| (NBZ) | Nitrobenzene-d5 | 60 - 102 |
| (PHL) | Phenol-d5 | 55 - 104 |
| (TBP) | 2,4,6-Tribromophenol | 55 - 126 |
| (TPH) | Terphenyl-d14 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-33214**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-33214/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 1135
Date Prepared: 01/06/2006 1135

Analysis Batch: 680-33214
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq244.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 103 | 79 - 122 |
| 4-Bromofluorobenzene | 103 | 77 - 120 |
| Dibromofluoromethane | 98 | 75 - 123 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Laboratory Control Sample - Batch: 680-33214**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-33214/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 1003
Date Prepared: 01/06/2006 1003

Analysis Batch: 680-33214
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq238.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Chloromethane | 50.0 | 43 | 86 | 51 - 133 | |
| Bromomethane | 50.0 | 52 | 104 | 21 - 176 | |
| Vinyl chloride | 50.0 | 43 | 86 | 59 - 136 | |
| Chloroethane | 50.0 | 47 | 94 | 40 - 171 | |
| Methylene Chloride | 50.0 | 45 | 90 | 67 - 128 | |
| Acetone | 100 | 85 | 85 | 20 - 183 | |
| Carbon disulfide | 50.0 | 42 | 83 | 60 - 130 | |
| 1,1-Dichloroethene | 50.0 | 44 | 88 | 64 - 132 | |
| 1,1-Dichloroethane | 50.0 | 48 | 96 | 70 - 127 | |
| cis-1,2-Dichloroethene | 50.0 | 46 | 93 | 69 - 126 | |
| trans-1,2-Dichloroethene | 50.0 | 47 | 94 | 67 - 130 | |
| Chloroform | 50.0 | 49 | 99 | 74 - 124 | |
| 1,2-Dichloroethane | 50.0 | 46 | 92 | 68 - 130 | |
| Methyl Ethyl Ketone | 100 | 86 | 86 | 51 - 142 | |
| 1,1,1-Trichloroethane | 50.0 | 49 | 98 | 70 - 132 | |
| Carbon tetrachloride | 50.0 | 52 | 103 | 64 - 137 | |
| Dichlorobromomethane | 50.0 | 47 | 94 | 74 - 128 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 51 | 103 | 71 - 127 | |
| 1,2-Dichloropropane | 50.0 | 47 | 95 | 74 - 123 | |
| trans-1,3-Dichloropropene | 50.0 | 52 | 103 | 75 - 126 | |
| Trichloroethene | 50.0 | 49 | 97 | 75 - 122 | |
| Chlorodibromomethane | 50.0 | 57 | 113 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 48 | 96 | 75 - 122 | |
| Benzene | 50.0 | 47 | 95 | 74 - 122 | |
| cis-1,3-Dichloropropene | 50.0 | 50 | 100 | 76 - 126 | |
| Bromoform | 50.0 | 58 | 115 | 64 - 132 | |
| 2-Hexanone | 100 | 98 | 98 | 58 - 139 | |
| methyl isobutyl ketone | 100 | 87 | 87 | 62 - 130 | |
| Tetrachloroethene | 50.0 | 55 | 110 | 70 - 133 | |
| Toluene | 50.0 | 50 | 100 | 75 - 122 | |
| Chlorobenzene | 50.0 | 55 | 109 | 75 - 123 | |
| Ethylbenzene | 50.0 | 55 | 110 | 77 - 123 | |
| Styrene | 50.0 | 55 | 110 | 75 - 125 | |
| Xylenes, Total | 150 | 160 | 108 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-33436**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-33436/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/11/2006 0801
Date Prepared: 01/11/2006 0801

Analysis Batch: 680-33436
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq279.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Acetone | 7.3 | U | 7.3 | 25 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Toluene-d8 | 92 | 79 - 122 |
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Laboratory Control Sample - Batch: 680-33436**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-33436/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/11/2006 0628
Date Prepared: 01/11/2006 0628

Analysis Batch: 680-33436
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq273.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Chloromethane | 50.0 | 46 | 92 | 51 - 133 | |
| Bromomethane | 50.0 | 50 | 100 | 21 - 176 | |
| Vinyl chloride | 50.0 | 51 | 103 | 59 - 136 | |
| Chloroethane | 50.0 | 36 | 72 | 40 - 171 | |
| Methylene Chloride | 50.0 | 44 | 89 | 67 - 128 | |
| Acetone | 100 | 76 | 76 | 20 - 183 | |
| Carbon disulfide | 50.0 | 42 | 85 | 60 - 130 | |
| 1,1-Dichloroethene | 50.0 | 45 | 90 | 64 - 132 | |
| 1,1-Dichloroethane | 50.0 | 45 | 90 | 70 - 127 | |
| cis-1,2-Dichloroethene | 50.0 | 46 | 91 | 69 - 126 | |
| trans-1,2-Dichloroethene | 50.0 | 45 | 89 | 67 - 130 | |
| Chloroform | 50.0 | 49 | 98 | 74 - 124 | |
| 1,2-Dichloroethane | 50.0 | 51 | 101 | 68 - 130 | |
| Methyl Ethyl Ketone | 100 | 72 | 72 | 51 - 142 | |
| 1,1,1-Trichloroethane | 50.0 | 53 | 106 | 70 - 132 | |
| Carbon tetrachloride | 50.0 | 55 | 109 | 64 - 137 | |
| Dichlorobromomethane | 50.0 | 51 | 102 | 74 - 128 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 46 | 91 | 71 - 127 | |
| 1,2-Dichloropropane | 50.0 | 46 | 93 | 74 - 123 | |
| trans-1,3-Dichloropropene | 50.0 | 50 | 99 | 75 - 126 | |
| Trichloroethene | 50.0 | 50 | 100 | 75 - 122 | |
| Chlorodibromomethane | 50.0 | 52 | 105 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 48 | 97 | 75 - 122 | |
| Benzene | 50.0 | 46 | 92 | 74 - 122 | |
| cis-1,3-Dichloropropene | 50.0 | 49 | 97 | 76 - 126 | |
| Bromoform | 50.0 | 54 | 109 | 64 - 132 | |
| 2-Hexanone | 100 | 83 | 83 | 58 - 139 | |
| methyl isobutyl ketone | 100 | 81 | 81 | 62 - 130 | |
| Tetrachloroethene | 50.0 | 50 | 99 | 70 - 133 | |
| Toluene | 50.0 | 49 | 99 | 75 - 122 | |
| Chlorobenzene | 50.0 | 49 | 99 | 75 - 123 | |
| Ethylbenzene | 50.0 | 50 | 100 | 77 - 123 | |
| Styrene | 50.0 | 52 | 104 | 75 - 125 | |
| Xylenes, Total | 150 | 150 | 101 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-32689**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: MB 680-32689/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 1102
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7338.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.99 | U | 0.99 | 10 |
| Bis(2-chloroethyl)ether | 0.72 | U | 0.72 | 10 |
| 2-Chlorophenol | 0.72 | U | 0.72 | 10 |
| 1,3-Dichlorobenzene | 0.55 | U | 0.55 | 10 |
| 1,4-Dichlorobenzene | 0.52 | U | 0.52 | 10 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 10 |
| 2-Methylphenol | 0.70 | U | 0.70 | 10 |
| N-Nitrosodi-n-propylamine | 0.62 | U | 0.62 | 10 |
| Hexachloroethane | 1.0 | U | 1.0 | 10 |
| Nitrobenzene | 0.93 | U | 0.93 | 10 |
| Isophorone | 0.67 | U | 0.67 | 10 |
| 2-Nitrophenol | 0.73 | U | 0.73 | 10 |
| 2,4-Dimethylphenol | 1.0 | U | 1.0 | 10 |
| Bis(2-chloroethoxy)methane | 0.78 | U | 0.78 | 10 |
| 2,4-Dichlorophenol | 0.66 | U | 0.66 | 10 |
| 1,2,4-Trichlorobenzene | 0.54 | U | 0.54 | 10 |
| Naphthalene | 0.76 | U | 0.76 | 10 |
| 4-Chloroaniline | 0.52 | U | 0.52 | 20 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 0.55 | U | 0.55 | 10 |
| 2-Methylnaphthalene | 0.53 | U | 0.53 | 10 |
| Hexachlorocyclopentadiene | 5.0 | U | 5.0 | 10 |
| 2,4,6-Trichlorophenol | 0.70 | U | 0.70 | 10 |
| 2,4,5-Trichlorophenol | 0.63 | U | 0.63 | 10 |
| 2-Chloronaphthalene | 0.62 | U | 0.62 | 10 |
| 2-Nitroaniline | 0.69 | U | 0.69 | 50 |
| Dimethyl phthalate | 0.59 | U | 0.59 | 10 |
| Acenaphthylene | 0.58 | U | 0.58 | 10 |
| 3-Nitroaniline | 0.69 | U | 0.69 | 50 |
| Acenaphthene | 0.64 | U | 0.64 | 10 |
| 2,4-Dinitrophenol | 5.0 | U | 5.0 | 50 |
| 4-Nitrophenol | 3.4 | U | 3.4 | 50 |
| Dibenzofuran | 0.69 | U | 0.69 | 10 |
| 2,4-Dinitrotoluene | 0.56 | U | 0.56 | 10 |
| 2,6-Dinitrotoluene | 0.57 | U | 0.57 | 10 |
| 3 & 4 Methylphenol | 0.66 | U | 0.66 | 10 |
| Diethyl phthalate | 0.59 | U | 0.59 | 10 |
| 4-Chlorophenyl phenyl ether | 0.56 | U | 0.56 | 10 |
| Fluorene | 0.55 | U | 0.55 | 10 |
| 4-Nitroaniline | 0.85 | U | 0.85 | 50 |
| 4,6-Dinitro-2-methylphenol | 1.0 | U | 1.0 | 50 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-32689**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: MB 680-32689/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 1102
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7338.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| N-Nitrosodiphenylamine | 0.80 | U | 0.80 | 10 |
| 4-Bromophenyl phenyl ether | 0.85 | U | 0.85 | 10 |
| Hexachlorobenzene | 1.1 | U | 1.1 | 10 |
| Pentachlorophenol | 2.5 | U | 2.5 | 50 |
| Phenanthrene | 0.74 | U | 0.74 | 10 |
| Anthracene | 0.88 | U | 0.88 | 10 |
| Di-n-butyl phthalate | 1.6 | J | 0.82 | 10 |
| Fluoranthene | 1.0 | U | 1.0 | 10 |
| Pyrene | 1.0 | U | 1.0 | 10 |
| Butyl benzyl phthalate | 0.70 | U | 0.70 | 10 |
| 3,3'-Dichlorobenzidine | 1.0 | U | 1.0 | 20 |
| Benzo[a]anthracene | 0.58 | U | 0.58 | 10 |
| Bis(2-ethylhexyl) phthalate | 0.98 | U | 0.98 | 10 |
| Chrysene | 1.0 | U | 1.0 | 10 |
| Di-n-octyl phthalate | 0.80 | U | 0.80 | 10 |
| Benzo[b]fluoranthene | 0.78 | U | 0.78 | 10 |
| Benzo[k]fluoranthene | 0.73 | U | 0.73 | 10 |
| Benzo[a]pyrene | 1.0 | U | 1.0 | 10 |
| Indeno[1,2,3-cd]pyrene | 0.62 | U | 0.62 | 10 |
| Dibenz(a,h)anthracene | 1.0 | U | 1.0 | 10 |
| Benzo[g,h,i]perylene | 1.0 | U | 1.0 | 10 |
| Carbazole | 0.82 | U | 0.82 | 10 |
| bis(chloroisopropyl) ether | 0.82 | U | 0.82 | 10 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 83 | 55 - 104 |
| 2-Fluorophenol | 80 | 56 - 100 |
| 2,4,6-Tribromophenol | 83 | 55 - 126 |
| Nitrobenzene-d5 | 101 | 60 - 102 |
| 2-Fluorobiphenyl | 92 | 59 - 103 |
| Terphenyl-d14 | 95 | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Laboratory Control Sample - Batch: 680-32689**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: LCS 680-32689/22-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 1219
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7341.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Phenol | 100 | 84 | 84 | 46 - 106 | |
| Bis(2-chloroethyl)ether | 100 | 94 | 94 | 48 - 108 | |
| 2-Chlorophenol | 100 | 83 | 83 | 54 - 106 | |
| 1,3-Dichlorobenzene | 100 | 74 | 74 | 38 - 97 | |
| 1,4-Dichlorobenzene | 100 | 73 | 73 | 40 - 92 | |
| 1,2-Dichlorobenzene | 100 | 76 | 76 | 42 - 98 | |
| 2-Methylphenol | 100 | 89 | 89 | 57 - 110 | |
| N-Nitrosodi-n-propylamine | 100 | 93 | 93 | 49 - 135 | |
| Hexachloroethane | 100 | 72 | 72 | 35 - 89 | |
| Nitrobenzene | 100 | 100 | 103 | 57 - 110 | |
| Isophorone | 100 | 100 | 100 | 60 - 113 | |
| 2-Nitrophenol | 100 | 100 | 101 | 59 - 114 | |
| 2,4-Dimethylphenol | 100 | 91 | 91 | 51 - 111 | |
| Bis(2-chloroethoxy)methane | 100 | 96 | 96 | 55 - 115 | |
| 2,4-Dichlorophenol | 100 | 95 | 95 | 62 - 112 | |
| 1,2,4-Trichlorobenzene | 100 | 86 | 86 | 46 - 99 | |
| Naphthalene | 100 | 87 | 87 | 42 - 108 | |
| 4-Chloroaniline | 100 | 50 | 50 | 22 - 107 | |
| Hexachlorobutadiene | 100 | 88 | 88 | 43 - 109 | |
| 4-Chloro-3-methylphenol | 100 | 92 | 92 | 58 - 118 | |
| 2-Methylnaphthalene | 100 | 86 | 86 | 51 - 110 | |
| Hexachlorocyclopentadiene | 100 | 39 | 39 | 1 - 84 | |
| 2,4,6-Trichlorophenol | 100 | 99 | 99 | 61 - 118 | |
| 2,4,5-Trichlorophenol | 100 | 97 | 97 | 62 - 119 | |
| 2-Chloronaphthalene | 100 | 94 | 94 | 58 - 111 | |
| 2-Nitroaniline | 100 | 110 | 113 | 60 - 122 | |
| Dimethyl phthalate | 100 | 89 | 89 | 64 - 112 | |
| Acenaphthylene | 100 | 95 | 95 | 53 - 117 | |
| 3-Nitroaniline | 100 | 73 | 73 | 46 - 114 | |
| Acenaphthene | 100 | 93 | 93 | 49 - 117 | |
| 2,4-Dinitrophenol | 100 | 120 | 116 | 13 - 176 | |
| 4-Nitrophenol | 100 | 96 | 96 | 30 - 139 | |
| Dibenzofuran | 100 | 92 | 92 | 65 - 109 | |
| 2,4-Dinitrotoluene | 100 | 97 | 97 | 45 - 140 | |
| 2,6-Dinitrotoluene | 100 | 92 | 92 | 65 - 124 | |
| 3 & 4 Methylphenol | 100 | 87 | 87 | 49 - 114 | |
| Diethyl phthalate | 100 | 84 | 84 | 61 - 115 | |
| 4-Chlorophenyl phenyl ether | 100 | 89 | 89 | 59 - 112 | |
| Fluorene | 100 | 87 | 87 | 43 - 124 | |
| 4-Nitroaniline | 100 | 87 | 87 | 47 - 127 | |
| 4,6-Dinitro-2-methylphenol | 100 | 130 | 126 | 42 - 155 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Laboratory Control Sample - Batch: 680-32689**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: LCS 680-32689/22-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 1219
Date Prepared: 01/03/2006 1139

Analysis Batch: 680-33114
Prep Batch: 680-32689
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - E
Lab File ID: e7341.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| N-Nitrosodiphenylamine | 100 | 87 | 87 | 30 - 130 | |
| 4-Bromophenyl phenyl ether | 100 | 80 | 80 | 50 - 112 | |
| Hexachlorobenzene | 100 | 88 | 88 | 60 - 122 | |
| Pentachlorophenol | 100 | 96 | 96 | 44 - 132 | |
| Phenanthrene | 100 | 94 | 94 | 58 - 120 | |
| Anthracene | 100 | 92 | 92 | 57 - 118 | |
| Di-n-butyl phthalate | 100 | 85 | 85 | 58 - 122 | B |
| Fluoranthene | 100 | 96 | 96 | 51 - 125 | |
| Pyrene | 100 | 100 | 104 | 49 - 135 | |
| Butyl benzyl phthalate | 100 | 95 | 95 | 62 - 124 | |
| 3,3'-Dichlorobenzidine | 100 | 26 | 26 | 29 - 101 | * |
| Benzo[a]anthracene | 100 | 96 | 96 | 55 - 119 | |
| Bis(2-ethylhexyl) phthalate | 100 | 90 | 90 | 57 - 125 | |
| Chrysene | 100 | 98 | 98 | 56 - 122 | |
| Di-n-octyl phthalate | 100 | 95 | 95 | 55 - 128 | |
| Benzo[b]fluoranthene | 100 | 100 | 102 | 44 - 130 | |
| Benzo[k]fluoranthene | 100 | 100 | 101 | 47 - 129 | |
| Benzo[a]pyrene | 100 | 98 | 98 | 36 - 128 | |
| Indeno[1,2,3-cd]pyrene | 100 | 98 | 98 | 40 - 132 | |
| Dibenz(a,h)anthracene | 100 | 110 | 110 | 47 - 126 | |
| Benzo[g,h,i]perylene | 100 | 110 | 107 | 45 - 128 | |
| Carbazole | 100 | 93 | 93 | 60 - 120 | |
| bis(chloroisopropyl) ether | 100 | 97 | 97 | 45 - 114 | |

| Surrogate | % Rec | | Acceptance Limits |
|---|---|---|---|
| Phenol-d5 | 88 | | 55 - 104 |
| 2-Fluorophenol | 85 | | 56 - 100 |
| 2,4,6-Tribromophenol | 91 | | 55 - 126 |
| Nitrobenzene-d5 | 110 | * | 60 - 102 |
| 2-Fluorobiphenyl | 97 | | 59 - 103 |
| Terphenyl-d14 | 94 | | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-33446**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: MB 680-33446/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/13/2006 1203
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3076.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Phenol | 0.99 | U | 0.99 | 10 |
| Bis(2-chloroethyl)ether | 0.72 | U | 0.72 | 10 |
| 2-Chlorophenol | 0.72 | U | 0.72 | 10 |
| 1,3-Dichlorobenzene | 0.55 | U | 0.55 | 10 |
| 1,4-Dichlorobenzene | 0.52 | U | 0.52 | 10 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 10 |
| 2-Methylphenol | 0.70 | U | 0.70 | 10 |
| N-Nitrosodi-n-propylamine | 0.62 | U | 0.62 | 10 |
| Hexachloroethane | 1.0 | U | 1.0 | 10 |
| Nitrobenzene | 0.93 | U | 0.93 | 10 |
| Isophorone | 0.67 | U | 0.67 | 10 |
| 2-Nitrophenol | 0.73 | U | 0.73 | 10 |
| 2,4-Dimethylphenol | 1.0 | U | 1.0 | 10 |
| Bis(2-chloroethoxy)methane | 0.78 | U | 0.78 | 10 |
| 2,4-Dichlorophenol | 0.66 | U | 0.66 | 10 |
| 1,2,4-Trichlorobenzene | 0.54 | U | 0.54 | 10 |
| Naphthalene | 0.76 | U | 0.76 | 10 |
| 4-Chloroaniline | 0.52 | U | 0.52 | 20 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 0.55 | U | 0.55 | 10 |
| 2-Methylnaphthalene | 0.53 | U | 0.53 | 10 |
| Hexachlorocyclopentadiene | 5.0 | U | 5.0 | 10 |
| 2,4,6-Trichlorophenol | 0.70 | U | 0.70 | 10 |
| 2,4,5-Trichlorophenol | 0.63 | U | 0.63 | 10 |
| 2-Chloronaphthalene | 0.62 | U | 0.62 | 10 |
| 2-Nitroaniline | 0.69 | U | 0.69 | 50 |
| Dimethyl phthalate | 0.59 | U | 0.59 | 10 |
| Acenaphthylene | 0.58 | U | 0.58 | 10 |
| 3-Nitroaniline | 0.69 | U | 0.69 | 50 |
| Acenaphthene | 0.64 | U | 0.64 | 10 |
| 2,4-Dinitrophenol | 5.0 | U | 5.0 | 50 |
| 4-Nitrophenol | 3.4 | U | 3.4 | 50 |
| Dibenzofuran | 0.69 | U | 0.69 | 10 |
| 2,4-Dinitrotoluene | 0.56 | U | 0.56 | 10 |
| 2,6-Dinitrotoluene | 0.57 | U | 0.57 | 10 |
| 3 & 4 Methylphenol | 0.66 | U | 0.66 | 10 |
| Diethyl phthalate | 0.59 | U | 0.59 | 10 |
| 4-Chlorophenyl phenyl ether | 0.56 | U | 0.56 | 10 |
| Fluorene | 0.55 | U | 0.55 | 10 |
| 4-Nitroaniline | 0.85 | U | 0.85 | 50 |
| 4,6-Dinitro-2-methylphenol | 1.0 | U | 1.0 | 50 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-33446**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: MB 680-33446/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/13/2006 1203
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3076.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| N-Nitrosodiphenylamine | 0.80 | U | 0.80 | 10 |
| 4-Bromophenyl phenyl ether | 0.85 | U | 0.85 | 10 |
| Hexachlorobenzene | 1.1 | U | 1.1 | 10 |
| Pentachlorophenol | 2.5 | U | 2.5 | 50 |
| Phenanthrene | 0.74 | U | 0.74 | 10 |
| Anthracene | 0.88 | U | 0.88 | 10 |
| Di-n-butyl phthalate | 0.82 | U | 0.82 | 10 |
| Fluoranthene | 1.0 | U | 1.0 | 10 |
| Pyrene | 1.0 | U | 1.0 | 10 |
| Butyl benzyl phthalate | 0.70 | U | 0.70 | 10 |
| 3,3'-Dichlorobenzidine | 1.0 | U | 1.0 | 20 |
| Benzo[a]anthracene | 0.58 | U | 0.58 | 10 |
| Bis(2-ethylhexyl) phthalate | 0.98 | U | 0.98 | 10 |
| Chrysene | 1.0 | U | 1.0 | 10 |
| Di-n-octyl phthalate | 0.80 | U | 0.80 | 10 |
| Benzo[b]fluoranthene | 0.78 | U | 0.78 | 10 |
| Benzo[k]fluoranthene | 0.73 | U | 0.73 | 10 |
| Benzo[a]pyrene | 1.0 | U | 1.0 | 10 |
| Indeno[1,2,3-cd]pyrene | 0.62 | U | 0.62 | 10 |
| Dibenz(a,h)anthracene | 1.0 | U | 1.0 | 10 |
| Benzo[g,h,i]perylene | 1.0 | U | 1.0 | 10 |
| Carbazole | 0.82 | U | 0.82 | 10 |
| bis(chloroisopropyl) ether | 0.82 | U | 0.82 | 10 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 79 | 55 - 104 |
| 2-Fluorophenol | 81 | 56 - 100 |
| 2,4,6-Tribromophenol | 71 | 55 - 126 |
| Nitrobenzene-d5 | 83 | 60 - 102 |
| 2-Fluorobiphenyl | 83 | 59 - 103 |
| Terphenyl-d14 | 101 | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Laboratory Control Sample - Batch: 680-33446**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: LCS 680-33446/6-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/13/2006 1354
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3080.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Phenol | 100 | 79 | 79 | 46 - 106 | |
| Bis(2-chloroethyl)ether | 100 | 76 | 76 | 48 - 108 | |
| 2-Chlorophenol | 100 | 77 | 77 | 54 - 106 | |
| 1,3-Dichlorobenzene | 100 | 69 | 69 | 38 - 97 | |
| 1,4-Dichlorobenzene | 100 | 70 | 70 | 40 - 92 | |
| 1,2-Dichlorobenzene | 100 | 71 | 71 | 42 - 98 | |
| 2-Methylphenol | 100 | 82 | 82 | 57 - 110 | |
| N-Nitrosodi-n-propylamine | 100 | 79 | 79 | 49 - 135 | |
| Hexachloroethane | 100 | 64 | 64 | 35 - 89 | |
| Nitrobenzene | 100 | 77 | 77 | 57 - 110 | |
| Isophorone | 100 | 81 | 81 | 60 - 113 | |
| 2-Nitrophenol | 100 | 78 | 78 | 59 - 114 | |
| 2,4-Dimethylphenol | 100 | 76 | 76 | 51 - 111 | |
| Bis(2-chloroethoxy)methane | 100 | 84 | 84 | 55 - 115 | |
| 2,4-Dichlorophenol | 100 | 78 | 78 | 62 - 112 | |
| 1,2,4-Trichlorobenzene | 100 | 71 | 71 | 46 - 99 | |
| Naphthalene | 100 | 76 | 76 | 42 - 108 | |
| 4-Chloroaniline | 100 | 58 | 58 | 22 - 107 | |
| Hexachlorobutadiene | 100 | 73 | 73 | 43 - 109 | |
| 4-Chloro-3-methylphenol | 100 | 80 | 80 | 58 - 118 | |
| 2-Methylnaphthalene | 100 | 76 | 76 | 51 - 110 | |
| Hexachlorocyclopentadiene | 100 | 29 | 29 | 1 - 84 | |
| 2,4,6-Trichlorophenol | 100 | 79 | 79 | 61 - 118 | |
| 2,4,5-Trichlorophenol | 100 | 80 | 80 | 62 - 119 | |
| 2-Chloronaphthalene | 100 | 78 | 78 | 58 - 111 | |
| 2-Nitroaniline | 100 | 81 | 81 | 60 - 122 | |
| Dimethyl phthalate | 100 | 82 | 82 | 64 - 112 | |
| Acenaphthylene | 100 | 82 | 82 | 53 - 117 | |
| 3-Nitroaniline | 100 | 77 | 77 | 46 - 114 | |
| Acenaphthene | 100 | 80 | 80 | 49 - 117 | |
| 2,4-Dinitrophenol | 100 | 86 | 86 | 13 - 176 | |
| 4-Nitrophenol | 100 | 82 | 82 | 30 - 139 | |
| Dibenzofuran | 100 | 79 | 79 | 65 - 109 | |
| 2,4-Dinitrotoluene | 100 | 89 | 89 | 45 - 140 | |
| 2,6-Dinitrotoluene | 100 | 88 | 88 | 65 - 124 | |
| 3 & 4 Methylphenol | 100 | 77 | 77 | 49 - 114 | |
| Diethyl phthalate | 100 | 82 | 82 | 61 - 115 | |
| 4-Chlorophenyl phenyl ether | 100 | 78 | 78 | 59 - 112 | |
| Fluorene | 100 | 81 | 81 | 43 - 124 | |
| 4-Nitroaniline | 100 | 86 | 86 | 47 - 127 | |
| 4,6-Dinitro-2-methylphenol | 100 | 96 | 96 | 42 - 155 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Laboratory Control Sample - Batch: 680-33446**

**Method: 8270C**
**Preparation: 3520C**

Lab Sample ID: LCS 680-33446/6-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/13/2006 1354
Date Prepared: 01/12/2006 0855

Analysis Batch: 680-33678
Prep Batch: 680-33446
Units: ug/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g3080.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| N-Nitrosodiphenylamine | 100 | 81 | 81 | 30 - 130 | |
| 4-Bromophenyl phenyl ether | 100 | 72 | 72 | 50 - 112 | |
| Hexachlorobenzene | 100 | 80 | 80 | 60 - 122 | |
| Pentachlorophenol | 100 | 90 | 90 | 44 - 132 | |
| Phenanthrene | 100 | 84 | 84 | 58 - 120 | |
| Anthracene | 100 | 82 | 82 | 57 - 118 | |
| Di-n-butyl phthalate | 100 | 83 | 83 | 58 - 122 | |
| Fluoranthene | 100 | 86 | 86 | 51 - 125 | |
| Pyrene | 100 | 90 | 90 | 49 - 135 | |
| Butyl benzyl phthalate | 100 | 91 | 91 | 62 - 124 | |
| 3,3'-Dichlorobenzidine | 100 | 58 | 58 | 29 - 101 | |
| Benzo[a]anthracene | 100 | 83 | 83 | 55 - 119 | |
| Bis(2-ethylhexyl) phthalate | 100 | 83 | 83 | 57 - 125 | |
| Chrysene | 100 | 85 | 85 | 56 - 122 | |
| Di-n-octyl phthalate | 100 | 85 | 85 | 55 - 128 | |
| Benzo[b]fluoranthene | 100 | 82 | 82 | 44 - 130 | |
| Benzo[k]fluoranthene | 100 | 82 | 82 | 47 - 129 | |
| Benzo[a]pyrene | 100 | 79 | 79 | 36 - 128 | |
| Indeno[1,2,3-cd]pyrene | 100 | 76 | 76 | 40 - 132 | |
| Dibenz(a,h)anthracene | 100 | 79 | 79 | 47 - 126 | |
| Benzo[g,h,i]perylene | 100 | 77 | 77 | 45 - 128 | |
| Carbazole | 100 | 88 | 88 | 60 - 120 | |
| bis(chloroisopropyl) ether | 100 | 78 | 78 | 45 - 114 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| Phenol-d5 | 79 | 55 - 104 |
| 2-Fluorophenol | 76 | 56 - 100 |
| 2,4,6-Tribromophenol | 85 | 55 - 126 |
| Nitrobenzene-d5 | 81 | 60 - 102 |
| 2-Fluorobiphenyl | 78 | 59 - 103 |
| Terphenyl-d14 | 91 | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12192-1

**Method Blank - Batch: 680-32758**

**Method: 6010B**
**Preparation: 3010A**

Lab Sample ID: MB 680-32758/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 2050
Date Prepared: 01/04/2006 0817

Analysis Batch: 680-33180
Prep Batch: 680-32758
Units: ug/L

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Lead | 3.5 | U | 3.5 | 5.0 |

**Laboratory Control Sample - Batch: 680-32758**

**Method: 6010B**
**Preparation: 3010A**

Lab Sample ID: LCS 680-32758/22-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/06/2006 2055
Date Prepared: 01/04/2006 0817

Analysis Batch: 680-33180
Prep Batch: 680-32758
Units: ug/L

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 500 | 480 | 96 | 75 - 125 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 75337

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT STL®


☒ STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location
Phone:
Fax:


| | | |
|---|---|---|
| PROJECT REFERENCE: FHR North Terminal / Fuel Oil facility | PROJECT NO. | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: Kathy Smith | P.O. NUMBER | CONTRACT NO. |
| CLIENT (SITE) PM: Jeff Becken | CLIENT PHONE: (910) 452-5861 | CLIENT FAX: (910) 452-7563 |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: JBECKEN@Charter.net | |
| CLIENT ADDRESS: Wilmington NC | | |
| COMPANY CONTRACTING THIS WORK (if applicable): Reiss Remediation - Elizabeth Page | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 2

REQUIRED ANALYSIS: 8260, 8270, LEAD

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | 8260 (4) | 8270 (2) | LEAD (1) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | HCl | – | $HNO_3$ | |
| 12/28/05 | 1015 | 3 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1057 | 21 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1140 | 6 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1215 | 8 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1330 | 12 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1413 | 19 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1450 | 15 | | X | | | | ✓ | ✓ | ✓ | |
| 12/28/05 | 1525 | 14 | | X | | | | ✓ | ✓ | ✓ | |
| 12/29/05 | 1025 | 1 | | X | | | | ✓ | ✓ | ✓ | |
| 12/29/05 | 1127 | unidentified | | X | | | | ✓ | ✓ | ✓ | |
| | | Trip Blank | | X | | | | ✓ | | | |

TEMP. 2.6 / 2.8

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| Michael Cost | 12/29/05 | 1420 | | | | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [illegible] | 12/30/05 | 11:15 | YES ○ NO ○ | | 680-12192 | |

STL8240-680 (12/02)

# ANALYTICAL REPORT

Job Number: 680-13577-1

Job Description: FHR North PX Terminal

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
02/28/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-13577-1 | MW-1 | Water | 02/09/2006 1245 | 02/14/2006 1015 |
| 680-13577-2 | MW-2 | Water | 02/09/2006 1215 | 02/14/2006 1015 |
| 680-13577-3 | MW-3 | Water | 02/09/2006 1500 | 02/14/2006 1015 |
| 680-13577-4 | MW-4 | Water | 02/09/2006 1350 | 02/14/2006 1015 |
| 680-13577-5 | MW-5 | Water | 02/09/2006 1230 | 02/14/2006 1015 |
| 680-13577-6 | MW-8 | Water | 02/09/2006 1215 | 02/14/2006 1015 |
| 680-13577-7 | MW-10 | Water | 02/09/2006 1400 | 02/14/2006 1015 |
| 680-13577-8 | MW-11 | Water | 02/09/2006 1415 | 02/14/2006 1015 |
| 680-13577-9 | MW-12 | Water | 02/09/2006 1430 | 02/14/2006 1015 |
| 680-13577-10 | MW-13 | Water | 02/09/2006 1410 | 02/14/2006 1015 |
| 680-13577-11 | MW-14 | Water | 02/10/2006 1120 | 02/14/2006 1015 |
| 680-13577-12 | MW-15 | Water | 02/09/2006 1520 | 02/14/2006 1015 |
| 680-13577-13 | MW-17 | Water | 02/09/2006 1020 | 02/14/2006 1015 |
| 680-13577-14 | MW-18 | Water | 02/09/2006 1105 | 02/14/2006 1015 |
| 680-13577-15 | MW-19 | Water | 02/09/2006 1120 | 02/14/2006 1015 |
| 680-13577-16 | MW-20 | Water | 02/10/2006 1130 | 02/14/2006 1015 |
| 680-13577-17 | MW-28 | Water | 02/10/2006 1230 | 02/14/2006 1015 |
| 680-13577-18 | MW-32 | Water | 02/10/2006 1200 | 02/14/2006 1015 |
| 680-13577-19 | MW-33 | Water | 02/09/2006 1545 | 02/14/2006 1015 |
| 680-13577-20 | MW-34 | Water | 02/09/2006 1520 | 02/14/2006 1015 |
| 680-13577-21 | MW-35 | Water | 02/09/2006 1310 | 02/14/2006 1015 |
| 680-13577-22 | MW-36 | Water | 02/09/2006 1315 | 02/14/2006 1015 |
| 680-13577-23 | MW-37 | Water | 02/09/2006 1300 | 02/14/2006 1015 |
| 680-13577-24 | 101 | Water | 02/10/2006 1030 | 02/14/2006 1015 |
| 680-13577-25 | 102 | Water | 02/10/2006 1045 | 02/14/2006 1015 |
| 680-13577-26 | 105 | Water | 02/10/2006 1115 | 02/14/2006 1015 |
| 680-13577-27 | 106 | Water | 02/09/2006 1240 | 02/14/2006 1015 |
| 680-13577-28 | 107 | Water | 02/09/2006 1150 | 02/14/2006 1015 |
| 680-13577-29 | 108 | Water | 02/09/2006 1205 | 02/14/2006 1015 |
| 680-13577-30 | 113 | Water | 02/09/2006 1435 | 02/14/2006 1015 |
| 680-13577-31 | 117 | Water | 02/09/2006 1540 | 02/14/2006 1015 |
| 680-13577-32 | 119 | Water | 02/09/2006 1040 | 02/14/2006 1015 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-1**

Lab Sample ID: 680-13577-1
Client Matrix: Water

Date Sampled: 02/09/2006 1245
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/22/2006 0203
Date Prepared: 02/22/2006 0203

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0085.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 95 | 77 - 120 |
| Dibromofluoromethane | 91 | 75 - 123 |
| Toluene-d8 | 94 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-2**

Lab Sample ID: 680-13577-2
Client Matrix: Water

Date Sampled: 02/09/2006 1215
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0235
Date Prepared: 02/22/2006 0235

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0087.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 95 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 86 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-2**

Lab Sample ID: 680-13577-2
Client Matrix: Water

Date Sampled: 02/09/2006 1215
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 2304
Date Prepared: 02/22/2006 2304

Analysis Batch: 680-37087

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0130.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 150000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-3**

Lab Sample ID: 680-13577-3
Client Matrix: Water

Date Sampled: 02/09/2006 1500
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0307
Date Prepared: 02/22/2006 0307

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0089.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 91 | 77 - 120 |
| Dibromofluoromethane | 92 | 75 - 123 |
| Toluene-d8 | 94 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-3**

Lab Sample ID: 680-13577-3
Client Matrix: Water

Date Sampled: 02/09/2006 1500
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 1758
Date Prepared: 02/22/2006 1758

Analysis Batch: 680-37085

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0113.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 16000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-4**

Lab Sample ID: 680-13577-4
Client Matrix: Water

Date Sampled: 02/09/2006 1350
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0339
Date Prepared: 02/22/2006 0339

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0091.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 91 | 77 - 120 |
| Dibromofluoromethane | 90 | 75 - 123 |
| Toluene-d8 | 98 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-4**

Lab Sample ID: 680-13577-4
Client Matrix: Water

Date Sampled: 02/09/2006 1350
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 1831
Date Prepared: 02/22/2006 1831

Analysis Batch: 680-37085

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0115.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 24000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-5**

Lab Sample ID: 680-13577-5
Client Matrix: Water

Date Sampled: 02/09/2006 1230
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 1653
Date Prepared: 02/22/2006 1653

Analysis Batch: 680-37085

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0109.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |
| m-Xylene & p-Xylene | 1400 | | 13 | 20 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 77 - 120 |
| Dibromofluoromethane | 92 | 75 - 123 |
| Toluene-d8 | 98 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-8**

Lab Sample ID: 680-13577-6
Client Matrix: Water

Date Sampled: 02/09/2006 1215
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0443
Date Prepared: 02/22/2006 0443

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0095.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 93 | 77 - 120 |
| Dibromofluoromethane | 89 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-8**

Lab Sample ID: 680-13577-6
Client Matrix: Water

Date Sampled: 02/09/2006 1215
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 1904
Date Prepared: 02/22/2006 1904

Analysis Batch: 680-37085

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0117.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 21000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-10**

Lab Sample ID: 680-13577-7
Client Matrix: Water

Date Sampled: 02/09/2006 1400
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0515
Date Prepared: 02/22/2006 0515

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0097.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 92 | 77 - 120 |
| Dibromofluoromethane | 91 | 75 - 123 |
| Toluene-d8 | 96 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-10**

Lab Sample ID: 680-13577-7
Client Matrix: Water

Date Sampled: 02/09/2006 1400
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 2336
Date Prepared: 02/22/2006 2336

Analysis Batch: 680-37087

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0132.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 150000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-11**

Lab Sample ID: 680-13577-8
Client Matrix: Water

Date Sampled: 02/09/2006 1415
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/22/2006 0546
Date Prepared: 02/22/2006 0546

Analysis Batch: 680-37086

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0099.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 2.3 | U | 2.3 | 50 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 94 | 77 - 120 |
| Dibromofluoromethane | 91 | 75 - 123 |
| Toluene-d8 | 88 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-11**

Lab Sample ID: 680-13577-8
Client Matrix: Water

Date Sampled: 02/09/2006 1415
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 20
Date Analyzed: 02/22/2006 1726
Date Prepared: 02/22/2006 1726

Analysis Batch: 680-37085

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0111.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 3300 | | 26 | 40 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-12**

Lab Sample ID: 680-13577-9
Client Matrix: Water

Date Sampled: 02/09/2006 1430
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 02/22/2006 0006
Date Prepared: 02/22/2006 0006

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0166.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 11 | U | 11 | 250 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 98 | 77 - 120 |
| Dibromofluoromethane | 83 | 75 - 123 |
| Toluene-d8 | 98 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-12**

Lab Sample ID: 680-13577-9
Client Matrix: Water

Date Sampled: 02/09/2006 1430
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 02/22/2006 1820
Date Prepared: 02/22/2006 1820

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0206.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 59000 | | 260 | 400 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-13**

Lab Sample ID: 680-13577-10
Client Matrix: Water

Date Sampled: 02/09/2006 1410
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 02/22/2006 0021
Date Prepared: 02/22/2006 0021

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0167.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 11 | U | 11 | 250 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 91 | 77 - 120 |
| Dibromofluoromethane | 82 | 75 - 123 |
| Toluene-d8 | 89 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-13**

Lab Sample ID: 680-13577-10
Client Matrix: Water

Date Sampled: 02/09/2006 1410
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 02/22/2006 1849
Date Prepared: 02/22/2006 1849

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0208.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 51000 | | 260 | 400 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-14**

Lab Sample ID: 680-13577-11
Client Matrix: Water

Date Sampled: 02/10/2006 1120
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 0035
Date Prepared: 02/22/2006 0035

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0168.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 45 | U | 45 | 1000 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 85 | 75 - 123 |
| Toluene-d8 | 101 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-14**

Lab Sample ID: 680-13577-11
Client Matrix: Water

Date Sampled: 02/10/2006 1120
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1000
Date Analyzed: 02/22/2006 1917
Date Prepared: 02/22/2006 1917

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0210.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 170000 | | 1300 | 2000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-15**

Lab Sample ID: 680-13577-12
Client Matrix: Water

Date Sampled: 02/09/2006 1520
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 02/22/2006 0049
Date Prepared: 02/22/2006 0049

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0169.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 11 | U | 11 | 250 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 90 | 77 - 120 |
| Dibromofluoromethane | 81 | 75 - 123 |
| Toluene-d8 | 87 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-15**

Lab Sample ID: 680-13577-12
Client Matrix: Water

Date Sampled: 02/09/2006 1520
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 1945
Date Prepared: 02/22/2006 1945

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0212.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 71000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-17**

Lab Sample ID: 680-13577-13
Client Matrix: Water

Date Sampled: 02/09/2006 1020
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0117
Date Prepared: 02/22/2006 0117

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0171.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 8.8 | J | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 88 | 77 - 120 |
| Dibromofluoromethane | 82 | 75 - 123 |
| Toluene-d8 | 89 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-17**

Lab Sample ID: 680-13577-13
Client Matrix: Water

Date Sampled: 02/09/2006 1020
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/22/2006 2013
Date Prepared: 02/22/2006 2013

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0214.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 7800 | | 65 | 100 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-18**

Lab Sample ID: 680-13577-14
Client Matrix: Water

Date Sampled: 02/09/2006 1105
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0145
Date Prepared: 02/22/2006 0145

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0173.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 92 | 77 - 120 |
| Dibromofluoromethane | 83 | 75 - 123 |
| Toluene-d8 | 87 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-18**

Lab Sample ID: 680-13577-14
Client Matrix: Water

Date Sampled: 02/09/2006 1105
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 2041
Date Prepared: 02/22/2006 2041

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0216.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 11000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-19**

Lab Sample ID: 680-13577-15
Client Matrix: Water

Date Sampled: 02/09/2006 1120
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 02/22/2006 0213
Date Prepared: 02/22/2006 0213

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0175.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 11 | U | 11 | 250 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 81 | 77 - 120 |
| Dibromofluoromethane | 78 | 75 - 123 |
| Toluene-d8 | 81 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-19**

Lab Sample ID: 680-13577-15
Client Matrix: Water

Date Sampled: 02/09/2006 1120
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 2109
Date Prepared: 02/22/2006 2109

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0218.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 120000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-20**

Lab Sample ID: 680-13577-16
Client Matrix: Water

Date Sampled: 02/10/2006 1130
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0103
Date Prepared: 02/22/2006 0103

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0170.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 87 | 75 - 123 |
| Toluene-d8 | 102 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-20**

Lab Sample ID: 680-13577-16
Client Matrix: Water

Date Sampled: 02/10/2006 1130
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 2137
Date Prepared: 02/22/2006 2137

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0220.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 15000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-28**

Lab Sample ID: 680-13577-17
Client Matrix: Water

Date Sampled: 02/10/2006 1230
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/22/2006 1903
Date Prepared: 02/22/2006 1903

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0209.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 89 | 77 - 120 |
| Dibromofluoromethane | 81 | 75 - 123 |
| Toluene-d8 | 89 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-32**

Lab Sample ID: 680-13577-18
Client Matrix: Water

Date Sampled: 02/10/2006 1200
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 2132
Date Prepared: 02/21/2006 2132

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0155.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 84 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 89 | 77 - 120 |
| Dibromofluoromethane | 82 | 75 - 123 |
| Toluene-d8 | 94 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-33**

Lab Sample ID: 680-13577-19
Client Matrix: Water

Date Sampled: 02/09/2006 1545
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0255
Date Prepared: 02/22/2006 0255

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0178.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 91 | 77 - 120 |
| Dibromofluoromethane | 82 | 75 - 123 |
| Toluene-d8 | 99 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-33**

Lab Sample ID: 680-13577-19
Client Matrix: Water

Date Sampled: 02/09/2006 1545
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 2206
Date Prepared: 02/22/2006 2206

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0222.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 33000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-34**

Lab Sample ID: 680-13577-20
Client Matrix: Water

Date Sampled: 02/09/2006 1520
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 02/22/2006 0323
Date Prepared: 02/22/2006 0323

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0180.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 4.5 | U | 4.5 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 92 | 77 - 120 |
| Dibromofluoromethane | 85 | 75 - 123 |
| Toluene-d8 | 99 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-34**

Lab Sample ID: 680-13577-20
Client Matrix: Water

Date Sampled: 02/09/2006 1520
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 2234
Date Prepared: 02/22/2006 2234

Analysis Batch: 680-37077

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0224.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 31000 | | 130 | 200 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-35**

Lab Sample ID: 680-13577-21
Client Matrix: Water

Date Sampled: 02/09/2006 1310
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/22/2006 0351
Date Prepared: 02/22/2006 0351

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0182.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 57 | | 2.3 | 50 |
| m-Xylene & p-Xylene | 1200 | | 6.5 | 10 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 95 | 77 - 120 |
| Dibromofluoromethane | 85 | 75 - 123 |
| Toluene-d8 | 99 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-36**

Lab Sample ID: 680-13577-22
Client Matrix: Water

Date Sampled: 02/09/2006 1315
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/22/2006 0241
Date Prepared: 02/22/2006 0241

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0177.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 2.3 | U | 2.3 | 50 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 93 | 77 - 120 |
| Dibromofluoromethane | 83 | 75 - 123 |
| Toluene-d8 | 83 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-36**

Lab Sample ID: 680-13577-22
Client Matrix: Water

Date Sampled: 02/09/2006 1315
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 2055
Date Prepared: 02/22/2006 2055

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0217.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 100000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **MW-37**

Lab Sample ID: 680-13577-23
Client Matrix: Water

Date Sampled: 02/09/2006 1300
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/22/2006 0309
Date Prepared: 02/22/2006 0309

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0179.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 23 | U | 23 | 500 |
| m-Xylene & p-Xylene | 4500 | | 65 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 88 | 77 - 120 |
| Dibromofluoromethane | 84 | 75 - 123 |
| Toluene-d8 | 88 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 101**

Lab Sample ID: 680-13577-24
Client Matrix: Water

Date Sampled: 02/10/2006 1030
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/22/2006 1931
Date Prepared: 02/22/2006 1931

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0211.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 15 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 89 | 77 - 120 |
| Dibromofluoromethane | 80 | 75 - 123 |
| Toluene-d8 | 89 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **101**

Lab Sample ID: 680-13577-24
Client Matrix: Water

Date Sampled: 02/10/2006 1030
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 02/23/2006 1448
Date Prepared: 02/23/2006 1448

Analysis Batch: 680-37286

Instrument ID: GC/MS Volatiles - A
Lab File ID: a590.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 370 | | 1.8 | 40 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **102**

Lab Sample ID: 680-13577-25
Client Matrix: Water

Date Sampled: 02/10/2006 1045
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/22/2006 1350
Date Prepared: 02/22/2006 1350

Analysis Batch: 680-37153

Instrument ID: GC/MS Volatiles - A
Lab File ID: a542.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 71 | | 0.90 | 20 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 118 | 77 - 120 |
| Dibromofluoromethane | 98 | 75 - 123 |
| Toluene-d8 | 111 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 102**

Lab Sample ID: 680-13577-25
Client Matrix: Water

Date Sampled: 02/10/2006 1045
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/22/2006 1919
Date Prepared: 02/22/2006 1919

Analysis Batch: 680-37153

Instrument ID: GC/MS Volatiles - A
Lab File ID: a564.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 600 | | 6.5 | 10 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **105**

Lab Sample ID: 680-13577-26
Client Matrix: Water

Date Sampled: 02/10/2006 1115
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/22/2006 1849
Date Prepared: 02/22/2006 1849

Analysis Batch: 680-37153

Instrument ID: GC/MS Volatiles - A
Lab File ID: a562.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 10 | | 0.45 | 10 |
| m-Xylene & p-Xylene | 67 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 111 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 106**

Lab Sample ID: 680-13577-27
Client Matrix: Water

Date Sampled: 02/09/2006 1240
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/22/2006 0338
Date Prepared: 02/22/2006 0338

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0181.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 45 | U | 45 | 1000 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 85 | 77 - 120 |
| Dibromofluoromethane | 83 | 75 - 123 |
| Toluene-d8 | 90 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 106**

Lab Sample ID: 680-13577-27
Client Matrix: Water

Date Sampled: 02/09/2006 1240
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1000
Date Analyzed: 02/22/2006 2123
Date Prepared: 02/22/2006 2123

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0219.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 120000 | | 1300 | 2000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 107**

Lab Sample ID: 680-13577-28
Client Matrix: Water

Date Sampled: 02/09/2006 1150
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 02/22/2006 0406
Date Prepared: 02/22/2006 0406

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0183.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 11 | U | 11 | 250 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 90 | 77 - 120 |
| Dibromofluoromethane | 83 | 75 - 123 |
| Toluene-d8 | 86 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 107**

Lab Sample ID: 680-13577-28
Client Matrix: Water

Date Sampled: 02/09/2006 1150
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 2151
Date Prepared: 02/22/2006 2151

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0221.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 51000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID: 108**

Lab Sample ID: 680-13577-29
Client Matrix: Water

Date Sampled: 02/09/2006 1205
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/22/2006 0434
Date Prepared: 02/22/2006 0434

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0185.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 23 | U | 23 | 500 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 87 | 77 - 120 |
| Dibromofluoromethane | 82 | 75 - 123 |
| Toluene-d8 | 88 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **108**

Lab Sample ID: 680-13577-29
Client Matrix: Water

Date Sampled: 02/09/2006 1205
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/22/2006 2220
Date Prepared: 02/22/2006 2220

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0223.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 110000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **113**

Lab Sample ID: 680-13577-30
Client Matrix: Water

Date Sampled: 02/09/2006 1435
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/22/2006 1959
Date Prepared: 02/22/2006 1959

Analysis Batch: 680-37082

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0213.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.8 | J | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 89 | 77 - 120 |
| Dibromofluoromethane | 79 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **117**

Lab Sample ID: 680-13577-31
Client Matrix: Water

Date Sampled: 02/09/2006 1540
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/23/2006 1424
Date Prepared: 02/23/2006 1424

Analysis Batch: 680-37286

Instrument ID: GC/MS Volatiles - A
Lab File ID: a589.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 82 | 77 - 120 |
| Dibromofluoromethane | 98 | 75 - 123 |
| Toluene-d8 | 85 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Client Sample ID:** **119**

Lab Sample ID: 680-13577-32
Client Matrix: Water

Date Sampled: 02/09/2006 1040
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 2200
Date Prepared: 02/21/2006 2200

Analysis Batch: 680-37290

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0157.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 99 | | 0.45 | 10 |
| m-Xylene & p-Xylene | 3.7 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 89 | 77 - 120 |
| Dibromofluoromethane | 84 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-37077/6 | LCS | 99 | 86 | 102 |
| LCS 680-37082/3 | LCS | 90 | 81 | 92 |
| LCS 680-37085/8 | LCS | 102 | 100 | 102 |
| LCS 680-37086/6 | LCS | 92 | 86 | 90 |
| LCS 680-37087/8 | LCS | 100 | 93 | 97 |
| LCS 680-37153/7 | LCS | 105 | 103 | 105 |
| LCS 680-37286/3 | LCS | 111 | 97 | 108 |
| LCS 680-37290/5 | LCS | 96 | 85 | 93 |
| LCS 680-37291/4 | LCS | 105 | 91 | 101 |
| MB 680-37077/8 | MB | 97 | 86 | 100 |
| MB 680-37082/4 | MB | 88 | 79 | 91 |
| MB 680-37085/7 | MB | 96 | 93 | 94 |
| MB 680-37086/5 | MB | 96 | 90 | 95 |
| MB 680-37087/7 | MB | 94 | 90 | 98 |
| MB 680-37153/8 | MB | 87 | 103 | 103 |
| MB 680-37286/4 | MB | 85 | 96 | 92 |
| MB 680-37290/6 | MB | 95 | 82 | 89 |
| MB 680-37291/5 | MB | 102 | 87 | 100 |
| 680-13577-1 | MW-1 | 95 | 91 | 94 |
| 680-13577-2 | MW-2 | 95 | 93 | 86 |
| 680-13577-3 | MW-3 | 91 | 92 | 94 |
| 680-13577-4 | MW-4 | 91 | 90 | 98 |
| 680-13577-5 | MW-5 | 101 | 92 | 98 |
| 680-13577-6 | MW-8 | 93 | 89 | 92 |
| 680-13577-7 | MW-10 | 92 | 91 | 96 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

| | | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| 680-13577-8 | MW-11 | 94 | 91 | 88 |
| 680-13577-9 | MW-12 | 98 | 83 | 98 |
| 680-13577-10 | MW-13 | 91 | 82 | 89 |
| 680-13577-11 | MW-14 | 96 | 85 | 101 |
| 680-13577-12 | MW-15 | 90 | 81 | 87 |
| 680-13577-13 | MW-17 | 88 | 82 | 89 |
| 680-13577-14 | MW-18 | 92 | 83 | 87 |
| 680-13577-15 | MW-19 | 81 | 78 | 81 |
| 680-13577-16 | MW-20 | 96 | 87 | 102 |
| 680-13577-17 | MW-28 | 89 | 81 | 89 |
| 680-13577-18 | MW-32 | 89 | 82 | 94 |
| 680-13577-19 | MW-33 | 91 | 82 | 99 |
| 680-13577-20 | MW-34 | 92 | 85 | 99 |
| 680-13577-21 | MW-35 | 95 | 85 | 99 |
| 680-13577-22 | MW-36 | 93 | 83 | 83 |
| 680-13577-23 | MW-37 | 88 | 84 | 88 |
| 680-13577-24 | 101 | 89 | 80 | 89 |
| 680-13577-25 | 102 | 118 | 98 | 111 |
| 680-13577-26 | 105 | 100 | 93 | 111 |
| 680-13577-27 | 106 | 85 | 83 | 90 |
| 680-13577-28 | 107 | 90 | 83 | 86 |
| 680-13577-29 | 108 | 87 | 82 | 88 |
| 680-13577-30 | 113 | 89 | 79 | 92 |
| 680-13577-31 | 117 | 82 | 98 | 85 |
| 680-13577-32 | 119 | 89 | 84 | 92 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37077**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37077/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1503
Date Prepared: 02/22/2006 1503

Analysis Batch: 680-37077
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq174.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 86 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37077**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37077/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1339
Date Prepared: 02/22/2006 1339

Analysis Batch: 680-37077
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq168.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 84 | 84 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 95 | 95 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 77 - 120 |
| Dibromofluoromethane | 86 | 75 - 123 |
| Toluene-d8 | 102 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37082**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37082/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1449
Date Prepared: 02/22/2006 1449

Analysis Batch: 680-37082
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq173.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 88 | 77 - 120 |
| Dibromofluoromethane | 79 | 75 - 123 |
| Toluene-d8 | 91 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37082**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37082/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1325
Date Prepared: 02/22/2006 1325

Analysis Batch: 680-37082
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq167.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 78 | 78 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 90 | 90 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 90 | 77 - 120 |
| Dibromofluoromethane | 81 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37085**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37085/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1515
Date Prepared: 02/22/2006 1515

Analysis Batch: 680-37085
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq103.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 94 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37085**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37085/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1621
Date Prepared: 02/22/2006 1621

Analysis Batch: 680-37085
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq107.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 96 | 96 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 100 | 101 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |
| Toluene-d8 | 102 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37086**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37086/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2113
Date Prepared: 02/21/2006 2113

Analysis Batch: 680-37086
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq076.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 90 | 75 - 123 |
| Toluene-d8 | 95 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37086**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37086/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2356
Date Prepared: 02/21/2006 2356

Analysis Batch: 680-37086
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq082.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 86 | 86 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 92 | 92 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 92 | 77 - 120 |
| Dibromofluoromethane | 86 | 75 - 123 |
| Toluene-d8 | 90 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37087**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37087/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1532
Date Prepared: 02/22/2006 1532

Analysis Batch: 680-37087
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq104.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 94 | 77 - 120 |
| Dibromofluoromethane | 90 | 75 - 123 |
| Toluene-d8 | 98 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37087**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37087/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1637
Date Prepared: 02/22/2006 1637

Analysis Batch: 680-37087
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq108.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 100 | 100 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 100 | 102 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37153**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37153/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1320
Date Prepared: 02/22/2006 1320

Analysis Batch: 680-37153
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq510.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 87 | 77 - 120 |
| Dibromofluoromethane | 103 | 75 - 123 |
| Toluene-d8 | 103 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37153**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37153/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/22/2006 1221
Date Prepared: 02/22/2006 1221

Analysis Batch: 680-37153
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq506.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 93 | 93 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 120 | 117 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 105 | 77 - 120 |
| Dibromofluoromethane | 103 | 75 - 123 |
| Toluene-d8 | 105 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37286**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37286/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/23/2006 1218
Date Prepared: 02/23/2006 1218

Analysis Batch: 680-37286
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq518.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 85 | 77 - 120 |
| Dibromofluoromethane | 96 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37286**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37286/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/23/2006 1118
Date Prepared: 02/23/2006 1118

Analysis Batch: 680-37286
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq514.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 82 | 82 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 120 | 120 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 111 | 77 - 120 |
| Dibromofluoromethane | 97 | 75 - 123 |
| Toluene-d8 | 108 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37290**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37290/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2104
Date Prepared: 02/21/2006 2104

Analysis Batch: 680-37290
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq157.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 95 | 77 - 120 |
| Dibromofluoromethane | 82 | 75 - 123 |
| Toluene-d8 | 89 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37290**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37290/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1939
Date Prepared: 02/21/2006 1939

Analysis Batch: 680-37290
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq151.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 85 | 85 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 95 | 95 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 85 | 75 - 123 |
| Toluene-d8 | 93 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13577-1

**Method Blank - Batch: 680-37291**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37291/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2118
Date Prepared: 02/21/2006 2118

Analysis Batch: 680-37291
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq158.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 77 - 120 |
| Dibromofluoromethane | 87 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37291**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37291/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1953
Date Prepared: 02/21/2006 1953

Analysis Batch: 680-37291
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq152.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Methyl tert-butyl ether | 100 | 91 | 91 | 70 - 130 | |
| m-Xylene & p-Xylene | 100 | 98 | 98 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 105 | 77 - 120 |
| Dibromofluoromethane | 91 | 75 - 123 |
| Toluene-d8 | 101 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 87288

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) | PAGE | OF |
|---|---|---|---|---|
| FHR North PX Facility | 201-125 | NC | 3 | 3 |
| STL (LAB) PROJECT MANAGER: Kathy Smith | P.O. NUMBER | CONTRACT NO. | STANDARD REPORT DELIVERY ○ | |
| CLIENT (SITE) PM | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 | DATE DUE | |
| CLIENT NAME: CATLIN | CLIENT E-MAIL | | EXPEDITED REPORT DELIVERY (SURCHARGE) ○ | |
| CLIENT ADDRESS: 220 Old Dairy Rd. Wilmington NC 28405 | | | DATE DUE | |
| COMPANY CONTRACTING THIS WORK (if applicable) | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: | |

REQUIRED ANALYSIS: m/p xylenes and MTBE per 8260B; HCl

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | m/p xylenes and MTBE per 8260B | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 2-10-06 | 10:45 | 102 | G | ✓ | | | | ✓ | |
| 2-10-06 | 11:15 | 105 | G | ✓ | | | | ✓ | PX Facility |
| 2-9-06 | 12:40 | 106 | G | ✓ | | | | ✓ | Contaminants |
| 2-9-06 | 11:50 | 107 | G | ✓ | | | | ✓ | of Concern |
| 2-9-06 | 12:05 | 108 | G | ✓ | | | | ✓ | -See Kathy Smith |
| 2-9-06 | 14:35 | 113 | G | ✓ | | | | ✓ | |
| 2-9-06 | 15:40 | 117 | G | ✓ | | | | ✓ | |
| 2-9-06 | 10:40 | 119 | G | ✓ | | | | ✓ | |
| | | Trip blank | | | | | | ✓ | |

TEMP.: 2.4

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| Tom Stt | 2-13-06 | | | | | | | |
| RECEIVED BY: (SIGNATURE) UPS | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| L. Hughes | 2/14/06 | 10:15 | YES ○ NO ○ | | 680-13577 | |

STL8240-680 (12/02)

Serial Number 87291

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

| | | | |
|---|---|---|---|
| PROJECT REFERENCE: FHR North PX Facility | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC | PAGE 1 OF 3 |
| STL (LAB) PROJECT MANAGER: Kathy Smith | P.O. NUMBER | CONTRACT NO. | STANDARD REPORT DELIVERY ○ DATE DUE ____ |
| CLIENT (SITE) PM | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 | EXPEDITED REPORT DELIVERY (SURCHARGE) ○ DATE DUE ____ |
| CLIENT NAME: CATLIN | CLIENT E-MAIL | | |
| CLIENT ADDRESS: 220 Old Dairy Rd. Wilmington NC 28405 | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |
| COMPANY CONTRACTING THIS WORK (if applicable) | | | |

REQUIRED ANALYSIS: m/p xylenes and MTBE per 8260B; HCl

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | NUMBER OF CONTAINERS SUBMITTED | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 2-9-06 | 12:45 | MW-1 | G | ✓ | | | | ✓ | |
| 2-9-06 | 12:15 | MW-2 | G | ✓ | | | | ✓ | PX Facility |
| 2-9-06 | 15:00 | MW-3 | G | ✓ | | | | ✓ | Contaminants |
| 2-9-06 | 13:50 | MW-4 | G | ✓ | | | | ✓ | of Concern |
| 2-9-06 | 12:30 | MW-5 | G | ✓ | | | | ✓ | See Kathy Smith |
| 2-9-06 | 12:15 | MW-8 | G | ✓ | | | | ✓ | |
| 2-9-06 | 14:00 | MW-10 | G | ✓ | | | | ✓ | |
| 2-9-06 | 14:15 | MW-11 | G | ✓ | | | | ✓ | |
| 2-9-06 | 14:30 | MW-12 | G | ✓ | | | | ✓ | |
| 2-9-06 | 14:10 | MW-13 | G | ✓ | | | | ✓ | |
| 2-10-06 | 11:20 | MW-14 | G | ✓ | | | | ✓ | |
| 2-9-06 | 15:20 | MW-15 | G | ✓ | | | | ✓ | |

TEMP.: 2.4

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| Tom Stell | 2-13-06 | 9:00a | | | | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| UPS | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| L. Hughes | 2/14/06 | 10:15 | YES ○ NO ○ | | 68-13577 | |

STL8240-680 (12/02)

Serial Number 87292

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


⊗ **STL Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165


○ Alternate Laboratory Name/Location
Phone:
Fax:

| | | |
|---|---|---|
| PROJECT REFERENCE: FHR North PX Facility | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: Kathy Smith | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: | |
| CLIENT ADDRESS: 220 Old Dairy Rd. Wilmington NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): | | |

PAGE 2 OF 3

STANDARD REPORT DELIVERY ○
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: m/p xylenes and MTBE per 8260B; HCl

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | m/p xylenes and MTBE per 8260B | HCl | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2-9-06 | 10:20 | MW-17 | G | ✓ | | | | ✓ | | |
| 2-9-06 | 11:05 | MW-18 | G | ✓ | | | | ✓ | | PX Facility Contaminants of Concern -See Kathy Smith |
| 2-9-06 | 11:20 | MW-19 | G | ✓ | | | | ✓ | | |
| 2-10-06 | 11:30 | MW-20 | G | ✓ | | | | ✓ | | |
| 2-10-06 | 12:30 | MW-28 | G | ✓ | | | | ✓ | | |
| 2-10-06 | 12:00 | MW-32 | G | ✓ | | | | ✓ | | |
| 2-9-06 | 15:45 | MW-33 | G | ✓ | | | | ✓ | | |
| 2-9-06 | 15:20 | MW-34 | G | ✓ | | | | ✓ | | |
| 2-9-06 | 13:10 | MW-35 | G | ✓ | | | | ✓ | | |
| 2-9-06 | 13:15 | MW-36 | G | ✓ | | | | ✓ | | |
| 2-9-06 | 13:00 | MW-37 | G | ✓ | | | | ✓ | | |
| 2-10-06 | 10:30 | 101 | G | ✓ | | | | ✓ | | |

TEMP.: 2.4

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| Tom Stl | 2-13-06 | 9:00a | | | | | | |
| RECEIVED BY: (SIGNATURE) UPS | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| L Hughes | 2/14/06 | 10:15 | YES ○ NO ○ | | 680-13577 | |

STL8240-680 (12/02)

# ANALYTICAL REPORT

Job Number: 680-13570-1

Job Description: FHR North Loading Rack

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
02/28/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

## Case Narrative for job: 680-J13570-1

| | |
|---|---|
| Client: | Catlin Engineers and Scientists |
| Date: | 02/28/2006 |

### Volatile GC/MS Department

Sample surrogate recovery out of control, matrix interference is evident.

8260: Surrogate recoveryfor sample 680-13570-21 for toluene-d8 failed control limits low. Due to limited sample volume, the sample could not be reanalyzed. All other calibration and QC criteria were met.

**Affected Items**

680-13570-A-21

Batch: 680-36965
Method: 680-8260B

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |

**LAB REFERENCES:**

STL-SAV = STL-Savannah

**METHOD REFERENCES:**

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-13570-1 | KMW-1 | Water | 02/09/2006 1015 | 02/14/2006 1015 |
| 680-13570-2 | KMW-2 | Water | 02/09/2006 1030 | 02/14/2006 1015 |
| 680-13570-3 | KMW-4 | Water | 02/09/2006 1045 | 02/14/2006 1015 |
| 680-13570-4 | KMW-5 | Water | 02/09/2006 1105 | 02/14/2006 1015 |
| 680-13570-5 | KMW-6 | Water | 02/10/2006 1000 | 02/14/2006 1015 |
| 680-13570-6 | KMW-7 | Water | 02/08/2006 1445 | 02/14/2006 1015 |
| 680-13570-7 | KMW-8 | Water | 02/09/2006 0950 | 02/14/2006 1015 |
| 680-13570-8 | KMW-10 | Water | 02/09/2006 0930 | 02/14/2006 1015 |
| 680-13570-9 | KMW-11 | Water | 02/08/2006 1455 | 02/14/2006 1015 |
| 680-13570-10 | KMW-12 | Water | 02/08/2006 1530 | 02/14/2006 1015 |
| 680-13570-11 | KMW-13 | Water | 02/08/2006 1600 | 02/14/2006 1015 |
| 680-13570-12 | KMW-14 | Water | 02/08/2006 1620 | 02/14/2006 1015 |
| 680-13570-13 | KMW-15 | Water | 02/09/2006 1000 | 02/14/2006 1015 |
| 680-13570-14 | KMW-16 | Water | 02/08/2006 1405 | 02/14/2006 1015 |
| 680-13570-15 | KMW-17 | Water | 02/08/2006 1425 | 02/14/2006 1015 |
| 680-13570-16 | AMW-1 | Water | 02/08/2006 1635 | 02/14/2006 1015 |
| 680-13570-17 | AMW-2 | Water | 02/08/2006 1540 | 02/14/2006 1015 |
| 680-13570-18 | AMW-3 | Water | 02/08/2006 1515 | 02/14/2006 1015 |
| 680-13570-19 | AMW-5 | Water | 02/08/2006 1430 | 02/14/2006 1015 |
| 680-13570-20 | AMW-6 | Water | 02/08/2006 1455 | 02/14/2006 1015 |
| 680-13570-21 | Trip Blank | Water | 02/08/2006 0000 | 02/14/2006 1015 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-1**

Lab Sample ID: 680-13570-1
Client Matrix: Water

Date Sampled: 02/09/2006 1015
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/20/2006 2055
Date Prepared: 02/20/2006 2055

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a484.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 1.0 | J | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | J | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,3,5-Trimethylbenzene | 42 | | 0.49 | 1.0 |
| 1,2,4-Trimethylbenzene | 21 | | 0.44 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-1**

Lab Sample ID: 680-13570-1
Client Matrix: Water

Date Sampled: 02/09/2006 1015
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/20/2006 2055
Date Prepared: 02/20/2006 2055

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a484.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 105 | 75 - 123 |
| Toluene-d8 | 121 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-2**

Lab Sample ID: 680-13570-2
Client Matrix: Water

Date Sampled: 02/09/2006 1030
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/21/2006 2108
Date Prepared: 02/21/2006 2108

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a528.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 15 | U | 15 | 50 |
| Benzene | 1.1 | U | 1.1 | 2.0 |
| Bromoform | 0.72 | U | 0.72 | 2.0 |
| Bromomethane | 1.9 | U | 1.9 | 2.0 |
| Carbon disulfide | 1.5 | U | 1.5 | 2.0 |
| Carbon tetrachloride | 1.8 | U | 1.8 | 2.0 |
| Chlorobenzene | 0.82 | U | 0.82 | 2.0 |
| Chlorodibromomethane | 0.80 | U | 0.80 | 2.0 |
| Chloroethane | 1.8 | U | 1.8 | 2.0 |
| Chloroform | 1.0 | U | 1.0 | 2.0 |
| Chloromethane | 1.1 | U | 1.1 | 2.0 |
| cis-1,2-Dichloroethene | 1.1 | U | 1.1 | 2.0 |
| cis-1,3-Dichloropropene | 0.82 | U | 0.82 | 2.0 |
| Dichlorobromomethane | 0.84 | U | 0.84 | 2.0 |
| 1,2-Dichloroethane | 0.56 | U | 0.56 | 2.0 |
| 1,1-Dichloroethane | 1.1 | U | 1.1 | 2.0 |
| 1,1-Dichloroethene | 1.9 | U | 1.9 | 2.0 |
| 1,2-Dichloropropane | 0.52 | U | 0.52 | 2.0 |
| Ethylbenzene | 1.2 | U | 1.2 | 2.0 |
| 2-Hexanone | 0.78 | U | 0.78 | 20 |
| Isopropylbenzene | 1.3 | U | 1.3 | 2.0 |
| Methylene Chloride | 0.88 | U | 0.88 | 10 |
| Methyl Ethyl Ketone | 1.4 | U | 1.4 | 20 |
| methyl isobutyl ketone | 0.90 | U | 0.90 | 20 |
| Methyl tert-butyl ether | 1.5 | J | 0.90 | 20 |
| Naphthalene | 0.24 | U | 0.24 | 10 |
| n-Butylbenzene | 0.76 | U | 0.76 | 2.0 |
| N-Propylbenzene | 0.90 | U | 0.90 | 2.0 |
| sec-Butylbenzene | 1.2 | U | 1.2 | 2.0 |
| Styrene | 0.84 | U | 0.84 | 2.0 |
| 1,1,2,2-Tetrachloroethane | 0.42 | U | 0.42 | 2.0 |
| Tetrachloroethene | 1.5 | U | 1.5 | 2.0 |
| Toluene | 1.2 | U | 1.2 | 2.0 |
| trans-1,2-Dichloroethene | 1.6 | U | 1.6 | 2.0 |
| trans-1,3-Dichloropropene | 0.72 | U | 0.72 | 2.0 |
| 1,1,2-Trichloroethane | 0.74 | U | 0.74 | 2.0 |
| 1,1,1-Trichloroethane | 1.6 | U | 1.6 | 2.0 |
| Trichloroethene | 1.4 | U | 1.4 | 2.0 |
| 1,3,5-Trimethylbenzene | 0.98 | U | 0.98 | 2.0 |
| 1,2,4-Trimethylbenzene | 1.1 | J | 0.88 | 2.0 |
| Vinyl chloride | 1.8 | U | 1.8 | 2.0 |
| Xylenes, Total | 250 | | 2.6 | 4.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-2**

Lab Sample ID: 680-13570-2
Client Matrix: Water

Date Sampled: 02/09/2006 1030
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/21/2006 2108
Date Prepared: 02/21/2006 2108

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a528.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 108 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-4**

Lab Sample ID: 680-13570-3
Client Matrix: Water

Date Sampled: 02/09/2006 1045
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/20/2006 2117
Date Prepared: 02/20/2006 2117

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a485.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 1.9 | | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.58 | J | 0.45 | 10 |
| Methyl tert-butyl ether | 63 | | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 1.5 | | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 10 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-4**

Lab Sample ID: 680-13570-3
Client Matrix: Water

Date Sampled: 02/09/2006 1045
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/20/2006 2117
Date Prepared: 02/20/2006 2117

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a485.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 103 | 77 - 120 |
| Dibromofluoromethane | 102 | 75 - 123 |
| Toluene-d8 | 112 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-5**

Lab Sample ID: 680-13570-4
Client Matrix: Water

Date Sampled: 02/09/2006 1105
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/20/2006 1506
Date Prepared: 02/20/2006 1506

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a464.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 730 | U | 730 | 2500 |
| Benzene | 54 | U | 54 | 100 |
| Bromoform | 36 | U | 36 | 100 |
| Bromomethane | 93 | U | 93 | 100 |
| Carbon disulfide | 75 | U | 75 | 100 |
| Carbon tetrachloride | 91 | U | 91 | 100 |
| Chlorobenzene | 41 | U | 41 | 100 |
| Chlorodibromomethane | 40 | U | 40 | 100 |
| Chloroethane | 89 | U | 89 | 100 |
| Chloroform | 52 | U | 52 | 100 |
| Chloromethane | 53 | U | 53 | 100 |
| cis-1,2-Dichloroethene | 55 | U | 55 | 100 |
| cis-1,3-Dichloropropene | 41 | U | 41 | 100 |
| Dichlorobromomethane | 42 | U | 42 | 100 |
| 1,1-Dichloroethane | 56 | U | 56 | 100 |
| 1,2-Dichloroethane | 28 | U | 28 | 100 |
| 1,1-Dichloroethene | 93 | U | 93 | 100 |
| 1,2-Dichloropropane | 26 | U | 26 | 100 |
| Ethylbenzene | 62 | U | 62 | 100 |
| 2-Hexanone | 39 | U | 39 | 1000 |
| Isopropylbenzene | 66 | U | 66 | 100 |
| Methylene Chloride | 44 | U | 44 | 500 |
| Methyl Ethyl Ketone | 72 | U | 72 | 1000 |
| methyl isobutyl ketone | 45 | U | 45 | 1000 |
| Methyl tert-butyl ether | 45 | U | 45 | 1000 |
| Naphthalene | 12 | U | 12 | 500 |
| n-Butylbenzene | 38 | U | 38 | 100 |
| N-Propylbenzene | 45 | U | 45 | 100 |
| sec-Butylbenzene | 60 | U | 60 | 100 |
| Styrene | 42 | U | 42 | 100 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 21 | 100 |
| Tetrachloroethene | 75 | U | 75 | 100 |
| Toluene | 62 | U | 62 | 100 |
| trans-1,2-Dichloroethene | 80 | U | 80 | 100 |
| trans-1,3-Dichloropropene | 36 | U | 36 | 100 |
| 1,1,2-Trichloroethane | 37 | U | 37 | 100 |
| 1,1,1-Trichloroethane | 79 | U | 79 | 100 |
| Trichloroethene | 71 | U | 71 | 100 |
| 1,2,4-Trimethylbenzene | 44 | U | 44 | 100 |
| 1,3,5-Trimethylbenzene | 49 | U | 49 | 100 |
| Vinyl chloride | 92 | U | 92 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 117 | 77 - 120 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-5**

Lab Sample ID: 680-13570-4
Client Matrix: Water

Date Sampled: 02/09/2006 1105
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/20/2006 1506
Date Prepared: 02/20/2006 1506

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a464.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-5**

Lab Sample ID: 680-13570-4
Client Matrix: Water

Date Sampled: 02/09/2006 1105
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1000
Date Analyzed: 02/21/2006 1711
Date Prepared: 02/21/2006 1711

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a512.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 76000 | | 1300 | 2000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-6**

Lab Sample ID: 680-13570-5
Client Matrix: Water

Date Sampled: 02/10/2006 1000
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/21/2006 2338
Date Prepared: 02/21/2006 2338

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0164.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 730 | U | 730 | 2500 |
| Benzene | 54 | U | 54 | 100 |
| Bromoform | 36 | U | 36 | 100 |
| Bromomethane | 93 | U | 93 | 100 |
| Carbon disulfide | 75 | U | 75 | 100 |
| Carbon tetrachloride | 91 | U | 91 | 100 |
| Chlorobenzene | 41 | U | 41 | 100 |
| Chlorodibromomethane | 40 | U | 40 | 100 |
| Chloroethane | 89 | U | 89 | 100 |
| Chloroform | 52 | U | 52 | 100 |
| Chloromethane | 53 | U | 53 | 100 |
| cis-1,2-Dichloroethene | 55 | U | 55 | 100 |
| cis-1,3-Dichloropropene | 41 | U | 41 | 100 |
| Dichlorobromomethane | 42 | U | 42 | 100 |
| 1,1-Dichloroethane | 56 | U | 56 | 100 |
| 1,2-Dichloroethane | 28 | U | 28 | 100 |
| 1,1-Dichloroethene | 93 | U | 93 | 100 |
| 1,2-Dichloropropane | 26 | U | 26 | 100 |
| Ethylbenzene | 62 | U | 62 | 100 |
| 2-Hexanone | 39 | U | 39 | 1000 |
| Isopropylbenzene | 66 | U | 66 | 100 |
| Methylene Chloride | 44 | U | 44 | 500 |
| Methyl Ethyl Ketone | 72 | U | 72 | 1000 |
| methyl isobutyl ketone | 45 | U | 45 | 1000 |
| Methyl tert-butyl ether | 45 | U | 45 | 1000 |
| Naphthalene | 79 | J | 12 | 500 |
| n-Butylbenzene | 38 | U | 38 | 100 |
| N-Propylbenzene | 45 | U | 45 | 100 |
| sec-Butylbenzene | 60 | U | 60 | 100 |
| Styrene | 42 | U | 42 | 100 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 21 | 100 |
| Tetrachloroethene | 75 | U | 75 | 100 |
| Toluene | 62 | U | 62 | 100 |
| trans-1,2-Dichloroethene | 80 | U | 80 | 100 |
| trans-1,3-Dichloropropene | 36 | U | 36 | 100 |
| 1,1,1-Trichloroethane | 79 | U | 79 | 100 |
| 1,1,2-Trichloroethane | 37 | U | 37 | 100 |
| Trichloroethene | 71 | U | 71 | 100 |
| 1,3,5-Trimethylbenzene | 49 | U | 49 | 100 |
| 1,2,4-Trimethylbenzene | 140 | | 44 | 100 |
| Vinyl chloride | 92 | U | 92 | 100 |
| Xylenes, Total | 13000 | | 130 | 200 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-6**

Lab Sample ID: 680-13570-5
Client Matrix: Water

Date Sampled: 02/10/2006 1000
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/21/2006 2338
Date Prepared: 02/21/2006 2338

Analysis Batch: 680-37291

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0164.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 86 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-7**

Lab Sample ID: 680-13570-6
Client Matrix: Water

Date Sampled: 02/08/2006 1445
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/21/2006 1631
Date Prepared: 02/21/2006 1631

Analysis Batch: 680-37296

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0076.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 32 | J | 15 | 50 |
| Benzene | 34 | | 1.1 | 2.0 |
| Bromoform | 0.72 | U | 0.72 | 2.0 |
| Bromomethane | 1.9 | U | 1.9 | 2.0 |
| Carbon disulfide | 1.5 | U | 1.5 | 2.0 |
| Carbon tetrachloride | 1.8 | U | 1.8 | 2.0 |
| Chlorobenzene | 0.82 | U | 0.82 | 2.0 |
| Chlorodibromomethane | 0.80 | U | 0.80 | 2.0 |
| Chloroethane | 3.6 | | 1.8 | 2.0 |
| Chloroform | 1.0 | U | 1.0 | 2.0 |
| Chloromethane | 1.1 | U | 1.1 | 2.0 |
| cis-1,2-Dichloroethene | 1.1 | U | 1.1 | 2.0 |
| cis-1,3-Dichloropropene | 0.82 | U | 0.82 | 2.0 |
| Dichlorobromomethane | 0.84 | U | 0.84 | 2.0 |
| 1,1-Dichloroethane | 1.1 | U | 1.1 | 2.0 |
| 1,2-Dichloroethane | 0.56 | U | 0.56 | 2.0 |
| 1,1-Dichloroethene | 1.9 | U | 1.9 | 2.0 |
| 1,2-Dichloropropane | 0.52 | U | 0.52 | 2.0 |
| Ethylbenzene | 250 | | 1.2 | 2.0 |
| 2-Hexanone | 0.78 | U | 0.78 | 20 |
| Isopropylbenzene | 23 | | 1.3 | 2.0 |
| Methylene Chloride | 0.88 | U | 0.88 | 10 |
| Methyl Ethyl Ketone | 14 | J | 1.4 | 20 |
| methyl isobutyl ketone | 0.90 | U | 0.90 | 20 |
| Methyl tert-butyl ether | 5.2 | J | 0.90 | 20 |
| n-Butylbenzene | 20 | * | 0.76 | 2.0 |
| N-Propylbenzene | 50 | | 0.90 | 2.0 |
| sec-Butylbenzene | 5.8 | | 1.2 | 2.0 |
| Styrene | 0.84 | U | 0.84 | 2.0 |
| 1,1,2,2-Tetrachloroethane | 0.42 | U | 0.42 | 2.0 |
| Tetrachloroethene | 1.5 | U | 1.5 | 2.0 |
| Toluene | 11 | | 1.2 | 2.0 |
| trans-1,2-Dichloroethene | 1.6 | U | 1.6 | 2.0 |
| trans-1,3-Dichloropropene | 0.72 | U | 0.72 | 2.0 |
| 1,1,1-Trichloroethane | 1.6 | U | 1.6 | 2.0 |
| 1,1,2-Trichloroethane | 0.74 | U | 0.74 | 2.0 |
| Trichloroethene | 1.4 | U | 1.4 | 2.0 |
| 1,3,5-Trimethylbenzene | 85 | | 0.98 | 2.0 |
| 1,2,4-Trimethylbenzene | 290 | | 0.88 | 2.0 |
| Vinyl chloride | 1.8 | U | 1.8 | 2.0 |
| Xylenes, Total | 590 | | 2.6 | 4.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 77 - 120 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-7**

Lab Sample ID: 680-13570-6
Client Matrix: Water

Date Sampled: 02/08/2006 1445
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/21/2006 1631
Date Prepared: 02/21/2006 1631

Analysis Batch: 680-37296

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0076.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Dibromofluoromethane | 95 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-7**

Lab Sample ID: 680-13570-6
Client Matrix: Water

Date Sampled: 02/08/2006 1445
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/22/2006 0044
Date Prepared: 02/22/2006 0044

Analysis Batch: 680-37088

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0080.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Naphthalene | 430 | | 0.60 | 25 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-8**

Lab Sample ID: 680-13570-7
Client Matrix: Water

Date Sampled: 02/09/2006 0950
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/20/2006 1535
Date Prepared: 02/20/2006 1535

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a466.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 370 | U | 370 | 1300 |
| Benzene | 900 | | 27 | 50 |
| Bromoform | 18 | U | 18 | 50 |
| Bromomethane | 47 | U | 47 | 50 |
| Carbon disulfide | 38 | U | 38 | 50 |
| Carbon tetrachloride | 46 | U | 46 | 50 |
| Chlorobenzene | 21 | U | 21 | 50 |
| Chlorodibromomethane | 20 | U | 20 | 50 |
| Chloroethane | 45 | U | 45 | 50 |
| Chloroform | 26 | U | 26 | 50 |
| Chloromethane | 27 | U | 27 | 50 |
| cis-1,2-Dichloroethene | 28 | U | 28 | 50 |
| cis-1,3-Dichloropropene | 21 | U | 21 | 50 |
| Dichlorobromomethane | 21 | U | 21 | 50 |
| 1,2-Dichloroethane | 14 | U | 14 | 50 |
| 1,1-Dichloroethane | 28 | U | 28 | 50 |
| 1,1-Dichloroethene | 47 | U | 47 | 50 |
| 1,2-Dichloropropane | 13 | U | 13 | 50 |
| Ethylbenzene | 780 | | 31 | 50 |
| 2-Hexanone | 20 | U | 20 | 500 |
| Isopropylbenzene | 47 | J | 33 | 50 |
| Methylene Chloride | 22 | U | 22 | 250 |
| Methyl Ethyl Ketone | 36 | U | 36 | 500 |
| methyl isobutyl ketone | 23 | U | 23 | 500 |
| Methyl tert-butyl ether | 360 | J | 23 | 500 |
| Naphthalene | 680 | | 6.0 | 250 |
| n-Butylbenzene | 19 | U | 19 | 50 |
| N-Propylbenzene | 92 | | 23 | 50 |
| sec-Butylbenzene | 30 | U | 30 | 50 |
| Styrene | 21 | U | 21 | 50 |
| 1,1,2,2-Tetrachloroethane | 11 | U | 11 | 50 |
| Tetrachloroethene | 38 | U | 38 | 50 |
| Toluene | 160 | | 31 | 50 |
| trans-1,2-Dichloroethene | 40 | U | 40 | 50 |
| trans-1,3-Dichloropropene | 18 | U | 18 | 50 |
| 1,1,1-Trichloroethane | 40 | U | 40 | 50 |
| 1,1,2-Trichloroethane | 19 | U | 19 | 50 |
| Trichloroethene | 36 | U | 36 | 50 |
| 1,3,5-Trimethylbenzene | 320 | | 25 | 50 |
| 1,2,4-Trimethylbenzene | 1300 | | 22 | 50 |
| Vinyl chloride | 46 | U | 46 | 50 |
| Xylenes, Total | 6500 | | 65 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-8**

Lab Sample ID: 680-13570-7
Client Matrix: Water

Date Sampled: 02/09/2006 0950
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/20/2006 1535
Date Prepared: 02/20/2006 1535

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a466.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 110 | 77 - 120 |
| Dibromofluoromethane | 102 | 75 - 123 |
| Toluene-d8 | 104 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-10**

Lab Sample ID: 680-13570-8
Client Matrix: Water

Date Sampled: 02/09/2006 0930
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1442
Date Prepared: 02/21/2006 1442

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a502.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.91 | J | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-10**

Lab Sample ID: 680-13570-8
Client Matrix: Water

Date Sampled: 02/09/2006 0930
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1442
Date Prepared: 02/21/2006 1442

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a502.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 92 | 75 - 123 |
| Toluene-d8 | 86 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-11**

Lab Sample ID: 680-13570-9
Client Matrix: Water

Date Sampled: 02/08/2006 1455
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/20/2006 1711
Date Prepared: 02/20/2006 1711

Analysis Batch: 680-37260

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0041.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U * | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-11**

Lab Sample ID: 680-13570-9
Client Matrix: Water

Date Sampled: 02/08/2006 1455
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/20/2006 1711
Date Prepared: 02/20/2006 1711

Analysis Batch: 680-37260

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0041.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 98 | 77 - 120 |
| Dibromofluoromethane | 91 | 75 - 123 |
| Toluene-d8 | 96 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-12**

Lab Sample ID: 680-13570-10
Client Matrix: Water

Date Sampled: 02/08/2006 1530
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/21/2006 1658
Date Prepared: 02/21/2006 1658

Analysis Batch: 680-37296

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0077.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 38 | J | 37 | 130 |
| Bromoform | 1.8 | U | 1.8 | 5.0 |
| Bromomethane | 4.7 | U | 4.7 | 5.0 |
| Carbon disulfide | 6.4 | | 3.8 | 5.0 |
| Carbon tetrachloride | 4.6 | U | 4.6 | 5.0 |
| Chlorobenzene | 2.1 | U | 2.1 | 5.0 |
| Chlorodibromomethane | 2.0 | U | 2.0 | 5.0 |
| Chloroethane | 4.5 | U | 4.5 | 5.0 |
| Chloroform | 2.6 | U | 2.6 | 5.0 |
| Chloromethane | 2.7 | U | 2.7 | 5.0 |
| cis-1,2-Dichloroethene | 2.8 | U | 2.8 | 5.0 |
| cis-1,3-Dichloropropene | 2.1 | U | 2.1 | 5.0 |
| Dichlorobromomethane | 2.1 | U | 2.1 | 5.0 |
| 1,1-Dichloroethane | 2.8 | U | 2.8 | 5.0 |
| 1,2-Dichloroethane | 1.4 | U | 1.4 | 5.0 |
| 1,1-Dichloroethene | 4.7 | U | 4.7 | 5.0 |
| 1,2-Dichloropropane | 1.3 | U | 1.3 | 5.0 |
| 2-Hexanone | 2.0 | U | 2.0 | 50 |
| Isopropylbenzene | 100 | | 3.3 | 5.0 |
| Methylene Chloride | 2.2 | U | 2.2 | 25 |
| Methyl Ethyl Ketone | 12 | J | 3.6 | 50 |
| methyl isobutyl ketone | 2.3 | U | 2.3 | 50 |
| Methyl tert-butyl ether | 28 | J | 2.3 | 50 |
| Naphthalene | 920 | | 0.60 | 25 |
| n-Butylbenzene | 1.9 | U * | 1.9 | 5.0 |
| N-Propylbenzene | 160 | | 2.3 | 5.0 |
| sec-Butylbenzene | 12 | | 3.0 | 5.0 |
| Styrene | 2.1 | U | 2.1 | 5.0 |
| 1,1,2,2-Tetrachloroethane | 1.1 | U | 1.1 | 5.0 |
| Tetrachloroethene | 3.8 | U | 3.8 | 5.0 |
| Toluene | 68 | | 3.1 | 5.0 |
| trans-1,2-Dichloroethene | 4.0 | U | 4.0 | 5.0 |
| trans-1,3-Dichloropropene | 1.8 | U | 1.8 | 5.0 |
| 1,1,1-Trichloroethane | 4.0 | U | 4.0 | 5.0 |
| 1,1,2-Trichloroethane | 1.9 | U | 1.9 | 5.0 |
| Trichloroethene | 3.6 | U | 3.6 | 5.0 |
| 1,3,5-Trimethylbenzene | 470 | | 2.5 | 5.0 |
| Vinyl chloride | 4.6 | U | 4.6 | 5.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 77 - 120 |
| Dibromofluoromethane | 92 | 75 - 123 |
| Toluene-d8 | 99 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-12**

Lab Sample ID: 680-13570-10
Client Matrix: Water

Date Sampled: 02/08/2006 1530
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 20
Date Analyzed: 02/22/2006 0116
Date Prepared: 02/22/2006 0116

Analysis Batch: 680-37088

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0082.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Benzene | 2000 | | 11 | 20 |
| Ethylbenzene | 1100 | | 12 | 20 |
| 1,2,4-Trimethylbenzene | 2200 | | 8.8 | 20 |
| Xylenes, Total | 4100 | | 26 | 40 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-13**

Lab Sample ID: 680-13570-11
Client Matrix: Water

Date Sampled: 02/08/2006 1600
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/20/2006 1821
Date Prepared: 02/20/2006 1821

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a477.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 730 | U | 730 | 2500 |
| Benzene | 450 | | 54 | 100 |
| Bromoform | 36 | U | 36 | 100 |
| Bromomethane | 93 | U | 93 | 100 |
| Carbon disulfide | 75 | U | 75 | 100 |
| Carbon tetrachloride | 91 | U | 91 | 100 |
| Chlorobenzene | 41 | U | 41 | 100 |
| Chlorodibromomethane | 40 | U | 40 | 100 |
| Chloroethane | 89 | U | 89 | 100 |
| Chloroform | 52 | U | 52 | 100 |
| Chloromethane | 53 | U | 53 | 100 |
| cis-1,2-Dichloroethene | 55 | U | 55 | 100 |
| cis-1,3-Dichloropropene | 41 | U | 41 | 100 |
| Dichlorobromomethane | 42 | U | 42 | 100 |
| 1,2-Dichloroethane | 28 | U | 28 | 100 |
| 1,1-Dichloroethane | 56 | U | 56 | 100 |
| 1,1-Dichloroethene | 93 | U | 93 | 100 |
| 1,2-Dichloropropane | 26 | U | 26 | 100 |
| Ethylbenzene | 62 | U | 62 | 100 |
| 2-Hexanone | 39 | U | 39 | 1000 |
| Isopropylbenzene | 66 | U | 66 | 100 |
| Methylene Chloride | 44 | U | 44 | 500 |
| Methyl Ethyl Ketone | 72 | U | 72 | 1000 |
| methyl isobutyl ketone | 45 | U | 45 | 1000 |
| Methyl tert-butyl ether | 45 | U | 45 | 1000 |
| Naphthalene | 160 | J | 12 | 500 |
| n-Butylbenzene | 38 | U | 38 | 100 |
| N-Propylbenzene | 45 | U | 45 | 100 |
| sec-Butylbenzene | 60 | U | 60 | 100 |
| Styrene | 42 | U | 42 | 100 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 21 | 100 |
| Tetrachloroethene | 75 | U | 75 | 100 |
| Toluene | 62 | U | 62 | 100 |
| trans-1,2-Dichloroethene | 80 | U | 80 | 100 |
| trans-1,3-Dichloropropene | 36 | U | 36 | 100 |
| 1,1,2-Trichloroethane | 37 | U | 37 | 100 |
| 1,1,1-Trichloroethane | 79 | U | 79 | 100 |
| Trichloroethene | 71 | U | 71 | 100 |
| 1,3,5-Trimethylbenzene | 49 | U | 49 | 100 |
| 1,2,4-Trimethylbenzene | 130 | | 44 | 100 |
| Vinyl chloride | 92 | U | 92 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 107 | 77 - 120 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-13**

Lab Sample ID: 680-13570-11
Client Matrix: Water

Date Sampled: 02/08/2006 1600
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/20/2006 1821
Date Prepared: 02/20/2006 1821

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a477.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| Dibromofluoromethane | 91 | 75 - 123 |
| Toluene-d8 | 92 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-13**

Lab Sample ID: 680-13570-11
Client Matrix: Water

Date Sampled: 02/08/2006 1600
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 02/21/2006 2009
Date Prepared: 02/21/2006 2009

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a524.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 72000 | | 650 | 1000 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-14**

Lab Sample ID: 680-13570-12
Client Matrix: Water

Date Sampled: 02/08/2006 1620
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/20/2006 1842
Date Prepared: 02/20/2006 1842

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a478.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 730 | U | 730 | 2500 |
| Benzene | 54 | U | 54 | 100 |
| Bromoform | 36 | U | 36 | 100 |
| Bromomethane | 93 | U | 93 | 100 |
| Carbon disulfide | 75 | U | 75 | 100 |
| Carbon tetrachloride | 91 | U | 91 | 100 |
| Chlorobenzene | 41 | U | 41 | 100 |
| Chlorodibromomethane | 40 | U | 40 | 100 |
| Chloroethane | 89 | U | 89 | 100 |
| Chloroform | 52 | U | 52 | 100 |
| Chloromethane | 53 | U | 53 | 100 |
| cis-1,2-Dichloroethene | 55 | U | 55 | 100 |
| cis-1,3-Dichloropropene | 41 | U | 41 | 100 |
| Dichlorobromomethane | 42 | U | 42 | 100 |
| 1,1-Dichloroethane | 56 | U | 56 | 100 |
| 1,2-Dichloroethane | 28 | U | 28 | 100 |
| 1,1-Dichloroethene | 93 | U | 93 | 100 |
| 1,2-Dichloropropane | 26 | U | 26 | 100 |
| Ethylbenzene | 62 | U | 62 | 100 |
| 2-Hexanone | 39 | U | 39 | 1000 |
| Isopropylbenzene | 66 | U | 66 | 100 |
| Methylene Chloride | 44 | U | 44 | 500 |
| Methyl Ethyl Ketone | 72 | U | 72 | 1000 |
| methyl isobutyl ketone | 45 | U | 45 | 1000 |
| Methyl tert-butyl ether | 45 | U | 45 | 1000 |
| Naphthalene | 12 | U | 12 | 500 |
| n-Butylbenzene | 38 | U | 38 | 100 |
| N-Propylbenzene | 45 | U | 45 | 100 |
| sec-Butylbenzene | 60 | U | 60 | 100 |
| Styrene | 42 | U | 42 | 100 |
| 1,1,2,2-Tetrachloroethane | 21 | U | 21 | 100 |
| Tetrachloroethene | 75 | U | 75 | 100 |
| Toluene | 62 | U | 62 | 100 |
| trans-1,2-Dichloroethene | 80 | U | 80 | 100 |
| trans-1,3-Dichloropropene | 36 | U | 36 | 100 |
| 1,1,2-Trichloroethane | 37 | U | 37 | 100 |
| 1,1,1-Trichloroethane | 79 | U | 79 | 100 |
| Trichloroethene | 71 | U | 71 | 100 |
| 1,2,4-Trimethylbenzene | 44 | U | 44 | 100 |
| 1,3,5-Trimethylbenzene | 49 | U | 49 | 100 |
| Vinyl chloride | 92 | U | 92 | 100 |
| Xylenes, Total | 14000 | | 130 | 200 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-14**

Lab Sample ID: 680-13570-12
Client Matrix: Water

Date Sampled: 02/08/2006 1620
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 100
Date Analyzed: 02/20/2006 1842
Date Prepared: 02/20/2006 1842

Analysis Batch: 680-36964

Instrument ID: GC/MS Volatiles - A
Lab File ID: a478.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 81 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-15**

Lab Sample ID: 680-13570-13
Client Matrix: Water

Date Sampled: 02/09/2006 1000
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1741
Date Prepared: 02/21/2006 1741

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a514.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 380 | | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 1.1 | | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-15**

Lab Sample ID: 680-13570-13
Client Matrix: Water

Date Sampled: 02/09/2006 1000
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1741
Date Prepared: 02/21/2006 1741

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a514.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 90 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-16**

Lab Sample ID: 680-13570-14
Client Matrix: Water

Date Sampled: 02/08/2006 1405
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/21/2006 1810
Date Prepared: 02/21/2006 1810

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a516.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 37 | U | 37 | 130 |
| Benzene | 190 | | 2.7 | 5.0 |
| Bromoform | 1.8 | U | 1.8 | 5.0 |
| Bromomethane | 4.7 | U | 4.7 | 5.0 |
| Carbon disulfide | 3.8 | U | 3.8 | 5.0 |
| Carbon tetrachloride | 4.6 | U | 4.6 | 5.0 |
| Chlorobenzene | 2.1 | U | 2.1 | 5.0 |
| Chlorodibromomethane | 2.0 | U | 2.0 | 5.0 |
| Chloroethane | 4.5 | U | 4.5 | 5.0 |
| Chloroform | 2.6 | U | 2.6 | 5.0 |
| Chloromethane | 2.7 | U | 2.7 | 5.0 |
| cis-1,2-Dichloroethene | 2.8 | U | 2.8 | 5.0 |
| cis-1,3-Dichloropropene | 2.1 | U | 2.1 | 5.0 |
| Dichlorobromomethane | 2.1 | U | 2.1 | 5.0 |
| 1,1-Dichloroethane | 2.8 | U | 2.8 | 5.0 |
| 1,2-Dichloroethane | 1.4 | U | 1.4 | 5.0 |
| 1,1-Dichloroethene | 4.7 | U | 4.7 | 5.0 |
| 1,2-Dichloropropane | 1.3 | U | 1.3 | 5.0 |
| Ethylbenzene | 3.1 | U | 3.1 | 5.0 |
| 2-Hexanone | 2.0 | U | 2.0 | 50 |
| Isopropylbenzene | 3.8 | J | 3.3 | 5.0 |
| Methylene Chloride | 2.2 | U | 2.2 | 25 |
| Methyl Ethyl Ketone | 3.6 | U | 3.6 | 50 |
| methyl isobutyl ketone | 2.3 | U | 2.3 | 50 |
| Methyl tert-butyl ether | 600 | | 2.3 | 50 |
| Naphthalene | 13 | J | 0.60 | 25 |
| n-Butylbenzene | 1.9 | U | 1.9 | 5.0 |
| N-Propylbenzene | 8.6 | | 2.3 | 5.0 |
| sec-Butylbenzene | 3.0 | U | 3.0 | 5.0 |
| Styrene | 2.1 | U | 2.1 | 5.0 |
| 1,1,2,2-Tetrachloroethane | 1.1 | U | 1.1 | 5.0 |
| Tetrachloroethene | 3.8 | U | 3.8 | 5.0 |
| Toluene | 3.2 | J | 3.1 | 5.0 |
| trans-1,2-Dichloroethene | 4.0 | U | 4.0 | 5.0 |
| trans-1,3-Dichloropropene | 1.8 | U | 1.8 | 5.0 |
| 1,1,1-Trichloroethane | 4.0 | U | 4.0 | 5.0 |
| 1,1,2-Trichloroethane | 1.9 | U | 1.9 | 5.0 |
| Trichloroethene | 3.6 | U | 3.6 | 5.0 |
| 1,3,5-Trimethylbenzene | 22 | | 2.5 | 5.0 |
| 1,2,4-Trimethylbenzene | 88 | | 2.2 | 5.0 |
| Vinyl chloride | 4.6 | U | 4.6 | 5.0 |
| Xylenes, Total | 7.0 | J | 6.5 | 10 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-16**

Lab Sample ID: 680-13570-14
Client Matrix: Water

Date Sampled: 02/08/2006 1405
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/21/2006 1810
Date Prepared: 02/21/2006 1810

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a516.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 92 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 101 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-17**

Lab Sample ID: 680-13570-15
Client Matrix: Water

Date Sampled: 02/08/2006 1425
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1611
Date Prepared: 02/21/2006 1611

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a508.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 110 | | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 55 | | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 2.9 | | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 20 | | 0.45 | 10 |
| Naphthalene | 2.8 | J | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 3.6 | | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 3.7 | | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,3,5-Trimethylbenzene | 5.0 | | 0.49 | 1.0 |
| 1,2,4-Trimethylbenzene | 32 | | 0.44 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 170 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **KMW-17**

Lab Sample ID: 680-13570-15
Client Matrix: Water

Date Sampled: 02/08/2006 1425
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1611
Date Prepared: 02/21/2006 1611

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a508.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 110 | 77 - 120 |
| Dibromofluoromethane | 101 | 75 - 123 |
| Toluene-d8 | 106 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-1**

Lab Sample ID: 680-13570-16
Client Matrix: Water

Date Sampled: 02/08/2006 1635
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1641
Date Prepared: 02/21/2006 1641

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a510.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-1**

Lab Sample ID: 680-13570-16
Client Matrix: Water

Date Sampled: 02/08/2006 1635
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1641
Date Prepared: 02/21/2006 1641

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a510.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 93 | 77 - 120 |
| Dibromofluoromethane | 101 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-2**

Lab Sample ID: 680-13570-17
Client Matrix: Water

Date Sampled: 02/08/2006 1540
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 02/21/2006 1840
Date Prepared: 02/21/2006 1840

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a518.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 1500 | U | 1500 | 5000 |
| Benzene | 1700 | | 110 | 200 |
| Bromoform | 72 | U | 72 | 200 |
| Bromomethane | 190 | U | 190 | 200 |
| Carbon disulfide | 150 | U | 150 | 200 |
| Carbon tetrachloride | 180 | U | 180 | 200 |
| Chlorobenzene | 82 | U | 82 | 200 |
| Chlorodibromomethane | 80 | U | 80 | 200 |
| Chloroethane | 180 | U | 180 | 200 |
| Chloroform | 100 | U | 100 | 200 |
| Chloromethane | 110 | U | 110 | 200 |
| cis-1,2-Dichloroethene | 110 | U | 110 | 200 |
| cis-1,3-Dichloropropene | 82 | U | 82 | 200 |
| Dichlorobromomethane | 84 | U | 84 | 200 |
| 1,2-Dichloroethane | 56 | U | 56 | 200 |
| 1,1-Dichloroethane | 110 | U | 110 | 200 |
| 1,1-Dichloroethene | 190 | U | 190 | 200 |
| 1,2-Dichloropropane | 52 | U | 52 | 200 |
| Ethylbenzene | 1300 | | 120 | 200 |
| 2-Hexanone | 78 | U | 78 | 2000 |
| Isopropylbenzene | 130 | U | 130 | 200 |
| Methylene Chloride | 88 | U | 88 | 1000 |
| Methyl Ethyl Ketone | 140 | U | 140 | 2000 |
| methyl isobutyl ketone | 90 | U | 90 | 2000 |
| Methyl tert-butyl ether | 90 | U | 90 | 2000 |
| Naphthalene | 370 | J | 24 | 1000 |
| n-Butylbenzene | 76 | U | 76 | 200 |
| N-Propylbenzene | 140 | J | 90 | 200 |
| sec-Butylbenzene | 120 | U | 120 | 200 |
| Styrene | 84 | U | 84 | 200 |
| 1,1,2,2-Tetrachloroethane | 42 | U | 42 | 200 |
| Tetrachloroethene | 150 | U | 150 | 200 |
| Toluene | 2100 | | 120 | 200 |
| trans-1,2-Dichloroethene | 160 | U | 160 | 200 |
| trans-1,3-Dichloropropene | 72 | U | 72 | 200 |
| 1,1,2-Trichloroethane | 74 | U | 74 | 200 |
| 1,1,1-Trichloroethane | 160 | U | 160 | 200 |
| Trichloroethene | 140 | U | 140 | 200 |
| 1,3,5-Trimethylbenzene | 290 | | 98 | 200 |
| 1,2,4-Trimethylbenzene | 1100 | | 88 | 200 |
| Vinyl chloride | 180 | U | 180 | 200 |
| Xylenes, Total | 38000 | | 260 | 400 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-2**

Lab Sample ID: 680-13570-17
Client Matrix: Water

Date Sampled: 02/08/2006 1540
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 02/21/2006 1840
Date Prepared: 02/21/2006 1840

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a518.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 77 - 120 |
| Dibromofluoromethane | 101 | 75 - 123 |
| Toluene-d8 | 106 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-3**

Lab Sample ID: 680-13570-18
Client Matrix: Water

Date Sampled: 02/08/2006 1515
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/21/2006 1910
Date Prepared: 02/21/2006 1910

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a520.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 370 | U | 370 | 1300 |
| Benzene | 380 | | 27 | 50 |
| Bromoform | 18 | U | 18 | 50 |
| Bromomethane | 47 | U | 47 | 50 |
| Carbon disulfide | 38 | U | 38 | 50 |
| Carbon tetrachloride | 46 | U | 46 | 50 |
| Chlorobenzene | 21 | U | 21 | 50 |
| Chlorodibromomethane | 20 | U | 20 | 50 |
| Chloroethane | 45 | U | 45 | 50 |
| Chloroform | 26 | U | 26 | 50 |
| Chloromethane | 27 | U | 27 | 50 |
| cis-1,2-Dichloroethene | 28 | U | 28 | 50 |
| cis-1,3-Dichloropropene | 21 | U | 21 | 50 |
| Dichlorobromomethane | 21 | U | 21 | 50 |
| 1,2-Dichloroethane | 14 | U | 14 | 50 |
| 1,1-Dichloroethane | 28 | U | 28 | 50 |
| 1,1-Dichloroethene | 47 | U | 47 | 50 |
| 1,2-Dichloropropane | 13 | U | 13 | 50 |
| Ethylbenzene | 73 | | 31 | 50 |
| 2-Hexanone | 20 | U | 20 | 500 |
| Isopropylbenzene | 33 | U | 33 | 50 |
| Methylene Chloride | 22 | U | 22 | 250 |
| Methyl Ethyl Ketone | 36 | U | 36 | 500 |
| methyl isobutyl ketone | 23 | U | 23 | 500 |
| Methyl tert-butyl ether | 23 | U | 23 | 500 |
| Naphthalene | 78 | J | 6.0 | 250 |
| n-Butylbenzene | 19 | U | 19 | 50 |
| N-Propylbenzene | 49 | J | 23 | 50 |
| sec-Butylbenzene | 30 | U | 30 | 50 |
| Styrene | 21 | U | 21 | 50 |
| 1,1,2,2-Tetrachloroethane | 11 | U | 11 | 50 |
| Tetrachloroethene | 38 | U | 38 | 50 |
| Toluene | 41 | J | 31 | 50 |
| trans-1,2-Dichloroethene | 40 | U | 40 | 50 |
| trans-1,3-Dichloropropene | 18 | U | 18 | 50 |
| 1,1,2-Trichloroethane | 19 | U | 19 | 50 |
| 1,1,1-Trichloroethane | 40 | U | 40 | 50 |
| Trichloroethene | 36 | U | 36 | 50 |
| 1,3,5-Trimethylbenzene | 25 | U | 25 | 50 |
| 1,2,4-Trimethylbenzene | 63 | | 22 | 50 |
| Vinyl chloride | 46 | U | 46 | 50 |
| Xylenes, Total | 11000 | | 65 | 100 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-3**

Lab Sample ID: 680-13570-18
Client Matrix: Water

Date Sampled: 02/08/2006 1515
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 50
Date Analyzed: 02/21/2006 1910
Date Prepared: 02/21/2006 1910

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a520.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 103 | 77 - 120 |
| Dibromofluoromethane | 96 | 75 - 123 |
| Toluene-d8 | 109 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-5**

Lab Sample ID: 680-13570-19
Client Matrix: Water

Date Sampled: 02/08/2006 1430
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 1541
Date Prepared: 02/21/2006 1541

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a506.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 2.8 | J | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-5**

Lab Sample ID: 680-13570-19

Client Matrix: Water

Date Sampled: 02/08/2006 1430

Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B

Preparation: 5030B

Dilution: 1.0

Date Analyzed: 02/21/2006 1541

Date Prepared: 02/21/2006 1541

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A

Lab File ID: a506.d

Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 90 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-6**

Lab Sample ID: 680-13570-20
Client Matrix: Water

Date Sampled: 02/08/2006 1455
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/21/2006 1940
Date Prepared: 02/21/2006 1940

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a522.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 15 | U | 15 | 50 |
| Benzene | 20 | | 1.1 | 2.0 |
| Bromoform | 0.72 | U | 0.72 | 2.0 |
| Bromomethane | 1.9 | U | 1.9 | 2.0 |
| Carbon disulfide | 1.5 | U | 1.5 | 2.0 |
| Carbon tetrachloride | 1.8 | U | 1.8 | 2.0 |
| Chlorobenzene | 0.82 | U | 0.82 | 2.0 |
| Chlorodibromomethane | 0.80 | U | 0.80 | 2.0 |
| Chloroethane | 1.8 | U | 1.8 | 2.0 |
| Chloroform | 1.0 | U | 1.0 | 2.0 |
| Chloromethane | 1.1 | U | 1.1 | 2.0 |
| cis-1,2-Dichloroethene | 1.1 | U | 1.1 | 2.0 |
| cis-1,3-Dichloropropene | 0.82 | U | 0.82 | 2.0 |
| Dichlorobromomethane | 0.84 | U | 0.84 | 2.0 |
| 1,2-Dichloroethane | 0.56 | U | 0.56 | 2.0 |
| 1,1-Dichloroethane | 1.1 | U | 1.1 | 2.0 |
| 1,1-Dichloroethene | 1.9 | U | 1.9 | 2.0 |
| 1,2-Dichloropropane | 0.52 | U | 0.52 | 2.0 |
| Ethylbenzene | 1.2 | U | 1.2 | 2.0 |
| 2-Hexanone | 0.78 | U | 0.78 | 20 |
| Isopropylbenzene | 9.4 | | 1.3 | 2.0 |
| Methylene Chloride | 0.88 | U | 0.88 | 10 |
| Methyl Ethyl Ketone | 1.4 | U | 1.4 | 20 |
| methyl isobutyl ketone | 0.90 | U | 0.90 | 20 |
| Methyl tert-butyl ether | 21 | | 0.90 | 20 |
| Naphthalene | 4.8 | J | 0.24 | 10 |
| n-Butylbenzene | 1.8 | J | 0.76 | 2.0 |
| N-Propylbenzene | 1.8 | J | 0.90 | 2.0 |
| sec-Butylbenzene | 1.2 | U | 1.2 | 2.0 |
| Styrene | 0.84 | U | 0.84 | 2.0 |
| 1,1,2,2-Tetrachloroethane | 0.42 | U | 0.42 | 2.0 |
| Tetrachloroethene | 1.5 | U | 1.5 | 2.0 |
| Toluene | 1.2 | U | 1.2 | 2.0 |
| trans-1,2-Dichloroethene | 1.6 | U | 1.6 | 2.0 |
| trans-1,3-Dichloropropene | 0.72 | U | 0.72 | 2.0 |
| 1,1,2-Trichloroethane | 0.74 | U | 0.74 | 2.0 |
| 1,1,1-Trichloroethane | 1.6 | U | 1.6 | 2.0 |
| Trichloroethene | 1.4 | U | 1.4 | 2.0 |
| 1,3,5-Trimethylbenzene | 2.8 | | 0.98 | 2.0 |
| 1,2,4-Trimethylbenzene | 20 | | 0.88 | 2.0 |
| Vinyl chloride | 1.8 | U | 1.8 | 2.0 |
| Xylenes, Total | 370 | | 2.6 | 4.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **AMW-6**

Lab Sample ID: 680-13570-20
Client Matrix: Water

Date Sampled: 02/08/2006 1455
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 02/21/2006 1940
Date Prepared: 02/21/2006 1940

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a522.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 108 | 77 - 120 |
| Dibromofluoromethane | 88 | 75 - 123 |
| Toluene-d8 | 83 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **Trip Blank**

Lab Sample ID: 680-13570-21
Client Matrix: Water

Date Sampled: 02/08/2006 0000
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 2039
Date Prepared: 02/21/2006 2039

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a526.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Client Sample ID:** **Trip Blank**

Lab Sample ID: 680-13570-21
Client Matrix: Water

Date Sampled: 02/08/2006 0000
Date Received: 02/14/2006 1015

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/21/2006 2039
Date Prepared: 02/21/2006 2039

Analysis Batch: 680-36965

Instrument ID: GC/MS Volatiles - A
Lab File ID: a526.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| 4-Bromofluorobenzene | 89 | | 77 - 120 |
| Dibromofluoromethane | 92 | | 75 - 123 |
| Toluene-d8 | 78 | * | 79 - 122 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | * | LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-36964/3 | LCS | 113 | 97 | 113 |
| LCS 680-36965/3 | LCS | 112 | 95 | 108 |
| LCS 680-37088/13 | LCS | 90 | 92 | 91 |
| LCS 680-37260/7 | LCS | 93 | 87 | 89 |
| LCS 680-37291/4 | LCS | 105 | 91 | 101 |
| LCS 680-37296/12 | LCS | 105 | 103 | 106 |
| MB 680-36964/7 | MB | 94 | 100 | 103 |
| MB 680-36965/5 | MB | 91 | 97 | 98 |
| MB 680-37088/12 | MB | 100 | 94 | 100 |
| MB 680-37260/8 | MB | 99 | 89 | 97 |
| MB 680-37291/5 | MB | 102 | 87 | 100 |
| MB 680-37296/13 | MB | 94 | 94 | 97 |
| 680-13570-1 | KMW-1 | 97 | 105 | 121 |
| 680-13570-2 | KMW-2 | 99 | 99 | 108 |
| 680-13570-3 | KMW-4 | 103 | 102 | 112 |
| 680-13570-4 | KMW-5 | 117 | 99 | 92 |
| 680-13570-5 | KMW-6 | 97 | 86 | 100 |
| 680-13570-6 | KMW-7 | 99 | 95 | 97 |
| 680-13570-7 | KMW-8 | 110 | 102 | 104 |
| 680-13570-8 | KMW-10 | 97 | 92 | 86 |
| 680-13570-9 | KMW-11 | 98 | 91 | 96 |
| 680-13570-10 | KMW-12 | 101 | 92 | 99 |
| 680-13570-11 | KMW-13 | 107 | 91 | 92 |
| 680-13570-12 | KMW-14 | 100 | 93 | 81 |
| 680-13570-13 | KMW-15 | 90 | 99 | 97 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

| | | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| 680-13570-14 | KMW-16 | 92 | 99 | 101 |
| 680-13570-15 | KMW-17 | 110 | 101 | 106 |
| 680-13570-16 | AMW-1 | 93 | 101 | 100 |
| 680-13570-17 | AMW-2 | 102 | 101 | 106 |
| 680-13570-18 | AMW-3 | 103 | 96 | 109 |
| 680-13570-19 | AMW-5 | 90 | 99 | 100 |
| 680-13570-20 | AMW-6 | 108 | 88 | 83 |
| 680-13570-21 | Trip Blank | 89 | 92 | 78 * |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-36964**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-36964/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1239
Date Prepared: 02/20/2006 1239

Analysis Batch: 680-36964
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq492.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-36964**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-36964/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1239
Date Prepared: 02/20/2006 1239

Analysis Batch: 680-36964
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq492.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 94 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |
| Toluene-d8 | 103 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-36964**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-36964/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1141
Date Prepared: 02/20/2006 1141

Analysis Batch: 680-36964
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq488.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Acetone | 100 | 80 | 80 | 20 - 183 | |
| Benzene | 50.0 | 48 | 96 | 74 - 122 | |
| Bromoform | 50.0 | 50 | 99 | 64 - 132 | |
| Bromomethane | 50.0 | 45 | 89 | 21 - 176 | |
| Carbon disulfide | 50.0 | 40 | 81 | 60 - 130 | |
| Carbon tetrachloride | 50.0 | 61 | 121 | 64 - 137 | |
| Chlorobenzene | 50.0 | 50 | 99 | 75 - 123 | |
| Chlorodibromomethane | 50.0 | 46 | 92 | 75 - 126 | |
| Chloroethane | 50.0 | 49 | 98 | 40 - 171 | |
| Chloroform | 50.0 | 49 | 98 | 74 - 124 | |
| Chloromethane | 50.0 | 52 | 104 | 51 - 133 | |
| cis-1,2-Dichloroethene | 50.0 | 46 | 91 | 69 - 126 | |
| cis-1,3-Dichloropropene | 50.0 | 47 | 95 | 76 - 126 | |
| Dichlorobromomethane | 50.0 | 51 | 103 | 74 - 128 | |
| 1,1-Dichloroethane | 50.0 | 48 | 95 | 70 - 127 | |
| 1,2-Dichloroethane | 50.0 | 51 | 101 | 68 - 130 | |
| 1,1-Dichloroethene | 50.0 | 45 | 90 | 64 - 132 | |
| 1,2-Dichloropropane | 50.0 | 48 | 96 | 74 - 123 | |
| Ethylbenzene | 50.0 | 54 | 108 | 77 - 123 | |
| 2-Hexanone | 100 | 97 | 97 | 58 - 139 | |
| Isopropylbenzene | 50.0 | 46 | 93 | 62 - 122 | |
| Methylene Chloride | 50.0 | 42 | 83 | 67 - 128 | |
| Methyl Ethyl Ketone | 100 | 92 | 92 | 51 - 142 | |
| methyl isobutyl ketone | 100 | 110 | 115 | 62 - 130 | |
| Methyl tert-butyl ether | 100 | 88 | 88 | 70 - 130 | |
| Naphthalene | 50.0 | 50 | 99 | 58 - 143 | |
| n-Butylbenzene | 50.0 | 49 | 98 | 47 - 130 | |
| N-Propylbenzene | 50.0 | 50 | 99 | 53 - 125 | |
| sec-Butylbenzene | 50.0 | 50 | 100 | 53 - 125 | |
| Styrene | 50.0 | 46 | 93 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 48 | 96 | 71 - 127 | |
| Tetrachloroethene | 50.0 | 47 | 95 | 70 - 133 | |
| Toluene | 50.0 | 57 | 113 | 75 - 122 | |
| trans-1,2-Dichloroethene | 50.0 | 45 | 91 | 67 - 130 | |
| trans-1,3-Dichloropropene | 50.0 | 51 | 101 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 51 | 102 | 75 - 122 | |
| 1,1,1-Trichloroethane | 50.0 | 59 | 118 | 70 - 132 | |
| Trichloroethene | 50.0 | 47 | 95 | 75 - 122 | |
| 1,2,4-Trimethylbenzene | 50.0 | 51 | 102 | 53 - 142 | |
| 1,3,5-Trimethylbenzene | 50.0 | 51 | 102 | 50 - 127 | |
| Vinyl chloride | 50.0 | 54 | 108 | 59 - 136 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-36964**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-36964/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1141
Date Prepared: 02/20/2006 1141

Analysis Batch: 680-36964
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq488.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Xylenes, Total | 150 | 160 | 106 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-36965**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-36965/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1244
Date Prepared: 02/21/2006 1244

Analysis Batch: 680-36965
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq502.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-36965**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-36965/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1244
Date Prepared: 02/21/2006 1244

Analysis Batch: 680-36965
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq502.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 91 | 77 - 120 |
| Dibromofluoromethane | 97 | 75 - 123 |
| Toluene-d8 | 98 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-36965**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-36965/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1145
Date Prepared: 02/21/2006 1145

Analysis Batch: 680-36965
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq498.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Acetone | 100 | 66 | 66 | 20 - 183 | |
| Benzene | 50.0 | 51 | 101 | 74 - 122 | |
| Bromoform | 50.0 | 49 | 97 | 64 - 132 | |
| Bromomethane | 50.0 | 43 | 85 | 21 - 176 | |
| Carbon disulfide | 50.0 | 41 | 82 | 60 - 130 | |
| Carbon tetrachloride | 50.0 | 56 | 113 | 64 - 137 | |
| Chlorobenzene | 50.0 | 47 | 93 | 75 - 123 | |
| Chlorodibromomethane | 50.0 | 44 | 89 | 75 - 126 | |
| Chloroethane | 50.0 | 47 | 94 | 40 - 171 | |
| Chloroform | 50.0 | 46 | 93 | 74 - 124 | |
| Chloromethane | 50.0 | 52 | 103 | 51 - 133 | |
| cis-1,2-Dichloroethene | 50.0 | 44 | 89 | 69 - 126 | |
| cis-1,3-Dichloropropene | 50.0 | 46 | 92 | 76 - 126 | |
| Dichlorobromomethane | 50.0 | 48 | 97 | 74 - 128 | |
| 1,2-Dichloroethane | 50.0 | 49 | 98 | 68 - 130 | |
| 1,1-Dichloroethane | 50.0 | 46 | 91 | 70 - 127 | |
| 1,1-Dichloroethene | 50.0 | 44 | 87 | 64 - 132 | |
| 1,2-Dichloropropane | 50.0 | 48 | 96 | 74 - 123 | |
| Ethylbenzene | 50.0 | 53 | 106 | 77 - 123 | |
| 2-Hexanone | 100 | 100 | 103 | 58 - 139 | |
| Isopropylbenzene | 50.0 | 45 | 91 | 62 - 122 | |
| Methylene Chloride | 50.0 | 41 | 81 | 67 - 128 | |
| Methyl Ethyl Ketone | 100 | 87 | 87 | 51 - 142 | |
| methyl isobutyl ketone | 100 | 110 | 113 | 62 - 130 | |
| Methyl tert-butyl ether | 100 | 85 | 85 | 70 - 130 | |
| Naphthalene | 50.0 | 51 | 102 | 58 - 143 | |
| n-Butylbenzene | 50.0 | 48 | 97 | 47 - 130 | |
| N-Propylbenzene | 50.0 | 47 | 95 | 53 - 125 | |
| sec-Butylbenzene | 50.0 | 48 | 96 | 53 - 125 | |
| Styrene | 50.0 | 46 | 92 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 49 | 98 | 71 - 127 | |
| Tetrachloroethene | 50.0 | 44 | 89 | 70 - 133 | |
| Toluene | 50.0 | 54 | 107 | 75 - 122 | |
| trans-1,2-Dichloroethene | 50.0 | 43 | 86 | 67 - 130 | |
| trans-1,3-Dichloropropene | 50.0 | 48 | 97 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 49 | 97 | 75 - 122 | |
| 1,1,1-Trichloroethane | 50.0 | 55 | 109 | 70 - 132 | |
| Trichloroethene | 50.0 | 45 | 91 | 75 - 122 | |
| 1,2,4-Trimethylbenzene | 50.0 | 50 | 99 | 53 - 142 | |
| 1,3,5-Trimethylbenzene | 50.0 | 50 | 101 | 50 - 127 | |
| Vinyl chloride | 50.0 | 54 | 108 | 59 - 136 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-36965**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-36965/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1145
Date Prepared: 02/21/2006 1145

Analysis Batch: 680-36965
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq498.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Xylenes, Total | 150 | 160 | 105 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37088**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37088/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2057
Date Prepared: 02/21/2006 2057

Analysis Batch: 680-37088
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq075.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37088**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37088/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2057
Date Prepared: 02/21/2006 2057

Analysis Batch: 680-37088
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq075.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 77 - 120 |
| Dibromofluoromethane | 94 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37088**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37088/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2340
Date Prepared: 02/21/2006 2340

Analysis Batch: 680-37088
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq081.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Acetone | 100 | 78 | 78 | 20 - 183 | |
| Benzene | 50.0 | 43 | 86 | 74 - 122 | |
| Bromoform | 50.0 | 46 | 92 | 64 - 132 | |
| Bromomethane | 50.0 | 45 | 89 | 21 - 176 | |
| Carbon disulfide | 50.0 | 54 | 108 | 60 - 130 | |
| Carbon tetrachloride | 50.0 | 53 | 106 | 64 - 137 | |
| Chlorobenzene | 50.0 | 46 | 93 | 75 - 123 | |
| Chlorodibromomethane | 50.0 | 48 | 95 | 75 - 126 | |
| Chloroethane | 50.0 | 41 | 83 | 40 - 171 | |
| Chloroform | 50.0 | 46 | 92 | 74 - 124 | |
| Chloromethane | 50.0 | 40 | 81 | 51 - 133 | |
| cis-1,2-Dichloroethene | 50.0 | 47 | 93 | 69 - 126 | |
| cis-1,3-Dichloropropene | 50.0 | 50 | 100 | 76 - 126 | |
| Dichlorobromomethane | 50.0 | 47 | 94 | 74 - 128 | |
| 1,2-Dichloroethane | 50.0 | 45 | 90 | 68 - 130 | |
| 1,1-Dichloroethane | 50.0 | 46 | 91 | 70 - 127 | |
| 1,1-Dichloroethene | 50.0 | 42 | 84 | 64 - 132 | |
| 1,2-Dichloropropane | 50.0 | 45 | 91 | 74 - 123 | |
| Ethylbenzene | 50.0 | 44 | 88 | 77 - 123 | |
| 2-Hexanone | 100 | 84 | 84 | 58 - 139 | |
| Isopropylbenzene | 50.0 | 48 | 96 | 62 - 122 | |
| Methylene Chloride | 50.0 | 47 | 94 | 67 - 128 | |
| Methyl Ethyl Ketone | 100 | 84 | 84 | 51 - 142 | |
| methyl isobutyl ketone | 100 | 81 | 81 | 62 - 130 | |
| Methyl tert-butyl ether | 100 | 88 | 88 | 70 - 130 | |
| Naphthalene | 50.0 | 42 | 83 | 58 - 143 | |
| n-Butylbenzene | 50.0 | 62 | 124 | 47 - 130 | |
| N-Propylbenzene | 50.0 | 50 | 99 | 53 - 125 | |
| sec-Butylbenzene | 50.0 | 53 | 105 | 53 - 125 | |
| Styrene | 50.0 | 47 | 93 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 46 | 92 | 71 - 127 | |
| Tetrachloroethene | 50.0 | 47 | 93 | 70 - 133 | |
| Toluene | 50.0 | 45 | 90 | 75 - 122 | |
| trans-1,2-Dichloroethene | 50.0 | 47 | 95 | 67 - 130 | |
| trans-1,3-Dichloropropene | 50.0 | 52 | 105 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 45 | 90 | 75 - 122 | |
| 1,1,1-Trichloroethane | 50.0 | 50 | 100 | 70 - 132 | |
| Trichloroethene | 50.0 | 45 | 90 | 75 - 122 | |
| 1,2,4-Trimethylbenzene | 50.0 | 50 | 99 | 53 - 142 | |
| 1,3,5-Trimethylbenzene | 50.0 | 49 | 97 | 50 - 127 | |
| Vinyl chloride | 50.0 | 44 | 87 | 59 - 136 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37088**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37088/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2340
Date Prepared: 02/21/2006 2340

Analysis Batch: 680-37088
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq081.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Xylenes, Total | 150 | 140 | 90 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37260**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37260/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1429
Date Prepared: 02/20/2006 1429

Analysis Batch: 680-37260
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq047.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37260**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37260/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1429
Date Prepared: 02/20/2006 1429

Analysis Batch: 680-37260
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq047.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 77 - 120 |
| Dibromofluoromethane | 89 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37260**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37260/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1250
Date Prepared: 02/20/2006 1250

Analysis Batch: 680-37260
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq041.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Acetone | 100 | 85 | 85 | 20 - 183 | |
| Benzene | 50.0 | 45 | 89 | 74 - 122 | |
| Bromoform | 50.0 | 53 | 106 | 64 - 132 | |
| Bromomethane | 50.0 | 84 | 169 | 21 - 176 | |
| Carbon disulfide | 50.0 | 42 | 84 | 60 - 130 | |
| Carbon tetrachloride | 50.0 | 48 | 95 | 64 - 137 | |
| Chlorobenzene | 50.0 | 45 | 91 | 75 - 123 | |
| Chlorodibromomethane | 50.0 | 54 | 108 | 75 - 126 | |
| Chloroethane | 50.0 | 33 | 67 | 40 - 171 | |
| Chloroform | 50.0 | 44 | 87 | 74 - 124 | |
| Chloromethane | 50.0 | 38 | 75 | 51 - 133 | |
| cis-1,2-Dichloroethene | 50.0 | 44 | 88 | 69 - 126 | |
| cis-1,3-Dichloropropene | 50.0 | 56 | 112 | 76 - 126 | |
| Dichlorobromomethane | 50.0 | 53 | 106 | 74 - 128 | |
| 1,2-Dichloroethane | 50.0 | 52 | 104 | 68 - 130 | |
| 1,1-Dichloroethane | 50.0 | 41 | 83 | 70 - 127 | |
| 1,1-Dichloroethene | 50.0 | 31 | 63 | 64 - 132 | * |
| 1,2-Dichloropropane | 50.0 | 50 | 100 | 74 - 123 | |
| Ethylbenzene | 50.0 | 43 | 87 | 77 - 123 | |
| 2-Hexanone | 100 | 94 | 94 | 58 - 139 | |
| Isopropylbenzene | 50.0 | 46 | 92 | 62 - 122 | |
| Methylene Chloride | 50.0 | 45 | 90 | 67 - 128 | |
| Methyl Ethyl Ketone | 100 | 87 | 87 | 51 - 142 | |
| methyl isobutyl ketone | 100 | 99 | 99 | 62 - 130 | |
| Methyl tert-butyl ether | 100 | 100 | 100 | 70 - 130 | |
| Naphthalene | 50.0 | 47 | 94 | 58 - 143 | |
| n-Butylbenzene | 50.0 | 61 | 122 | 47 - 130 | |
| N-Propylbenzene | 50.0 | 48 | 95 | 53 - 125 | |
| sec-Butylbenzene | 50.0 | 50 | 101 | 53 - 125 | |
| Styrene | 50.0 | 47 | 94 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 51 | 102 | 71 - 127 | |
| Tetrachloroethene | 50.0 | 40 | 81 | 70 - 133 | |
| Toluene | 50.0 | 45 | 91 | 75 - 122 | |
| trans-1,2-Dichloroethene | 50.0 | 42 | 84 | 67 - 130 | |
| trans-1,3-Dichloropropene | 50.0 | 60 | 119 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 52 | 104 | 75 - 122 | |
| 1,1,1-Trichloroethane | 50.0 | 46 | 91 | 70 - 132 | |
| Trichloroethene | 50.0 | 43 | 87 | 75 - 122 | |
| 1,2,4-Trimethylbenzene | 50.0 | 50 | 100 | 53 - 142 | |
| 1,3,5-Trimethylbenzene | 50.0 | 48 | 96 | 50 - 127 | |
| Vinyl chloride | 50.0 | 32 | 63 | 59 - 136 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37260**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37260/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/20/2006 1250
Date Prepared: 02/20/2006 1250

Analysis Batch: 680-37260
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq041.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Xylenes, Total | 150 | 130 | 89 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37291**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37291/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2118
Date Prepared: 02/21/2006 2118

Analysis Batch: 680-37291
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq158.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 5.8 | | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37291**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37291/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 2118
Date Prepared: 02/21/2006 2118

Analysis Batch: 680-37291
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq158.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 77 - 120 |
| Dibromofluoromethane | 87 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37291**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37291/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1953
Date Prepared: 02/21/2006 1953

Analysis Batch: 680-37291
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq152.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Acetone | 100 | 82 | 82 | 20 - 183 | |
| Benzene | 50.0 | 47 | 93 | 74 - 122 | |
| Bromoform | 50.0 | 52 | 103 | 64 - 132 | |
| Bromomethane | 50.0 | 43 | 85 | 21 - 176 | |
| Carbon disulfide | 50.0 | 37 | 74 | 60 - 130 | |
| Carbon tetrachloride | 50.0 | 56 | 111 | 64 - 137 | |
| Chlorobenzene | 50.0 | 50 | 101 | 75 - 123 | |
| Chlorodibromomethane | 50.0 | 56 | 111 | 75 - 126 | |
| Chloroethane | 50.0 | 45 | 89 | 40 - 171 | |
| Chloroform | 50.0 | 45 | 90 | 74 - 124 | |
| Chloromethane | 50.0 | 32 | 65 | 51 - 133 | |
| cis-1,2-Dichloroethene | 50.0 | 42 | 84 | 69 - 126 | |
| cis-1,3-Dichloropropene | 50.0 | 49 | 98 | 76 - 126 | |
| Dichlorobromomethane | 50.0 | 55 | 110 | 74 - 128 | |
| 1,2-Dichloroethane | 50.0 | 61 | 123 | 68 - 130 | |
| 1,1-Dichloroethane | 50.0 | 40 | 79 | 70 - 127 | |
| 1,1-Dichloroethene | 50.0 | 38 | 76 | 64 - 132 | |
| 1,2-Dichloropropane | 50.0 | 46 | 91 | 74 - 123 | |
| Ethylbenzene | 50.0 | 51 | 102 | 77 - 123 | |
| 2-Hexanone | 100 | 110 | 108 | 58 - 139 | |
| Isopropylbenzene | 50.0 | 50 | 100 | 62 - 122 | |
| Methylene Chloride | 50.0 | 41 | 82 | 67 - 128 | |
| Methyl Ethyl Ketone | 100 | 85 | 85 | 51 - 142 | |
| methyl isobutyl ketone | 100 | 100 | 100 | 62 - 130 | |
| Methyl tert-butyl ether | 100 | 91 | 91 | 70 - 130 | |
| Naphthalene | 50.0 | 52 | 104 | 58 - 143 | |
| n-Butylbenzene | 50.0 | 52 | 105 | 47 - 130 | |
| N-Propylbenzene | 50.0 | 51 | 102 | 53 - 125 | |
| sec-Butylbenzene | 50.0 | 52 | 103 | 53 - 125 | |
| Styrene | 50.0 | 51 | 101 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 52 | 103 | 71 - 127 | |
| Tetrachloroethene | 50.0 | 51 | 103 | 70 - 133 | |
| Toluene | 50.0 | 47 | 94 | 75 - 122 | |
| trans-1,2-Dichloroethene | 50.0 | 42 | 84 | 67 - 130 | |
| trans-1,3-Dichloropropene | 50.0 | 54 | 109 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 49 | 97 | 75 - 122 | |
| 1,1,1-Trichloroethane | 50.0 | 57 | 115 | 70 - 132 | |
| Trichloroethene | 50.0 | 49 | 98 | 75 - 122 | |
| 1,2,4-Trimethylbenzene | 50.0 | 53 | 105 | 53 - 142 | |
| 1,3,5-Trimethylbenzene | 50.0 | 53 | 106 | 50 - 127 | |
| Vinyl chloride | 50.0 | 33 | 67 | 59 - 136 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37291**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37291/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 1953
Date Prepared: 02/21/2006 1953

Analysis Batch: 680-37291
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq152.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Xylenes, Total | 150 | 150 | 100 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37296**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37296/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 0915
Date Prepared: 02/21/2006 0915

Analysis Batch: 680-37296
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq065.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Acetone | 7.3 | U | 7.3 | 25 |
| Benzene | 0.54 | U | 0.54 | 1.0 |
| Bromoform | 0.36 | U | 0.36 | 1.0 |
| Bromomethane | 0.93 | U | 0.93 | 1.0 |
| Carbon disulfide | 0.75 | U | 0.75 | 1.0 |
| Carbon tetrachloride | 0.91 | U | 0.91 | 1.0 |
| Chlorobenzene | 0.41 | U | 0.41 | 1.0 |
| Chlorodibromomethane | 0.40 | U | 0.40 | 1.0 |
| Chloroethane | 0.89 | U | 0.89 | 1.0 |
| Chloroform | 0.52 | U | 0.52 | 1.0 |
| Chloromethane | 0.53 | U | 0.53 | 1.0 |
| cis-1,2-Dichloroethene | 0.55 | U | 0.55 | 1.0 |
| cis-1,3-Dichloropropene | 0.41 | U | 0.41 | 1.0 |
| Dichlorobromomethane | 0.42 | U | 0.42 | 1.0 |
| 1,2-Dichloroethane | 0.28 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 0.56 | U | 0.56 | 1.0 |
| 1,1-Dichloroethene | 0.93 | U | 0.93 | 1.0 |
| 1,2-Dichloropropane | 0.26 | U | 0.26 | 1.0 |
| Ethylbenzene | 0.62 | U | 0.62 | 1.0 |
| 2-Hexanone | 0.39 | U | 0.39 | 10 |
| Isopropylbenzene | 0.66 | U | 0.66 | 1.0 |
| Methylene Chloride | 0.44 | U | 0.44 | 5.0 |
| Methyl Ethyl Ketone | 0.72 | U | 0.72 | 10 |
| methyl isobutyl ketone | 0.45 | U | 0.45 | 10 |
| Methyl tert-butyl ether | 0.45 | U | 0.45 | 10 |
| Naphthalene | 0.12 | U | 0.12 | 5.0 |
| n-Butylbenzene | 0.38 | U | 0.38 | 1.0 |
| N-Propylbenzene | 0.45 | U | 0.45 | 1.0 |
| sec-Butylbenzene | 0.60 | U | 0.60 | 1.0 |
| Styrene | 0.42 | U | 0.42 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 0.21 | U | 0.21 | 1.0 |
| Tetrachloroethene | 0.75 | U | 0.75 | 1.0 |
| Toluene | 0.62 | U | 0.62 | 1.0 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 | 1.0 |
| trans-1,3-Dichloropropene | 0.36 | U | 0.36 | 1.0 |
| 1,1,2-Trichloroethane | 0.37 | U | 0.37 | 1.0 |
| 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 1.0 |
| Trichloroethene | 0.71 | U | 0.71 | 1.0 |
| 1,3,5-Trimethylbenzene | 0.49 | U | 0.49 | 1.0 |
| 1,2,4-Trimethylbenzene | 0.44 | U | 0.44 | 1.0 |
| Vinyl chloride | 0.92 | U | 0.92 | 1.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Method Blank - Batch: 680-37296**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37296/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 0915
Date Prepared: 02/21/2006 0915

Analysis Batch: 680-37296
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq065.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Xylenes, Total | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 94 | 77 - 120 |
| Dibromofluoromethane | 94 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37296**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37296/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 0729
Date Prepared: 02/21/2006 0729

Analysis Batch: 680-37296
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq057.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Acetone | 100 | 99 | 99 | 20 - 183 | |
| Benzene | 50.0 | 51 | 102 | 74 - 122 | |
| Bromoform | 50.0 | 55 | 109 | 64 - 132 | |
| Bromomethane | 50.0 | 67 | 135 | 21 - 176 | |
| Carbon disulfide | 50.0 | 59 | 118 | 60 - 130 | |
| Carbon tetrachloride | 50.0 | 61 | 122 | 64 - 137 | |
| Chlorobenzene | 50.0 | 54 | 108 | 75 - 123 | |
| Chlorodibromomethane | 50.0 | 57 | 114 | 75 - 126 | |
| Chloroethane | 50.0 | 49 | 99 | 40 - 171 | |
| Chloroform | 50.0 | 52 | 104 | 74 - 124 | |
| Chloromethane | 50.0 | 48 | 95 | 51 - 133 | |
| cis-1,2-Dichloroethene | 50.0 | 50 | 100 | 69 - 126 | |
| cis-1,3-Dichloropropene | 50.0 | 57 | 113 | 76 - 126 | |
| Dichlorobromomethane | 50.0 | 55 | 110 | 74 - 128 | |
| 1,2-Dichloroethane | 50.0 | 55 | 111 | 68 - 130 | |
| 1,1-Dichloroethane | 50.0 | 51 | 102 | 70 - 127 | |
| 1,1-Dichloroethene | 50.0 | 46 | 93 | 64 - 132 | |
| 1,2-Dichloropropane | 50.0 | 53 | 107 | 74 - 123 | |
| Ethylbenzene | 50.0 | 51 | 103 | 77 - 123 | |
| 2-Hexanone | 100 | 110 | 110 | 58 - 139 | |
| Isopropylbenzene | 50.0 | 54 | 109 | 62 - 122 | |
| Methylene Chloride | 50.0 | 53 | 105 | 67 - 128 | |
| Methyl Ethyl Ketone | 100 | 100 | 102 | 51 - 142 | |
| methyl isobutyl ketone | 100 | 110 | 105 | 62 - 130 | |
| Methyl tert-butyl ether | 100 | 100 | 101 | 70 - 130 | |
| Naphthalene | 50.0 | 49 | 98 | 58 - 143 | |
| n-Butylbenzene | 50.0 | 66 | 131 | 47 - 130 | * |
| N-Propylbenzene | 50.0 | 56 | 112 | 53 - 125 | |
| sec-Butylbenzene | 50.0 | 58 | 116 | 53 - 125 | |
| Styrene | 50.0 | 54 | 107 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 56 | 112 | 71 - 127 | |
| Tetrachloroethene | 50.0 | 54 | 109 | 70 - 133 | |
| Toluene | 50.0 | 54 | 107 | 75 - 122 | |
| trans-1,2-Dichloroethene | 50.0 | 53 | 106 | 67 - 130 | |
| trans-1,3-Dichloropropene | 50.0 | 60 | 121 | 75 - 126 | |
| 1,1,2-Trichloroethane | 50.0 | 54 | 108 | 75 - 122 | |
| 1,1,1-Trichloroethane | 50.0 | 57 | 114 | 70 - 132 | |
| Trichloroethene | 50.0 | 52 | 105 | 75 - 122 | |
| 1,3,5-Trimethylbenzene | 50.0 | 55 | 110 | 50 - 127 | |
| 1,2,4-Trimethylbenzene | 50.0 | 56 | 111 | 53 - 142 | |
| Vinyl chloride | 50.0 | 50 | 99 | 59 - 136 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-13570-1

**Laboratory Control Sample - Batch: 680-37296**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37296/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/21/2006 0729
Date Prepared: 02/21/2006 0729

Analysis Batch: 680-37296
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq057.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Xylenes, Total | 150 | 160 | 103 | 77 - 121 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

# ANALYTICAL REPORT

Job Number: 680-14211-1

Job Description: FHR North PX Terminal (201-125)

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
03/06/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-14211-1 | MW-20 | Water | 03/02/2006 0920 | 03/04/2006 0845 |
| 680-14211-2 | MW-17 | Water | 03/02/2006 0955 | 03/04/2006 0845 |
| 680-14211-3 | MW-18 | Water | 03/02/2006 1020 | 03/04/2006 0845 |
| 680-14211-4 | MW-19 | Water | 03/02/2006 1040 | 03/04/2006 0845 |

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

**Client Sample ID:** **MW-20**

Lab Sample ID: 680-14211-1
Client Matrix: Water

Date Sampled: 03/02/2006 0920
Date Received: 03/04/2006 0845

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/04/2006 1533
Date Prepared: 03/04/2006 1533

Analysis Batch: 680-37911

Instrument ID: GC/MS Volatiles - P
Lab File ID: p3277.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 26 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 109 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

**Client Sample ID:** **MW-17**

Lab Sample ID: 680-14211-2
Client Matrix: Water

Date Sampled: 03/02/2006 0955
Date Received: 03/04/2006 0845

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 10
Date Analyzed: 03/06/2006 0218
Date Prepared: 03/06/2006 0218

Analysis Batch: 680-37927

Instrument ID: GC/MS Volatiles - P
Lab File ID: p3313.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 2800 | D | 13 | 20 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 98 | 77 - 120 |
| Dibromofluoromethane | 100 | 75 - 123 |
| Toluene-d8 | 113 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

**Client Sample ID: MW-18**

Lab Sample ID: 680-14211-3
Client Matrix: Water

Date Sampled: 03/02/2006 1020
Date Received: 03/04/2006 0845

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/04/2006 1630
Date Prepared: 03/04/2006 1630

Analysis Batch: 680-37911

Instrument ID: GC/MS Volatiles - P
Lab File ID: p3281.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 170 | | 1.3 | 2.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 77 - 120 |
| Dibromofluoromethane | 92 | 75 - 123 |
| Toluene-d8 | 110 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

**Client Sample ID:** **MW-19**

Lab Sample ID: 680-14211-4
Client Matrix: Water

Date Sampled: 03/02/2006 1040
Date Received: 03/04/2006 0845

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 03/06/2006 0314
Date Prepared: 03/06/2006 0314

Analysis Batch: 680-37927

Instrument ID: GC/MS Volatiles - P
Lab File ID: p3317.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 110000 | D | 650 | 1000 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 115 | 79 - 122 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D. |

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-37911/9 | LCS | 99 | 88 | 104 |
| LCS 680-37927/3 | LCS | 91 | 93 | 100 |
| MB 680-37911/8 | MB | 92 | 92 | 109 |
| MB 680-37927/7 | MB | 95 | 99 | 114 |
| 680-14211-1 | MW-20 | 97 | 93 | 109 |
| 680-14211-2 | MW-17 | 98 | 100 | 113 |
| 680-14211-3 | MW-18 | 101 | 92 | 110 |
| 680-14211-4 | MW-19 | 96 | 99 | 115 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

**Method Blank - Batch: 680-37911**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37911/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/04/2006 1433
Date Prepared: 03/04/2006 1433

Analysis Batch: 680-37911
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq355.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 92 | 77 - 120 |
| Dibromofluoromethane | 92 | 75 - 123 |
| Toluene-d8 | 109 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37911**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37911/9
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/04/2006 1946
Date Prepared: 03/04/2006 1946

Analysis Batch: 680-37911
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq357.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| m-Xylene & p-Xylene | 100 | 92 | 92 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 77 - 120 |
| Dibromofluoromethane | 88 | 75 - 123 |
| Toluene-d8 | 104 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-14211-1

**Method Blank - Batch: 680-37927**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-37927/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2006 0150
Date Prepared: 03/06/2006 0150

Analysis Batch: 680-37927
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq371.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 95 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 114 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-37927**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-37927/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2006 2346
Date Prepared: 03/05/2006 2346

Analysis Batch: 680-37927
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq363.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| m-Xylene & p-Xylene | 100 | 86 | 86 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 91 | 77 - 120 |
| Dibromofluoromethane | 93 | 75 - 123 |
| Toluene-d8 | 100 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

envirochem

ANALYTICAL & CONSULTING CHEMISTS

# Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, NC 28405
(910) 392-0223 (Lab) • (910) 392-4424 (Fax)
710 Bowsertown Road • Manteo, NC 27954
(252) 473-5702

BY GM DATE 03/30/06

NCDENR: DWQ CERTIFICATE #94. DLS CERTIFICATE #37729

FILE COPY

**Customer:**

**CATLIN ENGINEERS and SCIENTISTS**
P.O. Box 10279
Wilmington, NC 28405
**Attn: Jeff Becken**

**Date of Report:** March 27, 2006

**Purchase Order #:** 260324-2

**Report Number:** 6-2154

## REPORT OF ANALYSIS

**Date Sampled:** 03/24/06

**Sampled By:** Dimitri Talbert

**Report To:** Jeff Becken

**Project:** Reiss Remediation – 201-125

**MONITORING WELL: MW-19**

| *EPA 8260* Analyte µg/L | I.D. # 5614 | Quantitation Limit µg/L |
|---|---|---|
| M+P Xylene | 162,000 | 2.0 |
| Date Analyzed | 03/24/06 | |

**Comments:**
**BQL = Below Quantitation Limit**

**Reviewed by** Jim Price / Rhonda Stokes

envirochem

CATLIN FOR:

# ENVIRONMENTAL CHEMISTS, INC

6602 Windmill Way
Wilmington, NC 28405
Phone: (910) 392-0223
Fax (910) 392.4424
EMAIL: ECHEMW@aol.com

## Sample Collection and Chain of Custody

**Client:** REISS REMEDIATION, LLC PROJ# 201-125 P.O.# 260324-2

**Collected By:** DIMITRI TALBERT

**Report No:** 6-2154

**Sample Type:** I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge Other:

| Sample Identification | LAB ID NUMBER | Collection DATE | Collection TIME | Collection TEMP | Sample Type | Composite or Grab | Container (P or G) | Chlorine mg/L | PRESERVATION NONE | HCL | $H_2SO_4$ | $HNO_3$ | NaOH | THIO | OTHER | ANALYSIS REQUESTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-19 | ~~8260~~ 5614 | 24MAR06 | 1300 | | W | C | P | | | X | | | | | | M/P XYLENES PER 8260 |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | 24 HOUR |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | TURNAROUND |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |
| | | | | | | C | P | | | | | | | | | |
| | | | | | | G | G | | | | | | | | | |

**NOTICE – DECHLORINATION** : Samples for Ammonia, TKN, Cyanide, Phenol, and Bacteria must be dechlorinated (0.2 ppm or less) in the field at the time of collection. See reverse side for instructions.

| Transfer | Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |

**Temperature when Received:** _____ **Accepted:** ✓ **Rejected:** _____ **Resample Requested:** _____

**Delivered By:** Larry Allsell **Received By:** [illegible] **Date:** 3-24-06 **Time:** 2:30 pm

**Comments:** PROJ# 201-125 P.O.# 260324-2 24 HOUR TURNAROUND

SEVERN TRENT STL

# ANALYTICAL REPORT

Job Number: 680-16176-1

Job Description: FHR North PX Terminal (201-125)

For:
Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken


Bernard Kirkland
Project Manager I
bkirkland@stl-inc.com

05/11/2006

Project Manager: Kathryn Smith

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-16176-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-16176-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-16176-1 | MW-19 | Water | 04/27/2006 1145 | 05/02/2006 0930 |

Client: Catlin Engineers and Scientists

Job Number: 680-16176-1

**Client Sample ID:** **MW-19**

Lab Sample ID: 680-16176-1
Client Matrix: Water

Date Sampled: 04/27/2006 1145
Date Received: 05/02/2006 0930

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 200
Date Analyzed: 05/10/2006 2245
Date Prepared: 05/10/2006 2245

Analysis Batch: 680-44221

Instrument ID: GC/MS Volatiles - A
Lab File ID: a108.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 26000 | | 260 | 400 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 77 - 120 |
| Dibromofluoromethane | 96 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-16176-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |

Client: Catlin Engineers and Scientists

Job Number: 680-16176-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-44221/4 | | 105 | 94 | 103 |
| MB 680-44221/7 | | 94 | 95 | 97 |
| 680-16176-1 | MW-19 | 97 | 96 | 97 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-16176-1

**Method Blank - Batch: 680-44221**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-44221/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2006 1652
Date Prepared: 05/10/2006 1652

Analysis Batch: 680-44221
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq463.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 94 | 77 - 120 |
| Dibromofluoromethane | 95 | 75 - 123 |
| Toluene-d8 | 97 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-44221**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-44221/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2006 1540
Date Prepared: 05/10/2006 1540

Analysis Batch: 680-44221
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - A
Lab File ID: aq458.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| m-Xylene & p-Xylene | 100 | 106 | 106 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 105 | 77 - 120 |
| Dibromofluoromethane | 94 | 75 - 123 |
| Toluene-d8 | 103 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 88106

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT STL


☒ STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location
Phone:
Fax:


| | | |
|---|---|---|
| PROJECT REFERENCE: FHR NORTH TERMINAL | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: jeff.becken@catlinusa.com | |
| CLIENT ADDRESS: 220 OLD DAIRY RD, WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | REQUIRED ANALYSIS: W/P XYLENES PER 8260 | REQUIRED ANALYSIS: HCL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 27APR06 | 1145 | MW-19 | G | X | | | | 4 | | |

NUMBER OF CONTAINERS SUBMITTED

TEMP: 0.6

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | [signature] | 27APR06 | 1230 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| KL | 5/2/06 | 930 | YES ○ NO ○ | | 880-16176 | |

STL8240-680 (12/02)

SEVERN TRENT STL

# ANALYTICAL REPORT

Job Number: 680-17164-1

Job Description: FHR North PX Terminal (201-125)

For:
Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
06/13/2006

Project Manager: Kathryn Smith

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.



ACCREDITED IN ACCORDANCE WITH nelac

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-17164-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |

**LAB REFERENCES:**

STL-SAV = STL-Savannah

**METHOD REFERENCES:**

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-17164-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-17164-1 | MW-19 | Water | 05/30/2006 1445 | 06/01/2006 0945 |

Client: Catlin Engineers and Scientists

Job Number: 680-17164-1

**Client Sample ID:** **MW-19**

Lab Sample ID: 680-17164-1
Client Matrix: Water

Date Sampled: 05/30/2006 1445
Date Received: 06/01/2006 0945

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 500
Date Analyzed: 06/09/2006 1609
Date Prepared: 06/09/2006 1609

Analysis Batch: 680-47078

Instrument ID: GC/MS Volatiles - P
Lab File ID: p2713.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 16000 | | 650 | 1000 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 89 | 77 - 120 |
| Dibromofluoromethane | 99 | 75 - 123 |
| Toluene-d8 | 91 | 79 - 122 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-17164-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Indicates the analyte was analyzed for but not detected. |

Client: Catlin Engineers and Scientists

Job Number: 680-17164-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-47078/5 | | 107 | 102 | 110 |
| MB 680-47078/7 | | 83 | 87 | 96 |
| 680-17164-1 | MW-19 | 89 | 99 | 91 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-17164-1

**Method Blank - Batch: 680-47078**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-47078/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2006 1326
Date Prepared: 06/09/2006 1326

Analysis Batch: 680-47078
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq073.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 83 | 77 - 120 |
| Dibromofluoromethane | 87 | 75 - 123 |
| Toluene-d8 | 96 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-47078**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-47078/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2006 1224
Date Prepared: 06/09/2006 1224

Analysis Batch: 680-47078
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq069.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| m-Xylene & p-Xylene | 100 | 110 | 111 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 107 | 77 - 120 |
| Dibromofluoromethane | 102 | 75 - 123 |
| Toluene-d8 | 110 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 64528

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT STL


(X) STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

( ) Alternate Laboratory Name/Location
Phone:
Fax:


| | | |
|---|---|---|
| PROJECT REFERENCE: FHR NORTH TERMINAL | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: jeff.becken@catlinusa.com | |
| CLIENT ADDRESS: 220 OLD DAIRY RD WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY (X)

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ( )

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | REQUIRED ANALYSIS: M/P XYLENES BY 8260 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 30MAY06 | 1445 | MW-19 | G | X | | | | 4 | |

NUMBER OF CONTAINERS SUBMITTED: HCL

TEMP.: 2.8

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | [signature] | 30MAY06 | 1530 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| KG | 6/1/06 | 0945 | YES ( ) NO ( ) | | 680-17164 | |

STL8240-680 (12/02)

SEVERN TRENT STL

MW-19 June

# ANALYTICAL REPORT

Job Number: 680-18124-1

Job Description: FHR North PX Terminal (201-125)

For:
Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
07/13/2006

Project Manager: Kathryn Smith

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.



ACCREDITED IN ACCORDANCE WITH nelac

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-18124-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Water** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Purge-and-Trap | STL-SAV | | SW846 5030B |

**LAB REFERENCES:**

STL-SAV = STL-Savannah

**METHOD REFERENCES:**

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-18124-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-18124-1 | MW-19 | Water | 06/29/2006 1120 | 06/30/2006 0950 |

Client: Catlin Engineers and Scientists

Job Number: 680-18124-1

**Client Sample ID:** **MW-19**

Lab Sample ID: 680-18124-1
Client Matrix: Water

Date Sampled: 06/29/2006 1120
Date Received: 06/30/2006 0950

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 07/12/2006 2154
Date Prepared: 07/12/2006 2154

Analysis Batch: 680-49730

Instrument ID: GC/MS Volatiles - O
Lab File ID: o0123.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 3700 | | 33 | 50 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 94 | 77 - 120 |
| Dibromofluoromethane | 106 | 75 - 123 |
| Toluene-d8 | 103 | 79 - 122 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-18124-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Indicates the analyte was analyzed for but not detected. |

Client: Catlin Engineers and Scientists

Job Number: 680-18124-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Water**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-49730/4 | | 93 | 101 | 105 |
| MB 680-49730/6 | | 96 | 104 | 101 |
| 680-18124-1 | MW-19 | 94 | 106 | 103 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-18124-1

**Method Blank - Batch: 680-49730**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: MB 680-49730/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/12/2006 1828
Date Prepared: 07/12/2006 1828

Analysis Batch: 680-49730
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq073.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| m-Xylene & p-Xylene | 1.3 | U | 1.3 | 2.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 77 - 120 |
| Dibromofluoromethane | 104 | 75 - 123 |
| Toluene-d8 | 101 | 79 - 122 |

**Laboratory Control Sample - Batch: 680-49730**

**Method: 8260B**
**Preparation: 5030B**

Lab Sample ID: LCS 680-49730/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/12/2006 1701
Date Prepared: 07/12/2006 1701

Analysis Batch: 680-49730
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq069.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| m-Xylene & p-Xylene | 100 | 100 | 104 | 74 - 123 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 93 | 77 - 120 |
| Dibromofluoromethane | 101 | 75 - 123 |
| Toluene-d8 | 105 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 64534

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


(X) STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

( ) Alternate Laboratory Name/Location
Phone:
Fax:


| | | | |
|---|---|---|---|
| PROJECT REFERENCE: FHR NORTH TERMINAL | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC | PAGE 1 OF 1 |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: | STANDARD REPORT DELIVERY (X) |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 | DATE DUE: |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: jeff.becken@catlinusa.com | | EXPEDITED REPORT DELIVERY (SURCHARGE) ( ) |
| CLIENT ADDRESS: 220 OLD DAIRY RD, WILMINGTON, NC 28405 | | | DATE DUE: |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1 |

REQUIRED ANALYSIS: MTP XYLENES PER 8260 (HCL)

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | NUMBER OF CONTAINERS SUBMITTED | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 29JUN06 | 1120 | MW-19 | G | X | | | | | |

TEMP. 4.8

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | [signature] | 29JUN06 | 1550 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 063006 | 0950 | YES ( ) NO ( ) | | 688-18124 | |

STL8240-680 (12/02)

# APPENDIX C

# SUMMARY OF LABORATORY DATA ASSOCIATED WITH THE CHEMICAL OXIDATION ACTIVITIES

# FENTON'S FIELD MEASUREMENTS - FULL-SCALE ACTIVITIES

**Subject Site:** INVISTA North Terminal - Px Facility **Project No:** 201-125

| Well ID | Date | Time | Depth to Water (feet) | Depth of Measurement (feet) | Dissolved Oxygen (mg/L) | Temp. (deg. C) | pH | Iron (mg/L) | Peroxide Presence (Y/N) | M/P-Xylene Concentration (ug/L) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 117 | April Baseline | 11:38 | 9.92 | 13 | 0.17 | 19.1 | NS | NS | NS | 130,000 | |
| | 5/5/05 | 10:35 | 9.30 | 13 | 0.16 | 19.3 | 6.27 | 2.4 | N | NS | |
| | 5/9/05 | 13:50 | 7.83 | 12 | 0.08 | 19.5 | 6.05 | 1.6 | N | NS | |
| | 5/10/05 | 12:15 | 7.78 | 12 | 0.18 | 19.6 | 5.90 | 2.0 | N | 124,000 | |
| | 5/12/05 | 13:50 | 8.12 | 12 | 0.23 | 19.7 | 5.73 | 4.4 | N | NS | |
| | 5/18/05 | 11:40 | 8.27 | 13 | 0.19 | 19.9 | 5.43 | 6.4 | NM | NS | |
| | 5/25/05 | 13:40 | 8.27 | 12 | 0.16 | 20.3 | 5.52 | 8.4 | NM | 61,200 | |
| | 6/7/05 | 10:35 | 6.85 | 12 | 0.77 | 25.5 | 4.45 | 1.6 | NM | 1,360 | |
| | 6/28/05 | 11:10 | 15.35 | 12 | 0.13 | 24.1 | 5.12 | 8.5 | NM | 55,000 | |
| | 8/19/05 | 11:50 | 6.85 | 12 | 0.93 | 29.0 | 3.49 | 3.4 | NM | NS | |
| | 8/24/05 | 17:50 | NM | 10 | 8.52 | 32.7 | NM | NM | NM | 480 | |
| | 9/12/05 | 11:40 | 7.12 | 12 | 11.68 | 32.2 | 2.04 | 5.0 | NM | 283 | |
| | 11/29/05 | 13:30 | 5.84 | NM | NM | NM | 2.12 | 3.0 | Y | NM | |
| | | | | | | | | | | | |
| 119 | 6/28/05 | 10:00 | 3.74 | 10 | 0.07 | 21.1 | 5.97 | 2.4 | NM | 3.2 | |
| | 8/25/05 | 9:35 | NM | NM | NM | NM | NM | NM | NM | <0.31 | |
| | | | | | | | | | | | |
| KRW-8 | 7/11/05 | 15:25 | NM | NM | NM | NM | 5.43 | 3.4 | NM | NS | |
| | 8/24/05 | 16:00 | NM | NM | NM | NM | NM | NM | NM | 55,000 | |
| | | | | | | | | | | | |
| MW-5 | Feb. Baseline | NS | NS | NS | NS | NS | NS | NS | NS | 34 | |
| | 5/16/05 | 12:10 | 7.57 | 15 | 1.40 | 18.2 | 6.32 | 4.4 | NM | NS | |
| | 5/20/05 | 11:45 | 7.02 | 15 | 5.17 | 18.2 | 6.51 | 2.0 | NM | NS | |
| | 5/26/05 | 11:30 | 6.78 | 15 | NM | 18.5 | 6.31 | 2.6 | NM | 2,000 | DO meter malfunctioned. |
| | 6/16/05 | 12:55 | 6.57 | 15 | 4.26 | 21.7 | 6.34 | 6.2 | NM | 1,620 | |
| | 7/7/05 | 11:00 | 7.13 | 12 | 1.27 | 23.0 | 5.87 | 5.5 | NM | BQL | * Turbidity interference. |
| | 8/25/05 | 14:50 | NM | NM | NM | NM | NM | NM | NM | <0.31 | |
| | | | | | | | | | | | |
| MW-6 | 6/16/05 | 12:40 | 5.83 | 15 | 7.92 | 19.3 | 6.14 | * | NM | BQL | * Turbidity interference. |
| | | | | | | | | | | | |
| MW-8 | April Baseline | 13:30 | 8.60 | 13 | 0.05 | 18.5 | 6.08 | 0.8 | N | 26,500 | |
| | 5/16/05 | 12:00 | 8.03 | 13 | 0.07 | 18.6 | 6.11 | 0.6 | NM | NS | |
| | 5/20/05 | 11:35 | 8.76 | 13 | 0.05 | 18.6 | 6.23 | 0.6 | NM | NS | |
| | 5/26/05 | 11:50 | 6.75 | 12 | NM | 20.0 | 6.36 | 0.6 | NM | NS | |
| | 6/7/05 | 11:30 | 6.98 | 12 | * | * | 5.73 | 0.8 | NM | 6,520 | Meter malfunctioned. |
| | 6/14/05 | 14:05 | 6.61 | 13 | 3.06 | 25.6 | 6.56 | 0.6 | NM | 17.5 | |
| | 6/20/05 | 14:35 | 7.30 | 13 | 0.08 | 22.8 | 6.24 | 0.8 | NM | NS | |
| | 8/25/05 | 14:30 | NM | NM | NM | NM | NM | NM | NM | 38,000 | |
| | | | | | | | | | | | |
| MW-10 | Feb. Baseline | NS | NS | NS | NS | NS | NS | NS | NS | 110,000 | |
| | 5/16/05 | 11:50 | 4.65 | 8 | 0.72 | 19.5 | 5.82 | 1.6 | NM | NS | |
| | 5/20/05 | 11:25 | 4.65 | 8 | 0.85 | 20.0 | 5.94 | 2.2 | NM | NS | DO meter malfunctioned. |
| | 7/20/05 | 13:35 | 3.40 | 8 | 1.50 | 25.0 | 6.01 | 1.4 | NM | 137,000 | |
| | 8/1/05 | 15:50 | 2.31 | NS | NS | NS | 2.58 | * | NM | NS | * Turbidity interference. |
| | 8/25/05 | 13:30 | NM | NM | NM | NM | NM | NM | NM | 150,000 | |
| | | | | | | | | | | | |
| MW-15 | Feb. Baseline | NS | NS | NS | NS | NS | NS | NS | NS | 86,000 | |
| | 5/5/05 | 10:20 | 6.13 | 11 | 0.81 | 20.2 | 6.45 | 2.8 | N | NS | |
| | 5/9/05 | 13:40 | 4.71 | 10 | 0.43 | 20.5 | 6.26 | 2.6 | N | NS | |
| | 5/10/05 | 12:00 | 4.65 | 10 | 0.08 | 20.7 | 6.25 | 2.2 | N | 80,900 | |
| | 5/12/05 | 13:40 | 4.98 | 10 | 0.27 | 20.7 | 6.02 | 4.6 | N | NS | |
| | 5/18/05 | 11:30 | 5.02 | 10 | 0.11 | 20.7 | 5.98 | 2.8 | NM | NS | |
| | 5/25/05 | 13:30 | 5.06 | 10 | 0.05 | 20.8 | 6.12 | 4.4 | NM | NS | |
| | 8/25/05 | 10:10 | NM | NM | NM | NM | NM | NM | NM | 98,000 | |

## FENTON'S FIELD MEASUREMENTS - FULL-SCALE ACTIVITIES

**Subject Site:** INVISTA North Terminal - Px Facility **Project No:** 201-125

| Well ID | Date | Time | Depth to Water (feet) | Depth of Measurement (feet) | Dissolved Oxygen (mg/L) | Temp. (deg. C) | pH | Iron (mg/L) | Peroxide Presence (Y/N) | M/P-Xylene Concentration (ug/L) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-17 | 6/28/05 | 10:15 | 2.73 | 8 | 9.99 | 22.7 | 6.71 | 8.4 | NM | 95 | DO likely influence by sparge well. |
| | 8/24/05 | 17:20 | NM | 8 | 8.97 | 25.8 | NM | NM | NM | 92 | |
| | | | | | | | | | | | |
| MW-18 | 6/28/05 | 10:35 | 7.80 | 12 | 2.76 | 22.4 | 6.04 | 2.2 | NM | 3,200 | |
| | 8/24/05 | 17:30 | NM | 12 | 0.56 | 23.6 | NM | NM | NM | 160 | |
| | | | | | | | | | | | |
| MW-19 | April Baseline | 11:44 | 9.53 | 13 | 5.75 | 18.7 | NS | NS | NS | 22,000 | |
| | 5/5/05 | 10:45 | 9.99 | 13 | 1.51 | 19.6 | 6.70 | 4.2 | N | NS | DO likely influence by sparge well. |
| | 5/9/05 | 14:05 | 6.30 | 12 | 5.97 | 19.6 | 6.79 | 5.8 | N | NS | |
| | 5/10/05 | 12:25 | 6.50 | 12 | 10.85 | 19.5 | 6.62 | 6.4 | N | 44,700 | |
| | 5/12/05 | 14:00 | 6.75 | 12 | 6.81 | 19.8 | 6.33 | 4.0 | N | NS | |
| | 5/18/05 | 11:50 | 5.92 | 11 | 6.34 | 20.4 | 6.15 | 7.0 | NM | NS | |
| | 5/25/05 | 13:50 | 5.88 | 11 | 5.92 | 20.7 | 6.51 | 5.2 | NM | 60,500 | |
| | 6/7/05 | 10:55 | 5.16 | 11 | * | * | 6.01 | 5.0 | NM | 23,200 | Meter malfunctioned. |
| | 6/20/05 | 14:10 | 5.29 | 12 | 7.24 | 25.3 | 3.74 | 6.0 | NM | NS | DO likely influence by sparge well. |
| | 6/23/05 | 12:45 | 5.75 | 12 | 8.23 | 27.7 | 3.69 | 6.6 | NM | 48,800 | DO likely influence by sparge well. |
| | 6/28/05 | 10:50 | 6.16 | 12 | 7.55 | 28.3 | 3.84 | 6.2 | NM | 32,000 | DO likely influence by sparge well. |
| | 8/16/05 | 11:50 | 4.85 | 12 | 2.72 | 24.8 | 3.93 | 4.6 | NM | NS | |
| | 8/24/05 | 17:40 | NM | 10 | 6.47 | 29.3 | NM | NM | NM | 42,000 | |
| | 9/12/05 | 12:00 | 4.90 | 12 | 7.51 | 29.6 | 2.07 | 5.4 | NM | 32,800 | |
| | 9/21/05 | 15:45 | 3.60 | NM | NM | NM | 3.11 | NM | NM | NS | |
| | 11/29/05 | 13:15 | NM | NM | NM | NM | 1.90 | 2.8 | Y | NS | |
| | | | | | | | | | | | |
| MW-20 | April Baseline | 14:30 | 10.91 | 14 | 5.05 | 16.5 | NS | NS | NS | 260 | |
| | 5/5/05 | 10:05 | 11.45 | 14 | 4.20 | 17.7 | 6.86 | 0.6 | N | NS | |
| | 5/9/05 | 11:30 | 9.18 | 13 | 6.17 | 18.2 | 7.14 | 0.6 | N | NS | |
| | 5/10/05 | 13:00 | 9.34 | 13 | 6.22 | 18.3 | 6.94 | 0.8 | N | <0.5 | |
| | 5/12/05 | 14:50 | 9.53 | 13 | 6.14 | 18.6 | 6.68 | 0.8 | N | NS | DO likely influence by sparge well. |
| | 5/18/05 | 10:40 | 9.89 | 13 | 4.48 | 18.7 | 6.64 | 0.6 | NM | NS | |
| | 5/25/05 | 12:05 | 9.43 | 13 | 3.13 | 19.1 | 6.67 | 0.8 | NM | NS | |
| | 6/28/05 | 9:40 | 9.67 | 13 | 5.08 | 21.6 | 6.59 | 0.6 | NM | <0.31 | |
| | 8/24/05 | 12:35 | NM | 12 | 1.10 | 24.3 | NM | NM | NM | 870 | |
| | | | | | | | | | | | |
| PTW-7 | April Baseline | 13:20 | 6.87 | 13 | 0.61 | 19.7 | 6.11 | 1.6 | N | 89,254 | |
| | 5/16/05 | 11:40 | 6.44 | 13 | 0.23 | 19.9 | 5.77 | 2.4 | NM | NS | |
| | 5/20/05 | 11:15 | 6.47 | 13 | 0.19 | 20.0 | 5.19 | 1.8 | NM | NS | |
| | | | | | | | | | | | |
| TW-04 | 6/16/05 | 11:25 | 7.65 | 9 | 8.19 | 22.7 | 6.86 | * | NM | BQL | * Turbidity interference. |
| | | | | | | | | | | | |
| TWE1-A | 9/21/05 | 15:35 | 4.90 | NM | NM | NM | 6.31 | NM | NM | NS | |
| TWE1-B | 9/26/05 | 15:10 | 5.23 | 6.5 | 5.22 | 28.0 | 3.45 | 5.2 | NM | NS | |
| | | | | | | | | | | | |
| TWE2-AA | 5/31/06 | NM | 5.42 | NM | NM | NM | 6.52 | NM | NM | NM | |
| | 6/2/06 | NM | 3.90 | NM | NM | NM | 5.85 | NM | NM | NM | |
| TWE2-BB | 6/5/06 | NM | 3.93 | NM | NM | NM | 5.85 | NM | NM | NM | |
| | 6/6/06 | NM | 3.75 | NM | NM | NM | 6.04 | NM | NM | NM | |
| TWE2-CC | 6/6/06 | NM | 3.30 | NM | NM | NM | 3.94 | NM | NM | NM | |
| TWE2- Final | 6/21/06 | 10:15 | 4.39 | NM | NM | NM | 3.52 | NM | NM | 76,000 | |
| | | | | | | | | | | | |
| TWE3-AA | 5/10/06 | NM | 6.05 | NM | NM | NM | 6.05 | NM | NM | NM | |
| TWE3-BB | 5/15/06 | NM | 4.95 | NM | NM | NM | 5.09 | NM | NM | NM | |
| | 5/18/06 | NM | 4.95 | NM | NM | NM | 2.32 | NM | NM | NM | |
| | | | | | | | | | | | |
| TWE6-AA | 6/26/06 | NM | NM | NM | NM | NM | 3.53 | NM | NM | NM | |
| TWE6-Final | 7/7/06 | 14:10 | NM | NM | NM | NM | 3.30 | NM | NM | 9,200 | |
| | | | | | | | | | | | |

## FENTON'S FIELD MEASUREMENTS - FULL-SCALE ACTIVITIES

**Subject Site:** INVISTA North Terminal - Px Facility **Project No:** 201-125

| Well ID | Date | Time | Depth to Water (feet) | Depth of Measurement (feet) | Dissolved Oxygen (mg/L) | Temp. (deg. C) | pH | Iron (mg/L) | Peroxide Presence (Y/N) | M/P-Xylene Concentration (ug/L) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TWI4-A | 11/1/05 | 9:55 | 3.30 | NM | NM | NM | 6.14 | NM | NM | NS | |
| TWI4-B | 11/8/05 | 9:50 | 3.55 | 4.25 | 1.19 | 18.6 | 4.04 | * | NM | NS | * Turbidity interference. |
| | | | | | | | | | | | |
| TWL6-A | 7/15/05 | 13:00 | 7.12 | 8 | 5.71 | 25.6 | 6.63 | * | NM | BQL | * Turbidity interference. |
| | | | | | | | | | | | |
| TWL1-A | 8/4/05 | 10:10 | 6.18 | 7.5 | 4.88 | 25.3 | 6.10 | * | NM | <0.31 | * Turbidity interference. |
| | | | | | | | | | | | |
| TWL2-A | 8/4/05 | 10:25 | 5.20 | 6.5 | 4.80 | 26.9 | 6.09 | * | NM | 960 | * Turbidity interference. |
| | | | | | | | | | | | |
| TWL7-A | 7/15/05 | 13:20 | 6.60 | 8 | 5.93 | 24.0 | 6.74 | 0.6 | NM | 20.5 | |
| | | | | | | | | | | | |
| TWM2-A | 7/20/05 | 13:00 | 5.91 | 5 | 7.55 | 26.2 | 6.18 | * | NM | BQL | * Turbidity interference. |
| TWM2-B | 8/1/05 | 15:40 | 2.65 | NS | NS | NS | | * | NM | NS | * Turbidity interference. |
| | 8/2/05 | 9:40 | 2.66 | 4 | 6.70 | 27.7 | 6.44 | * | NM | NS | * Turbidity interference. |
| | 8/3/05 | 13:20 | 2.66 | 4 | 6.70 | 28.1 | 6.25 | 1.2 | NM | NS | |
| | 8/4/05 | 11:05 | 2.72 | 4 | 6.04 | 28.3 | 6.16 | 0.8 | NM | NS | |
| TWM2-C | 8/10/05 | 13:45 | 2.77 | 4 | 6.35 | 29.0 | 6.09 | 0.6 | NM | NS | |
| TWM2-D | 8/25/05 | 9:40 | 3.10 | NS | NS | NS | 5.55 | NS | NM | <0.31 | |
| | | | | | | | | | | | |
| TWM4-A | 7/7/05 | 10:30 | 7.25 | 9 | 0.98 | 24.4 | 5.76 | * | NM | 190,000 | * Turbidity interference. |
| | 7/8/05 | 9:00 | NM | NM | NM | NM | 6.10 | * | NM | NS | |
| TWM4-B | 7/11/05 | 14:15 | 6.77 | 9.00 | 2.05 | 26.40 | 3.71 | 6.0 | NM | NS | |
| TWM4-C | 8/1/05 | 11:45 | 5.48 | 8.00 | 4.54 | 35.00 | 3.49 | * | NM | 100,000 | * Turbidity interference. |
| TWM4-D | 8/19/05 | 11:40 | 6.45 | 7.50 | 14.41 | 30.20 | 1.79 | 3.0 | NM | NS | |
| TWM4-E | 9/12/05 | 13:40 | 5.52 | 6.50 | 35.34 | 30.90 | 3.38 | * | NM | NS | * Turbidity interference. |
| | | | | | | | | | | | |
| TWM5-A | 7/7/05 | 10:00 | 7.31 | 9 | 1.34 | 24.8 | 6.06 | * | NM | 182,000 | * Turbidity interference. |
| | 7/8/05 | 9:30 | NM | NM | NM | NM | 5.91 | * | NM | NS | |
| TWM5-B | 7/11/05 | 14:30 | 6.66 | 9 | 1.07 | 26.0 | 5.68 | 1.6 | NM | NS | |
| | 7/12/05 | 12:50 | 7.06 | NM | NM | NM | 5.76 | 0.8 | NM | NS | |
| | 7/13/05 | 13:30 | 6.83 | 9 | 1.00 | 26.3 | 4.46 | 5.8 | NM | NS | |
| TWM5-C | 7/22/05 | 8:55 | 6.37 | 8 | 2.01 | 28.9 | 3.09 | 9.6 | NM | 42,100 | |
| TWM5-D | 7/26/05 | 8:50 | 4.64 | 6 | 1.50 | 29.5 | 4.35 | * | NM | NS | * Turbidity interference. |
| TWM5-E | 8/10/05 | 13:40 | 4.35 | 6.00 | 0.70 | 31.10 | 3.41 | 4.6 | NM | 73,000 | |
| | | | | | | | | | | | |
| TWM6-A | 7/1/05 | 10:45 | 7.80 | 9 | 7.24 | 24.9 | 6.48 | 0.8 | NM | <2 | Pre-application |
| | | | | | | | | | | | |
| TWM7-A | 6/27/05 | 11:55 | 8.28 | 9 | 1.47 | 23.5 | 6.00 | 0.8 | NM | 4,600 | Pre-application |
| | 7/1/05 | 10:40 | 7.90 | 9 | 26.19 | 24.2 | 6.01 | 0.0 | NM | 357 | |
| | | | | | | | | | | | |
| TWN2-A | 7/7/05 | 11:30 | 6.99 | 9 | 0.45 | 24.3 | 6.30 | * | NM | 42,200 | * Turbidity interference. |
| TWN2-B | 7/12/05 | NM | 6.40 | NM | NM | NM | 6.26 | * | NM | NS | |
| | 7/13/05 | 13:40 | 6.35 | 9 | 0.30 | 24.9 | 6.12 | 2.8 | NM | NS | |
| | 7/14/05 | 8:40 | 5.32 | 9 | 0.22 | 25.2 | 5.86 | * | NM | NS | * Turbidity interference. |
| | 7/15/05 | 8:45 | 5.20 | 9 | 0.74 | 26.5 | 4.29 | * | NM | NS | |
| TWN2-C | 8/1/05 | 12:00 | 4.90 | 8 | 2.05 | 28.7 | 4.05 | 3.0 | NM | 21,000 | |
| TWN6-A | 6/16/05 | 13:10 | 7.18 | 8.5 | 5.18 | 25.5 | 6.76 | 1.0 | NM | BQL | |
| | | | | | | | | | | | |

## FENTON'S FIELD MEASUREMENTS - FULL-SCALE ACTIVITIES

**Subject Site:** **INVISTA North Terminal - Px Facility** **Project No:** **201-125**

| Well ID | Date | Time | Depth to Water (feet) | Depth of Measurement (feet) | Dissolved Oxygen (mg/L) | Temp. (deg. C) | pH | Iron (mg/L) | Peroxide Presence (Y/N) | M/P-Xylene Concentration (ug/L) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TWO2-A | 6/9/05 | 10:15 | 7.30 | 9 | 2.30 | 20.6 | 6.52 | 0.8 | NM | 43,200 | |
| TWO2-B | 7/7/05 | 12:00 | 7.23 | 9 | 1.03 | 23.5 | 6.34 | * | NM | 117,000 | * Turbidity interference. |
| TWO2-C | 7/25/05 | 9:40 | 4.80 | 6 | 3.27 | 26.2 | 6.30 | * | NM | NS | |
| | 7/26/05 | 8:25 | NM | NM | 2.25 | 26.1 | 6.23 | 0 | NM | NS | |
| | 7/27/05 | 11:15 | 4.82 | 7 | 2.98 | 26.1 | 6.40 | * | NM | NS | * Turbidity interference. |
| | 7/28/05 | 11:35 | 4.95 | 7 | 1.99 | 26.4 | 6.32 | 0.8 | NM | NS | |
| | 7/29/05 | 10:35 | 4.99 | 7 | 2.11 | 26.5 | 6.20 | 1.0 | NM | NS | |
| TWO2-D | 7/27/05 | 13:30 | 6.52 | 7.5 | 4.70 | 26.5 | 6.87 | * | NM | NS | * Turbidity interference. |
| | 7/28/05 | 11:55 | 6.60 | 7.5 | 6.97 | 26.4 | 6.79 | 0.7 | NM | NS | |
| | 7/29/05 | 10:45 | 6.60 | 7.5 | 6.68 | 26.6 | 6.59 | 0.6 | NM | NS | |
| TWO2-E | 7/29/05 | 11:35 | 5.79 | 7.0 | 1.77 | 31.5 | 1.84 | * | NM | NS | |
| | 8/1/05 | 14:00 | 5.11 | 7.0 | 5.03 | 27.7 | 5.84 | 2.3 | NM | NS | * Turbidity interference. |
| TWO2-F | 7/29/05 | 11:20 | 4.86 | 6.5 | 6.08 | 28.4 | 6.19 | * | NM | NS | |
| | 8/1/05 | 13:50 | 4.01 | 6.0 | 8.06 | 26.6 | 6.90 | * | NM | NS | * Turbidity interference. |
| TWO2-G | 8/1/05 | 13:15 | 4.23 | 7.0 | 3.80 | 26.8 | 6.50 | 0.4 | NM | NS | |
| | 8/2/05 | 9:30 | 4.40 | 7.0 | 3.58 | 26.5 | 6.38 | 1.0 | NM | NS | |
| | 8/3/05 | 13:40 | 4.62 | 7.0 | 3.98 | 26.4 | 6.26 | 0.8 | NM | NS | |
| | 8/4/05 | 10:55 | 4.73 | 6.5 | 3.95 | 26.5 | 5.89 | 1.0 | NM | NS | |
| TWO2-H | 8/1/05 | 13:40 | 5.82 | 7.5 | 7.97 | 27.2 | 6.88 | 0.8 | NM | NS | |
| TWO2-I | 8/1/05 | 14:50 | 3.00 | 4.0 | 2.73 | 26.3 | 3.87 | 8.0 | NM | NS | |
| TWO2-J | 8/1/05 | 15:05 | 3.58 | 4.5 | 5.58 | 26.9 | 6.67 | * | NM | NS | * Turbidity interference. |
| TWO2-K | 8/1/05 | 15:15 | 2.90 | 4.0 | 7.40 | 29.1 | 4.30 | 2.8 | NM | NS | |
| TWO2-N | 8/10/05 | 13:55 | 4.47 | 7.0 | 2.82 | 26.8 | 4.05 | 5.0 | NM | NS | |
| TWO2-O | 8/16/05 | 14:50 | 5.07 | 6.5 | 1.70 | 26.9 | 3.99 | 5.0 | NM | 10,000 | |
| TWO2-P | 9/26/05 | 14:35 | 5.04 | 7.0 | 5.55 | 27.9 | 6.03 | * | NM | NS | * Turbidity interference. |
| | 9/28/05 | 10:00 | 5.12 | 7.0 | 5.50 | 27.5 | 3.82 | * | NM | NS | * Turbidity interference. |
| | | | | | | | | | | | |
| TWO5-A | 6/14/05 | 13:35 | 5.67 | 7 | 8.47 | 23.0 | 6.18 | * | NM | BQL | * Turbidity interference. |
| | | | | | | | | | | | |
| TWO7-A | 5/26/05 | 11:10 | 7.72 | 9.5 | NM | 18.7 | 6.47 | ~2 | NM | 422 | DO meter malfunctioned and Iron test had interference. |
| | | | | | | | | | | | |
| TWP2-A | 6/22/05 | 10:45 | 5.35 | 7.5 | 8.59 | 23.7 | 6.54 | 0.8 | NM | BQL | |
| | | | | | | | | | | | |
| Trench O-4 | 6/14/05 | 13:55 | NM | NM | NM | NM | 6.61 | 0.4 | NM | BQL | |
| | | | | | | | | | | | |
| Trench O-5 | 6/14/05 | 13:15 | NM | NM | NM | NM | 8.22 | >6* | NM | BQL | * Turbidity interference. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

**Notes:**

2L GWQS for mp-Xylene is 530 ug/L.

2L GWQS for MTBE is 200 ug/L.

NS = Not Sampled

D = The reported result is from a secondary dilution.

All field and laboratory samples were collected after purging three volumes of water from each well, except as noted.

Iron data obtained using Hach field test kit.

NM = Not Measured

BQL = Below Quantitation Limit

# APPENDIX D

# ADDITIONAL SOIL ASSESSMENT DATA

# APPENDIX D

# TABLES

**APPENDIX D**
**TABLE 1**

**SUMMARY OF SOIL LABORATORY RESULTS - TOTAL LEAD**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

**Analytical Method: EPA Method 6010B**

| Boring ID | Contaminant of Concern → | | Lead |
|---|---|---|---|
| | Sample ID | Date Collected | |
| Soil-to-Groundwater Maximum Contaminant Concentration (mg/kg) | | | 270 |
| SB-1 | SB-1 | 11/22/2005 | 21 |
| SB-2 | SB-2 | 11/22/2005 | 32 |
| SB-3 | SB-3 | 11/22/2005 | 100 |
| SB-4 | SB-4 | 11/22/2005 | 20 |
| SB-5 | SB-5 | 11/22/2005 | 640 |
| SB-5A | SB-5A | 4/12/2006 | 4.2 |
| SB-5B | SB-5B | 4/12/2006 | 11 |
| SB-5C | SB-5C | 4/12/2006 | 3.2 |
| SB-5D | SB-5D | 4/12/2006 | 13 |
| SB-6 | SB-6 | 11/22/2005 | 24 |
| SB-7 | SB-7 | 11/22/2005 | 60 |
| SB-8 | SB-8 | 11/22/2005 | 5.4 |
| SB-9 | SB-9 | 11/15/2005 | 25 |
| SB-10 | SB-10 | 11/15/2005 | 1.3 |
| SB-11 | SB-11 | 11/15/2005 | 17 |
| SB-12 | SB-12 | 11/15/2005 | 4.4 |
| SB-13 | SB-13 | 11/15/2005 | 8.3 |
| SB-14 | SB-14 | 11/15/2005 | 21 |
| SB-15 | SB-15 | 11/16/2005 | 0.67 |
| SB-16 | SB-16 | 11/16/2005 | 5 |
| SB-17 | SB-17 | 11/15/2005 | 8.7 |
| SB-18 | SB-18 | 11/15/2005 | 1 |
| SB-19 | SB-19 | 11/15/2005 | 3 |
| SB-20 | SB-20 | 11/15/2005 | 0.79 |
| SB-21 | SB-21 | 11/18/2005 | 3.1 |
| SB-22 | SB-22 | 11/17/2005 | 2.8 |
| SB-23 | SB-23 | 11/18/2005 | 16 |
| SB-24 | SB-24 | 11/17/2005 | 1.9 |
| SB-25 | SB-25 | 11/17/2005 | 2.9 |
| SB-26 | SB-26 | 11/17/2005 | 1.2 |
| SB-27 | SB-27 | 11/17/2005 | 2.3 |
| SB-28 | SB-28 | 11/17/2005 | 8.6 |
| SB-29 | SB-29 | 11/16/2005 | 3.4 |

**APPENDIX D**
**TABLE 1**

**SUMMARY OF SOIL LABORATORY RESULTS - TOTAL LEAD**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

**Analytical Method: EPA Method 6010B**

| Boring ID | Contaminant of Concern → | | Lead |
|---|---|---|---|
| | Sample ID | Date Collected | |
| Soil-to-Groundwater Maximum Contaminant Concentration (mg/kg) | | | 270 |
| SB-30 | SB-30 | 11/16/2005 | 3.5 |
| SB-31 | SB-31 | 11/16/2005 | 26 |
| SB-32 | SB-32 | 11/16/2005 | 1.7 |
| SB-33 | SB-33 | 11/17/2005 | 4.2 |
| SB-34 | SB-34 | 11/17/2005 | 38 |
| SB-35 | SB-35 | 11/17/2005 | 2.7 |
| SB-36 | SB-36 | 11/17/2005 | 68 |
| SB-37 | SB-37 | 11/16/2005 | 1.9 |
| SB-38 | SB-38 | 11/16/2005 | 1.3 |
| SB-39 | SB-39 | 11/16/2005 | 3.9 |
| SB-40 | SB-40 | 11/16/2005 | 1.6 |
| SB-41 | SB-41 | 11/16/2005 | 2.9 |
| SB-42 | SB-42 | 11/16/2005 | 1.2 |
| SB-43 | SB-43 | 11/16/2005 | 2 |
| SB-44 | SB-44 | 11/16/2005 | 1.4 |

Samples were composite samples from ground surface to the vadose zone. Refer to boring logs for depth of vadose zone, which is represented by the boring termination depth.

All samples collected via hand auger.

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-3 | 0-1 | 6.7 | 3-4' |
| | 1-2 | 1,622.0 | |
| | 2-3 | 1,833.0 | |
| | 3-4 | 1,918.0 | |
| SB-3S | 0-1 | 5.1 | 3-4' |
| | 1-2 | 4.3 | |
| | 2-3 | 5.2 | |
| | 3-4 | 5.1 | |
| SB-3W | 0-1 | 4.0 | 2-3' |
| | 1-2 | 3.5 | |
| | 2-3 | 5.5 | |
| | 3-4 | 6.5 | |
| SB-3E | 0-1 | 3.8 | 2-3' |
| | 1-2 | 5.2 | |
| | 2-3 | 84.7 | |
| | 3-4 | 93.7 | |
| SB-3N | 0-1 | 3.5 | 2-3' |
| | 1-2 | 1,750.0 | |
| | 2-3 | 2,040.0 | |
| | 3-4 | 2,220.0 | |
| SB-29B | 0-1 | 0.0 | 7-8' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 8.0 | |
| | 7-8 | 10.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-29C | 0-1 | 0.0 | 7-8' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 9.0 | |
| | 7-8 | 31.0 | |
| SB-29D | 0-1 | 0.0 | 9-10' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 0.0 | |
| | 8-9 | 0.0 | |
| | 9-10 | 1.0 | |
| SB-31 | 0-1 | 2.5 | 3-4' |
| | 1-2 | 8.9 | |
| | 2-3 | 1,022.0 | |
| | 3-4 | 1,613.0 | |
| | 4-5 | 1,430.0 | |
| | 5-6 | 1,459.0 | |
| SB-31EA | 0-1 | 0.6 | NS |
| | 1-2 | 0.6 | |
| | 2-3 | 0.6 | |
| | 3-4 | 821.0 | |
| SB-31EB | 0-1 | 0.6 | NS |
| | 1-2 | 0.5 | |
| | 2-3 | 384.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-31EC | 0-1 | 1.3 | NS |
| | 1-2 | 1.2 | |
| | 3-4 | 39.7 | |
| | 4-5 | 1,341.0 | |
| SB-31ED | 0-1 | 1.5 | NS |
| | 1-2 | 1.2 | |
| | 2-3 | 1.1 | |
| | 3-4 | 1.6 | |
| | 4-5 | 441.0 | |
| SB-31EE | 0-1 | 0.0 | 6-7' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 1.3 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| SB-31EMID | 0-1 | 0.6 | 5-6' |
| | 1-2 | 0.0 | |
| | 2-3 | 625.0 | |
| | 3-4 | 1,008.0 | |
| | 4-5 | 1,093.0 | |
| | 5-6 | 1,755.0 | |
| SB-31NA | 0-1 | 0.3 | NS |
| | 1-2 | 1.7 | |
| | 2-3 | 3.0 | |
| | 3-4 | 7.0 | |
| | 4-5 | 13.7 | |
| | 5-6 | 13.5 | |
| | 6-7 | 388.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-31NB | 0-1 | 2.8 | NS |
| | 1-2 | 0.4 | |
| | 2-3 | 1.2 | |
| | 3-4 | 10.4 | |
| | 4-5 | 3.0 | |
| | 5-6 | 4.2 | |
| | 6-7 | 4.6 | |
| | 7-8 | 4.6 | |
| | 8-9 | 79.7 | |
| | 9-10 | 174.0 | |
| SB-31NC | 0-1 | 6.1 | NS |
| | 1-2 | 7.4 | |
| | 2-3 | 3.2 | |
| | 3-4 | 7.1 | |
| | 4-5 | 2.6 | |
| | 5-6 | 2.9 | |
| | 6-7 | 30.4 | |
| | 7-8 | 159.0 | |
| SB-31ND | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 1.6 | |
| | 3-4 | 0.3 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.1 | |
| | 7-8 | 6.6 | |
| | 8-9 | 821.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-31NE | 0-1 | 0.0 | 9-10' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 0.0 | |
| | 8-9 | 0.0 | |
| | 9-10 | 20.0 | |
| SB-31NMID | 0-1 | 0.0 | 9-10' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.3 | |
| | 7-8 | 57.5 | |
| | 8-9 | 389.0 | |
| | 9-10 | 716.0 | |
| SB-31S | 0-1 | 1.6 | 6-7' |
| | 1-2 | 1.6 | |
| | 2-3 | 1.1 | |
| | 3-4 | 1.1 | |
| | 4-5 | 0.7 | |
| | 5-6 | 0.6 | |
| | 6-7 | 0.5 | |
| SB-31W | 0-1 | 0.0 | 4-5' |
| | 1-2 | 0.0 | |
| | 2-3 | 1.4 | |
| | 3-4 | 10.5 | |
| | 4-5 | 25.8 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-31WE | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 1.0 | |
| | 7-8 | 2.0 | |
| | 8-9 | 8.0 | |
| | 9-9.5 | 23.0 | |
| SB-31WF | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 1.0 | |
| | 8-9 | 8.0 | |
| SB-31WG | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | NM | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 1.0 | |
| | 8-9 | 2.0 | |
| | 9-10 | 2.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-32B | 0-2 | 0.0 | NS |
| | 2-4 | 0.0 | |
| | 4-6 | 0.0 | |
| | 6-8 | 0.0 | |
| | 8-10 | 0.0 | |
| SB-32C | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 55.0 | |
| SB-32D | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | NM | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 11.0 | |
| SB-32E | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 2.0 | |
| | 7-7.5 | 239.0 | |
| SB-32F | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 339.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-32G | 0-1 | 0.0 | NS |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 0.0 | |
| | 8-8.5 | 436.0 | |
| SB-32H | 0-1 | 0.0 | 11-12' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 0.0 | |
| | 8-9 | 0.0 | |
| | 9-10 | 6.0 | |
| | 10-11 | 26.0 | |
| | 11-12 | 37.0 | |
| | 12-12.5 | 33.0 | |
| SB-32I | 0-1 | NM | 7-8' |
| | 1-2 | NM | |
| | 2-3 | NM | |
| | 3-4 | NM | |
| | 4-5 | NM | |
| | 5-6 | NM | |
| | 6-7 | 308.0 | |
| | 7-8 | 683.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-32J | 0-1 | 0.0 | 7-8' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 544.0 | |
| | 8-9 | 451.0 | |
| SB-45 | 0-1 | 0.0 | 6-7' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 5.0 | |
| | 4-5 | 9.0 | |
| | 5-6 | 38.0 | |
| | 6-7 | 55.0 | |
| SB-45E | 0-1 | 0.0 | 6-7' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |

**APPENDIX D**
**TABLE 2**

**SUMMARY OF SOIL HEADSPACE SCREENING**

**INVISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH CAROLINA**

| SAMPLE I.D. | Sample Depth (ft. BLS) | OVA Reading (ppm) | Sample Selected for Laboratory Analysis |
|---|---|---|---|
| SB-45N | 0-1 | 0.0 | 8-9' |
| | 1-2 | 0.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 0.0 | |
| | 6-7 | 0.0 | |
| | 7-8 | 0.0 | |
| | 8-9 | 0.0 | |
| SB-45S | 0-1 | 0.0 | 5-6' |
| | 1-2 | 1.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 0.0 | |
| | 5-6 | 2.0 | |
| | 6-7 | 1.0 | |
| SB-45W | 0-1 | 1.0 | 6-7' |
| | 1-2 | 1.0 | |
| | 2-3 | 0.0 | |
| | 3-4 | 0.0 | |
| | 4-5 | 1.0 | |
| | 5-6 | 1.0 | |
| | 6-7 | 1.0 | |

NS = Not Sampled
NM = Not Measured
ft. BLS = Feet Below Land Surface
ppm = parts per million
All samples collected via hand auger.

**APPENDIX D**
**TABLE 3**
**SUMMARY OF SOIL LABORATORY RESULTS**
**TOTAL PETROLEUM HYDROCARBONS**

**INISTA**
**NORTH TERMINAL**
**WILMINGTON, NORTH TERMINAL**

**Analytical Method: EPA Method 8015**

| Analytical Method: EPA Method 8015 → | | | | |
|---|---|---|---|---|
| **Sample ID** | **Date Collected** | Sample Depth | Diesel Range Organics | Gasoline Range Organics |
| **NCDENR ACTION LEVEL (mg/Kg)** | | **ft. BGS** | **40** | **10** |
| SB-3 | 12/30/2005 | 3-4 | 810 | 6,500 |
| SB-3E | 12/30/2005 | 2-3 | 28 | 1.7 |
| SB-3N | 12/30/2005 | 2-3 | 1,300 | 4,000 |
| SB-3S | 12/30/2005 | 3-4 | 6.3 | 0.10J |
| SB-3W | 12/30/2005 | 2-3 | 22 | 0.30 |
| SB-29B | 4/19/2006 | 7-8 | 830 | 0.29 |
| SB-29C | 4/19/2006 | 7-8 | 3,300 | 16 |
| SB-29D | 4/19/2006 | 9-10 | 260 | <0.081 |
| SB-31 | 12/14/2005 | 3-4 | 1,900 | 10,000 |
| SB-31EE | 12/16/2005 | 6-7 | 2.2 J | 0.38 J |
| SB-31E MID | 12/19/2005 | 5-6 | 2,800 | 660 |
| SB-31NE | 12/19/2005 | 9-10 | 2,100 | 16 |
| SB-31N MID | 12/19/2005 | 9-10 | 1,000 | 140 |
| SB-31S | 12/14/2005 | 6-7 | 6.8 | <0.087 |
| SB-31W | 12/16/2005 | 4-5 | 530 | 1.2 |
| SB-31 WG | 4/13/2006 | 9-10 | 3,000 | 4.9 |
| SB-32H | 4/19/2006 | 11-12 | 3,000 | 0.16J |
| SB-32I | 4/19/2006 | 7-8 | 6,700 | 910 |
| SB-32J | 4/19/2006 | 7-8 | 12,000 | 1,100 |
| SB-45 | 4/17/2006 | 6-7 | 51 | 0.18J |
| SB-45E | 4/18/2006 | 6-7 | 78 | <0.087 |
| SB-45N | 4/18/2006 | 8-9 | 4.7 | <0.088 |
| SB-45S | 4/18/2006 | 5-6 | 46 | <0.085 |
| SB-45W | 4/18/2006 | 6-7 | 37 | <0.088 |

All results in mg/kg
ft. BGS = feet below ground surface
J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Shaded concentrations exceed the NCDENR Action Level.

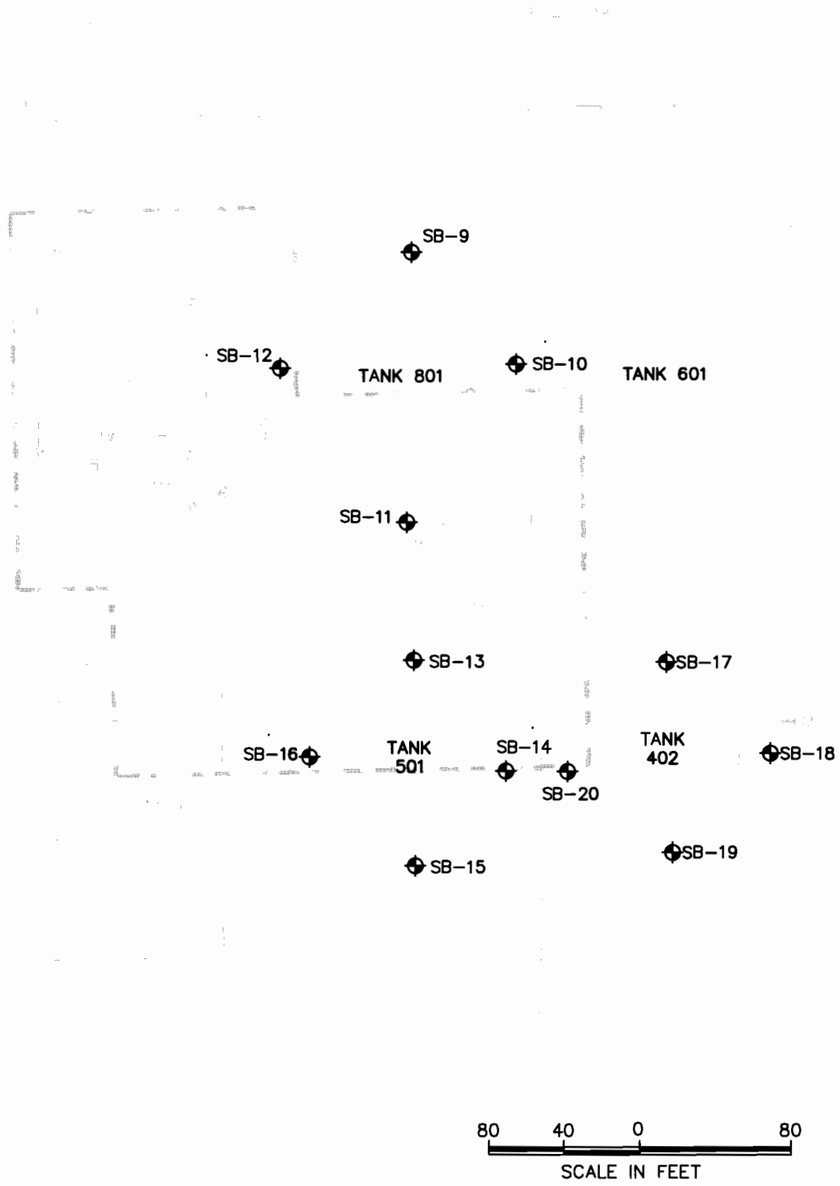
# APPENDIX D

# FIGURES

## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| ▨ | | BUILDING |
| | | TYPE II MONITORING WELL |
| | | TYPE III MONITORING WELL |
| | | RECOVERY WELL |
| | ⊕ | SOIL BORING (HAND AUGER) |
| | | PIEZOMETER (TEMPORARY) |
| | | AREA LIGHT |
| | | PROPERTY LINE |
| | | FENCE LINE |

NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. FWTP – FACILITY WASTEWATER TREATMENT PLANT.
4. CHEMICAL OXIDATION TRENCH LOCATIONS ARE BASED ON FIELD MEASUREMENTS AND SHOULD BE CONSIDERED APPROXIMATE.




| Analytical Method: EPA Method 6010B | | | |
|---|---|---|---|
| Boring ID | Contaminant of Concern | | |
| | Sample ID | Date Collected | Lead |
| Soil-to-Water Maximum Contaminant Concentration (mg/kg) | | | 270 |
| SB-9 | SB-9 | 11/15/2005 | 25 |
| SB-10 | SB-10 | 11/15/2005 | 1.3 |
| SB-11 | SB-11 | 11/15/2005 | 17 |
| SB-12 | SB-12 | 11/15/2005 | 4.4 |
| SB-13 | SB-13 | 11/15/2005 | 8.3 |
| SB-14 | SB-14 | 11/15/2005 | 21 |
| SB-15 | SB-15 | 11/16/2005 | 0.67 |
| SB-16 | SB-16 | 11/16/2005 | 5 |
| SB-17 | SB-17 | 11/15/2005 | 8.7 |
| SB-18 | SB-18 | 11/15/2005 | 1 |
| SB-19 | SB-19 | 11/15/2005 | 3 |
| SB-20 | SB-20 | 11/15/2005 | 0.79 |

*SAMPLES WERE COMPOSITE SAMPLES FROM GROUND SURFACE TO VADOSE ZONE. REFER TO BORING LOGS FOR DEPTH OF VADOSE ZONE WHICH IS REPRESENTED BY BORING TERMINATION DEPTH.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

PROJECT: INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C.

TITLE: SOIL ANALYTICAL LABORATORY RESULTS TOTAL LEAD – PARAXYLENE FACILITY

FIGURE: D-1

JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=80' | DRAWN BY: BKW | CHECKED BY: JKB

201125-MR-NOV05-03

Analytical Method: EPA Method 6010B

| Boring ID | Contaminant of Concern | | Lead |
|---|---|---|---|
| | Sample ID | Date Collected | |
| Soil-to-Water Maximum Contaminant Concentration (mg/kg) | | | 270 |
| SB-21 | SB-21 | 11/18/2005 | 3.1 |
| SB-22 | SB-22 | 11/17/2005 | 2.8 |
| SB-23 | SB-23 | 11/18/2005 | 16 |
| SB-24 | SB-24 | 11/17/2005 | 1.9 |
| SB-25 | SB-25 | 11/17/2005 | 2.9 |
| SB-26 | SB-26 | 11/17/2005 | 1.2 |
| SB-27 | SB-27 | 11/17/2005 | 2.3 |
| SB-28 | SB-28 | 11/17/2005 | 8.6 |
| SB-29 | SB-29 | 11/16/2005 | 3.4 |
| SB-30 | SB-30 | 11/16/2005 | 3.5 |
| SB-31 | SB-31 | 11/16/2005 | 26 |
| SB-32 | SB-32 | 11/16/2005 | 1.7 |

| Boring ID | Contaminant of Concern | | Lead |
|---|---|---|---|
| | Sample ID | Date Collected | |
| Soil-to-Water Maximum Contaminant Concentration (mg/kg) | | | 270 |
| SB-33 | SB-33 | 11/17/2005 | 4.2 |
| SB-34 | SB-34 | 11/17/2005 | 38 |
| SB-35 | SB-35 | 11/17/2005 | 2.7 |
| SB-36 | SB-36 | 11/17/2005 | 68 |
| SB-37 | SB-37 | 11/16/2005 | 1.9 |
| SB-38 | SB-38 | 11/16/2005 | 1.3 |
| SB-39 | SB-39 | 11/16/2005 | 3.9 |
| SB-40 | SB-40 | 11/16/2005 | 1.6 |
| SB-41 | SB-41 | 11/16/2005 | 2.9 |
| SB-42 | SB-42 | 11/16/2005 | 1.2 |
| SB-43 | SB-43 | 11/16/2005 | 2 |
| SB-44 | SB-44 | 11/16/2005 | 1.4 |

*SAMPLES WERE COMPOSITE SAMPLES FROM GROUND SURFACE TO VADOSE ZONE. REFER TO BORING LOGS FOR DEPTH OF VADOSE ZONE WHICH IS REPRESENTED BY BORING TERMINATION DEPTH.

## LEGEND

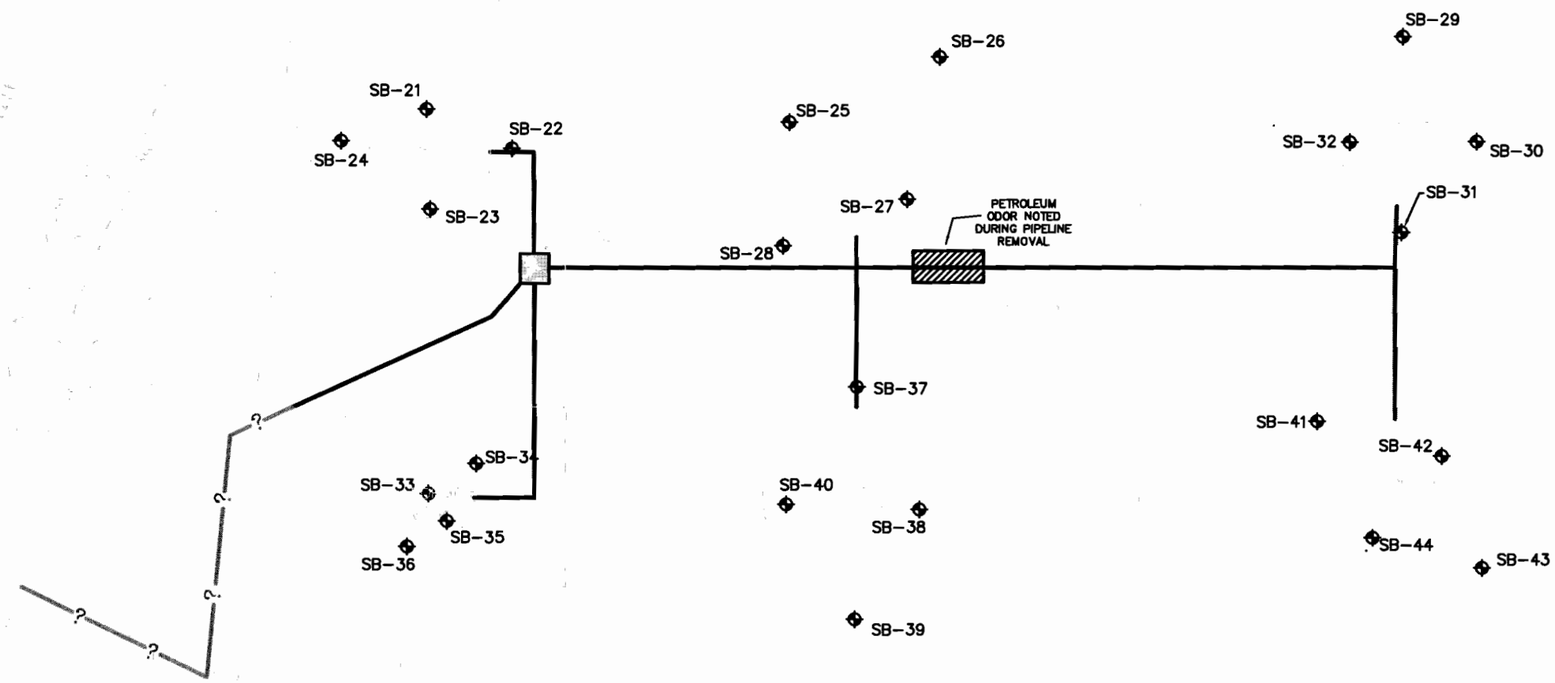
| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| | | BUILDING |
| | | TYPE II MONITORING WELL |
| | | TYPE III MONITORING WELL |
| | | RECOVERY WELL |
| | | 4"ø RECOVERY WELL (STAINLESS) (INACTIVE) |
| | | PROPERTY LINE |
| | | RAILROAD TRACKS |
| | | FENCE LINE |
| | ◆ | SOIL BORING (HAND AUGER) |

TOP OF CONTAINMENT BERM

UNDERGROUND PIPELINE LEFT IN PLACE – ENDS CONCRETE (EXACT LOCATION UNKNOWN)

UNDERGROUND PIPES REMOVED

UNDERGROUND PIPES WITH CONTAMINATED SOIL REMOVED




N

100 50 0 100

SCALE IN FEET

NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

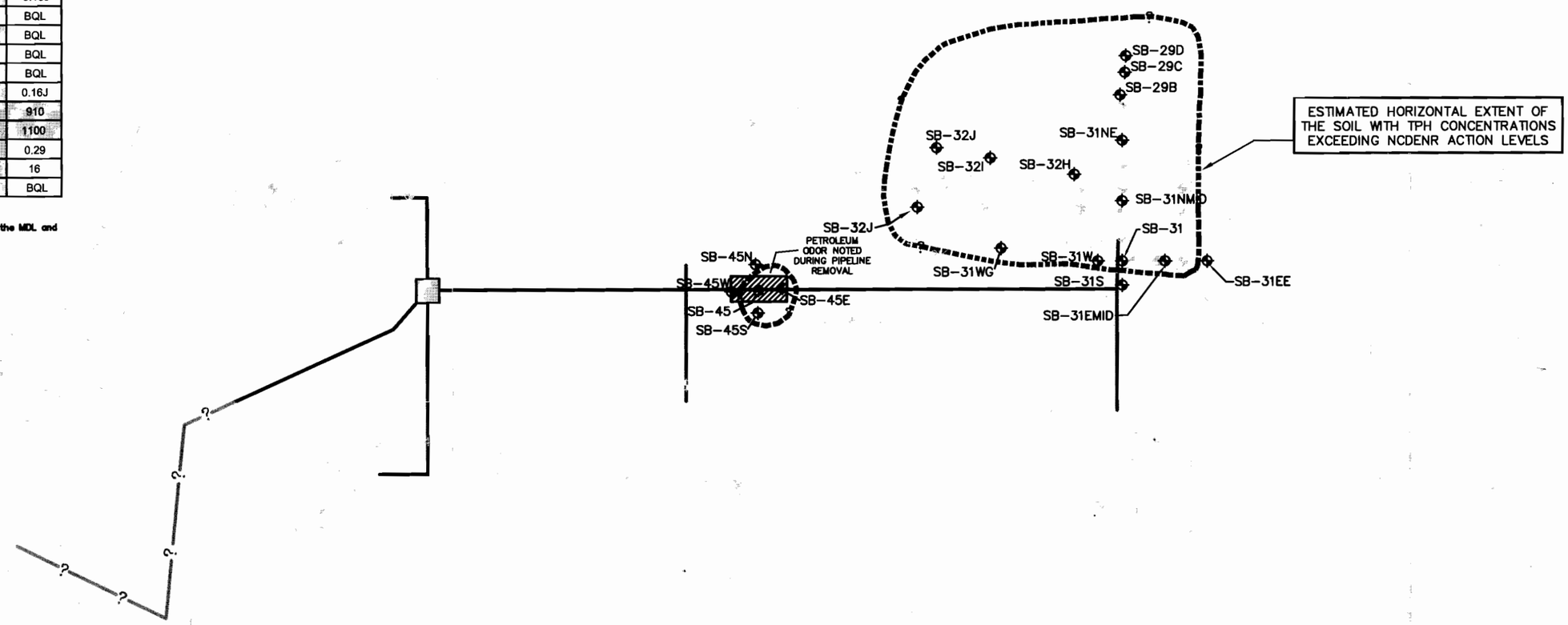
| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | SOIL ANALYTICAL LABORATORY RESULTS–TOTAL LEAD–GASOLINE/#2 FUEL OIL FACILITY | D-2 |

| JOB NO. | DATE | SCALE | DRAWN BY | CHECKED BY |
|---|---|---|---|---|
| 201-125 | FEB 2006 | 1"=100' | BKW | JKB |

201125-MR-NOV05-04

| Analytical Method: EPA Method 8015 | | | | |
|---|---|---|---|---|
| Contaminant of Concern | | Sample Depth | Diesel Range Organics | Gasoline Range Organics |
| Sample ID | Date Collected | | | |
| NCDENR ACTION LEVEL (mg/Kg) | | Ft. BLS | 40 | 10 |
| SB-31NE | 12/19/2005 | 9-10 | 2,100 | 16 |
| SB-31N MID | 12/19/2005 | 9-10 | 1,000 | 140 |
| SB-31E MID | 12/19/2005 | 5-6 | 2,800 | 680 |
| SB-31W | 12/16/2005 | 4-5 | 530 | 1.2 |
| SB-31EE | 12/16/2005 | 6-7 | 2.2 J | 0.38 J |
| SB-31 | 12/14/2005 | 3-4 | 1,900 | 10,000 |
| SB-31S | 12/14/2005 | 6-7 | 6.8 | <0.087 |
| SB-31WG | 4/13/2006 | 9-10 | 3,000 | 4.9 |
| SB-45 | 4/17/2006 | 6-7 | 51 | 0.18J |
| SB-45N | 4/18/2006 | 8-9 | 4.7 | BQL |
| SB-45E | 4/18/2006 | 6-7 | 78 | BQL |
| SB-45W | 4/18/2006 | 6-7 | 37 | BQL |
| SB-45S | 4/18/2006 | 5-6 | 46 | BQL |
| SB-32H | 4/19/2006 | 11-12 | 3,000 | 0.16J |
| SB-32I | 4/19/2006 | 7-8 | 6,700 | 910 |
| SB-32J | 4/19/2006 | 7-8 | 12,000 | 1100 |
| SB-29B | 4/19/2006 | 7-8 | 830 | 0.29 |
| SB-29C | 4/19/2006 | 7-8 | 3,300 | 16 |
| SB-29D | 4/19/2006 | 9-10 | 260 | BQL |

All results in mg/kg.
ft. BGS = feet below ground surface.
J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Shaded concentrations exceed the NCDENR Action Level.




NOTE:
1. MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.

N

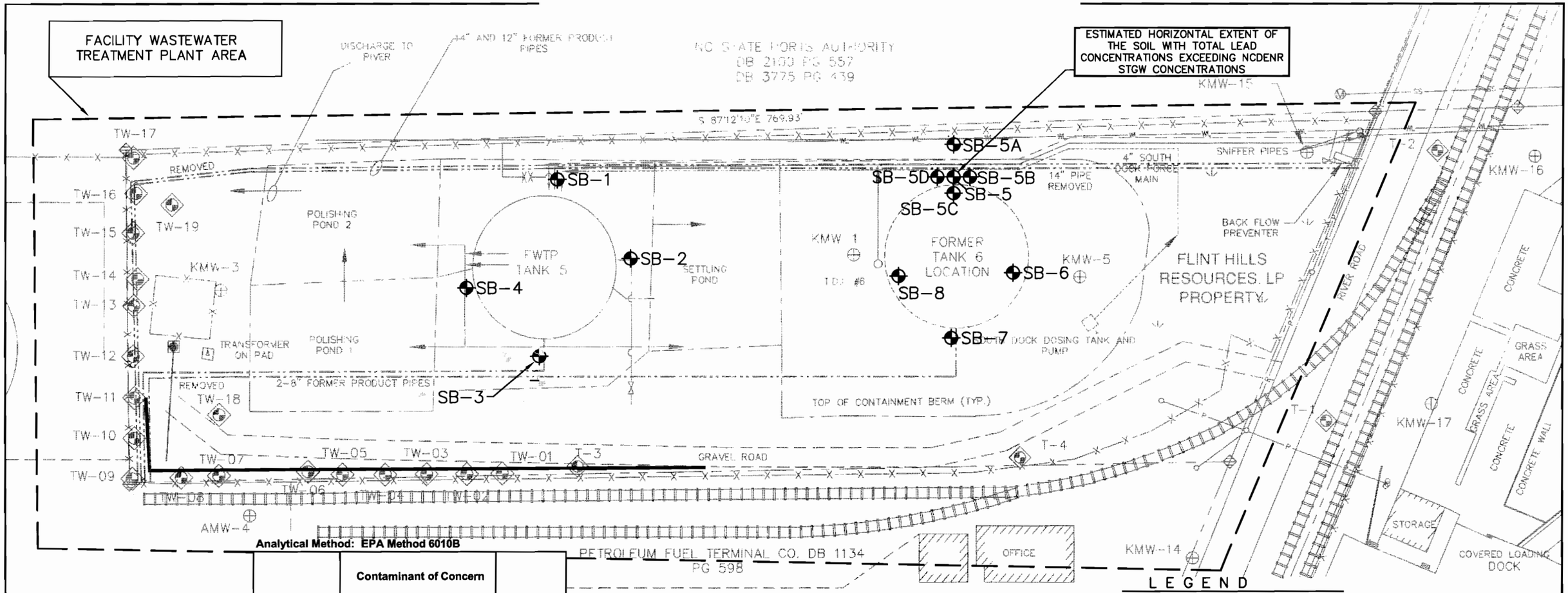
100 50 0 100
SCALE IN FEET

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | SOIL ANALYTICAL RESULTS– TOTAL PETROLUEUM HYDROCARBON– GASOLINE/#2 FUEL OIL FACILITY | D-3 |

JOB NO. 201–125 | DATE: FEB 2006 | SCALE: 1"=100' | DRAWN BY: BKW | CHECKED BY: JKB

201125–MR–NOV05–05




**Analytical Method: EPA Method 6010B**

| Boring ID | Contaminant of Concern | | Lead |
|---|---|---|---|
| | Sample ID | Date Collected | |
| Soil-to-Water Maximum Contaminant Concentration (mg/kg) | | | 270 |
| SB-1 | SB-1 | 11/22/2005 | 21 |
| SB-2 | SB-2 | 11/22/2005 | 32 |
| SB-3 | SB-3 | 11/22/2005 | 100 |
| SB-4 | SB-4 | 11/22/2005 | 20 |
| SB-5 | SB-5 | 11/22/2005 | 640 |
| SB-5A | SB-5A | 4/12/2006 | 4 |
| SB-5B | SB-5B | 4/12/2006 | 11 |
| SB-5C | SB-5C | 4/12/2006 | 3 |
| SB-5D | SB-5D | 4/12/2006 | 13 |
| SB-6 | SB-6 | 11/22/2005 | 24 |
| SB-7 | SB-7 | 11/22/2005 | 60 |
| SB-8 | SB-8 | 11/22/2005 | 5.4 |

*SAMPLES WERE COMPOSITE SAMPLES FROM GROUND SURFACE TO VADOSE ZONE. REFER TO BORING LOGS FOR DEPTH OF VADOSE ZONE WHICH IS REPRESENTED BY BORING TERMINATION DEPTH.

## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| | | BUILDING |
| | | TYPE II MONITORING WELL |
| | | MONITORING WELL TO BE CONVERTED IN THE FUTURE TO SHALLOW 2"ø VERTICAL WELL (SCH.40 PVC) (INACTIVE) |
| | | 4"ø RECOVERY WELL (STAINLESS) (INACTIVE) |
| | | TEMPORARY WELL |
| | | MANHOLE |
| | | CATCH BASIN |
| | | PROPERTY LINE |
| | | SANITARY SEWER |
| | | WATER SUPPLY |
| | | OVERHEAD POWER LINE |
| | | TELEPHONE LINE |
| | | RAILROAD TRACKS |
| | | FENCE LINE |
| | | TOP OF CONTAINMENT BERM |
| | | SLURRY WALL |
| | | LOADING RACK CONCRETE HAVE BEEN REMOVED |
| | | SOIL BORING (HAND AUGER) |

N

NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTEWATER TREATMENT PLANT.

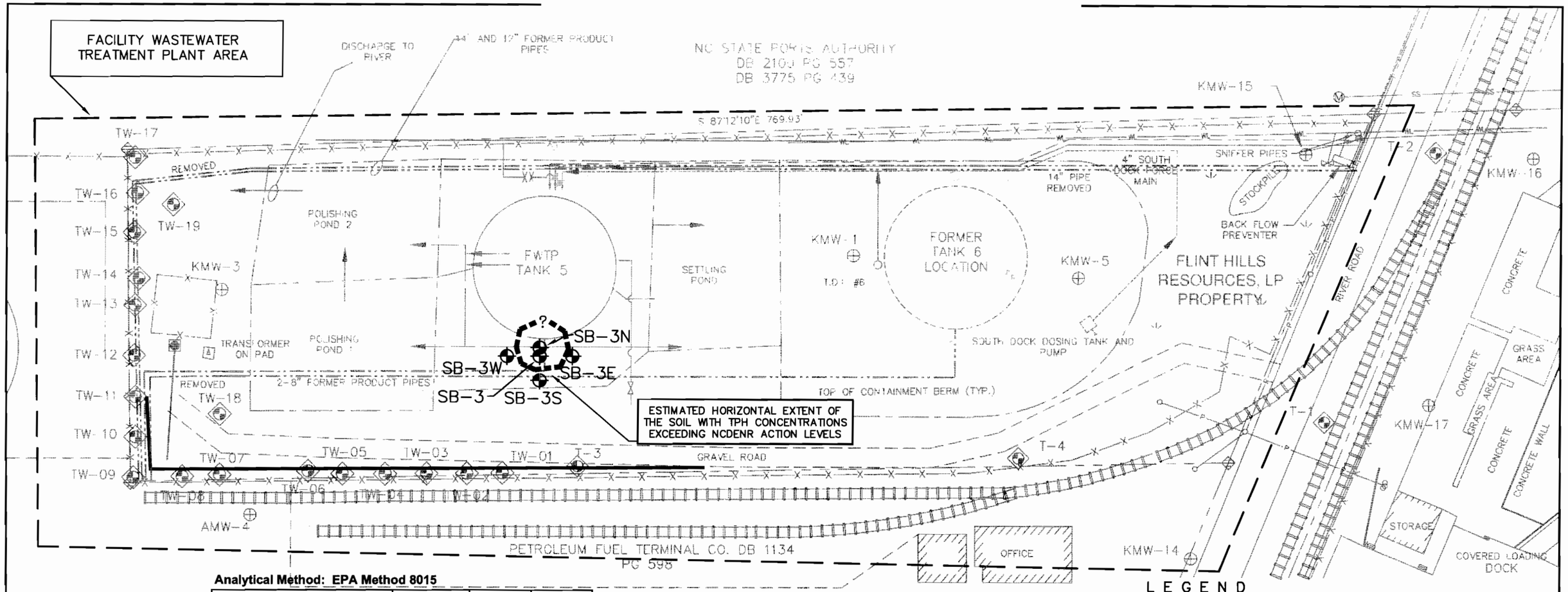
60 30 0 60
SCALE IN FEET

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | SOIL ANALYTICAL LABORATORY RESULTS– TOTAL LEAD – FWTP AREA | D-4 |

JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=60' | DRAWN BY: BKW | CHECKED BY: JKB

201125-MR-NOV05-06




**Analytical Method: EPA Method 8015**

| Analytical Method: EPA Method 8015 | | Sample Depth | Diesel Range Organics | Gasoline Range Organics |
|---|---|---|---|---|
| Sample ID | Date Collected | | | |
| NCDENR ACTION LEVEL (mg/Kg) | | Ft. BLS | 40 | 10 |
| SB-3 | 12/30/2005 | 3-4 | 810 | 6500 |
| SB-3S | 12/30/2005 | 3-4 | 6 | 0.1 |
| SB-3W | 12/30/2005 | 2-3 | 22 | 0.3 |
| SB-3E | 12/30/2005 | 2-3 | 28 | 1.7 |
| SB-3N | 12/30/2005 | 2-3 | 1,300 | 4000 |

*SAMPLES WERE COMPOSITE SAMPLES FROM GROUND SURFACE TO VADOSE ZONE. REFER TO BORING LOGS FOR DEPTH OF VADOSE ZONE WHICH IS REPRESENTED BY BORING TERMINATION DEPTH.

## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| | | BUILDING |
| | | TYPE II MONITORING WELL |
| | | MONITORING WELL TO BE CONVERTED IN THE FUTURE TO SHALLOW 2"ø VERTICAL WELL (SCH.40 PVC) (INACTIVE) |
| | | 4"ø RECOVERY WELL (STAINLESS) (INACTIVE) |
| | | TEMPORARY WELL |
| | | MANHOLE |
| | | CATCH BASIN |
| | | PROPERTY LINE |
| | | SANITARY SEWER |
| | | WATER SUPPLY |
| | | OVERHEAD POWER LINE |
| | | TELEPHONE LINE |
| | | RAILROAD TRACKS |
| | | FENCE LINE |
| | | TOP OF CONTAINMENT BERM |
| | | SLURRY WALL |
| | | LOADING RACK CONCRETE HAVE BEEN REMOVED |
| | | SOIL BORING (HAND AUGER) |

N

NOTE:
1. THE FHR PORTION OF THIS MAP PROVIDED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. JULY 2004.
2. PROPERTY LINES NOT SURVEYED.
3. PETROLEUM FUEL PROPERTY BASED ON AERIAL PHOTOGRAPHS.
4. AST – ABOVE GROUND STORAGE TANK.
5. FWTP – FACILITY WASTEWATER TREATMENT PLANT.

60 30 0 60
SCALE IN FEET

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

| PROJECT | TITLE | FIGURE |
|---|---|---|
| INVISTA S.à.r.l. NORTH TERMINAL RIVER ROAD WILMINGTON, N.C. | SOIL ANALYTICAL LABORATORY RESULTS– TOTAL PETROLEUM HYDROCARBON– FWTP AREA | D-5 |

JOB NO. 201-125 | DATE: FEB 2006 | SCALE: 1"=60' | DRAWN BY: THW | CHECKED BY: JKB

201125-MR-NOV05-07

# APPENDIX D

## ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY RECORDS

# ANALYTICAL RESULTS - LEAD

# ANALYTICAL REPORT

Job Number: 680-10838-1

Job Description: FHR North PX Terminal

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
12/06/2005

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Inductively Coupled Plasma - Atomic Emission Spectrometry | STL-SAV | SW846 6010B | |
| Acid Digestion of Sediments, Sludges, and Soils | STL-SAV | | SW846 3050B |
| Percent Moisture | STL-SAV | EPA 160.3 | |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

EPA - US Environmental Protection Agency

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-10838-1 | SB-10 | Solid | 11/15/2005 1300 | 11/22/2005 1145 |
| 680-10838-2 | SB-11 | Solid | 11/15/2005 1315 | 11/22/2005 1145 |
| 680-10838-3 | SB-9 | Solid | 11/15/2005 1335 | 11/22/2005 1145 |
| 680-10838-4 | SB-12 | Solid | 11/15/2005 1345 | 11/22/2005 1145 |
| 680-10838-5 | SB-18 | Solid | 11/15/2005 1400 | 11/22/2005 1145 |
| 680-10838-6 | SB-19 | Solid | 11/15/2005 1415 | 11/22/2005 1145 |
| 680-10838-7 | SB-17 | Solid | 11/15/2005 1420 | 11/22/2005 1145 |
| 680-10838-8 | SB-20 | Solid | 11/15/2005 1430 | 11/22/2005 1145 |
| 680-10838-9 | SB-13 | Solid | 11/15/2005 1435 | 11/22/2005 1145 |
| 680-10838-10 | SB-14 | Solid | 11/15/2005 1445 | 11/22/2005 1145 |
| 680-10838-11 | SB-16 | Solid | 11/16/2005 1010 | 11/22/2005 1145 |
| 680-10838-12 | SB-15 | Solid | 11/16/2005 0950 | 11/22/2005 1145 |
| 680-10838-13 | SB-30 | Solid | 11/16/2005 1025 | 11/22/2005 1145 |
| 680-10838-14 | SB-29 | Solid | 11/16/2005 1110 | 11/22/2005 1145 |
| 680-10838-15 | SB-32 | Solid | 11/16/2005 1130 | 11/22/2005 1145 |
| 680-10838-16 | SB-31 | Solid | 11/16/2005 1145 | 11/22/2005 1145 |
| 680-10838-17 | SB-43 | Solid | 11/16/2005 1200 | 11/22/2005 1145 |
| 680-10838-18 | SB-41 | Solid | 11/16/2005 1215 | 11/22/2005 1145 |
| 680-10838-19 | SB-42 | Solid | 11/16/2005 1340 | 11/22/2005 1145 |
| 680-10838-20 | SB-44 | Solid | 11/16/2005 1355 | 11/22/2005 1145 |
| 680-10838-21 | SB-39 | Solid | 11/16/2005 1410 | 11/22/2005 1145 |
| 680-10838-22 | SB-38 | Solid | 11/16/2005 1425 | 11/22/2005 1145 |
| 680-10838-23 | SB-40 | Solid | 11/16/2005 1435 | 11/22/2005 1145 |
| 680-10838-24 | SB-37 | Solid | 11/16/2005 1445 | 11/22/2005 1145 |
| 680-10838-25 | SB-26 | Solid | 11/17/2005 1050 | 11/22/2005 1145 |
| 680-10838-26 | SB-27 | Solid | 11/17/2005 1105 | 11/22/2005 1145 |
| 680-10838-27 | SB-28 | Solid | 11/17/2005 1120 | 11/22/2005 1145 |
| 680-10838-28 | SB-25 | Solid | 11/17/2005 1130 | 11/22/2005 1145 |
| 680-10838-29 | SB-35 | Solid | 11/17/2005 1145 | 11/22/2005 1145 |
| 680-10838-30 | SB-36 | Solid | 11/17/2005 1150 | 11/22/2005 1145 |
| 680-10838-31 | SB-33 | Solid | 11/17/2005 1155 | 11/22/2005 1145 |
| 680-10838-32 | SB-34 | Solid | 11/17/2005 1200 | 11/22/2005 1145 |
| 680-10838-33 | SB-22 | Solid | 11/17/2005 1450 | 11/22/2005 1145 |
| 680-10838-34 | SB-24 | Solid | 11/17/2005 1505 | 11/22/2005 1145 |
| 680-10838-35 | SB-23 | Solid | 11/18/2005 1230 | 11/22/2005 1145 |
| 680-10838-36 | SB-21 | Solid | 11/18/2005 1245 | 11/22/2005 1145 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-10**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-10838-1 | | | Date Sampled: | 11/15/2005 1300 |
| Client Matrix: | Solid | % Moisture: | 10.0 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.06 g |
| Date Analyzed: | 12/01/2005 0747 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.3 | B | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-11**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-2 | Date Sampled: | 11/15/2005 1315 |
| Client Matrix: | Solid % Moisture: 12.4 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.08 g |
| Date Analyzed: | 12/01/2005 0752 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 17 | B | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-9**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-3 | Date Sampled: | 11/15/2005 1335 |
| Client Matrix: | Solid % Moisture: 13.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.03 g |
| Date Analyzed: | 12/01/2005 0756 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 25 | B | 0.24 | 0.56 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-12**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-4 | Date Sampled: | 11/15/2005 1345 |
| Client Matrix: | Solid % Moisture: 12.9 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.10 g |
| Date Analyzed: | 12/01/2005 0801 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 4.4 | B | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-18**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-10838-5 | | | Date Sampled: | 11/15/2005 1400 |
| Client Matrix: | Solid | % Moisture: | 16.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.02 g |
| Date Analyzed: | 12/01/2005 0815 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.0 | B | 0.25 | 0.59 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-19**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-6 | Date Sampled: | 11/15/2005 1415 |
| Client Matrix: | Solid % Moisture: 19.4 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.04 g |
| Date Analyzed: | 12/01/2005 0819 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 3.0 | B | 0.25 | 0.60 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-17**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-7 | Date Sampled: | 11/15/2005 1420 |
| Client Matrix: | Solid % Moisture: 13.5 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.05 g |
| Date Analyzed: | 12/01/2005 0823 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 8.7 | B | 0.23 | 0.55 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-20**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-8 | Date Sampled: | 11/15/2005 1430 |
| Client Matrix: | Solid % Moisture: 15.4 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.06 g |
| Date Analyzed: | 12/02/2005 1247 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 0.79 | B | 0.23 | 0.56 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-13**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-9 | | Date Sampled: | 11/15/2005 1435 |
| Client Matrix: | Solid | % Moisture: 9.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.11 g |
| Date Analyzed: | 12/01/2005 0831 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 8.3 | B | 0.21 | 0.50 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-14**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-10 | | Date Sampled: | 11/15/2005 1445 |
| Client Matrix: | Solid | % Moisture: 8.5 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29869 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29313 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.10 g |
| Date Analyzed: | 12/01/2005 0835 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1045 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 21 | B | 0.21 | 0.50 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-16**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-11 | | Date Sampled: | 11/16/2005 1010 |
| Client Matrix: | Solid | % Moisture: 9.4 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.06 g |
| Date Analyzed: | 12/02/2005 0558 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 5.0 | | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-15**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-12 | Date Sampled: | 11/16/2005 0950 |
| Client Matrix: | Solid % Moisture: 11.5 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.03 g |
| Date Analyzed: | 12/02/2005 0621 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 0.67 | | 0.23 | 0.55 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-30**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-13 | Date Sampled: | 11/16/2005 1025 |
| Client Matrix: | Solid % Moisture: 8.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.05 g |
| Date Analyzed: | 12/02/2005 0625 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 3.5 | | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-29**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-14 | | Date Sampled: | 11/16/2005 1110 |
| Client Matrix: | Solid | % Moisture: 10.3 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.06 g |
| Date Analyzed: | 12/02/2005 0630 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 3.4 | | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-32**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-15 | Date Sampled: | 11/16/2005 1130 |
| Client Matrix: | Solid % Moisture: 7.2 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.07 g |
| Date Analyzed: | 12/02/2005 0643 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.7 | | 0.21 | 0.50 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-31**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-16 | | Date Sampled: | 11/16/2005 1145 |
| Client Matrix: | Solid | % Moisture: 9.1 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.09 g |
| Date Analyzed: | 12/02/2005 0648 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 26 | | 0.21 | 0.50 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-43**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-17 | | Date Sampled: | 11/16/2005 1200 |
| Client Matrix: | Solid | % Moisture: 7.0 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.10 g |
| Date Analyzed: | 12/02/2005 0653 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 2.0 | | 0.21 | 0.49 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-41**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-18 | | Date Sampled: | 11/16/2005 1215 |
| Client Matrix: | Solid | % Moisture: 8.2 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.04 g |
| Date Analyzed: | 12/02/2005 0657 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 2.9 | | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-42**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-19 | Date Sampled: | 11/16/2005 1340 |
| Client Matrix: | Solid % Moisture: 8.0 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.07 g |
| Date Analyzed: | 12/02/2005 0702 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.2 | | 0.21 | 0.51 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-44**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-20 | | Date Sampled: | 11/16/2005 1355 |
| Client Matrix: | Solid | % Moisture: 7.0 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.05 g |
| Date Analyzed: | 12/02/2005 0706 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.4 | | 0.22 | 0.51 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-39**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-10838-21 | | | Date Sampled: | 11/16/2005 1410 |
| Client Matrix: | Solid | % Moisture: | 16.6 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.12 g |
| Date Analyzed: | 12/02/2005 0711 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 3.9 | | 0.22 | 0.54 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-38**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-22 | Date Sampled: | 11/16/2005 1425 |
| Client Matrix: | Solid % Moisture: 9.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.05 g |
| Date Analyzed: | 12/02/2005 0715 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.3 | | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-40**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-23 | | Date Sampled: | 11/16/2005 1435 |
| Client Matrix: | Solid | % Moisture: 8.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.03 g |
| Date Analyzed: | 12/02/2005 0720 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.6 | | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-37**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-24 | Date Sampled: | 11/16/2005 1445 |
| Client Matrix: | Solid % Moisture: 8.4 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.08 g |
| Date Analyzed: | 12/02/2005 0724 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.9 | | 0.21 | 0.51 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-26**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-25 | Date Sampled: | 11/17/2005 1050 |
| Client Matrix: | Solid % Moisture: 8.3 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.03 g |
| Date Analyzed: | 12/02/2005 0738 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.2 | | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-27**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-26 | Date Sampled: | 11/17/2005 1105 |
| Client Matrix: | Solid % Moisture: 10.2 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.09 g |
| Date Analyzed: | 12/02/2005 0742 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 2.3 | | 0.21 | 0.51 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-28**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-27 | Date Sampled: | 11/17/2005 1120 |
| Client Matrix: | Solid % Moisture: 9.5 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.04 g |
| Date Analyzed: | 12/02/2005 0747 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 8.6 | | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-25**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-28 | | Date Sampled: | 11/17/2005 1130 |
| Client Matrix: | Solid | % Moisture: 6.6 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.10 g |
| Date Analyzed: | 12/02/2005 0751 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 2.9 | | 0.20 | 0.49 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-35**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-29 | Date Sampled: | 11/17/2005 1145 |
| Client Matrix: | Solid % Moisture: 18.1 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.03 g |
| Date Analyzed: | 12/02/2005 0756 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 2.7 | | 0.25 | 0.59 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-36**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-30 | Date Sampled: | 11/17/2005 1150 |
| Client Matrix: | Solid % Moisture: 16.6 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29866 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29338 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.07 g |
| Date Analyzed: | 12/02/2005 0800 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/28/2005 1206 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 68 | | 0.24 | 0.56 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-33**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-31 | Date Sampled: | 11/17/2005 1155 |
| Client Matrix: | Solid % Moisture: 17.2 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29862 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29429 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.05 g |
| Date Analyzed: | 12/01/2005 2152 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/29/2005 1002 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 4.2 | B | 0.24 | 0.58 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-34**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-32 | | Date Sampled: | 11/17/2005 1200 |
| Client Matrix: | Solid | % Moisture: 19.8 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29862 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29429 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.12 g |
| Date Analyzed: | 12/01/2005 2156 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/29/2005 1002 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 38 | B | 0.23 | 0.56 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-22**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-33 | Date Sampled: | 11/17/2005 1450 |
| Client Matrix: | Solid % Moisture: 6.2 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29862 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29429 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.11 g |
| Date Analyzed: | 12/01/2005 2201 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/29/2005 1002 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 2.8 | B | 0.20 | 0.48 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-24**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10838-34 | | Date Sampled: | 11/17/2005 1505 |
| Client Matrix: | Solid | % Moisture: 6.4 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29862 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29429 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.09 g |
| Date Analyzed: | 12/01/2005 2205 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/29/2005 1002 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 1.9 | B | 0.21 | 0.49 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-23**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-10838-35 | | | Date Sampled: | 11/18/2005 1230 |
| Client Matrix: | Solid | % Moisture: 8.4 | | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29862 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29429 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.07 g |
| Date Analyzed: | 12/01/2005 2210 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/29/2005 1002 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 16 | B | 0.21 | 0.51 |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Client Sample ID: SB-21**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10838-36 | Date Sampled: | 11/18/2005 1245 |
| Client Matrix: | Solid % Moisture: 5.0 | Date Received: | 11/22/2005 1145 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-29862 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29429 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.08 g |
| Date Analyzed: | 12/01/2005 2214 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/29/2005 1002 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 3.1 | B | 0.20 | 0.49 |

## General Chemistry

**Client Sample ID:** **SB-10**

Lab Sample ID: 680-10838-1
Client Matrix: Solid

Date Sampled: 11/15/2005 1300
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 10 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 90 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-11**

Lab Sample ID: 680-10838-2
Client Matrix: Solid

Date Sampled: 11/15/2005 1315
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 12 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 88 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-9**

Lab Sample ID: 680-10838-3
Client Matrix: Solid

Date Sampled: 11/15/2005 1335
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 14 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 86 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-12**

Lab Sample ID: 680-10838-4
Client Matrix: Solid

Date Sampled: 11/15/2005 1345
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-12**

Lab Sample ID: 680-10838-4
Client Matrix: Solid

Date Sampled: 11/15/2005 1345
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 13 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 87 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-18**

Lab Sample ID: 680-10838-5
Client Matrix: Solid

Date Sampled: 11/15/2005 1400
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 17 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 83 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-19**

Lab Sample ID: 680-10838-6
Client Matrix: Solid

Date Sampled: 11/15/2005 1415
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 19 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 81 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-17**

Lab Sample ID: 680-10838-7
Client Matrix: Solid

Date Sampled: 11/15/2005 1420
Date Received: 11/22/2005 1145

**General Chemistry**

**Client Sample ID:** **SB-17**

Lab Sample ID: 680-10838-7
Client Matrix: Solid

Date Sampled: 11/15/2005 1420
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 14 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 87 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-20**

Lab Sample ID: 680-10838-8
Client Matrix: Solid

Date Sampled: 11/15/2005 1430
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 15 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 85 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-13**

Lab Sample ID: 680-10838-9
Client Matrix: Solid

Date Sampled: 11/15/2005 1435
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 9.8 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 90 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-14**

Lab Sample ID: 680-10838-10
Client Matrix: Solid

Date Sampled: 11/15/2005 1445
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-14**

Lab Sample ID: 680-10838-10
Client Matrix: Solid

Date Sampled: 11/15/2005 1445
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.5 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-16**

Lab Sample ID: 680-10838-11
Client Matrix: Solid

Date Sampled: 11/16/2005 1010
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 9.4 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 91 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-15**

Lab Sample ID: 680-10838-12
Client Matrix: Solid

Date Sampled: 11/16/2005 0950
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 12 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 89 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-30**

Lab Sample ID: 680-10838-13
Client Matrix: Solid

Date Sampled: 11/16/2005 1025
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-30**

Lab Sample ID: 680-10838-13
Client Matrix: Solid

Date Sampled: 11/16/2005 1025
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.8 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 91 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-29**

Lab Sample ID: 680-10838-14
Client Matrix: Solid

Date Sampled: 11/16/2005 1110
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 10 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 90 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-32**

Lab Sample ID: 680-10838-15
Client Matrix: Solid

Date Sampled: 11/16/2005 1130
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.2 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-31**

Lab Sample ID: 680-10838-16
Client Matrix: Solid

Date Sampled: 11/16/2005 1145
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-31**

Lab Sample ID: 680-10838-16
Client Matrix: Solid

Date Sampled: 11/16/2005 1145
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 9.1 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 91 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-43**

Lab Sample ID: 680-10838-17
Client Matrix: Solid

Date Sampled: 11/16/2005 1200
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.0 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-41**

Lab Sample ID: 680-10838-18
Client Matrix: Solid

Date Sampled: 11/16/2005 1215
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.2 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-42**

Lab Sample ID: 680-10838-19
Client Matrix: Solid

Date Sampled: 11/16/2005 1340
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-42**

Lab Sample ID: 680-10838-19
Client Matrix: Solid

Date Sampled: 11/16/2005 1340
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.0 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-44**

Lab Sample ID: 680-10838-20
Client Matrix: Solid

Date Sampled: 11/16/2005 1355
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.0 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-39**

Lab Sample ID: 680-10838-21
Client Matrix: Solid

Date Sampled: 11/16/2005 1410
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 17 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 83 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-38**

Lab Sample ID: 680-10838-22
Client Matrix: Solid

Date Sampled: 11/16/2005 1425
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-38**

Lab Sample ID: 680-10838-22
Client Matrix: Solid

Date Sampled: 11/16/2005 1425
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 9.8 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 90 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-40**

Lab Sample ID: 680-10838-23
Client Matrix: Solid

Date Sampled: 11/16/2005 1435
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.8 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 91 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-37**

Lab Sample ID: 680-10838-24
Client Matrix: Solid

Date Sampled: 11/16/2005 1445
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.4 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-26**

Lab Sample ID: 680-10838-25
Client Matrix: Solid

Date Sampled: 11/17/2005 1050
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-26**

Lab Sample ID: 680-10838-25
Client Matrix: Solid

Date Sampled: 11/17/2005 1050
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.3 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-27**

Lab Sample ID: 680-10838-26
Client Matrix: Solid

Date Sampled: 11/17/2005 1105
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 10 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 90 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-28**

Lab Sample ID: 680-10838-27
Client Matrix: Solid

Date Sampled: 11/17/2005 1120
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 9.5 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 91 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-25**

Lab Sample ID: 680-10838-28
Client Matrix: Solid

Date Sampled: 11/17/2005 1130
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-25**

Lab Sample ID: 680-10838-28
Client Matrix: Solid

Date Sampled: 11/17/2005 1130
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 6.6 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-35**

Lab Sample ID: 680-10838-29
Client Matrix: Solid

Date Sampled: 11/17/2005 1145
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 18 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 82 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-36**

Lab Sample ID: 680-10838-30
Client Matrix: Solid

Date Sampled: 11/17/2005 1150
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 17 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 83 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-33**

Lab Sample ID: 680-10838-31
Client Matrix: Solid

Date Sampled: 11/17/2005 1155
Date Received: 11/22/2005 1145

**General Chemistry**

**Client Sample ID:** **SB-33**

Lab Sample ID: 680-10838-31
Client Matrix: Solid

Date Sampled: 11/17/2005 1155
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 17 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 83 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-34**

Lab Sample ID: 680-10838-32
Client Matrix: Solid

Date Sampled: 11/17/2005 1200
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 20 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 80 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-22**

Lab Sample ID: 680-10838-33
Client Matrix: Solid

Date Sampled: 11/17/2005 1450
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 6.2 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 94 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-24**

Lab Sample ID: 680-10838-34
Client Matrix: Solid

Date Sampled: 11/17/2005 1505
Date Received: 11/22/2005 1145

## General Chemistry

**Client Sample ID:** **SB-24**

Lab Sample ID: 680-10838-34
Client Matrix: Solid

Date Sampled: 11/17/2005 1505
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 6.4 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 94 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-23**

Lab Sample ID: 680-10838-35
Client Matrix: Solid

Date Sampled: 11/18/2005 1230
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.4 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

**Client Sample ID:** **SB-21**

Lab Sample ID: 680-10838-36
Client Matrix: Solid

Date Sampled: 11/18/2005 1245
Date Received: 11/22/2005 1145

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.0 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |
| Percent Solids | 95 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29290 | Date Analyzed | 11/28/2005 0903 | | | | |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

| Lab Section | Qualifier | Description |
|---|---|---|
| Metals | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | B | Compound was found in the blank and sample. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Method Blank - Batch: 680-29313**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: MB 680-29313/21-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/01/2005 0625
Date Prepared: 11/28/2005 1045

Analysis Batch: 680-29869
Prep Batch: 680-29313
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Lead | 0.24 | J | 0.21 | 0.50 |

**Laboratory Control Sample - Batch: 680-29313**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: LCS 680-29313/22-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/01/2005 0630
Date Prepared: 11/28/2005 1045

Analysis Batch: 680-29869
Prep Batch: 680-29313
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 50.0 | 48 | 96 | 75 - 125 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Method Blank - Batch: 680-29338**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: MB 680-29338/21-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/02/2005 0549
Date Prepared: 11/28/2005 1206

Analysis Batch: 680-29866
Prep Batch: 680-29338
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Lead | 0.21 | U | 0.21 | 0.50 |

**Laboratory Control Sample - Batch: 680-29338**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: LCS 680-29338/22-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/02/2005 0553
Date Prepared: 11/28/2005 1206

Analysis Batch: 680-29866
Prep Batch: 680-29338
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 50.0 | 46 | 92 | 75 - 125 | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 680-29338**

**Method: 6010B**
**Preparation: 3050B**

MS Lab Sample ID: 680-10838-11
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/02/2005 0612
Date Prepared: 11/28/2005 1206

Analysis Batch: 680-29866
Prep Batch: 680-29338

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.06 g
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 680-10838-11
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/02/2005 0616
Date Prepared: 11/28/2005 1206

Analysis Batch: 680-29866
Prep Batch: 680-29338

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.06 g
Final Weight/Volume: 100 mL

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Lead | 91 | 96 | 75 - 125 | 5 | 20 | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-10838-1

**Method Blank - Batch: 680-29429**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: MB 680-29429/19-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/01/2005 2143
Date Prepared: 11/29/2005 1002

Analysis Batch: 680-29862
Prep Batch: 680-29429
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Lead | 0.23 | J | 0.21 | 0.50 |

**Laboratory Control Sample - Batch: 680-29429**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: LCS 680-29429/20-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/01/2005 2147
Date Prepared: 11/29/2005 1002

Analysis Batch: 680-29862
Prep Batch: 680-29429
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 50.0 | 47 | 95 | 75 - 125 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 69983

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


(X) STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

( ) Alternate Laboratory Name/Location
Phone:
Fax:


| | | |
|---|---|---|
| PROJECT REFERENCE: FHR-LEAD SAMPLING | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN ENG. & SCI. | CLIENT E-MAIL: JEFF.BECKEN@CATLINUSA.COM | |
| CLIENT ADDRESS: 220 OLD DAIRY RD WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE 1 OF 3

STANDARD REPORT DELIVERY (X)

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ( )

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | 6010B/ 3050B LEAD | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NONE | PRESERVATIVE | | | | | | | | |
| | | | | | | | | NUMBER OF CONTAINERS SUBMITTED | | | | | | | | | |
| 15NOV05 | 1300 | SB-10 | C | | X | | | 1 | | | | | | | | | |
| | 1315 | SB-11 | C | | X | | | 1 | | | | | | | | | |
| | 1335 | SB-9 | C | | X | | | 1 | | | | | | | | | |
| | 1345 | SB-12 | C | | X | | | 1 | | | | | | | | | |
| | 1400 | SB-18 | C | | X | | | 1 | | | | | | | | | |
| | 1415 | SB-19 | C | | X | | | 1 | | | | | | | | | |
| | 1420 | SB-17 | C | | X | | | 1 | | | | | | | | | |
| | 1430 | SB-20 | C | | X | | | 1 | | | | | | | | | |
| | 1435 | SB-13 | C | | X | | | 1 | | | | | | | | | |
| | 1445 | SB-14 | C | | X | | | 1 | | | | | | | | | |
| 16NOV05 | 1010 | SB-16 | C | | X | | | 1 | | | | | | | | | |
| | 0950 | SB-15 | C | | X | | | 1 | | | | | | | | | |

TEMP. 52

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 21NOV05 | 1200 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| EMPTY CONTAINERS | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 11/21/05 | 11:45 | YES ( ) NO ( ) | | 60-10838 | |

STL8240-680 (12/02)

Serial Number 69984

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) |
|---|---|---|
| FHR | 2Ø1-125 | NC |
| STL (LAB) PROJECT MANAGER: KATRY SMITH | P.O. NUMBER | CONTRACT NO. |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 91Ø-452-5861 | CLIENT FAX: 91Ø-452-7563 |
| CLIENT NAME: CATLIN ENG. & SCI. | CLIENT E-MAIL: JEFF.BECKEN@CATLINUSA.COM | |
| CLIENT ADDRESS: 220 OLD DAIRY RD, WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE 2 OF 3

STANDARD REPORT DELIVERY ☒
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | REQUIRED ANALYSIS: 6010B/1005B LEAD | NUMBER OF CONTAINERS SUBMITTED | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NONE | PRESERVATIVE | |
| 16NOV05 | 1Ø25 | SB-3Ø | C | | X | | | | 1 | |
| | 111Ø | SB-29 | C | | X | | | | 1 | |
| | 113Ø | SB-32 | C | | X | | | | 1 | |
| | 1145 | SB-31 | C | | X | | | | 1 | |
| | 12ØØ | SB-43 | C | | X | | | | 1 | |
| | 1215 | SB-41 | C | | X | | | | 1 | |
| | 134Ø | SB-42 | C | | X | | | | 1 | |
| | 1355 | SB-44 | C | | X | | | | 1 | 5.2 |
| | 141Ø | SB-39 | C | | X | | | | 1 | |
| | 1425 | SB-38 | C | | X | | | | 1 | |
| | 1435 | SB-4Ø | C | | X | | | | 1 | |
| | 1445 | SB-37 | C | | X | | | | 1 | |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 21NOV05 | 12ØØ | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| EMPTY CONTAINERS | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT YES ○ NO ○ | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 11/18/05 | 1145 | | | 60-10038 | |

STL8240-680 (12/02)

Serial Number 69985

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


☒ **STL Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location
Phone:
Fax:


| | | |
|---|---|---|
| PROJECT REFERENCE: FHR- LEAD SAMPLING | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN ENG. & SCI. | CLIENT E-MAIL: JEFF.BECKEN@CATLINUSA.COM | |
| CLIENT ADDRESS: 220 OLD DAIRY RD, WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE 3 OF 3

STANDARD REPORT DELIVERY ☒

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | REQUIRED ANALYSIS: 6010B/3050B LEAD | NUMBER OF CONTAINERS SUBMITTED | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NONE (PRESERVATIVE) | | |
| 17NOV05 | 1050 | SB-26 | | | | | | | 1 | |
| | 1105 | SB-27 | | | | | | | 1 | |
| | 1120 | SB-28 | | | | | | | 1 | |
| | 1130 | SB-25 | | | | | | | 1 | |
| | 1145 | SB-35 | | | | | | | 1 | |
| | 1150 | SB-36 | | | | | | | 1 | |
| | 1155 | SB-33 | | | | | | | 1 | |
| | 1200 | SB-34 | | | | | | | 1 | |
| | 1450 | SB-22 | | | | | | | 1 | |
| | 1505 | SB-24 | | | | | | | 1 | |
| 18NOV05 | 1230 | SB-23 | | | | | | | 1 | |
| | 1245 | SB-21 | | | | | | | 1 | |

TMP. 5.2

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 21NOV05 | 1200 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| EMPTY CONTAINERS | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 11/22/05 | 1630 | YES ○ NO ○ | | | |



STL8240-680 (12/02)

# ANALYTICAL REPORT

Job Number: 680-10965-1

Job Description: FHR North PX Terminal

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
12/06/2005

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Inductively Coupled Plasma - Atomic Emission Spectrometry | STL-SAV | SW846 6010B | |
| Acid Digestion of Sediments, Sludges, and Soils | STL-SAV | | SW846 3050B |
| Percent Moisture | STL-SAV | EPA 160.3 | |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

EPA - US Environmental Protection Agency

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-10965-1 | SB-7 | Solid | 11/22/2005 1140 | 11/29/2005 1200 |
| 680-10965-2 | SB-8 | Solid | 11/22/2005 1150 | 11/29/2005 1200 |
| 680-10965-3 | SB-5 | Solid | 11/22/2005 1200 | 11/29/2005 1200 |
| 680-10965-4 | SB-6 | Solid | 11/22/2005 1210 | 11/29/2005 1200 |
| 680-10965-5 | SB-3 | Solid | 11/22/2005 1225 | 11/29/2005 1200 |
| 680-10965-6 | SB-4 | Solid | 11/22/2005 1230 | 11/29/2005 1200 |
| 680-10965-7 | SB-1 | Solid | 11/22/2005 1240 | 11/29/2005 1200 |
| 680-10965-8 | SB-2 | Solid | 11/22/2005 1250 | 11/29/2005 1200 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-7**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10965-1 | Date Sampled: | 11/22/2005 1140 |
| Client Matrix: | Solid % Moisture: 20.6 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.07 g |
| Date Analyzed: | 12/05/2005 0508 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 60 | | 0.25 | 0.59 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-8**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10965-2 | | Date Sampled: | 11/22/2005 1150 |
| Client Matrix: | Solid | % Moisture: 14.1 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.05 g |
| Date Analyzed: | 12/05/2005 0512 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 5.4 | | 0.23 | 0.55 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-5**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10965-3 | | Date Sampled: | 11/22/2005 1200 |
| Client Matrix: | Solid | % Moisture: 16.0 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.08 g |
| Date Analyzed: | 12/05/2005 0536 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 640 | | 0.23 | 0.55 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-6**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10965-4 | | Date Sampled: | 11/22/2005 1210 |
| Client Matrix: | Solid | % Moisture: 11.3 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.07 g |
| Date Analyzed: | 12/05/2005 0541 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 24 | | 0.22 | 0.53 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-3**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10965-5 | | Date Sampled: | 11/22/2005 1225 |
| Client Matrix: | Solid | % Moisture: 15.0 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.09 g |
| Date Analyzed: | 12/05/2005 0555 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 100 | | 0.23 | 0.54 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-4**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-10965-6 | | Date Sampled: | 11/22/2005 1230 |
| Client Matrix: | Solid | % Moisture: 11.8 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.10 g |
| Date Analyzed: | 12/05/2005 0559 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 20 | | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-1**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10965-7 | Date Sampled: | 11/22/2005 1240 |
| Client Matrix: | Solid % Moisture: 16.6 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.11 g |
| Date Analyzed: | 12/05/2005 0604 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 21 | | 0.23 | 0.54 |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Client Sample ID: SB-2**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-10965-8 | Date Sampled: | 11/22/2005 1250 |
| Client Matrix: | Solid % Moisture: 16.0 | Date Received: | 11/29/2005 1200 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-30023 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-29559 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.03 g |
| Date Analyzed: | 12/05/2005 0609 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 11/30/2005 1005 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 32 | | 0.24 | 0.58 |

## General Chemistry

**Client Sample ID:** **SB-7**

Lab Sample ID: 680-10965-1
Client Matrix: Solid

Date Sampled: 11/22/2005 1140
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 21 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 79 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-8**

Lab Sample ID: 680-10965-2
Client Matrix: Solid

Date Sampled: 11/22/2005 1150
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 14 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 86 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-5**

Lab Sample ID: 680-10965-3
Client Matrix: Solid

Date Sampled: 11/22/2005 1200
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 16 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 84 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-6**

Lab Sample ID: 680-10965-4
Client Matrix: Solid

Date Sampled: 11/22/2005 1210
Date Received: 11/29/2005 1200

## General Chemistry

**Client Sample ID:** **SB-6**

Lab Sample ID: 680-10965-4
Client Matrix: Solid

Date Sampled: 11/22/2005 1210
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 11 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 89 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-3**

Lab Sample ID: 680-10965-5
Client Matrix: Solid

Date Sampled: 11/22/2005 1225
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 15 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 85 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-4**

Lab Sample ID: 680-10965-6
Client Matrix: Solid

Date Sampled: 11/22/2005 1230
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 12 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 88 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-1**

Lab Sample ID: 680-10965-7
Client Matrix: Solid

Date Sampled: 11/22/2005 1240
Date Received: 11/29/2005 1200

## General Chemistry

**Client Sample ID:** **SB-1**

Lab Sample ID: 680-10965-7
Client Matrix: Solid

Date Sampled: 11/22/2005 1240
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 17 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 83 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

**Client Sample ID:** **SB-2**

Lab Sample ID: 680-10965-8
Client Matrix: Solid

Date Sampled: 11/22/2005 1250
Date Received: 11/29/2005 1200

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 16 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |
| Percent Solids | 84 | | % | 1.0 | 1.0 | 1.0 | 160.3 |
| | Anly Batch: 680-29554 | Date Analyzed | 11/30/2005 0946 | | | | |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

| Lab Section | Qualifier | Description |
|---|---|---|
| Metals | | |
| | U | Analyte was not detected at or above the reporting limit. |

Client: Catlin Engineers and Scientists

Job Number: 680-10965-1

**Method Blank - Batch: 680-29559**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: MB 680-29559/14-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/05/2005 0458
Date Prepared: 11/30/2005 1005

Analysis Batch: 680-30023
Prep Batch: 680-29559
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Lead | 0.21 | U | 0.21 | 0.50 |

**Laboratory Control Sample - Batch: 680-29559**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: LCS 680-29559/15-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/05/2005 0503
Date Prepared: 11/30/2005 1005

Analysis Batch: 680-30023
Prep Batch: 680-29559
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 50.0 | 45 | 90 | 75 - 125 | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 680-29559**

**Method: 6010B**
**Preparation: 3050B**

MS Lab Sample ID: 680-10965-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/05/2005 0526
Date Prepared: 11/30/2005 1005

Analysis Batch: 680-30023
Prep Batch: 680-29559

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.05 g
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 680-10965-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/05/2005 0531
Date Prepared: 11/30/2005 1005

Analysis Batch: 680-30023
Prep Batch: 680-29559

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.05 g
Final Weight/Volume: 100 mL

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Lead | 91 | 88 | 75 - 125 | 3 | 20 | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 69100

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


☒ STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

◯ Alternate Laboratory Name/Location
Phone:
Fax:


| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) |
|---|---|---|
| FHR | 201-125 | NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER | CONTRACT NO. |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX |
| CLIENT NAME: CATLIN ENG. & SCI. | CLIENT E-MAIL: JEFF.BECKEN@CATLINVA.COM | |
| CLIENT ADDRESS: 220 OLD DAIRY RD, WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE ___ OF ___

STANDARD REPORT DELIVERY ☒

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | 6010B/3050B LEAD | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NONE | PRESERVATIVE | | | | | | | | |
| | | | | | | | | NUMBER OF CONTAINERS SUBMITTED | | | | | | | | | |
| 22NOV05 | 1140 | SB-7 | C | | X | | | 1 | | | | | | | | | |
| | 1150 | SB-8 | C | | X | | | 1 | | | | | | | | | |
| | 1200 | SB-5 | C | | X | | | 1 | | | | | | | | | |
| | 1210 | SB-6 | C | | X | | | 1 | | | | | | | | | |
| | 1225 | SB-3 | C | | X | | | 1 | | | | | | | | | |
| | 1230 | SB-4 | C | | X | | | 1 | | | | | | | | | |
| | 1240 | SB-1 | C | | X | | | 1 | | | | | | | | | |
| | 1250 | SB-2 | C | | X | | | 1 | | | | | | | | | |

TEMP. 4.4

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 28NOV05 | 1030 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| EMPTY CONTAINERS | | | | | | | | |

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT YES / NO | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 11 29 05 | | | | 680-10165 | |

LABORATORY USE ONLY

STL8240-680 (12/02)

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# ANALYTICAL RESULTS - TPH

# ANALYTICAL REPORT

Job Number: 680-12326-1

Job Description: FHR North PX Terminal

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
01/12/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) | STL-SAV | SW846 8015B | |
| Closed System Purge & Trap/Field Preservation | STL-SAV | | SW846 5035 |
| Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) | STL-SAV | SW846 8015B | |
| Ultrasonic Extraction | STL-SAV | | SW846 3550B |
| Percent Moisture | STL-SAV | EPA 160.3 | |

**LAB REFERENCES:**

STL-SAV = STL-Savannah

**METHOD REFERENCES:**

EPA - US Environmental Protection Agency

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-12326-1 | SB3 (3'-4') | Solid | 12/30/2005 1045 | 01/05/2006 1200 |
| 680-12326-2 | SB3S (3'-4') | Solid | 12/30/2005 1115 | 01/05/2006 1200 |
| 680-12326-3 | SB3W (2'-3') | Solid | 12/30/2005 1150 | 01/05/2006 1200 |
| 680-12326-4 | SB3E (2'-3') | Solid | 12/30/2005 1225 | 01/05/2006 1200 |
| 680-12326-5 | SB3N (2'-3') | Solid | 12/30/2005 1300 | 01/05/2006 1200 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3 (3'-4')**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-12326-1 | | | Date Sampled: | 12/30/2005 1045 |
| Client Matrix: | Solid | % Moisture: | 13.2 | Date Received: | 01/05/2006 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-33513 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-32978 | | Lab File ID: | KA11A13.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.7 g |
| Date Analyzed: | 01/11/2006 1740 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 01/06/2006 0739 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 6500 | | 170 | 510 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| a,a,a-Trifluorotoluene | 0 | * | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3S (3'-4')**

Lab Sample ID: 680-12326-2
Client Matrix: Solid
% Moisture: 14.4

Date Sampled: 12/30/2005 1115
Date Received: 01/05/2006 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 01/11/2006 1346
Date Prepared: 01/06/2006 0739

Analysis Batch: 680-33515
Prep Batch: 680-32978

Instrument ID: GC Volatiles - A
Lab File ID: KA11A7.d
Initial Weight/Volume: 5.5 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 0.10 | J | 0.087 | 0.27 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 85 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3W (2'-3')**

Lab Sample ID: 680-12326-3
Client Matrix: Solid
% Moisture: 16.0

Date Sampled: 12/30/2005 1150
Date Received: 01/05/2006 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 01/11/2006 1504
Date Prepared: 01/06/2006 0739

Analysis Batch: 680-33515
Prep Batch: 680-32978

Instrument ID: GC Volatiles - A
Lab File ID: KA11A9.d
Initial Weight/Volume: 5.3 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 0.30 | | 0.092 | 0.28 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 81 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3E (2'-3')**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-12326-4 | | | Date Sampled: | 12/30/2005 1225 |
| Client Matrix: | Solid | % Moisture: | 18.2 | Date Received: | 01/05/2006 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-33515 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-32978 | | Lab File ID: | KA11A11.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.5 g |
| Date Analyzed: | 01/11/2006 1622 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 01/06/2006 0739 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 1.7 | | 0.091 | 0.28 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 77 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3N (2'-3')**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-12326-5 | | | Date Sampled: | 12/30/2005 1300 |
| Client Matrix: | Solid | % Moisture: | 16.8 | Date Received: | 01/05/2006 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-33513 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-32978 | | Lab File ID: | KA11A15.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 4.7 g |
| Date Analyzed: | 01/11/2006 1857 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 01/06/2006 0739 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 4000 | | 100 | 320 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| a,a,a-Trifluorotoluene | 0 | * | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3 (3'-4')**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-12326-1 | | | Date Sampled: | 12/30/2005 1045 |
| Client Matrix: | Solid | % Moisture: | 13.2 | Date Received: | 01/05/2006 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-33336 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-33016 | | Lab File ID: | q0110045.d |
| Dilution: | 10 | | | Initial Weight/Volume: | 30.01 g |
| Date Analyzed: | 01/10/2006 2241 | | | Final Weight/Volume: | 1.0 mL |
| Date Prepared: | 01/06/2006 1040 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 810 | | 20 | 38 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3S (3'-4')**

Lab Sample ID: 680-12326-2
Client Matrix: Solid
% Moisture: 14.4

Date Sampled: 12/30/2005 1115
Date Received: 01/05/2006 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 01/10/2006 2304
Date Prepared: 01/06/2006 1040

Analysis Batch: 680-33336
Prep Batch: 680-33016

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0110046.d
Initial Weight/Volume: 30.01 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 6.3 | | 2.0 | 3.9 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 76 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3W (2'-3')**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-12326-3 | | | Date Sampled: | 12/30/2005 1150 |
| Client Matrix: | Solid | % Moisture: | 16.0 | Date Received: | 01/05/2006 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-33336 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-33016 | | Lab File ID: | q0110049.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.01 g |
| Date Analyzed: | 01/11/2006 0011 | | | Final Weight/Volume: | 1.0 mL |
| Date Prepared: | 01/06/2006 1040 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 22 | | 2.0 | 3.9 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 78 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3E (2'-3')**

Lab Sample ID: 680-12326-4
Client Matrix: Solid
% Moisture: 18.2

Date Sampled: 12/30/2005 1225
Date Received: 01/05/2006 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 01/10/2006 1125
Date Prepared: 01/06/2006 1040

Analysis Batch: 680-33335
Prep Batch: 680-33016

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0110015.d
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 28 | | 2.1 | 4.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 63 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Client Sample ID:** **SB3N (2'-3')**

Lab Sample ID: 680-12326-5
Client Matrix: Solid
% Moisture: 16.8

Date Sampled: 12/30/2005 1300
Date Received: 01/05/2006 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 10
Date Analyzed: 01/11/2006 0056
Date Prepared: 01/06/2006 1040

Analysis Batch: 680-33336
Prep Batch: 680-33016

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0110051.d
Initial Weight/Volume: 30.05 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 1300 | | 20 | 40 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | * | LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| GC Semi VOA | | |
| | D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D. |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

## Surrogate Recovery Report

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample | (TFT) (%Rec) |
|---|---|---|
| LCS 680-33513/3 | LCS | 86 |
| LCS 680-33515/2 | LCS | 72 |
| MB 680-33513/4 | MB | 74 |
| MB 680-33515/3 | MB | 77 |
| 680-12326-1 | SB3 (3'-4') | 0 * |
| 680-12326-2 | SB3S (3'-4') | 85 |
| 680-12326-3 | SB3W (2'-3') | 81 |
| 680-12326-4 | SB3E (2'-3') | 77 |
| 680-12326-5 | SB3N (2'-3') | 0 * |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (TFT) | a,a,a-Trifluorotoluene | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

## Surrogate Recovery Report

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample | (OTPH) (%Rec) |
|---|---|---|
| 680-12326-2MS | SB3S (3'-4') | 102 |
| 680-12326-2MSD | SB3S (3'-4') | 98 |
| 680-12326-1 | SB3 (3'-4') | 0 D |
| 680-12326-2 | SB3S (3'-4') | 76 |
| 680-12326-3 | SB3W (2'-3') | 78 |
| 680-12326-4 | SB3E (2'-3') | 63 |
| 680-12326-5 | SB3N (2'-3') | 0 D |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (OTPH) | o-Terphenyl | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Method Blank - Batch: 680-33513**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-33513/4
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2006 1307
Date Prepared: N/A

Analysis Batch: 680-33513
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: KA11A6.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1.6 | U | 1.6 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 74 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-33513**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-33513/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2006 1149
Date Prepared: N/A

Analysis Batch: 680-33513
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: KA11A4.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 40.0 | 39 | 97 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Method Blank - Batch: 680-33515**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-33515/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2006 1228
Date Prepared: N/A

Analysis Batch: 680-33515
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: KA11A5.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 0.082 | U | 0.082 | 0.25 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 77 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-33515**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-33515/2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2006 1111
Date Prepared: N/A

Analysis Batch: 680-33515
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: KA11A3.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1.00 | 0.91 | 91 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-12326-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 680-33016**

**Method: 8015B**
**Preparation: 3550B**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 680-12326-2 | Analysis Batch: 680-33336 | Instrument ID: GC SemiVolatiles - Q |
| Client Matrix: | Solid | Prep Batch: 680-33016 | Lab File ID: q0110047.d |
| Dilution: | 1.0 | | Initial Weight/Volume: 20.07 g |
| Date Analyzed: | 01/10/2006 2326 | | Final Weight/Volume: 1.0 mL |
| Date Prepared: | 01/06/2006 1040 | | Injection Volume: |
| | | | Column ID: PRIMARY |

| | | | |
|---|---|---|---|
| MSD Lab Sample ID: | 680-12326-2 | Analysis Batch: 680-33336 | Instrument ID: GC SemiVolatiles - Q |
| Client Matrix: | Solid | Prep Batch: 680-33016 | Lab File ID: q0110048.d |
| Dilution: | 1.0 | | Initial Weight/Volume: 30.06 g |
| Date Analyzed: | 01/10/2006 2348 | | Final Weight/Volume: 1.0 mL |
| Date Prepared: | 01/06/2006 1040 | | Injection Volume: |
| | | | Column ID: PRIMARY |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Diesel Range Organics [C10-C28] | 96 | 114 | 40 - 140 | 20 | 40 | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 75338

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT STL®

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) |
|---|---|---|
| FHR NORTH TERMINAL | 201-125 | NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER | CONTRACT NO. |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN ENG. & SCI. | CLIENT E-MAIL: JEFF.BECKEN@CATLINUSA.COM | |
| CLIENT ADDRESS: 220 OLD DAIRY RD WILMINGTON, NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY ✓
DATE DUE ____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE ____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | REQUIRED ANALYSIS: DRO | GRO | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1 | MeOH NaSO4 | | | | | | | | |
| 12/30/05 | 1645 | SB3 (3-4') | C | | X | | | 1 | 3 | | | | | | | | |
| 12/30/05 | 1115 | SB3S (3-4') | C | | X | | | 1 | 3 | | | | | | | | |
| 12/30/05 | 1150 | SB3W (2-3') | C | | X | | | 1 | 3 | | | | | | | | |
| 12/30/05 | 1225 | SB3E (2-3') | C | | X | | | 1 | 3 | | | | | | | | |
| 12/30/05 | 1300 | SB3N (2-3') | C | | X | | | 1 | 3 | | | | | | | | |

NUMBER OF CONTAINERS SUBMITTED

TEMP.: 18.4

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | Michelle [illegible] | 1/3/06 | 1830 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| L. Hughes | 1/5/06 | 12:00 | YES ○ NO ○ | | 6D-17326 | |

STL8240-680 (12/02)

# ANALYTICAL REPORT

Job Number: 680-11933-1

Job Description: FHR North Gas/Fuel Oil Facility

For:

Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
01/05/2006

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

## Non Conformance Summary for job: 680-J11933-1

| | |
|---|---|
| Client: | Catlin Engineers and Scientists |
| Date: | 01/05/2006 |

### Volatile GC Department

Sample surrogate recovery out of control, matrix interference is evident.

Surrogate recovery for a,a,a-Trifluorotoluene failed control limits of 61-139 for method 8015B GRO.The raw data show clear evidence of matrix interference. All other calibration and QC criteria were met.

**Affected Items**

680-11933-E-3-A

Batch: 680-32336
Method: 680-8015B_GRO

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) | STL-SAV | SW846 8015B | |
| Closed System Purge & Trap/Field Preservation | STL-SAV | | SW846 5035 |
| Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) | STL-SAV | SW846 8015B | |
| Ultrasonic Extraction | STL-SAV | | SW846 3550B |
| Percent Moisture | STL-SAV | EPA 160.3 | |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

EPA - US Environmental Protection Agency

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-11933-1 | SB-31NE | Solid | 12/19/2005 1230 | 12/21/2005 1200 |
| 680-11933-2 | SB-31N MID | Solid | 12/19/2005 1250 | 12/21/2005 1200 |
| 680-11933-3 | SB-31E MID | Solid | 12/19/2005 1315 | 12/21/2005 1200 |
| 680-11933-4 | SB-31W | Solid | 12/16/2005 1115 | 12/21/2005 1200 |
| 680-11933-5 | SB-31EE | Solid | 12/16/2005 1050 | 12/21/2005 1200 |
| 680-11933-6 | SB-31 | Solid | 12/14/2005 1340 | 12/21/2005 1200 |
| 680-11933-7 | SB-31S | Solid | 12/14/2005 1400 | 12/21/2005 1200 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31NE**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-1 | | | Date Sampled: | 12/19/2005 1230 |
| Client Matrix: | Solid | % Moisture: | 8.7 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32336 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-31932 | | Lab File ID: | EC27A9.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 4.6 g |
| Date Analyzed: | 12/27/2005 1601 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 12/22/2005 1209 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 16 | | 2.0 | 6.0 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 65 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31N MID**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-2 | | | Date Sampled: | 12/19/2005 1250 |
| Client Matrix: | Solid | % Moisture: | 6.4 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32336 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-31932 | | Lab File ID: | EC27A7.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 4.6 g |
| Date Analyzed: | 12/27/2005 1405 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 12/22/2005 1209 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 140 | | 9.5 | 29 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 67 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31E MID**

Lab Sample ID: 680-11933-3
Client Matrix: Solid % Moisture: 3.8

Date Sampled: 12/19/2005 1315
Date Received: 12/21/2005 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 12/27/2005 1640
Date Prepared: 12/22/2005 1209

Analysis Batch: 680-32336
Prep Batch: 680-31932

Instrument ID: GC Volatiles - A
Lab File ID: EC27A10.d
Initial Weight/Volume: 4.9 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 660 | | 17 | 53 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| a,a,a-Trifluorotoluene | 289 | * | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31W**

Lab Sample ID: 680-11933-4
Client Matrix: Solid % Moisture: 13.0

Date Sampled: 12/16/2005 1115
Date Received: 12/21/2005 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 12/23/2005 1932
Date Prepared: 12/22/2005 1209

Analysis Batch: 680-32333
Prep Batch: 680-31932

Instrument ID: GC Volatiles - A
Lab File ID: EC23A12.d
Initial Weight/Volume: 5.7 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 1.2 | | 0.083 | 0.25 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 95 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31EE**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-5 | | | Date Sampled: | 12/16/2005 1050 |
| Client Matrix: | Solid | % Moisture: | 6.6 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32333 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-31932 | | Lab File ID: | EC23A13.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 3.2 g |
| Date Analyzed: | 12/23/2005 2010 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 12/22/2005 1209 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 0.38 | J | 0.14 | 0.42 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 86 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31**

Lab Sample ID: 680-11933-6
Client Matrix: Solid % Moisture: 4.5

Date Sampled: 12/14/2005 1340
Date Received: 12/21/2005 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 12/23/2005 2318
Date Prepared: 12/22/2005 1209

Analysis Batch: 680-32335
Prep Batch: 680-31932

Instrument ID: GC Volatiles - A
Lab File ID: EC23A18.d
Initial Weight/Volume: 4.3 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 10000 | | 200 | 610 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| a,a,a-Trifluorotoluene | 0 | * | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31S**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-7 | | | Date Sampled: | 12/14/2005 1400 |
| Client Matrix: | Solid | % Moisture: | 5.5 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32333 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-31932 | | Lab File ID: | EC23A14.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.0 g |
| Date Analyzed: | 12/23/2005 2048 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 12/22/2005 1209 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | 0.087 | U | 0.087 | 0.26 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 78 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31NE**

Lab Sample ID: 680-11933-1
Client Matrix: Solid % Moisture: 8.7

Date Sampled: 12/19/2005 1230
Date Received: 12/21/2005 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 20
Date Analyzed: 01/04/2006 0324
Date Prepared: 12/22/2005 0803

Analysis Batch: 680-32818
Prep Batch: 680-31881

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0103055.d
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 2100 | | 37 | 72 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31N MID**

Lab Sample ID: 680-11933-2
Client Matrix: Solid % Moisture: 6.4

Date Sampled: 12/19/2005 1250
Date Received: 12/21/2005 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 20
Date Analyzed: 01/04/2006 0346
Date Prepared: 12/22/2005 0803

Analysis Batch: 680-32818
Prep Batch: 680-31881

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0103056.d
Initial Weight/Volume: 30.03 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 1000 | | 36 | 70 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31E MID**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-3 | | | Date Sampled: | 12/19/2005 1315 |
| Client Matrix: | Solid | % Moisture: | 3.8 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32818 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-31881 | | Lab File ID: | q0103057.d |
| Dilution: | 50 | | | Initial Weight/Volume: | 30.08 g |
| Date Analyzed: | 01/04/2006 0408 | | | Final Weight/Volume: | 1.0 mL |
| Date Prepared: | 12/22/2005 0803 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 2800 | | 88 | 170 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31W**

Lab Sample ID: 680-11933-4
Client Matrix: Solid
% Moisture: 13.0

Date Sampled: 12/16/2005 1115
Date Received: 12/21/2005 1200

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 5.0
Date Analyzed: 01/04/2006 0452
Date Prepared: 12/22/2005 0803

Analysis Batch: 680-32818
Prep Batch: 680-31881

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0103059.d
Initial Weight/Volume: 30.05 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 530 | | 9.8 | 19 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31EE**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-5 | | | Date Sampled: | 12/16/2005 1050 |
| Client Matrix: | Solid | % Moisture: | 6.6 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32818 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-31881 | | Lab File ID: | q0103060.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.04 g |
| Date Analyzed: | 01/04/2006 0514 | | | Final Weight/Volume: | 1.0 mL |
| Date Prepared: | 12/22/2005 0803 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 2.2 | J | 1.8 | 3.5 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 77 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-6 | | | Date Sampled: | 12/14/2005 1340 |
| Client Matrix: | Solid | % Moisture: | 4.5 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32818 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-31881 | | Lab File ID: | q0103061.d |
| Dilution: | 20 | | | Initial Weight/Volume: | 30.05 g |
| Date Analyzed: | 01/04/2006 0537 | | | Final Weight/Volume: | 1.0 mL |
| Date Prepared: | 12/22/2005 0803 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 1900 | | 36 | 69 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Client Sample ID:** **SB-31S**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-11933-7 | | | Date Sampled: | 12/14/2005 1400 |
| Client Matrix: | Solid | % Moisture: | 5.5 | Date Received: | 12/21/2005 1200 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-32903 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-31881 | | Lab File ID: | q0103071.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.05 g |
| Date Analyzed: | 01/04/2006 0922 | | | Final Weight/Volume: | 1.0 mL |
| Date Prepared: | 12/22/2005 0803 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 6.8 | | 1.8 | 3.5 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 89 | 15 - 154 |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | * | LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| GC Semi VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| | D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D. |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

## Surrogate Recovery Report

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample | (TFT) (%Rec) |
|---|---|---|
| LCS 680-32333/1 | LCS | 112 |
| LCS 680-32335/3 | LCS | 74 |
| LCS 680-32336/2 | LCS | 79 |
| MB 680-32333/5 | MB | 74 |
| MB 680-32335/1 | MB | 66 |
| MB 680-32336/3 | MB | 79 |
| 680-11933-1 | SB-31NE | 65 |
| 680-11933-2 | SB-31N MID | 67 |
| 680-11933-3 | SB-31E MID | 289 * |
| 680-11933-4 | SB-31W | 95 |
| 680-11933-5 | SB-31EE | 86 |
| 680-11933-6 | SB-31 | 0 * |
| 680-11933-7 | SB-31S | 78 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (TFT) | a,a,a-Trifluorotoluene | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

## Surrogate Recovery Report

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample | (OTPH) (%Rec) |
|---|---|---|
| 680-11933-7MS | SB-31S | 90 |
| 680-11933-7MSD | SB-31S | 104 |
| LCS 680-31881/12-A | LCS | 120 |
| MB 680-31881/11-A | MB | 96 |
| 680-11933-1 | SB-31NE | 0 D |
| 680-11933-2 | SB-31N MID | 0 D |
| 680-11933-3 | SB-31E MID | 0 D |
| 680-11933-4 | SB-31W | 0 D |
| 680-11933-5 | SB-31EE | 77 |
| 680-11933-6 | SB-31 | 0 D |
| 680-11933-7 | SB-31S | 89 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (OTPH) | o-Terphenyl | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Method Blank - Batch: 680-32333**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-32333/5
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/23/2005 1621
Date Prepared: N/A

Analysis Batch: 680-32333
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: EC23A7.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 0.082 | U | 0.082 | 0.25 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 74 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-32333**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-32333/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/23/2005 1816
Date Prepared: N/A

Analysis Batch: 680-32333
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: EC23A10.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1.00 | 1.1 | 106 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Method Blank - Batch: 680-32335**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-32335/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/23/2005 1854
Date Prepared: N/A

Analysis Batch: 680-32335
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: EC23A11.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1.6 | U | 1.6 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 66 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-32335**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-32335/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/23/2005 1700
Date Prepared: N/A

Analysis Batch: 680-32335
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: EC23A8.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 40.0 | 38 | 95 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Method Blank - Batch: 680-32336**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-32336/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2005 1220
Date Prepared: N/A

Analysis Batch: 680-32336
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: EC27A5.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1.6 | U | 1.6 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 79 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-32336**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-32336/2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2005 1028
Date Prepared: N/A

Analysis Batch: 680-32336
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: EC27A3.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 40.0 | 37 | 93 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Method Blank - Batch: 680-31881**

**Method: 8015B**
**Preparation: 3550B**

Lab Sample ID: MB 680-31881/11-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/04/2006 0006
Date Prepared: 12/22/2005 0803

Analysis Batch: 680-32818
Prep Batch: 680-31881
Units: mg/Kg

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0103046.d
Initial Weight/Volume: 30.01 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | 1.7 | U | 1.7 | 3.3 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 96 | 15 - 154 |

**Laboratory Control Sample - Batch: 680-31881**

**Method: 8015B**
**Preparation: 3550B**

Lab Sample ID: LCS 680-31881/12-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/04/2006 0028
Date Prepared: 12/22/2005 0803

Analysis Batch: 680-32818
Prep Batch: 680-31881
Units: mg/Kg

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q0103047.d
Initial Weight/Volume: 30.01 g
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | 33.3 | 34 | 103 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-11933-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 680-31881**

**Method: 8015B**
**Preparation: 3550B**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 680-11933-7 | Analysis Batch: 680-32903 | Instrument ID: GC SemiVolatiles - Q |
| Client Matrix: | Solid | Prep Batch: 680-31881 | Lab File ID: q0103072.d |
| Dilution: | 1.0 | | Initial Weight/Volume: 30.02 g |
| Date Analyzed: | 01/04/2006 0945 | | Final Weight/Volume: 1.0 mL |
| Date Prepared: | 12/22/2005 0803 | | Injection Volume: |
| | | | Column ID: PRIMARY |

| | | | |
|---|---|---|---|
| MSD Lab Sample ID: | 680-11933-7 | Analysis Batch: 680-32903 | Instrument ID: GC SemiVolatiles - Q |
| Client Matrix: | Solid | Prep Batch: 680-31881 | Lab File ID: q0103073.d |
| Dilution: | 1.0 | | Initial Weight/Volume: 30.06 g |
| Date Analyzed: | 01/04/2006 1007 | | Final Weight/Volume: 1.0 mL |
| Date Prepared: | 12/22/2005 0803 | | Injection Volume: |
| | | | Column ID: PRIMARY |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Diesel Range Organics [C10-C28] | 63 | 78 | 40 - 140 | 17 | 40 | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 61333

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


⊗ **STL Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165


○ Alternate Laboratory Name/Location

Phone:
Fax:

| | | |
|---|---|---|
| PROJECT REFERENCE: FHR NORTH GAS/FUEL OIL FACILITY | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 |
| CLIENT NAME: CATLIN ENGINEERS & SCI. | CLIENT E-MAIL: JEFF.BECKEN@CATLINUSA.COM | |
| CLIENT ADDRESS: 220 OLD DAIRY ROAD, WILMINGTON NC 28405 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS RENEDIATION, LLC | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | DRO (none) | GRO (MeOH Na2SO4) | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19DEC05 | 1230 | SB-31NE | C | | X | | | 1 | 3 | | | | | | | | | |
| 19DEC05 | 1250 | SB-31N MID | C | | X | | | ↓ | ↓ | | | | | | | | | |
| 19DEC05 | 1315 | SB-31E MID | C | | X | | | | | | | | | | | | | |
| 16DEC05 | 1115 | SB-31W | C | | X | | | | | | | | | | | | | |
| 16DEC05 | 1050 | SB-31EE | C | | X | | | | | | | | | | | | | |
| 14DEC05 | 1340 | SB-31 | C | | X | | | | | | | | | | | | | |
| 14DEC05 | 1400 | SB-31S | C | | X | | | ↓ | ↓ | | | | | | | | | |

TEMP. 2.8

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | [signature] | 20DEC05 | 0930 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12-21-05 | 1000 | YES ○ NO ○ | | 680-11933 | |

STL8240-680 (12/02)

SEVERN TRENT STL

# ANALYTICAL REPORT

Job Number: 680-15795-1

Job Description: FHR North Gas/Fuel Oil Facility

For:
Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
05/04/2006
Revision: 1

Project Manager: Kathryn Smith

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.



ACCREDITED IN ACCORDANCE WITH nelac

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) | STL-SAV | SW846 8015B | |
| Closed System Purge & Trap/Field Preservation | STL-SAV | | SW846 5035 |
| Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) | STL-SAV | SW846 8015B | |
| Ultrasonic Extraction | STL-SAV | | SW846 3550B |
| Percent Moisture | STL-SAV | EPA PercentMoisture | |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

EPA - US Environmental Protection Agency

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-15795-1 | SB-45 (6-7) | Solid | 04/17/2006 1500 | 04/20/2006 1510 |
| 680-15795-2 | SB-45N (8-9) | Solid | 04/18/2006 0950 | 04/20/2006 1510 |
| 680-15795-3 | SB-45E (6-7) | Solid | 04/18/2006 1030 | 04/20/2006 1510 |
| 680-15795-4 | SB-45W (6-7) | Solid | 04/18/2006 1130 | 04/20/2006 1510 |
| 680-15795-5 | SB-45S(5-6) | Solid | 04/18/2006 1100 | 04/20/2006 1510 |
| 680-15795-6 | SB-31WG (9-10) | Solid | 04/13/2006 1130 | 04/20/2006 1510 |
| 680-15795-7 | SB-32H (11-12) | Solid | 04/19/2006 1015 | 04/20/2006 1510 |
| 680-15795-8 | SB-32I (7-8) | Solid | 04/19/2006 1045 | 04/20/2006 1510 |
| 680-15795-9 | SB-32J (7-8) | Solid | 04/19/2006 1120 | 04/20/2006 1510 |
| 680-15795-10 | SB-29B (7-8) | Solid | 04/19/2006 1145 | 04/20/2006 1510 |
| 680-15795-11 | SB-29C (7-8) | Solid | 04/19/2006 1210 | 04/20/2006 1510 |
| 680-15795-12 | SB-29D (9-10) | Solid | 04/19/2006 1300 | 04/20/2006 1510 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45 (6-7)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-1 | | | Date Sampled: | 04/17/2006 1500 |
| Client Matrix: | Solid | % Moisture: | 7.6 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43290 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-42881 | | Lab File ID: | BP28A11.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.5 g |
| Date Analyzed: | 04/28/2006 1936 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 04/25/2006 1658 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.18 | J | 0.081 | 0.25 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 87 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45N (8-9)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-2 | | | Date Sampled: | 04/18/2006 0950 |
| Client Matrix: | Solid | % Moisture: | 7.1 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43290 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-42881 | | Lab File ID: | BP28A9.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.0 g |
| Date Analyzed: | 04/28/2006 1820 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 04/25/2006 1658 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.088 | U | 0.088 | 0.27 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 74 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45E (6-7)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-3 | | | Date Sampled: | 04/18/2006 1030 |
| Client Matrix: | Solid | % Moisture: | 5.6 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43169 | | Instrument ID: | GC Volatiles - A |
| Preparation: | N/A | | | Lab File ID: | BP26A11.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5 mL |
| Date Analyzed: | 04/26/2006 2315 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | N/A | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.087 | U | 0.087 | 0.26 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 62 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45W (6-7)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-4 | | | Date Sampled: | 04/18/2006 1130 |
| Client Matrix: | Solid | % Moisture: | 7.1 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43169 | | Instrument ID: | GC Volatiles - A |
| Preparation: | N/A | | | Lab File ID: | BP26A12.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5 mL |
| Date Analyzed: | 04/27/2006 0005 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | N/A | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.088 | U | 0.088 | 0.27 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 61 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45S(5-6)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-5 | | | Date Sampled: | 04/18/2006 1100 |
| Client Matrix: | Solid | % Moisture: | 5.7 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43290 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-42881 | | Lab File ID: | BP28A10.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.1 g |
| Date Analyzed: | 04/28/2006 1858 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 04/25/2006 1658 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.085 | U | 0.085 | 0.26 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 74 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-31WG (9-10)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-6 | | | Date Sampled: | 04/13/2006 1130 |
| Client Matrix: | Solid | % Moisture: | 12.4 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | |
|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43169 | Instrument ID: | GC Volatiles - A |
| Preparation: | N/A | | Lab File ID: | BP26A8.d |
| Dilution: | 1.0 | | Initial Weight/Volume: | 5 mL |
| Date Analyzed: | 04/26/2006 2120 | | Final Weight/Volume: | 5 g |
| Date Prepared: | N/A | | Injection Volume: | |
| | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 4.9 | | 0.094 | 0.29 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 78 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-32H (11-12)**

Lab Sample ID: 680-15795-7
Client Matrix: Solid % Moisture: 4.9

Date Sampled: 04/19/2006 1015
Date Received: 04/20/2006 1510

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 05/01/2006 1750
Date Prepared: 04/25/2006 1658

Analysis Batch: 680-43495
Prep Batch: 680-42881

Instrument ID: GC Volatiles - A
Lab File ID: NY01A9.d
Initial Weight/Volume: 5.2 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.16 | J | 0.083 | 0.25 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 101 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-32I (7-8)**

Lab Sample ID: 680-15795-8
Client Matrix: Solid
% Moisture: 0.6

Date Sampled: 04/19/2006 1045
Date Received: 04/20/2006 1510

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 05/02/2006 1601
Date Prepared: 04/25/2006 1658

Analysis Batch: 680-43588
Prep Batch: 680-42881

Instrument ID: GC Volatiles - A
Lab File ID: NY02A10.d
Initial Weight/Volume: 5.5 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 910 | | 75 | 230 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| a,a,a-Trifluorotoluene | 0 | D | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-32J (7-8)**

Lab Sample ID: 680-15795-9
Client Matrix: Solid
% Moisture: 8.9

Date Sampled: 04/19/2006 1120
Date Received: 04/20/2006 1510

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

Method: 8015B
Preparation: 5035
Dilution: 1.0
Date Analyzed: 05/02/2006 1640
Date Prepared: 04/25/2006 1658

Analysis Batch: 680-43588
Prep Batch: 680-42881

Instrument ID: GC Volatiles - A
Lab File ID: NY02A11.d
Initial Weight/Volume: 5.8 g
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 1100 | | 160 | 470 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| a,a,a-Trifluorotoluene | 0 | D | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-29B (7-8)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-10 | | | Date Sampled: | 04/19/2006 1145 |
| Client Matrix: | Solid | % Moisture: | 7.7 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43290 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-42881 | | Lab File ID: | BP28A13.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.7 g |
| Date Analyzed: | 04/28/2006 2053 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 04/25/2006 1658 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.29 | | 0.078 | 0.24 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 63 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-29C (7-8)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-11 | | | Date Sampled: | 04/19/2006 1210 |
| Client Matrix: | Solid | % Moisture: | 4.9 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43588 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-42881 | | Lab File ID: | NY02A8.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.6 g |
| Date Analyzed: | 05/02/2006 1444 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 04/25/2006 1658 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 16 | | 1.5 | 4.7 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 106 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID: SB-29D (9-10)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-12 | | | Date Sampled: | 04/19/2006 1300 |
| Client Matrix: | Solid | % Moisture: | 8.0 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43290 | | Instrument ID: | GC Volatiles - A |
| Preparation: | 5035 | Prep Batch: 680-42881 | | Lab File ID: | BP28A12.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5.5 g |
| Date Analyzed: | 04/28/2006 2015 | | | Final Weight/Volume: | 5 g |
| Date Prepared: | 04/25/2006 1658 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| C6-C10 | | 0.081 | U | 0.081 | 0.25 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 72 | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID: SB-45 (6-7)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-1 | | | Date Sampled: | 04/17/2006 1500 |
| Client Matrix: | Solid | % Moisture: | 7.6 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43271 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2800023.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.01 g |
| Date Analyzed: | 04/28/2006 1748 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 51 | | 1.8 | 3.6 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 87 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID: SB-45N (8-9)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-2 | | | Date Sampled: | 04/18/2006 0950 |
| Client Matrix: | Solid | % Moisture: | 7.1 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43271 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2800026.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.11 g |
| Date Analyzed: | 04/28/2006 1858 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 4.7 | | 1.8 | 3.5 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 97 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45E (6-7)**

Lab Sample ID: 680-15795-3
Client Matrix: Solid % Moisture: 5.6

Date Sampled: 04/18/2006 1030
Date Received: 04/20/2006 1510

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2006 1921
Date Prepared: 04/21/2006 1445

Analysis Batch: 680-43271
Prep Batch: 680-42557

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q2800027.d
Initial Weight/Volume: 30.03 g
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 78 | | 1.8 | 3.5 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 98 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-45W (6-7)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-4 | | | Date Sampled: | 04/18/2006 1130 |
| Client Matrix: | Solid | % Moisture: | 7.1 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43271 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2800028.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.18 g |
| Date Analyzed: | 04/28/2006 1945 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 37 | | 1.8 | 3.5 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 86 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID: SB-45S(5-6)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-5 | | | Date Sampled: | 04/18/2006 1100 |
| Client Matrix: | Solid | % Moisture: | 5.7 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43271 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2800029.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.09 g |
| Date Analyzed: | 04/28/2006 2008 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 46 | | 1.8 | 3.5 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 102 | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-31WG (9-10)**

Lab Sample ID: 680-15795-6
Client Matrix: Solid
% Moisture: 12.4

Date Sampled: 04/13/2006 1130
Date Received: 04/20/2006 1510

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

Method: 8015B
Preparation: 3550B
Dilution: 20
Date Analyzed: 04/27/2006 2230
Date Prepared: 04/21/2006 1445

Analysis Batch: 680-43272
Prep Batch: 680-42557

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q2600086.d
Initial Weight/Volume: 30.08 g
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 3000 | | 39 | 75 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-32H (11-12)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-7 | | | Date Sampled: | 04/19/2006 1015 |
| Client Matrix: | Solid | % Moisture: | 4.9 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43272 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2600087.d |
| Dilution: | 20 | | | Initial Weight/Volume: | 30.08 g |
| Date Analyzed: | 04/27/2006 2253 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 3000 | | 36 | 69 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID: SB-32I (7-8)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-8 | | | Date Sampled: | 04/19/2006 1045 |
| Client Matrix: | Solid | % Moisture: | 0.6 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43272 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2600088.d |
| Dilution: | 50 | | | Initial Weight/Volume: | 30.11 g |
| Date Analyzed: | 04/27/2006 2316 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 6700 | | 85 | 170 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-32J (7-8)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-9 | | | Date Sampled: | 04/19/2006 1120 |
| Client Matrix: | Solid | % Moisture: | 8.9 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43272 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2600089.d |
| Dilution: | 100 | | | Initial Weight/Volume: | 30.08 g |
| Date Analyzed: | 04/27/2006 2340 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 12000 | | 190 | 360 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-29B (7-8)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-10 | | | Date Sampled: | 04/19/2006 1145 |
| Client Matrix: | Solid | % Moisture: | 7.7 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43272 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2600090.d |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 30.01 g |
| Date Analyzed: | 04/28/2006 0003 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 830 | | 9.2 | 18 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-29C (7-8)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-11 | | | Date Sampled: | 04/19/2006 1210 |
| Client Matrix: | Solid | % Moisture: | 4.9 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43272 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2600091.d |
| Dilution: | 20 | | | Initial Weight/Volume: | 30.07 g |
| Date Analyzed: | 04/28/2006 0026 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 3300 | | 36 | 69 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| o-Terphenyl | 0 | D | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Client Sample ID:** **SB-29D (9-10)**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 680-15795-12 | | | Date Sampled: | 04/19/2006 1300 |
| Client Matrix: | Solid | % Moisture: | 8.0 | Date Received: | 04/20/2006 1510 |

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 8015B | Analysis Batch: 680-43272 | | Instrument ID: | GC SemiVolatiles - Q |
| Preparation: | 3550B | Prep Batch: 680-42557 | | Lab File ID: | q2600092.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 30.03 g |
| Date Analyzed: | 04/28/2006 0049 | | | Final Weight/Volume: | 1 mL |
| Date Prepared: | 04/21/2006 1445 | | | Injection Volume: | |
| | | | | Column ID: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | | 260 | | 1.8 | 3.6 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 86 | 15 - 154 |

**General Chemistry**

**Client Sample ID:** **SB-45 (6-7)**

Lab Sample ID: 680-15795-1
Client Matrix: Solid

Date Sampled: 04/17/2006 1500
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.6 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**Client Sample ID:** **SB-45N (8-9)**

Lab Sample ID: 680-15795-2
Client Matrix: Solid

Date Sampled: 04/18/2006 0950
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.1 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**Client Sample ID:** **SB-45E (6-7)**

Lab Sample ID: 680-15795-3
Client Matrix: Solid

Date Sampled: 04/18/2006 1030
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.6 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 94 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**General Chemistry**

**Client Sample ID: SB-45W (6-7)**

Lab Sample ID: 680-15795-4
Client Matrix: Solid

Date Sampled: 04/18/2006 1130
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.1 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**Client Sample ID: SB-45S(5-6)**

Lab Sample ID: 680-15795-5
Client Matrix: Solid

Date Sampled: 04/18/2006 1100
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.7 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 94 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**Client Sample ID: SB-31WG (9-10)**

Lab Sample ID: 680-15795-6
Client Matrix: Solid

Date Sampled: 04/13/2006 1130
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 12 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 88 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**General Chemistry**

**Client Sample ID: SB-32H (11-12)**

Lab Sample ID: 680-15795-7
Client Matrix: Solid

Date Sampled: 04/19/2006 1015
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 4.9 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 95 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**Client Sample ID: SB-32I (7-8)**

Lab Sample ID: 680-15795-8
Client Matrix: Solid

Date Sampled: 04/19/2006 1045
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 0.55 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 99 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**Client Sample ID: SB-32J (7-8)**

Lab Sample ID: 680-15795-9
Client Matrix: Solid

Date Sampled: 04/19/2006 1120
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.9 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |
| Percent Solids | 91 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | 04/27/2006 0800 | | | | |

**General Chemistry**

**Client Sample ID: SB-29B (7-8)**

Lab Sample ID: 680-15795-10
Client Matrix: Solid

Date Sampled: 04/19/2006 1145
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.7 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | | 04/27/2006 0800 | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | | 04/27/2006 0800 | | | |

**Client Sample ID: SB-29C (7-8)**

Lab Sample ID: 680-15795-11
Client Matrix: Solid

Date Sampled: 04/19/2006 1210
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 4.9 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | | 04/27/2006 0800 | | | |
| Percent Solids | 95 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | | 04/27/2006 0800 | | | |

**Client Sample ID: SB-29D (9-10)**

Lab Sample ID: 680-15795-12
Client Matrix: Solid

Date Sampled: 04/19/2006 1300
Date Received: 04/20/2006 1510

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.0 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | | 04/27/2006 0800 | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | PercentMoisture |
| | Anly Batch: 680-43036 | Date Analyzed | | 04/27/2006 0800 | | | |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | J | Indicates an estimated value. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| | D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D. |
| GC Semi VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D. |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

## Surrogate Recovery Report

**8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample | (TFT) (%Rec) |
|---|---|---|
| LCS 680-43169/3 | | 63 |
| LCS 680-43290/2 | | 76 |
| LCS 680-43495/2 | | 85 |
| LCS 680-43588/3 | | 69 |
| MB 680-43169/4 | | 67 |
| MB 680-43290/1 | | 61 |
| MB 680-43495/3 | | 71 |
| MB 680-43588/6 | | 88 |
| 680-15795-1 | SB-45 (6-7) | 87 |
| 680-15795-2 | SB-45N (8-9) | 74 |
| 680-15795-3 | SB-45E (6-7) | 62 |
| 680-15795-4 | SB-45W (6-7) | 61 |
| 680-15795-5 | SB-45S(5-6) | 74 |
| 680-15795-6 | SB-31WG (9-10) | 78 |
| 680-15795-7 | SB-32H (11-12) | 101 |
| 680-15795-8 | SB-32I (7-8) | 0 D |
| 680-15795-9 | SB-32J (7-8) | 0 D |
| 680-15795-10 | SB-29B (7-8) | 63 |
| 680-15795-11 | SB-29C (7-8) | 106 |
| 680-15795-12 | SB-29D (9-10) | 72 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (TFT) | a,a,a-Trifluorotoluene | 61 - 139 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

## Surrogate Recovery Report

**8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample | (OTPH) (%Rec) |
|---|---|---|
| 680-15795-1MS | SB-45 (6-7) | 85 |
| 680-15795-1MSD | SB-45 (6-7) | 83 |
| LCS 680-42557/17-A | | 123 |
| MB 680-42557/16-A | | 106 |
| 680-15795-1 | SB-45 (6-7) | 87 |
| 680-15795-2 | SB-45N (8-9) | 97 |
| 680-15795-3 | SB-45E (6-7) | 98 |
| 680-15795-4 | SB-45W (6-7) | 86 |
| 680-15795-5 | SB-45S(5-6) | 102 |
| 680-15795-6 | SB-31WG (9-10) | 0 D |
| 680-15795-7 | SB-32H (11-12) | 0 D |
| 680-15795-8 | SB-32I (7-8) | 0 D |
| 680-15795-9 | SB-32J (7-8) | 0 D |
| 680-15795-10 | SB-29B (7-8) | 0 D |
| 680-15795-11 | SB-29C (7-8) | 0 D |
| 680-15795-12 | SB-29D (9-10) | 86 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (OTPH) | o-Terphenyl | 15 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Method Blank - Batch: 680-43169**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-43169/4
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/26/2006 2042
Date Prepared: N/A

Analysis Batch: 680-43169
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: BP26A7.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| C6-C10 | 0.082 | U | 0.082 | 0.25 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 67 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-43169**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-43169/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/26/2006 2003
Date Prepared: N/A

Analysis Batch: 680-43169
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: BP26A6.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| C6-C10 | 1.00 | 0.831 | 83 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Method Blank - Batch: 680-43290**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-43290/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2006 1503
Date Prepared: N/A

Analysis Batch: 680-43290
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: BP28A5.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| C6-C10 | 0.082 | U | 0.082 | 0.25 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 61 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-43290**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-43290/2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2006 1542
Date Prepared: N/A

Analysis Batch: 680-43290
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: BP28A6.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| C6-C10 | 1.00 | 0.74 | 74 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Method Blank - Batch: 680-43495**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-43495/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/01/2006 1347
Date Prepared: N/A

Analysis Batch: 680-43495
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: NY01A5.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| C6-C10 | 0.082 | U | 0.082 | 0.25 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 71 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-43495**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-43495/2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/01/2006 1231
Date Prepared: N/A

Analysis Batch: 680-43495
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: NY01A3.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 g
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| C6-C10 | 1.00 | 0.891 | 89 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Method Blank - Batch: 680-43588**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: MB 680-43588/6
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/02/2006 1351
Date Prepared: N/A

Analysis Batch: 680-43588
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: NY02A7.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| C6-C10 | 1.6 | U | 1.6 | 5.0 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| a,a,a-Trifluorotoluene | 88 | 61 - 139 |

**Laboratory Control Sample - Batch: 680-43588**

**Method: 8015B**
**Preparation: N/A**

Lab Sample ID: LCS 680-43588/3
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/02/2006 1217
Date Prepared: N/A

Analysis Batch: 680-43588
Prep Batch: N/A
Units: mg/Kg

Instrument ID: GC Volatiles - A
Lab File ID: NY02A5.d
Initial Weight/Volume: 250 uL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| C6-C10 | 40.0 | 46.4 | 116 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Method Blank - Batch: 680-42557**

**Method: 8015B**
**Preparation: 3550B**

Lab Sample ID: MB 680-42557/16-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2006 0518
Date Prepared: 04/21/2006 1445

Analysis Batch: 680-43134
Prep Batch: 680-42557
Units: mg/Kg

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q2600047.d
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | 1.7 | U | 1.7 | 3.3 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| o-Terphenyl | 106 | 15 - 154 |

**Laboratory Control Sample - Batch: 680-42557**

**Method: 8015B**
**Preparation: 3550B**

Lab Sample ID: LCS 680-42557/17-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2006 0541
Date Prepared: 04/21/2006 1445

Analysis Batch: 680-43134
Prep Batch: 680-42557
Units: mg/Kg

Instrument ID: GC SemiVolatiles - Q
Lab File ID: q2600048.d
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Diesel Range Organics [C10-C28] | 33.3 | 45.3 | 136 | 40 - 140 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15795-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 680-42557**

**Method: 8015B**
**Preparation: 3550B**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 680-15795-1 | Analysis Batch: 680-43271 | Instrument ID: GC SemiVolatiles - Q |
| Client Matrix: | Solid | Prep Batch: 680-42557 | Lab File ID: q2800024.d |
| Dilution: | 1.0 | | Initial Weight/Volume: 30.05 g |
| Date Analyzed: | 04/28/2006 1812 | | Final Weight/Volume: 1 mL |
| Date Prepared: | 04/21/2006 1445 | | Injection Volume: |
| | | | Column ID: PRIMARY |

| | | | |
|---|---|---|---|
| MSD Lab Sample ID: | 680-15795-1 | Analysis Batch: 680-43271 | Instrument ID: GC SemiVolatiles - Q |
| Client Matrix: | Solid | Prep Batch: 680-42557 | Lab File ID: q2800025.d |
| Dilution: | 1.0 | | Initial Weight/Volume: 30.08 g |
| Date Analyzed: | 04/28/2006 1835 | | Final Weight/Volume: 1 mL |
| Date Prepared: | 04/21/2006 1445 | | Injection Volume: |
| | | | Column ID: PRIMARY |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Diesel Range Organics [C10-C28] | 111 | 79 | 40 - 140 | 13 | 40 | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 71114

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**


(X) STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

( ) Alternate Laboratory Name/Location
Phone:
Fax:


| | | | |
|---|---|---|---|
| PROJECT REFERENCE: FHR NORTH | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC | PAGE 1 OF 1 |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: | STANDARD REPORT DELIVERY (X) |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 | DATE DUE: |
| CLIENT NAME: CATLIN | CLIENT E-MAIL: jeff.becken@catlinusa.com | | EXPEDITED REPORT DELIVERY (SURCHARGE) ( ) |
| CLIENT ADDRESS: 220 OLD DAIRY ROAD, WILMINGTON, NC 28405 | | | DATE DUE: |
| COMPANY CONTRACTING THIS WORK (if applicable): | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1 |

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | MATRIX: AQUEOUS (WATER) | MATRIX: SOLID OR SEMISOLID | MATRIX: AIR | MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT,...) | REQUIRED ANALYSIS: DRO (NUMBER OF CONTAINERS SUBMITTED) | REQUIRED ANALYSIS: GRO (MeOH, $H_2SO_4$) (NUMBER OF CONTAINERS SUBMITTED) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 17APR06 | 1500 | SB-45 (6-7) | C | | X | | | 1 | 3 | |
| 18APR06 | 0950 | SB-45N (8-9) | C | | X | | | | | |
| | 1030 | SB-45E (6-7) | C | | X | | | | | |
| | 1130 | SB-45W (6-7) | C | | X | | | | | |
| | 1100 | SB-45S (5-6) | C | | X | | | | | |
| 13APR06 | 1130 | SB-31WG (9-10) | C | | X | | | | | |
| 19APR06 | 1015 | SB-32H (11-12) | C | | X | | | | | |
| | 1045 | SB-32I (7-8) | C | | X | | | | | |
| | 1120 | SB-32J (7-8) | C | | X | | | | | |
| | 1145 | SB-29B (7-8) | C | | X | | | | | |
| | 1210 | SB-29C (7-8) | C | | X | | | | | |
| | 1300 | SB-29D (9-10) | C | | X | | | 2 | | |

TEMP. 12.2

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | [signature] | 19APR06 | 1530 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 042006 | 1510 | YES ( ) NO ( ) | | 680-15795 | |



STL8240-680 (12/02)

SEVERN TRENT STL

# ANALYTICAL REPORT

Job Number: 680-15578-1

Job Description: FHR FWTP Area (205-076)

For:
Catlin Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405

Attention: Mr. Jeff Becken

Kathryn Smith

Kathryn Smith
Project Manager I
kesmith@stl-inc.com
04/22/2006
Revision: 1

Project Manager: Kathryn Smith

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.



ACCREDITED IN ACCORDANCE WITH nelac

# METHOD SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Volatile Organic Compounds by GC/MS | STL-SAV | SW846 8260B | |
| Toxicity Characteristic Leaching Procedure (ZHE) | STL-SAV | | SW846 1311 |
| Purge and Trap on Leachates | STL-SAV | | SW846 5030B |
| Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) | STL-SAV | SW846 8270C | |
| Toxicity Characteristic Leaching Procedure | STL-SAV | | SW846 1311 |
| Continuous Liquid-Liquid Extraction | STL-SAV | | SW846 3520C |
| Inductively Coupled Plasma - Atomic Emission Spectrometry | STL-SAV | SW846 6010B | |
| Toxicity Characteristic Leaching Procedure | STL-SAV | | SW846 1311 |
| Acid Digestion of Aqueous Samples and Extracts | STL-SAV | | SW846 3010A |
| Acid Digestion of Sediments, Sludges, and Soils | STL-SAV | | SW846 3050B |
| Mercury in Liquid Waste (Manual Cold Vapor Technique) | STL-SAV | SW846 7470A | |
| Toxicity Characteristic Leaching Procedure | STL-SAV | | SW846 1311 |
| Mercury in Liquid Waste (Manual Cold Vapor | STL-SAV | | SW846 7470A |
| Ignitability of Solids | STL-SAV | SW846 1030 | |
| Reactive Cyanide Analysis using method 9014 | STL-SAV | SW846 9014 | |
| Cyanide, Reactive (SW7.3.3) | STL-SAV | | SW846 7.3.3 |
| Titrimetric Procedure for Acid-Soluble and Acid-Insoluble Sulfides | STL-SAV | SW846 9034 | |
| Sulfide, Reactive (SW7.3.4) | STL-SAV | | SW846 7.3.4 |
| Percent Moisture | STL-SAV | EPA PercentMoisture | |

## LAB REFERENCES:

STL-SAV = STL-Savannah

## METHOD REFERENCES:

EPA - US Environmental Protection Agency

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# SAMPLE SUMMARY

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 680-15578-1 | SB-5A | Solid | 04/12/2006 1115 | 04/13/2006 0945 |
| 680-15578-2 | SB-5B | Solid | 04/12/2006 1125 | 04/13/2006 0945 |
| 680-15578-3 | SB-5C | Solid | 04/12/2006 1135 | 04/13/2006 0945 |
| 680-15578-4 | SB-5D | Solid | 04/12/2006 1145 | 04/13/2006 0945 |
| 680-15578-5 | SB-5AREA | Solid | 04/12/2006 1200 | 04/13/2006 0945 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID:** **SB-5AREA**

Lab Sample ID: 680-15578-5
Client Matrix: Solid

Date Sampled: 04/12/2006 1200
Date Received: 04/13/2006 0945

**8260B Volatile Organic Compounds by GC/MS -TCLP**

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 04/18/2006 2003
Date Prepared: 04/18/2006 2003
Date Leached: 04/17/2006 1800

Analysis Batch: 680-42210
Leachate Batch: 680-42320

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0306.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | DryWt Corrected: N | Result (mg/L) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Benzene | | 0.00055 | U | 0.00055 | 0.0010 |
| Carbon tetrachloride | | 0.00090 | U | 0.00090 | 0.0010 |
| Chlorobenzene | | 0.00041 | U | 0.00041 | 0.0010 |
| Chloroform | | 0.00050 | U | 0.00050 | 0.0010 |
| 1,2-Dichloroethane | | 0.00028 | U | 0.00028 | 0.0010 |
| 1,1-Dichloroethene | | 0.00095 | U | 0.00095 | 0.0010 |
| Methyl Ethyl Ketone | | 0.00070 | U | 0.00070 | 0.0050 |
| Tetrachloroethene | | 0.00075 | U | 0.00075 | 0.0010 |
| Trichloroethene | | 0.00070 | U | 0.00070 | 0.0010 |
| Vinyl chloride | | 0.00090 | U | 0.00090 | 0.0020 |

| Surrogate | %Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 77 - 120 |
| Dibromofluoromethane | 96 | 75 - 123 |
| Toluene-d8 | 94 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID:** **SB-5AREA**

Lab Sample ID: 680-15578-5
Client Matrix: Solid

Date Sampled: 04/12/2006 1200
Date Received: 04/13/2006 0945

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) -TCLP**

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 04/19/2006 1530
Date Prepared: 04/14/2006 1547
Date Leached: 04/13/2006 1756

Analysis Batch: 680-42413
Prep Batch: 680-42032
Leachate Batch: 680-41913

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g4060.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | DryWt Corrected: N | Result (mg/L) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | | 0.0026 | U | 0.0026 | 0.050 |
| 2,4-Dinitrotoluene | | 0.0028 | U | 0.0028 | 0.050 |
| Hexachloroethane | | 0.0050 | U | 0.0050 | 0.050 |
| Hexachlorobenzene | | 0.0055 | U | 0.0055 | 0.050 |
| Hexachlorobutadiene | | 0.0050 | U | 0.0050 | 0.050 |
| Methyl Phenols,Total | | 0.0070 | U | 0.0070 | 0.050 |
| Nitrobenzene | | 0.0046 | U | 0.0046 | 0.050 |
| Pentachlorophenol | | 0.0030 | U | 0.0030 | 0.25 |
| Pyridine | | 0.0050 | U | 0.0050 | 0.25 |
| 2,4,5-Trichlorophenol | | 0.0032 | U | 0.0032 | 0.050 |
| 2,4,6-Trichlorophenol | | 0.0035 | U | 0.0035 | 0.050 |

| Surrogate | %Rec | | Acceptance Limits |
|---|---|---|---|
| 2,4,6-Tribromophenol | 99 | | 55 - 126 |
| 2-Fluorobiphenyl | 186 | * | 59 - 103 |
| 2-Fluorophenol | 93 | | 56 - 100 |
| Nitrobenzene-d5 | 206 | * | 60 - 102 |
| Phenol-d5 | 99 | | 55 - 104 |
| Terphenyl-d14 | 218 | * | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID: SB-5A**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-15578-1 | Date Sampled: | 04/12/2006 1115 |
| Client Matrix: | Solid % Moisture: 6.2 | Date Received: | 04/13/2006 0945 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-42395 | | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-42203 | | Lab File ID: | N/A |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 1.02 g |
| Date Analyzed: | 04/18/2006 1811 | | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 04/18/2006 1218 | | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 4.2 | | 0.22 | 0.52 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID: SB-5B**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-15578-2 | | Date Sampled: | 04/12/2006 1125 |
| Client Matrix: | Solid | % Moisture: 8.5 | Date Received: | 04/13/2006 0945 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-42395 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-42203 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.14 g |
| Date Analyzed: | 04/18/2006 1836 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 04/18/2006 1218 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 11 | | 0.20 | 0.48 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID: SB-5C**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-15578-3 | | Date Sampled: | 04/12/2006 1135 |
| Client Matrix: | Solid | % Moisture: 7.2 | Date Received: | 04/13/2006 0945 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-42395 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-42203 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.08 g |
| Date Analyzed: | 04/18/2006 1850 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 04/18/2006 1218 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 3.2 | | 0.21 | 0.50 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID: SB-5D**

| | | | | |
|---|---|---|---|---|
| Lab Sample ID: | 680-15578-4 | | Date Sampled: | 04/12/2006 1145 |
| Client Matrix: | Solid | % Moisture: 5.5 | Date Received: | 04/13/2006 0945 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry**

| | | | | |
|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-42395 | Instrument ID: | ICP/AES |
| Preparation: | 3050B | Prep Batch: 680-42203 | Lab File ID: | N/A |
| Dilution: | 1.0 | | Initial Weight/Volume: | 1.10 g |
| Date Analyzed: | 04/18/2006 1855 | | Final Weight/Volume: | 100 mL |
| Date Prepared: | 04/18/2006 1218 | | | |

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Lead | | 13 | | 0.20 | 0.48 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Client Sample ID: SB-5AREA**

| | | | |
|---|---|---|---|
| Lab Sample ID: | 680-15578-5 | Date Sampled: | 04/12/2006 1200 |
| Client Matrix: | Solid | Date Received: | 04/13/2006 0945 |

**6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-TCLP**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 6010B | Analysis Batch: 680-42221 | | Instrument ID: | ICP/AES |
| Preparation: | 3010A | Prep Batch: 680-42106 | | Lab File ID: | N/A |
| Dilution: | 1.0 | Leachate Batch: 680-41913 | | Initial Weight/Volume: | 5 mL |
| Date Analyzed: | 04/17/2006 2352 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 04/17/2006 1300 | | | | |
| Date Leached: | 04/13/2006 1756 | | | | |

| Analyte | DryWt Corrected: N | Result (mg/L) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Arsenic | | 0.052 | U | 0.052 | 0.20 |
| Barium | | 0.20 | J | 0.012 | 1.0 |
| Cadmium | | 0.010 | U | 0.010 | 0.10 |
| Chromium | | 0.0095 | U | 0.0095 | 0.20 |
| Lead | | 1.2 | | 0.035 | 0.20 |
| Selenium | | 0.054 | U | 0.054 | 0.50 |
| Silver | | 0.010 | U | 0.010 | 0.10 |

**7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-TCLP**

| | | | | | |
|---|---|---|---|---|---|
| Method: | 7470A | Analysis Batch: 680-42344 | | Instrument ID: | LEEMAN1 |
| Preparation: | 7470A | Prep Batch: 680-42049 | | Lab File ID: | N/A |
| Dilution: | 1.0 | Leachate Batch: 680-41913 | | Initial Weight/Volume: | 0.50 mL |
| Date Analyzed: | 04/18/2006 1043 | | | Final Weight/Volume: | 50 mL |
| Date Prepared: | 04/15/2006 1643 | | | | |
| Date Leached: | 04/13/2006 1756 | | | | |

| Analyte | DryWt Corrected: N | Result (mg/L) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Mercury | | 0.0080 | U | 0.0080 | 0.020 |

## General Chemistry

**Client Sample ID:** **SB-5A**

Lab Sample ID: 680-15578-1
Client Matrix: Solid

Date Sampled: 04/12/2006 1115
Date Received: 04/13/2006 0945

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 6.2 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |
| Percent Solids | 94 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |

**Client Sample ID:** **SB-5B**

Lab Sample ID: 680-15578-2
Client Matrix: Solid

Date Sampled: 04/12/2006 1125
Date Received: 04/13/2006 0945

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 8.5 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |
| Percent Solids | 92 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |

**Client Sample ID:** **SB-5C**

Lab Sample ID: 680-15578-3
Client Matrix: Solid

Date Sampled: 04/12/2006 1135
Date Received: 04/13/2006 0945

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 7.2 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |
| Percent Solids | 93 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |

## General Chemistry

**Client Sample ID: SB-5D**

Lab Sample ID: 680-15578-4
Client Matrix: Solid

Date Sampled: 04/12/2006 1145
Date Received: 04/13/2006 0945

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.5 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |
| Percent Solids | 94 | | % | 1.0 | 1.0 | 1.0 | PercentMoistur |
| | Anly Batch: 680-41887 | Date Analyzed | 04/13/2006 1455 | | | | |

**Client Sample ID: SB-5AREA**

Lab Sample ID: 680-15578-5
Client Matrix: Solid % Moisture: 7.6

Date Sampled: 04/12/2006 1200
Date Received: 04/13/2006 0945

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Sulfide, Reactive | 54 | U H | mg/Kg | 54 | 54 | 1.0 | 9034 |
| | Anly Batch: 680-42519 | Date Analyzed | 04/20/2006 1450 | | | DryWt Corrected: Y | |
| | Prep Batch: 680-42517 | Date Prepared: | 04/20/2006 1050 | | | | |

| Analyte | Result | Qual | Units | Dil | Method |
|---|---|---|---|---|---|
| Ignitability | NB | | mm/sec | 1.0 | 1030 |
| | Anly Batch: 680-42417 | Date Analyzed | 04/19/2006 1500 | DryWt Corrected: N | |

| Analyte | Result | Qual | Units | RL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | 110 | U | mg/Kg | 110 | 110 | 1.0 | 9014 |
| | Anly Batch: 680-42515 | Date Analyzed | 04/20/2006 1510 | | | DryWt Corrected: Y | |
| | Prep Batch: 680-42514 | Date Prepared: | 04/20/2006 1050 | | | | |

# DATA REPORTING QUALIFIERS

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| GC/MS Semi VOA | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | * | LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits |
| Metals | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| General Chemistry | | |
| | U | Analyte was not detected at or above the reporting limit. |
| | H | Sample was prepped or analyzed beyond the specified holding time |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

## Surrogate Recovery Report

**8260B Volatile Organic Compounds by GC/MS**

**Client Matrix: Solid TCLP**

| Lab Sample ID | Client Sample | (BFB) (%Rec) | (DBFM) (%Rec) | (TOL) (%Rec) |
|---|---|---|---|---|
| LCS 680-42210/6 | | 100 | 90 | 98 |
| MB 680-42210/9 | | 101 | 95 | 96 |
| 680-15578-5 | SB-5AREA | 100 | 96 | 94 |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (BFB) | 4-Bromofluorobenzene | 77 - 120 |
| (DBFM) | Dibromofluoromethane | 75 - 123 |
| (TOL) | Toluene-d8 | 79 - 122 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

## Surrogate Recovery Report

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

**Client Matrix: Solid TCLP**

| Lab Sample ID | Client Sample | (2FP) (%Rec) | (FBP) (%Rec) | (NBZ) (%Rec) | (PHL) (%Rec) | (TBP) (%Rec) | (TPH) (%Rec) |
|---|---|---|---|---|---|---|---|
| LCS 680-42032/11-A | | 68 | 71 | 75 | 73 | 80 | 70 |
| MB 680-41913/6-B | | 82 | 158 * | 166 * | 91 | 82 | 168 * |
| MB 680-42032/10-A | | 85 | 94 | 91 | 85 | 85 | 89 |
| 680-15578-5 | SB-5AREA | 93 | 186 * | 206 * | 99 | 99 | 218 * |

| Surrogate | | Acceptance Limits |
|---|---|---|
| (2FP) | 2-Fluorophenol | 56 - 100 |
| (FBP) | 2-Fluorobiphenyl | 59 - 103 |
| (NBZ) | Nitrobenzene-d5 | 60 - 102 |
| (PHL) | Phenol-d5 | 55 - 104 |
| (TBP) | 2,4,6-Tribromophenol | 55 - 126 |
| (TPH) | Terphenyl-d14 | 10 - 154 |

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42210**

**Method: 8260B**
**Preparation: 5030B**
**TCLP**

Lab Sample ID: MB 680-42210/9
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1549
Date Prepared: 04/18/2006 1549

Analysis Batch: 680-42210
Prep Batch: N/A
Units: mg/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: p0288.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Benzene | 0.00055 | U | 0.00055 | 0.0010 |
| Carbon tetrachloride | 0.00090 | U | 0.00090 | 0.0010 |
| Chlorobenzene | 0.00041 | U | 0.00041 | 0.0010 |
| Chloroform | 0.00050 | U | 0.00050 | 0.0010 |
| 1,2-Dichloroethane | 0.00028 | U | 0.00028 | 0.0010 |
| 1,1-Dichloroethene | 0.00095 | U | 0.00095 | 0.0010 |
| Methyl Ethyl Ketone | 0.00070 | U | 0.00070 | 0.0050 |
| Tetrachloroethene | 0.00075 | U | 0.00075 | 0.0010 |
| Trichloroethene | 0.00070 | U | 0.00070 | 0.0010 |
| Vinyl chloride | 0.00090 | U | 0.00090 | 0.0020 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 77 - 120 |
| Dibromofluoromethane | 95 | 75 - 123 |
| Toluene-d8 | 96 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Laboratory Control Sample - Batch: 680-42210**

**Method: 8260B**
**Preparation: 5030B**
**TCLP**

Lab Sample ID: LCS 680-42210/6
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1453
Date Prepared: 04/18/2006 1453

Analysis Batch: 680-42210
Prep Batch: N/A
Units: mg/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq152.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.0431 | 86 | 74 - 122 | |
| Carbon tetrachloride | 0.0500 | 0.0492 | 98 | 64 - 137 | |
| Chlorobenzene | 0.0500 | 0.0496 | 99 | 75 - 123 | |
| Chloroform | 0.0500 | 0.0449 | 90 | 74 - 124 | |
| 1,2-Dichloroethane | 0.0500 | 0.0471 | 94 | 68 - 130 | |
| 1,1-Dichloroethene | 0.0500 | 0.0410 | 82 | 64 - 132 | |
| Methyl Ethyl Ketone | 0.100 | 0.108 | 108 | 51 - 142 | |
| Tetrachloroethene | 0.0500 | 0.0495 | 99 | 70 - 133 | |
| Trichloroethene | 0.0500 | 0.0451 | 90 | 75 - 122 | |
| Vinyl chloride | 0.0500 | 0.0371 | 74 | 59 - 136 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 77 - 120 |
| Dibromofluoromethane | 90 | 75 - 123 |
| Toluene-d8 | 98 | 79 - 122 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42032**

**Method: 8270C**
**Preparation: 3520C**
**TCLP**

Lab Sample ID: MB 680-42032/10-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/19/2006 0900
Date Prepared: 04/14/2006 1547

Analysis Batch: 680-42413
Prep Batch: 680-42032
Units: mg/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g4045.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | 0.00052 | U | 0.00052 | 0.010 |
| 2,4-Dinitrotoluene | 0.00056 | U | 0.00056 | 0.010 |
| Hexachloroethane | 0.0010 | U | 0.0010 | 0.010 |
| Hexachlorobenzene | 0.0011 | U | 0.0011 | 0.010 |
| Hexachlorobutadiene | 0.0010 | U | 0.0010 | 0.010 |
| Nitrobenzene | 0.00092 | U | 0.00092 | 0.010 |
| Pentachlorophenol | 0.00060 | U | 0.00060 | 0.050 |
| Pyridine | 0.0010 | U | 0.0010 | 0.050 |
| 2,4,5-Trichlorophenol | 0.00064 | U | 0.00064 | 0.010 |
| 2,4,6-Trichlorophenol | 0.00070 | U | 0.00070 | 0.010 |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 2,4,6-Tribromophenol | 85 | 55 - 126 |
| 2-Fluorobiphenyl | 94 | 59 - 103 |
| 2-Fluorophenol | 85 | 56 - 100 |
| Nitrobenzene-d5 | 91 | 60 - 102 |
| Phenol-d5 | 85 | 55 - 104 |
| Terphenyl-d14 | 89 | 10 - 154 |

**Method Blank - Batch: 680-42032**

**Method: 8270C**
**Preparation: 3520C**
**TCLP**

Lab Sample ID: MB 680-41913/6-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/19/2006 0926
Date Prepared: 04/14/2006 1547
Date Leached: 04/13/2006 1756

Analysis Batch: 680-42413
Prep Batch: 680-42032
Units: mg/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g4046.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | 0.0026 | U | 0.0026 | 0.050 |
| 2,4-Dinitrotoluene | 0.0028 | U | 0.0028 | 0.050 |
| Hexachloroethane | 0.0050 | U | 0.0050 | 0.050 |
| Hexachlorobenzene | 0.0055 | U | 0.0055 | 0.050 |
| Hexachlorobutadiene | 0.0050 | U | 0.0050 | 0.050 |
| Methyl Phenols,Total | 0.0070 | U | 0.0070 | 0.050 |
| Nitrobenzene | 0.0046 | U | 0.0046 | 0.050 |
| Pentachlorophenol | 0.0030 | U | 0.0030 | 0.25 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42032**

**Method: 8270C**
**Preparation: 3520C**
**TCLP**

Lab Sample ID: MB 680-41913/6-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/19/2006 0926
Date Prepared: 04/14/2006 1547
Date Leached: 04/13/2006 1756

Analysis Batch: 680-42413
Prep Batch: 680-42032
Units: mg/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g4046.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Pyridine | 0.0050 | U | 0.0050 | 0.25 |
| 2,4,5-Trichlorophenol | 0.0032 | U | 0.0032 | 0.050 |
| 2,4,6-Trichlorophenol | 0.0035 | U | 0.0035 | 0.050 |

| Surrogate | % Rec | | Acceptance Limits |
|---|---|---|---|
| 2,4,6-Tribromophenol | 82 | | 55 - 126 |
| 2-Fluorobiphenyl | 158 | * | 59 - 103 |
| 2-Fluorophenol | 82 | | 56 - 100 |
| Nitrobenzene-d5 | 166 | * | 60 - 102 |
| Phenol-d5 | 91 | | 55 - 104 |
| Terphenyl-d14 | 168 | * | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Laboratory Control Sample - Batch: 680-42032**

**Method: 8270C**
**Preparation: 3520C**
**TCLP**

Lab Sample ID: LCS 680-42032/11-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/19/2006 1413
Date Prepared: 04/14/2006 1547

Analysis Batch: 680-42413
Prep Batch: 680-42032
Units: mg/L

Instrument ID: GC/MS SemiVolatiles - G
Lab File ID: g4057.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 0.100 | 0.0626 | 63 | 40 - 92 | |
| 2,4-Dinitrotoluene | 0.100 | 0.0803 | 80 | 45 - 140 | |
| Hexachloroethane | 0.100 | 0.0663 | 66 | 35 - 89 | |
| Hexachlorobenzene | 0.100 | 0.0792 | 79 | 60 - 122 | |
| Hexachlorobutadiene | 0.100 | 0.0721 | 72 | 43 - 109 | |
| Nitrobenzene | 0.100 | 0.0757 | 76 | 57 - 110 | |
| Pentachlorophenol | 0.100 | 0.0759 | 76 | 44 - 132 | |
| Pyridine | 0.100 | 0.0508 | 51 | 10 - 178 | |
| 2,4,5-Trichlorophenol | 0.100 | 0.0675 | 68 | 62 - 119 | |
| 2,4,6-Trichlorophenol | 0.100 | 0.0680 | 68 | 61 - 118 | |

| Surrogate | % Rec | Acceptance Limits |
|---|---|---|
| 2,4,6-Tribromophenol | 80 | 55 - 126 |
| 2-Fluorobiphenyl | 71 | 59 - 103 |
| 2-Fluorophenol | 68 | 56 - 100 |
| Nitrobenzene-d5 | 75 | 60 - 102 |
| Phenol-d5 | 73 | 55 - 104 |
| Terphenyl-d14 | 70 | 10 - 154 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42106**

**Method: 6010B**
**Preparation: 3010A**
**TCLP**

Lab Sample ID: MB 680-41913/6-D
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/17/2006 2324
Date Prepared: 04/17/2006 1300
Date Leached: 04/13/2006 1756

Analysis Batch: 680-42221
Prep Batch: 680-42106
Units: mg/L

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Arsenic | 0.052 | U | 0.052 | 0.20 |
| Barium | 0.012 | U | 0.012 | 1.0 |
| Cadmium | 0.010 | U | 0.010 | 0.10 |
| Chromium | 0.0095 | U | 0.0095 | 0.20 |
| Lead | 0.035 | U | 0.035 | 0.20 |
| Selenium | 0.054 | U | 0.054 | 0.50 |
| Silver | 0.010 | U | 0.010 | 0.10 |

**Laboratory Control Sample - Batch: 680-42106**

**Method: 6010B**
**Preparation: 3010A**
**TCLP**

Lab Sample ID: LCS 680-42106/7-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/17/2006 2329
Date Prepared: 04/17/2006 1300

Analysis Batch: 680-42221
Prep Batch: 680-42106
Units: mg/L

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Arsenic | 20.0 | 19.6 | 98 | 75 - 125 | |
| Barium | 20.0 | 20.3 | 102 | 75 - 125 | |
| Cadmium | 0.500 | 0.490 | 98 | 75 - 125 | |
| Chromium | 2.00 | 2.02 | 101 | 75 - 125 | |
| Lead | 5.00 | 4.97 | 99 | 75 - 125 | |
| Selenium | 20.0 | 19.4 | 97 | 75 - 125 | |
| Silver | 0.500 | 0.484 | 97 | 75 - 125 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42203**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: MB 680-42203/21-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1801
Date Prepared: 04/18/2006 1218

Analysis Batch: 680-42395
Prep Batch: 680-42203
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Lead | 0.21 | U | 0.21 | 0.50 |

**Laboratory Control Sample - Batch: 680-42203**

**Method: 6010B**
**Preparation: 3050B**

Lab Sample ID: LCS 680-42203/22-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1806
Date Prepared: 04/18/2006 1218

Analysis Batch: 680-42395
Prep Batch: 680-42203
Units: mg/Kg

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 100 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Lead | 50.0 | 49.1 | 98 | 75 - 125 | |

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 680-42203**

**Method: 6010B**
**Preparation: 3050B**

MS Lab Sample ID: 680-15578-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1826
Date Prepared: 04/18/2006 1218

Analysis Batch: 680-42395
Prep Batch: 680-42203

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 680-15578-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1831
Date Prepared: 04/18/2006 1218

Analysis Batch: 680-42395
Prep Batch: 680-42203

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 100 mL

| Analyte | % Rec. MS | % Rec. MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---|---|---|---|---|---|---|---|
| Lead | 97 | 95 | 75 - 125 | 2 | 20 | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42049**

**Method: 7470A**
**Preparation: 7470A**
**TCLP**

Lab Sample ID: MB 680-41913/6-C
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1026
Date Prepared: 04/15/2006 1643
Date Leached: 04/13/2006 1756

Analysis Batch: 680-42344
Prep Batch: 680-42049
Units: mg/L

Instrument ID: LEEMAN1
Lab File ID: N/A
Initial Weight/Volume: 0.50 mL
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Mercury | 0.0080 | U | 0.0080 | 0.020 |

**Laboratory Control Sample - Batch: 680-42049**

**Method: 7470A**
**Preparation: 7470A**
**TCLP**

Lab Sample ID: LCS 680-42049/6-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/18/2006 1029
Date Prepared: 04/15/2006 1643

Analysis Batch: 680-42344
Prep Batch: 680-42049
Units: mg/L

Instrument ID: LEEMAN1
Lab File ID: N/A
Initial Weight/Volume: 0.50 mL
Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Mercury | 0.250 | 0.220 | 88 | 80 - 120 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42514**

**Method: 9014**
**Preparation: 7.3.3**

Lab Sample ID: MB 680-42514/4-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/20/2006 1510
Date Prepared: 04/20/2006 1050

Analysis Batch: 680-42515
Prep Batch: 680-42514
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 250 mL

| Analyte | Result | Qual | RL | RL |
|---|---|---|---|---|
| Cyanide, Reactive | 100 | U | 100 | 100 |

**Laboratory Control Sample - Batch: 680-42514**

**Method: 9014**
**Preparation: 7.3.3**

Lab Sample ID: LCS 680-42514/5-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/20/2006 1510
Date Prepared: 04/20/2006 1050

Analysis Batch: 680-42515
Prep Batch: 680-42514
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 250 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Cyanide, Reactive | 249 | 95.5 | 38 | 10 - 100 | U |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Catlin Engineers and Scientists

Job Number: 680-15578-1

**Method Blank - Batch: 680-42517**

**Method: 9034**
**Preparation: 7.3.4**

Lab Sample ID: MB 680-42517/4-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/20/2006 1450
Date Prepared: 04/20/2006 1050

Analysis Batch: 680-42519
Prep Batch: 680-42517
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 250 mL

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Sulfide, Reactive | 50 | U | 50 | 50 |

**Laboratory Control Sample - Batch: 680-42517**

**Method: 9034**
**Preparation: 7.3.4**

Lab Sample ID: LCS 680-42517/5-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/20/2006 1450
Date Prepared: 04/20/2006 1050

Analysis Batch: 680-42519
Prep Batch: 680-42517
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 250 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---|---|---|---|---|---|
| Sulfide, Reactive | 2510 | 1520 | 61 | 40 - 100 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 76315

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

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Phone: (912) 354-7858
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○ Alternate Laboratory Name/Location
Phone:
Fax:


| | | | |
|---|---|---|---|
| PROJECT REFERENCE: FHR FWTP | PROJECT NO.: 201-125 | PROJECT LOCATION (STATE): NC | PAGE 1 OF 1 |
| STL (LAB) PROJECT MANAGER: KATHY SMITH | P.O. NUMBER: | CONTRACT NO.: | STANDARD REPORT DELIVERY ○ |
| CLIENT (SITE) PM: JEFF BECKEN | CLIENT PHONE: 910-452-5861 | CLIENT FAX: 910-452-7563 | DATE DUE: |
| CLIENT NAME: CATLIN ENG. & SCI. | CLIENT E-MAIL: jeff.becken@catlinusa.com | | EXPEDITED REPORT DELIVERY (SURCHARGE) ⊗ 5 DAY |
| CLIENT ADDRESS: 220 OLD DAIRY RD, WILMINGTON, NC 28405 | | | DATE DUE: TURNAROUND |
| COMPANY CONTRACTING THIS WORK (if applicable): REISS REMEDIATION, LLC | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT,...) | TOTAL LEAD | TCLP VOA | TCLP SVO | TCLP METALS | TCLP IGNITABILITY REACTIVITY | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER OF CONTAINERS SUBMITTED | | | | | | 0 | 0 | 0 | 0 | 0 | | | | | |
| 12APR06 | 1115 | SB-5A | C | | X | | | 1 | | | | | | | | | |
| | 1125 | SB-5B | C | | X | | | 1 | | | | | | | | | |
| | 1135 | SB-5C | C | | X | | | 1 | | | | | | | | | |
| | 1145 | SB-5D | C | | X | | | 1 | | | | | | | | | |
| | 1200 | SB-5AREA | C | | X | | | | 1 | 1 | 1 | 1 | | | | | |

TEMP.: 12

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | | | [signature] | 12APR06 | 1545 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 4/3/06 | 945 | YES ○ NO ○ | | (08)-15578 | |

STL8240-680 (12/02)

# APPENDIX D

# SOIL BORING LOGS - LEAD

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Bobbie Fowler | SB-1 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Brown, medium grained SAND. |
| 1.0 | | | | | | 1.0 | Tan SAND |
| 2.0 | | | | | | 3.0 | Boring Terminated at Depth 3.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Bobbie Fowler | SB-2 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.0 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | |
| 1.0 | | | | | | | | | | Tan SAND |
| | | | | | | | | | 2.0 | |
| | | | | | | | | | | Boring Terminated at Depth 2.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: SB-3 |
| | | DRILLER: Bobbie Fowler | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| | | | | | | 2.0 | |
| 2.0 | | | | | | | Light brown SAND. Petroleum odor present |
| | | | | | | 3.0 | |
| | | | | | | | Boring Terminated at Depth 3.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | LOGGED BY: Dimitri Talbert | DRILLER: Bobbie Fowler | BORING ID: SB-4 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown/grey SAND |
| 1.0 | | | | | | 1.0 | |
| 2.0 | | | | | | | Light brown/yellow SAND |
| | | | | | | 3.0 | |
| | | | | | | | Boring Terminated at Depth 3.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: SB-5 |
| | | DRILLER: Bobbie Fowler | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.5 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND with some Limestone gravel |
| | | | | | | 2.0 | |
| 2.0 | | | | | | | Orange/brown(oxide colored) SAND |
| | | | | | | 2.5 | |
| | | | | | | | Boring Terminated at Depth 2.5 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Bobbie Fowler | SB-6 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 1.5 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | SW | | 0.5 | Light brown SAND |
| | | | | | | | SW | | 1.0 | Grey/brown SAND |
| 1.0 | | | | | | | SW | | 1.5 | White/grey SAND |
| | | | | | | | | | | Boring Terminated at Depth 1.5 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Bobbie Fowler | SB-7 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 1.0 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | SW | | | Light brown SAND |
| | | | | | | 1.0 | Boring Terminated at Depth 1.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Bobbie Fowler | SB-8 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.5 |
| START DATE: 11/22/05 | FINISH DATE: 11/22/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | |
| 1.0 | | | | | | | | | | |
| | | | | | | | | | | Light brown/yellowish orange SAND |
| 2.0 | | | | | | | | | | |
| 3.0 | | | | | | | | | 3.5 | |
| | | | | | | | | | | Boring Terminated at Depth 3.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-9 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.5 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND |
| 1.0 | | | | | | 1.0 | Light brown - dark brown SAND |
| 2.0 | | | | | | 2.5 | Boring Terminated at Depth 2.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-10 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| 2.0 | | | | | | | |
| | | | | | | 3.0 | Boring Terminated at Depth 3.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-11 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.5 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| 2.0 | | | | | | 2.5 | |
| | | | | | | | Boring Terminated at Depth 2.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: SB-12 |
| | | DRILLER: Marshall Adams | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.5 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| 2.0 | | | | | | 2.5 | |
| | | | | | | | Boring Terminated at Depth 2.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-13 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | |
| | | | | | | | Light brown SAND |
| 2.0 | | | | | | | |
| | | | | | | 3.0 | |
| | | | | | | | Boring Terminated at Depth 3.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina



| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-14 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.5 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND, with some limestone in top 6" |
| | | | | | | 1.0 | |
| 1.0 | | | | | | | Light brown SAND |
| 2.0 | | | | | | 2.5 | |
| | | | | | | | Boring Terminated at Depth 2.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-15 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND |
| 1.0 | | | | | | 1.0 | Light brown- tan SAND |
| 2.0 | | | | | | 2.0 | Light brown-dark grey SAND |
| | | | | | | 3.0 | Boring Terminated at Depth 3.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-16 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| 2.0 | | | | | | 3.0 | |
| | | | | | | | Boring Terminated at Depth 3.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-17 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.0 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | |
| 1.0 | | | | | | | | | | Light brown SAND |
| | | | | | | | | | 2.0 | |
| | | | | | | | | | | Boring Terminated at Depth 2.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-18 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.0 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| | | | | | | 2.0 | |
| | | | | | | | Boring Terminated at Depth 2.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-19 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 2.0 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | |
| 1.0 | | | | | | | | | 1.0 | Light brown to dark brown SAND |
| | | | | | | | | | | Light brown SAND |
| | | | | | | | | | 2.0 | |
| | | | | | | | | | 2.0 | Boring Terminated at Depth 2.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-20 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.0 |
| START DATE: 11/15/05 | FINISH DATE: 11/15/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND |
| 1.0 | | | | | | 1.0 | Dark brown SAND |
| 2.0 | | | | | | 3.0 | Boring Terminated at Depth 3.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-21 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 4.0 |
| START DATE: 11/18/05 | FINISH DATE: 11/18/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Tan SAND with Limestone |
| 1.0 | | | | | | 1.0 | |
| 2.0 | | | | | | | Yellowish orange SAND |
| 3.0 | | | | | | 3.0 | |
| | | | | | | | Tan SAND |
| | | | | | | 4.0 | |
| | | | | | | | Boring Terminated at Depth 4.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-22 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND |
| 1.0 | | | | | | 1.0 | Light grey SAND |
| 2.0 | | | | | | 2.5 | Dark brown-black SAND |
| 3.0 | | | | | | 3.0 | Light brown-orange SAND |
| 4.0 | | | | | | 5.0 | Light brown SAND |
| 5.0 | | | | | | 6.0 | Boring Terminated at Depth 6.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: SB-23 |
| | | DRILLER: Marshall Adams | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 5.0 |
| START DATE: 11/18/05 | FINISH DATE: 11/18/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | 0.5 | Light brown SAND |
| | | | | | | 1.0 | Yellowish orange SAND |
| 1.0 | | | | | | 2.0 | Yellowish orange SAND |
| 2.0 | | | | | | | |
| 3.0 | | | | | | 4.0 | Light brown SAND |
| 4.0 | | | | | | 5.0 | Light brown/grey SAND |
| | | | | | | | Boring Terminated at Depth 5.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-24 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 8.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | 0.5 | Light brown/orange SAND |
| 1.0 | | | | | | 2.0 | Yellow /orange SAND |
| 2.0 | | | | | | 4.0 | Light tan/orange SAND |
| 3.0 | | | | | | 5.0 | Tan SAND |
| 4.0 | | | | | | 6.0 | Tan w/ orange SAND |
| 5.0 | | | | | | 8.0 | Tan SAND |
| 6.0 | | | | | | | Boring Terminated at Depth 8.0 ft |
| 7.0 | | | | | | | |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-25 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.5 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | 0.5 | Light brown/grey SAND |
| | | | | | | | | | 1.0 | Brown/orange SAND |
| 1.0 | | | | | | | | | 2.0 | Brown/orange SAND |
| 2.0 | | | | | | | | | 3.0 | Dark grey SAND |
| 3.0 | | | | | | | | | 4.0 | Light grey SAND |
| 4.0 | | | | | | | | | 6.5 | Tan SAND |
| 5.0 | | | | | | | | | | |
| 6.0 | | | | | | | | | | |
| | | | | | | | | | | Boring Terminated at Depth 6.5 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-26 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 5.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | |
| 2.0 | | | | | | | Tan/light grey SAND |
| 3.0 | | | | | | | |
| 4.0 | | | | | | 4.0 | |
| | | | | | | | Tan/light grey SAND with some dark brown SAND. |
| | | | | | | 5.0 | |
| | | | | | | | Boring Terminated at Depth 5.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-27 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 7.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown/grey SAND |
| 1.0 | | | | | | 1.0 | Tan/light grey SAND |
| 2.0 | | | | | | 2.0 | Light grey (almost white) SAND |
| 3.0 | | | | | | | |
| 4.0 | | | | | | 4.0 | Brown/orange SAND |
| 5.0 | | | | | | | |
| 6.0 | | | | | | 6.0 | Dark brown/black SAND |
| | | | | | | 7.0 | Boring Terminated at Depth 7.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: SB-28 |
| | | DRILLER: Marshall Adams | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 5.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown/grey SAND |
| 1.0 | | | | | | 1.0 | Grey SAND |
| 2.0 | | | | | | 2.0 | Light grey/white SAND |
| 3.0 | | | | | | | |
| 4.0 | | | | | | 4.0 | Dark brown/black SAND |
| | | | | | | 5.0 | Boring Terminated at Depth 5.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-29 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.5 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | |
| 1.0 | | | | | | | | | | Tan/yellowish orange SAND |
| 2.0 | | | | | | | | | 2.0 | |
| | | | | | | | | | | Tan/yellowish orange SAND, with more orange than previous. |
| 3.0 | | | | | | | | | 3.0 | |
| 4.0 | | | | | | | | | | Tan SAND |
| 5.0 | | | | | | | | | 5.0 | |
| | | | | | | | | | | Tan/dark brown SAND |
| 6.0 | | | | | | | | | 6.5 | |
| | | | | | | | | | | Boring Terminated at Depth 6.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-30 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 10.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND |
| 1.0 | | | | | | 1.0 | Light brown/ yellowish orange SAND |
| 2.0 | | | | | | 2.0 | Light brown/tan SAND |
| 3.0 | | | | | | | |
| 4.0 | | | | | | | |
| 5.0 | | | | | | | |
| 6.0 | | | | | | 6.0 | Tan SAND with some orange. |
| 7.0 | | | | | | | |
| 8.0 | | | | | | 8.0 | Light brown SAND |
| 9.0 | | | | | | 9.0 | Light brown SAND with dark brown SAND |
| | | | | | | 10.0 | Boring Terminated at Depth 10.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-31 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Light brown SAND |
| 2.0 | | | | | | | |
| 3.0 | | | | | | 3.0 | |
| | | | | | | | Light brown to black SAND, petroleum odor |
| 4.0 | | | | | | 4.0 | |
| 5.0 | | | | | | | Light-dark brown SAND, petroleum odor |
| | | | | | | 6.0 | |
| | | | | | | | Boring Terminated at Depth 6.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-32 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 10.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Light brown SAND |
| 1.0 | | | | | | 1.0 | Yellowish orange SAND |
| 2.0 | | | | | | 2.0 | Light brown SAND |
| 3.0 | | | | | | | |
| 4.0 | | | | | | | |
| 5.0 | | | | | | 5.0 | Tan SAND |
| 6.0 | | | | | | | |
| 7.0 | | | | | | 7.0 | Dark brown SAND |
| 8.0 | | | | | | 8.0 | Light-dark brown SAND |
| 9.0 | | | | | | | |
| | | | | | | 10.0 | Boring Terminated at Depth 10.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-33 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 1.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | Light grey SAND |
| | | | | | | | | | 1.0 | Boring Terminated at Depth 1.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-34 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 1.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | Grey SAND |
| | | | | | | | | | 1.0 | Boring Terminated at Depth 1.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-35 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 1.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | Light grey SAND |
| | | | | | | | | | 1.0 | Boring Terminated at Depth 1.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-36 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 1.0 |
| START DATE: 11/17/05 | FINISH DATE: 11/17/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | Light grey SAND |
| | | | | | | | | | 1.0 | Boring Terminated at Depth 1.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-37 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.5 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Tan SAND |
| 2.0 | | | | | | | |
| 3.0 | | | | | | 3.0 | |
| | | | | | | 3.5 | Light grey SAND |
| | | | | | | | Boring Terminated at Depth 3.5 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-38 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | |
| 2.0 | | | | | | | |
| 3.0 | | | | | | | Tan SAND |
| 4.0 | | | | | | | |
| 5.0 | | | | | | | |
| | | | | | | 6.0 | Boring Terminated at Depth 6.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-39 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 3.5 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Yellowish-orange SAND |
| 1.0 | | | | | | 1.0 | Orange SAND |
| 2.0 | | | | | | | |
| 3.0 | | | | | | 3.0 | Orange/brown SAND |
| | | | | | | 3.5 | Boring Terminated at Depth 3.5 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-40 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | |
| 1.0 | | | | | | | | | | |
| 2.0 | | | | | | | | | | |
| 3.0 | | | | | | | | | | Tan SAND |
| 4.0 | | | | | | | | | | |
| 5.0 | | | | | | | | | | |
| | | | | | | | | | 6.0 | Boring Terminated at Depth 6.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-41 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 7.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | Yellowish-orange SAND |
| 1.0 | | | | | | 1.0 | Orange to yellowish-orange SAND |
| 2.0 | | | | | | 2.0 | Tan SAND |
| 3.0 | | | | | | 3.0 | Light brown SAND |
| 4.0 | | | | | | | |
| 5.0 | | | | | | 5.0 | Tan SAND |
| 6.0 | | | | | | 6.0 | Dark brown-grey SAND |
| | | | | | | 7.0 | Boring Terminated at Depth 7.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terrminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-42 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 9.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in 6in 6in 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | |
| 1.0 | | | | | | | Tan SAND |
| 2.0 | | | | | | 2.0 | |
| 3.0 | | | | | | | Yellowish-orange SAND |
| 4.0 | | | | | | | |
| 5.0 | | | | | | 5.0 | |
| 6.0 | | | | | | | Tan SAND |
| 7.0 | | | | | | 7.0 | |
| 8.0 | | | | | | | Light brown SAND |
| | | | | | | 9.0 | |
| | | | | | | | Boring Terminated at Depth 9.0 ft |

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-43 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 7.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | Tan SAND |
| 1.0 | | | | | | | | | 1.0 | Tan, yellowish-orange SAND |
| 2.0 | | | | | | | | | 2.0 | Orange SAND |
| 3.0 | | | | | | | | | 3.0 | Light brown SAND |
| 4.0 | | | | | | | | | 4.0 | Tan SAND |
| 5.0 | | | | | | | | | 5.0 | Light grey SAND |
| 6.0 | | | | | | | | | 6.0 | Dark grey SAND |
| | | | | | | | | | 6.5 | Tan SAND |
| | | | | | | | | | 7.0 | Boring Terminated at Depth 7.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: NC | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: Flint Hills Resources - North Terminal | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: Marshall Adams | SB-44 |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 9.0 |
| START DATE: 11/16/05 | FINISH DATE: 11/16/05 | 24 HOUR DTW: | ROCK DEPTH: --- |

| DEPTH | BLOW COUNT 6in | 6in | 6in | 6in | BLOWS PER FOOT 0 20 40 60 80 100 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0.0 | LAND SURFACE |
| 0.0 | | | | | | | | | | Tan SAND |
| 1.0 | | | | | | | | | 1.0 | |
| 2.0 | | | | | | | | | | Yellowish-orange SAND |
| 3.0 | | | | | | | | | | |
| 4.0 | | | | | | | | | 4.0 | |
| 5.0 | | | | | | | | | | Light brown SAND |
| 6.0 | | | | | | | | | | |
| 7.0 | | | | | | | | | 7.0 | |
| | | | | | | | | | | Light brown with some dark brown SAND. |
| 8.0 | | | | | | | | | 8.0 | |
| | | | | | | | | | | Dark brown/grey SAND |
| | | | | | | | | | 9.0 | |
| | | | | | | | | | | Boring Terminated at Depth 9.0 ft |

CATLIN BORING LOG 201-125.GPJ TEST.GDT 01/11/06

# APPENDIX D

# SOIL BORING LOGS - TPH

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Michele Croot | BORING ID: SB-3 |
| | | DRILLER: NA | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 4.0 |
| START DATE: 12/30/05 | FINISH DATE: 12/30/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| 0.0 | | | | | | | LAND SURFACE (0.0) | NM |
| | | | ▲6.7 | | | | Light to medium brown, fine to coarse grained SAND. (1.0) | |
| 1.0 | | MOI | ▲1622 | | | | Brown, fine to medium grained SAND, moist. (2.0) | |
| 2.0 | | MOI | ▲1833 | | | | Brown, v.fine to medium grained SAND, moist. (3.0) | |
| 3.0 | | WET | ▲1918 | 3-4 | | | Brown, v.fine to medium grained SAND, moist, strong HCO. (4.0) | |
| 4.0 | | | | | | | Boring Terminated at Depth 4.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Michele Croot | BORING ID: SB-3E |
| | | DRILLER: NA | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 4.0 |
| START DATE: 12/30/05 | FINISH DATE: 12/30/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION (DEPTH / ELEVATION) |
|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE NM |
| 0.0 | | DRY | ▲3.8 | | | | Brown, fine to medium grained SAND. 1.0 |
| 1.0 | | MOI | ▲5.2 | | | | Light grey, brown, and orange SANDS, moist. |
| 2.0 | | MOI | ▲84.7 | 2-3 | | | 3.0 |
| 3.0 | | WET | ▲93.7 | | | | Brown, fine to medium grained SAND, wet. 4.0 |
| 4.0 | | | | | | | Boring Terminated at Depth 4.0 ft |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Michele Croot | BORING ID: SB-3N |
| | | DRILLER: NA | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 4.0 |
| START DATE: 12/30/05 | FINISH DATE: 12/30/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| 0.0 | | | | | | | LAND SURFACE (0.0) | NM |
| | | DRY | ▲3.5 | | | | Light tan to dark brown, fine to medium grained SAND, with few pieces of asphalt. (0.0–1.0) | |
| 1.0 | | MOI | ▲1750 | | | | Light brown, fine to medium grained SAND, strong HCO. (1.0–3.0) | |
| 2.0 | | MOI | ▲2040 | 2-3 | | | | |
| 3.0 | | WET | ▲2220 | | | | Brown to dark brown, very fine to medium grained SAND, wet, strong HCO. (3.0–4.0) | |
| 4.0 | | | | | | | Boring Terminated at Depth 4.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Michele Croot | BORING ID: SB-3S |
| | | DRILLER: NA | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 4.0 |
| START DATE: 12/30/05 | FINISH DATE: 12/30/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION (DEPTH / ELEVATION) |
|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE NM |
| 0.0 | | DRY | ▲5.1 | | | | Tan to light brown, fine to medium grained SAND. 1.0 |
| 1.0 | | MOI | ▲4.3 | | | | Light brown, fine to medium grained SAND, moist. 2.0 |
| 2.0 | | MOI | ▲5.2 | | | | Brown, v.fine to medium grained SAND. 3.0 |
| 3.0 | | WET | ▲5.1 | 3-4 | | | Very light grey to tan, fine to very coarse SAND, wet. 4.0 |
| 4.0 | | | | | | | Boring Terminated at Depth 4.0 ft |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Michele Croot | BORING ID: SB-3W |
| | | DRILLER: NA | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 4.0 |
| START DATE: 12/30/05 | FINISH DATE: 12/30/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION (DEPTH / ELEVATION) |
|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE NM |
| 0.0 | | DRY | ▲4.0 | | | | Dark brown, fine to medium grained SAND. 1.0 |
| 1.0 | | MOI | ▲3.5 | | | | Light to dark brown, fine to medium grained SAND, moist. |
| 2.0 | | MOI | ▲5.5 | 2-3 | | | 3.0 |
| 3.0 | | WET | ▲6.5 | | | | Tan, fine to medium grained SAND, wet. 4.0 |
| 4.0 | | | | | | | Boring Terminated at Depth 4.0 ft |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-29B |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 8.0 | BORING DEPTH: 8.0 |
| START DATE: 4/19/06 | FINISH DATE: 4/19/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown/orange SAND. | |
| 3.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 5.0 | | | | | | | 5.0 | | |
| | | | ▲0 | | | | | Medium brown SAND. | |
| 6.0 | | | | | | | 6.0 | | |
| | | | ▲8 | | | | | | |
| 7.0 | | | | | | | | Medium brown SAND, petroleum odor. | |
| | | | ▲10 | SB-29B (7-8) | | | | | |
| 8.0 | | | | | ▽ | | 8.0 | | |
| | | | | | | | | Boring Terminated at Depth 8.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-29C |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 8.0 | BORING DEPTH: 8.0 |
| START DATE: 4/19/06 | FINISH DATE: 4/19/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | LAND SURFACE (0.0) | |
| 0.0 | | | ▲0 | | | | Light brown/orange SAND. | |
| 1.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 2.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 3.0 | | | | | | | (3.0) | |
| | | | ▲0 | | | | Medium brown/orange SAND. | |
| 4.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 5.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 6.0 | | | | | | | (6.0) | |
| | | | ▲9 | | | | Medium brown SAND, petroleum odor. | |
| 7.0 | | | | | | | | |
| | | | ▲31 | SB-29C (7-8) | | | | |
| 8.0 | | | | | ▽ | | (8.0) | |
| | | | | | | | Boring Terminated at Depth 8.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-29D |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 10.0 | BORING DEPTH: 10.0 |
| START DATE: 4/19/06 | FINISH DATE: 4/19/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown/orange SAND. | |
| 3.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 5.0 | | | | | | | 5.0 | | |
| | | | ▲0 | | | | | | |
| 6.0 | | | | | | | | | |
| | | | ▲0 | | | | | Medium brown SAND. | |
| 7.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 8.0 | | | | | | | 8.0 | | |
| | | | ▲0 | | | | | | |
| 9.0 | | | | | | | | Medium brown SAND, slight petroleum odor. | |
| | | | ▲1 | SB-29D (9-10) | | | | | |
| 10.0 | | | | | ▽ | | 10.0 | | |
| | | | | | | | | Boring Terminated at Depth 10.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31 |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 6.0 |
| START DATE: 12/14/05 | FINISH DATE: 12/14/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| 0.0 | | | | | | | 0.0 LAND SURFACE | NM |
| | | | ▲2.5 | | | | | |
| 1.0 | | | | | | | | |
| | | | ▲8.9 | | | | | |
| 2.0 | | | | | | | | |
| | | | ▲1022 | | | | | |
| 3.0 | | | | | | | Light brown SAND. | |
| | | | ▲1613 | 3-4 | | | | |
| 4.0 | | | | | | | | |
| | | | ▲1430 | | | | | |
| 5.0 | | | | | | | | |
| | | | ▲1459 | | | | | |
| 6.0 | | | | | | | 6.0 Boring Terminated at Depth 6.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31EA |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 4.0 |
| START DATE: 12/14/05 | FINISH DATE: 12/14/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | DEPTH 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲0.6 | | | | | |
| 1.0 | | | ▲0.6 | | | | Light brown SAND. | |
| 2.0 | | | ▲0.6 | | | | | |
| 3.0 | | | ▲821 | | | | 3.0 Dark brown SAND. | |
| 4.0 | | | | | | | 4.0 Boring Terminated at Depth 4.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31EB |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 3.0 |
| START DATE: 12/14/05 | FINISH DATE: 12/14/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | NM |
| 0.0 | | | ▲0.6 | | | | | | |
| 1.0 | | | | | | | | Light brown SAND. | |
| | | | ▲0.5 | | | | | | |
| 2.0 | | | | | | | 2.0 | | |
| | | | ▲384 | | | | | Dark brown SAND, HCO. | |
| 3.0 | | | | | | | 3.0 | | |
| | | | | | | | | Boring Terminated at Depth 3.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31EC |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 5.0 |
| START DATE: 12/14/05 | FINISH DATE: 12/14/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲1.3 | | | | | |
| 1.0 | | | | | | | Light brown SAND. | |
| | | | ▲1.2 | | | | | |
| 2.0 | | | | | | | 2.0 | |
| 3.0 | | | ▲39.7 | | | | Dark brown to black SAND. | |
| 4.0 | | | ▲1341 | | | | | |
| 5.0 | | | | | | | 5.0 | |
| | | | | | | | Boring Terminated at Depth 5.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31ED |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 5.0 |
| START DATE: 12/14/05 | FINISH DATE: 12/14/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲1.5 | | | | | |
| 1.0 | | | | | | | Light brown SAND. | |
| | | | ▲1.2 | | | | | |
| 2.0 | | | | | | | 2.0 | |
| | | | ▲1.1 | | | | | |
| 3.0 | | | | | | | | |
| | | | ▲1.6 | | | | Dark brown SAND. | |
| 4.0 | | | | | | | | |
| | | | ▲441 | | | | | |
| 5.0 | | | | | | | 5.0 | |
| | | | | | | | Boring Terminated at Depth 5.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | LOGGED BY: Dimitri Talbert | DRILLER: Mike D. Mason | BORING ID: SB-31EE |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 7.0 |
| START DATE: 12/16/05 | FINISH DATE: 12/16/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT (0.5 0.5 0.5 0.5) | REC. | OVA RESULTS (ppm) (0 1000 2000 3000 4000) | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION (DEPTH / ELEVATION) |
|---|---|---|---|---|---|---|---|
| 0.0 | | | | | | | 0.0 LAND SURFACE NM |
| | | | ▲0 | | | | |
| 1.0 | | | | | | | Light brown SAND. |
| | | | ▲0 | | | | |
| 2.0 | | | | | | | 2.0 |
| | | | ▲0 | | | | |
| 3.0 | | | | | | | |
| | | | ▲0 | | | | Dark brown SAND. |
| 4.0 | | | | | | | |
| | | | ▲1.3 | | | | |
| 5.0 | | | | | | | 5.0 |
| | | | ▲0 | | | | Dark reddish brown SAND. |
| 6.0 | | | | | | | 6.0 |
| | | | ▲0 | 6-7 | | | Light to dark brown SAND. |
| 7.0 | | | | | | | 7.0 |
| | | | | | | | Boring Terminated at Depth 7.0 ft |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31EMID |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 7.0 |
| START DATE: 12/19/05 | FINISH DATE: 12/19/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | NM |
| 0.0 | | | ▲0.6 | | | | | Light brown SAND. | |
| 1.0 | | | ▲0 | | | | 1.0 | Light brown/grey SAND. | |
| 2.0 | | | ▲625 | | | | 2.0 | Light brown SAND. | |
| 3.0 | | | ▲1008 | | | | 2.5 | Dark brown SAND. | |
| 4.0 | | | ▲1093 | | | | 4.5 | Medium brown SAND. | |
| 5.0 | | | ▲1755 | 5-6 | | | | | |
| 6.0 | | | | | | | | | |
| 7.0 | | | | | | | 7.0 | Boring Terminated at Depth 7.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31NA |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 7.0 |
| START DATE: 12/16/05 | FINISH DATE: 12/16/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | DEPTH 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲0.3 | | | | | |
| 1.0 | | | ▲1.7 | | | | | |
| 2.0 | | | ▲3.0 | | | | | |
| 3.0 | | | ▲7.0 | | | | Light brown SAND. | |
| 4.0 | | | ▲13.7 | | | | | |
| 5.0 | | | ▲13.5 | | | | | |
| 6.0 | | | ▲388 | | | | 6.0 Dark brown/black SAND. 7.0 | |
| 7.0 | | | | | | | Boring Terminated at Depth 7.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina



| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31NB |
| | | DRILLER: Mike D.Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 10.0 |
| START DATE: 12/16/05 | FINISH DATE: 12/16/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲2.8 | | | | | |
| 1.0 | | | | | | | Light brown SAND. | |
| | | | ▲0.4 | | | | | |
| 2.0 | | | | | | | 2.0 | |
| | | | ▲1.2 | | | | | |
| 3.0 | | | | | | | | |
| | | | ▲10.4 | | | | | |
| 4.0 | | | | | | | | |
| | | | ▲3.0 | | | | | |
| 5.0 | | | | | | | | |
| | | | ▲4.2 | | | | | |
| 6.0 | | | | | | | Orange/brown SAND. | |
| | | | ▲4.6 | | | | | |
| 7.0 | | | | | | | | |
| | | | ▲4.6 | | | | | |
| 8.0 | | | | | | | | |
| | | | ▲79.7 | | | | | |
| 9.0 | | | | | | | | |
| | | | ▲174 | | | | | |
| 10.0 | | | | | | | 10.0 | |
| | | | | | | | Boring Terminated at Depth 10.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31NC |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 8.0 |
| START DATE: 12/16/05 | FINISH DATE: 12/16/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲6.1 | | | | | |
| 1.0 | | | | | | | | |
| | | | ▲7.4 | | | | Orange/brown SAND. | |
| 2.0 | | | | | | | | |
| | | | ▲3.2 | | | | | |
| 3.0 | | | | | | | 3.0 | |
| | | | ▲7.1 | | | | | |
| 4.0 | | | | | | | | |
| | | | ▲2.6 | | | | | |
| 5.0 | | | | | | | | |
| | | | ▲2.9 | | | | Light brown SAND. | |
| 6.0 | | | | | | | | |
| | | | ▲30.4 | | | | | |
| 7.0 | | | | | | | | |
| | | | ▲159 | | | | | |
| 8.0 | | | | | | | 8.0 | |
| | | | | | | | Boring Terminated at Depth 8.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31ND |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 9.0 |
| START DATE: 12/19/05 | FINISH DATE: 12/19/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT (0.5 0.5 0.5 0.5) | REC. | OVA RESULTS (ppm) | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION (DEPTH / ELEVATION) |
|---|---|---|---|---|---|---|---|
| | | | 0 1000 2000 3000 4000 | | | | 0.0 LAND SURFACE NM |
| 0.0 | | | ▲0 | | | | |
| 1.0 | | | ▲0 | | | | |
| 2.0 | | | ▲1.6 | | | | |
| 3.0 | | | ▲0.3 | | | | |
| 4.0 | | | ▲0 | | | | Light brown/orange SAND. |
| 5.0 | | | ▲0 | | | | |
| 6.0 | | | ▲0.1 | | | | |
| 7.0 | | | ▲6.6 | | | | |
| 8.0 | | | ▲821 | | | | 8.0 Light brown/orange SAND, HCO. |
| 9.0 | | | | | | | 9.0 Boring Terminated at Depth 9.0 ft |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31NE |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 10.0 |
| START DATE: 12/19/05 | FINISH DATE: 12/19/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | NM |
| 0.0 | | | ▲0 | | | | | Light grey/brown SAND. | |
| 1.0 | | | ▲0 | | | | 1.0 | | |
| 2.0 | | | ▲0 | | | | | | |
| 3.0 | | | ▲0 | | | | | Light brown SAND. | |
| 4.0 | | | ▲0 | | | | | | |
| 5.0 | | | ▲0 | | | | | | |
| 6.0 | | | ▲0 | | | | 6.0 | | |
| 7.0 | | | ▲0 | | | | | Light brown/orange SAND. | |
| 8.0 | | | ▲0 | | | | | | |
| 9.0 | | | ▲20 | 9-10' | | | 9.0 | Medium brown SAND. | |
| 10.0 | | | | | | | 10.0 | Boring Terminated at Depth 10.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31NMID |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 10.0 |
| START DATE: 08/19/05 | FINISH DATE: 08/19/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | LAND SURFACE | 0.0 | NM |
| 0.0 | | | ▲0 | | | | Light brown/grey SAND. | 1.0 | |
| 1.0 | | | ▲0 | | | | | | |
| 2.0 | | | ▲0 | | | | | | |
| 3.0 | | | ▲0 | | | | | | |
| 4.0 | | | ▲0 | | | | Light brown SAND. | | |
| 5.0 | | | ▲0 | | | | | | |
| 6.0 | | | ▲0.3 | | | | | | |
| 7.0 | | | ▲57.5 | | | | | 8.0 | |
| 8.0 | | | ▲389 | | | | Light brown, with some orange, SAND. | 9.0 | |
| 9.0 | | | ▲716 | 9-10' | | | Medium brown SAND. | 10.0 | |
| 10.0 | | | | | | | Boring Terminated at Depth 10.0 ft | | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31S |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 8.0 |
| START DATE: 12/14/05 | FINISH DATE: 12/14/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | NM |
| 0.0 | | | ▲1.6 | | | | | | |
| 1.0 | | | ▲1.6 | | | | | | |
| 2.0 | | | ▲1.1 | | | | | | |
| 3.0 | | | ▲1.1 | | | | | | |
| 4.0 | | | ▲0.7 | | | | | Light brown SAND. | |
| 5.0 | | | ▲0.6 | | | | | | |
| 6.0 | | | ▲0.5 | 6-7 | | | | | |
| 7.0 | | | | | | | | | |
| 8.0 | | | | | | | 8.0 | Boring Terminated at Depth 8.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31W |
| | | DRILLER: Mike D. Mason | |
| NORTHING: | EASTING: | CREW: NA | |
| SYSTEM: | BORING LOCATION: | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 5.0 |
| START DATE: 12/16/05 | FINISH DATE: 12/16/05 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | REC. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | NM |
| 0.0 | | | ▲0 | | | | Light brown SAND. | |
| 1.0 | | | ▲0 | | | | 1.0 | |
| 2.0 | | | ▲1.4 | | | | | |
| 3.0 | | | ▲10.5 | | | | Dark brown SAND. | |
| 4.0 | | | ▲25.8 | 4-5 | | | | |
| 5.0 | | | | | | | 5.0 Boring Terminated at Depth 5.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 2 201-125.GPJ CATLIN.GDT 03/16/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31WE |
| | | DRILLER: Larry Wessell | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 9.5 | BORING DEPTH: 9.5 |
| START DATE: 04/13/06 | FINISH DATE: 04/13/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | ▲0 | | | | | | |
| 2.0 | | | ▲0 | | | | | | |
| 3.0 | | | ▲0 | | | | | | |
| 4.0 | | | ▲0 | | | | | | |
| 5.0 | | | ▲0 | | | | | Light brown SAND. | |
| 6.0 | | | ▲1 | | | | | | |
| 7.0 | | | ▲2 | | | | | | |
| 8.0 | | | ▲8 | | | | | | |
| 9.0 | | | ▲23 | | | | | | |
| 9.5 | | | | | ▽ | | 9.5 | Boring Terminated at Depth 9.5 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 05/04/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-31WF |
| | | DRILLER: Larry Wessell | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 9.0 |
| START DATE: 04/13/06 | FINISH DATE: 04/13/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | |
| 1.0 | | | ▲0 | | | | | |
| 2.0 | | | ▲0 | | | | | |
| 3.0 | | | ▲0 | | | | | |
| 4.0 | | | ▲0 | | | | Light brown SAND. | |
| 5.0 | | | ▲0 | | | | | |
| 6.0 | | | ▲0 | | | | | |
| 7.0 | | | ▲1 | | | | | |
| 8.0 | | | ▲8 | | | | | |
| 9.0 | | | | | | | 9.0 Boring Terminated at Depth 9.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 05/04/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | LOGGED BY: Dimitri Talbert | DRILLER: Larry Wessell | BORING ID: SB-31 WG |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 10.0 | BORING DEPTH: 10.0 |
| START DATE: 04/13/06 | FINISH DATE: 04/13/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | | | |
| | | | | | | | | | |
| 3.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 5.0 | | | | | | | | Light brown SAND. | |
| | | | ▲0 | | | | | | |
| 6.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 7.0 | | | | | | | | | |
| | | | ▲1 | | | | | | |
| 8.0 | | | | | | | | | |
| | | | ▲2 | | | | | | |
| 9.0 | | | | | | | | | |
| | | | ▲2 | | | | | | |
| 10.0 | | | | | ▽ | | 10.0 | | |
| | | | | | | | | Boring Terminated at Depth 10.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 05/04/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, North Carolina

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32B |
| | | DRILLER: Larry Wessell | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: NM | BORING DEPTH: 10.0 |
| START DATE: 04/13/06 | FINISH DATE: 04/13/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown SAND. | |
| 6.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 8.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 10.0 | | | | | | | 10.0 | Boring Terminated at Depth 10.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 05/04/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32B-2 |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 10.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown/orange SAND. | |
| 2.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 3.0 | | | | | | | 3.0 | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 5.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 6.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown SAND. | |
| 7.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 8.0 | | | | | | | | | |
| | | | ▲2 | | | | | | |
| 9.0 | | | | | | | | | |
| | | | ▲9 | | | | | | |
| 10.0 | | | | | | | 10.0 | | |
| | | | | | | | | Boring Terminated at Depth 10.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/7/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32C |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown SAND. | |
| 3.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 5.0 | | | | | | | 5.0 | | |
| | | | ▲55 | | | | | Medium brown SAND, petroleum odor. | |
| 6.0 | | | | | | | 6.0 | | |
| | | | | | | | | Boring Terminated at Depth 6.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/7/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32D |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 6.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | |
| 1.0 | | | | | | | | |
| | | | ▲0 | | | | Light brown SAND. | |
| 2.0 | | | | | | | | |
| | | | | | | | 3.0 | |
| 3.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 4.0 | | | | | | | | |
| | | | ▲0 | | | | Light brown/orange SAND. | |
| 5.0 | | | | | | | | |
| | | | ▲11 | | | | | |
| | | | | | | | 6.0 | |
| 6.0 | | | | | | | Boring Terminated at Depth 6.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/7/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32E |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 7.5 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | Light brown/orange SAND. | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | 2.0 | | |
| | | | ▲0 | | | | | | |
| 3.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown SAND. | |
| 5.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 6.0 | | | | | | | | | |
| | | | ▲2 | | | | | | |
| 7.0 | | | | | | | 7.0 | | |
| | | | ▲239 | | | | | Medium brown SAND, petroleum odor. | |
| 7.5 | | | | | | | 7.5 | | |
| | | | | | | | | Boring Terminated at Depth 7.5 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/7/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | LOGGED BY: Dimitri Talbert | DRILLER: John Wood | BORING ID: SB-32F |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 8.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | |
| 1.0 | | | | | | | Light brown/orange SAND. | |
| | | | ▲0 | | | | | |
| 2.0 | | | | | | | 2.0 | |
| | | | ▲0 | | | | | |
| 3.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 4.0 | | | | | | | | |
| | | | ▲0 | | | | Light brown SAND. | |
| 5.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 6.0 | | | | | | | | |
| | | | ▲0 | | | | | |
| 7.0 | | | | | | | 7.0 | |
| | | | ▲339 | | | | Light to medium brown SAND, petroleum odor. | |
| 8.0 | | | | | | | 8.0 | |
| | | | | | | | Boring Terminated at Depth 8.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32G |
| | | DRILLER: Larry Wessell | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 8.5 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT (0.5 0.5 0.5 0.5) | MOI. | OVA RESULTS (ppm) (0 1000 2000 3000 4000) | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | ▲0 | | | | | Light brown SAND. | |
| 2.0 | | | ▲0 | | | | 2.0 | | |
| 3.0 | | | ▲0 | | | | 3.0 | Light brown /orange SAND. | |
| 4.0 | | | ▲0 | | | | | | |
| 5.0 | | | ▲0 | | | | | | |
| 6.0 | | | ▲0 | | | | | Light brown SAND. | |
| 7.0 | | | ▲0 | | | | | | |
| 8.0 | | | ▲0 | | | | 8.0 | | |
| 8.5 | | | ▲436 | | | | 8.5 | Light to medium brown SAND. | |
| | | | | | | | | Boring Terminated at Depth 8.5 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32H |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 12.5 | BORING DEPTH: 12.5 |
| START DATE: 4/19/06 | FINISH DATE: 4/19/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | Light brown SAND. | |
| 1.0 | | | ▲0 | | | | 1.0 | | |
| 2.0 | | | ▲0 | | | | | | |
| 3.0 | | | ▲0 | | | | | | |
| 4.0 | | | ▲0 | | | | | | |
| 5.0 | | | ▲0 | | | | | Light brown/orange SAND. | |
| 6.0 | | | ▲0 | | | | | | |
| 7.0 | | | ▲0 | | | | | | |
| 8.0 | | | ▲0 | | | | | | |
| 9.0 | | | ▲0 | | | | 9.0 | | |
| 10.0 | | | ▲6 | | | | | Medium brown SAND, petroleum odor. | |
| 11.0 | | | ▲26 | | | | | | |
| 12.0 | | | ▲37 | SB-32H (11-12) | | | | | |
| 12.5 | | | ▲33 | | ▽ | | 12.5 | | |
| | | | | | | | | Boring Terminated at Depth 12.5 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-32I |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 8.0 | BORING DEPTH: 8.0 |
| START DATE: 4/19/06 | FINISH DATE: 4/19/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT (0.5 0.5 0.5 0.5) | MOI. | OVA RESULTS (ppm) (0 1000 2000 3000 4000) | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION (DEPTH / ELEVATION) |
|---|---|---|---|---|---|---|---|
| 0.0 | | | | | | | 0.0 LAND SURFACE |
| 1.0 | | | | | | | |
| 2.0 | | | | | | | Light brown/orange SAND. |
| 3.0 | | | | | | | |
| 4.0 | | | | | | | |
| 5.0 | | | | | | | 5.0 |
| 6.0 | | | ▲308 | | | | Medium brown SAND, petroleum odor. |
| 7.0 | | | ▲683 | SB-32I (7-8) | | | |
| 8.0 | | | | | ▽ | | 8.0 Boring Terminated at Depth 8.0 ft |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: John Wood | SB-32J |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 9.0 | BORING DEPTH: 9.0 |
| START DATE: 4/19/06 | FINISH DATE: 4/19/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | SOIL AND ROCK DESCRIPTION DEPTH | ELEVATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | |
| 1.0 | | | ▲0 | | | | | |
| 2.0 | | | ▲0 | | | | | |
| 3.0 | | | ▲0 | | | | Light brown SAND. | |
| 4.0 | | | ▲0 | | | | | |
| 5.0 | | | ▲0 | | | | | |
| 6.0 | | | ▲0 | | | | | |
| 7.0 | | | ▲544 | SB-32J (7-8) | | | 7.0 | |
| 8.0 | | | ▲451 | | | | Medium brown SAND, petroleum odor. | |
| 9.0 | | | | | ▽ | | 9.0 | |
| | | | | | | | Boring Terminated at Depth 9.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-45 |
| | | DRILLER: Larry Wessell | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: | BORING DEPTH: 7.0 |
| START DATE: 4/17/06 | FINISH DATE: 4/17/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | Light brown SAND | |
| | | | ▲0 | | | | | | |
| 2.0 | | | | | | | 2.0 | | |
| | | | ▲0 | | | | | | |
| 3.0 | | | | | | | | | |
| | | | ▲5 | | | | | | |
| 4.0 | | | | | | | | | |
| | | | ▲9 | | | | | Light brown SAND with some red/orange staining. | |
| 5.0 | | | | | | | | | |
| | | | ▲38 | | | | | | |
| 6.0 | | | | | | | | | |
| | | | ▲55 | SB-45 (6-7) | | | | | |
| 7.0 | | | | | | | 7.0 | | |
| | | | | | | | | Boring Terminated at Depth 7.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/7/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: |
| | | DRILLER: John Wood | SB-45E |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 7.0 | BORING DEPTH: 7.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | | | | | | | |
| | | | ▲0 | | | | | Light brown/orange SAND. | |
| 2.0 | | | | | | | | | |
| | | | ▲0 | | | | 3.0 | | |
| 3.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 4.0 | | | | | | | | Light brown SAND. | |
| | | | ▲0 | | | | 5.0 | | |
| 5.0 | | | | | | | | | |
| | | | ▲0 | | | | | | |
| 6.0 | | | | | | | | Light brown/orange SAND. | |
| | | | ▲0 | SB-45E (6-7) | ▽ | | 7.0 | | |
| 7.0 | | | | | | | | Boring Terminated at Depth 7.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-45N |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 9.0 | BORING DEPTH: 9.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: nm | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | ▲0 | | | | | | |
| 2.0 | | | ▲0 | | | | | Light brown SAND. | |
| 3.0 | | | ▲0 | | | | | | |
| 4.0 | | | ▲0 | | | | | | |
| 5.0 | | | ▲0 | | | | 5.0 | | |
| 6.0 | | | ▲0 | | | | | Light brown/orange SAND. | |
| 7.0 | | | ▲0 | | | | 7.0 | | |
| 8.0 | | | ▲0 | SB-45N (8-9) | | | | Light brown SAND. | |
| 9.0 | | | | | ▽ | | 9.0 | | |
| | | | | | | | | Boring Terminated at Depth 9.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | LOGGED BY: Dimitri Talbert | | BORING ID: SB-45S |
| | DRILLER: John Wood | | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 7.0 | BORING DEPTH: 7.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲0 | | | | | | |
| 1.0 | | | ▲1 | | | | | | |
| 2.0 | | | ▲0 | | | | | | |
| 3.0 | | | ▲0 | | | | | Light brown SAND. | |
| 4.0 | | | ▲0 | | | | | | |
| 5.0 | | | ▲2 | SB-45S (5-6) | | | | | |
| 6.0 | | | ▲1 | | | | | | |
| 7.0 | | | | | ▽ | | 7.0 | Boring Terminated at Depth 7.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06

# BORING LOG

CATLIN ENGINEERS and SCIENTISTS
201-125
Wilmington, NC

SHEET 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO.: 201-125 | STATE: N.C. | COUNTY: New Hanover | LOCATION: Wilmington |
| PROJECT NAME: FHR NORTH TERMINAL | | LOGGED BY: Dimitri Talbert | BORING ID: SB-45W |
| | | DRILLER: John Wood | |
| NORTHING: | EASTING: | CREW: | |
| SYSTEM: | BORING LOCATION: See Map | | LAND ELEV.: NM |
| DRILL MACHINE: Hand Auger | METHOD: Hand Auger | 0 HOUR DTW: 7.0 | BORING DEPTH: 7.0 |
| START DATE: 4/18/06 | FINISH DATE: 4/18/06 | 24 HOUR DTW: NM | ROCK DEPTH: -- |

| DEPTH | BLOW COUNT 0.5 0.5 0.5 0.5 | MOI. | OVA RESULTS (ppm) 0 1000 2000 3000 4000 | LAB. | USCS | LOG | DEPTH | SOIL AND ROCK DESCRIPTION | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 | LAND SURFACE | |
| 0.0 | | | ▲1 | | | | | Light brown SAND. | |
| 1.0 | | | ▲1 | | | | 1.0 | | |
| 2.0 | | | ▲0 | | | | | Light brown/white SAND. | |
| 3.0 | | | ▲0 | | | | | | |
| 4.0 | | | ▲1 | | | | 4.0 | Light brown/black SAND, "hardpan". | |
| 5.0 | | | ▲1 | | | | 5.0 | Black/brown SAND. | |
| 6.0 | | | ▲1 | SB-45W (6-7) | | | 6.0 | Light brown SAND. | |
| 7.0 | | | | | ▽ | | 7.0 | Boring Terminated at Depth 7.0 ft | |

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 201-125.GPJ CATLIN.GDT 7/13/06