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Phase III

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Received
AUG 2005

FIRST 2005
SEMI-ANNUAL GROUNDWATER
and
SURFACE WATER MONITORING REPORT

Central Carolina Tire Phase III Scrap Tire Monofill Landfill
Harnett County, North Carolina

WITHERS & RAVENEL
ENGINEERS I PLANNERS I SURVEYORS

July 29, 2005

North Carolina Division of Environment and Natural Resources
Division of Waste Management
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687

Attention: Ms. Jaclynne Drummond

Re: First 2005 Semi-Annual Groundwater and Surface Water Monitoring Report
Central Carolina Tire Phase III Scrap Tire Monofill Landfill (Expansion)
Harnett County, North Carolina
W&R Project No. 202334.09

Dear Ms. Drummond:

Withers & Ravenel (W&R) has completed the first of two semi-annual groundwater surface water monitoring events at the above referenced facility (Figure 1). The scope of work performed by W&R included collection of groundwater samples from the site, in general accordance with the Water Quality Monitoring Plan (the Plan) that is included as Section 9 of the Central Carolina Tire Phase III Scrap Tire Monofill Landfill Permit To Construct Application dated October 22, 2004. According to the Plan, samples from five groundwater monitoring wells and one surface water location are to be collected and tested on a semi-annual basis. A surface water sample was inadvertently not collected during this event. This is the second preliminary sampling event conducted for the expansion facility, which is not yet in operation. The following paragraphs describe the methodology and results of the field activities and laboratory analyses.

1.0 WATER QUALITY SAMPLING METHODOLOGY

1.1 Groundwater Sampling

Five groundwater monitoring wells, MW-10, MW-11, MW-12, MW-13, and MW-14 were installed at the site in September 2004 at locations proximal to the perimeter of the Phase III scrap tire monofill landfill (See Figure 2). Monitoring well construction details and groundwater data are summarized in Table 1. Hydraulic conductivity testing of monitoring wells MW-10 through MW-14 performed by W&R in September 2004 indicated hydraulic conductivity values ranging from 2.2×10^{-3} cm/s to 7.0×10^{-5} cm/s. Monitoring well MW-10 serves as the upgradient, natural background well for the facility and MW-11 through MW-14 serve as the downgradient monitoring wells.

Sampling activities were performed in accordance with protocols detailed in the Plan. New disposable nitrile or latex gloves were worn at each sampling location.

111 MacKenan Drive I Cary, North Carolina 27511 I tel: 919.469.3340 I fax: 919.467.6008 I www.withersravenel.com
107 Stokley Drive I Suite 104 I Wilmington, North Carolina 28403 I tel: 910.256.9277 I fax: 910.256.2584

Prior to purging and sampling activities, water levels within each well were measured using a decontaminated electronic water-level meter. Measurements were referenced to the top of each well casing. The average groundwater elevation was calculated to be 335.47 feet above mean sea level (MSL) for the sampling event. Individual groundwater elevations determined for each of the monitoring wells on June 23, 2005 are summarized in Table 1.

After water level information was collected, at least three times the volume of the water standing in each well was removed using a new disposable bailer. Measurements of the temperature, pH, and specific conductance of the water produced were recorded. Copies of the Pre-Sampling / Well Purging Field Logs that contain this information are included in Appendix A.

Groundwater samples were then collected using the same bailer used to purge the each respective well. Groundwater samples were decanted directly into laboratory provided containers, which were placed into ice-filled coolers and delivered under proper chain-of-custody to Environmental Conservation Laboratories (ENCO), Inc. in Cary, North Carolina for analysis of Volatile Organic Compounds (VOCs) by EPA Method 8260B and the eight RCRA metals by EPA Methods 200.7 and 7470. All samples were submitted unfiltered and the sample containers included the appropriate type and amount of preservative. The temperature of the groundwater samples ranged between 16.8 and 19.7 degrees Celsius; the pH ranged between 3.91 and 5.74; and the specific conductance ranged between 4 and 131 umhos/cm. The final field parameter measurements for each well are summarized in Table 1.

For quality assurance/quality control (QA/QC), ENCO prepared a trip blank, which accompanied the sample bottles to and from the field, for analysis by EPA Method 8260B for VOCs.

1.2 Surface Water Sampling

A surface water sample from location SW-1 (Expansion) was inadvertently not collected during this sampling event.

2.0 ANALYTICAL RESULTS

Laboratory results for the June 2005 sampling event are summarized in Table 2. A low concentration of the VOC toluene was detected in the groundwater sample from well MW-12 (2.0 ug/L). The detected concentration is well below the North Carolina Groundwater Standard for toluene (1,000 ug/L). No VOCs were detected in any of the remaining samples. Barium was detected in the samples from wells MW-10 (0.10 mg/L) and MW-14 (0.10 mg/L). Both concentrations are well below the North Carolina Groundwater Standard of 2.0 mg/L for barium. No other RCRA metals were identified in the samples from MW-10 or MW-14 and no RCRA metals were identified in the remaining samples. Metals analysis was not requested for the sample from well MW-12 due to the excessive turbidity of the sample. The laboratory detections can therefore be summarized as follows:

MW-10: Barium was reported at 0.10 mg/L

MW-12 : Toluene was reported at 2.0 ug/L.

MW-14 : Barium was reported at 0.12 mg/L.

No VOCs were identified in the trip blank and the results of matrix blank analyses were within acceptable tolerances. Copies of the laboratory analytical reports are included in Appendix B. Please note that the laboratory report also includes results for samples obtained from the adjacent active Phase I/II landfill facility (wells MW-12 through MW-9, and surface water SW-1 and SW-2). Those results are discussed in a separate document that was prepared specifically for that facility.

3.0 CONCLUSIONS

- The results of the first 2005 semi-annual monitoring event for the Central Carolina Tire Phase III scrap tire monofill landfill indicate that a low concentration of toluene was detected in one of the groundwater samples collected during the event. However, the concentration detected was well below the North Carolina Groundwater Standard for Toluene.

- Low concentrations of the RCRA metal barium were detected in two of the groundwater samples. However, the detected concentrations were well below the North Carolina Groundwater Standard for barium.

- VOCs were not identified in the QA/QC samples prepared by the analytical laboratory.

The next monitoring event for the Central Carolina Tire Phase III scrap tire monofill landfill is tentatively scheduled for November 2005. Please contact us at (919) 469-3340 if you have any questions regarding the contents of this report.

Sincerely,

WITHERS & RAVENEL

NORTH CAROLINA LICENSED SEAL 980 GEOLOGIST BRIAN

Brian J. Bellis, P.G.
Senior Hydrogeologist

cc: Mr. Thomas Womble

TABLES

Table 1
Monitoring Well and Groundwater Data
(June 2005 Event)
Phase III Tire Monofill Landfill (Planned)
Harnet County, North Carolina
W&R Project No. 202334.09

Well Location	Northing	Easting	TOC Elevation (Ft MSL)	Ground Surface Elevation (Ft MSL)	Depth to GW BTOC (Feet)	GW Elevation (Ft MSL)	Field Parameters			Well Depth BTOC (Feet)	Screened Interval Elevation (Ft MSL)
							Temp. C°	pH	S.C. umhos/cm		
MW-10	549731.36	1954619.21	356.28	353.74	13.55	342.73	19.0	4.61	131	26.5	329.7 - 344.7
MW-11	548984.87	1955599.35	347.80	345.70	10.43	337.37	17.5	5.07	4	22.6	325.2 - 340.2
MW-12	548054.79	1955590.24	336.58	334.45	5.88	330.70	16.8	5.74	41	20.6	316.0 - 331.0
MW-13	547826.40	1955420.62	339.47	337.36	10.36	329.11	17.4	3.91	8	20.1	319.4 - 334.4
MW-14	547781.99	1954436.12	344.12	341.86	6.66	337.46	19.7	4.34	70	12.3	331.9 - 336.9

Notes: 1) TOC = Top of Casing
2) BTOC = Below Top of Casing
3) GW = Groundwater
4) Ft MSL = Measured in Feet Mean Sea Level
5) S.C. = Specific Conductance
6) All Monitoring Wells are constructed of 2" PVC

Table 2
Laboratory Results
June 2005 Sampling Event
Phase III Tire Monofill Landfill (Planned)
Harnett County, North Carolina

ORGANIC CONSTITUENTS (in ug/L)	SW-1(Exp)	MW-10	MW-11	MW-12	MW-13	MW-14	RL (in ug/L)	NCAC 2L STD (in ug/L)
Acetone	NA	ND	ND	ND	ND	ND	50	700
Benzene	NA	ND	ND	ND	ND	ND	1	1
Bromobenzene	NA	ND	ND	ND	ND	ND	1	N/A
Bromochloromethane	NA	ND	ND	ND	ND	ND	1	N/A
Bromodichloromethane	NA	ND	ND	ND	ND	ND	1	0.56
Bromoform (Tribromoethane)	NA	ND	ND	ND	ND	ND	1	0.19
Bromomethane (Methyl Bromide)	NA	ND	ND	ND	ND	ND	2	N/A
tert-Butylbenzene	NA	ND	ND	ND	ND	ND	1	70
2-Butanone (MEK), (Methyl Ethyl Ketone)	NA	ND	ND	ND	ND	ND	20	170
n-Butlybenzene	NA	ND	ND	ND	ND	ND	1	70
s-Butylbenzene	NA	ND	ND	ND	ND	ND	1	70
1,3,5-Trimethylbenzene	NA	ND	ND	ND	ND	ND	[illegible]	[illegible]
Vinyl Chloride	NA	ND	ND	ND	ND	ND	1	0.015
Xylenes (mixed)	NA	ND	ND	ND	ND	ND	2	530
INORGANIC CONSTITUENTS (in mg/L)							**RL (in mg/L)**	**NCAC 2L STD (in mg/L)**
Arsenic	NA	ND	ND	NA	ND	ND	0.010	0.05
Barium	NA	0.10	ND	NA	ND	0.12	0.10	2
Cadmium	NA	ND	ND	NA	ND	ND	0.0010	0.005
Chromium	NA	ND	ND	NA	ND	ND	0.010	0.05
Lead	NA	ND	ND	NA	ND	ND	0.010	0.015
Mercury	NA	ND	ND	NA	ND	ND	0.00020	0.0011
Selenium	NA	ND	ND	NA	ND	ND	0.010	0.05
Silver	NA	ND	ND	NA	ND	ND	0.010	0.018

Notes:

NCAC 2L STD = North Carolina Groundwater Standard established in Title 15A of North Carolina Administrative Code Subchapter 2L

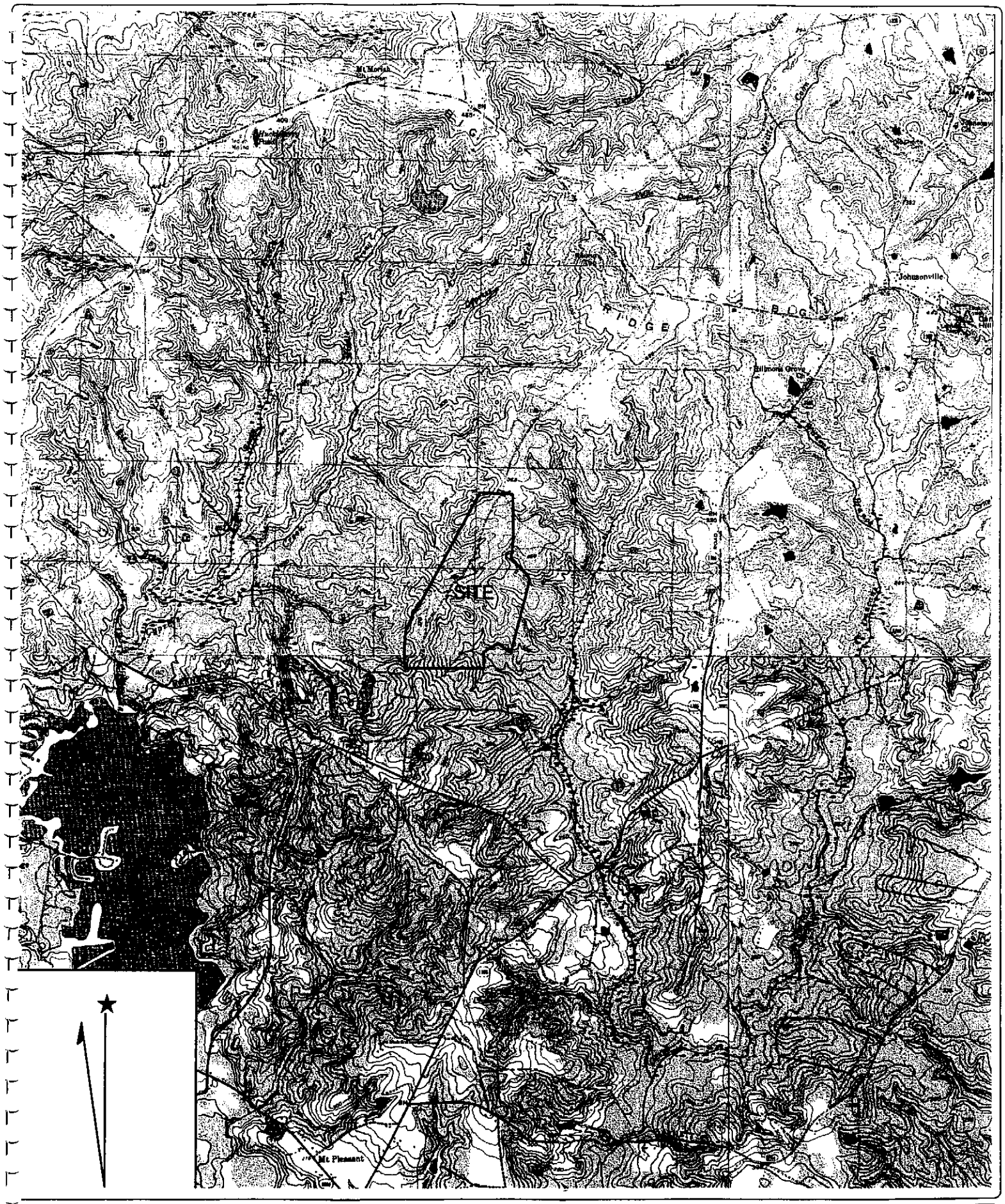
RL = Laboratory Reporting Limit

ND = Not Detected at concentration above reporting limit

NA = Not Analyzed, sample inadvertently not collected from location SW-1 (Exp) and sample from MW-12 was too turbid for metals analysis

N/A=Not Applicable, Standard for this compound has not been published

FIGURES

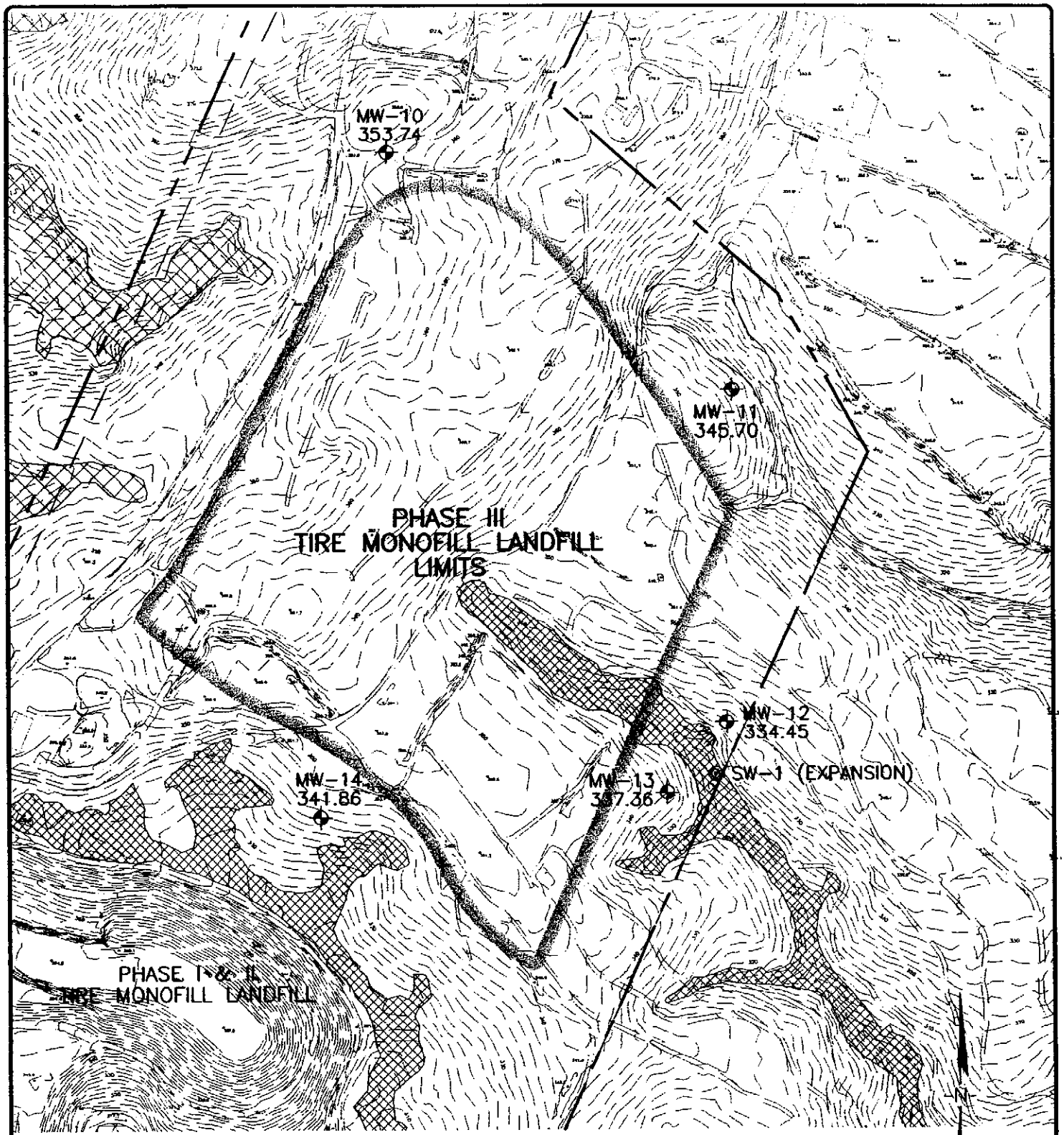


WITHERS & RAVENEL
ENGINEERS | PLANNERS | SURVEYORS
111 MacKenan Drive Cary, North Carolina 27511 www.withersravenel.com
tel: 919-460-8006 fax: 919-535-4545

CENTRAL CAROLINA TIRE
1616 McCoy Town Road
Cameron, North Carolina

USGS Murchistown, NC
7.5 min. Quadrangle

DRAWN BY:	SCALE:	FIGURE NO.
JMP	1:1200	1
APPROVED BY:	DATE:	JOB NO:
ML	11/24/04	202334.08



LEGEND

SW-1 (EXPANSION)	SURFACE WATER MONITORING LOCATION
MW-10 353.74	GROUNDWATER MONITORING WELL W/ GROUND ELEVATION
	WETLANDS
	TOPOGRAPHIC CONTOUR
	PROPERTY BOUNDARY

GRAPHIC SCALE 1"=400'

0 400 800 1200

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CENTRAL CAROLINA TIRE

PHASE III
TIRE MONOFILL LANDFILL

DRAWN BY:	SCALE:	FIGURE NO.
DOU	1" = 400'	2
APPROVED BY:	DATE	JOB NO.
JP	11/24/04	202334.09

:\02\02-330\02334.09 GW Monitoring\CCT GW Monitoring\BORING PLAN phase 3.pro Fri Dec 3, 2004 11:20:34AM WITHERS & RAVENEL, Engineers Planners Surveyors

APPENDIX A

PRE-SAMPLING / WELL PURGING FIELD LOGS

WITHERS & RAVENEL

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PRE-SAMPLING WELL PURGING

PROJECT Central Carolina Tire

WELL NUMBER MW-10

WELL INSIDE DIAMETER 2 INCHES

DEPTH OF BOTTOM 26.97 FEET

DEPTH TO WATER 13.55 FEET

1 WELL VOLUME 2.19 GALLONS

SAMPLED BY Garrett Morgan

PROJECT NUMBER 202334.0

DATE 6·23·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT) 91°

WEATHER CONDITIONS sunny; partly cloudy; hazy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

FLUSHING	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1620		
ESTIMATED VOLUME FLUSHING (gal)	2.25	4.50	6.75		
WELL VOLUMES REMOVED	1	2	3		

FIELD ANALYSIS					
WATER TEMPERATURE (°C)	19.4	19.5	19.0		
SAMPLE (ph)	4.88	4.67	4.61		
SAMPLE CONDUCTIVITY (umhos/cm)	126	126	131		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	999	999	740		

COMMENTS Sample Time = 1220 6·24·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

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PRE-SAMPLING WELL PURGING

SAMPLED BY Garrett Morgan

PROJECT Central Carolina Tire

PROJECT NUMBER 202334.0

WELL NUMBER MW-11

DATE 6-24-05 PAGE 1 OF 1

WELL INSIDE DIAMETER 2 INCHES

AIR TEMPERATURE (FAHRENHEIT) 90°

DEPTH OF BOTTOM 23.81 FEET

WEATHER CONDITIONS sunny; partly cloudy

DEPTH TO WATER 10.43 FEET

1 WELL VOLUME 2.18 GALLONS

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED

Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1430		
ESTIMATED VOLUME FLUSHING (gal)	2.25	4.50	6.75		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	18.1	17.6	17.5		
SAMPLE (ph)	5.50	5.13	5.07		
SAMPLE CONDUCTIVITY (umhos/cm)	5	4	4		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	slt. cloudy		
Eh					
TURBIDITY	999	672	360		

COMMENTS Sample Time = 1240 6-25-05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

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PRE-SAMPLING WELL PURGING

SAMPLED BY Garrett Morgan

PROJECT Central Carolina Tire

PROJECT NUMBER 202334.0

WELL NUMBER MW-12

DATE 6·24·05 PAGE 1 OF 1

WELL INSIDE DIAMETER 2 INCHES

AIR TEMPERATURE (FAHRENHEIT) 92°

DEPTH OF BOTTOM 21.59 FEET

WEATHER CONDITIONS sunny; partly cloudy;

DEPTH TO WATER 5.88 FEET

1 WELL VOLUME 2.56 GALLONS

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED

Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

FLUSHING	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1345		
ESTIMATED VOLUME FLUSHING (gal)	2.75	5.25	7.75		
WELL VOLUMES REMOVED	1	2	3		

FIELD ANALYSIS					
WATER TEMPERATURE (°C)	19.2	18.0	16.8		
SAMPLE (ph)	5.68	5.90	5.74		
SAMPLE CONDUCTIVITY (umhos/cm)	41	41	41		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	999	999	999		

COMMENTS Sample Time = 1220 6·25·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

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PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-13

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 20.64 FEET

DEPTH TO WATER: 10.36 FEET

1 WELL VOLUME: 1.68 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·24·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 92°

WEATHER CONDITIONS: sunny; partly cloudy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING				1315	
ESTIMATED VOLUME FLUSHING (gal)	1.75	3.50	5.25	7.00	
WELL VOLUMES REMOVED	1	2	3	4	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	19.1	18.0	17.5	17.4	
SAMPLE (ph)	5.08	4.38	4.02	3.91	
SAMPLE CONDUCTIVITY (umhos/cm)	28	8	8	8	
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→	→	
COLOR	cloudy	→	→	→	
Eh					
TURBIDITY	999	999	999	999	

COMMENTS: Sample Time = 1200 6·25·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

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PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-14

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 12.04 FEET

DEPTH TO WATER: 6.66 FEET

1 WELL VOLUME: .87 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·23·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 95°

WEATHER CONDITIONS: sunny; hazy; partly cloudy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer; Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1650		
ESTIMATED VOLUME FLUSHING (gal)	1.00	2.00	3.00		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	20.9	19.7	dry		
SAMPLE (ph)	4.41	4.34	0		
SAMPLE CONDUCTIVITY (umhos/cm)	73	70	2.25		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→			
COLOR	cloudy	→			
Eh					
TURBIDITY	560	999			

COMMENTS: Sample Time = 1240 6·24·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

APPENDIX B

LABORATORY ANALYTICAL RESULTS

Environmental Conservation Laboratories, Inc.
1015 Passport Way
Cary, North Carolina 27513-2042
919 / 677-1669
Fax 919 / 677-9846
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E82277

CLIENT : Withers & Ravenel Environmental
ADDRESS: 111 MacKenan Drive
Cary, NC 27511

REPORT # : CRY18224
DATE SUBMITTED: June 29, 2005
DATE REPORTED : July 6, 2005

ATTENTION: Mr. Brian Bellis

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

REFERENCE: 202334.09

Central Carolina Tire

CRY18224-1	: MW-2	@ 12:50	(06/23/05)
CRY18224-2	: MW-3	@ 12:35	(06/23/05)
CRY18224-3	: MW-4	@ 12:10	(06/23/05)
CRY18224-4	: MW-5	@ 13:40	(06/23/05)
CRY18224-5	: MW-6	@ 13:20	(06/23/05)
CRY18224-6	: MW-7	@ 13:05	(06/23/05)
CRY18224-7	: MW-8	@ 14:20	(06/23/05)
CRY18224-8	: MW-9	@ 14:00	(06/23/05)
CRY18224-9	: MW-10	@ 12:20	(06/24/05)
CRY18224-10	: MW-11	@ 12:40	(06/25/05)
CRY18224-11	: MW-12	@ 12:20	(06/22/05)
CRY18224-12	: MW-13	@ 12:00	(06/25/05)

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-2	MW-3	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1.	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-2	MW-3	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	104	112	73-138
D8-Toluene	102	104	77-118
Bromofluorobenzene	91	87	70-130
Date Analyzed	06/30/05 17:52	06/30/05 18:19	

U = Compound was analyzed for but not detected to the level shown.

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PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-4	MW-5	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	3.	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-4	MW-5	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	114	118	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	91	88	70-130
Date Analyzed	06/30/05 18:47	06/30/05 19:15	

U = Compound was analyzed for but not detected to the level shown.

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REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-6	MW-7	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-6	MW-7	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	114	119	73-138
D8-Toluene	104	104	77-118
Bromofluorobenzene	89	93	70-130
Date Analyzed	06/30/05 19:43	06/30/05 22:25	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-8	MW-9	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-8	MW-9	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	110	115	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	91	89	70-130
Date Analyzed	06/30/05 22:52	06/30/05 23:18	

U = Compound was analyzed for but not detected to the level shown.

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PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-10	MW-11	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

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REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-10	MW-11	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
s-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	111	114	73-138
D8-Toluene	99	96	77-118
Bromofluorobenzene	93	92	70-130
Date Analyzed	06/30/05 23:45	07/01/05 00:12	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-12	MW-13	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-12	MW-13	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
s-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	121	116	73-138
D8-Toluene	103	100	77-118
Bromofluorobenzene	91	91	70-130
Date Analyzed	07/01/05 00:39	07/01/05 01:05	

NR = Analysis not requested for this sample.
U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-14	SW-1	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-14	SW-1	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
s-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	120	111	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	88	84	70-130
Date Analyzed	07/01/05 01:32	07/01/05 01:58	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	SW-2	LAB BLANK	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	SW-2	LAB BLANK	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
s-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	111	117	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	92	89	70-130
Date Analyzed	07/01/05 02:25	06/30/05 09:35	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	Units
Dichlorodifluoromethane	2. U	ug/L
Chloromethane	1. U	ug/L
Vinyl Chloride	1. U	ug/L
Bromomethane	2. U	ug/L
Chloroethane	2. U	ug/L
Trichlorofluoromethane	1. U	ug/L
1,1-Dichloroethene	1. U	ug/L
Acetone	50. U	ug/L
Carbon Disulfide	50. U	ug/L
Methylene Chloride	5. U	ug/L
t-1,2-Dichloroethene	1. U	ug/L
Methyl tert-butyl ether	1. U	ug/L
1,1-Dichloroethane	1. U	ug/L
2,2-Dichloropropane	2. U	ug/L
c-1,2-Dichloroethene	1. U	ug/L
2-Butanone	20. U	ug/L
Chloroform	1. U	ug/L
1,1,1-Trichloroethane	1. U	ug/L
Carbon tetrachloride	1. U	ug/L
1,1-Dichloropropene	1. U	ug/L
Benzene	1. U	ug/L
1,2-Dichloroethane	1. U	ug/L
Trichloroethene	1. U	ug/L
1,2-Dichloropropane	1. U	ug/L
Dibromomethane	1. U	ug/L
Bromodichloromethane	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
tert-Butylbenzene	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	ug/L
s-Butylbenzene	1. U	ug/L
1,3-Dichlorobenzene	1. U	ug/L
p-Isopropyltoluene	1. U	ug/L
1,4-Dichlorobenzene	1. U	ug/L
n-Butylbenzene	1. U	ug/L
1,2-Dichlorobenzene	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	ug/L
Hexachlorobutadiene	1. U	ug/L
Naphthalene	2. U	ug/L
1,2,3-Trichloropropane	1. U	ug/L
Bromochloromethane	1. U	ug/L

Surrogate:	% RECOV	LIMITS
Dibromofluoromethane	114	73-138
D8-Toluene	97	77-118
Bromofluorobenzene	91	70-130
Date Analyzed	06/30/05 21:59	

U = Compound was analyzed for but not detected to the level shown.

QUALITY CONTROL DATA

Parameter	% RECOVERY LCS/MS/MSD	LCS LIMITS	MS/MSD LIMITS	RPD MS/MSD	RPD LIMITS
EPA Method 8260					
1,1-Dichloroethene	91/100/ 95	64-139	36-177	5	30
Benzene	89/ 95/ 96	69-115	53-150	1	23
Trichloroethene	97/105/ 98	74-118	64-124	7	25
Toluene	81/ 81/ 80	77-117	40-161	1	23
Chlorobenzene	90/ 88/ 89	76-118	44-128	1	22
TOTAL METALS					
Arsenic, 200.7	97/100/101	82-117	64-126	<1	12
Barium, 200.7	100/103/104	72-125	74-119	<1	11
Cadmium, 200.7	100/103/104	72-120	68-121	<1	12
Chromium, 200.7	96/ 99/100	78-119	73-120	1	17
Lead, 200.7	91/ 93/ 94	72-121	68-126	1	19
Selenium, 200.7	97/ 99/101	82-127	65-129	2	10
Silver, 200.7	96/ 98/ 99	80-128	69-121	1	12
Mercury					
Mercury, 7470	104/115/118	81-126	70-136	2	12

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

QSAKF #_____

P12883

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824-8529
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: Central Carolina Tire
PROJECT NO.: 202334.09
P.O. NUMBER:
PAGE 1 OF 2

PROJECT LOC. (State): NC
SAMPLER(s) NAME: Garrett Morgan
PHONE: (919)-469-3340
FAX: (919)-535-4545

CLIENT NAME: Withers & Ravenel Environmental
CLIENT PROJECT MANAGER: Mr. Brian Bellis
CLIENT ADDRESS (CITY, STATE, ZIP): 111 MacKenan Drive Cary, NC 27511

☐ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due:_____

SAMPLE STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER		RCRA METALS	8260							REMARKS
																PRESERVATIVE								
																NUMBER OF CONTAINERS								
1	6·23·05	1250			MW-2		X									1	3							
2		1235			MW-3		X									1	3							
3		1210			MW-4		X									1	3							
4		1340			MW-5		X									1	3							
5		1320			MW-6		X									1	3							
6		1305			MW-7		X									1	3							
7		1420			MW-8		X									1	3							
8		1400			MW-9		X									1	3							
9	6·24·05	1220			MW-10		X									1	3							
10	6·25·05	1240			MW-11		X									1	3							
11		1220			MW-12		X									1	3							Metals not received. CS 6/2
12		1200			MW-13		X									1	3							
13	6·24·05	1240			MW-14		X									1	3							
14	6·25·05	1330			SW-1		X									1	3							

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
			Amy Ravenelle	6/29/05	15:20			
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
☐ Jacksonville ☐ Orlando	6/29/05	16:00	☒ YES ☐ NO	CRY18224	

QAAR # _____

ENVIRONMENTAL CONSERVATION LABORATORIES

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Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER
Central Carolina Tire	202334.09	

PAGE 2 OF 2

PROJECT LOC. (State)	SAMPLER(s) NAME	PHONE / FAX
NC	Garrett Morgan	PHONE (919)-469-3340 FAX (919)-535-4545

CLIENT NAME	CLIENT PROJECT MANAGER
Withers & Ravenel Environmental	Mr. Brian Bellis

CLIENT ADDRESS (CITY, STATE, ZIP): 111 MacKenan Drive Cary, NC 27511

☐ STANDARD REPORT DELIVERY

☐ EXPEDITED REPORT DELIVERY (surcharge)

Date Due: _____

STATION	SAMPLE DATE	SAMPLE TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER		RCRA METALS	8260							REMARKS
																PRESERVATIVE								
1	6-25-05	1300			SW-2		X									1	3							
2					SW-1(EXPANSION)		X									1	3							
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
				6/30/05	15:20			
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
☐ Jacksonville ☐ Orlando	6/30/05	1600	X YES ☐ NO	CR718204	

PB TL-20
43-04
.0500
Phase I & II

Fac/Perm/Co ID #	Date	Doc ID#
1C	08/09/06	DIN

Received
AUG 2006
Solid Waste Section

FIRST 2005 SEMI-ANNUAL GROUNDWATER and SURFACE WATER MONITORING REPORT

Central Carolina Tire Phase I/II Scrap Tire Monofill Landfill
Harnett County, North Carolina

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

111 MacKenan Drive
CARY, NORTH CAROLINA, 27511
TEL: (919) 469-3340
FAX: (919) 535-4545

LETTER OF TRANSMITTAL

DATE July 29, 2005	JOB NO. 202334.09
ATTENTION Jaclynne Drummond	
PHONE #	
RE: Central Carolina Tire	
Phase 1, 2 & 3 Scrap Tire Monofill Landfill	

TO: NCDENR DWM
Solid Waste Section
PO Box 27687
Raleigh, NC 27611-7687

WE ARE SENDING YOU ☐ Attached via the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of Letter ☐ Change order ☐ Diskette ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	07/29/05		First 2005 Semi-Annual Goundwater Monitoring Rpt - Phase 1 & 2
1	07/29/05		First 2005 Semi-Annual Goundwater Monitoring Rpt - Phase 3

RECEIVED AUG 2005 Solid Waste Section

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit ____ copies for approval
☒ For your use ☐ Approved as noted ☐ Submit ____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return ____ corrected prints
☐ For review and comment ☐ Other:
☐ FOR BIDS DUE ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS:

COPY TO: File

SIGNED: Brian Bellis, Senior Hydrogeologist

If enclosures are not as noted, please notify us at once.

WITHERS & RAVENEL
ENGINEERS | PLANNERS | SURVEYORS

July 29, 2005

North Carolina Division of Environment and Natural Resources
Division of Waste Management
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687

Attention: Ms. Jaclynne Drummond

Re: First 2005 Semi-Annual Groundwater and
Surface-Water Monitoring Report
Central Carolina Tire Phase I/II Scrap Tire Monofill Landfill
Harnett County, North Carolina
W&R Project No. 202334.09

Dear Ms. Drummond:

Withers & Ravenel (W&R) has completed the first of two 2005 semi-annual groundwater and surface-water monitoring events for the above referenced facility (Figure 1). The scope of work performed by W&R included collection and analysis of groundwater and surface water samples from the site, in general accordance with the monitoring plan that is included in the Richard R. Rust Hydrogeologic Investigation and Groundwater Monitoring Plan (Monitoring Plan) for Permit Modification of Central Carolina Tire Monofill Permit 43-04 dated July 18, 1995. Samples from eight groundwater monitoring wells and two surface water collection points are collected and tested on a semi-annual basis as specified in the NC DENR "Groundwater Monitoring Guidance Document." This is the second sampling event conducted by Withers & Ravenel (W&R) for this site. The following paragraphs describe the methodology and results of the field activities and laboratory analyses.

1.0 WATER QUALITY SAMPLING METHODOLOGY

1.1 Groundwater Sampling

Eight groundwater monitoring wells, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9 are located proximal to the existing Phase I/II scrap tire monofill landfill (See Figure 2). Seven of the wells, MW-2 through MW-8, were installed in September 1995 and MW-9 was installed in April 2001 as a replacement well to MW-1 which was abandoned in December 2001 to accommodate landfill construction modifications. Monitoring well construction details and depth to groundwater data are summarized in Table 1. Hydraulic conductivity testing performed by Engineering & Environmental Company (E^2S) in May 2001 suggest an average hydraulic conductivity value of approximately 5.5×10^{-6} cm/s. Based on designations presented in the Monitoring

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107 Stokley Drive | Suite 104 | Wilmington, North Carolina 28403 | tel: 910.256.9277 | fax: 910.256.2584

Plan, monitoring well MW-9 serves as the upgradient, natural background well for the facility, and MW-2 through MW-8 serve as the downgradient monitoring wells.

Sampling activities were performed in general accordance with protocols detailed in the Monitoring Plan and the NC DENR "Groundwater Monitoring Guidance Document." New disposable nitrile or latex gloves were worn at each sampling location. Prior to purging and sampling activities, water levels within each well were measured using a decontaminated electronic water-level meter. Measurements were referenced to the top of the well casing. The average depth to groundwater was calculated to be 8.91 feet below top of casing. Casing stick-ups were observed to be approximately 3.0 feet above ground surface elevations for the majority of the wells sampled. The depth to groundwater data determined for monitoring wells at the Phase I/II monofill landfill for June 2005 are summarized in Table 1.

After water level information was collected, at least three times the volume of the water standing in each well was removed using a new disposable bailer. Measurements of the temperature, pH, and specific conductance of the water produced were recorded. Copies of the Pre-Sampling / Well Purging Field Logs that contain this information are included in Appendix A.

Groundwater samples were then collected using the same bailer used to purge the wells. Groundwater samples were decanted directly into laboratory provided containers, which were then placed into ice-filled coolers and delivered under proper chain-of-custody to Environmental Conservation Laboratories (ENCO), Inc. in Cary, North Carolina for analysis of Volatile Organic Compounds (VOCs) by EPA Method 8260B and the eight RCRA metals by EPA Methods 200.7 and 7470. All samples were submitted unfiltered and the sample containers included the appropriate type and amount of preservative. The temperature of the groundwater samples ranged between 16.5 and 18.2 degrees Celsius; the pH ranged between 4.07 and 5.5; and the specific conductance ranged between 31 and 168 umhos/cm. The final field parameter measurements for each well are summarized in Table 1.

For quality assurance/quality control (QA/QC), ENCO prepared a trip blank, which accompanied the sample bottles to and from the field, for analysis by EPA Method 8260B for VOCs.

1.2 Surface Water Sampling

Surface water samples were collected from the two downstream locations designated as SW-1 and SW-2. SW-1 is located approximately 140-feet south-southeast of the south-central sedimentation pond and within the drainage feature that parallels the southern limits of scrap tire disposal within the Phase I/II landfill. SW-2 is located approximately 250-feet south-southeast of the southeastern sedimentation pond and within the primary drainage feature that parallels the eastern limits of the Phase I/II landfill. New disposable nitrile or latex gloves were worn during all sampling activities. To preserve the integrity of the preservatives within the sample container, a decontaminated Teflon ladle was used to collect the

surface water samples. The contents of the ladle were immediately decanted into laboratory provided containers. The containers were then labeled and placed into ice-filled coolers and shipped under proper chain-of-custody to ENCO for analysis of VOCs and the eight RCRA metals by the previously referenced methods.

2.0 ANALYTICAL RESULTS

Laboratory results for the current sampling event are summarized in Table 2. According to the laboratory analysis report, cis-1,2-Dichloroethene was identified at a concentration equal to its detection limit of 1.0 ug/L in the sample from well MW-3. This concentration is well below the North Carolina Groundwater Standard of 70 ug/L for cis-1,2-Dichloroethene. Chloroethane was identified at a concentration of 3.0 ug/L in the sample from MW-4. The detected Chloroethane concentration is well below its North Carolina Groundwater Standard of 2,800 ug/L. No VOCs were detected in any of the remaining groundwater samples or in the surface water samples collected during this event. The only metal detected in the groundwater samples was barium, which was detected in two of the groundwater samples: MW-2 (0.18 mg/L) and MW-9 (0.27 mg/L). These concentrations are well below the North Carolina Groundwater Standard of 2.0 mg/L for barium. A low concentration of barium was identified in surface water sample SW-1 (0.10 mg/L) which is well below the 1.0 mg/L standard for WS class waters. No metals were detected in surface water sample SW-2. The laboratory results are summarized by sampling location as follows:

MW-2: Barium was reported at 0.18 mg/L.

MW-3: Cis-1,2-Dichloroethene was reported at 1.0 ug/L.

MW-4: Chloroethane was reported at 3.0 ug/L.

MW-9: Barium was reported at 0.27 mg/L.

VOCs were not identified in the trip blank sample and results for the matrix blank analyses were within acceptable tolerances. Copies of the laboratory analytical reports are included in Appendix B. Please note that the laboratory report contains results for monitoring wells MW-10, MW-11, MW-12, MW-13, and MW-14,. These samples were collected from locations surrounding the planned Phase III landfill expansion area, and are reported and discussed in a separate document.

3.0 CONCLUSIONS

- The results of the first 2005 Semi-Annual monitoring event for the Central Carolina Tire Phase I/II tire monofill landfill indicate that the reported concentrations of cis-1,2-Dichloroethene and Chloroethane in groundwater samples from wells MW-3 and MW-4 are well below their respective North Carolina Groundwater Standards.

- The RCRA metal barium was detected in the groundwater samples from MW-2 and MW-3. However, the reported concentrations are well below the North Carolina Groundwater Standard for barium.

- Barium was also identified in surface water sample SW-1. However, the reported concentration is well the North Carolina Standard for WS class surface water.

- VOCs were not identified in either of the surface water samples, or in the QA/QC samples prepared by the analytical laboratory.

The next monitoring event for the Central Carolina Tire Phase I/II scrap tire monofill landfill is tentatively scheduled for November 2005. Please contact us at (919) 469-3340 if you have any questions regarding the contents of this report.

Sincerely,

WITHERS & RAVENEL

Brian J. Bellis, P.G.
Senior Hydrogeologist

NORTH CAROLINA LICENSED SEAL 980 GEOLOGIST BRIAN J. BELLIS

cc: Mr. Thomas Womble

TABLES

Table 1
Monitoring Well and Groundwater Data
June 2005 Sampling Event
Phase I/II Tire Monofill Landfill (Existing)
Harnett County, North Carolina
W&R Project No. 202334.09

Well Location	Approximate Northing	Approximate Easting	Approximate Ground Surface Elevation (Ft MSL)	Depth to GW BTOC (Feet)	Field Parameters			Well Depth (Ft BLS)	Screened Interval (Ft BLS)
					Temp C°	pH	S.C. umhos/cm		
MW-2	546711.83	1954218.21	308.95	5.38	17.5	4.25	72	20.0	20.0 - 5.0
MW-3	546886.19	1954475.36	316.35	10.26	16.5	4.17	43	20.0	20.0 - 5.0
MW-4	547466.86	1954319.02	324.68	4.69	18.2	4.12	52	20.0	20.0 - 5.0
MW-5	546388.13	1953339.01	318.92	5.25	16.9	5.55	50	20.0	18.0 - 3.0
MW-6	546330.17	1953877.76	302.84	7.57	16.8	4.90	58	25.0	25.0 - 5.0
MW-7	546779.37	1953737.43	313.30	6.64	17.6	4.14	51	20.0	19.0 - 4.0
MW-8	547742.98	1953546.78	344.38	7.42	16.9	4.57	31	20.0	19.0 - 4.0
MW-9	547233.05	1952853.43	374.69	24.06	17.4	4.07	168	30.0	30.0 - 15.0

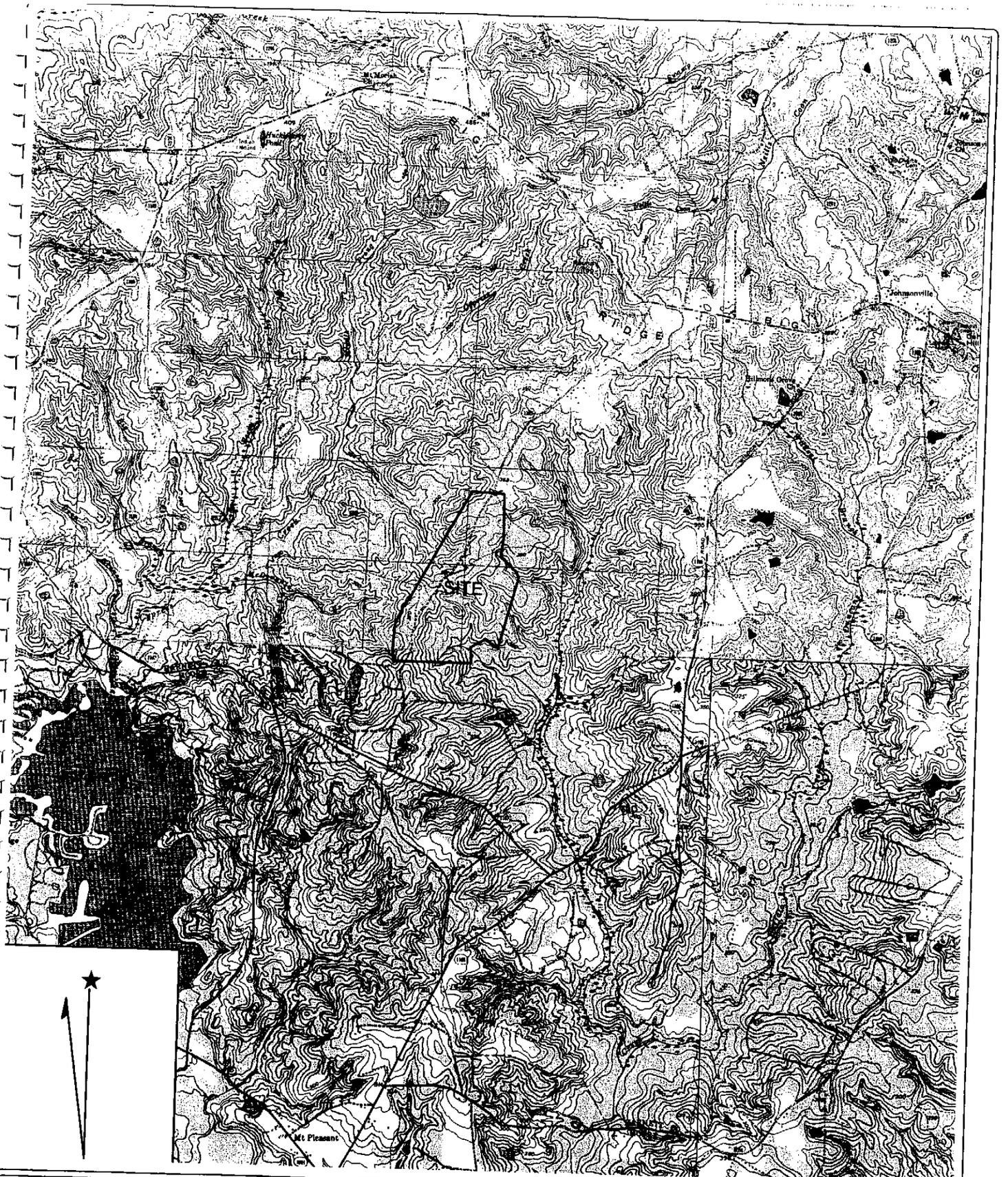
Notes: BTOC = Below Top of Casing
GW = Groundwater
Ft MSL = Measured in Feet Mean Sea Level
Ft BLS = Measured in Feet Below Land Surface
S.C. = Specific Conductance
All Monitoring Wells are constructed of 2" PVC
Northing / Easting and Surface Elevations for MW-2 through MW-8 were estimated from Richard Rust's drawing "Central Carolina Tire Monofill Phase II Permitting" dated March 1996.
Northing / Easting and Surface Elevation for MW-9 was estimated from Richard Rust's Request to Abandon MW-1 correspondance to NCDENR dated November 2001.
Monitoring Well construction details derived from original well construction records by: Blackwelder Environmental Boring & Drilling dated May 1992 (MW-2 through MW-4); Special, Inc. dated September 1995 (MW-5 through MW-8) ; and J&L Drilling dated April 2001 (MW-9).

Table 2
Laboratory Results
June 2005 Sampling Event
Phase I/II Tire Monofill Landfill (Existing)
Harnett County, North Carolina
W&R Project No. 202334.09

ORGANIC CONSTITUENTS (In ug/L)	SW-1	SW-2	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	RL (In ug/L)	NCAC 2L STD (In ug/L)
one	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	700
ene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	1
nobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
nochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
nodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.56
noform (Tribromoethane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.19
nomethane (Methyl Bromide)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	N/A
Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	70
tanone (MEK), (Methyl Ethyl Ketone)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	170
tlybenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	70
tylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	70
on Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	700
on Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.3
robenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	50
roethane (Ethyl Chloride)	ND	ND	ND	ND	3.0	ND	ND	ND	ND	ND	2	2800
roethyl Vinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	N/A
roform (Trichloromethane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.19
lorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	14
lorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
Dibromo-3-Chloropropane (DBCP)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.025
omochloromethane (Chlorodibromomethane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.41
-Dibromoethane (Ethylene Dibromide)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.0004
omomethane (Methylene Bromide)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
Dichlorobenzene (O-Dichlorobenzene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	620
Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	620
Dichlorobenzene (P-Dichlorobenzene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	620
Dichloroethane (Ethylene Dichloride)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.38
Dichloroethene (Vinylidene Chloride)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	7
-1,2-Dichloroethene (CIS-1,2-Dichloroethylene)	ND	ND	ND	1.0	ND	ND	ND	ND	ND	ND	1	70
2-Dichloroethene (Trans-1,2-Dichloroethylene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	70
Dichloropropane (Propylene Dichloride)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.56
Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	N/A
Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.19
3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.19
ibenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	29
achlorobutadiene (Hexachloro-1,3-Butadiene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.44
exanone (Methyl Butyl Ketone)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	280
ropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
opropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
hyl Chloride (Chloromethane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	2.6
hylene Chloride (Dichloromethane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	5
ethyl-2Pentanone (Methyl Isobutyl Ketone)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	N/A
hyl Tert-Butyl Ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	200
hthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	21
ropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	70
ene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.1
1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.17
achloroethene (Tetrachloroethylene), (PCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	0.7
uene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	1000
3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	70
1-Trichloroethane (Methylchloroform)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	200
2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	N/A
hloroethene (Trichloroethylene), (TCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	2.8
hlorofluoromethane (CFC-11)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	2100
3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.005
4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	350
5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.35
yl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.015
enes (mixed)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	530
INORGANIC CONSTITUENTS (In mg/L)											**RL (In mg/L)**	**NCAC 2L STD (In mg/L)**
enic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.05
ium	0.10	ND	0.18	ND	ND	ND	ND	ND	ND	0.27	0.10	2
dmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0010	0.005
romium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.05
ad	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.015
rcury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00020	0.0011
enium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.05
ver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.018

Notes:
NCAC 2L STD = North Carolina Groundwater Standard established in Title 15A of North Carolina Administrative Code Subchapter 2L
RL = Laboratory Reporting Limit
ND = Not Detected at concentration above reporting limit
N/A=Not Applicable, Standard for this compound has not been published

FIGURES

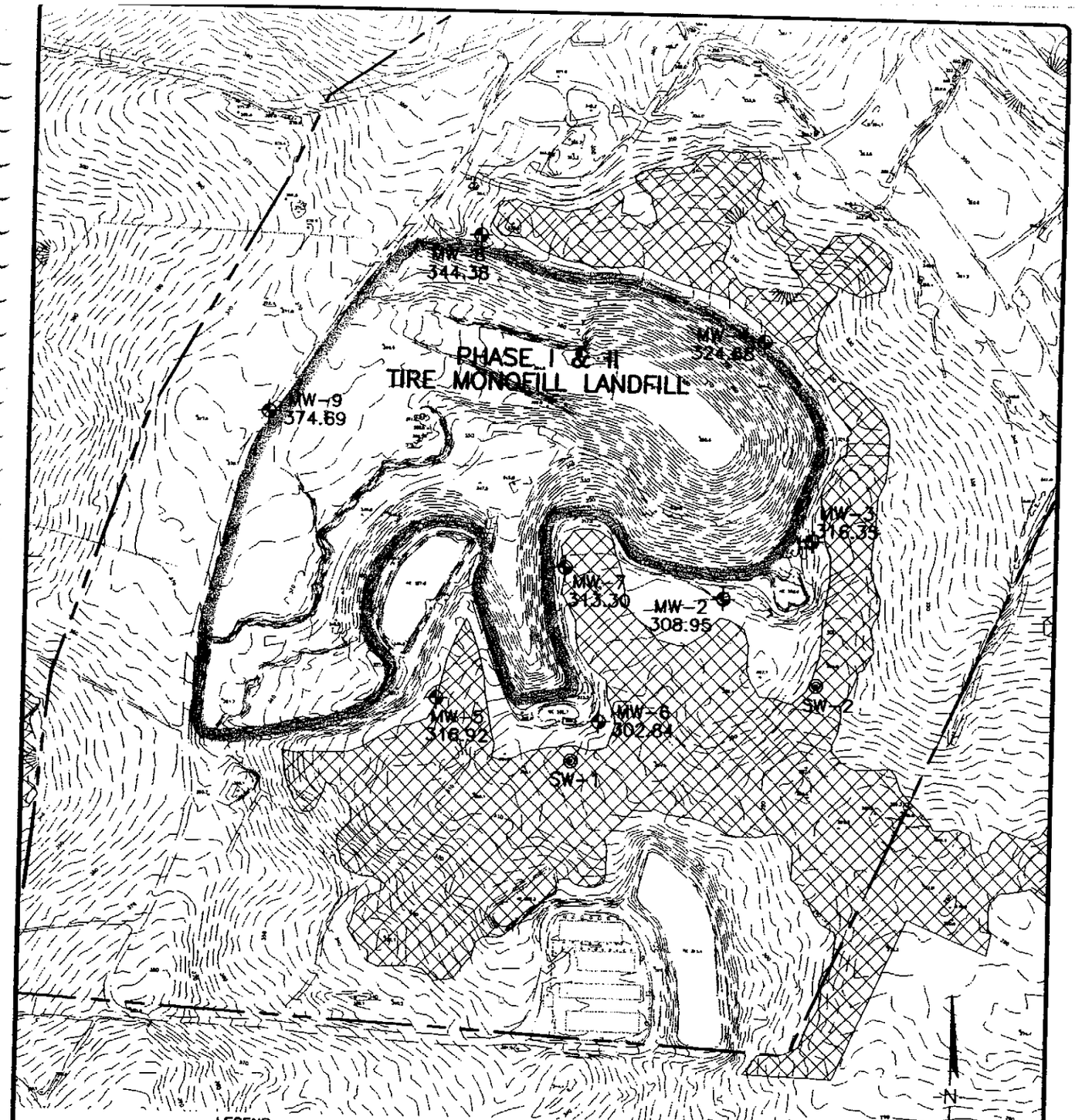


WITHERS & RAVENEL
ENGINEERS | PLANNERS | SURVEYORS
111 MacKenan Drive Cary, North Carolina 27511 www.witherasravenel.com
tel: 919-460-6006 fax: 919-535-4545

CENTRAL CAROLINA TIRE
1616 McCoy Town Road
Cameron, North Carolina

USGS Murchistown, NC
7.5 min. Quadrangle

DRAWN BY:	SCALE:	FIGURE NO.
JMP	1:1200	1
APPROVED BY:	DATE:	JOB NO:
ML	11/24/04	202334.08



LEGEND

SW-1	SURFACE WATER MONITORING LOCATION
MW-9 374.69	GROUNDWATER MONITORING WELL W/ APPROX. GROUND ELEVATION
	WETLANDS
	TOPOGRAPHIC CONTOUR
	PROPERTY BOUNDARY

GRAPHIC SCALE 1"=400'

0 400 800 1200

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www.withersravenel.com

CENTRAL CAROLINA TIRE

PHASE I & II
TIRE MONOFILL LANDFILL

DRAWN BY:	SCALE:	FIGURE NO.
DOU	1"=400'	2
APPROVED BY: JP	DATE 11/24/04	JOB NO. 202334.09

02\02-330\02334.09 GW Monitoring\CCT GW Monitoring\PHASE 1 - 2 SITE PLAN.pro Fri Dec 3, 2004 10:43:52AM WITHERS & RAVENEL, Engineers Planners Surveyors

APPENDIX A

PRE-SAMPLING / WELL PURGING FIELD LOGS

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-2

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 20 FEET

DEPTH TO WATER: 5.38 FEET

1 WELL VOLUME: 2.38 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6.22.05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 90

WEATHER CONDITIONS: sunny; hazy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING				1351	
ESTIMATED VOLUME FLUSHING (gal)	2.50	5.00	7.50	10.00	
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	19.4	18.7	17.0	17.5	
SAMPLE (ph)	4.20	4.16	4.36	4.25	
SAMPLE CONDUCTIVITY (umhos/cm)	84	78	62	72	
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→	→	
COLOR	clear	→	→	→	
Eh					
TURBIDITY	26	53	60	7	

COMMENTS: Sample Time = 1250 6.23.05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-3

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 22.58 FEET

DEPTH TO WATER: 10.26 FEET

1 WELL VOLUME: 2.01 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 94

WEATHER CONDITIONS: partly cloudy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer: Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING				1318	
ESTIMATED VOLUME FLUSHING (gal)	2.00	4.00	6.00	8.00	
WELL VOLUMES REMOVED	1	2	3	4	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	17.8	17.1	16.5	16.5	
SAMPLE (ph)	4.42	3.94	3.99	4.17	
SAMPLE CONDUCTIVITY (umhos/cm)	46	44	43	43	
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→	→	
COLOR	cloudy	→	clear	→	
Eh					
TURBIDITY	113	15	50	48	

COMMENTS: Sample Time = 1235 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT Central Carolina Tire

WELL NUMBER MW-4

WELL INSIDE DIAMETER 2 INCHES

DEPTH OF BOTTOM 19.08 FEET

DEPTH TO WATER 4.69 FEET

1 WELL VOLUME 2.35 GALLONS

SAMPLED BY Garrett Morgan

PROJECT NUMBER 202334.0

DATE 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT) 91°

WEATHER CONDITIONS sunny; partly cloudy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED

Poly-bailer, Horiba-U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING	1200	1210	1220	1230	
ESTIMATED VOLUME FLUSHING (gal)	2.50	5.00	7.50	10.00	
WELL VOLUMES REMOVED	1	2	3	4	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	19.5	18.2	17.9	18.2	
SAMPLE (ph)	4.70	4.40	4.27	4.12	
SAMPLE CONDUCTIVITY (umhos/cm)	78	60	58	52	
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→	→	
COLOR	cloudy	→	→	clear	
Eh					
TURBIDITY	250	211	400	26	

COMMENTS Sample Time = 1210 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-5

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 18.33 FEET

DEPTH TO WATER: 5.25 FEET

1 WELL VOLUME: 2.13 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 96°

WEATHER CONDITIONS: sunny; hazy; humid

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1515		
ESTIMATED VOLUME FLUSHING (gal)	2.25	4.50	6.75		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	18.5	17.8	16.9		
SAMPLE (ph)	5.39	5.32	5.55		
SAMPLE CONDUCTIVITY (umhos/cm)	48	39	50		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	219	370	999		

COMMENTS: Sample Time = 1340 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-6

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 26.46 FEET

DEPTH TO WATER: 7.57 FEET

1 WELL VOLUME: 3.08 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 93°

WEATHER CONDITIONS: sunny; hazy; breezy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1445		
ESTIMATED VOLUME FLUSHING (gal)	3.25	6.00	9.25		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	18.3	16.8	16.8		
SAMPLE (ph)	5.05	5.02	4.90		
SAMPLE CONDUCTIVITY (umhos/cm)	60	61	58		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	240	216	999		

COMMENTS: Sample Time = 1320 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-7

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 21.26 FEET

DEPTH TO WATER: 6.64 FEET

1 WELL VOLUME: 2.38 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 91°

WEATHER CONDITIONS: sunny; hazy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1415		
ESTIMATED VOLUME FLUSHING (gal)	2.50	5.00	7.50		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	19.3	18.2	17.6		
SAMPLE (ph)	4.28	4.13	4.14		
SAMPLE CONDUCTIVITY (umhos/cm)	45	46	51		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	231	325	838		

COMMENTS: Sample Time = 1305 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: MW-8

WELL INSIDE DIAMETER: 2 INCHES

DEPTH OF BOTTOM: 22.85 FEET

DEPTH TO WATER: 7.42 FEET

1 WELL VOLUME: 2.52 GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 98°

WEATHER CONDITIONS: sunny; hazy; humid

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1610		
ESTIMATED VOLUME FLUSHING (gal)	2.50	5.00	7.50		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	18.5	17.3	16.9		
SAMPLE (ph)	4.57	4.50	4.57		
SAMPLE CONDUCTIVITY (umhos/cm)	30	32	31		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	652	355	999		

COMMENTS: Sample Time = 1420 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT Central Carolina Tire

WELL NUMBER MW-9

WELL INSIDE DIAMETER 2 INCHES

DEPTH OF BOTTOM 32.50 FEET

DEPTH TO WATER 24.06 FEET

1 WELL VOLUME 1.38 GALLONS

SAMPLED BY Garrett Morgan

PROJECT NUMBER 202334.0

DATE 6·22·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT) 95°

WEATHER CONDITIONS sunny; hazy; humid

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED

Poly-bailer, Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING			1545		
ESTIMATED VOLUME FLUSHING (gal)	1.50	3.00	4.25		
WELL VOLUMES REMOVED	1	2	3		
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	17.8	17.4	17.4		
SAMPLE (ph)	4.37	4.28	4.07		
SAMPLE CONDUCTIVITY (umhos/cm)	163	156	168		
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none	→	→		
COLOR	cloudy	→	→		
Eh					
TURBIDITY	999	999	999		

COMMENTS Sample Time = 1400 6·23·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT Central Carolina Tire

WELL NUMBER SW-1

WELL INSIDE DIAMETER – INCHES

DEPTH OF BOTTOM – FEET

DEPTH TO WATER – FEET

1 WELL VOLUME – GALLONS

SAMPLED BY Garrett Morgan

PROJECT NUMBER 202334.0

DATE 6·25·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT) 92°

WEATHER CONDITIONS sunny; p. cloudy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED

Poly-bailer; Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING					
ESTIMATED VOLUME FLUSHING (gal)					
WELL VOLUMES REMOVED					
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	27.0				
SAMPLE (ph)	6.45				
SAMPLE CONDUCTIVITY (umhos/cm)	182				
BUFFER BEFORE					
BUFFER AFTER					
ODOR	slt. organic				
COLOR	clear				
Eh					
TURBIDITY	15				

COMMENTS Sample Time = 1330 6·25·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

PRE-SAMPLING WELL PURGING

PROJECT: Central Carolina Tire

WELL NUMBER: SW-2

WELL INSIDE DIAMETER: - INCHES

DEPTH OF BOTTOM: - FEET

DEPTH TO WATER: - FEET

1 WELL VOLUME: - GALLONS

SAMPLED BY: Garrett Morgan

PROJECT NUMBER: 202334.0

DATE: 6·25·05 PAGE 1 OF 1

AIR TEMPERATURE (FAHRENHEIT): 92

WEATHER CONDITIONS: sunny; p. cloudy

METHOD OF EXCAVATION AND TYPE OF EQUIPMENT USED: Poly-bailer; Horiba U-10

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE					
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING					
ESTIMATED VOLUME FLUSHING (gal)					
WELL VOLUMES REMOVED					
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	24.0				
SAMPLE (ph)	6.16				
SAMPLE CONDUCTIVITY (umhos/cm)	76				
BUFFER BEFORE					
BUFFER AFTER					
ODOR	none				
COLOR	s/l. cloudy				
Eh					
TURBIDITY	58				

COMMENTS: Sample Time = 1300 6·25·05

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)

$\pi r^2 \times h$ = WELL VOLUME IN FT^3

$\pi = 3.14$

R = RADIUS IN INCHES/12 = RADIUS IN FEET

H = HEIGHT OF WATER COLUMN IN WELL IN FEET

CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

Well radius = _____ IN/12= _____ FT

h= _____ (WELL DEPTH) - _____ (DEPTH TO WATER) = _____ FT = h

3.14 x _____ (r^2) x h = _____ FT^3 x 7.48 gal/ft^3 = 1 WELL VOLUME IN GAL = _____

APPENDIX B

LABORATORY ANALYTICAL RESULTS

Environmental Conservation Laboratories, Inc.
1015 Passport Way
Cary, North Carolina 27513-2042
919 / 677-1669
Fax 919 / 677-9846
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E82277

CLIENT : Withers & Ravenel Environmental
ADDRESS: 111 MacKenan Drive
Cary, NC 27511

REPORT # : CRY18224
DATE SUBMITTED: June 29, 2005
DATE REPORTED : July 6, 2005

ATTENTION: Mr. Brian Bellis

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

REFERENCE: 202334.09

Central Carolina Tire

CRY18224-1	: MW-2	@ 12:50	(06/23/05)
CRY18224-2	: MW-3	@ 12:35	(06/23/05)
CRY18224-3	: MW-4	@ 12:10	(06/23/05)
CRY18224-4	: MW-5	@ 13:40	(06/23/05)
CRY18224-5	: MW-6	@ 13:20	(06/23/05)
CRY18224-6	: MW-7	@ 13:05	(06/23/05)
CRY18224-7	: MW-8	@ 14:20	(06/23/05)
CRY18224-8	: MW-9	@ 14:00	(06/23/05)
CRY18224-9	: MW-10	@ 12:20	(06/24/05)
CRY18224-10	: MW-11	@ 12:40	(06/25/05)
CRY18224-11	: MW-12	@ 12:20	(06/22/05)
CRY18224-12	: MW-13	@ 12:00	(06/25/05)

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-2	MW-3	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1.	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-2	MW-3	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	104	112	73-138
d8-Toluene	102	104	77-118
Bromofluorobenzene	91	87	70-130
Date Analyzed	06/30/05 17:52	06/30/05 18:19	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-4	MW-5	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	3.	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-4	MW-5	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	1. U	1. U	ug/L
1,2,3-Trichloropropane	2. U	2. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
	1. U	1. U	ug/L

Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	114	118	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	91	88	70-130
Date Analyzed	06/30/05 18:47	06/30/05 19:15	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-6	MW-7	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -
VOLATILE ORGANICS

	MW-6	MW-7	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	1. U	1. U	ug/L
1,2,3-Trichloropropane	2. U	2. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
	1. U	1. U	ug/L

Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	114	119	73-138
Toluene-d8	104	104	77-118
Bromofluorobenzene	89	93	70-130
Date Analyzed	06/30/05 19:43	06/30/05 22:25	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-8	MW-9	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS

	MW-8	MW-9	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	1. U	1. U	ug/L
1,2,3-Trichloropropane	2. U	2. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
	1. U	1. U	ug/L

Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	110	115	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	91	89	70-130
Date Analyzed	06/30/05 22:52	06/30/05 23:18	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-10	MW-11	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-10	MW-11	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	1. U	1. U	ug/L
1,2,3-Trichloropropane	2. U	2. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
	1. U	1. U	ug/L

Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	111	114	73-138
d8-Toluene	99	96	77-118
Bromofluorobenzene	93	92	70-130
Date Analyzed	06/30/05 23:45	07/01/05 00:12	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-12	MW-13	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -

VOLATILE ORGANICS	MW-12	MW-13	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	121	116	73-138
D8-Toluene	103	100	77-118
Bromofluorobenzene	91	91	70-130
Date Analyzed	07/01/05 00:39	07/01/05 01:05	

NR = Analysis not requested for this sample.
U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	MW-14	SW-1	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -

VOLATILE ORGANICS	MW-14	SW-1	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	2. U	2. U	ug/L
1,2,3-Trichloropropane	1. U	1. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
Surrogate:	**% RECOV**	**% RECOV**	**LIMITS**
Dibromofluoromethane	120	111	73-138
D8-Toluene	100	102	77-118
Bromofluorobenzene	88	84	70-130
Date Analyzed	07/01/05 01:32	07/01/05 01:58	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	SW-2	LAB BLANK	Units
Dichlorodifluoromethane	2. U	2. U	ug/L
Chloromethane	1. U	1. U	ug/L
Vinyl Chloride	1. U	1. U	ug/L
Bromomethane	2. U	2. U	ug/L
Chloroethane	2. U	2. U	ug/L
Trichlorofluoromethane	1. U	1. U	ug/L
1,1-Dichloroethene	1. U	1. U	ug/L
Acetone	50. U	50. U	ug/L
Carbon Disulfide	50. U	50. U	ug/L
Methylene Chloride	5. U	5. U	ug/L
t-1,2-Dichloroethene	1. U	1. U	ug/L
Methyl tert-butyl ether	1. U	1. U	ug/L
1,1-Dichloroethane	1. U	1. U	ug/L
2,2-Dichloropropane	2. U	2. U	ug/L
c-1,2-Dichloroethene	1. U	1. U	ug/L
2-Butanone	20. U	20. U	ug/L
Chloroform	1. U	1. U	ug/L
1,1,1-Trichloroethane	1. U	1. U	ug/L
Carbon tetrachloride	1. U	1. U	ug/L
1,1-Dichloropropene	1. U	1. U	ug/L
Benzene	1. U	1. U	ug/L
1,2-Dichloroethane	1. U	1. U	ug/L
Trichloroethene	1. U	1. U	ug/L
1,2-Dichloropropane	1. U	1. U	ug/L
Dibromomethane	1. U	1. U	ug/L
Bromodichloromethane	1. U	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	SW-2	LAB BLANK	Units
tert-Butylbenzene	1. U	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	1. U	ug/L
n-Butylbenzene	1. U	1. U	ug/L
1,3-Dichlorobenzene	1. U	1. U	ug/L
p-Isopropyltoluene	1. U	1. U	ug/L
1,4-Dichlorobenzene	1. U	1. U	ug/L
sec-Butylbenzene	1. U	1. U	ug/L
1,2-Dichlorobenzene	1. U	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	1. U	ug/L
Hexachlorobutadiene	1. U	1. U	ug/L
Naphthalene	1. U	1. U	ug/L
1,2,3-Trichloropropane	2. U	2. U	ug/L
Bromochloromethane	1. U	1. U	ug/L
	1. U	1. U	ug/L

Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	111	117	73-138
d8-Toluene	100	102	77-118
Bromofluorobenzene	92	89	70-130
Date Analyzed	07/01/05 02:25	06/30/05 09:35	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : CRY18224
DATE REPORTED: July 6, 2005
REFERENCE : 202334.09
PROJECT NAME : Central Carolina Tire

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	Units
Dichlorodifluoromethane	2. U	ug/L
Chloromethane	1. U	ug/L
Vinyl Chloride	1. U	ug/L
Bromomethane	2. U	ug/L
Chloroethane	2. U	ug/L
Trichlorofluoromethane	1. U	ug/L
1,1-Dichloroethene	1. U	ug/L
Acetone	50. U	ug/L
Carbon Disulfide	50. U	ug/L
Methylene Chloride	5. U	ug/L
t-1,2-Dichloroethene	1. U	ug/L
Methyl tert-butyl ether	1. U	ug/L
1,1-Dichloroethane	1. U	ug/L
2,2-Dichloropropane	2. U	ug/L
c-1,2-Dichloroethene	1. U	ug/L
2-Butanone	20. U	ug/L
Chloroform	1. U	ug/L
1,1,1-Trichloroethane	1. U	ug/L
Carbon tetrachloride	1. U	ug/L
1,1-Dichloropropene	1. U	ug/L
Benzene	1. U	ug/L
1,2-Dichloroethane	1. U	ug/L
Trichloroethene	1. U	ug/L
1,2-Dichloropropane	1. U	ug/L
Dibromomethane	1. U	ug/L
Bromodichloromethane	1. U	ug/L

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
tert-Butylbenzene	1. U	ug/L
1,2,4-Trimethylbenzene	1. U	ug/L
n-Butylbenzene	1. U	ug/L
1,3-Dichlorobenzene	1. U	ug/L
p-Isopropyltoluene	1. U	ug/L
1,4-Dichlorobenzene	1. U	ug/L
sec-Butylbenzene	1. U	ug/L
1,2-Dichlorobenzene	1. U	ug/L
1,2-Dibromo-3-chloropropane	1. U	ug/L
1,2,4-Trichlorobenzene	1. U	ug/L
Hexachlorobutadiene	1. U	ug/L
Naphthalene	2. U	ug/L
1,2,3-Trichloropropane	1. U	ug/L
Bromochloromethane	1. U	ug/L

Surrogate:	% RECOV	LIMITS
Dibromofluoromethane	114	73-138
1,2-Toluene	97	77-118
Bromofluorobenzene	91	70-130
Date Analyzed	06/30/05 21:59	

U = Compound was analyzed for but not detected to the level shown.

QUALITY CONTROL DATA

Parameter	% RECOVERY LCS/MS/MSD	LCS LIMITS	MS/MSD LIMITS	RPD MS/MSD	RPD LIMITS
EPA Method 8260					
1,1-Dichloroethene	91/100/ 95	64-139	36-177	5	30
Benzene	89/ 95/ 96	69-115	53-150	1	23
Trichloroethene	97/105/ 98	74-118	64-124	7	25
Toluene	81/ 81/ 80	77-117	40-161	1	23
Chlorobenzene	90/ 88/ 89	76-118	44-128	1	22
TOTAL METALS					
Arsenic, 200.7	97/100/101	82-117	64-126	<1	12
Barium, 200.7	100/103/104	72-125	74-119	<1	11
Cadmium, 200.7	100/103/104	72-120	68-121	<1	12
Chromium, 200.7	96/ 99/100	78-119	73-120	1	17
Lead, 200.7	91/ 93/ 94	72-121	68-126	1	19
Selenium, 200.7	97/ 99/101	82-127	65-129	2	10
Silver, 200.7	96/ 98/ 99	80-128	69-121	1	12
Mercury					
Mercury, 7470	104/115/118	81-126	70-136	2	12

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

ENVIRONMENTAL CONSERVATION LABORATORIES

P12883

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824-8529
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: Central Carolina Tire
PROJECT NO.: 202334.09
P.O. NUMBER:
PROJECT LOC. (State): NC
SAMPLER(s) NAME: Garrett Morgan
PHONE: (919)-469-3340
FAX: (919)-535-4545
CLIENT NAME: Withers & Ravenel Environmental
CLIENT PROJECT MANAGER: Mr. Brian Bellis
CLIENT ADDRESS (CITY, STATE, ZIP): 111 MacKenan Drive Cary, NC 27511

PAGE 1 OF 2

☐ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due:

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	RCRA METALS	8260							REMARKS
																	PRESERVATIVE						
																	NUMBER OF CONTAINERS SUBMITTED						
1	6·23·05	1250			MW-2		X								1	3							
2		1235			MW-3		X								1	3							
3		1210			MW-4		X								1	3							
4		1340			MW-5		X								1	3							
5		1320			MW-6		X								1	3							
6		1305			MW-7		X								1	3							
7		1420			MW-8		X								1	3							
8		1400			MW-9		X								1	3							
9	6·24·05	1220			MW-10		X								1	3							
10	6·25·05	1240			MW-11		X								1	3							
11		1220			MW-12		X								1	3							Metals not received. CS 6/26
12		1200			MW-13		X								1	3							
13	6·24·05	1240			MW-14		X								1	3							
14	6·25·05	1330			SW-1		X								1	3							

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
☐ Jacksonville ☐ Orlando	6/24/05	16:00	☐ YES ☐ NO	CRY18224	

QCAP. # ( )

ENVIRONMENTAL CONSERVATION LABORATORIES

P12883

4810 Executive Park Court, Suite 211
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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER
Central Carolina Tire	202334.09	

PAGE 2 OF 2

PROJECT LOC. (State): NC

SAMPLER(s) NAME: Garrett Morgan

PHONE: (919)-469-3340
FAX: (919)-535-4545

CLIENT NAME: Withers & Ravenel Environmental

CLIENT PROJECT MANAGER: Mr. Brian Bellis

CLIENT ADDRESS (CITY, STATE, ZIP): 111 MacKenan Drive Cary, NC 27511

☐ STANDARD REPORT DELIVERY

☐ EXPEDITED REPORT DELIVERY (surcharge)

Date Due: _____

MATRIX TYPE / REQUIRED ANALYSIS / PRESERVATIVE

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	RCRA METALS	8260							REMARKS
1	6.25.05	1300			SW-2		X								1	3							
2					SW-1(EXPANSION)		X								1	3							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							

	DATE	TIME		DATE	TIME		DATE	TIME
SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO			RELINQUISHED BY: (SIGNATURE)			RECEIVED BY: (SIGNATURE)		
RELINQUISHED BY: (SIGNATURE)			RECEIVED BY: (SIGNATURE)	6/25/05	15:20	RELINQUISHED BY: (SIGNATURE)		
RECEIVED BY (SIGNATURE)			RELINQUISHED BY: (SIGNATURE)			RECEIVED BY: (SIGNATURE)		

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
☐ Jacksonville ☐ Orlando	6/25/05	1600	X YES ☐ NO	CR718204	