

July 8, 2016

Mr. Thomas Slusser, LG
North Carolina Department of Environmental Quality
Division of Waste Management,
Inactive Hazardous Sites Branch - Superfund Section
Pre-Regulatory Landfill Unit
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

RE: Letter Report for Task Order 679DP-13
Jacksonville WWTP Landfill at Sturgeon City
Jacksonville, Onslow County, North Carolina
ID No. NONCD0000679
State Contract No. N13003S

Dear Mr. Slusser:

ATC Associates of North Carolina, P.C. (ATC) was contracted by the **North Carolina Department of Environmental Quality (NCDEQ), Division of Waste Management, Superfund Section, Inactive Hazardous Sites Branch, Pre-Regulatory Landfill Unit** to conduct subsurface investigation at the Jacksonville WWTP Landfill at Sturgeon City, Jacksonville, Onslow County, North Carolina (NONCD0000679), hereinafter referred to as the "Site". This task order involved the installation of up to 12 landfill gas probes and/or flux chambers at the Site, followed by additional screening events conducted for three consecutive months.

1.0 LANDFILL GAS PROBE INSTALLATION AND SCREENING

On May 26, 2016, under the supervision of ATC personnel, Regional Probing, Inc., attempted to install three landfill gas probes (GP-17, GP-18, and GP-19) at the site, by a track mounted geoprobe utilizing direct push technology. Prior to the installation of the gas probes, a private utility locating firm cleared the locations of all proposed gas probes and flux chambers. A hand auger was then used to clear the initial 5 ft of each borehole. Groundwater was encountered during the installation of GP-17 and GP-18 at depths of 6 ft and 4 ft, respectively. Due to shallow depth to groundwater, these borings were subsequently abandoned by a North Carolina licensed driller.

ATC personnel proceeded to install flux chambers at the proposed locations of GP-17 though GP-20 and GP-22 through GP-24. Each flux chamber was composed of stainless steel dome and equipped with Swagelok fittings. Prior to the installation of the flux chambers, a hand auger boring was advanced at each location, to a depth of 6-12 inches below ground surface (bgs). The flux chambers were then installed approximately 3 inches bgs using a bentonite seal to prevent short-circulating of air from the surface. GP-17, GP-18, and GP-19 were each installed within the waste

boundary. GP-20, GP-21, GP-22, GP-23, and GP-24 were each installed just outside of the waste boundary.

2.0 LANDFILL GAS SURVEY MAY 2016

Following the installation of the flux chambers, landfill gas readings were collected. Landfill gas measurements of methane (% volume and % of lower explosive limit-LEL), hydrogen sulfide, oxygen, carbon dioxide, and total volatile organic compounds (parts per million-ppm) were recorded at each flux chamber location, using a Gem 2000+ and a photoionization detector (PID). A thermohygrometer was used to record temperature and pressure at least once per hour during the landfill gas survey activities. All meters used were field calibrated in the morning before work began, and bump tested periodically throughout the work day. Brief descriptions of the initial findings are provided below:

- Methane was detected in GP-1 at a concentration of 0.1% by volume, and 2.0% of methane's lower explosive limit (LEL).
- VOCs were detected in GP-17, GP-18, GP-19, GP-20, GP-22, GP-23, and GP-24 at concentrations ranging from 0.1 to 4.1 parts per million (ppm).
- CO₂ was detected in GP-17, GP-18, GP-19, GP-20, GP-22, GP-23, and GP-24 at concentrations ranging from 0.1% to 4.6% by volume.
- H₂S was not detected in any gas probe/flux chamber during the survey event.

Flux chamber locations are shown in *Figure 1*. Landfill gas measurements are summarized in *Table 1*. All documentation for field calibrations and bump tests, along with meter serial numbers, date of factory calibrations, analyte detection limits, and are included in **Attachment A**. Field notes and field sampling logs are included in **Attachment B**. Following the completion of the landfill gas survey, ATC personnel removed all 7 flux chambers.

3.0 LANDFILL GAS SURVEY JUNE 2016

On June 27, 2016, ATC personnel conducted a landfill gas survey at the site. Seven flux chambers (GP-17 through GP-20 and GP-22 through GP-24) were re-installed at the same locations and in the same manner as during the May 2016 event. Brief descriptions of the initial findings are provided below:

- Methane was not detected in any flux chamber during the survey event.
- VOCs were detected in GP-24 at a concentration of 0.7 ppm.
- CO₂ was detected in GP-17, GP-18, GP-19, GP-20, and GP-23 at concentrations ranging from 0.2% to 0.5% by volume.
- H₂S was not detected in any flux chamber during the survey event.

Landfill gas measurements are summarized in *Table 1*. All documentation for field calibrations and bump tests, along with meter serial numbers, date of factory calibrations, analyte detection limits, and are included in **Attachment A**. Field notes and field sampling logs are included in **Attachment B**. Following the completion of the landfill gas survey, ATC personnel removed all

7 flux chambers. Waste generated during the installation of the flux chambers were disposed of in accordance with NCDEQ guidelines. Soils recovered during the installation of the flux chambers were used as backfill material.

If you have questions or require additional information, please do not hesitate to contact our office at (919) 871-0999.

Sincerely,
ATC Associates of North Carolina, P.C.



Chris Hanley
Project Scientist



Timothy D. Grant, P.G.
Senior Project Manager

Attachments

Table 1
Subsurface Landfill Gas Readings
Jacksonville WWTP Landfill at Sturgeon City - NONCD0000679
Jacksonville, Onslow County, North Carolina

ID#	Date	Time	VOC	CH ₄		CO ₂	O ₂	H ₂ S	
			(ppm)	% Vol	%LEL	% Vol	% Vol	ppm	µg/m ³
GP-17	5/26/2016	0:00	0.7	0.1	2.0	0.8	19.5	0	0.00
	6/27/2016	12:35	0.0	0.0	0.0	0.4	17.9	0	0.00
GP-18	5/26/2016	16:00	1.2	0.0	0.0	0.7	19.5	0	0.00
	6/27/2016	12:40	0.0	0.0	0.0	0.2	18.5	0	0.00
		12:42	0.0	0.0	0.0	0.2	18.5	0	0.00
GP-19	5/26/2016	16:04	0.2	0.0	0.0	0.4	20.0	0	0.00
	6/27/2016	12:45	0.0	0.0	0.0	0.2	18.7	0	0.00
GP-20	5/26/2016	11:50	0.2	0.0	0.0	3.0	17.8	0	0.00
		16:08	1.0	0.0	0.0	0.4	19.8	0	0.00
	6/27/2016	12:50	0.0	0.0	0.0	0.3	18.5	0	0.00
		13:45	0.0	0.0	0.0	0.5	19.0	0	0.00
GP-22	5/26/2016	11:30	0.2	0.0	0.0	0.0	21.0	0	0.00
		16:55	3.1	0.0	0.0	0.4	20.0	0	0.00
	6/27/2016	13:48	0.0	0.0	0.0	0.0	19.6	0	0.00
GP-23	5/26/2016	10:30	0.2	0.0	0.0	4.6	15.4	0	0.00
		17:04	1.1	0.0	0.0	0.1	20.6	0	0.00
	6/27/2016	13:50	0.0	0.0	0.0	0.2	19.6	0	0.00
GP-24	5/26/2016	12:05	1.8	0.0	0.0	0.1	20.6	0	0.00
	6/27/2016	13:53	0.7	0.0	0.0	0.0	19.7	0	0.00

CH₄ - Methane

CO₂ - Carbon dioxide

O₂ - Oxygen

H₂S - Hydrogen Sulfide

GP - Gas Probe

VOC - Volatile Organic Compounds

ppm - parts per million

% Vol - Percent by Volume

%LEL - Percent of the lower explosive limit

µg/m³ - micrograms per cubic meter of air

LEGEND:

- 
GP-17 FLUX CHAMBER
 Chamber Identification
- 
 WASTE DISPOSAL AREA
- 
 SLUDGE DRYING BED
- 
 ELEVATED WALKWAY
- 
 SWAMP/MARSH



NOTES:

TITLE FIGURE 1
 SAMPLE LOCATIONS
 REMEDIAL INVESTIGATION-DELINEATION PHASE
 JACKSONVILLE WWTP LANDFILL AT STURGEON CITY
 JACKSONVILLE, ONSLOW COUNTY, NC



ATC Associates of North Carolina, P.C.
 Raleigh, North Carolina, 27604

(919) 871-0999

CAD FILE SEE LOWER LEFT	TASK ORDER: 679DP-13	PREP. BY AK	REV. BY TG	SCALE AS SHOWN	DATE 7/2016	PROJECT NO. PRLU0679B
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ATTACHMENT A
Calibration Documentation



Jacksonville
5/25/16



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.

8411 Garvey Drive, Suite 113
Raleigh, NC 27614
Toll-free: (866) 646-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 31584
Description Hanna HI 98703
Calibrated 5/20/2016 11:54:29AM

Manufacturer Hanna	State Certified
Model Number 98703	Status Pass
Serial Number/ Lot Number E0016428	Temp °C 23
Location North Carolina	Humidity % 50
Department	

Calibration Specifications

Group # 1
Group Name Turbidimeter
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
0.10 / 0.10	NTU	0.10	NTU	0.10	0.10	0.00%	Pass
15.00 / 15.00	NTU	15.00	NTU	15.00	15.00	0.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	100.00	100.00	0.00%	Pass
750.00 / 750.00	NTU	750.00	NTU	750.00	750.00	0.00%	Pass

Test Instruments Used During the Calibration

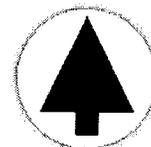
(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date / Expiration Date</u>	<u>Next Cal Date / Expiration Date</u>
NC HANNA .10 NTU 5-16	NC Hanna 0.1 ntu	Hanna		sc0032/14		5/31/2016
NC HANNA 100 NTU 5/16	nc hanna 100 ntu	Hanna		SC0032/14		5/31/2016
NC HANNA 15 NTU 5/16	nc hanna 15 ntu	Hanna		SC0032/14		5/31/2016
NC HANNA 750 NTU 5/16	nc hanna 750 ntu	Hanna		SC0032/14		5/31/2016

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Brian Duke

INSTRUMENT CALIBRATION REPORT



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**Notify Pine Environmental Services, LLC. of any defect within 24 hours of receipt of equipment
Please call 866-960-7463 for Technical Assistance**

INSTRUMENT CALIBRATION REPORT



Pine Environmental Services, LLC.

8411 Garvey Drive, Suite 113
Raleigh, NC 27614
Toll-free: (866) 646-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 23122
Description Myron 6P
Calibrated 5/25/2016 11:25:18AM

Manufacturer Myron	State Certified
Model Number 6P	Status Pass
Serial Number/ Lot Number 613003	Temp °C 22
Location North Carolina	Humidity % 52
Department	

Calibration Specifications

Calibration Specifications							
Group # 1				Range Acc % 0.0000			
Group Name Conductivity				Reading Acc % 3.0000			
Stated Accy Pct of Reading				Plus/Minus 0.000			
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass
Group # 2				Range Acc % 0.0000			
Group Name PH				Reading Acc % 3.0000			
Stated Accy Pct of Reading				Plus/Minus 0.00			
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass
Group # 3				Range Acc % 0.0000			
Group Name Redox (ORP)				Reading Acc % 3.0000			
Stated Accy Pct of Reading				Plus/Minus 0.00			
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
240.00 / 240.00	mv	240.00	mv	240.00	240.00	0.00%	Pass

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Pine Environmental Services, Inc.

Instrument ID 23122
Description Myron 6P
Calibrated 5/25/2016 11:25:18AM

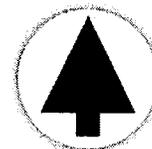
<u>Test Instruments Used During the Calibration</u>					<u>(As Of Cal Entry Date)</u>	
<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date / Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
NC 1.413 COND MAR 17	NC 1.413 CONDUCTIVITY SOLUTION	AquaPhoenix Scientific	SL 20014	5AC504		3/31/2017
NC ORP LOT 4877 EXP 8/2017	NC ORP 240 mV	Hanna	SL50005-500	4877		8/30/2017
NC PH 4 5AC304 MAR 17	NC PH 4	AquaPhoenix Scientific	SL 10007	5AC304		3/31/2017
NC PH 7 5GL345 12-17	NC PH 7	GFS	SL 10004 - 32025	5GL572		12/31/2017
NC PH10 MAR 17	NC PH 10 (Lot 1007143) 12-11	AquaPhoenix Scientific	SL 10010	5AC123		3/31/2017

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Brian Duke

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Pine Environmental Services, LLC.

8411 Garvey Drive, Suite 113
Raleigh, NC 27614
Toll-free: (866) 646-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 13832
Description GEM 2000 +
Calibrated 5/25/2016 9:40:25AM

Manufacturer CES Landtec	State Certified
Model Number GEM2000+	Status Pass
Serial Number/ Lot Number GM11198	Temp °C 22
Location North Carolina	Humidity % 54
Department	

Calibration Specifications

				Range Acc %				
				Reading Acc %				
				Plus/Minus				
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>	
Group # 1				0.0000				
Group Name Methane				3.0000				
Stated Accy Pct of Reading				0.00				
50.00 / 50.00	%Volume	50.00	%Volume	50.00	50.00	0.00%	Pass	
Group # 2				0.0000				
Group Name Carbon Dioxide				3.0000				
Stated Accy Pct of Reading				0.00				
35.00 / 35.00	%Volume	35.00	%Volume	35.00	35.00	0.00%	Pass	
Group # 3				0.0000				
Group Name Oxygen				3.0000				
Stated Accy Pct of Reading				0.00				
20.90 / 20.90	%Volume	20.90	%Volume	20.90	20.90	0.00%	Pass	
Group # 4				0.0000				
Group Name Carbon Monoxide				3.0000				
Stated Accy Pct of Reading				0.00				
50.00 / 50.00	PPM	50.00	PPM	50.00	50.00	0.00%	Pass	
Group # 5				0.0000				
Group Name Hydrogen Sulfide				3.0000				
Stated Accy Pct of Reading				0.00				
25.00 / 25.00	PPM	25.00	PPM	25.00	25.00	0.00%	Pass	

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Raleigh, NC 27614
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Pine Environmental Services, Inc.

Instrument ID 13832
Description GEM 2000 +
Calibrated 5/25/2016 9:40:25AM

<u>Test Instruments Used During the Calibration</u>				<u>(As Of Cal Entry Date)</u>	
<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Next Cal Date / Expiration Date</u> <u>Last Cal Date/</u> <u>Opened Date</u>
NC 4 GAS 50-50-25-20.9 1-20-18	NC 4 GAS MIX LOT IAM-412-15	Gasco	GP 12089 -- 31523	KAP-412-13	1/20/2018
NC 50 CH4/35 CO2--MAP-399- 51-20-	NC 50 CH4/35 CO2	Gasco	GP 12115 -- 31803	MAP-399-5	1/20/2020

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Brian Duke

All instruments are calibrated by Pine Environmental Services, LLC. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

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INSTRUMENT CALIBRATION REPORT

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Pine Environmental Services, Inc.

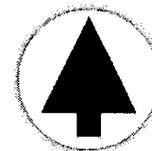
Instrument ID 13832
Description GEM 2000 +
Calibrated 6/24/2016 11:54:20AM

Manufacturer CES Landtec	State Certified
Model Number GEM2000+	Status Pass
Serial Number/ Lot Number GM11198	Temp °C 22
Location North Carolina	Humidity % 54
Department	

Calibration Specifications

				Range Acc %			
				Reading Acc %			
				Plus/Minus			
<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
Group # 1 Group Name Methane Stated Accy Pct of Reading				0.0000			
50.00 / 50.00	%Volume	50.00	%Volume	50.00	50.00	0.00%	Pass
Group # 2 Group Name Carbon Dioxide Stated Accy Pct of Reading				0.0000			
35.00 / 35.00	%Volume	35.00	%Volume	35.00	35.00	0.00%	Pass
Group # 3 Group Name Oxygen Stated Accy Pct of Reading				0.0000			
20.90 / 20.90	%Volume	20.90	%Volume	20.90	20.90	0.00%	Pass
Group # 4 Group Name Carbon Monoxide Stated Accy Pct of Reading				0.0000			
50.00 / 50.00	PPM	50.00	PPM	50.00	50.00	0.00%	Pass
Group # 5 Group Name Hydrogen Sulfide Stated Accy Pct of Reading				0.0000			
25.00 / 25.00	PPM	25.00	PPM	25.00	25.00	0.00%	Pass

INSTRUMENT CALIBRATION REPORT



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Raleigh, NC 27614
Toll-free: (866) 646-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 13832
Description GEM 2000 +
Calibrated 6/24/2016 11:54:20AM

<u>Test Instruments Used During the Calibration</u>					<u>(As Of Cal Entry Date)</u>	
<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date/ Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
NC 4 GAS 50-50-25-20.9 1/18	NC 4 GAS MIX LOTKAP-412-13	Gasco	GP 12089 - 32211	KAP-412-13		1/20/2018
NC 50/35 KAO-399-3 EXP 10/18	NC 50 CH4/35 CO2	Calgaz	GP 12116	KA0-399-3		10/21/2018

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Joshua Ollar

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ATTACHMENT B
Field Notes



①

Jacksonville 5/26/16

Chris Hanley

Comp Nobles

7:15 - load truck

Start mileage: 123693

10:00 - onsite

75° Clear sky, light breeze

Regional Rooms (Larry offer) onsite @ 10:05

TWT onsite @ 10:05 am

HASP

- locate all 12 Gas probe and

flux chambers

11:30 - Start Hand Augers, GP-18

GP-18

0' - 4' Clayey sand, light brown/light gray
asphalt debris intermixed, moist

4' - 8' Clayey sand, dark brown/dark gray,
wet @ 4' BGS

②

Note: Hand Auger to 5 ft BGS

direct push to 8' BGS

water recharged to 6' BGS

after a 30 min.

12:00 - make GP-17

Hand Auger to 5 ft.

0 - 3 - Clayey sand, black/dark brown
dry, Asphalt intermixed.

3 - 7 SAND, dark gray, fine grains,
wet

7 - 8 $\frac{1}{2}$ Clayey sand, dark gray,
saturated

water recharged to 6' BGS

1:00 - abandoned GP-18 & GP-17 locations
- used cuttings as backfill above
water table.

1:00 TWT offsite

1:15 - Hand Augers all GP locations to 1 ft BGS.
NO water in any GP location

(3)

Jacksonville

5/26/15
Chris Hawley
Cory Nobles

1:30 - Regional Probing
1:30 - AIC personnel
2:45 - start installing
w/ flux chambers

offsite
offsite for lunch
GP-17, GP-18, GP-19
and GP-20

3:30 - finished installing flux chambers
- Calibrate meters
- PID (miniMete 2000)
- GC 2000+

5:15 - finish LFG Readings
- NO methane in perimeter Gas probes.

5:20 - start remaining probes
- measure all locations
- ~~GPS all locations~~ ~~CAP~~
- draw map with white markers

~~GPS Site Name: Jacksonville LFG~~

(4)

~~Gas Probe~~ ~~Time~~

Gas Probe	Time	VOCS (ppm)	CH ₄ (ppm)	CH ₄ %LEL	CO ₂ (ppm)	O ₂ %	H ₂ S (ppm)	Temp (°F)	Humidity (RH)	Pressure (inHg)
GP-17	3:55	0.7	00.1	00.4	00.8	19.5	0000	81.12	66.51	30.12
GP-18	4:00	1.2	00.0	00.0	00.7	19.8	0000			
GP-19	4:04	0.2	00.0	00.0	00.4	20.0	0000			
GP-20	4:08	1.0	00.0	00.0	00.4	19.8	0000			
GP-17 avg	4:11	0.6	00.1	00.3	00.9	19.5	0000			

5

Jacksonville

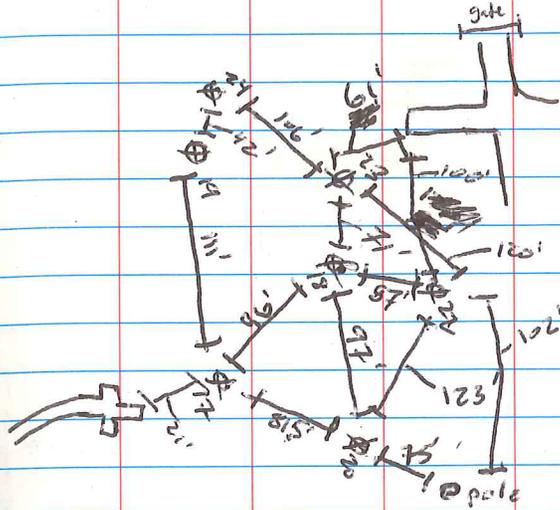
5/26/16

Gas Probe	Time	(ppm)	CH ₄ (ppm)	CH ₄ (ppm)	CO ₂ (ppm)	CO ₂ (ppm)	H ₂ S (ppm)	Temp (°F)	Humidity (RH)	Pressure (inHg)
GP-22	4:55	3.1	00.0	00.0	00.4	20.0	00.0	86.72	52.98	30.11
GP-23	5:04	1.1	00.0	00.0	00.2	20.6	00.0	-	-	-
GP-24	5:00	1.6	00.0	00.0	00.1	20.6	00.0	-	-	-
GP-22	5:05	1.8	00.0	00.0	00.5	20.0	00.0	-	-	-

Jacksonville

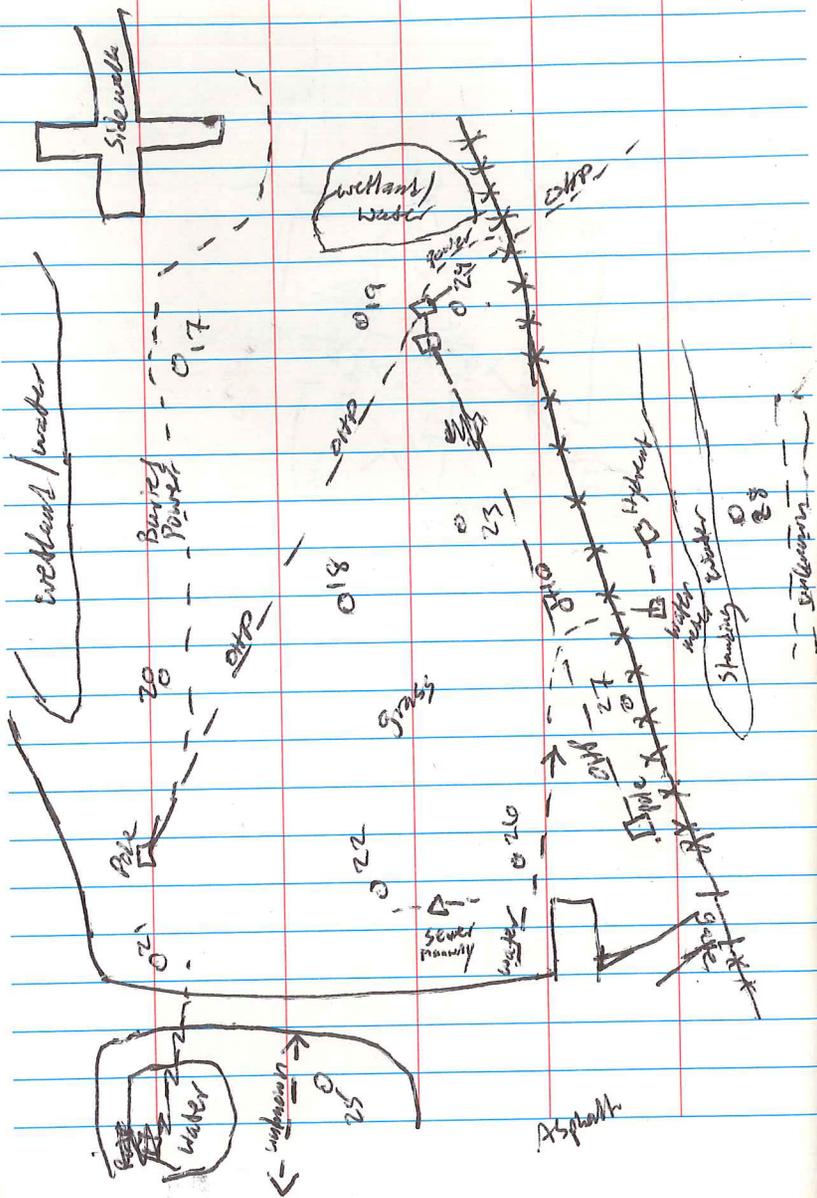
5/26/16

6



(7)

Jacksonville 5/26/16



Jacksonville

5/26/16

(8)

6:00 - offsite.

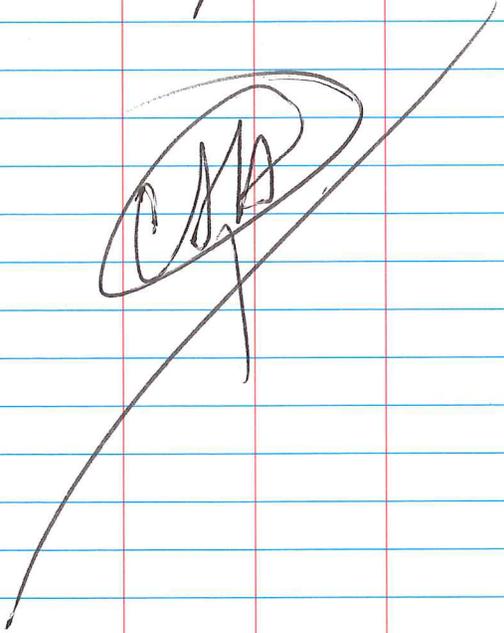
Chris Henley
Comp Notes

8:17 - at office

end mileages 173952

unload meters.

8:30 - End Day



⑨

JACKSONVILLE LF 6/27/16

BEGINNING MILEAGE 56465

OILMAST, 800F

2:00 load truck.

10:27 - onsite

CSH, RH

81°F 65% RH, Partly cloudy

- HWSF

- locate points

1040' CALIBRATED GEM AND

M.W. BAR. ALL WITHIN LIMITS.

locate floor chamber locations

- W200 offsite to purchase new shovel

12:35 start LFC readings

note - very dry soils and hard ground

13:40 finished installing second round of floor chambers

Time	(ppm) TDS	(ppm) CH ₄	(ppm) CO ₂	O ₂	H ₂ S	(°C) Temp	(RH) Humidity	(%T) Pressure
GA-1735 12:35	0.0	0.0	0.0	0.1	17.9	0000	92.0	30.2
GA-1735 12:35	0.0	0.0	0.0	0.2	18.4	0000	-	-
GA-1735 12:35	0.0	0.0	0.0	0.2	18.5	0000	-	-
GA-1735 12:35	0.0	0.0	0.0	0.2	18.7	0000	-	-
GA-1735 12:35	0.0	0.0	0.0	0.3	18.5	0000	-	-

(12)

Flux Chamber	Time (good)	True CH ₄ (good)	CH ₄ (good)	CO ₂	O ₂	H ₂ S	Temp	Humidity	pressure	FID
MS-70 2-4-11	1:46	00.0	00.0	0.5	19.0	0000	93.1	40.1	30.09	0.0
MS-72	1:48	00.0	00.0	0.0	19.6	0000	-	-	-	0.0
MS-73	1:50	00.0	00.0	0.2	19.6	0000	-	-	-	0.0
MS-74	1:53	00.0	00.0	0.0	19.7	000	-	-	-	0.7

Tachsonville Landfill 6/27/16

(12)

1406 - Finished Flux Chamber readings.
NO methane hits.

Created GPS file: "PRM0679 Flux Chamber locations".

14:45 offsite

16:45 at site -
- unload truck,
- hook up truck,
GPS mileage: 56718