

3
GW-211

**2013 Background
Sampling Report**

Date:

6/24/2013



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

June 24, 2013

Return Receipt Requested
7012 3460 0001 7236 2343

Mr. Jim Griswold, Senior Hydrologist
Environmental Bureau
ENMRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

District Copy
For Scanning Only
Has NOT been processed.

RCVD JUN 28 '13
OIL CONS. DIV.

**RE: Treatment Area Background Study -
Largo Compressor Station
Enterprise Field Services, LLC
OCD GW Discharge Permit Number: GW-211
Rio Arriba County, New Mexico**

DIST. 3

Dear Mr. Griswold,

Enterprise Field Services, LLC (Enterprise) is submitting the enclosed report entitled: *Largo Compressor Station – Background Sampling*, dated June 18, 2013 for above-referenced facility. This supplemental site investigation was performed to obtain additional soil and groundwater information at the proposed soil treatment area for remedial actions at the facility. Groundwater TDS values in this portion of the site are elevated (between 13,000 to 17,900 mg/L), and soils do not appear to have been affected by historical facility operations. Therefore, this area is suitable for use a soil treatment area, and existing soils in this area are suitable for use as backfill as proposed in the May 8, 2013 Corrective Action Work Plan (CAWP).

Remedial actions for soils containing petroleum hydrocarbons from historical facility operations will be performed in accordance with the CAWP. The CAWP describes the proposed excavation of affected soils from areas designated as Area 1 (the former condensate storage tank area), and Area 3 (retention pond area). These areas have been investigated previously as reported in the *Interim Remedial Investigation Report* dated May 15, 2010, the *Proposed Facility-Wide Soil and Groundwater Investigation and Remedial Activities* report dated June 10, 2010, the *Environmental Site Investigation – Largo Compressor Station (GW-211) report* dated March 24, 2011, the *Supplemental Site Investigation & Quarterly Groundwater Monitoring Report (April 2012 Event)*, dated July 31, 2012, and the *Supplemental Site Investigation Report* (November 2012 and January 2013), dated February 22, 2013.

If you have any questions regarding the enclosed report, please contact me at (713) 381-2286 or drsmith@eprod.com.

Sincerely,

David R. Smith, P.G.
Sr. Environmental Scientist

Rodney M. Sartor, REM
Sr. Manager, Environmental

/dep

Mr. Jim Griswold
June 24, 2013
Page 2

Enclosure – *Largo Compressor Station – Background Sampling*

cc: Brandon Powell, New Mexico Oil Conservation Division, 1000 Rio Brazos Road, Aztec, NM 87410
H. C. Berry, P.O. Box 579, Dexter, NM 88230

ec: Chris Mitchell, Southwest Geoscience
Kyle Summers, Southwest Geoscience

Southwest GEOSCIENCE

606 S. Rio Grande Avenue
Unit A, Downstairs West
Aztec, New Mexico 87410
Ph: (505) 334-5200
Fax: (505) 334-5204

June 18, 2013

Enterprise Field Services, LLC
P.O. Box 4324
Houston, Texas 77210-4324
Attn: Mr. David Smith

Re: ***Largo Compressor Station - Background Sampling***
OCD GW Discharge Permit Number: GW-211
Rio Arriba County, New Mexico
SWG Project # 0410G002

Dear Mr. Smith:

Southwest Geoscience (SWG) appreciates the opportunity to submit this Background Sampling Summary Report for the above-referenced site (hereinafter, the "Site"). The Largo Compressor Station is located off of County Road (CR) 379 in Section 15, Township 26N, Range 7W in Rio Arriba County, New Mexico. The Site is a natural gas compressor station utilized to dehydrate and compress natural gas collected from production wells in the area for transportation via pipeline. The Site was constructed in the mid-1960s and currently includes two (2) compressor engines, a dehydration unit and related treater, one (1) bullet storage tank, a new condensate storage tank battery, which includes seven (7) new condensate storage tanks, inlet scrubbers, a control room, and an office/shop building.

In accordance with the *Corrective Action Work Plan (Area 1 and Area 3 - Soils)*, dated March 11, 2013, Enterprise Field Services, LLC (Enterprise) has performed sampling in the southeast portion of the Site to evaluate current background soil and groundwater conditions. These activities were performed in advance of the proposed acquisition of backfill material from the area, and in advance of the proposed use of the area for soil treatment.

The Site location is depicted on Figure 1 of Attachment A which was reproduced from a portion of the United States Geological Survey (USGS) 7.5-minute series topographic map. A Site vicinity map, created from an aerial photograph, is provided as Figure 2, and a Site map depicting the locations of soil borings and monitoring wells is provided as Figure 3.

Standard of Care and Limitations

The information contained in this letter represent SWG's professional opinions based upon information derived from on-Site activities and other services performed under this scope of work and were arrived at in accordance with currently acceptable professional standards. The findings were based upon analytical results provided by an independent laboratory. Evaluations of the geologic/hydrogeologic conditions at the Site for the purpose of this investigation are made from a limited number of available data points (i.e. soil borings and ground water samples) and site wide subsurface conditions may vary from these data points. SWG makes no warranties, express or implied, as to the services performed hereunder. Additionally, SWG does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties).

This report is based upon a specific scope of work requested by Enterprise. The agreement between SWG and Enterprise outlines the scope of work, and only those tasks specifically authorized by that agreement or outlined in this report were performed. This report has been

prepared for the intended use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and SWG.

Field Activities

During May of 2013, SWG advanced twelve (12) soil borings in the southeast portion of the Site utilizing a hollow stem auger. Seven (7) of the soil borings were advanced to a total depth of 6 feet below grade surface (bgs) to evaluate potential backfill material, and five (5) of the soil borings were completed as monitoring wells with total depths of up to 35 feet bgs to evaluate background groundwater quality. Samples were collected for laboratory analysis from each background soil boring/monitoring well boring at the following intervals:

- 2.5 feet bgs;
- 6 feet bgs, and;
- Estimated capillary fringe (monitoring well borings)

SWG did not observe hydrocarbon or other chemical impairment at any of the soil boring locations based on visual, olfactory, or photoionization detector (PID) evidence. PID readings, lithologic descriptions, and monitoring well completion details are provided in Attachment B.

Analytical Results

The soil and groundwater samples collected from each soil boring/monitoring well were analyzed for TPH GRO/DRO utilizing EPA method SW-846 #8015, BTEX utilizing EPA SW-846 #8021/8260, TPH utilizing EPA method 418.1 (soils only), chlorides utilizing EPA method 300.1 or equivalent, and total dissolved solids (TDS - groundwater only) utilizing SM 2540C. A summary of the analyses, sample type, and EPA-approved methods for background samples collected from the Site are presented in the following table:

Analysis	Sample Type	Number of Samples	Method
TPH GRO/DRO	Soil	29	SW-846 #8015
BTEX	Soil	29	SW-846 #8021/8260
TPH	Soil	29	EPA 418.1
Chloride	Soil	29	EPA 300.1 or equivalent
TPH GRO/DRO	Water	4	SW-846 #8015
BTEX	Water	4	SW-846 #8021/8260
Chloride	Water	4	EPA 300.1 or equivalent
TDS	Water	4	SM 2540C

SWG compared the analytical concentrations or laboratory reporting limits (RLs) associated with the background soil and groundwater samples to the Oil Conservation Division (OCD)

Remediation Action Levels and/or the New Mexico Water Quality Control Commission (WQCC) *Groundwater Quality Standards*.

Analytical results for the background soil samples did not identify any concentrations of BTEX or TPH in excess of the Oil Conservation Division (OCD) *Remediation Action Levels*. Chloride concentrations ranged from below laboratory RLS to 630 mg/kg across the study area. The results of the background soil sample analyses are summarized in Table 1 of Attachment C.

Analytical results for the background groundwater samples did not identify any concentrations of BTEX or TPH above the WQCC *Groundwater Quality Standards*. Chloride concentrations ranged from below laboratory RLS to 140 mg/L. TDS analyses of the background groundwater samples indicate concentrations ranging from 13,000 mg/L to 17,900 mg/L. Monitoring well MW-79 was dry, and was not sampled. The results of the background groundwater sample analyses are summarized in Table 2 of Attachment C. Table 2 also includes prior TDS results from monitoring wells in other portions of the Site. Laboratory data reports and chain of custody documentation are provided in Attachment D.

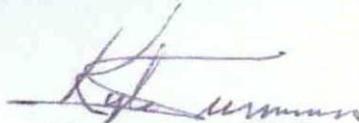
Findings

Based on the analytical results and field observations, the shallow soil in the southeast portion of the Site appears suitable for use as backfill material in Area 1 and Area 3. The soils generally did not exhibit constituent of concern (COC) concentrations above the applicable regulatory standards/guidelines. Slightly elevated chloride concentrations were observed in soil samples at locations of likely natural accumulation, such as drainage areas and on top of a buried clay deposit. Use of these soils as backfill, as proposed in the *Corrective Action Work Plan (Area 1 and Area 3 - Soils)*, will not cause significant impacts to underlying groundwater, contribute to affected surface runoff, or affect future re-vegetation of the backfilled areas of the facility.

Background analytical results for groundwater indicate that the shallow groundwater bearing unit is not suitable for use as a source of drinking water due to elevated TDS concentrations. No other COCs were identified above WQCC *Groundwater Quality Standards* in this area of the Site.

If you should have any questions or comments regarding this letter report, please contact Kyle Summers or Chris Mitchell at (903) 821-5603 or (214) 762-3903, respectively.

Sincerely,
Southwest Geoscience



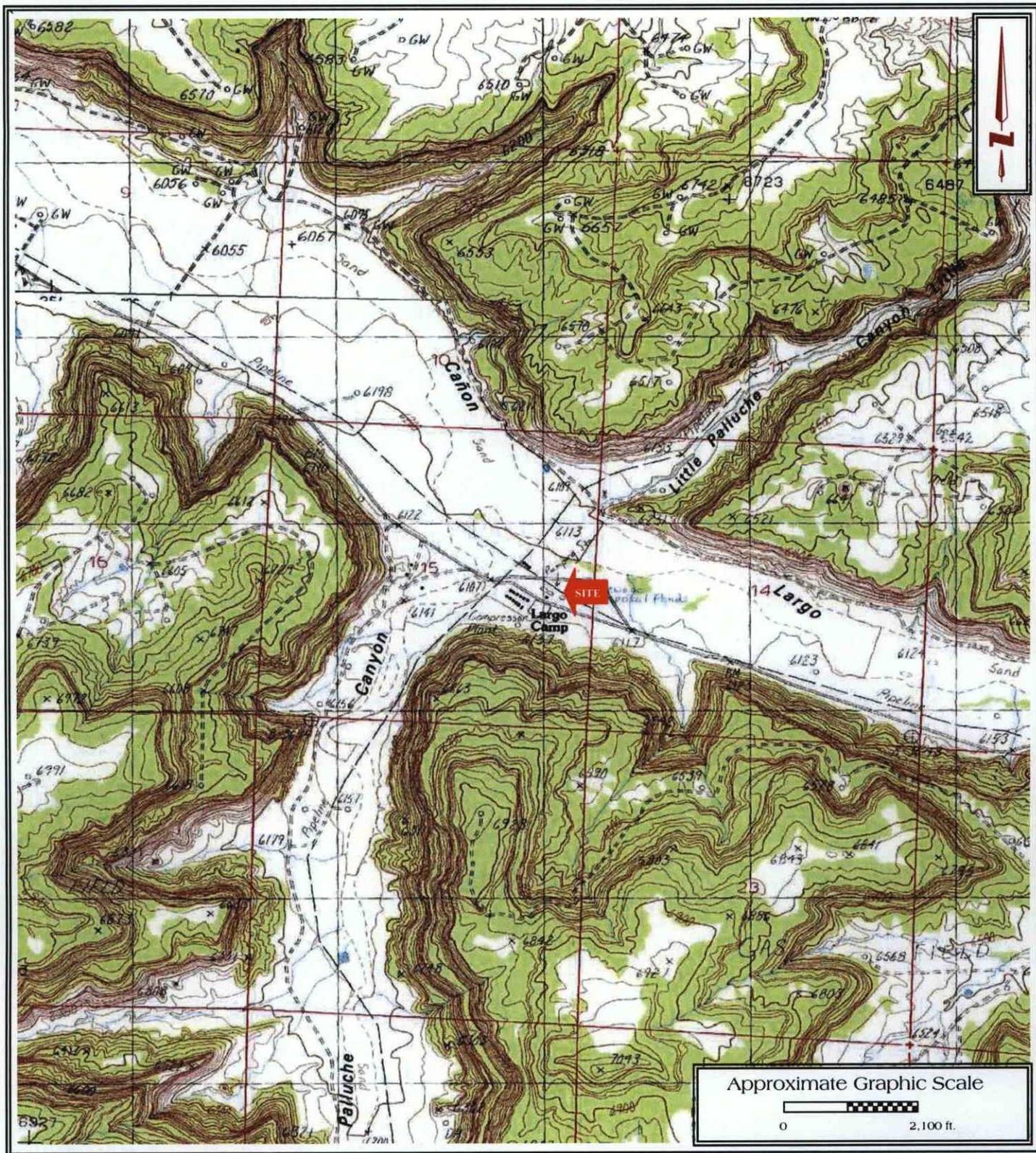
Kyle Summers C.P.G.
Manager, Four Corners



B. Chris Mitchell, P.G.
Principal Geoscientist

ATTACHMENT A

Figures

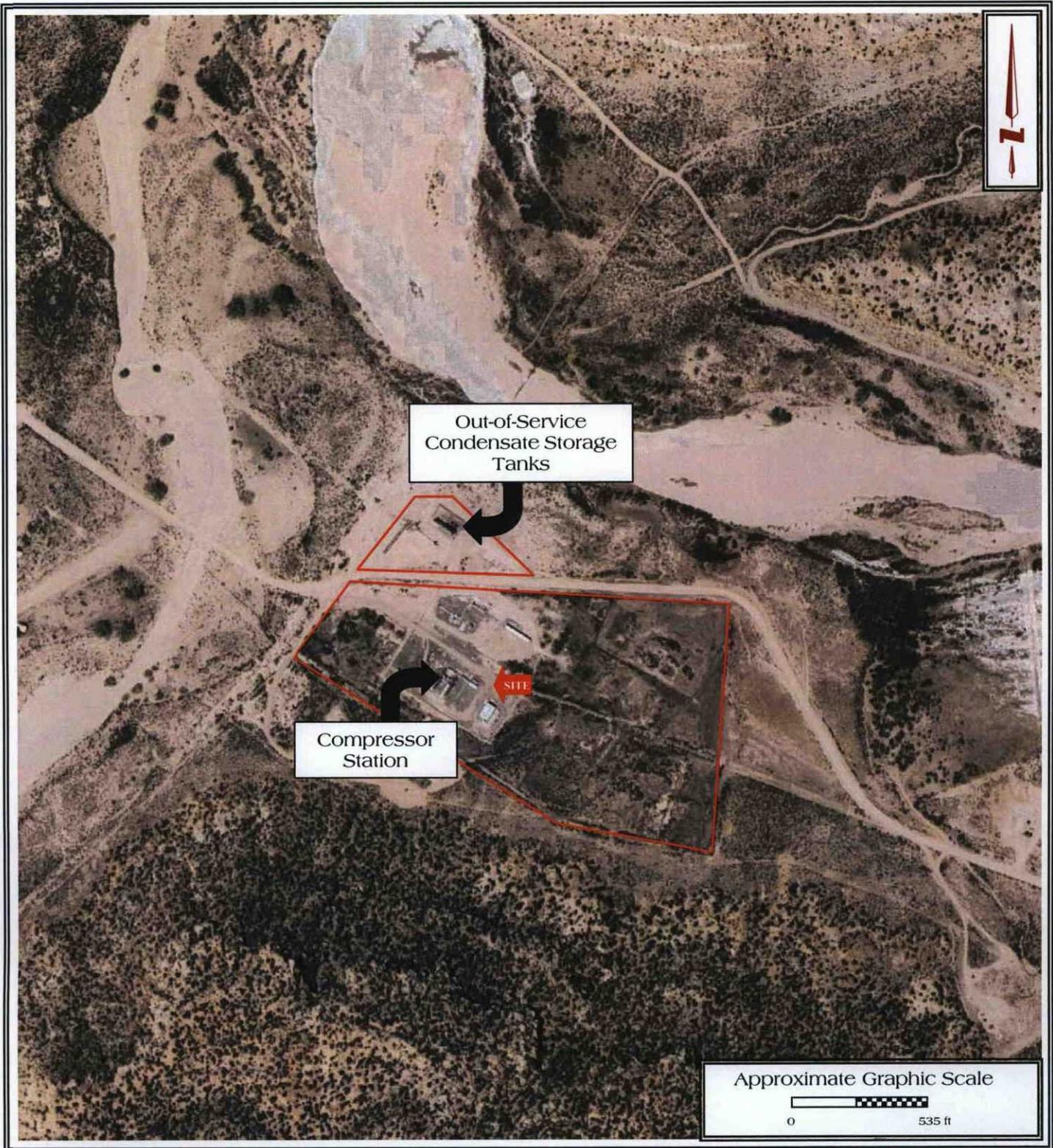


Largo Compressor Station
 SE1/4 of NE1/4, S15 T26N R7W
 Rio Arriba Co., New Mexico
 N36° 29' 12.63"; W107° 33' 27.79"

SWG Project No. 0410002

Southwest
 GEOSCIENCE

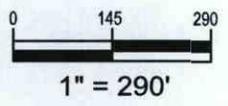
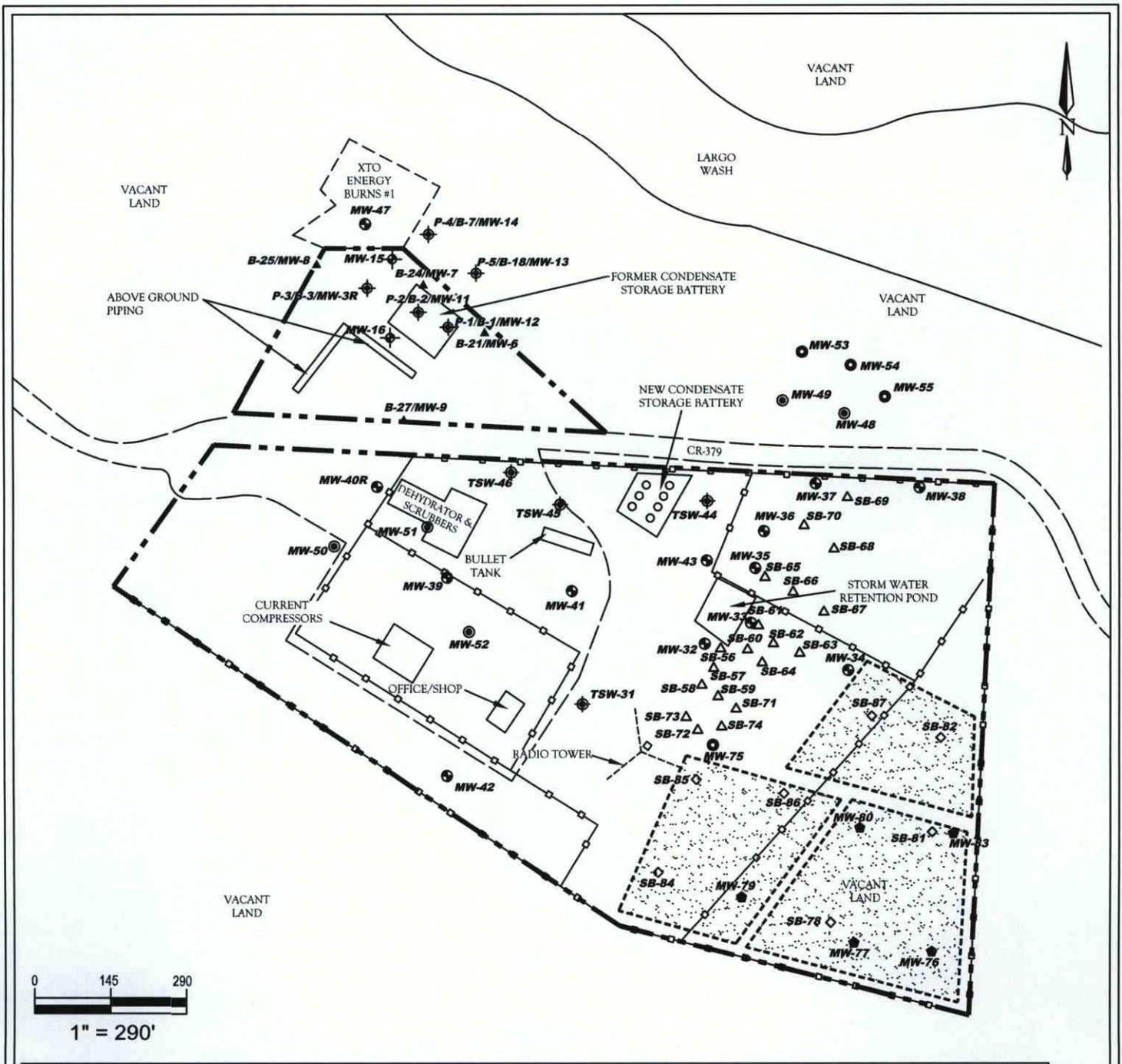
FIGURE 1
 Topographic Map
 Smouse Mesa & Gould Pass,
 NM Quadrangle
 Contour Interval - 20 Feet
 1985



Largo Compressor Station
 SE1/4 of NE1/4, S15 T26N R7W
 Rio Arriba Co., New Mexico
 N36° 29' 12.63"; W107° 33' 27.79"

Southwest
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FIGURE 2
 Site Vicinity Map
 2010 Google Earth



LEGEND:			
	SITE BOUNDARY		SOIL BORING INSTALLED BY SWG (NOVEMBER 2012/ JANUARY 2013)
	GRAVEL		TEMPORARY SAMPLING WELL INSTALLED BY SWG (NOVEMBER 2010)
	FENCE		MONITORING WELL INSTALLED BY LT ENVIRONMENTAL (MARCH 2010)
	BERM		SOIL BORING/MONITORING WELL INSTALLED BY LT ENVIRONMENTAL (AUGUST 2009)
	TREATMENT AREA		MONITORING WELL INSTALLED BY SWG (NOVEMBER 2012/ JANUARY 2013)
	SOIL BORING INSTALLED BY SWG (MAY 2013)		MONITORING WELL INSTALLED BY SWG (APRIL 2012)
	MONITORING WELL INSTALLED BY SWG (MAY 2013)		MONITORING WELL INSTALLED BY SWG (NOVEMBER 2010)

Largo Compressor Station
 SE1/4 of NE1/4, S15 T26N R7W
 Rio Arriba Co., New Mexico
 N36° 29' 12.63"; W107° 33' 27.79"

SWG Project No. 0410002



FIGURE 3
SITE MAP

ATTACHMENT B

Soil Boring/Monitoring Well Logs

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: MW-76
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/16/2013
 Date Completed: 5/16/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

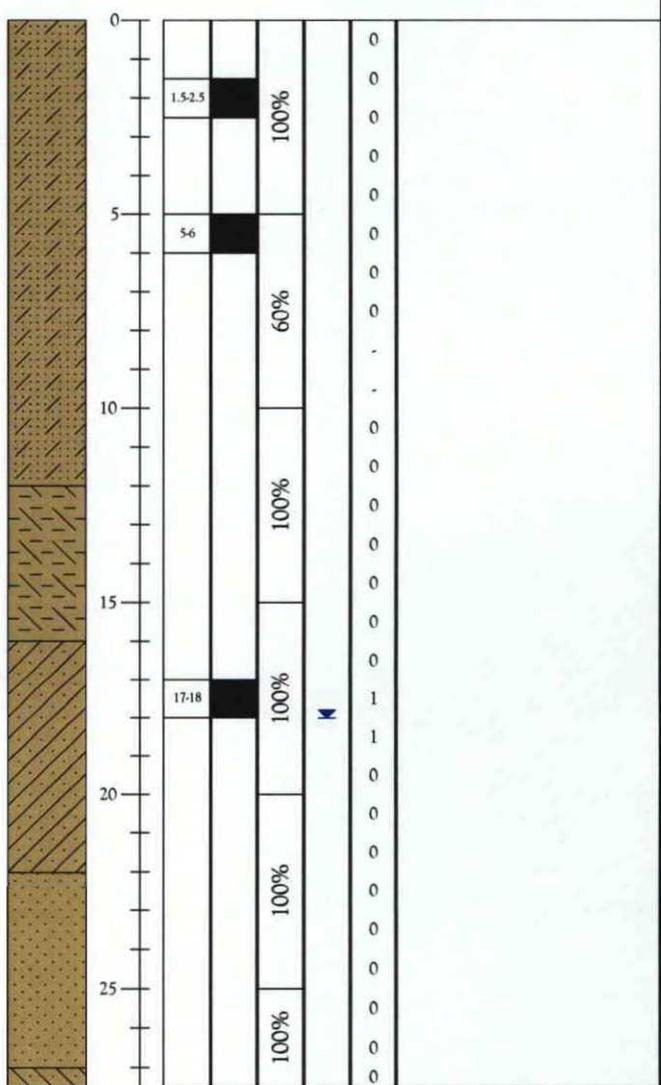
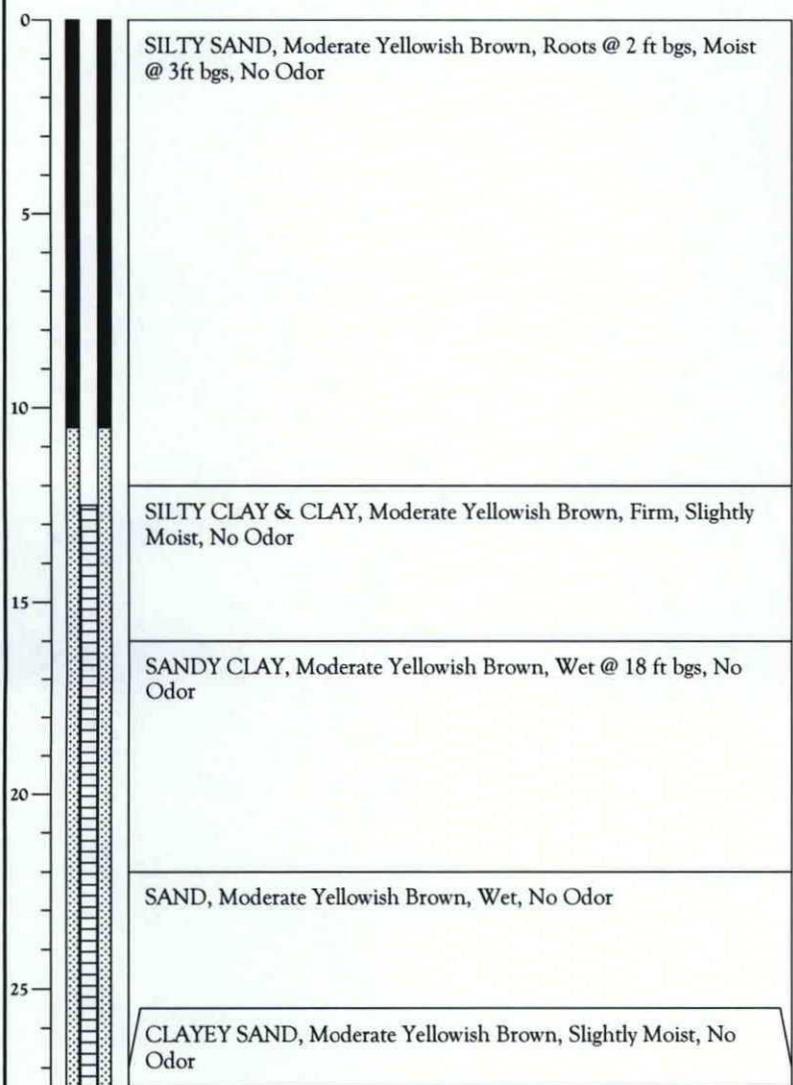
GROUNDWATER DEPTH

- ▼ Depth at Completion
- ▼ Depth at Stabilization

WELL CONSTRUCTION INFORMATION

Well Diameter: 2"
 Screen Size: 0.010"
 Screen Length: 15'
 Casing Length: 12.5'
 Surface Completion: Above Ground

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-78
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/16/2013
 Date Completed: 5/16/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

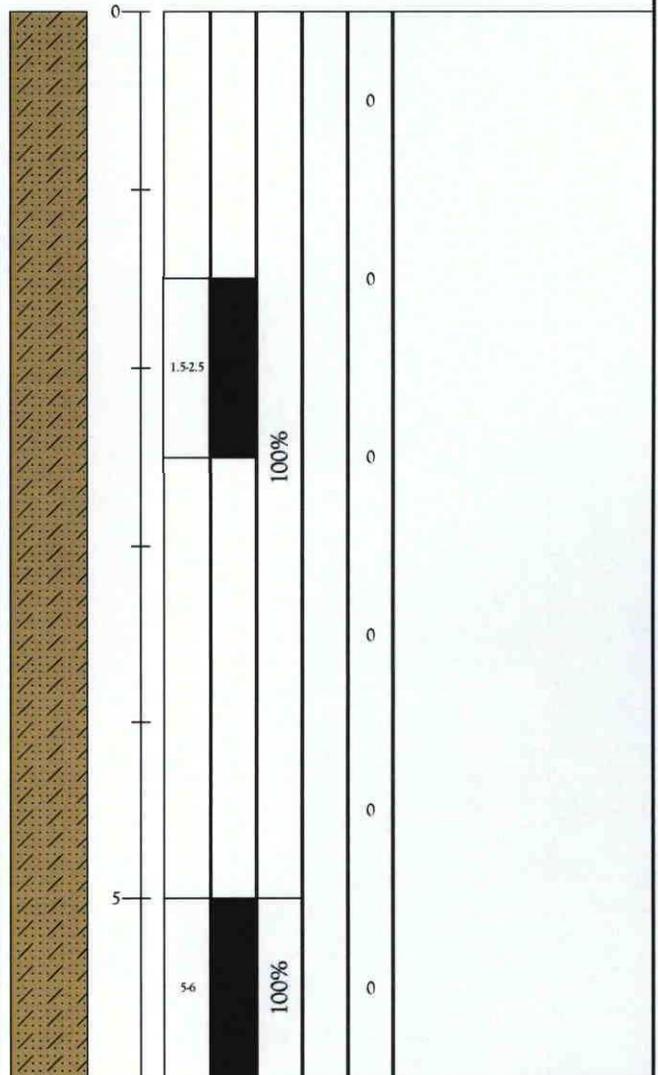
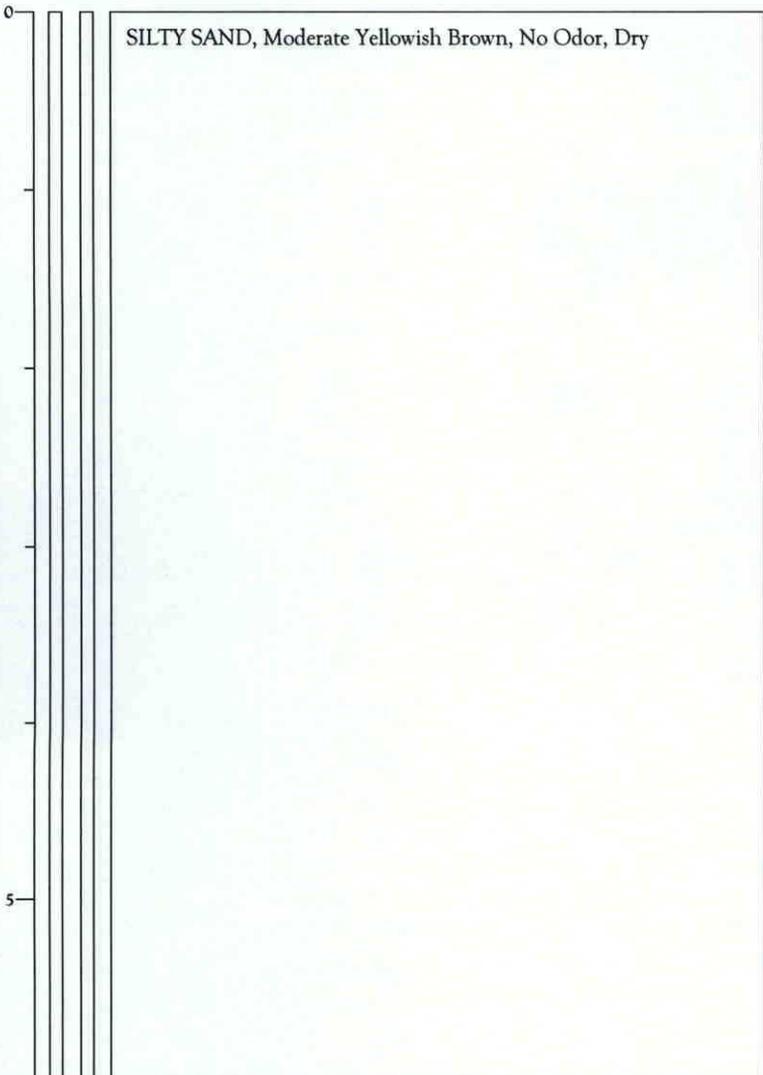
GROUNDWATER DEPTH

- ▼ Depth at Completion
- ▾ Depth at Stabilization

WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: MW-80
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/20/2013
 Date Completed: 5/20/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

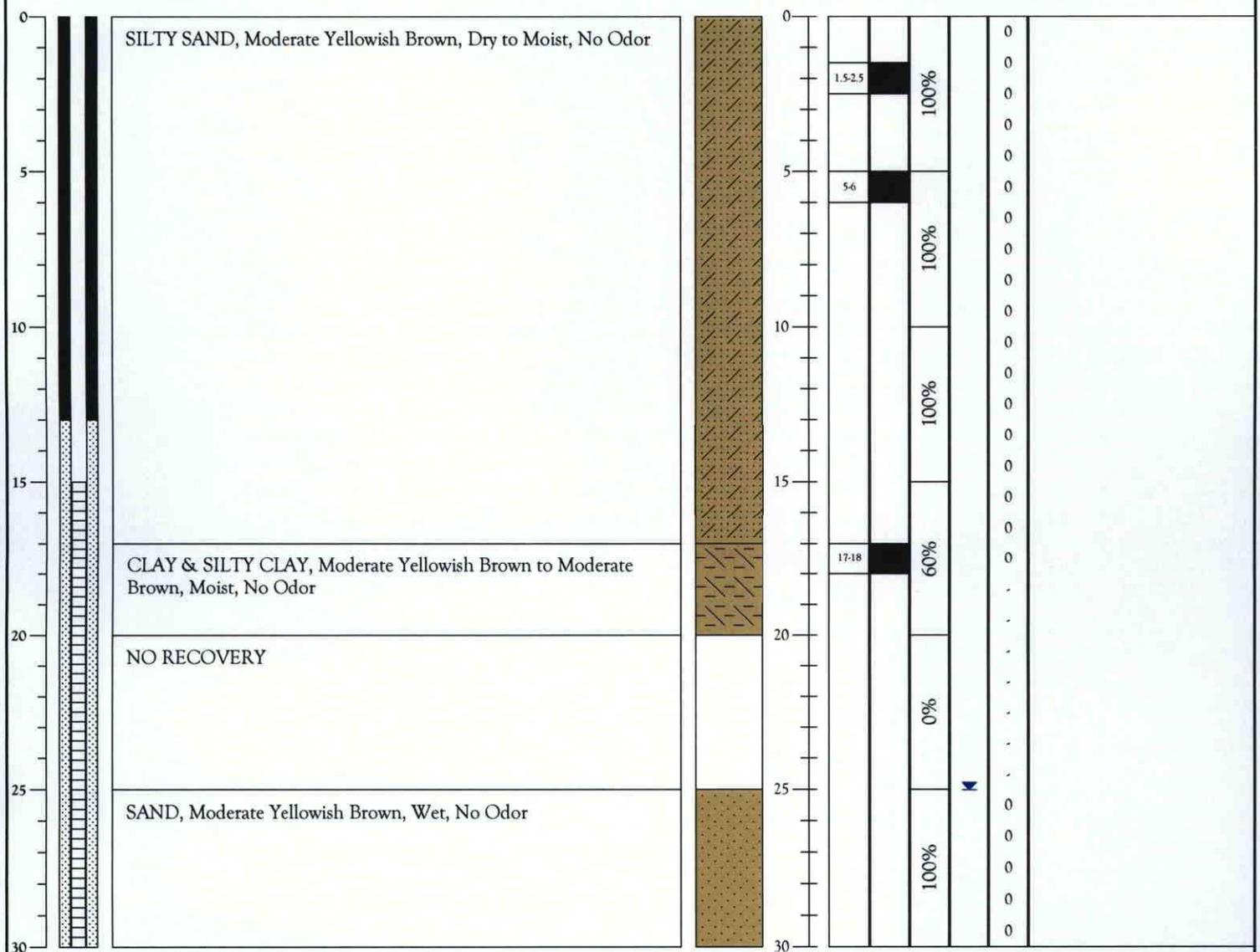
GROUNDWATER DEPTH

▼ Depth at Completion
 ⚡ Depth at Stabilization

WELL CONSTRUCTION INFORMATION

Well Diameter: 2"
 Screen Size: 0.010"
 Screen Length: 15'
 Casing Length: 20'
 Surface Completion: Above Ground

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-81
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/20/2013
 Date Completed: 5/20/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

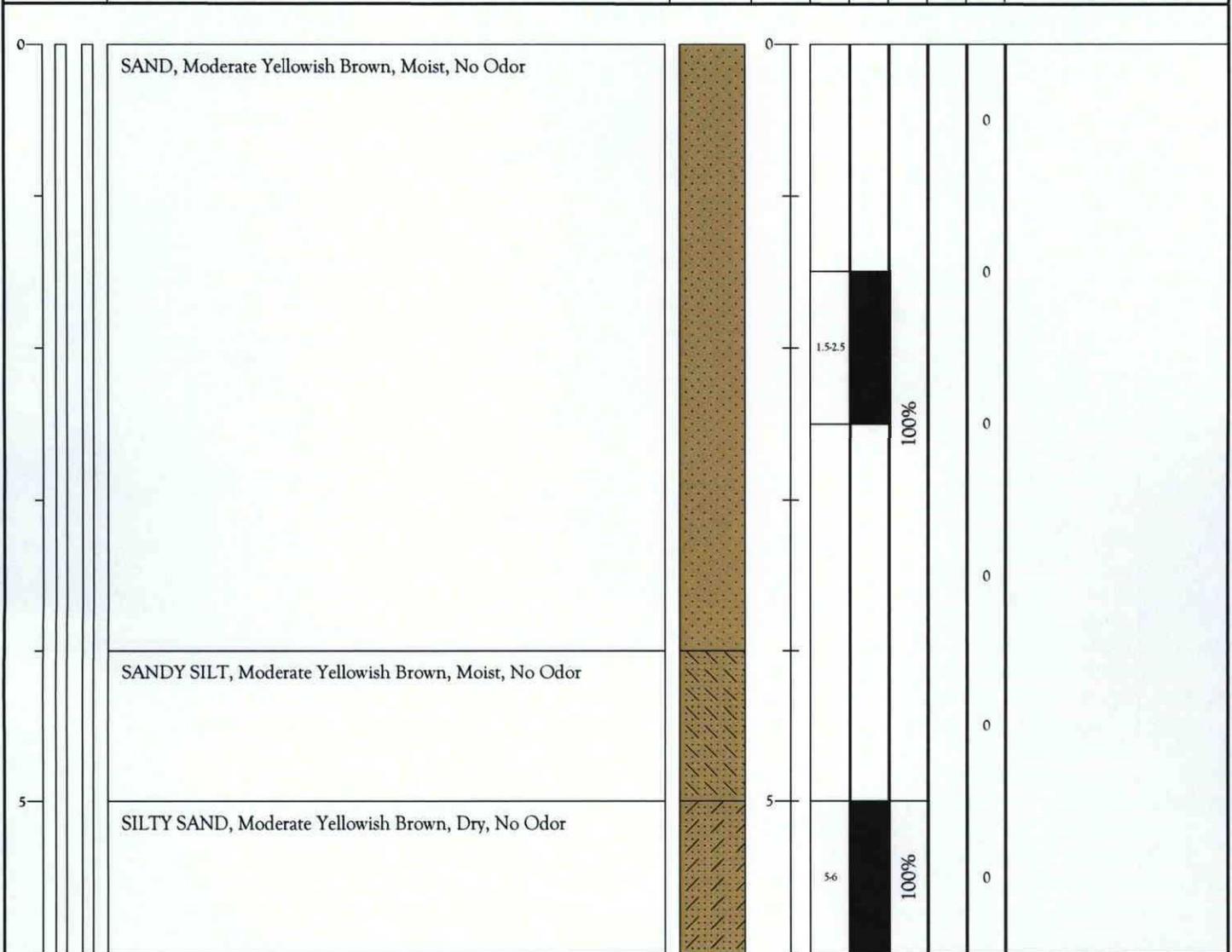
WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

GROUNDWATER DEPTH

- ▼ Depth at Completion
- ▼ Depth at Stabilization

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-82
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/20/2013
 Date Completed: 5/20/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

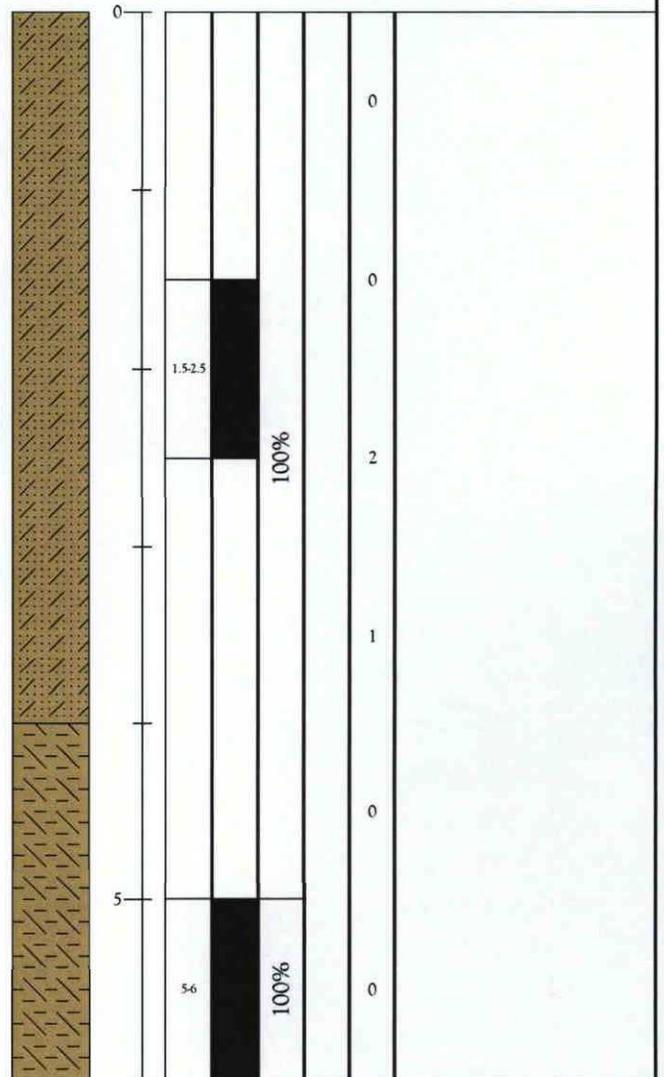
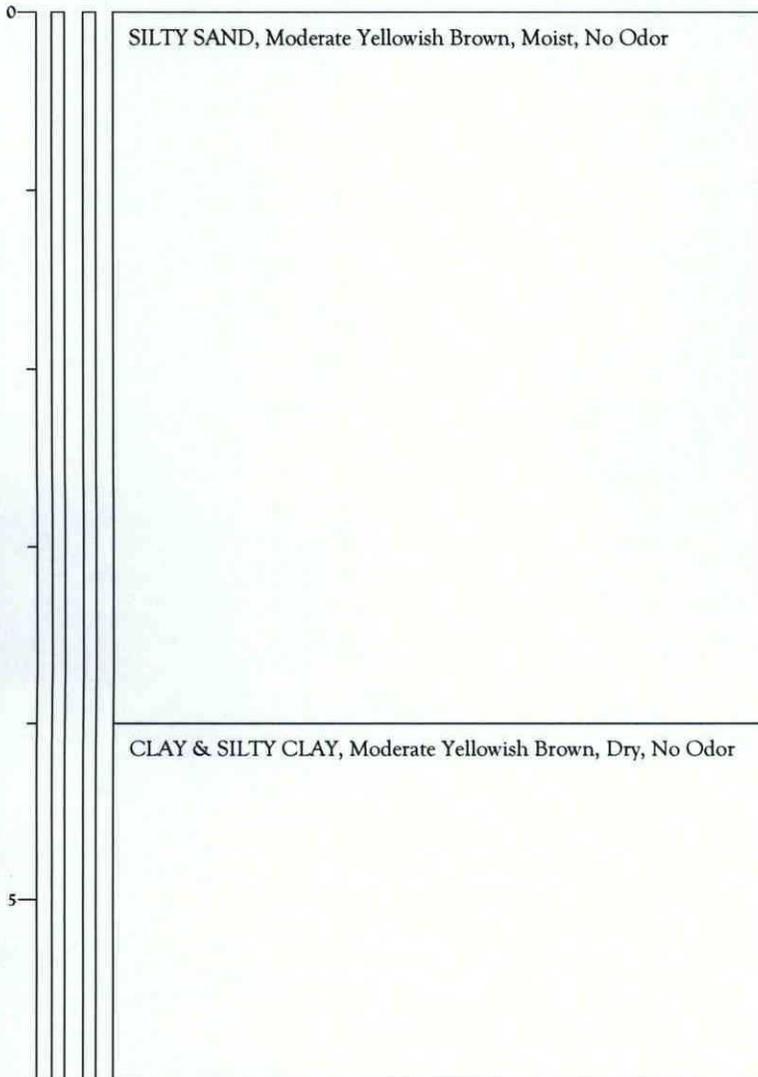
WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

GROUNDWATER DEPTH

- ▼ Depth at Completion
- ▼ Depth at Stabilization

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: MW-83
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/20/2013
 Date Completed: 5/20/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

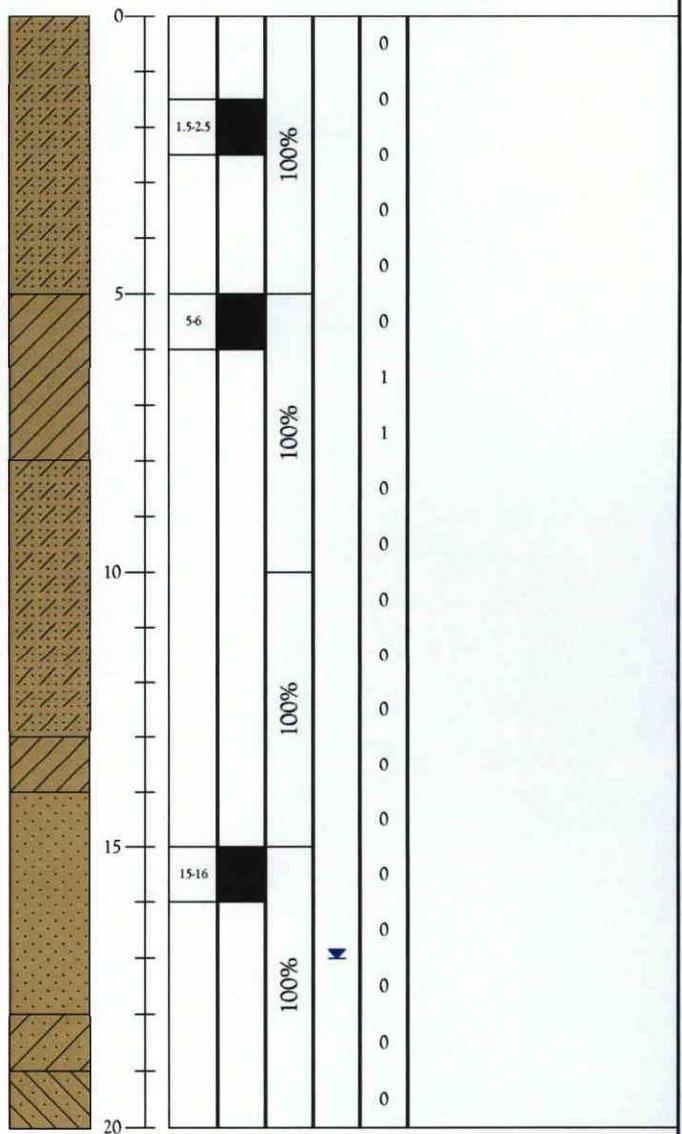
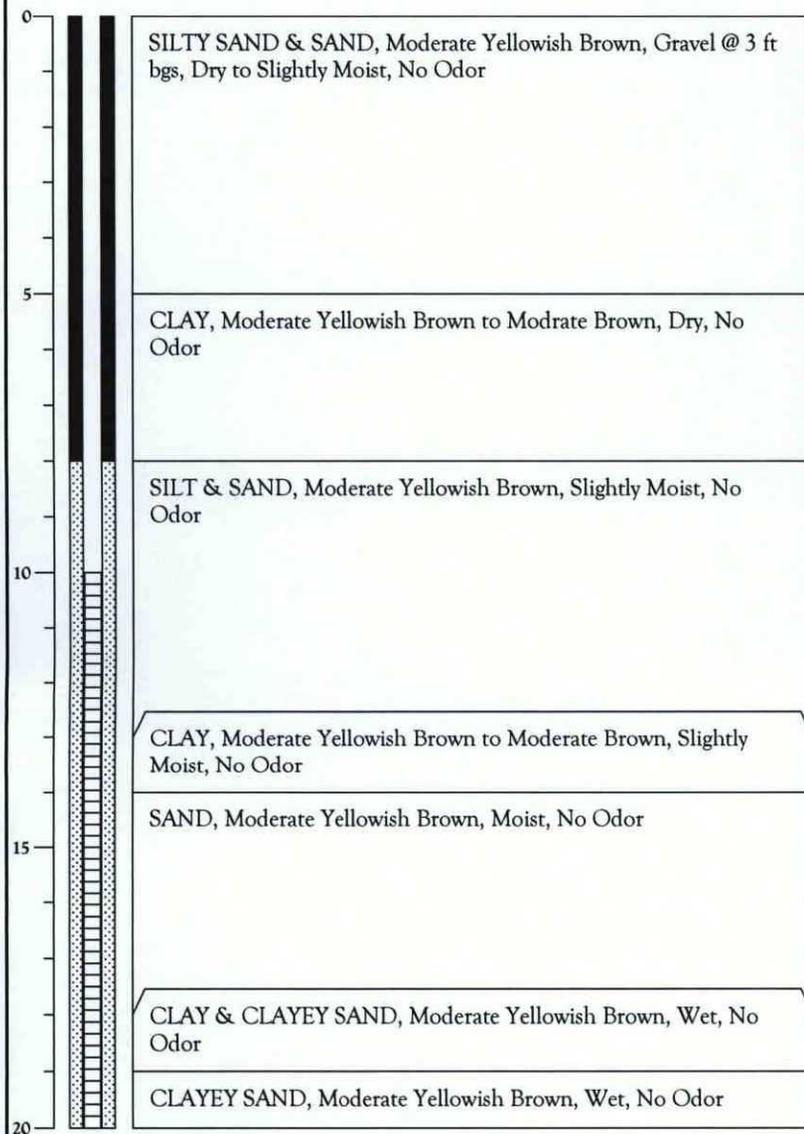
GROUNDWATER DEPTH

- ▼ Depth at Completion
- ⚡ Depth at Stabilization

WELL CONSTRUCTION INFORMATION

Well Diameter: 2"
 Screen Size: 0.010"
 Screen Length: 10'
 Casing Length: 10'
 Surface Completion: Above Ground

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-84
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/21/2013
 Date Completed: 5/21/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

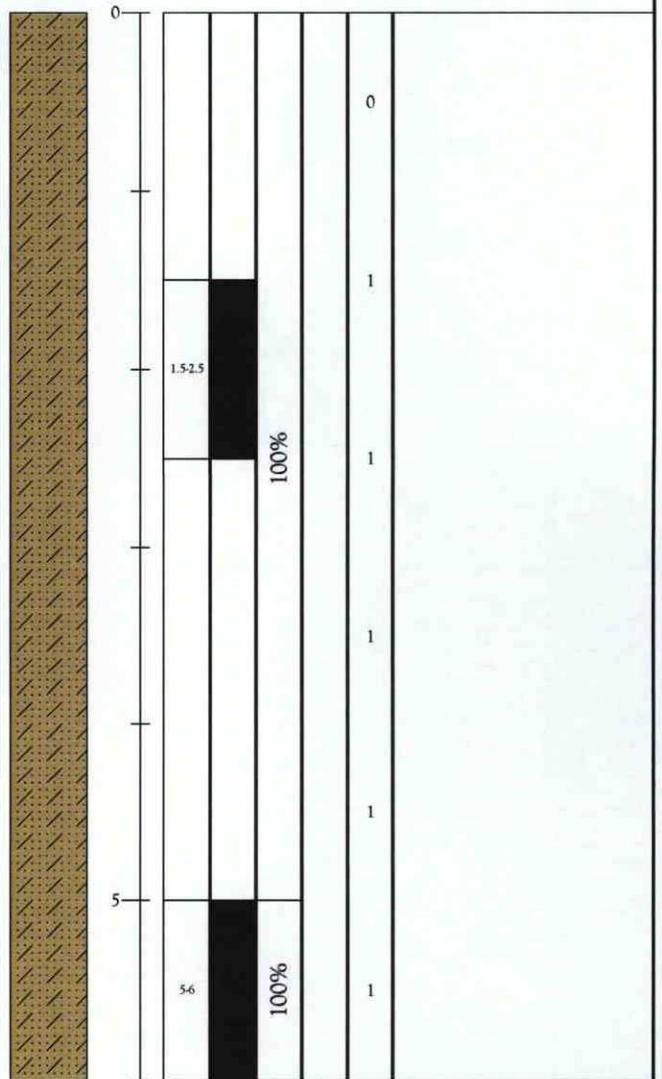
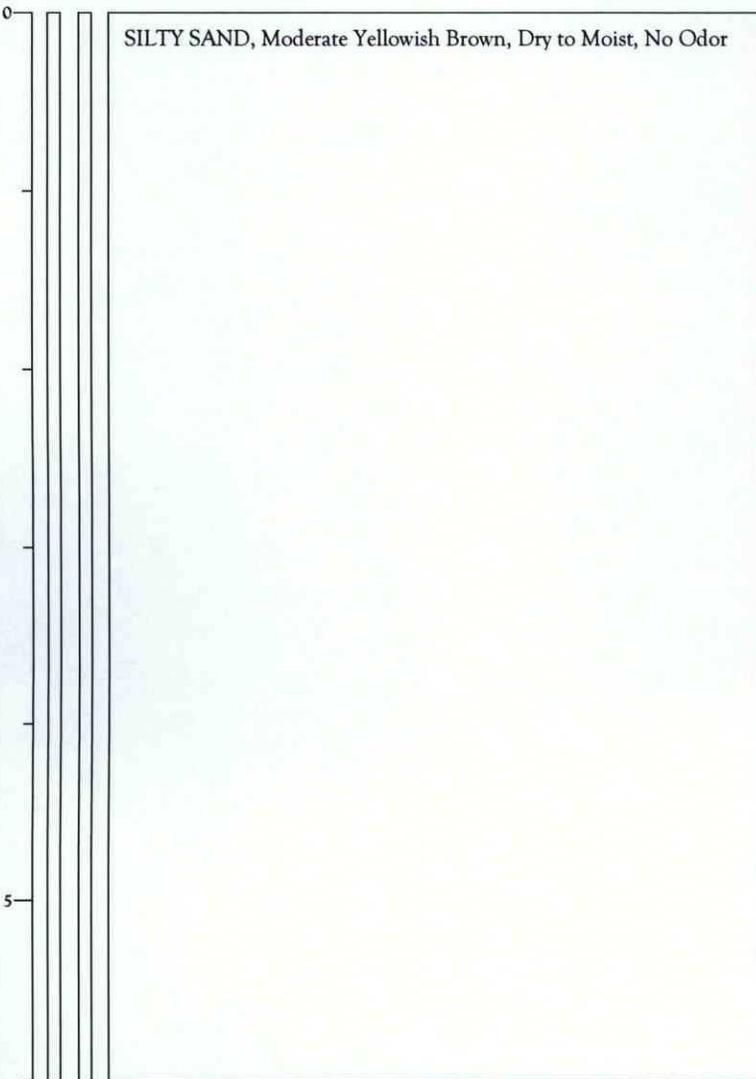
WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

GROUNDWATER DEPTH

- ▼ Depth at Completion
- ⊗ Depth at Stabilization

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-85
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/21/2013
 Date Completed: 5/21/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

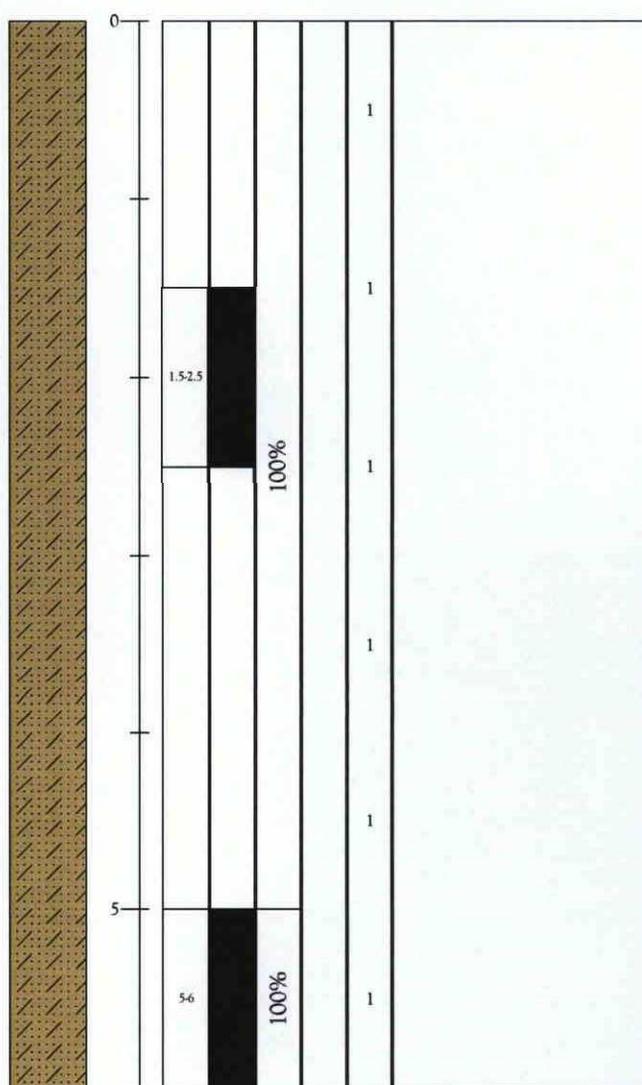
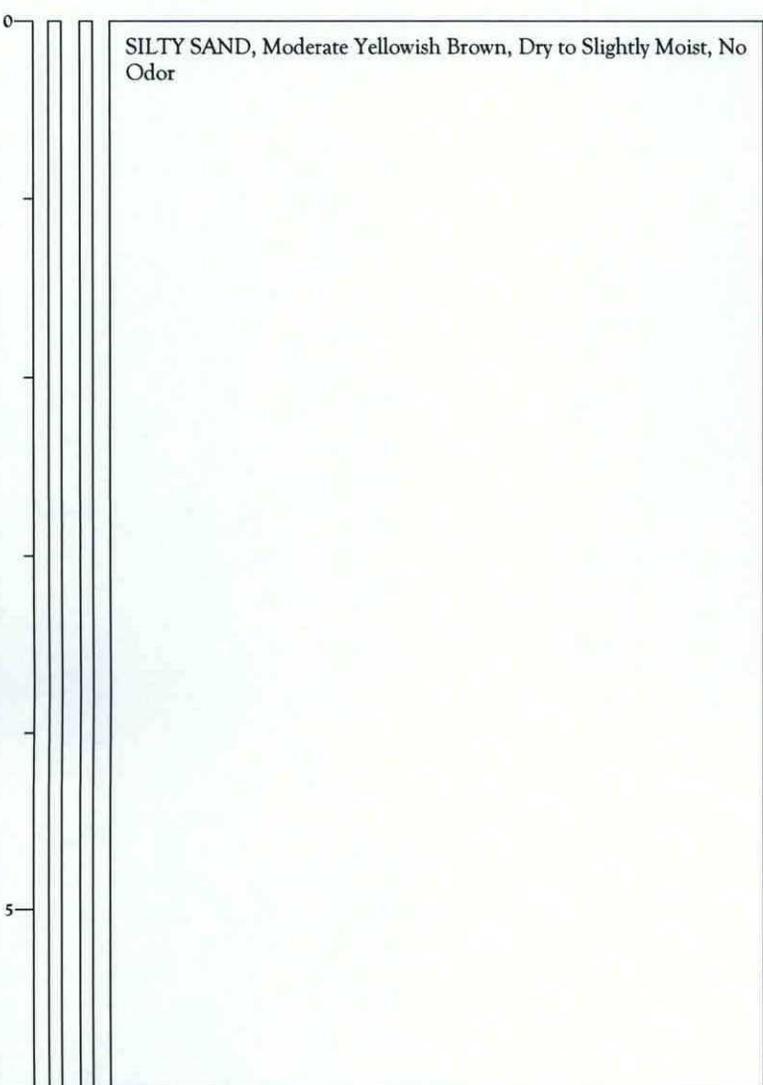
WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

GROUNDWATER DEPTH

- ▼ Depth at Completion
- ⚡ Depth at Stabilization

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.



Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-86
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/21/2013
 Date Completed: 5/21/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

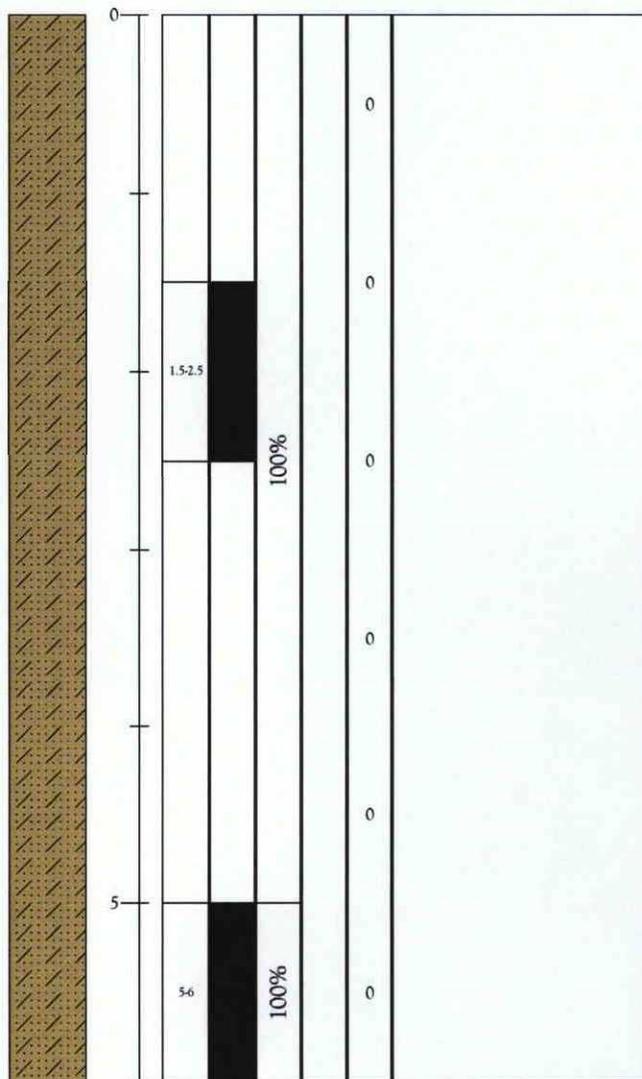
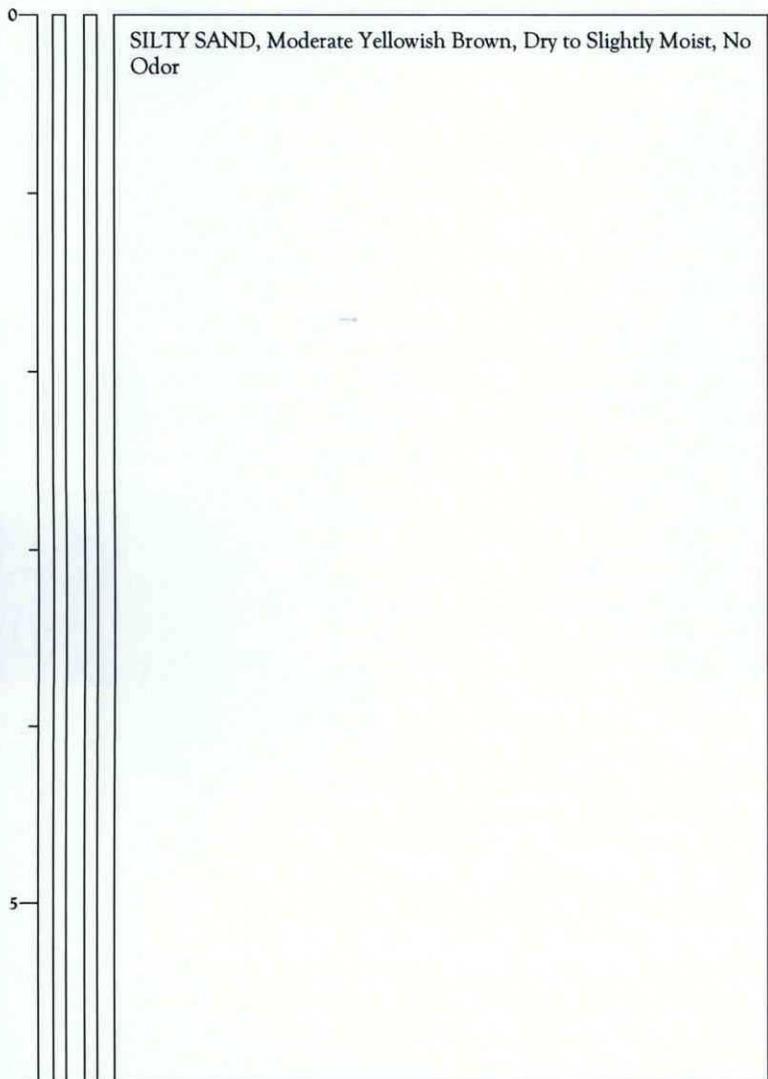
GROUNDWATER DEPTH

- ▼ Depth at Completion
- ⊗ Depth at Stabilization

WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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Client: Enterprise Field Servicesm LLC
 Project: Largo Compressor Station
 Project Location: Rio Arriba County, NM
 Project Manager: K. Summers

MONITORING WELL/SOIL BORING LOG

Soil Boring Number: SB-87
 Project Number: 0410G002
 Drawn By: RDH
 Approved by: KS

DRILLING & SAMPLING INFORMATION

Date Started: 5/20/2013
 Date Completed: 5/20/2013
 Drilling Company: Kyvek
 Driller: Kelly Padia
 Boring Method: Hollow Stem Auger
 Geologist: K. Summers
 Bore Hole Diameter: 8"
 Sampler Type: NA

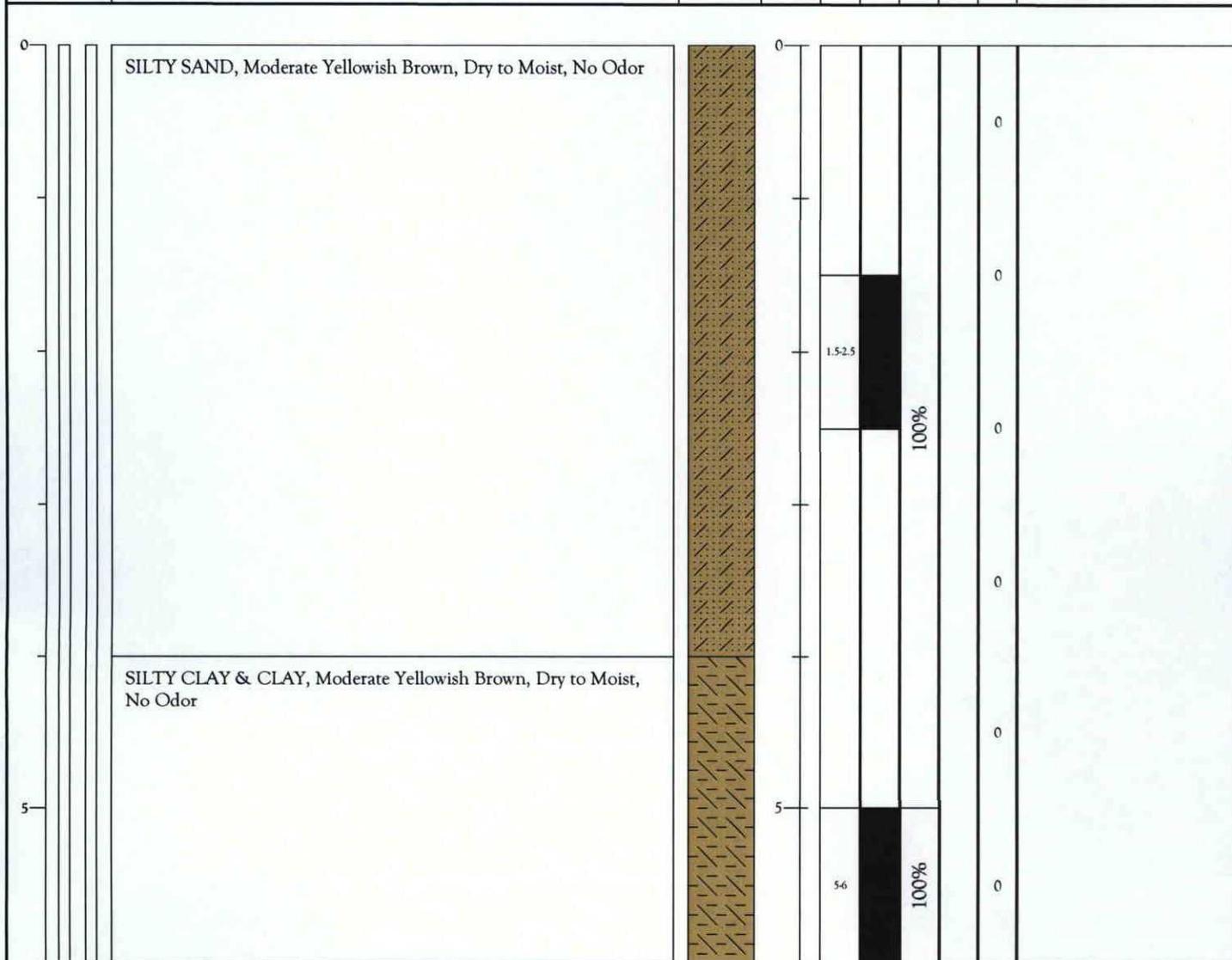
WELL CONSTRUCTION INFORMATION

Well Diameter: NA
 Screen Size: NA
 Screen Length: NA
 Casing Length: NA
 Surface Completion: NA

GROUNDWATER DEPTH

- ▼ Depth at Completion
- ▼ Depth at Stabilization

MONITORING WELL CONSTRUCTION DETAIL	SOIL CLASSIFICATION	STRATUM	DEPTH	SAMPLE NUMBER	SAMPLE INTERVAL	RECOVERY	GROUNDWATER DEPTH	PID (ppm)	COMMENTS
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NOTE: This log is not to be used outside the original report.

ATTACHMENT C

Tables

TABLE 1
Largo Compressor Station
BACKGROUND SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Chloride (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	Total TPH by 418.1 mg/kg	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation			500*	10	NE	NE	NE	50	100	100	
Background Soil Sampling May 2013											
MW-76	5.16.13	2.5	<7.5	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<10
MW-76	5.16.13	6	<7.5	<0.048	<0.048	<0.048	<0.095	ND	<20	<4.8	<11
MW-76	5.16.13	18	<7.5	<0.048	<0.048	<0.048	<0.096	ND	<20	<4.8	<9.9
MW-77	5.16.13	2.5	170	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<9.9
MW-77	5.16.13	6	440	<0.046	<0.046	<0.046	<0.093	ND	<20	<4.6	<9.9
MW-77	5.16.13	31	45	<0.047	<0.047	<0.047	<0.093	ND	<20	<4.7	<10
SB-78	5.16.13	2.5	500	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<9.9
SB-78	5.16.13	6	280	<0.049	<0.049	<0.049	<0.096	ND	<20	<4.9	<10
MW-79	5.20.13	2.5	<7.5	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<10
MW-79	5.20.13	6	<7.5	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<10
MW-79	5.20.13	28	11	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<10
MW-80	5.20.13	2.5	280	<0.047	<0.047	<0.047	<0.095	ND	<20	<4.7	<10
MW-80	5.20.13	6	130	<0.046	<0.046	<0.046	<0.092	ND	<20	<4.6	<10
MW-80	5.20.13	18	630	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<9.9
SB-81	5.20.13	2.5	<7.5	<0.047	<0.047	<0.047	<0.093	ND	<20	<4.7	<10
SB-81	5.20.13	6	83	<0.046	<0.046	<0.046	<0.092	ND	<20	<4.6	<10
SB-82	5.20.13	2.5	<7.5	<0.046	<0.046	<0.046	<0.093	ND	<20	<4.6	<9.9
SB-82	5.20.13	6	410	<0.048	<0.048	<0.048	<0.096	ND	<20	<4.8	<10
MW-83	5.21.13	2.5	250	<0.046	<0.046	<0.046	<0.092	ND	31	<4.6	<9.9
MW-83	5.21.13	6	89	<0.046	<0.046	<0.046	<0.092	ND	<20	<4.6	<10
MW-83	5.21.13	16	8.8	<0.049	<0.049	<0.049	<0.097	ND	<20	<4.9	<9.9
SB-84	5.21.13	2.5	<7.5	<0.046	<0.046	<0.046	<0.092	ND	<20	<4.6	<10
SB-84	5.21.13	6	11	<0.047	<0.047	<0.047	<0.095	ND	<20	<4.7	<10
SB-85	5.21.13	2.5	<7.5	<0.048	<0.048	<0.048	<0.096	ND	<20	<4.8	<9.9
SB-85	5.21.13	6	<7.5	<0.047	<0.047	<0.047	<0.093	ND	<20	<4.7	<10
SB-86	5.21.13	2.5	<7.5	<0.046	<0.046	<0.046	<0.093	ND	<20	<4.6	<9.9
SB-86	5.21.13	6	<7.5	<0.047	<0.047	<0.047	<0.093	ND	<20	<4.7	<10
SB-87	5.21.13	2.5	<7.5	<0.047	<0.047	<0.047	<0.094	ND	<20	<4.7	<10
SB-87	5.21.13	6	370	<0.048	<0.048	<0.048	<0.097	ND	54	<4.8	<10

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level

NA = Not Analyzed

NE = Not Established

* = Small Landfarm: NMAC 19.15.36.16

TABLE 2
Largo Compressor Station
GROUNDWATER ANALYTICAL SUMMARY - BACKGROUND and TDS

Sample I.D.	Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		250*	10,000**	10	750	750	620	NE	NE
Prior TDS Sample Results from Apparently Unaffected Monitoring Wells									
MW-6	10.18.12	NA	8,420	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-38	10.17.12	NA	3,000	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-40R	10.16.12	NA	7,930	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-41	10.16.12	NA	30,200	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-42	3.3.11	NA	75,400	NA	NA	NA	NA	NA	NA
MW-43	10.16.12	NA	7,630	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-52	10.17.12	NA	27,000	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
Background Monitoring Wells									
MW-76	6.3.13	82	14,200	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-77	6.3.13	140	17,900	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-79	6.3.13	dry	dry	dry	dry	dry	dry	dry	dry
MW-80	6.3.13	82	13,000	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-83	6.3.13	80	14,500	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0

Note: Concentrations in bold and yellow exceed the applicable standards

NA = Not Analyzed

NE = Not Established

* = Other Standards for Domestic Water Supply (NMAC 20.6.2.3103)

** = Groundwaters exhibiting Total Dissolved Solids greater than 10,000 mg/L are generally considered unsuitable as an Underground Source for Drinking Water (NMAC 20.6.2.3101)

ATTACHMENT D

Laboratory Data Reports & Chain of Custody
Documentation



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 03, 2013

Kyle Summers

Southwest Geoscience
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Largo CS

OrderNo.: 1305967

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 29 sample(s) on 5/23/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305967

Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-76 (2.5')

Project: Largo CS

Collection Date: 5/16/2013 10:30:00 AM

Lab ID: 1305967-001

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 12:45:05 PM	7601
Surr: DNOP	99.9	63-147		%REC	1	5/29/2013 12:45:05 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/28/2013 1:10:09 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 3:10:31 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 3:10:31 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 3:10:31 PM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/28/2013 3:10:31 PM	7603
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	5/28/2013 3:10:31 PM	7603
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	1	5/28/2013 3:10:31 PM	7603
Surr: Dibromofluoromethane	116	70-130		%REC	1	5/28/2013 3:10:31 PM	7603
Surr: Toluene-d8	87.0	70-130		%REC	1	5/28/2013 3:10:31 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 3:10:31 PM	7603
Surr: BFB	95.7	70-130		%REC	1	5/28/2013 3:10:31 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-76 (6')

Project: Largo CS

Collection Date: 5/16/2013 10:40:00 AM

Lab ID: 1305967-002

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	11		mg/Kg	1	5/29/2013 2:13:20 PM	7601
Surr: DNOP	100	63-147		%REC	1	5/29/2013 2:13:20 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/28/2013 1:59:48 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.048		mg/Kg	1	5/28/2013 4:36:39 PM	7603
Toluene	ND	0.048		mg/Kg	1	5/28/2013 4:36:39 PM	7603
Ethylbenzene	ND	0.048		mg/Kg	1	5/28/2013 4:36:39 PM	7603
Xylenes, Total	ND	0.095		mg/Kg	1	5/28/2013 4:36:39 PM	7603
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	1	5/28/2013 4:36:39 PM	7603
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	5/28/2013 4:36:39 PM	7603
Surr: Dibromofluoromethane	116	70-130		%REC	1	5/28/2013 4:36:39 PM	7603
Surr: Toluene-d8	85.5	70-130		%REC	1	5/28/2013 4:36:39 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/28/2013 4:36:39 PM	7603
Surr: BFB	100	70-130		%REC	1	5/28/2013 4:36:39 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-76 (18')

Project: Largo CS

Collection Date: 5/16/2013 11:00:00 AM

Lab ID: 1305967-003

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 2:35:24 PM	7601
Surr: DNOP	99.5	63-147		%REC	1	5/29/2013 2:35:24 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/28/2013 2:24:37 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.048		mg/Kg	1	5/28/2013 6:02:50 PM	7603
Toluene	ND	0.048		mg/Kg	1	5/28/2013 6:02:50 PM	7603
Ethylbenzene	ND	0.048		mg/Kg	1	5/28/2013 6:02:50 PM	7603
Xylenes, Total	ND	0.096		mg/Kg	1	5/28/2013 6:02:50 PM	7603
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	5/28/2013 6:02:50 PM	7603
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	1	5/28/2013 6:02:50 PM	7603
Surr: Dibromofluoromethane	114	70-130		%REC	1	5/28/2013 6:02:50 PM	7603
Surr: Toluene-d8	83.4	70-130		%REC	1	5/28/2013 6:02:50 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/28/2013 6:02:50 PM	7603
Surr: BFB	94.9	70-130		%REC	1	5/28/2013 6:02:50 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: MW-77 (2.5')

Project: Largo CS

Collection Date: 5/16/2013 12:30:00 PM

Lab ID: 1305967-004

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 2:57:35 PM	7601
Surr: DNOP	109	63-147		%REC	1	5/29/2013 2:57:35 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	170	7.5		mg/Kg	5	5/28/2013 3:14:15 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 6:31:32 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 6:31:32 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 6:31:32 PM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/28/2013 6:31:32 PM	7603
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	5/28/2013 6:31:32 PM	7603
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	5/28/2013 6:31:32 PM	7603
Surr: Dibromofluoromethane	113	70-130		%REC	1	5/28/2013 6:31:32 PM	7603
Surr: Toluene-d8	85.2	70-130		%REC	1	5/28/2013 6:31:32 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 6:31:32 PM	7603
Surr: BFB	97.1	70-130		%REC	1	5/28/2013 6:31:32 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
 Project: Largo CS
 Lab ID: 1305967-005

Client Sample ID: MW-77 (6')
 Collection Date: 5/16/2013 12:40:00 PM
 Received Date: 5/23/2013 10:00:00 AM

Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 3:19:42 PM	7601
Surr: DNOP	97.8	63-147		%REC	1	5/29/2013 3:19:42 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	440	30		mg/Kg	20	5/28/2013 3:51:29 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.046		mg/Kg	1	5/28/2013 7:00:09 PM	7603
Toluene	ND	0.046		mg/Kg	1	5/28/2013 7:00:09 PM	7603
Ethylbenzene	ND	0.046		mg/Kg	1	5/28/2013 7:00:09 PM	7603
Xylenes, Total	ND	0.093		mg/Kg	1	5/28/2013 7:00:09 PM	7603
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	5/28/2013 7:00:09 PM	7603
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	1	5/28/2013 7:00:09 PM	7603
Surr: Dibromofluoromethane	112	70-130		%REC	1	5/28/2013 7:00:09 PM	7603
Surr: Toluene-d8	83.3	70-130		%REC	1	5/28/2013 7:00:09 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/28/2013 7:00:09 PM	7603
Surr: BFB	98.3	70-130		%REC	1	5/28/2013 7:00:09 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305967

Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-77 (31')

Project: Largo CS

Collection Date: 5/16/2013 2:02:00 PM

Lab ID: 1305967-006

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 3:41:54 PM	7601
Surr: DNOP	102	63-147		%REC	1	5/29/2013 3:41:54 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	45	7.5		mg/Kg	5	5/28/2013 4:03:54 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 7:28:57 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 7:28:57 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 7:28:57 PM	7603
Xylenes, Total	ND	0.093		mg/Kg	1	5/28/2013 7:28:57 PM	7603
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	5/28/2013 7:28:57 PM	7603
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	1	5/28/2013 7:28:57 PM	7603
Surr: Dibromofluoromethane	115	70-130		%REC	1	5/28/2013 7:28:57 PM	7603
Surr: Toluene-d8	84.8	70-130		%REC	1	5/28/2013 7:28:57 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 7:28:57 PM	7603
Surr: BFB	96.2	70-130		%REC	1	5/28/2013 7:28:57 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
RL	Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order 1305967

Date Reported: 6/3/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-78 (2.5')

Project: Largo CS

Collection Date: 5/16/2013 3:10:00 PM

Lab ID: 1305967-007

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 4:04:07 PM	7601
Surr: DNOP	101	63-147		%REC	1	5/29/2013 4:04:07 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	500	30		mg/Kg	20	5/28/2013 5:05:58 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 7:57:39 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 7:57:39 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 7:57:39 PM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/28/2013 7:57:39 PM	7603
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	5/28/2013 7:57:39 PM	7603
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	5/28/2013 7:57:39 PM	7603
Surr: Dibromofluoromethane	112	70-130		%REC	1	5/28/2013 7:57:39 PM	7603
Surr: Toluene-d8	85.0	70-130		%REC	1	5/28/2013 7:57:39 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 7:57:39 PM	7603
Surr: BFB	97.1	70-130		%REC	1	5/28/2013 7:57:39 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: SB-78 (6')

Project: Largo CS

Collection Date: 5/16/2013 3:15:00 PM

Lab ID: 1305967-008

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 4:26:21 PM	7601
Surr: DNOP	94.0	63-147		%REC	1	5/29/2013 4:26:21 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	280	30		mg/Kg	20	5/28/2013 5:55:37 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.049		mg/Kg	1	5/28/2013 8:26:28 PM	7603
Toluene	ND	0.049		mg/Kg	1	5/28/2013 8:26:28 PM	7603
Ethylbenzene	ND	0.049		mg/Kg	1	5/28/2013 8:26:28 PM	7603
Xylenes, Total	ND	0.098		mg/Kg	1	5/28/2013 8:26:28 PM	7603
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%REC	1	5/28/2013 8:26:28 PM	7603
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	5/28/2013 8:26:28 PM	7603
Surr: Dibromofluoromethane	108	70-130		%REC	1	5/28/2013 8:26:28 PM	7603
Surr: Toluene-d8	81.9	70-130		%REC	1	5/28/2013 8:26:28 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/28/2013 8:26:28 PM	7603
Surr: BFB	94.4	70-130		%REC	1	5/28/2013 8:26:28 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience
 Project: Largo CS
 Lab ID: 1305967-009

Client Sample ID: MW-79 (2.5')
 Collection Date: 5/20/2013 10:00:00 AM
 Received Date: 5/23/2013 10:00:00 AM

Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 4:48:23 PM	7601
Surr: DNOP	94.0	63-147		%REC	1	5/29/2013 4:48:23 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/28/2013 6:08:02 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 8:55:12 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 8:55:12 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 8:55:12 PM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/28/2013 8:55:12 PM	7603
Surr: 1,2-Dichloroethane-d4	88.5	70-130		%REC	1	5/28/2013 8:55:12 PM	7603
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	1	5/28/2013 8:55:12 PM	7603
Surr: Dibromofluoromethane	108	70-130		%REC	1	5/28/2013 8:55:12 PM	7603
Surr: Toluene-d8	81.8	70-130		%REC	1	5/28/2013 8:55:12 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 8:55:12 PM	7603
Surr: BFB	99.5	70-130		%REC	1	5/28/2013 8:55:12 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: MW-79 (6')

Project: Largo CS

Collection Date: 5/20/2013 10:20:00 AM

Lab ID: 1305967-010

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 5:10:33 PM	7601
Surr: DNOP	103	63-147		%REC	1	5/29/2013 5:10:33 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/28/2013 6:32:52 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 9:24:01 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 9:24:01 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 9:24:01 PM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/28/2013 9:24:01 PM	7603
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%REC	1	5/28/2013 9:24:01 PM	7603
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	1	5/28/2013 9:24:01 PM	7603
Surr: Dibromofluoromethane	112	70-130		%REC	1	5/28/2013 9:24:01 PM	7603
Surr: Toluene-d8	86.4	70-130		%REC	1	5/28/2013 9:24:01 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 9:24:01 PM	7603
Surr: BFB	99.0	70-130		%REC	1	5/28/2013 9:24:01 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305967

Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-79 (28')

Project: Largo CS

Collection Date: 5/20/2013 12:15:00 PM

Lab ID: 1305967-011

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 5:32:33 PM	7601
Surr: DNOP	96.4	63-147		%REC	1	5/29/2013 5:32:33 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	11	1.5		mg/Kg	1	5/28/2013 6:57:41 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 9:52:40 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 9:52:40 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 9:52:40 PM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/28/2013 9:52:40 PM	7603
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	5/28/2013 9:52:40 PM	7603
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	5/28/2013 9:52:40 PM	7603
Surr: Dibromofluoromethane	115	70-130		%REC	1	5/28/2013 9:52:40 PM	7603
Surr: Toluene-d8	85.3	70-130		%REC	1	5/28/2013 9:52:40 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 9:52:40 PM	7603
Surr: BFB	97.4	70-130		%REC	1	5/28/2013 9:52:40 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: MW-80 (2.5')

Project: Largo CS

Collection Date: 5/20/2013 2:00:00 PM

Lab ID: 1305967-012

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 6:16:38 PM	7601
Surr: DNOP	97.2	63-147		%REC	1	5/29/2013 6:16:38 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	280	30		mg/Kg	20	5/28/2013 7:34:55 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/28/2013 10:21:17 PM	7603
Toluene	ND	0.047		mg/Kg	1	5/28/2013 10:21:17 PM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/28/2013 10:21:17 PM	7603
Xylenes, Total	ND	0.095		mg/Kg	1	5/28/2013 10:21:17 PM	7603
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%REC	1	5/28/2013 10:21:17 PM	7603
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	1	5/28/2013 10:21:17 PM	7603
Surr: Dibromofluoromethane	111	70-130		%REC	1	5/28/2013 10:21:17 PM	7603
Surr: Toluene-d8	87.6	70-130		%REC	1	5/28/2013 10:21:17 PM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/28/2013 10:21:17 PM	7603
Surr: BFB	99.8	70-130		%REC	1	5/28/2013 10:21:17 PM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience
 Project: Largo CS
 Lab ID: 1305967-013

Client Sample ID: MW-80 (6')
 Collection Date: 5/20/2013 2:10:00 PM
 Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 6:38:45 PM	7601
Surr: DNOP	102	63-147		%REC	1	5/29/2013 6:38:45 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	130	30		mg/Kg	20	5/28/2013 8:24:33 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.046		mg/Kg	1	5/29/2013 1:13:20 AM	7603
Toluene	ND	0.046		mg/Kg	1	5/29/2013 1:13:20 AM	7603
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2013 1:13:20 AM	7603
Xylenes, Total	ND	0.092		mg/Kg	1	5/29/2013 1:13:20 AM	7603
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%REC	1	5/29/2013 1:13:20 AM	7603
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	5/29/2013 1:13:20 AM	7603
Surr: Dibromofluoromethane	118	70-130		%REC	1	5/29/2013 1:13:20 AM	7603
Surr: Toluene-d8	82.9	70-130		%REC	1	5/29/2013 1:13:20 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2013 1:13:20 AM	7603
Surr: BFB	100	70-130		%REC	1	5/29/2013 1:13:20 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience
Project: Largo CS
Lab ID: 1305967-014

Client Sample ID: MW-80 (18')
Collection Date: 5/20/2013 2:25:00 PM
Received Date: 5/23/2013 10:00:00 AM

Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 7:00:39 PM	7601
Surr: DNOP	96.6	63-147		%REC	1	5/29/2013 7:00:39 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	630	30		mg/Kg	20	5/28/2013 8:49:23 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/29/2013 1:42:06 AM	7603
Toluene	ND	0.047		mg/Kg	1	5/29/2013 1:42:06 AM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2013 1:42:06 AM	7603
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2013 1:42:06 AM	7603
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	5/29/2013 1:42:06 AM	7603
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	1	5/29/2013 1:42:06 AM	7603
Surr: Dibromofluoromethane	115	70-130		%REC	1	5/29/2013 1:42:06 AM	7603
Surr: Toluene-d8	83.4	70-130		%REC	1	5/29/2013 1:42:06 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2013 1:42:06 AM	7603
Surr: BFB	97.0	70-130		%REC	1	5/29/2013 1:42:06 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-81 (2.5')

Project: Largo CS

Collection Date: 5/20/2013 3:40:00 PM

Lab ID: 1305967-015

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 7:22:41 PM	7601
Surr: DNOP	96.4	63-147		%REC	1	5/29/2013 7:22:41 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/28/2013 9:01:47 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.047		mg/Kg	1	5/29/2013 2:10:42 AM	7603
Toluene	ND	0.047		mg/Kg	1	5/29/2013 2:10:42 AM	7603
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2013 2:10:42 AM	7603
Xylenes, Total	ND	0.093		mg/Kg	1	5/29/2013 2:10:42 AM	7603
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	1	5/29/2013 2:10:42 AM	7603
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	5/29/2013 2:10:42 AM	7603
Surr: Dibromofluoromethane	112	70-130		%REC	1	5/29/2013 2:10:42 AM	7603
Surr: Toluene-d8	84.8	70-130		%REC	1	5/29/2013 2:10:42 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2013 2:10:42 AM	7603
Surr: BFB	101	70-130		%REC	1	5/29/2013 2:10:42 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: SB-81 (6')

Project: Largo CS

Collection Date: 5/20/2013 3:50:00 PM

Lab ID: 1305967-016

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 7:44:38 PM	7601
Surr: DNOP	110	63-147		%REC	1	5/29/2013 7:44:38 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	83	7.5		mg/Kg	5	5/28/2013 9:26:37 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.046		mg/Kg	1	5/29/2013 2:39:19 AM	7603
Toluene	ND	0.046		mg/Kg	1	5/29/2013 2:39:19 AM	7603
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2013 2:39:19 AM	7603
Xylenes, Total	ND	0.092		mg/Kg	1	5/29/2013 2:39:19 AM	7603
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	5/29/2013 2:39:19 AM	7603
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	5/29/2013 2:39:19 AM	7603
Surr: Dibromofluoromethane	116	70-130		%REC	1	5/29/2013 2:39:19 AM	7603
Surr: Toluene-d8	83.3	70-130		%REC	1	5/29/2013 2:39:19 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2013 2:39:19 AM	7603
Surr: BFB	100	70-130		%REC	1	5/29/2013 2:39:19 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience
 Project: Largo CS
 Lab ID: 1305967-017

Client Sample ID: SB-82 (2.5')
 Collection Date: 5/20/2013 4:00:00 PM
 Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND		9.9	mg/Kg	1	5/29/2013 8:06:38 PM	7601
Surr: DNOP	98.0		63-147	%REC	1	5/29/2013 8:06:38 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND		7.5	mg/Kg	5	5/28/2013 9:51:26 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND		0.046	mg/Kg	1	5/29/2013 3:08:11 AM	7603
Toluene	ND		0.046	mg/Kg	1	5/29/2013 3:08:11 AM	7603
Ethylbenzene	ND		0.046	mg/Kg	1	5/29/2013 3:08:11 AM	7603
Xylenes, Total	ND		0.093	mg/Kg	1	5/29/2013 3:08:11 AM	7603
Surr: 1,2-Dichloroethane-d4	90.8		70-130	%REC	1	5/29/2013 3:08:11 AM	7603
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	5/29/2013 3:08:11 AM	7603
Surr: Dibromofluoromethane	111		70-130	%REC	1	5/29/2013 3:08:11 AM	7603
Surr: Toluene-d8	83.8		70-130	%REC	1	5/29/2013 3:08:11 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND		4.6	mg/Kg	1	5/29/2013 3:08:11 AM	7603
Surr: BFB	102		70-130	%REC	1	5/29/2013 3:08:11 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND		20	mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-82 (6')

Project: Largo CS

Collection Date: 5/20/2013 4:10:00 PM

Lab ID: 1305967-018

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 8:28:29 PM	7603
Surr: DNOP	104	63-147		%REC	1	5/29/2013 8:28:29 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	410	30		mg/Kg	20	5/28/2013 10:53:29 PM	7649
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.048		mg/Kg	1	5/29/2013 3:36:50 AM	7603
Toluene	ND	0.048		mg/Kg	1	5/29/2013 3:36:50 AM	7603
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2013 3:36:50 AM	7603
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2013 3:36:50 AM	7603
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	5/29/2013 3:36:50 AM	7603
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	5/29/2013 3:36:50 AM	7603
Surr: Dibromofluoromethane	113	70-130		%REC	1	5/29/2013 3:36:50 AM	7603
Surr: Toluene-d8	85.1	70-130		%REC	1	5/29/2013 3:36:50 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2013 3:36:50 AM	7603
Surr: BFB	101	70-130		%REC	1	5/29/2013 3:36:50 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: MW-83 (2.5')

Project: Largo CS

Collection Date: 5/21/2013 7:50:00 AM

Lab ID: 1305967-019

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 8:50:27 PM	7601
Surr: DNOP	89.5	63-147		%REC	1	5/29/2013 8:50:27 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	250	30		mg/Kg	20	5/29/2013 3:22:57 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.046		mg/Kg	1	5/29/2013 4:05:39 AM	7603
Toluene	ND	0.046		mg/Kg	1	5/29/2013 4:05:39 AM	7603
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2013 4:05:39 AM	7603
Xylenes, Total	ND	0.092		mg/Kg	1	5/29/2013 4:05:39 AM	7603
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	5/29/2013 4:05:39 AM	7603
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	1	5/29/2013 4:05:39 AM	7603
Surr: Dibromofluoromethane	115	70-130		%REC	1	5/29/2013 4:05:39 AM	7603
Surr: Toluene-d8	84.0	70-130		%REC	1	5/29/2013 4:05:39 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2013 4:05:39 AM	7603
Surr: BFB	99.7	70-130		%REC	1	5/29/2013 4:05:39 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	31	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305967

Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-83 (6')

Project: Largo CS

Collection Date: 5/21/2013 8:45:00 AM

Lab ID: 1305967-020

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 9:12:14 PM	7601
Surr: DNOP	96.6	63-147		%REC	1	5/29/2013 9:12:14 PM	7601
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	89	7.5		mg/Kg	5	5/29/2013 3:35:22 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.046		mg/Kg	1	5/29/2013 4:34:26 AM	7603
Toluene	ND	0.046		mg/Kg	1	5/29/2013 4:34:26 AM	7603
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2013 4:34:26 AM	7603
Xylenes, Total	ND	0.092		mg/Kg	1	5/29/2013 4:34:26 AM	7603
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%REC	1	5/29/2013 4:34:26 AM	7603
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1	5/29/2013 4:34:26 AM	7603
Surr: Dibromofluoromethane	113	70-130		%REC	1	5/29/2013 4:34:26 AM	7603
Surr: Toluene-d8	83.6	70-130		%REC	1	5/29/2013 4:34:26 AM	7603
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2013 4:34:26 AM	7603
Surr: BFB	98.0	70-130		%REC	1	5/29/2013 4:34:26 AM	7603
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-83 (16')

Project: Largo CS

Collection Date: 5/21/2013 9:05:00 AM

Lab ID: 1305967-021

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 9:34:03 PM	7608
Surr: DNOP	99.9	63-147		%REC	1	5/29/2013 9:34:03 PM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	8.8	7.5		mg/Kg	5	5/29/2013 4:00:11 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: CWS
Benzene	ND	0.049		mg/Kg	1	5/29/2013 6:29:09 AM	7604
Toluene	ND	0.049		mg/Kg	1	5/29/2013 6:29:09 AM	7604
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2013 6:29:09 AM	7604
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2013 6:29:09 AM	7604
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	5/29/2013 6:29:09 AM	7604
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	1	5/29/2013 6:29:09 AM	7604
Surr: Dibromofluoromethane	117	70-130		%REC	1	5/29/2013 6:29:09 AM	7604
Surr: Toluene-d8	83.0	70-130		%REC	1	5/29/2013 6:29:09 AM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: CWS
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2013 6:29:09 AM	7604
Surr: BFB	97.2	70-130		%REC	1	5/29/2013 6:29:09 AM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: SB-84 (2.5')

Project: Largo CS

Collection Date: 5/21/2013 10:10:00 AM

Lab ID: 1305967-022

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 11:01:19 PM	7608
Surr: DNOP	115	63-147		%REC	1	5/29/2013 11:01:19 PM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/30/2013 5:12:48 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	5/31/2013 3:41:00 PM	7604
Toluene	ND	0.046		mg/Kg	1	5/31/2013 3:41:00 PM	7604
Ethylbenzene	ND	0.046		mg/Kg	1	5/31/2013 3:41:00 PM	7604
Xylenes, Total	ND	0.092		mg/Kg	1	5/31/2013 3:41:00 PM	7604
Surr: 1,2-Dichloroethane-d4	85.6	70-130		%REC	1	5/31/2013 3:41:00 PM	7604
Surr: 4-Bromofluorobenzene	81.0	70-130		%REC	1	5/31/2013 3:41:00 PM	7604
Surr: Dibromofluoromethane	87.8	70-130		%REC	1	5/31/2013 3:41:00 PM	7604
Surr: Toluene-d8	99.1	70-130		%REC	1	5/31/2013 3:41:00 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/31/2013 3:41:00 PM	7604
Surr: BFB	81.0	70-130		%REC	1	5/31/2013 3:41:00 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-84 (6')

Project: Largo CS

Collection Date: 5/21/2013 10:15:00 AM

Lab ID: 1305967-023

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2013 11:23:00 PM	7608
Surr: DNOP	133	63-147		%REC	1	5/29/2013 11:23:00 PM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	11	7.5		mg/Kg	5	5/30/2013 5:37:39 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.047		mg/Kg	1	5/31/2013 5:05:19 PM	7604
Toluene	ND	0.047		mg/Kg	1	5/31/2013 5:05:19 PM	7604
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2013 5:05:19 PM	7604
Xylenes, Total	ND	0.095		mg/Kg	1	5/31/2013 5:05:19 PM	7604
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%REC	1	5/31/2013 5:05:19 PM	7604
Surr: 4-Bromofluorobenzene	84.3	70-130		%REC	1	5/31/2013 5:05:19 PM	7604
Surr: Dibromofluoromethane	90.1	70-130		%REC	1	5/31/2013 5:05:19 PM	7604
Surr: Toluene-d8	97.4	70-130		%REC	1	5/31/2013 5:05:19 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2013 5:05:19 PM	7604
Surr: BFB	84.3	70-130		%REC	1	5/31/2013 5:05:19 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-85 (2.5')

Project: Largo CS

Collection Date: 5/21/2013 10:30:00 AM

Lab ID: 1305967-024

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2013 11:44:49 PM	7608
Surr: DNOP	101	63-147		%REC	1	5/29/2013 11:44:49 PM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/30/2013 6:27:17 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.048		mg/Kg	1	5/31/2013 5:33:43 PM	7604
Toluene	ND	0.048		mg/Kg	1	5/31/2013 5:33:43 PM	7604
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2013 5:33:43 PM	7604
Xylenes, Total	ND	0.096		mg/Kg	1	5/31/2013 5:33:43 PM	7604
Surr: 1,2-Dichloroethane-d4	86.6	70-130		%REC	1	5/31/2013 5:33:43 PM	7604
Surr: 4-Bromofluorobenzene	84.0	70-130		%REC	1	5/31/2013 5:33:43 PM	7604
Surr: Dibromofluoromethane	90.1	70-130		%REC	1	5/31/2013 5:33:43 PM	7604
Surr: Toluene-d8	98.3	70-130		%REC	1	5/31/2013 5:33:43 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2013 5:33:43 PM	7604
Surr: BFB	84.0	70-130		%REC	1	5/31/2013 5:33:43 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-85 (6')

Project: Largo CS

Collection Date: 5/21/2013 10:35:00 AM

Lab ID: 1305967-025

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2013 12:06:37 AM	7608
Surr: DNOP	97.3	63-147		%REC	1	5/30/2013 12:06:37 AM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/30/2013 6:52:06 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.047		mg/Kg	1	5/31/2013 6:01:47 PM	7604
Toluene	ND	0.047		mg/Kg	1	5/31/2013 6:01:47 PM	7604
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2013 6:01:47 PM	7604
Xylenes, Total	ND	0.093		mg/Kg	1	5/31/2013 6:01:47 PM	7604
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%REC	1	5/31/2013 6:01:47 PM	7604
Surr: 4-Bromofluorobenzene	83.7	70-130		%REC	1	5/31/2013 6:01:47 PM	7604
Surr: Dibromofluoromethane	92.0	70-130		%REC	1	5/31/2013 6:01:47 PM	7604
Surr: Toluene-d8	99.4	70-130		%REC	1	5/31/2013 6:01:47 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2013 6:01:47 PM	7604
Surr: BFB	83.7	70-130		%REC	1	5/31/2013 6:01:47 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Client Sample ID: SB-86 (2.5')

Project: Largo CS

Collection Date: 5/21/2013 10:45:00 AM

Lab ID: 1305967-026

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2013 12:28:28 AM	7608
Surr: DNOP	101	63-147		%REC	1	5/30/2013 12:28:28 AM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/30/2013 7:16:55 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	5/31/2013 6:30:01 PM	7604
Toluene	ND	0.046		mg/Kg	1	5/31/2013 6:30:01 PM	7604
Ethylbenzene	ND	0.046		mg/Kg	1	5/31/2013 6:30:01 PM	7604
Xylenes, Total	ND	0.093		mg/Kg	1	5/31/2013 6:30:01 PM	7604
Surr: 1,2-Dichloroethane-d4	82.6	70-130		%REC	1	5/31/2013 6:30:01 PM	7604
Surr: 4-Bromofluorobenzene	81.8	70-130		%REC	1	5/31/2013 6:30:01 PM	7604
Surr: Dibromofluoromethane	87.6	70-130		%REC	1	5/31/2013 6:30:01 PM	7604
Surr: Toluene-d8	98.3	70-130		%REC	1	5/31/2013 6:30:01 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/31/2013 6:30:01 PM	7604
Surr: BFB	81.8	70-130		%REC	1	5/31/2013 6:30:01 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience
 Project: Largo CS
 Lab ID: 1305967-027

Client Sample ID: SB-86 (6')
 Collection Date: 5/21/2013 10:50:00 AM
 Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2013 12:50:09 AM	7608
Surr: DNOP	94.6	63-147		%REC	1	5/30/2013 12:50:09 AM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/30/2013 2:43:49 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.047		mg/Kg	1	5/31/2013 6:58:23 PM	7604
Toluene	ND	0.047		mg/Kg	1	5/31/2013 6:58:23 PM	7604
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2013 6:58:23 PM	7604
Xylenes, Total	ND	0.093		mg/Kg	1	5/31/2013 6:58:23 PM	7604
Surr: 1,2-Dichloroethane-d4	88.1	70-130		%REC	1	5/31/2013 6:58:23 PM	7604
Surr: 4-Bromofluorobenzene	83.1	70-130		%REC	1	5/31/2013 6:58:23 PM	7604
Surr: Dibromofluoromethane	92.9	70-130		%REC	1	5/31/2013 6:58:23 PM	7604
Surr: Toluene-d8	96.7	70-130		%REC	1	5/31/2013 6:58:23 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2013 6:58:23 PM	7604
Surr: BFB	83.1	70-130		%REC	1	5/31/2013 6:58:23 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305967

Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: SB-87 (2.5')

Project: Largo CS

Collection Date: 5/21/2013 11:00:00 AM

Lab ID: 1305967-028

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2013 1:12:04 AM	7608
Surr: DNOP	92.4	63-147		%REC	1	5/30/2013 1:12:04 AM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	5/30/2013 3:08:38 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.047		mg/Kg	1	5/31/2013 7:26:46 PM	7604
Toluene	ND	0.047		mg/Kg	1	5/31/2013 7:26:46 PM	7604
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2013 7:26:46 PM	7604
Xylenes, Total	ND	0.094		mg/Kg	1	5/31/2013 7:26:46 PM	7604
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%REC	1	5/31/2013 7:26:46 PM	7604
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	1	5/31/2013 7:26:46 PM	7604
Surr: Dibromofluoromethane	88.8	70-130		%REC	1	5/31/2013 7:26:46 PM	7604
Surr: Toluene-d8	97.9	70-130		%REC	1	5/31/2013 7:26:46 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2013 7:26:46 PM	7604
Surr: BFB	87.5	70-130		%REC	1	5/31/2013 7:26:46 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1305967
 Date Reported: 6/3/2013

CLIENT: Southwest Geoscience

Client Sample ID: SB-87 (6')

Project: Largo CS

Collection Date: 5/21/2013 11:10:00 AM

Lab ID: 1305967-029

Matrix: SOLID

Received Date: 5/23/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2013 1:33:57 AM	7608
Surr: DNOP	95.2	63-147		%REC	1	5/30/2013 1:33:57 AM	7608
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	370	30		mg/Kg	20	5/30/2013 4:10:43 PM	7656
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DAM
Benzene	ND	0.048		mg/Kg	1	5/31/2013 7:55:00 PM	7604
Toluene	ND	0.048		mg/Kg	1	5/31/2013 7:55:00 PM	7604
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2013 7:55:00 PM	7604
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2013 7:55:00 PM	7604
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%REC	1	5/31/2013 7:55:00 PM	7604
Surr: 4-Bromofluorobenzene	80.6	70-130		%REC	1	5/31/2013 7:55:00 PM	7604
Surr: Dibromofluoromethane	90.5	70-130		%REC	1	5/31/2013 7:55:00 PM	7604
Surr: Toluene-d8	101	70-130		%REC	1	5/31/2013 7:55:00 PM	7604
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2013 7:55:00 PM	7604
Surr: BFB	80.6	70-130		%REC	1	5/31/2013 7:55:00 PM	7604
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	54	20		mg/Kg	1	5/29/2013	7634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2 for VOA and TOC only.	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1305967
 03-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID MB-7649	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 7649	RunNo: 10921								
Prep Date: 5/28/2013	Analysis Date: 5/28/2013	SeqNo: 308740	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-7649	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 7649	RunNo: 10921								
Prep Date: 5/28/2013	Analysis Date: 5/28/2013	SeqNo: 308741	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID MB-7656	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 7656	RunNo: 10956								
Prep Date: 5/29/2013	Analysis Date: 5/29/2013	SeqNo: 309751	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-7656	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 7656	RunNo: 10956								
Prep Date: 5/29/2013	Analysis Date: 5/29/2013	SeqNo: 309752	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305967

03-Jun-13

Client: Southwest Geoscience

Project: Largo CS

Sample ID	MB-7633	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	7633	RunNo:	10930					
Prep Date:	5/28/2013	Analysis Date:	5/29/2013	SeqNo:	309076	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-7633	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	7633	RunNo:	10930					
Prep Date:	5/28/2013	Analysis Date:	5/29/2013	SeqNo:	309077	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	101	80	120			

Sample ID	LCSD-7633	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	7633	RunNo:	10930					
Prep Date:	5/28/2013	Analysis Date:	5/29/2013	SeqNo:	309079	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	99	20	100.0	0	99.2	80	120	1.42	20	

Sample ID	MB-7634	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	7634	RunNo:	10930					
Prep Date:	5/28/2013	Analysis Date:	5/29/2013	SeqNo:	309120	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-7634	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	7634	RunNo:	10930					
Prep Date:	5/28/2013	Analysis Date:	5/29/2013	SeqNo:	309121	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	99	20	100.0	0	99.2	80	120			

Sample ID	LCSD-7634	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	7634	RunNo:	10930					
Prep Date:	5/28/2013	Analysis Date:	5/29/2013	SeqNo:	309122	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	98	20	100.0	0	97.8	80	120	1.42	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305967

03-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID MB-7608	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 7608	RunNo: 10884								
Prep Date: 5/24/2013	Analysis Date: 5/28/2013	SeqNo: 307702			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		101	63	147			

Sample ID LCS-7608	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 7608	RunNo: 10884								
Prep Date: 5/24/2013	Analysis Date: 5/28/2013	SeqNo: 307703			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	10	50.00	0	127	77.1	128			
Surr: DNOP	5.4		5.000		107	63	147			

Sample ID MB-7601	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 7601	RunNo: 10924								
Prep Date: 5/24/2013	Analysis Date: 5/29/2013	SeqNo: 308993			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		105	63	147			

Sample ID LCS-7601	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 7601	RunNo: 10924								
Prep Date: 5/24/2013	Analysis Date: 5/29/2013	SeqNo: 308994			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	77.1	128			
Surr: DNOP	5.5		5.000		110	63	147			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305967

03-Jun-13

Client: Southwest Geoscience

Project: Largo CS

Sample ID	mb-7604	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	7604	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/29/2013	SeqNo:	309074	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.0	70	130			
Surr: Dibromofluoromethane	0.57		0.5000		113	70	130			
Surr: Toluene-d8	0.43		0.5000		86.0	70	130			

Sample ID	ics-7604	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	7604	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/29/2013	SeqNo:	309075	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	70	130			
Toluene	0.90	0.050	1.000	0	90.0	80	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.3	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.2	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.42		0.5000		84.8	70	130			

Sample ID	ics-7603	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	7603	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/28/2013	SeqNo:	311871	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	70	130			
Toluene	0.87	0.050	1.000	0	87.5	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.1	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.6	70	130			
Surr: Dibromofluoromethane	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.41		0.5000		82.6	70	130			

Sample ID	mb-7603	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	7603	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/28/2013	SeqNo:	311872	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305967
03-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID: mb-7603	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 7603	RunNo: 10920								
Prep Date: 5/24/2013	Analysis Date: 5/28/2013	SeqNo: 311872	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.9	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.7	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.42		0.5000		84.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305967

03-Jun-13

Client: Southwest Geoscience

Project: Largo CS

Sample ID	mb-7603	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	7603	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/28/2013	SeqNo:	308802	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	490		500.0		97.7	70	130			

Sample ID	ics-7603	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	7603	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/28/2013	SeqNo:	308803	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.2	74.6	137			
Surr: BFB	440		500.0		88.6	70	130			

Sample ID	mb-7604	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	7604	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/29/2013	SeqNo:	308872	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	480		500.0		96.0	70	130			

Sample ID	ics-7604	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	7604	RunNo:	10920					
Prep Date:	5/24/2013	Analysis Date:	5/29/2013	SeqNo:	308873	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.1	74.6	137			
Surr: BFB	430		500.0		86.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: Southwest Geoscience A

Work Order Number: 1305967

RcptNo: 1

Received by/date: _____

Logged By: Anne Thorne 5/23/2013 10:00:00 AM *Anne Thorne*
 Completed By: Anne Thorne 5/23/2013 *Anne Thorne*
 Reviewed By: *[Signature]* 05/23/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
 2. Is Chain of Custody complete? Yes No Not Present
 3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes No NA
 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 6. Sample(s) in proper container(s)? Yes No
 7. Sufficient sample volume for indicated test(s)? Yes No
 8. Are samples (except VOA and ONG) properly preserved? Yes No
 9. Was preservative added to bottles? Yes No NA
 10. VOA vials have zero headspace? Yes No No VOA Vials
 11. Were any sample containers received broken? Yes No
 12. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 13. Are matrices correctly identified on Chain of Custody? Yes No
 14. Is it clear what analyses were requested? Yes No
 15. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.0	Good	Yes			

CHAIN OF CUSTODY RECORD

<h1 style="margin: 0;">Southwest</h1> <h2 style="margin: 0;">GEOSCIENCE</h2> <p style="margin: 0;">Environmental & Hydrogeologic Consultants</p>		Laboratory: <u>Hall</u> Address: <u>ABQ</u>		ANALYSIS REQUESTED <div style="display: flex; justify-content: space-around; font-size: 2em; font-weight: bold;"> GRAD 801.5 ATEX 803.1 TPH 418.1 Chloride </div>										Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>1.1</u>		
		Office Location: <u>Aztec</u> Project Manager: <u>Summers</u>												Contact: <u>A. Freeman</u> Phone: _____ PO/SO #: <u>04106002</u>		Page <u>1</u> of <u>3</u>
Sampler's Name: <u>Ryle Summers</u>		Sampler's Signature: <u>[Signature]</u>		Lab Sample ID (Lab Use Only)												
Proj. No.: <u>04106002</u>		Project Name: <u>Largo CS</u>												No/Type of Containers		
Matrix	Date	Time	COED	Garb	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L.	250 ml	P/O					
S	5/16/13	1030		X	MW-76 (2.5')						1	X	X	X	X	1305967-001
		1040			MW-76 (6')											-002
		1100			MW-76 (18')											-003
		1230			MW-77 (2.5')											-004
		1240			MW-77 (6')											-005
		1402			MW-77 (31')											-006
		1510			SB-78 (2.5')											-007
		1515			SB-78 (6')											-008
	5/20/13	1000			MW-79 (2.5')											-009
		1020			MW-79 (6')											-010

Turn around time: Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature): <u>[Signature]</u>	Date: <u>5/22/13</u> Time: <u>1535</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>5/22/13</u> Time: <u>1535</u>	NOTES:
Relinquished by (Signature): <u>[Signature]</u>	Date: <u>5/23/13</u> Time: <u>645</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>05/23/13</u> Time: <u>1000</u>	
Relinquished by (Signature): _____	Date: _____ Time: _____	Received by (Signature): _____	Date: _____ Time: _____	
Relinquished by (Signature): _____	Date: _____ Time: _____	Received by (Signature): _____	Date: _____ Time: _____	

Matrix: WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 Container: VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

CHAIN OF CUSTODY RECORD

Southwest
GEOSCIENCE
 Environmental & Hydrogeologic Consultants

Laboratory: Hall
 Address: ABQ
 Contact: _____
 Phone: _____
 PO/SO #: 04106002

ANALYSIS
 REQUESTED

Lab use only
 Due Date: _____
 Temp. of coolers
 when received (C°): 1.1
 1 2 3 4 5
 Page 2 of 3

Office Location Artec

Project Manager Summers

Sampler's Name Ayle Summers Sampler's Signature [Signature]

Proj. No. 04106002 Project Name Largo CS No/Type of Containers _____

Matrix	Date	Time	COED	G bag	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 LL	250 ml	P/O	ANALYSIS REQUESTED					Lab Sample ID (Lab Use Only)
												GR/DRO	BTX	TPH	Chloride	8015	
5	5/20/13	1215		X	MW-79 (28')						1	X	X	X	X		1305967-01
		1400			MW-80 (2.5')												-012
		1410			MW-80 (6')												-013
		1425			MW-80 (18')												-014
		1540			SB-81 (2.5')												-015
		1550			SB-81 (6')												-016
		1600			SB-82 (2.5')												-017
		1610			SB-82 (6')												-018
	5/21/13	0750			MW-83 (2.5')												-019
		0845			MW-83 (6')												-020

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature) <u>[Signature]</u>	Date: <u>5/22/13</u> Time: <u>1535</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>5/22/13</u> Time: <u>1535</u>
Relinquished by (Signature) <u>[Signature]</u>	Date: <u>5/23/13</u> Time: <u>1645</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>06/23/13</u> Time: <u>1000</u>
Relinquished by (Signature) _____	Date: _____ Time: _____	Received by: (Signature) _____	Date: _____ Time: _____
Relinquished by (Signature) _____	Date: _____ Time: _____	Received by: (Signature) _____	Date: _____ Time: _____

NOTES:

Matrix WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

CHAIN OF CUSTODY RECORD

Southwest
GEOSCIENCE
 Environmental & Hydrogeologic Consultants

Office Location Axtel

Project Manager Summers

Sampler's Name Kyle Summers

Laboratory: Holl
 Address: ABQ

Contact: _____
 Phone: _____
 PO/SO #: 04106002

Sampler's Signature [Signature]

ANALYSIS
 REQUESTED

*GRAD DRD 8015
 BTEX
 TPH 4101
 Chloride*

Lab use only
 Due Date: _____
 Temp. of coolers
 when received (C°): 1.1
 1 2 3 4 5
 Page 3 of 3

Proj. No. 04106002 Project Name Largo CS No/Type of Containers _____

Matrix	Date	Time	CO OP	Gr ab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
S	5/22/13	0905		X	MW-83 (16')							1305967-021
		1010			SB-84 (2.5')							-022
		1015			SB-84 (6')							-023
		1030			SB-85 (2.5')							-024
		1035			SB-85 (6')							-025
		1045			SB-86 (2.5')							-026
		1050			SB-86 (6')							-027
		1100			SB-87 (2.5')							-028
		1110			SB-87 (6')							-029

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature) <u>[Signature]</u>	Date: <u>5/22/13</u>	Time: <u>1535</u>	Received by: (Signature) <u>Walter Walter</u>	Date: <u>5/22/13</u>	Time: <u>1535</u>
Relinquished by (Signature) <u>Walter Walter</u>	Date: <u>5/23/13</u>	Time: <u>645</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>05/23/13</u>	Time: <u>1000</u>
Relinquished by (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Date: _____	Time: _____

NOTES:

Matrix WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 10, 2013

Kyle Summers

Southwest Geoscience
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX (214) 350-2914

RE: Largo CS

OrderNo.: 1306171

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/5/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue circular stamp.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306171

Date Reported: 6/10/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-77

Project: Largo CS

Collection Date: 6/3/2013 11:45:00 AM

Lab ID: 1306171-001

Matrix: AQUEOUS

Received Date: 6/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: GSA
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/5/2013 5:58:53 PM	7770
Surr: DNOP	97.2	75.4-146		%REC	1	6/5/2013 5:58:53 PM	7770
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/5/2013 3:26:10 PM	R11112
Surr: BFB	91.3	51.5-151		%REC	1	6/5/2013 3:26:10 PM	R11112
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/5/2013 3:26:10 PM	R11112
Benzene	ND	1.0		µg/L	1	6/5/2013 3:26:10 PM	R11112
Toluene	ND	1.0		µg/L	1	6/5/2013 3:26:10 PM	R11112
Ethylbenzene	ND	1.0		µg/L	1	6/5/2013 3:26:10 PM	R11112
Xylenes, Total	ND	2.0		µg/L	1	6/5/2013 3:26:10 PM	R11112
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 3:26:10 PM	R11112
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 3:26:10 PM	R11112
Surr: 4-Bromofluorobenzene	92.0	69.4-129		%REC	1	6/5/2013 3:26:10 PM	R11112
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	140	10		mg/L	20	6/5/2013 1:02:52 PM	R11124
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	17900	400	*	mg/L	1	6/6/2013 4:13:00 PM	7776

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306171

Date Reported: 6/10/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-80

Project: Largo CS

Collection Date: 6/3/2013 12:45:00 PM

Lab ID: 1306171-002

Matrix: AQUEOUS

Received Date: 6/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: GSA
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/5/2013 6:20:52 PM	7770
Surr: DNOP	103	75.4-146		%REC	1	6/5/2013 6:20:52 PM	7770
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/5/2013 4:23:43 PM	R11112
Surr: BFB	91.4	51.5-151		%REC	1	6/5/2013 4:23:43 PM	R11112
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/5/2013 4:23:43 PM	R11112
Benzene	ND	1.0		µg/L	1	6/5/2013 4:23:43 PM	R11112
Toluene	ND	1.0		µg/L	1	6/5/2013 4:23:43 PM	R11112
Ethylbenzene	ND	1.0		µg/L	1	6/5/2013 4:23:43 PM	R11112
Xylenes, Total	ND	2.0		µg/L	1	6/5/2013 4:23:43 PM	R11112
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 4:23:43 PM	R11112
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 4:23:43 PM	R11112
Surr: 4-Bromofluorobenzene	92.0	69.4-129		%REC	1	6/5/2013 4:23:43 PM	R11112
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	82	5.0		mg/L	10	6/5/2013 1:15:16 PM	R11124
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	13000	200	*	mg/L	1	6/6/2013 4:13:00 PM	7776

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306171

Date Reported: 6/10/2013

CLIENT: Southwest Geoscience

Client Sample ID: MW-76

Project: Largo CS

Collection Date: 6/3/2013 1:25:00 PM

Lab ID: 1306171-003

Matrix: AQUEOUS

Received Date: 6/5/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: GSA
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/5/2013 6:43:07 PM	7770
Surr: DNOP	103	75.4-146		%REC	1	6/5/2013 6:43:07 PM	7770
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/5/2013 4:53:47 PM	R11112
Surr: BFB	95.2	51.5-151		%REC	1	6/5/2013 4:53:47 PM	R11112
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/5/2013 4:53:47 PM	R11112
Benzene	ND	1.0		µg/L	1	6/5/2013 4:53:47 PM	R11112
Toluene	ND	1.0		µg/L	1	6/5/2013 4:53:47 PM	R11112
Ethylbenzene	ND	1.0		µg/L	1	6/5/2013 4:53:47 PM	R11112
Xylenes, Total	ND	2.0		µg/L	1	6/5/2013 4:53:47 PM	R11112
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 4:53:47 PM	R11112
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 4:53:47 PM	R11112
Surr: 4-Bromofluorobenzene	90.3	69.4-129		%REC	1	6/5/2013 4:53:47 PM	R11112
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	82	5.0		mg/L	10	6/5/2013 2:04:53 PM	R11124
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	14200	200	*	mg/L	1	6/6/2013 4:13:00 PM	7776

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1306171
 10-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11124		RunNo: 11124							
Prep Date:	Analysis Date: 6/5/2013		SeqNo: 314690		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R11124		RunNo: 11124							
Prep Date:	Analysis Date: 6/5/2013		SeqNo: 314691		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306171
10-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID	MB-7770	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID:	7770	RunNo:	11080					
Prep Date:	6/5/2013	Analysis Date:	6/5/2013	SeqNo:	314180	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	0.91		1.000		91.1	75.4	146			

Sample ID	LCS-7770	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range					
Client ID:	LCSW	Batch ID:	7770	RunNo:	11080					
Prep Date:	6/5/2013	Analysis Date:	6/5/2013	SeqNo:	314181	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	103	89.1	151			
Surr: DNOP	0.50		0.5000		100	75.4	146			

Sample ID	LCSD-7770	SampType:	LCSD	TestCode:	EPA Method 8015D: Diesel Range					
Client ID:	LCSS02	Batch ID:	7770	RunNo:	11080					
Prep Date:	6/5/2013	Analysis Date:	6/5/2013	SeqNo:	314182	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	107	89.1	151	3.84	20	
Surr: DNOP	0.51		0.5000		103	75.4	146	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306171
10-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314401	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.5	51.5	151			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314403	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	73.2	124			
Surr: BFB	20		20.00		97.5	51.5	151			

Sample ID	1306171-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MW-77	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314418	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	102	65.2	137			
Surr: BFB	20		20.00		99.8	51.5	151			

Sample ID	1306171-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MW-77	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314419	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.5	65.2	137	3.94	20	
Surr: BFB	20		20.00		99.1	51.5	151	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306171
10-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314430	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	18		20.00		91.9	69.4	129			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314431	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	99.6	76.9	115			
Benzene	19	1.0	20.00	0	95.8	80	120			
Toluene	19	1.0	20.00	0	95.5	80	120			
Ethylbenzene	19	1.0	20.00	0	96.6	80	120			
Xylenes, Total	58	2.0	60.00	0	96.4	80	120			
1,2,4-Trimethylbenzene	18	1.0	20.00	0	90.5	80	120			
1,3,5-Trimethylbenzene	19	1.0	20.00	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		95.4	69.4	129			

Sample ID	1306171-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	MW-80	Batch ID:	R11112	RunNo:	11112					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314447	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	97.2	65.6	125			
Benzene	19	1.0	20.00	0	92.7	80	120			
Toluene	19	1.0	20.00	0	92.6	80	120			
Ethylbenzene	19	1.0	20.00	0	92.8	80	120			
Xylenes, Total	57	2.0	60.00	0	94.2	80	120			
1,2,4-Trimethylbenzene	18	1.0	20.00	0	89.9	74	128			
1,3,5-Trimethylbenzene	19	1.0	20.00	0	94.0	75.5	130			
Surr: 4-Bromofluorobenzene	19		20.00		94.3	69.4	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1306171
 10-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	96.5	65.6	125	0.692	20	
Benzene	18	1.0	20.00	0	89.6	80	120	3.49	20	
Toluene	18	1.0	20.00	0	89.0	80	120	3.97	20	
Ethylbenzene	18	1.0	20.00	0	90.0	80	120	3.05	20	
Xylenes, Total	55	2.0	60.00	0	91.3	80	120	3.19	20	
1,2,4-Trimethylbenzene	17	1.0	20.00	0	87.4	74	128	2.87	20	
1,3,5-Trimethylbenzene	18	1.0	20.00	0	91.1	75.5	130	3.16	20	
Surr: 4-Bromofluorobenzene	19		20.00		94.5	69.4	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1306171
 10-Jun-13

Client: Southwest Geoscience
Project: Largo CS

Sample ID MB-7776	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 7776	RunNo: 11140								
Prep Date: 6/5/2013	Analysis Date: 6/6/2013	SeqNo: 315014	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-7776	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 7776	RunNo: 11140								
Prep Date: 6/5/2013	Analysis Date: 6/6/2013	SeqNo: 315015	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Southwest Geoscience

Work Order Number: 1306171

RcptNo: 1

Received by/date: MG 06/05/13

Logged By: Lindsay Mangin 6/5/2013 10:00:00 AM

Lindsay Mangin

Completed By: Lindsay Mangin 6/5/2013 10:17:09 AM

Lindsay Mangin

Reviewed By: TD 06/05/2013

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
By Whom: _____ Via: eMail Phone Fax In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.0	Good	Yes			

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: Artec

Project Manager: Summers

Sampler's Name: Kyle Summers

Proj. No.: 04106002

Laboratory: Hall

Address: ABQ

Contact: A. Freeman

Phone: _____

PO/SO #: 04106002

Project Name: Largo CS

No/Type of Containers: _____

ANALYSIS REQUESTED

TPH GRO/ORD 8015
ATEX 8021
Chlorides
TDS

Lab use only

Due Date: _____

Temp. of coolers when received (C°): 1.0

Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	P/O	Lab Sample ID (Lab Use Only)
W	6/3/13	1145		X	MW-77			5			1	1306171-001
↓	↓	1245		↓	MW-80			↓			↓	-002
↓	↓	1325		↓	MW-76			↓			↓	-003
↓	↓	1405		↓	MW-83			↓			↓	-004
<p style="font-size: 2em; opacity: 0.5;">NFS RS</p>												

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature): <u>[Signature]</u>	Date: <u>6/4/13</u>	Time: <u>808</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>6/4/13</u>	Time: <u>808</u>
Relinquished by (Signature): <u>[Signature]</u>	Date: <u>6/4/13</u>	Time: <u>1730</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>6/05/13</u>	Time: <u>10:00</u>
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____

NOTES: 100% rush ON FDS ALL H.S.

Matrix: WW - Wastewater, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - sludge, O - Oil
 Container: VOA - 40 ml vial, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

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