GW-211

GW Report Largo C.S.

DATE: Oct. 13, 2011

QUARTERLY GROUNDWATER MONITORING REPORT

GROUNDWATER DISCHARGE PLAN GW-211

Property:

LARGO COMPRESSOR STATION Section 15, Township 26N, Range 7W Rio Arriba County, New Mexico SWG Project No. 0410002 October 13, 2011

Prepared for: Enterprise Field Services, LLC 1100 Louisiana Street Houston, Texas 77002 Attention: Mr. David R. Smith, P.G.

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QUARTERLY GROUNDWATER MONITORING REPORT GROUNDWATER DISCHARGE PLAN GW-211

LARGO COMPRESSOR STATION Section 15, Township 26N, Range 7W Rio Arriba County, New Mexico

SWG Project No. 0410002

1.0 INTRODUCTION

1.1 Site Description & Background

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, referred to hereinafter as the "Site" or "subject Site". 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 condensate storage tank battery, which includes six (6) active condensate storage tanks and two (2) below-grade drain tanks, a new condensate storage tank battery, which includes seven (7) new condensate storage tanks, inlet scrubbers, a control room, and an office/shop building.

The Site is subject to regulatory oversight by the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD). To address activities related to crude oil/condensate related releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the EMNRD/OCD rules, specifically New Mexico Administrative Code (NMAC) 19.15.30 Remediation. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

The areas of known or suspected impact at the Site have been previously identified as Areas 1 through 4 in OCD correspondence. Each of the areas are depicted on Figure 3 in relation to pertinent Site features and general Site boundaries. These areas are briefly described below:

Area 1(Condensate Storage Tank Area)

Area 1 is defined as the northeastern portion of the Site and includes the condensate storage tank battery associated with on-going investigation and/or corrective actions since a release from a condensate storage tank valve was reported to the OCD in January of 2008. Additional detail regarding the investigative and corrective activities at Area 1 are provided in the *Environmental Site Investigation – Largo Compressor Station (GW-211) (SWG - March 24, 2011)*, and the *Corrective Action Pilot Study Report (SWG – October 10, 2011)*.

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Area 2 (Valve Box Area)

Area 2 includes the new condensate storage tank battery and the immediately surrounding areas. This area is in the north central portion of the Site, immediately south of CR 379. During the construction of the new tank battery in June 2009, petroleum hydrocarbon impacted soils and groundwater were encountered in association with a former valve box and related appurtenances. Additional detail regarding the investigative and corrective activities at Area 2 are provided in the *Environmental Site Investigation – Largo Compressor Station (GW-211) (SWG - March 24, 2011).*

Area 3 (Retention Pond Area)

Area 3 encompasses the northeast portion of the Site including the storm-water retention pond. Historical petroleum hydrocarbon affected soil and groundwater were identified during the construction of the retention pond in July of 2009, which apparently originated from historic oil and contact water treatment and storage in the area of the current retention pond. Additional detail regarding the investigative and corrective activities at Area 3 are provided in the *Environmental Site Investigation – Largo Compressor Station (GW-211) (SWG - March 24, 2011).*

Area 4 (Compression & Dehydration Area)

Area 4 includes the remainder of the Site, which includes the active compression and treatment area comprised of two (2) compressor engines, a dehydration unit and related treated and inlet scrubbers. Soil and groundwater investigation activities pertaining to Area 4 are provided in the *Environmental Site Investigation – Largo Compressor Station (GW-211) (SWG - March 24, 2011)*

1.2 Scope of Work

The objective of the groundwater monitoring event was to further evaluate the concentrations of chemicals of concern (COCs) in groundwater at the Site.

A Site Vicinity Map is included as Figure 2, and a Site Plan, which indicates the approximate locations of the monitoring wells in relation to pertinent structures and general Site boundaries, is included as Figure 3 of Appendix A.

1.3 Standard of Care & Limitations

The findings and recommendations contained in this report 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 an independent laboratory. Evaluations results provided bv 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.

2.0 SAMPLING PROGRAM

A quarterly groundwater sampling event was conducted on July 28th and July 29th, 2011 by Kyle Summers, a SWG environmental professional.

SWG's groundwater sampling program consisted of the following:

• Collection of one groundwater sample from each monitoring well utilizing low-flow sampling techniques.

Prior to sample collection, SWG gauged the depth to fluids in each monitoring well using an interface probe capable of detecting light non-aqueous phase liquids (LNAPL). LNAPL was observed in monitoring wells MW-33, MW-35, and MW-37. Monitoring wells MW-40 and MW-42 were effectively dry and were not sampled.

Prior to sample collection, each monitoring well was micro-purged utilizing low-flow sampling techniques. Low-flow refers to the velocity with which groundwater enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. It does not necessarily refer to the flow rate of water discharged at the surface which can be affected by flow regulators or restrictions. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system, to the extent practical, taking into account established Site sampling objectives. Flow rates on the order of 0.1 to 0.5 L/min will be maintained during sampling activities, using dedicated sampling equipment.

The utilization of low-flow minimal drawdown techniques enables the isolation of the screened interval groundwater from the overlying stagnant casing water. The pump intake is placed within the screened interval such that the groundwater recovered is drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

The groundwater samples were collected from each monitoring well once produced groundwater was consistent in color, clarity, pH, DO, ORP, temperature and conductivity.

Groundwater samples were collected in laboratory prepared containers, sealed with custody tape and placed on ice in a cooler secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico.



3.0 LABORATORY ANALYTICAL PROGRAM

The groundwater samples collected from the monitoring wells during the groundwater sampling event were analyzed for total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA method SW-846#8015M, and benzene, toluene, ethylbenzene and xylenes (BTEX) utilizing EPA method SW-846#8021B.

A summary of the analysis, sample type, sample frequency and EPA-approved methods are presented on the following table:

Analysis	Sample Type	No. of Samples	Method
TPH GRO/DRO	Groundwater	19	SW-846# 8015M
BTEX	Groundwater	19	SW-846# 8021B

Laboratory results are summarized in Table 1 included in Appendix B. The executed chain-of-custody form and laboratory data sheets are provided in Appendix C.

4.0 GROUNDWATER FLOW DIRECTION

The monitoring wells were historically surveyed for top-of-casing (TOC) elevations. Prior to sample collection, SWG gauged the depth to fluids in each monitoring well. The groundwater flow direction at the Site is generally towards the north-northwest, with a gradient that ranges from 0.003 ft/ft and 0.005 ft/ft across the Site.

Groundwater measurements collected during the most recent gauging event in July 2011 are presented with TOC elevations in Table 2, Appendix B. Groundwater gradient maps for April 2011 and July 2011 are included as Figure 4A and 4B, respectively (Appendix A).

5.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to crude oil/condensate related releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the EMNRD/OCD rules, specifically NMAC 19.15.30 Remediation. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

5.1 Groundwater Samples

SWG compared BTEX concentrations or practical quantitation limits (PQLs) associated with the groundwater samples collected from monitoring wells during the July 2011 sampling event to the New Mexico WQCC *Groundwater Quality Standards;* however, the New Mexico WQCC *Groundwater Quality Standards* may not be applicable since the

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initial groundwater-bearing unit would not be considered an "Underground Source of Drinking Water" in accordance with 19.15.30 NMAC *Remediation*. The results of the groundwater sample analyses are summarized in Table 1 of Appendix B.

Benzene, Toluene, Ethylbenzene, and Xylenes

Due to the presence of LNAPL hydrocarbons in association with the initial groundwaterbearing unit, monitoring wells MW-33, MW-35, and MW-37 were not sampled during the completion of field activities. Additionally, monitoring wells MW-40 and MW-42 were effectively dry and were not sampled during the completion of sampling activities.

The groundwater samples collected from monitoring wells MW-7, MW-11, MW-12, MW-15, MW-16, and MW-39 exhibited benzene concentrations ranging from 27 μ g/L to 12,000 μ g/L which exceed the WQCC *Groundwater Quality Standard* of 10 μ g/L. The groundwater sample collected from monitoring well MW-3R exhibited a benzene concentration of 1.5 μ g/L which is below the WQCC *Groundwater Quality Standard* of 10 μ g/L.

The groundwater samples collected from the remaining monitoring wells did not exhibit benzene concentrations above the laboratory PQLs, which are below the WQCC *Groundwater Quality Standard* of $10 \mu g/L$.

The groundwater sample collected from monitoring well MW-12 exhibited a toluene concentration of 2,300 μ g/L which exceeds the WQCC *Groundwater Quality Standard* of 750 μ g/L. The groundwater sample collected from monitoring well MW-39 exhibited a toluene concentration of 14 μ g/L which is below the WQCC *Groundwater Quality Standard* of *Standard* of 750 μ g/L.

The groundwater samples collected from the remaining monitoring wells did not exhibit toluene concentrations above the laboratory PQLs, which are below the WQCC *Groundwater Quality Standard* of 750 µg/L.

The groundwater samples collected from monitoring wells MW-7, MW-11, MW-12, MW-15, MW-16, and MW-39 exhibited ethylbenzene concentrations ranging from 1.9 µg/L to 320 µg/L which are below the WQCC *Groundwater Quality Standard* of 750 µg/L.

The groundwater samples collected from the remaining monitoring wells did not exhibit ethylbenzene concentrations above the laboratory PQLs, which are below the WQCC *Groundwater Quality Standard* of 750 µg/L.

The groundwater sample collected from monitoring well MW-12 exhibited a xylene concentration of 3,200 μ g/L, which exceeds the WQCC *Groundwater Quality Standard* of 620 μ g/L. The groundwater samples collected from monitoring wells MW-3R, MW-7, MW-11, MW-15, MW-39, and MW-47 exhibited xylene concentrations ranging from 7.1 μ g/L to 76 μ g/L which are below the WQCC *Groundwater Quality Standard* of 620 μ g/L.

The groundwater samples collected from the remaining monitoring wells did not exhibit xylene concentrations above the laboratory PQLs, which are below the WQCC *Groundwater Quality Standard* of 620 µg/L.



During July 2011, SWG conducted a quarterly groundwater monitoring event at the Largo Compressor Station. 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 is located off of CR 379 in Section 15, Township 26N, Range 7W in Rio Arriba County, New Mexico. The objective of the groundwater monitoring event was to further evaluate the concentrations of COCs in groundwater.

- During the completion of the sampling event, one (1) groundwater sample was collected from each monitoring well utilizing low-flow sampling techniques.
- Prior to sample collection, SWG gauged the depth to fluids in each monitoring well. LNAPL was observed in monitoring wells MW-33, MW-35, and MW-37. Monitoring wells MW-40 and MW-42 were effectively dry and were not sampled.
- The groundwater flow direction at the Site is generally towards the north-northwest, with a gradient that varies between 0.003 ft/ft and 0.005 ft/ft across the Site.
- The groundwater samples collected from monitoring wells MW-7, MW-11, MW-12, MW-15, MW-16, and MW-39 exhibited benzene concentrations ranging from 27 μg/L to 12,000 μg/L which exceed the WQCC *Groundwater Quality Standard* of 10 μg/L.
- The groundwater sample collected from monitoring well MW-12 exhibited a toluene concentration of 2,300 µg/L which exceeds the WQCC *Groundwater Quality Standard* of 750 µg/L.
- The groundwater samples collected from monitoring well MW-12 exhibited a xylene concentration of 3,200 µg/L, which exceeds the WQCC *Groundwater Quality Standard* of 620 µg/L.
- The groundwater samples collected from the remaining monitoring wells did not exhibit BTEX constituent concentrations above the WQCC *Groundwater Quality Standards*.

7.0 RECOMMENDATIONS

Based on the results of groundwater monitoring activities, SWG has the following recommendations:

- Report the groundwater monitoring results to the OCD;
- Perform Supplemental Site Investigation activities to further evaluate the extent of COCs in groundwater in the vicinity of Area 3 and Area 4; and,
- Pursuant to the completion of supplemental site investigation activities, continue the evaluation and execution of corrective actions to: 1.) Remove

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LNAPL from groundwater at the Site to the extent practical; and 2.) Reduce the concentrations of COCs in soil to below the OCD *Remediation Action Levels* and groundwater to below the New Mexico WQCC Groundwater *Quality Standards*.



APPENDIX A

Figures



Largo Compressor Station Condensate Storage Tank Battery 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 1

Topographic Map Smouse Mesa & Gould Pass, NM Quadrangle Contour Interval – 20 Feet 1985



Rio Arriba Co., New Mexico N36° 29' 12.63"; W107° 33' 27.79"

SWG Project No. 0410002



FIGURE 2 Site Vicinity Map 2010 Google Earth



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APPENDIX B

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Tables

TABLE 1

	Date	r Dissolved Solids (mg/L)	Benzene. (µ&/L)	Toluene (ug/L)	Ethylbenzene (µg/L)	Xylenes (iug/L)	TPH GRO (mg/l-)	TPH DRO (mg/l-)
Mexico Wat numission. Gr	er Quality Control oundwater Quality dards	Ë	10	. <u>750</u>	750	620	ΒĒ	ßE
A. T.			Monitoring Well	s Installed by Lo	destar			
P-1	4.04.08	NA	5,700	2,200	310	5,500	53	<1.0
P-1	8.10.09	NA	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
P-1	11.24.09	NA	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
P-1	2.25.10	٧V	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
12 (P-1*)	4.05.10	VV	1,300	1,600	011	2,200	20	1.2
12 (P-1*)	5.27.10	٨٨	3,300	1,800	180	3,200	NA	NA
12 (P-1*)	7.13.10	NA	2,900	330	140	1,700	22	1.0
12 (P-1*)	8.26.10	٨A	1,200	420	02	1,300	13	<1.0
12 (P-1*)	11.18.10	٩N	1,100	69	61	720	6.3	<1.0
12 (P-1*)	2.4.11	٧N	5,900	<50	470	1,600	24	<1.0
12 (P-1*)	4.19.11	٧N	4,200	061	<100	330	14	<1.0
12 (P-1*)	5.19.11	٧N	1,000	520	36	660	13	15
12 (P-1*)	7.28.11	٧V	12,000	2,300	320	3,200	54	4
P-2	4.04.08	٧N	15,000	2,100	380	4,600	120	6.8
P-2	8.10.09	٩N	9,800	110	170	1,400	٧N	AN
P-2	11.24.09	VN	21,000	360	460	2,700	٩N	NA
P-2	2.25.10	٨A	19,000	380	380	2,800	٧N	NA
11 (P-2*)	4.05.10	NA	<1.0	<1.7	<1.0	3.3	0.22	<1.0
11 (P-2*)	5.27.10	٧Z	4.4	<1.0	<1.0	<2.0	ΥN	NA
II (P-2*)	7.13.10	NA	200	4.5	11	56	3.6	1.2
II (P-2*)	8.26.10	ΥZ	86	<1.0	1.3	4.9	0.4	<1.0
1 (P-2*)	11.18.10	νN	<1.0	<1.0	<1.0	<2.0	0.14	<1.0
I (P-2*)	2.4.11	٩N	21	<1.0	<1.0	<1.0	0.075	<1.0
II (P-2*)	4.19.11	ν	96	12	1.2	27	0.39	<1.0
11 (P-2*)	7.28.11	٨N	46	<1.0	38	76	11	1.7
P-3	4.04.08	NA	780	13	81	20	4.2	<1.0
P-3	8.10.09	ΝA	35	<1.0	3.8	<2.0	٧N	νA
P-3	11.24.09	NA	1.4	<1.0	1.5	<2.0	٧V	AN
P-3	2.25.10	NA	3.6	10	2	24	٧N	٨N
3R (P-3*)	4.05.10	VA	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
3R (P-3*)	5.27.10	ΝA	<1.0	<1.0	<1.0	<2.0	νv	NA
3R (P-3*)	7.13.10	ΝA	13	<1.0	1.3	6.4	1.4	
3R (P-3*)	8.26.10	νv	5.0	<1.0	<1.0	2.3	0.46	<1.0
3R (P-3*)	11.18.10	ΥN	3.9	<1.0	<1.0	<2.0	0.47	<1.0
3R (P-3*)	2.1.11	٧V	2.0	<1.0	<1.0	<2.0	0.16	<1.0
3R (P-3*)	4.18.11	٧N	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
3R (P-3*)	7.28.11	νv	1.5	<1.0	<1.0	7.1	1.50	<1.0

SouthWest

TABLE 1

Sample II D.	Date	Total Dissolved Solids (mğ/L)	Benzene (µg/L)	(HØ/L)	Ethylbenzene (µg/L)	Xylenes (IB/L-)	TPH GRO (mg/i)	TPH DRO (mg/L)
New Mexico Wa Commission G	ter Quality Control roundwater Quality dards	NE	10	750	750	620	Ľ	R B
P-4	4.04.08	NA	<1.0	<1.0	<1.0	<2.0	0.42	<1.0
P-4	8.10.09	AN	<1.0	<1.0	<1.0	<2.0	AN	AN
P-4	11.24.09	AN	<1.0	<1.0	<1.0	<2.0	٩N	٧Z
P-4	2.25.10	VN	2.5	7.5	<1.0	14	NA	NA
MW-14 (P-4*)	4.05.10	VN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-14 (P-4*)	5.27.10	VN	<1.0	<1.0	<1.0	<2.0	NA	٨N
MW-14 (P-4*)	7.13.10	NA	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-14 (P-4*)	8.26.10	νN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-14 (P-4*)	11.18.10	ΥN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-14 (P-4*)	2.1.11	ν	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-14 (P-4*)	4.19.11	νN	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-14 (P-4*)	7.28.11	ΥN	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
P-5	4.04.08	NA	<1.0	<1.0	<1.0	<2.0	0.1	<1.0
P-5	8.10.09	VN	<1.0	<1.0	<1.0	<2.0	AN	NA
P-5	11.24.09	AN	<1.0	<1.0	<1.0	<2.0	٧N	NA
P-5	2.25.10	ΝA	1.8	6.1	<1.0	11	۸A	NA
MW-13 (P-5*)	4.05.10	ΥN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-13 (P-5*)	5.27.10	ΝA	<1.0	<1.0	<1.0	<2.0	NA	NA
MW-13 (P-5*)	7.13.10	ΥZ	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-13 (P-5*)	8.26.10	ΥN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-13 (P-5*)	11.18.10	ΥN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-13 (P-5*)	2.3.11	νN	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-13 (P-5*)	4.19.11	٧N	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-13 (P-5*)	7.28.11	NA	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-6	8.10.09	ν	<1.0	<1.0	<1.0	<2.0	AN	NA
9-MM	11.24.09	AN	<1.0	<1.0	<1.0	<2.0	NA	٨٨
9-MM	2.25.10	NA	<1.0	<1.0	<1.0	<2.0	YN	NA NA
MW-6	4.05.10	ΥN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-6	5.27.10	ΥN	<1.0	<1.0	<1.0	<2.0	NA	AN
MW-6	7.13.10	νN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
9-MM	8.26.10	ΥN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
9-MM	11.18.10	AN	<1.0	<1.0	<1.0	<2.0	<0.05	<1.0
MW-6	1.31.11	ΑN	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-6	4.19.11	ΑN	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-6	7.28.11	ΥZ	<1.0	<1.0	<1.0	<2.0	<0.050	1.0

TABLE 1

NB
NA I
NA I
NA NA
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ΝA
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ΝA
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TABLE 1 Largo Compressor Static

					_	-	-	-	_	_	_	_	_	_	_	_	-	-				-	-	_	_	_	_	_	_		-	_		_	_		_	_	_
TPH DRO (mgl.)	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	3.9	4.2	NAPL	<1.0	<1.0	<1.0
TPH GRO (mg/L),	NE	<0.05	<0.05	3.2	0.095	0.19	0.06	0.14	. 6.7	0.36	NA	0.3	0.095	0.11	0.20	0.16	0.29	<0.050	<0:050	<0:050	<0.050	NAPL	NAPL	NAPL	<0.050	<0.050	<0:050	NAPL	NAPL	NAPL	<0.050	<0.050	<0.050	38	34	NAPL	<0.050	<0.050	<0.050
Xylenes (µ&/L)	620	<2.0	<2.0	15	<2.0	<2.0	<2.0	<2.0	20	11	<2.0	<2.0	<2.0	<2.0	2.1	4.4	<2.0	<2.0	<2.0	<2.0	<2.0	NAPL	NAPL	NAPL	<2.0	<2.0	<2.0	NAPL	NAPL	NAPL	<2.0	<2.0	<2.0	7,000	5,100	NAPL	<2.0	<2.0	<2.0
Ethylbenzene (µg/L)	750	<1.0	<1.0	7.2	<1.0	<1.0	<1.0	<1.0	19	1.4	<1.0	<1.0	<1.0	<1.0	1.3	3.7	1.9	<1.0	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	200	500	NAPL	<1.0	<1.0	<1.0
Toluene (ug/L)	750	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	2.1	<1.0	6,200	3,600	NAPL	<1.0	<1.0	<1.0
Benzene (ug/L)	ŀO	1.1	<1.0	490	20	8.9	16	13	1500	3.8	<1.0	47	16	3.4	61	34	43	<1.0	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	NAPL	NAPL	NAPL	<1.0	<1.0	<1.0	3,100	2,500	NAPL	<1.0	<1.0	<1.0
Total Dissolved Solids (mg/L)	NE	AN NA	NA	νv	NA	NA	νv	٧N	ΑN	ΥA	NA	ΥN	٨N	VN	VA	٩N	ΑN	NA	NA	VN	AN	AN	νv	ΝA	NA	ΥN	NA	ΥN	NA	ΥZ	AN AN	VV	NA	VN	NA	NA	NA	NA	AN
Date	er-Quality Control oundwater Quality Jards	4.05.10	5.27.10	7.13.10	8.26.10	11.18.10	2.1.11	4.18.11	7.28.11	4.05.10	5.27.10	7.13.10	8.26.10	11.18.10	2.1.11	4.18.11	7.28.11	11.23.10	1.28.11	4.19.11	7.29.11	1.28.11	4.20.11	7.28.11	1.28.11	4.19.11	7.29.11	1.28.11	4.20.11	7.28.11	1.31.11	4.20.11	7.29.11	2.4.11	4.20.11	7.28.11	1.26.11	4.20.11	7.29.11
Sample I.D.	New Mexico Wat Commission Gr	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	TSW-31	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-34	MW-35	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38

Largo Compressor Station TABLE 1

GROUNDWATER ANALYTICAL SUMMARY

(war) (war) (war) (war) (war) (war) (war) (war) (war) (mar) (mar) <th< th=""><th>i</th><th>6.6</th><th>27.0</th><th><5.0 <5.0</th><th>2.0 2 2</th><th><5.0</th><th></th><th>ZZ</th><th>7.28.11 NA</th></th<>	i	6.6	27.0	<5.0 <5.0	2.0 2 2	<5.0		ZZ	7.28.11 NA
(war) (war) (war) (war) (war) (war) (mar) (mar) <th< th=""><th>2.5</th><th>1.3</th><th><10</th><th><5.0</th><th><5.0</th><th><5.0</th><th>AN</th><th></th><th>1.28.11</th></th<>	2.5	1.3	<10	<5.0	<5.0	<5.0	AN		1.28.11
(war) (war) (war) (war) (war) (war) (war) (war) (mar) (mar) <th< td=""><td><1.0</td><td><0.050</td><td><2.0</td><td><1.0</td><td><1.0</td><td><1.0</td><td>NA</td><td></td><td>11.23.10</td></th<>	<1.0	<0.050	<2.0	<1.0	<1.0	<1.0	NA		11.23.10
(war) (war) (war) (war) (war) (war) (mar) (mar) <th< td=""><td><1.0</td><td><0.050</td><td><2.0</td><td><1.0</td><td><1.0</td><td><1.0</td><td>٨A</td><td>~</td><td>11.18.10</td></th<>	<1.0	<0.050	<2.0	<1.0	<1.0	<1.0	٨A	~	11.18.10
(war) (war) (war) (war) (war) (mar) (mar) 10 750 750 750 750 80 750 1 1,200 730 37 570 1 1 <1.0	<1.0	<0.050	<2.0	<1.0	<1.0	<1.0	A	Z	11.18.10 N
(war) (war) (war) (war) (war) (war) (mar) (mar) <th< td=""><td><1.0</td><td><0.050</td><td><2.0</td><td><1.0</td><td><1.0</td><td><1.0</td><td>A</td><td>Ż</td><td>7.29.11 N</td></th<>	<1.0	<0.050	<2.0	<1.0	<1.0	<1.0	A	Ż	7.29.11 N
(war) (war) (war) (war) (war) (mar) (mar) <th< td=""><td><1.0</td><td><0.050</td><td><2.0</td><td><1.0</td><td><1.0</td><td><1.0</td><td>/</td><td>Ž</td><td>4.19.11 N/</td></th<>	<1.0	<0.050	<2.0	<1.0	<1.0	<1.0	/	Ž	4.19.11 N/
(war) (war) (war) (war) (war) (war) (mar) (mar) <th< td=""><td><1.0</td><td>0.06</td><td><2.0</td><td><1.0</td><td><1.0</td><td><1.0</td><td></td><td>νN</td><td>1.28.11 NA</td></th<>	<1.0	0.06	<2.0	<1.0	<1.0	<1.0		νN	1.28.11 NA
(war) (war) (war) (war) (war) (war) (mar) (mar) <th< td=""><td>Dry</td><td>Dry</td><td>Dry</td><td>Dry</td><td>Dry</td><td>Dry</td><td></td><td>Dry</td><td>7.28.11 Dry</td></th<>	Dry	Dry	Dry	Dry	Dry	Dry		Dry	7.28.11 Dry
(ugU) (ugU) <th< td=""><td><1.0</td><td><0.25</td><td><10</td><td><5.0</td><td><5.0</td><td><5.0</td><td></td><td>٧N</td><td>4.19.11 NA</td></th<>	<1.0	<0.25	<10	<5.0	<5.0	<5.0		٧N	4.19.11 NA
(wg/1) (wg/1) (wg/1) (wg/1) (mg/1) (mg/1)<	NA NA	NA	NA	NA	NA	NA		75,400	3.3.11 75.400
(wg/1) (wg/1) (wg/1) (wg/1) (mg/1) (mg/1)<	٧V	<0.25	<10	<5.0	<5.0	<5.0		νN	2.4.11 NA
(ug/1) (ug/1) (ug/1) (ug/1) (ug/1) (ng/1) (ng/1)<	<1.0	<0.050	<10	<5.0	<5.0	<5.0		ΥZ	7.29.11 NA
(ug0.1) (ug0.1) (ug0.1) (ug0.1) (ug0.1) (ng0.1) (DR0.1) 10 750 750 750 620 NE NE 11 200 730 37 570 11 <1.0	<1.0	<0.25	<10	<5.0	<5.0	<5.0		VN	4.18.11 NA
(tegh.) (tegh.) <t< td=""><td><1.0</td><td><0.25</td><td><10</td><td><5.0</td><td><5.0</td><td><5.0</td><td></td><td>ΥN</td><td>1.31.11 NA</td></t<>	<1.0	<0.25	<10	<5.0	<5.0	<5.0		ΥN	1.31.11 NA
(wg/1) (wg/1) (wg/1) GRO DRO 10 750 750 820 NE NE 10 750 750 620 NE NE 1200 730 37 570 11 <1.0	Dry	Dry	Dry	Dry	Dry	Dry		Dry	7.28.11 Dry
(wg/L) (wg/L) (wg/L) (wg/L) (mg/L) DRO. 10 750 750 620 NE NE 10 750 750 620 NE NE 1 700 730 37 570 11 <1.0	<1.0	<0.10	<4.0	<2.0	<2.0	<2.0		۲Z	4.20.11 NA
(wg/1) (wg/1) (wg/1) (wg/1) GRO DRO. 10 750 750 620 NE. NE. 11.200 730 37 570 11 <10	<1.0	<0.050	<2.0	<1.0	<1.0	<1.0		νA	1.28.11 NA
(ug/1) (ug/1) (ug/1) (ug/1) GRO DRO. (ug/1) (ug/1) (ug/1) (ug/1) (ug/1) (ug/1) (10 750 750 620 NE. NE. NE 120 730 37 570 11 <1.0	<1.0	0.80	18	1.9	14	27		٧N	7.29.11 NA
(ug/1) (ug/1) (ug/1) GRO DRO. (ug/1) (ug/1) (ug/1) (ug/1) (ug/1) 10 750 750 620 NE. INE. 1,200 730 37 570 1 <1.0	<1.0	0.33	5.9	1.6	<1.0	120		٩N	4.19.11 NA
(ug/1) (ug/1) (ug/1) (ug/1) GRO DRO. (ug/1) (ug/1) (ug/1) (ug/1). (ug/1) (ug/1) (ug/1)	<1.0	11	270	37	730	1,200		٧N	1.26.11 NA
(ເຜນີ.) (ເຜນີ.) (ເຜີນ.) (ເຜນີ.)	BE	NE	620	750	750	10	A CONTRACTOR	NB	ter Quality Control coundwater Quality dards
	DRÓ. (mg/l)	GRO (mg/L)	(Th B ut)	(µ&/L)	(11)gul	(H&/L)	States & M. C.	Dissolved Solids (mg/L)	Dissolved Solids (mg/L)

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

NA = Not Analyzed

NE = Not Established

NAPL = Non-aqueous phase liquid

* = piezometer well was replaced with associated monitoring well

TABLE 2 Largo Compressor Station Groundwater Elevations

I

		Top-of-Casing	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater
Monitoring Well ID	Measurement Date	(feet)	(feet)	(feet)	(feet)	Elevation
	4.5.10		None Observed	21.83	0.0	6095.64
	5.27.10		None Observed	21.82	0.0	6095.65
	6.25.10		None Observed	22.22	0.0	6095.25
	7.13.10		None Observed	22.47	0.0	6095.00
MW-3R	8.26.10	6117.47	None Observed	22.24	0.0	6095.23
	11.18.10		None Observed	22.32	0.0	6095.15
	1.25.11		None Observed	22.13	0.0	6095.34
	4.22.11		None Observed	21.99	0.0	6095.48
	7.27.11		None Observed	22.81	0.0	6094.66
	8.10.09		None Observed	20.28	0.0	6095.19
	11.24.09		None Observed	20.17	0.0	6095.30
	2.25.10		None Observed	19.54	0.0	6095.93
	4.5.10		None Observed	19.11	0.0	6096.36
	5.27.10		None Observed	19.28	0.0	6096.19
MW-6	6.25.10	6115.47	None Observed	19.87	0.0	6095.60
	7.13.10		None Observed	20.09	0.0	6095.38
	8.26.10		None Observed	19.68	0.0	6095.79
	1.18.10		None Observed	19.72	0.0	6005.06
	1.25.11		None Observed	19.51	0.0	6095.96
	4,22,11		None Observed	19.42	0.0	6005.07
	7.27.11		None Observed	20.4	0.0	6005.07
	8.10.09		None Observed	21.32	0.0	6004.03
	2 25 10		None Observed	21.73	0.0	6005.23
	4.5.10		None Observed	20.96	0.0	6095.69
	5 27 10		None Observed	20.96	0.0	6095.69
	6 25 10		None Observed	21.32	0.0	6095.33
MW-7	7.13.10	6116.65	None Observed	21.46	0.0	6095.19
	8.26.10		None Observed	21.36	0.0	6095.29
MW-7	11.18.10		None Observed	21.42	0.0	6095.23
	1.25.11		None Observed	21.24	0.0	6095.41
	4.22.11		None Observed	21.22	0.0	6095.43
	7.27.11		None Observed	21.8	0.0	6094.85
	8.10.09		None Observed	23.17	0.0	6095.11
	11.24.09		None Observed	23.43	0.0	6094.85
	2.25.10		None Observed	23.25	0.0	6095.03
	4.5.10		None Observed	22.97	0.0	6095.31
	5.27.10		None Observed	22.85	0.0	6095.43
MW-8	6.25.10	6118.28	None Observed	23.01	0.0	6095.27
	7.13.10	0110.20	None Observed	23.21	0.0	6095.07
MW-8	8.26.10		None Observed	23.23	0.0	6095.05
	11.18.10		None Observed	23.3	0.0	6094.98
	1.25.11		None Observed	23.1	0.0	6095.18
	4.22.11		None Observed	22.94	0.0	6004 70
<u> </u>	<u> </u>		None Observed	23.56	0.0	6005.82
	8.10.09		None Observed	21.95	0.0	0095.88
	11.24.09		None Observed	21.98	0.0	0095.85
	2.25.10		None Observed	21.51	0.0	6096.32
	4.5.10		None Observed	21	0.0	6096.83
	5.27.10		None Observed	21.1	0.0	6096.73
MW-9	6.25.10	6117.83	None Observed	21.56	0.0	6096.27
	7.13.10		None Observed	21.77	0.0	6096.06
	8.26.10		None Observed	21.58	0.0	6096.25
	11.18.10		None Observed	21.61	0.0	6096.22
	1.25.11		None Observed	21.43	0.0	6096.40
	4.22.11		None Observed	21.30	0.0	6096.53
	7.27.11		None Observed	22.15	0.0	6095.68
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TABLE 2 Largo Compressor Station Groundwater Elevations

1

		Top-of-Casing				
		Elevation	Depth to PSH	Depth to Water,	PSH Thickness	Corrected Groundwater
Monitoring Well ID	Measurement Date	(feet)	(feet)	(feet)	(feet)	Elevation
	4.5.10		None Observed	20.57	0.0	6096.08
	5.27.10		None Observed	20.75	0.0	6095.90
	6.25.10		None Observed	21.33	0.0	6095.32
	7.13.10		None Observed	21.54	0.0	6095.11
MW-11	8.26.10	6116.65	None Observed	21.17	0.0	6095.48
	11.18.10		None Observed	21.16	0.0	6095.49
	1.25.11		None Observed	21.02	0.0	6095.63
	4.22.11		None Observed	20.91	0.0	6004.76
	4.5.10		None Observed	14.88	0.0	6096.36
	5.27.10		None Observed	15.11	0.0	6096.13
	6.25.10		None Observed	15.67	0.0	6095.57
	7.13.10		None Observed	15.91	0.0	6095.33
MW-12	8.26.10	6111.24	None Observed	15.55	0.0	6095.69
	11.18.10		None Observed	16.58	0.0	6094.66
	1.25.11		None Observed	15.73	0.0	6095.51
	4.22.11		None Observed	15.3	0.0	6095.94
·	4.5.10		None Observed	10.1	0.0	6095.14
	5.27.10		None Observed	19.20	0.0	6095.99
	6.25.10		None Observed	20.07	0.0	6095.39
	7.13.10		None Observed	20.28	0.0	6095.18
MW-13	8.26.10	6115.46	None Observed	19.86	0.0	6095.60
	11.18.10		None Observed	19.91	0.0	6095.55
	1.25.11		None Observed	19.71	0.0	6095.75
	4.22.11		None Observed	19.65	0.0	6095.81
<u> </u>	7.27.11		None Observed	20.59	0.0	6094.87
	4.5.10		None Observed	20.09	0.0	6005.71
	62510		None Observed	20.94	0.0	6095.05
	7.13.10		None Observed	21.19	0.0	6094.80
MW-14	8.26.10	6115.99	None Observed	20.70	0.0	6095.29
	11.18.10		None Observed	20.73	0.0	6095.26
	1.25.11		None Observed	20.52	0.0	6095.47
	4.22.11		None Observed	20.45	0.0	6095.54
	4.5.10		None Observed	21.47	0.0	6005.83
	5 27 10		None Observed	20.00	0.0	6095.67
	6.25.10		None Observed	21.43	0.0	6095.06
	7.13.10		None Observed	21.64	0.0	6094.85
MW-15	8.26.10	6116.49	None Observed	21.25	0.0	6095.24
	11.18.10		None Observed	21.36	0.0	6095.13
	1.25.11		None Observed	21.07	0.0	6095.42
	4.22.11		None Observed	20.95	0.0	6004.54
	45.10		None Observed	21.55	0.0	6096.06
	5.27.10		None Observed	51.59	0.0	6065.98
	6.25.10		None Observed	22.10	0.0	6095.47
	7.13.10		None Observed	22.29	0.0	6095.28
MW-16	8.26.10	6117.57	None Observed	22.05	0.0	6095.52
	11.18.10		None Observed	22.11	0.0	6095.46
	4.22.11		None Observed	21.87	0.0	6095.70
	7.27.11		None Observed	22.66	0.0	6094.91
	1.25.11	<u> </u>	None Observed	12.67	0.0	6097.53
MW-32	4.22.11	6110.2	None Observed	12.49	0.0	6097.71
	7.27.11		None Observed	13.47	0.0	6096.73
	1.25.11*		16.08	16.44	0.36	6097.88
MW-33	4.22.11	6114	16.59	16.60	0.01	6097.41
	7.27.11		16.07	16.72	0.65	6097.85
	1.25.11		None Observed	17.38	0.0	6097.98
MW-34	4.22.11	6115.36	None Observed	17.20	0.0	6098.16
	7.27.11		None Observed	18.23	0.0	6097.13

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TABLE 2 Largo Compressor Station Groundwater Elevations

Monitoring Well ID	Measurement Date	Top-of-Casing Elevation (feet)	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater
	1.25.11*		14.5	14.75	0.25	6097.68
MW-35	4.22.11	6112.21	14.22	14.80	0.58	6097.92
	7.27.11		15.11	16.36	1.25	6096.95
	1.25.11		None Observed	13.80	0.0	6097.62
MW-36	4.22.11	6111.42	None Observed	13.65	0.0	6097.77
	7.27.11		None Observed	14.69	0.0	6096.73
	1.25.11		None Observed	12.91	sheen	6097.88
MW-37	4.22.11	6110.79	None Observed	12.78	0.0	6098.01
	7.27.11		13.81	13.84	0.03	6096.98
	1.25.11		None Observed	12.06	0.0	6098.42
MW-38	4.22.11	6110.48	None Observed	11.87	0.0	6098.61
	7.27.11		None Observed	13.01	0.0	6097.47
	1.25.11		None Observed	16.21	0.0	6097.63
MW-39	4.22.11	6113.84	None Observed	17.35	0.0	6096.49
	7.27.11		None Observed	16.43	0.0	6097.41
	1.25.11		None Observed	19.16	0.0	6096.53
MW-40	4.22.11	6115.69	None Observed	dry	0.0	dry
	7.27.11		None Observed	dry	0.0	dry
	1.25.11		None Observed	14.14	0.0	6097.96
MW-4 I	4.22.11	6112.1	None Observed	14.18	0.0	6097.92
	7.27.11		None Observed	14.08	0.0	6098.02
	1.25.11		None Observed	24.88	0.0	6096.62
MW-42	4.22.11	6121.5	None Observed	26.67	0.0	6094.83
	7.27.11		None Observed	dry	0.0	dry
	1.25.11		None Observed	15.41	0.0	6097.50
MW-43	4.22.11	6112.91	None Observed	15.30	0.0	6097.61
	7.27.11		None Observed	16.27	0.0	6096.64
	1.25.11		None Observed	19.22	0.0	6095.20
MW-47	4.22.11	6114.42	None Observed	19.02	0.0	6095.40
	7.27.11		None Observed	19.69	0.0	6094.73

NS - Not Surveyed

* - Regauged 1.31.11 to confirm product thickness



APPENDIX C

Laboratory Data Reports & Chain-of-Custody Documentation



COVER LETTER

Friday, August 12, 2011

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410

TEL: (214) 350-5469 FAX (214) 350-2914

RE: Largo CS

Dear Kyle Summers:

Order No.: 1108125

Hall Environmental Analysis Laboratory, Inc. received 19 sample(s) on 8/2/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109 505.345.3975 ■ Fax 505.345.4107 www.hallenvironmental.com

Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-8	
Lab Order:	1108125			Co	llection Date:	7/28/201	1 8:50:00 AM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-01				Matrix:	AQUEOU	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	BO15B: DIESEL RANGE				<u></u>		Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 5:58:30 AM
Surr: DNOP		86.4	81.1-147		%REC	1	8/4/2011 5:58:30 AM
EPA METHOD	015B: GASOLINE RANGE	•					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/5/2011 7:01:25 PM
Surr: BFB		87.5	65.4-141		%REC	1	8/5/2011 7:01:25 PM
EPA METHOD	021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/5/2011 7:01:25 PM
Toluene		ND	1.0		µg/L	1	8/5/2011 7:01:25 PM
Ethylbenzene		ND	1.0		µg/L	1	8/5/2011 7:01:25 PM
Xylenes, Total		ND	2.0		µg/L	1	8/5/2011 7:01:25 PM
Surr: 4-Bromo	fluorobenzene	83.2	89.6-125	\$	%REC	1	8/5/2011 7:01:25 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

CLIENT:	Southwest Geoscience	Client Sample ID				MW-47		
Lab Order:	1108125			Co	llection Date:	7/28/201	1 9:25:00 AM	
Project:	Largo CS			D	ate Received:	8/2/2011		
Lab ID:	1108125-02				Matrix:	AQUEOU	JS	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	BO15B: DIESEL RANGE						Analyst: JB	
Diesel Range O	rganics (DRO)	1.1	1.0		mg/L	1	8/4/2011 6:32:35 AM	
Surr: DNOP		83.4	81.1-147		%REC	1	8/4/2011 6:32:35 AM	
EPA METHOD 8	015B: GASOLINE RANGI	Ë					Analyst: RAA	
Gasoline Range	Organics (GRO)	6.6	0.25		mg/L	5	8/5/2011 7:31:29 PM	
Surr: BFB		290	65.4-141	S	%REC	5	8/5/2011 7:31:29 PM	
EPA METHOD	021B: VOLATILES						Analyst: RAA	
Benzene		ND	5.0		µg/L	5	8/5/2011 7:31:29 PM	
Toluene		ND	5.0		µg/L	5	8/5/2011 7:31:29 PM	
Ethylbenzene		ND	5.0		µg/L	5	8/5/2011 7:31:29 PM	
Xylenes, Total		27	10		µg/L	5	8/5/2011 7:31:29 PM	
Surr: 4-Bromo	fluorobenzene	120	89.6-125		%REC	5	8/5/2011 7:31:29 PM	

Qualifiers:

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* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

2

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Date: 12-Aug-11 Analytical Report

CLIENT: Southwest Geoscience			Clie	nt Sample ID:	MW-15	
Lab Order: 1108125			Co	llection Date:	7/28/201	1 10:20:00 AM
Project: Largo CS			D	ate Received:	8/2/2011	
Lab ID: 1108125-03				Matrix:	AQUEOU	SC
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/4/2011 7:08:55 AM
Surr: DNOP	90.1	81.1-147		%REC	1	8/4/2011 7:06:55 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	6.7	0.050		mg/L	1	8/5/2011 8:31:53 PM
Surr: BFB	764	65.4-141	S	%REC	.1	8/5/2011 8:31:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	1500	50		µg/L	50	8/10/2011 3:24:04 PM
Toluene	ND	1.0		µg/L	1	8/5/2011 8:31:53 PM
Ethylbenzene	19	1.0		µg/L	1	8/5/2011 8:31:53 PM
Xylenes, Total	20	2.0		µg/L	1	8/5/2011 8:31:53 PM
Surr: 4-Bromofluorobenzene	1 99	89.6-125	S	%REC	1	8/5/2011 8:31:53 PM

Qualifiers:

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* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
 - 3

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-14	
Lab Order:	1108125			Co	llection Date:	7/28/201	I 11:05:00 AM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-04				Matrix:	AQUEOU	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	B015B: DIESEL RANGE						Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 7:41:16 AM
Surr: DNOP		96.5	81.1-147		%REC	1	8/4/2011 7:41:16 AM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/7/2011 4:14:46 PM
Surr: BFB		78.2	65.4-141		%REC	1	8/7/2011 4:14:46 PM
EPA METHOD	021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/7/2011 4:14:46 PM
Toluene		ND	1.0		µg/L	1	8/7/2011 4:14:46 PM
Ethylbenzene		ND	1.0		µg/L	1	8/7/2011 4:14:46 PM
Xylenes, Total		ND	2.0		µg/L	1	8/7/2011 4:14:46 PM
Surr: 4-Bromo	fluorobenzene	72.6	89. 6-12 5	S	%REC	1	8/7/2011 4:14:46 PM

Qualifiers:

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- Value exceeds Maximum Contaminant Level ٠
- Ε Estimated value
- Analyte detected below quantitation limits J
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits 4

Date: 12-Aug-11 Analytical Report

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CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-3R	
Lab Order:	1108125			Co	llection Date:	7/28/2011	11:55:00 AM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-05				Matrix:	AQUEOUS	8
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB
Diesel Range O	Organics (DRO)	ND	1.0		mg/L	1	8/4/2011 8:15:39 AM
Surr: DNOP	-	84.3	81.1-147		%REC	1	8/4/2011 8:15:39 AM
EPA METHOD	8015B: GASOLINE RANGE	E					Analyst: RAA
Gasoline Range	Organics (GRO)	1.5	0.050		mg/L	1	8/5/2011 9:32:07 PM
Surr: BFB		493	65.4-141	S	%REC	1	8/5/2011 9:32:07 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		1.5	1.0		µg/L	1	8/5/2011 9:32:07 PM
Toluene		ND	1.0		µg/L	1	8/5/2011 9:32:07 PM
Ethylbenzene		ND	1.0		µg/L	1	8/5/2011 9:32:07 PM
Xylenes, Total		7.1	2.0		µg/Ĺ	1	8/5/2011 9:32:07 PM
Surr: 4-Brome	ofluorobenzene	144	89.6-125	S	%REC	1	8/5/2011 9:32:07 PM

Qualifiers:

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* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-13	
Lab Order:	1108125			Co	llection Date:	7/28/201	1 12:55:00 PM
Project:	Largo CS			Ď	ate Received:	8/2/2011	
Lab ID:	1108125-06				Matrix:	AQUEOU	US
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 8:50:16 AM
Surr: DNOP		100	81.1-147		%REC	. 1	8/4/2011 8:50:16 AM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/6/2011 1:02:11 AM
Surr: BFB		94.0	65.4-141		%REC	1	8/6/2011 1:02:11 AM
EPA METHOD 8	3021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/6/2011 1:02:11 AM
Toluene		ND	1.0		µg/L	1	8/6/2011 1:02:11 AM
Ethylbenzene		ND	1.0		µg/L	1	8/6/2011 1:02:11 AM
Xylenes, Total		ND	2.0		µg/L	1	8/6/2011 1:02:11 AM
Surr: 4-Bromo	ofluorobenzene	86.7	89.6-125	S	%REC	1	8/6/2011 1:02:11 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits 6

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-6	
Lab Order:	1108125			Co	llection Date:	7/28/2011	1:35:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-07				Matrix:	AQUEOUS	5
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	015B: DIESEL RANGE						Analyst: JB
Diesel Range Or	rganics (DRO) .	ND	1.0		mg/L	1	8/4/2011 9:25:09 AM
Surr: DNOP		111	81.1-147		%REC	1	8/4/2011 9:25:09 AM
EPA METHOD 8	015B: GASOLINE RANGE	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/6/2011 1:32:21 AM
Surr: BFB		86.4	65.4-141		%REC	1	8/6/2011 1:32:21 AM
EPA METHOD 8	021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/6/2011 1:32:21 AM
Toluene		ND	1.0		µg/L	1	8/6/2011 1:32:21 AM
Ethylbenzene		ND	1.0		µg/L	1	8/6/2011 1:32:21 AM
Xylenes, Total		ND	2.0		µg/L	1	8/6/2011 1:32:21 AM
Surr: 4-Bromo	fluorobenzene	77.8	89.6-125	S	%REC	1	8/6/2011 1:32:21 AM

Qualifiers:

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- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits 7

Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience						
Lab Order:	1108125			Col	lection Date:	7/28/2011	2:35:00 PM
Project:	Largo CS			Da	te Received:	8/2/2011	
Lab ID:	1108125-08				Matrix:	AQUEOU	S
Analyses	······································	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB
Diesel Range O	rganics (DRO)	1.7	1.0		mg/L	1	8/4/2011 9:59:46 AM
Surr: DNOP		115	81.1-147		%REC	1	8/4/2011 9:59:46 AM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	Organics (GRO)	11	0.50		mg/L	10	8/7/2011 4:44:49 PM
Surr: BFB		117	65.4-141		%REC	10	8/7/2011 4:44:49 PM
EPA METHOD	3021B: VOLATILES						Analyst: RAA
Benzene		46	1.0		µg/L	1	8/8/2011 2:18:00 PM
Toluene		ND	1.0		µg/L	1	8/6/2011 2:02:26 AM
Ethylbenzene		38	1.0		µg/L	1	8/6/2011 2:02:26 AM
Xylenes, Total		76	2.0		µg/L	1	8/6/2011 2:02:26 AM
Surr: 4-Bromo	ofluorobenzene	185	89.6-125	S	%REC	1	8/6/2011 2:02:26 AM

Qualifiers:

-

* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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Han Environmental Analysis Laboratory, 1
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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-12	
Lab Order:	1108125			Co	llection Date:	7/28/201	1 3:30:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-09				Matrix:	AQUEOU	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	015B: DIESEL RANGE				·····		Analyst: JB
Diesel Range O	rganics (DRO)	3.9	1.0		mg/L	1	8/4/2011 11:08:55 AM
Surr: DNOP		90.0	81.1-147		%REC	1	8/4/2011 11:08:55 AM
EPA METHOD 8	015B: GASOLINE RANGI	Ξ					Analyst: RAA
Gasoline Range	Organics (GRO)	54	2.5		mg/L	50	8/6/2011 3:02:29 AM
Surr: BFB		88.5	65.4-141		%REC	50	8/6/2011 3:02:29 AM
EPA METHOD 8	021B: VOLATILES						Anaiyst: RAA
Benzené		12000	200		µg/L	200	8/7/2011 5:44:54 PM
Toluene		2300	50		µg/L	50	8/6/2011 3:02;29 AM
Ethylbenzene		320	50		µg/L	50	8/6/2011 3:02:29 AM
Xylenes, Total		3200	100		µg/L	50	8/6/2011 3:02:29 AM
Surr: 4-Bromo	fluorobenzene	87.6	89.6-125	S	%REC	50	8/6/2011 3:02:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value.
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
 - 9

CLIENT:	Southwest Geoscience			Client Sample ID	: MW-16	1977 <u>17</u> 199		
Lab Order:	1108125			Collection Date	: 7/28/201	7/28/2011 4:50:00 PM		
Project:	Largo CS			Date Received	: 8/2/2011			
Lab ID:	1108125-10			Matrix	: AQUEO	AQUEOUS		
Analyses		Result	PQL	Qual Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE					Analyst: JB		
Diesel Range C	Drganics (DRO)	ND	1.0	mg/L	1	8/4/2011 11:43:49 AM		
Surr: DNOP		86.7	81.1-147	%REC	1	8/4/2011 11:43:49 AM		
EPA METHOD	8015B: GASOLINE RANGE	Ξ				Analyst: RAA		
Gasoline Range	e Organics (GRO)	0.29	0.050	mg/L	1	8/6/2011 4:02:23 AM		
Surr: BFB		120	65.4-141	%REC	1	8/6/2011 4:02:23 AM		
EPA METHOD	8021B: VOLATILES					Analyst: RAA		
Benzene		43	1.0	µg/L	1	8/6/2011 4:02:23 AM		
Toluene		ND	1.0	µg/L	1	8/6/2011 4:02:23 AM		
Ethylbenzene		1.9	1.0	µg/L	1	8/6/2011 4:02:23 AM		
Xylenes, Total		ND	2.0	µg/L	1	8/6/2011 4:02:23 AM		
Surr: 4-Brom	ofluorobenzene	92.8	89.6-125	%REC	1	8/6/2011 4:02:23 AM		

Qualifiers:

٠ Value exceeds Maximum Contaminant Level

Estimated value E

Analyte detected below quantitation limits J

Non-Chlorinated NC

PQL Practical Quantitation Limit

В Analyte detected in the associated Method Blank

8/6/2011 4:02:23 AM

Holding times for preparation or analysis exceeded Н

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits S 10

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Date: 12-Aug-11 Analytical Report

Hall	Envir	onmental	Analysis	Laborat	tory, Inc.
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CLIENT:	Southwest Geoscience	Client Sample ID: MW-7					
Lab Order:	1108125			Co	llection Date:	7/28/201	1 5:30:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-11				Matrix:	AQUEO	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB
Diesel Range O	rganics (DRO)	2.7	1.0		mg/L	1	8/4/2011 12:18:23 PM
Surr: DNOP		99.8	81.1-147		%REC	1	8/4/2011 12:18:23 PM
EPA METHOD	8015B: GASOLINE RANGE	E					Analyst: RAA
Gasoline Range	Organics (GRO)	45	2.5		mg/L	50	8/7/2011 6:15:04 PM
Surr: BFB		110	65.4-141		%REĊ	50	8/7/2011 6:15:04 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		75	1.0		µg/L	1	8/8/2011 2:46:55 PM
Toluene		ND	5.0		µg/L	5	8/6/2011 4:32:27 AM
Ethylbenzene		200	5.0		µg/L	5	8/6/2011 4:32:27 AM
Xylenes, Total		62	10		µg/L	5	8/6/2011 4:32:27 AM
Surr: 4-Bromo	ofluorobenzene	160	89.6-125	S	%REC	5	8/6/2011 4:32:27 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience	<u>.</u>		Clier	nt Sample ID:	MW-38	
Lab Order:	1108125			Co	llection Date:	7/29/201	1 9:00:00 AM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-12				Matrix:	AQUEO	US
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE					····	Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 12:53:15 PM
Surr: DNOP		120	81.1-147		%REC	1	8/4/2011 12:53:15 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/6/2011 5:32:52 AM
Surr: BFB	_	90.0	65.4-141		%REC	1	8/6/2011 5:32:52 AM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/6/2011 5:32:52 AM
Toluene		ND	1.0		µg/L	1	8/6/2011 5:32:52 AM
Ethylbenzene		ND	1.0		µg/L	1	8/6/2011 5:32:52 AM
Xylenes, Total		ND	2.0		µg/L	1	8/6/2011 5:32:52 AM
Surr: 4-Bromo	ofluorobenzene	79.4	89.6-125	S	%REC	1	8/6/2011 5:32:52 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-36	
Lab Order:	1108125			Co	llection Date:	7/29/2011 9	:35:00 AM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-13				Matrix:	AQUEOUS	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE						Analyst: JB
Diesel Range Or	ganics (DRO)	ND	1.0		mg/L	1	8/4/2011 1:28:23 PM
Surr: DNOP		96.3	81.1-147		%REC	1	8/4/2011 1:28:23 PM
EPA METHOD 8	015B: GASOLINE RANGE	1					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/6/2011 6:02:49 AM
Surr: BFB		80.9	65.4-141		%REC	1	8/6/2011 6:02:49 AM
EPA METHOD 8	021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/6/2011 6:02:49 AM
Toluene		ND	1.0		µg/L	1	8/6/2011 6:02:49 AM
Ethylbenzene		ND	1.0		µg/L	1	8/6/2011 6:02:49 AM
Xylenes, Total		ND	2.0		µg/L	1	8/6/2011 6:02:49 AM
Surr: 4-Bromo	fluorobenzene	70.2	89.6-125	S	%REC	1	8/6/2011 6:02:49 AM

Qualifiers:

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* Value exceeds Maximum Contaminant Level

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- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-9	
Lab Order:	1108125			Co	llection Date:	7/29/2011	10:35:00 AM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-14			•	Matrix:	AQUEOU	S
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE						Analyst: JB
Diesel Range Or	ganics (DRO)	ND	1.0		mg/L	1	8/4/2011 2:03:45 PM
Surr: DNOP		120	81.1-147		%REC	1	8/4/2011 2:03:45 PM
EPA METHOD 8	015B: GASOLINE RANGE	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/6/2011 6:32:52 AM
Surr: BFB		99.0	65.4-141		%REC	1	8/6/2011 6:32:52 AM
EPA METHOD 8	021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/6/2011 6:32:52 AM
Toluene		ND	1.0		µg/L	1	8/6/2011 6:32:52 AM
Ethylbenzene		ND	1.0		µg/L	1	8/6/2011 6:32:52 AM
Xylenes, Total		ND	2.0		µg/L	1	8/6/2011 6:32:52 AM
Surr: 4-Bromot	fluorobenzene	86.4	89.6-125	S	%REC	1	8/6/2011 6:32:52 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-41	
Lab Order:	1108125			Co	llection Date:	7/29/201	12:05:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-15		·		Matrix:	AQUEOL	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	······					Analyst: JB
Diesel Range O	Organics (DRO)	ND	1.0		mg/L	1	8/4/2011 2:38:42 PM
Surr: DNOP		106	81.1-147		%REC	1	8/4/2011 2:38:42 PM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	0.050		mg/L	1	8/8/2011 7:02:50 AM
Surr: BFB		82.8	65.4-141		%REC	1	8/6/2011 7:02:50 AM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzenø		ND	1.0		µg/L	1	8/6/2011 7:02:50 AM
Toluene		ND	1.0		µg/L	1	8/6/2011 7:02:50 AM
Ethylbenzene		ND	1.0		µg/L	1	8/6/2011 7:02:50 AM
Xylenes, Total		ND	2.0		µg/L	1	8/6/2011 7:02:50 AM
Surr: 4-Brome	ofluorobenzene	71.6	89.6-125	S	%REC	1	8/6/2011 7:02:50 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-43	
Lab Order:	1108125			Co	llection Date:	7/29/201	1 12:45:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-16				Matrix:	AQUEOU	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	BO15B: DIESEL RANGE						Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 3:13:16 PM
Surr: DNOP		94.5	81.1-147		%REC	1	8/4/2011 3:13:16 PM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/7/2011 7:15:05 PM
Surr: BFB		85.7	65.4-141		%REC	1	8/7/2011 7:15:05 PM
EPA METHOD	3021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/7/2011 7:15:05 PM
Toluene		ND	1.0		µg/L	1	8/7/2011 7:15:05 PM
Ethylbenzene		ND	1.0		µg/L	1	8/7/2011 7:15:05 PM
Xylenes, Total		ND	2.0		µg/L	1	8/7/2011 7:15:05 PM
Surr: 4-Bromo	fluorobenzene	80.2	89.6-125	S	%REC	1	8/7/2011 7:15:05 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

16

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-32	
Lab Order:	1108125			Co	llection Date:	7/29/20 11	1:35:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-17				Matrix:	AQUEOU	S
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	3015B: DIESEL RANGE						Analyst: JB
Diesel Range Or	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 8:58:54 PM
Surr: DNOP		123	81.1-147		%REC	1	8/4/2011 8:58:54 PM
EPA METHOD 8	015B: GASOLINE RANGE	3					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/7/2011 7:45:10 PM
Surr: BFB		88.5	65.4-141		%REC	1	8/7/2011 7:45:10 PM
EPA METHOD 8	021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/7/2011 7:45:10 PM
Toluene		• ND	1.0		µg/L	1	8/7/2011 7:45:10 PM
Ethylbenzene		ND	1.0		µg/L	1	8/7/2011 7:45:10 PM
Xylenes, Total		ND	2.0		µg/L	1	8/7/2011 7:45:10 PM
Surr: 4-Bromo	fluorobenzene	81.4	89.6-125	S	%REC	1	8/7/2011 7:45:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	t Sample ID:	MW-34	
Lab Order:	1108125			Co	llection Date:	7/29/201	1 2:10:00 PM
Project:	Largo CS			D	ate Received:	8/2/2011	
Lab ID:	1108125-18				Matrix:	AQUEOU	JS
Analyses	x <u></u>	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE					· · · · · · · · · · · · · · · · · · ·	Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	8/4/2011 9:33:17 PM
Surr: DNOP		98.8	81.1-147		%REC	1	8/4/2011 9:33:17 PM
EPA METHOD	8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	8/7/2011 8:15:11 PM
Surr: BFB		90.9	65.4-141		%REC	1	8/7/2011 8:15:11 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	1.0		µg/L	1	8/7/2011 8:15:11 PM
Toluene		ND	1.0		µg/Ĺ	1	8/7/2011 8:15:11 PM
Ethylbenzene		ND	1.0		µg/L	1	8/7/2011 8:15:11 PM
Xylenes, Total		ND	2.0		µg/L	1	8/7/2011 8:15:11 PM
Surr: 4-Brome	ofluorobenzene	85.1	89.6-125	S	%REC	1	8/7/2011 8:15:11 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

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Date: 12-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Client Sample II	D: MW-39	
Lab Order:	1108125			Collection Dat	e: 7/29/201	1 2:50:00 PM
Project:	Largo CS			Date Receive	d: 8/2/2011	
Lab ID:	1108125-19			Matri	x: AQUEOU	JS
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE					Analyst: JB
Diesel Range C	Organics (DRO)	ND	1.0	mg/L	1	8/4/2011 10:07:46 PM
Surr: DNOP		96.5	81.1-147	%REC	1	8/4/2011 10:07:46 PM
EPA METHOD	8015B: GASOLINE RANG	E				Analyst: RAA
Gasoline Range	Organics (GRO)	0.80	0.050	mg/L	1	8/7/2011 8:45:12 PM
Surr: BFB		89.2	65.4-141	%REC	1	8/7/2011 8:45:12 PM
EPA METHOD	8021B: VOLATILES					Analyst: RAA
Benzene		27	1.0	µg/L	1	8/8/2011 3:15:49 PM
Toluene		14	1.0	µg/L	1	8/7/2011 8:45:12 PM
Ethylbenzene		1.9	1.0	µg/L	1	8/7/2011 8:45:12 PM
Xylenes, Total		18	2.0	µg/L	1	8/7/2011 8:45:12 PM
Surr: 4-Brom	ofluorobenzene	89.7	89.6-125	%REC	1	8/7/2011 8:45:12 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level

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- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: S Project: L	louthwest Ge Largo CS	oscience								Work	Order:	1108125
Analyte		Result	Units	PQL	SPK Va	SPK ref	%Rec I	.owLimit Hi	ighLimit	%RPD	RPDLimit	Quał
Method: EPA Meth	od 8015B: Die	esel Range			•							
Sample ID: MB-2788	3		MBLK				Batch ID:	27863	Analysi	s Date:	8/4/2011	2:32:22 AN
Diesel Range Organics Sample ID: MB-2789	s (DRO) 2	ND	mg/L MBLK	1.0			Batch ID:	27892	Analysi	s Date:	8/4/2011	7:15:49 PN
Diesel Range Organics Sample ID: LCS-278	s (DRO) 83	ND	mg/L LCS	1.0			Batch ID:	27883	Analysi	s Date:	8/4/2011	3:06:44 AN
Diesel Range Organics Sample ID: LCS-278	s (DRO) 92	4.709	mg/L LCS	1.0	5	0	94.2 Batch ID:	74 27892	157 Analysi:	s Date:	8/4/2011	7:50:11 PM
Diesel Range Organics Sample ID: LCSD-27	s (DRO) 883	5.754	mg/L LCSD	1.0	5	0	115 Batch ID:	74 27883	157 Analysi:	a Date:	8/4/2011	3:41:06 AM
Diesel Range Organics Sample ID: LCSD-27	8 (DRO) 892	4.828	mg/L LCSD	1.0	5	0	96.6 Batch ID:	74 2789 2	157 Analysis	2.50 3 Date:	23 8/4/2011	8:24:34 PM
Diesel Range Organics	(DRO)	5.662	mg/L	1.0	5	0	113	74	157	1.61	23	
Method: EPA Metho Sample ID: 1108125-	od 8015B: Ga 01A MSD	soline Rang	ge MSD				Batch ID:	R47061	Analysis	a Date:	8/6/2011 1	2:02:02 AM
Gasoline Range Organ Sample ID: 1108125-	ics (GRO) 16A MSD	0.5076	mg/L MSD	0.050	0.5	0	102 Batch ID:	66.1 R4708 7	127 Analysis	2.41 a Date:	15.5 8/8/2011	1:16:00 AM
Gasoline Range Organ Sample ID: 5ML-RB	ics (GRO)	0.5202	mg/L MBLK	0.050	0.5	0	104 Batch ID:	66.1 R47061	127 Analysis	0.690 Date:	15.5 8/5/2011 1	0:08:05 AM
Gasoline Range Organ Sample ID: B	ics (GRO)	ND	mg/L MBLK	0.050			Batch ID:	R47087	Analysis	Date:	8/7/2011	3:44:47 PM
Gasoline Range Organi Sample ID: 6ML-RB	ics (GRO)	ND	mg/L <i>MBLK</i>	0.050			Batch ID:	R47098	Analysis	Date:	8/10/2011	7:15:33 AM
Gasoline Range Organi Sample ID: 2.5UG GR	ics (GRO) RO LCS	ND	mg/L LCS	`0.050			Batch ID:	R47061	Analysis	Date:	8/5/2011 12	2:07:19 PM
Gasoline Range Organi Sample ID: 2.5UG GF	ics (GRO) RO LCS	0.5476	mg/L LCS	0.050	0.5	0	110 Batch ID:	92.1 R47087	117 Analysis	Date:	8/7/2011	2:44:23 PM
Gasoline Range Organi Sample ID: 2.5UG GR	ics (GRO) RO LCS	0.5636	mg/L LCS	0.050	0.5	0	113 Batch ID:	92.1 R47098	117 Analysis	Date:	8/10/2011 1	2:33:32 PM
Gasoline Range Organi Sample ID: 1108125-0	cs (GRO) D1A MS	0.5266	mg/L MS	0.050	0.5	0	105 Batch ID:	92.1 R47061	117 Anaiysis	Date:	8/5/2011 1	I:31:59 PM
Gasoline Range Organi Sample ID: 1108125-1	cs (GRO) 16A MS	0.5200	mg/∟ MS	0.050	0.5	0	104 Batch ID:	66.1 R47087	127 Analysis	Date:	8/8/2011 12	2:46:00 AM
Gasoline Range Organi	cs (GRO)	0.5238	mg/L	0.050	0.5	0	105	66.1	127			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

Page 1

QA/QC SUMMARY REPORT

Client: S	outhwest Geoscience										
Project: L	argo CS								Work	Order:	1108125
Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec L	.owLimit H	lighLimit	%RPD	RPDLimit	Qual
Method: EPA Metho	od 8021B: Volatiles										
Sample ID: 5ML-RB		MBLK				Batch ID:	R47061	Analys	is Date:	8/5/2011 1	0:08:05 AN
Benzene	ND	ua/L	1.0								
Toluene	ND	ug/L	1.0								
Ethylbenzene	ND	µa/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: B		MBLK				Batch ID:	R47087	Analys	is Date:	8/7/2011	3:44:47 PN
Benzene	ND	ua/L	1.0								
Toluene	ND	ua/L	1.0								
Ethvibenzene	ND	ua/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: B		MBLK				Batch ID:	R47043	Analys	s Date:	8/8/2011	1:06:39 PN
Renzene	ND	10/1	1.0								
Toluene	ND	uo/l	1.0								
Ethylbenzene	ND	µg/⊑ µg/l	1.0								
Xvienes Total	ND	ug/l	20								
Sample ID: 5ML-RB		MRIK	2.0			Batch (D:	R47098	Analysi	s Date:	8/10/2011	7·15·33 AM
Benzene	ND		1.0								
Toluene		µg/L	1.0								
Ethylhenzeno	ND	μg/L	1.0								
vienee Totai		µg/L	2.0								
Sample ID: 100NG BT	TEXICS	100	2.0			Betch ID:	B47081	Analvei	e Date [,]	8/5/2011 12	-37-14 DM
		200			•			7. naiyai	a Dale.	0/0/2011 12	
Benzene Teluara	19.94	µg/L	1.0	20	0	99.7	80	120			
Towene	20.11	µg/L	1.0	20	0	101	80	120			
Luiyiddiizdiid	19.07	µg/L	1.0	20	0	90.3	80	120			
Semple ID: 100NG BT	EXICS	µg/L	2.0	00	U	Rotah ID:	0U 1347087	120 Anolyni	- Doto:	9/7/0044 2	
		LU3 "					F(4/ U0/	Analysi	s Dale.	0///2011.3). 14.40 FW
Senzene	19.63	µg/L	1.0	20	0.15	97.4	80	120			
loluene	19.66	µg/L	1.0	20	0.134	97.6	80	120			
thylbenzene	19.39	µg/L	1.0	20	0.168	96.1	80	120			
vienes, lotal	58.38	µg/L	2.0	60	0	97.3 Detablic	80	120			
Sample ID: 100NG BI	EXLUS	LCS				Batch ID:	R47043	Analysi	s Date:	8/8/2011 12	::37:45 PM
Senzene	19.29	µg/L	1.0	20	0	96.5	80	120			
oluene	19.88	µg/L	1.0	20	0	99.4	80	120			
thylbenzene	20.09	µg/L	1.0	20	0	100	80	120			
yienes, lotal	60.93	µg/L	2.0	60	0	102 Detat: 10	80	120	-		
ample ID: 100NG B1	ex Lug	LUS				Batch ID:	K47098	Analysis		8/10/2011 12	:03:31 PM
enzene	19.57	µg/L	1.0	20	0.174	97.0	80	120			
oluene	19.62	µg/L	1.0	20	0	98.1	80	120			
thylbenzene	19.65	µg/L	1.0	20	0.124	97.6	80	120			
(vlenes, Total	60.90	ua/L	2.0	60	0	102	80	120			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

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Sam	ple Receipt Cl	necklist		
Client Name SOUTHWEST GEOSCIENCE		Date Receive	ed:	8/2/2011
Work Order Number 1108125		Received b	y: LNM	0
		Sample ID	labels checked by:	MG
Checklist completed by:		2///	-	initials
A fatelur. Consider non				
Matrix: Carner nan	ne: <u>Greynound</u>			
Shipping container/cooler in good condition?	Yes 🗹	No 🗖	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗔	Not Present	Not Shipped
Custody seals intact on sample bottles?	Yes 🗌	No 🗌	N/A	
Chain of custody present?	Yes 🗹	No 🗔		
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗖		
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌		
Samples in proper container/bottle?	Yes 🗹	No 🗔		
Sample containers intact?	Yes 🖌	No 🗖		
Sufficient sample volume for indicated test?	Yes 🗹	No 🗌		
All samples received within holding time?	Yes 🗹	No 🗔		Number of preserved
Water - VOA vials have zero headspace? No VOA vials st	ubmitted	Yes 🗹	No 🗌	potties checked for pH:
Water - Preservation labels on bottle and cap match?	Yes 🗌	No 🗌	N/A	
Water - pH acceptable upon receipt?	Yes 🗋	No 🗔	N/A 🔽	<2 >12 unless noted
Container/Temp Blank temperature?	2.9°	<6° C Acceptet	ble	Delow.
COMMENTS:		If given sufficien	t time to cool.	
			•	
Client contacted Date contacted:		Pers	on contacted	
Contacted by: Regarding:				
Comments:				
		·······		
		,. ,. <u></u>		
				······································
Corrective Action				
	, <u>m</u>			

CST Laboratory: Hall N C E Address: H & Hall Hall Consultants Contact: MAA Consultants Contact: MAA Consultants Contact: MAA Phone: Contact: MAA Sampler Contact: MAA Phone: Contact: Contact: Mame Name Contact: MaA Mame Maa Contact: Contact: Marc Sampler Contact: Nortype of Containers Marc Maa Contact: Contact: Marc Sampler Contact Contactioners Marc Sampler Contactioners Contactioners Marc Sampler Contactioners Contactioners Marc Marc Sampler Contactioners Marc Marc Marc Sampler M	CHAIN OF CUSTODY RECORD	ANALYSIS ANALYSIS BEQUESTED Due Date:	ts	60/ / / / / / / / / / / / / / / / / / /	00 Page 1 2	12.30		2		DECT Lab Sample ID (Lab Use Only)	XX XX 1/08/25-1		m l		S-	-6		8-	6-1	9/-	~65	te:/ Time: NOTES:	III do	te: 3	te: Time:
	,	est anomatory Hall	NCE Address: A buguerque	Contact: ANAY FIRE WIDE	Phone: 535 345 3975	WHINTY PO/SO #:	Sampler's Signature		Thame C S Nortype of Containers	G Identifying Marks of Sample(s) ଅଟିନି ନିର୍ଦ୍ଧନି VOA A/G 250 P/O	X MW-3 ~ ~	1 1 L-h-MW	MW-15	14 M-14	MW-3K	11M-13	MW-6	1/-/1914	MW-12	* WM-19	0 25% Rush 0 50% Rush 0 100% Rush	Date: Time: Received by: (Signature) Date:	Date: Time Received by: (Somature) Date	Date: Time: Received by: (SigNature) // Date:	Date: Time: Received by: (Signature) Date:

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