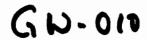
GW - 010

TANK WORKPLAN

08/22/2011





August 22, 2011

Alberto A. Gutiérrez, C.P.G.

RECEIVED OCD

Mr. Glenn von Gonten

New Mexico Oil Conservation Division 23 P 11: 5 SIA EMAIL AND FIRST CLASS MAIL

1220 South St. Francis Dr. Santa Fe, New Mexico 87505

RE: PROPOSED SOIL RMENDIATION AT THE "WEST SUMP" SUBGRADE TANK SITE AT SOUTHERN UNION GAS SERVICES JAL #3 GAS PLANT (SECTION 33, TOWNSHIP 24 SOUTH, RANGE 37 EAST - NMOCD PERMIT GW010)

Dear Mr. von Gonten:

Pursuant to our meeting last week and our telephone conservation today, I am forwarding the Remedial Design for the West Sump site at the Jal #3 Gas Plant.

As discussed in the attached Remedial Design, Southern Union Gas Services (SUGS) will amend the hydrocarbon-impacted soils with 10/20/10/10 fertilizer at a rate of approximately 10 pounds per thousand square feet, mix the fertilizer in to the upper 4 to six inches of the soil, and cover the amended soil with a 30-mil XR-5 geomembrane. Clean fill will be placed over the geomembrane, and compacted to the appropriate level for the installation of the retrofitted new, dual-lined sump. The excavation will then be backfilled to the original grade, and the appropriate barriers and signage emplaced to protect the site and equipment.

Following the completion of the project, SUGS will provide a report summarizing both the remedial and retrofitting activities.

Thank you again for your consideration in these matters. We look forward to your prompt approval and our implementation of this remediation which will have a substantial environmental and operational benefit. If you have any additional questions regarding this matter, please call me or Alberto at 505-842-8000, or contact us by email at jch@geolex.com or aag@geolex.com, respectively.

Sincerely,

Geolex, Inc.®

James C. Hunter, R.G. Senior Hydrogeologist

phone: 505-842-8000

fax: 505-842-7380

Enclosure

cc:

Mr. Rose Slade, SUGS

Mr. Jacob Krautsch, SUGS

Mr. Alberto A. Gutierrez, R.G., Geolex

Projects/10-008/Correspondence/vonGonten002.ltr.docx

Conceptual Remedial Design West Sump Below Ground Tank, Jal #3 Gas Plant Section 33, T24S, R37E, Lea County, New Mexico



August 17, 2011

On Behalf of:

Southern Union Gas Services, Ltd. 301 Commerce Street, Suite 700 Forth Worth, Texas 76102 Telephone: (817) 302-9400

Prepared By:

Geolex, Inc. 500 Marquette Avenue NE, Suite 1350

Albuquerque, New Mexico 87102 Telephone: (505) 842-8000





1.0 BACKGROUND

In March 2011, pursuant to NMOCD approval of a workplan dated March 25, 2011, Southern Union Gas Services (SUGS) began to remove and retrofit several below grade wastewater sumps (BGWS) at their Jal #3 gas plant, located in Section 33, T24S, R37E in Lea County, New Mexico. The locations of those sumps are shown in Plate 1.

In June 2011, during the removal of the West Sump (Area 3 in Plate 1), staining was observed in soils adjacent to, and beneath the, removed, former BGWS. After removal, soil sampling and analyses confirmed the presence of hydrocarbon compounds in the soils. Corrective action was initiated, and the release was reported to NMOCD (Form C-141) on July 11, 2011 (Appendix A).

2.0 INVESTIGATIONS AND INITIAL REMEDIATION AT WEST SUMP AREA

The initial excavation to remove the former sump resulted in an excavation approximately 7 to 11 feet deep, and 10 by 15 feet in area. On June 7, 2011 soil samples were collected from areas where stained soils were observed. The results are included in Appendix B, and summarized in Table 1. These samples indicated elevated levels of total petroleum hydrocarbons (TPH) up to 18,200 mg/kg (sample 41-9095-002).

After review of the analytical data, SUGS excavated and removed approximately 50 cubic yards of contaminated soils from this area, and transported the soils to the Sundance Services' Parabo Facility in Eunice, New Mexico on July 11, 2011 (Appendix C).

Following the removal of contaminated soils, SUGS collected 5 additional samples from the bottom of the excavation. The results are summarized in Table 2 and the laboratory reports are attached in Appendix D. The post-excavation samples show significantly lower levels of TPH (average of 3060 mg/kg), indicating that the bulk of the hydrocarbon-contaminated soils were removed by the excavation. The vast majority (92.7%) of the average hydrocarbons are $C_{12} - C_{28}$ Diesel Range. Materials in this molecular weight range are significantly less mobile than hydrocarbons in the $C_6 - C_{12}$ Gasoline Range, which only represented 5.4% of the total.

As seen in Figure 1, the location of the former BGWS is tightly constrained by the Turbine Building (background), a scrubber (right of the excavation), and a 30-inch natural gas pipeline (foreground of the excavation). Figure 2 shows the extent of the excavation on June 7, prior to the remedial excavation.

Figure 3 shows the excavation after the removal of approximately 50 cubic yards of soils. The final excavation had an extent of approximately 20 by 11 feet, and a depth of 13 feet at its deepest point. Due the close proximity of the adjacent, active equipment and the instability of the soils, no further excavation is feasible or safe in this area.

3.0 PROPOSED FINAL REMEDIATION AND CLOSURE

3.1 Site Geology and Hydrogeology

The Jal #3 site is almost entirely covered by man-made or disturbed natural material overlying Holocene reddish brown dune sand, underlain by a hard caliche surface or calcareous silts which may be found in buried valleys or internally drained Quaternary playas. These Quaternary and Holocene deposits are

underlain by the discontinuous Ogallala Formation and the underlying Triassic redbeds of the Dockum Group (Nicholson & Clebsch, 1961).

The Ogallala aquifer is the principal source of potable water in the area. The depth to groundwater is approximately 200 feet below ground surface (Figure 4). The background total dissolved solids (TDS) concentration for groundwater in the area is approximately 2,200 mg/l.

A search of the New Mexico State Engineer's data base shows that there are no recorded groundwater wells within one mile of the Jal #3 plant.

3.2 Regulatory Issues

The BGWS in question was being retrofit (per 19.15.17.11 I(1-6) NMAC) and was operated under 19.15.17.12 (D) NMAC. This status was acknowledged by NMOCD in the approved plan provided to NMOCD on March 25, 2011. As described in that letter, if visual evidence of a release is detected, representative soil samples would be collected and analyzed according to 19.15.17.13 E (1-6) NMAC to determine if any impacts to the soils have been caused by previous operations, followed by documentation on Form C-141 if needed. As discussed in Section 2.0 above, sampling was conducted and the release was reported to NMOCD (Appendix A).

In the approved March 25 workplan, SUGS agreed to develop appropriate remediation plans for any released discovered during the BGWS retrofitting. Due to the site conditions documented in Section 2.0, SUGS believes that more extensive excavation in unsafe and is physically and technically infeasible (see 19.15.30.9 (E) NMAC). Therefore, no additional removal of residually impacted soils is possible.

3.3 Proposed Remediation

SUGS requests NMOCD approval to treat the remaining residual impacted soils *in situ*, using selected fertilizers and/or soil amendments to facilitate biological degradation of the hydrocarbons, and isolating the affected soils by means of an overlying impermeable barrier to prevent any downward infiltration of surface precipitation. Following the emplacement of the barrier, the replacement pre-fabricated double-wall sump/tank will be placed above the moisture barrier and the remaining excavation will be backfilled with compacted, clean fill. The location will be marked with permanent monuments to prevent any potential, unintentional future damage to the new sump or the moisture barrier.

This approach will be effective in preventing any further downward migration of the hydrocarbons, and will prevent the movement of any hydrocarbons to the underlying aquifer. This request is based on the following primary considerations:

- The bulk of the hydrocarbon-contaminated soils were removed by the excavation,
- The depth to groundwater is approximately 200 feet (see Figure 4),
- Very low soil moisture (5.1 to 19 percent; average 8.28 in deeper samples; Table 2),
- The relatively high molecular weight of the hydrocarbons (92.7% Diesel range; Table 2), which indicates low mobility, and
- The lack of groundwater receptors within one mile of the release.

If this approach is acceptable to NMOCD, SUGS will prepare a formal, detailed proposal for the remediation based on these concepts for NMOCD approval. SUGS will promptly implement the remediation following NMOCD's final approval.

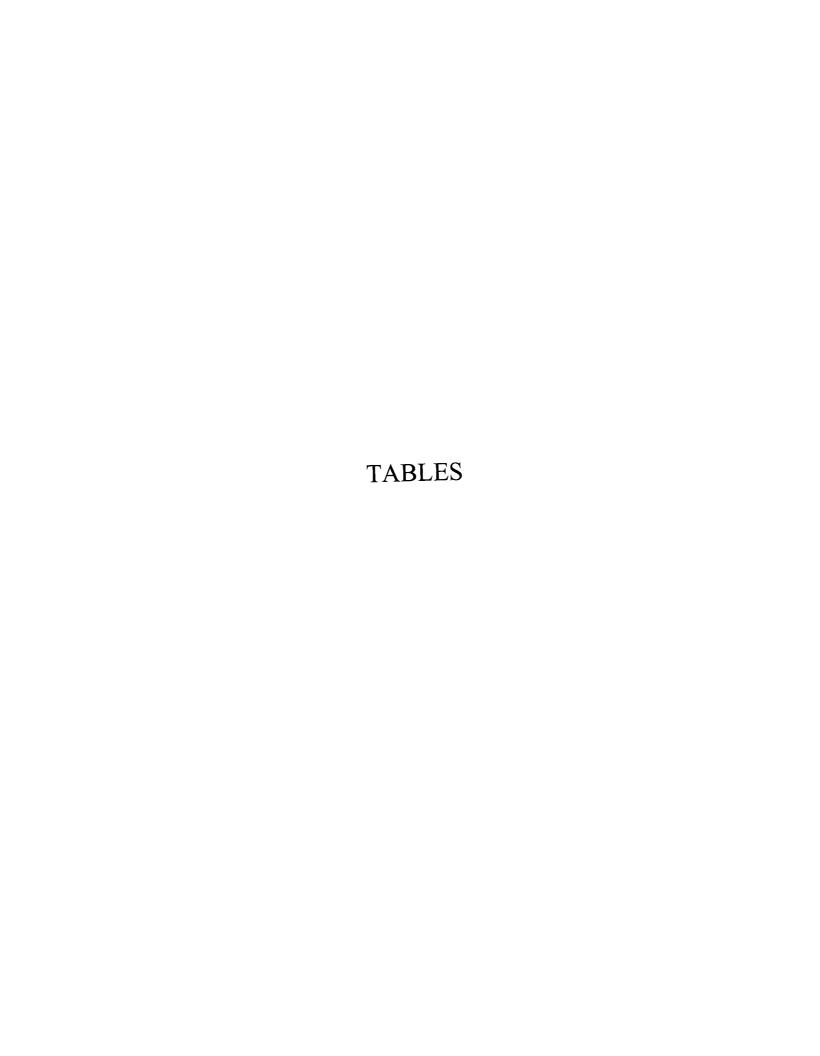
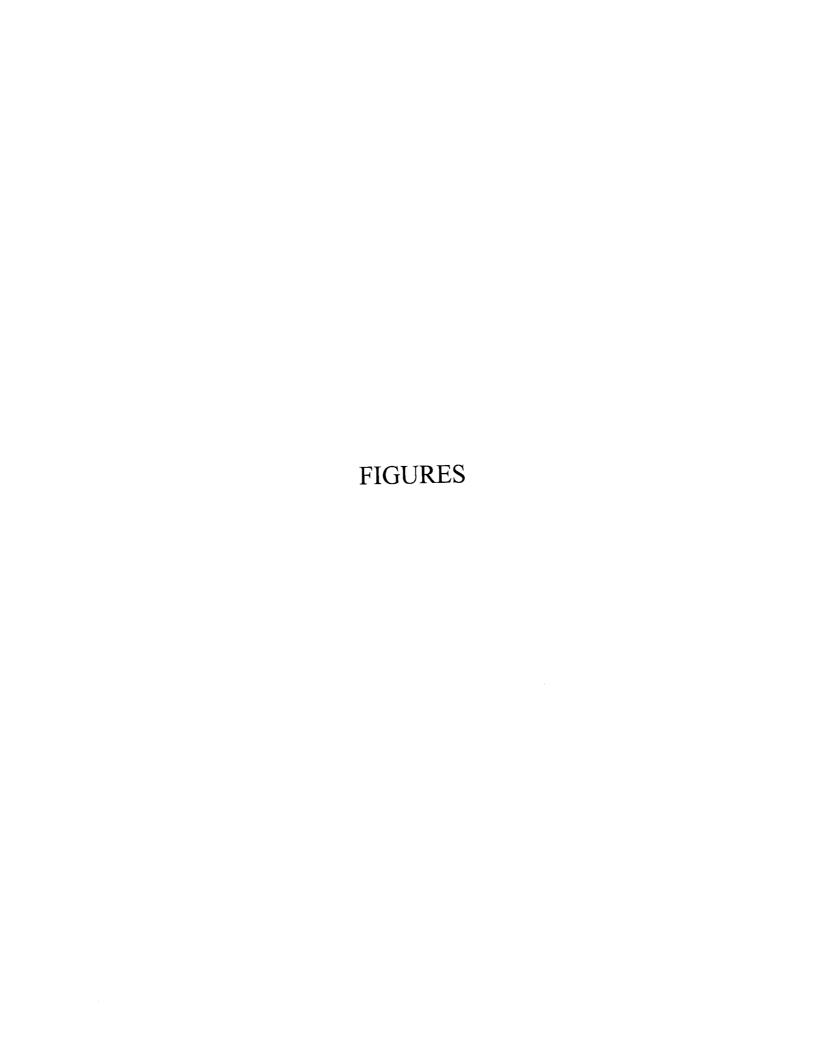
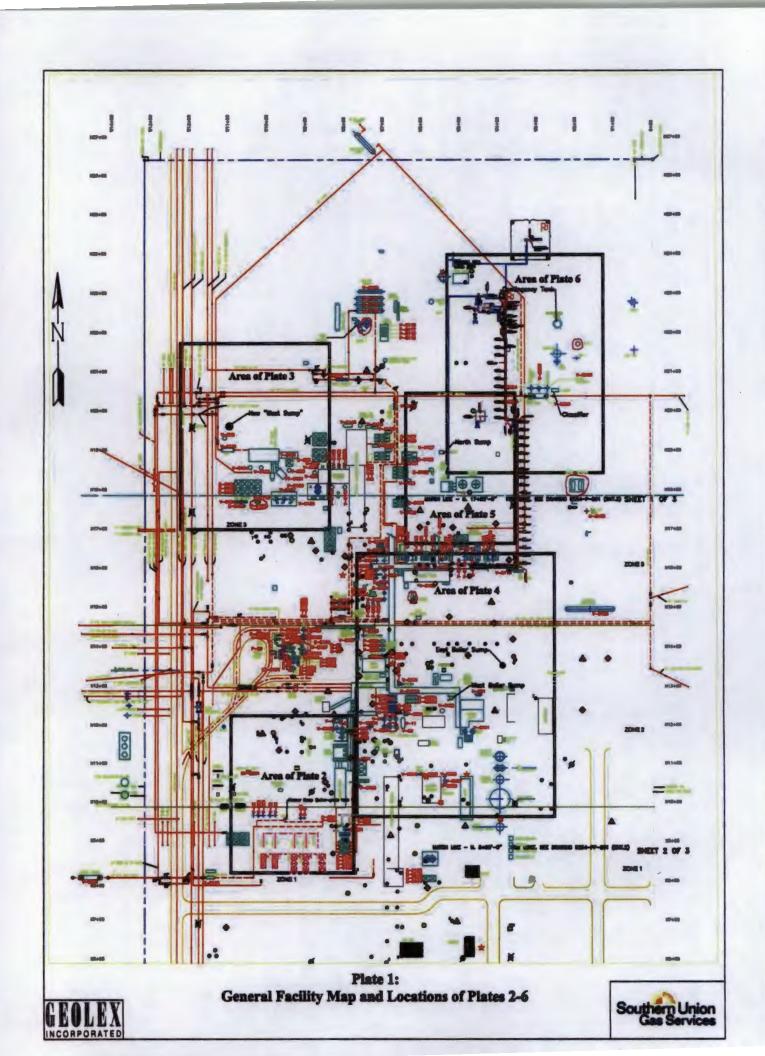


Table 1: Results of Soil Samples Collected on June 7, 2011	oil Samples Collec	ted on June 7, 2	011
ANALYSES	Sample	Sample	NMOCD Standard
	41-9095-001 (11 ft)	419095-002 (7 ft)	
Chloride (mg/Kg)	401	210	250
Percent Moisture (%)	19.1	7.88	na
C6-C12 Gasoline Range Hydrocarbons	ND	2930	na
(IIIB/NB)		0000	
C12-C28 Diesel Range Hydrocarbons (mp/kg)	1390	14,700	na
C28-C35 Oil Range Hydrocarbons (mg/kg)	163	591	na
Total TPH (mg/kg)*	1550	18,200	100
Reporting Limit for Hydrocarbons (mg/kg)	17.4	163	na

			Table	2: Results o	of Soil Samples C	Table 2: Results of Soil Samples Collected on June 16, 2011	16, 2011
ANALYSES	Sample	Sample	Sample	Sample	Sample	Average (Using	NMOCD
	42095-001	42095-002	42095-003	42095-004	42095-005	Reporting Limit for	Standard
	(NW @ 12 ft)	(EW @ 12 ft)	(SW @ 12 ft)	(SW @ 12 ft) (WW @ 12 ft)	(Floor @ 13 ft)	ND's)	
Chloride (mg/Kg)	87	1440	1710	1270	68.2	914	250
Percent Moisture (%)	13.6	8.66	5.21	7.65	6.27	8.28	eu
C6-C12 Gasoline Range Hydrocarbons (mg/kg)	ND	134	367	ND	156	167 (5.4% TPH)	na
C12-C28 Diesel Range Hydrocarbons (mg/kg)	344	2550	7100	1350	2850	2839 (92.7% TPH)	eu
C28-C35 Oil Range Hydrocarbons (mg/kg)	38.3	164	125	ND	124	123 (4% TPH)	na
Total TPH (mg/kg)*	382	2850	7590	1350	3130	3060	100
Reporting Limit for Hydrocarbons (mg/kg)	17.4	81.7	78.7	162	80.2	na	na

* Total Petroleum Hydrocarbons (TPH) values rounded by Laboratory





Jal #3 BGWS Removal of #1 Tank Figure 1:

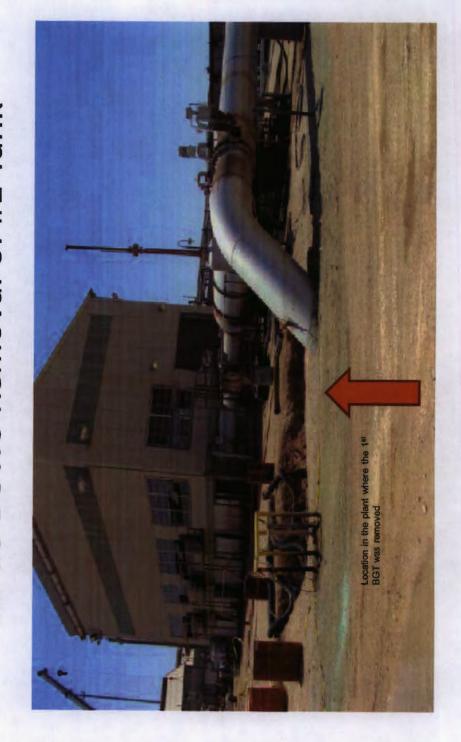
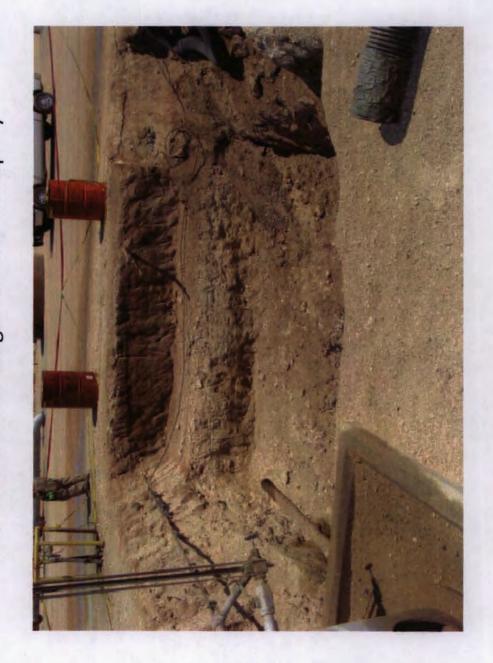




Figure 2: Original Excavation on 7/7/2011

Figure 3: Final Excavation Extents, July 11, 2011 (Dimensions of the excavation are: 20' wide x 21' length and 13' in depth)



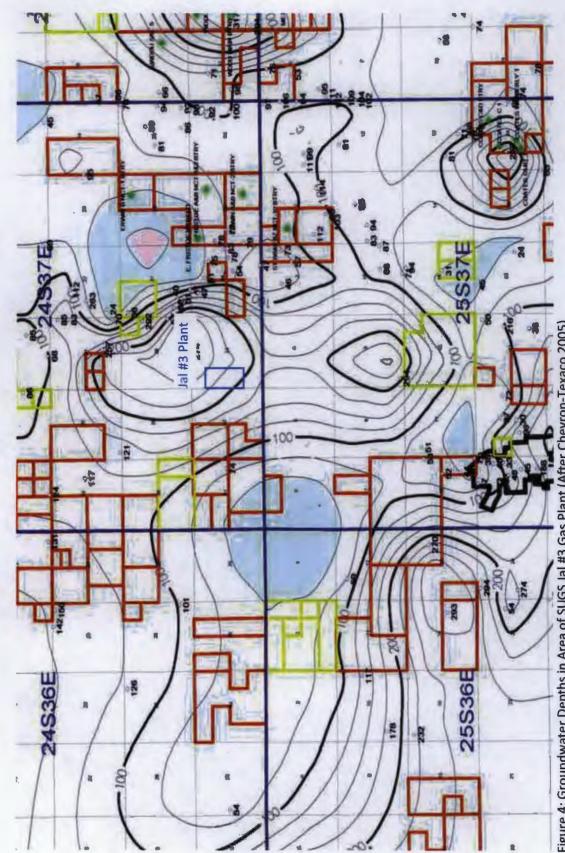


Figure 4: Groundwater Depths in Area of SUGS Jal #3 Gas Plant (After Chevron-Texaco 2005)

APPENDIX A:

Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Form C-141 Revised October 10, 2003

Release Notification and Corrective Action

						OPERA'	TOR		✓ Initial	al Report		Final Report
		outhern Unic				Contact: Ro	se Slade					
		Loop 464 Mo	nahans, '	TX 79756			No. 817-302-97					
Facility Na	me: Jal #3	Plant				Facility Typ	e: Natural Gas	Plant				
Surface Ow	ner: Lea F	Partners Ltd.		Mineral C)wner:				Lease N	No. API #30-0)25-2	28822
				LOCA	ATIO	N OF RE	LEASE					
Unit Letter	Section 33	Township 24S	Range 37E	Feet from the		/South Line	Feet from the	East/V	West Line	County Lea County		
	1	4		Latitude 32 1	10'27"]	N Longitude	e <u>103 10'27"W</u>	·1				
				NAT	URE	OF REL	EASE					
Type of Rele	ase : Produ	ced water/hyd	rocarbons				Release: Unknow	תע	Volume F	Recovered: 0		
Source of Re	lease: Belo	ow ground tan	(lour of Occurrence	e:		Hour of Disco		
Was Immedi	ata Notica (Given?				Unknown If YES, To	Whom?		6/13/2011	at 11:00 AM		
was inniedi	ale Nouce (Yes [No 🛭 Not Re	equired	11 123, 10	WINDIN					
By Whom?						Date and H						
Was a Water	course Read		Yes 🗵	No		If YES, Vo	olume Impacting t	the Wate	ercourse.			
If a Watercon	tree was Im	pacted, Descr				J						
11 4 11 11 11 11	arge was rin	ipaciou, Descr	oc i uny.									
Describe Cau	se of Probl	em and Reme	iial Action	n Taken *								
					around	the bottom of	n of the BGT was discovered. It appeared that leakage had o					occurred
from the tank	due to inte	rnal corrosion	•									
Describe Are	a Affected	and Cleanup A	ction Tak	en.*				e soil was transported to Sundance services for disports of piping in the area of the plant we had to use the				
Approximate	ly 50 cy of	impacted soil	was remo	ved from underne	ath and	around the B	GT. The soil was					
high pressure	hydro-vac	was used to ex	cavate ar	ound and under th	ie BGT.	Due to safet	and the BGT. The soil was transported to Sundance services for dise to safety concerns of piping in the area of the plant we had to use hydro-vac due to the hard rock surface. There are several pieces of				se this type	
equipment an	once we real	the area that o	auses safe	ety concerns of the	e excava	e ine nyaro-va ation.	ic due to the nard	rock sui	riace. Thei	e are several p	ieces	01
							of my knowledge and understand that pursuant to NMOCD rules and perform corrective actions for releases which may end the marked as "Final Report" does not relieve the operator of the contraction of the					
should their	perations h	ave failed to a	dequately	investigate and re	emediat	e contaminati	on that pose a thr	eat to gr	ound water	r, surface water	r, hun	nan health
or the environ	nment. In a	ddition, NMO	CD accept	tance of a C-141 i	report d	oes not reliev	e the operator of	responsi	bility for c	ompliance with	n any	other
federal, state,	or local lav	ws and/or regu	lations.				OW CONT	OED T	ATTONY	DI HOTON		
Signatura	KASO	$\mathcal{A} \cap$	lad.				OIL CON	SERV	ATION	DIVISION	<u> </u>	
Signature:	,,	V V	سور			Approved by	District Supervise	or:				
Printed Name	: Rosa L. S	lade	······································									
Title: EHS Co	ompliance S	Specialist				Approval Dat	e:		Expiration 1	Date:		
E-mail Addre	ss: rose,slac	de@sug.com				Conditions of	Approval:			Attached [J	
Date: 7/11/20	011		Pho	one: 432-940-5147	7							

^{*} Attach Additional Sheets If Necessary

APPENDIX B:

Soil Analyses for June 7, 2011

Analytical Report 419095

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Jal #3 Plant GE Sump Removal

10-JUN-11

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALII), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





10-JUN-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 419095

Jal #3 Plant GE Sump Removal

Project Address: Jal, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 419095. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 419095 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

TAN TO

Odessa Laboratory Manager

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Sample Cross Reference 419095



Southern Union Gas Services- Monahans, Monahans, TX

Jal #3 Plant GE Sump Removal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor @ 11 Feet bgs	S	Jun-07-11 16:05		419095-001
Floor @ 7 Feet bgs	S	Jun-07-11 16:00		419095-002

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Jal #3 Plant GE Sump Removal



Project ID:

Work Order Number: 419095

Report Date: 10-JUN-11 Date Received: 06/08/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-859265 TPH By SW8015 Mod

Batch 859265

RPD outside QC limits for C28-C35 between sample and sample duplicate. Samples affected

are: 419095:001-002



Contact: Rose Slade

Project Id:

Project Location: Jal, NM

Certificate of Analysis Summary 419095

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Jal #3 Plant GE Sump Removal

Social trade and tooling and the second

Date Received in Lab: Wed Jun-08-11 08:05 am Report Date: 10-JUN-11

Project Manager: Brent Barron, II

	I ah Id.	410005 001	410005 000	
	Luo Iu.	100-55051+	419093-002	
Analysis Dogwooted	Field Id:	Floor @ 11 Feet bgs	Floor @ 7 Feet bgs	
naisan hay sishinin	Depth:			
	Matrix:	SOIL	SOIL	
	Sampled:	Jun-07-11 16:05	Jun-07-11 16:00	
Anions by E300	Extracted:			
	Analyzed:	Jun-08-11 11:30	Jun-08-11 11:30	
	Units/RL:	mg/kg RL	mg/kg RL	
Chloride		401 20.8	210 22.8	
Percent Moisture	Extracted:			
	Analyzed:	Jun-08-11 17:00	Jun-08-11 17:00	
	Units/RL:	% RL	% RL	
Percent Moisture		19.1 1.00	7.88 1.00	
TPH By SW8015 Mod	Extracted:	Jun-08-11 09:45	Jun-08-11 09:45	
	Analyzed:	Jun-08-11 13:31	Jun-08-11 13:59	
	Units/RL:	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 92.7	2930 163	
C12-C28 Diesel Range Hydrocarbons		1390 92.7	14700 163	
C28-C35 Oil Range Hydrocarbons		163 92.7	591 163	
Total TPH		1550 92.7	18200 163	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. SERICO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II Odessa Laboratory Manager

Page 5 of 13

Final 1.000



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- **RL** Reporting Limit
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116
3725 E. Atlanta Ave. Phoenix, AZ 85040	(602) 437-0330	



o-Terphenyl

Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

48.8

50.0

98

70-135

Work Orders: 419095,
Lab Batch #: 859265
Sample: 604688-1-BKS / BKS
Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY Date Analyzed: 06/08/11 12:03 Units: mg/kg True Control Amount TPH By SW8015 Mod Amount Recovery Limits **Flags** Found %R [B]%R [A] [D] **Analytes** 112 70-135 99.9 1-Chlorooctane 112

Lab Batch #: 859265 Sample: 604688-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/11 12:33	Su	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	47.3	50.2	94	70-135	

Lab Batch #: 859265 Sample: 604688-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/11 13:02	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			[10]		
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.7	50.1	101	70-135	

Lab Batch #: 859265 Sample: 419095-001 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/08/11 13:31	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	53.4	50.0	107	70-135	

Lab Batch #: 859265 Sample: 419095-002 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/08/11 13:59	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	36.3	50.1	72	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 419095, Project ID:

Units: mg/kg Date Analyzed: 06/08/11 14:28	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
1-Choroctane	106	100	100	70-133	
o-Terphenyl	52.8	50.0	106	70-135	

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 419095

Analyst: LATCOR

Lab Batch ID: 859262

Project ID: Date Analyzed: 06/08/2011

Date Prepared: 06/08/2011 Batch #: 1 Sample: 859262-1-BKS

Matrix: Solid

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE	PIKE / B	LANKS	PIKE DUPL	ICATE	RECOVE	RECOVERY STUDY	Y	
Anions by E300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Bik. Spk Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes		[<u>B</u>]	[C]	[<u>Q</u>]	<u>a</u>	Result [F]	<u>5</u>				
Chloride	<0.420	10.0	10.1	101	10.0	10.3	103	2	75-125	20	

Lab Batch ID: 859265 Analyst: BEV

Date Prepared: 06/08/2011 Batch #: 1 Sample: 604688-1-BKS

Matrix: Solid

Date Analyzed: 06/08/2011

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / E	LANKS	PIKE DUPI	ICATE 1	RECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	₹	[B]	Kesun [C]	E %	[3]	Duphicate Result [F]	¥ <u>5</u>		% K	%KFD	
C6-C12 Gasoline Range Hydrocarbons	<15.0	666	771	77	1000	763	9/	-	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	666	756	92	1000	LLL	78	3	70-135	35	

Relative Percent Difference RPD = 200*[(C-F)/(C+F)] Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Final 1.000



Form 3 - MS Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 419095

Lab Batch #: 859262 **Date Analyzed:** 06/08/2011

. 06/08/2011

Project ID:

Date Prepared: 06/08/2011

Analyst: LATCOR

QC- Sample ID: 419095-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATE	UX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	401	494	943	110	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Final 1.000



Sample Duplicate Recovery



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 419095

Lab Batch #: 859262 Date Analyzed: 06/08/2011 11:30

Date Prepared: 06/08/2011

Project ID:

Analyst: LATCOR

QC-Sample ID: 419095-001 D

Batch #: 1

Matrix: Soil

Reportin	g Units:	mg/kg

Chloride

ng/kg	SAMPLE / SAMPLE DUPLICATE RECOVI					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag	
Analyte	[]	[B]				
- 400 -	401	357	12	20		

Lab Batch #: 859257

Date Analyzed: 06/08/2011 17:00

Date Prepared: 06/08/2011

Analyst: LATCOR

QC- Sample ID: 419095-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	19.1	20.7	8	20	

Lab Batch #: 859265

Date Analyzed: 06/08/2011 14:28

Date Prepared: 06/08/2011

Analyst: BEV

QC- Sample ID: 419095-001 D

Batch #:

Matrix: Soil

Reporting Units: mg/kg	SAMPLE/SAMPLE DUPLICATE RECOVERY						
TPH By SW8015 Mod Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag		
C6-C12 Gasoline Range Hydrocarbons	<92.7	<92.7	0	35			
C12-C28 Diesel Range Hydrocarbons	1390	1360	2	35			
C28-C35 Oil Range Hydrocarbons	163	251	43	35	F		

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Odessa, Texas 79765 12600 West I-20 East

Phone: 432-563-1800 Fax: 432-563-1713

Standard TAT bisbnets NPDES End ST ,88, AS (Mubori TAT HEUR ပ္ و د 2000>9> Project Name: Jai #3 Plant GE Sump Removal 005.3 eb × × TRRP 됨 Labels on container(s)
Custody seals on container(s)
Custody seals on cooler(s) BTEX 80218/5030 or BTEX 8260 Temperature Upon Receipt: Sample Containers Intact? VOCs Free of Headspace? Laboratory Comments: Semivolatiles Analyze X Standard Netals: As Ag Ba Cd Cr Pb Hg Se TCLP: TOTAL Project Loc: Jal, NM Anions (Cl, SO4, Alkalinity) **#**0 Project #: Cations (Ca, Mg, Na, K) Report Format: 2001 XT 3001 XT :Hd1 alt Time <u>i</u> Ē 85108 M2108 1.814 Hal × eldstoq-noN=qV Soil So GW = Groundwater S=SolvSolid 11-80 00 OW=Drinking Water SL=Studge Date Sat age Date Other (Specify) Preservation & # of Containers rose.slade@sug.com COZSZEN HOPN 'os^zh HCI ⁶ONH 90| × 554520/ Total #, of Containers e-mail: Fax No: 1605 **16**00 Time Sampled Received by ELOT 6/7/2011 6/7/2011 Received by Received by Date Sampled Page 1 of 1 Ending Depth 3 Please HOLD for BTEX analysis Beginning Depth Southern Union Gas Services Monahans, Texas 79756 Please Call with Verbal Date Company Address: 801 Loop 464 432-940-5147 Floor @ 11 feet bgs Floor @ 7 feet bgs Rose Stade FIELD CODE Sampler Signature: Project Manager: 419095 Company Name Telephone No: City/State/Zip: Special Instructions Relinquished by Inquished by ORDER #: (lab use only (vino seu dal) # 8A.



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Mlami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

	2 Union Gas					
Date/Time: ひし - 0名	-11 C 0805					
Lab ID#: 419095						
Initials: JMF						
		Sample Receipt Ch	ecklist			
1. Samples on ice?			Blue	Water	No	CULD
2. Shipping container is	n good condition?		Yes	No	None	
		er (cooler) and bottles?	Yes	No	N/A_	askbel
4. Chain of Custody pr			Yes	No		
5. Sample instructions	complete on chain o	f custody?	(Yes)	No		
6. Any missing / extra	samples?		Yes	No		
7. Chain of custody sig	ned when relinquish	ed / received?	Yes	No		
8. Chain of custody ag	rees with sample lab	ei(s)?	Yes	No		
9. Container labels leg	ible and intact?		Yes	No		
10. Sample matrix / pro	operties agree with cl	hain of custody?	Yes	No ·		<u> </u>
11. Samples in proper	container / bottle?		Yes	No		
12. Samples properly	preserved?		Yes	No	N/A	
13. Sample container i	ntact?		Yes	No		
14. Sufficient sample a	amount for indicated	test(s)?	Yes	No		
15. All samples receive			Yes)	No		
16. Subcontract of sar			Yes	No	N/A	
17. VOC sample have			(Yes)	No	NA	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 N	٥.	Cooler 5 No	o
lbs 4.6	°C lbs	°C !bs	°C lbs	°(C Ib	s °C
		Nonconformance Doc	umantation		-	
			dinentation			
Contact:	Contac	ted by:		Date/Time:		
Regarding:						
Corrective Action Tak	en:					
			·			
Check all that apply:		has begun shortly after sar		out of tempe	erature	
		cceptable by NELAC 5.5.8.2 Temperature confirm out		aditions		
•		s remperature commit out is and would like to proces		MUUUN		

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APPENDIX C:

Excavated Soil Manifest

TRANSPORTER'S MANIFEST

	•	MANIFEST# 1
Southern Union Gas,		Jal #3
SHIPPING FACILITY NAME & ADDRESS	s :	LOCATION OF MATERIAL:
MERRY Man Const. TRANSPORTER NAME & ADDRESS:		
DESCRIPTION OF WASTE:		
DESCRIPTION OF WASTE:		QUANTITY:
Facility Contact:		QUANTITY: 50 yards
Pacinty Contact:	Date:	Signature of Contact:
Harry Keews	7-1-11	4. S. L-LL
NAME OF TRANSPORTER: (Driver)	Date:	Signature of Driver:
Sunctance Services	, 7-1-11	Lang Landon
DISPOSAL SITE: SUNDANCE SERVICES, INC.	Date:	Signature of Representative
PARABO FACILITY P.O. BOX 1737 EUNICE, NM 88231	7-1-2011	Consie Romero

APPENDIX D:

Soil Analyses for June 16, 2011

Analytical Report 420295

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Jal #3 Plant GE Sump Removal

20-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(4444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





20-JUN-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 420295

Jal #3 Plant GE Sump Removal

Project Address: Jal, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420295. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420295 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420295



Southern Union Gas Services- Monahans, Monahans, TX

Jal #3 Plant GE Sump Removal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NW @ 12' bgs	S	Jun-16-11 14:00		420295-001
EW @ 12' bgs	S	Jun-16-11 14:05		420295-002
SW @ 12' bgs	S	Jun-16-11 14:10		420295-003
WW @ 12' bgs	S	Jun-16-11 14:15		420295-004
Floor @ 13' bgs	S	Jun-16-11 14:20		420295-005

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Jal #3 Plant GE Sump Removal



Project ID: Report Date: 20-JUN-11
Work Order Number: 420295 Date Received: 06/17/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

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Page 4 of 13



Contact: Rose Slade

Project 1d:

Project Location: Jal, NM

Certificate of Analysis Summary 420295

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Jal #3 Plant GE Sump Removal

Date Received in Lab: Fri Jun-17-11 09:40 am Report Date: 20-JUN-11

Project Manager: Brent Barron, II

					right manager . Drein Parion, in	IVIII DUITOII) II	
	Lab Id:	420295-001	420295-002	420295-003	420295-004	420295-005	
A new Locales Decembered	Field Id:	NW @ 12' bgs	EW @ 12' bgs	SW @ 12' bgs	WW @ 12' bgs	Floor @ 13' bgs	
Analysis Nequesieu	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Jun-16-11 14:00	Jun-16-11 14:05	Jun-16-11 14:10	Jun-16-11 14:15	Jun-16-11 14:20	
Anions by E300	Extracted:						
	Analyzed:	Jun-17-11 14:47	Jun-17-11 14:47	Jun-17-11 14:47	Jun-17-11 14:47	Jun-17-11 14:47	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		87.0 9.72	1440 46.0	1710 44.3	1270 22.7	68.2 8.96	
Percent Moisture	Extracted:						
	Analyzed:	Jun-20-11 15:00	Jun-20-11 15:00	Jun-20-11 15:00	Jun-20-11 15:00	Jun-20-11 15:00	
	Units/RL:	% RL	% RL	% RL	% RL	% RL	
Percent Moisture		13.6 1.00	8.66 1.00	5.21 1.00	7.65 1.00	6.27 1.00	
TPH By SW8015 Mod	Extracted:	Jun-17-11 12:00	Jun-17-11 I2:00	Jun-17-11 12:00	Jun-17-11 12:00	Jun-17-11 12:00	
	Analyzed:	Jun-18-11 22:01	Jun-18-11 22:30	Jun-18-11 22:58	Jun-18-11 23:27	Jun-18-11 23:58	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 17.4	134 81.7	367 78.7	ND 162	156 80.2	
C12-C28 Diesel Range Hydrocarbons		344 17.4	2550 81.7	7100 78.7	1350 162	2850 80.2	
C28-C35 Oil Range Hydrocarbons		38.3 17.4	164 81.7	125 78.7	ND 162	124 80.2	
Total TPH		382 17.4	2850 81.7	7.87 78.7	1350 162	3130 80.2	

Odessa Laboratory Manager Brent Barron, II

Page 5 of 13

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This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical dropts represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 420295, Project ID:

Lab Batch #: 860694 Sample: 605508-1-BKS / BKS Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/18/11 20:33	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	48.6	50.2	97	70-135	

Lab Batch #: 860694 Sample: 605508-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/18/11 21:02	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

Lab Batch #: 860694 Sample: 605508-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/18/11 21:32	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	91.6	100	92	70-135	
o-Terphenyl	52.7	50.2	105	70-135	

Lab Batch #: 860694 Sample: 420295-001 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/18/11 22:01	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	51.2	50.2	102	70-135	

Lab Batch #: 860694 Sample: 420295-002 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/18/11 22:30	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	90.6	99.5	91	70-135	
o-Terphenyl	52.4	49.8	105	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 420295, Project ID:

Lab Batch #: 860694 Sample: 420295-003 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/18/11 22:58	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	93.8	99.5	94	70-135	
o-Terphenyl	60.7	49.8	122	70-135	

Lab Batch #: 860694 Sample: 420295-004 / SMP Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/18/11 23:27	SU	RROGATE RE	ECOVERY S	STUDY	
·	SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
A	nalytes			1-3		
1-Chlorooctane		98.0	99.8	98	70-135	
o-Terphenyl		56.0	49.9	112	70-135	

Units: mg/kg Date Analyzed: 06/18/11 23:58	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	64.5	50.1	129	70-135	

Lab Batch #: 860694 Sample: 420033-003 D/MD Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/19/11 08:17	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	106	99.7	106	70-135	
o-Terphenyl	56.8	49.9	114	70-135	

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 420295 Analyst: LATCOR Lab Batch ID: 860622

Sample: 860622-1-BKS

Matrix: Solid

Project ID: Date Analyzed: 06/17/2011

Date Prepared: 06/17/2011

Batch #: 1

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / F	SLANK S	PIKE DUPI	ICATE 1	RECOVE	RY STUD	Į.	
Anions by E300	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Bik. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	<u> </u>	[<u>B</u>	Result [C]	<u>5</u> 8	Ξ	Duplicate Result [F]	% R ⊡	%	%R	%RPD	
Chloride	<0.420	10.0	9.72	62	10.0	8.01	108	=	75-125	20	
Analyst: BEV	Da	te Prepare	Date Prepared: 06/17/2011	1			Date Ar	Date Analyzed: 06/18/2011	6/18/2011		

Lab Batch ID: 860694

Date Prepared: 06/17/2011

Batch #: 1

Sample: 605508-1-BKS

Matrix: Solid

Flag Control Limits %RPD 35 35 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 70-135 70-135 RPD % 7 Blk. Spk Dup. | %R | G] 85 85 Blank Spike Duplicate Result [F] 848 852 Spike Added 666 666 Ξ Blank Spike %R [D] 84 84 Blank Spike Result [C] 835 844 Spike Added 1000 1000 <u>B</u> Blank Sample Result <15.0 <15.0 V TPH By SW8015 Mod C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Units: mg/kg Analytes

Relative Percent Difference RPD = 200*(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Final 1.000



Form 3 - MS Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 420295

Lab Batch #: 860622

QC- Sample ID: 420040-004 S

Date Analyzed: 06/17/2011

Date Prepared: 06/17/2011

Project ID:

Analyst: LATCOR

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECOV	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	14.9	101	136	120	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 420295

Lab Batch #: 860622

Date Prepared: 06/17/2011

Project ID: Analyst: LATCOR

Date Analyzed: 06/17/2011 14:47 **QC- Sample ID:** 420040-004 D

Anions by E300

Analyte

Batch #:

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY									
Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag					

14.9

Lab Batch #: 860694

Chloride

Date Analyzed: 06/19/2011 08:17

Date Prepared: 06/17/2011

14.9

Analyst: BEV

0

20

QC- Sample ID: 420033-003 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
TPH By SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35	
C12-C28 Diesel Range Hydrocarbons	212	259	20	35	
C28-C35 Oil Range Hydrocarbons	25.5	22.8	11	35	

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Odessa, Texas 79765 12600 West I-20 East

Phone: 432-563-1800

Fax: 432-563-1713

TAT bisbrista □ NPDES JIO) 24, 48 72 hrs Moe-enf) TAT HEUR × × × × × 4OFD Project Name: Jai #3 Plant GE Sump Removal × × e E:300 × × × Chlori TRRP M.O.R.M. 7 OZ G/C SCI Labels on container(s)
Custody seals on container(s) BTEX 8021B/5030 or BTEX 8260 Sample Containers Intact? VOCs Free of Headspace? Custody seals on cooler(s) Analyze For by Sampler/Client Rep. Laboratory Comments: Sample Hand Delivered X Standard Metals: As Ag Ba Cd Cr Pb Hg Se by Courier? TCLP TOTAL SAR / ESP / CEC Project Loc: Jal, NM Anions (Cl. SO4, Alkalinity) # Od Project #: Cations (Ca, Mg, Na, K) Report Format: 9001 XI 2001 XT Hal 04.0 Ē <u>a</u> MS108 X 89108 A.814 HdI × × × × Parken-Potable Matrix Soil Soil Soil Soil 1-11-9 Date Date Other (Specify) Preservation & # of Containers rose.slade@sug.com ^EO^ZS^Z^EN HOBN OSZH нсі CONH 90 × × × × × otal #. of Containers benefit blai e-mail: Fax No: 1410 1415 1420 1400 1405 Time Sampled Received by ELO 6/16/2011 6/16/2011 6/16/2011 6/16/2011 6/16/2011 Received by: Received by Date Sampled Page 1 of 1 Ending Depth <u>1</u> Please HOLD for BTEX analysis Beginning Depth Southern Union Gas Services Monahans, Texas 79756 Please Call with Verbal Date 432-940-5147 Company Address: 801 Loop 464 Rose Slade WW @ 12' bgs Floor @ 13' bgs NW @ 12' bgs EW @ 12' bgs SW @ 12' bgs FIELD CODE 96202H Sampler Signature: Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions: Relinquished by lab use only ORDER #: 003 800 8 007 200 AB # (lab use only)



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphía Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Contact:		· · · · · · · · · · · · · · · · · · ·	Contacted by				Date/Time:_		
			None	conformar	ice Docume	ntation			
lbs	3.60	lbs	°c		lbs °C	lbs	°C	lbs	°C
18. Cooler 1 N		Cooler 2 N	ło.	Cooler 3 No	·	Cooler 4 No		Cooler 5 No.	
17. VOC same	ole have z	ero head sp	ace?			Yes	No	(NA)	
16. Subcontra	ct of sam	ple(s)?				Yes	No	N/A	
15. All sample						Yes	No		
14. Sufficient			dicated test(s	5)?		(G)	No		
13. Sample co						(Yes)	No		
12. Samples p			vale:			(Yes)	No	N/A	
10. Sample m				or custody?		Yes	No ·		
9. Container la						(Yes	No		
8. Chain of cu				?		1	No		
7. Chain of cu						(Yes)	No		
6. Any missin	g / extra s	amples?			· · · · · · · · · · · · · · · · · · ·	Yes	(No)	-	
5. Sample ins	tructions	complete on	chain of cus	tody?		Yes	No		
4. Chain of Cu	stody pre	sent?				Yes	No		****
3. Custody se	als intact	on shipping	container (co	ooler) and	ottles?	(Yes)	No	N/A	
2. Shipping co		good cond	ition?			Yes	No	None	
1. Samples on	ice?					Blue	Water	No	
			s	ample Re	ceipt Check	list			
Initials:			PM						
Lab ID#:			295	<u></u>					
Date/Time:	_OOU!		9:40	0101					
Client:	Sout		Union	Cras	-				

Check all that apply:

Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

□ Initial and Backup Temperature confirm out of temperature conditions

 \Box Client understands and would like to proceed with analysis

APPENDIX A:

Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action OPERATOR Initial Report Final Report Name of Company: Southern Union Gas Services Contact: Rose Slade Address: 801 South Loop 464 Monahans, TX 79756 Telephone No. 817-302-9716 Facility Name: Jal #3 Plant Facility Type: Natural Gas Plant Surface Owner: Lea Partners Ltd. Mineral Owner: Lease No. API #30-025-28822 LOCATION OF RELEASE Unit Letter Section Township Feet from the North/South Line Feet from the East/West Line Range County 33 **24S** 37E Lea County Latitude 32 10'27"N Longitude 103 10'27"W NATURE OF RELEASE Volume of Release: Unknown Volume Recovered: 0 Type of Release: Produced water/hydrocarbons Source of Release: Below ground tank Date and Hour of Occurrence: Date and Hour of Discovery: 6/13/2011 at 11:00 AM Unknown Was Immediate Notice Given? If YES, To Whom? ☐ Yes ☐ No ☒ Not Required By Whom? Date and Hour: If YES, Volume Impacting the Watercourse. Was a Watercourse Reached? Yes No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* While removing a below ground tank at the Jal #3 plant corrosion around the bottom of the BGT was discovered. It appeared that leakage had occurred from the tank due to internal corrosion. Describe Area Affected and Cleanup Action Taken.* Approximately 50 cy of impacted soil was removed from underneath and around the BGT. The soil was transported to Sundance services for disposal. A high pressure hydro-vac was used to excavate around and under the BGT. Due to safety concerns of piping in the area of the plant we had to use this type of method. Once we reached around 13ft in depth we no longer could use the hydro-vac due to the hard rock surface. There are several pieces of equipment and piping in the area that causes safety concerns of the excavation. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Approved by District Supervisor: Printed Name: Rosa L. Slade Title: EHS Compliance Specialist Approval Date: **Expiration Date:** E-mail Address: rose,slade@sug.com Conditions of Approval: Attached

Date: 7/11/2011

Phone: 432-940-5147

^{*} Attach Additional Sheets If Necessary

APPENDIX B:

Soil Analyses for June 7, 2011

Analytical Report 419095

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Jal #3 Plant GE Sump Removal

10-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





10-JUN-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 419095

Jal #3 Plant GE Sump Removal

Project Address: Jal, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 419095. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 419095 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 419095



Southern Union Gas Services- Monahans, Monahans, TX

Jal #3 Plant GE Sump Removal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor @ 11 Feet bgs	S	Jun-07-11 16:05		419095-001
Floor @ 7 Feet bgs	S	Jun-07-11 16:00		419095-002

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Jal #3 Plant GE Sump Removal



Project ID: Report Date: 10-JUN-11
Work Order Number: 419095 Date Received: 06/08/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-859265 TPH By SW8015 Mod

Batch 859265

RPD outside QC limits for C28-C35 between sample and sample duplicate. Samples affected

are: 419095:001-002



Project Id:

Certificate of Analysis Summary 419095

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Jal #3 Plant GE Sump Removal

Contact: Rose Slade					Date Received in Lab:	Date Received in Lab: Wed Jun-08-11 08:05 am
Project Location: Jal. NM					Report Date: 10-JUN-11	10-JUN-11
					Project Manager: Brent Barron, Il	Brent Barron, Il
	Lab Id:	419095-001		419095-002		
botsonno Dombont	Field Id:	Floor @ 11 Feet bgs	pgs	Floor @ 7 Feet bgs		
Tunisis wequesien	Depth:					
	Matrix:	SOIL		SOIL		
	Sampled:	Jun-07-11 16:05)2	Jun-07-11 16:00		
Anions by E300	Extracted:					
	Analyzed:	Jun-08-11 11:30	30	Jun-08-11 11:30		
	Units/RL:	mg/kg	RL	mg/kg RL		
Chloride		401	20.8	210 22.8		
Percent Moisture	Extracted:					
	Analyzed:	Jun-08-11 17:00	00	Jun-08-11 17:00		
	Units/RL:	%	RL	% RL		
Percent Moisture		19.1	1.00	7.88 1.00		
TPH By SW8015 Mod	Extracted:	Jun-08-11 09:45	45	Jun-08-11 09:45		
	Analyzed:	Jun-08-11 13:31	31	Jun-08-11 13:59	-	
	Units/RL:	mg/kg	RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND	92.7	2930 163		
C12-C28 Diesel Range Hydrocarbons		1390	92.7	14700 163		
C28-C35 Oil Range Hydrocarbons		163	92.7	591 163		
Total TPH		1550	92.7	18200 163		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Odessa Laboratory Manager Brent Barron, II



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- **RL** Reporting Limit
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 419095,

Project ID:

Lab Batch #: 859265

Sample: 604688-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/11 12:03	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	112	99.9	112	70-135	
o-Terphenyl	48.8	50.0	98	70-135	-

Lab Batch #: 859265

Sample: 604688-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/11 12:33	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	47.3	50.2	94	70-135	

Lab Batch #: 859265

Sample: 604688-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg	Date Analyzed: 06/08/11 13:02	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		103	100	103	70-135	
o-Terphenyl		50.7	50.1	101	70-135	

Lab Batch #: 859265

Sample: 419095-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/08/11 13:31	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	53.4	50.0	107	70-135	

Lab Batch #: 859265

Sample: 419095-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 06/08/11 13:59	SU	RROGATE RI	ECOVERY S	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		118	100	118	70-135	
o-Terphenyl		36.3	50.1	72	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 419095,

Project ID:

Lab Batch #: 859265

Sample: 419095-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/08/11 14:28	SU	RROGATE RE	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 419095

Analyst: LATCOR Lab Batch ID: 859262

Sample: 859262-1-BKS

Project ID:

Date Prepared: 06/08/2011

Batch #: 1

Date Analyzed: 06/08/2011 Matrix: Solid

Flag Control Limits %RPD 20 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 75-125 RPD % Błk. Spk Dup. |G| 103 Blank Spike Duplicate Result [F] 10.3 Spike Added 10.0 Ξ Blank Spike %R [D] 101 Blank Spike Result [C] 10.1 Spike Added 10.0 [B] Blank Sample Result <0.420 ₹ Anions by E300 Units: mg/kg Analytes Chloride

Date Prepared: 06/08/2011 Batch #: Sample: 604688-1-BKS

Lab Batch ID: 859265

Analyst: BEV

Matrix: Solid

Date Analyzed: 06/08/2011

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / F	LANKS	PIKE DUPI	ICATE 1	RECOVE	RY STUD	Y.	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Bik. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	<u>{</u>	[B]		1	[E]	Result [F]	<u>5</u>	•	No/	/one	
C6-C12 Gasoline Range Hydrocarbons	<15.0	666	177	7.1	1000	763	92	-	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	666	756	92	1000	777	78	3	70-135	35	

Relative Percent Difference RPD = 200*((C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Final 1.000



Form 3 - MS Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 419095

Lab Batch #: 859262 **Date Analyzed:** 06/08/2011

Project ID:

Date Prepared: 06/08/2011

Analyst: LATCOR

QC-Sample ID: 419095-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO'	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	401	494	943	110	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Final 1.000



Sample Duplicate Recovery



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 419095

Lab Batch #: 859262

Date Analyzed: 06/08/2011 11:30 **Date Prepared:** 06/08/2011

Anions by E300

Analyte

Project ID:

Analyst: LATCOR

QC- Sample ID: 419095-001 D

Batch #: 1

Matrix: Soil

Reporting	Units:	mg/kg
-----------	--------	-------

Chloride

SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
401	357	12	20	

Lab Batch #: 859257

Date Analyzed: 06/08/2011 17:00

Date Prepared: 06/08/2011

Analyst: LATCOR

QC- Sample ID: 419095-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	19.1	20.7	8	20	

Lab Batch #: 859265

Date Analyzed: 06/08/2011 14:28

Date Prepared: 06/08/2011

Analyst: BEV

QC- Sample ID: 419095-001 D

Batch #: 1

Matrix: Soil

20.7

Reporting Units: mg/kg	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
TPH By SW8015 Mod Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<92.7	<92.7	0	35	
C12-C28 Diesel Range Hydrocarbons	1390	1360	2	35	
C28-C35 Oil Range Hydrocarbons	163	251	43	35	F

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: Jal #3 Plant GE Sump Removal Phone: 432-563-1800 Fax: 432-563-1713 Project Loc: Jal, NM Project #: Odessa, Texas 79765 12600 West I-20 East Page 1 of 1 Southern Union Gas Services Company Address: 801 Loop 464 Rose Slade Project Manager: Company Name

☐ NPDES

TRRP

Report Format: X Standard

Fax No:

Monahans, Texas 79756

City/State/Zip:

432-940-5147

Telephone No:

P0 #:

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Analyze For	Γ	┪	\top	SeltislovimeS				_		_					j	ace.	taine	B € 8		Temperature Upon Receipt
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An	L			Metals: As Ag Ba Cd Cr Pb Hg S											E S	1	s on		-	2
	TCLP:	TOTAL	_	SAR / ESP / CEC											6		seal seal	E CE		ţ
	-	٤	L	Anions (Cl, SO4, Alkalinity)											Laboratory Comments:	VOCs Free of Headspace?	Labels on container(s) Custody seals on container(s) Custody seals on cooler(s)	Sample Hand Delivered by Sampler/Chent Rep. ?		pera
		ŀ		Cations (Ca, Mg, Na, K)											a 8	Š	<u> </u>	San	ŀ	<u>=</u>
			<u></u>	8001 XT 8001 XT :H9T				<u> </u>		<u> </u>	<u> </u>						e e			,
L	<u> </u>	L	1	MP=Non-Potable Specify Other TPH: 418.1 (8015M) 801	×	×	_	_	-		<u> </u>	_	_				Time	Time	Time	
			Matrix	GW = Groundwater S=Soil/Soild NP=Non-Potable Specify Other	Soil	Soil					ļ							 	-	_
			Σ	DW=Drinking Water SL=Sludge	S	S											e e			
			П	Оўрег (Specify)													Date	Date	Date	
			ainer	anoM																
			Preservation & # of Containers	^E O ^Z S ^Z ^E N	<u> </u>				_	ļ		_	ļ							
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			: C	FIELD CODE	Floor @ 11 feet bgs	Floor @ 7 feet bgs									-janjana Vere et al. A. C.	Please Call with Verbal	3			
	(lab use only)		# 419095		Floo	Floc									Special Instructions:		1	d by:	d by:	
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XENCO Laboratories

Attanta, Boca Raton, Corpus Christi, Dailas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

lient Southern	1 Union E	x;S						
Date/Time: U(-08	11 C 080	2د						
ab 10#: 419095								
nitials: JMF								
		Sa	mpie Recei	pt Checkli	ist			
I. Samples on ice?					Blue	Water	No	CULD
2. Shipping container is	n good conditio	n?			Yes	No	(None)	
3. Custody seals intact			oler) and bottle	s?)	Yes	No	N/A	askbel
4. Chain of Custody pr					Yes	No		
5. Sample instructions	complete on cl	nain of cust	ody?		(Yes)	No		
6. Any missing / extra	samples?				Yes	No		
7. Chain of custody sig	ned when relin	quished / re	eceived?		Yes	No		
8. Chain of custody ag	rees with samp	le label(s)?			Yes	No		
9. Container labels leg	ible and intact?				Yes	No	<u></u>	
10. Sample matrix / pro	operties agree v	vith chain o	f custody?		Yes	No ·		
11. Samples in proper	container / bot	de?			Yes	No		
12. Samples properly	preserved?				Yes	No	N/A	
13. Sample container i	ntact?				Yes	No		
14. Sufficient sample a	mount for indi	cated test(s)?		Yes	No		
15. All samples receiv	ed within suffic	ient hold tir	ne?		Yes)	No		
16. Subcontract of sar	nple(s)?				Yes	No	N/A	
17. VOC sample have	zero head spac	e?			(Yes)	No	N/A	
18. Cooler 1 No.	Cooler 2 No		Cooler 3 No.		Cooler 4 N	o	Cooler 5 N	
ibs 4.6	°C lbs	°c	[b	s °C	lbs	°c	it it	×s
•		None	onformance	Docume	ntation			
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Regarding:								
Corrective Action Tak	'An'							
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Check all that apply:			egun shortly af			out of tempe	rature	
	☐ Initial and E	Backup Tem	able by NELAC perature confir i would like to	m out of ten	sperature co	onditions		

C:--14 000

APPENDIX C:

Excavated Soil Manifest

TRANSPORTER'S MANIFEST

•		MANIEST
Southern Union Gas,		Jal #3
SHIPPING FACILITY NAME & ADDRESS	. .	LOCATION OF MATERIAL:
CHILLING FACILITY NAME & ADDRESS	·	COCATION OF MATERIAL:
MERRY Man Const. TRANSPORTER NAME & ADDRESS:		
DESCRIPTION OF WASTE:		
DESCRIPTION OF WASTE:		QUANTITY:
Johny Lalone		QUANTITY: 50 yards
Facility Contact:	Date:	Signature of Contact:
NAME OF TRANSPORTER: (Driver)	7-1-11	4.43 L-LA
NAME OF TRANSPORTER: (Driver)	Date:	Signature of Driver:
	7-1-11	Lany Lower
DISPOSAL SITE:		
SUNDANCE SERVICES, INC.	Date:	Signature of Representative
PARABO FACILITY P.O. BOX 1737 EUNICE, NM 88231	7-1-2011	Connie Romero

APPENDIX D:

Soil Analyses for June 16, 2011

Analytical Report 420295

for Southern Union Gas Services- Monahans

Project Manager: Rose Slade
Jal #3 Plant GE Sump Removal

20-JUN-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)





20-JUN-11

Project Manager: Rose Slade

Southern Union Gas Services- Monahans

1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 420295

Jal #3 Plant GE Sump Removal

Project Address: Jal, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 420295. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 420295 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 420295



Southern Union Gas Services- Monahans, Monahans, TX

Jal #3 Plant GE Sump Removal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NW @ 12' bgs	S	Jun-16-11 14:00		420295-001
EW @ 12' bgs	S	Jun-16-11 14:05		420295-002
SW @ 12' bgs	S	Jun-16-11 14:10		420295-003
WW @ 12' bgs	S	Jun-16-11 14:15		420295-004
Floor @ 13' bgs	S	Jun-16-11 14:20		420295-005

XENCO Laboratories

CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Jal #3 Plant GE Sump Removal



Project ID: Report Date: 20-JUN-11 Work Order Number: 420295 Date Received: 06/17/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Final 1.000



Contact: Rose Slade

Project Id:

Project Location: Jal, NM

Certificate of Analysis Summary 420295

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Jal #3 Plant GE Sump Removal

Date Received in Lab: Fri Jun-17-11 09:40 am Report Date: 20-JUN-11

Project Manager: Brent Barron, II

							G			
	Lab Id:	420295-001	420295-002		420295-003		420295-004		420295-005	
Analusis Donnastad	Field Id:	NW @ 12' bgs	EW @ 12' bgs		SW @ 12' bgs	5	WW @ 12' bgs		Floor @ 13' bgs	
Analysis nequesieu	Depth:									
	Matrix:	SOIL	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-16-11 14:00	Jun-16-11 14:05	35	Jun-16-11 14:10		Jun-16-11 14:15	2	Jun-16-11 14:20	
Anions by E300	Extracted:									
	Analyzed:	Jun-17-11 14:47	Jun-17-11 14:47	47	Jun-17-11 14:47		Jun-17-11 14:47	7	Jun-17-11 14:47	
	Units/RL:	mg/kg RL	mg/kg	RL	mg/kg F	RL n	mg/kg	RL	mg/kg RL	
Chloride		87.0 9.72	1440	46.0	1710 4	44.3	1270 2	22.7	68.2 8.96	9
Percent Moisture	Extracted:									
	Analyzed:	Jun-20-11 15:00	Jun-20-11 15:00	00	Jun-20-11 15:00		Jun-20-11 15:00		Jun-20-11 15:00	
	Units/RL:	% RL	%	RL	% F	RL	%	RL	% RL	
Percent Moisture		13.6 1.00	99'8 0	1.00	5.21	1.00	7.65	1.00	6.27 1.00	0
TPH By SW8015 Mod	Extracted:	Jun-17-11 12:00	Jun-17-11 12:00	00	Jun-17-11 12:00		Jun-17-11 12:00	0	Jun-17-11 12:00	
	Analyzed:	Jun-18-11 22:01	Jun-18-11 22:30	30	Jun-18-11 22:58		Jun-18-11 23:27	7	Jun-18-11 23:58	
	Units/RL:	mg/kg RL	mg/kg	RL	mg/kg F	RL n	mg/kg	RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 17.4	134	81.7	367 7	78.7	ND	162	156 80.2	2
C12-C28 Diesel Range Hydrocarbons		344 17.4	2550	81.7	7100 7	78.7	1350	162	2850 80.2	2
C28-C35 Oil Range Hydrocarbons		38.3 17.4	164	81.7	125 7	78.7	QN	162	124 80.2	2
Total TPH		382 17.4	2850	81.7	7590 7	78.7	1350	162	3130 80.2	2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpetations and results expecsage flroughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories sustaines no responsibility and makes no warranty to the end use of the data hereby presented. Our fiability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Odessa Laboratory Manager

Page 5 of 13

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Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- **RL** Reporting Limit
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
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3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

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Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 420295,

Project ID:

Lab Batch #: 860694

Sample: 605508-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/18/11 20:33	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	106	100	106	70-135	11.2.0
o-Terphenyl	48.6	50.2	97	70-135	

Lab Batch #: 860694

Sample: 605508-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed	1: 06/18/11 21:02	SU	RROGATE RE	COVERYS	STUDY	
TPH By SW8015 Mo	d	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		. ,		[D]		
1-Chlorooctane		105	99.9	105	70-135	
o-Terphenyl		48.5	50.0	97	70-135	

Lab Batch #: 860694

Sample: 605508-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/18/11 21:32	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	91.6	100	92	70-135	
o-Terphenyl	52.7	50.2	105	70-135	

Lab Batch #: 860694

Sample: 420295-001 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 06/18/11 22:01	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			[-]		
1-Chlorooctane		90.8	100	91	70-135	
o-Terphenyl		51.2	50.2	102	70-135	

Lab Batch #: 860694

Sample: 420295-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 06/18/11 22:30	SU	RROGATE RE	ECOVERY	STUDY	
	SW8015 Mod nalytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		90.6	99.5	91	70-135	
o-Terphenyl		52.4	49.8	105	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Jal #3 Plant GE Sump Removal

Work Orders: 420295, Project ID:

Lab Batch #: 860694 Sample: 420295-003 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/18/11 22:58	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	93.8	99.5	94	70-135	
o-Terphenyl	60.7	49.8	122	70-135	

Lab Batch #: 860694 Sample: 420295-004 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/18/11 23:27	Su	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	. ,	, ,	[D]		
1-Chlorooctane	98.0	99.8	98	70-135	
o-Terphenyl	56.0	49.9	112	70-135	

Lab Batch #: 860694 Sample: 420295-005 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/18/11 23:58	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	[[]	,	[D]	,,,,,	
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	64.5	50.1	129	70-135	

Lab Batch #: 860694 Sample: 420033-003 D/MD Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/19/11 08:17	SU	RROGATE RI	ECOVERY	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			[10]		
1-Chlorooctane		106	99.7	106	70-135	
o-Terphenyl		56.8	49.9	114	70-135	

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 420295

Analyst: LATCOR

Date Prepared: 06/17/2011

Date Analyzed: 06/17/2011 Project ID:

Sample: 860622-1-BKS

Batch #: 1

Lab Batch ID: 860622

Matrix: Solid

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPL	ICATE 1	RECOVE	RY STUD	Y	
Anions by E300	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits	Control Limits %RPD	Flag
Analytes		<u>s</u>	[2]	<u>a</u>	E	Result [F]	[5]				
Chloride	<0.420	10.0	9.72	26	10.0	10.8	108	11	75-125	20	

Analyst: BEV

Lab Batch ID: 860694

Date Prepared: 06/17/2011 Batch #: 1 Sample: 605508-1-BKS

Date Analyzed: 06/18/2011 Matrix: Solid

Units: mg/kg		BLAN	K /BLANK S	PIKE / B	LANKS	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	ICATE	RECOVE	RY STUD	*	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	BIK. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[v]	[B]	Result [C]	%R [D]	[E]	Duplicate Result [F]	[G]	%	% K	%RPD	
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	835	84	666	848	85	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	844	84	666	852	85	1	70-135	35	

Relative Percent Difference RPD = 200*[(C-F)/(C+F)]
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Final 1.000



Form 3 - MS Recoveries



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 420295

Lab Batch #: 860622

Project ID:

Date Analyzed: 06/17/2011

Date Prepared: 06/17/2011

Analyst: LATCOR

QC- Sample ID: 420040-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag	
Analytes	[4]	[B]					
Chloride	14.9	101	136	120	75-125		

 $\label{eq:matrix_pike_Percent_Recovery} \begin{tabular}{l} Matrix Spike Percent Recovery $[D] = 100*(C-A)/B$ Relative Percent Difference $[E] = 200*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purpose $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purpose $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purpose $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purpose $[E] = 100*(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purpose $[E] = 100*(C-A)/(C+B)$

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Jal #3 Plant GE Sump Removal

Work Order #: 420295

Lab Batch #: 860622

Date Analyzed: 06/17/2011 14:47

Date Prepared: 06/17/2011

Project ID:

Analyst: LATCOR

QC- Sample ID: 420040-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	SAMPLE / SAMPLE DUPLICATE RECOVERY				OVERY
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte		[D]			
Chloride	14.9	14.9	0	20	

Lab Batch #: 860694

Date Analyzed: 06/19/2011 08:17

Date Prepared: 06/17/2011

Analyst: BEV

QC- Sample ID: 420033-003 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	SAMPLE / SAMPLE DUPLICATE RECOVERY						
TPH By SW8015 Mod Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag		
			<u> </u>				
C6-C12 Gasoline Range Hydrocarbons	<15.1	<15.1	0	35			
C12-C28 Diesel Range Hydrocarbons	212	259	20	35			
C28-C35 Oil Range Hydrocarbons	25.5	22.8	11	35			

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Environmental Lab of Texas

3

A Xenco Laboratories Company

Page 1 of 1

Rose Slade

Project Manager:

12600 West I-20 East Odessa, Texas 79765

Fax: 432-563-1713 Phone: 432-563-1800 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: Jal #3 Plant GE Sump Removal

TAT bisbrist ☐ NPDES × × × ile) 24, 48 72 hrs ပ္ ンを-417(Pre-3c НОГР 9 e E.300 × × × × × TRRP M.O.R.M. フ/02 C/J SCI Labels on container(s)
Custody seals on container(s) BTEX 8021B/5030 or BTEX 8260 Sample Hand Delivered by Sampler/Client Rep. ? by Courier? UPS VOCs Free of Headspace? Custody seals on cooler(s) Sample Containers Intact? Analyze For Seminolatiles Laboratory Comments X Standard Metals: As Ag Ba Cd Cr Pb Hg Se TCLP TOTAL SAR / ESP / CEC Project Loc: Jal, NM Anions (Ci. SO4, Alkalinity) Po#: Project #: Cations (Ca, Mg, Na, K) Report Format: 9001 XJ :HdJ 040 11-11-9 × × × × 89108 M2108 A.814 :HGT Soil Soil Soil Soil Soil Date Date Other (Specify) enoN rose.slade@sug.com COZSZEN HORN *****05^zH ЮН CONH 92) × × × × Total #. of Containers e-mail: Fax No: 1405 1410 1415 1420 1400 Time Sampled Received by ELOT 6/16/2011 6/16/2011 6/16/2011 6/16/2011 6/16/2011 Received by: Received by: Date Sampled Ending Depth ime e E Please HOLD for BTEX analysis Beginning Depth Southern Union Gas Services Monahans, Texas 79756 Please Call with Verbal Date 432-940-5147 Company Address: 801 Loop 464 WW @ 12' bgs Floor @ 13' bgs EW @ 12' bgs SW @ 12' bgs NW @ 12' bgs FIELD CODE 96202H Sampler Signature: Company Name Telephone No: City/State/Zip: Special Instructions: elinquished by: (lab use only) ORDER #: 003 000 400 9 8 AB # (lab use only)



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

0	11	0 -			•		
Client: 50U	thern Unio	•					
Date/Time:	6-17-11 9:4						
Lab ID#:	420295						
Initials:							
		Sample Receipt	Checki	list			
1. Samples on ice?				Blue	Water	No	
2. Shipping container	in good condition?			Yes	No	None	
3. Custody seals intac	t on shipping containe	er (cooler) and bottles?		(Yes)	No	N/A	
4. Chain of Custody p	resent?			Yes	No		
5. Sample instructions	complete on chain of	custody?		(Yés)	No		
6. Any missing / extra	samples?			Yes	No		
7. Chain of custody si	gned when relinquishe	ed / received?		Yes	No		
8. Chain of custody ag	rees with sample labe	l(s)?		(B)	No		
9. Container labels leg	jible and intact?			(Yes	No		
10. Sample matrix / properties agree with chain of custody?			(Vac	No -			
11. Samples in proper container / bottle?			Yes	No			
12. Samples properly	preserved?			(Yes)	No	N/A	
13. Sample container intact?			(Yes	No			
14. Sufficient sample amount for indicated test(s)?			(A)	No			
15. All samples received within sufficient hold time?			(Yes)	No			
16. Subcontract of sai	nple(s)?			Yes	No	N/A	
17. VOC sample have	zero head space?			Yes	No	(NA)	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs 3.10	°C lbs	°C lbs	°င	lbs	°c	lbs	°C
	N	onconformance De	cume	ntation			
Contact: Contacted by: Date/Time:							
Regarding:					200		
Corrective Action Tak	en:						
Check all that apply:	condition acc □ Initial and Backup	as begun shortly after s ceptable by NELAC 5.5.i Temperature confirm or and would like to proc	3.3.1.a.1. It of tem	perature con	•	ature	

Final 1 000