District I State of New Mexico 1625 N. French Dr., Hobbs, NM 88240 Form C-141 Energy Minerals and Natural ResourcesJUL 30 2010 District II 1301 W. Grand Avenue, Artesia, NM 88210 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back District III Oil Conservation Division HOBBSOCD 1000 Rio Brazos Road, Aztec, NM 87410 1220 South St. Francis Dr. District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 side of form Santa Fe, NM 87505 **Release Notification and Corrective Action OPERATOR** Initial Report x Final Report Name of Company Oxy USA Incorporated Contact Dusty Wilson 4008 Grimes PMB 269, Hobbs, NM 88240 Telephone No. 575-441-7189 Address Facility Name #11 Myers Langlie Mattix Unit (MLMU) Oil and Gas Facility Type Surface Owner Mineral Owner Unitized Lease No. 30-025-09424 Myers

### **LOCATION OF RELEASE**

						1 * · ·		
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	Çounty
B	25,	235	36E	660'	North	1980	East	Lea
İ								

Latitude 32° 16' 50.88" N Longitude 103° 13' 01.45" W

NATURE OF RELEASE

Type of Release. Hydrocarbon and Produced Water.	Volume of Release unknown	Volume Re								
Source of Release Facility tank valves, lines and wellhead locations.	Date and Hour of Occurrence		our of Discovery							
Also projected discharges over time due to unknown causes which	unknown	3/8/08	3/8/08							
distributed hydrocarbon and produced water liquids around facility.										
Was Immediate Notice Given?	If YES, To Whom?									
Yes No XX Not Required	Larry Johnson, OCD District I									
By Whom?	Date and Hour									
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse								
Yes x No	N/A									
If a Watercourse was Impacted, Describe Fully.* N/A										
Describe Cause of Problem and Remedial Action Taken.*										
· · · · · · · · · · · · · · · · · · ·										
Historical release areas were discovered subsequent to wellsite abandonr										
area of wellsite facilities were identified for removal to disposal. A corre	ctive action plan was submitted to NM	IOCD District	I office and Remediation							
Plan number 10-1-2395 was assigned. Five soil borings were advanced t contaminate levels for NMOCD and to delineate targets for excavation p	o depins of 50 feet at the site and 15 sa	mples were co	deal <b>DD</b> A line for the data 200							
contaminate levels for NMOCCD and to delineate targets for excavation p cubic yards of impacted materials were removed for disposal at Parabo f	acility in Funice New Mexico Four c	onfirmation s	acu RRALS for the sile. 200							
concentrations below RRALs. Disturbed areas were backfilled with clear										
mixture (#2)										
Describé Area Affected and Cleanup Action Taken.*										
SEE ATTACHED: FINAL REPORT REMEDIATION PLAN 10-1-23	395									
I hereby certify that the information given above is true and complete to										
regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by t	houncations and perform corrective ac	does not relie	ses which may endanger							
should their operations have failed to adequately investigate and remedia	the contamination that nose a threat to	abes not relie	surface water human health							
or the environment. In addition, NMOCD acceptance of a C-141 report										
federal, state, or local laws and/or regulations.	acto hor reneve the operator of respon	5.011109 101 001	ing indire with any other							
	OIL CONSER	VATIONI	DIVISION							
		<u> </u>								
Signature: July		- Ohn	200-							
	Approved by District Supervise									
Printed Name: DUSTY WILSON	ENVIRUN	WENTAL	INGINEEK							
	Approval Date: 11.5.10	name and the analysis								
Title: HES SPECIALIST	Approval Date: 11.5.10	Expiration D	ate:							
E-mail Address: dusty wilson@oxy.com	Conditions of Approval:		f a fill and from the data to a manufacture of the second s							
L-man-Address/ddsty_wiison(@oxy.com	Attached									
Date: 7/26/10 Phone: 575-441-7189	RP = 2395									
	ensetense paper et al									

\* Attach Additional Sheets If Necessary

n Lut 1030950140 PLUT 1050950457

Received

Revised October 10, 2003

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State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

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

			Kele	ase Notific	ation	i and Co	rrective A	ction						
						OPERA	TOR	:	x Initia	l Report	П	Final Report		
Name of Co	mpany	Oxy U	SA Incor	porated	1	Contact Dusty Wilson								
Address	4008	Grimes PME	3 269, Ho	bbs, NM 88240		Telephone No. 575-441-7189								
Facility Nar	ne #11	Myers Lang	lie Mattiz	Unit (MLMU)		Facility Typ	e Oil and C	Gas	· · · · · · · · · · · · · · · · · · ·					
Surface Ow	ner	Myers		Mineral O	wner	Unitized	······		Lease N	o. 30-025-	09424			
				And and an an address of the second	TION	N OF REI	LEASE							
Unit Letter BSection 25Township 23SRange 36EFeet from the 660'North No						South Line th	Feet from the 1980	East/Wes East	st Line	County Lea				
Latitude 32° 16' 50.88'' N Longitude 103° 13' 01.45'' W														
					URE	OF RELI		······································						
		carbon and P		ater id wellhead location			Release unknow			ecovered lour of Dis	none			
Also projecte	d discharge	s over time d	ie to unkn	own causes which ids around facility	ł	unknown	our of Occurrence	1	/8/08		covery			
Was Immedi		Given? Not Required				If YES, To	Whom?							
By Whom?						Date and H						_		
Was a Water	course Rea	ched?	Yes x	No		If YES, Volume Impacting the Watercourse. N/A								
N/A		pacted, Descr			*****									
Historical rel area of well s	ease areas ite facilitie	s were identifi	ed subsequ ed for rem	n Taken.* ient to well site ab ioval to disposal. prrective Action Pl	Sample	s will be colle	ected and analyzed	d to verify						
Affected area	Describe Area Affected and Cleanup Action Taken.* Affected areas will be investigated and remediated in accordance to CAP submitted to OCD District I office dated December 29, 2009 A FINAL REPORT, detailing assessment and remedial actions undertaken at the site, will subsequently be prepared and submitted to OCD District I office for review and acceptance.										strict I office			
regulations a public health should their or the enviro	Il operators or the envi operations nment. In	are required to ironment. The have failed to	o report an acceptane adequately DCD accept	to is true and compl ad/or file certain re- ce of a C-141 report investigate and re- plance of a C-141 re-	elease n ort by the emediat	otifications a e NMOCD m e contaminati	nd perform correct arked as "Final Ro on that pose a three	tive actior eport" doe eat to grou	is for rele is not reli- ind water	ases which eve the ope , surface wa	may en rator of ater, hur	ndanger liability man health		
Signature	Aut	1	1				OIL CON	SERVA	TION	DIVISIO	<u>)N</u>			
Printed Nam	e: Justy L	Wilson				Approved by District Supervisor:								
Title: HES	pecialist	<u></u>				Approval Da	xpiration Date:							
E-mail Address: dusty_wilson@oxy.com Conditions of Approval: Attached														

Phone: (575) 441-7189

\* Attach Additional Sheets If Necessary

Date: 12/22/2009



## FINAL REPORT REMEDIATION PLAN 10-1-2395

OXY USA/#11 MLMU (API#30-025-09424) SECTION 25 (B), T-23-S; R-36-E LEA COUNTY, NEW MEXICO

Prepared For: Mr. Clint Babcock Glenn Springs Holdings, Inc.

# JUL 3 0 2010 HOBBSOCD

Prepared by: Conestoga-Rovers & Associates

2135 South Loop 250 West Midland, Texas 79703 Office: (432) 686-0086 Fax: (432) 686-0186

web: http://www.CRAworld.com

JULY 2010 Ref. no. 058373 (2)

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FIGURE 2	SOIL BORING LOCATION MAP
FIGURE 3	CONFIRMATION SAMPLE LOCATION MAP

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- APPENDIX B SOIL BORING LOGS

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- APPENDIX C NON-HAZARDOUS WASTE MANIFESTS
- APPENDIX D CERTIFIED LABORATORY REPORTS
- APPENDIX E SITE PHOTOGRAPHS

### 1.0 **INTRODUCTION**

Conestoga-Rovers and Associates (CRA) herewith submits this **Final Report** under Remediation Plan # 10-1-2395, on behalf of Oxy USA, Inc. (Oxy) and Glenn Springs Holdings, Inc. (GSH) to the New Mexico Oil Conservation Division (OCD) regarding the abandonment of the above referenced well-site location. The Initial Report of the C-141 Release Notification and Corrective Action Form submitted to the OCD District 1 office is attached for reference (APPENDIX A).

The subject well-site is located within the Myers Langlie Mattix Unit (MLMU) situated between Jal and Eunice, New Mexico. The legal description of the Site is the NW/4 of the NE/4, Section 25, T-23-S, R-36-E with GPS coordinates 32° 16′ 50.88″ N and 103° 13′ 01.45″ W (FIGURE 1). CRA understands the surface property is owned by the Myers Family. Depth to groundwater in the vicinity of the subject property is reported by the United States Geological Survey (USGS) to be greater than 100 feet below ground surface (bgs).

The OCD has regulatory jurisdiction over oil and gas production operations including pipeline spill/closure in the State of New Mexico. This project was conducted under the regulatory jurisdiction of the OCD, which requires that soil impacted by a crude oil spill be remediated in such a manner that the potential for future affects to groundwater or the environment are minimized. The OCD hydrocarbon remediation levels are determined by ranking criteria on a site-by-site basis, which is outlined in the OCD *Guidelines for Remediation of Spills, Leaks, and Releases,* dated August 13, 1993. The ranking criteria are based on three site characteristics: depth to groundwater, wellhead protection and distance to surface water and values for the site are presented below.

CHARACTERISTIC	SELECTION	SCORE	
Depth to Groundwater	> 100 feet	0	
Wellhead Protection Area	>1,000 feet	0	
Distance to Surface Water	>1,000 feet	0	
	Į		

### Total Ranking Score = 0

Based on these Site characteristics and associated OCD ranking criteria, the following hydrocarbon recommended remediation action levels (RRALs) apply at the #11 MLMU site: benzene- 10 ppm, Total BTEX- 50 ppm and TPH- 5,000 ppm.

#### 2.0 SOIL INVESTIGATION AND REMEDIATION SUMMARY

On February 10, 2010 CRA installed five soil borings at selected locations as shown on FIGURE 2 at the release site to evaluate the horizontal and vertical extent of hydrocarbon and chloride-impacted soils. Soil samples were analyzed from the 4-5', 14-15' and 29-30' intervals in the borings. The subsurface soil boring log data is presented The samples selected for chemical analysis were transferred to in APPENDIX B. laboratory supplied sample containers, labeled and placed on ice in a cooler. Appropriate chain-of-custody protocols were followed in the shipping of the samples to the laboratory. The samples were analyzed for total petroleum hydrocarbons (TPH) including gasoline-range organics (GRO), diesel-range organics (DRO), and oil-range organics (ORO) by EPA Method 8015 modified. In addition, analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8021B and chloride analysis by EPA Method 300 were performed. The soil boring sample analytical results are presented in TABLE 1. None of the soil sample concentrations exceeded the RRALs for this location and chloride concentrations did not exceed 60 mg/kg in the 15 samples analyzed. Based on the soil boring results, impacts were limited to surface areas and did not extend significantly into the subsurface at the sampled locations.

Remediation activities were performed at the site between March 17 and 26, 2010. A total of 200 cubic yards of impacted materials were hauled to the OCD-permitted Parabo (Sundance Services, Inc.) facility in Eunice, New Mexico. Non-hazardous waste manifests documenting this activity are presented in APPENDIX C. Four confirmation sample locations collected subsequent to soil removal operations are shown in FIGURE 3. The analytical results are presented in TABLE 1. None of the soil sample concentrations exceeded the RRALs for this location ad chloride concentrations did not exceed 198 mg/kg in the samples analyzed. Laboratory reports for all samples are included in APPENDIX D. The shallow remedial excavations were backfilled with 200 cubic yards of clean soils provided from the MLMU topsoil pit by the property owner, Mr. Kelly Myers. The topsoil was then plowed and a native soils mixture (#2) was planted in an effort to restore vegetative cover on the ground surface. "Before and after" photographs of the site remediation activities are enclosed as APPENDIX E.

### 3.0 SITE CLOSURE REQUEST

Based on information provided in this report and the final C-141 report form, CRA respectfully requests, on behalf of Oxy and GSH, a NMOCD determination of 'no further action is required' regarding this Final Report for Remediation Plan 10-1-2395. Please note that this report is an attachment to the final C-141 form version. No additional work is planned for this site at this time.

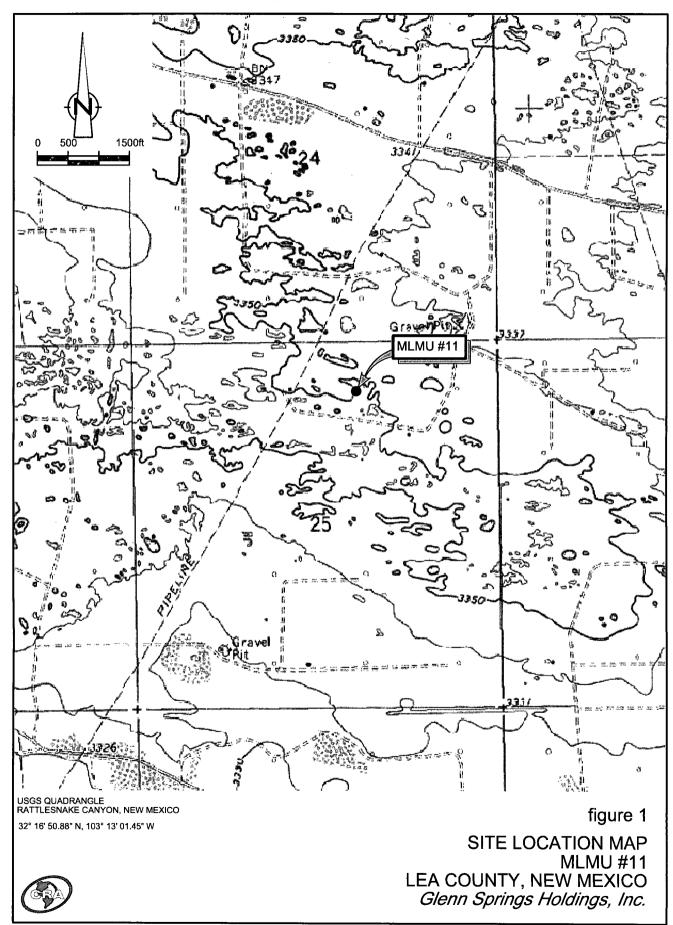
All of Which is Respectfully Submitted, CONESTOGA-ROVERS & ASSOCIATES

Thomas Clayon

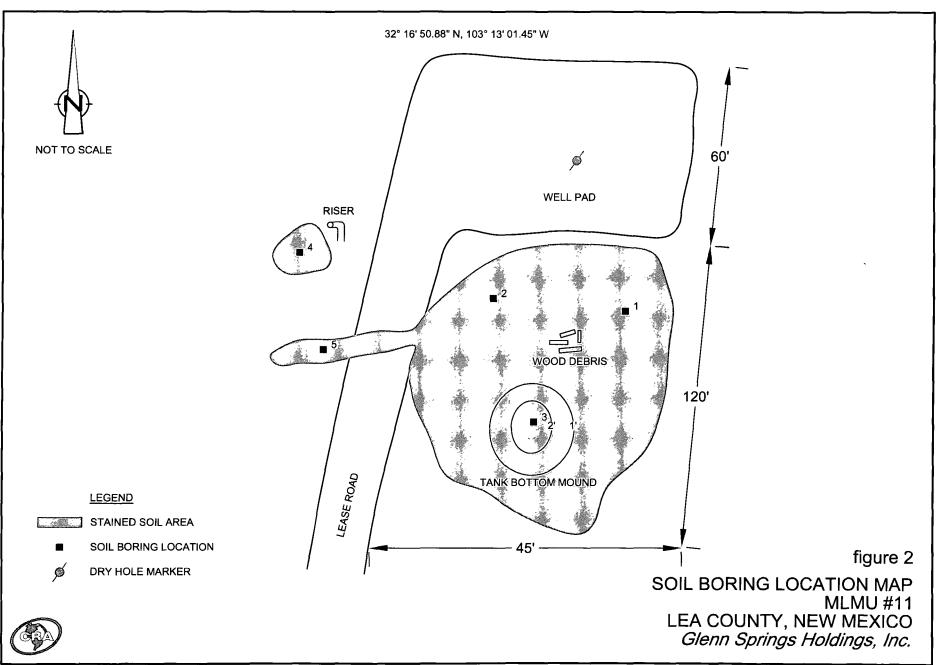
Thomas C. Larson Midland Operations Manager

Jame Amel

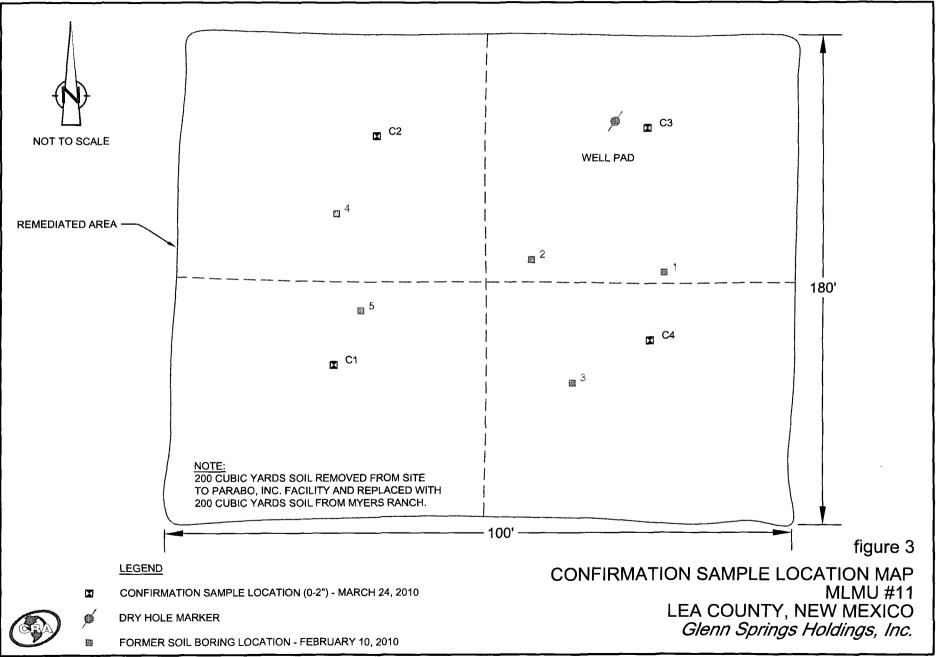
James Ornelas Senior Project Manager



058373-D23101(002)GN MD001 JUN 01/2010



058373-D23101(002)GN MD002 JUN 01/2010



058373-D23101(002)GN MD003 JUN 01/2010

### TABLE I-SOIL ANALITICAL SUMMANT OXY USA MLMU #11 SECTION 25(B); T-23-S; R-36-E LEA COUNTY, NEW MEXICO

		Depth				5. M.S.			Andre Carthad	<u>т</u> рн		
Sample ID.	Sample Date	(feet or inches bgs)	Benzene	Toluene	Ethyl- Benzene	Xylenes	BTEX	GRO(C6-C10)	DRO(C10-C28)	ORO(C28-C35)	Total (GRO/DRO/ORO).	Chloride
	-		(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
1. 1. 1.5. 2. 1. 3.4. 1.	lemediation Ac anking Score:	·	10mg/Kg				50mg/Kg		-		5000 mg/Kg	
		lef in the second				SC	DIL BORII	NG RESULTS	China Balanda Arra			
SB-1 0-5'	2/10/10	0-5'	0.95 J	1.9 j	5.0 U	1.7 J	BDL	5.7 U	8.9 U	BDL	BDL	3
SB-1 10-15'	2/10/10	10 - 15'	0.60 J	1.8 J	5.2 U	2.7 J	BDL	5.6 U	7.47 J	BDL	BDL	18
SB 1 25-30'	2/10/10	25-30'	0.62 J	1.3 J	5.2 U	10 U	BDL	5.3 U	4.11 J	BDL	BDL	60
SB - 2 0-5'	2/10/10	0-5'	8.4	33.2	3.0 J	35.6	77.2	5.6 U	108	469	577	2.5 U
SB-2 10-15'	2/10/10	10 - 15'	2.7 J	11.7	1.7 J	20.5	32.2	5.6 U	108	75	183	2.7 U
SB- 2 25-30	2/10/10	25-30'	0.72 J	3.0 J	5.2 U	4.6 J	BDL	5.3 U	13	15	28	2.6 U
SB-3 0-5'	2/10/10	0-5'	0.51 J	1.3 J	5.2 U	1.9 J	BDL	5.3 U	8.6 U	BDL	BDL	2.6 U
SB-3 10-15'	2/10/10	10 - 15'	0.86 J	2.2 J	5.3 U	2.6 J	BDL	5.6 U	4.64 J	BDL	BDL	2.7 U
SB-3 25-30'	2/10/10	25-30'	0.58 J	2.2 J	4.7 U	3.1 J	BDL	5.3 U	4.64 J	12	12	2.7 U
SB-4 0-5'	2/10/10	0-5'	10.8	45.2	4.4 J	46.6	102.6	4.8 U	417	502	919	2.5 U
SB-4 5-10'	2/10/10	10 - 15'	4.7 J	19.5	2.3 J	23.6	43.1	5.1 U	116	164	280	2.6 U
SB-4 25-30'	2/10/10	25-30'	0.61 J	2.5 J	5.0 U	3.6 J	BDL	5.4 U	14	18	32	7
SB-5 0-5'	2/10/10	0-5'	0.79 J	3.1 J	5.0 U	5.3 J	BDL	5.3 U	19	29	48	2.6 U
SB-5 10-15'	2/10/10	10 - 15'	1.5 J	6.9	0.85 J	11.4	18.3	5.3 U	19	18	37	3
SB-5 25-30'	2/10/10	25-30'	0.56 J	2.2 J	5.0 U	3.5 J	BDL	5.2 U	22	BDL	22	2.6 U
					- <b>1</b>	CONFIR	MATION	AMPLING RESULTS	- 16 A SA SA		California (17)	120142
C1, 0-2"	3/24/10	0-2"	5.0 U	5.0 U	5.0 U	10 U	BDL	4.8 U	1,120	1,790	2,910	2.6 U
C2, 0-2"	3/24/10	0-2"	4.7 U	4.7 U	4.7 U	9.3 U	BDL	4.7 U	11	9	20	3
C3, 0-2"	3/24/10	0-2"	4.9 U	4.9 U	4.9 U	9.9 U	BDL	0.525 J	2,260	2,100	4,360	198.0
C4, 0-2"	3/24/10	0-2"	4.6 U	4.6 U	0.76 J	2.3 J	BDL	1.29 J	2,140	1,790	3,930	7.3

NOTES:

1. Values reported in mg/Kg are the same as ppm and ug/Kg is the same as ppb.

2. BDL: below laboratory detection limits.'J' reported as estamated value. 'U' analyzed but not detected.

3. \*NMOCD Remediation Action Levels, were not exceeded.

4. BTEX analyses by EPA Method SW 8021B.

5. TPH analyses by EPA Method SW 8015B.

6. Chloride analyses by Method E325.2.

7. GRO/DRO/ORO = Gasoline/Diesel/Oil Range Organics

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Oxy USA/MLMU #11 (API #30-025-09424) Project: (Unit Letter B) of Section 25, Township 23South, Range 36East No. SB-1 Lea County, New Mexico

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Client:

Oxy USA, Inc.

File No.:
Date:
Drilling Co.:
Supervisor:
Type Rig:
Logged by:

58373 2/10/2010 White Drilling Co. Dallas Rader Air Rotary R.Baca

LABORATORY TEST DATA Ł FIELD DATA

	ABORAT		FIELD DATA					BORING DATA			
	Results R	eported in	mg/kg		Photo-	Ē		e,	rval	Air Rotary (4 3/4" O.D.)	
ē	αJ	Q	Ś	E G	Ionization	Sampling	Depth	r Lev	Inte		
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)	Detection Reading (ppm)	Sam	(feet)	Water Level	Screen Interval		
Bei	Tol	ber ber	×	₽Ŭ				^	တိ	Start Time: 1305 Finish Time: 1318	
										Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Moist	
										-	
						~7				-	
-					0.0	X	- 5 -			_	
										Caliche: White; FG-MG, Subrounded; Soft; Loose; Moderately	
										Sorted; Dry; Some FG pinkish white sand	
					0.0					-	
-						r	- 10			-	
										Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard;	
					0.0	X	- 15			Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG;	
-							<u> </u>			Subrounded; Hard; dense; Well sorted; dry.	
-								-	<u> </u>	Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well	
										Sorted; Dry; 10-15% White Caliche	
					0.0	$\boxtimes$	- 20 -				
										-	
										Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft;	
										Loose; Well Sorted; Dry; 0-5% Black nodules; 5-10% Caliche	
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$\mathbf{M}$	Solit Soc	on Samo	ler		Stratification						
Split Spoon Sampler Soil Classificat					Soil Classification	on Ba	ised on Vis	ual-N	lanu	al Procedure <u>V</u> Level after <u>24</u> hr	
										<b>=</b>	
Ν	No Recovery				100					Analyzed Sample	
<u> </u>											
							Contraction of the local division of the loc	· ·		page 1 of 2	

Project: Oxy USA/MLMU #11 (API #30-025-09424) (Unit Letter B) of Section 25, Township 23South, Range 36East Lea County, New Mexico No. SB-2 File No.: Date: Drilling Co.: Supervisor: Type Rig: Logged by: 58373 2/10/2010 White Drilling Co. Dallas Rader Air Rotary R.Baca

-	1	ABORAT	OBY TES			FIEL	D DA	TA		BORING DATA					
F		Results R				1			_	Ţ.	Air Rotary (4 3/4" O.D.)				
	Benzene	Toluene	Ethy - benzene	Xylenes	Total TPH (C6-C35)	Photo- Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: 1330 Finish Time: 1345				
											Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose;				
+									-		Well Sorted; Moist; Slight odor				
F									1		-				
L	_					0.0	$\square$	- 5 -	]		_				
╞									-		-				
E						-									
F						0.0					Caliche: White; FG-MG, Subrounded; Soft; Loose; Moderately Sorted; Dry; Some VFG reddish brown clay, slight plasticity				
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Ľ									1		-				
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F						0.0	×	- 15 -	†		Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard;				
	-							- 15 -	]		Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG; Subrounded; Hard; dense; Well sorted; dry.				
-	-							<u> </u>	-						
F											Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well				
Γ						0.0	X	- 20 -			Sorted; Dry; 10-15% White Caliche				
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E									1						
F						0.0			]		Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft;				
$\mathbf{F}$	_					0.0	P	- 25 -	1		Loose; Well Sorted; Dry; 0-5% Black nodules; 5-10% Caliche				
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	Split Spoon Sampler				Stratification Soil Classification					al Procedure					
	Π	Cuttings									Level after <u>24</u> hr				
										Analyzed Sample					
	No Recovery						(8	$\mathbb{O}$							
					$\mathcal{Q}$	Strange and		page 1 of 1							

Client:

Oxy USA, Inc.

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Project: Oxy USA/MLMU #11 (API #30-025-09424) (Unit Letter B) of Section 25, Township 23South, Range 36East No. SB-3 Lea County, New Mexico

File No.: Date: Drilling Co.: Supervisor: Type Rig: Logged by:

58373 2/10/2010 White Drilling Co. Dallas Rader Air Rotary R.Baca

	ABORAT Results R				FIEL	D DA T			_	BORING DATA
Benzene		Ethyl- benzene	Xylenes	Total TPH (C6-C35)	Photo- Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interva	Air Rotary (4 3/4" O.D.) Start Time: 1353 Finish Time: 1415
						Γ				Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose;
_										Well Sorted; Moist; Slight odor
-										
F					1.6	$\mathbf{X}$				-
						P	- 5 -			-
L			]	1						
-					0.8			1		
-					0.0	P	L 10 -		-	Callche: White; FG-MG, Subrounded; Soft; Loose; Moderately
<b>F</b>				1		1	· · · ·	1		Sorted; Dry; Some FG pinkish white sand
										Sand: Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well
-										Sorted; slight moisture; 0-5% Reddish Brown clay-low plasticity
F	1			1	0.0	P	- 15 -			Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard;
┝								1		Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG;
								1		Subrounded; Hard; dense; Well sorted; dry.
[										Sand: Reddish Brown; VFG-MG; Subrounded; Soft; Loose; Well
					0.0	X	- 20 -	4		Sorted; slight moisture; 0-10% Caliche-White; soft; loose; well sorted; dry
┝							·			
┝		]								Sand: Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well
E			1					1		Sorted; Dry; 0-5% Reddish Brown clay-low plasticity
L_					0.0	X	- 25 -			_
$\vdash$								-		Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft;
┝								1		Loose; Well Sorted; Dry
F								1		
L		1		}	0.0	$\mathbf{X}$	- 30 -	]		· · · · · · · · · · · · · · · · · · ·
F										
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<b>L</b>							L 40 -	1		· · · · · · · · · · · · · · · · · · ·
					Qtratificati			Max	Net	be Exact. Water First Noted
	Split Spo	on Samp		Stratification Soil Classification			-		al Procedure	
	Cuttings									Level after <u>24</u> hr
	Countys							Analyzed Sample		
	No Reco	very					(Se)		•	
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page 1 of 1

Client:

Oxy USA, Inc.

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Project: Oxy USA/MLMU #11 (API #30-025-09424) (Unit Letter B) of Section 25, Township 23South, Range 36East Lea County, New Mexico

Client: Oxy USA, Inc.

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No. SB-4

File No.:
Date:
Drilling Co.:
Supervisor:
Type Rig:
Logged by:

58373 2/10/2010 White Drilling Co. Dallas Rader Air Rotary R.Baca

	LABORATORY TEST DATA			FIELD DATA				BORING DATA			
	Results Reported in mg/kg							5 5	Air Rotary (4 3/4" O.D.)		
		r				Photo-	Sampling		Water Level	Screen Interval	AII NOLALY (4 0/4 0.0.)
	-				Ι Ι Λ	Ionization		E Depth	Depth	ľ.	Ĕ
	Benzene	l e	Ethyl- benzene	Xylenes	Total TPH (C6-C35)	Detection	Ē	(feet)	5		
1	IZE	Toluene	- Ze	СŬ		Reading (ppm)	Sa		/at	8	
1	Ser .	5	E 호	5	5°5	incading (ppin)	/		12	l D	Start Time: 1420 Finish Time: 1442
		┝╴┍╴╴╸		<u> </u>		· · · · · ·	1		<u>├</u>	<b> </b> "	Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose;
F											
L											Well Sorted; Moist; Slight odor
							ł				
Γ							Í		1		
F						1.6					· · ·
$\vdash$							$\sim$	- 5 -			_
L					l		1				
											Caliche: White; FG-MG, Subrounded; Soft; Loose; Well Sorted;
٢											Dry
F											Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard;
F					1					1	Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG;
_						0.8	P	- 10 -		1	
-											Subrounded; Hard; dense; Well sorted; dry.
<b>—</b>											Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well
F									1		Sorted; Dry; 0-10% Caliche-White; soft; loose; well sorted; dry
F								<u> </u>			•
F								Į	4	l I	-
L	-					0.0	X	- 15 -	1		_
							1				
Γ		}							1		
	•								1		
F							1		-		Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft;
F									4		Sity Sand: Light Reduish Brown, VrG-rG; Subtounded; Soit;
						0.0	X	20 -			Loose; Well Sorted; Dry
F									1		•
F									1		
F		1							4		
L			1						1		
						1.6	X	- 25 -			
	-							Γ 25 -	1		-
F									1		· · · · · · · · · · · · · · · · · · ·
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						(1.6)	X	30 -			
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	Μ	0.15				Stratification	n is Inf	erred And	Мау	Not b	De Exact. Vater First Noted
	$\square$	Split Spc	on Sampl	er		Soil Classification					al Procedure
	m										Level after _24 _hr
1		Cuttings									
1											Analyzed Sample
1	$ \mathbf{N} $	No Reco	very					Andrews	and the second		
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1								. Stowner			nage 1 of 1

SB-5

Project: Oxy USA/MLMU #11 (API #30-025-09424) (Unit Letter B) of Section 25, Township 23South, Range 36East Lea County, New Mexico No.

File No.: Date: Drilling Co.: Supervisor: Type Rig: Logged by:

58373 2/10/2010 White Drilling Co. Dallas Rader Air Rotary R.Baca

Client: Oxy USA, Inc.

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-	LABORATORY TEST DATA Results Reported in mg/kg			FIELD DATA				7	BORING DATA		
 	Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)	Photo- Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Air Rotary (4 3/4" O.D.) Start Time: 1445 Finish Time: 1510
		1									Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose;
F											Well Sorted; Moist
┢											-
E					ļ	0.0	$\boxtimes$	- 5 -	1	ļ	-
-											-
ł											-
Ľ											-
$\vdash$						0.0	X	- 10			Caliche: White; FG-MG, Subrounded; Soft; Loose; Moderately
╞											Sorted; Dry; Some VFG reddish brown clay, slight plasticity
L									1		-
F						0.0	$\vdash$				ļ
$\vdash$							$\sim$	- 15 -			Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard;
L									]		Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG;
$\mathbf{F}$								····	<u> </u>	-	Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well
F						0.0	$\boxtimes$	- 20 -	1		Sorted; Dry; 10-15% White Caliche
F											-
$\mathbf{F}$											-
E											
F						0.0	$\bowtie$	- 25 -			Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 0-5% Black nodules; 5-10% Caliche
$\mathbf{F}$											-
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┢						0.0			1		-
F						0.0	p	- 30 -			
F											-
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$\vdash$		<u> </u>	L			L		L 40 -		L_	
	Μ	Split Snr	on Sampl	ler	Stratification is Inferred And May N						
	H				Soil Classification	on Ba	sed on Vis	uai-M	anua	al Procedure <u>V</u> Level after <u>24</u> hr	
	Щ	Cuttings									
	$\square$	No Recovery						<u> </u>			Analyzed Sample
											noro 4 of 4
_								- 0			page 1 of 1

	NO. <u>01</u>
GENER	ATOR
GENERATOR NAME <u>OXY USA INC.</u> ADDRESS <u>P.O BOX 4294</u> <u>HOUSTON TX 77210</u>	GENERATING LOCATION MYERS LANGLIE MATTIX UNT # 11 ADDRESS LEA CO.
PHONE NO QUANTITY_10yRdS	STATE GENERATOR ID NUMBER <u>MA</u> MATERIAL <u>GIL FIELD EXEMPT</u> IMDACTED 501
JASON DAVIS GE OXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSP	ORTER
TRUCK NO. <u>566</u> TRANSPORTER NAME <u>DS Truck Svcs.</u> ADDRESS <u>103 W. Benny</u> <u>Houbs</u> <u>MM</u> I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE. <u>Cambo Margano 3-17-10</u> DRIVER SIGNATURE <u>SHIPMENT DATE</u>	
DESTIN	
,	
SITE NAME <u>Sundance SERVICES INC. / PARADO</u> ADDRESS <u>P.O BOX /737 EQUICE NEW MEX</u>	PHONE NO. <u>575-394-251</u> 100 88231
I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	IAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
Ada SHA Crus	SIGNATURE

Updated 01/24/02

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	NO. <u>02</u>
GENE	RATOR
GENERATOR NAME OXY USA Inc.	GENERATING LOCATION Myers Langhe Matter unit 11
ADDRESS <u>PO Box 42.94</u>	
Houston Tx 77210	
PHONE NO	STATE GENERATOR ID NUMBER
	Impacted Soil
TASON DALLIS FOR OXI	SIGNATURE (on behalf of Generator) SHIPMENT DATE
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANS	PORTER
TRUCK NO	PHONE NO631-0121
TRUCK NO TRANSPORTER NAME	DRIVER NAME (PRINT) JOM SWORDS
	VEHICLE LICENSE NO./STATE WD98264 Nm
ktoffer NM	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LIZED BELOW.
Jin Joach 3-17.10	Sa. Marad 3-17-10
DRIVER SIGNATURE SHIPMENT DATE	
V	
DESTI	NATION
SITE NAME Sundance Services inc/parabo	PHONE NO. <u>575 394 2511</u>
ADDRESS POBOx 1737 Eunice New Me	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATE KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATI	RIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY E.
Dda Sta Cruz	
NAME OF AUTHORIZED AGENT	SIGNATURE

Updated 01/24/02

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# NON-HAZARDOUS WASTE

	NO. <u>03</u>
GENEF	RATOR
GENERATOR NAME OXY USA TNC.	GENERATING LOCATION Myers Langhe Mathy unit 4
ADDRESS 10 Box 4294	ADDRESS LEA CO,
Houston TX 77210	
PHONE NO	STATE GENERATOR ID NUMBER M4
QUANTITY 10 YRd 3	MATERIAL OIL FIELD EXEMPT
QUANTITY TO YRUS	waterial sail
	My Marca Sur
TASON DAVIS FOR OXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSF	PORTER
TRUCK NO	PHONE NO. (57.5) 631-9868
TRANSPORTER NAME DJ Truck SUC	DRIVER NAME (PRINT) Carlos Martinez
ADDRESS 103 W. BRECH	VEHICLE LICENSE NO /STATE WO 83605
Hobbe NM	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
PIA	o 1 ct
DRIVER SIGNATURE () SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
DESTI	NATION
, ,	
SITE NAME SUNCHARCE SERVICES INC. / PARADO	PHONE NO. 575-394-2571
ADDRESS P.O Box 1737 EUNICE NEW ME	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE	NAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
NAME OF AUTHORIZED AGENT	SIGNATURE 3.17.10

Updated 01/24/02

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# NON-HAZARDOUS WASTE

	NO. <u>1)4</u>
GENEF	ATOR
	•
ADDRESS P.O BOX 4294	GENERATING LOCATION <u>MYERS LANGHE MANTIX WIT</u> HIN ADDRESS <u>LEA CS.</u>
Houston TX 77210	
PHONE NO	STATE GENERATOR ID NUMBER 114
QUANTITY 10 YRd 5	interest in the second s
	impacted soil
JASON DAVIS FOR OXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	ande
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSP	
	ORIER
	PHONE NO. 631-0121
TRANSPORTER NAME SUBPLS	DRIVER NAME (PRINT)
ADDRESS 1311 E. LLANO	VEHICLE LICENSE NO./STATE WD98264 NM
	STATE TRANSPORTER ID NO
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
ABOVE.	THE DESTINATION LISTED BELOW.
am lunder 3-17-10	Signel 3-17-10
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
$\bigtriangledown$	
DESTIN	IATION
SITE NAMES <u>UNDANCE SERVICES INC. / PARAbo</u>	DUONEND PTE ROUL 9511
ADDRESS PLO BOX 1737 EUNICE NEW 1	
ADDRESS THE BOX 1/31 EMITCE WEW 1	TEXILO
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY
	(Po in RITIN
NAME OF AUTHORIZED AGENT	<u>C.Komero</u> 3.17.10 SIGNATURE

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	NO. <u>05</u>
GENE	ERATOR
GENERATOR NAME <u>OXY USA INC.</u>	GENERATING LOCATION MYERS CANADIE MATTIX WINT * 11
ADDRESS PO BEX 4294	GENERATING LOCATION Myzes Canadie Mattix whit * 11 ADDRESS Lea Co.
Houston TX 71210	
PHONE NO.	STATE GENERATOR ID NUMBER
QUANTITY 10 YRUS	
	improted coil
JASON DAVIS FOR OXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANS	SPORTER
TRUCK NO980	_ PHONE NO (31 012)
	DRIVER NAME (PRINT)
	VEHICLE LICENSE NO./STATE WD98264
(LP)	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
the first and	0° 1 1 3-18-10
■ Am Lword 3-18-10 DRIVER SIGNATURE SHIPMENT DATE	E DRIVER SIGNATURE DELIVERY DATE
	U
DEST	INATION
SITE NAME Sundance SERVICES INC. / PARAbo	PHONE NO. 575-394-2511
ADDRESS P.O POX 17.37 EUNICE NEW MEXIC	<u>co 88231</u>
I HEREBY CERTIFY THAT THE ABOVE NAMED MATE KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATI	RIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY E.
NAME OF AUTHORIZED AGENT	SIGNATURE
Updated 01/24/02	

# NON-HAZARDOUS WASTE

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	NO
GENER	ATOR
GENERATOR NAME OXY USA INC.	GENERATING LOCATION MyERS LAnglie Mutter # 11
GENERATOR NAME OXY USA INC. ADDRESS P.O BOX 4294	ADDRESS LEA CO.
Houston TX 77210	
PHONE NO	STATE GENERATOR ID NUMBER
	MATERIAL oil field Exempt
	imparted soil
TASON DIVIS FOR OXY PLEASE PRINT OR TYPE GENERATOR AUTHØRIZED AGENT NAME	
PLEASE PRINT OR THE GENERATOR AUTHORIZED AGENT WAVE	
TRANSP	ORTER
TRUCK NO	PHONE NO. (575) 631-9868
TRANSPORTER NAME DJ Truck SVCs	DRIVER NAME (PRINT) Carlos Martinez
	VEHICLE LICENSE NO STATE WD88605
	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
Call Martin 3-18-10 DRIVER SIGNATURE SHIPMENT DATE	Conto Mar day 3-18-10 DRIVER SIGNATURE DELIVERY DATE
DESTIN	IATION
SITE NAME <u>Sundance services inc./ Parabo</u>	PHONE NO. 675-394-2511
SITE NAME <u>Sundance SERVICES INC. / PARADO</u> ADDRESS P.O BOX 1737 EUNICE NEW MEXICO	88231
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	IAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
Ida Ha Crus	
	SIGNATURE
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	NO. <u>07</u>
GENER	
GENERATOR NAME OXY USA INC.	SENERATING LOCATION Myzes Long he Mattix # 11
GENERATOR NAME <u>OXY USÄ ZNC.</u> ADDRESS <u>POO BOX YZ99</u>	ADDRESS LEA Co.
Howster Tx 77210	
PHONE NO	
QUANTITY 10 y eds	MATERIAL OIL Field Exempt
	wpycted sol
	Ma- /-
TASON DAUIS FOR OXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSP	ORTER
TRUCK NO	PHONE NO (31-0121
TRANSPORTER NAME SWORDS	DRIVER NAME (PRINT) JIM
ADDRESS 1311 E. LLANO 11	VEHICLE LICENSE NO./STATE UND 98269
Hobbe NM	
l-source	STATE TRANSPORTER ID NO
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
Jim lund 3-18-10	J- Dearch 3-18-10
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
$\bigcirc$	V
DESTIN	ATION
SITE NAME Sundance SEQUICES INC. / PARAbo	PHONE NO. 575-394-25-11
ADDRESS P.O Box 1737 Eunice New Mexico	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY
Ma Sta Auro	
NAME OF AUTHORIZED AGENT	SIGNATURE

Updated 01/24/02

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	NO. 08
GENER	ATOR
GENERATOR NAME OXY USA INC.	GENERATING LOCATION MYERS Langue Mattix # #12
ADDRESS P.O Box 4294	ADDRESS LEA Co.
Housten Tx 77210	
PHONE NO	STATE GENERATOR ID NUMBER
QUANTITY <u>10 y 20 s</u>	MATERIAL OIL FIEld EXENT
	impacted sq
TASON DAVIS FOR ONLY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	low lai
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSP	ORTER
TRUCK NO. <u>566</u>	PHONE NO. (575) 631-9868
TRANSPORTER NAME NJTruck Services	DRIVER NAME (PRINT) Carlos Martine
ADDRESS 10:3 W- Berry	VEHICLE LICENSE NO./STATE
Hobbs, NM	STATE TRANSPORTER ID NO.
_	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
ABOVE.	THE DESTINATION LISTED BELOW.
· Marta 218-10	Contine 3-18-10
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
SITE NAME <u>Sundance</u> SERVICES INC. / PARADO	PHONE NO. 575 - 394-2511
ADDRESS P.O. BOX 1737 EUNICE NEW MEXI	<u 23="" 88'="" <="" th=""></u>
I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	IAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
Masta Cruz-	
NAME OF AUTHORIZED AGENT	SIGNATURE
Updated 01/24/02	

	<u>NON-HAZARD</u> TRANSPORT	
126 3 au		NO. 09
. ero 2 A.	GENER	
1995 CA.	GENERATOR NAME <u>OXY USA INC.</u> ADDRESS <u>P.O BOX 4294</u> Houston TX 77210	GENERATING LOCATION <u>MyERS Langlie Muttix #</u> 11 ADDRESS <u>LEA COUNTY</u>
D 21 - 88	PHONE NO QUANTITY 10 Y ROPS	STATE GENERATOR ID NUMBER <u>14</u> MATERIAL <u>OIL FIELD EXEMPT</u>
	TASON DAV 13 FOR ONY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
	TRANSP	ORTER
	TRUCK NO	PHONE NO
°. na		DRIVER NAME (PRINT)
° .	ADDRESS <u>1311 E. LLAND</u> Hobbs WM	VEHICLE LICENSE NO./STATE 1098264
	Hobbs NM	STATE TRANSPORTER ID NO.
1. A. 1.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
8. 8.	2-12-10	Sin land 3-13-10
	DRIVER SIGNATURE 3-18-10 SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
α <sup>2</sup> σ <sup>2</sup> τ.	$\bigcirc$	$\mathbf{O}$
	DESTIN	ATION
(	SITE NAME SUNCEMENCES INC. /PARADO	PHONE NO. 575 - 394-2511
A REAL PROPERTY	SITE NAME SUMPLIES ONCES INC. / PARADO ADDRESS P.O. BOX 1737 EUNICE NEW M	<u>NEX/20 8823/</u>
1.14.1	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY
2.1.2	NAME OF AUTHORIZED AGENT	SIGNATURE
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Updated 01/24/02

	NO
GENER	ATOR
GENERATOR NAME OXV U.S.A. INC.	GENERATING LOCATION MyERS LANG IT MATTY #11
ADDRESS 1.0 Box 4294	ADDRESS LEA CO.
Housten TX 77210	
PHONE NO	
QUANTITY 10 yrds	MATERIAL BIL FIEld EXEMPT
	in partired soil
JASON DAVIS FOR OXY	Com Da-
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSP	ORTER
	;
TRUCK NO	PHONE NO. (575) 631-9868
TRANSPORTER NAME DJ Truck Services	DRIVER NAME (PRINT) <u>Carlos Martinez</u>
ADDRESS 103 W, BORY	VEHICLE LICENSE NO./STATE U) 88605
111 $1$	STATE TRANSPORTER ID NO
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
Pla D = 18 in	A 10 7-18-10
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
DESTIN	ATION
SITE NAME <u>Sundance SERVICES / PARADO</u> ADDRESS <u>P.O Box 1737 ELOUICE NEW /</u>	PHONE NO. 575-394-2511
ADDRESS P.O Box 1737 ELAILE NEW 1	1 <u>EXICO</u> 85231
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY

Dela	Sta	Crus -	
NAME OF AUTHORIZED A	GENT	X	SIGNATURE
		()	
Updated 01/24/02			

1 94 94 1		NO. //
6) 19 19	GENER	ATOR
	GENERATOR NAME <u>DXY USA INC.</u> ADDRESS <u>P.O Box 4294</u> Houston TX 77210	ENERATING LOCATION MyERS Langue Mitty #11 ADDRESS LEA Co.
· · · · ·	PHONE NO QUANTITY _ / D yRds  	STATE GENERATOR ID NUMBER <u>na</u> MATERIAL <u>OIL FIELD EXEMPT</u> IMPACTED SOIL
Same .	PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANSPORTER		
ると、「たい」の	TRANSPORTER NAME SWORDS	PHONE NO. $631-0131$ DRIVER NAME (PRINT) $51m$ VEHICLE LICENSE NO./STATE $60098369$ STATE TRANSPORTER ID NO.
「「「「」」	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE. DRIVER SIGNATURE JUNION TO ALL SHIPMENT DATE	
DESTINATION		
	SITE NAME Sundance Services INC. Presto ADDRESS P.O. BOX 1737 ELANCE MEN MEXICO	PHONE NO. <u>875-394-25</u> 11 88231
Sec. 1	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIA KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY
14.8 VAR	NAME OF AUTHORIZED AGENT Updated 01/24/02	SIGNATURE

	NO. 12		
GENERATOR			
	GENERATING LOCATION <u>Myees Langle Mathix #11</u> ADDRESS <u>LEA CO.</u>		
PHONE NO. QUANTITY <u>JOYRAS</u> <u>JASON DAVIS 62 OXY</u> PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	STATE GENERATOR ID NUMBER <u>144</u> MATERIAL <u>OFFICIAL EXEMPT</u> IMPATED 501 SIGNATURE (on behalf of Generator) SHIPMENT DATE		
TRANSP	ORTER		
TRUCK NO. 566 TRANSPORTER NAME DIJTIUCK Services ADDRESS 103 W. Berry Habbs MM I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE. Change 3-18-10 DRIVER SIGNATURE SHIPMENT DATE	PHONE NO. <u>(5775) 631-9868</u> DRIVER NAME (PRINT) <u>Carlos</u> , <u>Ma-finer</u> VEHICLE LICENSE NO./STATE <u>WD88605</u> STATE TRANSPORTER ID NO. I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW. JUNER SIGNATURE 3-18-10 DELIVERY DATE		
DESTINATION			
SITE NAME <u>Surfance Secures Mi. Pacabo</u> PHONE NO. <u>675-394-2511</u> ADDRESS <u>P.O. Box 1737 EUBLE NEW MEXICO</u> 588231 I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.			
NAME OF AUTHORIZED AGENT	SIGNATURE		

Updated 01/24/02

	NO. 013		
GENER	ATOR		
	BENERATING LOCATION Myers LAngle Muthy #11		
ADDRESS P.O. Bax 1294	ADDRESS LEACO.		
touston Tx 77210			
PHONE NO			
QUANTITY 10 12/2/15	MATERIAL ON Fredel exempt		
	ingrited soil		
JASON DAVIS FOR OXY	les fri		
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE		
TRANSPORTER			
TRUCK NO. 980	PHONE NO		
TRANSPORTER NAME Subras			
ADDRESS 1311 E, LLAVO Hobby NM			
undans 10m	STATE TRANSPORTER ID NO		
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.		
Ni Pal			
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE		
DESTINATION			
SITE NAME <u>SUNDANCE SEEVICES INC. PREADO</u>	PHONE NO575-394-257/		
ADDRESS F. I BOX 1737 EUNICE NEW MEXIL	<u>v 88231</u>		
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY		
Dala Sta Cruz-			
NAME OF AUTHORIZED AGENT	SIGNATURE		

Updated 01/24/02

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	NO. <u>014</u>
GEN	ERATOR
GENERATOR NAME DXV 1154 MC.	GENERATING LOCATION MULLES LANDIN PUTTY +#11
GENERATOR NAME <u>OKY IISA MU.</u> ADDRESS <u>I.O Bux 4294</u>	GENERATING LOCATION MILES LANGUE PRITTY #11 ADDRESS LEA CO.
Houston TX 77210	
PHONE NO.	STATE GENERATOR ID NUMBER
QUANTITY 10 420.5	MATERIAL ON Field exempt
	Impactual soil
JASON DAVIJ GOL CXV PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	Gand-
PLEASE PRINT OR TYPE GENERATOR AUTYORIZED AGENT NAME	SIGVATURE (on behalf of Generator) SHIPMENT DATE
	SPORTER
TRUCK NO	PHONE NO. (575)631-9868
TRANSPORTER NAME NJ Truck Services	DRIVER NAME (PRINT) <u>Carlos Martínez</u>
ADDRESS 103 N. Berry	VEHICLE LICENSE NO./STATE WD&8605
Hubbs, NA	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIA WAS PICKED UP AT THE GENERATOR SITE LISTED	AL I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
ABOVE.	THE DESTINATION LISTED BELOW.
1 Mar Line 3-18-10	CMar # 3-18-10
DRIVER SIGNATURE SHIPMENT DA	TE DRIVER SIGNATURE DELIVERY DATE
DES	
SITE NAME <u>Sundance services</u> INC. / PARAD	<sup>D</sup> PHONE NO. <u>575-394-2511</u>
ADDRESS P.O. BOX 1737 GUALLE NEW ME	
I HEREBY CERTIFY THAT THE ABOVE NAMED MAT KNOWLEDGE THE FOREGOING IS TRUE AND ACCURA	ERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY TE.
Nda Sta Auro -	
NAME OF AUTHORIZED AGENT	SIGNATURE
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NO.	15	

### GENERATOR

GENERATOR NAME OXY USA INC.	GENERATING LOCATION My erstender Hall + #11
ADDRESS PO Box 4294	
Houston Tx 77210	
PHONE NO.	STATE GENERATOR ID NUMBER 1/14
QUANTITY 10 425	MATERIAL oil Field Exempt
	Impected Soil
BILL CORRECTOR FOR OXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	K Langula     3-18-10       SIGNATURE (on behalf of Generator)     SHIPMENT DATE
TRANSP	ORTER
TRUCK NO	PHONE NO. (31-0121
TRANSPORTER NAME SLUKDS	DRIVER NAME (PRINT)
ADDRESS 1311 F. LLAND	VEHICLE LICENSE NO./STATE 120 986 34 ルット
	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
ABOVE.	THE DESTINATION LISTED BELOW.
DRIVER SIGNATURE SHIPMENT DATE	Jin howh 3-18-10
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
DESTIN	
SITE NAME Sandana Services and PORDo	PHONE NO. 575-394-2511
ADDRESS PO Box 1737 Sunia New Meric	88231
I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE	IAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
	C. Romeno 3.18.10
NAME OF AUTHORIZED AGENT	SIGNATURE

Updated 01/24/02

# NON-HAZARDOUS WASTE

	NO/ ć	
GENEI	RATOR	
GENERATOR NAME COXY USA INC.	GENERATING LOCATION Myers Langfor Matty #11	
	ADDRESS Lear Co.	
Hauston Tr 77210		
PHONE NO	STATE GENERATOR ID NUMBER	
QUANTITY 10:105	MATERIAL Oil Fill Sycampy	
RILL CORRESCOS	<u>SIGNATURE</u> (on behalf of Generator) SHIPMENT DATE	
TRANS	PORTER	
TRUCK NO	PHONE NO. (5751631-9888	
TRANSPORTER NAME NJ Truck Services	DRIVER NAME (PRINT) Carlos Martinez	
ADDRESS 10:3 W. Berry		
Hobbs NM		
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.	
CMartin 3-15-10 DRIVER SIGNATURE SHIPMENT DATE	Charter 3-10 DRIVER SIGNATURE JELIVERY DATE	
DESTINATION		
SITE NAME Sundance Servine Inc/ PARabo		
ADDRESS P.O. Box 1737 Suble New Mex.	co 83231	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE	RIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY	
	C-Romeno 3.18-10	
NAME OF AUTHORIZED AGENT	SIGNATURE	

NAME OF AUTHORIZED AGENT

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	NO7	
GENER	ATOP	
GENERATOR NAME <u>Ow US4 Inc.</u> ADDRESS <u>P.O Box 4294</u>	BENERATING LOCATION My FIES LANGUE MATTIX #11 ADDRESS	
<u>HOUSEON IX 77210</u> PHONE NO QUANTITY <u>10 ynds</u>	STATE GENERATOR ID NUMBER	
JASON DAULS FOR CALL PLEASE PRINT OR TYPE GENERATOR ANTHORIZED AGENT NAME	IN PACTED 501 SIGNATURE (on behalf of Generator) SHIPMENT DATE	
TRANSPO	ORTER	
TRUCK NO	PHONE NO. (575) 6318-9868	
TRANSPORTER NAME DJ Truck Spruces	DRIVER NAME (PRINT) Carlos Martinez	
ADDRESS 103 U. Borry Hobbs NM	VEHICLE LICENSE NO./STATE WD86605	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.	
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE 3-19-10 DELIVERY DATE	
DESTINATION		
SITE NAME <u>Sundance SERVICES MC. / PARADO</u>		
ADDRESS P.O. BOX 1737 ELANCE NEW MEXICO 8	323/	
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERI KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.	AL HAS BEEN ACCEPTED AND TO THE BEST OF MY	
NAME OF AUTHORIZED AGENT Updated 01/24/02	SIGNATURE	

# NON-HAZARDOUS WASTE

	NO. 018		
GENER	ATOR		
GENERATOR NAME <u>OXY USA INC.</u> ADDRESS <u>P.O Bax 4294</u> How ston TX JZ10	ADDRESS LEA CU,		
PHONE NO	STATE GENERATOR ID NUMBER		
JASON DAVIS FOR CXY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE		
TRANSPORTER			
TRUCK NO	PHONE NO		
DESTINATION			
SITE NAME SUICES MC MEADE ADDRESS P.O. BOX 1737 CONICE NEW MEY I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.			
NAME OF AUTHORIZED AGENT	SIGNATURE		

Updated 01/24/02

	NO. <u>119</u>
GENE	RATOR
GENERATOR NAME CXY USA INC.	GENERATING LOCATION Myses Long 10 144 44 # 11
ADDRESS P.C Box 4294	<b>1</b>
4015ton Tx 77210	
PHONE NO.	
QUANTITY 10 yds	MATERIAL al field exempt
	inpacted ser
JASON DAVIS FOR ONY	land?
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATURE (on behalf of Generator) SHIPMENT DATE
TRANS	PORTER
TRUCK NO. 980	PHONE NO. 631-0121
TRANSPORTER NAME SUBRDS	DRIVER NAME (PRINT)
	VEHICLE LICENSE NO./STATE - D98264 NM
40665 Nim 88240	STATE TRANSPORTER ID NO.
I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.	I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.
Jim book 3-19-12	Jim front 3-19-10
DRIVER SIGNATURE SHIPMENT DATE	DRIVER SIGNATURE DELIVERY DATE
DEST	NATION
SITE NAME Sundance SERVES MC. / PARADO	PHONE NO. 575-394-2571
ADDRESS P.O Bex 1737 EUNICE NEW MEXICO	88231
I HEREBY CERTIFY THAT THE ABOVE NAMED MATE KNOWLEDGE THE FOREGOING IS TRUE AND ACCURAT	RIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY $\Xi$ .

NAME OF AUTHORIZED AGENT

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SIGNATURE

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	NO. <u>020</u>	
GENEF	ATOR	
GENERATOR NAME <u>Dry USA INC</u> ADDRESS <u>P.O BOX 4294</u> Houston Tx 77210	GENERATING LOCATION Myc <u>es Lingte matrix #11</u> ADDRESS <u>LEA</u> Co.	
PHONE NO		
JASON DAVIS FOR CAY PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME	SIGNATORE (on behalf of Generator) SHIPMENT DATE	
TRANSF	PORTER	
TRUCK NO. <u>566</u> TRANSPORTER NAME <u>DSTruck Services</u> ADDRESS <u>103 W-Berry</u> <u>Hubs</u> <u>MM</u> I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE. <u>CMARG</u> <u>3-10-10</u> DRIVER SIGNATURE SIGNATURE	VEHICLE LICENSE NO./STATE       WD 88 605         STATE TRANSPORTER ID NO.	
DESTINATION		
SITE NAME <u>Sundance SERVICES MIL. /PARAbo</u> ADDRESS <u>P.O BOX 1737 EWAILE NEW MEXILO</u>		
I HEREBY CERTIFY THAT THE ABOVE NAMED MATER KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE	RIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY	
NAME OF AUTHORIZED AGENT	SIGNATURE	

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03/01/10

**Technical Report for** 

**Conestoga-Rovers & Associates** 

GSHI - Oxy USA #11 MLMU

SSOW #600AO11-402-DO2-1100

Accutest Job Number: T47470

Sampling Date: 02/10/10

Report to:

Conestoga Rovers & Associates 6320 Rothway Suite 100 Houston, TX 77040 plynch@craworld.com

ATTN: Pat Lynch

Total number of pages in report: 94



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro Laboratory Director



Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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### Sample Summary

### **Conestoga-Rovers & Associates**

Job No: T47470

GSHI - Oxy USA #11 MLMU Project No: SSOW #600AO11-402-DO2-1100

Sample Number	Collected Date	Time By	Received	Matri Code		Client Sample ID
T47470-1	02/10/10	13:06 RB	02/12/10	SO	Soil	SB-1 0-5'
T47470-2	02/10/10	13:11 RB	02/12/10	SO	Soil	SB-1 10-15'
T47470-3	02/10/10	13:16 RB	02/12/10	SO	Soil	SB-1 25-30'
T47470-4	02/10/10	13:31 RB	02/12/10	SO	Soil	SB-2 0-5'
T47470-5	02/10/10	13:34 RB	02/12/10	SO	Soil	SB-2 10-15'
T47470-6	02/10/10	13:40 RB	02/12/10	SO	Soil	SB-2 25-30'
T47470-7	02/10/10	13:56 RB	02/12/10	SO	Soil	SB-3 0-5
T47470-8	02/10/10	14:00 RB	02/12/10	SO	Soil	SB-3 10-15'
T47470-9	02/10/10	14:06 RB	02/12/10	SO	Soil	SB-3 25-30'
Ť47470-10	02/10/10	14:25 RB	02/12/10	SO	Soil	SB-4 0-5'
T47470-11	02/10/10	14:27 RB	02/12/10	SO	Soil	SB-4 5-10'
T47470-12	02/10/10	14:36 RB	02/12/10	SO	Soil	SB-4 25-30'
T47470-13	02/10/10	14:56 RB	02/12/10	SO	Soil	SB-5 0-5'

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



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### Sample Summary

(continued)

**Conestoga-Rovers & Associates** 

Job No: T47470

GSHI - Oxy USA #11 MLMU Project No: SSOW #600AO11-402-DO2-1100

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID	i
T47470-14	02/10/10	15:00 RB	02/12/10	SO	Soil	SB-5 10-15'	
T47470-15	02/10/10	15:09 RB	02/12/10	SO	Soil	SB-5 25-30'	

Soil samples reported on a dry weight basis unless otherwise indicated on result page.





### SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Conestoga-Rovers & Associates

**Job No** T47470

2/26/2010 6:10:03 PM

Report Date

Site: GSHI - Oxy USA #11 MLMU

15 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 02/10/2010 and were received at Accutest on 02/12/2010 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of T47470. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

#### Volatiles by GC By Method SW846 8015

	Matrix SO	Batch ID:	GEE2637					
8	All samples were analyzed within the recommended method holding time.							
麟	Sample(s) T47470-2MS, T47470	0-2MSD were used as the	QC samples indicated.					
8	All method blanks for this batch meet method specific criteria.							
	Matrix SO	Batch ID:	GEE2638					

All samples were analyzed within the recommended method holding time.

Sample(s) T47470-15MS, T47470-15MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Volatiles by GC By Method SW846 8021B

	Matrix SO	Batch ID: GKK1	651				
<ul> <li>All samples were analyzed within the recommended method holding time.</li> </ul>							

Sample(s) T47470-2MS, T47470-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.





Friday, February 26, 2010

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### Extractables by GC By Method SW846 8015 M

Matrix SO Batch ID: OP14071	
-----------------------------	--

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T47470-2MS, T47470-2MSD were used as the QC samples indicated.
- RPD(s) for MSD for TPH (>C28-C35) are outside control limits for sample OP14071-MSD. Probable cause due to sample homogeneity.
- Sample(s) OP14071-MSD, T47470-11, T47470-10, T47470-4 have surrogates outside control limits. Probable cause due to matrix interference.
- T47470-4 for o-Terphenyl: Outside control limits due to dilution.
- T47470-10 for o-Terphenyl: Outside control limits due to dilution.

Matrix SO	Batch ID:	OP14111
All samples were extracted within	the recommended method	d holding time.

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) OP14071-MSD, T47470-11, T47470-10, T47470-4 have surrogates outside control limits. Probable cause due to matrix interference.

### Wet Chemistry By Method SM 2540 G

Matrix	SO	Batch ID:	GN20797
Sample(s) T47	402-4DU	P were used as the QC samples for	r Solids, Percent.
Matrix	SO	Batch ID:	GN20801
Somela(a) T47	470 1101	IP wars used as the OC samples f	ar Salida Daraant

Sample(s) T47470-11DUP were used as the QC samples for Solids, Percent.

Page 2 of 3



Friday, February 26, 2010

### Wet Chemistry By Method SW846 9056

Matrix SO	Batch ID: GP8079	
All samples were distilled within the	the recommended method holding time.	
All samples were analyzed within	the recommended method holding time.	
All method blanks for this batch r	meet method specific criteria.	
Sample(s) T47470-1DUP, T4747	70-1MS were used as the QC samples for Chloride.	
T47470-3 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-2 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-5 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-4 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-1 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-15 for Chloride: Analysis	Performed by Southwest Environmental Laboratories, Inc. Certific	ation #T1047O4237-09-TX
T47470-14 for Chloride: Analysis	s Performed by Southwest Environmental Laboratories, Inc. Certific	ation #T1047O4237-09-TX
T47470-12 for Chloride: Analysis	s Performed by Southwest Environmental Laboratories, Inc. Certific	ation #T1047O4237-09-TX
T47470-10 for Chloride: Analysis	Performed by Southwest Environmental Laboratories, Inc. Certific	ation #T1047O4237-09-TX
T47470-11 for Chloride: Analysis	Performed by Southwest Environmental Laboratories, Inc. Certific	ation #T1047O4237-09-TX
T47470-6 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-7 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-8 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX
T47470-9 for Chloride: Analysis I	Performed by Southwest Environmental Laboratories, Inc. Certifica	tion #T1047O4237-09-TX

T47470-13 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

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Page 3 of 3



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## Section 3



Sample Results

**Report of Analysis** 



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Report of Analysis

Client Sample ID: Lab Sample ID: Matrix: Method: Project:							Date Sampled:02/10/10Date Received:02/12/10Percent Solids:93.3			
Run #1 Run #2	File ID EE0520		<b>DF</b> 1	<b>Analyze</b> 02/18/1	•	Prej n/a	) Date	<b>Prep Batch</b> n/a	Analytical Batch GEE2637	
Run #1 Run #2	<b>Initial</b> 5.00 g	Weight	Final Vo 5.0 ml		lethanol Al )0 ul	iquot				
CAS No.	Comp	ound		Resu	lt RL	MD	L Uni	its Q		
	TPH-O	GRO (C6	6-C10)	ND	5.7	0.34	mg∕	⁄kg		
CAS No.	Surrogate Recoveries		Run	#1 Ru:	n#2 I	imits.				
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene		99% 101%		46-127% 44-120%					

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



Page 1 of 1



1330-20-7

CAS No.

460-00-4

98-08-8

Xylenes (total)

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

	Report of Analysis								
Client Sam Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846					Sampled: Received nt Solids			
Run #1 Run #2	File ID KK034657.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch GKK1651	
Run #1 Run #2	Initial Weight 5.34 g	Final Vo 5.0 ml	lume						
Purgeable	Aromatics								
CAS No.	Compound		Result	RL	MDL	Units	Q		
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene		0.95 1.9 ND	5.0 5.0 5.0	0.49 0.65 0.67	ug/kg ug/kg ug/kg	J J		

10

Run# 2

1.7

Limits

21-163% 39-170% J

ug/kg

1.7

Run#1

91%

125%

ND = Not detected **MDL - Method Detection Limit** RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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	Report of Analysis								
Client Sam Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84						Date Sampled:02/10/10Date Received:02/12/10Percent Solids:93.3		
Run #1 Run #2	File ID IF195064.D	<b>DF</b> 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	<b>Prep Date</b> 02/15/10		Prep Batch OP14071	Analytical Batch GIB955	
Run #1 Run #2	Initial Weight 30.1 g	Final V 1.0 ml	/olume						
CAS No.	Compound		Result	RL	MDL	Units	Q		
	TPH (C10-C28) TPH (>C28-C35)		ND ND	8.9 8.9	2.9 2.4	mg/kg mg/kg			
CAS No.	Surrogate R	ecoveries	Run# 1	Run# 2	Lim	its			
84-15-1	o-Terphenyl		74%		33-115%				

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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Client Sample ID: Lab Sample ID: Matrix:	SB-1 0-5' T47470-1 SO - Soil	Date Sampled: 02/10/10 Date Received: 02/12/10 Percent Solids: 93.3						
Project: GSHI - Oxy USA #11 MLMU								
General Chemistry	y							
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method	
Chloride	3.4	2.6	mg/kg	1	02/25/10 10:55	TW	SW846 9056	
Solids, Percent	93.3		%	1	02/15/10	MR	SM 2540 G	

## is





			Repor	t of An	alysis			Page 1 of 1
Client Sam Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84	0-2 oil 5 8015	#11 MLMU		Date 1	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	<b>File ID</b> EE052085.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.06 g	Final Vo 5.0 ml	olume Metha 100 ul	anol Aliquo	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.6	0.34	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorof	0.00000000	99% 101%			1 <b>27</b> % 1 <b>20</b> %		

ND = Not detectedMDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

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N = Indicates presumptive evidence of a compound



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100-41-4

1330-20-7

CAS No.

460-00-4

98-08-8

Ethylbenzene

Xylenes (total)

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

			Repo	rt of A	nalysis			Page 1 of 1
Client San Lab Samp Matrix: Method: Project:	ole ID: T47470 SO - So SW846	)-2 pil 8021B	#11 MLMU		: 02/10/10 : 02/12/10 : 93.9			
Run #1 Run #2	File ID KK034658.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	<b>Initial Weight</b> 5.12 g	Final Vo 5.0 ml	olume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3	Benzene Toluene		0.60 1.8	5.2 5.2	0.51 0.68	ug/kg ug/kg	J J	

5.2

10

Run#2

0.69

1.8

Limits

21-163%

39-170%

ug/kg

ug/kg

J

ND

2.7

Run#1

87%

122%

MDL - Method Detection Limit ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



	Report of Analysis										
Client Sam Lab Samp Matrix: Method: Project:	e ID: T47470 SO - So SW846	)-2 pil 5 8015 M - S	SW846 3550B #11 MLMU		Date F	Sampled: Received: nt Solids:	02/12/10				
Run #1 Run #2	<b>File ID</b> IF195065.D	DF 1	Analyzed 02/18/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIF955			
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	olume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C2 TPH (>C28-0	,	7.47 7.43	8.7 8.7	2.9 2.3	mg/kg mg/kg	J J				
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl		65%		33-1	15%					

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

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E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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		керс	ort of AD	alysis			Page 1 of
Client Sample ID:	SB-1 10-15'						
Lab Sample ID:	T47470-2			Date	Sampled: 02/10/1	0	
Matrix:	SO - Soil			Date 1	Received: 02/12/1	0	
				Perce	nt Solids: 93.9		
Project:	GSHI - Oxy USA #1	1 MLMU					
General Chemistry	1				· · · · · · · · · · · · · · · · · · ·		
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride	17.5	2.6	mg/kg	1	02/25/10 11:51	TW	SW846 9056
Solids, Percent	93.9		%	1	02/15/10	MR	SM 2540 G

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Page 1 of 1

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			Repo	rt of An	alysis			Page 1 of 1
Client San Lab Samp Matrix: Method: Project:	ele ID: T4747 SO - S SW84	0-3 foil 6 8015	#11 MLMU		Date I	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	File ID EE052086.D	<b>DF</b> 1	<b>Analyzed</b> 02/18/10	<b>By</b> Fl	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.43 g	Final V 5.0 ml	olume Meth 100 u	anol Aliquo l	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.3	0.32	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorof		98% 101%			.27% .20%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



CAS No.

460-00-4

98-08-8

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

		Page 1 of 1						
Client Sam Lab Samp Matrix: Method: Project:		02/10/10 : 02/12/10 : 93.3						
Run #1 Run #2	File ID KK034659.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.18 g	Final Vo 5.0 ml	olume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		0.62 1.3 ND ND	5.2 5.2 5.2 10	0.50 0.67 0.69 1.8	ug/kg ug/kg ug/kg ug/kg	J J	

Run# 2

Run#1

90%

122%

ND = Not detected **MDL - Method Detection Limit** RL = Reporting Limit

J = Indicates an estimated value

Limits

21-163%

39-170%

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



E = Indicates value exceeds calibration range

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			Repo	rt of An	alysis			Page 1 of 1			
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T4747 SO - S SW84	0-3 Soil 6 8015 M	SW846 3550B #11 MLMU				Date Sampled:02/10/10Date Received:02/12/10Percent Solids:93.3				
Run #1 Run #2	File ID IF195066.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIB955			
Run #1 Run #2	Initial Weight 30.1 g	Final V 1.0 ml	olume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C TPH (>C28-		4.11 5.29	8.9 8.9	2.9 2.4	mg/kg mg/kg					
CAS No.	Surrogate R	ecoveries	Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl	o-Terphenyl			33-1	.15%					

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



Solids, Percent

the same

Report of Analysis

Client Sample ID: Lab Sample ID: Matrix:	ab Sample ID: T47470-3 Iatrix: SO - Soil					Date Sampled: 02/10/10 Date Received: 02/12/10 Percent Solids: 93.3					
Project:	GSHI - Oxy USA #12	I MLMU									
General Chemistry	y										
Analyte	Result	RL	Units	DF	Analyzed	By	Method				
Chloride	60.1	2.7	mg/kg	1	02/25/10 12:10	TW	SW846 9056				

%

93.3

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02/15/10

MR

SM 2540 G

			Repor	t of An	alysis			Page 1 of 1
Client Sam Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846	)-4 oil 5 8015	#11 MLMU		Date I	Sampled: Received: nt Solids:	02/12/10	:
Run #1 Run #2	File ID EE052087.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	<b>Prep D</b> n/a	ate	<b>Prep Batch</b> n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.25 g	Final Vo 5.0 ml	blume Metha 100 ul	anol Aliquo	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.1	0.31	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluorot		99% 102%			27% 20%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

- E = Indicates value exceeds calibration range
- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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Report of Analysis

		-4 il 8021B	#11 MLMU		Date Sampled:02/10/10Date Received:02/12/10Percent Solids:96.7				
Run #1 Run #2	<b>File ID</b> KK034660.D	DF 1	Analyzed 02/18/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651	
Run #1 Run #2	Initial Weight 5.90 g	Final Vo 5.0 ml	lume						
Purgeable	Aromatics								
CAS No.	Compound		Result	RL	MDL	Units	Q		
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		8.4 33.2 3.0 35.6	4.4 4.4 4.4 8.8	0.43 0.57 0.58 1.5	ug/kg ug/kg ug/kg ug/kg	J		

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	64%		21-163%
98-08-8	aaa-Trifluorotoluene	112%		39-170%

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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Report of Analysis

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Client San Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846	)-4 bil 8015 M	SW846 3550B #11 MLMU		Date S Date I Percer			
Run #1 Run #2	<b>File ID</b> IF195086.D	<b>DF</b> 10	<b>Analyzed</b> 02/19/10	<b>By</b> FO	<b>Prep D</b> 02/15/1		Prep Batch OP14071	Analytical Batch GIB955
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	blume					
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C23 TPH (>C28-0		582 469	86 86	28 23	mg/kg mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		0% a		33-1	15%		

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit RL = Reporting LimitE = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Page 1 of 1

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## Report of Analysis

Client Sample ID: Lab Sample ID: Matrix:	SB-2 0-5' T47470-4 SO - Soil			Date Sampled:02/10/10Date Received:02/12/10Percent Solids:96.7					
Project:	GSHI - Oxy USA #11	MLMU							
General Chemistry	1								
Analyte	Result	RL	Units	DF	Analyzed	By	Method		
Chloride Solids, Percent	<2.5 96.7	2.5	mg/kg %	1 1	02/25/10 12:33 02/15/10	TW MR	SW846 9056 SM 2540 G		





	Report of Analysis											
Client Sam Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW846	0-5 oil 5 8015	#11 MLMU		Date H	Sampled: Received: nt Solids:	02/12/10					
Run #1 Run #2	File ID EE052088.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GEE2637				
Run #1 Run #2	<b>Initial Weight</b> 5.15 g	Final V 5.0 ml	olume Metha 100 ul	unol Aliquo	t							
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH-GRO (C	6-C10)	ND	5.6	0.34	mg/kg						
CAS No.	Surrogate Re	coveries	<b>Run#</b> 1	Run# 2	Lim	its						
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene		99% 101%			27% 20%						

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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CAS No.

460-00-4

98-08-8

			Page 1 of 1					
Client Sam Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846	E ID: T47470-5 SO - Soil SW846 8021B GSHI - Oxy USA #11 MLMU			Date S Date F Percer			
Run #1 Run #2	File ID KK034661.D	<b>DF</b> 1	<b>Analyzed</b> 02/18/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.52 g	Final Vo 5.0 ml	lume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		2.7 12.7 1.7 20.5	4.9 4.9 4.9 9.8	0.47 0.63 0.65 1.7	ug/kg ug/kg ug/kg ug/kg	J J	

Run# 2

Run#1

88%

126%

Limits

21-163% 39-170%

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



	Report of Analysis										
Client San Lab Samp Matrix: Method: Project:	ole ID: T4747 SO - S SW84	0-5 Soil	SW846 3550B #11 MLMU	Date Sampled:02/10/10Date Received:02/12/10Percent Solids:92.8							
Run #1 Run #2	<b>File ID</b> IF195067.D	<b>DF</b> 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	<b>Prep D</b> 02/15/1		Prep Batch OP14071	Analytical Batch GIF955			
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	lume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C2 TPH (>C28-		108 74.6	8.8 8.8	2.9 2.3	mg/kg mg/kg					
CAS No.	Surrogate Re	Surrogate Recoveries		Run# 2	Lim	its					
84-15-1	o-Terphenyl		72%		33-1	15%					

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ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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Solids, Percent

92.8

		Page 1 of									
Client Sample ID:	SB-2 10-15'										
Lab Sample ID:	T47470-5			Date	Sampled: 02/10/1	0					
Matrix:	SO - Soil	Date									
				Perce	nt Solids: 92.8						
Project:	GSHI - Oxy USA #1	GSHI - Oxy USA #11 MLMU									
General Chemistry	1										
Analyte	Result	RL	Units	DF	Analyzed	By	Method				
Chloride	< 2.7	2.7	mg/kg	1	02/25/10 12:52	TW	SW846 9056				
	00.0		0(	4	00/15/10						

%

1

02/15/10

MR SM 2540 G



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**Report of Analysis** Page 1 of 1 Client Sample ID: SB-2 25-30' Lab Sample ID: T47470-6 Date Sampled: 02/10/10 Matrix: SO - Soil Date Received: 02/12/10 SW846 8015 Percent Solids: 94.7 Method: Project: GSHI - Oxy USA #11 MLMU File ID By Prep Date Prep Batch **Analytical Batch** DF Analyzed Run #1 FI EE052089.D 02/19/10 GEE2637 1 n/a n/a Run #2 Initial Weight Final Volume Methanol Aliquot Run #1 5.30 g 5.0 ml 100 ul Run #2 Compound CAS No. Result RL MDL Units Q TPH-GRO (C6-C10) ND 0.32 mg/kg 5.3CAS No. Surrogate Recoveries Run#1 Run#2 Limits 460-00-4 4-Bromofluorobenzene **98**% 46-127% aaa-Trifluorotoluene 44-120% 98-08-8 102%

ND = Not detected **MDL** - Method Detection Limit

**RL** = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



No.



CAS No.

460-00-4

98-08-8

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	Report of Analysis											
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T47470 SO - So SW846	ID: T47470-6 SO - Soil SW846 8021B GSHI - Oxy USA #11 MLMU				Date Sampled: 02/10/10 Date Received: 02/12/10 Percent Solids: 94.7						
Run #1 Run #2	File ID KK034662.D	DF 1	Analyzed 02/18/10	<b>By</b> FI	Prep D n/a	)ate	Prep Batch n/a	Analytical Batch GKK1651				
Run #1 Run #2	Initial Weight 5.11 g	Final Vo 5.0 ml	lume									
Purgeable	Aromatics						,					
CAS No.	Compound		Result	RL	MDL	Units	Q					
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		0.72 3.0 ND 4.6	5.2 5.2 5.2 10	0.50 0.67 0.69 1.8	ug/kg ug/kg ug/kg ug/kg	] ]					

Run#2

Run#1

**89**%

121%

Limits

21-163%

39-170%

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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	Report of Analysis												
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW840	0-6 oil	SW846 3550B #11 MLMU		Date I	Sampled: Received: nt Solids:	02/12/10						
Run #1 Run #2	<b>File ID</b> IF195068.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIB955					
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	lume										
CAS No.	Compound		Result	RL	MDL	Units	Q						
	TPH (C10-C2 TPH (>C28-	· · · ·	12.9 15.1	8.8 8.8	2.9 2.3	mg/kg mg/kg							
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its							
84-15-1	o-Terphenyl		67%		33-1	15%							

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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		Repo	ort of An	alysis			Page 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	SB-2 25-30' T47470-6 SO - Soil						
Project:	GSHI - Oxy USA #11						
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride Solids, Percent	< 2.6 94.7	2.6	mg/kg %	1 1	02/25/10 13:10 02/15/10	TW MR	SW846 9056 SM 2540 G



Page 1 of 1 Client Sample ID: SB-3 0-5' Lab Sample ID: T47470-7 Date Sampled: 02/10/10 Date Received: 02/12/10 Matrix: SO - Soil Method: SW846 8015 Percent Solids: 95.3 Project: GSHI - Oxy USA #11 MLMU **Analytical Batch** File ID DF By Prep Date Prep Batch Analyzed Run #1 EE052094.D FÍ GEE2637 1 02/19/10 n/a n/a Run #2 Final Volume Methanol Aliquot Initial Weight Run #1 100 ul 5.19 g 5.0 ml Run #2 RL MDL Units Q CAS No. Compound Result TPH-GRO (C6-C10) ND 5.3 0.32 mg/kg Run# 2 CAS No. Surrogate Recoveries Run#1 Limits **98**% 46-127% 460-00-4 4-Bromofluorobenzene 44-120% 98-08-8 aaa-Trifluorotoluene 102%

ND = Not detected **MDL** - Method Detection Limit

**RL** = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Report of Analysis** 

CAS No.

460-00-4

98-08-8

Report of Analysis

			-		-			
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T47470- SO - So SW846	-7 il 8021B	#11 MLMU		Date F	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	File ID KK034667.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.06 g	Final Vo 5.0 ml	lume			_		
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		0.51 1.3 ND 1.9	5.2 5.2 5.2 10	0.50 0.67 0.69 1.8	ug/kg ug/kg ug/kg ug/kg	] J	

Run# 2

Limits

21-163%

39-170%

Run# 1

**8**4%

122%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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Page 1 of 1

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	Report of Analysis											
Client Sam Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84	70-7 Soil	SW846 3550B #11 MLMU		Date Sampled Date Received Percent Solids							
Run #1 Run #2	File ID IF195094.D	<b>DF</b> 1	Analyzed 02/19/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIB955				
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	lume									
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH (C10-C TPH (>C28	,	ND ND	8.6 8.6	2.8 2.3	mg/kg mg/kg						
CAS No.	Surrogate Re	ecoveries	Run# 1	Run# 2	Lim	its						
84-15-1	o-Terphenyl		70%		33-1	15%						

MDL - Method Detection Limit ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- $\mathbf{B}$  = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound





	Report of Analysis											
Client Sample ID: Lab Sample ID:	SB-3 0-5' T47470-7											
Matrix: Project:	SO - Soil GSHI - Oxy USA #11	I MLMU		Date 1 Perce								
General Chemistry	1			·····	·							
Analyte	Result	RL	Units	DF	Analyzed	By	Method					
Chloride Solids, Percent	<2.6 95.3	2.6	mg/kg %	1 1	02/23/10 20:32 02/15/10	TW MR	SW846 9056 SM 2540 G					



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		Report of Analysis									
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW846	0-8 oil 5 8015	#11 MLMU		Date I	Sampled: Received: nt Solids:	: 02/12/10				
Run #1 Run #2	File ID EE052095.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch GEE2637			
Run #1 Run #2	Initial Weight 5.14 g	Final Vo 5.0 ml	blume Meth 100 u	anol Aliquo I	t						
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH-GRO (C	6-C10)	ND	5.6	0.34	mg/kg					
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	nits					
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorot		99% 101%			127% 120%					

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



460-00-4

98-08-8

		Page 1 of 1						
Client San Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846	-8 il 8021B	x #11 MLMU					
Run #1 Run #2	File ID KK034668.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.08 g	Final V 5.0 ml	<i>'olume</i>					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		0.86 2.2 ND 2.6	5.3 5.3 5.3 11	0.52 0.69 0.71 1.8	ug/kg ug/kg ug/kg ug/kg	] ]	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		

86%

122%

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ND = Not detected MDL - Method Detection Limit RL = Reporting Limit E = Indicates value exceeds calibration range

4-Bromofluorobenzene

aaa-Trifluorotoluene

J = Indicates an estimated value

21-163%

39-170%

- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



		Report of Analysis										
Client Sam Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84	0-8 oil 6 8015 M	SW846 3550B #11 MLMU		Date I	Sampled: Received: nt Solids:						
Run #1 Run #2			Analyzed 02/18/10	<b>By</b> FO	<b>Prep D</b> 02/15/1		Prep Batch OP14071	Analytical Batch GIB955				
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	olume									
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH (C10-C2 TPH (>C28-	•	4.64 5 <i>.</i> 95	9.0 9.0	2.9 2.4	mg/kg mg/kg	] ]					
CAS No.	o. Surrogate Recoveries		Run# 1	Run# 2	Lim	its						
84-15-1	o-Terphenyl		74%		33-1	15%						

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

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E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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Solids, Percent

Report of Analysis									
Client Sample ID:	SB-3 10-15'			_	Sampled: 02/10/1				
Lab Sample ID:	T47470-8								
Matrix:	SO - Soil			Date Received: 02/12/10 Percent Solids: 92.7					
Project:	GSHI - Oxy USA #11	GSHI - Oxy USA #11 MLMU							
General Chemistry	/								
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method		
Chloride	< 2.7	2.7	mg/kg	1	02/23/10 20:51	TW	SW846 9056		
			50		0011-110				

%

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Report of Analysis

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Client San Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846	)-9 )il 8015	#11 MLMU		Date Sampled:02/10/10Date Received:02/12/10Percent Solids:94.8					
Run #1 Run #2	File ID EE052096.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GEE2637		
Run #1 Run #2	Initial Weight 5.20 g	Final Vo 5.0 ml	lume Metha 100 ul	nol Aliquo	t					
CAS No.	Compound		Result	RL	MDL	Units	Q			
	TPH-GRO (Ce	6-C10)	ND	5.3	0.32	mg/kg				
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its				
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene		98% 102%		-	27% 20%				

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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	Report of Analysis									
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T47470 SO - So SW846	9-9 0il 8021B	411 MLMU	Date Sampled: 02/10/10 Date Received: 02/12/10 Percent Solids: 94.8						
Run #1 Run #2	<b>File ID</b> KK034669.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	<b>Prep Batch</b> n/a	Analytical Batch GKK1651		
Run #1 Run #2	Initial Weight 5.65 g	Final V 5.0 ml	<i>olume</i>							
Purgeable .	Aromatics									
CAS No.	Compound		Result	RL	MDL	Units	Q			
71-43-2	Benzene		0.58	4.7	0.45	ug/kg	J			
108-88-3	Toluene		2.2	4.7	0.61	ug/kg	J			
100-41-4	Ethylbenzene		ND	4.7	0.62	ug/kg				
1330-20-7	Xylenes (total)		3.1	9.3	1.6	ug/kg	J			
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its				
460-00-4	4-Bromofluorobenzene		86%		21-163%					
98-08-8	aaa-Trifluorotoluene		121%	39-170%						

ND = Not detected MDL - Method Detection Limit

**RL** = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound





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		Report of Analysis										
Client San Lab Samp Matrix: Method: Project:	ole ID: T4747 SO - S SW84	0-9 Soil 6 8015 M	SW846 3550B #11 MLMU		Date 1	Sampled: Received: nt Solids:						
Run #1 Run #2	<b>File ID</b> IF195071.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIF955				
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	olume									
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH (C10-C2 TPH (>C28-		9.56 12.0	8.6 8.6	2.8 2.3	mg/kg mg/kg						
CAS No.	Surrogate Re	Surrogate Recoveries		Run# 2	Lim	its						
84-15-1	o-Terphenyl		<b>58</b> %		33-1	15%						

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





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Solids, Percent

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		Kepo		alysis			Page 1 (	51 I
Client Sample ID:	SB-3 25-30'							
Lab Sample ID:	T47470-9			Date	Sampled: 02/10/1	0		
Matrix:	SO - Soil			Date ]				
Project:	GSHI - Oxy USA #1	1 MLMU		Perce	nt Solids: 94.8			
General Chemistry	1							
Analyte	Result	RL	Units	DF	Analyzed	By	Method	
Chloride	3.7	2.6	mg/kg	1	02/23/10 21:09	тw	SW846 9056	
Chloride	3.7	2.6	mg/kg	1	02/23/10 21:09	ΤW	SW846 9056	

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# Report of Analysis



Page 1 of 1

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Report of Analysis

Client Sample ID: Lab Sample ID: Matrix: Method: Project: File ID		SB-4 0-5' T47470-10 SO - Soil SW846 8015 GSHI - Oxy USA #11 MLMU					Date Sampled:02/10/10Date Received:02/12/10Percent Solids:96.0						
Run #1 Run #2	File ID EE0520		DF 1	<b>Anal</b> 02/19	-	<b>By</b> FI	Prep n/a	Date	<u>, , , , , , , , , , , , , , , , , , , </u>	<b>Prep</b> 2 n/a	Batch	Analyt GEE26	cical Batch
Run #1 Run #2	<b>Initial</b> 5.71 g	Weight	Final V 5.0 ml	olume	Meth 100 u	anol Aliquo l	t		<u> </u>				
CAS No.	Comp	ound		R	esult	RL	MDI	U U	nits	Q			
	TPH-C	GRO (C6	5-C10)	N	D	4.8	0.29	m	g/kg				
CAS No.	Surro	gate Rec	overies	R	un# 1	Run# 2	L	imits					
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene			)% )2%			6-127% 4-120%	-					

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Page 1 of 1

		Page 1 of						
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T47470 SO - So SW846	-10 il 8021B	+11 MLMU		Date H	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	<b>File ID</b> KK034670.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.12 g	Final Vol 5.0 ml	lume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		10.8 45.2 4.4 46.6	5.1 5.1 5.1 10	0.49 0.66 0.68 1.7	ug/kg ug/kg ug/kg ug/kg	J	
CAS No.	o. Surrogate Recoveries		Run# 1	Run# 2	Lim	its		
460-00-4	4 4-Bromofluorobenzene 64%			21-163%				

119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

98-08-8

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E = Indicates value exceeds calibration range

aaa-Trifluorotoluene

J = Indicates an estimated value

39-170%

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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	Report of Analysis										
Client Sam Lab Samp Matrix: Method: Project:	ole ID: T4747 SO - S SW84	0-10 oil 5 8015 M	SW846 3550B #11 MLMU		Date 1	Sampled: Received: nt Solids:	02/12/10				
Run #1 Run #2	<b>File ID</b> IF195087.D	DF 10	<b>Analyzed</b> 02/19/10	<b>By</b> FO	<b>Prep D</b> 02/15/1		Prep Batch OP14071	Analytical Batch GIF955			
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	lume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C2 TPH (>C28-		417 502	87 87	28 23	mg/kg mg/kg					
CAS No.	Surrogate Recoveries		Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl	o-Terphenyl			33-1	15%					

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit

- RL = Reporting Limit
- E = Indicates value exceeds calibration range
- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound





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Report of	of Analysis
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Client Sample ID:SB-4 0-5'Lab Sample ID:T47470-10Matrix:SO - Soil				Date Sampled: 02/10/10 Date Received: 02/12/10 Percent Solids: 96.0					
Project:	GSHI - Oxy USA #11	MLMU							
General Chemistry	7								
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method		
Chloride Solids, Percent	< 2.5 96	2.5	mg/kg %	1 1	02/23/10 21:28 02/15/10	TW MR	SW846 9056 SM 2540 G		



Report of Analysis

Client San Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846	)-11 pil 5 8015	#11 MLMU		Date I	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	File ID EE052098.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> Fl	Prep D n/a	ate	<b>Prep Batch</b> n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.35 g	Final Vo 5.0 ml	olume Metha 100 ul	nol Aliquo	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.1	0.31	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluorot		98% 102%			27% 20%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



Page 1 of 1

			Repo	ort of A	nalysis		Page 1 of 1
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T47470 SO - So SW846	-11 bil 8021B	#11 MLMU		Date Sample Date Receive Percent Soli	ed: 02/12/10	
Run #1 Run #2	File ID KK034671.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	By FI	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.21 g	Final Vo 5.0 ml	lume				
Purgeable	Aromatics						
CAS No.	Compound		Result	RL	MDL Unit	ts Q	

	•					-
71-43-2	Benzene	4.7	5.0	0.49	ug/kg	J
108-88-3	Toluene	19.5	5.0	0.65	ug/kg	
100-41-4	Ethylbenzene	2.3	5.0	0.67	ug/kg	J
1330-20-7	Xylenes (total)	23.6	10	1.7	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
460-00-4	4-Bromofluorobenzene	84%		21-1	l <b>63</b> %	
98-08-8	aaa-Trifluorotoluene	127%		39-1	1 <b>70</b> %	

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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	Report of Analysis									
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84	0-11 Soil 6 8015 M	SW846 3550B 411 MLMU		Date I	Sampled: Received: nt Solids:	02/12/10			
Run #1 Run #2	<b>File ID</b> IF195096.D	<b>DF</b> 5	<b>Analyzed</b> 02/19/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIF955		
Run #1 Run #2	<b>Initial Weight</b> 30.1 g	Final V 1.0 ml	olume							
CAS No.	Compound		Result	RL	MDL	Units	Q			
	TPH (C10-C2 TPH (>C28-	,	116 164	43 43	14 11	mg/kg mg/kg				
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its				
84-15-1	o-Terphenyl		0%		33-1	15%				

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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		Page 1 of					
Client Sample ID: Lab Sample ID: Matrix:	SB-4 5-10' T47470-11 SO - Soil			Date	Sampled: 02/10/1 Received: 02/12/1 nt Solids: 95.7		
Project:	GSHI - Oxy USA #11	MLMU		1 01 00			
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride Solids, Percent	<2.6 95.7	2.6	mg/kg %	1 1	02/23/10 21:47 02/15/10	TW CF	SW846 9056 SM 2540 G



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			Repo	rt of An	alysis			Page 1 of 1
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T4747 SO - S SW84	0-12	#11 MLMU		Date 1	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	File ID EE052099.D	<b>DF</b> 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.03 g	Final Vo 5.0 ml	lume Metha 100 u	anol Aliquo I	ot			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.4	0.32	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluoro		98% 100%		-	27% 20%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



108-88-3

100-41-4

1330-20-7

CAS No.

460-00-4

98-08-8

Toluene

Ethylbenzene

Xylenes (total)

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

			Repo	ort of A	nalysis			Page 1 of 1
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T47470 SO - So SW846	)-12 bil 8021B	#11 MLMU		Date l	Sampled: Received nt Solids	: 02/12/10	
Run #1 Run #2	File ID KK034672.D	DF 1	<b>Analyzed</b> 02/19/10	By FI	<b>Prep D</b> n/a	Date	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.26 g	Final Vo 5.0 ml	blume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2	Benzene		0.61	5.0	0.48	ug/kg	J	

5.0

5.0

9.9

Run# 2

0.64

0.66

1.7

Limits

21-163%

39-170%

2.5

ND

3.6

Run#1

92%

122%

ND = Not detected	MDL - Method Detection Limit
RL = Reporting Limit	
E = Indicates value exc	ceeds calibration range

J = Indicates an estimated value

ug/kg

ug/kg

ug/kg

J

J

- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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			Repo	rt of An	alysis			Page 1 of 1
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84	0-12 Soil	SW846 3550B #11 MLMU		Date I	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	<b>File ID</b> IF195073.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	<b>Prep D</b> 02/15/1		Prep Batch OP14071	Analytical Batch GIF955
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	lume					
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C2 TPH (>C28-		14.0 18.3	8.5 8.5	2.8 2.2	mg/kg mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		93%		33-1	15%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- $J = Indicates \ an \ estimated \ value$
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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Chloride

Solids, Percent

Kepor	t of A	Analys	<b>1S</b>	
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Client Sample ID: Lab Sample ID: Matrix:	SB-4 25-30' T47470-12 SO - Soil	Date Sampled: 02/10/10 Date Received: 02/12/10 Percent Solids: 95.8					
Project:	GSHI - Oxy USA #11	MLMU					
General Chemistry	1			· · · · · · · · · · · · · · · · · · ·			
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method

mg/kg

.

%

1

1

2.5

6.9

95.8

02/23/10 22:05 TW SW846 9056

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02/15/10

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			Repo	rt of An	alysis			Page 1 of 1
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW840	3B-5 0-5' G47470-13 GO - Soil SW846 8015 GSHI - Oxy USA #11 MLMU			Date l	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	<b>File ID</b> EE052100.D	DF 1	Analyzed 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.13 g	Final Vo 5.0 ml	lume Meth 100 u	anol Aliquo 1	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.3	0.32	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorot		98% 102%			27% 20%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



460-00-4

98-08-8

		Page 1 of 1						
Client Sam Lab Samp Matrix: Method: Project:								
Run #1 Run #2	<b>File ID</b> KK034673.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.23 g	Final Vo 5.0 ml	olume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylenes (total)		0.79 3.1 ND 5.3	5.0 5.0 5.0 10	0.49 0.65 0.67 1.7	ug/kg ug/kg ug/kg ug/kg	J J	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		

21-163%

39-170%

88%

120%

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

4-Bromofluorobenzene

aaa-Trifluorotoluene

J = Indicates an estimated value

 $B \approx$  Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



3.13

J

Report of Analysis

Client Samp Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846						Date Sampled:02/10/10Date Received:02/12/10Percent Solids:95.5				
Run #1 Run #2	File ID 1F195074.D	<b>DF</b> 1	Analyzed 02/18/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIB955			
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	blume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C28 TPH ( > C28-C		19.3 29.1	8.7 8.7	2.9 2.3	mg/kg mg/kg					
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl		52%		33-1	15%					

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

(9) - E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



3,13

Chloride

Solids, Percent

	Report of Analysis										
Client Sample ID: Lab Sample ID: Matrix:	SB-5 0-5' T47470-13 SO - Soil			Date	Sampled: 02/10 Received: 02/12 nt Solids: 95.5						
Project:	GSHI - Oxy USA #1	1 MLMU									
General Chemistry	/										
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method				

mg/kg %

1

1

2.6

02/23/10 22:24 TW

CF

02/15/10

< 2.6

95.5



SW846 9056

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		Page 1 of 1						
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW846	0-14 oil 5 8015	#11 MLMU		Date H	Sampled: Received: nt Solids:	02/12/10	
Run #1 Run #2	<b>File ID</b> EE052101.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GEE2637
Run #1 Run #2	Initial Weight 5.23 g	Final Vo 5.0 ml	olume Metha 100 ul	unol Aliquo	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C	6-C10)	ND	5.3	0.32	mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorot		98% 100%			27% 20%		

ND = Not detected **MDL** - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



		Page 1 of 1						
Client San Lab Samp Matrix: Method: Project:	le ID: T47470 SO - So SW846							
Run #1 Run #2	File ID KK034674.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	Date	<b>Prep Batch</b> n/a	Analytical Batch GKK1651
Run #1 Run #2	Initial Weight 5.24 g	Final Vo 5.0 ml	blume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene		1.5 6.9 0.85	5.0 5.0 5.0	0.49 0.66 0.67	ug/kg ug/kg ug/kg	] ]	

10

Run# 2

1.7

Limits

21-163%

39-170%

ug/kg

11.4

**8**5%

121%

**Run#** 1

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

Xylenes (total)

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

1330-20-7

CAS No.

460-00-4

98-08-8

- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound





		Page 1 of 1						
Client Sam Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW84	'0-14 Soil 6 8015 M	SW846 3550B #11 MLMU		Date I	Sampled: Received: nt Solids:		
Run #1 Run #2	<b>File ID</b> IF195075.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	Prep D 02/15/1		Prep Batch OP14071	Analytical Batch GIF955
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	blume					
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C2 TPH (>C28-	· ·	19.2 18.1	8.6 8.6	2.8 2.3	mg/kg mg/kg		
CAS No.	Surrogate Re	ecoveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		52%	33-115%				

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Solids, Percent

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5.0 M

21.00

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1.5.2%

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		Page 1 of					
Client Sample ID: Lab Sample ID: Matrix:	SB-5 10-15' T47470-14 SO - Soil			Date 1	Sampled: 02/10/1 Received: 02/12/1 nt Solids: 94.6	-	
Project:	GSHI - Oxy USA #1	1 MLMU	nt 50nds. 54.0				
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/23/10 22:43	TW	SW846 9056

%

1

94.6

RL =	Reporting	Limit
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02/15/10 CF

3.14

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			Repor	alysis		Page 1 of 1	
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T4747 SQ - S SW84				Date Sampl Date Receiv Percent Soli		
Run #1 Run #2	<b>File ID</b> EE052110.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2638
Run #1 Run #2	Initial Weight 5.23 g	Final V 5.0 ml	olume Metha 100 ul	anol Aliquo l	ot		
CAS No.	Compound		Result	RL	MDL Uni	ts Q	
	TPH-GRO (C	6-C10)	ND	5.2	0.31 mg/	kg	
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limits		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorof		98% 102%		46-127% 44-120%		

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



100-41-4

1330-20-7

CAS No.

460-00-4

98-08-8

Ethylbenzene

Xylenes (total)

Surrogate Recoveries

4-Bromofluorobenzene

aaa-Trifluorotoluene

		Page 1 of 1						
Client Sar Lab Samp Matrix: Method: Project:								
Run #1 Run #2	<b>File ID</b> KK034675.D	DF 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch GKK1651
Run #1 Run #2	<b>Initial Weight</b> 5.24 g	Final V 5.0 ml	olume					
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3	Benzene Toluene		0.56 2.2	5.0 5.0	0.49 0.65	ug/kg ug/kg	J J	

5.0

10

Run# 2

0.67

1.7

Limits

21-163%

39-170%

ug/kg ug/kg

J

ND

3.5

Run#1

84%

120%

ND = Not detectedMDL - Method Detection LimitRL = Reporting LimitE = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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	Report of Analysis									
Client San Lab Samp Matrix: Method: Project:	le ID: T4747 SO - S SW846	0-15 oil	5W846 3550B #11 MLMU		Date Sampled: Date Received: Percent Solids:		02/12/10			
Run #1 Run #2	File ID IF195125.D	DF 1	<b>Analyzed</b> 02/22/10	<b>By</b> EM	<b>Prep D</b> 02/19/1		Prep Batch OP14111	Analytical Batch GIF957		
Run #1 Run #2	Initial Weight 30.3 g	Final Vo 1.0 ml	lume							
CAS No.	Compound		Result	RL	MDL	Units	Q			
	TPH (C10-C2 TPH (>C28-0		22.2 5.85	8.7 8.7	2.8 2.3	mg/kg mg/kg	J			
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its				
84-15-1	o-Terphenyl		62%		33-1	15%				

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- $J \ = \ Indicates \ an \ estimated \ value$
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound





Analyte

Chloride

Solids, Percent

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Report of Analysis									
Client Sample ID:	SB-5 25-30'								
	T47470-15	Date Sampled:	02/10/10						
Matrix:	SO - Soil	Date Received:	02/12/10						
		Percent Solids:	95.5						
Project:	GSHI - Oxy USA #11 MLMU								
General Chemistry	7								

Units

mg/kg

l

%

DF

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Analyzed

02/15/10

02/23/10 23:01 TW

By

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Method

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RL

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Result

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95.5





3.15

Page 1 of 1



Section 4

Misc. Forms

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**Custody Documents and Other Forms** 

Includes the following where applicable:

• Chain of Custody



			CHAI	N C	OF C	US	STC	ODY	ľ										P	'AG	iE]	L o	F <u>Z</u>		
		10165 Harwin Dr, Ste 150 Houston, TX 77036											FED-EX	Fracking	8			B	Darle Delar Control #						
	TEL. 713-271-4700 FAX: 713-271-4770 www.acutest.com									ĺ	Accutosi Quale #							-+-	47 '	170					
Client / Reporting Information			Project			1										Requ	este	d A	naly	ses			Matrix Cod		
ompany Name	Project Name:	ISA #11 MLMU																							
conestoga Rovers & Associates	Sheet	ISA HII MLMU			/ #600A0	11-41				din Hi		1600					ļ						DW - Drinking W GW - Ground W		
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louston TX 77040	Lee County		NM	1	/o CRA																		SV - Surace W SO - Soll SL- Sludge		
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iampler(s) Name(s) Phone #	Project Manager			Attentio	1:								1	s	y 80	9056							FB-Field Blan		
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1 53-1 0-5'	2-10-10	1306	RB	Soil	(						Π		X	X	X.										
5B-1 0-5'	2-10-10	1300	RB	Soil	1											X									
2 53-1 10-5'	2-10-10	1311	RB	Soit	1				$\square$		Π		X	X	X							1			
SB-1 10-15'	2-10-10	1311	RB	Soil	1											X									
3 SB-1 25-30'	2-10-10	1310	RB	Soil									X	X	X							-			
53-1 25-30'	2-10-10	1316	2B	Soil	T				П							$\mathbf{X}$				-					
4 SB-2 0-51	2-10-10	1331	RB	Scil	Z				$\top$				X	x	X	X		_							
5 58-7 10-15'	2-10-10	13.34	RB	Soil	2.		T		Π		Π		X	x	x	x							-		
6 5B-2 25-301	2-10-10	1340	RB	50:1	2								X	X	Х	x									
7 58-3 0-5'	2-10-10	1356	RB	Seil	Z								X	X	X	X							Ĩ		
5B-3-5-10 8B	2-10-10	1357	RB-	50.1	-2	CF.					T		X	X	×	X	RD		_						
8 53-3 10-15	2-10-10	1400	RB	Soil	2		T						X	x	X	x					-	-			
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T47470: Chain of Custody Page 1 of 5



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CACCUTEST.												ſ	FED-EX Tracking #							Bottle Order Control #							
Laboratories		10165 Harwin Dr, Ste 150 Houston, TX 77036 TEL, 713-271-4700 FAX: 713-271-4770								Accutest Quole #							Accutost Job #										
			www.accutest.com						71111111								T47470										
Client / Reporting Information	n (1995)	Project Name:		Project	Inform	ation										T	fieo	ues	ted	Ana	lyse	5		N	Matrix Code		
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,	Zip 77040			State NM	· ·	•																		1 34	SO - Soll		
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713-734-3090 Sampler(s) Name(s)	Phone #	4501435469 Project Manager			Niagara	Falls			NY			1430	14			1	9056			1					WP - Wipe FB-Field Blan		
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9 53-3 25-30'		2-10-10	1406	RB	Soil	Z								Х	Х	x	X										
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11 40			1930	-	501	- 6	ß	++	++	+		+	++	<u> </u>	÷	H.	÷	43									
HE 53-1 10-25		7-10-10		RB	20:1	- 2 1	<u>-</u>	++				┿		Х	1	Þ	k	- 40									
12 SB-U 25-30		2-10-12	1436	PB	Soil	2		$\left  \right $		-			+	λ	X	X	Ľ		·								
19 58-5 0-5'		2-10-10	1456	P.B	Seil	7	Ш							X	χ_	X	X		L	ļ	ļ						
19 53-5 10-15'		2-10-10	1500	RB	Seil	2								x	X	X	X										
15 58-5 25-30'		2-10-10	1509	RB	Soil	2								Х	X	X	X		1								
																ľ											
								$\square$											-								
						<u> </u>		++	++		$\vdash$	++	+							†			-				
										+	$\vdash$	++	+												<u> </u>		
Turnaround Time ( Business days)								ata Del	[]	le info	rmatio					) Inite of the	mairina		Соп	ments	/ Speci	al Instruc	tions 🗄				
X Standard		Approved By (Accu				Commerc					П			111100000				and an even of									
5 Day RUSH						Commerc			2)			DD F															
4 Day RUSH						FULT1 (L REDT1 (L						Other _		_													
2 Day RUSH						Commerc		** /																			
1 Day EMERGENCY								mmerc																			
Emergency & Rush T/A data avaitable VIA	Lablink							mmerc						Summa													
					Commercial 'C' = Results + QC & Surroga mented below each time samples change possession, inc									luding courier delivery.													
Relinquished by Sempler: Date Time: Received By:					Relinquished By:												Date Ti	ne:		Received By:							
1         Pusbin BACA         2/11/2010         /520         1           Refinquished by Sampler:         Date Time:         Received By:								2	elinguisi	hed B.							Date Tir			2 Raceived By:							
3			3					4												4							
Relinguished by:	Date Time:		Received By:										Inlact Preserved where applicable Not intact						On ize Cooler Temp.								

T47470: Chain of Custody Page 2 of 5



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# SAMPLE INSPECTION FORM.

Accutest Job Number:	970 Client:	Conestaga 1	Dever & Associa	LogDate/Time	Received:	2/12/10 0915
.# of Coolers Received;	Thermometer	#:1	<u>P-1</u> T	emperature Ad	justment Facto	pr:
Cooler Temps: #1: <u>3.0</u> #2:	#3:	#4: <u>~</u>	#5:	#6:	#7:	#8:
Method of Delivery:	UPS Accu	itest Courier	Greyhound	Delivery	Other	
Airbill Numbers:					<u>_</u>	J
COOLER INFORMATION Custody seal missing or not int Temperature criteria not met Wet ice received in cooler CHAIN OF CUSTODY Chain of Custody not received Sample D/T unclear or missing COC not properly executed Summary of Discrepancies:	act Sam VOC Sam Dor D/T Sam Bottl Isu Sam	ple listed on COC, t les missing for requ fficient volume for r ple received improp	wed broken ace or illegible tch label(s) atch label(s) atch label(s) t no analysis on COC but not received seted analysis analysis erity preserved <u>er: 5 @ 2-19</u>	Number Number	Mp Blank on COC Mp Blank received Mp Blank not Inta teceived Water Trip teceived Soll TB r of Encores? r of Encores? r of 5035 kits? r of Iab-filtered me	but not on COC et o Blank tals?
TECHNICIAN SIGNATURE/DATE: INFORMATION AND SAMPLE LABE Client Representative Notified: By Accutest Representative: Client Instructions:	Tom L Manài	Y: CORRECT MISON INE (N)al	CTIVE ACTIC	<u>0NS</u> Date: Via:	J/15/11 Phone	

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T47470: Chain of Custody Page 3 of 5



#### SAMPLE RECEIPT LOG

JOB #:
CLIENT:

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JOB #:			<u>T47470</u>				DATE	/TIME	RECE	IVED		2/12/10		091	٢		
CLIENT:			¢	P.A.					וואו	TALS	:f	PF					
COOLER#	SAMPLE ID		FIELD ID		DATE		MAT	RIX	V	٦L	BOTTLE #	LOCATION		PRES		ł	 °Н
	1	5B-1	0-5'	-71	110/10	1306	5		40	2	ł	- P.	0 5	6	34 78	<2	>12
											1 2	2-76	0 5		3 4 7 8	<2	>12
	2	5B-1	10-15'			1311					1	VR	1 5		34 78	<2	>12
											2	2-76	¶ 5	2 6	34 76	<2	>12
	3	58-1	25-70'			1316					1	VR	G 5		34 78	<2	>12
				$\square$							2	2-76	<b>1</b> 5	2 6	3 4 7 8	<2	>12
	4	513-2	0-5'			1311					1	VR	<b>%</b> 5		34 78	<2	>12
											2	2-76			34 78	<2	>12
	5	5B-2	10-15'			(174					1	JR.	<b>0</b> 5		34 78	<2	>12
											2	2-76		2 6		<2	>12
	6	5B-2	75-30'			1340					١	VR	<b>b</b> 5	2 6	3 4 7 8	<2	>12
											2	2-76	5	6	3 4 7 B	<2	>12
	. 7	56-3	0-5'			1256					١	VK	<b>8</b> 5	2 6	34 78	<2	>12
											2	2-76	0 5	2 6	34 78	<2	>12
	в	53-3	10-15'			1400					١	vf	0 5	2 6	34 78	<2	>12
											2	2-76		2 6	34 78	<2	>12
	7	5B-3	25-30'			406	_				1	٧L	8 5	2 6	3 4 7 8	<2	>12
											г	2-76	<b>0</b> 5	2 6	34 76	<2	>12
	12	58 - 4	0-5			425					3	VR	<b>₽</b> 5	2 6	34 78	<2	>12
											2	2-76	۱,	2 6	34 78	<2	>12
	11	5B-4	5-10'			14 17	Τ				)	vR	6 5	2 6	3 4 7 8	<2	>12
V					V	]	$\overline{\mathbf{V}}$		¥		2	2.76	6 5	2	34 78	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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T47470: Chain of Custody Page 4 of 5



#### SAMPLE RECEIPT LOG

JOB #:			T47470			DATE/TIME	RECEIVED	:	2/12/	10 0715		
CLIENT:	667 m		CR	.A			INITIALS	: <i>I</i>	et.			
COOLER#	SAMPLE ID	FI	ELD ID	DAT	E	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV		эΗ
1	12	56-4	25-30'	2/10/10	1436	5	402	1	vR		<2	>12
1						1	1	2	2-76	0     2     3     4       5     6     7     8       0     2     3     4	<2	>12
	- 13	5F3-5	0-5'		1454			1	vr	5678	<2	>12
								2	2-76	R 2 3 4	<2	>12
	14	55-5	10-15'		100			1	VR	5 6 7 8 10 2 3 4 5 6 7 8	<2	>12
								2	2-76	<b>()</b> 2 3 4 5 6 7 8	<2	>12
	15	54-5	25-30		1507			١	VR	6 2 3 4 5 6 7 8 0 2 3 4	<2	>12
$\checkmark$						V	V	2	2-76	0 2 3 4 5 6 7 8	<2	>12
-										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4	<2	>12
										6 7 8 1 2 3 4 5 6 7 8	<2	>12
				10						1 2 3 4 5 6 7 8	<2	>12
			Ŕ	12						1 2 3 4 5 6 7 8	<2	>12
			. 7	, f						1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
[										1 2 3 4	<2	>12
		<b></b>								1 2 3 4 5 6 7 8	<2	>12
						<u> </u>				1 2 3 4 5 6 7 8	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Walers) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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T47470: Chain of Custody Page 5 of 5



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# Section 5

GC Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



# Method Blank Summary

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Job Number:	14/4/0
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

<b>Sample</b>	<b>File ID</b>	DF	<b>Analyzed</b> 02/18/10	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	Analytical Batch
GEE2637-MB	EE052083.D	1		FI	n/a	n/a	GEE2637

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Result	RL	MDL	Units Q
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg
CAS No.	Surrogate Recoveries		Limits	6	



Page 1 of 1

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#### Method Blank Summary Job Number: T47470

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460-00-4

98-08-8

4-Bromofluorobenzene

aaa-Trifluorotoluene

Account: Project:	CRATXHO Conestoga GSHI - Oxy USA #11		ciates				
Sample GEE2638-M	File ID DF IB EE052109.D 1	<b>Analyzed</b> 02/19/10	<b>By</b> FI	Pre n/a	p Date	<b>Prep Batch</b> n/a	Analytical Batch GEE2638
<b>The QC гер</b> T47470-15	oorted here applies to the f	following sampl	es:			Method: SW84	6 8015
	<b>Compound</b> TPH-GRO (C6-C10)	<b>Result</b> ND	<b>RL</b> 5.0	<b>MDL</b> 0.30	Units mg/kg		
CAS No.	Surrogate Recoveries		Limit	s			

46-127%

44-120%

**98**%

102%





# Method Blank Summary

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Job Number:	147470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

Sample	File ID DF	<b>Analyzed</b> 02/18/10	<b>By</b>	Prep Date	<b>Prep Batch</b>	Analytical Batch
GKK1651-MB	KK034656.D 1		FI	n/a	n/a	GKK1651

The QC reported here applies to the following samples:

Method: SW846 8021B

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	5.0 5.0 5.0 10	0.49 0.67 0.65 1.7	ug/kg ug/kg ug/kg ug/kg
CAS No.	Surrogate Recoveries		Limi	ts	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	86% 115%	21-16 39-17		



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# Blank Spike Summary

Job Number:	T47470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

Sample	<b>File ID</b>	DF	<b>Analyzed</b> 02/18/10	<b>By</b>	Prep Date	Prep Batch	Analytical Batch
GEE2637-BS	EE052079.D	1		FI	n/a	n/a	GEE2637

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.369	92	78-115
CAS No.	Surrogate Recoveries	BSP	Lim	iits	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	98% 107%		1 <b>27</b> % 1 <b>20</b> %	



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# Blank Spike Summary

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Job Number:	T47470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

<b>Sample</b> GEE2638-F	File ID 3S EE052106.D	DF 1	<b>Analyz</b> 02/19/3	-	,	<b>Prep Date</b> n/a	Prep Batch n/a	Analytical Batch GEE2638
<b>The QC re</b> T47470-15	ported here applies t	o the foll	lowing sar	nples:			Method: SW84	46 8015
CAS No.	Compound		Spike mg/kg	BSP mg/kg	BSP %	Limits		
	TPH-GRO (C6-C10)	)	0.4	0.358	90	78-115		

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	99%	46-127%
98-08-8	aaa-Trifluorotoluene	99%	44-120%

Page 1 of 1

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# Blank Spike Summary Job Number: T47470

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Job Number:	147470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

Sample	File ID DF	<b>Analyzed</b> 02/18/10	<b>By</b>	Prep Date	<b>Prep Batch</b>	Analytical Batch
GKK1651-BS	KK034653.D 1		FI	n/a	n/a	GKK1651

The QC reported here applies to the following samples:

Method: SW846 8021B

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	20	20.3	102	73-132
100-41-4	Ethylbenzene	20	19.2	96	70-133
108-88-3	Toluene	20	19.9	100	74-133
1330-20-7	Xylenes (total)	60	58.8	98	73-134
CAS No.	Surrogate Recoveries	BSP	Lin	nits	
460-00-4	4-Bromofluorobenzene	86%	21-	163%	
98-08-8	aaa-Trifluorotoluene	120%	39-	170%	



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# Matrix Spike/Matrix Spike Duplicate Summary

Job Number:	T47470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

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Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T47470-2MS	EE052090.D	1	02/19/10	FÍ	n/a	n/a	GEE2637
T47470-2MSD	EE052091.D	1	02/19/10	FI	n/a	n/a	GEE2637
T47470-2	EE052085.D	1	02/18/10	FI	n/a	n/a	GEE2637

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	T47470-2 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	22.3	20.8	93	20.1	90	3	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T47	7470-2	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	99% 98%	98% 106%	999 101	-	46-1279 44-1209	-		



Page 1 of 1

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#### Matrix Spike/Matrix Spike Duplicate Summary Job Number: T47470

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Account: Project:	CRATXHO Cor GSHI - Oxy US			ssoc	ciates						
Sample	File ID	DF	Analyz	zed	By	Prep	Date	Prep B	Batch	Analyti	cal Batch
T47470-15MS	EE052116.D	1	<b>02/19/</b> 1	10	FI	n/a		n/a		GEE26	38
T47470-15MS	D EE052117.D	1	02/19/3	10	FI	n/a		n/a		GEE26	38
T47470-15	EE052110.D	1	02/19/3	10	FI	n/a		n/a		GEE263	38
T47470-15											
CAS No. Co	ompound		T47470- mg/kg	-15 Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPI
TI	2H-GRO (C6-C10)		ND		21	20.4	97	19.6	93	4	78-115/14



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# Matrix Spike/Matrix Spike Duplicate Summary

Job Number:	T47470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

Sample F	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
-	KK034663.D	)1	02/18/10	FI	n/a	n/a	GKK1651
T47470-2MSD F	KK034664.D	)1	02/18/10	FI	n/a	n/a	GKK1651
T47470-2 F	KK034658.D	)1	02/18/10	FI	n/a	n/a	GKK1651

The QC reported here applies to the following samples:

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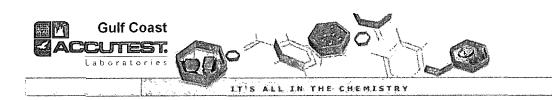
Method: SW846 8021B

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

		T47470-2	2	Spike	MS	MS	MSD	MSD		Limits
CAS No.	Compound	ug/kg	Q	ug/kg	ug/kg	%	ug/kg	%	RPD	Rec/RPD
71-43-2	Benzene	0.60	J	21.1	18.7	86	18.0	83	4	41-129/33
100-41-4	Ethylbenzene	ND		21.1	18.3	87	17.3	82	6	15-139/36
108-88-3	Toluene	1.8	J	21.1	19.1	82	18.3	78	. 4	26-141/38
1330-20-7	Xylenes (total)	2.7	Ĵ	63.4	56.1	84	53.3	80	5	22-132/33
CAS No.	Surrogate Recoveries	MS		MSD	T4	7470-2	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	89% 121%		88% 118%	<b>87</b> 9 122	-	21-1639 39-1709	-		

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## Section 6

GC Semi-volatiles

# **QC** Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

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Job Number:	T47470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

Sample	<b>File ID</b>	<b>DF</b>	Analyzed	<b>By</b>	<b>Prep Date</b> 02/15/10	Prep Batch	Analytical Batch
OP14071-MB	IF195060.D	1	02/18/10	FO		OP14071	GIB955

The QC reported here applies to the following samples:

Method: SW846 8015 M

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Result	RL	MDL	Units Q
	TPH (C10-C28) TPH (>C28-C35)	ND ND	8.3 8.3	2.7 2.2	mg/kg mg/kg
CAS No.	Surrogate Recoveries		Limi	ts	
84-15-1	o-Terphenyl	<b>63</b> %	33-11	5%	



Page 1 of 1

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# Method Blank Summary Job Number: T47470

o-Terphenyl

84-15-1

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Account: Project:	CRATXHO Con GSHI - Oxy US			ciates				
Sample OP14111-N	<b>File ID</b> //B IF195128.D	<b>DF</b> 1	<b>Analyzed</b> 02/22/10	<b>By</b> EM		<b>ep Date</b> 19/10	Prep Batch OP14111	Analytical Batch GIB957
The QC re T47470-15	ported here applies t	o the fol	lowing sample	es:			Method: SW84	6 8015 M
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C28) TPH (>C28-C35)		ND ND	8.3 8.3	2.7 2.2	mg/kg mg/kg		
CAS No.	Surrogate Recoveri	es		Limit	5			

33-115%

70%



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# Blank Spike Summary

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Sample OP14071-BS	<b>File ID</b> IF195061.D	DF 1	<b>Analyzed</b> 02/18/10	<b>By</b> FO	<b>Prep Date</b> 02/15/10	Prep Batch OP14071	Analytical Batch GIF955
0114011-05	11 155001.D	1	02/10/10	10	02/10/10	0111011	011 000

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33	14.8	45	45-107
CAS No.	Surrogate Recoveries	BSP	Lim	its	
84-15-1	o-Terphenyl	<b>59</b> %	<b>33</b> -1	15%	



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# Blank Spike/Blank Spike Duplicate Summary

Job Number:	T47470
Account:	CRATXHO Conestoga-Rovers & Associates
Project:	GSHI - Oxy USA #11 MLMU

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	COLI	0	TICA	11 4 4	N / T N / T T
Project:	GSHI -	Oxy	USA	#11	MLMU

<b>Sample</b> OP14111-E OP14111-E			Analyz 02/22/ 02/22/	10 EN	Л	Prep Dat 02/19/10 02/19/10	(	<b>Prep Bat</b> ()P14111 ()P14111	ch Analytical Batch GIF957 GIB957
The QC re	ported here applies t	to the fol	llowing sar	nples:			Met	hod: SV	V846 8015 M
CAS No.	Compound		Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	ТРН (С10-С28)		33.3	30.3	91	29.8	89	2	45-107/30
CAS No.	Surrogate Recoveri	ies	BSP	BS	D	Limits			
84-15-1	o-Terphenyl		<b>69</b> %	88%	6	33-115%	6		

#### Matrix Spike/Matrix Spike Duplicate Summary

Job Number:T47470Account:CRATXHO Conestoga-Rovers & AssociatesProject:GSHI - Oxy USA #11 MLMU

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Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14071-MS	IF195062.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
OP14071-MSD	IF195063.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
Т47470-2	IF195065.D	1	02/18/10	FO	02/15/10	OP14071	GIF955

The QC reported here applies to the following samples:

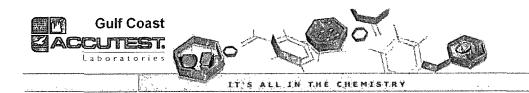
Method: SW846 8015 M

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	T47470 mg/kg	-2 Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28) TPH (>C28-C35)	7.47 7.43	J J	35.3	26.8	55	34.2 9.67	76 6*	24 35*	45-107/34 45-107/34
CAS No.	Surrogate Recoveries	MS		MSD	T47	7470-2	Limits			
84-15-1	o-Terphenyl			0%*	65%	6	33-115%	6		

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## Section 7

**General Chemistry** 

**QC** Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries



#### METHOD BLANK AND SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: T47470 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy USA #11 MLMU

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride Chloride	GP8079/GN20997 GP8079/GN21020	2.5	0.0	mg∕kg mg∕kg	50	51.6	103.2	90-110%

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Associated Samples: Batch GP8079: T47470-1, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9

(\*) Outside of QC limits



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#### DUPLICATE RESULTS SUMMARY GENERAL CHEMISTRY

#### Login Number: T47470 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy USA #11 MLMU

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP8079/GN21020	T47470-1	mg/kg	3.4	3.3	3.0	0-20%
Solids, Percent	GN20797	T47402-4	olo	79.6	79.6	0.0	0-5%
Solids, Percent	GN20801	T47470-11	ęζ	95.7	95.7	0.0	0-5%

Associated Samples:

Batch GP8079: T47470-1, T47470-10, T47470-12, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9 Batch GN20801: T47470-11, T47470-12, T47470-13, T47470-14, T47470-15 Batch GP8079: T47470-1, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15, T47470-2, T47470-3, T47470-4, 1747470-5, T47470-6, T47470-7, T47470-8, T47470-9 (\*) Outside of QC limits





#### MATRIX SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

# Login Number: T47470 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy USA #11 MLMU

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP8079/GN21020	T47470-1	mg/kg	3.4	52.6	56.0	100.1	80-120%

Associated Samples:

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ASSOCIATED SampleS: Batch GP8079: T47470-1, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9 (\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



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02/01/10

**Technical Report for** 

**Conestoga-Rovers & Associates** 

GSHI - Oxy Midcon Buffalo Federal #4

Accutest Job Number: T45815

Sampling Date: 01/13/10

Report to:

Conestoga Rovers & Associates 6320 Rothway Suite 100 Houston, TX 77040 plynch@craworld.com

ATTN: Pat Lynch

Total number of pages in report: 33





Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevano

Paul Canevaro Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700) This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

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# Sample Summary

#### **Conestoga-Rovers & Associates**

#### Job No: T45815

GSHI - Oxy Midcon Buffalo Federal #4

Sample Number	Collected Date Time By	Ma Received Cod		Client Sample ID
T45815-1	01/13/10 10:30 TL	01/16/10 SO	Soil	BF4A(0-6")011310
T45815-2	01/13/10 10:30 TL	01/16/10 SO	Soil	BF4A(2')011310
T45815-3	01/13/10 10:35 TL	01/16/10 SO	Soil	BF4B(0-6")011310
T45815-4	01/13/10 10:35 TL	01/16/10 SO	Soil	BF4B(2')011310
T45815-5	01/13/10 10:40 TL	01/16/10 SO	Soil	BF4C(0-6")011310
T45815-6	01/13/10 10:40 TL	01/16/10 SO	Soil	BF4C(2')011310
T45815-7	01/13/10 10:45 TL	01/16/10 SO	Soil	BF4D(0-6")011310
T45815-8	01/13/10 10:45 TL	01/16/10 SO	Soil	BF4D(2')011310
T45815-9	01/13/10 10:50 TL	01/16/10 SO	Soil	BF4E(0-6")011310
T45815-10	01/13/10 10:50 TL	01/16/10 SO	Soil	BF4E(2')011310
T45815-11	01/13/10 10:55 TL	01/16/10 SO	Soil	BF4F(0-6")011310
T45815-12	01/13/10 10:55 TL	01/16/10 SO	Soil	BF4F(2')011310
T45815-13	01/13/10 11:00 TL	01/16/10 SO	Soil	BF4G(0-6")011310

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

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# Sample Summary (continued)

**Conestoga-Rovers & Associates** 

Job No: T45815

GSHI - Oxy Midcon Buffalo Federal #4

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID
T45815-14	01/13/10	11:00 TL	01/16/10	SO	Soil	BF4G(2')011310
T45815-15	01/13/10	11:05 TL	01/16/10	SO	Soil	BF4H(0-6")011310
T45815-16	01/13/10	11:10 TL	01/16/10	SO	Soil	BF4I(0-6")011310
T45815-17	01/13/10	11:15 TL	01/16/10	SO	Soil	BF4BG(200'W)011310

Soil samples reported on a dry weight basis unless otherwise indicated on result page.







#### SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Conestoga-Rovers & Associates	Job No	T45815
Site:	GSHI - Oxy Midcon Buffalo Federal #4	Report Date	2/1/2010 11:11:26 AM

17 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 01/13/2010 and were received at Accutest on 01/16/2010 properly preserved, at 4 Deg. C and intact. These Samples received an Accutest job number of T45815. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

#### Wet Chemistry By Method SM 2540 G

Matrix SO	Batch ID:	GN20240	

Sample(s) T45815-1DUP were used as the QC samples for Solids, Percent.

#### Wet Chemistry By Method SW846 9056

Matrix SO

	Matrix SO	Batch ID:	GP7858
	All samples were distilled within the	ne recommended method	holding time.
68	All samples were analyzed within	the recommended method	d holding time.
Ø	All method blanks for this batch r	neet method specific crite	eria.
	Sample(s) T45815-10DUP, T458	15-10MS were used as th	he QC samples for Chloride.

Batch ID: GP7859

All samples were distilled within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) T45815-17DUP, T45815-17MS were used as the QC samples for Chloride.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

Monday, February 01, 2010

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Section 3

Sample Results

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**Report of Analysis** 



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	Page 1 of 1						
Client Sample ID: Lab Sample ID: Matrix:	BF4A(0-6")011310 T45815-1 SO - Soil			Date	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 94.7	-	
Project:	GSHI - Oxy Midcon B	Suffalo Fee	leral #4	1 01 00			
General Chemistry	/						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup> Solids, Percent	< 2.6 94.7	2.6	mg/kg %	1 1	01/25/10 21:18 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX





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		Repo	ort of An	alysis			Page 1 of
Client Sample ID: Lab Sample ID: Matrix:	BF4A(2')011310 T45815-2 SO - Soil			Date	Sampled: 01/13/2 Received: 01/16/2 nt Solids: 96.8		
Project:	GSHI - Oxy Midcon	Buffalo Fee	leral #4	10100	nt bonds. 50.0		
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride <sup>a</sup> Solids, Percent	< 2.6 96.8	2.6	mg/kg %	1 1	01/25/10 21:37 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

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Report of Analysis Page 1 of 1									
Client Sample ID: Lab Sample ID:	BF4B(0-6")011310 T45815-3			Date	Sampled: 01/13/1	.0			
Matrix:	SO - Soil			Date l Perce					
Project:	GSHI - Oxy Midcon I								
General Chemistry	1				· <u> </u>				
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method		
Chloride <sup>a</sup>	< 2.6	2.6	mg/kg	1	01/25/10 21:56	тw	SW846 9056		
Solids, Percent	94.7		%	1	01/19/10	AA	SM 2540 G		

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX



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Report of Analysis									
Client Sample ID:	BF4B(2')011310				Sampled: 01/13/1	0	· · · · · · · · · · · · · · · ·		
Lab Sample ID:	T45815-4			Date : Date ]					
Matrix:	SO - Soil								
Project:	GSHI - Oxy Midcon								
General Chemistry	1						<u> </u>		
Analyte	Result	RL	Units	DF	Analyzed	By	Method		
Chloride <sup>a</sup>	< 2.6	2.6	mg/kg	1	01/25/10 22:14	TW	SW846 9056		
Solids, Percent	94.7		%	1	01/19/10	AA	SM 2540 G		

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX



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		Repo	ort of An	alysis			Page 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	BF4C(0-6")011310 T45815-5 SO - Soil			Date 1	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 94.3		
Project:	GSHI - Oxy Midcon B	Suffalo Fee	leral #4	1 01 00			
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup> Solids, Percent	<2.6 94.3	2.6	mg/kg %	1 1	01/25/10 22:33 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX



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		Report of Analysis					Page 1 of	
Client Sample ID: Lab Sample ID: Matrix:	BF4C(2')011310 T45815-6 SO - Soil			Date 1	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 93.6			
Project:	GSHI - Oxy Midcon	Buffalo Fed	leral #4	10100	n bonds. 00.0			
General Chemistry	7				·			
Analyte	Result	RL	Units	DF	Analyzed	By	Method	
Chloride <sup>a</sup> Solids, Percent	<2.6 93.6	2.6	mg/kg %	1 1	01/25/10 22:52 01/19/10	TW AA	SW846 9056 SM 2540 G	

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX



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	Report of Analysis						Page 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	BF4D(0-6")011310 T45815-7 SO - Soil			Date ]	Sampled: 01/13/2 Received: 01/16/2 nt Solids: 96.1		
Project:	GSHI - Oxy Midcon E	Suffalo Fee	leral #4				
General Chemistry	4						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup> Solids, Percent	< 2.6 96.1	2.6	mg/kg %	1 · 1	01/26/10 01:21 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

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Client Sample ID: Lab Sample ID: Matrix:	BF4D(2')011310 T45815-8 SO - Soil	Date Sampled: 01/13/10 Date Received: 01/16/10 Percent Solids: 95.0					
Project:	GSHI - Oxy Midcon	Buffalo Fee	leral #4				
General Chemistry	1						///////////////////////////
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride <sup>a</sup>	<2.6	2.6	mg/kg	1	01/26/10 01:02	TW	SW846 9056
Solids, Percent	95		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX





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		Repo	ort of An	alysis			Page 1 of
Client Sample ID: Lab Sample ID: Matrix:	BF4E(0-6")011310 T45815-9 SO - Soil			Date	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 96.6		
Project:	GSHI - Oxy Midcon H	Buffalo Fee	leral #4	10100	nt bongs. 50.0		
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup> Solids, Percent	< 2.6 96.6	2.6	mg/kg %	1 1	01/26/10 00:44 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

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		Repo	ort of An	alysis			Page 1 of
Client Sample ID: Lab Sample ID: Matrix:	BF4E(2')011310 T45815-10 SO - Soil				Sampled: 01/13/3 Received: 01/16/3		
Project:	GSHI - Oxy Midcon	Buffalo Fee	deral #4	Perce	nt Solids: 95.8		
General Chemistry	/						
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride <sup>a</sup> Solids, Percent	<2.6 95.8	2.6	mg/kg %	1 1	01/25/10 23:48 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

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		Repo	ort of An	alysis			Page 1 of
Client Sample ID: Lab Sample ID: Matrix:	BF4F(0-6")011310 T45815-11 SO - Soil			Date	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 96.9		
Project:	GSHI - Oxy Midcon H	Buffalo Fee	leral #4				
General Chemistry	1						·
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup> Solids, Percent	<2.5 96.9	2.5	mg/kg %	1 1	01/26/10 01:40 01/19/10	TW AA	SW846 9056 SM 2540 G



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		Repo	ort of An	alysis			Page 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	BF4F(2')011310 T45815-12 SO - Soil			Date 1	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 94.6		
Project:	GSHI - Oxy Midcon	Buffalo Fee	leral #4	10100			
General Chemistry	1		-				
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride <sup>a</sup> Solids, Percent	<2.6 94.6	2.6	mg/kg %	1 1	01/26/10 01:58 01/19/10	TW AA	SW846 9056 SM 2540 G

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		Repo	rt of An	alysis			Page 1 o
Client Sample ID: Lab Sample ID: Matrix:	BF4G(0-6")011310 T45815-13 SO - Soil			Date	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 94.5		
Project:	GSHI - Oxy Midcon H	Buffalo Fed	leral #4	10100			
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride <sup>a</sup> Solids, Percent	< 2.6 94.5	2.6	mg/kg %	1 1	01/26/10 02:17 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX



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		Repo	ort of An	alysis			Page 1 of
Client Sample ID: Lab Sample ID:	BF4G(2')011310 T45815-14			Date	Sampled: 01/13/1	0	
Matrix:	SO - Soil			Date	Received: 01/16/1 nt Solids: 95.9		
Project:	GSHI - Oxy Midcon	Buffalo Fee	leral #4				
General Chemistry	1						·····
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup>	3.9	2.6	mg/kg	1	01/26/10 02:36	тw	SW846 9056
Solids, Percent	95.9		%	1	01/19/10	AA	SM 2540 G



		Repo	ort of An	alysis			Page 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	BF4H(0-6")011310 T45815-15 SO - Soil			Date	Sampled: 01/13/1 Received: 01/16/1 nt Solids: 92.7		
Project:	GSHI - Oxy Midcon B	Buffalo Fee	leral #4	r ei ce	ut Solius. 52.1		
General Chemistry	r						
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride <sup>a</sup> Solids, Percent	<2.6 92.7	2.6	mg/kg %	1 1	01/26/10 04:46 01/19/10	TW AA	SW846 9056 SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

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		Repo	ort of An	alysis			Page 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	BF4I(0-6")011310 T45815-16 SO - Soil				Sampled: 01/13/3 Received: 01/16/3		
Project:	GSHI - Oxy Midcon E	Buffalo Feo	leral #4	Perce	nt Solids: 94.4		
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup> Solids, Percent	< 2.6 94.4	2.6	mg/kg %	1 1	01/26/10 04:28 01/19/10	TW AA	SW846 9056 SM 2540 G



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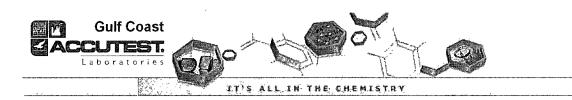
		Repo	ort of An	alysis			Page 1 of
Client Sample ID: Lab Sample ID:	BF4BG(200'W)011310 T45815-17			Date	Sampled: 01/13/1	0	
Matrix:	SO - Soil			Date	Received: 01/16/1 nt Solids: 94.3	0	
Project:	GSHI - Oxy Midcon Bu	uffalo Feo	leral #4				
General Chemistry	1						
Analyte	Result	RL	Units	DF	Analyzed	Ву	Method
Chloride <sup>a</sup>	4.6	2.6	mg/kg	1	01/26/10 03:32	TW	SW846 9056
Solids, Percent	94.3		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

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# Section 4

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Misc. Forms

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**Custody Documents and Other Forms** 

Includes the following where applicable:

• Chain of Custody



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	Client / Reporting Information		Sector Sec.		19.450 (19.5 <sup>10</sup> ).	Project		acculesi.c		197		12		6. G	<b>8</b> 3	83 <b>3</b>				Per		tod	Ana	luen		0	<u>01</u>	Matrix Codes
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Cones	toga Rovers & Associates			OXYN	Aidcon Buffalo	Federal #4	1														ľ			1		1		DW - Drinking Water
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Accutest Sample #	Field ID / Point of Collection	on	Da	ite	Tibe	Sampled By	Matrix	# of bottes	HCH NaOH	ZAINa	CONH	NON	DI Water	TSP MECH	MaHS	OTHE	V80	GRO	DRC	CHIC								LAB USE ONLY
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-	BEY CLO-6")011310	5			1040						Π	Π																
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hone #		Client P	urchase	Order #		City		0.00			State	2		Zip		1			l							AIR - Air SQL - Other Sol
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	s) Name(s) Phone # OM Larson 4326860066		-	Larson	fection	1	n. Ivanshiri	<u> </u>		Ma	wher of	DIPLO	ved Bot	lles.		Ĕ	/ 8015	30 by E								FB-Field Blank
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T45815: Chain of Custody Page 2 of 4



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### SAMPLE INSPECTION FORM

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Accutest Job Number:	Concestoga Rover & Asse.	_ Date/Time Received: $\frac{1}{16}/16$ 1000
# of Coolers Received: Thermometer	er #: Tem	nperature Adjustment Factor:
Cooler Temps: #1: <u>9.0</u> #2: #3:	#4: #5:	#6:#7:#8:
Method of Delivery: FEDER UPS Ac	cutest Courier Greyhound	Delivery Other
Airbill Numbers:		
Temperature criteria not met VC Wet ice received in cooler ID CHAIN OF CUSTODY D/ Chain of Custody not received Sa	SAMPLE INFORMATION mple containers received broken DC vials have headspace mple labels missing or illegible on COC does not match label(s) 'T on COC does not match label(s) mple/Bottles revd but no analysis on COC mple listed on COC, but not received	TRIP BLANK INFORMATION           Trip Blank on COC but not received           Trip Blank received but not on COC           Trip Blank not intact           Received Water Trip Blank           Received Soll TB
Analyses unclear or missing Bo COC not properly executed Inc	while mission for requested analysis sufficient volume for analysis imple received improperly preserved	Number of Encores? Number of 5035 ktts? Number of lab-filtered metals?
TECHNICIAN SIGNATURE/DATE:	- ci/i	/
INFORMATION AND SAMPLE LABELING VERIFIED	BY:	
	• CORRECTIVE ACTION	<u>NS</u> • • • • • • • • •
Client Representative Notified:		Date:
By Accutest Representative:		Via: Phone Email
Client Instructions:		
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T45815: Chain of Custody Page 3 of 4



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### SAMPLE RECEIPT LOG

JOB #:		T45 B15					1	1			
LIENT:		( P.A			DATE/TIME		: <u>116</u> : <i>F</i> F	- <u>  10</u> =	1000		<u> </u>
- 							· / /				
COOLER#	SAMPLE (D	FIELD ID	DA	TE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	F	PH
1	{	BEY A io-c") OIIVO	01-13-10	1030	5	402	1	2-57	5678	<2	>1:
-1	2	<u>(21)</u>	<u> </u>	v		<u> </u>	1		5 6 7 8	<2	>1
	3	BF4 B (0-6") "		1035			1		CD 2 3 4 5 6 7 8	<2	>1
	ч	v (2') "		ų			1		6) 2 3 4 5 6 7 8	<2	>1;
	5	BF46 (0-6") "		1040			F		07 2 3 4 5 6 7 8	<2	>1
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PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Solls) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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T45815: Chain of Custody Page 4 of 4



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# **General Chemistry**

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QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries





#### METHOD BLANK AND SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

#### Login Number: T45815 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits	
Chloride	GP7858/GN20506	2.5	0.0(a)	mg∕kg	50	50.7	101.4(a)	90-110%	ر. م

Associated Samples: Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9 (\*) Outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX



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#### BLANK SPIKE DUPLICATE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: T45815 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit	
Chloride	GP7858/GN20506	mg/kg	50	50.6(a)	0.2(a)		 5.2

Associated Samples:

Rasocialed Jampies. Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

(\*) Outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX



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#### DUPLICATE RESULTS SUMMARY GENERAL CHEMISTRY

## Login Number: T45815 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits	
Chloride	GP7858/GN20506	T45815-10	mg/kg	0.0	0.0(a)	0.0(a)	0-20%	 ა
Chloride	GP7858/GN20506	T45815-17	mg/kg	4.6	3.8(a)	19.0(a)	0-20%	ີ່ພ
Solids, Percent	GN20240	T45815-1	do	94.7	94.7	0.0	0-5%	

Associated Samples:

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Batch GN20240: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9 Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

(\*) Outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX



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#### MATRIX SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

#### Login Number: T45815 Account: CRATXHO - Conestoga-Rovers & Associates Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits	
Chloride	GP7858/GN20506	T45815-10	mg/kg	0.0	25.6	26.3(a)	102.6(a)	80-120%	5.4
Chloride	GP7858/GN20506	T45815-17	mg/kg	4.6	26	29.4(a)	95.2(a)	80-120%	

Associated Samples:

R550012teu 5amp185. Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9 (\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX



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