SITE INFORMATION

Report Type: Work Plan

General Site Information:						
Site:	JR's Horz Federal Tank Battery					
Company:	COG Operating LLC					
Section, Township and Range	Unit D	Sec 10	T26S	R29E		
Lease Number:	NMNM-92177					
County:	Eddy County					
GPS:	32.06344° N			103.97959° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	Starting in Malaga travel south 12 miles on Hyw 285, turn left on Co Rd 725 (Longhorn Rd) and travel 4 miles, turn right and travel 1.1 miles to tank battery.					

RECEIVED
MAR 16 2011

Release Data:	
Date Released:	11/10/2010
Type Release:	Oil
Source of Contamination:	Oil Tanks
Fluid Released:	328 bbls
Fluids Recovered:	161 bbls

Official Communication:			
Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300		1910 N. Big Spring
P.O. Box			
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 425-3878
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		ike.tavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	0	0
WellHead Protection:	***Ranking Score***	***Site Data***
Water Source <1,000 ft., Private <200 ft.	*20*	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	***Ranking Score***	***Site Data***
<200 ft.	*20*	
200 ft - 1,000 ft.	10	
>1,000 ft.	**0**	0
Total Ranking Score:	**0**	

Acceptable Soil RRAL (mg/kg)		
Benzene	***Total BTEX***	***TPH***
10	50	5,000

TETRA TECH

March 1, 2011

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, New Mexico 88210

Re: Work Plan for the COG Operating LLC., JR's Horz Federal Tank Battery, Unit D, Section 10, Township 26 South, Range 29 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the JR's Horz Federal Tank Battery located in Unit D, Section 10, Township 26 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.06344°, W 103.97959°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 10, 2010, when an oil tank overflowed and released approximately three hundred and twenty eight (328) barrels of oil. The release was contained inside the facility firewall. To alleviate the problem, COG personnel used vacuum trucks to recover the fluids. One hundred and sixty-one (161) barrels of standing fluids were recovered inside the tank battery firewall. The facility measured approximately 35' X 130'. The C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 10. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 100' below surface. The Geology and Groundwater Resources of Eddy County, New Mexico (Report 3) well report data is shown in Appendix B.

Tetra Tech
1910 North Big Spring, Midland,TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On December 29, 2010, Tetra Tech personnel inspected and sampled the spill area. Prior to sampling, COG had excavated the spill area to a depth from 1.0' to 3.0' below surface and backfilled the excavations. Tetra Tech collected samples below the clean backfilled material. A total of six (6) auger holes (AH-1 through AH-6) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, AH-2 was above the allowed RRAL for TPH and BTEX and declined below the RRAL at 3.0' and the chloride concentration declined with depth to 940 mg/kg. All remaining auger holes had chloride levels that ranged from <200 mg/kg to 1,270 mg/kg. Sample at 0-1.0' from AH-3, AH-4 and AH-6 showed chloride concentrations of 718 mg/kg, 1,270 mg/kg and 988 mg/kg, respectively. Deeper samples were not collected due to a dense formation.

Work Plan

Tetra Tech proposes to excavate the impacted soils in the area of AH-2 to approximately 3.0' to 4.0' to remove TPH and BTEX exceeding the RRAL and the chloride impact exceeding 1,000 mg/kg. The proposed depths are shown in Table 1. If accessible, backhoe trenches will be installed in the areas of AH-2, AH-3, AH-4 and AH-6 to collect deeper samples to define the

chloride impact in these areas.

If deeper impact is encountered, the proposed excavation depths may not be reached due to wall cave ins and safety concerns for onsite personnel. In addition, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safely concerns. As such, Tetra Tech will excavate the soils to the maximum extent practicable.

If you have any questions or comments concerning the assessment or the remediation activities performed at the site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez
Project Manager

cc: Pat Ellis – COG
cc: Terry Gregston – BLM

TABLE

Table 1
COG Operating LLC.
JR's Horz Federal Tank Battery
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-1	12/29/2010	0-1'	2'	X		<2.00	<50.0	<50.0	-	-	-	-	408
		1-1.5'	2'	X					-	-	-	-	511
		2-2.5'	2'	X					-	-	-	-	367
		3-3.5'	2'	X					-	-	-	-	475
AH-2	12/29/2010	0-1'	1'	X		4,410	6,420	**10,830**	**8.26**	**42.4**	**29.2**	**86.8**	1,200
		1-1.5'	1'	X		6,760	9,700	**16,460**	**9.91**	**48.5**	**30.5**	**86**	1,350
		2-2.5'	1'	X		5,720	22,300	**28,020**	**11.9**	**121**	**60.3**	**176**	1,030
		3-3.5'	1'	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	940
AH-3	12/29/2010	0-1'	1'	X		183	398	581	<0.100	0.337	0.864	3.7	718
AH-4	12/29/2010	0-1'	1'	X		27.9	195.0	222.9	-	-	-	-	1,270
AH-5	12/29/2010	0-1'	1'	X		1,910	1,870	3,780	<0.200	4.03	4.88	14.3	<200
AH-6	12/29/2010	0-1'	1'	X		21.1	364.0	385.1	-	-	-	-	988

BEB Below Excavation Bottom

(--) Not Analyzed

Proposed Excavated Depths

FIGURES

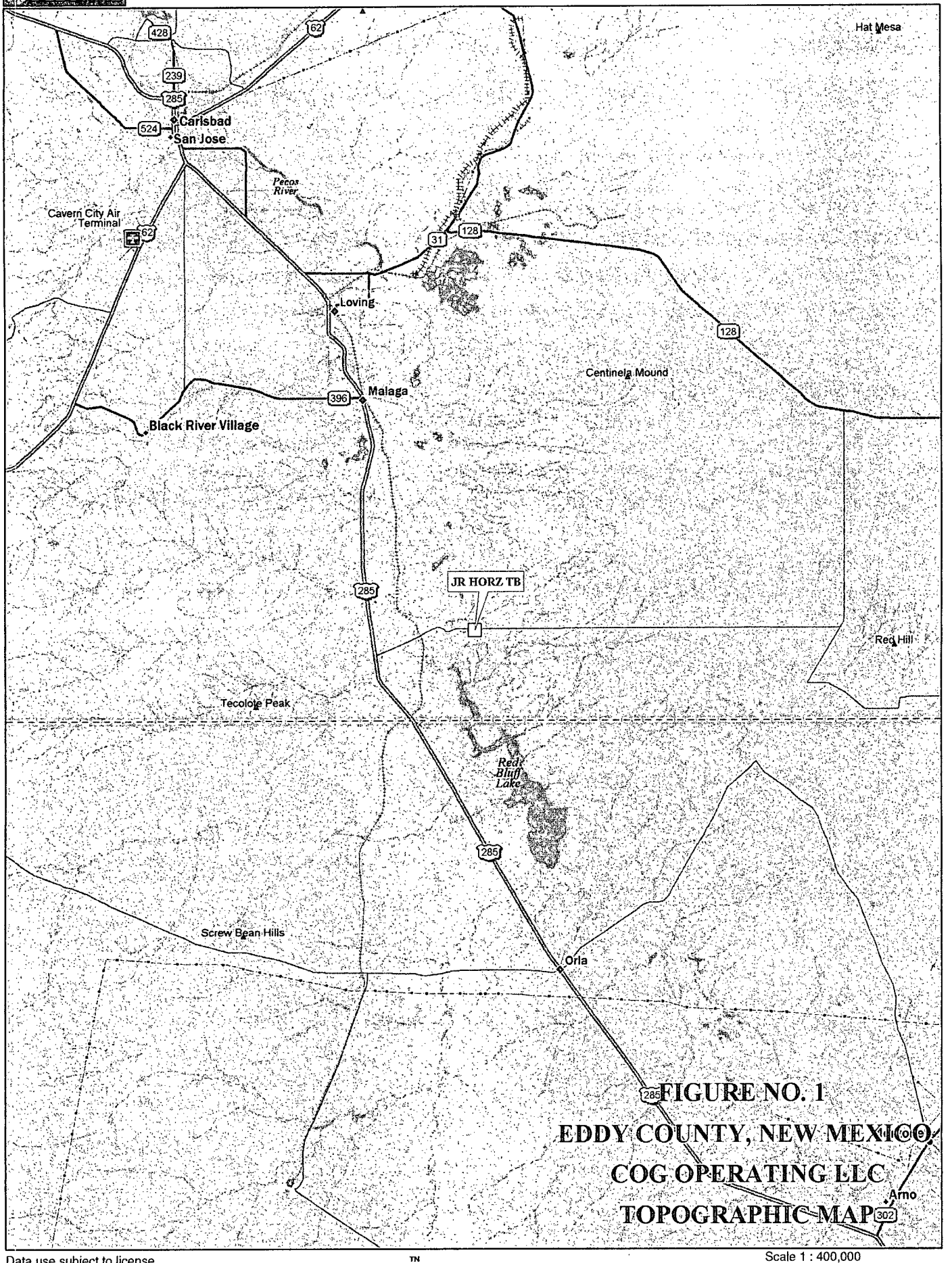


FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP

TN
MN (7.8°E)

Scale 1 : 400,000
1" = 6.31 mi
Data Zoom 9-0

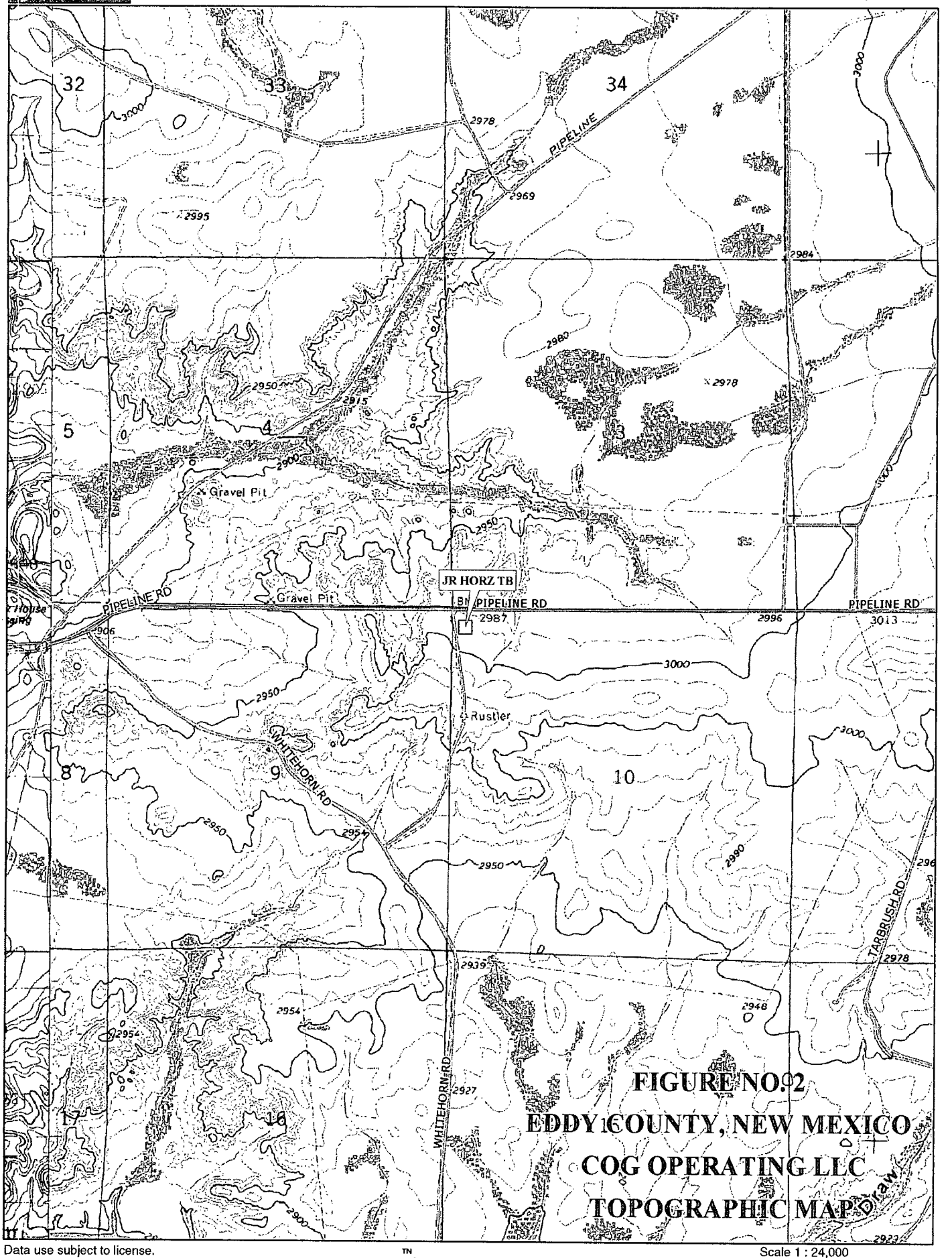
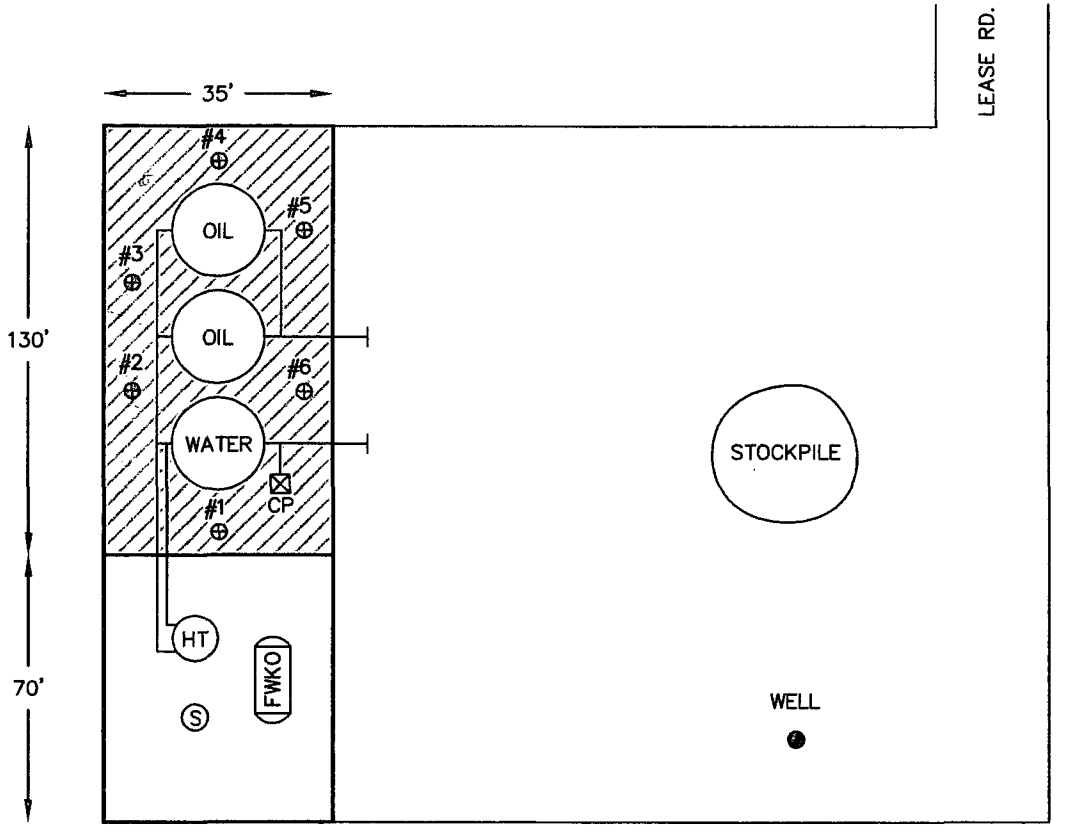


FIGURE NO. 2
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP

TN
MN (7.8°E)

Scale 1 : 24,000
0 600 1200 1800 2400 3000 ft
0 200 400 600 800 1000 m
1" = 2,000.0 ft Data Zoom 13-0



SPILL AREA
SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

JR HORZ TB

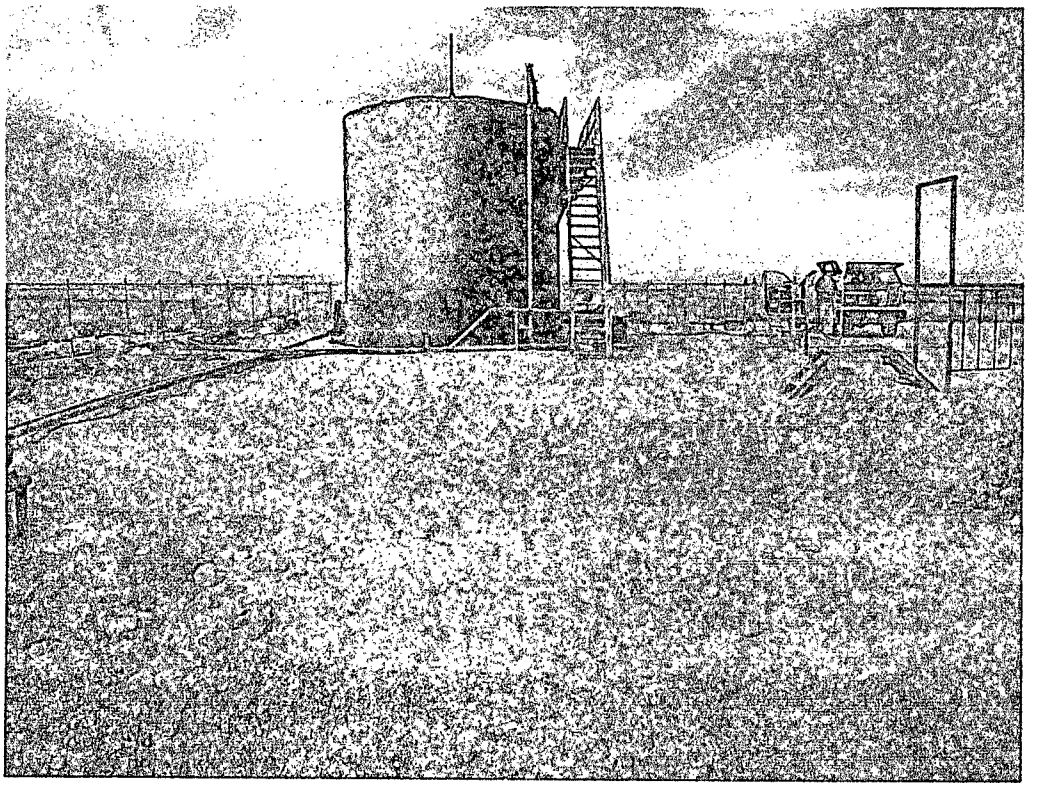
DATE: 12/29/10
DWN. BY: JJ
FILE: H:\COG\8400743 JR HORZ TB

TETRA TECH, INC.
MIDLAND, TEXAS

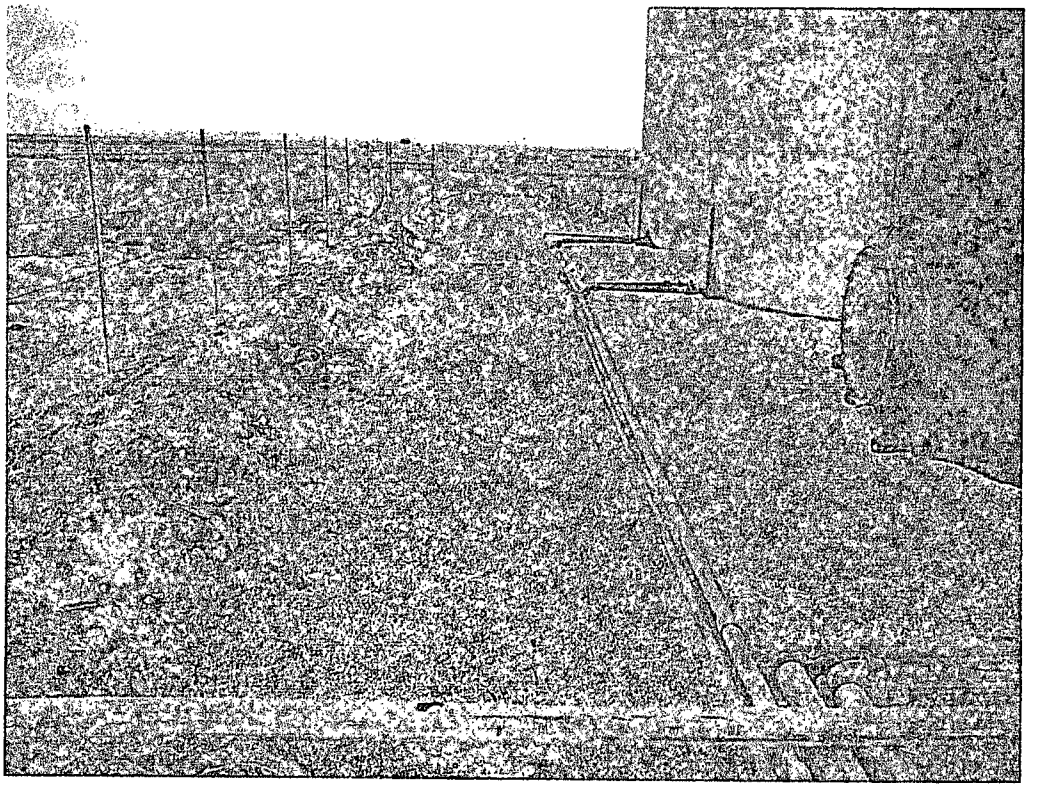
PHOTOGRAPHS

COG Operating LLC
JR's Horz Federal TB
Eddy County, New Mexico

TETRA TECH



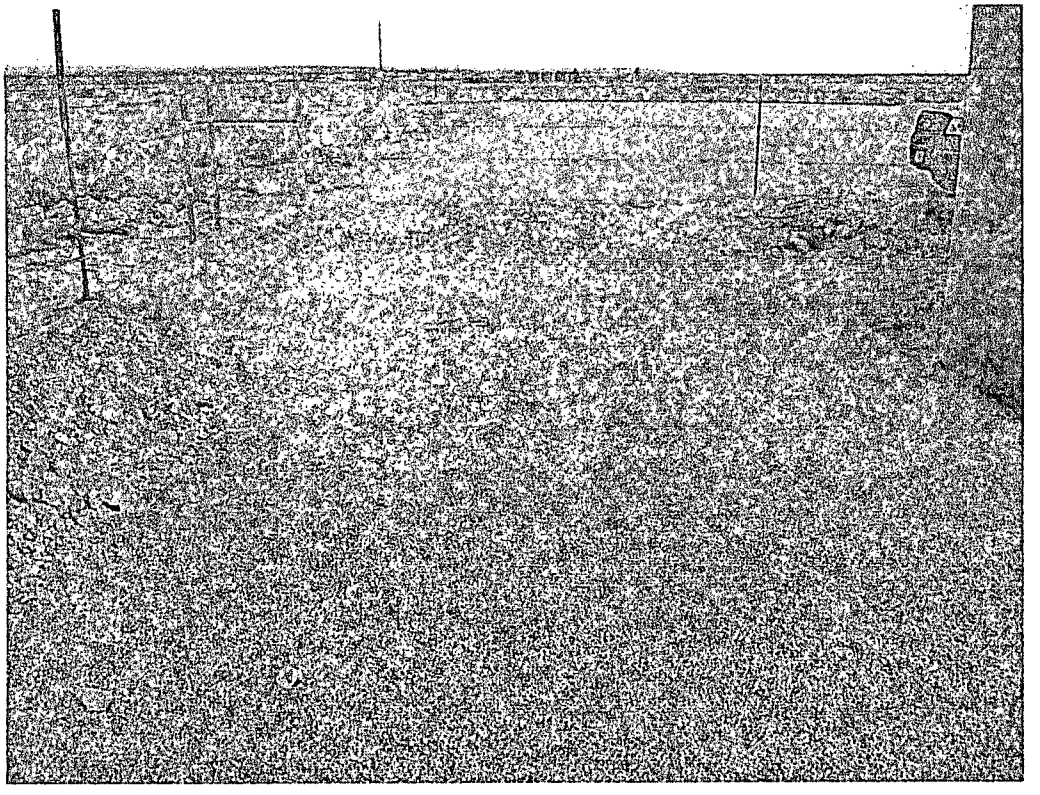
View North – AH-1, AH-6, AH-2



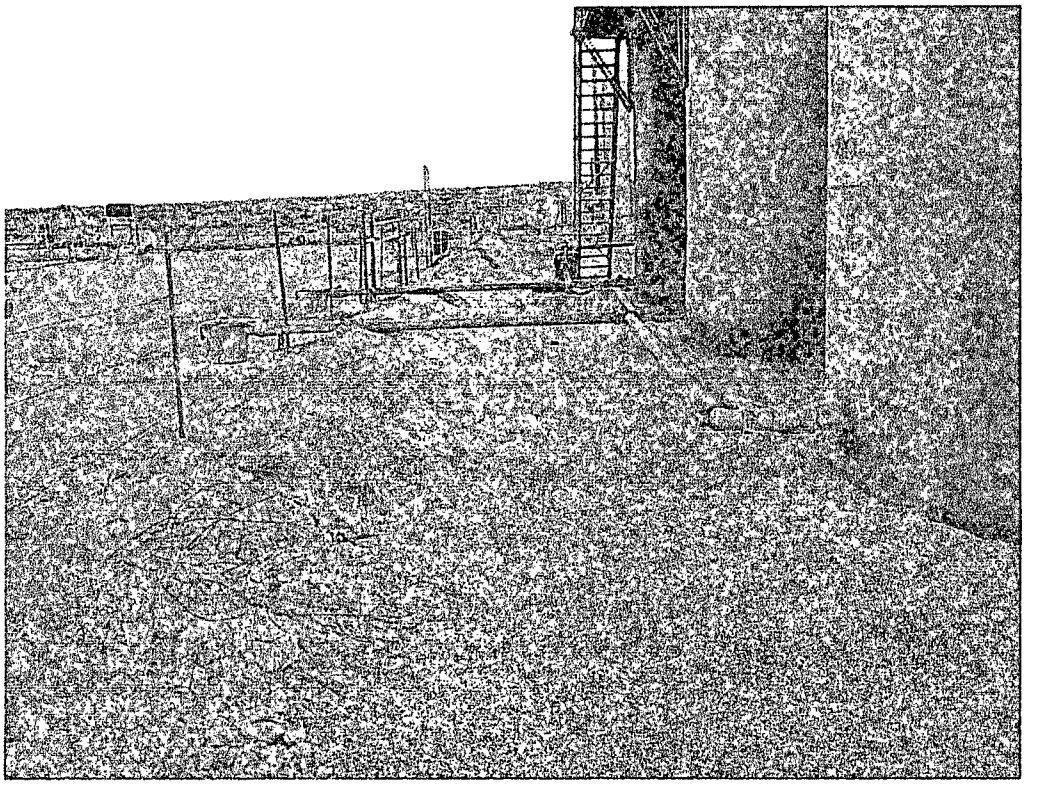
View North – AH-2, AH-3

COG Operating LLC
JR's Horz Federal TB
Eddy County, New Mexico

TETRA TECH



View East – AH-4



View South – AH-5, AH-6

APPENDIX A

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	JR's Horz Federal Tank Battery	Facility Type	Tank Battery

Surface Owner	Mineral Owner	Lease No.
Federal		NMNM-92177

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	10	26S	29E	380	North	330	West	Eddy

Latitude 32 03.799 **Longitude** 103 58.756

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 328bbls	Volume Recovered: 161bbls
Source of Release: Oil tanks	Date and Hour of Occurrence: 11/10/2010	Date and Hour of Discovery: 11/10/2010 8:30 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher—OCD; Terry Gregston—BLM	
By Whom? Josh Russo	Date and Hour: 11/11/2010 8:24 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Oil overflowed out of oil storage tanks due to water flow from JR's Horz #1 well backside. JR's Horz #1 well has had tubing and casing shut in until further notice.

Describe Area Affected and Cleanup Action Taken.*

Initially 328bbls of oil was released from the tanks and we were able to recover 161bbls of oil with vacuum trucks. All released fluid was contained inside the dike walls of the facility. The spill area had the dimensions of 30' x 120' inside the dike. (The closest well location to the release is on the same pad location, JR's Horz Federal #1 well, API# 30-015-33066). Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM for approval prior to any significant remediation work.

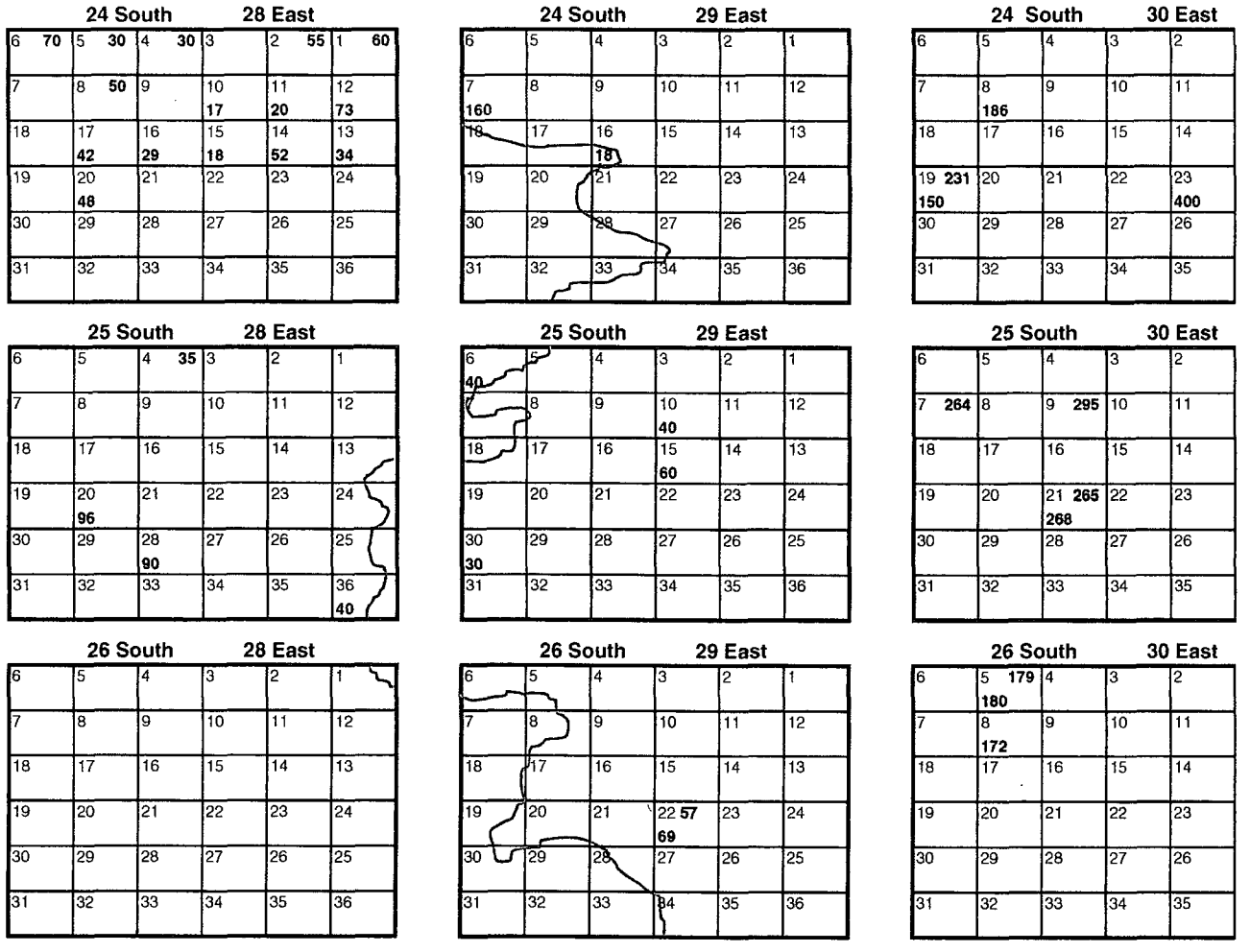
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Josh Russo	Approved by District Supervisor:	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached ☐
Date: 11/16/2010 Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Jr's Horz Federal Tank Battery
Eddy County, New Mexico



- New Mexico State Engineers Well Reports
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data

APPENDIX C

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: January 13, 2011

Work Order: 11010504

Project Location: Eddy County, NM
Project Name: COG/JR Horz
Project Number: 114-6400743

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
254664	AH-1 0-1' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254665	AH-1 1-1.5' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254666	AH-1 2-2.5' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254667	AH-1 3-3.5' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254668	AH-2 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254669	AH-2 1-1.5' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254670	AH-2 2-2.5' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254671	AH-2 3-3.5' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254672	AH-3 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254673	AH-4 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254674	AH-5 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254675	AH-6 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
254664 - AH-1 0-1' 2' BEB					<50.0	<2.00
254668 - AH-2 0-1' 1' BEB	**8.26**	**42.4**	**29.2**	**86.8**	**6420**	**4410**
254669 - AH-2 1-1.5' 1' BEB	**9.91**	**48.5**	**30.5**	**86.0**	**9700**	**6760**
254670 - AH-2 2-2.5' 1' BEB	**11.9**	**121**	**60.3**	**176**	**22300**	**5720**
254671 - AH-2 3-3.5' 1' BEB	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
254672 - AH-3 0-1' 1' BEB	<0.100	**0.337**	**0.864**	**3.70**	**398**	**183**
254673 - AH-4 0-1' 1' BEB					**195**	**27.9**
254674 - AH-5 0-1' 1' BEB	<0.200	**4.03**	**4.88**	**14.3**	**1870**	**1910**
254675 - AH-6 0-1' 1' BEB					**364**	**21.1**

Sample: 254664 - AH-1 0-1' 2' BEB

Param	Flag	Result	Units	RL
Chloride		**408**	mg/Kg	4.00

Sample: 254665 - AH-1 1-1.5' 2' BEB

Param	Flag	Result	Units	RL
Chloride		**511**	mg/Kg	4.00

Sample: 254666 - AH-1 2-2.5' 2' BEB

Param	Flag	Result	Units	RL
Chloride		**367**	mg/Kg	4.00

Sample: 254667 - AH-1 3-3.5' 2' BEB

Param	Flag	Result	Units	RL
Chloride		**475**	mg/Kg	4.00

Sample: 254668 - AH-2 0-1' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**1200**	mg/Kg	4.00

Sample: 254669 - AH-2 1-1.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**1350**	mg/Kg	4.00

Sample: 254670 - AH-2 2-2.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**1030**	mg/Kg	4.00

Sample: 254671 - AH-2 3-3.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**940**	mg/Kg	4.00

Sample: 254672 - AH-3 0-1' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**718**	mg/Kg	4.00

Sample: 254673 - AH-4 0-1' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**1270**	mg/Kg	4.00

Sample: 254674 - AH-5 0-1' 1' BEB

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 254675 - AH-6 0-1' 1' BEB

Param	Flag	Result	Units	RL
Chloride		**988**	mg/Kg	4.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: January 13, 2011

Work Order: 11010504

Project Location: Eddy County, NM
Project Name: COG/JR Horz
Project Number: 114-6400743

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
254664	AH-1 0-1' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254665	AH-1 1-1.5' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254666	AH-1 2-2.5' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254667	AH-1 3-3.5' 2' BEB	soil	2010-12-29	00:00	2011-01-05
254668	AH-2 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254669	AH-2 1-1.5' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254670	AH-2 2-2.5' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254671	AH-2 3-3.5' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254672	AH-3 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254673	AH-4 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
254674	AH-5 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05
254675	AH-6 0-1' 1' BEB	soil	2010-12-29	00:00	2011-01-05

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project COG/JR Horz were received by TraceAnalysis, Inc. on 2011-01-05 and assigned to work order 11010504. Samples for work order 11010504 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	65908	2011-01-12 at 10:10	76857	2011-01-12 at 10:10
Chloride (Titration)	SM 4500-Cl B	65759	2011-01-05 at 10:41	76736	2011-01-07 at 10:24
Chloride (Titration)	SM 4500-Cl B	65759	2011-01-05 at 10:41	76737	2011-01-07 at 10:25
TPH DRO - NEW	S 8015 D	65801	2011-01-06 at 15:19	76742	2011-01-06 at 15:19
TPH DRO - NEW	S 8015 D	65869	2011-01-10 at 14:56	76813	2011-01-10 at 14:56
TPH GRO	S 8015 D	65793	2011-01-06 at 11:27	76727	2011-01-06 at 11:27
TPH GRO	S 8015 D	65888	2011-01-11 at 14:09	76834	2011-01-11 at 14:09

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11010504 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 254664 - AH-1 0-1' 2' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**408**		mg/Kg	50	4.00

Sample: 254664 - AH-1 0-1' 2' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76742	Date Analyzed:	2011-01-06	Analyzed By:	kg
Prep Batch:	65801	Sample Preparation:	2011-01-06	Prepared By:	kg

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		94.1	mg/Kg	1	100	94	70 - 130

Sample: 254664 - AH-1 0-1' 2' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76727	Date Analyzed:	2011-01-06	Analyzed By:	ME
Prep Batch:	65793	Sample Preparation:	2011-01-06	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		<2.00		mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.53	mg/Kg	1	2.00	126	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.36	mg/Kg	1	2.00	118	42 - 159

Sample: 254665 - AH-1 1-1.5' 2' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**511**	mg/Kg	50	4.00

Sample: 254666 - AH-1 2-2.5' 2' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**367**	mg/Kg	50	4.00

Sample: 254667 - AH-1 3-3.5' 2' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**475**	mg/Kg	50	4.00

Sample: 254668 - AH-2 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76857	Date Analyzed:	2011-01-12	Analyzed By:	ME
Prep Batch:	65908	Sample Preparation:	2011-01-12	Prepared By:	ME

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		**8.26**	mg/Kg	20	0.0200
Toluene		**42.4**	mg/Kg	20	0.0200

continued ...

sample 254668 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		**29.2**	mg/Kg	20	0.0200
Xylene		**86.8**	mg/Kg	20	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.7	mg/Kg	20	20.0	104	52.8 - 137
4-Bromofluorobenzene (4-BFB)	[1]	46.6	mg/Kg	20	20.0	233	38.4 - 157

Sample: 254668 - AH-2 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1200**	mg/Kg	100	4.00

Sample: 254668 - AH-2 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76742	Date Analyzed:	2011-01-06	Analyzed By:	kg
Prep Batch:	65801	Sample Preparation:	2011-01-06	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**6420**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[2]	851	mg/Kg	5	100	851	70 - 130

Sample: 254668 - AH-2 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76727	Date Analyzed:	2011-01-06	Analyzed By:	ME
Prep Batch:	65793	Sample Preparation:	2011-01-06	Prepared By:	ME

[1] High surrogate recovery due to peak interference.
[2] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4410**	mg/Kg	20	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.2	mg/Kg	20	20.0	101	48.5 - 152
4-Bromofluorobenzene (4-BFB)	[3]	38.1	mg/Kg	20	20.0	190	42 - 159

Sample: 254669 - AH-2 1-1.5' 1' BEB

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76857	Date Analyzed:	2011-01-12	Analyzed By:	ME
Prep Batch:	65908	Sample Preparation:	2011-01-12	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**9.91**	mg/Kg	50	0.0200
Toluene		**48.5**	mg/Kg	50	0.0200
Ethylbenzene		**30.5**	mg/Kg	50	0.0200
Xylene		**86.0**	mg/Kg	50	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		44.9	mg/Kg	50	50.0	90	52.8 - 137
4-Bromofluorobenzene (4-BFB)		69.7	mg/Kg	50	50.0	139	38.4 - 157

Sample: 254669 - AH-2 1-1.5' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1350**	mg/Kg	100	4.00

Sample: 254669 - AH-2 1-1.5' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76813	Date Analyzed:	2011-01-10	Analyzed By:	kg
Prep Batch:	65869	Sample Preparation:	2011-01-10	Prepared By:	kg

[3] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**9700**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[4]	796	mg/Kg	10	100	796	70 - 130

Sample: 254669 - AH-2 1-1.5' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76834	Date Analyzed:	2011-01-11	Analyzed By:	ME
Prep Batch:	65888	Sample Preparation:	2011-01-11	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**6760**	mg/Kg	50	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		51.9	mg/Kg	50	50.0	104	48.5 - 152
4-Bromofluorobenzene (4-BFB)		70.4	mg/Kg	50	50.0	141	42 - 159

Sample: 254670 - AH-2 2-2.5' 1' BEB

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76857	Date Analyzed:	2011-01-12	Analyzed By:	ME
Prep Batch:	65908	Sample Preparation:	2011-01-12	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**11.9**	mg/Kg	50	0.0200
Toluene		**121**	mg/Kg	50	0.0200
Ethylbenzene		**60.3**	mg/Kg	50	0.0200
Xylene		**176**	mg/Kg	50	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		52.0	mg/Kg	50	50.0	104	52.8 - 137
4-Bromofluorobenzene (4-BFB)	[5]	104	mg/Kg	50	50.0	208	38.4 - 157

[4] High surrogate recovery due to peak interference.
[5] High surrogate recovery due to peak interference.

Sample: 254670 - AH-2 2-2.5' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1030**		mg/Kg	100	4.00

Sample: 254670 - AH-2 2-2.5' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76813	Date Analyzed:	2011-01-10	Analyzed By:	kg
Prep Batch:	65869	Sample Preparation:	2011-01-10	Prepared By:	kg

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**22300**		mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[6]	1900	mg/Kg	10	100	1900	70 - 130

Sample: 254670 - AH-2 2-2.5' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76834	Date Analyzed:	2011-01-11	Analyzed By:	ME
Prep Batch:	65888	Sample Preparation:	2011-01-11	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**5720**		mg/Kg	50	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		50.4	mg/Kg	50	50.0	101	48.5 - 152
4-Bromofluorobenzene (4-BFB)		71.5	mg/Kg	50	50.0	143	42 - 159

[6] High surrogate recovery due to peak interference.

Sample: 254671 - AH-2 3-3.5' 1' BEB

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76857	Date Analyzed:	2011-01-12	Analyzed By:	ME
Prep Batch:	65908	Sample Preparation:	2011-01-12	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	38.4 - 157

Sample: 254671 - AH-2 3-3.5' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**940**	mg/Kg	100	4.00

Sample: 254671 - AH-2 3-3.5' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76813	Date Analyzed:	2011-01-10	Analyzed By:	kg
Prep Batch:	65869	Sample Preparation:	2011-01-10	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		92.0	mg/Kg	1	100	92	70 - 130

Sample: 254671 - AH-2 3-3.5' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76834	Date Analyzed:	2011-01-11	Analyzed By:	ME
Prep Batch:	65888	Sample Preparation:	2011-01-11	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.30	mg/Kg	1	2.00	115	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.21	mg/Kg	1	2.00	110	42 - 159

Sample: 254672 - AH-3 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76857	Date Analyzed:	2011-01-12	Analyzed By:	ME
Prep Batch:	65908	Sample Preparation:	2011-01-12	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.100	mg/Kg	5	0.0200
Toluene		**0.337**	mg/Kg	5	0.0200
Ethylbenzene		**0.864**	mg/Kg	5	0.0200
Xylene		**3.70**	mg/Kg	5	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.76	mg/Kg	5	5.00	95	52.8 - 137
4-Bromofluorobenzene (4-BFB)		5.18	mg/Kg	5	5.00	104	38.4 - 157

Sample: 254672 - AH-3 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**718**	mg/Kg	50	4.00

Sample: 254672 - AH-3 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76742	Date Analyzed:	2011-01-06	Analyzed By:	kg
Prep Batch:	65801	Sample Preparation:	2011-01-06	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**398**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[7]	155	mg/Kg	1	100	155	70 - 130

Sample: 254672 - AH-3 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76727	Date Analyzed:	2011-01-06	Analyzed By:	ME
Prep Batch:	65793	Sample Preparation:	2011-01-06	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**183**	mg/Kg	10	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		11.1	mg/Kg	10	10.0	111	48.5 - 152
4-Bromofluorobenzene (4-BFB)		11.8	mg/Kg	10	10.0	118	42 - 159

Sample: 254673 - AH-4 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76736	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1270**	mg/Kg	100	4.00

[7]High surrogate recovery due to peak interference.

Sample: 254673 - AH-4 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76742	Date Analyzed:	2011-01-06	Analyzed By:	kg
Prep Batch:	65801	Sample Preparation:	2011-01-06	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**195**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[8]	133	mg/Kg	1	100	133	70 - 130

Sample: 254673 - AH-4 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76727	Date Analyzed:	2011-01-06	Analyzed By:	ME
Prep Batch:	65793	Sample Preparation:	2011-01-06	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**27.9**	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.41	mg/Kg	1	2.00	120	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.46	mg/Kg	1	2.00	123	42 - 159

Sample: 254674 - AH-5 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76857	Date Analyzed:	2011-01-12	Analyzed By:	ME
Prep Batch:	65908	Sample Preparation:	2011-01-12	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.200	mg/Kg	10	0.0200
Toluene		**4.03**	mg/Kg	10	0.0200
Ethylbenzene		**4.88**	mg/Kg	10	0.0200
Xylene		**14.3**	mg/Kg	10	0.0200

[8]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.21	mg/Kg	10	10.0	92	52.8 - 137
4-Bromofluorobenzene (4-BFB)		14.4	mg/Kg	10	10.0	144	38.4 - 157

Sample: 254674 - AH-5 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76737	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 254674 - AH-5 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76742	Date Analyzed:	2011-01-06	Analyzed By:	kg
Prep Batch:	65801	Sample Preparation:	2011-01-06	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**1870**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[9]	360	mg/Kg	1	100	360	70 - 130

Sample: 254674 - AH-5 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76727	Date Analyzed:	2011-01-06	Analyzed By:	ME
Prep Batch:	65793	Sample Preparation:	2011-01-06	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1910**	mg/Kg	50	2.00

[9]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		56.0	mg/Kg	50	50.0	112	48.5 - 152
4-Bromofluorobenzene (4-BFB)		64.6	mg/Kg	50	50.0	129	42 - 159

Sample: 254675 - AH-6 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76737	Date Analyzed:	2011-01-07	Analyzed By:	AR
Prep Batch:	65759	Sample Preparation:	2011-01-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**988**	mg/Kg	100	4.00

Sample: 254675 - AH-6 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76742	Date Analyzed:	2011-01-06	Analyzed By:	kg
Prep Batch:	65801	Sample Preparation:	2011-01-06	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**364**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[10]	158	mg/Kg	1	100	158	70 - 130

Sample: 254675 - AH-6 0-1' 1' BEB

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76727	Date Analyzed:	2011-01-06	Analyzed By:	ME
Prep Batch:	65793	Sample Preparation:	2011-01-06	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**21.1**	mg/Kg	1	2.00

[10] High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.28	mg/Kg	1	2.00	114	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.22	mg/Kg	1	2.00	111	42 - 159

Method Blank (1) QC Batch: 76727

QC Batch: 76727 | Date Analyzed: 2011-01-06 | Analyzed By: ME
Prep Batch: 65793 | QC Preparation: 2011-01-06 | Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.73	mg/Kg	1	2.00	86	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	52.4 - 130

Method Blank (1) QC Batch: 76736

QC Batch: 76736 | Date Analyzed: 2011-01-07 | Analyzed By: AR
Prep Batch: 65759 | QC Preparation: 2011-01-05 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 76737

QC Batch: 76737 | Date Analyzed: 2011-01-07 | Analyzed By: AR
Prep Batch: 65759 | QC Preparation: 2011-01-05 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 76742

QC Batch: 76742 | Date Analyzed: 2011-01-06 | Analyzed By: kg
Prep Batch: 65801 | QC Preparation: 2011-01-06 | Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		85.1	mg/Kg	1	100	85	70 - 130

Method Blank (1) QC Batch: 76813

QC Batch: 76813 Date Analyzed: 2011-01-10 Analyzed By: kg
Prep Batch: 65869 QC Preparation: 2011-01-10 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		99.6	mg/Kg	1	100	100	70 - 130

Method Blank (1) QC Batch: 76834

QC Batch: 76834 Date Analyzed: 2011-01-11 Analyzed By: ME
Prep Batch: 65888 QC Preparation: 2011-01-11 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.70	mg/Kg	1	2.00	85	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	52.4 - 130

Method Blank (1) QC Batch: 76857

QC Batch: 76857 Date Analyzed: 2011-01-12 Analyzed By: ME
Prep Batch: 65908 QC Preparation: 2011-01-12 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.75	mg/Kg	1	2.00	88	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	55.4 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 76727 | Date Analyzed: 2011-01-06 | Analyzed By: ME
Prep Batch: 65793 | QC Preparation: 2011-01-06 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.8	mg/Kg	1	20.0	<1.65	79	69.9 - 95.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.6	mg/Kg	1	20.0	<1.65	78	69.9 - 95.4	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.64	1.80	mg/Kg	1	2.00	82	90	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.59	1.78	mg/Kg	1	2.00	80	89	65.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 76736 | Date Analyzed: 2011-01-07 | Analyzed By: AR
Prep Batch: 65759 | QC Preparation: 2011-01-05 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.1	mg/Kg	1	100	<2.18	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 76737 | Date Analyzed: 2011-01-07 | Analyzed By: AR
Prep Batch: 65759 | QC Preparation: 2011-01-05 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.6	mg/Kg	1	100	<2.18	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	104	mg/Kg	1	100	<2.18	104	85 - 115	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 76742 | Date Analyzed: 2011-01-06 | Analyzed By: kg
Prep Batch: 65801 | QC Preparation: 2011-01-06 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	200	mg/Kg	1	250	<14.6	80	47.5 - 144.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	217	mg/Kg	1	250	<14.6	87	47.5 - 144.1	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	117	120	mg/Kg	1	100	117	120	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 76813 | Date Analyzed: 2011-01-10 | Analyzed By: kg
Prep Batch: 65869 | QC Preparation: 2011-01-10 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	265	mg/Kg	1	250	<14.6	106	47.5 - 144.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	257	mg/Kg	1	250	<14.6	103	47.5 - 144.1	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	124	123	mg/Kg	1	100	124	123	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 76834 | Date Analyzed: 2011-01-11 | Analyzed By: ME
Prep Batch: 65888 | QC Preparation: 2011-01-11 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.7	mg/Kg	1	20.0	<1.65	74	69.9 - 95.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.4	mg/Kg	1	20.0	<1.65	77	69.9 - 95.4	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.58	1.69	mg/Kg	1	2.00	79	84	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.54	1.67	mg/Kg	1	2.00	77	84	65.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 76857 | Date Analyzed: 2011-01-12 | Analyzed By: ME
Prep Batch: 65908 | QC Preparation: 2011-01-12 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.19	mg/Kg	1	2.00	<0.0150	110	81.9 - 115
Toluene	2.02	mg/Kg	1	2.00	<0.00950	101	81.9 - 113
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.0106	98	78.4 - 107

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.89	mg/Kg	1	6.00	<0.00930	98	79.1 - 107

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.30	mg/Kg	1	2.00	<0.0150	115	81.9 - 115	5	20
Toluene	2.10	mg/Kg	1	2.00	<0.00950	105	81.9 - 113	4	20
Ethylbenzene	2.08	mg/Kg	1	2.00	<0.0106	104	78.4 - 107	5	20
Xylene	6.18	mg/Kg	1	6.00	<0.00930	103	79.1 - 107	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.73	1.65	mg/Kg	1	2.00	86	82	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.82	1.74	mg/Kg	1	2.00	91	87	69.8 - 121

Matrix Spike (MS-1) Spiked Sample: 254664

QC Batch: 76727 | Date Analyzed: 2011-01-06 | Analyzed By: ME
Prep Batch: 65793 | QC Preparation: 2011-01-06 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.4	mg/Kg	1	20.0	<1.65	77	61.8 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.6	mg/Kg	1	20.0	<1.65	78	61.8 - 114	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.49	2.47	mg/Kg	1	2	124	124	50 - 162
4-Bromofluorobenzene (4-BFB)	2.45	2.44	mg/Kg	1	2	122	122	50 - 162

Matrix Spike (MS-1) Spiked Sample: 254673

QC Batch: 76736 | Date Analyzed: 2011-01-07 | Analyzed By: AR
Prep Batch: 65759 | QC Preparation: 2011-01-05 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10400	mg/Kg	100	10000	1270	91	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11100	mg/Kg	100	10000	1270	98	85 - 115	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 254696

QC Batch: 76737 | Date Analyzed: 2011-01-07 | Analyzed By: AR
Prep Batch: 65759 | QC Preparation: 2011-01-05 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11100	mg/Kg	100	10000	1160	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11700	mg/Kg	100	10000	1160	105	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 254664

QC Batch: 76742 | Date Analyzed: 2011-01-06 | Analyzed By: kg
Prep Batch: 65801 | QC Preparation: 2011-01-06 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	161	mg/Kg	1	250	<14.6	64	11.7 - 152.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	162	mg/Kg	1	250	<14.6	65	11.7 - 152.3	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	106	106	mg/Kg	1	100	106	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 254671

QC Batch: 76813 | Date Analyzed: 2011-01-10 | Analyzed By: kg
Prep Batch: 65869 | QC Preparation: 2011-01-10 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	220	mg/Kg	1	250	<14.6	88	11.7 - 152.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	221	mg/Kg	1	250	<14.6	88	11.7 - 152.3	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	107	105	mg/Kg	1	100	107	105	70 - 130

Matrix Spike (MS-1) Spiked Sample: 254671

QC Batch: 76834 | Date Analyzed: 2011-01-11 | Analyzed By: ME
Prep Batch: 65888 | QC Preparation: 2011-01-11 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.1	mg/Kg	1	20.0	<1.65	81	61.8 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.9	mg/Kg	1	20.0	<1.65	80	61.8 - 114	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.28	2.22	mg/Kg	1	2	114	111	50 - 162
4-Bromofluorobenzene (4-BFB)	2.33	2.29	mg/Kg	1	2	116	114	50 - 162

Matrix Spike (MS-1) Spiked Sample: 255031

QC Batch: 76857 | Date Analyzed: 2011-01-12 | Analyzed By: ME
Prep Batch: 65908 | QC Preparation: 2011-01-12 | Prepared By: ME

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	[11]	2.48	mg/Kg	1	2.00	<0.0150	124	80.5 - 112
Toluene		2.25	mg/Kg	1	2.00	<0.00950	112	82.4 - 113
Ethylbenzene		2.25	mg/Kg	1	2.00	<0.0106	112	83.9 - 114
Xylene		6.77	mg/Kg	1	6.00	0.1443	110	84 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[12]	2.40	mg/Kg	1	2.00	<0.0150	120	80.5 - 112	3	20
Toluene		2.21	mg/Kg	1	2.00	<0.00950	110	82.4 - 113	2	20
Ethylbenzene		2.22	mg/Kg	1	2.00	<0.0106	111	83.9 - 114	1	20
Xylene		6.69	mg/Kg	1	6.00	0.1443	109	84 - 114	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[13] [14]	2.35	2.42	mg/Kg	1	2	118	121	41.3 - 117
4-Bromofluorobenzene (4-BFB)		2.29	2.38	mg/Kg	1	2	114	119	35.5 - 129

Standard (CCV-1)

QC Batch: 76727 Date Analyzed: 2011-01-06 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.914	91	80 - 120	2011-01-06

Standard (CCV-2)

QC Batch: 76727 Date Analyzed: 2011-01-06 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.913	91	80 - 120	2011-01-06

Standard (CCV-3)

QC Batch: 76727 Date Analyzed: 2011-01-06 Analyzed By: ME

[11] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[12] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[13] Surrogate out due to peak interference.
[14] Surrogate out due to peak interference.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.976	98	80 - 120	2011-01-06

Standard (ICV-1)

QC Batch: 76736 Date Analyzed: 2011-01-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.6	98	85 - 115	2011-01-07

Standard (CCV-1)

QC Batch: 76736 Date Analyzed: 2011-01-07 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2011-01-07

Standard (ICV-1)

QC Batch: 76737 Date Analyzed: 2011-01-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.9	98	85 - 115	2011-01-07

Standard (CCV-1)

QC Batch: 76737 Date Analyzed: 2011-01-07 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2011-01-07

Standard (CCV-1)

QC Batch: 76742 Date Analyzed: 2011-01-06 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	80 - 120	2011-01-06

Standard (CCV-2)

QC Batch: 76742 Date Analyzed: 2011-01-06 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2011-01-06

Standard (CCV-3)

QC Batch: 76742 Date Analyzed: 2011-01-06 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	80 - 120	2011-01-06

Standard (CCV-2)

QC Batch: 76813 Date Analyzed: 2011-01-10 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	286	114	80 - 120	2011-01-10

Standard (CCV-3)

QC Batch: 76813 Date Analyzed: 2011-01-10 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	253	101	80 - 120	2011-01-10

Standard (CCV-1)

QC Batch: 76834 Date Analyzed: 2011-01-11 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.877	88	80 - 120	2011-01-11

Standard (CCV-2)

QC Batch: 76834 Date Analyzed: 2011-01-11 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.988	99	80 - 120	2011-01-11

Standard (CCV-1)

QC Batch: 76857 Date Analyzed: 2011-01-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.114	114	80 - 120	2011-01-12
Toluene		mg/Kg	0.100	0.102	102	80 - 120	2011-01-12
Ethylbenzene		mg/Kg	0.100	0.0987	99	80 - 120	2011-01-12
Xylene		mg/Kg	0.300	0.295	98	80 - 120	2011-01-12

Standard (CCV-2)

QC Batch: 76857 Date Analyzed: 2011-01-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.111	111	80 - 120	2011-01-12
Toluene		mg/Kg	0.100	0.103	103	80 - 120	2011-01-12
Ethylbenzene		mg/Kg	0.100	0.101	101	80 - 120	2011-01-12
Xylene		mg/Kg	0.300	0.302	101	80 - 120	2011-01-12

Standard (CCV-3)

QC Batch: 76857 Date Analyzed: 2011-01-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.112	112	80 - 120	2011-01-12
Toluene		mg/Kg	0.100	0.104	104	80 - 120	2011-01-12
Ethylbenzene		mg/Kg	0.100	0.101	101	80 - 120	2011-01-12
Xylene		mg/Kg	0.300	0.297	99	80 - 120	2011-01-12

WO# 11010504

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 2

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400243

PROJECT NAME: COG/Jc Horz Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC:MS Vol. 8240/8260/624	GC:MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
254664	12/29		S		X	AH-1 0-1' 2' BEB	1				X			X											X				
665						AH-1 1-1.5' 2' BEB																			X				
666						AH-1 2-2.5' 2' BEB																			X				
667						AH-1 3-3.5' 2' BEB																			X				
668						AH-2 0-1' 1' BEB								X											X				
669						AH-2 1-1.5' 1' BEB																			X				
670						AH-2 2-2.5' 1' BEB																			X				
671						AH-2 3-3.5' 1' BEB																			X				
672						AH-3 0-1 1' BEB								X											X				
673						AH-4 0-1 1' BEB								X											X				

RELINQUISHED BY: (Signature)	Date: 1/5/10 Time: 0530	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) Robert Gaither TG — Date: 12/29/10 Time: 15:30

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Xenco
ADDRESS:
CITY: Midland STATE: Texas ZIP:
CONTACT: Xenco PHONE:
RECEIVED BY: (Signature)
DATE: 11-5-10 TIME: 9:30

SAMPLE CONDITION WHEN RECEIVED: 3.0°C intact

REMARKS: If TPH exceeds 100 mg/kg run deeper depths.

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Run (3) BTEX on highest TPH.

NOH11010504

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6406743

PROJECT NAME: COG / JC Ware Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. (Ext. to C35) TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
254674	12/29		S		X	AH-5	0-1	1'BER	1				X			X										X				
675	12/29		S		X	AH-6	0-1	1'BER	1				X			X										X				

RELINQUISHED BY: (Signature) Robert Gabbs Jr. Date: 11/5/10 Time: 0530

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) Robert Gabbs Jr. Date: 12/29/10 Time: 1440

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: Paula PHONE:

RECEIVED BY: (Signature)

DATE: 11-5-10 TIME: 9:30

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.0°C Intact

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.