

# SITE INFORMATION

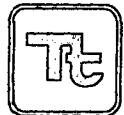
## Report Type: Work Plan

<b>General Site Information:</b>		
<b>Site:</b>	SENM SWD System (Northwest Central) - west	
<b>Company:</b>	COG Operating LLC	
<b>Section, Township and Range</b>	Unit N - Sec. 17 - T-17S - R-30E	
<b>Lease Number:</b>	NMNM-86025	
<b>County:</b>	Eddy Conty	
<b>GPS:</b>	32.83047° N	103.99600° W
<b>Surface Owner:</b>	Federal	
<b>Mineral Owner:</b>		
<b>Directions:</b>	From Loco Hills at the intersection of Hwy 82 and CR-217 (Hagerman Cutoff), travel north on CR-217 0.6 mi, turn left 0.4 mi, turn right 300' to location.	
<b>Release Data:</b>	<b>Spill #1:</b>	<b>Spill #2:</b>

Date Released:	5/12/2010	288-5360	12/15/2011	2RP-573
Type Release:	Produced water		Oil	
Source of Contamination:	6" Poly line weld failed		Oil Tank	
Fluid Released:	300 bbls		23 bbls	
Fluids Recovered:	200 bbls		20 bbls	

<b>Official Communication:</b>				
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		432-682-4559	
Fax:	(432) 684-7137			
Email:	pellis@conchoresources.com		ike.tavarez@tetrtech.com	

<b>Ranking Criteria</b>		
<b>Depth to Groundwater:</b>	<b>Ranking Score</b>	<b>Site Data</b>
<50 ft	20	
50-99 ft	10	
>100 ft.	0	
<b>Wellhead Protection:</b>	<b>Ranking Score</b>	<b>Site Data</b>
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
<b>Surface Body of Water:</b>	<b>Ranking Score</b>	<b>Site Data</b>
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
<b>Total Ranking Score:</b>	0	
<b>Acceptable Soil RRAI (mg/kg)</b>		
<b>Benzene</b>	<b>Total BTEX</b>	<b>TPH</b>
10	50	5,000
<b>RECEIVED</b>		
OCT 17 2011		
<b>NMOCD ARTESIA</b>		



TETRA TECH

October 6, 2011

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

**Re: Assessment and Work Plan for the COG Operating LLC., SENM SWD System (Northwest Central), Unit N, Section 17, Township 17 South, Range 30 East, Eddy County, New Mexico.**

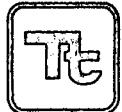
Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess two spills from the SENM SWD System (Northwest Central) located in Unit N, Section 17, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.83047°, W 103.99600°. The site location is shown on Figures 1 and 2.

## Background

### Spill #1

According to the State of New Mexico C-141 Initial Report, a leak was discovered on May 12, 2010, when approximately three hundred (300) barrels of produced water released from a poly line weld on a 6" transmission line. To alleviate the problem, COG personnel repaired the poly line. Two hundred (200) barrels of standing fluids were recovered. The spill initiated on the north of the facility, flowed south approximately 325' and migrated approximately 150' off the facility pad. The initial C-141 form is enclosed in Appendix A.



### Spill #2

On December 15, 2010, an oil tank overflowed caused by a plugged equalizer line, releasing approximately 23 barrels of oil. COG recovered 20 barrels using a vacuum truck. The spill flowed south of the facility pad measuring approximately 3' x 100' and migrated on top of the spill #1 footprint.

### **Groundwater**

No water wells were listed within Section 17. According to the NMOCD groundwater map, the average depth to groundwater in this area appears to be 250' to 275' below surface. The groundwater data is shown in Appendix B.

### **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**

#### Spill #1

On June 23, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of seven (7) auger holes (AH-1 through AH-7) were installed using a stainless steel hand auger to assess the impacted soils. Auger holes were not installed east of the tanks, due to the dense surface caliche in the area. In addition, the area of AH-4 appears to be near a closed reserve pit area. 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 results of the sampling are summarized in Table 1. The spill area and auger hole locations are shown on Figure 3.



TETRA TECH

Referring to Table 1, all of the submitted samples were below the RRAL for TPH and BTEX. Elevated chloride concentrations were detected in the majority of the auger holes. Auger holes (AH-2 and AH-4) were vertically defined at 7'-8' and 2'-3', respectively. The remaining auger holes required additional delineation.

On August 17, 2010, Tetra Tech supervised the installation of eight (8) soil borings (SB-1 through SB-8). In the area north of the facility, additional soil borings were not installed due to the buried electrical lines and active underground lines in the area. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 2. The soil boring locations are shown on Figure 3.

Referring to Table 1, all of the soil borings were vertically defined and show a shallow chloride impact to the subsurface soils ranging from 1.0' to 7.0' below surface. Soil boring (SB-3 and SB-6) showed a shallow impact to the soil at 1.0' and 2.0' below surface. SB-2, SB-4, SB-5, SB-7 and SB-8 were vertically defined at approximately 3.0' to 5.0' below surface. The area of SB-1 did show the deepest impact of 5.0' to 7.0' below surface.

#### Spill #2

On December 15, 2010, a second spill occurred at the site when the tank overflowed east of the tank battery and flowed south encompassing part of the spill #1 footprint. On February 25, 2011, Tetra Tech supervised the installation of seven (7) soil borings (SB-1 through SB-7). 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 2. The spill area and auger hole locations are shown on Figure 3.

Referring to Table 2, all of the submitted samples were below the RRAL for TPH and BTEX. The soil boring results showed a shallow chloride impact to the subsurface soils and were all defined at depths ranging from 3.0' to 7.0' below surface.



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## Work Plan

COG proposes to remove of impacted material as highlighted (green) in Table 1 and shown on Figure 4. In order to remove the elevated chloride concentrations, the excavations will range from 1.0' to 7.0' below surface. All of the excavated soil will be transported to proper disposal. Once excavated to the appropriate depths, the excavations will be backfilled with clean soil.

Based on location of the spill area, deeper excavation of the spill may not be achieved due to proximity of oil and gas equipment, structures or above or underground lines and electrical, which may cause cave ins and safety concerns for onsite equipment and personnel. As such, Tetra Tech will excavate the soils to the maximum extent practicable. If the depths are not reached in the deeper impacted areas, a 40 mil liner will be installed at depth of 4.0' below surface to cap the impacted area.

If the shallow excavation depths are not achieved, the remaining impact will be deferred until abandonment. The limited residual chloride impact in the subsurface soils would not appear to be an environmental concern, with groundwater depth of approximately 250' to 275' below surface.

If you have any questions or comments concerning the assessment or the proposed work plan, please call me at (432) 682-4559.

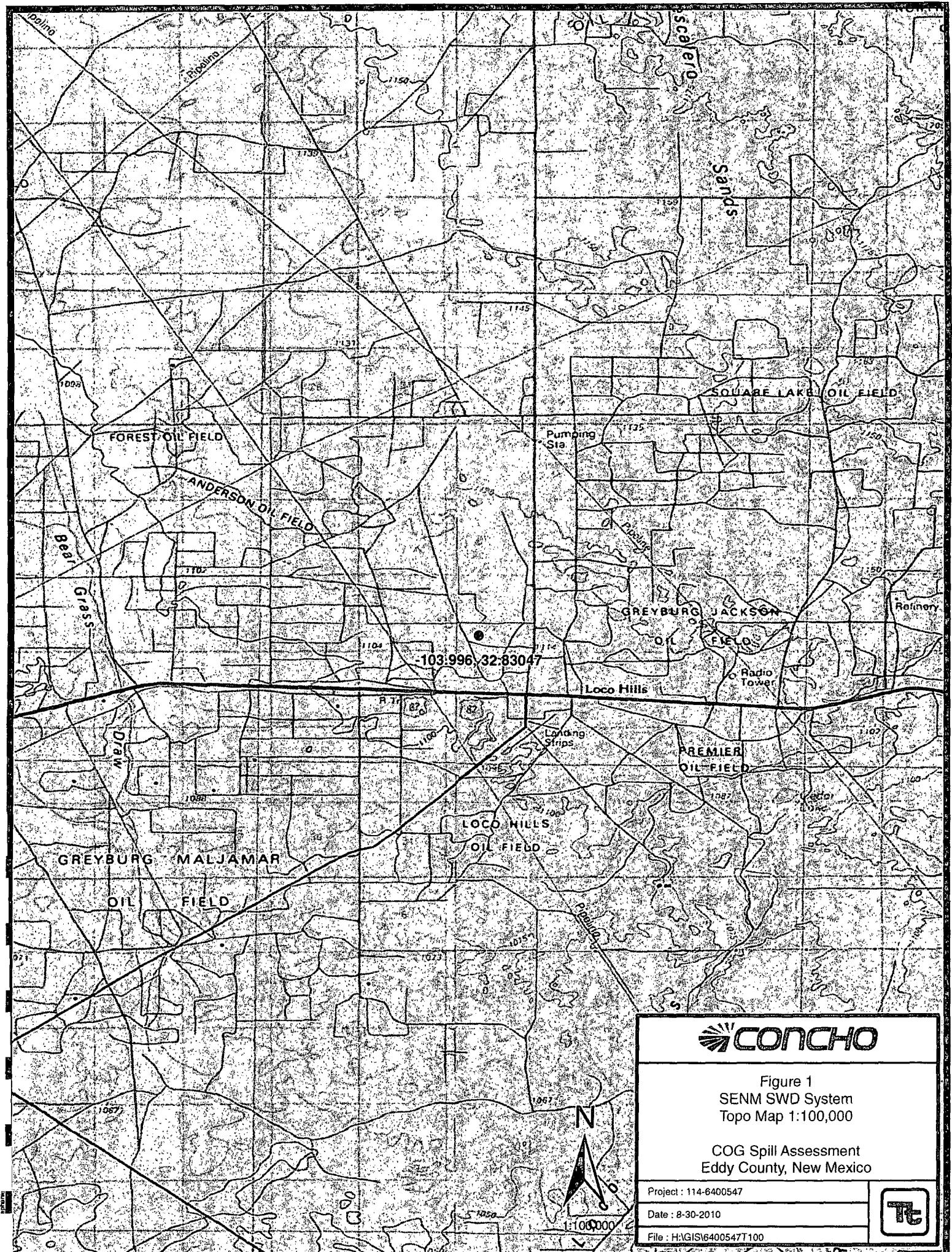
Respectfully submitted,  
TETRA TECH



Ike Tavarez  
Project Manager

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

## Figures



**CONCHO**

Figure 1  
SENM SWD System  
Topo Map 1:100,000

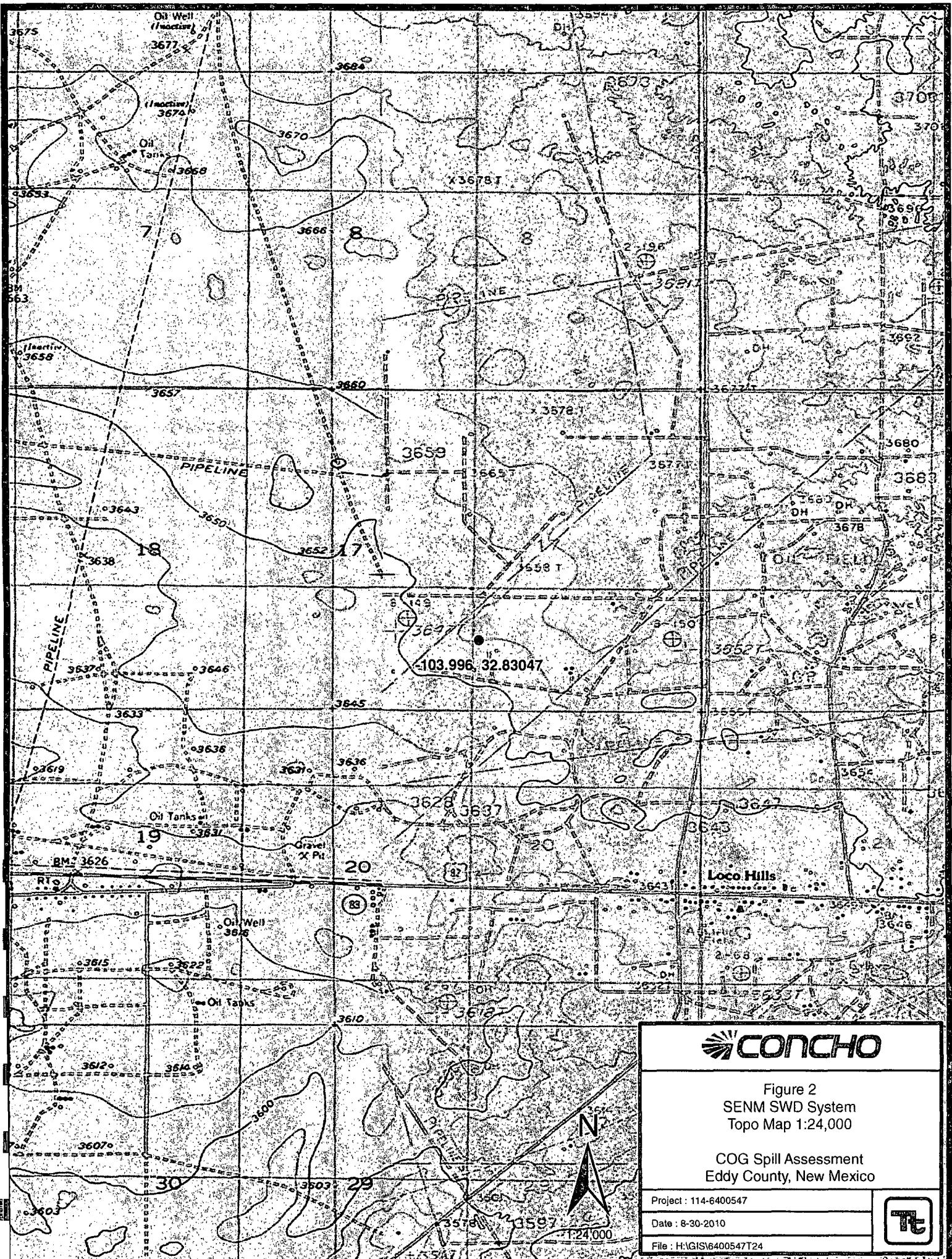
COG Spill Assessment  
Eddy County, New Mexico

Project : 114-6400547

Date : 8-30-2010

File : H:\GIS\6400547T100





**CONCHO**

Figure 2  
SENM SWD System  
Topo Map 1:24,000

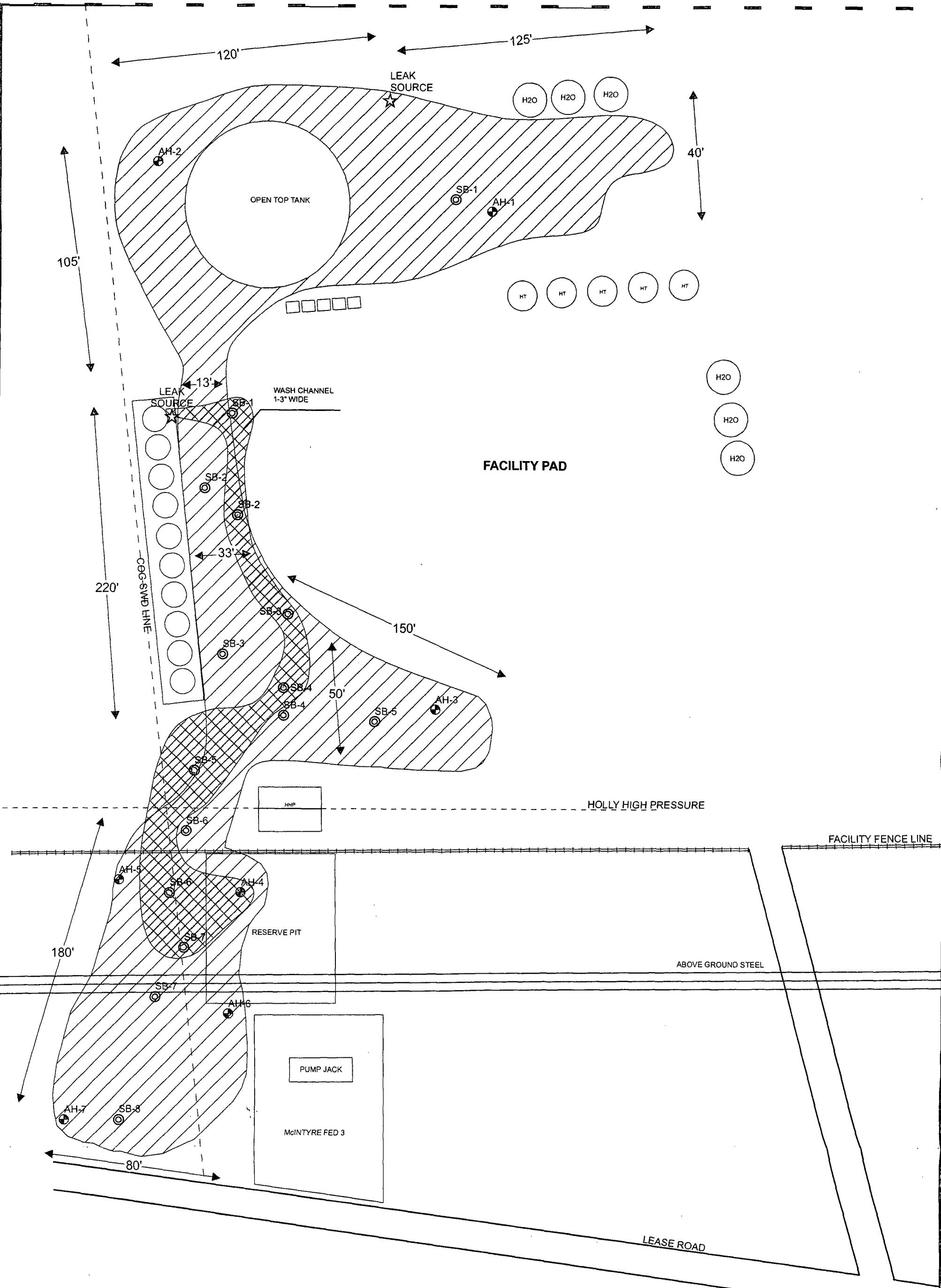
COG Spill Assessment  
Eddy County, New Mexico

Project : 114-6400547

Date : 8-30-2010

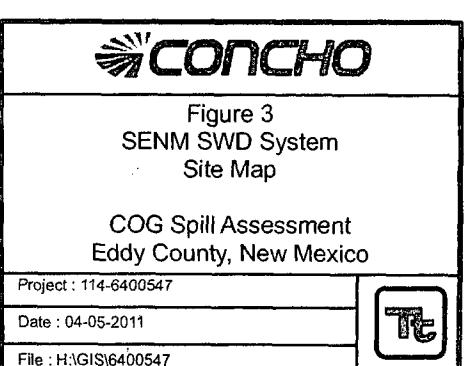
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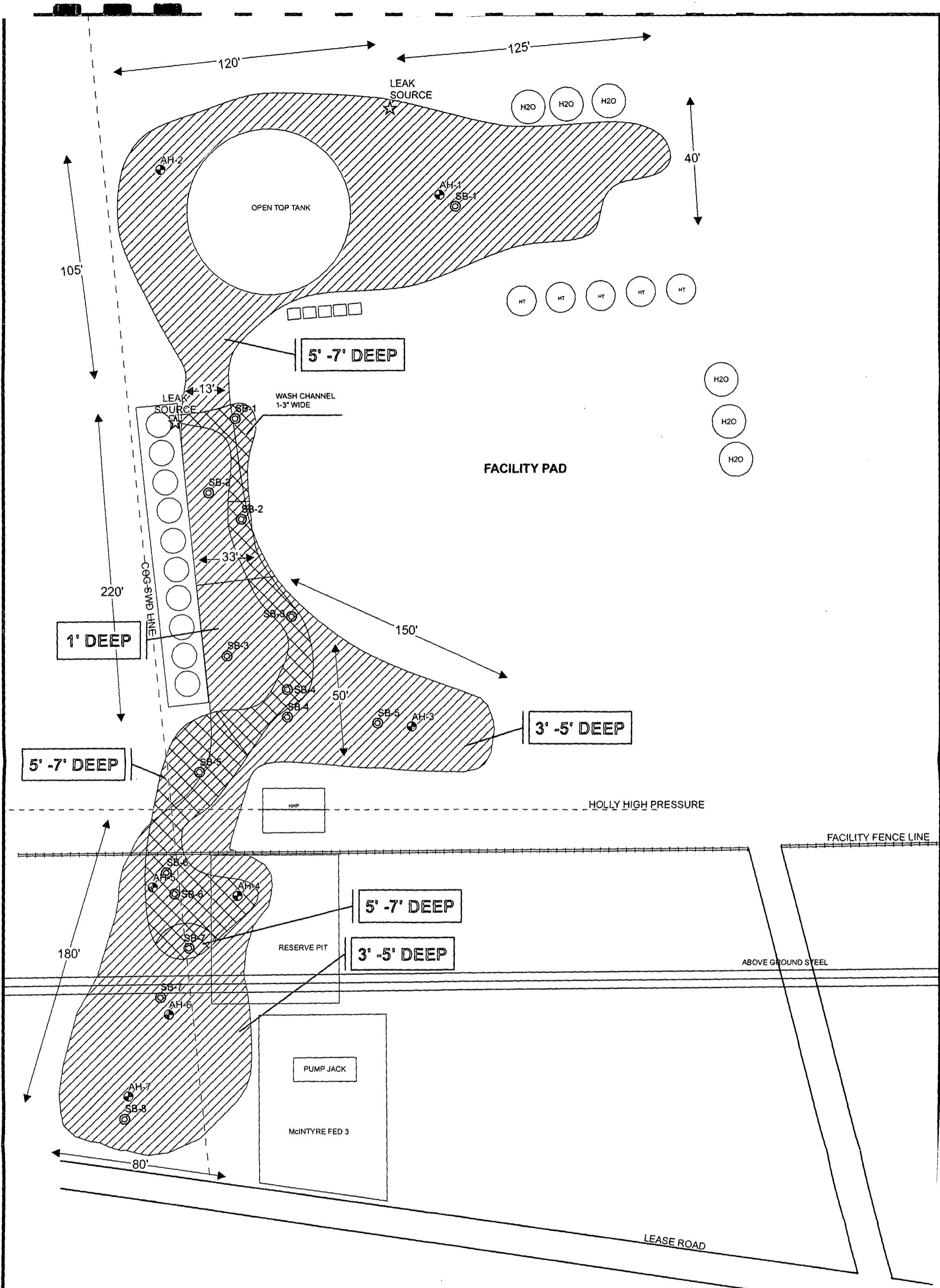




### Explanation

- ★ Spill Source
- Auger Hole Sample
- Spill #1 Soil Borehole
- ◎ Spill #2 Soil Borehole
- ▨ Spill #1
- ▨ Spill #2





### Explanation

- ★ Spill Source
- Auger Hole Sample
- Spill #1 Soil Borehole
- ◎ Spill #2 Soil Borehole
- ▨ Proposed Excavation Depths

**CONCHO**  
 Figure 4  
 SENM SWD System  
 Proposed Excavation Depths  
 Eddy County, New Mexico  
 Project : 114-6400547  
 Date : 04-05-2011  
 File : HAGIS16400547

N  
 NOT TO SCALE



# Tables

**Table 1**  
**COG Operating LLC.**  
**SENM SWD System**  
**Spill #1**  
**Eddy COUNTY, NEW MEXICO**

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	BTEX Total	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
<b>AH-1</b>	6/23/10	0-1'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	15800
		1-1.5'		X										6220
		2-2.5'		X										7440
<b>SB-1</b>	8/17/10	1'		X		<50.0	<2.00	<50.0						1,870
		3'		X										2,780
		5'		X										4,380
		7'		X		-	-	-	-	-	-	-		504
		10'		X		-	-	-	-	-	-	-		248
		15'		X		-	-	-	-	-	-	-		<200
		20'		X		-	-	-	-	-	-	-		<200
<b>AH-2</b>	6/23/10	0-1'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	4400
		1-1.5'		X										6410
		2-2.5'		X										7030
		3-3.5'		X										5660
		4-4.5'		X										3140
		5-5.5'		X										2270
		6-6.5'		X		-	-	-	-	-	-	-		1230
		7-7.5'		X		-	-	-	-	-	-	-		314
		8-8.5'		X		-	-	-	-	-	-	-		<200

**Table 1  
COG Operating LLC.  
SENM SWD System  
Spill #1  
Dy COUNTY, NEW MEX**

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)	BTEX Total	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
SB-2	8/17/10	1'		X		<50.0	<2.00	<50.0						19,400
	"	3'		X		-	-	-						22,800
	"	5'		X		-	-	-						1,350
	"	7'		X		-	-	-						300
	"	10'		X		-	-	-						230
	"	15'		X		-	-	-						<200
	"	20'		X		-	-	-						<200
SB-3	8/17/10	1'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200		2,440
	"	3'		X		-	-	-						703
	"	5'		X		-	-	-						234
	"	7'		X		-	-	-						295
	"	10'		X		-	-	-						337
	"	15'		X		-	-	-						244
SB-4	8/17/10	1'		X		593	83.0	676.0	<0.100	0.481	0.245	1.21		6,330
	"	3'		X		-	-	-						8,770
	"	5'		X		-	-	-						399
	"	7'		X		-	-	-						<200
	"	10'		X		-	-	-						422
	"	15'		X		-	-	-						413
	"	20'		X		-	-	-						554
	"	25'		X		-	-	-						404
	"	30'		X		-	-	-						291

**Table 1**  
**COG Operating LLC.**  
**SENM SWD System**  
**Spill #1**

**Table 1  
COG Operating LLC.  
SENM SWD System  
Spill #1  
ddy COUNTY, NEW MEXICO**

**Table 1**  
**COG Operating LLC.**  
**SENM SWD System**  
**Spill #1**  
**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)	BTEX Total	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
AH-7	6/23/10	0-1'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	2800
		1-1.5'		X		-	-	-	-	-	-	-	-	4880
		2-2.5'		X		-	-	-	-	-	-	-	-	6240
SB-8	8/18/10	1'		X		<50.0	<2.00	<50.0	-	-	-	-	-	863
		" 3'		X		-	-	-	-	-	-	-	-	1,430
		" 5'		X		-	-	-	-	-	-	-	-	1,900
		" 7'		X		-	-	-	-	-	-	-	-	1,260
		" 10'		X		-	-	-	-	-	-	-	-	456
		" 15'		X		-	-	-	-	-	-	-	-	739
		" 20'		X		-	-	-	-	-	-	-	-	481
		" 25'		X		-	-	-	-	-	-	-	-	496
		" 30'		X		-	-	-	-	-	-	-	-	337
		" 40'		X		-	-	-	-	-	-	-	-	<200

BEB Below Excavation Bottom

(--) Not Analyzed

Excavated material

**Table 2**  
**COG Operating LLC.**  
**SENM SWD System**  
**Spill #2**

**Table 2**  
**COG Operating LLC.**  
**SENM SWD System**  
**Spill #2**  
**Eddy COUNTY, NEW MEXICO**

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
SB-5	3/1/11	0-1'	X		3,530	1,730	5,260	2.86	82.8	64.8	86.0	5,300
		3'	X		2960	2850	5810	3.60	75.1	69.9	89.6	5,180
		5'	X		252	287	539	<0.100	0.602	3.71	6.61	3,680
	"	7'	X		-	-	-	-	-	-	-	1,300
	"	10'	X		-	-	-	-	-	-	-	<200
	"	15'	X		-	-	-	-	-	-	-	<200
	"	20'	X		-	-	-	-	-	-	-	235
SB-6	3/1/11	0-1'	X		3,870	1,530	5,400	<0.200	3.16	17.8	34.7	<200
		3'	X		<50.0	<2.00	<50.0	<0.0200	0.159	<0.0200	<0.0200	2,010
	"	5'	X		-	-	-	-	-	-	-	1,000
	"	7'	X		-	-	-	-	-	-	-	418
	"	10'	X		-	-	-	-	-	-	-	354
	"	15'	X		-	-	-	-	-	-	-	251
	"	20'	X		-	-	-	-	-	-	-	<200
	"	25'	X		-	-	-	-	-	-	-	221
SB-7	3/1/11	0-1'	X		10,800	3,640	14,440	5.25	86.5	87.6	120	1,080
		3'	X		1560	1240	2800	1.37	46.9	39.5	63.7	4,180
	"	5'	X		<50.0	<2.00	<50.0	<0.0200	<0.0200	0.15	<0.0200	2,500
	"	7'	X		-	-	-	-	-	-	-	419
	"	10'	X		-	-	-	-	-	-	-	792
	"	15'	X		-	-	-	-	-	-	-	324
	"	20'	X		-	-	-	-	-	-	-	<200
	"	25'	X		-	-	-	-	-	-	-	279
	"	30'	X		-	-	-	-	-	-	-	<200

(-) Not Analyzed

## 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

0547

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	SENM SWD System (Northwest Central)	Facility Type	Tank Battery

Surface Owner	Federal	Mineral Owner	Lease No.
---------------	---------	---------------	-----------

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	17	17S	30E					Eddy

Latitude 32 49.840      Longitude 103 59.763

### NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	300bbls	Volume Recovered	200bbls
Source of Release	6" produced water transmission line	Date and Hour of Occurrence		Date and Hour of Discovery	
		05/12/2010		05/12/2010	5:00 p.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?			
			Mike Bratcher - OCD Terry Gregston - BLM		
By Whom?	Josh Russo	Date and Hour	05/13/2010	4:09 p.m.	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse			

If a Watercourse was Impacted, Describe Fully.\*

**RECEIVED**

OCT 17 2011

**NMOCD ARTESIA**

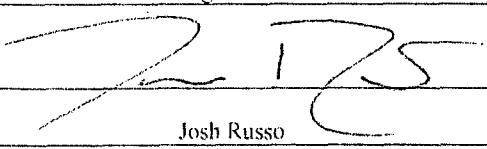
Describe Cause of Problem and Remedial Action Taken.\*

The cause of the release was due to the failure of a poly weld on a 6" produced water transmission line. The line was immediately repaired and put back into service.

Describe Area Affected and Cleanup Action Taken.\*

Initially 300bbls of produced water was released and we were able to recover 200bbls with a vacuum truck. The main area of the release on the pad location had the dimensions of 150'x130'. A stream then headed south on the pad location with the dimensions of 5'x100' before heading off the south end of the pad and into the pasture. The stream into the pasture went roughly 170'. (The closest well location to the release is the MCINTYRE DK FEDERAL #3, Unit N, 17-17S-30E, 660 FSL 1980 FWL 32.82917 - 103.99629, API# 30-015-04186) 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 BLM / NMOCD for approval before any significant remediation.

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:				<b>OIL CONSERVATION DIVISION</b>		
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 <input type="checkbox"/>
Date:	05/21/2010	Phone:	432-212-2399			

\* Attach Additional Sheets If Necessary

*200-530*

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

✓ 102  
 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	McIntyre DK Federal (Northwest Central)	Facility Type	Tank Battery
Surface Owner	Federal	Mineral Owner	Lease No. NMNM-86025

### LOCATION OF RELEASE

Unit Letter N	Section 17	Township 17S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy

Latitude 32 49.804      Longitude 103 59.782

### NATURE OF RELEASE

Type of Release Oil	Volume of Release 23bbls	Volume Recovered 20bbls
Source of Release Oil Tank	Date and Hour of Occurrence 12/15/2010	Date and Hour of Discovery 12/15/2010 8:00a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*	<b>RECEIVED</b> OCT 17 2011 <b>NMOCD ARTESIA</b>	
Describe Cause of Problem and Remedial Action Taken.*	The equalizer line was plugged causing the oil tank to overflow. The plugged equalizer line has been cleaned out.	
Describe Area Affected and Cleanup Action Taken.*	Initially 23bbls of oil was released from the oil tank and we were able to recover 20bbls with a vacuum truck. The oil traveled south on the pad location 3' x 100', and then off the pad roughly 30' towards a prior spill location. All oil has been picked up with a vacuum truck, pad material has been scraped off, contaminates, tanks and lines have been steamed. (Well location on the same pad, McIntyre Federal #6, (AP#) 30-015-20972).	

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

### OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:	
Printed Name: Josh Russo		
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	
Date: 12/17/2010	Phone: 432-212-2399	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

## Appendix B

**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**North Central Tank Battery**  
**Eddy County, New Mexico**

16 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
			220dry		
19	20	21	22	23	24
110					
30	29	28	27	26	25
31	32	33	34	35	36

16 South			30 East		
6	5	4	3	2	1
			<b>Maljamar</b>		
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

17 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	80	23
30	29	210	28	27	25
			208'		
31	32	33	34	35	36

17 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

17 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**88** New Mexico State Engineers Well Reports

**105** USGS Well Reports

**90** Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

Geology and Groundwater Resources of Eddy County, NM (Report 3)

**34** NMOCD - Groundwater Data

**123** Tetra Tech installed temporary wells and field water level

**143** NMOCD Groundwater map well location

## Appendix C

## Summary Report

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

Report Date: July 2, 2010

Work Order: 10062804



Project Location: Eddy County, NM  
 Project Name: COG/SENM SWD System  
 Project Number: 114-6400547

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
235925	AH-1 0-1'	soil	2010-06-23	00:00	2010-06-25
235926	AH-1 1-1.5'	soil	2010-06-23	00:00	2010-06-25
235927	AH-1 2-2.5'	soil	2010-06-23	00:00	2010-06-25
235928	AH-2 0-1'	soil	2010-06-23	00:00	2010-06-25
235929	AH-2 1-1.5'	soil	2010-06-23	00:00	2010-06-25
235930	AH-2 2-2.5'	soil	2010-06-23	00:00	2010-06-25
235931	AH-2 3-3.5'	soil	2010-06-23	00:00	2010-06-25
235932	AH-2 4-4.5'	soil	2010-06-23	00:00	2010-06-25
235933	AH-2 5-5.5'	soil	2010-06-23	00:00	2010-06-25
235934	AH-2 6-6.5'	soil	2010-06-23	00:00	2010-06-25
235935	AH-2 7-7.5'	soil	2010-06-23	00:00	2010-06-25
235936	AH-2 8-8.5'	soil	2010-06-23	00:00	2010-06-25
235937	AH-3 0-1'	soil	2010-06-23	00:00	2010-06-25
235938	AH-4 0-1'	soil	2010-06-23	00:00	2010-06-25
235939	AH-4 1-1.5'	soil	2010-06-23	00:00	2010-06-25
235940	AH-4 2-2.5'	soil	2010-06-23	00:00	2010-06-25
235941	AH-4 3-3.5'	soil	2010-06-23	00:00	2010-06-25
235947	AH-5 0-1'	soil	2010-06-23	00:00	2010-06-25
235948	AH-5 1-1.5'	soil	2010-06-23	00:00	2010-06-25
235949	AH-6 0-1'	soil	2010-06-23	00:00	2010-06-25
235950	AH-7 0-1'	soil	2010-06-23	00:00	2010-06-25
235951	AH-7 1-1.5'	soil	2010-06-23	00:00	2010-06-25
235952	AH-7 2-2.5'	soil	2010-06-23	00:00	2010-06-25

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
235925 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

continued ...

... continued

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
235928 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
235937 - AH-3 0-1'	<0.100	<0.100	<0.100	<0.100	366	<10.0
235938 - AH-4 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
235947 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
235949 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
235950 - AH-7 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

**Sample: 235925 - AH-1 0-1'**

Param	Flag	Result	Units	RL
Chloride		15800	mg/Kg	4.00

**Sample: 235926 - AH-1 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		6220	mg/Kg	4.00

**Sample: 235927 - AH-1 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		7440	mg/Kg	4.00

**Sample: 235928 - AH-2 0-1'**

Param	Flag	Result	Units	RL
Chloride		4400	mg/Kg	4.00

**Sample: 235929 - AH-2 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		6410	mg/Kg	4.00

**Sample: 235930 - AH-2 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		7030	mg/Kg	4.00

**Sample: 235931 - AH-2 3-3.5'**

Param	Flag	Result	Units	RL
Chloride		<b>5660</b>	mg/Kg	4.00

**Sample: 235932 - AH-2 4-4.5'**

Param	Flag	Result	Units	RL
Chloride		<b>3140</b>	mg/Kg	4.00

**Sample: 235933 - AH-2 5-5.5'**

Param	Flag	Result	Units	RL
Chloride		<b>2270</b>	mg/Kg	4.00

**Sample: 235934 - AH-2 6-6.5'**

Param	Flag	Result	Units	RL
Chloride		<b>1230</b>	mg/Kg	4.00

**Sample: 235935 - AH-2 7-7.5'**

Param	Flag	Result	Units	RL
Chloride		<b>314</b>	mg/Kg	4.00

**Sample: 235936 - AH-2 8-8.5'**

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

**Sample: 235937 - AH-3 0-1'**

Param	Flag	Result	Units	RL
Chloride		<b>1850</b>	mg/Kg	4.00

**Sample: 235938 - AH-4 0-1'**

Param	Flag	Result	Units	RL
Chloride		<b>6220</b>	mg/Kg	4.00

**Sample: 235939 - AH-4 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		3140	mg/Kg	4.00

**Sample: 235940 - AH-4 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		614	mg/Kg	4.00

**Sample: 235941 - AH-4 3-3.5'**

Param	Flag	Result	Units	RL
Chloride		287	mg/Kg	4.00

**Sample: 235947 - AH-5 0-1'**

Param	Flag	Result	Units	RL
Chloride		1650	mg/Kg	4.00

**Sample: 235948 - AH-5 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		3240	mg/Kg	4.00

**Sample: 235949 - AH-6 0-1'**

Param	Flag	Result	Units	RL
Chloride		2420	mg/Kg	4.00

**Sample: 235950 - AH-7 0-1'**

Param	Flag	Result	Units	RL
Chloride		2800	mg/Kg	4.00

**Sample: 235951 - AH-7 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		4880	mg/Kg	4.00

Report Date: July 2, 2010

Work Order: 10062804

Page Number: 5 of 5

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Sample: 235952 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		6240	mg/Kg	4.00

Order# 10062804

## Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 1 OF: 3

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <b>COG</b>			SITE MANAGER: <b>Ike Taverer</b>																									
PROJECT NO.: <b>114-6400547</b>			PROJECT NAME: <b>COG / SENIM SWD System</b> <b>Eddy Co NM</b> <b>SAMPLE IDENTIFICATION</b>																									
LAB ID. NUMBER	DATE 2010	TIME	MATRIX COMP GRAB	NUMBER OF CONTAINERS			PRESERVATIVE METHOD																					
				1			FILTERED (Y/N)		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. 8240/8250/824	GC-MS Semi. Vol. 8270/825	PCB's 8030/808	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)
235925	6/23		S	X	AH-1	0-1'			X		X	X																
926					AH-1	1-1.5'																						
927					AH-1	2-2.5'																						
928					AH-2	0-1'																						
929					AH-2	1-1.5'																						
930					AH-2	2-2.5'																						
931					AH-3	3-3.5'																						
932					AH-2	4-4.5'																						
933					AH-2	5-5.5'																						
934					AH-2	6-6.5'																						
RELINQUISHED BY: (Signature) <i>Ike Taverer</i>				Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10	RECEIVED BY: (Signature)	Date: 6-25-10
RELINQUISHED BY: (Signature)				Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____
RELINQUISHED BY: (Signature)				Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____
RECEIVING LABORATORY: <i>Trace</i>				RECEIVED BY: (Signature)												TETRA TECH CONTACT PERSON: <i>Ike Taverer</i> Results by:												
ADDRESS: <i>Midland</i>				RECEIVED BY: (Signature)												RUSH Charges Authorized: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
CITY: <i>Midland</i> STATE: <i>TX</i>				RECEIVED BY: (Signature)																								
CONTACT: <i>PHONE: _____</i>				DATE: _____ TIME: _____																								
SAMPLE CONDITION WHEN RECEIVED: <i>3.2°C intact</i>				REMARKS: <i>If TPH &gt; 5,000 mg/kg Run deeper samples If BTEX total &gt; 50 &amp; Benzene &gt; 10 Run deeper samples</i>																								

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

Order #: 10062804

# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 2 OF: 3

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <b>COG</b>			SITE MANAGER: <b>Ike Tavares</b>																							
PROJECT NO.: <b>114-C400547</b>			PROJECT NAME: <b>COG / SENM SWD System</b> <b>Eddy Co NM</b>																							
LAB I.D. NUMBER	DATE 2010	TIME	MATRIX COMP	GRAB	SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD			TESTS			TESTS			TESTS			TESTS				
					HCL	HNO3	ICE			NONE	TPH 8021B	TPH 8015 MOD	TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb 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)
236935	6/23		S	X	AH-2	7-7.5'		1		X									X							
936					AH-2	8-8.5'														X						
937					AH-3	0-1'														X						
938					AH-4	0-1'													X							
939					AH-4	1-1.5'													X							
940					AH-4	2-2.5'													X							
941					AH-4	3-3.5'													X							
942					AH-4	4-4.5'													X							
943					AH-4	5-5.5'													X							
944					AH-4	6-6.5'													X							
RELINQUISHED BY: (Signature) <i>ICL</i>			RECEIVED BY: (Signature) <i>JK</i>			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature) <i>JK</i>			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature) <i>JK</i>			RECEIVED BY: (Signature) <i>JK</i>			RECEIVED BY: (Signature) <i>JK</i>					
RELINQUISHED BY: (Signature)			RECEIVED BY: (Signature)			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature)			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature)			RECEIVED BY: (Signature)			RECEIVED BY: (Signature)					
RELINQUISHED BY: (Signature)			RECEIVED BY: (Signature)			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature)			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature)			RECEIVED BY: (Signature)			RECEIVED BY: (Signature)					
RECEIVING LABORATORY: <b>Trace</b>			RECEIVED BY: (Signature)			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature)			Date: 6-23-10 Time: 11:50			RECEIVED BY: (Signature)			RECEIVED BY: (Signature)			RECEIVED BY: (Signature)					
ADDRESS: <b>Midland</b>			STATE: <b>TX</b>			ZIP: _____			PHONE: _____			DATE: _____			TIME: _____			TETRA TECH CONTACT PERSON: <b>Ike Tavares</b>			Results by: <b>Ike Tavares</b>					
SAMPLE CONDITION WHEN RECEIVED: <b>3.2° intact</b>			REMARKS: <b>If TPH &gt; 5,000 mg/kg run deeper samples If BTEX &gt; 50 or Benzene &gt; 10 run deeper sample</b>																					RUSH Charges Authorized: <b>Yes</b> <b>No</b>		

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

Order #: 10062804

# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 3 OF: 3

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <b>COG</b>			SITE MANAGER: <b>The Towerer</b>																																
PROJECT NO.: <b>114-6400547</b>			PROJECT NAME: <b>COG SENM SWD System Eddy Co NM</b>			SAMPLE IDENTIFICATION																													
LAB I.D. NUMBER	DATE 2010	TIME 6/23	MATRIX COMP.	GRAB			NUMBER OF CONTAINERS	PRESERVATIVE METHOD																											
								FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 3021(B)	TPH 8015 MOD	TX1005 (Ext. to C35)	PAH B270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8280/624	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					
235945	6/23		S	X	AH-4	7-7.5'	1		X																										
946					AH-4	8-8.5'																													
947					AH-5	0-1'																													
948					AH-5	1-1.5'																													
949					AH-6	0-1'																													
950					AH-7	0-1'																													
951					AH-7	1-1.5																													
952					AH-7	2-2.5																													
RELINQUISHED BY: (Signature) <i>Tetra Tech</i>						Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>	RECEIVED BY: (Signature) <i>J. Brown</i>	Date: <u>6-25-10</u>							
RELINQUISHED BY: (Signature)						Date: _____	Time: _____	RECEIVED BY: (Signature)						Date: _____	Time: _____	RECEIVED BY: (Signature)						Date: _____	Time: _____	RECEIVED BY: (Signature)						Date: _____	Time: _____				
RELINQUISHED BY: (Signature)						Date: _____	Time: _____	RECEIVED BY: (Signature)						Date: _____	Time: _____	RECEIVED BY: (Signature)						Date: _____	Time: _____	RECEIVED BY: (Signature)						Date: _____	Time: _____				
RECEIVING LABORATORY: <u>Tetra Tech</u>						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)					
ADDRESS: _____						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)					
CITY: <u>Midland</u> STATE: <u>TX</u>						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)					
CONTACT: _____						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)						RECEIVED BY: (Signature)					
PHONE: _____						DATE: _____						TIME: _____						DATE: _____						TIME: _____						DATE: _____					
SAMPLE CONDITION WHEN RECEIVED: <b>3.4°C intact</b>						REMARKS: <b>If TPH &gt;5000 µg/kg Run deeper samples If BTEX Total &gt;50 OR Benzene &gt;10 Run deeper samples</b>																													

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

## Summary Report

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

Report Date: March 22, 2011

Work Order: 11030728



Project Location: Eddy County, NM  
 Project Name: COG/North West Central Tank Battery  
 Project Number: 114-6400547

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
259804	SB-1 0-1'	soil	2011-02-25	00:00	2011-03-04
259805	SB-1 3'	soil	2011-02-25	00:00	2011-03-04
259806	SB-1 5'	soil	2011-02-25	00:00	2011-03-04
259807	SB-1 7'	soil	2011-02-25	00:00	2011-03-04
259808	SB-1 10'	soil	2011-02-25	00:00	2011-03-04
259809	SB-1 15'	soil	2011-02-25	00:00	2011-03-04
259810	SB-1 20'	soil	2011-02-25	00:00	2011-03-04
259811	SB-2 0-1'	soil	2011-02-25	00:00	2011-03-04
259812	SB-2 3'	soil	2011-02-25	00:00	2011-03-04
259813	SB-2 5'	soil	2011-02-25	00:00	2011-03-04
259814	SB-2 7'	soil	2011-02-25	00:00	2011-03-04
259815	SB-2 10'	soil	2011-02-25	00:00	2011-03-04
259816	SB-2 15'	soil	2011-02-25	00:00	2011-03-04
259817	SB-2 20'	soil	2011-02-25	00:00	2011-03-04
259818	SB-3 0-1'	soil	2011-02-25	00:00	2011-03-04
259819	SB-3 3'	soil	2011-02-25	00:00	2011-03-04
259820	SB-3 5'	soil	2011-02-25	00:00	2011-03-04
259821	SB-3 7'	soil	2011-02-25	00:00	2011-03-04
259822	SB-3 10'	soil	2011-02-25	00:00	2011-03-04
259823	SB-3 15'	soil	2011-02-25	00:00	2011-03-04
259824	SB-3 20'	soil	2011-02-25	00:00	2011-03-04
259825	SB-4 0-1'	soil	2011-03-01	00:00	2011-03-04
259826	SB-4 3'	soil	2011-03-01	00:00	2011-03-04
259827	SB-4 5'	soil	2011-03-01	00:00	2011-03-04
259828	SB-4 7'	soil	2011-03-01	00:00	2011-03-04
259829	SB-4 10'	soil	2011-03-01	00:00	2011-03-04
259830	SB-4 15'	soil	2011-03-01	00:00	2011-03-04
259831	SB-4 20'	soil	2011-03-01	00:00	2011-03-04
259832	SB-5 0-1'	soil	2011-03-01	00:00	2011-03-04
259833	SB-5 3'	soil	2011-03-01	00:00	2011-03-04

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
259834	SB-5 5'	soil	2011-03-01	00:00	2011-03-04
259835	SB-5 7'	soil	2011-03-01	00:00	2011-03-04
259836	SB-5 10'	soil	2011-03-01	00:00	2011-03-04
259837	SB-5 15'	soil	2011-03-01	00:00	2011-03-04
259838	SB-5 20'	soil	2011-03-01	00:00	2011-03-04
259839	SB-6 0-1'	soil	2011-03-01	00:00	2011-03-04
259840	SB-6 3'	soil	2011-03-01	00:00	2011-03-04
259841	SB-6 5'	soil	2011-03-01	00:00	2011-03-04
259842	SB-6 7'	soil	2011-03-01	00:00	2011-03-04
259843	SB-6 10'	soil	2011-03-01	00:00	2011-03-04
259844	SB-6 15'	soil	2011-03-01	00:00	2011-03-04
259845	SB-6 20'	soil	2011-03-01	00:00	2011-03-04
259846	SB-6 25'	soil	2011-03-01	00:00	2011-03-04
259847	SB-6 30'	soil	2011-03-01	00:00	2011-03-04
259848	SB-7 0-1'	soil	2011-03-01	00:00	2011-03-04
259849	SB-7 3'	soil	2011-03-01	00:00	2011-03-04
259850	SB-7 5'	soil	2011-03-01	00:00	2011-03-04
259851	SB-7 7'	soil	2011-03-01	00:00	2011-03-04
259852	SB-7 10'	soil	2011-03-01	00:00	2011-03-04
259853	SB-7 15'	soil	2011-03-01	00:00	2011-03-04
259854	SB-7 20'	soil	2011-03-01	00:00	2011-03-04
259855	SB-7 25'	soil	2011-03-01	00:00	2011-03-04
259856	SB-7 30'	soil	2011-03-01	00:00	2011-03-04

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
259804 - SB-1 0-1'	<0.0200	<0.0200	0.140	0.391	<50.0	6.69
259811 - SB-2 0-1'					<50.0	<2.00
259818 - SB-3 0-1'					<50.0	<2.00
259825 - SB-4 0-1'					<50.0	<2.00
259832 - SB-5 0-1'	2.86	82.8	64.8	86.0	3530	1730
259833 - SB-5 3'	3.60	75.1	69.9	89.6	2960	2850
259834 - SB-5 5'	<0.100	0.602	3.71	6.61	252	287
259839 - SB-6 0-1'	<0.200	3.16	17.8	34.7	3870	1530
259840 - SB-6 3'	<0.0200	0.159	<0.0200	<0.0200	<50.0	<2.00
259848 - SB-7 0-1'	5.25	86.5	87.6	120	10800	3640
259849 - SB-7 3'	1.37	46.9	39.5	63.7	1560	1240
259850 - SB-7 5'	<0.0200	<0.0200	0.150	<0.0200	<50.0	<2.00

Sample: 259804 - SB-1 0-1'

Param	Flag	Result	Units	RL
Chloride		15400	mg/Kg	4.00

Sample: 259805 - SB-1 3'

Report Date: March 22, 2011

Work Order: 11030728

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Param	Flag	Result	Units	RL
Chloride		5170	mg/Kg	4.00

Sample: 259806 - SB-1 5'

Param	Flag	Result	Units	RL
Chloride		4380	mg/Kg	4.00

Sample: 259807 - SB-1 7'

Param	Flag	Result	Units	RL
Chloride		569	mg/Kg	4.00

Sample: 259808 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		489	mg/Kg	4.00

Sample: 259809 - SB-1 15'

Param	Flag	Result	Units	RL
Chloride		359	mg/Kg	4.00

Sample: 259810 - SB-1 20'

Param	Flag	Result	Units	RL
Chloride		250	mg/Kg	4.00

Sample: 259811 - SB-2 0-1'

Param	Flag	Result	Units	RL
Chloride		6040	mg/Kg	4.00

Sample: 259812 - SB-2 3'

Param	Flag	Result	Units	RL
Chloride		3360	mg/Kg	4.00

**Sample: 259813 - SB-2 5'**

Param	Flag	Result	Units	RL
Chloride		405	mg/Kg	4.00

**Sample: 259814 - SB-2 7'**

Param	Flag	Result	Units	RL
Chloride		207	mg/Kg	4.00

**Sample: 259815 - SB-2 10'**

Param	Flag	Result	Units	RL
Chloride		281	mg/Kg	4.00

**Sample: 259816 - SB-2 15'**

Param	Flag	Result	Units	RL
Chloride		252	mg/Kg	4.00

**Sample: 259817 - SB-2 20'**

Param	Flag	Result	Units	RL
Chloride		232	mg/Kg	4.00

**Sample: 259818 - SB-3 0-1'**

Param	Flag	Result	Units	RL
Chloride		498	mg/Kg	4.00

**Sample: 259819 - SB-3 3'**

Param	Flag	Result	Units	RL
Chloride		2310	mg/Kg	4.00

**Sample: 259820 - SB-3 5'**

Param	Flag	Result	Units	RL
Chloride		957	mg/Kg	4.00

**Sample: 259821 - SB-3 7'**

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

**Sample: 259822 - SB-3 10'**

Param	Flag	Result	Units	RL
Chloride		249	mg/Kg	4.00

**Sample: 259823 - SB-3 15'**

Param	Flag	Result	Units	RL
Chloride		234	mg/Kg	4.00

**Sample: 259824 - SB-3 20'**

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

**Sample: 259825 - SB-4 0-1'**

Param	Flag	Result	Units	RL
Chloride		1210	mg/Kg	4.00

**Sample: 259826 - SB-4 3'**

Param	Flag	Result	Units	RL
Chloride		1290	mg/Kg	4.00

**Sample: 259827 - SB-4 5'**

Param	Flag	Result	Units	RL
Chloride		857	mg/Kg	4.00

**Sample: 259828 - SB-4 7'**

Param	Flag	Result	Units	RL
Chloride		717	mg/Kg	4.00

Report Date: March 22, 2011

Work Order: 11030728

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**Sample: 259829 - SB-4 10'**

Param	Flag	Result	Units	RL
Chloride		339	mg/Kg	4.00

**Sample: 259830 - SB-4 15'**

Param	Flag	Result	Units	RL
Chloride		204	mg/Kg	4.00

**Sample: 259831 - SB-4 20'**

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

**Sample: 259832 - SB-5 0-1'**

Param	Flag	Result	Units	RL
Chloride		5300	mg/Kg	4.00

**Sample: 259833 - SB-5 3'**

Param	Flag	Result	Units	RL
Chloride		5180	mg/Kg	4.00

**Sample: 259834 - SB-5 5'**

Param	Flag	Result	Units	RL
Chloride		3680	mg/Kg	4.00

**Sample: 259835 - SB-5 7'**

Param	Flag	Result	Units	RL
Chloride		1300	mg/Kg	4.00

**Sample: 259836 - SB-5 10'**

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

**Sample: 259837 - SB-5 15'**

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

**Sample: 259838 - SB-5 20'**

Param	Flag	Result	Units	RL
Chloride		235	mg/Kg	4.00

**Sample: 259839 - SB-6 0-1'**

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

**Sample: 259840 - SB-6 3'**

Param	Flag	Result	Units	RL
Chloride		2010	mg/Kg	4.00

**Sample: 259841 - SB-6 5'**

Param	Flag	Result	Units	RL
Chloride		1000	mg/Kg	4.00

**Sample: 259842 - SB-6 7'**

Param	Flag	Result	Units	RL
Chloride		418	mg/Kg	4.00

**Sample: 259843 - SB-6 10'**

Param	Flag	Result	Units	RL
Chloride		354	mg/Kg	4.00

**Sample: 259844 - SB-6 15'**

Param	Flag	Result	Units	RL
Chloride		251	mg/Kg	4.00

**Sample: 259845 - SB-6 20'**

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

**Sample: 259846 - SB-6 25'**

Param	Flag	Result	Units	RL
Chloride		221	mg/Kg	4.00

**Sample: 259847 - SB-6 30'**

Param	Flag	Result	Units	RL
Chloride		320	mg/Kg	4.00

**Sample: 259848 - SB-7 0-1'**

Param	Flag	Result	Units	RL
Chloride		1080	mg/Kg	4.00

**Sample: 259849 - SB-7 3'**

Param	Flag	Result	Units	RL
Chloride		4180	mg/Kg	4.00

**Sample: 259850 - SB-7 5'**

Param	Flag	Result	Units	RL
Chloride		2500	mg/Kg	4.00

**Sample: 259851 - SB-7 7'**

Param	Flag	Result	Units	RL
Chloride		419	mg/Kg	4.00

**Sample: 259852 - SB-7 10'**

Param	Flag	Result	Units	RL
Chloride		792	mg/Kg	4.00

Report Date: March 22, 2011

Work Order: 11030728

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**Sample: 259853 - SB-7 15'**

Param	Flag	Result	Units	RL
Chloride		<b>324</b>	mg/Kg	4.00

**Sample: 259854 - SB-7 20'**

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

**Sample: 259855 - SB-7 25'**

Param	Flag	Result	Units	RL
Chloride		<b>279</b>	mg/Kg	4.00

**Sample: 259856 - SB-7 30'**

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

\* WO# 11030728

# Analysis Request of Chain of Custody Record



**TETRA TECH**

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

PAGE: 1 OF: 6

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <i>COG</i>			SITE MANAGER: <i>Ike Taverz</i>																							
PROJECT NO.: <i>114-6400547</i>			PROJECT NAME: <i>North West Central Tank Battery</i>																							
LAB I.D. NUMBER	DATE <i>2011</i>	TIME	MATRIX <i>S</i>	COMP. <i>X</i>	GRAB	SAMPLE IDENTIFICATION					NUMBER OF CONTAINERS	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. 8240/8250/624	GC/MS Semi. Vol. 8270/625	PCBs 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)
259804	2/25		S	X		SB-1 0'					X		X													
						SB-1 3'																				
						SB-1 5'																				
						SB-1 7'																				
						SB-1 10'																				
						SB-1 15'																				
						SB-1 20'																				
						SB-2 0-1'																				
						SB-2 3'																				
						SB-2 5'																				
RELINQUISHED BY: (Signature) <i>[Signature]</i>						Date: <i>3-4-11</i>	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: <i>3/4/11</i>	Time: <i>10:15</i>	SAMPLER BY: (Print & Initial) <i>Kim</i>						Date: <i>3/25/11</i>	Time: <i>10:15</i>									
RELINQUISHED BY: (Signature)						Date:	RECEIVED BY: (Signature)	Date:	Time:	SAMPLE SHIPPED BY: (Circle) FEDEX <input checked="" type="checkbox"/> BUS <input type="checkbox"/> <del>HAND DELIVERED</del> UPS OTHER:						AIRBILL #:										
RELINQUISHED BY: (Signature)						Date:	RECEIVED BY: (Signature)	Date:	Time:	TETRA TECH CONTACT PERSON: <i>Ike Taverz</i>						Results by:										
RECEIVING LABORATORY: <i>TRACE</i>						RECEIVED BY: (Signature)												RUSH Charges Authorized: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
ADDRESS: <i>MIDLAND</i>						DATE: <i>3/4/11</i>						TIME: <i>10:15</i>														
CITY: <i>MIDLAND</i> STATE: <i>TX</i>						PHONE: <i>_____</i>																				
CONTACT: <i>_____</i>						ZIP: <i>_____</i>																				
SAMPLE CONDITION WHEN RECEIVED: <i>41.0°C intact</i>						REMARKS: If total TPH < 5000 mg/kg run deeper samples Run BTEX on 4 highest TPH																				

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

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\* WO # 11030728

# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 2 OF: 6

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: COG			SITE MANAGER: Ice Tavares																			
PROJECT NO.: 11464005417			PROJECT NAME: North west Central Tank Battery Eddy Co																			
LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION						NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD								
259814	2/25		S	X		SB-2 7'						1	HCL	HNO3	ICE	NONE						
815						SB-2 10'						1			X							
816						SB-2 15'						1										
817						SB-2 20'						1										
818						SB-3 01						1				X						
819						SD-3 3'						1										
820						SB-3 5'						1										
821						SB-3 7'						1										
822						SB-3 10'						1										
823						SB-3 15'						1										
RELINQUISHED BY: (Signature)						Date: 3/4/11	RECEIVED BY: (Signature)	Date: 3/4/11	SAMPLER BY: (Print & Initial)						KIM			Date: 3/5/11				
RELINQUISHED BY: (Signature)						Date: 16/5	RECEIVED BY: (Signature)	Date: 16/5	SAMPLE SHIPPED BY: (Circle)						AIRBILL #:							
RELINQUISHED BY: (Signature)						Date:	RECEIVED BY: (Signature)	Date:	FEDEX BUS						OTHER:							
RECEIVING LABORATORY: TRACE						RECEIVED BY: (Signature)						HAND DELIVERED UPS						Results by:				
ADDRESS: MIDLAND STATE: TX ZIP:						DATE: TIME:						TETRA TECH CONTACT PERSON: Ice Tavares						RUSH Charges Authorized: Yes No				
CITY: midland STATE: TX ZIP:						PHONE:						REMARKS: If total TPH < 5000 mg/kg run deeper samples Run BTEX on 4 highest TPH						11				
SAMPLE CONDITION WHEN RECEIVED: 41.0°c intact																						

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

\*WO# 11030728

## Analysis Request of Chain of Custody Record

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

PAGE: 3 OF: 6

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <b>COG</b>			SITE MANAGER: <b>Ike Tavares</b>			NUMBER OF CONTAINERS	PRESERVATIVE METHOD			BTEX 8021B	GPH 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	PCBs 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB		FILTERED (Y/N)	HCL	HNO3																	
259824	2/25		S	X	SB-3 20'	1			X																	
825	3/1		S	X	SD-4 0-1	1				X																
826					SB-4 3'																					
827					SD-4 5'																					
828					SB-4 7'																					
829					SD-4 10'																					
830					SB-4 15'																					
831					SB-4 20'																					
832					SD-5 0-1					X																
833					SB-5 3'																					
RELINQUISHED BY: (Signature)			Date: 3/1/11 Time: 16:15			RECEIVED BY: (Signature)			Date: 3/1/11 Time: 16:15			SAMPLLED BY: (Print & Initial)			Date: 3/1/11 Time: 16:15			SAMPLE SHIPPED BY: (Circle)			AIRBILL #: _____					
																		FEDEX BUS HAND DELIVERED UPS			OTHER: _____					
RELINQUISHED BY: (Signature)			Date: _____ Time: _____			RECEIVED BY: (Signature)			Date: _____ Time: _____			TETRA TECH CONTACT PERSON:			Results by:			Ice Tavares								
RELINQUISHED BY: (Signature)			Date: _____ Time: _____			RECEIVED BY: (Signature)			Date: _____ Time: _____									RUSH Charges Authorized: Yes _____ No _____								
RECEIVING LABORATORY: <b>TRACE</b> ADDRESS: <b>MTDARD</b> CITY: <b>TX</b> STATE: <b>TX</b> CONTACT: <b>PHONE: _____</b>			RECEIVED BY: (Signature)			DATE: _____ TIME: _____																				
SAMPLE CONDITION WHEN RECEIVED: <b>4.0°C intact</b>			REMARKS:																							

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

K6

#WO# 11036728

## Analysis Request of Chain of Custody Record

**TETRA TECH**1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 4 OF: 6

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: COG  
SITE MANAGER: Ikc Tavares

PROJECT NO.: 114-6400547 PROJECT NAME: North west Central Tank Battery

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD		
						HCL	HNO3	ICE			HCL	HNO3	ICE
259834	3/1		S	X		SB-5 5'		X	1				
835			I			SB-5 7'			1				
836			I			SB-5 10'			1				
837			I			SB-5 15'			1				
838			I			SB-5 20'			1				
839			I			SB-6 0-1'			1				
840			I			SB-6 3'			1				
841			I			SB-6 5'			1				
842			I			SB-6 7'			1				
843			I			SB-6 10'			1				

RELINQUISHED BY: (Signature) Date: 3/4/11 RECEIVED BY: (Signature) Date: 3/4/11  
Time: 16:15 Time: 16:15

RELINQUISHED BY: (Signature) Date: \_\_\_\_\_ RECEIVED BY: (Signature) Date: \_\_\_\_\_

RELINQUISHED BY: (Signature) Date: \_\_\_\_\_ RECEIVED BY: (Signature) Date: \_\_\_\_\_

RECEIVING LABORATORY: TETRA TECH RECEIVED BY: (Signature)

ADDRESS: CITY: MOLAM STATE: TX ZIP: PHONE: DATE: TIME:

CONTACT: REMARKS:

SAMPLE CONDITION WHEN RECEIVED: 40°C intact

BTX 8021B	CPH 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	PCBs 8080/608	Pest. 808/608	Chloride	Gamma Spec.
														Alpha Beta (Air)
														PLM (Asbestos)
														Major Anions/Cations, pH, TDS

SAMPLED BY: (Print & Initial) Kim Date: 3/4/11

SAMPLE SHIPPED BY: (Circle) AIRBILL #: FEDEX BUS UPS OTHER: HANDELIVERED

TETRA TECH CONTACT PERSON: Results by: Ikc Tavares

RUSH Charges Authorized: Yes No

Kb

\* WO # 11030728

## Analysis Request of Chain of Custody Record

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 5 OF: 6

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <i>COG</i>			SITE MANAGER: <i>Ike Tavarce</i>			NUMBER OF CONTAINERS	PRESERVATIVE METHOD					
PROJECT NO.: <i>114-6100547</i>			PROJECT NAME: <i>North West Central Tank Battery</i> <i>Eddy Co., NM</i> SAMPLE IDENTIFICATION				1	FILTERED (Y/N)	HCl	HNO3	ICE	NONE
LAB I.D. NUMBER	DATE 2011	TIME	MATRIX S	COMP. X	GRAB							
259844	3/1		S	X		SB-6 15'			X			
845						SB-6 20'	1					
846						SB-6 25'	1					
847						SB-6 30'	1					
848						SB-7 0-1	1			X		
849						SB-7 3'	1				X	
850						SB-7 5'	1				X	
851						SB-7 7'	1				X	
852						SB-7 10'	1				X	
853						SB-7 15'	1				X	
RELINQUISHED BY: (Signature) <i>[Signature]</i>			Date: 3/1/11 Time: 1615	RECEIVED BY: (Signature) <i>[Signature]</i>			Date: 3/1/11 Time: 1613	SAMPLED BY: (Print & Initial) <i>Kim</i>			Date: 3/1/11 Time:	
RELINQUISHED BY: (Signature)			Date: _____ Time: _____	RECEIVED BY: (Signature)			Date: _____ Time: _____	SAMPLE SHIPPED BY: (Circle) FEDEX <input checked="" type="checkbox"/> BUS <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> UPS <input type="checkbox"/> OTHER: _____			AIRBILL #: _____	
RELINQUISHED BY: (Signature)			Date: _____ Time: _____	RECEIVED BY: (Signature)			Date: _____ Time: _____	TETRA TECH CONTACT PERSON: <i>Ike Tavarce</i>			Results by:  RUSH Charges Authorized: Yes <input type="checkbox"/> No <input type="checkbox"/>	
RECEIVING LABORATORY: <i>TRACE</i> ADDRESS: CITY: <i>MIOLAND</i> STATE: <i>TX</i> CONTACT: _____ PHONE: _____ ZIP: _____			RECEIVED BY: (Signature)			DATE: _____ TIME: _____						
SAMPLE CONDITION WHEN RECEIVED: <i>40°C intact</i>			REMARKS:									KL

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

\* WO# 11030728

# Analysis Request of Chain of Custody Record



**TETRA TECH**

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

PAGE: 6 OF: 6

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <i>Cox</i>				SITE MANAGER: <i>Ike Tavarez</i>																						
PROJECT NO.: <i>114-6400547</i>				PROJECT NAME: <i>North West Central Tank Baffler</i>																						
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION						NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	PRESERVATIVE METHOD								
259854	3/1		S			<i>SB-7 20'</i>						1			X				BTEX 8021B							
855	1		L			<i>SD-7 25'</i>						1			X				TPH 8015 MOD. TX100S (Ext. to C35)							
856	1		L			<i>SB-7 30'</i>						1			X				PAH 8270							
																			RCRA Metals Ag As Ba Cd Cr Pb Hg Se							
																			TCLP Metals Ag As Ba Cd Cr Pb Hg Se							
																			TCLP Volatiles							
																			TCLP Semi Volatiles							
																			RCI							
																			GC/MS Vol. 8240/8260/624							
																			GC/MS Sami. Vol. 8270/625							
																			PCBs 8080/608							
																			Pest. 808/608							
																			<i>Chloride</i>							
																			Gamma Spec.							
																			Alpha Beta (Air)							
																			PLM (Asbestos)							
																			Major Anions/Cations, pH, TDS							
RELINQUISHED BY: (Signature) <i>[Signature]</i>												Date: <i>3-1-11</i>	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: <i>3/4/11</i>	SAMPLED BY: (Print & Initial) <i>Kim</i>	Date: <i>3/2/11</i>										
RELINQUISHED BY: (Signature) <i>[Signature]</i>												Date: _____	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: _____	SAMPLE SHIPPED BY: (Circle) <input checked="" type="checkbox"/> FEDEX <input type="checkbox"/> BUS	AIRBILL #: _____										
RELINQUISHED BY: (Signature) <i>[Signature]</i>												Date: _____	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: _____	<input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> UPS	OTHER: _____										
RECEIVING LABORATORY: <i>TECCE</i> ADDRESS: <i>Midland, TX</i> CITY: <i>Midland</i> STATE: <i>TX</i> CONTACT: _____												RECEIVED BY: (Signature) <i>[Signature]</i>	PHONE: _____ DATE: _____ TIME: _____	TETRA TECH CONTACT PERSON: <i>Ike Tavarez</i>	Results by: <i>[Signature]</i>											
SAMPLE CONDITION WHEN RECEIVED: <i>4.0° intact</i>												REMARKS: <i>[Signature]</i>	RUSH Charges Authorized: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>													

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

*BL*

## Summary Report

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

Report Date: August 30, 2010

Work Order: 10082003



Project Location: Eddy County, NM  
 Project Name: COG/SENM SWD System  
 Project Number: 114-6400547

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
241833	SB-1 1'	soil	2010-08-17	00:00	2010-08-20
241834	SB-1 3'	soil	2010-08-17	00:00	2010-08-20
241835	SB-1 5'	soil	2010-08-17	00:00	2010-08-20
241836	SB-1 7'	soil	2010-08-17	00:00	2010-08-20
241837	SB-1 10'	soil	2010-08-17	00:00	2010-08-20
241838	SB-1 15'	soil	2010-08-17	00:00	2010-08-20
241839	SB-1 20'	soil	2010-08-17	00:00	2010-08-20
241842	SB-2 1'	soil	2010-08-17	00:00	2010-08-20
241843	SB-2 3'	soil	2010-08-17	00:00	2010-08-20
241844	SB-2 5'	soil	2010-08-17	00:00	2010-08-20
241845	SB-2 7'	soil	2010-08-17	00:00	2010-08-20
241846	SB-2 10'	soil	2010-08-17	00:00	2010-08-20
241847	SB-2 15'	soil	2010-08-17	00:00	2010-08-20
241848	SB-2 20'	soil	2010-08-17	00:00	2010-08-20
241849	SB-3 1'	soil	2010-08-17	00:00	2010-08-20
241850	SB-3 3'	soil	2010-08-17	00:00	2010-08-20
241851	SB-3 5'	soil	2010-08-17	00:00	2010-08-20
241852	SB-3 7'	soil	2010-08-17	00:00	2010-08-20
241853	SB-3 10'	soil	2010-08-17	00:00	2010-08-20
241854	SB-3 15'	soil	2010-08-17	00:00	2010-08-20
241857	SB-4 1'	soil	2010-08-17	00:00	2010-08-20
241858	SB-4 3'	soil	2010-08-17	00:00	2010-08-20
241859	SB-4 5'	soil	2010-08-17	00:00	2010-08-20
241860	SB-4 7'	soil	2010-08-17	00:00	2010-08-20
241861	SB-4 10'	soil	2010-08-17	00:00	2010-08-20
241862	SB-4 15'	soil	2010-08-17	00:00	2010-08-20
241863	SB-4 20'	soil	2010-08-17	00:00	2010-08-20
241864	SB-4 25'	soil	2010-08-17	00:00	2010-08-20
241865	SB-4 30'	soil	2010-08-17	00:00	2010-08-20
241867	SB-5 1'	soil	2010-08-18	00:00	2010-08-20

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
241868	SB-5 3'	soil	2010-08-18	00:00	2010-08-20
241869	SB-5 5'	soil	2010-08-18	00:00	2010-08-20
241870	SB-5 7'	soil	2010-08-18	00:00	2010-08-20
241871	SB-5 10'	soil	2010-08-18	00:00	2010-08-20
241872	SB-5 15'	soil	2010-08-18	00:00	2010-08-20
241873	SB-5 20'	soil	2010-08-18	00:00	2010-08-20
241876	SB-6 1'	soil	2010-08-18	00:00	2010-08-20
241877	SB-6 3'	soil	2010-08-18	00:00	2010-08-20
241878	SB-6 5'	soil	2010-08-18	00:00	2010-08-20
241879	SB-6 7'	soil	2010-08-18	00:00	2010-08-20
241880	SB-6 10'	soil	2010-08-18	00:00	2010-08-20
241881	SB-6 15'	soil	2010-08-18	00:00	2010-08-20
241882	SB-6 20'	soil	2010-08-18	00:00	2010-08-20
241883	SB-7 1'	soil	2010-08-18	00:00	2010-08-20
241884	SB-7 3'	soil	2010-08-18	00:00	2010-08-20
241885	SB-7 5'	soil	2010-08-18	00:00	2010-08-20
241886	SB-7 7'	soil	2010-08-18	00:00	2010-08-20
241887	SB-7 10'	soil	2010-08-18	00:00	2010-08-20
241888	SB-7 15'	soil	2010-08-18	00:00	2010-08-20
241889	SB-7 20'	soil	2010-08-18	00:00	2010-08-20
241890	SB-7 25'	soil	2010-08-18	00:00	2010-08-20
241891	SB-7 30'	soil	2010-08-18	00:00	2010-08-20
241892	SB-8 1'	soil	2010-08-18	00:00	2010-08-20
241893	SB-8 3'	soil	2010-08-18	00:00	2010-08-20
241894	SB-8 5'	soil	2010-08-18	00:00	2010-08-20
241895	SB-8 7'	soil	2010-08-18	00:00	2010-08-20
241896	SB-8 10'	soil	2010-08-18	00:00	2010-08-20
241897	SB-8 15'	soil	2010-08-18	00:00	2010-08-20
241898	SB-8 20'	soil	2010-08-18	00:00	2010-08-20
241899	SB-8 25'	soil	2010-08-18	00:00	2010-08-20
241900	SB-8 30'	soil	2010-08-18	00:00	2010-08-20
241901	SB-8 40'	soil	2010-08-18	00:00	2010-08-20

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
241833 - SB-1 1'					<50.0	<2.00
241842 - SB-2 1'					<50.0	<2.00
241849 - SB-3 1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241857 - SB-4 1'	<0.100	<b>0.481</b>	<b>0.245</b>	<b>1.21</b>	<b>593</b>	<b>83.0</b>
241867 - SB-5 1'	<0.200	<0.200	<b>0.204</b>	<b>0.815</b>	<b>3060</b>	<20.0
241876 - SB-6 1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241883 - SB-7 1'					<50.0	<2.00
241892 - SB-8 1'					<50.0	<2.00

Sample: 241833 - SB-1 1'

Report Date: August 30, 2010

Work Order: 10082003

Page Number: 3 of 10

Param	Flag	Result	Units	RL
Chloride		1870	mg/Kg	4.00

Sample: 241834 - SB-1 3'

Param	Flag	Result	Units	RL
Chloride		2780	mg/Kg	4.00

Sample: 241835 - SB-1 5'

Param	Flag	Result	Units	RL
Chloride		4380	mg/Kg	4.00

Sample: 241836 - SB-1 7'

Param	Flag	Result	Units	RL
Chloride		504	mg/Kg	4.00

Sample: 241837 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		248	mg/Kg	4.00

Sample: 241838 - SB-1 15'

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

Sample: 241839 - SB-1 20'

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

Sample: 241842 - SB-2 1'

Param	Flag	Result	Units	RL
Chloride		19400	mg/Kg	4.00

**Sample: 241843 - SB-2 3'**

Param	Flag	Result	Units	RL
Chloride		22800	mg/Kg	4.00

**Sample: 241844 - SB-2 5'**

Param	Flag	Result	Units	RL
Chloride		1350	mg/Kg	4.00

**Sample: 241845 - SB-2 7'**

Param	Flag	Result	Units	RL
Chloride		300	mg/Kg	4.00

**Sample: 241846 - SB-2 10'**

Param	Flag	Result	Units	RL
Chloride		230	mg/Kg	4.00

**Sample: 241847 - SB-2 15'**

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

**Sample: 241848 - SB-2 20'**

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

**Sample: 241849 - SB-3 1'**

Param	Flag	Result	Units	RL
Chloride		2440	mg/Kg	4.00

**Sample: 241850 - SB-3 3'**

Param	Flag	Result	Units	RL
Chloride		703	mg/Kg	4.00

**Sample: 241851 - SB-3 5'**

Param	Flag	Result	Units	RL
Chloride		234	mg/Kg	4.00

**Sample: 241852 - SB-3 7'**

Param	Flag	Result	Units	RL
Chloride		295	mg/Kg	4.00

**Sample: 241853 - SB-3 10'**

Param	Flag	Result	Units	RL
Chloride		337	mg/Kg	4.00

**Sample: 241854 - SB-3 15'**

Param	Flag	Result	Units	RL
Chloride		244	mg/Kg	4.00

**Sample: 241857 - SB-4 1'**

Param	Flag	Result	Units	RL
Chloride		6630	mg/Kg	4.00

**Sample: 241858 - SB-4 3'**

Param	Flag	Result	Units	RL
Chloride		8770	mg/Kg	4.00

**Sample: 241859 - SB-4 5'**

Param	Flag	Result	Units	RL
Chloride		399	mg/Kg	4.00

**Sample: 241860 - SB-4 7'**

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

**Sample: 241861 - SB-4 10'**

Param	Flag	Result	Units	RL
Chloride		422	mg/Kg	4.00

**Sample: 241862 - SB-4 15'**

Param	Flag	Result	Units	RL
Chloride		413	mg/Kg	4.00

**Sample: 241863 - SB-4 20'**

Param	Flag	Result	Units	RL
Chloride		554	mg/Kg	4.00

**Sample: 241864 - SB-4 25'**

Param	Flag	Result	Units	RL
Chloride		404	mg/Kg	4.00

**Sample: 241865 - SB-4 30'**

Param	Flag	Result	Units	RL
Chloride		291	mg/Kg	4.00

**Sample: 241867 - SB-5 1'**

Param	Flag	Result	Units	RL
Chloride		3460	mg/Kg	4.00

**Sample: 241868 - SB-5 3'**

Param	Flag	Result	Units	RL
Chloride		2520	mg/Kg	4.00

**Sample: 241869 - SB-5 5'**

Param	Flag	Result	Units	RL
Chloride		385	mg/Kg	4.00

**Sample: 241870 - SB-5 7'**

Param	Flag	Result	Units	RL
Chloride		208	mg/Kg	4.00

**Sample: 241871 - SB-5 10'**

Param	Flag	Result	Units	RL
Chloride		532	mg/Kg	4.00

**Sample: 241872 - SB-5 15'**

Param	Flag	Result	Units	RL
Chloride		449	mg/Kg	4.00

**Sample: 241873 - SB-5 20'**

Param	Flag	Result	Units	RL
Chloride		319	mg/Kg	4.00

**Sample: 241876 - SB-6 1'**

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

**Sample: 241877 - SB-6 3'**

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

**Sample: 241878 - SB-6 5'**

Param	Flag	Result	Units	RL
Chloride		2180	mg/Kg	4.00

**Sample: 241879 - SB-6 7'**

Param	Flag	Result	Units	RL
Chloride		981	mg/Kg	4.00

**Sample: 241880 - SB-6 10'**

Param	Flag	Result	Units	RL
Chloride		342	mg/Kg	4.00

**Sample: 241881 - SB-6 15'**

Param	Flag	Result	Units	RL
Chloride		250	mg/Kg	4.00

**Sample: 241882 - SB-6 20'**

Param	Flag	Result	Units	RL
Chloride		234	mg/Kg	4.00

**Sample: 241883 - SB-7 1'**

Param	Flag	Result	Units	RL
Chloride		3470	mg/Kg	4.00

**Sample: 241884 - SB-7 3'**

Param	Flag	Result	Units	RL
Chloride		4150	mg/Kg	4.00

**Sample: 241885 - SB-7 5'**

Param	Flag	Result	Units	RL
Chloride		614	mg/Kg	4.00

**Sample: 241886 - SB-7 7'**

Param	Flag	Result	Units	RL
Chloride		594	mg/Kg	4.00

**Sample: 241887 - SB-7 10'**

Param	Flag	Result	Units	RL
Chloride		468	mg/Kg	4.00

**Sample: 241888 - SB-7 15'**

Param	Flag	Result	Units	RL
Chloride		253	mg/Kg	4.00

**Sample: 241889 - SB-7 20'**

Param	Flag	Result	Units	RL
Chloride		287	mg/Kg	4.00

**Sample: 241890 - SB-7 25'**

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

**Sample: 241891 - SB-7 30'**

Param	Flag	Result	Units	RL
Chloride		292	mg/Kg	4.00

**Sample: 241892 - SB-8 1'**

Param	Flag	Result	Units	RL
Chloride		863	mg/Kg	4.00

**Sample: 241893 - SB-8 3'**

Param	Flag	Result	Units	RL
Chloride		1430	mg/Kg	4.00

**Sample: 241894 - SB-8 5'**

Param	Flag	Result	Units	RL
Chloride		1900	mg/Kg	4.00

**Sample: 241895 - SB-8 7'**

Param	Flag	Result	Units	RL
Chloride		1260	mg/Kg	4.00

**Sample: 241896 - SB-8 10'**

Param	Flag	Result	Units	RL
Chloride		456	mg/Kg	4.00

**Sample: 241897 - SB-8 15'**

Param	Flag	Result	Units	RL
Chloride		739	mg/Kg	4.00

**Sample: 241898 - SB-8 20'**

Param	Flag	Result	Units	RL
Chloride		481	mg/Kg	4.00

**Sample: 241899 - SB-8 25'**

Param	Flag	Result	Units	RL
Chloride		496	mg/Kg	4.00

**Sample: 241900 - SB-8 30'**

Param	Flag	Result	Units	RL
Chloride		337	mg/Kg	4.00

**Sample: 241901 - SB-8 40'**

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

WO #: 10082003

# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: CO <sub>x</sub>				SITE MANAGER: Ike Tavares				ANALYSIS REQUEST (Circle or Specify Method No.)																	
PROJECT NO.: 114-1400547			PROJECT NAME: SENM SWD Eddy Co NW					NUMBER OF CONTAINERS		PRESERVATIVE METHOD															
LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION					FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD	TX1005 (Ext. to C35)	PCB's 8080/808	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
241833	8/17		S	X		SB-1							X		X						X	X	X	X	X
834						SB-1					3														
835						SB-1					5														
836						SB-1					7														
837						SB-1					10														
838						SB-1					15														
839						SB-1					20														
840						SB-1					25														
841						SB-1					30														
842						SB-2					1				X										
RELINQUISHED BY: (Signature) <i>John Kromer</i>				RECEIVED BY: (Signature)				Date: 8/17/10				SAMPLER BY: (Print & Initial) <i>KD</i>				Date: 8/17/10									
RELINQUISHED BY: (Signature)				RECEIVED BY: (Signature)				Time: 9:40				Time:				Time:									
RELINQUISHED BY: (Signature)				RECEIVED BY: (Signature)				Date: _____				SAMPLE SHIPPED BY: (Circle) FEDEX				AIRBILL #: _____									
RECEIVING LABORATORY: <i>Trace</i>				RECEIVED BY: (Signature) <i>Ike Tavares</i>				Time: _____				BUS				OTHER: _____									
ADDRESS: <i>Midland</i>				DATE: 8-17-10				Time: 9:40				HAND DELIVERED UPS				TETRA TECH CONTACT PERSON: <i>Ike Tavares</i>				Results by:					
CITY: <i>Midland</i> STATE: <i>TX</i> ZIP: <i>79705</i>				PHONE: <i>432-682-3946</i>				CONTACT: <i>None</i>				RUSH Charges Authorized: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													
SAMPLE CONDITION WHEN RECEIVED: <i>3.8'C intact</i>				REMARKS: <i>If TPH exceeds 5000 mg/kg run deeper sample</i>																					

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

Run BTEX on 4 highest TPH

WO #: 10082003

## Analysis Request of Chain of Custody Record

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

PAGE: 2 OF: 7

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <b>CDG</b>			SITE MANAGER: <b>Ike Tavares</b>			ANALYSIS REQUEST (Circle or Specify Method No.)																											
PROJECT NO.: <b>114-6400547</b>			PROJECT NAME: <b>SENM SWD</b>																														
LAB I.D. NUMBER	DATE 30/10	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION						NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD			TESTS			TESTS			TESTS			TESTS							
												1	HCl	HNO3	ICE	NONE	TPH	8015 MDP	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	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
841843	8/17		S	X		SB-2						3'		X											X								
844						SB-2						5'													X								
845						SB-2						7'													X								
846						SB-2						10'													X								
847						SB-2						15'													X								
848						SB-2						20'													X								
849						SB-3						1'													X								
850						SB-3						3'													X								
851						SB-3						5'													X								
852						SB-3						7'													X								
RELINQUISHED BY: (Signature) <i>J. H. Smith</i>			Date: <b>August 17, 2010</b> Time: <b>9:40</b>			RECEIVED BY: (Signature)			Date: _____ Time: _____			SAMPLER BY: (Print & Initial) <b>KD</b>			Date: <b>8-17-10</b> Time: _____																		
RELINQUISHED BY: (Signature)			Date: _____ Time: _____			RECEIVED BY: (Signature)			Date: _____ Time: _____			SAMPLE SHIPPED BY: (Circle) <b>FEDEX</b>			AIRBILL #: _____																		
RELINQUISHED BY: (Signature)			Date: _____ Time: _____			RECEIVED BY: (Signature)			Date: _____ Time: _____			<b>BUS</b>			OTHER: _____																		
RECEIVING LABORATORY: <b>Tech</b> ADDRESS: _____ CITY: <b>Midland</b> STATE: <b>TX</b> ZIP: _____ CONTACT: _____ PHONE: _____			RECEIVED BY: (Signature) <i>Candy</i>			RECEIVED BY: (Signature) <i>Candy</i>			Date: <b>8-19-10</b> Time: <b>9:40</b>			<b>HAND DELIVERED</b>			TETRA TECH CONTACT PERSON: <b>Ike Tavares</b>			Results by: <b>Ike Tavares</b>															
SAMPLE CONDITION WHEN RECEIVED: <b>3-8°C intact</b>			REMARKS: <b>IF TPH exceeds 5000 mg/kg run deeper sample</b>																														

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

Run RTFX on 4 highest TPH

WO #: 10082003

## Analysis Request of Chain of Custody Record

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

PAGE: 3 OF: 7

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <i>COG</i>			SITE MANAGER: <i>Ike Tavaroz</i>			NUMBER OF CONTAINERS	PRESERVATIVE METHOD			TESTS	METHOD				
PROJECT NO.: <i>114-6400547</i>			PROJECT NAME: <i>JENM SW1</i>				FILTERED (Y/N)	HCL	HNO3			ICE	NONE		
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION									
841853	8/17		S	X		SB-3	10'		X						
854						SB-3	15'				X				
855						SB-3	20'				X				
856						SB-3	25'				X				
857						SB-4	1'			X	X				
858						SB-4	3'				X				
859						SB-4	5'				X				
860						SB-4	7'				X				
861						SB-4	10'				X				
862						SB-4	15'				X				
RELINQUISHED BY: (Signature) <i>Sally Kinney</i>			Date: <i>Aug 19, 2010</i> Time: <i>9:40</i>			RECEIVED BY: (Signature)			Date: _____ Time: _____			SAMPLED BY: (Print & Initial) <i>KO</i>		Date: <i>8-17-10</i> Time: _____	
RELINQUISHED BY: (Signature) <i>_____</i>			Date: _____ Time: _____			RECEIVED BY: (Signature)			Date: _____ Time: _____			SAMPLE SHIPPED BY: (Circle) <b>FEDEX</b> <b>BUS</b> <b>HAND DELIVERED</b> <b>UPS</b>		AIRBILL #: _____	
RELINQUISHED BY: (Signature)			Date: _____ Time: _____			RECEIVED BY: (Signature)			Date: _____ Time: _____			TETRA TECH CONTACT PERSON: <i>Ike Tavaroz</i>		OTHER: _____	
RECEIVING LABORATORY: <i>TCOG</i>			RECEIVED BY: (Signature) <i>C. ey</i>			RECEIVED BY: (Signature) <i>C. ey</i>			RESULTS BY:			RUSH CHARGES AUTHORIZED: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
ADDRESS: <i>Midland</i>			PHONE: _____			DATE: <i>8-19-10</i>			TIME: <i>9:40</i>						
SAMPLE CONDITION WHEN RECEIVED: <i>3.8°C at air</i>			REMARKS: <i>If TPH exceeds 5000 mg/kg run deeper sample</i>												

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

0.2TEV -- 4 1:1--1 TPH

WO #: WO 82003

## Analysis Request of Chain of Custody Record

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

						PAGE: 4 OF: 7																	
						ANALYSIS REQUEST (Circle or Specify Method No.)																	
CLIENT NAME: COG			SITE MANAGER: Ike Tavarez			NUMBER OF CONTAINERS 1	PRESERVATIVE METHOD																
PROJECT NO.: 114-6400547			PROJECT NAME: SENW SWD				FILTERED (Y/N) X	HCL	HNO3	ICE	NONE												
LAB I.D. NUMBER	DATE 2010	TIME	MATRIX S	COMP. GRAB	SAMPLE IDENTIFICATION Eddy Co NM	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. 8240/8250/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamm Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS	
841863	8/7		X	SB-4	20'																		
864			X	SB-4	25'																		
865			X	SB-4	30'																		
866			X	SB-4	40'																		
867	8/8		X	SB-5	1'																		
868			X	SB-5	3'																		
869			X	SB-5	5'																		
870			X	SB-5	7'																		
871			X	SB-5	10'																		
872			X	SB-5	15'																		
RELINQUISHED BY: (Signature) <i>John Rmdu</i>			Date: August 19, 2010	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____		
RELINQUISHED BY: (Signature)			Date: _____	Time: 9:40	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____	Time: _____		
RELINQUISHED BY: (Signature)			Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____		
RECEIVING LABORATORY: <i>Tetra</i>			RECEIVED BY: (Signature) <i>A. Dugay</i>			RECEIVED BY: (Signature) <i>A. Dugay</i>			RECEIVED BY: (Signature) <i>A. Dugay</i>			RECEIVED BY: (Signature) <i>A. Dugay</i>			RECEIVED BY: (Signature) <i>A. Dugay</i>			RECEIVED BY: (Signature) <i>A. Dugay</i>					
ADDRESS: City: Midland State: TX ZIP: _____			PHONE: _____			DATE: 8-19-10			TIME: 9:40			SAMPLE SHIPPED BY: (Circle) FEDEX <input checked="" type="checkbox"/> BUS <input checked="" type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> UPS <input type="checkbox"/>			AIRBILL #: _____			OTHER: _____					
CONTACT: _____			REMARKS: If TPH exceeds 5000 mg/kg run deeper			TETRA TECH CONTACT PERSON: Ike Tavarez						Results by: RUSH Charges Authorized: Yes <input type="checkbox"/> No <input type="checkbox"/>											
SAMPLE CONDITION WHEN RECEIVED: 3.8°C ambient																							

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

Run BTEX on 4 highest. TPH

WD #: 10082003

## 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.)											
						PAGE: 5 OF: 7											
CLIENT NAME: <b>CDG</b>			SITE MANAGER: <b>Ike Tavarez</b>														
PROJECT NO.: <b>114-6400547</b>		PROJECT NAME: <b>SENM SW1</b>															
LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION											
						NUMBER OF CONTAINERS	FILTERED (Y/N)	HCl	HNO3	ICE	NONE	PRESERVATIVE METHOD					
841873	8/18	/	S	X	SB-S	20'	/	/	X	/	/	TEX 8021-BT	TPH 8015 MDP TX005 (Ext. to C35)				
874	/	/	/	/	SB-S	25'	/	/	/	/	/	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se				
875	/	/	/	/	SB-S	30'	/	/	/	/	/	TCLP Volatiles	TCLP Metals Ag As Ba Cd Vr Pd Hg Se				
876	/	/	/	/	SB-S	1'	/	/	/	/	/	TCLP Semi Volatiles	TCLP Semi Volatiles				
877	/	/	/	/	SB-S	3'	/	/	/	/	/	RCI	RCI				
878	/	/	/	/	SB-S	5'	/	/	/	/	/	GC/MS Vol. 8240/8250/624	GC/MS Vol. 8240/8250/624				
879	/	/	/	/	SB-S	7'	/	/	/	/	/	GC/MS Semi. Vol. 8270/625	GC/MS Semi. Vol. 8270/625				
880	/	/	/	/	SB-S	10'	/	/	/	/	/	PCB's 8080/608	PCB's 8080/608				
881	/	/	/	/	SB-S	15'	/	/	/	/	/	Pest. 808/608	Pest. 808/608				
882	/	/	/	/	SB-S	20'	/	/	/	/	/	Chloride	Chloride				
RELINQUISHED BY: (Signature) <b>Suzanne Kinney</b>						RECEIVED BY: (Signature) <b>Candy</b>						SAMPLER BY: (Print & Initial) <b>KD</b>					
Date: <b>August 19, 2010</b> Time: <b>9:40</b>						Date: _____ Time: _____						Date: <b>8/19/10</b> Time: <b>9:40</b>					
RELINQUISHED BY: (Signature) <b>Suzanne Kinney</b>						RECEIVED BY: (Signature) <b>Candy</b>						SAMPLE SHIPPED BY: (Circle) <b>FEDEX</b> BUS <b>HAND DELIVERED</b> UPS <b>OTHER:</b> _____					
RELINQUISHED BY: (Signature) <b>Suzanne Kinney</b>						RECEIVED BY: (Signature) <b>Candy</b>						AIRBILL #: _____					
RECEIVING LABORATORY: <b>Tace</b>						RECEIVED BY: (Signature) <b>Candy</b>						TETRA TECH CONTACT PERSON: <b>Ike Tavarez</b> Results by: _____					
ADDRESS: <b>Midland</b>						DATE: <b>8/19/10</b>						RUSH Charges Authorized: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
CITY: <b>Midland</b> STATE: <b>TX</b> ZIP: <b>79705</b>						TIME: <b>9:40</b>											
CONTACT: <b>PHONE:</b> _____																	
SAMPLE CONDITION WHEN RECEIVED: <b>3-8'c in cut</b>			REMARKS: <b>If TPH exceeds 5000 mg/kg run deeper sample</b>														

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

Run BTEX on 4 highest TPH

WOF: 10082003

## Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 6 OF: 7

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: COG			SITE MANAGER: Ile Tavarez			ANALYSIS REQUEST (Circle or Specify Method No.)																				
PROJECT NO.: 114-6400547			PROJECT NAME: SENM SWD			NUMBER OF CONTAINERS	PRESERVATIVE METHOD																			
LAB I.D. NUMBER	DATE 2010	TIME	MATRIX COMP.	GRAB	SAMPLE IDENTIFICATION		FILTERED (Y/N)	HCl	HN03	ICE	NONE	BTEX 8021E	TPH 8015 MODS 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. 8240/8280/624	GC/MS Semivol. 8270/625	PCBs 8080/608	Pest. 808/608	Gamma Spec.	Alpha/Beta (Alt)	PLM (Asbestos)
241883	8/18		S	X	SB-7	1'			X		X										X					
884			/	/	SB-7	3'															X					
885			/	/	SB-7	5'															X					
886			/	/	SB-7	7'															X					
887			/	/	SB-7	10'															X					
888			/	/	SB-7	15'															X					
889			/	/	SB-7	20'															X					
890			/	/	SB-7	25'															X					
891			/	/	SB-7	30'															X					
892			/	/	SB-8	1'															X					
RELINQUISHED BY: (Signature) Sally Tonello			Date: 8/19/10	RECEIVED BY: (Signature)	Date:	Time:	SAMPLED BY: (Print & Initial) X			Date: 8/19/10	Time:															
RELINQUISHED BY: (Signature)			Date:	RECEIVED BY: (Signature)	Date:	Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS			AIRBILL #:																
RELINQUISHED BY: (Signature)			Date:	RECEIVED BY: (Signature)	Date:	Time:	HAND DELIVERED UPS			OTHER:																
RECEIVING LABORATORY: TETRA			RECEIVED BY: (Signature)				TETRA TECH CONTACT PERSON: Ile Tavarez			Results by:																
ADDRESS: Midland STATE: TX ZIP: PHONE: DATE: 8-19-10 TIME: 9:40									RUSH Charges Authorized: Yes No																	
SAMPLE CONDITION WHEN RECEIVED: 3.8°C intact			REMARKS: If TPH exceeds 5000 mg/kg run deeper sample																							

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

Run BTEX on 4 highest TPH

WO #: 6008003

## Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 7

OF: 7

ANALYSIS REQUEST  
(Circle or Specify Method No.)

CLIENT NAME: <b>COG</b>				SITE MANAGER: <b>Ike Tavarez</b>				ANALYSIS REQUEST (Circle or Specify Method No.)																				
PROJECT NO.: <b>114-6400547</b>				PROJECT NAME: <b>SENIN SWD</b>				NUMBER OF CONTAINERS	PRESERVATIVE METHOD																			
LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP:	GRAB	SAMPLE IDENTIFICATION <i>Eddy Co NM</i>	1		FILTERED (Y/N)	HCL	HNDS	ICE	NONE	BTEX 8021(B)	TPH 8015 MODS TX1005 (Ext. to C35)	PAH 8270	RGA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8280/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	<i>Gamma Spec.</i>	<i>Alpha Beta (Air)</i>	<i>PLM (Asbestos)</i>
							241893	8/8		S	X	SB-8	3'	X														
894						SB-8	5'																					
895						SB-8	7'																					
896						SB-8	10'																					
897						SB-8	15'																					
898						SB-8	20'																					
899						SB-8	25'																					
900						SB-8	30'																					
901						SB-8	40'																					
902						SB-8	50'																					
RELINQUISHED BY: (Signature) <i>Sally Knoll</i>				Date: <i>August 19, 2010</i>	RECEIVED BY: (Signature)	Date: _____	SAMPLED BY: (Print & Initial) <i>KO</i>	Date: <i>8-19-10</i>																				
RELINQUISHED BY: (Signature)				Date: <i>8/19</i>	RECEIVED BY: (Signature)	Date: _____	SAMPLE SHIPPED BY: (Circle)	Date: <i>8-19-10</i>																				
RELINQUISHED BY: (Signature)				Date: _____	RECEIVED BY: (Signature)	Date: _____	FEDEX <input checked="" type="checkbox"/> BUS <input type="checkbox"/> AIRBILL #: _____																					
RECEIVING LABORATORY: <i>TCAC</i>				RECEIVED BY: (Signature) <i>AT</i>	Date: <i>8-19-10</i>	Time: <i>9:40</i>	(HAND DELIVERED <input checked="" type="checkbox"/> UPS <input type="checkbox"/> OTHER: _____)																					
ADDRESS: <i>Midland</i>				RECEIVED BY: (Signature) <i>AT</i>	Date: <i>8-19-10</i>	Time: <i>9:40</i>	TETRA TECH CONTACT PERSON: <i>Ike Tavarez</i>	Results by: _____																				
CITY: <i>Midland</i> STATE: <i>TX</i> ZIP: _____				PHONE: _____	REMARKS: <i>If TPH exceeds 5000 mg/kg run deeper sample</i>		RUSH Charges Authorized: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																					
SAMPLE CONDITION WHEN RECEIVED: <i>3. B.C. in tank</i>				REMARKS: <i>If TPH exceeds 5000 mg/kg run deeper sample</i>		Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.																						

Run BTEX on 4 highest TPH