

SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	Myox 32 Fee #2H					
Company:	COG Operating LLC					
Section, Township and Range	Sec. 32	T 25S	R 28E			
Lease Number:	API-30-015-41521					
County:	Eddy County					
GPS:	32.09273° N			104.11140° W		
Surface Owner:	Private					
Mineral Owner:						
Directions:	From the intersection of HWY 285 and C.R. 724 (White City Road), travel North on 285 for approximately 3.2 miles, turn West onto lease road and continue for 1.3 miles, the lease road curves to the south and continue for an additional .5 miles. The road will again curve to the West, continue for approximately .9 miles to the location on the South side of the road.					

Release Data:

Date Released:	9/30/2013
Type Release:	Produced Water
Source of Contamination:	Hammer Union
Fluid Released:	50 bbls
Fluids Recovered:	35 bbls

Official Communication:

Name:	Robert McNeil		Ike Tavaréz
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		4000 N. Big Spring
	600 W. Illinois Ave.		Ste 401
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 687-8110
Fax:	(432) 684-7137		
Email:	rmcneil@conchoresources.com		Ike.Tavaréz@tetrattech.com

Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	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:	20	

Acceptable Soil RRAL (mg/kg)

Benzene	Total BTEX	TPH
10	50	100



October 9, 2014

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811S. First Street
Artesia, New Mexico 88210

Re: Closure Report for the COG Operating LLC., Myox 32 Fee #2H Main Line, Unit C, Section 32, Township 25 South, Range 28 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC., (COG) to assess a spill at the Myox 32 Fee #2H Main Line, located in Unit C, Section 32, Township 25 South, Range 28 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.09273°, W 104.11140°. 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 September 30, 2013, and released approximately fifty (50) barrels of produced water from a loose hammer union. To alleviate the problem, COG personnel tightened the hammer union and check it regularly. Thirty-five (35) barrels of standing fluids were recovered. The spill initiated west inside the lined facility. The fluid breached the firewall affecting an area approximately 300' X 15' on the pad. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 32. According to the NMOCD groundwater map, the average depth to groundwater in this area is less than 50' 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 100 mg/kg.

Soil Assessment and Analytical Results

On October 23, 2013, Tetra Tech personnel inspected and sampled the spill area. Six (6) auger holes (AH-1 through AH-6), and two (2) background auger holes (BG-1 and BG-2) were installed using a stainless steel hand auger to assess the impacted soils. Selected soil 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, none of the samples exceeded the TPH or BTEX RRAL's. To establish background chloride concentrations for the area, the samples BG-1 and BG-2 did show a chloride high of 748 mg/kg at 3-3.5' below surface. The areas of auger holes (AH-1 and AH-2) showed did not a significant chloride impact in the shallow soils from 0 to 2.0' below surface. However, chloride concentrations increased with depth in the deeper soils with chloride highs of 1,840 mg/kg at 4.0' and 1,940 mg/kg at 6.0', respectively. The chlorides were not vertically defined in these two areas. Elevated chloride concentrations were also detected in the shallow soils in the areas of AH-3 and AH-5, but significantly declined with depth at 2.5' below surface. Auger holes (AH-4 and AH-6) did not show any significant chloride impact to the soils.

Remedial Activities and Delineation

On March 10, 2014, Tetra Tech supervised the removal impacted material as highlighted (green) in Table 1 and shown on Figure 4. Auger holes (AH-3 and AH-5) were excavated to depths of approximately 2.0' below surface. In the areas of AH-1 and AH-2, backhoe trenches were installed to define extents and confirm the detected chloride concentrations. Based on the field data, these areas were excavated 3.0' below surface, and a 40 mil plastic liner was installed to cap and prevent further migration of contaminants left in place.



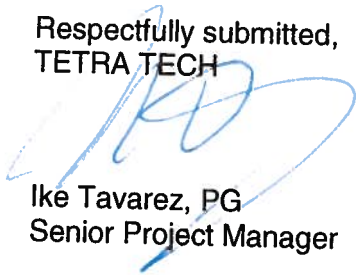
Once the areas were excavated to the appropriate depths, the excavations were backfilled with clean soil to grade, and approximately 240 cubic yards of excavated material was hauled to proper disposal.

Based on the Trench (T-1 and T-2) results, Tetra Tech installed boreholes (BH-1 and BH-2) in the areas of AH-1 and AH-2 to define extents. In addition, a borehole (BG-3) was installed 300' west of the facility for additional chloride background concentrations. As shown in Table 1, some samples in the deeper soils of background (BG-3) showed chloride highs of 1,240 mg/kg at 6-7', 1,010 mg/kg at 6-7' and 1,450 mg/kg at 9-10'. Boreholes (BH-1 and BH-2) did show a deeper chloride impact to the soils. The chloride concentrations declined with depth to 1,660 mg/kg at 44-45' and 1,680 mg/kg at 39-40', respectively.

Conclusion

Based on the assessment and work performed at this site, COG requests closure of this spill issue. A final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

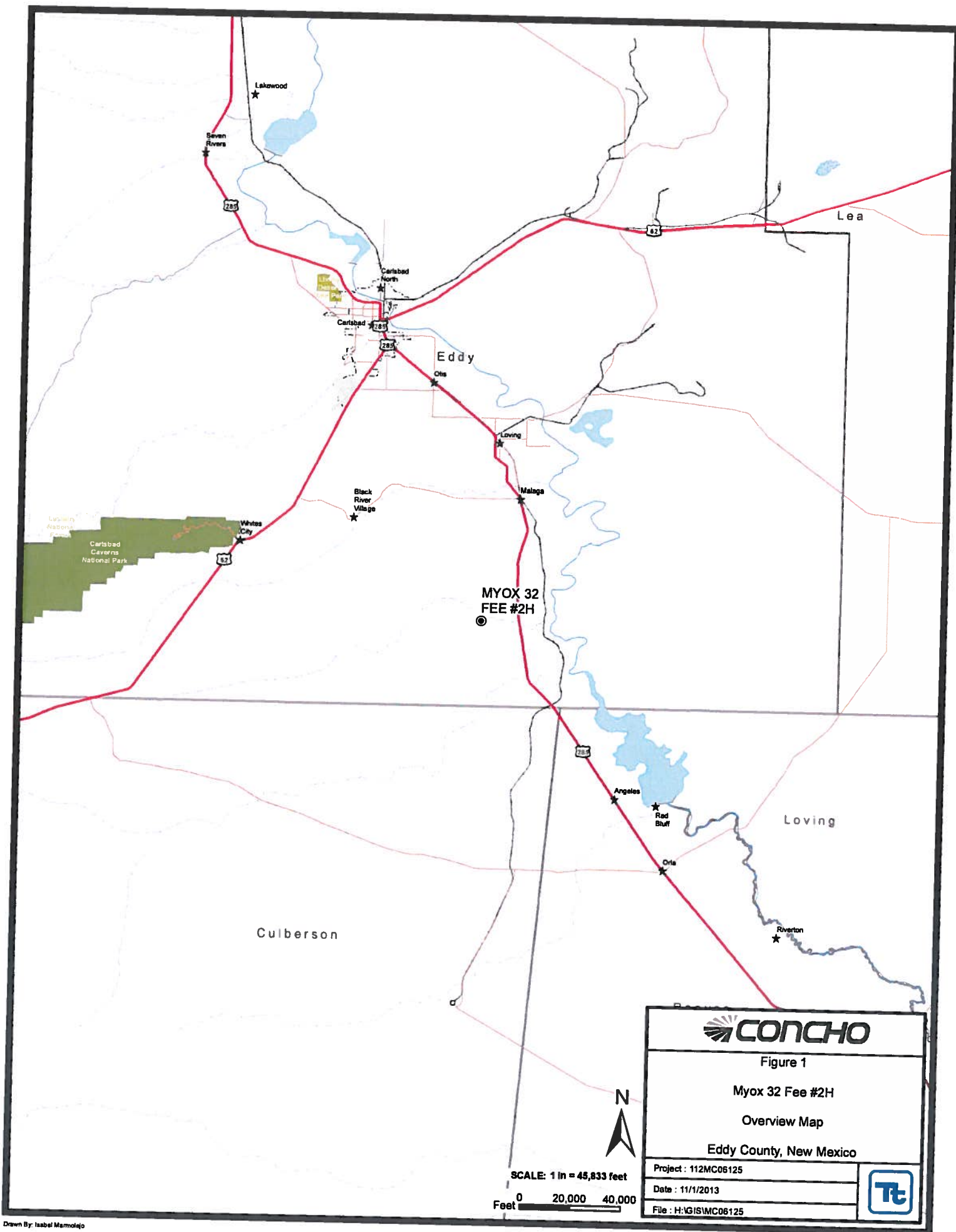
Respectfully submitted,
TETRA TECH

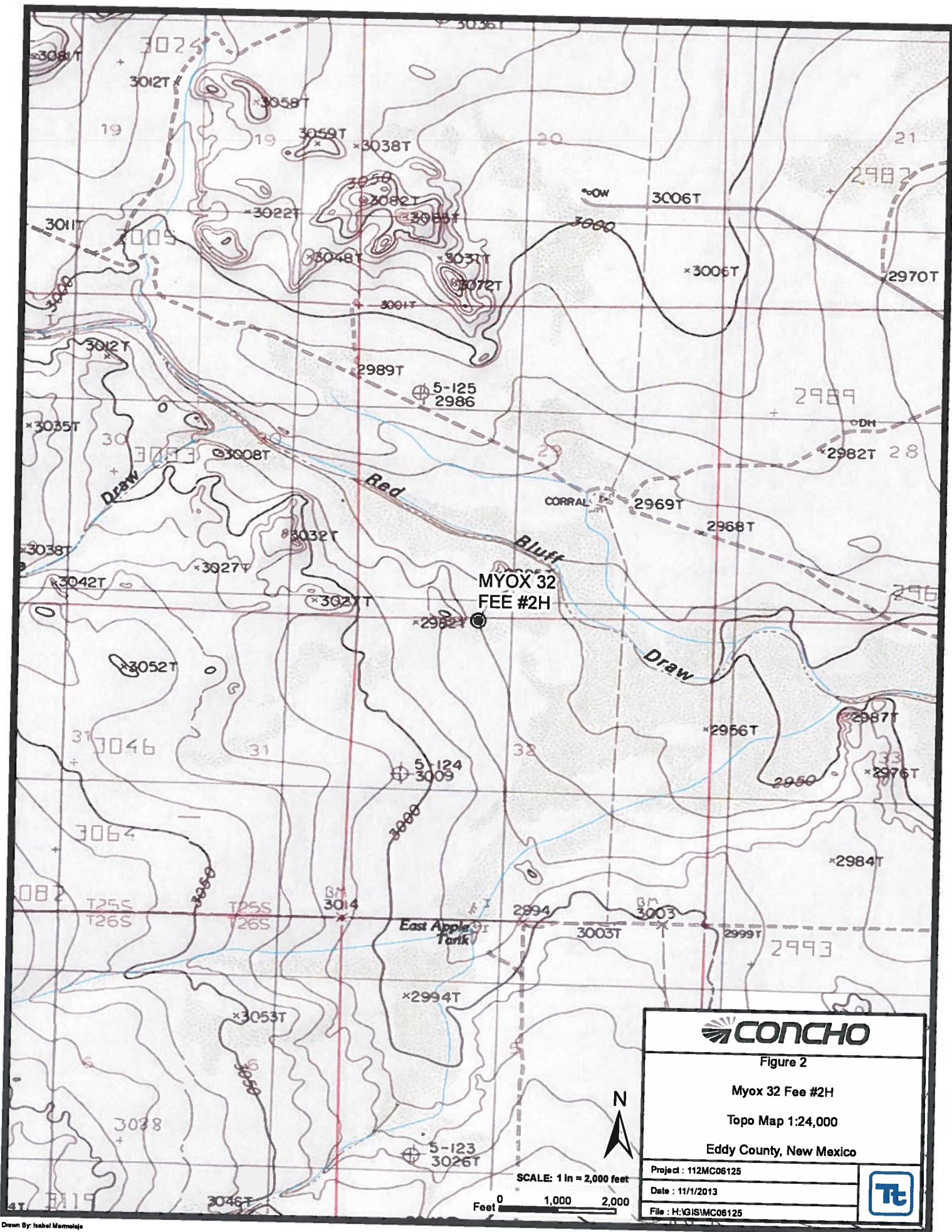


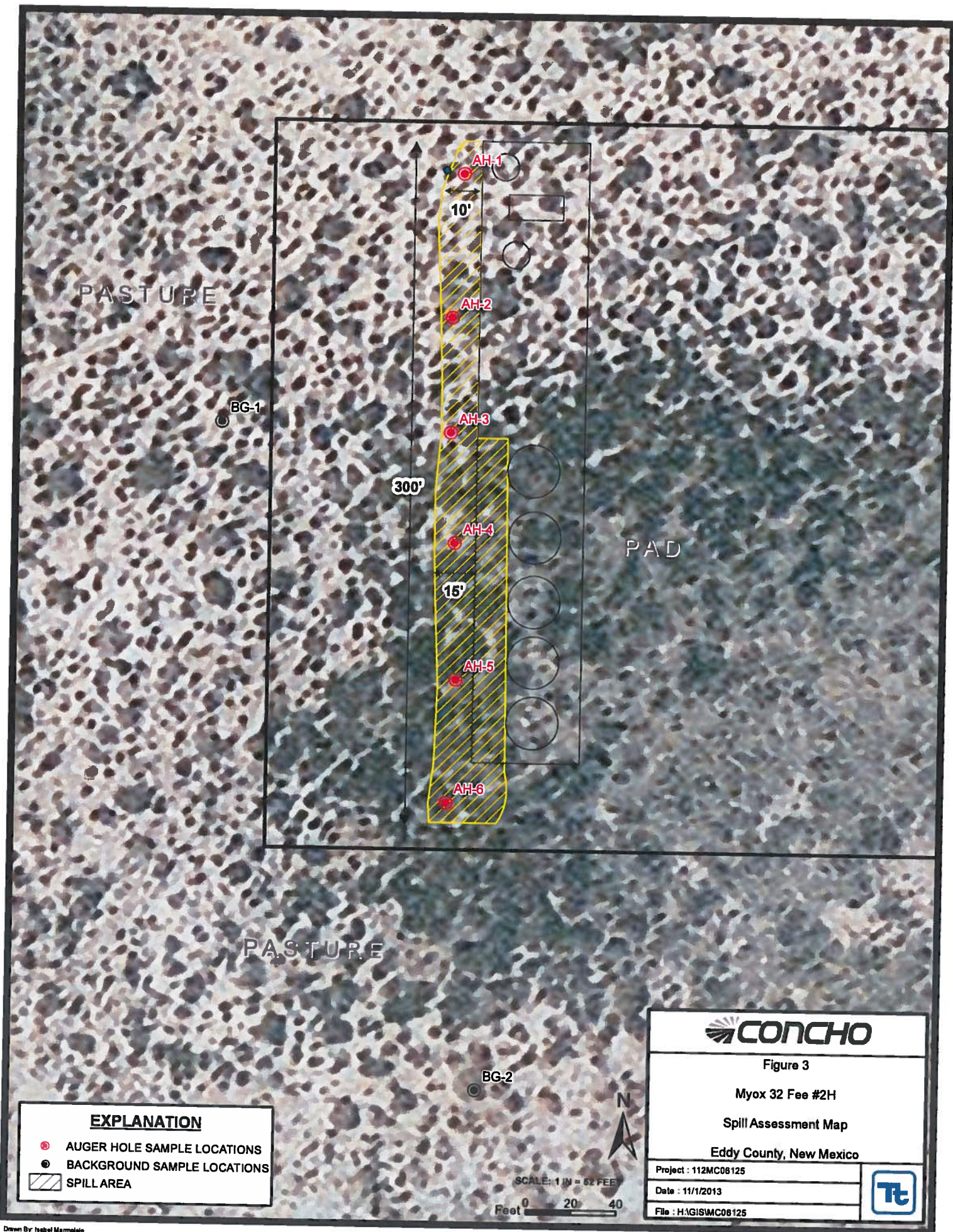
Ike Tavarez, PG
Senior Project Manager

cc: Robert McNeill – COG

Figures

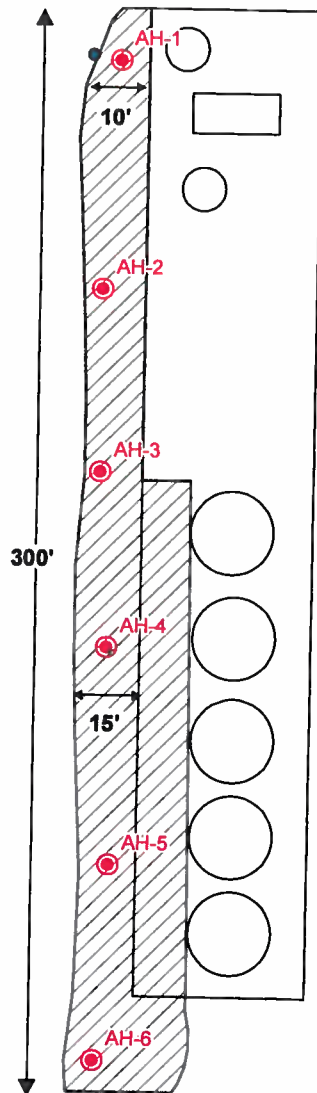






PASTURE

● BG-1



PAD

PASTURE

● BG-2



SCALE: 1 IN = 62 FEET

Feet 0 20 40

EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- BACKGROUND SAMPLE LOCATIONS
- ▨ SPILL AREA



Figure 3

Myox 32 Fee #2H

Spill Assessment Map

Eddy County, New Mexico

Project : 112MC08125

Date : 11/1/2013

File : H:\GIS\MC08125



PASTURE

LINED FACILITY

PAD

PASTURE

EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- BACKGROUND SAMPLE LOCATIONS
- BORE HOLE SAMPLE LOCATIONS
- TRENCH LOCATIONS
- ▨ EXCAVATED AREAS
- ▭ INSTALLED LINER

BG-2



SCALE: 1 IN = 64 FEET

Feet 0 20 40



Figure 4

Myox 32 Fee #2H

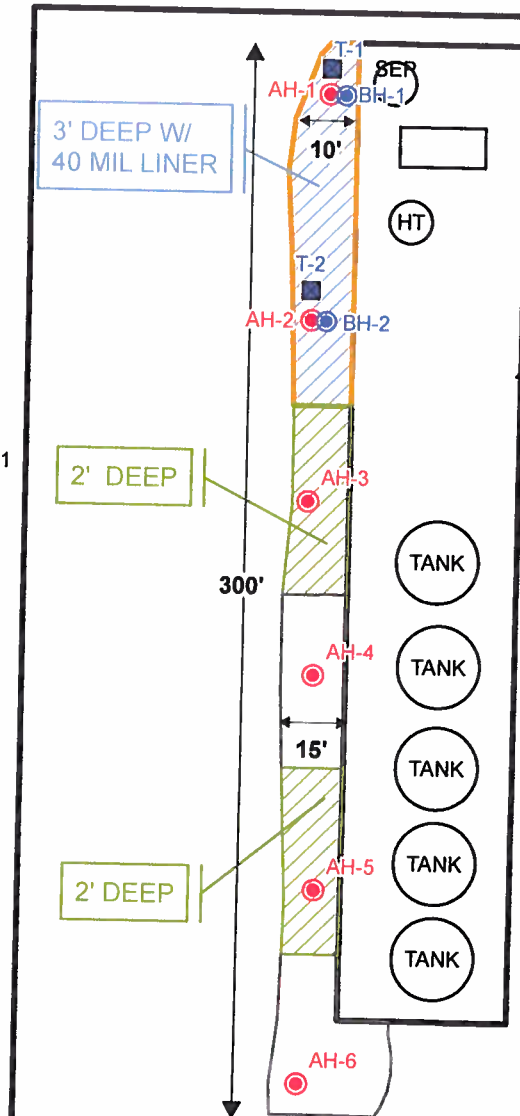
Excavation Areas & Depths Map

Eddy County, New Mexico

Project : 112MC06125

Date : 10/09/2014

File : H:\GIS\MC06125



Tables

Table 1

[illegible]

Table 1
COG Operating LLC.
Myox 32 Fee #2H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
BG-1	12/9/2013	0-1	-	X		-	-	-	-	-	-	-	-	<20.0
	"	1-1.5	-	X		-	-	-	-	-	-	-	-	<20.0
	"	2-2.5	-	X		-	-	-	-	-	-	-	-	<20.0
	"	3-3.5	-	X		-	-	-	-	-	-	-	-	<20.0
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	<20.0
BG-2	"	5-5.5	-	X		-	-	-	-	-	-	-	-	<20.0
	12/9/2013	0-1	-	X		-	-	-	-	-	-	-	-	<20.0
	"	1-1.5	-	X		-	-	-	-	-	-	-	-	73.9
	"	2-2.5	-	X		-	-	-	-	-	-	-	-	438
	"	3-3.5	-	X		-	-	-	-	-	-	-	-	748
BG-3 Borehole	"	4-4.5	-	X		-	-	-	-	-	-	-	-	281
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	438
	4/7/2014	0-1	-	X		-	-	-	-	-	-	-	-	147
	"	2-3	-	X		-	-	-	-	-	-	-	-	147
	"	4-5	-	X		-	-	-	-	-	-	-	-	1,240
	"	6-7	-	X		-	-	-	-	-	-	-	-	1,010
	"	9-10	-	X		-	-	-	-	-	-	-	-	1,450
	"	14-15	-	X		-	-	-	-	-	-	-	-	667
	"	19-20	-	X		-	-	-	-	-	-	-	-	784

(-) Not Analyzed
(BEB) Below Excavation Bottom
Excavated Depths
40mil Plastic Liner Installed

Photos

COG Operating LLC
Myox 32 Fee #2H
Tank Battery
Eddy County, New Mexico



TETRA TECH



View East – T-1 in Area of AH-1



View North – Areas of AH-1 and AH-2 at 3.0'

COG Operating LLC
Myox 32 Fee #2H
Tank Battery
Eddy County, New Mexico



TETRA TECH



View North – Area of AH-3 at 2.0'



View North – Area of AH-5 at 2.0'

COG Operating LLC
Myox 32 Fee #2H
Tank Battery
Eddy County, New Mexico



TETRA TECH



View South – Areas of AH-1 and AH-2 with Liner Installed



View South – Excavation Backfilled

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

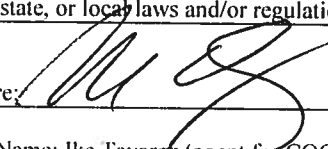
Name of Company COG Operating LLC	Contact Robert McNeill	
Address 600 W. Illinois Ave, Midland, Texas 79701	Telephone No. (432) 685-4332	
Facility Name Myox 32 Fee #2H	Facility Type Mainline	
Surface Owner: Private	Mineral Owner	Lease No. (API#) 30-015-41521

LOCATION OF RELEASE

Unit Letter C	Section 32	Township 25S	Range 28E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32.09273° N Longitude 104.11140° W

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 50 bbls	Volume Recovered 35 bbls
Source of Release: Hammer Union	Date and Hour of Occurrence 09/30/2014	Date and Hour of Discovery 09/30/2014 10:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Michelle Mullins	Date and Hour 10-01-2013 3:41pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Loose hammer union due to vibration. Tightened hammer union and check regularly.		
Describe Area Affected and Cleanup Action Taken.* Initially 50bbls of produced fluid was released. COG personnel were able to recover 35bbls of fluid with a vacuum truck. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Areas of AH-1 and AH-2 were capped with a 40 mil liner. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.		
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: Ike Tavaraz (agent for COG)	Approved by District Supervisor:	
Title: Senior Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavaraz@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 10/2/14 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

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	Robert McNeill
Address	600 West Illinois Avenue, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Myox 32 Fee #002H	Facility Type	Mainline
Surface Owner	Private	Mineral Owner	
		Lease No. (API#)	30-015-41521

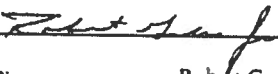
LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	32	25S	28E					Eddy

Latitude 32.09273

Longitude 104.11140

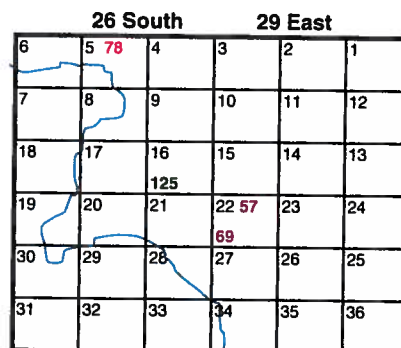
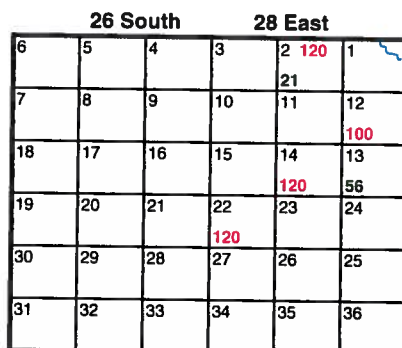
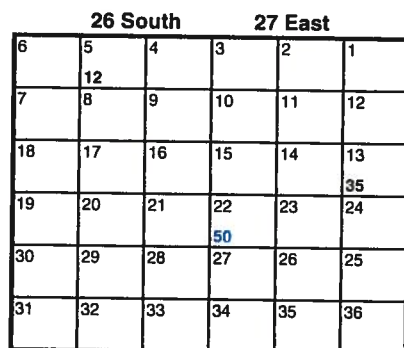
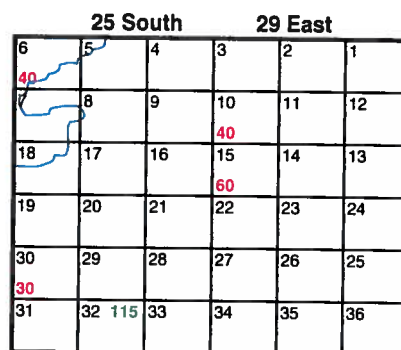
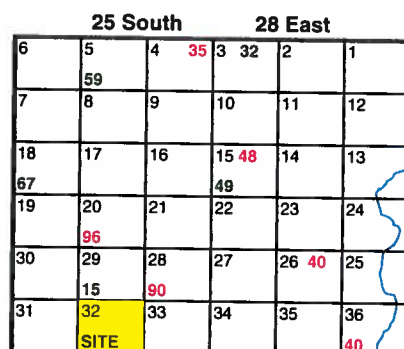
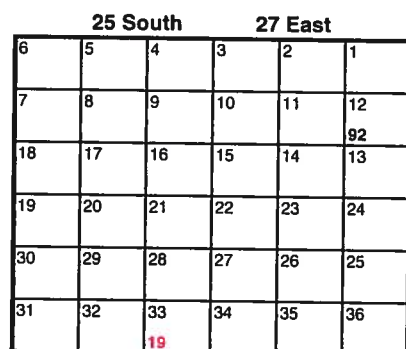
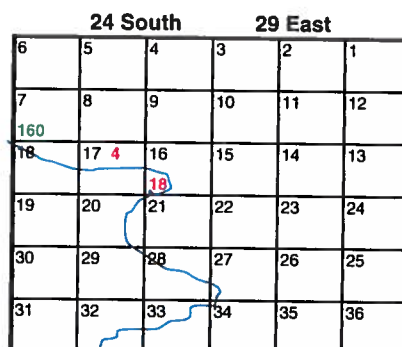
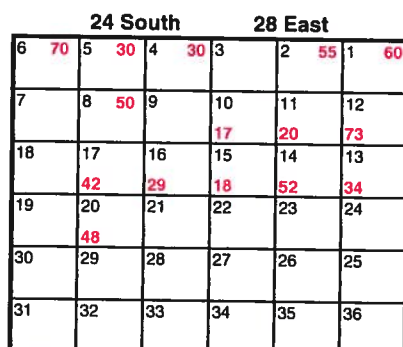
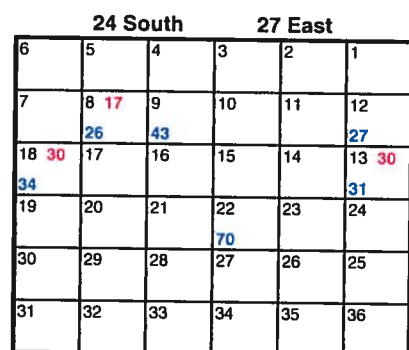
NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	50bbls	Volume Recovered	35bbls
Source of Release	Hammer union	Date and Hour of Occurrence	09-30-2013	Date and Hour of Discovery	09-30-2013 10:00am
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher - NMOCD		
By Whom?	Michelle Mullins	Date and Hour	10-01-2013 3:41pm		
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.*					
Loose hammer union due to vibration. Tightened hammer union and check regularly.					
Describe Area Affected and Cleanup Action Taken.*					
Initially 50bbls of produced fluid was released. We were able to recover 35bbls of fluid with a vacuum truck. All free fluid has been recovered. Tetra Tech will sample the spill site area in the pasture to delineate any possible contamination from the release and we will present a work plan to the NMOCD 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: Robert Grubbs Jr.		Approved by District Supervisor:			
Title: Senior Environmental Coordinator		Approval Date:		Expiration Date:	
E-mail Address: rgrubbs@concho.com		Conditions of Approval:		Attached ☐	
Date: 10-4-2013		Phone: 432-661-6601			

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Myox 32 Fee #2H
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
- Field water level
- New Mexico Water and Infrastructure Data System

Appendix C

Summary Report

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

Report Date: October 30, 2013

Work Order: 13102420



Project Location: Eddy Co, NM
Project Name: COG/Myox 32
Project Number: TBD

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
344503	AH-1 0-1'	soil	2013-10-23	00:00	2013-10-24
344504	AH-1 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344505	AH-1 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344506	AH-1 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344507	AH-1 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344508	AH-1 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344509	AH-1 6-6.5'	soil	2013-10-23	00:00	2013-10-24
344510	AH-2 0-1'	soil	2013-10-23	00:00	2013-10-24
344511	AH-2 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344512	AH-2 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344513	AH-2 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344514	AH-2 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344515	AH-2 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344516	AH-2 6-6.5'	soil	2013-10-23	00:00	2013-10-24
344517	AH-3 0-1'	soil	2013-10-23	00:00	2013-10-24
344518	AH-3 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344519	AH-3 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344520	AH-3 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344521	AH-3 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344522	AH-3 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344523	AH-3 6-6.5'	soil	2013-10-23	00:00	2013-10-24
344524	AH-4 0-1'	soil	2013-10-23	00:00	2013-10-24
344525	AH-4 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344526	AH-4 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344527	AH-4 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344528	AH-4 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344529	AH-4 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344530	AH-4 6-6.5'	soil	2013-10-23	00:00	2013-10-24
344531	AH-5 0-1'	soil	2013-10-23	00:00	2013-10-24
344532	AH-5 1-1.5'	soil	2013-10-23	00:00	2013-10-24

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296

This is only a summary. Please, refer to the complete report package for quality control data.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
344533	AH-5 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344534	AH-5 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344535	AH-5 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344536	AH-5 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344537	AH-5 6-6.5'	soil	2013-10-23	00:00	2013-10-24
344538	AH-6 0-1'	soil	2013-10-23	00:00	2013-10-24
344539	AH-6 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344540	AH-6 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344541	AH-6 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344542	AH-6 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344543	AH-6 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344544	BG-1 0-1'	soil	2013-10-23	00:00	2013-10-24
344545	BG-1 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344546	BG-1 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344547	BG-1 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344548	BG-1 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344549	BG-1 5-5.5'	soil	2013-10-23	00:00	2013-10-24
344550	BG-2 0-1'	soil	2013-10-23	00:00	2013-10-24
344551	BG-2 1-1.5'	soil	2013-10-23	00:00	2013-10-24
344552	BG-2 2-2.5'	soil	2013-10-23	00:00	2013-10-24
344553	BG-2 3-3.5'	soil	2013-10-23	00:00	2013-10-24
344554	BG-2 4-4.5'	soil	2013-10-23	00:00	2013-10-24
344555	BG-2 5-5.5'	soil	2013-10-23	00:00	2013-10-24

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
344503 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
344510 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
344517 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
344524 - AH-4 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
344531 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
344538 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00

Sample: 344503 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		217	mg/Kg	4

Sample: 344504 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		458	mg/Kg	4

Sample: 344505 - AH-1 2-2.5'

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296
This is only a summary. Please, refer to the complete report package for quality control data.

Param	Flag	Result	Units	RL
Chloride		970	mg/Kg	4

Sample: 344506 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1260	mg/Kg	4

Sample: 344507 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1840	mg/Kg	4

Sample: 344508 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		1360	mg/Kg	4

Sample: 344509 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		1140	mg/Kg	4

Sample: 344510 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		409	mg/Kg	4

Sample: 344511 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		458	mg/Kg	4

Sample: 344512 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		812	mg/Kg	4

Sample: 344513 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1560	mg/Kg	4

Sample: 344514 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1610	mg/Kg	4

Sample: 344515 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		1160	mg/Kg	4

Sample: 344516 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		1940	mg/Kg	4

Sample: 344517 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		3480	mg/Kg	4

Sample: 344518 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		400	mg/Kg	4

Sample: 344519 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		2610	mg/Kg	4

Sample: 344520 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		755	mg/Kg	4

Sample: 344521 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		632	mg/Kg	4

Sample: 344522 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		691	mg/Kg	4

Sample: 344523 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		805	mg/Kg	4

Sample: 344524 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		597	mg/Kg	4

Sample: 344525 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		257	mg/Kg	4

Sample: 344526 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		175	mg/Kg	4

Sample: 344527 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		48.5	mg/Kg	4

Sample: 344528 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		87.3	mg/Kg	4

Sample: 344529 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		92.2	mg/Kg	4

Sample: 344530 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		243	mg/Kg	4

Sample: 344531 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		3630	mg/Kg	4

Sample: 344532 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2130	mg/Kg	4

Sample: 344533 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		1790	mg/Kg	4

Sample: 344534 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		246	mg/Kg	4

Sample: 344535 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		246	mg/Kg	4

Sample: 344536 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		212	mg/Kg	4

Sample: 344537 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		130	mg/Kg	4

Sample: 344538 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		979	mg/Kg	4

Sample: 344539 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		718	mg/Kg	4

Sample: 344540 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		227	mg/Kg	4

Sample: 344541 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		318	mg/Kg	4

Sample: 344542 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		309	mg/Kg	4

Sample: 344543 - AH-6 5-5.5'

Param	Flag	Result	Units	RL
Chloride		197	mg/Kg	4

Sample: 344544 - BG-1 0-1'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344545 - BG-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344546 - BG-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344547 - BG-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344548 - BG-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344549 - BG-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344550 - BG-2 0-1'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 344551 - BG-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		73.9	mg/Kg	4

Sample: 344552 - BG-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		438	mg/Kg	4

Sample: 344553 - BG-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		748	mg/Kg	4

Sample: 344554 - BG-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		281	mg/Kg	4

Sample: 344555 - BG-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		438	mg/Kg	4

13102420

Analysis Request of Chain of Custody Record

**TETRA TECH**1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946CLIENT NAME:
COGSITE MANAGER:
Ike Tavaroz

PROJECT NO.:

PROJECT NAME:
COG

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMR	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD				
									HCL	HNO3	ICE	NONE	
523	2013	10/23	S		X	AH-3 (6-6.5)	1				Y		
524						AH-4 (0-1)							
525						(1-1.5)							
526						(2-2.5)							
527						(3-3.5)							
528						(4-4.5)							
529						(5-5.5)							
530						(6-6.5)							
531						AH-5 (0-1)							
532						(1-1.5)							

RELINQUISHED BY: (Signature)
Dillon Davis

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

RELINQUISHED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

RECEIVING LABORATORY: **TRACE**

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

CITY: **Midland** STATE: **TX** ZIP: **79705**

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

SAMPLE CONDITION WHEN RECEIVED:
4.40

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

REMARKS:
See page 1

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

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

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

REMARKS:

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/24/13

Time: 14:35

RECEIVED BY: (Signature)

Date: 10/23

Time: 10/23

1310 2420

Analysis Request of Chain of Custody Record

**TETRA TECH**1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946CLIENT NAME:
COGSITE MANAGER:
Ike Tavaraz

PROJECT NO.:

PROJECT NAME:

COG - Mydx 32SAMPLE IDENTIFICATION
Eddy Co. NM

TIME

DATE

LAB I.D. NUMBER

543

10/23

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

13102420

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:

COG

SITE MANAGER:

Ike Tavaroz

PROJECT NO.:

PROJECT NAME:

COG - Myox 32'

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION
553	10-23		S		X	BG 2 (3-3.5)
554	10/23		S		X	(4-4.5)
555	10/23		S		X	(5-5.5)

PRESERVATIVE METHOD	
HCL	
HN03	X
ICE	X
NONE	

NUMBER OF CONTAINERS

1

TPH 8015 MOD	
BTEX 8021B	
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	
Chlordane	X
Gamma Spec.	X
Alpha Beta (Air)	X
PLM (Asbestos)	
Major Anions/Cations, pH, TDS	

RELINQUISHED BY: (Signature)

Adrian Garcia

Date: 10/24/13

Time: 14:55

RECEIVED BY: (Signature)

Adrian Garcia

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Adrian Garcia

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Adrian Garcia

Date: 10/24/13

Time: 14:55

RECEIVING LABORATORY:

Midland

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

See page 1

SAMPLE CONDITION WHEN RECEIVED:

440

RECEIVED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RECEIVED BY: (Signature)

Ike Tavaroz

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

See page 1

SAMPLE CONDITION WHEN RECEIVED:

440

RECEIVED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RECEIVING LABORATORY:

Midland

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

See page 1

SAMPLE CONDITION WHEN RECEIVED:

440

RECEIVED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RECEIVING LABORATORY:

Midland

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

See page 1

SAMPLE CONDITION WHEN RECEIVED:

440

RECEIVED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RECEIVING LABORATORY:

Midland

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

See page 1

SAMPLE CONDITION WHEN RECEIVED:

440

RECEIVED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RECEIVING LABORATORY:

Midland

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

See page 1

SAMPLE CONDITION WHEN RECEIVED:

440

RECEIVED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

RELINQUISHED BY: (Signature)

Ike Tavaroz

Date: 10/24/13

Time: 14:55

ANALYSIS REQUEST
(Circle or Specify Method No.)

PAGE: 6

OF: 6

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

ATL

March 13, 2014

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: MYOX 32 FEE #2H

Enclosed are the results of analyses for samples received by the laboratory on 03/11/14 9:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

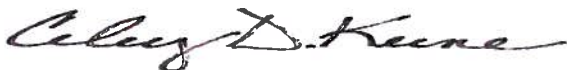
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

 Received: 03/11/2014
 Reported: 03/13/2014
 Project Name: MYOX 32 FEE #2H
 Project Number: 112MC06125
 Project Location: NONE GIVEN

 Sampling Date: 03/10/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: T-1 (AH-1) 0' (H400732-01)

Chloride, SM4500Cl-B		mg/kg Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-1 (AH-1) 2' (H400732-02)

Chloride, SM4500Cl-B		mg/kg Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-1 (AH-1) 4' (H400732-03)

Chloride, SM4500Cl-B		mg/kg Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1960	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-1 (AH-1) 6' (H400732-04)

Chloride, SM4500Cl-B		mg/kg Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1680	16.0	03/12/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

 Received: 03/11/2014
 Reported: 03/13/2014
 Project Name: MYOX 32 FEE #2H
 Project Number: 112MC06125
 Project Location: NONE GIVEN

 Sampling Date: 03/10/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: T-1 (AH-1) 8' (H400732-05)

Chloride, SM4500CI-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-1 (AH-1) 10' (H400732-06)

Chloride, SM4500CI-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-2 (AH-2) 0' (H400732-07)

Chloride, SM4500CI-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1710	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-2 (AH-2) 2' (H400732-08)

Chloride, SM4500CI-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2520	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-2 (AH-2) 4' (H400732-09)

Chloride, SM4500CI-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1550	16.0	03/12/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

 Received: 03/11/2014
 Reported: 03/13/2014
 Project Name: MYOX 32 FEE #2H
 Project Number: 112MC06125
 Project Location: NONE GIVEN

 Sampling Date: 03/10/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: T-2 (AH-2) 6' (H400732-10)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-2 (AH-2) 8' (H400732-11)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1300	16.0	03/12/2014	ND	400	100	400	0.00	

Sample ID: T-2 (AH-2) 10' (H400732-12)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2040	16.0	03/12/2014	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celest D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



TETRA TECH

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

H400732

CLIENT NAME:	COG			SITE MANAGER:	Ike Faveraz		
PROJECT NO.:	112MC06125			PROJECT NAME:	Myor 32 Fee #2 H		
LAB I.D. NUMBER	DATE	TIME		MATRIX	COMR	GRAB	

SAMPLE IDENTIFICATION			
11			T-2 (AH-2) 8'
12			T-2 (AH-2) 10'

NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD	BTX 8021B	TPH 8016 MOD. TX1006 (Ext. to C35)	PAH 8270	HCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	ROI	GC/MS Vol. 8240/8280/624	GC/MS Semi. Vol. 8270/626	PCB's 8080/808	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
		HCL																	
		HNO3																	
		ICE																	
		NONE																	

RELINQUISHED BY: (Signature)	Date:	Time:	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:
RECEIVING LABORATORY:	RECEIVED BY: (Signature)				
ADDRESS:	DATE:				
CITY:	STATE:	ZIP:	PHONE:	REMARKS:	

SAMPLE CONDITION WHEN RECEIVED: 14.6°C

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

#54

Summary Report

(Corrected Report)

Ike Tavaréz
Tetra Tech
1901 N. Big Spring St.
Midland, TX 79705

Report Date: April 18, 2014

Work Order: 14040824



Project Location: Eddy Co, NM
Project Name: COG/Myox 32 Fee 2H
Project Number: 112MC06125

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359890	BH-1 0-1'	soil	2014-04-07	00:00	2014-04-08
359891	BH-1 2-3'	soil	2014-04-07	00:00	2014-04-08
359892	BH-1 4-5'	soil	2014-04-07	00:00	2014-04-08
359893	BH-1 6-7'	soil	2014-04-07	00:00	2014-04-08
359894	BH-1 9-10'	soil	2014-04-07	00:00	2014-04-08
359895	BH-1 14-15'	soil	2014-04-07	00:00	2014-04-08
359896	BH-1 19-20'	soil	2014-04-07	00:00	2014-04-08
359897	BH-1 24-25'	soil	2014-04-07	00:00	2014-04-08
359898	BH-1 29-30'	soil	2014-04-07	00:00	2014-04-08
359899	BH-1 39-40'	soil	2014-04-07	00:00	2014-04-08
359900	BH-1 44-45'	soil	2014-04-07	00:00	2014-04-08
359901	BH-2 0-1'	soil	2014-04-07	00:00	2014-04-08
359902	BH-2 2-3'	soil	2014-04-07	00:00	2014-04-08
359903	BH-2 4-5'	soil	2014-04-07	00:00	2014-04-08
359904	BH-2 6-7'	soil	2014-04-07	00:00	2014-04-08
359905	BH-2 9-10'	soil	2014-04-07	00:00	2014-04-08
359906	BH-2 14-15'	soil	2014-04-07	00:00	2014-04-08
359907	BH-2 19-20'	soil	2014-04-07	00:00	2014-04-08
359908	BG-3 0-1'	soil	2014-04-07	00:00	2014-04-08
359909	BG-3 2-3'	soil	2014-04-07	00:00	2014-04-08
359910	BG-3 4-5'	soil	2014-04-07	00:00	2014-04-08
359911	BG-3 6-7'	soil	2014-04-07	00:00	2014-04-08
359912	BG-3 9-10'	soil	2014-04-07	00:00	2014-04-08
359913	BG-3 14-15'	soil	2014-04-07	00:00	2014-04-08
359914	BG-3 19-20'	soil	2014-04-07	00:00	2014-04-08

Sample: 359890 - BH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		238	mg/Kg	4

Sample: 359891 - BH-1 2-3'

Param	Flag	Result	Units	RL
Chloride		69.0	mg/Kg	4

Sample: 359892 - BH-1 4-5'

Param	Flag	Result	Units	RL
Chloride		466	mg/Kg	4

Sample: 359893 - BH-1 6-7'

Param	Flag	Result	Units	RL
Chloride		307	mg/Kg	4

Sample: 359894 - BH-1 9-10'

Param	Flag	Result	Units	RL
Chloride		1560	mg/Kg	4

Sample: 359895 - BH-1 14-15'

Param	Flag	Result	Units	RL
Chloride		3430	mg/Kg	4

Sample: 359896 - BH-1 19-20

Param	Flag	Result	Units	RL
Chloride		2210	mg/Kg	4

Sample: 359897 - BH-1 24-25'

Param	Flag	Result	Units	RL
Chloride		2820	mg/Kg	4

Sample: 359898 - BH-1 29-30'

Param	Flag	Result	Units	RL
Chloride		3150	mg/Kg	4

Sample: 359899 - BH-1 39-40'

Param	Flag	Result	Units	RL
Chloride		2310	mg/Kg	4

Sample: 359900 - BH-1 44-45'

Param	Flag	Result	Units	RL
Chloride		1660	mg/Kg	4

Sample: 359901 - BH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		362	mg/Kg	4

Sample: 359902 - BH-2 2-3'

Param	Flag	Result	Units	RL
Chloride		372	mg/Kg	4

Sample: 359903 - BH-2 4-5'

Param	Flag	Result	Units	RL
Chloride		842	mg/Kg	4

Sample: 359904 - BH-2 6-7'

Param	Flag	Result	Units	RL
Chloride		3130	mg/Kg	4

Sample: 359905 - BH-2 9-10'

Param	Flag	Result	Units	RL
Chloride		2160	mg/Kg	4

Sample: 359906 - BH-2 14-15'

Param	Flag	Result	Units	RL
Chloride		2180	mg/Kg	4

Sample: 359907 - BH-2 19-20'

Param	Flag	Result	Units	RL
Chloride		3100	mg/Kg	4

Sample: 359908 - BG-3 0-1'

Param	Flag	Result	Units	RL
Chloride		147	mg/Kg	4

Sample: 359909 - BG-3 2-3'

Param	Flag	Result	Units	RL
Chloride		147	mg/Kg	4

Sample: 359910 - BG-3 4-5'

Param	Flag	Result	Units	RL
Chloride		1240	mg/Kg	4

Sample: 359911 - BG-3 6-7'

Param	Flag	Result	Units	RL
Chloride		1010	mg/Kg	4

Sample: 359912 - BG-3 9-10'

Param	Flag	Result	Units	RL
Chloride		1450	mg/Kg	4

Sample: 359913 - BG-3 14-15'

Param	Flag	Result	Units	RL
Chloride		667	mg/Kg	4

Report Date: April 18, 2014

Work Order: 14040824

Page Number: 5 of 5

Sample: 359914 - BG-3 19-20'

Param	Flag	Result	Units	RL
Chloride		784	mg/Kg	4

Analysis Request of Chain of Custody Record

OF:

OF: 5

ANALYSIS REQUEST
(Circle or Specify Method)



TETRA TECH

**1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-4560**

(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: COG		PROJECT NAME: MYOX 32 Foe 2H		SITE MANAGER: 1ko Tavaroz		PRESERVATIVE METHOD	
PROJECT NO.:	TIME	DATE	LAB I.D. NUMBER	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS
112MCO6125	2014	4/7	39870	5	X	BH-1 0-1	
			8911			2-3	
			892			4-5	
			893			6-7	
			894			9-10	
			895			14-15	
			896			19-20	
			897			24-25	
			898			29-30	
			899			39-40	

RECEIVED BY: (Signature)	DATE:	TIME:	RECEIVED BY: (Signature)	DATE:	TIME:
[Signature]	4/14	10:30	[Signature]	4/14	10:30
RELINQUISHED BY: (Signature)	DATE:	TIME:	RELINQUISHED BY: (Signature)	DATE:	TIME:
[Signature]	4/14	10:30	[Signature]	4/14	10:30

RECEIVING LABORATORY:	STATE:	ZIP:	PHONE:	DATE:	TIME:
ADDRESS:					
CITY:					
CONTACT:					

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

Analysis Request of Chain of Custody Record

OF: 3

(Circle or Specify Method No.)



(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME:		PROJECT NAME:		SITE MANAGER:		PRESERVATIVE METHOD	
C06		112.MC010125		116 TAVAREZ		HCL	
PROJECT NO.:		DATE		TIME		HNO3	
112.MC010125		2014				ICE	
LAB I.D. NUMBER		TIME		MATRIX		COMB	
900		4/7		S		X	
901				1		X	
902				1		X	
903				1		X	
904				1		X	
905				1		X	
906				1		X	
907				1		X	
908				1		X	
909				1		X	
900		4/7		S		X	
901				1		X	
902				1		X	
903				1		X	
904				1		X	
905				1		X	
906				1		X	
907				1		X	
908				1		X	
909				1		X	

RECEIVED BY: (Signature) _____

RECEIVED BY: (Signature) _____

RECEIVED BY: (Signature) _____

RECEIVED BY: (Signature) _____

DATE: 4/8/14

DATE: 4/8/14

DATE: 4/8/14

DATE: 4/8/14

RECEIVING LABORATORY: _____

CITY: _____

STATE: _____

ZIP: _____

PHONE: _____

DATE: _____

SAMPLE CONDITION WHEN RECEIVED: _____

REMARKS: _____

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 Tavaréz
Tetra Tech
1901 N. Big Spring St.
Midland, TX 79705

Report Date: April 11, 2014

Work Order: 14041035



Project Location: Eddy Co, NM
Project Name: COG/Myox 32 Fee 2H
Project Number: 112MC06125

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
360137	BH-2 24-25'	soil	2014-04-07	00:00	2014-04-10
360138	BH-2 29-30'	soil	2014-04-07	00:00	2014-04-10
360139	BH-2 39-40'	soil	2014-04-07	00:00	2014-04-10

Sample: 360137 - BH-2 24-25'

Param	Flag	Result	Units	RL
Chloride		2640	mg/Kg	4

Sample: 360138 - BH-2 29-30'

Param	Flag	Result	Units	RL
Chloride		1700	mg/Kg	4

Sample: 360139 - BH-2 39-40'

Param	Flag	Result	Units	RL
Chloride		1680	mg/Kg	4

Analysis Request of Chain of Custody Record

OF:

—

ANALYSIS REQUEST

(Circle or Specify Method No.)



TETRA TECH

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

[illegible]

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

REMARKS: *Mullin's* *215*

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