CONCHO

November 9, 2018

Maria Pruett
Oil Conservation Division, District 2
811 S First St.
Artesia, NM 88210

Shelly Tucker
Bureau of Land Management
620 E. Green St.
Carlsbad, NM 88220

Re: Work Plan
Cottonwood 36 State SWD #1 (5/15/18)
API #: 30-015-29560
RP#: 2RP-4213
GPS: 32.0844536 -104.2486954
Unit Letter K, Section 36, Township 25 South, Range 26 East
Eddy County, New Mexico

Ms. Pruitt and Ms. Tucker,

COG Operating, LLC (COG) is pleased to submit the following work plan in response to a release that occurred at the Cottonwood 36 State SWD #1 located in Unit Letter K, Section 36 Township 25 South and Range 26 East in Eddy County, New Mexico.

BACKGROUND

The release was discovered on May 5, January 7, 2018 and a C-141 initial report was submitted and approved by the New Mexico Oil Conservation Division (NMOCD). The initial C-141 is shown in Appendix A. The release occurred when the hose disconnected during the unloading of fluids into the SWD. Approximately one tenth (0.1) barrels of oil and seven (7) barrels of produced water were released and recovered six (6) barrels of produced water were recovered. All of the fluids remained on the pad.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the New Mexico Office of the State Engineer (NMOSE), a water well was reported in Section 22 with a depth of 118 feet below surface. In addition, the USGS showed a depth to water <50 feet below surface. In addition, the Chevron Trend Map show depth to groundwater in the area <50 feet below surface for the area. The water well information is shown in Appendix B.

A risk based evaluation and site determinations were performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization evaluation,

the area is high karst and no other receptors (water wells, playas, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
High Karst	<50 feet

Delineation and Closure Criteria:

Recommended Remedial Action Levels (RRALs)	
Chlorides	600 mg/kg
TPH (GRO and DRO and MRO)	100 mg/kg
TPH (GRO and DRO)	NA
Benzene	10 mg/kg
Total BTEX	50 mg/kg

PROPOSED WORK PLAN

- During the investigation, an existing liner was encountered at 3.0’ to 4.0’ below surface in the areas of AH-3 (T-3) and AH-4 (T-4).
- The areas of AH-1 (T-1) will be excavated to a depth of 0.5’ to 1.0’ below surface.
- The areas of AH-2 (T-2), AH-3 (T-3) and AH-4 (T-4) will be excavated to a depth of 3.0’ to 4.0’ below surface to remove all of the impacted material above the RALs.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with clean backfilled material.

SAMPLING PLAN

Once the excavation is complete, soil confirmation samples will be collected from the excavated areas. To collect representative samples, composite samples (5-point composite) will be collected every 200 square feet for the final confirmation sampling for the constituents of concern. Discrete soil samples will be collected from the excavation if any “hot spots” are encountered during the excavation.

REMEDIATION TIMEFRAME AND ESTIMATED VOLUME

The remediation will be performed 90 days after the work plan has been approved. Approximately 250 cubic yards of soil will be excavated and hauled offsite for proper disposal.

SITE RECLAMATION AND RESTORATION

All of the soil remained on the pad and no reclamation activities will be required at the site.

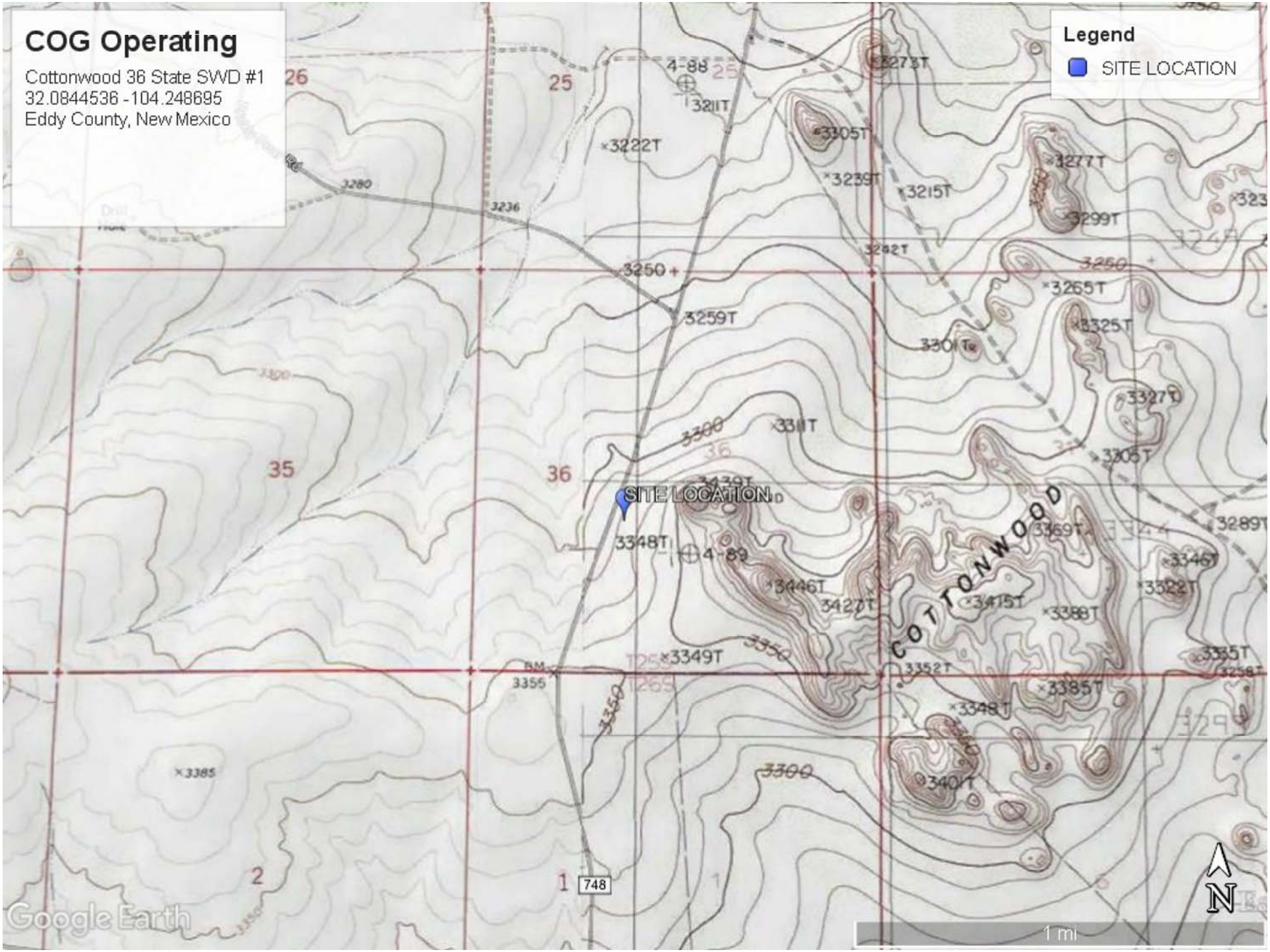
Should you have any questions or concerns on the proposed remediation activities, please do not hesitate to contact me.

Sincerely,
Concho Operating, LLC

Ike Tavarez, P. G.
Senior HSE Supervisor
itavarez@concho.com

cc: file

Figures



Tables

TABLE 1
Summary of Delineation Sampling Analytical Results
Cottonwood 36 State SWD #1
Eddy County, New Mexico

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	SOIL STATUS	8021B					8015M				300.0
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYLBENZENE (mg/Kg)	XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	ORO (mg/kg)	Total TPH (mg/Kg)	CHLORIDE (mg/Kg)
Groundwater Depth (ft)													
NMOCD RRAL				**10**	NA	NA	NA	**50**	NA	NA	NA		
AH-1	0'-0.5'	9/5/2017	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2,080**
AH-1	0.5'-1'	9/5/2017	In-Situ	-	-	-	-	-	-	-	-	-	530
T1 @ AH1	3'	10/10/2017	In-Situ	-	-	-	-	-	-	-	-	-	180
AH-2	0'-0.5'	9/5/2017	In-Situ	ND	ND	ND	ND	ND	ND	405	273	678	**3,720**
AH-2	0.5'-1'	9/5/2017	In-Situ	-	-	-	-	-	-	-	-	-	**2,950**
T2 @ AH2	2'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	**725**
T2 @ AH2	3'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	**729**
T2 @ AH2	4'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	146
AH-3	0'-0.5'	9/5/2017	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8,320**
AH-3	0.5'-1'	9/5/2017	In-Situ	-	-	-	-	-	-	-	-	-	**7,620**
T3 @ AH3	2'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	**2,481**
T3 @ AH3	3'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	**696**
T3 @ AH3	4'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	349
T3 @ AH3	5'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	143
AH-4	0'-0.5'	9/5/2017	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3,460**
AH-4	0.5'-1'	9/5/2017	In-Situ	-	-	-	-	-	-	-	-	-	**5,380**
T4 @ AH4	2'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	**1,373**
T4 @ AH4	3'	10/11/2017	In-Situ	-	-	-	-	-	-	-	-	-	143
Background	0'	10/11/2017	In-situ	-	-	-	-	-	-	-	-	-	<4.9213
Background	1'	10/11/2017	In-situ	-	-	-	-	-	-	-	-	-	<24.851
Background	2'	10/11/2017	In-situ	-	-	-	-	-	-	-	-	-	99
Background	3'	10/11/2017	In-situ	-	-	-	-	-	-	-	-	-	90
Background	4'	10/11/2017	In-situ	-	-	-	-	-	-	-	-	-	7,392

Proposed Excavation Depths

— = Not Analyzed

Concentrations in **BOLD** exceed the NMOCD Guidelines

In-situ = sample collected in place

- Existing Liner

ND - Non Detect

Appendix A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC OGRID # 229137	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-683-7443
Facility Name: Cottonwood 36 State SWD #1	Facility Type: SWD

Surface Owner: Federal	Mineral Owner: State	API No. 30-015-29560

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	36	25S	26E	1980	South	1980	West	Eddy

Latitude 32.0844536 **Longitude** -104.2486954

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 0.1 bbls Oil & 7 bbls PW	Volume Recovered: 6 bbls PW
Source of Release: Truck Unloading	Date and Hour of Occurrence: May 15, 2017 2:15 pm	Date and Hour of Discovery: May 15, 2017 2:15 pm
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
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.*

TCS truck driver's hose disconnected from PCC while unloading into SWD. TCS is remediating the site.

Describe Area Affected and Cleanup Action Taken.*

The release was on location. A vacuum truck was dispatched to remove all freestanding fluids. TCS Trucking is to remediate the site to NMOCD and BLM standards.

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: Rebecca Haskell

Printed Name: Rebecca Haskell

Title: Senior HSE Coordinator

E-mail Address: rhaskell@concho.com

Date: May 19, 2017 Phone: 432-683-7443

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: Expiration Date:

Conditions of Approval: Attached ☐

Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4213
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>≤50</u>(ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? 515	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

<u>Characterization Report Checklist</u>: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☐ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☐ Boring or excavation logs
☐ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4213
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Ike Tavarez Title: Senior HSE Supervisor

Signature: _____ Date: 11/4/18

email: itavarez@concho.com Telephone: 432-683-7443

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	2RP 4213
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Ike Tavarez Title: Senior HSE Supervisor

Signature: _____ Date: 11/8/18

email: itavarez@concho.com Telephone: 432-683-7443

OCD Only

Received by: _____ Date: _____

☐ Approved ☑ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Brittany Hall Date: 4/26/2023

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4213
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

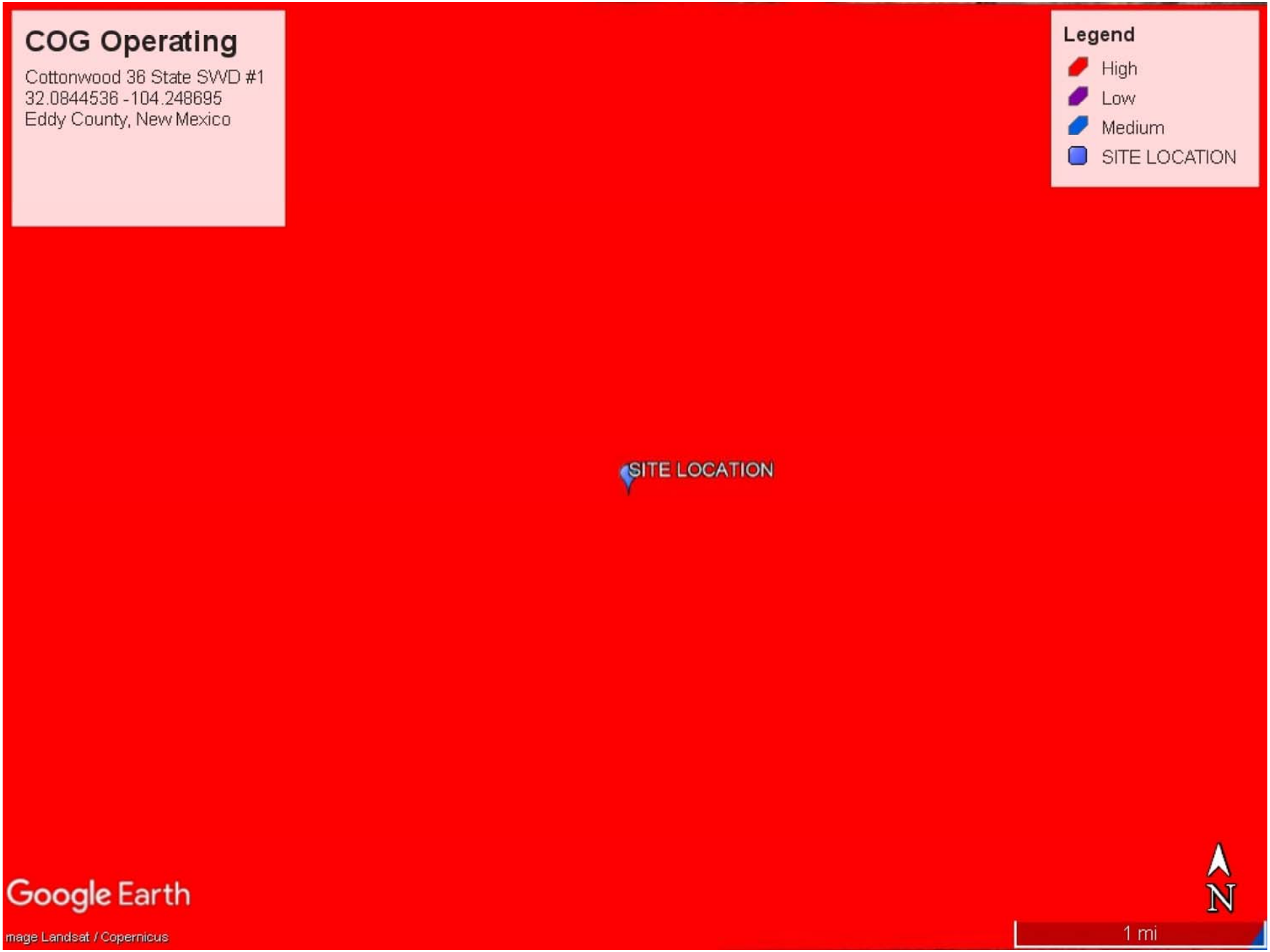
Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B



New Mexico NFHL Data

November 8, 2018

1:36,112

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

FEMA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

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This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

Click to hideNews Bulletins

- Please see news on new formats
- **UPDATE, 11/6: The USGS continues to make progress on restoring all of its gages. Less than 1 percent of USGS streamgages are still not transmitting due to an issue with the satellite telemetry system that records and transmits data. Once all operational gages are brought back online, the USGS will focus on restoring other equipment that experienced the telemetry issues, including about 85 rapid deployment gages that are used periodically for emergency response. Read more**
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =
- 320616104142801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

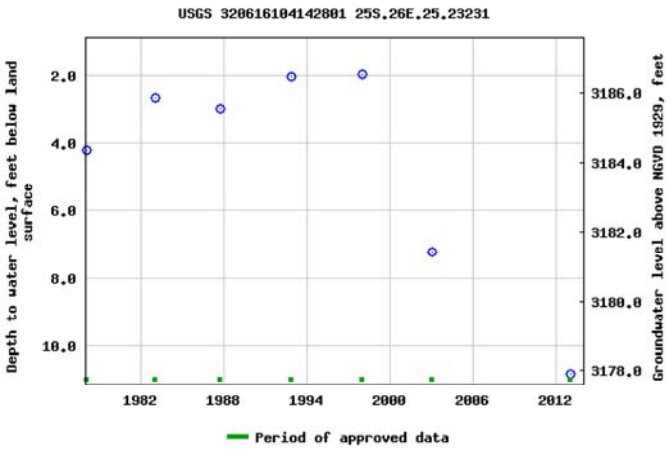
USGS 320616104142801 25S.26E.25.23231

Available data for this site: Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°06'12.6", Longitude 104°14'33.9" NAD83
Land-surface elevation 3,188.60 feet above NGVD29
This well is completed in the Castile Gypsum (312CSTL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y		Depth Well	Depth Water	Water Column
C 01013		C	ED			4	25	25S	26E	571505	3551456*		245		
C 01089		C	ED	3	4	1	03	25S	26E	567505	3558398*		96	45	51
C 01368		C	ED		1	1	22	25S	26E	567261	3554059*		143	118	25
C 02220		CUB	ED	3	1	2	26	25S	26E	569598	3552352*		35		
C 02221		CUB	ED	4	3	2	25	25S	26E	571412	3551961*		35		
C 02675		C	ED	1	4	1	09	25S	26E	565907	3556978*		180	45	135
C 03258		C	ED	1	1	4	07	25S	26E	563073	3556546*		360		
C 03285		C	ED	4	4	2	07	25S	26E	563713	3556658		84	60	24
C 03569 POD1		CUB	ED	2	1	1	14	25S	26E	568862	3555746		30	0	30
C 03654 POD1		CUB	ED	2	3	1	24	25S	26E	570654	3553773				
C 03654 POD2		CUB	ED	2	3	1	24	25S	26E	554766	3562304				
C 03655 POD1		CUB	ED			4	22	25S	26E	550692	3561324				
C 03655 POD2		CUB	ED			4	22	25S	26E	550732	3561337				
C 03655 POD3		CUB	ED	1	4	4	22	25S	26E	568458	3553019				
C 03655 POD4		CUB	ED			4	22	25S	26E	550684	3561362				
C 04036 POD1		C	ED	1	4	3	06	25S	26E	562745	3557733		160	125	35
C 04049 POD1		CUB	ED	3	2	3	06	25S	26E	562592	3557864		165	120	45
C 04050 POD1		CUB	ED	1	4	3	06	25S	26E	562695	3557776		165	125	40

Average Depth to Water: **79 feet**
Minimum Depth: **0 feet**
Maximum Depth: **125 feet**

Record Count: 18

PLSS Search:

Township: 25S **Range:** 26E

***UTM location was derived from PLSS - see Help**

Appendix C

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Thomas Franklin
American Safety Services, Inc
8715 Andrews Hwy
Odessa, TEXAS 79765

Project: COG-Cottonwood 36 State SWD #1
Project Number: Eddy Co NM
Location: Eddy CO NM

Lab Order Number: 7I06001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-16-7

Report Date: 09/11/17

American Safety Services, Inc
8715 Andrews Hwy
Odessa TEXAS, 79765

Project: COG-Cottonwood 36 State SWD #1
Project Number: Eddy Co NM
Project Manager: Thomas Franklin

Fax: (432) 363-0198

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH1 0.0-0.5	7I06001-01	Soil	09/05/17 09:30	09-06-2017 09:00
AH1 0.5-1.0	7I06001-02	Soil	09/05/17 09:32	09-06-2017 09:00
AH2 0.0-0.5	7I06001-03	Soil	09/05/17 09:37	09-06-2017 09:00
AH2 0.5-1.0	7I06001-04	Soil	09/05/17 09:39	09-06-2017 09:00
AH3 0.0-0.5	7I06001-05	Soil	09/05/17 09:44	09-06-2017 09:00
AH3 0.5-1.0	7I06001-06	Soil	09/05/17 09:46	09-06-2017 09:00
AH4 0.0-0.5	7I06001-07	Soil	09/05/17 09:51	09-06-2017 09:00
AH4 0.5-1.0	7I06001-08	Soil	09/05/17 09:53	09-06-2017 09:00

American Safety Services, Inc	Project: COG-Cottonwood 36 State SWD #1	Fax: (432) 363-0198
8715 Andrews Hwy	Project Number: Eddy Co NM	
Odessa TEXAS, 79765	Project Manager: Thomas Franklin	

AH1 0.0-0.5

7I06001-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00125	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Toluene	ND	0.00250	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Ethylbenzene	ND	0.00125	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (p/m)	ND	0.00250	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (o)	ND	0.00125	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*34.9 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*101 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2080**	31.2	mg/kg dry	25	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**20.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	31.2	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C12-C28	ND	31.2	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C28-C35	ND	31.2	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Surrogate: o-Terphenyl		*91.8 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	31.2	mg/kg dry	1	[CALC]	09/06/17	09/06/17	calc	

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AH1 0.5-1.0

7I06001-02 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**530**	1.20	mg/kg dry	1	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**17.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	

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AH2 0.0-0.5

7I06001-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Toluene	ND	0.00208	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*98.0 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*32.8 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3720**	26.0	mg/kg dry	25	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C12-C28	**405**	26.0	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C28-C35	**273**	26.0	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.9 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Surrogate: o-Terphenyl		*90.8 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**678**	26.0	mg/kg dry	1	[CALC]	09/06/17	09/06/17	calc	

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Odessa TEXAS, 79765	Project Manager: Thomas Franklin	

AH2 0.5-1.0

7I06001-04 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**2950**	59.5	mg/kg dry	50	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**16.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	

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AH3 0.0-0.5

7I06001-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Toluene	ND	0.00208	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*34.0 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**8320**	52.1	mg/kg dry	50	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.0 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.8 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	09/06/17	09/06/17	calc	

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AH3 0.5-1.0

7I06001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7620**	53.2	mg/kg dry	50	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	

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Odessa TEXAS, 79765	Project Manager: Thomas Franklin	

AH4 0.0-0.5

7I06001-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Toluene	ND	0.00213	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P7I0811	09/08/17	09/08/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*41.0 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*100 %*	*75-125*		*P7I0811*	*09/08/17*	*09/08/17*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3460**	26.6	mg/kg dry	25	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P7I0609	09/06/17	09/06/17	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.6 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.5 %*	*70-130*		*P7I0609*	*09/06/17*	*09/06/17*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	09/06/17	09/06/17	calc	

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Odessa TEXAS, 79765	Project Manager: Thomas Franklin	

AH4 0.5-1.0

7I06001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**5380**	52.6	mg/kg dry	50	P7I0612	09/06/17	09/07/17	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P7I0614	09/06/17	09/07/17	ASTM D2216	

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Odessa TEXAS, 79765	Project Manager: Thomas Franklin	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7I0811 - General Preparation (GC)										
Blank (P7I0811-BLK1)				Prepared & Analyzed: 09/08/17						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.0652*		"	*0.0600*		*109*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0221*		"	*0.0600*		*36.9*	*75-125*			*S-GC*
LCS (P7I0811-BS1)				Prepared & Analyzed: 09/08/17						
Benzene	0.110	0.00100	mg/kg wet	0.100		110	70-130			
Toluene	0.120	0.00200	"	0.100		120	70-130			
Ethylbenzene	0.107	0.00100	"	0.100		107	70-130			
Xylene (p/m)	0.189	0.00200	"				70-130			
Xylene (o)	0.0812	0.00100	"				70-130			
Surrogate: 4-Bromofluorobenzene	*0.0180*		"	*0.0600*		*30.0*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0654*		"	*0.0600*		*109*	*75-125*			
LCS Dup (P7I0811-BSD1)				Prepared & Analyzed: 09/08/17						
Benzene	0.118	0.00100	mg/kg wet	0.100		118	70-130	7.35	20	
Toluene	0.118	0.00200	"	0.100		118	70-130	1.13	20	
Ethylbenzene	0.108	0.00100	"	0.100		108	70-130	0.456	20	
Xylene (p/m)	0.185	0.00200	"				70-130		20	
Xylene (o)	0.0792	0.00100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0687*		"	*0.0600*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0171*		"	*0.0600*		*28.4*	*75-125*			*S-GC*
Matrix Spike (P7I0811-MS1)	**Source: 7I06001-09**			Prepared & Analyzed: 09/08/17						
Benzene	0.111	0.00109	mg/kg dry	0.109	ND	102	80-120			
Toluene	0.115	0.00217	"	0.109	ND	105	80-120			
Ethylbenzene	0.104	0.00109	"	0.109	ND	95.4	80-120			
Xylene (p/m)	0.179	0.00217	"		ND		80-120			
Xylene (o)	0.0806	0.00109	"		ND		80-120			
Surrogate: 1,4-Difluorobenzene	*0.0794*		"	*0.0652*		*122*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0252*		"	*0.0652*		*38.7*	*75-125*			*S-GC*

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Odessa TEXAS, 79765	Project Manager: Thomas Franklin	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7I0811 - General Preparation (GC)										
Matrix Spike Dup (P7I0811-MSD1)		**Source: 7I06001-09**		Prepared & Analyzed: 09/08/17						
Benzene	0.130	0.00109	mg/kg dry	0.109	ND	120	80-120	16.3	20	
Toluene	0.129	0.00217	"	0.109	ND	119	80-120	12.0	20	
Ethylbenzene	0.111	0.00109	"	0.109	ND	102	80-120	6.81	20	
Xylene (p/m)	0.193	0.00217	"		ND		80-120		20	
Xylene (o)	0.0857	0.00109	"		ND		80-120		20	
Surrogate: 4-Bromofluorobenzene	*0.0249*		*"*	*0.0870*		*28.7*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0846*		*"*	*0.0870*		*97.2*	*75-125*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7I0612 - * DEFAULT PREP *** **										
Blank (P7I0612-BLK1)				Prepared: 09/06/17 Analyzed: 09/07/17						
Chloride	ND	1.00	mg/kg wet							
LCS (P7I0612-BS1)				Prepared: 09/06/17 Analyzed: 09/07/17						
Chloride	437	1.00	mg/kg wet	400		109	80-120			
LCS Dup (P7I0612-BSD1)				Prepared: 09/06/17 Analyzed: 09/07/17						
Chloride	445	1.00	mg/kg wet	400		111	80-120	1.75	20	
Duplicate (P7I0612-DUP1)		**Source: 7I06001-01**		Prepared: 09/06/17 Analyzed: 09/07/17						
Chloride	2110	31.2	mg/kg dry		2080			1.45	20	
Duplicate (P7I0612-DUP2)		**Source: 7I06002-01**		Prepared: 09/06/17 Analyzed: 09/07/17						
Chloride	133	1.11	mg/kg dry		136			1.54	20	
Matrix Spike (P7I0612-MS1)		**Source: 7I06001-01**		Prepared: 09/06/17 Analyzed: 09/07/17						
Chloride	4760	31.2	mg/kg dry	2500	2080	107	80-120			
Batch P7I0614 - * DEFAULT PREP *** **										
Blank (P7I0614-BLK1)				Prepared: 09/06/17 Analyzed: 09/07/17						
% Moisture	ND	0.1	%							
Duplicate (P7I0614-DUP1)		**Source: 7I05001-27**		Prepared: 09/06/17 Analyzed: 09/07/17						
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P7I0614-DUP2)		**Source: 7I05008-01**		Prepared: 09/06/17 Analyzed: 09/07/17						
% Moisture	13.0	0.1	%		12.0			8.00	20	

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7I0614 - * DEFAULT PREP *** **										
Duplicate (P7I0614-DUP3)	**Source: 7I06006-08**			Prepared: 09/06/17 Analyzed: 09/07/17						
% Moisture	9.0	0.1	%		9.0			0.00	20	

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7I0609 - General Preparation (GC)										
Blank (P7I0609-BLK1)				Prepared & Analyzed: 09/06/17						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*118*		*"*	*100*		*118*	*70-130*			
Surrogate: o-Terphenyl	*54.6*		*"*	*50.0*		*109*	*70-130*			
LCS (P7I0609-BS1)				Prepared & Analyzed: 09/06/17						
C6-C12	838	25.0	mg/kg wet	1000		83.8	75-125			
>C12-C28	951	25.0	"	1000		95.1	75-125			
Surrogate: 1-Chlorooctane	*128*		*"*	*100*		*128*	*70-130*			
Surrogate: o-Terphenyl	*52.0*		*"*	*50.0*		*104*	*70-130*			
LCS Dup (P7I0609-BSD1)				Prepared & Analyzed: 09/06/17						
C6-C12	759	25.0	mg/kg wet	1000		75.9	75-125	9.90	20	
>C12-C28	986	25.0	"	1000		98.6	75-125	3.56	20	
Surrogate: 1-Chlorooctane	*132*		*"*	*100*		*132*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*48.3*		*"*	*50.0*		*96.7*	*70-130*			
Matrix Spike (P7I0609-MS1)	**Source: 7I06006-01**			Prepared: 09/06/17 Analyzed: 09/07/17						
C6-C12	832	27.5	mg/kg dry	1100	18.4	74.1	75-125			QM-07
>C12-C28	1020	27.5	"	1100	16.7	91.4	75-125			
Surrogate: 1-Chlorooctane	*140*		*"*	*110*		*127*	*70-130*			
Surrogate: o-Terphenyl	*57.3*		*"*	*54.9*		*104*	*70-130*			
Matrix Spike Dup (P7I0609-MSD1)	**Source: 7I06006-01**			Prepared: 09/06/17 Analyzed: 09/07/17						
C6-C12	941	27.5	mg/kg dry	1100	18.4	83.9	75-125	12.5	20	
>C12-C28	1020	27.5	"	1100	16.7	91.5	75-125	0.131	20	
Surrogate: 1-Chlorooctane	*149*		*"*	*110*		*136*	*70-130*			*S-GC*
Surrogate: o-Terphenyl	*62.0*		*"*	*54.9*		*113*	*70-130*			

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Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 9/11/2017

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

PS Lot 1

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-686-7235

Project Manager: Thomas Franklin

Company Name: American Safety Services Inc.

Company Address: 8715 Andrews Hwy.

City/State/Zip: Odessa, TX 79765

Telephone No: 432-557-9868/432-552-7625 Fax No:

Sampler Signature:

e-mail: tfranklin@americansafety.net; jzimmerman@americansafety.net

Project Name: COG - Cottonwood 36 State SWD #1

Project #: Eddy Co NM

Project Loc: Eddy Co. NM

PO #:

Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only) ORDER #: 7I06001

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: 8015B (TPH) 418.1 (8015M)	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B 5030 or BTEX 8260	RCI	N.O.R.M.	Chloride Hold		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	AH 1	0.0	0.5	9/5/17	0930	N	1	X								Sludge	X													
2	↓	0.5	1.0	9/5/17	0932			X																			X			
3	AH 2	0.0	0.5	9/5/17	0937			X									X								X		X			
4	↓	0.5	1.0	9/5/17	0939			X																			X			
5	AH 3	0.0	0.5	9/5/17	0944			X									X								X		X			
6	↓	0.5	1.0	9/5/17	0946			X																			X			
7	AH 4	0.0	0.5	9/5/17	0951			X									X								X		X			
8	↓	0.5	1.0	9/5/17	0953			X																			X			
9	AH 5	0.0	0.5	9/5/17	0958			X																			X			
10	AH 6	0.0	0.5	9/5/17	1003			X																			X			

Special Instructions:

If TPH exceeds 5,000 mg/kg or if Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg run dry per samples

Relinquished by:	Date	Time	Received by:	Date	Time
	9/6/17	0900			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	9-6-17	900

Laboratory Comments:

Sample Containers Intact?	Y N
VOCs Free of Headspace?	Y N
Labels on container(s)	Y N
Custody seals on container(s)	Y N
Custody seals on cooler(s)	Y N
Sample Hand Delivered	Y N
by Sampler/Client Rep. ?	Y N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: °C
Adjusted: 3.0 °C Factor ACF-1

Certificate of Analysis Summary 565363

American Safety Services, Odessa, TX

Project Name: Cottonwood 36 State SWD 001

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Date Received in Lab: Thu Oct-12-17 08:37 am

Report Date: 17-OCT-17

Project Manager: Brandi Ritcherson

Analysis Requested													
	Lab Id:	565363-001		565363-007		565363-008		565363-009		565363-013		565363-014	
	Field Id:	T1@AH1		T2@AH2		T2@AH2		T2@AH2		T3@AH3		T3@AH3	
	Depth:	3- ft		2- ft		3- ft		4- ft		2- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-10-17 12:30		Oct-11-17 11:30		Oct-11-17 11:32		Oct-11-17 11:34		Oct-11-17 11:45		Oct-11-17 11:47	
Chloride by EPA 300	***Extracted:***	Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25	
	Analyzed:	Oct-13-17 11:34		Oct-13-17 11:57		Oct-13-17 12:05		Oct-13-17 12:13		Oct-13-17 12:20		Oct-13-17 12:28	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		179.52	49.900	725.18	49.505	728.76	49.900	145.69	24.655	2480.6	50.000	695.50	49.603

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

Brandi Ritcherson
Project Manager

Final 1.000

Certificate of Analysis Summary 565363

American Safety Services, Odessa, TX

Project Name: Cottonwood 36 State SWD 001

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Date Received in Lab: Thu Oct-12-17 08:37 am

Report Date: 17-OCT-17

Project Manager: Brandi Ritcherson

Analysis Requested													
	Lab Id:	565363-015		565363-016		565363-018		565363-019		565363-020		565363-021	
	Field Id:	T3@AH3		T3@AH3		T4@AH4		T4@AH4		Background		Background	
	Depth:	4- ft		5- ft		2- ft		3- ft		0- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-11-17 11:49		Oct-11-17 11:51		Oct-11-17 11:58		Oct-11-17 12:00		Oct-11-17 12:09		Oct-11-17 12:07	
Chloride by EPA 300	***Extracted:***	Oct-16-17 14:05		Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25	
	Analyzed:	Oct-16-17 16:02		Oct-13-17 12:36		Oct-13-17 12:43		Oct-13-17 13:06		Oct-16-17 14:53		Oct-13-17 13:45	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		348.86	44.723	142.79	49.603	1373.3	24.802	1448.1	49.603	<4.9213	4.9213	<24.851	24.851

Brandi Ritcherson
Project Manager

Certificate of Analysis Summary 565363

American Safety Services, Odessa, TX

Project Name: Cottonwood 36 State SWD 001

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Date Received in Lab: Thu Oct-12-17 08:37 am

Report Date: 17-OCT-17

Project Manager: Brandi Ritcherson

Analysis Requested											
	Lab Id:	565363-022		565363-023		565363-024					
	Field Id:	Background		Background		Background					
	Depth:	2- ft		3- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Oct-11-17 12:09		Oct-11-17 12:11		Oct-11-17 12:13					
Chloride by EPA 300	***Extracted:***	Oct-13-17 10:25		Oct-13-17 10:25		Oct-13-17 10:25					
	Analyzed:	Oct-13-17 13:52		Oct-13-17 14:00		Oct-13-17 14:08					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		98.840	25.000	89.792	49.505	7391.8	100.00				

Brandi Ritcherson
Project Manager

Analytical Report 565363

for

American Safety Services

Project Manager: Thomas Franklin

Cottonwood 36 State SWD 001

17-OCT-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

17-OCT-17

Project Manager: **Thomas Franklin**
American Safety Services
8715 Andrews Hwy
Odessa, TX 79765

Reference: XENCO Report No(s): **565363**
Cottonwood 36 State SWD 001
Project Address: Eddy Co.NM

Thomas Franklin:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 565363. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 565363 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brandi Ritcherson
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T1@AH1	S	10-10-17 12:30	3 ft	565363-001
T2@AH2	S	10-11-17 11:30	2 ft	565363-007
T2@AH2	S	10-11-17 11:32	3 ft	565363-008
T2@AH2	S	10-11-17 11:34	4 ft	565363-009
T3@AH3	S	10-11-17 11:45	2 ft	565363-013
T3@AH3	S	10-11-17 11:47	3 ft	565363-014
T3@AH3	S	10-11-17 11:49	4 ft	565363-015
T3@AH3	S	10-11-17 11:51	5 ft	565363-016
T4@AH4	S	10-11-17 11:58	2 ft	565363-018
T4@AH4	S	10-11-17 12:00	3 ft	565363-019
Background	S	10-11-17 12:09	0 ft	565363-020
Background	S	10-11-17 12:07	1 ft	565363-021
Background	S	10-11-17 12:09	2 ft	565363-022
Background	S	10-11-17 12:11	3 ft	565363-023
Background	S	10-11-17 12:13	4 ft	565363-024
T1@AH1	S	10-10-17 12:32	4 ft	Not Analyzed
T1@AH1	S	10-10-17 12:34	5 ft	Not Analyzed
T1@AH1	S	10-10-17 12:36	6 ft	Not Analyzed
T1@AH1	S	10-10-17 12:38	7 ft	Not Analyzed
T1@AH1	S	10-10-17 12:40	7.5 ft	Not Analyzed
T2@AH2	S	10-11-17 11:36	5 ft	Not Analyzed
T2@AH2	S	10-11-17 11:38	6 ft	Not Analyzed
T2@AH2	S	10-11-17 11:40	6.5 ft	Not Analyzed
T3@AH3	S	10-11-17 11:53	6 ft	Not Analyzed
Background	S	10-11-17 12:15	5 ft	Not Analyzed
Background	S	10-11-17 12:17	6 ft	Not Analyzed
Background	S	10-11-17 12:19	7 ft	Not Analyzed

CASE NARRATIVE

Client Name: American Safety Services

Project Name: Cottonwood 36 State SWD 001

Project ID:
Work Order Number(s): *565363*

Report Date: *17-OCT-17*
Date Received: *10/12/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T1@AH1**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-001	Date Collected:	10.10.17 12.30	Sample Depth:	3 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**179.52**	49.900	mg/L	10.13.17 11.34		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T2@AH2**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-007	Date Collected:	10.11.17 11.30	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**725.18**	49.505	mg/L	10.13.17 11.57		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T2@AH2**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-008	Date Collected:	10.11.17 11.32	Sample Depth:	3 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**728.76**	49.900	mg/L	10.13.17 12.05		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T2@AH2**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-009	Date Collected:	10.11.17 11.34	Sample Depth:	4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**145.69**	24.655	mg/L	10.13.17 12.13		5

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T3@AH3**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-013	Date Collected:	10.11.17 11.45	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2480.6**	50.000	mg/L	10.13.17 12.20		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T3@AH3**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-014	Date Collected:	10.11.17 11.47	Sample Depth:	3 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**695.50**	49.603	mg/L	10.13.17 12.28		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T3@AH3**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-015	Date Collected:	10.11.17 11.49	Sample Depth:	4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.16.17 14.05	Basis:	Wet Weight
Seq Number:	3030646				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**348.86**	44.723	mg/L	10.16.17 16.02		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T3@AH3**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-016	Date Collected:	10.11.17 11.51	Sample Depth:	5 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**142.79**	49.603	mg/L	10.13.17 12.36		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T4@AH4**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-018	Date Collected:	10.11.17 11.58	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1373.3**	24.802	mg/L	10.13.17 12.43		5

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**T4@AH4**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-019	Date Collected:	10.11.17 12.00	Sample Depth:	3 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1448.1**	49.603	mg/L	10.13.17 13.06		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**Background**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-020	Date Collected:	10.11.17 12.09	Sample Depth:	0 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.9213	4.9213	mg/L	10.16.17 14.53	U	1

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**Background**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-021	Date Collected:	10.11.17 12.07	Sample Depth:	1 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<24.851	24.851	mg/L	10.13.17 13.45	U	5

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**Background**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-022	Date Collected:	10.11.17 12.09	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**98.840**	25.000	mg/L	10.13.17 13.52		5

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**Background**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-023	Date Collected:	10.11.17 12.11	Sample Depth:	3 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.792**	49.505	mg/L	10.13.17 14.00		10

Certificate of Analytical Results 565363

American Safety Services, Odessa, TX

Cottonwood 36 State SWD 001

Sample Id:	**Background**	Matrix:	Soil	Date Received:	10.12.17 08.37
Lab Sample Id:	565363-024	Date Collected:	10.11.17 12.13	Sample Depth:	4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.13.17 10.25	Basis:	Wet Weight
Seq Number:	3030481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7391.8**	100.00	mg/L	10.13.17 14.08		20

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 565363

American Safety Services

Cottonwood 36 State SWD 001

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3030481 — Matrix: Solid — Date Prep: 10.13.17
MB Sample Id: 7632577-1-BLK — LCS Sample Id: 7632577-1-BKS — LCSD Sample Id: 7632577-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.0000	250.00	245.10	98	245.08	98	90-110	0	20	mg/L	10.13.17 09:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3030646 — Matrix: Solid — Date Prep: 10.16.17
MB Sample Id: 7632697-1-BLK — LCS Sample Id: 7632697-1-BKS — LCSD Sample Id: 7632697-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.0000	250.00	243.98	98	241.74	97	90-110	1	20	mg/L	10.16.17 15:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3030481 — Matrix: Soil — Date Prep: 10.13.17
Parent Sample Id: 565363-001 — MS Sample Id: 565363-001 S — MSD Sample Id: 565363-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	179.52	249.50	435.28	103	433.03	102	90-110	1	20	mg/L	10.13.17 11:42	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3030481 — Matrix: Soil — Date Prep: 10.13.17
Parent Sample Id: 565441-001 — MS Sample Id: 565441-001 S — MSD Sample Id: 565441-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	134.06	247.00	373.74	97	372.09	96	90-110	0	20	mg/L	10.13.17 13:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3030646 — Matrix: Soil — Date Prep: 10.16.17
Parent Sample Id: 565529-001 — MS Sample Id: 565529-001 S — MSD Sample Id: 565529-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	328.71	248.00	2819.8	1004	2769.6	984	90-110	2	20	mg/L	10.16.17 17:34	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3030646 — Matrix: Soil — Date Prep: 10.16.17
Parent Sample Id: 565546-007 — MS Sample Id: 565546-007 S — MSD Sample Id: 565546-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	746.20	246.00	923.94	72	926.30	73	90-110	0	20	mg/L	10.16.17 15:47	X

CHAIN OF CUSTODY

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Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #
Xenco Job # 565303

Client / Reporting Information

Company Name / Branch: American Safety Services Inc.
Company Address: 8715 Andrews Hwy, Odessa Tx 79765
Email: tfranklin@americansafety.net, jzimmerman@americansafety.net
Phone No: 432-557-9868
Project Contact: Thomas Franklin
Samplers's Name Mike Dill

Project Information

Project Name/Number: Cottonwood 36 State SWD 001
Project Location: EDDY Co. NM
Invoice To: COG
PO Number:

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride	Hold	Field Comments
1	T1@AH1	3'	10/10/17	1230	S	1									X		
2		4'	10/10/17	1232	S	1										X	
3		5'	10/10/17	1234	S	1										X	
4		6'	10/10/17	1236	S	1										X	
5		7'	10/10/17	1238	S	1										X	
6		7.5'	10/10/17	1240	S	1										X	
7	T2@AH2	2'	10/11/17	1130	S	1									X		
8		3'	10/11/17	1132	S	1									X		
9		4'	10/11/17	1134	S	1									X		
10		5'	10/11/17	1136	S	1										X	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [X] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Temp: 2.0 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.8

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Mike Dill	0830 10/12/17	Shannell Smith	2		2
3	Relinquished by:	Date Time:	Received By: 10.12.17 8:37	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X — Cooler Temp. — Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

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www.xenco.com

Xenco Quote #
Xenco Job # 565363

Client / Reporting Information

Company Name / Branch: American Safety Services Inc.
Company Address: 8715 Andrews Hwy, Odessa Tx 79765
Email: tfranklin@americansafety.net, jzimmerman@americansafety.net
Phone No: 432-557-9868
Project Contact: Thomas Franklin
Samplers's Name Mike D.

Project Information

Project Name/Number: Cottonwood 36 State SWD 001
Project Location: Eddy Co. NM
Invoice To: COG
PO Number:

Analytical Information

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W = Water
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GW =Ground Water
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P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
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No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride	Hold	Field Comments
1	T2@AH2	6'	10/11/17	1138	S	1										X	
2	"	6.5'	10/11/17	1140	S	1										X	
3	T3@AH3	2'	10/11/17	1145	S	1									X		
4		3'	10/11/17	1147	S	1									X		
5		4'	10/11/17	1149	S	1									X		
6		5'	10/11/17	1151	S	1									X		
7		6'	10/11/17	1153	S	1										X	
8	T4@AH-4	2'	10/11/17	1158	S	1									X		
9		3'	10/11/17	1200	S	1									X		
10	Background	0'	10/11/17	1205	S	1									X		

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	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Mike	0830 10/12/17		2		2
3	Relinquished by:	Date Time:	Received By: 10.12.17 8:37	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X — Cooler Temp. — Thermo. Corr. Factor

CHAIN OF CUSTODY

Page 3 Of 3

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www.xenco.com

Xenco Quote #
Xenco Job # 560536 3

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Company Address: 8715 Andrews Hwy, Odessa Tx 79765
Email: tfranklin@americansafety.net, jzimmerman@americansafety.net
Phone No: 432-557-9868
Project Contact: Thomas Franklin
Samplers's Name: Mike Rich

Project Information

Project Name/Number: Cotton Wood 36 State SWD 001
Project Location: Eddy Co. NM
Invoice To: COG
PO Number:

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1	Background	1'	10/11/17	1207	S	1									X		
2		2'	10/11/17	1209	S	1									X		
3		3'	10/11/17	1211	S	1									X		
4		4'	10/11/17	1213	S	1									X		
5		5'	10/11/17	1215	S	1										X	
6		6'	10/11/17	1217	S	1										X	
7		7'	10/11/17	1219	S	1										X	
8	NFE																
9																	
10																	

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1	Mike Rich	0630 10/12/17		2		2
3	Relinquished by:	Date Time:	Received By: 10.12.17 8:37	Relinquished By: 4	Date Time:	Received By: 4
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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: American Safety Services

Date/ Time Received: 10/12/2017 08:37:00 AM

Work Order #: 565363

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 10/12/2017
Shawnee Smith

Checklist reviewed by: Brandi Ritcherson Date: 10/13/2017
Brandi Ritcherson

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 206232

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 907 Tradewinds Blvd, Suite B Midland, TX 79706	OGRID: 371643
	Action Number: 206232
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation plan approved. The area must be horizontally delineated during remediation activites. Base and side wall samples must be representatvie of no more than 200 square feet. 2RP-4213 closed. Refer to incident #NAB1714231263 in all future correspondence. Submit a complete report through the OCD Permitting website by 7/26/2023.	4/26/2023