

Cimarex – Crawford 27 26 Fee 15H
Closure Report

February 2021
Page 1



CLOSURE REPORT

Property:

Cimarex Energy Company
Crawford 27 26 Fee 15H
Eddy County, New Mexico
Unit Letter "L", Section 27, Township 24 South, Range 26 East
Latitude 32.187833, Longitude -104.288333
nRM2033557420
February 2021

Prepared for:

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CLOSURE REPORT

**Cimarex Energy Company
Crawford 27 26 Fee 15H
Eddy County, New Mexico
Unit Letter “L”, Section 27, Township 24 South, Range 26 East
Latitude 32.187833, Longitude -104.288333
nRM2033557420**

February 2021

1.0 INTRODUCTION**1.1 Site Description & Background**

American Safety Services Inc. (ASSI) has prepared this Closure Report for the Cimarex Energy Company (i.e., Cimarex) at the Crawford 27 26 Fee 15H (referred to hereinafter as the “Site” or “subject Site”). This Closure Report is based upon data collected by ASSI during December 2020 and January 2021, and the interpretation of the analytical data.

The Site is located in Unit Letter “L”, Section 27, Township 24 South, Range 26 East, Eddy County, New Mexico (GPS 32.187833, -104.288333). Figures 1, 2, 3, 4, and 5 in Appendix A show the Site location.

Remedial action was conducted in accordance with the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), the New Mexico Oil Conservation Division (NMOCD), and rules under the New Mexico Administrative Code (NMAC) specifically *NMAC 19.15.29 Release Notification*.

1.2 Project Objective

The objective of the Closure Report is to present documentation of the remedial activities that were performed at the Site to the NMOCD.

1.3 Standard of Care

ASSI's services are performed in accordance with standards provided by a firm rendering the same or similar services in the area during the same time frame. ASSI makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, ASSI does not warranty the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services will be performed in accordance with the scope of work agreed to by the client.

1.4 Reliance

This report has been prepared for the exclusive use of Cimarex, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Cimarex and ASSI. Any unauthorized distribution or reuse is at the sole risk of Cimarex. Notwithstanding the

foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and ASSI's Agreement. The limitation of liability defined in the agreement is the aggregate limit of ASSI's liability to the client.

2.0 PROPOSED REMEDIAL ACTION GOALS

In accordance with the NMAC 19.15.29, ASSI utilized the general site characteristics to determine the appropriate "ranking" for the Site.

- The depth to the initial groundwater-bearing zone is less than twenty-five feet at the Site,
- The impacted area is more than 1,000 feet from a water source, and
- Distance to the nearest surface water body is greater than 1,000 feet.

Cleanup goals for soils remaining in place include: 10 milligrams per kilogram (mg/Kg) for Benzene, 50 mg/Kg for Total Benzene, Toluene, Ethylbenzene, and Xylene (BTEX), 100 mg/Kg for Total Petroleum Hydrocarbons (TPH), and 600 mg/Kg for Chloride.

Figure 6 in Appendix A shows the location of the Site in Lea Co, New Mexico and surrounding topography.

3.0 INITIAL RESPONSE & SAMPLING ACTIVITIES

3.1 Initial Response

On December 3, 2020, ASSI personnel performed a site inspection in response to a release of seventy-five (75) barrels (bbls) of produced water. The cause of the release was due to a failure of the secondary containment which caused the release to occur directly on to the ground. Seventy-four (74) bbls of produced water were recovered. ASSI determined the release footprint was approximately six thousand two-hundred (6200) square feet of production pad.

3.2 Soil Sampling Activities

Initial sampling activities were conducted on December 10th by ASSI personnel, using a stainless-steel hand auger. Twenty-nine (29) auger holes (i.e., Auger Hole 1 thru 25 and North Site, South Site, East Site, and West Site) were installed at various locations collecting material at discrete intervals from surface to one and-a-half (1.5) foot below ground surface (bgs). This action was done to determine the vertical and horizontal extent of the Chloride release. Figure 3 in Appendix A shows the twenty-nine (29) sample locations of which twenty-five are within the release footprint and four are outside the release footprint. During sample collection activities soil was field screened for Chloride utilizing an electro conductivity meter. Field screening results did not exceed the NMOCD clean-up goals for Chloride.

3.3 Soil Sampling Analytical Results

Seventy-nine (79) soil samples were collected during the December 10th sampling event from sample locations Auger Hole 1 thru Auger Hole 25. At each of these twenty-five (25) locations three (3) samples were collected from surface to a depth of one and one-half (1.5) bgs. Samples were collected at every half (0.5) foot interval. Four (4) samples were collected, one each from locations North Site, South Site, West Site and East Site from surface to one-half (0.5) foot bgs.

Collected samples were analyzed for Chloride. Table 1 in Appendix B presents those analytical results for Chloride. Analytical results were compared to *Table I of the NMAC 19.15.29.12* and show that Chloride concentrations exceed the NMOCD guidelines for clean-up goals at numerous sample locations and at various depths. Specifically, at a depth of one-half (0.5) foot bgs sample locations 1, 4, 6, 7, 13, 14, 17, 18, 20, and 21 show exceedances. Sample location 9 at a depth of one (1) foot bgs has elevated concentrations, and at a depth of one and one-half (1.5) feet bgs sample locations 2 and 10 have exceedances.

Furthermore, analytical results show that sample locations 3, 5, 8, 11, 12, 15, 16, 19, 22, 23, 24, and 25 as well as the four (4) sample locations outside the release footprint, Chloride concentrations are below the NMOCD guidelines for clean-up goals and therefore, achieve vertical delineation.

4.0 LABORATORY ANALYTICAL METHODS

The samples were analyzed for Chloride utilizing EPA method 300. Laboratory analysis is provided in Appendix D.

Soil was collected in laboratory prepared glassware, placed on ice, and packed in a cooler. The sample coolers and completed chain-of-custody forms were relinquished to Eurofins Xenco Laboratories in Midland, TX for a normal turn-around time on December 11, 2020 and January 12th, 14th, and 15, 2021.

5.0 Excavation

5.1 Excavation Activities

Excavation activities were conducted inside the release footprint by ASSI beginning January 11, 2021 and concluding on January 15th using mechanical (i.e., backhoe tractor) means. The excavation was conducted to establish excavation bottoms (EBs) at three (3) different depths (i.e., one-half foot, one and-a-half foot, and 2 feet) based on analytical results from the December 10, 2020 sampling event. Figure 4 in Appendix A show EB depths within the release footprint.

Sidewall (i.e., S Wall) sampling was conducted inside the release footprint on the exposed face of the excavation wall created during the EB excavation activities. Figure 5 in Appendix A show sidewall sample locations.

During excavation activities approximately three hundred sixty nine (369) cubic yards (yd³) of impacted material was removed from within the release footprint. The excavated impacted material was exported off the Site and transported to R360 under appropriate manifest for proper disposal.

5.1.1 Confirmation Soil Sampling Program

Confirmation sampling activities were conducted on January 12th and 14th by ASSI personnel, using a stainless-steel hand auger, utilizing a grid area comprised of thirty-one (31) individual 10' X 20" cells equaling 200 sq. ft. each. Thirty-one (31) auger holes were installed within the release footprint inside the individual cells. Material was collected at one half (0.5) foot intervals below the EB. Material collected was analyzed for Chloride, TPH, and BTEX.

Vertical delineation for Chloride, TPH, and BTEX was achieved at all thirty-one (31) EB confirmation sample (CS) locations. All collected samples were below the NMOCD clean-up goals for Chloride, TPH and BTEX. Table 2 in Appendix B presents analytical results.

Horizontal delineation was achieved for Chloride, TPH, and BTEX during sampling activities conducted between January 12th and 15th by ASSI. Thirty-one (31) soil samples were collected (S Wall 1 through S Wall 31). Material collected was analyzed for Chloride, TPH, and BTEX. All collected samples were below the NMOCD clean-up goals for Chloride, TPH and BTEX. Table 2 in Appendix B presents analytical results.

Figure 5 in Appendix A show sample locations inside the release footprint during sampling activities conducted between January 12th and 15th. Soil was field screened for Chloride utilizing an electro conductivity meter during sample collection activities. Field screening results did not exceed the NMOCD clean-up goals for Chloride.

6.0 Closure Request

Based upon the data collected and the Site work completed by ASSI, the constituents of concern (COCs) has been both vertically and horizontally delineated. Impacted material was removed from the excavated areas, exported offsite to a suitable disposal under appropriate manifest.

Based on the success of the response actions which are affirmed by laboratory analytical results, no additional remediation appears necessary at this time. Copies of the Initial and Final C-141 are provided in Appendix E.

ASSI, on behalf of Cimarex Energy Company (i.e., Cimarex), respectfully requests closure of the Site.



APPENDIX A

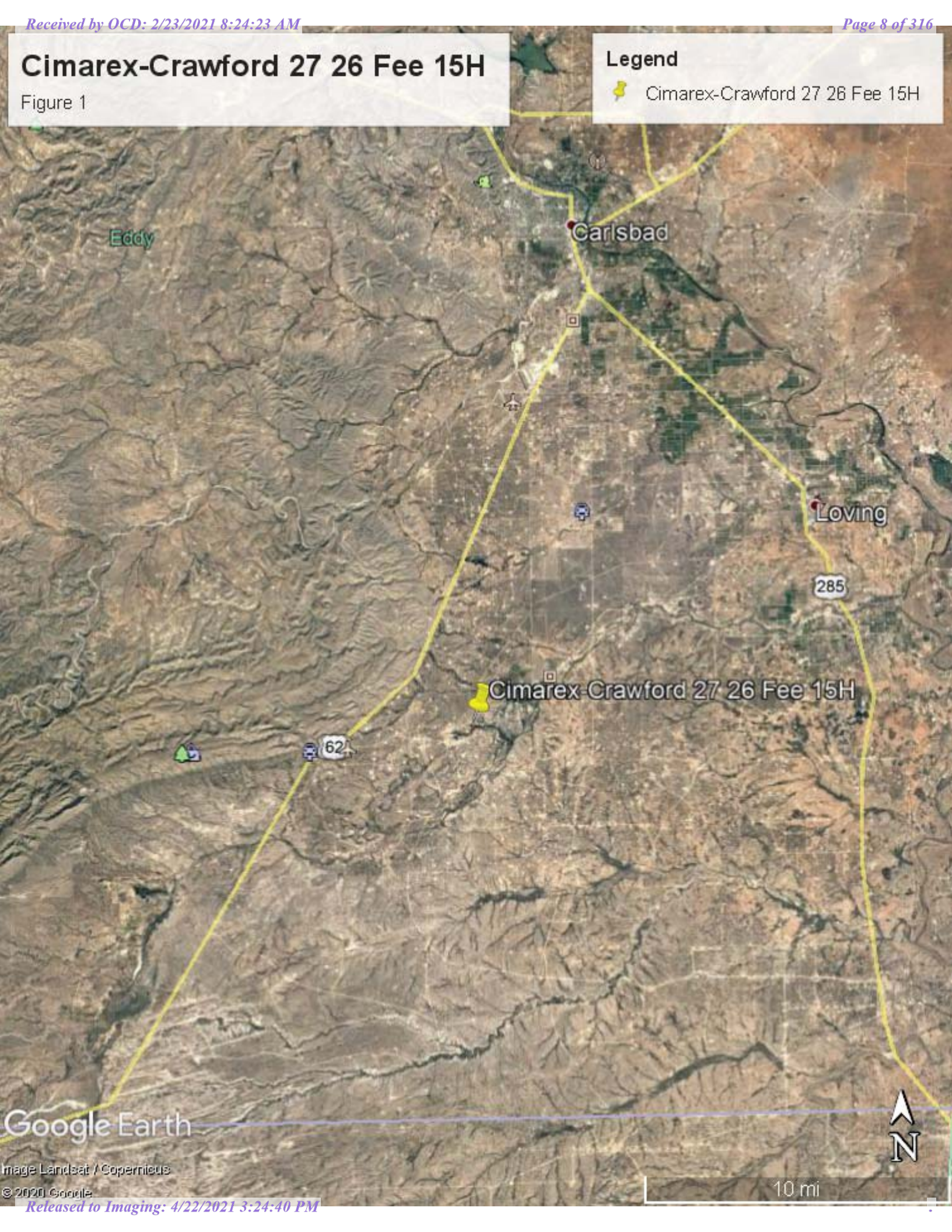
Figures

Cimarex-Crawford 27 26 Fee 15H

Figure 1

Legend

 Cimarex-Crawford 27 26 Fee 15H



Google Earth

Image Landsat / Copernicus

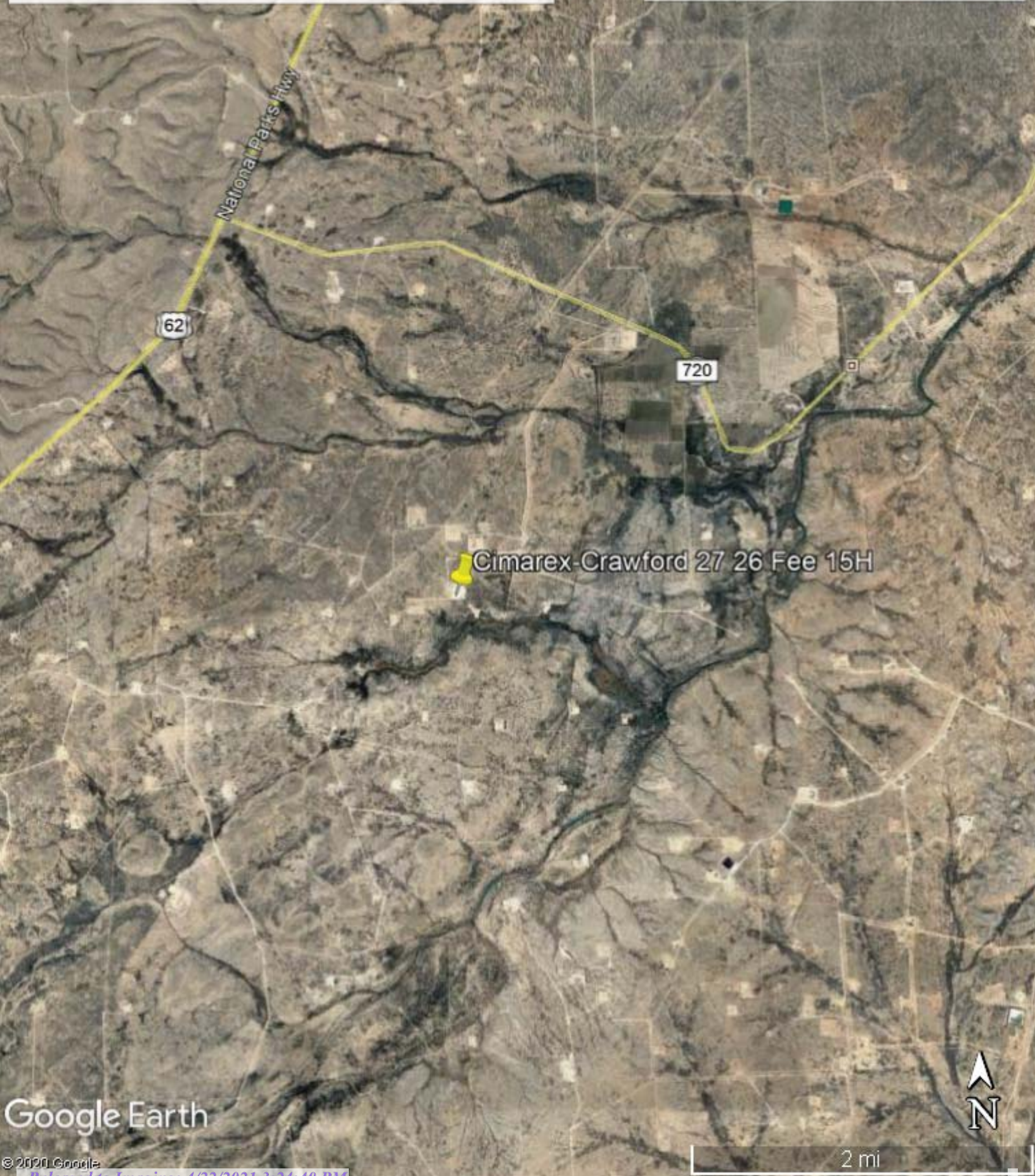
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Cimarex-Crawford 27 26 Fee 15H

Figure 2

Legend

 Cimarex-Crawford 27 26 Fee 15H



Google Earth

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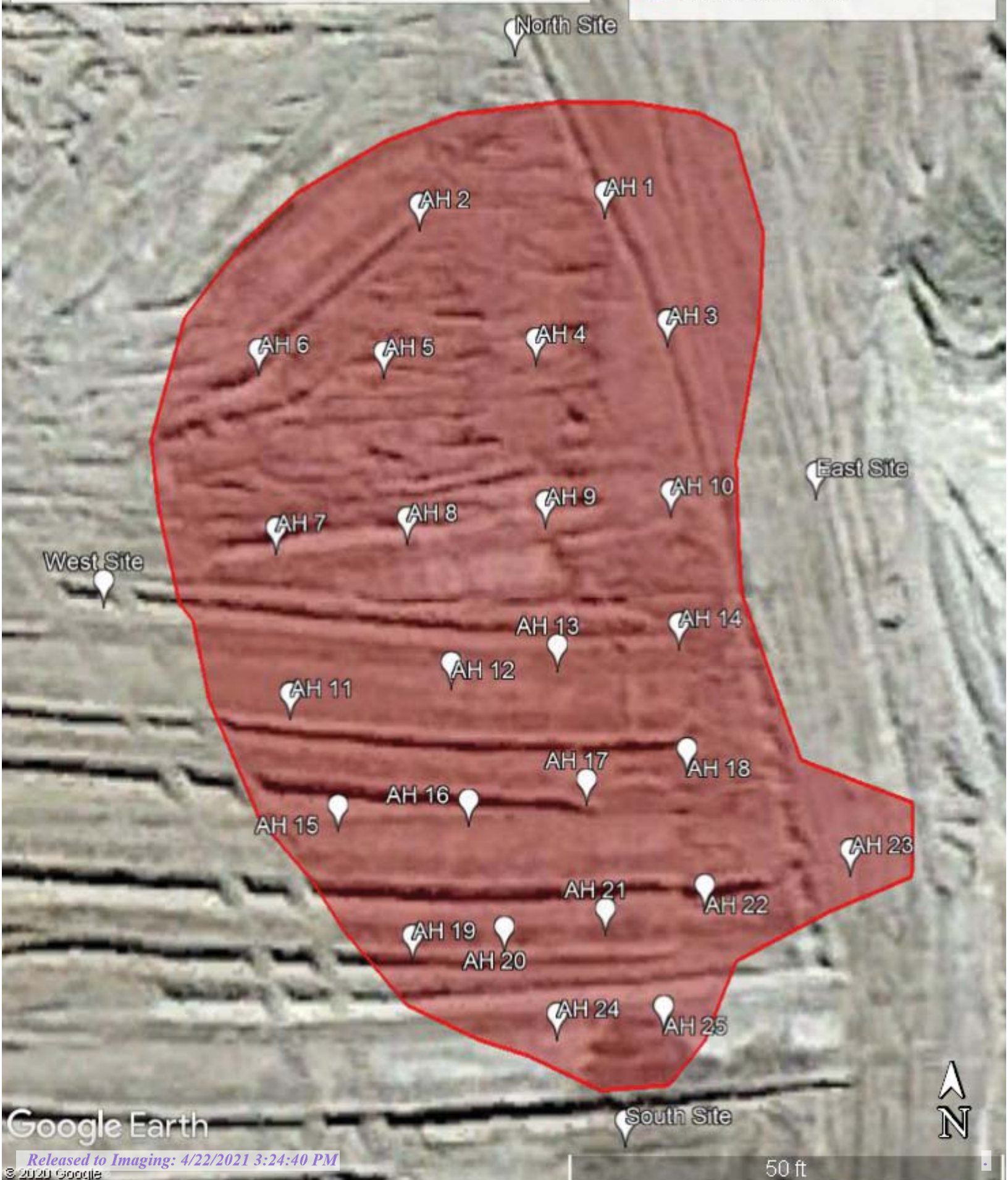
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Cimarex-Crawford 27 26 fee 15H

Figure 3

Legend

-  Delineation sample location (AH)
-  Release Footprint



Cimarex-Crawford 27 26 Fee 15H

Figure 4

Legend

- 0.5ft Excavated bottom
- 1.5ft Excavated bottom
- 2ft Excavated bottom



Cimarex-Crawford 27 26

Fee 15H

Figure 5

Legend

- Excavated bottom confirmation sample (CS)
- Release Footprint
- Side Wall confirmation sample (SW)



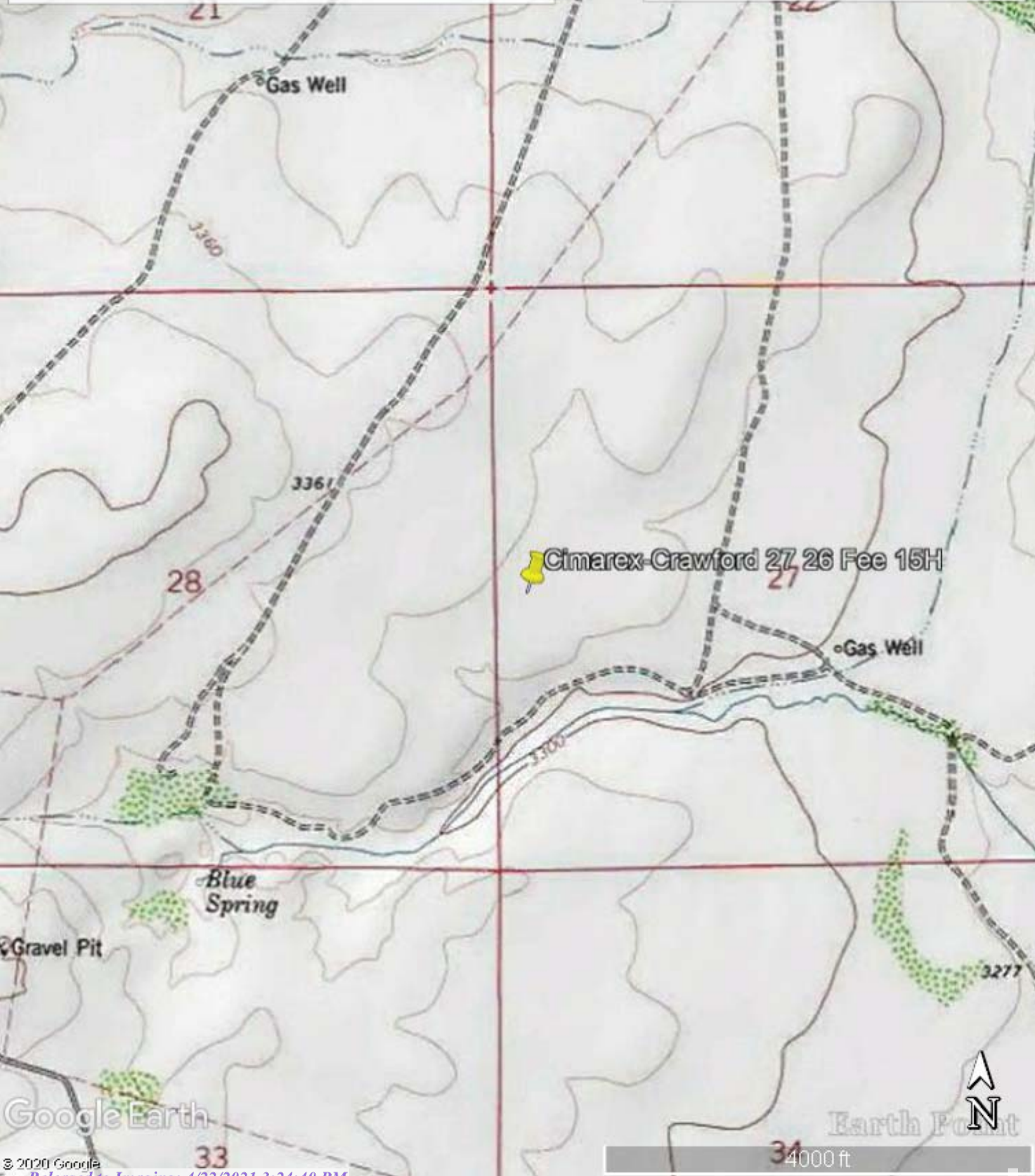
Cimarex-Crawford 27 26 Fee 15H

Topo

Legend



Cimarex-Crawford 27 26 Fee 15H



Google Earth

Earth Point



APPENDIX B

Table's

TABLE 1 Summary of Delineation Sampling Analytical Results Concentrations of Chloride in Soil Cimarex Energy Co. Crawford 27 26 Fee 15H Eddy County, New Mexico nRM2033557420				
SAMPLE LOCATION	SAMPLE DATE	SAMPLE DEPTH (feet)	SOIL STATUS	EPA 300 Chloride (mg/kg)
NMAC 19.15.29				600
Delineation Sampling				
Auger Hole 1	12/10/20 10:00	0 - 0.5'	In-situ	1,480
Auger Hole 1	12/10/20 10:05	0.5' - 1'	In-situ	207
Auger Hole 1	12/10/20 10:10	1' - 1.5'	In-situ	233
Auger Hole 2	12/10/20 10:15	0 - 0.5'	In-situ	2,000
Auger Hole 2	12/10/20 10:20	0.5' - 1'	In-situ	1,830
Auger Hole 2	12/10/20 10:25	1' - 1.5'	In-situ	1,580
Auger Hole 3	12/10/20 10:30	0 - 0.5'	In-situ	173
Auger Hole 3	12/10/20 10:35	0.5' - 1'	In-situ	143
Auger Hole 3	12/10/20 10:40	1' - 1.5'	In-situ	130
Auger Hole 4	12/10/20 10:45	0' - 0.5'	In-situ	4,480
Auger Hole 4	12/10/20 10:50	0.5' - 1'	In-situ	243
Auger Hole 4	12/10/20 10:55	1' - 1.5'	In-situ	390
Auger Hole 5	12/10/20 11:00	0 - 0.5'	In-situ	116
Auger Hole 5	12/10/20 11:05	0.5' - 1'	In-situ	111
Auger Hole 5	12/10/20 11:10	1' - 1.5'	In-situ	98.5
Auger Hole 6	12/10/20 11:15	0 - 0.5'	In-situ	1,030
Auger Hole 6	12/10/20 11:20	0.5' - 1'	In-situ	89.6
Auger Hole 6	12/10/20 11:25	1' - 1.5'	In-situ	73.3
Auger Hole 7	12/10/20 11:30	0 - 0.5'	In-situ	750
Auger Hole 7	12/10/20 11:35	0.5' - 1'	In-situ	96.6
Auger Hole 7	12/10/20 11:40	1' - 1.5'	In-situ	90.4
Auger Hole 8	12/10/20 11:45	0 - 0.5'	In-situ	271
Auger Hole 8	12/10/20 11:50	0.5' - 1'	In-situ	25.7
Auger Hole 8	12/10/20 11:55	1' - 1.5'	In-situ	11.2
Auger Hole 9	12/10/20 12:00	0 - 0.5'	In-situ	596
Auger Hole 9	12/10/20 12:05	0.5' - 1'	In-situ	621
Auger Hole 9	12/10/20 12:10	1' - 1.5'	In-situ	527
Auger Hole 10	12/10/20 12:15	0 - 0.5'	In-situ	1,300
Auger Hole 10	12/10/20 12:20	0.5' - 1'	In-situ	1,000
Auger Hole 10	12/10/20 12:25	1' - 1.5'	In-situ	768
Auger Hole 11	12/10/20 12:30	0 - 0.5'	In-situ	123
Auger Hole 11	12/10/20 12:35	0.5' - 1'	In-situ	150
Auger Hole 11	12/10/20 12:40	1' - 1.5'	In-situ	151
Auger Hole 12	12/10/20 12:45	0 - 0.5'	In-situ	575
Auger Hole 12	12/10/20 12:50	0.5' - 1'	In-situ	106
Auger Hole 12	12/10/20 12:55	1' - 1.5'	In-situ	64.6
Auger Hole 13	12/10/20 13:00	0 - 0.5'	In-situ	2,760
Auger Hole 13	12/10/20 13:05	0.5' - 1'	In-situ	248
Auger Hole 13	12/10/20 13:10	1' - 1.5'	In-situ	137
Auger Hole 14	12/10/20 13:15	0 - 0.5'	In-situ	3,090
Auger Hole 14	12/10/20 13:20	0.5' - 1'	In-situ	159
Auger Hole 14	12/10/20 13:25	1' - 1.5'	In-situ	281
Auger Hole 15	12/10/20 13:30	0 - 0.5'	In-situ	396
Auger Hole 15	12/10/20 13:35	0.5' - 1'	In-situ	252
Auger Hole 15	12/10/20 13:40	1' - 1.5'	In-situ	318
Auger Hole 16	12/10/20 13:45	0 - 0.5'	In-situ	547
Auger Hole 16	12/10/20 13:50	0.5' - 1'	In-situ	551
Auger Hole 16	12/10/20 13:55	1' - 1.5'	In-situ	547
Auger Hole 17	12/10/20 14:00	0 - 0.5'	In-situ	2,380
Auger Hole 17	12/10/20 14:05	0.5' - 1'	In-situ	417
Auger Hole 17	12/10/20 14:10	1' - 1.5'	In-situ	367
Auger Hole 18	12/10/20 14:15	0 - 0.5'	In-situ	2,130
Auger Hole 18	12/10/20 14:20	0.5' - 1'	In-situ	153
Auger Hole 18	12/10/20 14:25	1' - 1.5'	In-situ	168
Auger Hole 19	12/10/20 14:30	0 - 0.5'	In-situ	235
Auger Hole 19	12/10/20 14:35	0.5' - 1'	In-situ	444
Auger Hole 19	12/10/20 14:40	1' - 1.5'	In-situ	466
Auger Hole 20	12/10/20 14:45	0 - 0.5'	In-situ	1,080
Auger Hole 20	12/10/20 14:50	0.5' - 1'	In-situ	176
Auger Hole 20	12/10/20 14:55	1' - 1.5'	In-situ	164
Auger Hole 21	12/10/20 15:00	0 - 0.5'	In-situ	889
Auger Hole 21	12/10/20 15:05	0.5' - 1'	In-situ	31.4
Auger Hole 21	12/10/20 15:10	1' - 1.5'	In-situ	37.9
Auger Hole 22	12/10/20 15:15	0 - 0.5'	In-situ	67.1
Auger Hole 22	12/10/20 15:20	0.5' - 1'	In-situ	112
Auger Hole 22	12/10/20 15:25	1' - 1.5'	In-situ	120
Auger Hole 23	12/10/20 15:30	0 - 0.5'	In-situ	266
Auger Hole 23	12/10/20 15:35	0.5' - 1'	In-situ	395
Auger Hole 23	12/10/20 15:40	1' - 1.5'	In-situ	481
Auger Hole 24	12/10/20 15:45	0 - 0.5'	In-situ	262
Auger Hole 24	12/10/20 15:50	0.5' - 1'	In-situ	233
Auger Hole 24	12/10/20 15:55	1' - 1.5'	In-situ	295
Auger Hole 25	12/10/20 16:00	0 - 0.5'	In-situ	541
Auger Hole 25	12/10/20 16:05	0.5' - 1'	In-situ	74.5
Auger Hole 25	12/10/20 16:10	1' - 1.5'	In-situ	101
North Site	12/10/20 16:15	0 - 0.5'	In-situ	43.8
South Site	12/10/20 16:20	0 - 0.5'	In-situ	101
West Site	12/10/20 16:25	0 - 0.5'	In-situ	91.9
East Site	12/10/20 16:30	0 - 0.5'	In-situ	235

mg/Kg - milligrams per Kilogram

Concentrations in **Bold** exceed remediation guidelines

In-situ - sample collected in-place

TABLE 2 Summary of Confirmation Sampling Analytical Results Concentrations of Benzene, BTEX, TPH & Chloride in Soil Charles Energy Co. Crawford 27 26 Fee 13H Eddy County, New Mexico NRW203357420															
SAMPLE LOCATION	SAMPLE DATE	SAMPLE DEPTH (feet)	SOIL STATUS	EPA 300 Chloride (mg/kg)	8015M				8021B				Total BTEX (mg/kg)		
					Gasoline Range Hydrocarbons (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Hydrocarbons (MRO)	Total TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	m,p-Xylenes (mg/kg)		o-Xylene (mg/kg)	Total Xylenes (mg/kg)
NMAC 19.15.29					NE				NE				50		
Confirmation Sampling															
Confirmation Sample 1 2 ft @ EB	01/12/21 10:00	2'	In-situ	37.1	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
Confirmation Sample 2 2 ft @ EB	01/12/21 10:05	2'	In-situ	39.8	<50.0	63.8	<50.0	63.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.002	<0.002
Confirmation Sample 3 2 ft @ EB	01/12/21 10:10	2'	In-situ	150	<50.0	<50.0	<50.0	<50	<0.00201	<0.00201	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
Confirmation Sample 4 1.5 ft @ EB	01/12/21 10:15	1.5'	In-situ	150	<48.9	<48.9	<48.9	<48.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201
Confirmation Sample 5 1.5 ft @ EB	01/12/21 10:20	1.5'	In-situ	157	<48.9	<48.9	<48.9	<48.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.002	<0.002
Confirmation Sample 6 6 in @ EB	01/12/21 10:25	0.5'	In-situ	167	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00402	<0.00200	<0.002	<0.002
Confirmation Sample 7 6 in @ EB	01/12/21 10:30	0.5'	In-situ	159	<48.9	<48.9	<48.9	<48.9	<0.00201	<0.00201	<0.00201	<0.00399	<0.00200	<0.002	<0.002
Confirmation Sample 8 6 in @ EB	01/12/21 10:35	0.5'	In-situ	284	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
Confirmation Sample 9 6 in @ EB	01/12/21 10:40	0.5'	In-situ	226	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.002	<0.002
Confirmation Sample 10 6 in @ EB	01/12/21 10:45	0.5'	In-situ	220	<48.9	<48.9	<48.9	<48.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
Confirmation Sample 11 6 in @ EB	01/12/21 10:50	0.5'	In-situ	178	<50.0	<50.0	<50.0	<50	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
Confirmation Sample 12 6 in @ EB	01/12/21 10:55	0.5'	In-situ	167	<48.9	<48.9	<48.9	<48.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
Confirmation Sample 13 6 in @ EB	01/12/21 11:00	0.5'	In-situ	118	<48.9	<48.9	<48.9	<48.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201
Confirmation Sample 14 2 ft @ EB	01/14/21 10:00	2'	In-situ	141	<50.0	<50.0	<50.0	<50	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201
Confirmation Sample 15 2 ft @ EB	01/14/21 10:05	2'	In-situ	133	<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
Confirmation Sample 16 2 ft @ EB	01/14/21 10:10	2'	In-situ	370	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
Confirmation Sample 17 2 ft @ EB	01/14/21 10:15	2'	In-situ	358	<48.8	<48.8	<48.8	<48.8	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
Confirmation Sample 18 2 ft @ EB	01/14/21 10:20	2'	In-situ	141	<50.3	<50.3	<50.3	<50.3	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00202	<0.00202
Confirmation Sample 19 2 ft @ EB	01/14/21 10:25	2'	In-situ	335	<50.3	<50.3	<50.3	<50.3	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00202	<0.00202
Confirmation Sample 20 2 ft @ EB	01/14/21 10:30	2'	In-situ	130	<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00202	<0.00202
Confirmation Sample 21 2 ft @ EB	01/14/21 10:35	2'	In-situ	139	<50.2	<50.2	<50.2	<50.2	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201
Confirmation Sample 22 2 ft @ EB	01/14/21 10:40	2'	In-situ	137	<50.3	<50.3	<50.3	<50.3	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
Confirmation Sample 23 2 ft @ EB	01/14/21 10:45	2'	In-situ	137	<48.9	<48.9	<48.9	<48.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
Confirmation Sample 24 2 ft @ EB	01/14/21 10:50	2'	In-situ	188	<50.1	<50.1	<50.1	<50.1	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
Confirmation Sample 25 2 ft @ EB	01/14/21 10:55	2'	In-situ	210	<50.2	<50.2	<50.2	<50.2	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
Confirmation Sample 26 2 ft @ EB	01/14/21 11:00	2'	In-situ	159	<50.2	<50.2	<50.2	<50.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
Confirmation Sample 27 2 ft @ EB	01/14/21 11:05	2'	In-situ	168	<50.0	<50.0	<50.0	<50	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
Confirmation Sample 28 2 ft @ EB	01/14/21 11:10	2'	In-situ	158	<48.9	<48.9	<48.9	<48.9	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
Confirmation Sample 29 2 ft @ EB	01/14/21 11:15	2'	In-situ	89.9	<48.9	<48.9	<48.9	<48.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
Confirmation Sample 30 2 ft @ EB	01/14/21 11:20	2'	In-situ	178	<48.9	<48.9	<48.9	<48.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201
Confirmation Sample 31 2 ft @ EB	01/14/21 11:25	2'	In-situ	175	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.002	<0.002
5 Wall 1	1/12/2021 0:00	—	In-situ	72.9	<48.8	<48.8	<48.8	<48.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
5 Wall 2	1/12/2021 0:00	—	In-situ	59.3	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
5 Wall 3	1/12/2021 0:00	—	In-situ	43.2	<48.9	<48.9	<48.9	<48.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
5 Wall 4	1/12/2021 0:00	—	In-situ	53.8	<48.9	<48.9	<48.9	<48.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
5 Wall 5	1/12/2021 0:00	—	In-situ	96.4	<50.0	<50.0	<50.0	<50	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
5 Wall 6	01/14/21 12:00	—	In-situ	130	<50.1	<50.1	<50.1	<50.1	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
5 Wall 7	01/14/21 12:05	—	In-situ	153	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
5 Wall 8	01/14/21 12:10	—	In-situ	70.9	<48.9	<48.9	<48.9	<48.9	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
5 Wall 9	01/14/21 12:15	—	In-situ	156	<48.8	<48.8	<48.8	<48.8	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
5 Wall 10	01/14/21 12:20	—	In-situ	157	<48.9	<48.9	<48.9	<48.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
5 Wall 11	01/14/21 12:25	—	In-situ	383	<50.0	<50.0	<50.0	<50	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
5 Wall 12	01/14/21 12:30	—	In-situ	113	<50.2	<50.2	<50.2	<50.2	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201
5 Wall 13	01/15/21 08:00	—	In-situ	134	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.002	<0.002
5 Wall 14	01/15/21 08:05	—	In-situ	136	<48.9	<48.9	<48.9	<48.8	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
5 Wall 15	01/15/21 08:10	—	In-situ	143	<50.3	<50.3	<50.3	<50.3	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00202	<0.00202
5 Wall 16	01/15/21 08:15	—	In-situ	122	<50.0	<50.0	<50.0	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
5 Wall 17	01/15/21 08:20	—	In-situ	122	<50.3	<50.3	<50.3	<50.3	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
5 Wall 18	01/15/21 08:25	—	In-situ	124	<48.9	<48.9	<48.9	<48.9	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
5 Wall 19	01/15/21 08:30	—	In-situ	116	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.002	<0.002
5 Wall 20	01/15/21 08:35	—	In-situ	162	<50.3	<50.3	<50.3	<50.3	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198
5 Wall 21	01/15/21 08:40	—	In-situ	204	<48.9	<48.9	<48.9	<48.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00202	<0.00202
5 Wall 22	01/15/21 08:45	—	In-situ	148	<48.8	<48.8	<48.8	<48.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00199	<0.00199
5 Wall 23	01/15/21 08:50	—	In-situ	167	<50.1	<									



APPENDIX C

Photo Page



View West – Origin of spill. Release caused by open frac tank valves and a failed liner at an adjacent containment.



Delineation sample locations within the release footprint.



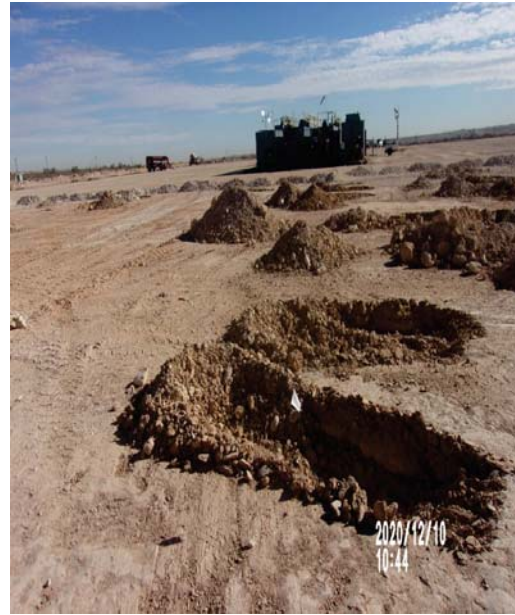
View North – A portion of the release footprint.



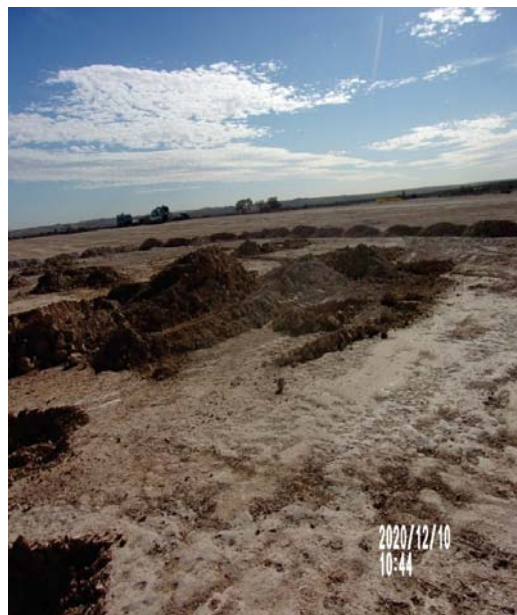
View Northwest – A portion of the release footprint.



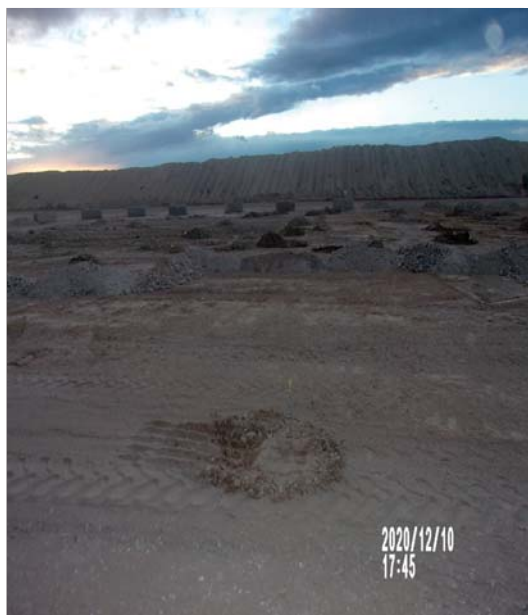
View Northeast – Delineation sample locations within the release footprint (i.e., Auger Holes 1 thru 10).



View East – Delineation sample locations within the release footprint (i.e., Auger Holes 11 thru 18).



View Southeast - Delineation sample locations within the release footprint (i.e., Auger Holes 19 thru 25).



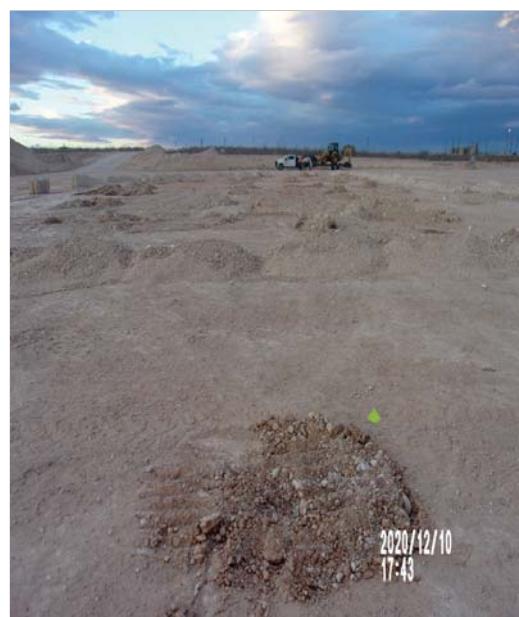
View East –West Site sample location.



View East - East Site sample location.



View Southeast – North Site sample location.



View North – South Site sample location.



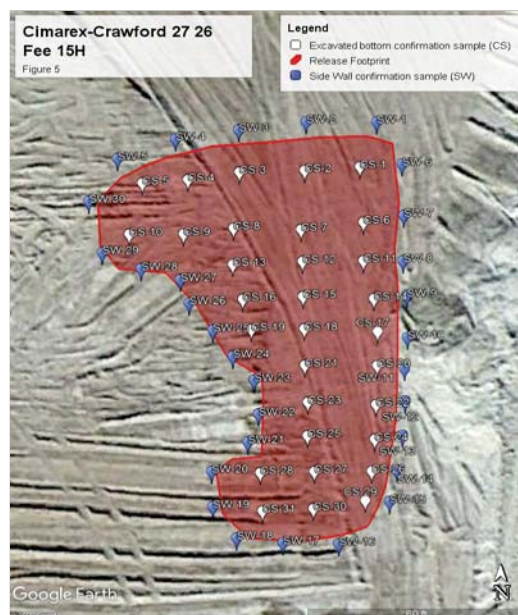
View Southwest – Impacted material excavated to 2 ft bgs being exported offsite to a Cimarex approved disposal.



View Southwest – Impacted material excavated to 2 ft bgs being exported offsite to a Cimarex approved disposal.



View West – Impacted material excavated to 2 ft bgs to be exported offsite to a Cimarex approved disposal.



Confirmation and Side Wall sample locations within the release footprint.



View Northeast – Confirmation sample locations (lime green flags) 1, 2, 6, 7, 8, and 9.



View North – Confirmation sample locations (lime green flags) 5 and 10.



View West - Confirmation sample locations (lime green flags) 1, 2, 3, 4, and 5.



View South - Confirmation sample locations (lime green flags) 23, 27, 28, 29, 30, and 31.



View East – Confirmation sample locations (lime green flag) 11 and 12.



View North – Confirmation sample locations (lime green flag) 2, 3, 4, and 8.



View Northeast – Confirmation sample locations (lime green flag) 1, 6, and 7 and Sidewall sample location (dark green flag) 7.



View Northwest – Confirmation sample locations (lime green flag) 23, 19, 10, and 5. Sidewall sample locations (dark green flag) 22, 23, 24, 25, and 26.



View Southeast – Confirmation sample location (lime green flag) 22. Sidewall sample locations (dark green flag) 12, 13, and 14.



View East – Confirmation sample location (lime green flag) 26 and Sidewall sample location (dark green flag) 14.



View Northwest – Confirmation sample locations (lime green flag) 25 and 23. Sidewall sample locations (dark green flag) 21 and 22.



View East – Confirmation sample location (lime green flag) 26 and Sidewall sample locations (dark green flag) 13 and 14.



View Northwest – Confirmation sample location (lime green flag) 28 and Sidewall sample locations (dark green flag) 20, 21, and 22.



View Southeast – Confirmation sample locations (lime green flag) 26, 27, and 29 and Sidewall sample location (dark green flag) 15.



View North – Confirmation sample locations (lime green flag) 30, 29, 27, 26, 25, 24, 23, and 22. Sidewall sample locations (dark green flag) 20, 21, 22, 14, 13, and 12.



View North – Confirmation sample location (lime green flag) 31 and Sidewall sample locations (dark green flag) 19 and 20.



View Southeast – Confirmation sample location (lime green flag) 31 and Sidewall sample locations (dark green flag) 18 and 19.



View West – Confirmation sample locations (lime green flag) 5 and 10 and Sidewall sample location (dark green flag) 30.



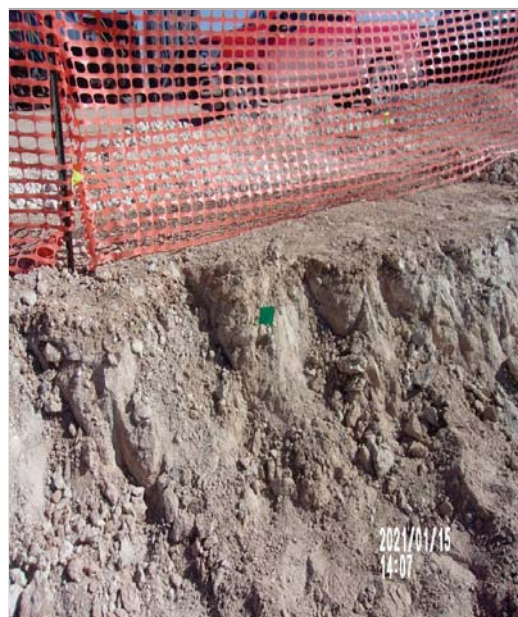
View East – Sidewall sample location (dark green flag) 9.



View East – Sidewall sample location (dark green flag) 10.



View East – Sidewall sample location
(dark green flag) 11.



View East – Sidewall sample location
(dark green flag) 12.



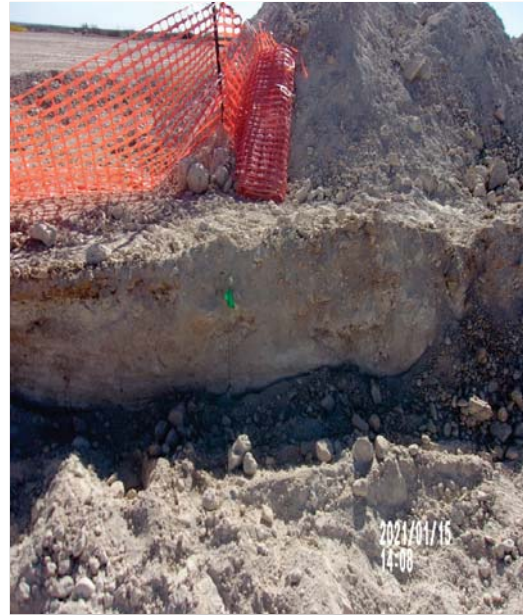
View East – Sidewall sample location
(dark green flag) 13.



View East – Sidewall sample location
(dark green flag) 14.



View Southeast – Sidewall sample location (dark green flag) 15.



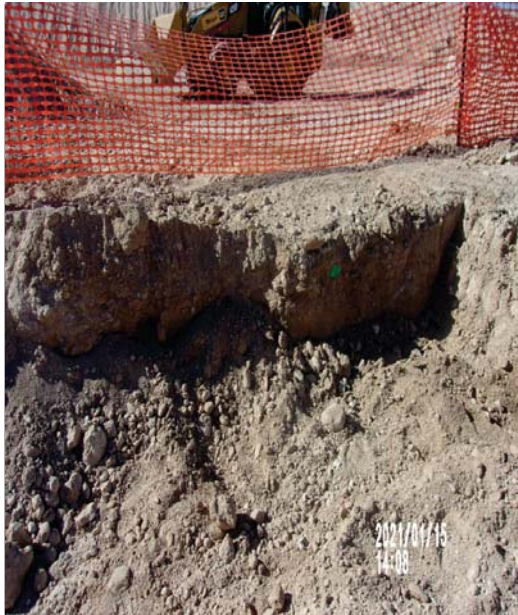
View South – Sidewall sample location (dark green flag) 16.



View South – Sidewall sample location (dark green flag) 17.



View South – Sidewall sample location (dark green flag) 18.



View West – Sidewall sample location
(dark green flag) 19.



View South – Sidewall sample location
(dark green flag) 20.



View West – Sidewall sample location
(dark green flag) 21.



View South – Sidewall sample location
(dark green flag) 22.



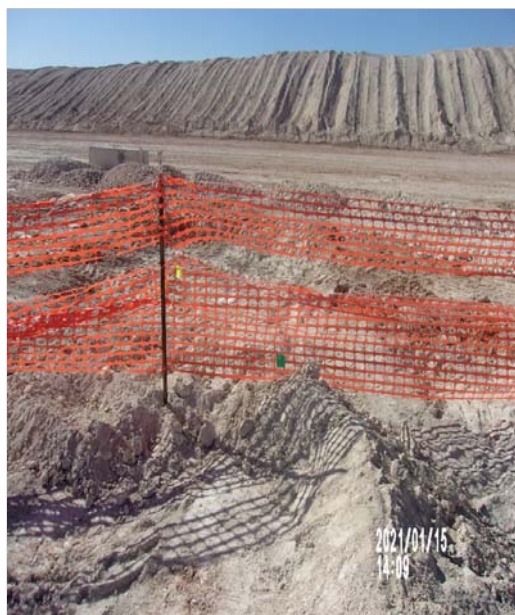
View West – Confirmation sample location (lime green flag) and Sidewall sample location (dark green flag) 5.



View West – Confirmation sample location 19 (lime green flag) and Sidewall sample locations (dark green flag) 23 and 24.



View West – Sidewall sample location (dark green flag) 25.



View West – Sidewall sample location (dark green flag) 26.



View West – Sidewall sample location (dark green flag) 27.



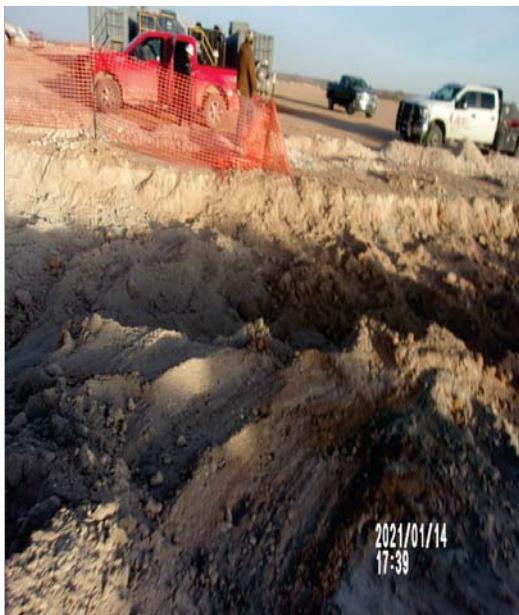
View West – Confirmation sample locations (lime green flag) 8, 9, 10, and 5. Sidewall sample locations (dark green flag) 28, 29, and 30.



View North – Excavation of impacted material ongoing.



View Northwest – Excavated impacted material being loaded for export offsite to a Cimarex approved disposal.



View East – Excavation of impacted material ongoing.



View Southeast – Excavation of impacted material ongoing.



APPENDIX D

C-141

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nRM2033557420
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Cimarex Energy Co.	OGRID: 215099
Contact Name: Laci Luig	Contact Telephone: (432) 571-7800
Contact email: llug@cimarex.com	Incident # (assigned by OCD) nRM2033557420
Contact mailing address: 600 N Marienfeld Street, Ste. 600 Midland, TX 79701	

Location of Release Source

Latitude 32.187833 _____ Longitude -104.288333 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Crawford 27 26 Fee 15H	Site Type: Well Pad
Date Release Discovered: 11/14/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
L	27	24S	26E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: Bounds Family Trust _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 75	Volume Recovered (bbls) 74
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Human Error

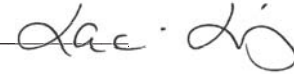
After the frac job completed, several 8" and 4" valves were found with no caps and had dripped onto lined containment. Select Water Transfer rigged down their manifold onto the containment but failed to put the straps back on that hold the liner to the muscle wall. The wind blew the loose containment down causing 1 barrel of 50/50 blend (50% fresh water and 50% produced water) to spill onto the well pad. A vacuum truck recovered 74 barrels 50/50 blend water from the lined containment. Once the frac equipment is removed, the impacted soils will be removed, disposed of at an approved E&P waste site and the area will be delineated.

Incident ID	nRM2033557420
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Amount of release greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By: Laci Luig To: Mike Bratcher, Robert Hamlet, Cristina Eads and Jim Griswold By: Email	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: Laci Luig	Title: Engineer Tech.
Signature: 	Date: 12/1/2020
email: llug@cimarex.com	Telephone: (432) 571-7810
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	nRM2033557420
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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>38</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?	☐ 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.

Characterization Report Checklist: 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

Page 4

Incident ID	nRM2033557420
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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: Laci Luig_____ Title: ESH Specialist_____

Signature:_____ Date: 2/23/2021_____

email: lluig@cimarex.com_____ Telephone: (432) 208-3035_____

OCD Only

Received by: _____ Date: _____

Incident ID	nRM2033557420
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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: Laci Luig _____ Title: ESH Specialist _____

Signature: _____ Date: 2/23/2021 _____

email: lluig@cimarex.com _____ Telephone: (432) 208-3035 _____

OCD Only

Received by: Chad Hensley _____ Date: 04/22/2021 _____

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: Chad Hensley _____ Date: 04/22/2021 _____

Printed Name: Chad Hensley _____ Title: Environmental Specialist Advanced _____



APPENDIX E

Laboratory Analysis

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-001	680737-002	680737-003	680737-004	680737-005	680737-006
	Field Id:	Auger Hole 1	Auger Hole 1	Auger Hole 1	Auger Hole 2	Auger Hole 2	Auger Hole 2
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 10:00	12.10.2020 10:05	12.10.2020 10:10	12.10.2020 10:15	12.10.2020 10:20	12.10.2020 10:25
	Extracted:	12.11.2020 18:45	12.11.2020 18:45	12.11.2020 18:45	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50
	Analyzed:	12.12.2020 04:43	12.12.2020 04:48	12.12.2020 04:54	12.14.2020 17:20	12.14.2020 17:36	12.14.2020 17:41
	Units/RL:	mg/kg RL 1480 49.9	mg/kg RL 207 4.97	mg/kg RL 233 5.03	mg/kg RL 2000 X 25.0	mg/kg RL 1830 24.8	mg/kg RL 1580 25.1
Chloride							

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-007	680737-008	680737-009	680737-010	680737-011	680737-012
	Field Id:	Auger Hole 3	Auger Hole 3	Auger Hole 3	Auger Hole 4	Auger Hole 4	Auger Hole 4
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 10:30	12.10.2020 10:35	12.10.2020 10:40	12.10.2020 10:45	12.10.2020 10:50	12.10.2020 10:55
	Extracted:	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50
	Analyzed:	12.14.2020 17:47	12.14.2020 17:52	12.14.2020 18:07	12.14.2020 18:13	12.14.2020 18:18	12.14.2020 18:23
	Units/RL:	mg/kg RL 173 50.0	mg/kg RL 143 5.00	mg/kg RL 130 5.00	mg/kg RL 4480 50.5	mg/kg RL 243 4.98	mg/kg RL 390 4.95
Chloride							

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Date Received in Lab: Fri 12.11.2020 11:10

Report Date: 12.17.2020 10:52

Project Manager: Jessica Kramer

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Analysis Requested	Lab Id:	680737-013	680737-014	680737-015	680737-016	680737-017	680737-018
	Field Id:	Auger Hole 5	Auger Hole 5	Auger Hole 5	Auger Hole 6	Auger Hole 6	Auger Hole 6
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 11:00	12.10.2020 11:05	12.10.2020 11:10	12.10.2020 11:15	12.10.2020 11:20	12.10.2020 11:25
	Extracted:	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50
	Analyzed:	12.14.2020 18:28	12.14.2020 18:34	12.14.2020 18:49	12.14.2020 18:54	12.14.2020 19:10	12.14.2020 19:15
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		116 5.04	111 5.05	98.5 4.96	1030 24.8	89.6 4.98	73.3 5.02

BRL - Below Reporting Limit

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10

Report Date: 12.17.2020 10:52

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-019	680737-020	680737-021	680737-022	680737-023	680737-024
	Field Id:	Auger Hole 7	Auger Hole 7	Auger Hole 7	Auger Hole 8	Auger Hole 8	Auger Hole 8
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 11:30	12.10.2020 11:35	12.10.2020 11:40	12.10.2020 11:45	12.10.2020 11:50	12.10.2020 11:55
	Extracted:	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 08:50	12.14.2020 09:15
	Analyzed:	12.14.2020 19:21	12.14.2020 19:26	12.14.2020 19:31	12.14.2020 19:36	12.14.2020 19:41	12.14.2020 11:07
	Units/RL:	mg/kg RL 750 49.5	mg/kg RL 96.6 4.95	mg/kg RL 90.4 4.97	mg/kg RL 271 49.9	mg/kg RL 25.7 5.02	mg/kg RL 11.2 5.03
Chloride							

BRL - Below Reporting Limit

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Date Received in Lab: Fri 12.11.2020 11:10

Report Date: 12.17.2020 10:52

Project Manager: Jessica Kramer

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Analysis Requested	Lab Id:	680737-025	680737-026	680737-027	680737-028	680737-029	680737-030
	Field Id:	Auger Hole 9	Auger Hole 9	Auger Hole 9	Auger Hole 10	Auger Hole 10	Auger Hole 10
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 12:00	12.10.2020 12:05	12.10.2020 12:10	12.10.2020 12:15	12.10.2020 12:20	12.10.2020 12:25
	Extracted:	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15
	Analyzed:	12.14.2020 11:22	12.14.2020 11:28	12.14.2020 11:33	12.14.2020 11:38	12.14.2020 11:54	12.14.2020 11:59
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		596 4.99	621 4.96	527 4.95	1300 25.2	1000 4.95	768 4.95

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-031	680737-032	680737-033	680737-034	680737-035	680737-036
	Field Id:	Auger Hole 11	Auger Hole 11	Auger Hole 11	Auger Hole 12	Auger Hole 12	Auger Hole 12
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 12:30	12.10.2020 12:35	12.10.2020 12:40	12.10.2020 12:45	12.10.2020 12:50	12.10.2020 12:55
	Extracted:	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15
	Analyzed:	12.14.2020 12:04	12.14.2020 12:09	12.14.2020 12:14	12.14.2020 12:20	12.14.2020 12:35	12.14.2020 12:40
	Units/RL:	mg/kg RL 123 49.5	mg/kg RL 150 4.99	mg/kg RL 151 4.97	mg/kg RL 575 49.6	mg/kg RL 106 50.2	mg/kg RL 64.6 5.00
Chloride							

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H



Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-037	680737-038	680737-039	680737-040	680737-041	680737-042
	Field Id:	Auger Hole 13	Auger Hole 13	Auger Hole 13	Auger Hole 14	Auger Hole 14	Auger Hole 14
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 13:00	12.10.2020 13:05	12.10.2020 13:10	12.10.2020 13:15	12.10.2020 13:20	12.10.2020 13:25
	Extracted:	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15	12.14.2020 09:15
	Analyzed:	12.14.2020 12:56	12.14.2020 13:01	12.14.2020 13:06	12.14.2020 13:11	12.14.2020 13:17	12.14.2020 13:22
	Units/RL:	mg/kg RL 2760 99.0	mg/kg RL 248 5.04	mg/kg RL 137 4.95	mg/kg RL 3090 99.0	mg/kg RL 159 4.95	mg/kg RL 281 5.00
Chloride							

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Date Received in Lab: Fri 12.11.2020 11:10

Report Date: 12.17.2020 10:52

Project Manager: Jessica Kramer

Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Analysis Requested	Lab Id:	680737-043	680737-044	680737-045	680737-046	680737-047	680737-048
	Field Id:	Auger Hole 15	Auger Hole 15	Auger Hole 15	Auger Hole 16	Auger Hole 16	Auger Hole 16
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 13:30	12.10.2020 13:35	12.10.2020 13:40	12.10.2020 13:45	12.10.2020 13:50	12.10.2020 13:55
	Extracted:	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55
	Analyzed:	12.14.2020 13:58	12.14.2020 14:14	12.14.2020 14:19	12.14.2020 14:24	12.14.2020 14:29	12.14.2020 14:45
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		396 24.9	252 4.99	318 5.04	547 24.8	551 24.8	547 24.8

BRL - Below Reporting Limit

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H



Project Id:

Contact: Thomas Franklin

Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10

Report Date: 12.17.2020 10:52

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-049	680737-050	680737-051	680737-052	680737-053	680737-054
	Field Id:	Auger Hole 17	Auger Hole 17	Auger Hole 17	Auger Hole 18	Auger Hole 18	Auger Hole 18
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 14:00	12.10.2020 14:05	12.10.2020 14:10	12.10.2020 14:15	12.10.2020 14:20	12.10.2020 14:25
	Extracted:	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55
	Analyzed:	12.14.2020 14:50	12.14.2020 14:55	12.14.2020 15:00	12.14.2020 15:06	12.14.2020 15:11	12.14.2020 15:26
	Units/RL:	mg/kg RL 2380 24.8	mg/kg RL 417 5.00	mg/kg RL 367 5.00	mg/kg RL 2130 25.2	mg/kg RL 153 4.99	mg/kg RL 168 5.05
Chloride							

BRL - Below Reporting Limit

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-055	680737-056	680737-057	680737-058	680737-059	680737-060
	Field Id:	Auger Hole 19	Auger Hole 19	Auger Hole 19	Auger Hole 20	Auger Hole 20	Auger Hole 20
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 14:30	12.10.2020 14:35	12.10.2020 14:40	12.10.2020 14:45	12.10.2020 14:50	12.10.2020 14:55
	Extracted:	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 11:55
	Analyzed:	12.14.2020 15:32	12.14.2020 15:47	12.14.2020 15:52	12.14.2020 15:58	12.14.2020 16:03	12.14.2020 16:08
	Units/RL:	mg/kg RL 235 24.9	mg/kg RL 444 4.97	mg/kg RL 466 5.00	mg/kg RL 1080 24.8	mg/kg RL 176 5.03	mg/kg RL 164 4.98
Chloride							

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-061	680737-062	680737-063	680737-064	680737-065	680737-066
	Field Id:	Auger Hole 21	Auger Hole 21	Auger Hole 21	Auger Hole 22	Auger Hole 22	Auger Hole 22
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 15:00	12.10.2020 15:05	12.10.2020 15:10	12.10.2020 15:15	12.10.2020 15:20	12.10.2020 15:25
	Extracted:	12.14.2020 11:55	12.14.2020 11:55	12.14.2020 13:20	12.14.2020 13:20	12.14.2020 13:20	12.14.2020 13:20
	Analyzed:	12.14.2020 16:13	12.14.2020 16:18	12.15.2020 10:47	12.15.2020 10:42	12.15.2020 11:03	12.15.2020 11:08
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		889 24.8	31.4 5.04	37.9 4.96	67.1 50.0	112 4.97	120 5.03

BRL - Below Reporting Limit

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Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680737-067	680737-068	680737-069	680737-070	680737-071	680737-072
	Field Id:	Auger Hole 23	Auger Hole 23	Auger Hole 23	Auger Hole 24	Auger Hole 24	Auger Hole 24
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 15:30	12.10.2020 15:35	12.10.2020 15:40	12.10.2020 15:45	12.10.2020 15:50	12.10.2020 15:55
	Extracted:	12.14.2020 13:20	12.14.2020 13:20	12.14.2020 13:20	12.14.2020 13:20	12.14.2020 13:20	12.14.2020 13:25
	Analyzed:	12.15.2020 11:23	12.15.2020 11:29	12.15.2020 11:34	12.15.2020 11:39	12.15.2020 11:44	12.15.2020 15:13
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		266 49.6	395 24.8	481 25.2	262 50.0	233 5.00	295 5.02

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 680737

American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H



Project Id:

Contact:

Project Location:

Thomas Franklin

Eddy Co.NM

Date Received in Lab:

Report Date:

Project Manager:

Fri 12.11.2020 11:10

12.17.2020 10:52

Jessica Kramer

Analysis Requested	Lab Id:	680737-073	680737-074	680737-075	680737-076	680737-077	680737-078
	Field Id:	Auger Hole 25	Auger Hole 25	Auger Hole 25	North Site	South Site	West Site
	Depth:	0-0.5 ft	0.5-1 ft	1-1.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Chloride by EPA 300	Sampled:	12.10.2020 16:00	12.10.2020 16:05	12.10.2020 16:10	12.10.2020 16:15	12.10.2020 16:20	12.10.2020 16:25
	Extracted:	12.14.2020 13:25	12.14.2020 13:25	12.14.2020 13:25	12.14.2020 13:25	12.14.2020 13:25	12.14.2020 13:25
	Analyzed:	12.15.2020 15:28	12.15.2020 15:34	12.15.2020 15:39	12.15.2020 15:44	12.15.2020 16:00	12.15.2020 17:37
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		541 50.4	74.5 4.98	101 5.05	43.8 4.95	101 4.95	91.9 4.98

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 680737
American Safety Services, Odessa, TX

Project Name: Cimarex-Crawford 27 26 Fee 15H

Date Received in Lab: Fri 12.11.2020 11:10
Report Date: 12.17.2020 10:52
Project Manager: Jessica Kramer

Project Id:
Contact: Thomas Franklin
Project Location: Eddy Co.NM

Analysis Requested	Lab Id:	680737-079					
	Field Id:	East Site					
	Depth:	0-0.5 ft					
	Matrix:	SOIL					
	Sampled:	12.10.2020 16:30					
Chloride by EPA 300	Extracted:	12.14.2020 13:25					
	Analyzed:	12.15.2020 17:42					
	Units/RL:	mg/kg RL					
Chloride		235 49.9					

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Jessica Kramer



Environment Testing
Xenco

Analytical Report 680737

for

American Safety Services

Project Manager: Thomas Franklin

Cimarex-Crawford 27 26 Fee 15H

12.17.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Environment Testing
Xenco

12.17.2020

Project Manager: **Thomas Franklin****American Safety Services**

8715 Andrews Hwy

Odessa, TX 79765

Reference: Eurofins Xenco, LLC Report No(s): **680737****Cimarex-Crawford 27 26 Fee 15H**

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 Eurofins Xenco, LLC Report Number(s) 680737. 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 Eurofins Xenco, LLC. 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. 680737 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer". The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Auger Hole 1	S	12.10.2020 10:00	0 - 0.5 ft	680737-001
Auger Hole 1	S	12.10.2020 10:05	0.5 - 1 ft	680737-002
Auger Hole 1	S	12.10.2020 10:10	1 - 1.5 ft	680737-003
Auger Hole 2	S	12.10.2020 10:15	0 - 0.5 ft	680737-004
Auger Hole 2	S	12.10.2020 10:20	0.5 - 1 ft	680737-005
Auger Hole 2	S	12.10.2020 10:25	1 - 1.5 ft	680737-006
Auger Hole 3	S	12.10.2020 10:30	0 - 0.5 ft	680737-007
Auger Hole 3	S	12.10.2020 10:35	0.5 - 1 ft	680737-008
Auger Hole 3	S	12.10.2020 10:40	1 - 1.5 ft	680737-009
Auger Hole 4	S	12.10.2020 10:45	0 - 0.5 ft	680737-010
Auger Hole 4	S	12.10.2020 10:50	0.5 - 1 ft	680737-011
Auger Hole 4	S	12.10.2020 10:55	1 - 1.5 ft	680737-012
Auger Hole 5	S	12.10.2020 11:00	0 - 0.5 ft	680737-013
Auger Hole 5	S	12.10.2020 11:05	0.5 - 1 ft	680737-014
Auger Hole 5	S	12.10.2020 11:10	1 - 1.5 ft	680737-015
Auger Hole 6	S	12.10.2020 11:15	0 - 0.5 ft	680737-016
Auger Hole 6	S	12.10.2020 11:20	0.5 - 1 ft	680737-017
Auger Hole 6	S	12.10.2020 11:25	1 - 1.5 ft	680737-018
Auger Hole 7	S	12.10.2020 11:30	0 - 0.5 ft	680737-019
Auger Hole 7	S	12.10.2020 11:35	0.5 - 1 ft	680737-020
Auger Hole 7	S	12.10.2020 11:40	1 - 1.5 ft	680737-021
Auger Hole 8	S	12.10.2020 11:45	0 - 0.5 ft	680737-022
Auger Hole 8	S	12.10.2020 11:50	0.5 - 1 ft	680737-023
Auger Hole 8	S	12.10.2020 11:55	1 - 1.5 ft	680737-024
Auger Hole 9	S	12.10.2020 12:00	0 - 0.5 ft	680737-025
Auger Hole 9	S	12.10.2020 12:05	0.5 - 1 ft	680737-026
Auger Hole 9	S	12.10.2020 12:10	1 - 1.5 ft	680737-027
Auger Hole 10	S	12.10.2020 12:15	0 - 0.5 ft	680737-028
Auger Hole 10	S	12.10.2020 12:20	0.5 - 1 ft	680737-029
Auger Hole 10	S	12.10.2020 12:25	1 - 1.5 ft	680737-030
Auger Hole 11	S	12.10.2020 12:30	0 - 0.5 ft	680737-031
Auger Hole 11	S	12.10.2020 12:35	0.5 - 1 ft	680737-032
Auger Hole 11	S	12.10.2020 12:40	1 - 1.5 ft	680737-033
Auger Hole 12	S	12.10.2020 12:45	0 - 0.5 ft	680737-034
Auger Hole 12	S	12.10.2020 12:50	0.5 - 1 ft	680737-035
Auger Hole 12	S	12.10.2020 12:55	1 - 1.5 ft	680737-036
Auger Hole 13	S	12.10.2020 13:00	0 - 0.5 ft	680737-037
Auger Hole 13	S	12.10.2020 13:05	0.5 - 1 ft	680737-038
Auger Hole 13	S	12.10.2020 13:10	1 - 1.5 ft	680737-039
Auger Hole 14	S	12.10.2020 13:15	0 - 0.5 ft	680737-040
Auger Hole 14	S	12.10.2020 13:20	0.5 - 1 ft	680737-041
Auger Hole 14	S	12.10.2020 13:25	1 - 1.5 ft	680737-042
Auger Hole 15	S	12.10.2020 13:30	0 - 0.5 ft	680737-043



Sample Cross Reference 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Auger Hole 15	S	12.10.2020 13:35	0.5 - 1 ft	680737-044
Auger Hole 15	S	12.10.2020 13:40	1 - 1.5 ft	680737-045
Auger Hole 16	S	12.10.2020 13:45	0 - 0.5 ft	680737-046
Auger Hole 16	S	12.10.2020 13:50	0.5 - 1 ft	680737-047
Auger Hole 16	S	12.10.2020 13:55	1 - 1.5 ft	680737-048
Auger Hole 17	S	12.10.2020 14:00	0 - 0.5 ft	680737-049
Auger Hole 17	S	12.10.2020 14:05	0.5 - 1 ft	680737-050
Auger Hole 17	S	12.10.2020 14:10	1 - 1.5 ft	680737-051
Auger Hole 18	S	12.10.2020 14:15	0 - 0.5 ft	680737-052
Auger Hole 18	S	12.10.2020 14:20	0.5 - 1 ft	680737-053
Auger Hole 18	S	12.10.2020 14:25	1 - 1.5 ft	680737-054
Auger Hole 19	S	12.10.2020 14:30	0 - 0.5 ft	680737-055
Auger Hole 19	S	12.10.2020 14:35	0.5 - 1 ft	680737-056
Auger Hole 19	S	12.10.2020 14:40	1 - 1.5 ft	680737-057
Auger Hole 20	S	12.10.2020 14:45	0 - 0.5 ft	680737-058
Auger Hole 20	S	12.10.2020 14:50	0.5 - 1 ft	680737-059
Auger Hole 20	S	12.10.2020 14:55	1 - 1.5 ft	680737-060
Auger Hole 21	S	12.10.2020 15:00	0 - 0.5 ft	680737-061
Auger Hole 21	S	12.10.2020 15:05	0.5 - 1 ft	680737-062
Auger Hole 21	S	12.10.2020 15:10	1 - 1.5 ft	680737-063
Auger Hole 22	S	12.10.2020 15:15	0 - 0.5 ft	680737-064
Auger Hole 22	S	12.10.2020 15:20	0.5 - 1 ft	680737-065
Auger Hole 22	S	12.10.2020 15:25	1 - 1.5 ft	680737-066
Auger Hole 23	S	12.10.2020 15:30	0 - 0.5 ft	680737-067
Auger Hole 23	S	12.10.2020 15:35	0.5 - 1 ft	680737-068
Auger Hole 23	S	12.10.2020 15:40	1 - 1.5 ft	680737-069
Auger Hole 24	S	12.10.2020 15:45	0 - 0.5 ft	680737-070
Auger Hole 24	S	12.10.2020 15:50	0.5 - 1 ft	680737-071
Auger Hole 24	S	12.10.2020 15:55	1 - 1.5 ft	680737-072
Auger Hole 25	S	12.10.2020 16:00	0 - 0.5 ft	680737-073
Auger Hole 25	S	12.10.2020 16:05	0.5 - 1 ft	680737-074
Auger Hole 25	S	12.10.2020 16:10	1 - 1.5 ft	680737-075
North Site	S	12.10.2020 16:15	0 - 0.5 ft	680737-076
South Site	S	12.10.2020 16:20	0 - 0.5 ft	680737-077
West Site	S	12.10.2020 16:25	0 - 0.5 ft	680737-078
East Site	S	12.10.2020 16:30	0 - 0.5 ft	680737-079



CASE NARRATIVE

Client Name: American Safety Services

Project Name: Cimarex-Crawford 27 26 Fee 15H

Project ID:
Work Order Number(s): 680737

Report Date: 12.17.2020
Date Received: 12.11.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3144856 Chloride by EPA 300

Lab Sample ID 680737-014 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 680737-004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 1**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-001

Date Collected: 12.10.2020 10:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.11.2020 18:45

% Moisture:

Seq Number: 3144717

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1480	49.9	mg/kg	12.12.2020 04:43		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 1**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-002

Date Collected: 12.10.2020 10:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.11.2020 18:45

% Moisture:

Seq Number: 3144717

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	207	4.97	mg/kg	12.12.2020 04:48		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 1**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-003

Date Collected: 12.10.2020 10:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.11.2020 18:45

% Moisture:

Seq Number: 3144717

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	233	5.03	mg/kg	12.12.2020 04:54		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 2**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-004

Date Collected: 12.10.2020 10:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2000	25.0	mg/kg	12.14.2020 17:20	X	5

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 2**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-005

Date Collected: 12.10.2020 10:20

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1830	24.8	mg/kg	12.14.2020 17:36		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 2**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-006

Date Collected: 12.10.2020 10:25

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1580	25.1	mg/kg	12.14.2020 17:41		5

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 3**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-007

Date Collected: 12.10.2020 10:30

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	173	50.0	mg/kg	12.14.2020 17:47		10

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 3**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-008

Date Collected: 12.10.2020 10:35

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	143	5.00	mg/kg	12.14.2020 17:52		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 3**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-009

Date Collected: 12.10.2020 10:40

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	130	5.00	mg/kg	12.14.2020 18:07		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 4**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-010

Date Collected: 12.10.2020 10:45

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4480	50.5	mg/kg	12.14.2020 18:13		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 4**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-011

Date Collected: 12.10.2020 10:50

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	243	4.98	mg/kg	12.14.2020 18:18		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 4**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-012

Date Collected: 12.10.2020 10:55

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	390	4.95	mg/kg	12.14.2020 18:23		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 5**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-013

Date Collected: 12.10.2020 11:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	5.04	mg/kg	12.14.2020 18:28		1

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 5**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-014

Date Collected: 12.10.2020 11:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	5.05	mg/kg	12.14.2020 18:34		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 5**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-015

Date Collected: 12.10.2020 11:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	98.5	4.96	mg/kg	12.14.2020 18:49		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 6**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-016

Date Collected: 12.10.2020 11:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	24.8	mg/kg	12.14.2020 18:54		5

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 6**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-017

Date Collected: 12.10.2020 11:20

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.6	4.98	mg/kg	12.14.2020 19:10		1

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 6**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-018

Date Collected: 12.10.2020 11:25

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	73.3	5.02	mg/kg	12.14.2020 19:15		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 7**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-019

Date Collected: 12.10.2020 11:30

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	750	49.5	mg/kg	12.14.2020 19:21		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 7**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-020

Date Collected: 12.10.2020 11:35

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.6	4.95	mg/kg	12.14.2020 19:26		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 7**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-021

Date Collected: 12.10.2020 11:40

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.4	4.97	mg/kg	12.14.2020 19:31		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 8**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-022

Date Collected: 12.10.2020 11:45

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	271	49.9	mg/kg	12.14.2020 19:36		10

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 8**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-023

Date Collected: 12.10.2020 11:50

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 08:50

% Moisture:

Seq Number: 3144856

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.7	5.02	mg/kg	12.14.2020 19:41		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 8**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-024

Date Collected: 12.10.2020 11:55

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.2	5.03	mg/kg	12.14.2020 11:07		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 9**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-025

Date Collected: 12.10.2020 12:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	596	4.99	mg/kg	12.14.2020 11:22		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 9**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-026

Date Collected: 12.10.2020 12:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	621	4.96	mg/kg	12.14.2020 11:28		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 9**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-027

Date Collected: 12.10.2020 12:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	527	4.95	mg/kg	12.14.2020 11:33		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 10**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-028

Date Collected: 12.10.2020 12:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1300	25.2	mg/kg	12.14.2020 11:38		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 10**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-029

Date Collected: 12.10.2020 12:20

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1000	4.95	mg/kg	12.14.2020 11:54		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 10**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-030

Date Collected: 12.10.2020 12:25

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	768	4.95	mg/kg	12.14.2020 11:59		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 11**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-031

Date Collected: 12.10.2020 12:30

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	49.5	mg/kg	12.14.2020 12:04		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 11**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-032

Date Collected: 12.10.2020 12:35

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	150	4.99	mg/kg	12.14.2020 12:09		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 11**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-033

Date Collected: 12.10.2020 12:40

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	4.97	mg/kg	12.14.2020 12:14		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 12**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-034

Date Collected: 12.10.2020 12:45

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	575	49.6	mg/kg	12.14.2020 12:20		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 12**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-035

Date Collected: 12.10.2020 12:50

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	106	50.2	mg/kg	12.14.2020 12:35		10



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 12**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-036

Date Collected: 12.10.2020 12:55

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.6	5.00	mg/kg	12.14.2020 12:40		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 13**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-037

Date Collected: 12.10.2020 13:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2760	99.0	mg/kg	12.14.2020 12:56		20



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 13**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-038

Date Collected: 12.10.2020 13:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	248	5.04	mg/kg	12.14.2020 13:01		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 13**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-039

Date Collected: 12.10.2020 13:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	4.95	mg/kg	12.14.2020 13:06		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 14**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-040

Date Collected: 12.10.2020 13:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3090	99.0	mg/kg	12.14.2020 13:11		20



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 14**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-041

Date Collected: 12.10.2020 13:20

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	159	4.95	mg/kg	12.14.2020 13:17		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 14**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-042

Date Collected: 12.10.2020 13:25

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 09:15

% Moisture:

Seq Number: 3144859

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	281	5.00	mg/kg	12.14.2020 13:22		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 15**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-043

Date Collected: 12.10.2020 13:30

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	396	24.9	mg/kg	12.14.2020 13:58		5



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 15**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-044

Date Collected: 12.10.2020 13:35

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	252	4.99	mg/kg	12.14.2020 14:14		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 15**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-045

Date Collected: 12.10.2020 13:40

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	318	5.04	mg/kg	12.14.2020 14:19		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 16**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-046

Date Collected: 12.10.2020 13:45

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	547	24.8	mg/kg	12.14.2020 14:24		5



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 16**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-047

Date Collected: 12.10.2020 13:50

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	551	24.8	mg/kg	12.14.2020 14:29		5



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 16**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-048

Date Collected: 12.10.2020 13:55

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	547	24.8	mg/kg	12.14.2020 14:45		5



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 17**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-049

Date Collected: 12.10.2020 14:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2380	24.8	mg/kg	12.14.2020 14:50		5



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 17**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-050

Date Collected: 12.10.2020 14:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	417	5.00	mg/kg	12.14.2020 14:55		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 17**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-051

Date Collected: 12.10.2020 14:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	367	5.00	mg/kg	12.14.2020 15:00		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 18**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-052

Date Collected: 12.10.2020 14:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2130	25.2	mg/kg	12.14.2020 15:06		5



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 18**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-053

Date Collected: 12.10.2020 14:20

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	153	4.99	mg/kg	12.14.2020 15:11		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 18**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-054

Date Collected: 12.10.2020 14:25

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	168	5.05	mg/kg	12.14.2020 15:26		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 19**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-055

Date Collected: 12.10.2020 14:30

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	235	24.9	mg/kg	12.14.2020 15:32		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 19**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-056

Date Collected: 12.10.2020 14:35

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	444	4.97	mg/kg	12.14.2020 15:47		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 19**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-057

Date Collected: 12.10.2020 14:40

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	466	5.00	mg/kg	12.14.2020 15:52		1



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American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 20**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-058

Date Collected: 12.10.2020 14:45

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1080	24.8	mg/kg	12.14.2020 15:58		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 20**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-059

Date Collected: 12.10.2020 14:50

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	176	5.03	mg/kg	12.14.2020 16:03		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 20**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-060

Date Collected: 12.10.2020 14:55

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	164	4.98	mg/kg	12.14.2020 16:08		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 21**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-061

Date Collected: 12.10.2020 15:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	889	24.8	mg/kg	12.14.2020 16:13		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 21**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-062

Date Collected: 12.10.2020 15:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 11:55

% Moisture:

Seq Number: 3144861

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.4	5.04	mg/kg	12.14.2020 16:18		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 21**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-063

Date Collected: 12.10.2020 15:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.9	4.96	mg/kg	12.15.2020 10:47		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 22**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-064

Date Collected: 12.10.2020 15:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	67.1	50.0	mg/kg	12.15.2020 10:42		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 22**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-065

Date Collected: 12.10.2020 15:20

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	4.97	mg/kg	12.15.2020 11:03		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 22**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-066

Date Collected: 12.10.2020 15:25

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	5.03	mg/kg	12.15.2020 11:08		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 23**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-067

Date Collected: 12.10.2020 15:30

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	266	49.6	mg/kg	12.15.2020 11:23		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 23**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-068

Date Collected: 12.10.2020 15:35

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	395	24.8	mg/kg	12.15.2020 11:29		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 23**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-069

Date Collected: 12.10.2020 15:40

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	481	25.2	mg/kg	12.15.2020 11:34		5



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 24**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-070

Date Collected: 12.10.2020 15:45

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	262	50.0	mg/kg	12.15.2020 11:39		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 24**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-071

Date Collected: 12.10.2020 15:50

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.14.2020 13:20

% Moisture:

Seq Number: 3144883

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	233	5.00	mg/kg	12.15.2020 11:44		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 24**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-072

Date Collected: 12.10.2020 15:55

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:

Seq Number: 3145028

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	295	5.02	mg/kg	12.15.2020 15:13		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 25**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-073

Date Collected: 12.10.2020 16:00

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:

Seq Number: 3145028

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	541	50.4	mg/kg	12.15.2020 15:28		10



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 25**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-074

Date Collected: 12.10.2020 16:05

Sample Depth: 0.5 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:

Seq Number: 3145028

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	74.5	4.98	mg/kg	12.15.2020 15:34		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **Auger Hole 25**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-075

Date Collected: 12.10.2020 16:10

Sample Depth: 1 - 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:

Seq Number: 3145028

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	5.05	mg/kg	12.15.2020 15:39		1

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **North Site**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-076

Date Collected: 12.10.2020 16:15

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:

Seq Number: 3145028

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.8	4.95	mg/kg	12.15.2020 15:44		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **South Site**

Matrix: Soil

Date Received: 12.11.2020 11:10

Lab Sample Id: 680737-077

Date Collected: 12.10.2020 16:20

Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:

Seq Number: 3145028

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	4.95	mg/kg	12.15.2020 16:00		1



Certificate of Analytical Results 680737

American Safety Services, Odessa, TX

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **West Site**
Lab Sample Id: 680737-078

Matrix: Soil
Date Collected: 12.10.2020 16:25

Date Received: 12.11.2020 11:10
Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:
Basis: Wet Weight

Seq Number: 3145028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	91.9	4.98	mg/kg	12.15.2020 17:37		1

**Certificate of Analytical Results 680737****American Safety Services, Odessa, TX**

Cimarex-Crawford 27 26 Fee 15H

Sample Id: **East Site**
Lab Sample Id: 680737-079

Matrix: Soil
Date Collected: 12.10.2020 16:30

Date Received: 12.11.2020 11:10
Sample Depth: 0 - 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.14.2020 13:25

% Moisture:
Basis: Wet Weight

Seq Number: 3145028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	235	49.9	mg/kg	12.15.2020 17:42		10

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. **ND** Not Detected.

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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



American Safety Services

Cimarex-Crawford 27 26 Fee 15H

Analytical Method: Chloride by EPA 300

Seq Number: 3144717

MB Sample Id: 7716959-1-BLK

Matrix: Solid

LCS Sample Id: 7716959-1-BKS

Prep Method: E300P

Date Prep: 12.11.2020

LCSD Sample Id: 7716959-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	263	105	262	105	90-110	0	20	mg/kg	12.12.2020 02:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3144856

MB Sample Id: 7717020-1-BLK

Matrix: Solid

LCS Sample Id: 7717020-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717020-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	272	109	270	108	90-110	1	20	mg/kg	12.14.2020 17:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3144859

MB Sample Id: 7717022-1-BLK

Matrix: Solid

LCS Sample Id: 7717022-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717022-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	260	104	259	104	90-110	0	20	mg/kg	12.14.2020 10:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3144861

MB Sample Id: 7717023-1-BLK

Matrix: Solid

LCS Sample Id: 7717023-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717023-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	258	103	90-110	1	20	mg/kg	12.14.2020 13:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3144883

MB Sample Id: 7717047-1-BLK

Matrix: Solid

LCS Sample Id: 7717047-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	256	102	256	102	90-110	0	20	mg/kg	12.15.2020 09:24	

Analytical Method: Chloride by EPA 300

Seq Number: 3145028

MB Sample Id: 7717049-1-BLK

Matrix: Solid

LCS Sample Id: 7717049-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717049-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	260	104	90-110	0	20	mg/kg	12.15.2020 15:02	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



American Safety Services

Cimarex-Crawford 27 26 Fee 15H

Analytical Method: Chloride by EPA 300

Seq Number: 3144717

Parent Sample Id: 680769-003

Matrix: Soil

MS Sample Id: 680769-003 S

Prep Method: E300P

Date Prep: 12.11.2020

MSD Sample Id: 680769-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	304	1260	1600	103	1600	103	90-110	0	20	mg/kg	12.12.2020 02:30	

Analytical Method: Chloride by EPA 300

Seq Number: 3144717

Parent Sample Id: 680770-002

Matrix: Soil

MS Sample Id: 680770-002 S

Prep Method: E300P

Date Prep: 12.11.2020

MSD Sample Id: 680770-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	793	1240	2100	105	2100	105	90-110	0	20	mg/kg	12.12.2020 03:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3144856

Parent Sample Id: 680737-004

Matrix: Soil

MS Sample Id: 680737-004 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2000	1250	3360	109	3390	111	90-110	1	20	mg/kg	12.14.2020 17:26	X

Analytical Method: Chloride by EPA 300

Seq Number: 3144856

Parent Sample Id: 680737-014

Matrix: Soil

MS Sample Id: 680737-014 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	111	253	376	105	377	105	90-110	0	20	mg/kg	12.14.2020 18:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3144859

Parent Sample Id: 680737-024

Matrix: Soil

MS Sample Id: 680737-024 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-024 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.2	252	265	101	265	101	90-110	0	20	mg/kg	12.14.2020 11:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3144859

Parent Sample Id: 680737-034

Matrix: Soil

MS Sample Id: 680737-034 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-034 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	575	2480	3090	101	3080	101	90-110	0	20	mg/kg	12.14.2020 12:25	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



American Safety Services

Cimarex-Crawford 27 26 Fee 15H

Analytical Method: Chloride by EPA 300

Seq Number: 3144861

Parent Sample Id: 680737-043

Matrix: Soil

MS Sample Id: 680737-043 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-043 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	396	1250	1750	108	1720	106	90-110	2	20	mg/kg	12.14.2020 14:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3144861

Parent Sample Id: 680737-053

Matrix: Soil

MS Sample Id: 680737-053 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-053 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	153	250	406	101	404	100	90-110	0	20	mg/kg	12.14.2020 15:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3144883

Parent Sample Id: 680737-063

Matrix: Soil

MS Sample Id: 680737-063 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-063 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	37.9	248	301	106	297	104	90-110	1	20	mg/kg	12.15.2020 10:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3144883

Parent Sample Id: 680875-001

Matrix: Soil

MS Sample Id: 680875-001 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680875-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	32.3	253	309	109	304	107	90-110	2	20	mg/kg	12.15.2020 09:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3145028

Parent Sample Id: 680737-072

Matrix: Soil

MS Sample Id: 680737-072 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680737-072 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	295	251	570	110	570	110	90-110	0	20	mg/kg	12.15.2020 15:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3145028

Parent Sample Id: 680790-003

Matrix: Soil

MS Sample Id: 680790-003 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680790-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.7	250	310	115	309	115	90-110	0	20	mg/kg	12.15.2020 18:03	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 1 of 8

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenoco.com

Xenoco Quote #

Xenoco Job #

4800737

Client / Reporting Information

Company Name / Branch:

American Safety Services Inc.

Company Address:

8715 Andrews Hwy

Odessa Tx 79765

Email:

tf@american-safety.net

Phone No:

432-557-9868

Project Contact:

Thomas Franklin

Sampler's Name

Project Information

Project Name/Number:

Cititex-Crawford 27 26 Feb 15H

Project Location:

Eddy Co. NM

Invoice To:

Cimarex Tall Montoya

PO Number:

tmontoya@cimarex.com

No. Field ID / Point of Collection

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride 300	Field Comments
1	Auger Hole 1	0-5	12/10/2020	1000	S	1	X							X		
2	Auger Hole 1	0-5-1	12/10/2020	1005	S	1	X							X		
3	Auger Hole 1	1-15	12/10/2020	1010	S	1	X							X		
4	Auger Hole 2	0-5	12/10/2020	1015	S	1	X							X		
5	Auger Hole 2	0-5-1	12/10/2020	1020	S	1	X							X		
6	Auger Hole 2	1-15	12/10/2020	1025	S	1	X							X		
7	Auger Hole 3	0-5	12/10/2020	1030	S	1	X							X		
8	Auger Hole 3	0-5-1	12/10/2020	1035	S	1	X							X		
9	Auger Hole 3	1-15	12/10/2020	1040	S	1	X							X		
10	Auger Hole 4	0-5	12/10/2020	1045	S	1	X							X		

Data Deliverable Information

☐ Same Day TAT	☐ 5 Day TAT	☐ Level II Std QC	☐ Level IV (Full Data Pkg / raw data)
☐ Next Day EMERGENCY	☐ 7 Day TAT	☐ Level III Std QC+ Forms	☐ TRRP Level IV
☐ 2 Day EMERGENCY	☒ Contract TAT	☐ Level 3 (CLP Forms)	☐ UST / RG-411
☐ 3 Day EMERGENCY		☐ TRRP Checklist	

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

SAFETY NOTICE: MUST BE DOCUMENTED BY THE FIELD SAMPLER FOR ALL SAMPLES. NO EXCEPTIONS.

Relinquished by Sampler:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

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



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 2 of 8

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

www.xenco.com

Phoenix, Arizona (480-355-0900)

Client / Reporting Information		Project Information		Xenon Quote #	Xenon Job #	Matrix Codes
Company Name / Branch: American Safety Services Inc.		Project Name/Number: Caterpillar - Crawford 2126 F-4C 15H			680737	
Company Address: 8715 Andrews Hwy Odessa TX 79765		Project Location: Eddy Co. NM				
Email: tfranklin@americansafety.net		Invoice To:				
Phone No: 432-557-9868						
Project Contact: Thomas Franklin		PO Number:				
Sampler's Name						

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride 300	Field Comments
1	Auger Hole 4	05-1	12/10/2020	1050	S	1	X							X		
2	Auger Hole 4	14-5	12/10/2020	1055	S	1	X							X		
3	Auger Hole 5	05-5	12/10/2020	1100	S	1	X							X		
4	Auger Hole 5	05-1	12/10/2020	1105	S	1	X							X		
5	Auger Hole 5	11-5	12/10/2020	1110	S	1	X							X		
6	Auger Hole 6	05-1	12/10/2020	1115	S	1	X							X		
7	Auger Hole 6	05-1	12/10/2020	1120	S	1	X							X		
8	Auger Hole 6	11-15	12/10/2020	1125	S	1	X							X		
9	Auger Hole 7	05-5	12/10/2020	1130	S	1	X							X		
10	Auger Hole 7	05-1	12/10/2020	1135	S	1	X							X		

Turnaround Time (Business days)		Data Deliverable Information		Notes:	
☐ Same Day TAT	☐ 5 Day TAT	☐ Level II Sid QC	☐ Level IV (Full Data Pkg / raw data)		
☐ Next Day EMERGENCY	☐ 7 Day TAT	☐ Level III Sid QC + Forms	☐ TRRP Level IV		
☐ 2 Day EMERGENCY	☒ Contract TAT	☐ Level 3 (CLP Forms)	☐ UST / RG-411		
☐ 3 Day EMERGENCY		☐ TRRP Checklist			
TAT Starts Day received by Lab, if received by 5:00 pm		FED-EX / UPS: Tracking #			

Relinquished by Sampler:		Date Time:	Received By:	Relinquished By:	Date Time:
1 Miguel De la Ma.		12/10/20	1110	J. Warner	2
Relinquished by:		Date Time:	Received By:	Relinquished By:	Date Time:
3			3		4
Relinquished by:		Date Time:	Received By:	Relinquished By:	Date Time:
5			5		

Notice: Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenon, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenon 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 losses are due to circumstances beyond the control of Xenon. A minimum charge of \$75 will be applied to each project. Xenon's liability will be limited to the cost of samples. Any samples received by Xenon 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

Page 3 of 8

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes	
Company Name / Branch: American Safety Services Inc.		Project Name/Number: City Creek - Oakland 2726 Fee 15H				W = Water S = Soil/SedSolid 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	
Company Address: 8715 Andrews Hwy Odessa TX 79765		Project Location: Eddy Co. NH					
Email: tfranklin@americansafety.net		Invoice To:					
Phone No: 432-557-9868		PO Number:					
Project Contact: Thomas Franklin		Samplers Name					
Field ID / Point of Collection		Collection					
No.	Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles	
1	Auger Hole 7	12/10/2020	1140	S	1	X	
2	Auger Hole 8	12/10/2020	1145	S	1	X	
3	Auger Hole 8	12/10/2020	1150	S	1	X	
4	Auger Hole 8	12/10/2020	1155	S	1	X	
5	Auger Hole 9	12/10/2020	1200	S	1	X	
6	Auger Hole 9	12/10/2020	1205	S	1	X	
7	Auger Hole 9	12/10/2020	1210	S	1	X	
8	Auger Hole 10	12/10/2020	1215	S	1	X	
9	Auger Hole 10	12/10/2020	1220	S	1	X	
10	Auger Hole 10	12/10/2020	1225	S	1	X	
Turnaround Time (Business days)		Data Deliverable Information					
☐ Same Day TAT		☐ Level II Std QC		☐ Level IV (Full Data Pkg/raw data)			
☐ Next Day EMERGENCY		☐ 7 Day TAT		☐ Level III Std QC+ Forms		☐ TRRP Level IV	
☐ 2 Day EMERGENCY		☒ Contract TAT		☐ Level 3 (CLP Forms)		☐ UST / RG 411	
☐ 3 Day EMERGENCY				☐ TRRP Checklist			
TAT Starts Day received by Lab, if received by 5:00 pm							
Relinquished by Sampler		Date Time:		Received By:		Date Time:	
1 <i>Alvin Delmon</i>		12/11/20 1110		1 <i>Alvin Delmon</i>		2	
Relinquished by:		Date Time:		Received By:		Date Time:	
3				3		4	
Relinquished by:		Date Time:		Received By:		Date Time:	
5				5		4	
Preserved where applicable		On Ice		Cooler Temp.		Thermo. Corr. Factor	



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

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San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote # 480737

Xenco Job #

Analytical Information

Matrix Codes

Project Information

Project Name/Number: *CHANCE - Crawford 27 26 Feb 15H*

Project Location:

Invoice To:

Eddy CO NH

Phone No:

432-557-9868

PO Number:

Project Contact:

Thomas Franklin

Sample's Name

Field ID / Point of Collection

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	Cl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE
1	Auger Hole 11	0-0.5'	12/10/2020	1230	S	1	X							X
2	Auger Hole 11	0.5-1'	12/10/2020	1235	S	1	X							X
3	Auger Hole 11	1-1.5'	12/10/2020	1240	S	1	X							X
4	Auger Hole 12	0-0.5'	12/10/2020	1245	S	1	X							X
5	Auger Hole 12	0.5-1'	12/10/2020	1250	S	1	X							X
6	Auger Hole 12	1-1.5'	12/10/2020	1255	S	1	X							X
7	Auger Hole 13	0-0.5'	12/10/2020	1300	S	1	X							X
8	Auger Hole 13	0.5-1'	12/10/2020	1305	S	1	X							X
9	Auger Hole 13	1-1.5'	12/10/2020	1310	S	1	X							X
10	Auger Hole 14	0-0.5'	12/10/2020	1315	S	1	X							X

Chloride 300

Field Comments

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

Data Deliverable Information

Notes:

☐ Same Day TAT ☐ 5 Day TAT

☐ Next Day EMERGENCY ☐ 7 Day TAT

☐ 2 Day EMERGENCY ☒ Contract TAT

☐ 3 Day EMERGENCY ☐ TRRP Checklist

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

FED-EX / UPS: Tracking #

Relinquished by Sampler:

12/11/20 1110 1110

Relinquished By:

Date Time:

Received By:

Date Time:

Received By:

Date Time:

Received By:

Date Time:

Received By:

Date Time:

Received By:

Date Time:

Received By:

Date Time:

Received By:

Date Time:

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 losses 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.



Setting the Standard since 1990
 Stafford, Texas (281-240-4200)
 Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 5 of 8

San Antonio, Texas (210-509-3344)
 Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote #

Xenco Job #

686737

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

Analytical Information

Project Information

Project Name/Number: *Citrate - caused 27 26 Feb 15H*
 Project Location: *Eddy Co. NM*

Invoice To:

PO Number:

Project Contact:

Samplers Name

Field ID / Point of Collection

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride 300	Field Comments
1	Auger Hole 14	05-1'	12/10/2020	1320	S	1	X								X	
2	Auger Hole 14	1-1.5'	12/10/2020	1325	S	1	X								X	
3	Auger Hole 15	0-0.5'	12/10/2020	1330	S	1	X								X	
4	Auger Hole 15	0.5-1'	12/10/2020	1335	S	1	X								X	
5	Auger Hole 15	1-1.5'	12/10/2020	1340	S	1	X								X	
6	Auger Hole 16	0-0.5'	12/10/2020	1345	S	1	X								X	
7	Auger Hole 16	0.5-1'	12/10/2020	1350	S	1	X								X	
8	Auger Hole 16	1-1.5'	12/10/2020	1355	S	1	X								X	
9	Auger Hole 17	0-0.5'	12/10/2020	1400	S	1	X								X	
10	Auger Hole 17	0.5-1'	12/10/2020	1405	S	1	X								X	

Date Deliverable Information

Notes:

Same Day TAT ☐ 5 Day TAT ☐ Level II Std OC ☐ Level IV (Full Data Pkg / raw data)

Next Day EMERGENCY ☐ 7 Day TAT ☐ Level III Std OC + Forms ☐ TRRP Level IV

2 Day EMERGENCY ☒ Contract TAT ☐ Level 3 (CLP Forms) ☐ UST / RG-41

3 Day EMERGENCY ☐ TRRP Checklist

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

FED-EX / UPS: Tracking #

Relinquished by Sampler

Date Time:

Received By:

12/10/20 1110

Relinquished By:

Date Time:

Received By:

Relinquished by:

Date Time:

Received By:

12/10/20 1110

Relinquished By:

Date Time:

Received By:

Relinquished by:

Date Time:

Received By:

12/10/20 1110

Relinquished By:

Date Time:

Received By:

Relinquished by:

Date Time:

Received By:

12/10/20 1110

Relinquished By:

Date Time:

Received By:

On Ice

Cooler Temp. Thermo. Corr. Factor

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 losses 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.



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 6 of 8

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote #

Xenco Job #

1680737

Client / Reporting Information

Company Name / Branch:

American Safety Services Inc.

Company Address:

8715 Andrews Hwy
Odessa TX 79765

Email:

tfanklin@americansafety.net

Project Contact:

Thomas Franklin

Sampler's Name

Project Information

Project Name/Number:

CIVILTX - accident 27 26 Feb 15H

Project Location:

Invoice To:

PO Number:

Field ID / Point of Collection

Sample Depth

Date

Time

Matrix

of bottles

HCl

NaOH/Zn Acetate

HNO3

H2SO4

NaOH

NaHSO4

MEOH

NONE

Chloride 300

Field Comments

Notes:

FED-EX / UPS: Tracking #

On Ice

Cooler Temp.

Thermo. Corr. Factor

Relinquished by:

Relinquished By:

Date Time:

Received By:

Date Time:

Relinquished by:

Relinquished By:

Date Time:

Received By:

Date Time:

Relinquished by:

Relinquished By:

Date Time:



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

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San Antonio, Texas (210-509-3343)
Midland, Texas (432-704-5251)

www.xenco.com

Phoenix, Arizona (480-355-0900)

Xenco Quote # Xenco Job # 1080737

Client / Reporting Information

Company Name / Branch:
American Safety Services Inc.

Company Address:
8715 Andrews Hwy
Odessa Tx 79765

Email:
tfranklin@americansafety.net

Phone No:
432-557-9868

Project Contact:
Thomas Franklin

Sampler's Name

Project Information

Project Name/Number:
Cattaraugus-Crawford 2726 Fee 15H

Project Location:

Invoice To:

Eddy CO 11H

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

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride 300	Field Comments
1	Auger Hole 21	0-0.5'	12/10/2020	1500	S	1	X							X		
2	Auger Hole 21	0.5-1'	12/10/2020	1505	S	1	X							X		
3	Auger Hole 21	1-1.5'	12/10/2020	1510	S	1	X							X		
4	Auger Hole 22	0-0.5'	12/10/2020	1515	S	1	X							X		
5	Auger Hole 22	0.5-1'	12/10/2020	1520	S	1	X							X		
6	Auger Hole 22	1-1.5'	12/10/2020	1525	S	1	X							X		
7	Auger Hole 23	0-0.5'	12/10/2020	1530	S	1	X							X		
8	Auger Hole 23	0.5-1'	12/10/2020	1535	S	1	X							X		
9	Auger Hole 23	1-1.5'	12/10/2020	1540	S	1	X							X		
10	Auger Hole 24	0-0.5'	12/10/2020	1545	S	1	X							X		

Data Deliverable Information

Notes:

☐ Same Day TAT ☐ 5 Day TAT

☐ Next Day EMERGENCY ☐ 7 Day TAT

☐ 2 Day EMERGENCY ☒ Contract TAT

☐ 3 Day EMERGENCY ☐ TRRP Checklist

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

Relinquished by Sampler:

Relinquished by:

Relinquished by:

Relinquished by:

Date Time:

Date Time:

Date Time:

Date Time:

Received By:

Received By:

Received By:

Received By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Date Time:

Date Time:

Date Time:

Date Time:

Received By:

Received By:

Received By:

Received By:

On Ice

Cooler Temp.

Thermo. Corr. Factor



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-302-0300)

San Antonio, Texas (210-509-3344)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

CHAIN OF CUSTODY

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www.xencolab.com

Xenco Quote # 1680737

Xenco Job # 1680737

Client / Reporting Information

Company Name / Branch:
American Safety Services Inc.

Company Address:
8715 Andrews Hwy
Odessa TX 79765

Email:
tfranklin@americansafety.net

Phone No:
432-557-9868

Project Contact:
Thomas Franklin

Sample's Name

Project Information

Project Name/Number:

City Creek - Crawford 27 26 Feb 15H

Project Location:

Invoice To:

Feddy CO-111

PO Number:

Field ID / Point of Collection

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCI	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride 300	Field Comments
1	Auger Hole 24	0'-5'-1'	12/10/2020	1550	S	1	X								X	
2	Auger Hole 24	1'-1'-5'	12/10/2020	1555	S	1	X								X	
3	Auger Hole 25	0'-0'-5'	12/10/2020	1600	S	1	X								X	
4	Auger Hole 25	0'-5'-1'	12/10/2020	1605	S	1	X								X	
5	Auger Hole 25	1'-1'-5'	12/10/2020	1610	S	1	X								X	
6	North site	0'-0'-5'	12/10/2020	1615	S	1	X								X	
7	South site	0'-0'-5'	12/10/2020	1620	S	1	X								X	
8	West site	0'-0'-5'	12/10/2020	1625	S	1	X								X	
9	East site	0'-0'-5'	12/10/2020	1630	S	1	X								X	
10	NEE															

Data Deliverable Information

☐ Same Day TAT ☐ 5 Day TAT ☐ Level II Std QC ☐ Level IV (Full Data Pkg / raw data)

☐ Next Day EMERGENCY ☐ 7 Day TAT ☐ Level III Std QC + Forms ☐ TRRP Level IV

☐ 2 Day EMERGENCY ☒ Contract TAT ☐ Level 3 (CLP Forms) ☐ UST / RG-411

☐ 3 Day EMERGENCY ☐ TRRP Checklist

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

DATE RECEIVED MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:

Date Time:

12/10/20 1110

Received By:

Date Time:

Received By:

Relinquished by:

Date Time:

12/10/20 1110

Received By:

Date Time:

Received By:

Relinquished by:

Date Time:

12/10/20 1110

Received By:

Date Time:

Received By:

Preserved where applicable

On Ice

Cooler Temp.

Thermo. Corr. Factor

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

Field Comments

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 losses 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.

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: American Safety Services**Date/ Time Received:** 12.11.2020 11.10.00 AM**Work Order #:** 680737**Acceptable Temperature Range:** 0 - 6 degC**Air and Metal samples Acceptable Range:** Ambient**Temperature Measuring device used :** IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.7
#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)?	N/A
#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:



Brianna Teel

Date: 12.11.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.14.2020

Certificate of Analysis Summary 684458
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy Co. NM
Project Location: Cimarrex-Crawford 27- 26 Fee 15H
Date Received in Lab: Wed 01.13.2021 08:30
Report Date: 01.22.2021 14:21
Project Manager: Jessica Kramer

Analysis Requested			Lab Id: Field Id: Depth: Matrix: Sampled:	684458-001 Confirmation Sample 1 2ft SOIL 01.12.2021 10:00	684458-002 Confirmation Sample 2 2ft SOIL 01.12.2021 10:05	684458-003 Confirmation Sample 3 2ft SOIL 01.12.2021 10:10	684458-004 Confirmation Sample 4 1.5 SOIL 01.12.2021 10:15	684458-005 Confirmation Sample 5 1.5 SOIL 01.12.2021 10:20	684458-006 Confirmation Sample 6 6ir SOIL 01.12.2021 10:25
BTEX by EPA 8021B			Extracted:	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00
			Analyzed:	01.13.2021 13:14	01.13.2021 13:34	01.13.2021 13:55	01.13.2021 14:15	01.13.2021 14:35	01.13.2021 14:56
			Units/RL:	mg/kg RL <0.00200 0.00200	mg/kg RL <0.00200 0.00200	mg/kg RL <0.00202 0.00202	mg/kg RL <0.00201 0.00201	mg/kg RL <0.00201 0.00201	mg/kg RL <0.00200 0.00200
Benzene									
Toluene									
Ethylbenzene									
m,p-Xylenes									
o-Xylene									
Total Xylenes									
Total BTEX									
Chloride by EPA 300			Extracted:	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05
			Analyzed:	01.14.2021 13:55	01.14.2021 14:00	01.14.2021 14:05	01.14.2021 14:11	01.14.2021 14:27	01.14.2021 14:32
			Units/RL:	mg/kg RL 37.1 5.00	mg/kg RL 39.8 5.03	mg/kg RL 150 4.98	mg/kg RL 150 4.96	mg/kg RL 157 5.04	mg/kg RL 167 4.97
Chloride									
TPH By SW8015 Mod			Extracted:	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00
			Analyzed:	01.13.2021 15:06	01.13.2021 16:00	01.13.2021 16:19	01.13.2021 16:37	01.13.2021 16:56	01.13.2021 17:15
			Units/RL:	mg/kg RL <50.0 50.0	mg/kg RL <50.0 50.0	mg/kg RL <50.0 50.0	mg/kg RL <49.9 49.9	mg/kg RL <49.9 49.9	mg/kg RL <50.0 50.0
Gasoline Range Hydrocarbons (GRO)									
Diesel Range Organics (DRO)									
Motor Oil Range Hydrocarbons (MRO)									
Total TPH									

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 684458
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy Co. NM
Project Location: **Project Name:** Cimarex-Crawford 27- 26 Fee 15H
Date Received in Lab: Wed 01.13.2021 08:30
Report Date: 01.22.2021 14:21
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	684458-007 Confirmation Sample 7 6in SOIL 01.12.2021 10:30	684458-008 Confirmation Sample 8 6in SOIL 01.12.2021 10:35	684458-009 Confirmation Sample 9 6in SOIL 01.12.2021 10:40	684458-010 Confirmation Sample 10 6 SOIL 01.12.2021 10:45	684458-011 Confirmation Sample 11 6 SOIL 01.12.2021 10:50	684458-012 Confirmation Sample 12 6 SOIL 01.12.2021 10:55
	Extracted: Analyzed: Units/RL:	BTEX by EPA 8021B	01.13.2021 09:00 01.13.2021 15:16 mg/kg RL <0.00201 0.00201	01.13.2021 09:00 01.13.2021 15:36 mg/kg RL <0.00200 0.00200	01.13.2021 09:00 01.13.2021 15:57 mg/kg RL <0.00200 0.00200	01.13.2021 09:00 01.13.2021 17:40 mg/kg RL <0.00199 0.00199	01.13.2021 09:00 01.13.2021 18:00 mg/kg RL <0.00200 0.00200
Benzene							
Toluene							
Ethylbenzene							
m,p-Xylenes							
o-Xylene							
Total Xylenes							
Total BTEX							
Chloride by EPA 300	Extracted:	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05	01.14.2021 09:05
	Analyzed:	01.14.2021 14:48	01.14.2021 14:53	01.14.2021 14:59	01.14.2021 15:04	01.14.2021 15:09	01.14.2021 15:15
	Units/RL:	mg/kg RL 159 4.99	mg/kg RL 284 4.96	mg/kg RL 226 4.95	mg/kg RL 220 4.95	mg/kg RL 178 5.03	mg/kg RL 167 5.00
TPH By SW8015 Mod	Extracted:	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00	01.13.2021 12:00
	Analyzed:	01.13.2021 17:33	01.13.2021 17:52	01.13.2021 18:10	01.13.2021 18:28	01.13.2021 19:05	01.13.2021 19:24
	Units/RL:	mg/kg RL <49.9 49.9	mg/kg RL <50.0 50.0	mg/kg RL <50.0 50.0	mg/kg RL <49.9 49.9	mg/kg RL <50.0 50.0	mg/kg RL <49.9 49.9
	Gasoline Range Hydrocarbons (GRO)						
	Diesel Range Organics (DRO)						
Motor Oil Range Hydrocarbons (MRO)							
Total TPH							

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 684458
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy Co. NM
Project Location: Cimarrex-Crawford 27- 26 Fee 15H
Date Received in Lab: Wed 01.13.2021 08:30
Report Date: 01.22.2021 14:21
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	684458-013	684458-014	684458-015	684458-016	684458-017	684458-018
	Field Id:	Confirmation Sample 13 6	S Wall 1	S Wall 2	S Wall 3	S Wall 4	S Wall 5
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.12.2021 11:00	01.12.2021 00:00	01.12.2021 00:00	01.12.2021 00:00	01.12.2021 00:00	01.12.2021 00:00
BTEX by EPA 8021B	Extracted:	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00	01.13.2021 09:00
	Analyzed:	01.13.2021 18:20	01.13.2021 18:41	01.13.2021 19:01	01.13.2021 19:22	01.13.2021 19:42	01.13.2021 20:02
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
	Toluene	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
	Ethylbenzene	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
	m,p-Xylenes	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403	<0.00404 0.00404	<0.00398 0.00398
Chloride by EPA 300	o-Xylene	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
	Total Xylenes	<0.00201 0.00201	<0.00199 0.00199	<0.002 0.002	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
	Total BTEX	<0.00201 0.00201	<0.00199 0.00199	<0.002 0.002	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
	Chloride	118 24.8	72.9 4.95	59.3 5.03	43.2 4.97	53.8 4.99	96.4 25.3
TPH By SW8015 Mod	Extracted:	01.14.2021 09:05	01.14.2021 09:25	01.14.2021 09:25	01.14.2021 09:25	01.14.2021 09:25	01.14.2021 09:25
	Analyzed:	01.14.2021 15:20	01.14.2021 19:28	01.14.2021 19:44	01.14.2021 19:49	01.14.2021 19:54	01.14.2021 19:59
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
	Diesel Range Organics (DRO)	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Total TPH	Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
	Total TPH	<49.9 49.9	<49.8 49.8	<50 50	<49.9 49.9	<49.9 49.9	<50 50

Jessica Kramer

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Environment Testing
Xenco

Analytical Report 684458

for

American Safety Services

Project Manager: Thomas Franklin

Cimarex-Crawford 27- 26 Fee 15H

01.22.2021

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Environment Testing
Xenco

01.22.2021

Project Manager: **Thomas Franklin****American Safety Services**

8715 Andrews Hwy

Odessa, TX 79765

Reference: Eurofins Xenco, LLC Report No(s): **684458****Cimarex-Crawford 27- 26 Fee 15H**

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 Eurofins Xenco, LLC Report Number(s) 684458. 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 Eurofins Xenco, LLC. 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. 684458 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer". The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 684458****American Safety Services, Odessa, TX**

Cimarex-Crawford 27- 26 Fee 15H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Confirmation Sample 1 2ft @ EB	S	01.12.2021 10:00		684458-001
Confirmation Sample 2 2ft @ EB	S	01.12.2021 10:05		684458-002
Confirmation Sample 3 2ft @ EB	S	01.12.2021 10:10		684458-003
Confirmation Sample 4 1.5 @ EB	S	01.12.2021 10:15		684458-004
Confirmation Sample 5 1.5 @ EB	S	01.12.2021 10:20		684458-005
Confirmation Sample 6 6in @ EB	S	01.12.2021 10:25		684458-006
Confirmation Sample 7 6in @ EB	S	01.12.2021 10:30		684458-007
Confirmation Sample 8 6in @ EB	S	01.12.2021 10:35		684458-008
Confirmation Sample 9 6in @ EB	S	01.12.2021 10:40		684458-009
Confirmation Sample 10 6in @ EB	S	01.12.2021 10:45		684458-010
Confirmation Sample 11 6in @ EB	S	01.12.2021 10:50		684458-011
Confirmation Sample 12 6in @ EB	S	01.12.2021 10:55		684458-012
Confirmation Sample 13 6in @ EB	S	01.12.2021 11:00		684458-013
S Wall 1	S	01.12.2021 00:00		684458-014
S Wall 2	S	01.12.2021 00:00		684458-015
S Wall 3	S	01.12.2021 00:00		684458-016
S Wall 4	S	01.12.2021 00:00		684458-017
S Wall 5	S	01.12.2021 00:00		684458-018



CASE NARRATIVE

Client Name: American Safety Services

Project Name: Cimarex-Crawford 27- 26 Fee 15H

Project ID:

Work Order Number(s): 684458

Report Date: 01.22.2021

Date Received: 01.13.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 1 2ft @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-001

Date Collected: 01.12.2021 10:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.1	5.00	mg/kg	01.14.2021 13:55		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 15:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 15:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 15:06	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 15:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-130	01.13.2021 15:06		
o-Terphenyl	84-15-1	96	%	70-130	01.13.2021 15:06		



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 1 2ft @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-001

Date Collected: 01.12.2021 10:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 13:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 13:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 13:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.13.2021 13:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 13:14	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 13:14	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 13:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	01.13.2021 13:14	
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.13.2021 13:14	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 2 2ft @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-002

Date Collected: 01.12.2021 10:05

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.8	5.03	mg/kg	01.14.2021 14:00		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	63.8	50.0	mg/kg	01.13.2021 16:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 16:00	U	1
Total TPH	PHC635	63.8	50	mg/kg	01.13.2021 16:00		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-130	01.13.2021 16:00		
o-Terphenyl	84-15-1	91	%	70-130	01.13.2021 16:00		



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 2 2ft @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-002

Date Collected: 01.12.2021 10:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 13:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 13:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 13:34	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.13.2021 13:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 13:34	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 13:34	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 13:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.13.2021 13:34	
1,4-Difluorobenzene	540-36-3	89	%	70-130	01.13.2021 13:34	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 3 2ft @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-003

Date Collected: 01.12.2021 10:10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	150	4.98	mg/kg	01.14.2021 14:05		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 16:19	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	01.13.2021 16:19	
o-Terphenyl	84-15-1	94	%	70-130	01.13.2021 16:19	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 3 2ft @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-003

Date Collected: 01.12.2021 10:10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.13.2021 13:55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.13.2021 13:55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.13.2021 13:55	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.13.2021 13:55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.13.2021 13:55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.13.2021 13:55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.13.2021 13:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.13.2021 13:55		
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 13:55		



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 4 1.5 @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-004

Date Collected: 01.12.2021 10:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	150	4.96	mg/kg	01.14.2021 14:11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 16:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 16:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 16:37	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 16:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-130	01.13.2021 16:37		
o-Terphenyl	84-15-1	95	%	70-130	01.13.2021 16:37		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 4 1.5 @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-004

Date Collected: 01.12.2021 10:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.13.2021 14:15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.13.2021 14:15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.13.2021 14:15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.13.2021 14:15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.13.2021 14:15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.13.2021 14:15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.13.2021 14:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.13.2021 14:15	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.13.2021 14:15	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 5 1.5 @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-005

Date Collected: 01.12.2021 10:20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	157	5.04	mg/kg	01.14.2021 14:27		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 16:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 16:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 16:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 16:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	82	%	70-130	01.13.2021 16:56		
o-Terphenyl	84-15-1	89	%	70-130	01.13.2021 16:56		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 5 1.5 @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-005

Date Collected: 01.12.2021 10:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.13.2021 14:35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.13.2021 14:35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.13.2021 14:35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.13.2021 14:35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.13.2021 14:35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.13.2021 14:35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.13.2021 14:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.13.2021 14:35	
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.13.2021 14:35	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 6 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-006

Date Collected: 01.12.2021 10:25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	167	4.97	mg/kg	01.14.2021 14:32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 17:15	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 17:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-130	01.13.2021 17:15		
o-Terphenyl	84-15-1	99	%	70-130	01.13.2021 17:15		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 6 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-006

Date Collected: 01.12.2021 10:25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 14:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 14:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 14:56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.13.2021 14:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 14:56	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 14:56	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 14:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	01.13.2021 14:56	
4-Bromofluorobenzene	460-00-4	115	%	70-130	01.13.2021 14:56	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 7 6in@ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-007

Date Collected: 01.12.2021 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	159	4.99	mg/kg	01.14.2021 14:48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 17:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 17:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 17:33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 17:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-130	01.13.2021 17:33		
o-Terphenyl	84-15-1	88	%	70-130	01.13.2021 17:33		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 7 6in@ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-007

Date Collected: 01.12.2021 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.13.2021 15:16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.13.2021 15:16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.13.2021 15:16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.13.2021 15:16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.13.2021 15:16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.13.2021 15:16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.13.2021 15:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.13.2021 15:16		
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 15:16		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 8 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-008

Date Collected: 01.12.2021 10:35

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	284	4.96	mg/kg	01.14.2021 14:53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 17:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 17:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 17:52	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 17:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	01.13.2021 17:52	
o-Terphenyl	84-15-1	93	%	70-130	01.13.2021 17:52	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 8 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-008

Date Collected: 01.12.2021 10:35

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 15:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 15:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 15:36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.13.2021 15:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 15:36	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 15:36	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 15:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.13.2021 15:36		
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.13.2021 15:36		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 9 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-009

Date Collected: 01.12.2021 10:40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	226	4.95	mg/kg	01.14.2021 14:59		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 18:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 18:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 18:10	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 18:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-130	01.13.2021 18:10		
o-Terphenyl	84-15-1	94	%	70-130	01.13.2021 18:10		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 9 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-009

Date Collected: 01.12.2021 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 15:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 15:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 15:57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.13.2021 15:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 15:57	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 15:57	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 15:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.13.2021 15:57	
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 15:57	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 10 6in@ EB** Matrix: Soil Date Received: 01.13.2021 08:30
 Lab Sample Id: 684458-010 Date Collected: 01.12.2021 10:45
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 01.14.2021 09:05 % Moisture:
 Seq Number: 3147879 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	220	4.95	mg/kg	01.14.2021 15:04		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.13.2021 12:00 % Moisture:
 Seq Number: 3147790 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 18:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 18:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 18:28	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 18:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	01.13.2021 18:28	
o-Terphenyl	84-15-1	88	%	70-130	01.13.2021 18:28	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 10 6in@ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-010

Date Collected: 01.12.2021 10:45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.13.2021 16:17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.13.2021 16:17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.13.2021 16:17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.13.2021 16:17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.13.2021 16:17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.13.2021 16:17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.13.2021 16:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 16:17	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.13.2021 16:17	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 11 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-011

Date Collected: 01.12.2021 10:50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	178	5.03	mg/kg	01.14.2021 15:09		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 19:05	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.13.2021 19:05	
o-Terphenyl	84-15-1	89	%	70-130	01.13.2021 19:05	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 11 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-011

Date Collected: 01.12.2021 10:50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.13.2021 17:40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.13.2021 17:40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.13.2021 17:40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.13.2021 17:40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.13.2021 17:40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.13.2021 17:40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.13.2021 17:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.13.2021 17:40		
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 17:40		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 12 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-012

Date Collected: 01.12.2021 10:55

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	167	5.00	mg/kg	01.14.2021 15:15		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 19:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 19:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 19:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 19:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	01.13.2021 19:24	
o-Terphenyl	84-15-1	89	%	70-130	01.13.2021 19:24	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 12 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-012

Date Collected: 01.12.2021 10:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 18:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 18:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 18:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.13.2021 18:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 18:00	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 18:00	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 18:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.13.2021 18:00	
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 18:00	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 13 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-013

Date Collected: 01.12.2021 11:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:05

% Moisture:

Seq Number: 3147879

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	24.8	mg/kg	01.14.2021 15:20		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:

Seq Number: 3147790

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 19:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 19:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 19:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 19:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-130	01.13.2021 19:42		
o-Terphenyl	84-15-1	88	%	70-130	01.13.2021 19:42		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **Confirmation Sample 13 6in @ EB**

Matrix: Soil

Date Received: 01.13.2021 08:30

Lab Sample Id: 684458-013

Date Collected: 01.12.2021 11:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:

Seq Number: 3147782

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.13.2021 18:20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.13.2021 18:20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.13.2021 18:20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.13.2021 18:20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.13.2021 18:20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.13.2021 18:20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.13.2021 18:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.13.2021 18:20	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.13.2021 18:20	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 1**
Lab Sample Id: 684458-014

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147896

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	72.9	4.95	mg/kg	01.14.2021 19:28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147790

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.13.2021 20:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.13.2021 20:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.13.2021 20:02	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.13.2021 20:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.13.2021 20:02	
o-Terphenyl	84-15-1	84	%	70-130	01.13.2021 20:02	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 1**
Lab Sample Id: 684458-014

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.13.2021 18:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.13.2021 18:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.13.2021 18:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.13.2021 18:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.13.2021 18:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.13.2021 18:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.13.2021 18:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.13.2021 18:41		
1,4-Difluorobenzene	540-36-3	90	%	70-130	01.13.2021 18:41		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 2**
Lab Sample Id: 684458-015

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147896

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	59.3	5.03	mg/kg	01.14.2021 19:44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147790

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 20:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 20:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 20:21	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 20:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.13.2021 20:21	
o-Terphenyl	84-15-1	79	%	70-130	01.13.2021 20:21	



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 2**
Lab Sample Id: 684458-015

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.13.2021 19:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.13.2021 19:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.13.2021 19:01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.13.2021 19:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.13.2021 19:01	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.13.2021 19:01	U	1
Total BTEX		<0.002	0.002	mg/kg	01.13.2021 19:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.13.2021 19:01		
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.13.2021 19:01		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 3**
Lab Sample Id: 684458-016

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147896

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.2	4.97	mg/kg	01.14.2021 19:49		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147790

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 20:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 20:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 20:40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 20:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	75	%	70-130	01.13.2021 20:40		
o-Terphenyl	84-15-1	82	%	70-130	01.13.2021 20:40		



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American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 3**
Lab Sample Id: 684458-016

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.13.2021 19:22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.13.2021 19:22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.13.2021 19:22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.13.2021 19:22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.13.2021 19:22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.13.2021 19:22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.13.2021 19:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	01.13.2021 19:22		
1,4-Difluorobenzene	540-36-3	89	%	70-130	01.13.2021 19:22		



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 4**
Lab Sample Id: 684458-017

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147896

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	53.8	4.99	mg/kg	01.14.2021 19:54		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147790

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.13.2021 20:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.13.2021 20:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.13.2021 20:59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.13.2021 20:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.13.2021 20:59	
o-Terphenyl	84-15-1	85	%	70-130	01.13.2021 20:59	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 4**
 Lab Sample Id: 684458-017

Matrix: Soil
 Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.13.2021 19:42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.13.2021 19:42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.13.2021 19:42	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.13.2021 19:42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.13.2021 19:42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.13.2021 19:42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.13.2021 19:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.13.2021 19:42		
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.13.2021 19:42		



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 5**
Lab Sample Id: 684458-018

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.14.2021 09:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147896

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.4	25.3	mg/kg	01.14.2021 19:59		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.13.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147790

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 21:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 21:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 21:19	U	1
Total TPH	PHC635	<50	50	mg/kg	01.13.2021 21:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	01.13.2021 21:19	
o-Terphenyl	84-15-1	94	%	70-130	01.13.2021 21:19	



Certificate of Analytical Results 684458

American Safety Services, Odessa, TX

Cimarex-Crawford 27- 26 Fee 15H

Sample Id: **S Wall 5**
Lab Sample Id: 684458-018

Matrix: Soil
Date Collected: 01.12.2021 00:00

Date Received: 01.13.2021 08:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.13.2021 09:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.13.2021 20:02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.13.2021 20:02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.13.2021 20:02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.13.2021 20:02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.13.2021 20:02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.13.2021 20:02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.13.2021 20:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.13.2021 20:02		
1,4-Difluorobenzene	540-36-3	95	%	70-130	01.13.2021 20:02		

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. **ND** Not Detected.

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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



American Safety Services

Cimarex-Crawford 27- 26 Fee 15H

Analytical Method: Chloride by EPA 300

Seq Number: 3147879

MB Sample Id: 7719175-1-BLK

Matrix: Solid

LCS Sample Id: 7719175-1-BKS

Prep Method: E300P

Date Prep: 01.14.2021

LCSD Sample Id: 7719175-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	244	98	90-110	0	20	mg/kg	01.14.2021 12:45	

Analytical Method: Chloride by EPA 300

Seq Number: 3147896

MB Sample Id: 7719176-1-BLK

Matrix: Solid

LCS Sample Id: 7719176-1-BKS

Prep Method: E300P

Date Prep: 01.14.2021

LCSD Sample Id: 7719176-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	242	97	242	97	90-110	0	20	mg/kg	01.14.2021 19:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3147879

Parent Sample Id: 684457-001

Matrix: Soil

MS Sample Id: 684457-001 S

Prep Method: E300P

Date Prep: 01.14.2021

MSD Sample Id: 684457-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	979	253	1190	83	1190	83	90-110	0	20	mg/kg	01.14.2021 13:01	X

Analytical Method: Chloride by EPA 300

Seq Number: 3147879

Parent Sample Id: 684458-004

Matrix: Soil

MS Sample Id: 684458-004 S

Prep Method: E300P

Date Prep: 01.14.2021

MSD Sample Id: 684458-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	150	248	390	97	389	96	90-110	0	20	mg/kg	01.14.2021 14:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147896

Parent Sample Id: 684458-014

Matrix: Soil

MS Sample Id: 684458-014 S

Prep Method: E300P

Date Prep: 01.14.2021

MSD Sample Id: 684458-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	72.9	248	309	95	310	96	90-110	0	20	mg/kg	01.14.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147896

Parent Sample Id: 684472-006

Matrix: Soil

MS Sample Id: 684472-006 S

Prep Method: E300P

Date Prep: 01.14.2021

MSD Sample Id: 684472-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6280	2490	8730	98	8730	98	90-110	0	20	mg/kg	01.14.2021 20:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



American Safety Services

Cimarex-Crawford 27- 26 Fee 15H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147790

Matrix: Solid

Prep Method: SW8015P

Date Prep: 01.13.2021

MB Sample Id: 7719141-1-BLK

LCS Sample Id: 7719141-1-BKS

LCSD Sample Id: 7719141-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	867	87	907	91	70-130	5	20	mg/kg	01.13.2021 14:09	
Diesel Range Organics (DRO)	<50.0	1000	893	89	901	90	70-130	1	20	mg/kg	01.13.2021 14:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		96		107		70-130	%	01.13.2021 14:09
o-Terphenyl	87		92		94		70-130	%	01.13.2021 14:09

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147790

Matrix: Solid

Prep Method: SW8015P

Date Prep: 01.13.2021

MB Sample Id: 7719141-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.13.2021 13:51	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147790

Matrix: Soil

Prep Method: SW8015P

Date Prep: 01.13.2021

Parent Sample Id: 684458-001

MS Sample Id: 684458-001 S

MSD Sample Id: 684458-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	831	83	892	89	70-130	7	20	mg/kg	01.13.2021 15:24	
Diesel Range Organics (DRO)	<49.9	998	815	82	874	88	70-130	7	20	mg/kg	01.13.2021 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		114		70-130	%	01.13.2021 15:24
o-Terphenyl	90		99		70-130	%	01.13.2021 15:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147782

Matrix: Solid

Prep Method: SW5035A

Date Prep: 01.13.2021

MB Sample Id: 7719146-1-BLK

LCS Sample Id: 7719146-1-BKS

LCSD Sample Id: 7719146-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.106	106	70-130	1	35	mg/kg	01.13.2021 10:53	
Toluene	<0.00200	0.100	0.102	102	0.101	101	70-130	1	35	mg/kg	01.13.2021 10:53	
Ethylbenzene	<0.00200	0.100	0.103	103	0.103	103	70-130	0	35	mg/kg	01.13.2021 10:53	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.209	105	70-130	0	35	mg/kg	01.13.2021 10:53	
o-Xylene	<0.00200	0.100	0.104	104	0.104	104	70-130	0	35	mg/kg	01.13.2021 10:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		98		100		70-130	%	01.13.2021 10:53
4-Bromofluorobenzene	114		100		100		70-130	%	01.13.2021 10:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

American Safety Services

Cimarex-Crawford 27- 26 Fee 15H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147782

Parent Sample Id: 684458-001

Matrix: Soil

MS Sample Id: 684458-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684458-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0924	93	0.0833	83	70-130	10	35	mg/kg	01.13.2021 11:33	
Toluene	<0.00200	0.0998	0.0871	87	0.0774	78	70-130	12	35	mg/kg	01.13.2021 11:33	
Ethylbenzene	<0.00200	0.0998	0.0876	88	0.0765	77	70-130	14	35	mg/kg	01.13.2021 11:33	
m,p-Xylenes	<0.00399	0.200	0.180	90	0.153	77	70-130	16	35	mg/kg	01.13.2021 11:33	
o-Xylene	<0.00200	0.0998	0.0891	89	0.0761	76	70-130	16	35	mg/kg	01.13.2021 11:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	01.13.2021 11:33
4-Bromofluorobenzene	106		101		70-130	%	01.13.2021 11:33

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Phoenix, Arizona (480-355-0900)

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Xenco Quote #

Xenco Job #

081458

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes																							
Company Name / Branch: American Safety Services Inc. Company Address: 8715 Andrews Hwy Odessa Tx 79765 Email: tfranklin@americansafety.net Phone No: 432-557-9868				Project Name/Number: Cimarex-Crayford 27 26 Fee 15H Project Location: Eddy Co. NM Invoice To: Tall Montoya imontoya@cimarex.com				Xenco Quote #				Xenco Job #																							
Project Contact: Thomas Franklin Sample's Name H.C.G. 201				PO Number:																															
No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH	8015M	Chloride	300	BTEX	8021B	Field Comments														
1	Confirmation sample 12 F1 @ EB	1000	1/12/2021	1000	S	1	X								X	X	X																		
2	Confirmation sample 22 F1 @ EB	1005	1/12/2021	1005	S	1	X								X	X	X																		
3	Confirmation sample 32 F1 @ EB	1010	1/12/2021	1010	S	1	X								X	X	X																		
4	Confirmation sample 41.5 @ EB	1015	1/12/2021	1015	S	1	X								X	X	X																		
5	Confirmation sample 51.5 @ EB	1020	1/12/2021	1020	S	1	X								X	X	X																		
6	Confirmation sample 6 in @ EB	1025	1/12/2021	1025	S	1	X								X	X	X																		
7	Confirmation sample 7 in @ EB	1030	1/12/2021	1030	S	1	X								X	X	X																		
8	Confirmation sample 8 in @ EB	1035	1/12/2021	1035	S	1	X								X	X	X																		
9	Confirmation sample 9 in @ EB	1040	1/12/2021	1040	S	1	X								X	X	X																		
10	Confirmation sample 10 in @ EB	1045	1/12/2021	1045	S	1	X								X	X	X																		
Turnaround Time (Business days)															Data Deliverable Information																				
☐ Same Day TAT															☐ Level II Std QC							☐ Level IV (Full Data Pkg / raw data)													
☐ Next Day EMERGENCY															☐ Level III Std QC+ Forms							☐ TRRP Level IV													
☐ 2 Day EMERGENCY															☒ Contract TAT							☐ Level 3 (CLP Forms)							☐ UST / RG-411						
☐ 3 Day EMERGENCY															☐ TRRP Checklist																				
TAT Starts Day received by Lab, if received by 5:00 pm																																			
Relinquished by Sampler:															SAMPLE CUSTODY MUST BE DOCUMENTED BY EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY							FED-EX / UPS: Tracking #													
1. Relinquished by: H.C.G. Delano															Date Time: 01/13/21 0830							Received By: [Signature]							Date Time: 01/13/21 0830						
3. Relinquished by:															Date Time:							Received By:							Date Time:						
5. Relinquished by:															Date Time:							Received By:							Date Time:						

Notes: 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 losses 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.

On Ice ☒ Copter Temp. Thermo. Corr. Factor 3.5/4.0

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes			
Company Name / Branch: American Safety Services Inc.				Project Name/Number: Cimarex- Crawford 27 26 Fee 1SH											
Company Address: 8715 Andrews Hwy Odessa Tx 79765				Project Location:											
Email: tfranklin@americansafety.net				Phone No: 432-557-8868				Invoice To: Eddy Co. NM Tell Montoya tmontoya@cimarex.com							
Project Contact: Thomas Franklin				PO Number:											
Sampler's Name M. Goff															

No.	Field ID / Point of Collection	Collection	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MECH	NONE	TPH 8015M	Chloride 300	BTEX 8021B	Field Comments
1	Confirmation sample	11 bin @ EB Comp	1/12/2021	10:50	S	1	X								X	X	X	
2	Confirmation sample	12 bin @ EB	1/12/2021	10:55	S	1	X								X	X	X	
3	Confirmation sample	13 bin @ EB	1/12/2021	11:00	S	1	X								X	X	X	
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Data Deliverable Information				Notes:			
Turnaround Time (Business days)							
Same Day TAT ☐ 5 Day TAT ☐				Level II Std QC ☐ Level IV (Full Data Pkg/raw data) ☐			
Next Day EMERGENCY ☐ 7 Day TAT ☐				Level III Std QC+ Forms ☐ TRRP Level IV ☐			
2 Day EMERGENCY ☒ Contract TAT				Level 3 (CLP Forms) ☐ UST / RG -411 ☐			
3 Day EMERGENCY ☐				TRRP Checklist ☐			
TAT Starts Day received by Lab, if received by 5:00 pm				FED-EX / UPS: Tracking #			

SAMPLE CUSTODY MUST BE DOCUMENTED BY EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY			
Relinquished by Sampler 1 M. Goff	Date Time: 01/13/21 08:30	Received By: [Signature]	Date Time: 01/13/21 08:30
Relinquished by:	Date Time:	Received By:	Date Time:
3		3	
Relinquished by:	Date Time:	Received By:	Date Time:
5		5	

Custody Seal #	Preserved where applicable	On Ice	Cooler Temp.	Thermo. Corr. Factor
			3.5/14.0	

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 losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. 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.

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes			
Company Name / Branch: American Safety Services Inc.				Project Name/Number: Cimarex - Crawford 27 26 1SH											
Company Address: 8715 Andrews Hwy Odessa Tx 79765				Project Location:											
Email: tfranklin@americansafety.net				Phone No: 432-557-9866				Invoice To: Fel Martoya tmortoya@cimarex.com							
Project Contact: Thomas Franklin				PO Number:											
Sampler's Name															

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MeOH	NONE	TPH TX 8015M	Chloride 300	BTEX 8021B	Field Comments								
1	S Wall 1		12/10/2020		S	1	X								X	X	X									
2	S Wall 2		12/10/2020		S	1	X								X	X	X									
3	S Wall 3		12/10/2020		S	1	X								X	X	X									
4	S Wall 4		12/10/2020		S	1	X								X	X	X									
5	S Wall 5		12/10/2020		S	1	X								X	X	X									
6																										
7																										
8																										
9																										
10																										
Turnaround Time (Business days)					Data Deliverable Information												Notes:									
☐ Same Day TAT		☐ 5 Day TAT			☐ Level II Std QC				☐ Level IV (Full Data Pkg/raw data)																	
☐ Next Day EMERGENCY		☐ 7 Day TAT			☐ Level III Std QC+ Forms				☐ TRRP Level IV																	
☐ 2 Day EMERGENCY		☒ Contract TAT			☐ Level 3 (CLP Forms)				☐ UST / RG-411																	
☐ 3 Day EMERGENCY					☐ TRRP Checklist																					

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

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW				FED-EX / UPS Tracking #			
Relinquished by Sample:	Date Time:	Received By:	Relinquished By:				
1 <i>K. G. De la Haza</i>	01/13/21 0830	[Signature]	2				
Relinquished by:	Date Time:	Received By:	Relinquished By:				
3			4				
Relinquished by:	Date Time:	Received By:	Relinquished By:				
5			4				

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 losses 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.

On file ☒ Cooler Temp. Thermo. Corr. Factor *3.5/4.6*

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: American Safety Services

Date/ Time Received: 01.13.2021 08.30.00 AM

Work Order #: 684458

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4
#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 BTEX was in bulk container
#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)?	N/A
#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:



Brianna Teel

Date: 01.13.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.14.2021

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex- Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	684907-001	684907-002	684907-003	684907-004	684907-005	684907-006
		Field Id:	Confirmation Sample 14 2	Confirmation Sample 15 2	Confirmation Sample 16 2	Confirmation Sample 17 2	Confirmation Sample 18 2	Confirmation Sample 19 2
		Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	01.14.2021 10:00	01.14.2021 10:05	01.14.2021 10:10	01.14.2021 10:15	01.14.2021 10:20	01.14.2021 10:25
BTEX by EPA 8021B		Extracted:	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00
		Analyzed:	01.16.2021 06:21	01.16.2021 06:43	01.16.2021 07:06	01.16.2021 07:28	01.16.2021 07:51	01.16.2021 09:11
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		Benzene	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
		Toluene	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
		Ethylbenzene	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300		m,p-Xylenes	<0.00402 0.00402	<0.00403 0.00403	<0.00399 0.00399	<0.00397 0.00397	<0.00404 0.00404	<0.00403 0.00403
		o-Xylene	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
		Total Xylenes	<0.00201 0.00201	<0.00202 0.00202	<0.002 0.002	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
		Total BTEX	<0.00201 0.00201	<0.00202 0.00202	<0.002 0.002	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
		Extracted:	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09
		Analyzed:	01.15.2021 22:10	01.15.2021 22:27	01.15.2021 22:33	01.15.2021 22:39	01.15.2021 22:44	01.15.2021 23:02
TPH By SW8015 Mod		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		Chloride	141 50.3	133 50.1	370 50.3	358 100	141 49.8	335 49.9
		Extracted:	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00
		Analyzed:	01.15.2021 23:25	01.16.2021 00:24	01.16.2021 00:44	01.16.2021 01:03	01.16.2021 01:23	01.16.2021 01:43
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.1 50.1	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		Diesel Range Organics (DRO)	<50.0 50.0	<50.1 50.1	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.3 50.3
		Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.1 50.1	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.3 50.3
		Total TPH	<50 50	<50.1 50.1	<50 50	<49.8 49.8	<50.3 50.3	<50.3 50.3

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 684907

American Safety Services, Odessa, TX

Received by OCD: 2/23/2021 8:24:23 AM

Page 203 of 316

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex - Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	684907-007	684907-008	684907-009	684907-010	684907-011	684907-012
		Field Id:	Confirmation Sample 20 2	Confirmation Sample 21 2	Confirmation Sample 22 2	Confirmation Sample 23 2	Confirmation Sample 24 2	Confirmation Sample 25 2
		Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	01.14.2021 10:30	01.14.2021 10:35	01.14.2021 10:40	01.14.2021 10:45	01.14.2021 10:50	01.14.2021 10:55
BTEX by EPA 8021B		Extracted:	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00
		Analyzed:	01.16.2021 09:33	01.16.2021 09:56	01.16.2021 10:18	01.16.2021 10:40	01.16.2021 11:03	01.16.2021 11:25
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Toluene			<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Ethylbenzene			<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
m,p-Xylenes			<0.00404 0.00404	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397
o-Xylene			<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Total Xylenes			<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.002 0.002	<0.00199 0.00199	<0.00198 0.00198
Total BTEX			<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.002 0.002	<0.00199 0.00199	<0.00198 0.00198
Chloride by EPA 300		Extracted:	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09
		Analyzed:	01.15.2021 23:07	01.15.2021 23:13	01.15.2021 23:19	01.15.2021 23:24	01.15.2021 23:30	01.15.2021 23:47
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			130 49.9	139 50.2	137 50.2	137 50.3	188 99.4	210 101
TPH By SW8015 Mod		Extracted:	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00
		Analyzed:	01.16.2021 02:03	01.16.2021 02:23	01.16.2021 02:42	01.16.2021 03:02	01.16.2021 03:42	01.16.2021 04:02
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			<50.1 50.1	<50.2 50.2	<50.3 50.3	<49.9 49.9	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)			<50.1 50.1	<50.2 50.2	<50.3 50.3	<49.9 49.9	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)			<50.1 50.1	<50.2 50.2	<50.3 50.3	<49.9 49.9	<50.1 50.1	<50.2 50.2
Total TPH			<50.1 50.1	<50.2 50.2	<50.3 50.3	<49.9 49.9	<50.1 50.1	<50.2 50.2

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex - Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	684907-013	684907-014	684907-015	684907-016	684907-017	684907-018
		Field Id:	Confirmation Sample 26 2	Confirmation Sample 27 2	Confirmation Sample 28 2	Confirmation Sample 29 2	Confirmation Sample 30 2	Confirmation Sample 31 2
		Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	01.14.2021 11:00	01.14.2021 11:05	01.14.2021 11:10	01.14.2021 11:15	01.14.2021 11:20	01.14.2021 11:25
BTEX by EPA 8021B		Extracted:	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:00	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01
		Analyzed:	01.16.2021 11:48	01.16.2021 12:10	01.16.2021 12:33	01.16.2021 04:45	01.16.2021 05:08	01.16.2021 05:30
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Toluene			<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene			<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes			<0.00398 0.00398	<0.00397 0.00397	<0.00397 0.00397	<0.00398 0.00398	<0.00402 0.00402	<0.00401 0.00401
o-Xylene			<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes			<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Total BTEX			<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300		Extracted:	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:09
		Analyzed:	01.15.2021 23:53	01.16.2021 00:10	01.16.2021 00:15	01.16.2021 00:21	01.16.2021 00:27	01.16.2021 00:32
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			159 50.5	168 49.8	158 50.1	89.9 50.0	178 99.2	175 101
TPH By SW8015 Mod		Extracted:	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00
		Analyzed:	01.16.2021 04:21	01.16.2021 04:41	01.16.2021 05:01	01.16.2021 05:21	01.16.2021 05:40	01.16.2021 06:00
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			<50.2 50.2	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.1 50.1
Diesel Range Organics (DRO)			<50.2 50.2	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)			<50.2 50.2	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.1 50.1
Total TPH			<50.2 50.2	<50 50	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.1 50.1

Jessica Kramer

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex- Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	684907-019	684907-020	684907-021	684907-022	684907-023	684907-024
		Field Id:	S Wall 6	S Wall 7	S Wall 8	S Wall 9	S Wall 10	S Wall 11
		Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	SOIL
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	01.14.2021 12:00	01.14.2021 12:05	01.14.2021 12:10	01.14.2021 12:15	01.14.2021 12:20	01.14.2021 12:25
BTEX by EPA 8021B		Extracted:	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01
		Analyzed:	01.16.2021 05:53	01.16.2021 06:15	01.16.2021 06:37	01.16.2021 07:00	01.16.2021 07:22	01.16.2021 07:45
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Toluene			<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene			<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes			<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403
o-Xylene			<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total Xylenes			<0.00199 0.00199	<0.002 0.002	<0.00198 0.00198	<0.002 0.002	<0.00199 0.00199	<0.00202 0.00202
Total BTEX			<0.00199 0.00199	<0.002 0.002	<0.00198 0.00198	<0.002 0.002	<0.00199 0.00199	<0.00202 0.00202
Chloride by EPA 300		Extracted:	01.15.2021 17:09	01.15.2021 17:09	01.15.2021 17:00	01.15.2021 17:00	01.15.2021 17:00	01.15.2021 17:00
		Analyzed:	01.16.2021 00:38	01.16.2021 00:44	01.16.2021 01:18	01.16.2021 01:35	01.16.2021 01:41	01.16.2021 01:46
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			130 49.9	153 50.3	70.9 DX 9.90	156 49.7	157 49.9	383 49.9
TPH By SW8015 Mod		Extracted:	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00
		Analyzed:	01.16.2021 06:19	01.16.2021 06:39	01.15.2021 23:25	01.16.2021 00:24	01.16.2021 00:44	01.16.2021 01:03
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)			<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)			<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0
Total TPH			<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50 50

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex - Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id: Field Id: Depth: Matrix: Sampled:	684907-025 S Wall 12 SOIL 01.14.2021 12:30	684907-026 S Wall 13 SOIL 01.15.2021 08:00	684907-027 S Wall 14 SOIL 01.15.2021 08:05	684907-028 S Wall 15 SOIL 01.15.2021 08:10	684907-029 S Wall 16 SOIL 01.15.2021 08:15	684907-030 S Wall 17 SOIL 01.15.2021 08:20
BTEX by EPA 8021B		Extracted: Analyzed: Units/RL:	01.15.2021 16:01 01.16.2021 08:07 mg/kg RL <0.00202 0.00202	01.15.2021 16:01 01.16.2021 09:24 mg/kg RL <0.00200 0.00200	01.15.2021 16:01 01.16.2021 09:47 mg/kg RL <0.00202 0.00202	01.15.2021 16:01 01.16.2021 10:09 mg/kg RL <0.00202 0.00202	01.15.2021 16:01 01.16.2021 10:32 mg/kg RL <0.00200 0.00200	01.15.2021 16:01 01.16.2021 10:54 mg/kg RL <0.00199 0.00199
Benzene			<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene			<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene			<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes			<0.00403 0.00403	<0.00401 0.00401	<0.00403 0.00403	<0.00404 0.00404	<0.00399 0.00399	<0.00398 0.00398
o-Xylene			<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes			<0.00202 0.00202	<0.002 0.002	<0.00202 0.00202	<0.00202 0.00202	<0.002 0.002	<0.00199 0.00199
Total BTEX			<0.00202 0.00202	<0.002 0.002	<0.00202 0.00202	<0.00202 0.00202	<0.002 0.002	<0.00199 0.00199
Chloride by EPA 300		Extracted: Analyzed: Units/RL:	01.15.2021 17:00 01.16.2021 01:52 mg/kg RL 113 101	01.15.2021 17:00 01.16.2021 02:09 mg/kg RL 134 100	01.15.2021 17:00 01.16.2021 02:15 mg/kg RL 136 99.0	01.15.2021 17:00 01.16.2021 02:20 mg/kg RL 143 101	01.15.2021 17:00 01.16.2021 02:26 mg/kg RL 122 99.6	01.15.2021 17:00 01.16.2021 02:32 mg/kg RL 122 101
Chloride								
TPH By SW8015 Mod		Extracted: Analyzed: Units/RL:	01.15.2021 18:00 01.16.2021 01:23 mg/kg RL <50.2 50.2	01.15.2021 18:00 01.16.2021 01:43 mg/kg RL <50.0 50.0	01.15.2021 18:00 01.16.2021 02:03 mg/kg RL <50.3 50.3	01.15.2021 18:00 01.16.2021 02:23 mg/kg RL <49.8 49.8	01.15.2021 18:00 01.16.2021 02:42 mg/kg RL <50.0 50.0	01.15.2021 18:00 01.16.2021 03:02 mg/kg RL <50.3 50.3
Gasoline Range Hydrocarbons (GRO)								
Diesel Range Organics (DRO)								
Motor Oil Range Hydrocarbons (MRO)								
Total TPH								

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex - Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	684907-031	684907-032	684907-033	684907-034	684907-035	684907-036
		Field Id:	S Wall 18	S Wall 19	S Wall 20	S Wall 21	S Wall 22	S Wall 23
		Depth:				6- In		
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	01.15.2021 08:25	01.15.2021 08:30	01.15.2021 08:35	01.15.2021 08:40	01.15.2021 08:45	01.15.2021 08:50
BTEX by EPA 8021B		Extracted:	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01	01.15.2021 16:01	01.18.2021 11:08	01.18.2021 11:08
		Analyzed:	01.16.2021 11:16	01.16.2021 11:39	01.16.2021 12:01	01.16.2021 12:24	01.18.2021 15:21	01.18.2021 15:43
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		Benzene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
		Toluene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
		Ethylbenzene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300		m,p-Xylenes	<0.00397 0.00397	<0.00399 0.00399	<0.00397 0.00397	<0.00403 0.00403	<0.00398 0.00398	<0.00402 0.00402
		o-Xylene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
		Total Xylenes	<0.00198 0.00198	<0.002 0.002	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
		Total BTEX	<0.00198 0.00198	<0.002 0.002	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
TPH By SW8015 Mod		Extracted:	01.15.2021 17:00	01.15.2021 17:00	01.15.2021 17:00	01.15.2021 17:00	01.15.2021 17:00	01.15.2021 17:00
		Analyzed:	01.16.2021 02:37	01.16.2021 02:54	01.16.2021 03:00	01.16.2021 03:17	01.16.2021 03:23	01.16.2021 03:28
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		Chloride	124 99.0	116 99.4	162 100	204 99.0	148 49.9	167 49.9
		Extracted:	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00	01.15.2021 18:00
		Analyzed:	01.16.2021 03:42	01.16.2021 04:02	01.16.2021 04:21	01.16.2021 04:41	01.16.2021 05:01	01.16.2021 05:21
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Diesel Range Organics (DRO)		Gasoline Range Hydrocarbons (GRO)	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.9 49.9	<49.8 49.8	<50.1 50.1
		Diesel Range Organics (DRO)	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.9 49.9	<49.8 49.8	<50.1 50.1
		Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.9 49.9	<49.8 49.8	<50.1 50.1
Total TPH		Total TPH	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.9 49.9	<49.8 49.8	<50.1 50.1

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex - Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id: Field Id: Depth: Matrix: Sampled:	684907-037 S Wall 24 SOIL 01.15.2021 08:55	684907-038 S Wall 25 SOIL 01.15.2021 09:00	684907-039 S Wall 26 SOIL 01.15.2021 09:05	684907-040 S Wall 27 SOIL 01.15.2021 09:10	684907-041 S Wall 28 SOIL 01.15.2021 09:15	684907-042 S Wall 29 6- In SOIL 01.15.2021 09:20
BTEX by EPA 8021B		Extracted: Analyzed: Units/RL:	01.18.2021 11:08 01.18.2021 16:06 mg/kg RL <0.00201 0.00201	01.18.2021 11:08 01.18.2021 16:28 mg/kg RL <0.00200 0.00200	01.18.2021 11:08 01.18.2021 16:50 mg/kg RL <0.00199 0.00199	01.18.2021 11:08 01.18.2021 17:13 mg/kg RL <0.00200 0.00200	01.18.2021 11:08 01.18.2021 17:35 mg/kg RL <0.00198 0.00198	01.18.2021 11:08 01.18.2021 17:58 mg/kg RL <0.00200 0.00200
Benzene			<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Toluene			<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene			<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes			<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399
o-Xylene			<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes			<0.00201 0.00201	<0.002 0.002	<0.00199 0.00199	<0.002 0.002	<0.00198 0.00198	<0.002 0.002
Total BTEX			<0.00201 0.00201	<0.002 0.002	<0.00199 0.00199	<0.002 0.002	<0.00198 0.00198	<0.002 0.002
Chloride by EPA 300		Extracted: Analyzed: Units/RL:	01.15.2021 17:00 01.16.2021 03:34 mg/kg RL 199 101	01.15.2021 17:00 01.16.2021 03:40 mg/kg RL 178 99.0	01.15.2021 17:00 01.16.2021 03:45 mg/kg RL 239 101	01.15.2021 17:00 01.16.2021 03:51 mg/kg RL 187 99.0	01.15.2021 17:45 01.16.2021 04:31 mg/kg RL 176 101	01.15.2021 17:45 01.16.2021 04:48 mg/kg RL 104 99.8
Chloride								
TPH By SW8015 Mod		Extracted: Analyzed: Units/RL:	01.15.2021 18:00 01.16.2021 05:40 mg/kg RL <49.9 49.9	01.15.2021 18:00 01.16.2021 06:00 mg/kg RL <50.1 50.1	01.15.2021 18:00 01.16.2021 06:19 mg/kg RL <49.9 49.9	01.15.2021 18:00 01.16.2021 06:39 mg/kg RL <50.2 50.2	01.18.2021 17:00 01.18.2021 19:33 mg/kg RL <50.0 50.0	01.18.2021 17:00 01.18.2021 20:33 mg/kg RL <50.2 50.2
Gasoline Range Hydrocarbons (GRO)								
Diesel Range Organics (DRO)								
Motor Oil Range Hydrocarbons (MRO)								
Total TPH								

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Certificate of Analysis Summary 684907
American Safety Services, Odessa, TX

Project Id: Thomas Franklin
Contact: Eddy County, New Mexico
Project Location: Cimarrex- Crawford 27 26 Fee 15 H
Date Received in Lab: Fri 01.15.2021 13:52
Report Date: 01.19.2021 14:09
Project Manager: Jessica Kramer

Analysis Requested		Lab Id: Field Id: Depth: Matrix: Sampled:	684907-043 S Wall 30 6- In SOIL 01.15.2021 09:25	684907-044 S Wall 31 6- In SOIL 01.15.2021 09:30		
BTEX by EPA 8021B		Extracted: Analyzed: Units/RL:	01.18.2021 11:08 01.18.2021 18:20 mg/kg RL <0.00199 0.00199	01.18.2021 11:08 01.18.2021 18:42 mg/kg RL <0.00229 0.00229		
Benzene			<0.00199 0.00199	<0.00229 0.00229		
Toluene			<0.00199 0.00199	<0.00229 0.00229		
Ethylbenzene			<0.00199 0.00199	<0.00229 0.00229		
m,p-Xylenes			<0.00398 0.00398	<0.00459 0.00459		
o-Xylene			<0.00199 0.00199	<0.00229 0.00229		
Total Xylenes			<0.00199 0.00199	<0.00229 0.00229		
Total BTEX			<0.00199 0.00199	<0.00229 0.00229		
Chloride by EPA 300		Extracted: Analyzed: Units/RL:	01.15.2021 17:45 01.16.2021 04:54 mg/kg RL 148 9.96	01.15.2021 17:45 01.16.2021 04:59 mg/kg RL 121 99.8		
Chloride						
TPH By SW8015 Mod		Extracted: Analyzed: Units/RL:	01.18.2021 17:00 01.18.2021 20:53 mg/kg RL <50.2 50.2	01.18.2021 17:00 01.18.2021 21:13 mg/kg RL <50.0 50.0		
Gasoline Range Hydrocarbons (GRO)			<50.2 50.2	<50.0 50.0		
Diesel Range Organics (DRO)			<50.2 50.2	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)			<50.2 50.2	<50.0 50.0		
Total TPH			<50.2 50.2	<50 50		

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer



Environment Testing
Xenco

Analytical Report 684907

for

American Safety Services

Project Manager: Thomas Franklin

Cimarex- Crawford 27 26 Fee 15 H

01.19.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.19.2021

Project Manager: **Thomas Franklin**

American Safety Services

8715 Andrews Hwy

Odessa, TX 79765

Reference: Eurofins Xenco, LLC Report No(s): **684907**

Cimarex- Crawford 27 26 Fee 15 H

Project Address: Eddy County, New Mexico

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 Eurofins Xenco, LLC Report Number(s) 684907. 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 Eurofins Xenco, LLC. 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. 684907 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Confirmation Sample 14 2 FT @ EB	S	01.14.2021 10:00	2 ft	684907-001
Confirmation Sample 15 2 FT @ EB	S	01.14.2021 10:05	2 ft	684907-002
Confirmation Sample 16 2 FT @ EB	S	01.14.2021 10:10	2 ft	684907-003
Confirmation Sample 17 2 FT @ EB	S	01.14.2021 10:15	2 ft	684907-004
Confirmation Sample 18 2 FT @ EB	S	01.14.2021 10:20	2 ft	684907-005
Confirmation Sample 19 2 FT @ EB	S	01.14.2021 10:25	2 ft	684907-006
Confirmation Sample 20 2 FT @ EB	S	01.14.2021 10:30	2 ft	684907-007
Confirmation Sample 21 2 FT @ EB	S	01.14.2021 10:35	2 ft	684907-008
Confirmation Sample 22 2 FT @ EB	S	01.14.2021 10:40	2 ft	684907-009
Confirmation Sample 23 2 FT @ EB	S	01.14.2021 10:45	2 ft	684907-010
Confirmation Sample 24 2 FT @ EB	S	01.14.2021 10:50	2 ft	684907-011
Confirmation Sample 25 2 FT @ EB	S	01.14.2021 10:55	2 ft	684907-012
Confirmation Sample 26 2 FT @ EB	S	01.14.2021 11:00	2 ft	684907-013
Confirmation Sample 27 2 FT @ EB	S	01.14.2021 11:05	2 ft	684907-014
Confirmation Sample 28 2 FT @ EB	S	01.14.2021 11:10	2 ft	684907-015
Confirmation Sample 29 2 FT @ EB	S	01.14.2021 11:15	2 ft	684907-016
Confirmation Sample 30 2 FT @ EB	S	01.14.2021 11:20	2 ft	684907-017
Confirmation Sample 31 2 FT @ EB	S	01.14.2021 11:25	2 ft	684907-018
S Wall 6	S	01.14.2021 12:00	2 ft	684907-019
S Wall 7	S	01.14.2021 12:05	2 ft	684907-020
S Wall 8	S	01.14.2021 12:10	2 ft	684907-021
S Wall 9	S	01.14.2021 12:15	2 ft	684907-022
S Wall 10	S	01.14.2021 12:20	2 ft	684907-023
S Wall 11	S	01.14.2021 12:25		684907-024
S Wall 12	S	01.14.2021 12:30		684907-025
S Wall 13	S	01.15.2021 08:00		684907-026
S Wall 14	S	01.15.2021 08:05		684907-027
S Wall 15	S	01.15.2021 08:10		684907-028
S Wall 16	S	01.15.2021 08:15		684907-029
S Wall 17	S	01.15.2021 08:20		684907-030
S Wall 18	S	01.15.2021 08:25		684907-031
S Wall 19	S	01.15.2021 08:30		684907-032
S Wall 20	S	01.15.2021 08:35	6 In	684907-033
S Wall 21	S	01.15.2021 08:40	6 In	684907-034
S Wall 22	S	01.15.2021 08:45		684907-035
S Wall 23	S	01.15.2021 08:50		684907-036
S Wall 24	S	01.15.2021 08:55		684907-037
S Wall 25	S	01.15.2021 09:00		684907-038
S Wall 26	S	01.15.2021 09:05		684907-039
S Wall 27	S	01.15.2021 09:10		684907-040
S Wall 28	S	01.15.2021 09:15		684907-041
S Wall 29	S	01.15.2021 09:20	6 In	684907-042
S Wall 30	S	01.15.2021 09:25	6 In	684907-043



Sample Cross Reference 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

S Wall 31

S

01.15.2021 09:30

6 In

684907-044



CASE NARRATIVE

Client Name: American Safety Services

Project Name: Cimarex- Crawford 27 26 Fee 15 H

Project ID:

Work Order Number(s): 684907

Report Date: 01.19.2021

Date Received: 01.15.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 14 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-001 Date Collected: 01.14.2021 10:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	50.3	mg/kg	01.15.2021 22:10		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.15.2021 23:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.15.2021 23:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.15.2021 23:25	U	1
Total TPH	PHC635	<50	50	mg/kg	01.15.2021 23:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.15.2021 23:25	
o-Terphenyl	84-15-1	94	%	70-135	01.15.2021 23:25	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 14 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-001

Date Collected: 01.14.2021 10:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.16.2021 06:21	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.16.2021 06:21	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.16.2021 06:21	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.16.2021 06:21	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.16.2021 06:21	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.16.2021 06:21	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.16.2021 06:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 06:21		
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.16.2021 06:21		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 15 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-002 Date Collected: 01.14.2021 10:05 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	133	50.1	mg/kg	01.15.2021 22:27		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 00:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 00:24	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 00:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	92	%	70-135	01.16.2021 00:24		
o-Terphenyl	84-15-1	96	%	70-135	01.16.2021 00:24		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 15 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-002

Date Collected: 01.14.2021 10:05

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 06:43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 06:43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 06:43	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.16.2021 06:43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 06:43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 06:43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 06:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 06:43	
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.16.2021 06:43	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 16 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-003 Date Collected: 01.14.2021 10:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	370	50.3	mg/kg	01.15.2021 22:33		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.16.2021 00:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.16.2021 00:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.16.2021 00:44	U	1
Total TPH	PHC635	<50	50	mg/kg	01.16.2021 00:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	01.16.2021 00:44		
o-Terphenyl	84-15-1	99	%	70-135	01.16.2021 00:44		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 16 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-003

Date Collected: 01.14.2021 10:10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 07:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 07:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 07:06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.16.2021 07:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 07:06	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 07:06	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 07:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.16.2021 07:06	
4-Bromofluorobenzene	460-00-4	125	%	70-130	01.16.2021 07:06	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 17 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-004 Date Collected: 01.14.2021 10:15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	358	100	mg/kg	01.15.2021 22:39		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.16.2021 01:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.16.2021 01:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.16.2021 01:03	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.16.2021 01:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	01.16.2021 01:03		
o-Terphenyl	84-15-1	101	%	70-135	01.16.2021 01:03		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 17 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-004

Date Collected: 01.14.2021 10:15

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 07:28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 07:28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 07:28	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 07:28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 07:28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 07:28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 07:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.16.2021 07:28	
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.16.2021 07:28	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 18 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-005 Date Collected: 01.14.2021 10:20 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	49.8	mg/kg	01.15.2021 22:44		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.16.2021 01:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.16.2021 01:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.16.2021 01:23	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.16.2021 01:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	95	%	70-135	01.16.2021 01:23		
o-Terphenyl	84-15-1	107	%	70-135	01.16.2021 01:23		



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 18 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-005

Date Collected: 01.14.2021 10:20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 07:51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 07:51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 07:51	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.16.2021 07:51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 07:51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 07:51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 07:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.16.2021 07:51	
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.16.2021 07:51	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 19 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-006 Date Collected: 01.14.2021 10:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	335	49.9	mg/kg	01.15.2021 23:02		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.16.2021 01:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.16.2021 01:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.16.2021 01:43	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.16.2021 01:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.16.2021 01:43	
o-Terphenyl	84-15-1	118	%	70-135	01.16.2021 01:43	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 19 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-006

Date Collected: 01.14.2021 10:25

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 09:11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 09:11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 09:11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.16.2021 09:11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 09:11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 09:11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 09:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.16.2021 09:11	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 09:11	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 20 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-007 Date Collected: 01.14.2021 10:30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	130	49.9	mg/kg	01.15.2021 23:07		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 02:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 02:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 02:03	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 02:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	01.16.2021 02:03		
o-Terphenyl	84-15-1	96	%	70-135	01.16.2021 02:03		



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 20 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-007

Date Collected: 01.14.2021 10:30

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 09:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 09:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 09:33	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.16.2021 09:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 09:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 09:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 09:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	01.16.2021 09:33	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 09:33	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 21 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-008 Date Collected: 01.14.2021 10:35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	139	50.2	mg/kg	01.15.2021 23:13		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.16.2021 02:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.16.2021 02:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.16.2021 02:23	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.16.2021 02:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	01.16.2021 02:23	
o-Terphenyl	84-15-1	98	%	70-135	01.16.2021 02:23	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 21 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-008

Date Collected: 01.14.2021 10:35

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.16.2021 09:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.16.2021 09:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.16.2021 09:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.16.2021 09:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.16.2021 09:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.16.2021 09:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.16.2021 09:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.16.2021 09:56	
4-Bromofluorobenzene	460-00-4	129	%	70-130	01.16.2021 09:56	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 22 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-009 Date Collected: 01.14.2021 10:40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	50.2	mg/kg	01.15.2021 23:19		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.16.2021 02:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.16.2021 02:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.16.2021 02:42	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.16.2021 02:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.16.2021 02:42	
o-Terphenyl	84-15-1	91	%	70-135	01.16.2021 02:42	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 22 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-009

Date Collected: 01.14.2021 10:40

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 10:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 10:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 10:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 10:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 10:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 10:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 10:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	01.16.2021 10:18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.16.2021 10:18	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 23 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-010 Date Collected: 01.14.2021 10:45 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	50.3	mg/kg	01.15.2021 23:24		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 03:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 03:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 03:02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 03:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	01.16.2021 03:02		
o-Terphenyl	84-15-1	104	%	70-135	01.16.2021 03:02		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 23 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-010

Date Collected: 01.14.2021 10:45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 10:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 10:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 10:40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.16.2021 10:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 10:40	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 10:40	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 10:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	01.16.2021 10:40		
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.16.2021 10:40		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 24 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-011 Date Collected: 01.14.2021 10:50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	188	99.4	mg/kg	01.15.2021 23:30		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 03:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 03:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 03:42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 03:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-135	01.16.2021 03:42		
o-Terphenyl	84-15-1	98	%	70-135	01.16.2021 03:42		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 24 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-011

Date Collected: 01.14.2021 10:50

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 11:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 11:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 11:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 11:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 11:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 11:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 11:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.16.2021 11:03		
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.16.2021 11:03		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 25 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-012 Date Collected: 01.14.2021 10:55 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	210	101	mg/kg	01.15.2021 23:47		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.16.2021 04:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.16.2021 04:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.16.2021 04:02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.16.2021 04:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.16.2021 04:02	
o-Terphenyl	84-15-1	96	%	70-135	01.16.2021 04:02	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 25 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-012

Date Collected: 01.14.2021 10:55

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 11:25	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 11:25	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 11:25	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 11:25	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 11:25	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 11:25	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 11:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.16.2021 11:25	
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.16.2021 11:25	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 26 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-013 Date Collected: 01.14.2021 11:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	159	50.5	mg/kg	01.15.2021 23:53		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.16.2021 04:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.16.2021 04:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.16.2021 04:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.16.2021 04:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.16.2021 04:21	
o-Terphenyl	84-15-1	114	%	70-135	01.16.2021 04:21	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 26 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-013

Date Collected: 01.14.2021 11:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 11:48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 11:48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 11:48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 11:48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 11:48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 11:48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 11:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.16.2021 11:48	
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.16.2021 11:48	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 27 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-014 Date Collected: 01.14.2021 11:05 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	168	49.8	mg/kg	01.16.2021 00:10		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.16.2021 04:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.16.2021 04:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.16.2021 04:41	U	1
Total TPH	PHC635	<50	50	mg/kg	01.16.2021 04:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	01.16.2021 04:41		
o-Terphenyl	84-15-1	111	%	70-135	01.16.2021 04:41		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 27 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-014

Date Collected: 01.14.2021 11:05

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 12:10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 12:10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 12:10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 12:10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 12:10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 12:10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 12:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	126	%	70-130	01.16.2021 12:10	
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.16.2021 12:10	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 28 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-015 Date Collected: 01.14.2021 11:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	158	50.1	mg/kg	01.16.2021 00:15		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 05:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 05:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 05:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 05:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	01.16.2021 05:01		
o-Terphenyl	84-15-1	98	%	70-135	01.16.2021 05:01		



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 28 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-015

Date Collected: 01.14.2021 11:10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:00

% Moisture:

Seq Number: 3148050

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 12:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 12:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 12:33	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 12:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 12:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 12:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 12:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 12:33	
4-Bromofluorobenzene	460-00-4	125	%	70-130	01.16.2021 12:33	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 29 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-016 Date Collected: 01.14.2021 11:15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.9	50.0	mg/kg	01.16.2021 00:21		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 05:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 05:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 05:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 05:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.16.2021 05:21	
o-Terphenyl	84-15-1	93	%	70-135	01.16.2021 05:21	



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 29 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-016

Date Collected: 01.14.2021 11:15

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 04:45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 04:45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 04:45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 04:45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 04:45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 04:45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 04:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.16.2021 04:45	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.16.2021 04:45	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 30 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-017 Date Collected: 01.14.2021 11:20 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	178	99.2	mg/kg	01.16.2021 00:27		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.16.2021 05:40	
o-Terphenyl	84-15-1	93	%	70-135	01.16.2021 05:40	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 30 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-017

Date Collected: 01.14.2021 11:20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.16.2021 05:08	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.16.2021 05:08	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.16.2021 05:08	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.16.2021 05:08	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.16.2021 05:08	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.16.2021 05:08	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.16.2021 05:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 05:08	
4-Bromofluorobenzene	460-00-4	91	%	70-130	01.16.2021 05:08	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 31 2 FT @ EB** Matrix: Soil Date Received: 01.15.2021 13:52
 Lab Sample Id: 684907-018 Date Collected: 01.14.2021 11:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.15.2021 17:09 % Moisture:
 Seq Number: 3148037 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	175	101	mg/kg	01.16.2021 00:32		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.15.2021 18:00 % Moisture:
 Seq Number: 3148055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	01.16.2021 06:00		
o-Terphenyl	84-15-1	105	%	70-135	01.16.2021 06:00		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **Confirmation Sample 31 2 FT @ EB**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-018

Date Collected: 01.14.2021 11:25

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 05:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 05:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 05:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.16.2021 05:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 05:30	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 05:30	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 05:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 05:30	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.16.2021 05:30	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 6**
Lab Sample Id: 684907-019

Matrix: Soil
Date Collected: 01.14.2021 12:00

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:09

% Moisture:
Basis: Wet Weight

Seq Number: 3148037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	130	49.9	mg/kg	01.16.2021 00:38		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 06:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 06:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 06:19	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 06:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.16.2021 06:19	
o-Terphenyl	84-15-1	95	%	70-135	01.16.2021 06:19	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 6**
Lab Sample Id: 684907-019

Matrix: Soil
Date Collected: 01.14.2021 12:00

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 05:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 05:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 05:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 05:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 05:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 05:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 05:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 05:53		
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.16.2021 05:53		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 7**
Lab Sample Id: 684907-020

Matrix: Soil
Date Collected: 01.14.2021 12:05

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:09

% Moisture:
Basis: Wet Weight

Seq Number: 3148037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	153	50.3	mg/kg	01.16.2021 00:44		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 06:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 06:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 06:39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 06:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	01.16.2021 06:39	
o-Terphenyl	84-15-1	109	%	70-135	01.16.2021 06:39	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 7**
Lab Sample Id: 684907-020

Matrix: Soil
Date Collected: 01.14.2021 12:05

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 06:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 06:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 06:15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.16.2021 06:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 06:15	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 06:15	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 06:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.16.2021 06:15		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 06:15		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 8**
Lab Sample Id: 684907-021

Matrix: Soil
Date Collected: 01.14.2021 12:10

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.9	9.90	mg/kg	01.18.2021 10:56	DX	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.15.2021 23:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.15.2021 23:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.15.2021 23:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.15.2021 23:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	01.15.2021 23:25	
o-Terphenyl	84-15-1	99	%	70-135	01.15.2021 23:25	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 8**
Lab Sample Id: 684907-021

Matrix: Soil
Date Collected: 01.14.2021 12:10

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 06:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 06:37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 06:37	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 06:37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 06:37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 06:37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 06:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	01.16.2021 06:37		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 06:37		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 9**
Lab Sample Id: 684907-022

Matrix: Soil
Date Collected: 01.14.2021 12:15

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	156	49.7	mg/kg	01.16.2021 01:35		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.16.2021 00:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.16.2021 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.16.2021 00:24	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.16.2021 00:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	01.16.2021 00:24	
o-Terphenyl	84-15-1	92	%	70-135	01.16.2021 00:24	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 9**
Lab Sample Id: 684907-022

Matrix: Soil
Date Collected: 01.14.2021 12:15

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 07:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 07:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 07:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.16.2021 07:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 07:00	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 07:00	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 07:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.16.2021 07:00		
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.16.2021 07:00		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 10**
Lab Sample Id: 684907-023

Matrix: Soil
Date Collected: 01.14.2021 12:20

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	157	49.9	mg/kg	01.16.2021 01:41		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 00:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 00:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 00:44	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 00:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.16.2021 00:44	
o-Terphenyl	84-15-1	107	%	70-135	01.16.2021 00:44	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 10**
Lab Sample Id: 684907-023

Matrix: Soil
Date Collected: 01.14.2021 12:20

Date Received: 01.15.2021 13:52
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 07:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 07:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 07:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 07:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 07:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 07:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 07:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	01.16.2021 07:22		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 07:22		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 11**
Lab Sample Id: 684907-024

Matrix: Soil
Date Collected: 01.14.2021 12:25

Date Received: 01.15.2021 13:52

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	383	49.9	mg/kg	01.16.2021 01:46		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.16.2021 01:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.16.2021 01:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.16.2021 01:03	U	1
Total TPH	PHC635	<50	50	mg/kg	01.16.2021 01:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	01.16.2021 01:03	
o-Terphenyl	84-15-1	112	%	70-135	01.16.2021 01:03	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 11**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-024

Date Collected: 01.14.2021 12:25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 07:45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 07:45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 07:45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.16.2021 07:45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 07:45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 07:45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 07:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.16.2021 07:45		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 07:45		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 12**
Lab Sample Id: 684907-025

Matrix: Soil
Date Collected: 01.14.2021 12:30

Date Received: 01.15.2021 13:52

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	101	mg/kg	01.16.2021 01:52		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.16.2021 01:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.16.2021 01:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.16.2021 01:23	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.16.2021 01:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.16.2021 01:23	
o-Terphenyl	84-15-1	98	%	70-135	01.16.2021 01:23	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 12**
Lab Sample Id: 684907-025

Matrix: Soil
Date Collected: 01.14.2021 12:30

Date Received: 01.15.2021 13:52

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 08:07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 08:07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 08:07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.16.2021 08:07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 08:07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 08:07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 08:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.16.2021 08:07		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 08:07		



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 13**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-026

Date Collected: 01.15.2021 08:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	134	100	mg/kg	01.16.2021 02:09		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.16.2021 01:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.16.2021 01:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.16.2021 01:43	U	1
Total TPH	PHC635	<50	50	mg/kg	01.16.2021 01:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.16.2021 01:43	
o-Terphenyl	84-15-1	113	%	70-135	01.16.2021 01:43	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 13**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-026

Date Collected: 01.15.2021 08:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 09:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 09:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 09:24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.16.2021 09:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 09:24	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 09:24	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 09:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.16.2021 09:24	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 09:24	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 14**
Lab Sample Id: 684907-027

Matrix: Soil
Date Collected: 01.15.2021 08:05

Date Received: 01.15.2021 13:52

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	136	99.0	mg/kg	01.16.2021 02:15		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.16.2021 02:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.16.2021 02:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.16.2021 02:03	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.16.2021 02:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	117	%	70-135	01.16.2021 02:03		
o-Terphenyl	84-15-1	111	%	70-135	01.16.2021 02:03		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 14**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-027

Date Collected: 01.15.2021 08:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 09:47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 09:47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 09:47	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.16.2021 09:47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 09:47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 09:47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 09:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.16.2021 09:47		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.16.2021 09:47		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 15**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-028

Date Collected: 01.15.2021 08:10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	143	101	mg/kg	01.16.2021 02:20		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.16.2021 02:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.16.2021 02:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.16.2021 02:23	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.16.2021 02:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.16.2021 02:23	
o-Terphenyl	84-15-1	118	%	70-135	01.16.2021 02:23	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 15**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-028

Date Collected: 01.15.2021 08:10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 10:09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 10:09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 10:09	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.16.2021 10:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 10:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 10:09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 10:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.16.2021 10:09		
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.16.2021 10:09		



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 16**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-029

Date Collected: 01.15.2021 08:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	122	99.6	mg/kg	01.16.2021 02:26		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.16.2021 02:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.16.2021 02:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.16.2021 02:42	U	1
Total TPH	PHC635	<50	50	mg/kg	01.16.2021 02:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	01.16.2021 02:42	
o-Terphenyl	84-15-1	105	%	70-135	01.16.2021 02:42	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 16**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-029

Date Collected: 01.15.2021 08:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 10:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 10:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 10:32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.16.2021 10:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 10:32	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 10:32	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 10:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.16.2021 10:32		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 10:32		



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Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 17**
Lab Sample Id: 684907-030

Matrix: Soil
Date Collected: 01.15.2021 08:20

Date Received: 01.15.2021 13:52

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	122	101	mg/kg	01.16.2021 02:32		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.16.2021 03:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.16.2021 03:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.16.2021 03:02	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.16.2021 03:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	01.16.2021 03:02	
o-Terphenyl	84-15-1	91	%	70-135	01.16.2021 03:02	



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American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 17**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-030

Date Collected: 01.15.2021 08:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.16.2021 10:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.16.2021 10:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.16.2021 10:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.16.2021 10:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.16.2021 10:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.16.2021 10:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.16.2021 10:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.16.2021 10:54	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 10:54	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 18**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-031

Date Collected: 01.15.2021 08:25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	124	99.0	mg/kg	01.16.2021 02:37		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 03:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 03:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 03:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 03:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	01.16.2021 03:42	
o-Terphenyl	84-15-1	78	%	70-135	01.16.2021 03:42	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 18**
Lab Sample Id: 684907-031

Matrix: Soil
Date Collected: 01.15.2021 08:25

Date Received: 01.15.2021 13:52

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 11:16	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 11:16	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 11:16	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 11:16	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 11:16	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 11:16	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 11:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 11:16		
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.16.2021 11:16		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 19**
Lab Sample Id: 684907-032

Matrix: Soil
Date Collected: 01.15.2021 08:30

Date Received: 01.15.2021 13:52

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	99.4	mg/kg	01.16.2021 02:54		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 04:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 04:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 04:02	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 04:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	01.16.2021 04:02		
o-Terphenyl	84-15-1	118	%	70-135	01.16.2021 04:02		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 19**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-032

Date Collected: 01.15.2021 08:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:

Seq Number: 3148079

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.16.2021 11:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.16.2021 11:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.16.2021 11:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.16.2021 11:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.16.2021 11:39	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.16.2021 11:39	U	1
Total BTEX		<0.002	0.002	mg/kg	01.16.2021 11:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.16.2021 11:39	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.16.2021 11:39	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 20**
Lab Sample Id: 684907-033

Matrix: Soil
Date Collected: 01.15.2021 08:35

Date Received: 01.15.2021 13:52
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	100	mg/kg	01.16.2021 03:00		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.16.2021 04:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.16.2021 04:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.16.2021 04:21	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.16.2021 04:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	118	%	70-135	01.16.2021 04:21		
o-Terphenyl	84-15-1	95	%	70-135	01.16.2021 04:21		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 20**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-033

Date Collected: 01.15.2021 08:35

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.16.2021 12:01	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.16.2021 12:01	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.16.2021 12:01	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.16.2021 12:01	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.16.2021 12:01	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.16.2021 12:01	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.16.2021 12:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.16.2021 12:01		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.16.2021 12:01		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 21**
Lab Sample Id: 684907-034

Matrix: Soil
Date Collected: 01.15.2021 08:40

Date Received: 01.15.2021 13:52
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	204	99.0	mg/kg	01.16.2021 03:17		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 04:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 04:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 04:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 04:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	01.16.2021 04:41	
o-Terphenyl	84-15-1	97	%	70-135	01.16.2021 04:41	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 21**
Lab Sample Id: 684907-034

Matrix: Soil
Date Collected: 01.15.2021 08:40

Date Received: 01.15.2021 13:52
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 16:01

% Moisture:
Basis: Wet Weight

Seq Number: 3148079

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.16.2021 12:24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.16.2021 12:24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.16.2021 12:24	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.16.2021 12:24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.16.2021 12:24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.16.2021 12:24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.16.2021 12:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.16.2021 12:24	
4-Bromofluorobenzene	460-00-4	89	%	70-130	01.16.2021 12:24	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 22**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-035

Date Collected: 01.15.2021 08:45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	148	49.9	mg/kg	01.16.2021 03:23		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.16.2021 05:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.16.2021 05:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.16.2021 05:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.16.2021 05:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	112	%	70-135	01.16.2021 05:01		
o-Terphenyl	84-15-1	95	%	70-135	01.16.2021 05:01		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 22**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-035

Date Collected: 01.15.2021 08:45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:

Seq Number: 3148177

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.18.2021 15:21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.18.2021 15:21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.18.2021 15:21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.18.2021 15:21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.18.2021 15:21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.18.2021 15:21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.18.2021 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.18.2021 15:21	
4-Bromofluorobenzene	460-00-4	89	%	70-130	01.18.2021 15:21	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 23**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-036

Date Collected: 01.15.2021 08:50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	167	49.9	mg/kg	01.16.2021 03:28		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 05:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 05:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 05:21	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 05:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.16.2021 05:21	
o-Terphenyl	84-15-1	79	%	70-135	01.16.2021 05:21	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 23**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-036

Date Collected: 01.15.2021 08:50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:

Seq Number: 3148177

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.18.2021 15:43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.18.2021 15:43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.18.2021 15:43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.18.2021 15:43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.18.2021 15:43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.18.2021 15:43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.18.2021 15:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.18.2021 15:43		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.18.2021 15:43		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 24**
Lab Sample Id: 684907-037

Matrix: Soil
Date Collected: 01.15.2021 08:55

Date Received: 01.15.2021 13:52

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	199	101	mg/kg	01.16.2021 03:34		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 05:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	01.16.2021 05:40	
o-Terphenyl	84-15-1	118	%	70-135	01.16.2021 05:40	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 24**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-037

Date Collected: 01.15.2021 08:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:

Seq Number: 3148177

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.18.2021 16:06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.18.2021 16:06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.18.2021 16:06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.18.2021 16:06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.18.2021 16:06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.18.2021 16:06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.18.2021 16:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.18.2021 16:06	
4-Bromofluorobenzene	460-00-4	84	%	70-130	01.18.2021 16:06	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 25**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-038

Date Collected: 01.15.2021 09:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	178	99.0	mg/kg	01.16.2021 03:40		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.16.2021 06:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	01.16.2021 06:00	
o-Terphenyl	84-15-1	116	%	70-135	01.16.2021 06:00	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 25**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-038

Date Collected: 01.15.2021 09:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:

Seq Number: 3148177

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.18.2021 16:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.18.2021 16:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.18.2021 16:28	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.18.2021 16:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.18.2021 16:28	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.18.2021 16:28	U	1
Total BTEX		<0.002	0.002	mg/kg	01.18.2021 16:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.18.2021 16:28	
4-Bromofluorobenzene	460-00-4	89	%	70-130	01.18.2021 16:28	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 26**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-039

Date Collected: 01.15.2021 09:05

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	239	101	mg/kg	01.16.2021 03:45		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148056

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.16.2021 06:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.16.2021 06:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.16.2021 06:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.16.2021 06:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-135	01.16.2021 06:19		
o-Terphenyl	84-15-1	96	%	70-135	01.16.2021 06:19		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 26**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-039

Date Collected: 01.15.2021 09:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:

Seq Number: 3148177

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.18.2021 16:50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.18.2021 16:50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.18.2021 16:50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.18.2021 16:50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.18.2021 16:50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.18.2021 16:50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.18.2021 16:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.18.2021 16:50	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.18.2021 16:50	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 27**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-040

Date Collected: 01.15.2021 09:10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:00

% Moisture:

Seq Number: 3148039

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	99.0	mg/kg	01.16.2021 03:51		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.15.2021 18:00

% Moisture:

Seq Number: 3148056

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.16.2021 06:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.16.2021 06:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.16.2021 06:39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.16.2021 06:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	01.16.2021 06:39		
o-Terphenyl	84-15-1	105	%	70-135	01.16.2021 06:39		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 27**
Lab Sample Id: 684907-040

Matrix: Soil
Date Collected: 01.15.2021 09:10

Date Received: 01.15.2021 13:52

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:
Basis: Wet Weight

Seq Number: 3148177

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.18.2021 17:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.18.2021 17:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.18.2021 17:13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.18.2021 17:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.18.2021 17:13	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.18.2021 17:13	U	1
Total BTEX		<0.002	0.002	mg/kg	01.18.2021 17:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.18.2021 17:13		
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.18.2021 17:13		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 28**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-041

Date Collected: 01.15.2021 09:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:45

% Moisture:

Seq Number: 3148040

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	176	101	mg/kg	01.16.2021 04:31		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.18.2021 17:00

% Moisture:

Seq Number: 3148174

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.18.2021 19:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.18.2021 19:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.18.2021 19:33	U	1
Total TPH	PHC635	<50	50	mg/kg	01.18.2021 19:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.18.2021 19:33	
o-Terphenyl	84-15-1	111	%	70-135	01.18.2021 19:33	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 28**
Lab Sample Id: 684907-041

Matrix: Soil
Date Collected: 01.15.2021 09:15

Date Received: 01.15.2021 13:52

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:
Basis: Wet Weight

Seq Number: 3148177

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.18.2021 17:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.18.2021 17:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.18.2021 17:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.18.2021 17:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.18.2021 17:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.18.2021 17:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.18.2021 17:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	01.18.2021 17:35		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.18.2021 17:35		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 29**
Lab Sample Id: 684907-042

Matrix: Soil
Date Collected: 01.15.2021 09:20

Date Received: 01.15.2021 13:52
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:45

% Moisture:
Basis: Wet Weight

Seq Number: 3148040

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	104	99.8	mg/kg	01.16.2021 04:48		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.18.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.18.2021 20:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.18.2021 20:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.18.2021 20:33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.18.2021 20:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	01.18.2021 20:33		
o-Terphenyl	84-15-1	109	%	70-135	01.18.2021 20:33		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 29**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-042

Date Collected: 01.15.2021 09:20

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:
Basis: Wet Weight

Seq Number: 3148177

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.18.2021 17:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.18.2021 17:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.18.2021 17:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.18.2021 17:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.18.2021 17:58	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	01.18.2021 17:58	U	1
Total BTEX		<0.002	0.002	mg/kg	01.18.2021 17:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.18.2021 17:58		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.18.2021 17:58		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 30**
Lab Sample Id: 684907-043

Matrix: Soil
Date Collected: 01.15.2021 09:25

Date Received: 01.15.2021 13:52
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:45

% Moisture:
Basis: Wet Weight

Seq Number: 3148040

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	148	9.96	mg/kg	01.18.2021 11:14		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.18.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.18.2021 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.18.2021 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.18.2021 20:53	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.18.2021 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.18.2021 20:53	
o-Terphenyl	84-15-1	101	%	70-135	01.18.2021 20:53	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 30**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-043

Date Collected: 01.15.2021 09:25

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:
Basis: Wet Weight

Seq Number: 3148177

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.18.2021 18:20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.18.2021 18:20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.18.2021 18:20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.18.2021 18:20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.18.2021 18:20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.18.2021 18:20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.18.2021 18:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	01.18.2021 18:20		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.18.2021 18:20		



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 31**

Matrix: Soil

Date Received: 01.15.2021 13:52

Lab Sample Id: 684907-044

Date Collected: 01.15.2021 09:30

Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.15.2021 17:45

% Moisture:
Basis: Wet Weight

Seq Number: 3148040

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	121	99.8	mg/kg	01.16.2021 04:59		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.18.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3148174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.18.2021 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.18.2021 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.18.2021 21:13	U	1
Total TPH	PHC635	<50	50	mg/kg	01.18.2021 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	01.18.2021 21:13	
o-Terphenyl	84-15-1	107	%	70-135	01.18.2021 21:13	



Certificate of Analytical Results 684907

American Safety Services, Odessa, TX

Cimarex- Crawford 27 26 Fee 15 H

Sample Id: **S Wall 31**
Lab Sample Id: 684907-044

Matrix: Soil
Date Collected: 01.15.2021 09:30

Date Received: 01.15.2021 13:52
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.18.2021 11:08

% Moisture:
Basis: Wet Weight

Seq Number: 3148177

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00229	0.00229	mg/kg	01.18.2021 18:42	U	1
Toluene	108-88-3	<0.00229	0.00229	mg/kg	01.18.2021 18:42	U	1
Ethylbenzene	100-41-4	<0.00229	0.00229	mg/kg	01.18.2021 18:42	U	1
m,p-Xylenes	179601-23-1	<0.00459	0.00459	mg/kg	01.18.2021 18:42	U	1
o-Xylene	95-47-6	<0.00229	0.00229	mg/kg	01.18.2021 18:42	U	1
Total Xylenes	1330-20-7	<0.00229	0.00229	mg/kg	01.18.2021 18:42	U	1
Total BTEX		<0.00229	0.00229	mg/kg	01.18.2021 18:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.18.2021 18:42		
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.18.2021 18:42		

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. **ND** Not Detected.

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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



American Safety Services

Cimarex- Crawford 27 26 Fee 15 H

Analytical Method: Chloride by EPA 300

Seq Number: 3148039

MB Sample Id: 7719348-1-BLK

Matrix: Solid

LCS Sample Id: 7719348-1-BKS

Prep Method: E300P

Date Prep: 01.15.2021

LCSD Sample Id: 7719348-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	210	105	204	102	90-110	3	20	mg/kg	01.16.2021 01:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3148037

MB Sample Id: 7719347-1-BLK

Matrix: Solid

LCS Sample Id: 7719347-1-BKS

Prep Method: E300P

Date Prep: 01.15.2021

LCSD Sample Id: 7719347-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	208	104	202	101	90-110	3	20	mg/kg	01.15.2021 21:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3148040

MB Sample Id: 7719350-1-BLK

Matrix: Solid

LCS Sample Id: 7719350-1-BKS

Prep Method: E300P

Date Prep: 01.15.2021

LCSD Sample Id: 7719350-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	208	104	203	102	90-110	2	20	mg/kg	01.16.2021 04:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3148039

Parent Sample Id: 684907-021

Matrix: Soil

MS Sample Id: 684907-021 S

Prep Method: E300P

Date Prep: 01.15.2021

MSD Sample Id: 684907-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	70.9	252	285	85	286	85	90-110	0	20	mg/kg	01.18.2021 11:02	X

Analytical Method: Chloride by EPA 300

Seq Number: 3148039

Parent Sample Id: 684907-031

Matrix: Soil

MS Sample Id: 684907-031 S

Prep Method: E300P

Date Prep: 01.15.2021

MSD Sample Id: 684907-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	124	199	307	92	304	90	90-110	1	20	mg/kg	01.16.2021 02:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3148037

Parent Sample Id: 684907-001

Matrix: Soil

MS Sample Id: 684907-001 S

Prep Method: E300P

Date Prep: 01.15.2021

MSD Sample Id: 684907-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	141	198	332	96	338	99	90-110	2	20	mg/kg	01.15.2021 22:16	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Chloride by EPA 300

Seq Number: 3148037

Parent Sample Id: 684907-011

Matrix: Soil

MS Sample Id: 684907-011 S

Prep Method: E300P

Date Prep: 01.15.2021

MSD Sample Id: 684907-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	188	200	383	98	379	96	90-110	1	20	mg/kg	01.15.2021 23:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3148040

Parent Sample Id: 684907-041

Matrix: Soil

MS Sample Id: 684907-041 S

Prep Method: E300P

Date Prep: 01.15.2021

MSD Sample Id: 684907-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	176	201	373	98	363	93	90-110	3	20	mg/kg	01.16.2021 04:37	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148055

MB Sample Id: 7719352-1-BLK

Matrix: Solid

LCS Sample Id: 7719352-1-BKS

Prep Method: SW8015P

Date Prep: 01.15.2021

LCSD Sample Id: 7719352-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	960	96	70-135	7	35	mg/kg	01.15.2021 22:44	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	971	97	70-135	11	35	mg/kg	01.15.2021 22:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		88		129		70-135	%	01.15.2021 22:44
o-Terphenyl	86		86		117		70-135	%	01.15.2021 22:44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148056

MB Sample Id: 7719353-1-BLK

Matrix: Solid

LCS Sample Id: 7719353-1-BKS

Prep Method: SW8015P

Date Prep: 01.15.2021

LCSD Sample Id: 7719353-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	968	97	1000	100	70-135	3	35	mg/kg	01.15.2021 22:44	
Diesel Range Organics (DRO)	<50.0	1000	936	94	997	100	70-135	6	35	mg/kg	01.15.2021 22:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		89		98		70-135	%	01.15.2021 22:44
o-Terphenyl	105		104		96		70-135	%	01.15.2021 22:44

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



American Safety Services

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Analytical Method: TPH By SW8015 Mod

Seq Number: 3148174

MB Sample Id: 7719459-1-BLK

Matrix: Solid

LCS Sample Id: 7719459-1-BKS

Prep Method: SW8015P

Date Prep: 01.18.2021

LCSD Sample Id: 7719459-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	1170	117	70-135	13	35	mg/kg	01.18.2021 18:52	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1030	103	70-135	11	35	mg/kg	01.18.2021 18:52	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	99		95		108		70-135	%	01.18.2021 18:52			
o-Terphenyl	95		99		115		70-135	%	01.18.2021 18:52			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148055

Matrix: Solid

MB Sample Id: 7719352-1-BLK

Prep Method: SW8015P

Date Prep: 01.15.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.15.2021 22:24	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148056

Matrix: Solid

MB Sample Id: 7719353-1-BLK

Prep Method: SW8015P

Date Prep: 01.15.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.15.2021 22:24	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148174

Matrix: Solid

MB Sample Id: 7719459-1-BLK

Prep Method: SW8015P

Date Prep: 01.18.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.18.2021 18:32	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148055

Matrix: Soil

Parent Sample Id: 684907-001

MS Sample Id: 684907-001 S

Prep Method: SW8015P

Date Prep: 01.15.2021

MSD Sample Id: 684907-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1070	107	1200	120	70-135	11	35	mg/kg	01.15.2021 23:44	
Diesel Range Organics (DRO)	<50.1	1000	978	98	1030	103	70-135	5	35	mg/kg	01.15.2021 23:44	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			111		107		70-135	%	01.15.2021 23:44			
o-Terphenyl			104		96		70-135	%	01.15.2021 23:44			

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



American Safety Services

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Analytical Method: TPH By SW8015 Mod

Seq Number: 3148056

Parent Sample Id: 684907-021

Matrix: Soil

MS Sample Id: 684907-021 S

Prep Method: SW8015P

Date Prep: 01.15.2021

MSD Sample Id: 684907-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	941	95	1010	102	70-135	7	35	mg/kg	01.15.2021 23:44	
Diesel Range Organics (DRO)	<49.8	995	966	97	999	100	70-135	3	35	mg/kg	01.15.2021 23:44	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		109		70-135	%	01.15.2021 23:44
o-Terphenyl	95		107		70-135	%	01.15.2021 23:44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3148174

Parent Sample Id: 684907-041

Matrix: Soil

MS Sample Id: 684907-041 S

Prep Method: SW8015P

Date Prep: 01.18.2021

MSD Sample Id: 684907-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	942	94	954	96	70-135	1	35	mg/kg	01.18.2021 19:53	
Diesel Range Organics (DRO)	<49.9	997	924	93	922	93	70-135	0	35	mg/kg	01.18.2021 19:53	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		108		70-135	%	01.18.2021 19:53
o-Terphenyl	93		119		70-135	%	01.18.2021 19:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3148050

MB Sample Id: 7719358-1-BLK

Matrix: Solid

LCS Sample Id: 7719358-1-BKS

Prep Method: SW5035A

Date Prep: 01.15.2021

LCSD Sample Id: 7719358-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0982	98	70-130	1	35	mg/kg	01.16.2021 02:23	
Toluene	<0.00200	0.100	0.0913	91	0.0911	91	70-130	0	35	mg/kg	01.16.2021 02:23	
Ethylbenzene	<0.00200	0.100	0.0935	94	0.0932	93	71-129	0	35	mg/kg	01.16.2021 02:23	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.196	98	70-135	1	35	mg/kg	01.16.2021 02:23	
o-Xylene	<0.00200	0.100	0.0966	97	0.0965	97	71-133	0	35	mg/kg	01.16.2021 02:23	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		100		70-130	%	01.16.2021 02:23
4-Bromofluorobenzene	119		105		109		70-130	%	01.16.2021 02:23

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: BTEX by EPA 8021B

Seq Number: 3148079

Matrix: Solid

Prep Method: SW5035A

Date Prep: 01.15.2021

MB Sample Id: 7719404-1-BLK

LCS Sample Id: 7719404-1-BKS

LCSD Sample Id: 7719404-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.104	104	0.0959	96	70-130	8	35	mg/kg	01.16.2021 02:43	
Toluene	<0.00200	0.100	0.0990	99	0.0915	92	70-130	8	35	mg/kg	01.16.2021 02:43	
Ethylbenzene	<0.00200	0.100	0.0913	91	0.0834	83	71-129	9	35	mg/kg	01.16.2021 02:43	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.170	85	70-135	10	35	mg/kg	01.16.2021 02:43	
o-Xylene	<0.00200	0.100	0.0930	93	0.0852	85	71-133	9	35	mg/kg	01.16.2021 02:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		95		94		70-130	%	01.16.2021 02:43
4-Bromofluorobenzene	86		88		87		70-130	%	01.16.2021 02:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3148177

Matrix: Solid

Prep Method: SW5035A

Date Prep: 01.18.2021

MB Sample Id: 7719406-1-BLK

LCS Sample Id: 7719406-1-BKS

LCSD Sample Id: 7719406-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.100	100	0.105	105	70-130	5	35	mg/kg	01.18.2021 13:19	
Toluene	<0.00200	0.100	0.0960	96	0.102	102	70-130	6	35	mg/kg	01.18.2021 13:19	
Ethylbenzene	<0.00200	0.100	0.0893	89	0.0948	95	71-129	6	35	mg/kg	01.18.2021 13:19	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.194	97	70-135	6	35	mg/kg	01.18.2021 13:19	
o-Xylene	<0.00200	0.100	0.0894	89	0.0953	95	71-133	6	35	mg/kg	01.18.2021 13:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		96		93		70-130	%	01.18.2021 13:19
4-Bromofluorobenzene	88		87		86		70-130	%	01.18.2021 13:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3148050

Matrix: Soil

Prep Method: SW5035A

Date Prep: 01.15.2021

Parent Sample Id: 684910-001

MS Sample Id: 684910-001 S

MSD Sample Id: 684910-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.112	112	0.0991	99	70-130	12	35	mg/kg	01.16.2021 03:08	
Toluene	<0.00201	0.100	0.105	105	0.0927	93	70-130	12	35	mg/kg	01.16.2021 03:08	
Ethylbenzene	<0.00201	0.100	0.111	111	0.0965	97	71-129	14	35	mg/kg	01.16.2021 03:08	
m,p-Xylenes	<0.00402	0.201	0.227	113	0.201	101	70-135	12	35	mg/kg	01.16.2021 03:08	
o-Xylene	<0.00201	0.100	0.112	112	0.0995	100	71-133	12	35	mg/kg	01.16.2021 03:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		101		70-130	%	01.16.2021 03:08
4-Bromofluorobenzene	110		116		70-130	%	01.16.2021 03:08

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

American Safety Services

Cimarex- Crawford 27 26 Fee 15 H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3148079

Parent Sample Id: 684907-016

Matrix: Soil

MS Sample Id: 684907-016 S

Prep Method: SW5035A

Date Prep: 01.15.2021

MSD Sample Id: 684907-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.107	106	0.0919	91	70-130	15	35	mg/kg	01.16.2021 12:46	
Toluene	<0.00201	0.101	0.101	100	0.0891	88	70-130	13	35	mg/kg	01.16.2021 12:46	
Ethylbenzene	<0.00201	0.101	0.0921	91	0.0813	80	71-129	12	35	mg/kg	01.16.2021 12:46	
m,p-Xylenes	<0.00402	0.201	0.188	94	0.165	82	70-135	13	35	mg/kg	01.16.2021 12:46	
o-Xylene	<0.00201	0.101	0.0943	93	0.0813	80	71-133	15	35	mg/kg	01.16.2021 12:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		70-130	%	01.16.2021 12:46
4-Bromofluorobenzene	87		88		70-130	%	01.16.2021 12:46

Analytical Method: BTEX by EPA 8021B

Seq Number: 3148177

Parent Sample Id: 684907-035

Matrix: Soil

MS Sample Id: 684907-035 S

Prep Method: SW5035A

Date Prep: 01.18.2021

MSD Sample Id: 684907-035 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.103	102	0.108	107	70-130	5	35	mg/kg	01.18.2021 14:03	
Toluene	<0.00201	0.101	0.0992	98	0.104	103	70-130	5	35	mg/kg	01.18.2021 14:03	
Ethylbenzene	<0.00201	0.101	0.0917	91	0.0970	96	71-129	6	35	mg/kg	01.18.2021 14:03	
m,p-Xylenes	<0.00402	0.201	0.186	93	0.198	99	70-135	6	35	mg/kg	01.18.2021 14:03	
o-Xylene	<0.00201	0.101	0.0911	90	0.0970	96	71-133	6	35	mg/kg	01.18.2021 14:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		70-130	%	01.18.2021 14:03
4-Bromofluorobenzene	87		92		70-130	%	01.18.2021 14:03

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

Page 1 of 5

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Midland, Texas (432-704-5251)

www.xenco.com

Phoenix, Arizona (480-355-0900)

Xenoco Quote #

Xenco Job #

1004207

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes					
Company Name / Branch: American Safety Services Inc.				Project Name/Number: Cimarex-Crawford 27 26 Fee 15H								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					
Company Address: 8715 Andrews Hwy Odessa TX 79765				Project Location: Eddy Co. NM Tell Montoya													
Email: franklin@americansafety.net				Invoice To: Tell Montoya													
Project Contact: Thomas Franklin				PO Number:													
Sample's Name M261																	
No.	Field ID / Point of Collection	Collection	Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles						Field Comments			
1	Confirmation Sample 14	2F @ EB	comp	1/14/2021	1000	S	1	X									
2	Confirmation Sample 15	2F @ EB		1/14/2021	1005	S	1	X									
3	Confirmation Sample 16	2F @ EB		1/14/2021	1040	S	1	X									
4	Confirmation Sample 17	2F @ EB		1/14/2021	1015	S	1	X									
5	Confirmation Sample 18	2F @ EB		1/14/2021	1020	S	1	X									
6	Confirmation Sample 19	2F @ EB		1/14/2021	1025	S	1	X									
7	Confirmation Sample 20	2F @ EB		1/14/2021	1030	S	1	X									
8	Confirmation Sample 21	2F @ EB		1/14/2021	1035	S	1	X									
9	Confirmation Sample 22	2F @ EB		1/14/2021	1040	S	1	X									
10	Confirmation Sample 23	2F @ EB		1/14/2021	1045	S	1	X									
Turnaround Time (Business days)				Data Deliverable Information				Notes:									
☐ Same Day TAT				☐ Level II Std QC				☐ Level IV (Full Data Pkg / raw data)									
☐ Next Day EMERGENCY				☐ 7 Day TAT				☐ Level III Std QC+ Forms				☐ TRRP Level IV					
☐ 2 Day EMERGENCY				☒ Contract TAT				☐ Level 3 (CLP Forms)				☐ UST / RG -411					
☐ 3 Day EMERGENCY				☐ TRRP Checklist													
TAT Starts Day received by Lab, if received by 5:00 pm																	
Relinquished by Sample: M261 Debra				SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY													
Relinquished by: M261 Debra				Date Time: 01/15/1352				Received By: Cecilia 15:21				Relinquished By: 2					
Relinquished by: 3				Date Time: 01/15/1350				Received By: 3				Relinquished By: 4					
Relinquished by: 5				Date Time: 01/15/1350				Received By: 5				Relinquished By: 4					
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 losses 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.																	



Setting the Standard since 1990
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CHAIN OF CUSTODY

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San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote #

Xenco Job #

Client / Reporting Information

Company Name / Branch:

American Safety Services Inc.

Company Address:

8715 Andrews Hwy
Odessa TX 79765

Email:

tfranklin@americansafety.net

Phone No:

432-557-9868

Project Contact:

Thomas Franklin

Samplers Name

Figure 1

Project Information

Project Name/Number:

Cimarex-Crawford 27 26 Fee 15H

Project Location:

Invoice To:

Eddy Co. NM

Bill Montoya

PO Number:

imontoya@cimarex.com

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
O = Oil
WW = Waste Water
A = Air

No. Field ID / Point of Collection

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH TX 8015M	Chloride 300	BTEX 8021B	Field Comments
1	Confirmation Sample 24	24 @ EB	1/14/2021	1050	S	1	X								X	X	X	
2	Confirmation Sample 25	24 @ EB	1/14/2021	1055	S	1	X								X	X	X	
3	Confirmation Sample 26	24 @ EB	1/14/2021	1100	S	1	X								X	X	X	
4	Confirmation Sample 27	24 @ EB	1/14/2021	1105	S	1	X								X	X	X	
5	Confirmation Sample 28	24 @ EB	1/14/2021	1110	S	1	X								X	X	X	
6	Confirmation Sample 29	24 @ EB	1/14/2021	1115	S	1	X								X	X	X	
7	Confirmation Sample 30	24 @ EB	1/14/2021	1120	S	1	X								X	X	X	
8	Confirmation Sample 31	24 @ EB	1/14/2021	1125	S	1	X								X	X	X	
9																		
10																		

Data Deliverable Information

Notes:

Same Day TAT

5 Day TAT

Level II Std QC

Level IV (Full Data Pkg/raw data)

Next Day EMERGENCY

7 Day TAT

Level III Std QC+ Forms

TRRP Level IV

2 Day EMERGENCY

Contract TAT

Level 3 (CLP Forms)

UST / RG-411

3 Day EMERGENCY

TRRP Checklist

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

Relinquished by Sampler:

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

FED-EX / UPS: Tracking #

Relinquished By:

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CHAIN OF CUSTODY

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San Antonio, Texas (210-509-3334)
 Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xencolab.com

Xenco Quote #

Xenco Job #

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes						
Company Name / Branch: American Safety Services Inc.				Project Name/Number: Cimarex-Crawford 27 26 Fee 15H														
Company Address: 8715 Andrews Hwy Odessa TX 79765				Project Location: Eddy Co. NM														
Email: tfFranklin@americansafety.net				Invoice To: Tell Montoya														
Phone No: 432-557-9868																		
Project Contact: Thomas Franklin				tmontoya@cimarex.com														
Sampler's Name: Alger				PO Number:														
No.	Field ID / Point of Collection	Sample Depth	Collection Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MECH	NONE	TPH TX 8015M	Chloride 300	BTEX 8021B	Field Comments
1	S well 6		1/14/2021	1200	S	1	X								X	X	X	
2	S well 7		1/14/2021	1205	S	1	X								X	X	X	
3	S well 8		1/14/2021	1210	S	1	X								X	X	X	
4	S well 9		1/14/2021	1215	S	1	X								X	X	X	
5	S well 10		1/14/2021	1220	S	1	X								X	X	X	
6	S well 11		1/14/2021	1225	S	1	X								X	X	X	
7	S well 12		1/14/2021	1230	S	1	X								X	X	X	
8																		
9																		
10																		
Turnaround Time (Business days)																		
Data Deliverable Information																		
Notes:																		
☐ Same Day TAT ☐ 5 Day TAT ☐ Level II Std QC ☐ Level IV (Full Data Plg/raw data) ☐ Next Day EMERGENCY ☐ 7 Day TAT ☐ Level III Std QC+ Forms ☐ TRRP Level IV ☐ 2 Day EMERGENCY ☒ Contract TAT ☐ Level 3 (CLP Forms) ☐ UST / RG-411 ☐ 3 Day EMERGENCY ☐ TRRP Checklist																		
TAT Starts Day received by Lab, if received by 5:00 pm																		
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																		
Relinquished by Sampler: Alger Date Time: 01/15/21 1350 Received By: Alger Date Time: 01/15/21 1352 Relinquished By: Date Time: Received By: Date Time:																		
Relinquished by: Date Time: Received By: Date Time: Custody Seal # Preserved where applicable On Ice Cooler Temp Thermo Corr. Factor																		

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 losses 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.

6084907



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CHAIN OF CUSTODY

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San Antonio, Texas (210-509-3334)
 Midland, Texas (432-704-5251)

www.xencolabs.com

Phoenix, Arizona (480-355-0900)

Xenco Quote #

Xenco Job #

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

Client / Reporting Information		Project Information	
Company Name / Branch:	American Safety Services Inc.	Project Name/Number:	Cimarex-Crawford 27 26 Fee 15H
Company Address:	8715 Andrews Hwy Odessa TX 79765	Project Location:	
Email:	tfanklin@americansafety.net	Invoice To:	Eddy Co. NM Tell Montoya
Phone No:	432-557-9868		
Project Contact:	Thomas Franklin	PO Number:	
Sampler's Name	Figure 1		

No.	Field ID / Point of Collection	Collection		Number of preserved bottles							TPH TX 8015M	Chloride 300	BTEx 8021B	Analytical Information	Matrix Codes
		Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	
1	S Wall 13		01/15/21	0800	S	1	X								X
2	S Wall 14		01/15/21	0805	S	1	X								X
3	S Wall 15		01/15/21	0810	S	1	X								X
4	S Wall 16		01/15/21	0815	S	1	X								X
5	S Wall 17		01/15/21	0820	S	1	X								X
6	S Wall 18		01/15/21	0825	S	1	X								X
7	S Wall 19		01/15/21	0830	S	1	X								X
8	S Wall 20		01/15/21	0835	S	1	X								X
9	S Wall 21		01/15/21	0840	S	1	X								X
10	S Wall 22		01/15/21	0845	S	1	X								X
Turnaround Time (Business days)															
Data Deliverable Information															
Notes:															

☐ Same Day TAT	☐ 5 Day TAT	☐ Level II Std QC	☐ Level IV (Full Data Pkg /raw data)
☐ Next Day EMERGENCY	☐ 7 Day TAT	☐ Level III Std QC+ Forms	☐ TRRP Level IV
☐ 2 Day EMERGENCY	☒ Contract TAT	☐ Level 3 (CLP Forms)	☐ UST / RG -411
☐ 3 Day EMERGENCY		☐ TRRP Checklist	

TAT Starts Day received by Lab, if received by 5:00 pm	FED-EX / UPS: Tracking #
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SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY			
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Relinquished by Sampler:	Date Time:	Received By:	Date Time:
Relinquished by:	Date Time:	Received By:	Date Time:

Relinquished by:	Date Time:	Received By:	Date Time:
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Relinquished by:	Date Time:	Received By:	Date Time:
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Setting the Standard since 1990
 Stafford, Texas (281-240-4200)
 Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

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San Antonio, Texas (210-509-3334)
 Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote #

Xenco Job #

Client / Reporting Information

Project Information

Company Name / Branch:	American Safety Services Inc.	Project Name/Number:	Cimarex-Crawford 27 28 Fee 15H
Company Address:	8715 Andrews Hwy Odessa TX 79765	Project Location:	
Email:	franklin@americansafety.net	Invoice To:	Eddy Co. NM Toll Montoya
Phone No:	432-557-9868	PO Number:	
Project Contact:	Thomas Franklin		
Sampler's Name:	H. Guel		

No. Field ID / Point of Collection

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MeOH	NONE	TPH TX 8015M	Chloride 300	BTEX 8021B	Analytical Information	Matrix Codes
1	S Wall 23		01/5/21	0850	S	1	X								X	X	X		
2	S Wall 24		01/5/21	0855	S	1	X								X	X	X		
3	S Wall 25		01/5/21	0900	S	1	X								X	X	X		
4	S Wall 26		01/5/21	0905	S	1	X								X	X	X		
5	S Wall 27		01/5/21	0910	S	1	X								X	X	X		
6	S Wall 28		01/5/21	0915	S	1	X								X	X	X		
7	S Wall 29		01/5/21	0920	S	1	X								X	X	X		
8	S Wall 30		01/5/21	0925	S	1	X								X	X	X		
9	S Wall 31		01/5/21	0930	S	1	X								X	X	X		
10	Turnaround Time (Business days)																		

Data Deliverable Information

Notes:

Field Comments

W = Water
 S = Soil/Seed/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

☐ Same Day TAT	☐ 5 Day TAT	☐ Level II Std QC	☐ Level IV (Full Data Pkg/raw data)
☐ Next Day EMERGENCY	☐ 7 Day TAT	☐ Level III Std QC+ Forms	☐ TRRP Level IV
☐ 2 Day EMERGENCY	☒ Contract TAT	☐ Level 3 (CLP Forms)	☐ UST / RG-411
☐ 3 Day EMERGENCY		☐ TRRP Checklist	

FED-EX / UPS: Tracking #

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

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

Relinquished by Sampler:	Date Time:	Received By:	Date Time:
H. Guel De Luna	01/5/21 1350	C. De Luna	01/5/21 1352

Relinquished by:	Date Time:	Received By:	Date Time:

Relinquished by:	Date Time:	Received By:	Date Time:

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, the 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 losses 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.

684907

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: American Safety Services

Date/ Time Received: 01.15.2021 01.52.00 PM

Work Order #: 684907

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : t_nm_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.15.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.18.2021

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 18555

CONDITIONS OF APPROVAL

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Suite 600 Midland, TX79701	OGRID: 215099	Action Number: 18555	Action Type: C-141
OCD Reviewer chensley	Condition None		