



June 29, 2022

Ms. Jennifer Nobui
Mr. Bradford Billings
NMOCD – Environmental Bureau
1220 S St Francis Dr # 3
Santa Fe, NM 87505

**Via E-Mail RE: Variance Request
Zeus SWD Line
OCD Incident #NRM2026231125
Lea County, New Mexico**

Dear Ms. Nobui and Mr. Billings,

Tap Rock Resources (Tap Rock) contracted CDH Consulting, LLC (CDH) to conduct soil assessment and oversee remediation services following a release of produced water from the aboveground Zeus Saltwater Disposal (SWD) pipeline (Zeus SWD Line). The procedures and results of the soil assessment and completed remediation activities are summarized in this report. The intent of this document is to provide data sufficient to obtain a variance to the Remediation Plan requirement for Incident #NRM2026231125, and a determination that the remaining elevated chlorides may remain in-situ from the New Mexico Oil Conservation Division (NMOCD).

SITE INFORMATION

The Zeus SWD Line is a southwest transfer line located south of the Zeus Central Tank Battery (CTB), approximately 23 miles northwest of Jal, New Mexico. The legal location description is Unit Letter B, Section 16, Township 24 South, Range 33 East, Lea County.

On September 3, 2020, a produced water release estimated at 20 barrels (bbls) was discovered on the Zeus SWD Line. The cause of the release was determined to be equipment failure. The location of the release occurred at the location of soil sample S-3 as shown on Figure 1. Upon discovery the Zeus SWD Line was shut-in and the area secured. Earthen berms were constructed to contain the release and a hydrovac truck was utilized to remove all free-standing liquids. Approximately 5 bbls of produced water were recovered and placed back into the production facility.

On September 11, 2020, CDH submitted the initial NMOCD notification Form C-141 to NMOCD detailing the initial response to the release. This form was subsequently rejected on September 18, 2020 due to listing the release in Section 9 (location of the Zeus CTB) and not Section 16, the physical release location. A corrected form was submitted to NMOCD on September 18, 2020, included as Attachment 3. NMOCD assigned incident #NRM2026231125 to this release.

GROUNDWATER AND SITE RANKING

There are no significant watercourses or other sensitive areas within ½ mile of the release as defined by 19.15.29.12.C.(4).



On November 18, 2020, Tap Rock contracted Enviro-Drill, Inc. to install a monitoring well to 55 feet below ground surface (bgs) to determine depth to groundwater. Measured depth to groundwater on November 20, 2020 was 53.17 feet bgs. This new information updated the previously reported depth on the Initial Form C-141. The monitoring well drilling log is included as Attachment 4 and the location of the monitoring well is shown on Figure 1. Upon determination of the static groundwater level, the monitoring well was abandoned by Enviro-Drill using a bentonite/cement mixture tremied from the bottom of the boring.

Based on the measured depth to groundwater, the remedial action levels for the soils in the release area per 19.15.29.12(C)(4) New Mexico Administrative Code (NMAC), Table I, Depth to ground water 51 feet to 100 feet were as follows: chlorides 10,000 milligrams per kilogram (mg/kg); Total Petroleum Hydrocarbons (TPH) [Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) + Motor Oil Range Organics (MRO)] 2,500 mg/kg; benzene, toluene, ethylbenzene, and total xylenes (BTEX) 50 mg/kg; and benzene 10 mg/kg.

EXCAVATION, POTHOLING AND CONFIRMATION SOIL SAMPLING & ANALYSIS

From September 5 through September 12, 2020, approximately 900 cubic yards of impacted soil were excavated and transported to Northern Delaware Basin Landfill, a licensed disposal facility. The initial excavation reached depths of 2 feet bgs at the extreme northern and extreme southwestern extents of the excavation, getting progressively deeper to 4.7 feet bgs where the north-south portion of the excavation meets the east-west portion of the excavation. The field excavation crew visually inspected the impacted area to determine the extent of the release. CDH staff arrived on site September 23, 2020 to collect confirmation soil samples demonstrating that impacted soil has been removed. Field analysis utilizing a photoionization detector (PID) initially indicated that the impacted soils had been removed as all readings were within the range of the background readings. Field-screening PID results are included in Table 1. Photographs of the site taken during initial excavation and sampling activities are included as Attachment 5.

An alternate sampling plan proposing 5-point composite samples per 500 square feet of excavation was approved by NMOCD on September 23, 2020 (see approval email included as Attachment 3). CDH collected 22 confirmation soil samples (S-1 through S-22) on September 23, 2020 within the area of impact along with two background samples (S-23 & S-24) at locations shown on Figure 1, at depths ranging from 2.0 to 4.7 feet bgs and analyzed for chlorides, TPH including GRO, DRO, and MRO, and BTEX. Soil analytical results are summarized in Tables 2 and 3 and the Origins Laboratories, Inc. (Origins) laboratory data report is included as Attachment 6. Soil sample results were compared to 19.15.29.12(C)(4) NMAC, Table I, Depth to ground water 51 feet to 100 feet. Only sample S-3 at a depth of 2.5 feet bgs exceeded the applicable chlorides standard. No other samples exceeded Table I standards for the organic compounds or chlorides.

Based on these results, and at the request of NMOCD to collect additional sidewall samples to verify lateral extents of the release, additional excavation via potholing with a backhoe and confirmation soil sampling were conducted at the site on October 26, 2020. Ten potholes, PH-001 through PH-010, were dug approximately 30 feet from the lateral extent of the excavation to the south, east and west and 14 additional potholes were dug within the excavation to attempt to delineate horizontal and vertical extent of any chlorides impacts. The locations of these potholes are shown on Figure 1. CDH collected



confirmation soil samples PH-001 through PH-010 at depths of 4.2 feet bgs to 6.6 feet bgs from the lateral potholes and samples EPH-011 through EPH-024 were collected at depths ranging from 5.3 feet bgs to 10.7 feet bgs from potholes within the excavated area. The samples were analyzed by Eurofins Xenco, LLC (Xenco) laboratory only for chlorides per conversation with and approval from Ms. Cristina Eads with NMOCD. These sample results were compared to 19.15.29.12(C)(4) NMAC, Table I, Depth to ground water 51 feet to 100 feet, summarized in Table 3 and the Xenco laboratory data report included as Attachment 6. Samples EPH-011, EPH-15, EPH-16 and EPH-18 through EPH-22 exceeded the applicable chlorides standard at depths of 6.5, 5.3, 6.6, 6.3, 5.2, 7.0, 5.7 and 7.3 feet bgs, respectively.

On November 18, 2020, three boreholes (H, SH and TH) and one monitoring well (WW) were drilled and soil samples were collected from ground surface at 2-foot intervals. The three boreholes and monitoring well were advanced to total depths of 34, 30, 30 and 55 feet bgs, respectively to further delineate potential chlorides impacts. Their locations are shown on Figure 1. These samples were also only analyzed by Xenco only for chlorides, the results compared to 19.15.29.12(C)(4) NMAC, Table I, Depth to ground water 51 feet to 100 feet, summarized in Table 3 and the Xenco laboratory data report included as Attachment 6. Surficial topsoil samples from boreholes H and TH and samples TH12 at 12 feet bgs, TH20 at 20 feet bgs and WW24 at 24 feet bgs exceeded the applicable chlorides standard.

ADDITIONAL REMEDIAL ACTIONS AND CONCLUSION

In order to address the remaining chlorides exceedances, while addressing safety concerns associated with excavating near or beneath existing buried pipelines in the area, on December 2, 2020, CDH submitted an updated Form C-141 to NMOCD as a deferral request and remediation plan, included as Attachment 3. CDH also prepared and submitted a Soil Assessment & Remediation Work Plan document to the NMOCD.

On February 8, 2021, Ms. Eads communicated via phone call to CDH that additional excavation would be required, to which CDH responded that on behalf of Tap Rock, installation of a liner was being considered in accordance with NMOCD June 19, 2020 Draft Part 29 Releases Liner Installation as Part of Spill Remediation Guidance. Ms. Eads agreed to this approach in principle, however stated that the liner was required to be buried at 8 feet bgs. CDH noted that this would be problematic given both aboveground and buried pipelines in the impacted area. Ms. Eads stated that in areas where the total depth of excavation was less than 4 feet bgs and soil exceeded NMOCD reclamation standards and areas where confirmation and pothole samples collected from depths greater than 4 feet bgs exceeded the applicable chlorides standard, a liner would need to be installed. Ms. Eads also stated that she would agree to shallower placement of the liner.

On March 3, 2021, additional excavation via potholing and soil confirmation sampling in accordance with Ms. Eads February 8, 2021 correspondence were conducted to complete delineation of the chlorides impacts. Six additional potholes (Holes 1-6) were dug to 10 feet bgs and composite soil samples were collected from the surface and every 2 feet down to the total depth. The potholes were located south and east of the excavated area as illustrated on Figure 1. The topsoil horizon was evaluated during the potholing and determined to be at approximately 2 feet bgs. These samples were analyzed by Xenco for chlorides, again the results compared to 19.15.29.12(C)(4) NMAC, Table I, Depth to ground water 51 feet to 100 feet and summarized in Table 3, the Xenco laboratory data report included as Attachment 6. All soil samples were below the applicable chlorides standard. This soil sampling event completed the soil investigation activities.



Additional potholes were not advanced into the pipeline corridor per previous discussion with the NMOCD and pipeline operator. Any impacted soil beneath the pipelines will be removed after the pipelines are removed from service per NMAC 19.15.29.12 C. (2).

CDH prepared and submitted a Liner Installation Plan to NMOCD in May, 2021. Ms. Eads provide written approval of the liner installation in her email to CDH dated July 23, 2021, included as Attachment 3. As outlined in the approved Liner Installation Plan, contractors returned to the site on August 16, 2021 to install a 1.524 millimeter thick non-permeable liner with tracer wire along the perimeter and crossing the liner. The liner was installed at a depth of approximately 2 feet bgs to cover the residual chlorides impacted soils. The liner was domed with the central points along the liner slightly higher than the perimeter to ensure the liner would shed any infiltrating precipitation and avoid trapping any water. The extent of the liner is shown in Figure 2. Figure 2 also includes a listing of the residual chlorides exceedances in soil including depths and concentrations and illustrates their locations. Upon completion of the liner installation, the location was backfilled to grade with clean soil.

Note that, on behalf of Tap Rock, CDH recently communicated with Lucid Energy Group, owner/operator of the pipelines bordering the south end of the excavation and they were open to preparing a letter requesting that no more excavation or hydrovaccing be conducted around their pipelines due to safety and integrity concerns. We will forward that request to the NMOCD upon receipt.

Based on the release response, repairs, soil removal, soil confirmation sampling results and distribution and placement of a liner, all conducted in accordance with NMOCD guidance and requirements, on behalf of Tap Rock, CDH respectfully requests a variance to the Remediation Plan requirement for Incident #NRM2026231125, and a determination that the remaining elevated chlorides may remain in-situ.

If you have any comments or questions, please do not hesitate to contact our office at (720) 431-7468.

Sincerely,
CDH Consulting, LLC

A handwritten signature in black ink, appearing to read "James A. Short".

James A. Short, P.G.
Senior Manager

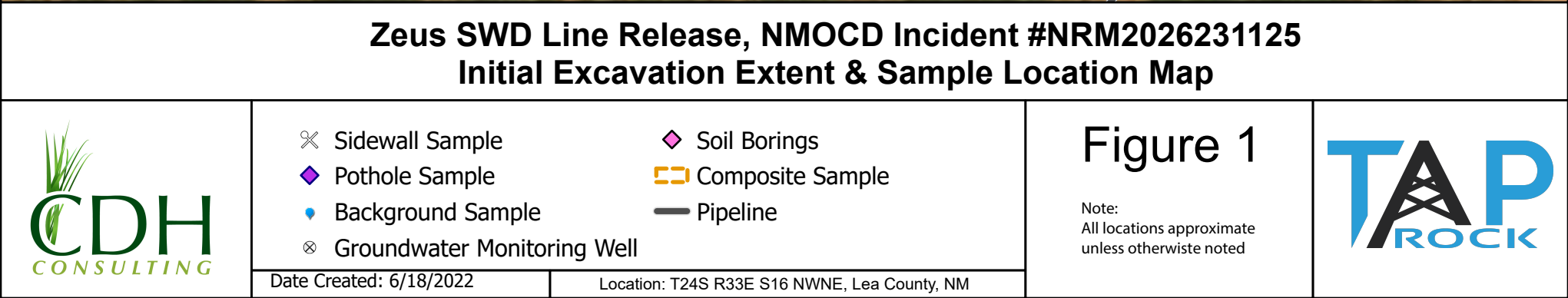
Attachments:

- Attachment 1– Figures
- Attachment 2 - Tables
- Attachment 3 – NMOCD Forms & Correspondence
- Attachment 4 – Monitoring Well Drilling Log
- Attachment 5 – Photographs
- Attachment 6 – Laboratory Analytical Data



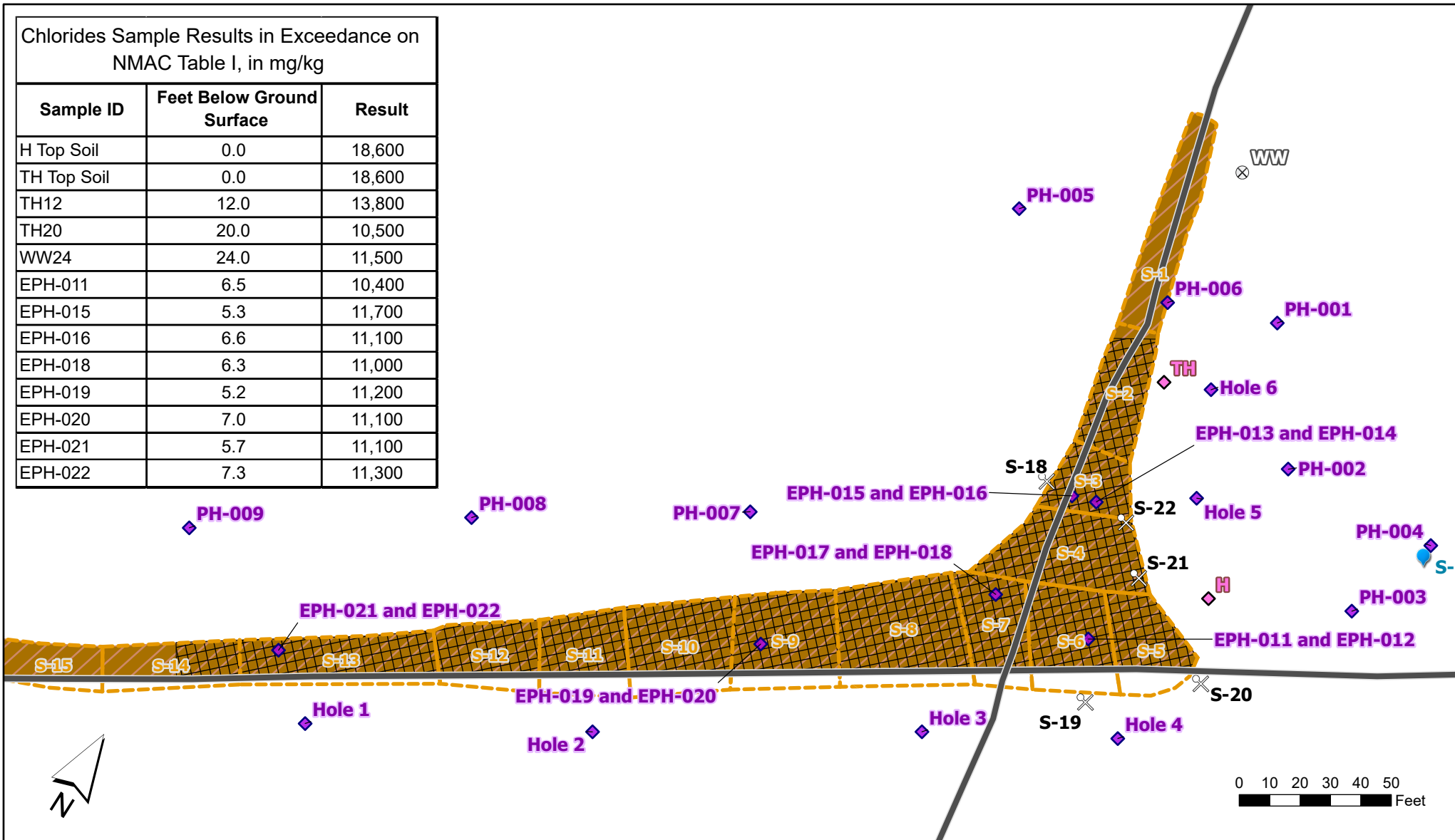
ATTACHMENT 1

FIGURES



Chlorides Sample Results in Exceedance on
NMAC Table I, in mg/kg

Sample ID	Feet Below Ground Surface	Result
H Top Soil	0.0	18,600
TH Top Soil	0.0	18,600
TH12	12.0	13,800
TH20	20.0	10,500
WW24	24.0	11,500
EPH-011	6.5	10,400
EPH-015	5.3	11,700
EPH-016	6.6	11,100
EPH-018	6.3	11,000
EPH-019	5.2	11,200
EPH-020	7.0	11,100
EPH-021	5.7	11,100
EPH-022	7.3	11,300



Zeus SWD Line Release, NMOCD Incident #NRM2026231125
Liner Installation Construction Map



- ✕ Sidewall Sample
- ◆ Pothole Sample
- Background Sample
- ⊗ Groundwater Monitoring Well
- ◆ Soil Borings
- Initial Excavation
- ▨ Current Excavated Area
- Pipeline
- ⊠ Liner Location

Date Created: 6/18/2022

Location: T24S R33E S16 NWNE, Lea County, NM

Figure 2

Note:
All locations approximate
unless otherwise noted.





ATTACHMENT 2

TABLES

TABLE 1.0
SOIL SCREENING RESULTS
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	PID Reading (PPM)
S-1	9/23/2020	2.0	0.2
S-2	9/23/2020	2.0	0.2
S-3	9/23/2020	2.5	0.2
S-4	9/23/2020	4.0	0.2
S-5	9/23/2020	4.7	0.3
S-6	9/23/2020	4.7	0.3
S-7	9/23/2020	4.7	0.2
S-8	9/23/2020	2.0	0.3
S-9	9/23/2020	2.0	0.3
S-10	9/23/2020	2.0	0.4
S-11	9/23/2020	2.0	0.2
S-12	9/23/2020	2.0	0.5
S-13	9/23/2020	2.0	0.2
S-14	9/23/2020	2.0	0.3
S-15	9/23/2020	2.0	0.2
S-16	9/23/2020	2.0	0.2
S-17	9/23/2020	2.0	0.2
S-18	9/23/2020	SW 2.0	0.5
S-19	9/23/2020	SW 2.0	0.4
S-20	9/23/2020	SW 2.0	0.4
S-21	9/23/2020	SW 2.0	0.5
S-22	9/23/2020	SW 2.0	0.5
S-23	9/23/2020	BG 1	0.3
S-24	9/23/2020	BG 2	0.3

Notes:

ft. bgs = Feet below ground surface

PID = Photoionization Detector

PPM = Parts per million

BG = Background

SW = Sidewall

TABLE 2.0
SOIL ANALYTICAL RESULTS
ORGANIC COMPOUNDS
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	TPH (mg/kg)	Total BTEX (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			100	50	10			
S-1	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-2	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-3	9/23/2020	2.5	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-4	9/23/2020	4.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-5	9/23/2020	4.7	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-6	9/23/2020	4.7	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-7	9/23/2020	4.7	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-8	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-9	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-10	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-11	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-12	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-13	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-14	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-15	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-16	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-17	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-18	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-19	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-20	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-21	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-22	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-23	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
S-24	9/23/2020	2.0	< 50	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002

Notes:

Standards for soil are taken from 19.15.29.12(C)(4) NMAC, Table I,

TPH = Total Petroleum Hydrocarbons (Gasoline Range Organics [GRO], Diesel Range Organics [DRO], Motor Oil Range Organics [MRO])

NMOCD = New Mexico Oil Conservation Division

NMAC = New Mexico Administrative Code

< = Analytical result is less than the indicated laboratory reporting limit

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes

mg/kg = Milligrams per kilogram

ft. bgs. = Feet below ground surface

TABLE 3.0
SOIL ANALYTICAL RESULTS
CHLORIDES
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	Chlorides (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			10,000
S-1	9/23/2020	2.0	2,490
S-2	9/23/2020	2.0	8,010
S-3	9/23/2020	2.5	11,000
S-4	9/23/2020	4.0	7,250
S-5	9/23/2020	4.7	5,160
S-6	9/23/2020	4.7	6,230
S-7	9/23/2020	4.7	6,060
S-8	9/23/2020	2.0	442
S-9	9/23/2020	2.0	5,810
S-10	9/23/2020	2.0	6,210
S-11	9/23/2020	2.0	6,570
S-12	9/23/2020	2.0	2,070
S-13	9/23/2020	2.0	174
S-14	9/23/2020	2.0	1,250
S-15	9/23/2020	2.0	4,540
S-16	9/23/2020	2.0	2,880
S-17	9/23/2020	2.0	4,450
S-18	9/23/2020	2.0	6,940
S-19	9/23/2020	2.0	6,980
S-20	9/23/2020	2.0	7,390
S-21	9/23/2020	2.0	407
S-22	9/23/2020	2.0	5,050
S-23	9/23/2020	2.0	4.82
S-24	9/23/2020	2.0	4.76
PH-001	10/26/2020	5.7	< 10.1
PH-002	10/26/2020	4.8	12.6
PH-003	10/26/2020	5.4	< 10.0
PH-004	10/26/2020	5.2	< 9.98
PH-005	10/26/2020	4.2	20.4
PH-006	10/26/2020	5.0	10.1
PH-007	10/26/2020	5.4	45.0
PH-008	10/26/2020	5.0	12.4
PH-009	10/26/2020	6.6	< 9.98

TABLE 3.0
SOIL ANALYTICAL RESULTS
CHLORIDES
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	Chlorides (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			10,000
PH-010	10/26/2020	6.3	< 10.1
EPH-011	10/26/2020	6.5	10,400
EPH-012	10/26/2020	10.7	9,540
EPH-013	10/26/2020	6.5	7,600
EPH-014	10/26/2020	10.7	8,000
EPH-015	10/26/2020	5.3	11,700
EPH-016	10/26/2020	6.6	11,100
EPH-017	10/26/2020	5.7	9,220
EPH-018	10/26/2020	6.3	11,000
EPH-019	10/26/2020	5.2	11,200
EPH-020	10/26/2020	7.0	11,100
EPH-021	10/26/2020	5.7	11,100
EPH-022	10/26/2020	7.3	11,300
EPH-023	10/26/2020	6.1	9,320
EPH-024	10/26/2020	6.5	8,390
H Top Soil	11/18/2020	0.0	18,600
H2	11/18/2020	2.0	7,350
H4	11/18/2020	4.0	3,990
H6	11/18/2020	6.0	2,600
H8	11/18/2020	8.0	3,130
H10	11/18/2020	10.0	3,650
H12	11/18/2020	12.0	7,680
H14	11/18/2020	14.0	6,280
H16	11/18/2020	16.0	8,290
H18	11/18/2020	18.0	9,010
H20	11/18/2020	20.0	9,210
H22	11/18/2020	22.0	9,670
H24	11/18/2020	24.0	8,060
H26	11/18/2020	26.0	1,610
H28	11/18/2020	28.0	844
H30	11/18/2020	30.0	544
H32	11/18/2020	32.0	1,570
H34	11/18/2020	34.0	1,060

TABLE 3.0
SOIL ANALYTICAL RESULTS
CHLORIDES
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	Chlorides (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			10,000
SH Top Soil	11/18/2020	0.0	1,240
SH2	11/18/2020	2.0	173
SH4	11/18/2020	4.0	19.7
SH6	11/18/2020	6.0	36.2
SH8	11/18/2020	8.0	126
SH10	11/18/2020	10.0	137
SH12	11/18/2020	12.0	136
SH14	11/18/2020	14.0	248
SH16	11/18/2020	16.0	327
SH18	11/18/2020	18.0	271
SH20	11/18/2020	20.0	229
SH22	11/18/2020	22.0	174
SH24	11/18/2020	24.0	108
SH26	11/18/2020	26.0	89.1
SH28	11/18/2020	28.0	225
SH30	11/18/2020	30.0	237
TH Top Soil	11/18/2020	0.0	10,700
TH2	11/18/2020	2.0	27.7
TH4	11/18/2020	4.0	24.4
TH6	11/18/2020	6.0	25.5
TH8	11/18/2020	8.0	299
TH10	11/18/2020	10.0	7,150
TH12	11/18/2020	12.0	13,800
TH14	11/18/2020	14.0	8,590
TH16	11/18/2020	16.0	9,740
TH18	11/18/2020	18.0	9,790
TH20	11/18/2020	20.0	10,500
TH22	11/18/2020	22.0	9,470
TH24	11/18/2020	24.0	6,620
TH26	11/18/2020	26.0	7,800
TH28	11/18/2020	28.0	6,670
TH30	11/18/2020	30.0	5,500
WW Top Soil	11/18/2020	0.0	7,820

TABLE 3.0
SOIL ANALYTICAL RESULTS
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ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	Chlorides (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			10,000
WW2	11/18/2020	2.0	11.3
WW4	11/18/2020	4.0	363
WW6	11/18/2020	6.0	501
WW8	11/18/2020	8.0	786
WW10	11/18/2020	10.0	255
WW12	11/18/2020	12.0	1,110
WW14	11/18/2020	14.0	785
WW16	11/18/2020	16.0	5,250
WW18	11/18/2020	18.0	8,660
WW20	11/18/2020	20.0	9,690
WW22	11/18/2020	22.0	9,340
WW24	11/18/2020	24.0	11,500
WW26	11/18/2020	26.0	5,990
WW28	11/18/2020	28.0	198
WW30	11/18/2020	30.0	704
WW32	11/18/2020	32.0	516
WW34	11/18/2020	34.0	336
WW36	11/18/2020	36.0	322
WW38	11/18/2020	38.0	198
WW40	11/18/2020	40.0	802
WW42	11/18/2020	42.0	159
WW44	11/18/2020	44.0	258
WW46	11/18/2020	46.0	179
WW48	11/18/2020	48.0	156
WW50	11/18/2020	50.0	199
WW52	11/18/2020	52.0	206
WW54	11/18/2020	54.0	151
WW55	11/18/2020	55.0	163
Hole 1 Top Soil	3/3/2021	0.0	< 5.02
Hole 1 SB-1	3/3/2021	2.0	< 4.99
Hole 1 SB-2	3/3/2021	4.0	< 4.96
Hole 1 SB-3	3/3/2021	6.0	17.8
Hole 1 SB-4	3/3/2021	8.0	44.4

TABLE 3.0
SOIL ANALYTICAL RESULTS
CHLORIDES
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	Chlorides (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			10,000
Hole 1 SB-5	3/3/2021	10.0	174
Hole 2 Top Soil	3/3/2021	0.0	9.88
Hole 2 SB-1	3/3/2021	2.0	< 5.04
Hole 2 SB-2	3/3/2021	4.0	< 5.00
Hole 2 SB-3	3/3/2021	6.0	8.16
Hole 2 SB-4	3/3/2021	8.0	13.0
Hole 2 SB-5	3/3/2021	10.0	1620
Hole 3 Top Soil	3/3/2021	0.0	26.6
Hole 3 SB-1	3/3/2021	2.0	7.35
Hole 3 SB-2	3/3/2021	4.0	11.4
Hole 3 SB-3	3/3/2021	6.0	59.0
Hole 3 SB-4	3/3/2021	8.0	120
Hole 3 SB-5	3/3/2021	10.0	398
Hole 4 Top Soil	3/3/2021	0.0	114
Hole 4 SB-1	3/3/2021	2.0	37.8
Hole 4 SB-2	3/3/2021	4.0	22.5
Hole 4 SB-3	3/3/2021	6.0	257
Hole 4 SB-3B	3/3/2021	7.0	346
Hole 4 SB-4	3/3/2021	8.0	662
Hole 4 SB-6	3/3/2021	10.0	750
Hole 5 Top Soil	3/3/2021	0.0	326
Hole 5 SB-1	3/3/2021	2.0	< 5.05
Hole 5 SB-2	3/3/2021	4.0	< 5.03
Hole 5 SB-3	3/3/2021	6.0	<4.96
Hole 5 SB-4	3/3/2021	8.0	11.0
Hole 5 SB-5	3/3/2021	10.0	77.2
Hole 6 Top Soil	3/3/2021	0.0	15.1
Hole 6 SB-1	3/3/2021	2.0	8.97
Hole 6 SB-2	3/3/2021	4.0	6.3
Hole 6 SB-3	3/3/2021	6.0	16.2
Hole 6 SB-4	3/3/2021	8.0	72.0
Hole 6 SB-5	3/3/2021	10.0	89.2

TABLE 3.0
SOIL ANALYTICAL RESULTS
CHLORIDES
ZEUS SWD LINE
OCD INCIDENT #NRM2026231125
LEA COUNTY, NEW MEXICO
TAP ROCK OPERATING LLC.

Sample ID	Sample Date	Sample Depth (ft. bgs)	Chlorides (mg/kg)
NMOCD Table I Soil Standard (mg/kg)			10,000

Notes:

Standard for soil is taken from 19.15.29.12(C)(4) NMAC, Table I,
Depth to ground water 51 - 100 feet

BOLD = Result above closure criteria

NMOCD = New Mexico Oil Conservation Division

NMAC = New Mexico Administrative Code

< = Analytical result is less than the indicated laboratory reporting limit

mg/kg = Milligrams per kilogram

ft. bgs = Feet below ground surface



ATTACHMENT 3

NMOCD FORMS & CORRESPONDENCE

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	NRM2026231125
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party TapRock Operating LLC.	OGRID 37243
Contact Name Brad Morton	Contact Telephone (720) 460-3518
Contact email bmorton@taprk.com	Incident # (assigned by OCD) NRM2026231125
Contact mailing address 523 Park Point Dr #200	Golden, CO, 80401

Location of Release Source

Latitude **32.224601°** Longitude **-103.574705°**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Zeus SWD Line	Site Type Above Ground Transfer Line
Date Release Discovered 9/3/20	API# (if applicable)

Unit Letter	Section	Township	Range	County
B	16	24S	33E	Lea

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

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) 20	Volume Recovered (bbls) 5
	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

Equipment failure of above ground produced water poly transfer line.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026231125
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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? 	

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: <u>Brad Morton</u>	Title: <u>Production Manager</u>
Signature: 	Date: <u>9/18/20</u>
email: <u>bmorton@taprk.com</u>	Telephone: <u>(720) 460-3518</u>
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	
District RP	
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>52</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: <i>Each of the following items must be included in the report.</i> ☒ 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.

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Christian CombsTitle: EHS & Regulatory ManagerSignature: Date: 12/2/2020email: ccombs@taprk.comTelephone: (720)360-4028**OCD Only**

Received by: _____

Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

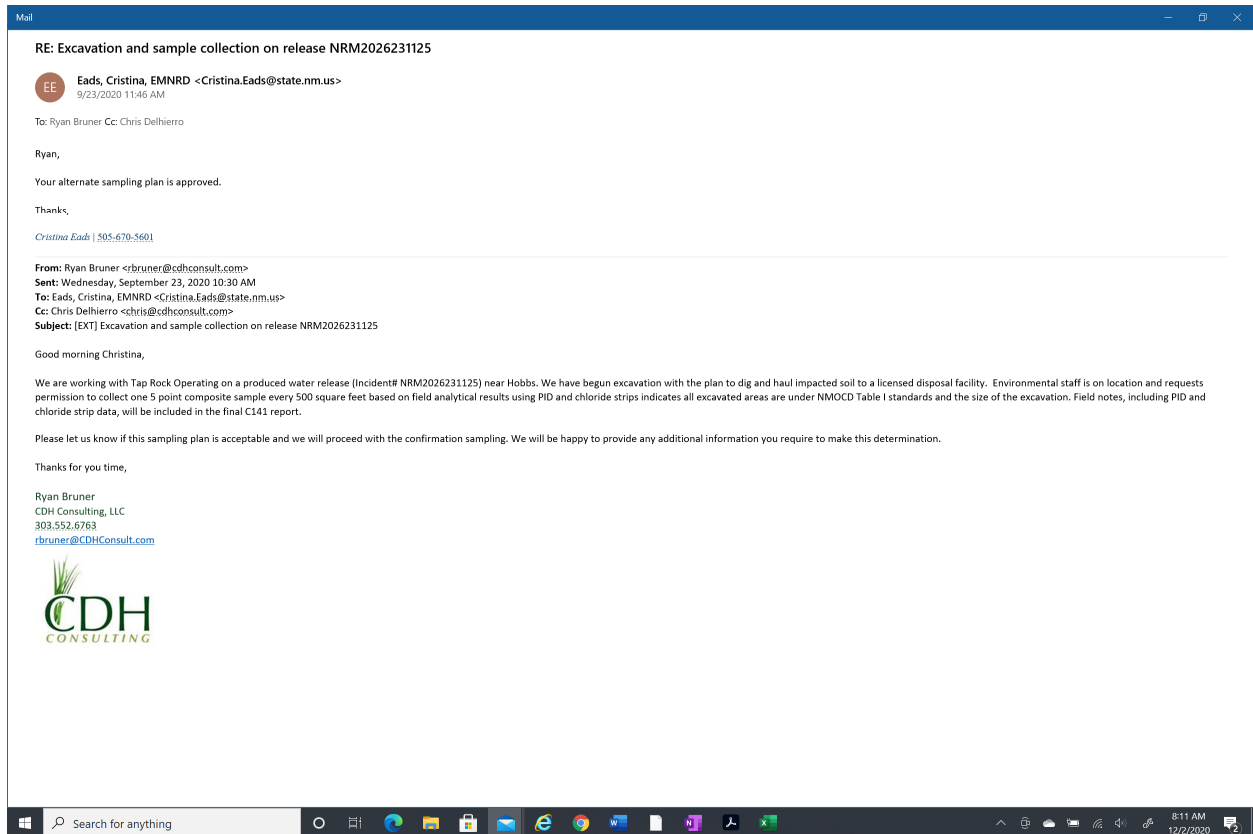
Received by: _____ Date: _____

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

Signature: _____ Date: _____



CDH Consulting, LLC
Thornton, Colorado
720.431.7468
www.CDHConsult.com



From: [Eads, Cristina, EMNRD](#)

Sent: Friday, July 23, 2021 2:36 PM

To: [Ryan Bruner](#)

Cc: [Chris Delhierro](#); [Hensley, Chad, EMNRD](#)

Subject: RE: Zeus Remediation Liner Installation Plan Incident #NRM2026231125

Ryan,

I apologize for taking so long to get back to you. The plan to install a liner looks acceptable and appears to meet the conditions in the approved remediation plan. As stated in a voicemail that I left for you today, today will be my last day with the Oil Conservation Division. I have passed this incident over to Chad Hensley. Should you have any additional questions or concerns, please contact Chad.

Thank you,

Cristina Eads • Environmental Specialist - A
Environmental Bureau
EMNRD - Oil Conservation Division
5200 Oakland Ave, Suite100 | Albuquerque, NM 87113
505.670.5601 | Cristina.Eads@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



ATTACHMENT 4

MONITORING WELL DRILLING LOG



WELL LOG AND CONSTRUCTION DIAGRAM

PROJECT NAME Zeus SWD Release
CLIENT Tap Rock Resources, LLC.

DRILLING DATE 11/18/20
TOTAL DEPTH 55'
DIAMETER 6-1/8"
CASING 4.5"
SCREEN Slotted 35'-55'

COORDINATES 32.22300, -103.57400
COORD SYS NAD 83
SURFACE ELEVATION 3616'
WELL TOC 5' Stickup

COMMENTS Depth to GW 53'2", measured 11/20/20

Samples	Analysed	Depth (ft)	Graphic Log	Material Description	Well Diagram
WW Top Soil	Y			Moist Clay/Sand Mix	
WW02	Y				
WW04	Y				
WW06	Y	5			
WW08	Y				
WW10	Y	10		Caliche Layer	
WW12	Y				
WW14	Y				
WW16	Y	15			
WW18	Y				
WW20	Y	20			
WW22	Y				
WW24	Y				
WW26	Y	25			
WW28	Y				
WW30	Y	30			
WW32	Y				
WW34	Y			Moist Brown Sand	
WW36	Y	35			
WW38	Y				
WW40	Y	40			
WW42	Y				
WW44	Y				
WW46	Y	45			
WW48	Y				
WW50	Y	50			
WW52	Y				
WW54	Y				
WW55	Y	55			

Disclaimer This bore log is intended for environmental not geotechnical purposes.



ATTACHMENT 5

PHOTOGRAPHS



Excavation Facing North



Excavation Facing South



Excavation Facing East



Excavation Facing West



Liner Instillation



Backfill on Location



Backfill on Location



ATTACHMENT 6

LABORATORY ANALYTICAL DATA



October 02, 2020

CDH Consulting
Chris Del Hierro
9446 Clermont St

Thornton CO 80229

**Project Name - Tap Rock Operating-Zeus SWD
Line**

Project Number - [none]

Attached are your analytical results for Tap Rock Operating-Zeus SWD Line received by Origins Laboratory, Inc. September 25, 2020. This project is associated with Origins project number Y009346-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1	Y009346-01	Soil	September 23, 2020 9:00	09/25/2020 09:49
S-2	Y009346-02	Soil	September 23, 2020 9:10	09/25/2020 09:49
S-3	Y009346-03	Soil	September 23, 2020 9:20	09/25/2020 09:49
S-4	Y009346-04	Soil	September 23, 2020 9:30	09/25/2020 09:49
S-5	Y009346-05	Soil	September 23, 2020 9:40	09/25/2020 09:49
S-6	Y009346-06	Soil	September 23, 2020 9:50	09/25/2020 09:49
S-7	Y009346-07	Soil	September 23, 2020 10:00	09/25/2020 09:49
S-8	Y009346-08	Soil	September 23, 2020 10:10	09/25/2020 09:49
S-9	Y009346-09	Soil	September 23, 2020 10:20	09/25/2020 09:49
S-10	Y009346-10	Soil	September 23, 2020 10:30	09/25/2020 09:49
S-11	Y009346-11	Soil	September 23, 2020 10:40	09/25/2020 09:49
S-12	Y009346-12	Soil	September 23, 2020 10:50	09/25/2020 09:49
S-13	Y009346-13	Soil	September 23, 2020 11:00	09/25/2020 09:49
S-14	Y009346-14	Soil	September 23, 2020 11:10	09/25/2020 09:49

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-15	Y009346-15	Soil	September 23, 2020 11:20	09/25/2020 09:49
S-16	Y009346-16	Soil	September 23, 2020 11:30	09/25/2020 09:49
S-17	Y009346-17	Soil	September 23, 2020 11:40	09/25/2020 09:49
S-18	Y009346-18	Soil	September 23, 2020 11:50	09/25/2020 09:49
S-19	Y009346-19	Soil	September 23, 2020 12:00	09/25/2020 09:49
S-20	Y009346-20	Soil	September 23, 2020 12:10	09/25/2020 09:49
S-21	Y009346-21	Soil	September 23, 2020 12:20	09/25/2020 09:49
S-22	Y009346-22	Soil	September 23, 2020 12:30	09/25/2020 09:49
S-23	Y009346-23	Soil	September 23, 2020 12:40	09/25/2020 09:49
S-24	Y009346-24	Soil	September 23, 2020 12:50	09/25/2020 09:49

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

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page 1 of 2

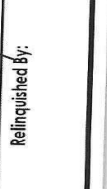
Y009346

ORIGINS
LABORATORY, INC

Client: CDH Consulting
Address: 9446 Clermont St, Thornton CO 80229

Project Manager: Chris Del Hierro
Project Name: Tap Rock Operating-Zeus SWD Line
Project Number: [blank]
Samples Collected By: chris@cdhconsult.com

Telephone Number: [blank]
Email Address: chris@cdhconsult.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix				Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other			
S-1	9/23/2020	9:00	2						X			X	BTEX by 8260D	1
S-2	9/23/2020	9:10	2						X			X	TPH by 8015D	2
S-3	9/23/2020	9:20	2						X			X	Chloride by EPA 300.0	3
S-4	9/23/2020	9:30	2						X			X		4
S-5	9/23/2020	9:40	2						X			X		5
S-6	9/23/2020	9:50	2						X			X		6
S-7	9/23/2020	10:00	2						X			X		7
S-8	9/23/2020	10:10	2						X			X		8
S-9	9/23/2020	10:20	2						X			X		9
S-10	9/23/2020	10:30	2						X			X		10
Relinquished By: 	Date: 9/23/2020	Time: 20:00		Received By: 				Date: 09/23/20	Time: 09:49	Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☒ Standard				
Relinquished By: 	Date:	Time:						Date:	Time:					

1725 Elk Place | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Origins Laboratory, Inc.

Jordan A. Merrill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CDH Consulting

9446 Clermont St

Thornton

CO

80229

Chris Del Hierro

Project Number: [none]

Project: Tap Rock Operating-Zeus SWD Line

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page 2 of 3

Y009346

ORIGINS LABORATORY, INC

Client: CDH Consulting

Address: 9446 Clermont St, Thornton CO 80229

Telephone Number: [blank]

Email Address: chris@cdhconsult.com

Project Manager: Chris Del Hierro

Project Name: Tap Rock Operating-Zeus SWD Line

Project Number: [blank]

Samples Collected By: chris@cdhconsult.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	See Sample Instructions		
S-11	9/23/2020	10:40	2						X			X	BTEX by 8260D	1
S-12	9/23/2020	10:50	2						X			X	TPH by 8015D	2
S-13	9/23/2020	11:00	2						X			X	Chloride by EPA 300.0	3
S-14	9/23/2020	11:10	2						X			X		4
S-15	9/23/2020	11:25	2						X			X		5
S-16	9/23/2020	11:30	2						X			X		6
S-17	9/23/2020	11:40	2						X			X		7
S-18	9/23/2020	11:50	2						X			X		8
S-19	9/23/2020	12:00	2						X			X		9
S-20	9/23/2020	12:10	2						X			X		10
Relinquished By: C. Del Hierro	Date: 9/23/2020	Time: 20:00		Received By: [Signature]					Date: 9/25/2020		Time: 09:49	Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☒ Standard		
Relinquished By: [Signature]	Date: [blank]	Time: [blank]		Received By: [Signature]					Date: [blank]		Time: [blank]			

1725 Elk Place | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Origins Laboratory, Inc.

Jordan A. Merrill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

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page 3 of 3

Y009346

ORIGINS
LABORATORY, INC

Client: CDH Consulting
Address: 9446 Clermont St
Thornton, CO 80229
Telephone Number: 720.431.7468
Email Address: Chris@cdhconsult.com

Project Manager: Chris Del Hierro
Project Name: Tap Rock Operating - Zeus SWD Line
Project Number: _____
Samples Collected By: Chris Del Hierro

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #		
S-21	9/23/20	12:20	2						X			BTEX by 8260D1 TPH by 8015D 2 Chloride by EPA 3008
S-22	9/23/20	12:30	2						X			
S-23	9/23/20	12:40	2						X			
S-24	9/23/20	12:50	2						X			
												5
												6
												7
												8
												9
												10
Relinquished By: <u>[Signature]</u>	Date: <u>9/23/2020</u>	Time: <u>20:00</u>										Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☒
Relinquished By: <u>[Signature]</u>	Date: <u>9/23/2020</u>	Time: <u>11:00</u>										

Date Results Needed

Temp Received- 7.2

Origins Laboratory, Inc.

Jordan A. Merrill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Origins Work Order: Y009346

Sample Receipt Checklist

Client: CDH

Client Project ID: Tap Rock

Checklist Completed by: KDK

Shipped Via: HP
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 09-25-2020

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1, 4.2 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	☒	☒	☐	
Is there ice present (document if blue ice is used)	☒	☐	☐	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	☐	☐	☒	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	☐	☐	☒	
Were all samples received intact ⁽¹⁾ ?	☒	☐	☐	
Was adequate sample volume provided ⁽¹⁾ ?	☒	☐	☐	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	☐	☐	☒	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	☒	☐	☐	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	☒	☐	☐	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	☒	☐	☐	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	☒	☐	☐	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	☐	☐	☒	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	☐	☐	☒	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) Jm

9-28-20
Date/Time Reviewed

Origins Laboratory, Inc.

Jm

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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-1

9/23/2020 9:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-01 (Soil)

Anions by EPA 300.0

Chloride	2490	115	mg/kg dry	50	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130			"	"	"
Surrogate: Toluene-d8	94.7 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	94.5 %	70-130			"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	79.4 %	50-150			"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-2

9/23/2020 9:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-02 (Soil)

Anions by EPA 300.0

Chloride	8010	445	mg/kg dry	200	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	84.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	93.8 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	76.4 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-3

9/23/2020 9:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-03 (Soil)

Anions by EPA 300.0

Chloride	11000	466	mg/kg dry	200	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	94.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.9 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	62.4 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-4

9/23/2020 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-04 (Soil)

Anions by EPA 300.0

Chloride	7250	456	mg/kg dry	200	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	94.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.1 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	61.3 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-5

9/23/2020 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-05 (Soil)

Anions by EPA 300.0

Chloride	5160	206	mg/kg dry	100	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	114 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	93.7 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	80.8 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-6

9/23/2020 9:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC
Y009346-06 (Soil)

Anions by EPA 300.0

Chloride	6230	420	mg/kg dry	200	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	91.5 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	63.4 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-7

9/23/2020 10:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-07 (Soil)

Anions by EPA 300.0

Chloride	6060	414	mg/kg dry	200	2044967	CH5	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	94.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.9 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	78.6 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-8

9/23/2020 10:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-08 (Soil)

Anions by EPA 300.0

Chloride	442	23.2	mg/kg dry	10	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"
Surrogate: Toluene-d8	88.9 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	94.7 %	70-130			"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	63.8 %	50-150			"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-9

9/23/2020 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-09 (Soil)

Anions by EPA 300.0

Chloride	5810	214	mg/kg dry	100	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	10/01/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	79.8 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-10

9/23/2020 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-10 (Soil)

Anions by EPA 300.0

Chloride	6210	215	mg/kg dry	100	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	10/01/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	70.0 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-11

9/23/2020 10:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC
Y009346-11 (Soil)

Anions by EPA 300.0

Chloride	6570	424	mg/kg dry	200	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	93.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.4 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	70.8 %	50-150	"	"	"
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Origins Laboratory, Inc.



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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-12

9/23/2020 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-12 (Soil)

Anions by EPA 300.0

Chloride	2070	218	mg/kg dry	100	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	94.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.3 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	77.9 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-13

9/23/2020 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-13 (Soil)

Anions by EPA 300.0

Chloride	174	4.75	mg/kg dry	2	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	95.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.8 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	61.6 %	50-150	"	"	"
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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-14

9/23/2020 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-14 (Soil)

Anions by EPA 300.0

Chloride	1250	48.0	mg/kg dry	20	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	94.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.9 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	64.8 %	50-150	"	"	"
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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-15

9/23/2020 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-15 (Soil)

Anions by EPA 300.0

Chloride	4540	217	mg/kg dry	100	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	91.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.9 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	72.6 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-16

9/23/2020 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-16 (Soil)

Anions by EPA 300.0

Chloride	2880	206	mg/kg dry	100	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	96.0 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	87.2 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	86.4 %	50-150	"	"	"
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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-17

9/23/2020 11:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC
Y009346-17 (Soil)

Anions by EPA 300.0

Chloride	4450	207	mg/kg dry	100	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	09/29/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	88.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	82.3 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	86.3 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-18

9/23/2020 11:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-18 (Soil)

Anions by EPA 300.0

Chloride	6940	437	mg/kg dry	200	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	10/01/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	81.6 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-19

9/23/2020 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-19 (Soil)

Anions by EPA 300.0

Chloride	6980	431	mg/kg dry	200	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	10/01/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	99.5 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	80.1 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-20

9/23/2020 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-20 (Soil)

Anions by EPA 300.0

Chloride	7390	438	mg/kg dry	200	2044967	CH5	09/26/2020	09/28/2020	
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BTEX by EPA 8260D

Benzene	ND	0.002	mg/kg	1	B012501	KDK	09/25/2020	10/01/2020	Ua
Toluene	ND	0.002	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012502	KDK	09/25/2020	09/28/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	64.1 %	50-150	"	"	"
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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-21

9/23/2020 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-21 (Soil)

Anions by EPA 300.0

Chloride	407	21.1	mg/kg dry	10	2044969	LXA2	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	B012406	KDK	09/24/2020	09/29/2020	Ua
Toluene	ND	0.050	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	91.0 %	70-130	"	"	"
Surrogate: Toluene-d8	96.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	91.8 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012407	KDK	09/24/2020	09/26/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	73.3 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-22

9/23/2020 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-22 (Soil)

Anions by EPA 300.0

Chloride	5050	217	mg/kg dry	100	2044969	LXA2	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	B012406	KDK	09/24/2020	09/30/2020	Ua
Toluene	ND	0.050	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	88.8 %	70-130	"	"	"
Surrogate: Toluene-d8	95.1 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	92.6 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012407	KDK	09/24/2020	09/26/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	61.1 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-23

9/23/2020 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-23 (Soil)

Anions by EPA 300.0

Chloride	4.82	2.12	mg/kg dry	1	2044969	LXA2	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	B012406	KDK	09/24/2020	09/30/2020	Ua
Toluene	ND	0.050	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	93.8 %	70-130	"	"	"
Surrogate: Toluene-d8	95.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	93.4 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012407	KDK	09/24/2020	09/26/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	71.5 %	50-150	"	"	"
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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

S-24

9/23/2020 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y009346-24 (Soil)

Anions by EPA 300.0

Chloride	4.76	2.02	mg/kg dry	1	2044969	LXA2	09/26/2020	09/27/2020	
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BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	B012406	KDK	09/24/2020	09/30/2020	Ua
Toluene	ND	0.050	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	92.1 %	70-130	"	"	"
Surrogate: Toluene-d8	96.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.0 %	70-130	"	"	"

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B012407	KDK	09/24/2020	09/26/2020	Ua
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	Ua
Residual Range Organics (C28-C40)	ND	200	"	"	"	KDK	"	"	Ua

Surrogate: o-Terphenyl	68.4 %	50-150	"	"	"
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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012406 - EPA 5030 (soil)

Blank (B012406-BLK1)

Prepared: 09/24/2020 Analyzed: 09/29/2020

Benzene	ND	0.002	mg/kg							Ua
Toluene	ND	0.002	"							Ua
Ethylbenzene	ND	0.002	"							Ua
Xylenes, total	ND	0.002	"							Ua
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		92.7	70-130			

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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B012406 - EPA 5030 (soil)										
LCS (B012406-BS1)					Prepared: 09/24/2020 Analyzed: 09/29/2020					
Benzene	0.086	0.002	mg/kg	0.100		86.1	70-130			
Toluene	0.088	0.002	"	0.100		88.0	70-130			
Ethylbenzene	0.093	0.002	"	0.100		93.4	70-130			
m,p-Xylene	0.190	0.004	"	0.200		94.8	70-130			
o-Xylene	0.089	0.002	"	0.100		88.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.3	70-130			

Origins Laboratory, Inc.



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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I2406 - EPA 5030 (soil)

Matrix Spike (B0I2406-MS1)		Source: Y009335-01			Prepared: 09/24/2020 Analyzed: 09/29/2020					
Benzene	0.080	0.002	mg/kg	0.100	ND	80.4	70-130			
Toluene	0.084	0.002	"	0.100	ND	84.1	70-130			
Ethylbenzene	0.090	0.002	"	0.100	ND	90.1	70-130			
m,p-Xylene	0.180	0.004	"	0.200	ND	90.1	70-130			
o-Xylene	0.088	0.002	"	0.100	ND	87.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.6	70-130			

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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I2406 - EPA 5030 (soil)										
Matrix Spike Dup (B0I2406-MSD1)		Source: Y009335-01			Prepared: 09/24/2020 Analyzed: 09/29/2020					
Benzene	0.080	0.002	mg/kg	0.100	ND	79.8	70-130	0.774	20	
Toluene	0.083	0.002	"	0.100	ND	82.5	70-130	1.94	20	
Ethylbenzene	0.088	0.002	"	0.100	ND	87.8	70-130	2.59	20	
m,p-Xylene	0.177	0.004	"	0.200	ND	88.6	70-130	1.74	20	
o-Xylene	0.087	0.002	"	0.100	ND	87.3	70-130	0.457	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.2	70-130			

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CDH Consulting
9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012407 - EPA 3580

Blank (B012407-BLK1)

Prepared: 09/24/2020 Analyzed: 09/26/2020

Gasoline (C6-C10)	ND	50.0	mg/kg							Ua
Diesel (C10-C28)	ND	50.0	"							Ua
Residual Range Organics (C28-C40)	ND	200	"							Ua
Surrogate: o-Terphenyl	35.5		"	50.0		71.1	50-150			

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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012407 - EPA 3580

LCS (B012407-BS1)

Prepared: 09/24/2020 Analyzed: 09/26/2020

Gasoline (C6-C10)	845	50.0	mg/kg	1000		84.5	70-130			
Diesel (C10-C28)	1030	50.0	"	1000		103	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000		103	70-130			
Surrogate: o-Terphenyl	46.8		"	50.0		93.6	50-150			

Origins Laboratory, Inc.



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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I2407 - EPA 3580

Matrix Spike (B0I2407-MS1)		Source: Y009335-01			Prepared: 09/24/2020 Analyzed: 09/26/2020					
Gasoline (C6-C10)	821	50.0	mg/kg	1000	ND	82.1	70-130			
Diesel (C10-C28)	1010	50.0	"	1000	ND	101	70-130			
Residual Range Organics (C28-C40)	1040	200	"	1000	ND	104	70-130			
Surrogate: o-Terphenyl	42.9		"	50.0		85.8	50-150			

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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I2407 - EPA 3580

Matrix Spike Dup (B0I2407-MSD1)		Source: Y009335-01			Prepared: 09/24/2020 Analyzed: 09/26/2020					
Gasoline (C6-C10)	803	50.0	mg/kg	1000	ND	80.3	70-130	2.28	35	
Diesel (C10-C28)	1020	50.0	"	1000	ND	102	70-130	0.508	35	
Residual Range Organics (C28-C40)	999	200	"	1000	ND	99.9	70-130	4.05	35	
Surrogate: o-Terphenyl	46.3		"	50.0		92.5	50-150			

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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B012501 - EPA 5030 (soil)										
Blank (B012501-BLK1)					Prepared: 09/25/2020 Analyzed: 09/30/2020					
Benzene	ND	0.002	mg/kg							Ua
Toluene	ND	0.002	"							Ua
Ethylbenzene	ND	0.002	"							Ua
Xylenes, total	ND	0.002	"							Ua
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.5	70-130			

Origins Laboratory, Inc.



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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012501 - EPA 5030 (soil)

LCS (B012501-BS1)

Prepared: 09/25/2020 Analyzed: 09/29/2020

Benzene	0.092	0.002	mg/kg	0.100		92.1	70-130			
Toluene	0.092	0.002	"	0.100		91.5	70-130			
Ethylbenzene	0.098	0.002	"	0.100		98.3	70-130			
m,p-Xylene	0.206	0.004	"	0.200		103	70-130			
o-Xylene	0.106	0.002	"	0.100		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.097		"	0.125		77.9	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		84.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012501 - EPA 5030 (soil)

Matrix Spike (B012501-MS1)		Source: Y009346-01			Prepared: 09/25/2020 Analyzed: 09/29/2020					
Benzene	0.048	0.002	mg/kg	0.0500	ND	95.3	70-130			
Toluene	0.046	0.002	"	0.0500	ND	91.7	70-130			
Ethylbenzene	0.044	0.002	"	0.0500	ND	87.5	70-130			
m,p-Xylene	0.093	0.004	"	0.100	ND	92.7	70-130			
o-Xylene	0.045	0.002	"	0.0500	ND	90.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.9	70-130			

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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012501 - EPA 5030 (soil)

Matrix Spike Dup (B012501-MSD1)		Source: Y009346-01			Prepared: 09/25/2020 Analyzed: 09/29/2020					
Benzene	0.046	0.002	mg/kg	0.0500	ND	91.2	70-130	4.37	20	
Toluene	0.041	0.002	"	0.0500	ND	82.8	70-130	10.2	20	
Ethylbenzene	0.044	0.002	"	0.0500	ND	88.4	70-130	1.09	20	
m,p-Xylene	0.090	0.004	"	0.100	ND	90.4	70-130	2.60	20	
o-Xylene	0.043	0.002	"	0.0500	ND	85.8	70-130	4.86	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.6	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		84.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.9	70-130			

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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B012502 - EPA 3580										
Blank (B012502-BLK1)					Prepared: 09/25/2020 Analyzed: 09/28/2020					
Gasoline (C6-C10)	ND	50.0	mg/kg							Ua
Diesel (C10-C28)	ND	50.0	"							Ua
Residual Range Organics (C28-C40)	ND	200	"							Ua
Surrogate: o-Terphenyl	38.2		"	50.0		76.4	50-150			

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Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B012502 - EPA 3580

LCS (B012502-BS1)

Prepared: 09/25/2020 Analyzed: 09/28/2020

Gasoline (C6-C10)	755	50.0	mg/kg	1000		75.5	70-130			
Diesel (C10-C28)	947	50.0	"	1000		94.7	70-130			
Residual Range Organics (C28-C40)	969	200	"	1000		96.9	70-130			
Surrogate: o-Terphenyl	41.5		"	50.0		83.0	50-150			

Origins Laboratory, Inc.



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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I2502 - EPA 3580

Matrix Spike (B0I2502-MS1)		Source: Y009346-01			Prepared: 09/25/2020 Analyzed: 09/28/2020					
Gasoline (C6-C10)	877	50.0	mg/kg	1000	ND	87.7	70-130			
Diesel (C10-C28)	1090	50.0	"	1000	16.1	108	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000	18.5	102	70-130			
Surrogate: o-Terphenyl	50.6		"	50.0		101	50-150			

Origins Laboratory, Inc.



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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I2502 - EPA 3580

Matrix Spike Dup (B0I2502-MSD1)		Source: Y009346-01			Prepared: 09/25/2020 Analyzed: 09/28/2020					
Gasoline (C6-C10)	728	50.0	mg/kg	1000	ND	72.8	70-130	18.5	35	
Diesel (C10-C28)	940	50.0	"	1000	16.1	92.4	70-130	14.9	35	
Residual Range Organics (C28-C40)	904	200	"	1000	18.5	88.5	70-130	13.5	35	
Surrogate: o-Terphenyl	39.0		"	50.0		77.9	50-150			

Origins Laboratory, Inc.



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Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Anions by EPA 300.0 - Quality Control

GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2044967 - EPA 300.0 PREP

BLANK (1204653220-BLK)

Prepared: 09/26/2020 Analyzed: 09/26/2020

Chloride 2.36 1.99 mg/kg

-

LCS (1204653221-BKS)

Prepared: 09/26/2020 Analyzed: 09/26/2020

Chloride 49.8 1.99 mg/kg 49.6

100

90-110

DUP (1204653222 D)

Source: Y009346-01

Prepared: 09/26/2020 Analyzed: 09/27/2020

Chloride 698 111 mg/kg dry

2490

0-90

112

90

DUP (1204653223 D)

Source: Y009346-02

Prepared: 09/26/2020 Analyzed: 09/27/2020

Chloride 8310 456 mg/kg dry

8010

0-90

3.76

90

MS (1204653224 S)

Source: Y009346-01

Prepared: 09/26/2020 Analyzed: 09/27/2020

Chloride 922 114 mg/kg dry 56.8

2490

0

90-110

MS (1204653225 S)

Source: Y009346-02

Prepared: 09/26/2020 Analyzed: 09/27/2020

Chloride 7550 452 mg/kg dry 56.6

8010

0

90-110

Batch 2044969 - EPA 300.0 PREP

BLANK (1204653226-BLK)

Prepared: 09/26/2020 Analyzed: 09/30/2020

Chloride ND 2.00 mg/kg

-

U

LCS (1204653227-BKS)

Prepared: 09/26/2020 Analyzed: 09/26/2020

Chloride 48.6 1.98 mg/kg 49.4

98.5

90-110

Origins Laboratory, Inc.

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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Anions by EPA 300.0 - Quality Control GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2044969 - EPA 300.0 PREP										
DUP (1204653228 D)		Source: Y009346-21			Prepared: 09/26/2020 Analyzed: 09/27/2020					
Chloride	417	20.2	mg/kg dry		407		0-90	2.29	90	
DUP (1204653229 D)		Source: Y009346-22			Prepared: 09/26/2020 Analyzed: 09/27/2020					
Chloride	4920	220	mg/kg dry		5050		0-90	2.6	90	
MS (1204653230 S)		Source: Y009346-21			Prepared: 09/26/2020 Analyzed: 09/27/2020					
Chloride	509	21.1	mg/kg dry	52.8	407	0	90-110			
MS (1204653231 S)		Source: Y009346-22			Prepared: 09/26/2020 Analyzed: 09/27/2020					
Chloride	5340	217	mg/kg dry	54.3	5050	0	90-110			

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9446 Clermont St
Thornton CO 80229

Chris Del Hierro
Project Number: [none]
Project: Tap Rock Operating-Zeus SWD Line

Notes and Definitions

Ua Sample is Non-Detect.

U Result not detected above the detection limit

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Certificate of Analysis Summary 676131

CDH Consulting, Thornton, CO

Project Name: Zeus SW

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Mon 10.26.2020 16:30

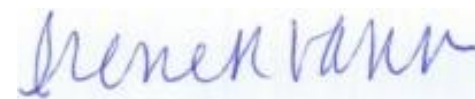
Report Date: 10.27.2020 15:23

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	676131-001	676131-002	676131-003	676131-004	676131-005	676131-006
	<i>Field Id:</i>	PH-001	PH-002	PH-003	PH-004	PH-005	PH-006
	<i>Depth:</i>	68- In	58- In	65- In	62- In	50- In	60- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 09:03	10.26.2020 09:16	10.26.2020 09:30	10.26.2020 09:42	10.26.2020 09:56	10.26.2020 10:08
Chloride by EPA 300	<i>Extracted:</i>	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13
	<i>Analyzed:</i>	10.26.2020 18:14	10.26.2020 18:31	10.26.2020 18:37	10.26.2020 18:42	10.26.2020 18:48	10.26.2020 19:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.1 10.1	12.6 9.94	<10.0 10.0	<9.98 9.98	20.4 10.1	10.1 10.1

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 676131

CDH Consulting, Thornton, CO

Project Name: Zeus SW

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Mon 10.26.2020 16:30

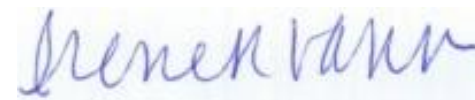
Report Date: 10.27.2020 15:23

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	676131-007	676131-008	676131-009	676131-010	676131-011	676131-012
	<i>Field Id:</i>	PH-007	PH-008	PH-009	PH-010	EPH-011	EPH-012
	<i>Depth:</i>	65- In	60- In	79- In	76- In	78- In	128- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 10:22	10.26.2020 10:37	10.26.2020 10:55	10.26.2020 11:14	10.26.2020 11:38	10.26.2020 11:45
Chloride by EPA 300	<i>Extracted:</i>	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13
	<i>Analyzed:</i>	10.26.2020 19:10	10.26.2020 19:16	10.26.2020 19:21	10.26.2020 19:27	10.26.2020 19:33	10.26.2020 19:49
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		45.0 10.1	12.4 9.92	<9.98 9.98	<10.1 10.1	10400 199	9540 202

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 676131

CDH Consulting, Thornton, CO

Project Name: Zeus SW

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Mon 10.26.2020 16:30

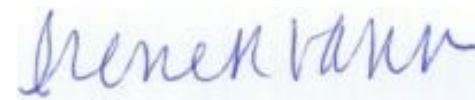
Report Date: 10.27.2020 15:23

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	676131-013	676131-014	676131-015	676131-016	676131-017	676131-018
	<i>Field Id:</i>	EPH-013	EPH-014	EPH-015	EPH-016	EPH-017	EPH-018
	<i>Depth:</i>	78- In	128- In	63- In	79- In	68- In	76- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 11:50	10.26.2020 12:03	10.26.2020 12:09	10.26.2020 12:27	10.26.2020 12:48	10.26.2020 12:49
Chloride by EPA 300	<i>Extracted:</i>	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:13
	<i>Analyzed:</i>	10.26.2020 19:55	10.26.2020 20:00	10.26.2020 20:17	10.26.2020 20:23	10.26.2020 20:28	10.26.2020 20:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7600 202	8000 202	11700 198	11100 198	9220 199	11000 198

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 676131

CDH Consulting, Thornton, CO

Project Name: Zeus SW

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Mon 10.26.2020 16:30

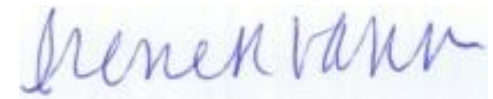
Report Date: 10.27.2020 15:23

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	676131-019	676131-020	676131-021	676131-022	676131-023	676131-024
	<i>Field Id:</i>	EPH-019	EPH-020	EPH-021	EPH-022	EPH-023	EPH-024
	<i>Depth:</i>	62- In	84- In	68- In	88- In	73- In	78- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 12:57	10.26.2020 13:00	10.26.2020 13:07	10.26.2020 13:13	10.26.2020 13:21	10.26.2020 13:22
Chloride by EPA 300	<i>Extracted:</i>	10.26.2020 17:13	10.26.2020 17:13	10.26.2020 17:10	10.26.2020 17:10	10.26.2020 17:10	10.26.2020 17:10
	<i>Analyzed:</i>	10.26.2020 20:39	10.26.2020 20:45	10.26.2020 21:52	10.26.2020 22:09	10.26.2020 22:14	10.26.2020 22:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		11200 200	11100 199	11100 200	11300 200	9320 200	8390 200

BRL - Below Reporting Limit

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



Analytical Report 676131

for

CDH Consulting

Project Manager: Chris Del Hierro

Zeus SW

10.27.2020

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 (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

10.27.2020

Project Manager: **Chris Del Hierro**

CDH Consulting

9426 Clermont St.
Thornton, CO 80229

Reference: Eurofins Xenco, LLC Report No(s): **676131**

Zeus SW

Project Address:

Chris Del Hierro:

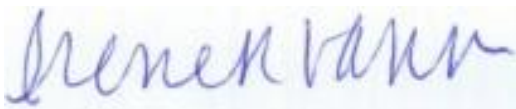
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 676131. All results being reported under this Report Number apply to the samples analyzed and properly identified 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. 676131 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,



Irene Vann
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH-001	S	10.26.2020 09:03	68 In	676131-001
PH-002	S	10.26.2020 09:16	58 In	676131-002
PH-003	S	10.26.2020 09:30	65 In	676131-003
PH-004	S	10.26.2020 09:42	62 In	676131-004
PH-005	S	10.26.2020 09:56	50 In	676131-005
PH-006	S	10.26.2020 10:08	60 In	676131-006
PH-007	S	10.26.2020 10:22	65 In	676131-007
PH-008	S	10.26.2020 10:37	60 In	676131-008
PH-009	S	10.26.2020 10:55	79 In	676131-009
PH-010	S	10.26.2020 11:14	76 In	676131-010
EPH-011	S	10.26.2020 11:38	78 In	676131-011
EPH-012	S	10.26.2020 11:45	128 In	676131-012
EPH-013	S	10.26.2020 11:50	78 In	676131-013
EPH-014	S	10.26.2020 12:03	128 In	676131-014
EPH-015	S	10.26.2020 12:09	63 In	676131-015
EPH-016	S	10.26.2020 12:27	79 In	676131-016
EPH-017	S	10.26.2020 12:48	68 In	676131-017
EPH-018	S	10.26.2020 12:49	76 In	676131-018
EPH-019	S	10.26.2020 12:57	62 In	676131-019
EPH-020	S	10.26.2020 13:00	84 In	676131-020
EPH-021	S	10.26.2020 13:07	68 In	676131-021
EPH-022	S	10.26.2020 13:13	88 In	676131-022
EPH-023	S	10.26.2020 13:21	73 In	676131-023
EPH-024	S	10.26.2020 13:22	78 In	676131-024

CASE NARRATIVE

Client Name: CDH Consulting

Project Name: Zeus SW

Project ID:

Work Order Number(s): 676131

Report Date: 10.27.2020

Date Received: 10.26.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-001	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-001	Date Collected: 10.26.2020 09:03	Sample Depth: 68 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.26.2020 18:14	U	1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-002	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-002	Date Collected: 10.26.2020 09:16	Sample Depth: 58 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.6	9.94	mg/kg	10.26.2020 18:31		1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-003	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-003	Date Collected: 10.26.2020 09:30	Sample Depth: 65 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.26.2020 18:37	U	1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-004	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-004	Date Collected: 10.26.2020 09:42	Sample Depth: 62 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	10.26.2020 18:42	U	1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-005	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-005	Date Collected: 10.26.2020 09:56	Sample Depth: 50 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.4	10.1	mg/kg	10.26.2020 18:48		1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-006	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-006	Date Collected: 10.26.2020 10:08	Sample Depth: 60 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	10.1	mg/kg	10.26.2020 19:05		1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-007	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-007	Date Collected: 10.26.2020 10:22	Sample Depth: 65 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	45.0	10.1	mg/kg	10.26.2020 19:10		1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-008	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-008	Date Collected: 10.26.2020 10:37	Sample Depth: 60 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.4	9.92	mg/kg	10.26.2020 19:16		1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-009	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-009	Date Collected: 10.26.2020 10:55	Sample Depth: 79 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	10.26.2020 19:21	U	1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: PH-010	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-010	Date Collected: 10.26.2020 11:14	Sample Depth: 76 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.26.2020 19:27	U	1

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-011	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-011	Date Collected: 10.26.2020 11:38	Sample Depth: 78 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10400	199	mg/kg	10.26.2020 19:33		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-012	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-012	Date Collected: 10.26.2020 11:45	Sample Depth: 128 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9540	202	mg/kg	10.26.2020 19:49		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-013	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-013	Date Collected: 10.26.2020 11:50	Sample Depth: 78 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7600	202	mg/kg	10.26.2020 19:55		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-014	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-014	Date Collected: 10.26.2020 12:03	Sample Depth: 128 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8000	202	mg/kg	10.26.2020 20:00		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-015	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-015	Date Collected: 10.26.2020 12:09	Sample Depth: 63 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11700	198	mg/kg	10.26.2020 20:17		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-016	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-016	Date Collected: 10.26.2020 12:27	Sample Depth: 79 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:13	Basis: Wet Weight
Seq Number: 3140633		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11100	198	mg/kg	10.26.2020 20:23		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-017	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-017	Date Collected: 10.26.2020 12:48	Sample Depth: 68 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9220	199	mg/kg	10.26.2020 20:28		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-018	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-018	Date Collected: 10.26.2020 12:49	Sample Depth: 76 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11000	198	mg/kg	10.26.2020 20:34		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-019	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-019	Date Collected: 10.26.2020 12:57	Sample Depth: 62 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11200	200	mg/kg	10.26.2020 20:39		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-020	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-020	Date Collected: 10.26.2020 13:00	Sample Depth: 84 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:13	% Moisture:
Seq Number: 3140633		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11100	199	mg/kg	10.26.2020 20:45		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-021	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-021	Date Collected: 10.26.2020 13:07	Sample Depth: 68 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:10	% Moisture:
Seq Number: 3140632		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11100	200	mg/kg	10.26.2020 21:52		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-022	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-022	Date Collected: 10.26.2020 13:13	Sample Depth: 88 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:10	Basis: Wet Weight
Seq Number: 3140632		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11300	200	mg/kg	10.26.2020 22:09		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-023	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-023	Date Collected: 10.26.2020 13:21	Sample Depth: 73 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 10.26.2020 17:10	Basis: Wet Weight
Seq Number: 3140632		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9320	200	mg/kg	10.26.2020 22:14		20

Certificate of Analytical Results 676131

CDH Consulting, Thornton, CO

Zeus SW

Sample Id: EPH-024	Matrix: Soil	Date Received: 10.26.2020 16:30
Lab Sample Id: 676131-024	Date Collected: 10.26.2020 13:22	Sample Depth: 78 In
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		
Analyst: MAB	Date Prep: 10.26.2020 17:10	% Moisture:
Seq Number: 3140632		Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8390	200	mg/kg	10.26.2020 22:20		20

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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

CDH Consulting
Zeus SW

Analytical Method: Chloride by EPA 300

Seq Number: 3140632

MB Sample Id: 7713961-1-BLK

Matrix: Solid

LCS Sample Id: 7713961-1-BKS

Prep Method: E300P

Date Prep: 10.26.2020

LCSD Sample Id: 7713961-1-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	250	256	102	250	100	90-110	2	20	mg/kg	10.26.2020 21:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3140633

MB Sample Id: 7713962-1-BLK

Matrix: Solid

LCS Sample Id: 7713962-1-BKS

Prep Method: E300P

Date Prep: 10.26.2020

LCSD Sample Id: 7713962-1-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	250	252	101	246	98	90-110	2	20	mg/kg	10.26.2020 18:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3140632

Parent Sample Id: 675984-010

Matrix: Soil

MS Sample Id: 675984-010 S

Prep Method: E300P

Date Prep: 10.26.2020

MSD Sample Id: 675984-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	189	200	392	102	387	99	90-110	1	20	mg/kg	10.26.2020 21:24	

Analytical Method: Chloride by EPA 300

Seq Number: 3140633

Parent Sample Id: 676131-001

Matrix: Soil

MS Sample Id: 676131-001 S

Prep Method: E300P

Date Prep: 10.26.2020

MSD Sample Id: 676131-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	190	95	191	96	90-110	1	20	mg/kg	10.26.2020 18:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3140633

Parent Sample Id: 676131-011

Matrix: Soil

MS Sample Id: 676131-011 S

Prep Method: E300P

Date Prep: 10.26.2020

MSD Sample Id: 676131-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10400	202	10600	99	10600	99	90-110	0	20	mg/kg	10.26.2020 19:38	

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



Chain of Custody

Work Order No. 1626131

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 3

Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH CDT Consulting	Company Name:	
Address:	9486 Clemons St	Address:	
City, State ZIP:	Toronton CO 80229	City, State ZIP:	
Phone:	720 431 7468	Email:	Chris@CDHconsult.com

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level I ☐	Level II ☐
Level III ☐	PST/UST ☐
TRRP ☐	Level IV ☐
Deliverables: EDD ☐	ADAPT ☐
Other:	

Project Name:	ZEUS SW	Turn Around	
Project Number:		Routine	☐
Project Location:		Rush:	☒
Sampler's Name:	Chris Del Hierro	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Temperature (°C):	5.6 / 5.4	Thermometer ID			
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	24		
Sample Custody Seals:	Yes ☒ No ☐ N/A				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Preservative Codes	Sample Comments
	PH-001	Soil	10/26	9:03	68"	1		
	PH-002	Soil	10/26	9:10	58"	1		
	PH-003	Soil	10/26	9:30	65"	1		
	PH-004	Soil	10/26	9:42	62"	1		
	PH-005	Soil	10/26	9:56	50"	1		
	PH-006	Soil	10/26	10:08	60"	1		
	PH-007	Soil	10/26	10:22	65"	1		
	PH-008	Soil	10/26	10:37	60"	1		
	PH-009	Soil	10/26	10:55	79"	1		
	PH-010	Soil	10/26	11:14	76"	1		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez	Chris Del Hierro	10/26/2020 16:30			



Chain of Custody

Work Order No: 676131

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 2 of 3

Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9486 Cermont St	Address:	
City, State ZIP:	Thomson CO 80229	City, State ZIP:	
Phone:	720 431 7468	Email:	Chris@CDHCONSULT.COM

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name:	ZCOS SW	Turn Around	
Project Number:		Routine ☐	
Project Location:		Rush: ☒	
Sampler's Name:	Chris Del Hierro	Due Date:	
PO #:		Quote #:	

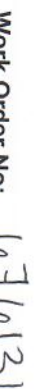
SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Thermometer ID	See Page 1				
Received Intact:	Yes	No					
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:			
Sample Custody Seals:	Yes	No	N/A	Total Containers:			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
	EPH-011	Soil	10/26	11:38	78"	1	chlorides	MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
	EPH-012	Soil	10/26	11:45	128"	1		TAT starts the day received by the lab, if received by 4:00pm
	EPH-013	Soil	10/26	11:50	48"	1		Sample Comments
	EPH-014	Soil	10/26	12:03	128"	1		
	EPH-015	Soil	10/26	12:09	63"	1		
	EPH-016	Soil	10/26	12:23	79"	1		
	EPH-017	Soil	10/26	12:48	68"	1		
	EPH-018	Soil	10/26	12:49	76"	1		
	EPH-019	Soil	10/26	12:57	62"	1		
	EPH-020	Soil	10/26	1:00	84"	1		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez	Dee Taylor	10:30 10/26/20			



Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Cirasbad, NM (432) 704-5440

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tucson, AZ (520) 880-0000
 San Diego, CA (619) 444-0000 Lubbock, TX (806) 794-1296 Crasabad, NM (432) 704-5440

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

SAMPLE RECEIPT						
	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (^oC):	Thermometer ID					
Received intact:	Yes	No				
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:		
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

of Containers

onides

H2SO4: H2

HCL: HL

NaOH: Na

Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if

[illegible]

a Sr II Sn U V Zn
1631 / 245.1 / 7470 / 7471 : Ho

c

Certificate of Analysis Summary 678373

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:33

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678373-001	678373-002	678373-003	678373-004	678373-005	678373-006
	<i>Field Id:</i>	WW2	WW4	WW6	WW8	WW10	WW12
	<i>Depth:</i>	2- ft	4- ft	6- ft	8- ft	10- ft	12- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 09:38	11.18.2020 09:39	11.18.2020 09:40	11.18.2020 09:40	11.18.2020 09:41	11.18.2020 09:41
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42
	<i>Analyzed:</i>	11.20.2020 02:15	11.20.2020 02:31	11.20.2020 02:37	11.20.2020 02:53	11.20.2020 02:59	11.20.2020 03:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		11.3 9.92	363 9.96	501 10.0	786 10.0	255 49.9	1110 49.8

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678373

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:33

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678373-007	678373-008	678373-009	678373-010	678373-011	678373-012
	<i>Field Id:</i>	WW14	WW16	WW18	WW20	WW22	WW24
	<i>Depth:</i>	14- ft	16- ft	18- ft	20- ft	22- ft	24- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 09:42	11.18.2020 09:43	11.18.2020 09:46	11.18.2020 09:46	11.18.2020 09:46	11.18.2020 09:47
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 17:44	11.19.2020 17:44
	<i>Analyzed:</i>	11.20.2020 03:10	11.20.2020 03:15	11.20.2020 03:21	11.20.2020 03:26	11.20.2020 03:59	11.20.2020 04:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		785 49.9	5250 50.4	8660 202	9690 199	9340 200	11500 198

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678373

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:33

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678373-013	678373-014	678373-015	678373-016	678373-017	678373-018
	<i>Field Id:</i>	WW26	WW28	WW30	WW32	WW34	WW36
	<i>Depth:</i>	26- ft	28- ft	30- ft	32- ft	34- ft	36- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 09:48	11.18.2020 09:49	11.18.2020 09:50	11.18.2020 09:53	11.18.2020 09:54	11.18.2020 09:56
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44
	<i>Analyzed:</i>	11.20.2020 04:21	11.20.2020 04:26	11.20.2020 04:32	11.20.2020 04:48	11.20.2020 04:54	11.20.2020 04:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5990 50.0	198 10.1	704 10.1	516 10.1	336 9.94	322 9.98

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678373

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:33

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678373-019	678373-020	678373-021	678373-022	678373-023	678373-024
	<i>Field Id:</i>	WW38	WW40	WW42	WW44	WW46	WW48
	<i>Depth:</i>	38- ft	40- ft	42- ft	44- ft	46- ft	48- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 09:57	11.18.2020 10:00	11.18.2020 10:01	11.18.2020 10:02	11.18.2020 10:03	11.18.2020 10:04
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44
	<i>Analyzed:</i>	11.20.2020 05:05	11.20.2020 05:10	11.20.2020 05:16	11.20.2020 05:32	11.20.2020 05:38	11.20.2020 05:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		198 10.0	802 10.0	159 9.94	258 50.5	179 50.5	156 9.90

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678373

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:33

Project Manager: Irene Vann

Analysis Requested	Lab Id:	678373-025	678373-026	678373-027	678373-028	678373-029	
	Field Id:	WW50	WW52	WW54	WW55	Top Soil WW	
	Depth:	50- ft	52- ft	54- ft	55- ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	11.18.2020 10:05	11.18.2020 10:06	11.18.2020 10:07	11.18.2020 10:08	11.18.2020 09:30	
Chloride by EPA 300 SUB: T104704400-20-21	Extracted:	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	11.19.2020 17:44	
	Analyzed:	11.20.2020 06:00	11.20.2020 06:05	11.20.2020 06:11	11.20.2020 06:16	11.20.2020 06:21	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		199 9.92	206 49.9	151 49.4	163 9.98	7820 49.9	

BRL - Below Reporting Limit

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



Analytical Report 678373

for

CDH Consulting

Project Manager: Chris Del Hierro

Zeus CTB

11.24.2020

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 (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11.24.2020

Project Manager: **Chris Del Hierro**

CDH Consulting

9446 Clermont St.
Thornton, CO 80229

Reference: Eurofins Xenco, LLC Report No(s): **678373**

Zeus CTB

Project Address: Thornton, CO 80229

Chris Del Hierro:

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) 678373. 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. 678373 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,



Erica Morales

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 678373

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WW2	S	11.18.2020 09:38	2 ft	678373-001
WW4	S	11.18.2020 09:39	4 ft	678373-002
WW6	S	11.18.2020 09:40	6 ft	678373-003
WW8	S	11.18.2020 09:40	8 ft	678373-004
WW10	S	11.18.2020 09:41	10 ft	678373-005
WW12	S	11.18.2020 09:41	12 ft	678373-006
WW14	S	11.18.2020 09:42	14 ft	678373-007
WW16	S	11.18.2020 09:43	16 ft	678373-008
WW18	S	11.18.2020 09:46	18 ft	678373-009
WW20	S	11.18.2020 09:46	20 ft	678373-010
WW22	S	11.18.2020 09:46	22 ft	678373-011
WW24	S	11.18.2020 09:47	24 ft	678373-012
WW26	S	11.18.2020 09:48	26 ft	678373-013
WW28	S	11.18.2020 09:49	28 ft	678373-014
WW30	S	11.18.2020 09:50	30 ft	678373-015
WW32	S	11.18.2020 09:53	32 ft	678373-016
WW34	S	11.18.2020 09:54	34 ft	678373-017
WW36	S	11.18.2020 09:56	36 ft	678373-018
WW38	S	11.18.2020 09:57	38 ft	678373-019
WW40	S	11.18.2020 10:00	40 ft	678373-020
WW42	S	11.18.2020 10:01	42 ft	678373-021
WW44	S	11.18.2020 10:02	44 ft	678373-022
WW46	S	11.18.2020 10:03	46 ft	678373-023
WW48	S	11.18.2020 10:04	48 ft	678373-024
WW50	S	11.18.2020 10:05	50 ft	678373-025
WW52	S	11.18.2020 10:06	52 ft	678373-026
WW54	S	11.18.2020 10:07	54 ft	678373-027
WW55	S	11.18.2020 10:08	55 ft	678373-028
Top Soil WW	S	11.18.2020 09:30	N/A	678373-029

CASE NARRATIVE

Client Name: CDH Consulting

Project Name: Zeus CTB

Project ID:
Work Order Number(s): 678373

Report Date: 11.24.2020
Date Received: 11.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 678373

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: WW2	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-001	Date Collected: 11.18.2020 09:38	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.3	9.92	mg/kg	11.20.2020 02:15		1

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Zeus CTB

Sample Id: WW4	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-002	Date Collected: 11.18.2020 09:39	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	363	9.96	mg/kg	11.20.2020 02:31		1

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Zeus CTB

Sample Id: WW6	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-003	Date Collected: 11.18.2020 09:40	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	501	10.0	mg/kg	11.20.2020 02:37		1

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Zeus CTB

Sample Id: WW8	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-004	Date Collected: 11.18.2020 09:40	Sample Depth: 8 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	786	10.0	mg/kg	11.20.2020 02:53		1

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Zeus CTB

Sample Id: WW10	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-005	Date Collected: 11.18.2020 09:41	Sample Depth: 10 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	255	49.9	mg/kg	11.20.2020 02:59		5

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Zeus CTB

Sample Id: WW12	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-006	Date Collected: 11.18.2020 09:41	Sample Depth: 12 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1110	49.8	mg/kg	11.20.2020 03:04		5

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Zeus CTB

Sample Id: WW14	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-007	Date Collected: 11.18.2020 09:42	Sample Depth: 14 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	785	49.9	mg/kg	11.20.2020 03:10		5

Certificate of Analytical Results 678373

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Zeus CTB

Sample Id: WW16	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-008	Date Collected: 11.18.2020 09:43	Sample Depth: 16 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5250	50.4	mg/kg	11.20.2020 03:15		5

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Zeus CTB

Sample Id: WW18	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-009	Date Collected: 11.18.2020 09:46	Sample Depth: 18 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8660	202	mg/kg	11.20.2020 03:21		20

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Zeus CTB

Sample Id: WW20	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-010	Date Collected: 11.18.2020 09:46	Sample Depth: 20 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9690	199	mg/kg	11.20.2020 03:26		20

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Zeus CTB

Sample Id: WW22	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-011	Date Collected: 11.18.2020 09:46	Sample Depth: 22 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9340	200	mg/kg	11.20.2020 03:59		20

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Zeus CTB

Sample Id: WW24	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-012	Date Collected: 11.18.2020 09:47	Sample Depth: 24 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11500	198	mg/kg	11.20.2020 04:15		20

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Zeus CTB

Sample Id: WW26	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-013	Date Collected: 11.18.2020 09:48	Sample Depth: 26 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5990	50.0	mg/kg	11.20.2020 04:21		5

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Zeus CTB

Sample Id: WW28	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-014	Date Collected: 11.18.2020 09:49	Sample Depth: 28 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	198	10.1	mg/kg	11.20.2020 04:26		1

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Zeus CTB

Sample Id: WW30	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-015	Date Collected: 11.18.2020 09:50	Sample Depth: 30 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	704	10.1	mg/kg	11.20.2020 04:32		1

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Zeus CTB

Sample Id: WW32	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-016	Date Collected: 11.18.2020 09:53	Sample Depth: 32 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	516	10.1	mg/kg	11.20.2020 04:48		1

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Zeus CTB

Sample Id: WW34	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-017	Date Collected: 11.18.2020 09:54	Sample Depth: 34 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	336	9.94	mg/kg	11.20.2020 04:54		1

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Zeus CTB

Sample Id: WW36	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-018	Date Collected: 11.18.2020 09:56	Sample Depth: 36 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	322	9.98	mg/kg	11.20.2020 04:59		1

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Zeus CTB

Sample Id: WW38	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-019	Date Collected: 11.18.2020 09:57	Sample Depth: 38 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	198	10.0	mg/kg	11.20.2020 05:05		1

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Zeus CTB

Sample Id: WW40	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-020	Date Collected: 11.18.2020 10:00	Sample Depth: 40 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	802	10.0	mg/kg	11.20.2020 05:10		1

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Zeus CTB

Sample Id: WW42	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-021	Date Collected: 11.18.2020 10:01	Sample Depth: 42 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	159	9.94	mg/kg	11.20.2020 05:16		1

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Zeus CTB

Sample Id: WW44	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-022	Date Collected: 11.18.2020 10:02	Sample Depth: 44 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	258	50.5	mg/kg	11.20.2020 05:32		5

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Zeus CTB

Sample Id: WW46	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-023	Date Collected: 11.18.2020 10:03	Sample Depth: 46 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	179	50.5	mg/kg	11.20.2020 05:38		5

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Zeus CTB

Sample Id: WW48	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-024	Date Collected: 11.18.2020 10:04	Sample Depth: 48 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	156	9.90	mg/kg	11.20.2020 05:54		1

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Zeus CTB

Sample Id: WW50	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-025	Date Collected: 11.18.2020 10:05	Sample Depth: 50 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	199	9.92	mg/kg	11.20.2020 06:00		1

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Zeus CTB

Sample Id: WW52	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-026	Date Collected: 11.18.2020 10:06	Sample Depth: 52 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	206	49.9	mg/kg	11.20.2020 06:05		5

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Zeus CTB

Sample Id: WW54	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-027	Date Collected: 11.18.2020 10:07	Sample Depth: 54 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	49.4	mg/kg	11.20.2020 06:11		5

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CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: WW55	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678373-028	Date Collected: 11.18.2020 10:08	Sample Depth: 55 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 17:44	Basis: Wet Weight
Seq Number: 3142892		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	163	9.98	mg/kg	11.20.2020 06:16		1

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Zeus CTB

Sample Id: **Top Soil WW**

Matrix: Soil

Date Received: 11.18.2020 16:40

Lab Sample Id: 678373-029

Date Collected: 11.18.2020 09:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.19.2020 17:44

% Moisture:

Basis: Wet Weight

Seq Number: 3142892

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7820	49.9	mg/kg	11.20.2020 06:21		5

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

CDH Consulting
Zeus CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3142891

MB Sample Id: 7715577-1-BLK

Matrix: Solid

LCS Sample Id: 7715577-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715577-1-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	250	257	103	257	103	90-110	0	20	mg/kg	11.20.2020 00:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3142892

MB Sample Id: 7715579-1-BLK

Matrix: Solid

LCS Sample Id: 7715579-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715579-1-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	250	256	102	257	103	90-110	0	20	mg/kg	11.20.2020 03:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3142891

Parent Sample Id: 678372-009

Matrix: Soil

MS Sample Id: 678372-009 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678372-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8290	200	8480	95	8500	104	90-110	0	20	mg/kg	11.20.2020 01:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3142891

Parent Sample Id: 678373-001

Matrix: Soil

MS Sample Id: 678373-001 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678373-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.3	200	218	103	217	103	90-110	0	20	mg/kg	11.20.2020 02:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3142892

Parent Sample Id: 678373-011

Matrix: Soil

MS Sample Id: 678373-011 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678373-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9340	200	9530	95	9530	95	90-110	0	20	mg/kg	11.20.2020 04:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3142892

Parent Sample Id: 678373-021

Matrix: Soil

MS Sample Id: 678373-021 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678373-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	159	200	367	104	375	108	90-110	2	20	mg/kg	11.20.2020 05:21	

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



Chain of Custody

Work Order No: 678373

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Casabad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 3

Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH consulting	Company Name:	
Address:	9446 Clermont St	Address:	
City, State ZIP:	Thornton, CO 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@cdhconsult.com

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level: ☐ Level I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name:	ZEUS CTB	Turn Around	
Project Number:		Pres. Code	
Project Location:		Routine ☐	
Sampler's Name:	Andrea Hernandez	Rush:	
PO #:		Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
Temperature (°C):	60/5.8	Thermometer ID	TMM007		
Received Intact:	Yes ☒ No ☐	Correction Factor:	-02		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	29		
Sample Custody Seals:	Yes ☒ No ☐ N/A				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
WW 2	Soil	11-18	9:38	2'	1	1	Chlorides	MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
WW 4	Soil	11-18	9:39	4'	1	1		TAT starts the day received by the lab. If received by 4:00pm
WW 6	Soil	11-18	9:40	6'	1	1		Sample Comments
WW 8	Soil	11-18	9:40	8'	1	1		
WW 10	Soil	11-18	9:41	10'	1	1		
WW 12	Soil	11-18	9:41	12'	1	1		
WW 14	Soil	11-18	9:42	14'	1	1		
WW 16	Soil	11-18	9:43	16'	1	1		
WW 18	Soil	11-18	9:46	18'	1	1		
WW 20	Soil	11-18	9:46	20'	1	1		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/18/20 16:45			



Chain of Custody

Work Order No: 678373

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting, LLC	Company Name:	
Address:	9446 Clemons St	Address:	
City, State ZIP:	Thornton, CO 80729	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@CDHconsult.com

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	Zeus CTB	Turn Around	
Project Number:		Route	☐
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wetter:	Yes	No
Temperature (°C):				Thermometer ID		
Received Intact:	Yes	No				
Cooler/Custody Seals:	Yes	No	N/A	Correction Factor:		
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
WW 22	Soil	11-18	9:46	22'	1	/	Chlorides	Mech: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
WW 24	Soil	11-18	9:47	24'	1	/		TAT starts the day received by the lab, if received by 4:00pm
WW 26	Soil	11-18	9:48	26'	1	/		Sample Comments
WW 28	Soil	11-18	9:49	28'	1	/		
WW 30	Soil	11-18	9:50	30'	1	/		
WW 32	Soil	11-18	9:53	32'	1	/		
WW 34	Soil	11-18	9:54	34'	1	/		
WW 36	Soil	11-18	9:56	36'	1	/		
WW 38	Soil	11-18	9:57	38'	1	/		
WW 40	Soil	11-18	10:00	40'	1	/		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/18/20 16:25			



Chain of Custody

Work Order No: 678373

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting, LLC	Company Name:	
Address:	9446 Clement St	Address:	
City, State ZIP:	Thornton, CO 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@CDHconsult.com

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level: ☐ I ☐ II ☐ III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	Zeus CTB	Turn Around	
Project Number:		Routine	☐
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet log:	Yes	No
Temperature (°C):						
Received Intact:	Yes	No	Thermometer ID			
Cooler Custody Seals:	Yes	No	Correction Factor:			
Sample Custody Seals:	Yes	No	Total Containers:			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
							Chlorides	
WW 42	Soil	11-18	10:01	42'	1			MeOH: Me
WW 44	Soil	11-18	10:02	44'	1			None: NO
WW 46	Soil	11-18	10:03	46'	1			HNO3: HN
WW 48	Soil	11-18	10:04	48'	1			H2SO4: H2
WW 50	Soil	11-18	10:05	50'	1			HCL: HL
WW 52	Soil	11-18	10:06	52'	1			NaOH: Na
WW 54	Soil	11-18	10:07	54'	1			Zn Acetate+ NaOH: Zn
WW 55	Soil	11-18	10:08	55'	1			
TOP Soil WW	Soil	11-18	9:30	TOP Soil	1			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/18/20 16:45			

Eurofins Xenco, LLC
Prelogin/Nonconformance Report- Sample Log-In

Client: CDH Consulting

Date/ Time Received: 11.18.2020 04.40.00 PM

Work Order #: 678373

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Martha Castro

Date: 11.18.2020

Checklist reviewed by:



Irene Vann

Date: 11.19.2020

Certificate of Analysis Summary 678372

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:32

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678372-001	678372-002	678372-003	678372-004	678372-005	678372-006
	<i>Field Id:</i>	Top Soil Hole 1	H2	H4	H6	H8	H10
	<i>Depth:</i>	0- ft	2- ft	4- ft	6- ft	8- ft	10- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 10:39	11.18.2020 10:40	11.18.2020 10:51	11.18.2020 10:52	11.18.2020 10:54	11.18.2020 10:55
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30
	<i>Analyzed:</i>	11.19.2020 23:36	11.19.2020 23:53	11.19.2020 23:58	11.20.2020 00:03	11.20.2020 00:09	11.20.2020 00:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		18600 200	7350 101	3990 100	2600 101	3130 101	3650 100

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678372

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:32

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678372-007	678372-008	678372-009	678372-010	678372-011	678372-012
	<i>Field Id:</i>	H12	H14	H16	H18	H20	H22
	<i>Depth:</i>	12- ft	14- ft	16- ft	18- ft	20- ft	22- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 10:58	11.18.2020 10:59	11.18.2020 11:00	11.18.2020 11:02	11.18.2020 11:02	11.18.2020 11:03
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42
	<i>Analyzed:</i>	11.20.2020 00:20	11.20.2020 00:25	11.20.2020 00:58	11.20.2020 01:15	11.20.2020 01:20	11.20.2020 01:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7680 200	6280 99.8	8290 199	9010 202	9210 202	9670 202

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678372

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:32

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678372-013	678372-014	678372-015	678372-016	678372-017	678372-018
	<i>Field Id:</i>	H24	H26	H28	H30	H32	H34
	<i>Depth:</i>	24- ft	26- ft	28- ft	30- ft	32- ft	34- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 11:04	11.18.2020 11:05	11.18.2020 11:06	11.18.2020 11:06	11.18.2020 11:09	11.18.2020 11:09
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42	11.19.2020 15:42
	<i>Analyzed:</i>	11.20.2020 01:31	11.20.2020 01:48	11.20.2020 01:53	11.20.2020 01:59	11.20.2020 02:04	11.20.2020 02:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		8060 100	1610 99.2	844 49.9	544 9.96	1570 49.7	1060 50.4

BRL - Below Reporting Limit

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



Analytical Report 678372

for

CDH Consulting

Project Manager: Chris Del Hierro

Zeus CTB

11.24.2020

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 (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11.24.2020

Project Manager: **Chris Del Hierro**

CDH Consulting

9446 Clermont St.
Thornton, CO 80229

Reference: Eurofins Xenco, LLC Report No(s): **678372**

Zeus CTB

Project Address: Thornton, CO 80229

Chris Del Hierro:

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) 678372. 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. 678372 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,



Erica Morales

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Top Soil Hole 1	S	11.18.2020 10:39	0 ft	678372-001
H2	S	11.18.2020 10:40	2 ft	678372-002
H4	S	11.18.2020 10:51	4 ft	678372-003
H6	S	11.18.2020 10:52	6 ft	678372-004
H8	S	11.18.2020 10:54	8 ft	678372-005
H10	S	11.18.2020 10:55	10 ft	678372-006
H12	S	11.18.2020 10:58	12 ft	678372-007
H14	S	11.18.2020 10:59	14 ft	678372-008
H16	S	11.18.2020 11:00	16 ft	678372-009
H18	S	11.18.2020 11:02	18 ft	678372-010
H20	S	11.18.2020 11:02	20 ft	678372-011
H22	S	11.18.2020 11:03	22 ft	678372-012
H24	S	11.18.2020 11:04	24 ft	678372-013
H26	S	11.18.2020 11:05	26 ft	678372-014
H28	S	11.18.2020 11:06	28 ft	678372-015
H30	S	11.18.2020 11:06	30 ft	678372-016
H32	S	11.18.2020 11:09	32 ft	678372-017
H34	S	11.18.2020 11:09	34 ft	678372-018

CASE NARRATIVE

Client Name: CDH Consulting

Project Name: Zeus CTB

Project ID:
Work Order Number(s): 678372

Report Date: 11.24.2020
Date Received: 11.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: **Top Soil Hole 1**

Lab Sample Id: 678372-001

Matrix: Soil

Date Collected: 11.18.2020 10:39

Date Received: 11.18.2020 16:40

Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3142889

Date Prep: 11.19.2020 14:30

Prep Method: E300P

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18600	200	mg/kg	11.19.2020 23:36		20

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H2	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-002	Date Collected: 11.18.2020 10:40	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7350	101	mg/kg	11.19.2020 23:53		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H4	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-003	Date Collected: 11.18.2020 10:51	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3990	100	mg/kg	11.19.2020 23:58		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H6	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-004	Date Collected: 11.18.2020 10:52	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2600	101	mg/kg	11.20.2020 00:03		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H8	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-005	Date Collected: 11.18.2020 10:54	Sample Depth: 8 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3130	101	mg/kg	11.20.2020 00:09		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H10	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-006	Date Collected: 11.18.2020 10:55	Sample Depth: 10 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3650	100	mg/kg	11.20.2020 00:14		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H12	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-007	Date Collected: 11.18.2020 10:58	Sample Depth: 12 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7680	200	mg/kg	11.20.2020 00:20		20

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H14	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-008	Date Collected: 11.18.2020 10:59	Sample Depth: 14 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6280	99.8	mg/kg	11.20.2020 00:25		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H16	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-009	Date Collected: 11.18.2020 11:00	Sample Depth: 16 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8290	199	mg/kg	11.20.2020 00:58		20

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H18	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-010	Date Collected: 11.18.2020 11:02	Sample Depth: 18 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9010	202	mg/kg	11.20.2020 01:15		20

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H20	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-011	Date Collected: 11.18.2020 11:02	Sample Depth: 20 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9210	202	mg/kg	11.20.2020 01:20		20

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H22	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-012	Date Collected: 11.18.2020 11:03	Sample Depth: 22 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9670	202	mg/kg	11.20.2020 01:26		20

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H24	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-013	Date Collected: 11.18.2020 11:04	Sample Depth: 24 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8060	100	mg/kg	11.20.2020 01:31		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H26	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-014	Date Collected: 11.18.2020 11:05	Sample Depth: 26 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1610	99.2	mg/kg	11.20.2020 01:48		10

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H28	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-015	Date Collected: 11.18.2020 11:06	Sample Depth: 28 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	844	49.9	mg/kg	11.20.2020 01:53		5

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H30	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-016	Date Collected: 11.18.2020 11:06	Sample Depth: 30 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	544	9.96	mg/kg	11.20.2020 01:59		1

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H32	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-017	Date Collected: 11.18.2020 11:09	Sample Depth: 32 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1570	49.7	mg/kg	11.20.2020 02:04		5

Certificate of Analytical Results 678372

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: H34	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678372-018	Date Collected: 11.18.2020 11:09	Sample Depth: 34 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 15:42	Basis: Wet Weight
Seq Number: 3142891		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1060	50.4	mg/kg	11.20.2020 02:09		5

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

CDH Consulting
Zeus CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3142889

MB Sample Id: 7715576-1-BLK

Matrix: Solid

LCS Sample Id: 7715576-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715576-1-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	250	258	103	257	103	90-110	0	20	mg/kg	11.19.2020 21:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3142891

MB Sample Id: 7715577-1-BLK

Matrix: Solid

LCS Sample Id: 7715577-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715577-1-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	250	257	103	257	103	90-110	0	20	mg/kg	11.20.2020 00:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3142889

Parent Sample Id: 678369-005

Matrix: Soil

MS Sample Id: 678369-005 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678369-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	299	199	516	109	506	106	90-110	2	20	mg/kg	11.19.2020 22:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3142889

Parent Sample Id: 678369-015

Matrix: Soil

MS Sample Id: 678369-015 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678369-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6670	199	6860	95	6860	95	90-110	0	20	mg/kg	11.19.2020 23:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3142891

Parent Sample Id: 678372-009

Matrix: Soil

MS Sample Id: 678372-009 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678372-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8290	200	8480	95	8500	104	90-110	0	20	mg/kg	11.20.2020 01:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3142891

Parent Sample Id: 678373-001

Matrix: Soil

MS Sample Id: 678373-001 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678373-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.3	200	218	103	217	103	90-110	0	20	mg/kg	11.20.2020 02:20	

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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashtad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 678372

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Clermont St	Address:	
City, State ZIP:	Meriden, CT 06029	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@CDHconsult.com

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ I ☐ II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name:	Zeus CTB	Turn Around	
Project Number:		Routine	☒
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes ☐ No ☒	Well Ice:	Yes ☐ No ☒
Temperature (°C):	6.0/5.8	Thermometer ID	TMM007		
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	18		
Sample Custody Seals:	Yes ☒ No ☐				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
	Top Soil Hole 1	Soil	11-18	10:39	0'	1	Chlorides	MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
	H2	Soil	11-18	10:40	2'	1		TAT starts the day received by the lab, if received by 4:00pm
	H4	Soil	11-18	10:51	4'	1		Sample Comments
	H6	Soil	11-18	10:52	6'	1		
	H8	Soil	11-18	10:54	8'	1		
	H10	Soil	11-18	10:55	10'	1		
	H12	Soil	11-18	10:58	12'	1		
	H14	Soil	11-18	10:59	14'	1		
	H16	Soil	11-18	11:00	16'	1		
	H18	Soil	11-18	11:02	18'	1		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Chris Hernandez		11/18/20 16:40			



Chain of Custody

Work Order No. 678372

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Germont St	Address:	
City, State ZIP:	Thornton Co, 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@CDHconsult.com

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ I ☐ II ☐ III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name:	Zeus CTB	Turn Around	
Project Number:		Routine	☒
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wettest:	Yes	No
Temperature (°C):				Thermometer ID		
Received Intact:	Yes	No				
Cooler-Custody Seals:	Yes	No	N/A	Correction Factor:		
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
H20	Soil	11-18	11:02	20'	1	✓	Chlorides	MeOH: Me	
H22	Soil	11-18	11:03	22'	1	✓		None: NO	
H24	Soil	11-18	11:04	24'	1	✓		HNO3: HN	
H26	Soil	11-18	11:05	26'	1	✓		H2SO4: H2	
H28	Soil	11-18	11:06	28'	1	✓		HCL: HL	
H30	Soil	11-18	11:06	30'	1	✓		NaOH: Na	
H32	Soil	11-18	11:09	32'	1	✓		Zn Acetate+ NaOH: Zn	
H34	Soil	11-18	11:09	34'	1	✓			
H36	Soil	11-18	11:09	36'	1	✓			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/18/20 16:40			

Eurofins Xenco, LLC
Prelogin/Nonconformance Report- Sample Log-In

Client: CDH Consulting

Date/ Time Received: 11.18.2020 04.40.00 PM

Work Order #: 678372

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Martha Castro

Date: 11.18.2020

Checklist reviewed by:



Irene Vann

Date: 11.19.2020

Certificate of Analysis Summary 678369

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:29

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678369-001	678369-002	678369-003	678369-004	678369-005	678369-006
	<i>Field Id:</i>	TH Top Soil	TH2	TH4	TH6	TH8	TH10
	<i>Depth:</i>	0- ft	2- ft	4- ft	6- ft	8- ft	10- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 12:13	11.18.2020 12:19	11.18.2020 12:19	11.18.2020 12:19	11.18.2020 12:20	11.18.2020 12:20
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:30	11.19.2020 14:30
	<i>Analyzed:</i>	11.19.2020 21:08	11.19.2020 21:14	11.19.2020 21:19	11.19.2020 21:24	11.19.2020 21:57	11.19.2020 22:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		10700 201	27.7 10.0	24.4 9.98	25.5 10.0	299 9.92	7150 100

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678369

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:29

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678369-007	678369-008	678369-009	678369-010	678369-011	678369-012
	<i>Field Id:</i>	TH12	TH14	TH16	TH18	TH20	TH22
	<i>Depth:</i>	12- ft	14- ft	16- ft	18- ft	20- ft	22- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 12:21	11.18.2020 12:21	11.18.2020 12:22	11.18.2020 12:22	11.18.2020 12:23	11.18.2020 12:24
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30
	<i>Analyzed:</i>	11.19.2020 22:19	11.19.2020 22:25	11.19.2020 22:30	11.19.2020 22:47	11.19.2020 22:52	11.19.2020 22:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		13800 99.4	8590 200	9740 199	9790 200	10500 200	9470 202

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678369

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location: Thornton, CO 80229

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:29

Project Manager: Irene Vann

Analysis Requested	Lab Id:	678369-013	678369-014	678369-015	678369-016		
	Field Id:	TH24	TH26	TH28	TH30		
	Depth:	24- ft	26- ft	28- ft	30- ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	11.18.2020 12:25	11.18.2020 12:25	11.18.2020 12:26	11.18.2020 12:26		
Chloride by EPA 300 SUB: T104704400-20-21	Extracted:	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30	11.19.2020 14:30		
	Analyzed:	11.19.2020 23:03	11.19.2020 23:09	11.19.2020 23:14	11.19.2020 23:30		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		6620 100	7800 99.2	6670 99.2	5500 100		

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678364

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:28

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678364-001	678364-002	678364-003	678364-004	678364-005	678364-006
	<i>Field Id:</i>	SH Top Soil	SH2	SH4	SH6	SH8	SH10
	<i>Depth:</i>	0- ft	2- ft	4- ft	6- ft	8- ft	10- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 11:37	11.18.2020 11:42	11.18.2020 11:44	11.18.2020 11:45	11.18.2020 11:46	11.18.2020 11:46
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00
	<i>Analyzed:</i>	11.19.2020 18:57	11.19.2020 19:13	11.19.2020 19:19	11.19.2020 19:24	11.19.2020 19:29	11.19.2020 19:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1240 D 50.2	173 10.1	19.7 9.98	36.2 10.0	126 10.1	137 10.0

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678364

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:28

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678364-007	678364-008	678364-009	678364-010	678364-011	678364-012
	<i>Field Id:</i>	SH12	SH14	SH16	SH18	SH20	SH22
	<i>Depth:</i>	12- ft	14- ft	16- ft	18- ft	20- ft	22- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.18.2020 11:47	11.18.2020 11:48	11.18.2020 11:49	11.18.2020 11:50	11.18.2020 11:52	11.18.2020 11:53
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00
	<i>Analyzed:</i>	11.19.2020 19:51	11.19.2020 19:57	11.19.2020 20:02	11.19.2020 20:08	11.19.2020 20:13	11.19.2020 20:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		136 10.1	248 10.0	327 10.1	271 10.0	229 9.94	174 10.0

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 678364

CDH Consulting, Thornton, CO

Project Name: Zeus CTB

Project Id:

Contact: Chris Del Hierro

Project Location:

Date Received in Lab: Wed 11.18.2020 16:40

Report Date: 11.24.2020 17:28

Project Manager: Irene Vann

<i>Analysis Requested</i>	<i>Lab Id:</i>	678364-013	678364-014	678364-015	678364-016		
	<i>Field Id:</i>	SH24	SH26	SH28	SH30		
	<i>Depth:</i>	24- ft	26- ft	28- ft	30- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	11.18.2020 11:53	11.18.2020 11:53	11.18.2020 11:54	11.18.2020 11:54		
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00	11.19.2020 14:00		
	<i>Analyzed:</i>	11.19.2020 20:35	11.19.2020 20:52	11.19.2020 20:57	11.19.2020 21:03		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		108 9.96	89.1 9.94	225 9.90	237 10.1		

BRL - Below Reporting Limit

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



Analytical Report 678364

for

CDH Consulting

Project Manager: Chris Del Hierro

Zeus CTB

11.24.2020

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 (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11.24.2020

Project Manager: **Chris Del Hierro**

CDH Consulting

9446 Clermont St.
Thornton, CO 80229

Reference: Eurofins Xenco, LLC Report No(s): **678364**

Zeus CTB

Project Address:

Chris Del Hierro:

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) 678364. 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. 678364 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,



Erica Morales

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SH Top Soil	S	11.18.2020 11:37	0 ft	678364-001
SH2	S	11.18.2020 11:42	2 ft	678364-002
SH4	S	11.18.2020 11:44	4 ft	678364-003
SH6	S	11.18.2020 11:45	6 ft	678364-004
SH8	S	11.18.2020 11:46	8 ft	678364-005
SH10	S	11.18.2020 11:46	10 ft	678364-006
SH12	S	11.18.2020 11:47	12 ft	678364-007
SH14	S	11.18.2020 11:48	14 ft	678364-008
SH16	S	11.18.2020 11:49	16 ft	678364-009
SH18	S	11.18.2020 11:50	18 ft	678364-010
SH20	S	11.18.2020 11:52	20 ft	678364-011
SH22	S	11.18.2020 11:53	22 ft	678364-012
SH24	S	11.18.2020 11:53	24 ft	678364-013
SH26	S	11.18.2020 11:53	26 ft	678364-014
SH28	S	11.18.2020 11:54	28 ft	678364-015
SH30	S	11.18.2020 11:54	30 ft	678364-016

CASE NARRATIVE

Client Name: CDH Consulting

Project Name: Zeus CTB

Project ID:
Work Order Number(s): 678364

Report Date: 11.24.2020
Date Received: 11.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: **SH Top Soil**

Lab Sample Id: 678364-001

Matrix: Soil

Date Collected: 11.18.2020 11:37

Date Received: 11.18.2020 16:40

Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3142887

Date Prep: 11.19.2020 14:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1240	50.2	mg/kg	11.20.2020 15:39	D	5

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH2	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-002	Date Collected: 11.18.2020 11:42	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	173	10.1	mg/kg	11.19.2020 19:13		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH4	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-003	Date Collected: 11.18.2020 11:44	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.7	9.98	mg/kg	11.19.2020 19:19		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH6	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-004	Date Collected: 11.18.2020 11:45	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.2	10.0	mg/kg	11.19.2020 19:24		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH8	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-005	Date Collected: 11.18.2020 11:46	Sample Depth: 8 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	126	10.1	mg/kg	11.19.2020 19:29		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH10	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-006	Date Collected: 11.18.2020 11:46	Sample Depth: 10 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	10.0	mg/kg	11.19.2020 19:46		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH12	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-007	Date Collected: 11.18.2020 11:47	Sample Depth: 12 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	136	10.1	mg/kg	11.19.2020 19:51		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH14	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-008	Date Collected: 11.18.2020 11:48	Sample Depth: 14 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	248	10.0	mg/kg	11.19.2020 19:57		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH16	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-009	Date Collected: 11.18.2020 11:49	Sample Depth: 16 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	327	10.1	mg/kg	11.19.2020 20:02		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH18	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-010	Date Collected: 11.18.2020 11:50	Sample Depth: 18 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	271	10.0	mg/kg	11.19.2020 20:08		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH20	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-011	Date Collected: 11.18.2020 11:52	Sample Depth: 20 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	229	9.94	mg/kg	11.19.2020 20:13		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH22	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-012	Date Collected: 11.18.2020 11:53	Sample Depth: 22 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	174	10.0	mg/kg	11.19.2020 20:30		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH24	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-013	Date Collected: 11.18.2020 11:53	Sample Depth: 24 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	108	9.96	mg/kg	11.19.2020 20:35		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH26	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-014	Date Collected: 11.18.2020 11:53	Sample Depth: 26 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.1	9.94	mg/kg	11.19.2020 20:52		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH28	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-015	Date Collected: 11.18.2020 11:54	Sample Depth: 28 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	225	9.90	mg/kg	11.19.2020 20:57		1

Certificate of Analytical Results 678364

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: SH30	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678364-016	Date Collected: 11.18.2020 11:54	Sample Depth: 30 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	237	10.1	mg/kg	11.19.2020 21:03		1

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

CDH Consulting
Zeus CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3142887

MB Sample Id: 7715575-1-BLK

Matrix: Solid

LCS Sample Id: 7715575-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715575-1-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	250	259	104	257	103	90-110	1	20	mg/kg	11.19.2020 18:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3142887

Parent Sample Id: 678364-001

Matrix: Soil

MS Sample Id: 678364-001 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678364-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1240	248	1500	105	1500	105	90-110	0	20	mg/kg	11.20.2020 15:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3142887

Parent Sample Id: 678364-011

Matrix: Soil

MS Sample Id: 678364-011 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678364-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	229	200	438	105	440	106	90-110	0	20	mg/kg	11.19.2020 20:19	

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



Chain of Custody

Work Order No:

678364

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashtad, NM (432) 704-5440

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 2

Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Clermont St	Address:	
City, State ZIP:	Mountain, Co, 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@CDHconsult.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	ZEUS CTB	Turn Around	☐
Project Number:		Routine	☐
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
Temperature (°C):	6.0/5.2	Thermometer ID	TMM007	
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2	
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	16	
Sample Custody Seals:	Yes ☒ No ☐			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
SH top Soil	Soil	11-18	10:37	0	1	-	Chlorides	MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
SH2	Soil	11-18	11:42	2	1	-		TAT starts the day received by the lab, if received by 4:00pm
SH4	Soil	11-18	11:44	4	1	-		
SH6	Soil	11-18	11:45	6	1	-		
SH8	Soil	11-18	11:46	8	1	-		
SH10	Soil	11-18	11:46	10	1	-		
SH12	Soil	11-18	11:47	12	1	-		
SH14	Soil	11-18	11:48	14	1	-		
SH16	Soil	11-18	11:49	16	1	-		
SH18	Soil	11-18	11:50	18	1	-		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/8/20 16:40			



Chain of Custody

Work Order No: 678364

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashtad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 2 of 2

Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Clermont St	Address:	
City, State ZIP:	Thornton, CO 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@CDHconsult.com

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	ZEUS CTB	Turn Around	
Project Number:		Routine ☐	
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):						
Received Intact:	Yes	No		Thermometer ID		
Cooler Custody Seals:	Yes	No		Correction Factor:		
Sample Custody Seals:	Yes	No		Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
							Chlorides	
SH 20	Soil	11-18	11:52	20'	1			MeOH: Me
SH 22	Soil	11-18	11:53	22'	1			None: NO
SH 24	Soil	11-18	11:53	24'	1			HNO3: HN
SH 26	Soil	11-18	11:53	26'	1			H2SO4: H2
SH 28	Soil	11-18	11:54	28'	1			HCL: HL
SH 30	Soil	11-18	11:54	30'	1			NaOH: Na
								Zn Acetate+ NaOH: Zn
								TAT starts the day received by the lab, if received by 4:00pm
								Sample Comments

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U												

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/18/20 16:40			

Eurofins Xenco, LLC
Prelogin/Nonconformance Report- Sample Log-In

Client: CDH Consulting

Date/ Time Received: 11.18.2020 04.40.00 PM

Work Order #: 678364

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.8
#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?	No
#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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Martha Castro

Date: 11.18.2020

Checklist reviewed by:



Irene Vann

Date: 11.19.2020

Analytical Report 678369

for

CDH Consulting

Project Manager: Chris Del Hierro

Zeus CTB

11.24.2020

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 (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11.24.2020

Project Manager: **Chris Del Hierro**

CDH Consulting

9446 Clermont St.
Thornton, CO 80229

Reference: Eurofins Xenco, LLC Report No(s): **678369**

Zeus CTB

Project Address: Thornton, CO 80229

Chris Del Hierro:

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) 678369. 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. 678369 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,



Erica Morales

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TH Top Soil	S	11.18.2020 12:13	0 ft	678369-001
TH2	S	11.18.2020 12:19	2 ft	678369-002
TH4	S	11.18.2020 12:19	4 ft	678369-003
TH6	S	11.18.2020 12:19	6 ft	678369-004
TH8	S	11.18.2020 12:20	8 ft	678369-005
TH10	S	11.18.2020 12:20	10 ft	678369-006
TH12	S	11.18.2020 12:21	12 ft	678369-007
TH14	S	11.18.2020 12:21	14 ft	678369-008
TH16	S	11.18.2020 12:22	16 ft	678369-009
TH18	S	11.18.2020 12:22	18 ft	678369-010
TH20	S	11.18.2020 12:23	20 ft	678369-011
TH22	S	11.18.2020 12:24	22 ft	678369-012
TH24	S	11.18.2020 12:25	24 ft	678369-013
TH26	S	11.18.2020 12:25	26 ft	678369-014
TH28	S	11.18.2020 12:26	28 ft	678369-015
TH30	S	11.18.2020 12:26	30 ft	678369-016

CASE NARRATIVE

Client Name: CDH Consulting

Project Name: Zeus CTB

Project ID:

Work Order Number(s): 678369

Report Date: 11.24.2020

Date Received: 11.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: **TH Top Soil**

Matrix: Soil

Date Received: 11.18.2020 16:40

Lab Sample Id: 678369-001

Date Collected: 11.18.2020 12:13

Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.19.2020 14:00

% Moisture:

Seq Number: 3142887

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10700	201	mg/kg	11.19.2020 21:08		20

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH2	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-002	Date Collected: 11.18.2020 12:19	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.7	10.0	mg/kg	11.19.2020 21:14		1

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH4	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-003	Date Collected: 11.18.2020 12:19	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.4	9.98	mg/kg	11.19.2020 21:19		1

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH6	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-004	Date Collected: 11.18.2020 12:19	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:00	Basis: Wet Weight
Seq Number: 3142887		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.5	10.0	mg/kg	11.19.2020 21:24		1

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH8	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-005	Date Collected: 11.18.2020 12:20	Sample Depth: 8 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	299	9.92	mg/kg	11.19.2020 21:57		1

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH10	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-006	Date Collected: 11.18.2020 12:20	Sample Depth: 10 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7150	100	mg/kg	11.19.2020 22:14		10

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH12	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-007	Date Collected: 11.18.2020 12:21	Sample Depth: 12 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13800	99.4	mg/kg	11.19.2020 22:19		10

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH14	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-008	Date Collected: 11.18.2020 12:21	Sample Depth: 14 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8590	200	mg/kg	11.19.2020 22:25		20

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH16	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-009	Date Collected: 11.18.2020 12:22	Sample Depth: 16 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9740	199	mg/kg	11.19.2020 22:30		20

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH18	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-010	Date Collected: 11.18.2020 12:22	Sample Depth: 18 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9790	200	mg/kg	11.19.2020 22:47		20

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH20	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-011	Date Collected: 11.18.2020 12:23	Sample Depth: 20 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10500	200	mg/kg	11.19.2020 22:52		20

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH22	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-012	Date Collected: 11.18.2020 12:24	Sample Depth: 22 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9470	202	mg/kg	11.19.2020 22:58		20

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH24	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-013	Date Collected: 11.18.2020 12:25	Sample Depth: 24 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6620	100	mg/kg	11.19.2020 23:03		10

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH26	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-014	Date Collected: 11.18.2020 12:25	Sample Depth: 26 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7800	99.2	mg/kg	11.19.2020 23:09		10

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH28	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-015	Date Collected: 11.18.2020 12:26	Sample Depth: 28 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6670	99.2	mg/kg	11.19.2020 23:14		10

Certificate of Analytical Results 678369

CDH Consulting, Thornton, CO

Zeus CTB

Sample Id: TH30	Matrix: Soil	Date Received: 11.18.2020 16:40
Lab Sample Id: 678369-016	Date Collected: 11.18.2020 12:26	Sample Depth: 30 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.19.2020 14:30	Basis: Wet Weight
Seq Number: 3142889		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5500	100	mg/kg	11.19.2020 23:30		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

CDH Consulting
Zeus CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3142887

MB Sample Id: 7715575-1-BLK

Matrix: Solid

LCS Sample Id: 7715575-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715575-1-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	250	259	104	257	103	90-110	1	20	mg/kg	11.19.2020 18:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3142889

MB Sample Id: 7715576-1-BLK

Matrix: Solid

LCS Sample Id: 7715576-1-BKS

Prep Method: E300P

Date Prep: 11.19.2020

LCSD Sample Id: 7715576-1-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	250	258	103	257	103	90-110	0	20	mg/kg	11.19.2020 21:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3142887

Parent Sample Id: 678364-001

Matrix: Soil

MS Sample Id: 678364-001 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678364-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1240	248	1500	105	1500	105	90-110	0	20	mg/kg	11.20.2020 15:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3142887

Parent Sample Id: 678364-011

Matrix: Soil

MS Sample Id: 678364-011 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678364-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	229	200	438	105	440	106	90-110	0	20	mg/kg	11.19.2020 20:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3142889

Parent Sample Id: 678369-005

Matrix: Soil

MS Sample Id: 678369-005 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678369-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	299	199	516	109	506	106	90-110	2	20	mg/kg	11.19.2020 22:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3142889

Parent Sample Id: 678369-015

Matrix: Soil

MS Sample Id: 678369-015 S

Prep Method: E300P

Date Prep: 11.19.2020

MSD Sample Id: 678369-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6670	199	6860	95	6860	95	90-110	0	20	mg/kg	11.19.2020 23:20	

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



Chain of Custody

Work Order No: 678369

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 cleymont st	Address:	
City, State ZIP:	Thomton CO 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	chris@cdhCONSULT.COM
Project Name:	Zeus CTB	Turn Around	
Project Number:		Routine	☒
Project Location:		Rush:	
Sampler's Name:	Arreola Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐	ANALYSIS REQUEST		Preservative Codes	
Temperature (°C):	6.0/5.8	Thermometer ID							MeOH: Me
Receptacle Intact:	Yes ☒ No ☐	Correction Factor:	-0.2						None: NO
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	16						HNO3: HN
Sample Custody Seals:	Yes ☒ No ☐								H2SO4: H2

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	Sample Comments
TH1	TOP SOIL	Soil	11-18	12:13	0	1		
TH2		Soil	11-18	12:19	2	1		
TH4		Soil	11-18	12:19	4	1		
TH6		Soil	11-18	12:19	6	1		
TH8		Soil	11-18	12:20	8	1		
TH10		Soil	11-18	12:20	10	1		
TH12		Soil	11-18	12:21	12	1		
TH14		Soil	11-18	12:21	14	1		
TH16		Soil	11-18	12:22	16	1		
TH18		Soil	11-18	12:22	18	1		

Total 200.7 / 6010 200.8 / 6020:		8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
Relinquished by: (Signature)		Date/Time	Relinquished by: (Signature)
Received by: (Signature)		Date/Time	Received by: (Signature)

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.



Chain of Custody

Work Order No: 678369

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 699-6701

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	4446 Ciermont St	Address:	
City, State ZIP:	Thornton CO 80229	City, State ZIP:	
Phone:	720-431-7468	Email:	Chris@cdhconsult.com

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ I ☐ II ☐ III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	ZEUS CTB	Turn Around	
Project Number:		Routine	☒
Project Location:		Rush:	
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):						
Received Intact:	Yes	No		Thermometer ID		
Cooler Custody Seals:	Yes	No		Correction Factor:		
Sample Custody Seals:	Yes	No		Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number																	Sample Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenenco 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 Xenenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez		11/18/20 16:40			

Eurofins Xenco, LLC
Prelogin/Nonconformance Report- Sample Log-In

Client: CDH Consulting

Date/ Time Received: 11.18.2020 04.40.00 PM

Work Order #: 678369

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	No
#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

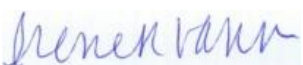
*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: 
Martha Castro

Date: 11.18.2020

Checklist reviewed by: 
Irene Vann

Date: 11.19.2020

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-244-1
Client Project/Site: Zeus CTB

For:
CDH Consulting
9446 Clermont St,
Thornton, Colorado 80229

Attn: Chris Del Hierro



Authorized for release by:
3/16/2021 10:57:50 AM

Irene Vann, Project Manager
(210)509-3334
irene.vann@eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Job ID: 890-244-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-244-1

Receipt

The samples were received on 3/3/2021 12:32 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C

Receipt Exceptions

The following samples were received at the laboratory without a sample collection time documented on the chain of custody: Hole 1 Top Soil (890-244-1), Hole 1 SB-1 (890-244-2), Hole 1 SB-2 (890-244-3), Hole 1 SB-3 (890-244-4), Hole 1 SB-4 (890-244-5), Hole 1 SB-5 (890-244-6), Hole 2 Top Soil (890-244-7), Hole 2 SB-1 (890-244-8), Hole 2 SB-2 (890-244-9), Hole 2 SB-3 (890-244-10), Hole 2 SB-4 (890-244-11), Hole 2 SB-5 (890-244-12), Hole 3 SB-1 (890-244-13), Hole 3 SB-2 (890-244-14), Hole 3 SB-3 (890-244-15), Hole 3 SB-4 (890-244-16), Hole 3 SB-5 (890-244-17), Hole 3 Top Soil (890-244-18), Hole 4 Top Soil (890-244-19), Hole 4 SB-1 (890-244-20), Hole 4 SB-2 (890-244-21), Hole 4 SB-3 (890-244-22), Hole 4 SB-3B (890-244-23), Hole 4 SB-4 (890-244-24), Hole 4 SB-6 (890-244-25), Hole 5 Top Soil (890-244-26), Hole 5 SB-1 (890-244-27), Hole 5 SB-2 (890-244-28), Hole 5 SB-3 (890-244-29), Hole 5 SB-4 (890-244-30), Hole 5 SB-5 (890-244-31), Hole 6 Top Soil (890-244-32), Hole 6 SB-1 (890-244-33), Hole 6 SB-2 (890-244-34), Hole 6 SB-3 (890-244-35), Hole 6 SB-4 (890-244-36) and Hole 6 SB-5 (890-244-37). Samples logged in as 00:00

Subcontract Work

Method Chloride: This method was subcontracted to Eurofins Midland. The subcontract laboratory certification is different from that of the facility issuing the final report.

Client Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 1 Top Soil

Date Collected: 03/03/21 08:11

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-1

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/kg		03/12/21 08:20	03/12/21 09:18	1

Client Sample ID: Hole 1 SB-1

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-2

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/kg		03/12/21 08:20	03/12/21 09:34	1

Client Sample ID: Hole 1 SB-2

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-3

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96		mg/kg		03/12/21 08:20	03/12/21 09:40	1

Client Sample ID: Hole 1 SB-3

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-4

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.8		5.05		mg/kg		03/12/21 08:20	03/12/21 09:45	1

Client Sample ID: Hole 1 SB-4

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-5

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.4		5.05		mg/kg		03/12/21 08:20	03/12/21 09:51	1

Client Sample ID: Hole 1 SB-5

Date Collected: 03/03/21 08:35

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-6

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	174		5.00		mg/kg		03/12/21 08:20	03/12/21 10:07	1

Client Sample ID: Hole 2 Top Soil

Date Collected: 03/03/21 08:44

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-7

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.88		4.99		mg/kg		03/12/21 08:20	03/12/21 10:13	1

Eurofins Carlsbad

Client Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 2 SB-1

Lab Sample ID: 890-244-8

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/kg		03/12/21 08:20	03/12/21 10:18	1

Client Sample ID: Hole 2 SB-2

Lab Sample ID: 890-244-9

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/kg		03/12/21 08:20	03/12/21 10:24	1

Client Sample ID: Hole 2 SB-3

Lab Sample ID: 890-244-10

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.16		5.03		mg/kg		03/12/21 08:20	03/12/21 10:29	1

Client Sample ID: Hole 2 SB-4

Lab Sample ID: 890-244-11

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.0		5.00		mg/kg		03/12/21 08:20	03/12/21 10:35	1

Client Sample ID: Hole 2 SB-5

Lab Sample ID: 890-244-12

Date Collected: 03/03/21 09:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1620		24.8		mg/kg		03/12/21 08:20	03/12/21 10:52	5

Client Sample ID: Hole 3 SB-1

Lab Sample ID: 890-244-13

Date Collected: 03/03/21 09:10

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.35		5.00		mg/kg		03/12/21 08:20	03/12/21 10:57	1

Client Sample ID: Hole 3 SB-2

Lab Sample ID: 890-244-14

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.4		5.00		mg/kg		03/12/21 08:20	03/12/21 11:14	1

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Client Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 3 SB-3

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-15

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.0		5.00		mg/kg		03/12/21 08:20	03/12/21 11:19	1

Client Sample ID: Hole 3 SB-4

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-16

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.00		mg/kg		03/12/21 08:20	03/12/21 11:25	1

Client Sample ID: Hole 3 SB-5

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-17

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	398		5.04		mg/kg		03/12/21 08:20	03/12/21 11:30	1

Client Sample ID: Hole 3 Top Soil

Date Collected: 03/03/21 09:28

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-18

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.6		4.96		mg/kg		03/12/21 08:20	03/12/21 11:36	1

Client Sample ID: Hole 4 Top Soil

Date Collected: 03/03/21 09:32

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-19

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	114		4.98		mg/kg		03/12/21 08:20	03/12/21 11:41	1

Client Sample ID: Hole 4 SB-1

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-20

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.8		4.99		mg/kg		03/12/21 08:20	03/12/21 11:47	1

Client Sample ID: Hole 4 SB-2

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-21

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.5	X	5.00		mg/kg		03/12/21 09:50	03/12/21 15:51	1

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Client Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 4 SB-3

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-22

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	257		5.02		mg/kg		03/12/21 09:50	03/12/21 16:07	1

Client Sample ID: Hole 4 SB-3B

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-23

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	346		4.99		mg/kg		03/12/21 09:50	03/12/21 16:13	1

Client Sample ID: Hole 4 SB-4

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-24

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	662		4.96		mg/kg		03/12/21 09:50	03/12/21 16:18	1

Client Sample ID: Hole 4 SB-6

Date Collected: 03/03/21 09:55

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-25

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	750		5.05		mg/kg		03/12/21 09:50	03/12/21 16:24	1

Client Sample ID: Hole 5 Top Soil

Date Collected: 03/03/21 10:03

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-26

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	326		5.05		mg/kg		03/12/21 09:50	03/12/21 16:40	1

Client Sample ID: Hole 5 SB-1

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-27

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/kg		03/12/21 09:50	03/12/21 16:46	1

Client Sample ID: Hole 5 SB-2

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-28

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.03	U	5.03		mg/kg		03/12/21 09:50	03/12/21 16:51	1

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Client Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 5 SB-3

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-29

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96		mg/kg		03/12/21 09:50	03/12/21 16:57	1

Client Sample ID: Hole 5 SB-4

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-30

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.0		4.95		mg/kg		03/12/21 09:50	03/12/21 17:02	1

Client Sample ID: Hole 5 SB-5

Date Collected: 03/03/21 10:23

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-31

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.2	X	4.95		mg/kg		03/12/21 09:50	03/12/21 17:08	1

Client Sample ID: Hole 6 Top Soil

Date Collected: 03/03/21 10:27

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-32

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.1		4.96		mg/kg		03/12/21 09:50	03/12/21 17:25	1

Client Sample ID: Hole 6 SB-1

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-33

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.97		5.04		mg/kg		03/12/21 09:50	03/12/21 17:30	1

Client Sample ID: Hole 6 SB-2

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-34

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.30		4.97		mg/kg		03/12/21 09:50	03/12/21 17:47	1

Client Sample ID: Hole 6 SB-3

Date Collected: 03/03/21 00:00

Date Received: 03/03/21 12:32

Lab Sample ID: 890-244-35

Matrix: Solid

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.2		4.99		mg/kg		03/12/21 09:50	03/12/21 17:52	1

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Client Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 6 SB-4

Lab Sample ID: 890-244-36

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72.0		5.03		mg/kg		03/12/21 09:50	03/12/21 17:58	1

Client Sample ID: Hole 6 SB-5

Lab Sample ID: 890-244-37

Date Collected: 03/03/21 11:03

Matrix: Solid

Date Received: 03/03/21 12:32

Method: Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.2		25.0		mg/kg		03/12/21 09:50	03/12/21 18:03	5

QC Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Method: Chloride - EPA 300.0

Lab Sample ID: 7723179-1-BLK
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/12/21 08:20	03/12/21 08:56	1

Lab Sample ID: 7723179-1-BKS
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	249		mg/kg		100	80 - 120

Lab Sample ID: 7723179-1-BSD
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	249		mg/kg		100	80 - 120	0	20

Lab Sample ID: 690440-001 S
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<5.02		251	244		mg/kg		97	80 - 120

Lab Sample ID: 690440-001 SD
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	<5.02		251	238		mg/kg		95	80 - 120	2	20

Lab Sample ID: 690440-011 S
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13.0		250	284		mg/kg		108	80 - 120

Lab Sample ID: 690440-011 SD
Matrix: SOIL
Analysis Batch: 3153438

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153438_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	13.0		250	284		mg/kg		108	80 - 120	0	20

Lab Sample ID: 7723180-1-BLK
Matrix: SOIL
Analysis Batch: 3153607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153607_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/12/21 09:50	03/12/21 15:34	1

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QC Sample Results

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Method: Chloride - EPA 300.0

Lab Sample ID: 7723180-1-BKS

Matrix: SOIL

Analysis Batch: 3153607

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3153607_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	262		mg/kg		105	80 - 120

Lab Sample ID: 7723180-1-BSD

Matrix: SOIL

Analysis Batch: 3153607

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3153607_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	262		mg/kg		105	80 - 120	0	20

Lab Sample ID: 690440-021 S

Matrix: SOIL

Analysis Batch: 3153607

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3153607_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	22.5		250	305	X	mg/kg		113	80 - 120

Lab Sample ID: 690440-021 SD

Matrix: SOIL

Analysis Batch: 3153607

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3153607_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	22.5		250	310	X	mg/kg		115	80 - 120	2	20

Lab Sample ID: 690440-031 S

Matrix: SOIL

Analysis Batch: 3153607

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3153607_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	77.2		248	362	X	mg/kg		115	80 - 120

Lab Sample ID: 690440-031 SD

Matrix: SOIL

Analysis Batch: 3153607

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3153607_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	77.2		248	357	X	mg/kg		113	80 - 120	1	20

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QC Association Summary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Subcontract

Analysis Batch: 3153438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-244-1	Hole 1 Top Soil	Total/NA	Solid	Chloride	3153438_P
890-244-2	Hole 1 SB-1	Total/NA	Solid	Chloride	3153438_P
890-244-3	Hole 1 SB-2	Total/NA	Solid	Chloride	3153438_P
890-244-4	Hole 1 SB-3	Total/NA	Solid	Chloride	3153438_P
890-244-5	Hole 1 SB-4	Total/NA	Solid	Chloride	3153438_P
890-244-6	Hole 1 SB-5	Total/NA	Solid	Chloride	3153438_P
890-244-7	Hole 2 Top Soil	Total/NA	Solid	Chloride	3153438_P
890-244-8	Hole 2 SB-1	Total/NA	Solid	Chloride	3153438_P
890-244-9	Hole 2 SB-2	Total/NA	Solid	Chloride	3153438_P
890-244-10	Hole 2 SB-3	Total/NA	Solid	Chloride	3153438_P
890-244-11	Hole 2 SB-4	Total/NA	Solid	Chloride	3153438_P
890-244-12	Hole 2 SB-5	Total/NA	Solid	Chloride	3153438_P
890-244-13	Hole 3 SB-1	Total/NA	Solid	Chloride	3153438_P
890-244-14	Hole 3 SB-2	Total/NA	Solid	Chloride	3153438_P
890-244-15	Hole 3 SB-3	Total/NA	Solid	Chloride	3153438_P
890-244-16	Hole 3 SB-4	Total/NA	Solid	Chloride	3153438_P
890-244-17	Hole 3 SB-5	Total/NA	Solid	Chloride	3153438_P
890-244-18	Hole 3 Top Soil	Total/NA	Solid	Chloride	3153438_P
890-244-19	Hole 4 Top Soil	Total/NA	Solid	Chloride	3153438_P
890-244-20	Hole 4 SB-1	Total/NA	Solid	Chloride	3153438_P
7723179-1-BLK	Method Blank	Total/NA	SOIL	Chloride	3153438_P
7723179-1-BKS	Lab Control Sample	Total/NA	SOIL	Chloride	3153438_P
7723179-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	Chloride	3153438_P
690440-001 S	Matrix Spike	Total/NA	SOIL	Chloride	3153438_P
690440-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	Chloride	3153438_P
690440-011 S	Matrix Spike	Total/NA	SOIL	Chloride	3153438_P
690440-011 SD	Matrix Spike Duplicate	Total/NA	SOIL	Chloride	3153438_P

Analysis Batch: 3153607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-244-21	Hole 4 SB-2	Total/NA	Solid	Chloride	3153607_P
890-244-22	Hole 4 SB-3	Total/NA	Solid	Chloride	3153607_P
890-244-23	Hole 4 SB-3B	Total/NA	Solid	Chloride	3153607_P
890-244-24	Hole 4 SB-4	Total/NA	Solid	Chloride	3153607_P
890-244-25	Hole 4 SB-6	Total/NA	Solid	Chloride	3153607_P
890-244-26	Hole 5 Top Soil	Total/NA	Solid	Chloride	3153607_P
890-244-27	Hole 5 SB-1	Total/NA	Solid	Chloride	3153607_P
890-244-28	Hole 5 SB-2	Total/NA	Solid	Chloride	3153607_P
890-244-29	Hole 5 SB-3	Total/NA	Solid	Chloride	3153607_P
890-244-30	Hole 5 SB-4	Total/NA	Solid	Chloride	3153607_P
890-244-31	Hole 5 SB-5	Total/NA	Solid	Chloride	3153607_P
890-244-32	Hole 6 Top Soil	Total/NA	Solid	Chloride	3153607_P
890-244-33	Hole 6 SB-1	Total/NA	Solid	Chloride	3153607_P
890-244-34	Hole 6 SB-2	Total/NA	Solid	Chloride	3153607_P
890-244-35	Hole 6 SB-3	Total/NA	Solid	Chloride	3153607_P
890-244-36	Hole 6 SB-4	Total/NA	Solid	Chloride	3153607_P
890-244-37	Hole 6 SB-5	Total/NA	Solid	Chloride	3153607_P
7723180-1-BLK	Method Blank	Total/NA	SOIL	Chloride	3153607_P
7723180-1-BKS	Lab Control Sample	Total/NA	SOIL	Chloride	3153607_P
7723180-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	Chloride	3153607_P
690440-021 S	Matrix Spike	Total/NA	SOIL	Chloride	3153607_P

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QC Association Summary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Subcontract (Continued)

Analysis Batch: 3153607 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
690440-021 SD	Matrix Spike Duplicate	Total/NA	SOIL	Chloride	3153607_P
690440-031 S	Matrix Spike	Total/NA	SOIL	Chloride	3153607_P
690440-031 SD	Matrix Spike Duplicate	Total/NA	SOIL	Chloride	3153607_P

Prep Batch: 3153438_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-244-1	Hole 1 Top Soil	Total/NA	Solid	E300P	
890-244-2	Hole 1 SB-1	Total/NA	Solid	E300P	
890-244-3	Hole 1 SB-2	Total/NA	Solid	E300P	
890-244-4	Hole 1 SB-3	Total/NA	Solid	E300P	
890-244-5	Hole 1 SB-4	Total/NA	Solid	E300P	
890-244-6	Hole 1 SB-5	Total/NA	Solid	E300P	
890-244-7	Hole 2 Top Soil	Total/NA	Solid	E300P	
890-244-8	Hole 2 SB-1	Total/NA	Solid	E300P	
890-244-9	Hole 2 SB-2	Total/NA	Solid	E300P	
890-244-10	Hole 2 SB-3	Total/NA	Solid	E300P	
890-244-11	Hole 2 SB-4	Total/NA	Solid	E300P	
890-244-12	Hole 2 SB-5	Total/NA	Solid	E300P	
890-244-13	Hole 3 SB-1	Total/NA	Solid	E300P	
890-244-14	Hole 3 SB-2	Total/NA	Solid	E300P	
890-244-15	Hole 3 SB-3	Total/NA	Solid	E300P	
890-244-16	Hole 3 SB-4	Total/NA	Solid	E300P	
890-244-17	Hole 3 SB-5	Total/NA	Solid	E300P	
890-244-18	Hole 3 Top Soil	Total/NA	Solid	E300P	
890-244-19	Hole 4 Top Soil	Total/NA	Solid	E300P	
890-244-20	Hole 4 SB-1	Total/NA	Solid	E300P	
7723179-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723179-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723179-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
690440-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
690440-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	
690440-011 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
690440-011 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153607_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-244-21	Hole 4 SB-2	Total/NA	Solid	E300P	
890-244-22	Hole 4 SB-3	Total/NA	Solid	E300P	
890-244-23	Hole 4 SB-3B	Total/NA	Solid	E300P	
890-244-24	Hole 4 SB-4	Total/NA	Solid	E300P	
890-244-25	Hole 4 SB-6	Total/NA	Solid	E300P	
890-244-26	Hole 5 Top Soil	Total/NA	Solid	E300P	
890-244-27	Hole 5 SB-1	Total/NA	Solid	E300P	
890-244-28	Hole 5 SB-2	Total/NA	Solid	E300P	
890-244-29	Hole 5 SB-3	Total/NA	Solid	E300P	
890-244-30	Hole 5 SB-4	Total/NA	Solid	E300P	

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QC Association Summary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Subcontract (Continued)

Prep Batch: 3153607_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-244-31	Hole 5 SB-5	Total/NA	Solid	E300P	
890-244-32	Hole 6 Top Soil	Total/NA	Solid	E300P	
890-244-33	Hole 6 SB-1	Total/NA	Solid	E300P	
890-244-34	Hole 6 SB-2	Total/NA	Solid	E300P	
890-244-35	Hole 6 SB-3	Total/NA	Solid	E300P	
890-244-36	Hole 6 SB-4	Total/NA	Solid	E300P	
890-244-37	Hole 6 SB-5	Total/NA	Solid	E300P	
7723180-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723180-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723180-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
690440-021 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
690440-021 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	
690440-031 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
690440-031 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 1 Top Soil

Lab Sample ID: 890-244-1

Date Collected: 03/03/21 08:11

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 09:18	CHE	XM

Client Sample ID: Hole 1 SB-1

Lab Sample ID: 890-244-2

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 09:34	CHE	XM

Client Sample ID: Hole 1 SB-2

Lab Sample ID: 890-244-3

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 09:40	CHE	XM

Client Sample ID: Hole 1 SB-3

Lab Sample ID: 890-244-4

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 09:45	CHE	XM

Client Sample ID: Hole 1 SB-4

Lab Sample ID: 890-244-5

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 09:51	CHE	XM

Client Sample ID: Hole 1 SB-5

Lab Sample ID: 890-244-6

Date Collected: 03/03/21 08:35

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:07	CHE	XM

Eurofins Carlsbad

Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 2 Top Soil

Lab Sample ID: 890-244-7

Date Collected: 03/03/21 08:44

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:13	CHE	XM

Client Sample ID: Hole 2 SB-1

Lab Sample ID: 890-244-8

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:18	CHE	XM

Client Sample ID: Hole 2 SB-2

Lab Sample ID: 890-244-9

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:24	CHE	XM

Client Sample ID: Hole 2 SB-3

Lab Sample ID: 890-244-10

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:29	CHE	XM

Client Sample ID: Hole 2 SB-4

Lab Sample ID: 890-244-11

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:35	CHE	XM

Client Sample ID: Hole 2 SB-5

Lab Sample ID: 890-244-12

Date Collected: 03/03/21 09:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		5	3153438	03/12/21 10:52	CHE	XM

Eurofins Carlsbad

Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 3 SB-1

Lab Sample ID: 890-244-13

Date Collected: 03/03/21 09:10

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 10:57	CHE	XM

Client Sample ID: Hole 3 SB-2

Lab Sample ID: 890-244-14

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:14	CHE	XM

Client Sample ID: Hole 3 SB-3

Lab Sample ID: 890-244-15

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:19	CHE	XM

Client Sample ID: Hole 3 SB-4

Lab Sample ID: 890-244-16

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:25	CHE	XM

Client Sample ID: Hole 3 SB-5

Lab Sample ID: 890-244-17

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:30	CHE	XM

Client Sample ID: Hole 3 Top Soil

Lab Sample ID: 890-244-18

Date Collected: 03/03/21 09:28

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:36	CHE	XM

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Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 4 Top Soil

Lab Sample ID: 890-244-19

Date Collected: 03/03/21 09:32

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:41	CHE	XM

Client Sample ID: Hole 4 SB-1

Lab Sample ID: 890-244-20

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153438_P	03/12/21 08:20		XM
Total/NA	Analysis	Chloride		1	3153438	03/12/21 11:47	CHE	XM

Client Sample ID: Hole 4 SB-2

Lab Sample ID: 890-244-21

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 15:51	CHE	XM

Client Sample ID: Hole 4 SB-3

Lab Sample ID: 890-244-22

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:07	CHE	XM

Client Sample ID: Hole 4 SB-3B

Lab Sample ID: 890-244-23

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:13	CHE	XM

Client Sample ID: Hole 4 SB-4

Lab Sample ID: 890-244-24

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:18	CHE	XM

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Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 4 SB-6

Lab Sample ID: 890-244-25

Date Collected: 03/03/21 09:55

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:24	CHE	XM

Client Sample ID: Hole 5 Top Soil

Lab Sample ID: 890-244-26

Date Collected: 03/03/21 10:03

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:40	CHE	XM

Client Sample ID: Hole 5 SB-1

Lab Sample ID: 890-244-27

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:46	CHE	XM

Client Sample ID: Hole 5 SB-2

Lab Sample ID: 890-244-28

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:51	CHE	XM

Client Sample ID: Hole 5 SB-3

Lab Sample ID: 890-244-29

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 16:57	CHE	XM

Client Sample ID: Hole 5 SB-4

Lab Sample ID: 890-244-30

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:02	CHE	XM

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Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 5 SB-5

Lab Sample ID: 890-244-31

Date Collected: 03/03/21 10:23

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:08	CHE	XM

Client Sample ID: Hole 6 Top Soil

Lab Sample ID: 890-244-32

Date Collected: 03/03/21 10:27

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:25	CHE	XM

Client Sample ID: Hole 6 SB-1

Lab Sample ID: 890-244-33

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:30	CHE	XM

Client Sample ID: Hole 6 SB-2

Lab Sample ID: 890-244-34

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:47	CHE	XM

Client Sample ID: Hole 6 SB-3

Lab Sample ID: 890-244-35

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:52	CHE	XM

Client Sample ID: Hole 6 SB-4

Lab Sample ID: 890-244-36

Date Collected: 03/03/21 00:00

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		1	3153607	03/12/21 17:58	CHE	XM

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Lab Chronicle

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Client Sample ID: Hole 6 SB-5

Lab Sample ID: 890-244-37

Date Collected: 03/03/21 11:03

Matrix: Solid

Date Received: 03/03/21 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153607_P	03/12/21 09:50		XM
Total/NA	Analysis	Chloride		5	3153607	03/12/21 18:03	CHE	XM

Laboratory References:

XM = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

Method Summary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Method	Method Description	Protocol	Laboratory
300.0	EPA 300.0	EPA	XM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

XM = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: CDH Consulting
Project/Site: Zeus CTB

Job ID: 890-244-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-244-1	Hole 1 Top Soil	Solid	03/03/21 08:11	03/03/21 12:32	
890-244-2	Hole 1 SB-1	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-3	Hole 1 SB-2	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-4	Hole 1 SB-3	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-5	Hole 1 SB-4	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-6	Hole 1 SB-5	Solid	03/03/21 08:35	03/03/21 12:32	
890-244-7	Hole 2 Top Soil	Solid	03/03/21 08:44	03/03/21 12:32	
890-244-8	Hole 2 SB-1	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-9	Hole 2 SB-2	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-10	Hole 2 SB-3	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-11	Hole 2 SB-4	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-12	Hole 2 SB-5	Solid	03/03/21 09:00	03/03/21 12:32	
890-244-13	Hole 3 SB-1	Solid	03/03/21 09:10	03/03/21 12:32	
890-244-14	Hole 3 SB-2	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-15	Hole 3 SB-3	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-16	Hole 3 SB-4	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-17	Hole 3 SB-5	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-18	Hole 3 Top Soil	Solid	03/03/21 09:28	03/03/21 12:32	
890-244-19	Hole 4 Top Soil	Solid	03/03/21 09:32	03/03/21 12:32	
890-244-20	Hole 4 SB-1	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-21	Hole 4 SB-2	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-22	Hole 4 SB-3	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-23	Hole 4 SB-3B	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-24	Hole 4 SB-4	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-25	Hole 4 SB-6	Solid	03/03/21 09:55	03/03/21 12:32	
890-244-26	Hole 5 Top Soil	Solid	03/03/21 10:03	03/03/21 12:32	
890-244-27	Hole 5 SB-1	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-28	Hole 5 SB-2	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-29	Hole 5 SB-3	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-30	Hole 5 SB-4	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-31	Hole 5 SB-5	Solid	03/03/21 10:23	03/03/21 12:32	
890-244-32	Hole 6 Top Soil	Solid	03/03/21 10:27	03/03/21 12:32	
890-244-33	Hole 6 SB-1	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-34	Hole 6 SB-2	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-35	Hole 6 SB-3	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-36	Hole 6 SB-4	Solid	03/03/21 00:00	03/03/21 12:32	
890-244-37	Hole 6 SB-5	Solid	03/03/21 11:03	03/03/21 12:32	

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Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	4416 Clement St	Address:	
City, State ZIP:	Thomson CO 80229	City, State ZIP:	
Phone:	7204317468	Email:	CHRIS@CDHCONSULT.COM

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables:	EDD ☐ ADAPT ☐ Other: _____

Project Name:	ZEUS CTB	Turn Around	☒ Routine ☐ Rush	Pres. Code		ANALYSIS REQUEST										Preservative Codes		
Project Number:		Due Date:														None: NO	DI Water: H ₂ O	
Project location:		TAT starts the day received by the lab, if received by 4:30pm														Cool: Cool	MeOH: Me	
Sample's Name:	Andrea Hernandez															HCL: HC	HNO ₃ : HN	
P.O. #:		Temp Blank: ☒ Yes ☐ No	Wet Ice: ☒ Yes ☐ No													H ₂ SO ₄ : H ₂	NaOH: Na	
SAMPLE RECEIPT		Thermometer ID:	FWW-007													H ₂ PO ₄ : HP		
Samples Received Intact:	☒ Yes ☐ No	Correction Factor:														NaHSO ₄ : NABIS		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Temperature Reading:	4.6/4.4													Na ₂ S ₂ O ₃ : NaSO ₃		
Sample Custody Seals:	Yes ☒ No ☐ N/A	Corrected Temperature:														Zn Acetate+NaOH: Zn		
Total Containers:	35															NaOH+Ascorbic Acid: SARC		
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Chlondes										Sample Comments	
Hole 1 TOP SOIL	Soil	3/3/21	8:11	0'		1												
Hole 1 Sb-1	Soil	3/3/21		2'		1												
Hole 1 Sb-2	Soil	3/3/21		4'		1												
Hole 1 Sb-3	Soil	3/3/21		6'		1												
Hole 1 Sb-4	Soil	3/3/21		8'		1												
Hole 1 Sb-5	Soil	3/3/21	8:35	10'		1												

Total 2007 / 6010 2008 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes an order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the costs 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez	Chris Del Hierro	3/3/2021 12:30			



Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

www.xenco.com Page 2 of 6

Project Manager:	Cris Del Hierro	Bill to: (if different)	
Company Name:	CDT Consulting	Company Name:	
Address:	9446 Clearmont St	Address:	
City, State ZIP:	Thomton CO 80229	City, State ZIP:	
Phone:	7204317468	Email:	Cris@cdtconsult.com

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables:	EDD ☐ ADAPT ☐ Other: _____

Project Name:	ZEUS CTB	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:		Due Date:			
Project Location:		TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Andrea Hernandez				
PO #:					
SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes
Samples Received Intact:	Yes	No	Thermometer:	Yes	No
Cooler Custody Seals:	Yes	No	Correction Factor:	Yes	No
Sample Custody Seals:	Yes	No	Temperature Reading:	Yes	No
Total Containers:	Yes	No	Corrected Temperature:	Yes	No

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
Hole 1- Top Soil	Soil	3/3/21	8:44	0'		1	Chlorides		None: NO DI Water: H ₂ O	
Hole 2- Sb 1	Soil	3/3/21		2'		1			Cool: Cool MeOH: Me	
Hole 2 Sb 2	Soil	3/3/21		4'		1			HCL: HC HNO ₃ : HN	
Hole 2 Sb 3	Soil	3/3/21		6'		1			H ₂ SO ₄ : H ₂	
Hole 2 Sb 4	Soil	3/3/21		8'		1			H ₃ PO ₄ : HP	
Hole 2 Sb 5	Soil	3/3/21	9:00	10'		1			NaHSO ₄ : NABIS	
									Na ₂ S ₂ O ₃ : NaSO ₃	
									Zn Acetate+NaOH: Zn	
									NaOH+Ascorbic Acid: SANC	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez	Ger Cofe	3/3/21 12:32			



Environment Testing
Xenco

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Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

www.xenco.com Page 3 of 10

Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDT consulting	Company Name:	
Address:	9446 Clermont St	Address:	
City, State ZIP:	Thomson CO 80229	City, State ZIP:	
Phone:	7204317468	Email:	chris@cdnconsult.com

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables:	EDD ☐ ADAPT ☐ Other: _____

Project Name:	Zeus CTB	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:		Due Date:			
Project Location:	Andraa Hernandez	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:					
P.O. #:					
SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer:			
Cooler Custody Seals:	Yes No	Correction Factor:			
Sample Custody Seals:	Yes No	Temperature Reading:			
Total Containers:		Corrected Temperature:			

Sample Identification				Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Ch																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</
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Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TGLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andraa Hernandez &	Chris Del Hierro	3/13/21 12:32			



Environment Testing
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Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Clement St	Address:	
City, State ZIP:	Thornton CO 80229	City, State ZIP:	
Phone:	720431 7468	Email:	Chris@cdhconsult.com

Work Order Comments	
Program:	UST/PT ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables:	EDD ☐ ADAPT ☐ Other: _____

Project Name:	Zeus CTB	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:		Due Date:			
Sample Location:	Andrea Hernandez	TAT starts the day received by the lab, if received by 4:30pm			
Sample's Name:					
PO #:					
SAMPLE RECEIPT		Temp Blank:	Yes No	Wet/ice:	Yes No
Samples Received Intact:	Yes No	Thermometer:	See Tag		
Cooler Custody Seals:	Yes No N/A	Correction Factor:			
Sample Custody Seals:	Yes No N/A	Temperature Reading:			
Total Containers:		Corrected Temperature:			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp
Hole 4 top soil	Soil	3/3/21	9:32	0	1
Hole 4 Sb-1	Soil	3/3/21		2	1
Hole 4 Sb-2	Soil	3/3/21		4	1
Hole 4 Sb-3	Soil	3/3/21		6	1
Hole 4 Sb-3b	Soil	3/3/21		6	1
Hole 4 Sb-4	Soil	3/3/21		8	1
Hole 4 Sb-6	Soil	3/3/21	9:55	10	1

Parameters															
Chlorides															

ANALYSIS REQUEST															

Preservative Codes															
None: NO DI Water: H ₂ O															
Cool: Cool MeOH: Me															
HCL: HC HNO ₃ : HN															
H ₂ SO ₄ : H ₂ NaOH: Na															
H ₃ PO ₄ : HP															
NaHSO ₄ : NABIS															
Na ₂ O ₂ : NaSO ₃															
Zn Acetate+NaOH: Zn															
NaOH+Ascorbic Acid: SARC															

Sample Comments															

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez	Chris Del Hierro	3/3/21 12:32			



Environment Testing
Xenco

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El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

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Project Manager:	CHNS Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Cermont St	Address:	
City, State ZIP:	Thornton CO 80229	City, State ZIP:	
Phone:	72043187468	Email:	chns@cdhconsult.com

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables:	EDD ☐ ADAPT ☐ Other: _____

Project Name:	Zeus CTB	Turn Around		Pres. Code	ANALYSIS REQUEST																Preservative Codes				
Project Number:		☒ Routine	☐ Rush																	None: NO	DI Water: H ₂ O				
Project Location:		Due Date:																		Cool: Cool	MeOH: Me				
Sample's Name:	Hindrea Hernandez	the lab, if received by 4:30pm																			HCL: HCl	HNO: H ₃ NO			
PO #:																					H ₂ SO: H ₂	NaOH: Na			
SAMPLE RECEIPT	Temp Blank:	Yes	No	Thermometer ID:	Wetice:	Yes	No															H ₃ PO: HP			
Samples Received Intact:	Yes	No																				NaHSO: NABIS			
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	See Page 1																			Na ₂ S ₂ O: NaSO ₃	
Sample Custody Seals:	Yes	No	N/A	Temperature Reading:																				Zn Acetate+NaOH: Zn	
Total Containers:	Corrected Temperature:																							NaOH+Ascorbic Acid: SARC	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Chlorides																Sample Comments		
Hole 5 top soil	soil	3/3/21	10:03	0		1																			
Hole 5 sb-1	soil	3/3/21		2		1																			
Hole 5 sb-2	soil	3/3/21		4		1																			
Hole 5 sb-3	soil	3/3/21		6		1																			
Hole 5 sb-4	soil	3/3/21		8		1																			
Hole 5 sb-5	soil	3/3/21	10:23	10		1																			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andre Hernandez	Joe Clifton	3/3/21 12:32			



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Chain of Custody

Work Order No: _____

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Project Manager:	Chris Del Hierro	Bill to: (if different)	
Company Name:	CDH Consulting	Company Name:	
Address:	9446 Cleveland St	Address:	
City, State ZIP:	Thornton, CO 80229	City, State ZIP:	
Phone:	720 431 7468	Email:	cmse@cdhconsult.com

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ I ☐ II ☐ III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other: _____

Project Name:	2CUS CTB	Turn Around	☒
Project Number:		Routine	☐
Project Location:		Rush:	☐
Sampler's Name:	Andrea Hernandez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Well Ice:	Yes	No	Thermometer ID	Yes	No
Temperature (°C):										
Received Intact:	Yes	No								
Cooler Custody Seals:	Yes	No	N/A							
Sample Custody Seals:	Yes	No	N/A							
Total Containers:										

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
	Hole 6 top soil	Soil	3/3/21	10:27	0'	1		MeOH: Me	
	Hole 6 Sb-1	Soil	3/3/21		2'	1		None: NO	
	Hole 6 Sb-2	Soil	3/3/21		4'	1		HNO3: HN	
	Hole 6 Sb-3	Soil	3/3/21		6'	1		H2SO4: H2	
	Hole 6 Sb-4	Soil	3/3/21		8'	1		HCL: HL	
	Hole 6 Sb-5	Soil	3/3/21	11:03	10'	1		NaOH: Na	
								Zn Acetate+ NaOH: Zn	
								TAT starts the day received by the lab, if received by 4:00pm	

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be entered into previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Andrea Hernandez	Cia Giffon	3/3/21 12:32			

Login Sample Receipt Checklist

Client: CDH Consulting

Job Number: 890-244-1

Login Number: 244

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	