Hall, Brittany, EMNRD

From: Rebecca Haskell < RHaskell@concho.com>

Sent: Friday, January 11, 2019 2:16 PM **To:** Cooper, Brian; Stoffel, Jared

Subject: FW: (Resubmittal) 2RP-4739 - Apple 5 State SWD #001 4/29/18 - Remediation Summary, Proposed

Closure Strategy & Variance Request

Follow Up Flag: Follow up Flag Status: Flagged

Becky Haskell
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From: Billings, Bradford, EMNRD [mailto:Bradford.Billings@state.nm.us]

Sent: Friday, January 11, 2019 3:13 PM

To: Rebecca Haskell < RHaskell@concho.com>

Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>;

DeAnn Grant <agrant@concho.com>; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock

<SLHitchcock@concho.com>; Ike Tavarez <itavarez@concho.com>

Subject: [External] RE: (Resubmittal) 2RP-4739 - Apple 5 State SWD #001 4/29/18 - Remediation Summary, Proposed Closure Strategy & Variance Request

**** External email. Use caution. ****

Rebecca Haskell Concho/COG 1/11/2019

As per your request for site work and variance thereof, the following:

Remediation plan hopefully leading to closure (11/9/2018) is approved as written with following stipulation,

In the area of T-1 needs to be excavated to a depth of six feet as opposed to the four feet requested. It is allowed to replace the 4-6 foot interval with non-impacted materials to allow for safe placement of the liner at four feet.

The variance relative to remaining/left in place chloride contamination and process to minimize risk and being equally protective is agreed to for this location and effort.

Please inform District staff of schedule as indicated in Rule 29 for field work. Please insure that sidewalls and bottom data are well documented, again as per new rule 29, in closure report. All speed would be appreciated as the depth to water is of particular concern at this location.

Thank you for your time and efforts.

Sincerely,

Bradford Billings EMNRD/OCD Santa Fe

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Rebecca Haskell < RHaskell@concho.com >

Sent: Tuesday, January 8, 2019 8:51 AM

To: Billings, Bradford, EMNRD < Bradford.Billings@state.nm.us>

Cc: Bratcher, Mike, EMNRD < mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD < Robert.Hamlet@state.nm.us>; DeAnn Grant agrant@concho.com; Dakota Neel < DNeel2@concho.com; Sheldon Hitchcock

<<u>SLHitchcock@concho.com</u>>; Ike Tavarez <<u>itavarez@concho.com</u>>; Rebecca Haskell <<u>RHaskell@concho.com</u>>

Subject: [EXT] (Resubmittal) 2RP-4739 - Apple 5 State SWD #001 4/29/18 - Remediation Summary, Proposed Closure

Strategy & Variance Request

Mr. Billings,

Please find the attached Work Plan for the COG Apple 5 State SWD #001 (2RP-4739) Release which occurred on 4/29/18. The work plan was originally submitted to the NMOCD District 2 Office on November 9, 2018. COG is requesting that you review this work plan.

Thank You,

Becky Haskell Senior HSE Coordinator COG Operating LLC 600 W Illinois Avenue | Midland, TX 79701 Direct: 432-818-2372 | Main: 432.683.7443 Cell: 432-556-5130

rhaskell@concho.com



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From: Conder, Zachary [mailto:ZConder@trcsolutions.com]

Sent: Friday, November 09, 2018 1:52 PM

To: maria.pruett@state.nm.us

Cc: mike.bratcher@state.nm.us; Rebecca Haskell Rebecca Haskell RHaskell@concho.com; Ike Tavarez itavarez@concho.com>
Subject: [External] 2RP-4739 - Apple 5 State SWD #001 - Remediation Summary, Proposed Closure Strategy & Variance

Request

Ms. Pruett and Mr. Bratcher,

Please find attached the *Remediation Summary, Proposed Closure Strategy & Variance Request* that has been prepared for the COG Operating, LLC Release Site known as the Apple 5 State SWD #001. The site is located in UL "N", Section 32, Township 25 South, Range 28 East, in Eddy County, New Mexico. If you have any questions or need any additional information, please feel free to contact Becky Haskell, Ike Tavarez, or myself.

Respectfully,

Zachary ConderOperations Manager



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November 9, 2018

Mike Bratcher & Maria Pruett New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District II 811 South First St. Artesia, NM 88210

Re: Remediation Summary, Proposed Closure Strategy & Variance Request

Apple 5 State SWD #001 (2RP-4739) GPS: N 32.079207° W 104.111194°

Unit Letter "N", Section 32, Township 25 South, Range 28 East

Eddy County, New Mexico

Dear Mr. Bratcher,

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG) has prepared this *Remediation Summary, Proposed Closure Strategy & Variance Request* (Closure Strategy) for the Apple 5 State SWD #001 (Release Site). The purpose of this Closure Strategy is to propose remediation activities designed to advance the Release Site toward a New Mexico Oil Conservation Division (NMOCD)) approved Site Closure Status. The legal description of the Release Site is Unit Letter "N", Section 32, Township 25 South, Range 28 East, in Eddy County, New Mexico. The GPS coordinates for the site are N 32.079207° W 104.111194°. The subject property is located on private land. Figure 1- Site Location Map and Figure 2- Site & Sample Location Map are provided as Attachment #1 and Attachment #2, respectively.

On April 29, 2018, a release was discovered on the Apple 5 State SWD #001 trunk line. The initial Release Notification and Corrective Action (Form C-141) indicated failure of a valve resulted in the release of approximately twelve thousand, eight hundred ninety-seven (12,897) barrels (bbls) of produced water. During initial response activities, the affected valve was replaced and vacuum trucks were utilized to recover approximately four thousand, six hundred thirty-three (4,633) bbls of produced water. The release affected an area within the pasture measuring approximately fourteen thousand, three hundred (14,300) square feet (sq. ft.) before flowing into a dry dirt tank. The total surface area affected measured approximately thirty-seven thousand (37,000) sq. ft. Upon discovering the release, a COG representative notified NMOCD and a Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD on May 3, 2018. The Form C-141 is provided as Attachment #9.

NMOCD Site Classification

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 32, Township 25 South, Range 28 East. A reference map utilized by the NMOCD Artesia District Office indicates groundwater should be encountered at approximately twenty-five (25) feet below ground surface (bgs). A one thousand (1,000) meter radius search of the groundwater database maintained by the NMOSE indicated depth to groundwater information was not available for the closest well (C 02478) which is inferred to have been located approximately two hundred forty-five (245) meters southwest of the site. The well was drilled in 1916 and could not be located during the initial site assessment. A three thousand (3,000) meter radius search of the groundwater database indicated the average depth to groundwater as measured in the two wells with available information is sixty (60) feet bgs with a minimum well depth of thirty (30) feet bgs. Based upon the reference map utilized by the NMOCD, information available on the groundwater databased maintained by the NMOSE and the topography of the area, the depth to groundwater is estimated to be approximately thirty (30) to thirty-five (35) ft. bgs. Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion. Results of the NMOSE database search are provided as Attachment #7.

A one thousand (1,000) meter radius search of the groundwater database maintained by the NMOSE indicated one (1) well (C 02478) was drilled in 1916 approximately two hundred forty-five (245) meters southwest of the release site. Depth to groundwater information is not available for the well and the well could not be located during the initial site assessment. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

The release affected a dirt tank, which was dry at the time of the release, but has held water in the past. Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion.

Based on the NMOCD Site Classification criteria, the Recommended Remediation Action Levels (RRAL) for a Site with a ranking score of greater than nineteen (>19) points are 10 mg/kg for benzene, 50 mg/kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and one hundred (100) milligrams per kilogram (mg/kg) for total petroleum hydrocarbons (TPH).

Field Activities

Upon discovering the release, an immediate response was initiated. Vacuum trucks were utilized to recover free-standing liquids. Upon removing free-standing liquids, remediation activities commenced at the release site. Heavily saturated soil was excavated and stockpiled on-site, atop an impacted area in the eastern portion of the release site pending transportation to an NMOCD-approved disposal facility.

On May 4, 2018, TRC conducted an initial investigation at the release site. During the initial investigation a series of test trenches (T-1, T-3 and T-4) were advanced within the affected area in an effort to determine the vertical extent of soil impacts. Test trench T-1 was advanced in the southeastern portion of the release site proximate to the release point. During the advancement of the test trench, seven (7) soil samples (T-1 @ 2', T-1 @ 4', T-1 @ 6', T-1 @ 8', T-1 @ 10', T-1 @ 12' and T-1 @ 14') were collected and submitted to Xenco Laboratories in Midland, Texas for determination of chloride concentrations using Method E300. Laboratory analytical results indicated chloride concentrations ranged from 12,900 mg/kg in soil sample T-1 @ 2' to 405 mg/kg in soil sample T-1 @ 12'. Soil sample T-1 @ 2' was also analyzed for concentrations of BTEX using Method SW 846-8021B and TPH using Method SW 846-8015M, and results were determined to be less than

the applicable laboratory sample detection limit (SDL). A table summarizing concentrations of Benzene, BTEX, TPH and Chloride, in Soil, in vertical delineation soil samples is provided as Attachment #4. A table summarizing Concentrations of Benzene, BTEX, TPH and Chloride in Soil in horizontal delineation soil samples is provided as Attachment #5. Laboratory analytical reports are provided as Attachment #6.

Test trench T-3 was advanced in the central portion of the affected dry dirt tank. During the advancement of the test trench, two (2) soil samples (T-3 @ 4' and T-3 @ 6') were collected and submitted to the laboratory for analysis of chloride, BTEX and TPH. Laboratory analytical results indicated soil samples T-3 @ 4' and T-3 @ 6' exhibited chloride concentrations of 300 mg/kg and 52.9 mg/kg, respectively. BTEX and TPH concentrations were less than the applicable laboratory SDL in each of the submitted soil samples.

Test trench T-4 was advanced in the northern portion of the affected dry dirt tank. During the advancement of the test trench, two (2) soil samples (T-4 @ 4' and T-4 @ 6') were collected and submitted to the laboratory for analysis of chloride, BTEX and TPH concentrations. Laboratory analytical results indicated soil samples T-4 @ 4' and T-4 @ 6' exhibited chloride concentrations of 375 mg/kg and 39.0 mg/kg, respectively. BTEX and TPH concentrations were less than the applicable laboratory SDL in each of the submitted soil samples.

On May 10, 2018, TRC advanced one (1) test trench (T-2) at the site in an effort to further characterize affected soil at the site. Test trench T-2 was advanced in the southern portion of the affected dry dirt tank. During the advancement of the test trench, four (4) soil samples (T-2 @ 4', T-2 @ 6', T-2 @ 8' and T-2 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,210 mg/kg in soil sample T-2 @ 4' to 33.1 mg/kg in soil sample T-2 @ 10'. Soil samples T-2 @ 4' and T-2 @ 10' were also analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory SDL.

In addition, TRC collected fourteen (14) excavation confirmation soil samples (T-1 NSW, T-1 NEW, T-2 WW1, T-2 SSW, T-2 SWW, T-3 WW1, T-3 WW2, T-4 EW1, T-4 EW2, T-4 WW2, T-4 NWW, T-4 NEW, T-5 NSW and T-5 SSW) from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples with the exception of soil sample T-1 NSW, which exhibited a concentration of 832 mg/kg.

On May 16, 2018, TRC collected five (5) excavation confirmation soil samples (T-1 SSW1, T-1 SSW2, T-1 SSW3, T-1 SSW4 and T-5 SSW) from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples.

May 31, 2018, TRC advanced five (5) test trenches (T-5 through T-9) at the site in an effort to further characterize affected soil at the site. Test trench T-5 was advanced in the southwest portion of the affected dry dirt tank. During the advancement of the test trench, four (4) soil samples (T-5 @ 5', T-5 @ 7', T-5 @ 9' and T-5 @ 11') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 6,310 mg/kg in soil sample T-5 @ 5' to 177 mg/kg in soil sample T-5 @ 11'.

Test trench T-6 was advanced in the southern portion of the release site on the east side of the affected dry dirt tank. During the advancement of the test trench, three (3) soil samples (T-6 @ 6', T-6 @ 8' and T-6 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory

analytical results indicated chloride concentrations ranged from 3,240 mg/kg in soil sample T-6 @ 6' to 35.2 mg/kg in soil sample T-6 @ 10'.

Test trench T-7 was advanced in the southern portion of the release site on the southeast side of the affected dry dirt tank. During the advancement of the test trench, three (3) soil samples (T-7 @ 6', T-7 @ 8' and T-7 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 2,900 mg/kg in soil sample T-7 @ 6' to 121 mg/kg in soil sample T-7 @ 10'.

Test trench T-8 was advanced outside the dry dirt tank in the southeast portion of the release site. During the advancement of the test trench, four (4) soil samples (T-8 @ 6', T-8 @ 8', T-8 @ 10' and T-8 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,100 mg/kg in soil sample T-8 @ 8' to 216 mg/kg in soil sample T-8 @ 6'.

Test trench T-9 was advanced outside the dry dirt tank in the southeast portion of the release site near the release point. During the advancement of the test trench, four (4) soil samples (T-9 @ 6', T-9 @ 8', T-9 @ 10' and T-9 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 745 mg/kg in soil sample T-9 @ 8' to 506 mg/kg in soil sample T-9 @ 10'.

In addition, thirteen (13) excavation confirmation soil samples (G1 through G-13) were collected from the floor of the excavated dry dirt pond. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 4,230 mg/kg in soil sample G-1 to less than the laboratory SDL in soil sample G-8. Chloride concentrations were below the NMODC RRAL in each of the submitted soil samples with the exception of soil sample G-1 (4,230 mg/kg), G-2 (3,590 mg/kg), G-3 (3,600 mg/kg), G-5 (1,900 mg/kg), G-7 (2,960 mg/kg) and G-11 (3,420 mg/kg).

On June 7, 2018, TRC advanced nine (9) test trenches (T-12, T-14 through T-18, G-2, G-7 and G-11) at the site in an effort to further characterize affected soil at the site. Test trench T-12 was advanced outside the dry dirt tank in the western portion of the release site. During the advancement of the test trench, three (3) soil samples (T-12 @ 4', T-12 @ 10' and T-12 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 4,390 mg/kg in soil sample T-12 @ 4' to 39.5 mg/kg in soil sample T-12 @ 12'.

Test trench T-14 was advanced outside the dry dirt tank in the northeastern portion of the release site. During the advancement of the test trench, three (3) soil samples (T-14 @ 4', T-14 @ 8' and T-14 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,630 mg/kg in soil sample T-14 @ 4' to 59.1 mg/kg in soil sample T-14 @ 10'.

Test trench T-15 was advanced outside the dry dirt tank in the northeastern portion of the release site. During the advancement of the test trench, three (3) soil samples (T-15 @ 6', T-15 @ 8' and T-15 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 4,790 mg/kg in soil sample T-15 @ 6' to 319 mg/kg in soil sample T-15 @ 10'.

Test trench T-16 was advanced outside the dry dirt tank in the northwestern portion of the release site. During the advancement of the test trench, two (2) soil samples (T-16 @ 2'and T-16 @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples T-16 @ 2' and T-16 @ 6' exhibited chloride concentrations of 8,980 mg/kg and 37.4 mg/kg, respectively.

Test trench T-17 was advanced outside the dry dirt tank in the northwestern portion of the release site. During the advancement of the test trench, two (2) soil samples (T-17 @ 4' and T-17 @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples T-17 @ 4' and T-17 @ 6' exhibited chloride concentrations of 1,820 mg/kg and 135 mg/kg, respectively.

Test trench T-18 was advanced outside the dry dirt tank in the southeastern portion of the release site. During the advancement of the test trench, three (3) soil samples (T-18 @ 2', T-18 @ 6' and T-18 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 10,000 mg/kg in soil sample T-18 @ 2' to 111 mg/kg in soil sample T-18 @ 8'.

In addition, four (4) excavation confirmation soil sample (T-3 ESW1, T-3 ESW2, T-3 ESW2b and T-14 SWSW) were collected from the excavation sidewall and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,750 mg/kg in soil sample T-3 ESW2 to 177 mg/kg in soil sample T-3 ESW1. Chloride concentrations were above the NMODC RRAL in each of the submitted soil samples with the exception of soil sample T-3 ESW1.

Test trench G-2 was advanced in the area characterized by soil sample G-2. During the advancement of the test trench, one (1) soil sample (G-2 @ 6') was collected and submitted to the laboratory for analysis of chloride concentrations, which were determined to be 305 mg/kg.

Test trench G-7 was advanced in the area characterized by soil sample G-7. During the advancement of the test trench, one (1) soil sample (G-7 @ 6') was collected and submitted to the laboratory for analysis of chloride concentrations, which were determined to be 33.1 mg/kg.

Test trench G-11 was advanced in the area characterized by soil sample G-2. During the advancement of the test trench, one (1) soil sample (G-11 @ 6') was collected and submitted to the laboratory for analysis of chloride concentrations, which were determined to be 23.1 mg/kg.

On June 13, 2018, COG and NMOCD representatives met to discuss remediation activities at the Site. During the meeting, the results of laboratory analysis from soil samples collected to date and site conditions were discussed, along with proposed remediation strategies.

June 19, 2018, TRC advanced six (6) test trenches (T-8b, T-9b, T-10, G-1b, G-3b and G-5b) at the site in an effort to further characterize affected soil at the site. Test trench T-8b was advanced in the area characterized by test trench T-8. During the advancement of the test trench, one (1) soil sample (T-8b @ 16') was collected and submitted to the laboratory for analysis of chloride concentrations, which were determined to be 676 mg/kg.

Test trench T-9b was advanced in the area characterized by test trench T-9. During the advancement of the test trench, one (1) soil sample (T-9b @ 16') was collected and submitted to the laboratory for analysis of chloride concentrations, which were determined to be 1,360 mg/kg.

Test trench T-10 was advanced outside the dry dirt tank in the southern portion of the release site. During the advancement of the test trench, four (4) soil samples (T-10 @ 2', T-10 @ 6', T-10 @ 10' and T-10 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 8,410 mg/kg in soil sample T-10 @ 6' to 378 mg/kg in soil sample T-10 @ 12'.

Test trench G-1b was advanced in the area characterized by soil sample G-1. During the advancement of the test trench, two (2) soil samples (G-1b @ 5' and G-1b @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples G-1b @ 5' and G-1b @ 6'exhibited chloride concentrations of 134 mg/kg and 50.6 mg/kg, respectively.

Test trench G-3b was advanced in the area characterized by soil sample G-3. During the advancement of the test trench, one (1) soil sample (G-3b @ 7') was collected and submitted to the laboratory for analysis of chloride concentrations, which were determined to be less than the laboratory SDL.

Test trench G-5b was advanced in the area characterized by soil sample G-5. During the advancement of the test trench, two (2) soil samples (G-5b @ 5' and G-5b @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples G-1b @ 5' and G-1b @ 6'exhibited chloride concentrations of 26.4 mg/kg and less than the laboratory SDL, respectively.

In addition, three (3) excavation confirmation soil samples (T-1 NSWb, T-1 NWW1 and T-1 NWW 2) were collected from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMODC RRAL in each of the submitted soil samples.

June 20, 2018, TRC advanced three (3) test trenches (T-11, T-13 and T-19) at the site in an effort to further characterize affected soil at the site.

Test trench T-11 was advanced outside the dry dirt tank in the southern portion of the release site. During the advancement of the test trench, four (4) soil samples (T-11 @ 2', T-11 @ 6', T-11 @ 10' and T-11 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,840 mg/kg in soil sample T-11 @ 6' to 40.8 mg/kg in soil sample T-11 @ 12'.

Test trench T-13 was advanced one the west side of the dry dirt tank in the central portion of the release site. During the advancement of the test trench, three (3) soil samples (T-13 @ 4', T-13 @ 8' and T-13 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 5,330 mg/kg in soil sample T-13 @ 4' to 37.0 mg/kg in soil sample T-13 @ 10'.

Test trench T-19 was advanced outside the dry dirt tank in the northeastern portion of the release site. During the advancement of the test trench, three (3) soil samples (T-19 @ 4', T-19 @ 10' and T-19 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,530 mg/kg in soil sample T-19 @ 4' to 34.3 mg/kg in soil sample T-19 @ 12'.

In addition, eighteen (18) excavation confirmation soil samples (T-1 ESW, T-4 NEWb, T-4 NWWb, T-4 WW1, T-5 WSW, T-12 SSW, T-12 ESW. T-12 ESW. T-14 ESW, T-15 WSW, T-15 ESW, T-16 ESW1, T-

16 ESW2, T-16 WSW1, T-16 WSW2, T-16 NWW, T-16 NSW and T-17 NSW) were collected from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMODC RRAL in each of the submitted soil samples, with the exception of soil sample T-1 ESW which exhibited a chloride concentration of 727 mg/kg and soil sample T-4 NWWb, which exhibited a chloride concentration of 682 mg/kg.

On October 4, 2018, TRC revisited the release site in an effort to further investigate an anomalous analytical result from a soil sample collected in the area represented by test trenches T-9 and T-9B. During the site visit, a Geoprobe® was utilized to collect two (2) discrete soil samples (SB-9B @ 16' and SB-9B @ 18') from the area characterized by test trenches T-8 and T-8B. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples SB-9B @ 16' and SB-9B @ 18' exhibited chloride concentrations of 481 mg/kg and 430 mg/kg, respectively. Laboratory analytical results from soil samples collected utilizing the Geoprobe® suggests the detected chloride concentration in soil sample T-9B @ 16' is not representative of conditions at the Site.

Between May 9 and June 18, 2018, approximately sixteen thousand, two hundred eight (16,280) cubic yards of impacted soil was transported to R360 Environmental Solutions, LLC, Red Bluff Facility. A "Photographic Log" is provided at Attachment #8.

PROPOSED CLOSURE STRATEGY AND VARIANCE REQUEST

The release occurred on April 29, 2018. Due to the size of the release and sensitive nature of the release site, excavation and remediation activities commenced immediately upon discovery. Remediation and delineation activities were conducted in accordance with the industry standards at the time of the release. On June 13, 2018, COG and NMOCD representatives met to discuss remediation activities at the Site. During the meeting, the results of laboratory analysis from soil samples collected to date and site conditions were discussed, along a *Proposed Closure Strategy* designed to advance the site toward an NMOCD-approved closure. Upon determining a *Proposed Closure Strategy*, remediation and delineation activities continued in accordance with the objectives set forth during the NMOCD meeting.

Based on field observations, site conditions, laboratory analytical results and the NMOCD meeting, COG proposes the following field activities designed to advance the Apple 5 State SWD #001 release site toward an NMOCD-approved closure:

- In accordance with the NMOCD meeting, impacted soil in the areas characterized by test trenches T-2, T-16 and T-17 will be excavated to a minimum depth of four (4) ft. bgs. Impacted soil in the area characterized by test trenches T-5, T-6 and T-14 will be excavated to a minimum depth of six (6) ft. bgs. Impacted soil in the area characterized by test trenches T-7 and T-15 will be excavated to a minimum depth of eight (8) ft. bgs. Chloride concentrations remaining in-situ for the above mentioned excavation depths are in accordance with the June 13, 2018 meeting with NMOCD. A "Proposed Excavation & Liner Installation Map" is provided as Attachment #3.
- Impacted soil in the areas characterized by test trenches T-3, T-4, T-10, T-11, T-12, T-13 and T-19 will be excavated until laboratory analytical results from confirmation soil samples collected from the floor of the excavated area indicate concentrations of chloride are below 1,000 mg/kg.
- Impacted soil in the areas characterized by test trenches G-1, G-2, G-3, G-5, G-7 and G-11 will be excavated until laboratory analytical results from confirmation soil samples collected from the floor of the excavated area indicate concentrations of chloride are below 1,000 mg/kg.

- Impacted soil in the southeastern portion of the release site, in the areas characterized by test trenches T-1, T-8, T-8b T-9, T-9b and T-18 will be excavated to a depth of approximately four (4) ft. bgs. During the course of remediation activities, a delineation trench will be advanced vertically in the area characterized by test trench T-9b until laboratory analytical results from confirmation soil samples indicate chloride concentrations are below 600 mg/kg.
- COG proposes to install an engineering control (40-mil polyurethane liner) within the affected area on the north side of the produced water transfer line in the southeast portion of the remediation site. Upon excavating impacted soil in the areas characterized by test trenches T-1, T-8, T-9 and T-18, a 40-mil polyurethane liner will be installed on the floor of the excavated area. This engineering control is designed to inhibit the vertical migration of contaminants left in-situ. The edges of the liner will be "key set" to a depth of approximately ten (10) ft. bgs in an effort to inhibit potential contact between percolating rainwater and impacted soil affected above the NMOCD RRAL beneath the polyurethane liner. The base of the excavation beneath the liner will be mounded in the center in an effort to shed percolating rainwater to the liner's edges.
- The liner will be cushioned by an approximate six (6) inch layer of pad sand above and below the liner in an effort to maintain its integrity during backfilling activities.
- Excavation sidewalls will be advanced horizontally until chloride field test results indicate chloride concentrations are below 600 mg/kg. Excavation confirmation soil samples will be collected from the sidewalls of the excavated area at approximate fifty (50) ft. intervals, where horizontal delineation is not adequately defined with existing data.
- As per the NMOCD, laboratory analysis of excavation confirmation soil samples collected from the floor of the excavated areas at depths greater than six (6) ft. will not be required.
- Impacted soil excavated from the release site will be transported to an NMOCD-approved disposal facility.
- Upon receiving laboratory analytical results from excavation confirmation soil samples and NMOCD permission, the excavated areas outside the dry dirt tank will be backfilled with locally-sourced, nonimpacted "like" material.
- The excavated areas within the affected dry dirt tank will be backfilled to approximately four (4) ft. bgs. Upon backfilling the excavated areas within the affected dry dirt tank, an approximate six (6) in. layer of suitable clay material will be installed in the floor and up the sloped sidewalls of the excavated area characterized as the former dry dirt pond.
- Upon backfilling the excavated areas and restoring the affected pond, water diversions and erosion controls will be installed, as necessary. The affected area outside the dry dirt tank will be reseeded in accordance with the landowner.

VARIANCE JUSTIFICATION

COG maintains excavating portions of the release site to depths up to and beyond eighteen (18) ft. bgs adjacent to the produced water transfer line, or in other areas where soil stability may be an issue, and the disposal of the associated soil poses a risk to human health that exceeds the benefits of the excavation and disposal of impacted soil affected above the NMOCD Closure Criteria. This assertion is based primarily on the inherent dangers of continued and/or substantial excavation adjacent to oil and gas infrastructure, or in areas where soil stability may be an issue, and the risks associated with transporting the associated soil on public highways to a disposal facility. The assertion is further substantiated by the understanding that additional remediation activities, beyond that which has been proposed, will result in increasing the duration of exposure among environmental field personnel and/or exposure of additional environmental field personnel. Based on the aforementioned; the Site's distance from populated areas and/or drinking water

supplies; a proposed cover consisting of a minimum of four (4) ft. of non-impacted soil and/or a 40-mil polyurethane liner, further reducing the potential for future exposure; and the relative unlikelihood of future exposure resulting in diminished public health, COG maintains the proposed variance will provide equal or better protection of public health.

Laboratory analytical results indicate BTEX and TPH concentrations were less than the NMOCD Closure Criteria in each of the analyzed soil samples. Analytical results indicate affected soil exhibiting chloride concentrations above the NMOCD Closure Criteria has been delineated to less than 600 mg/kg in each of the vertical sample locations, with the exception of test trench T-8B, which exhibited a chloride concentration of 676 mg/kg at eighteen (18) ft. bgs. Analytical results indicate the maximum chloride concentration COG proposes to leave in-situ is 8,010 mg/kg (T-1 @ 4'). COG proposed to install a 40-mil polyurethane liner on the floor of the excavation at four (4) ft. bgs in the areas represented by test trenches T-1, T-8, T-8b, T-9, T-9b and T-18. This engineering control is designed to inhibit the vertical migration of contaminants left insitu. Based on the aforementioned, and given 19.15.29 NMAC allows for impacted soil exhibiting chloride concentrations ranging from 600 mg/kg to 20,000 mg/kg to remain in-situ at depths of greater than four (4) ft. bgs, where the distance between impacted soil and groundwater is not defined, COG maintains the proposed variance will provide equal or better protection of fresh water and the environment.

COG is prepared to begin the activities outlined in this *Remediation Summary*, *Proposed Closure Strategy & Variance Request* upon receiving NMOCD approval. Upon completion of remediation activities, a Remediation Summary and Risk-Based Closure Report will be prepared detailing field activities and laboratory analytical results from confirmation soil samples.

If you have any questions, or need any additional information, please feel free to contact myself or Rebecca Haskell by phone or email.

Respectfully,

Joel Lowry

Jael foury

Project Manager TRC Environmental Corporation Cynthia K. Crain, PG Senior Project Manager

Circly Crain

TRC Environmental Corporation

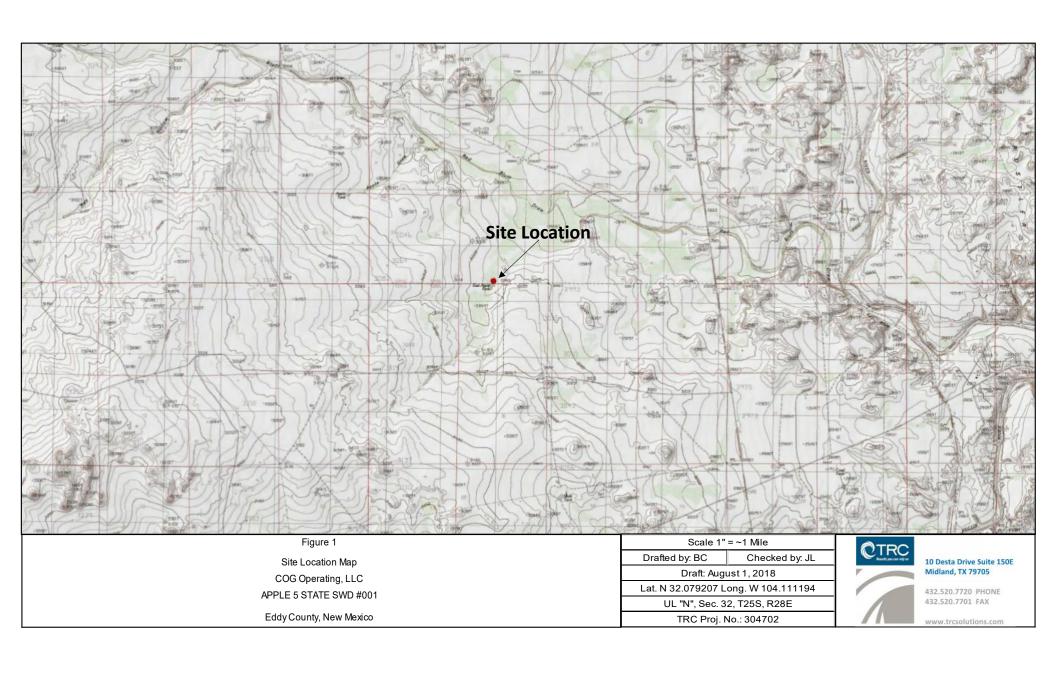
Attachments:

- #1 Figure 1 Site Location Map
- #2 Figure 2 Site & Sample Location Map
- #3 Figure 3 Proposed Excavation & Liner Installation Map
- Table 1 Concentrations of Benzene, BTEX, TPH and Chloride in Soil (Vertical)
- #5 Table 2 Concentrations of Benzene, BTEX, TPH and Chloride in Soil (Horizontal)
- #6 Laboratory Analytical Results
- #7 NMOSE Database Search
- #8 Photographic Log
- #9 Release Notification and Corrective Action (Form C-141)

cc: Rebecca Haskell COG Operating, LLC 600 W. Illinois Avenue Midland, Texas 79701

File

Received by OCD: 4/7/2023 7:11:16 AM



CONCENTRATION OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL (Vertical)

COG OPERATING, LLC APPLE 5 STATE SWD #001 EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

						ations are reporte				METHOD:	CW 9015M		E 200 1
SAMPLE		SAMPLE			ME	THODS: SW 846	-80210					TOTAL	E 300.1
LOCATION	DEPTH	DATE	SOIL STATUS	RENZENE	TOLUENE	ETHYL-	TOTAL	TOTAL	TPH GRO	TPH DRO	TPH ORO	TPH	CHLORIDE
Localion		Dille		DEIVERIVE	TOLCLIVE	BENZENE	XYLENES	BTEX	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₂₈ -C ₃₅	C ₆ -C ₃₅	CHEORIDE
T-1 @ 2'	2'	5/4/2018	Excavated	< 0.0187	< 0.0187	< 0.0187	< 0.0187	< 0.0187	<3.74	<25.1	<25.1	<25.1	12,900
T-1 @ 4'	4'	5/4/2018	Excavated	-0.0107	-0.0107	-0.0107		-0.0107	-			-23.1	8,010
	6'		Proposed Risk-Based	_	-	_	_	-	-	_	-	-	4,710
T-1 @ 6'		5/4/2018											
T-1 @ 8'	8'	5/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	762
T-1 @ 10'	10'	5/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	412
T-1 @ 12'	12'	5/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	405
T-1 @ 14'	14'	5/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	533
T-2 @ 4'	4'	5/10/2018	Proposed Excavation	< 0.0187	< 0.0187	< 0.0187	< 0.0187	< 0.0187	<3.75	<25.2	<25.2	<25.2	3,210
T-2 @ 6'	6'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	702
T-2 @ 8'	8'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	47.3
T-2 @ 10'	10'	5/10/2018	In-Situ	< 0.0179	< 0.0179	< 0.0179	< 0.0179	< 0.0179	<3.58	<24.8	<24.8	<24.8	33.1
T-3 @ 4'	1'	5/4/2018	In-Situ	< 0.0182	< 0.0182	< 0.0182	< 0.0182	< 0.0182	<3.64	<24.9	<24.9	<24.9	300
T-3 @ 6'	2'	5/4/2018	In-Situ	< 0.0183	< 0.0183	< 0.0183	< 0.0183	< 0.0183	<3.66	<24.9	<24.9	<24.9	52.9
1360		5/ 1/2010	III Ditta	-0.0105	0.0105	0.0103	0.0103	0.0103	3.00	2.1.7	2.1.7	2	32.7
T-4 @ 4'	4'	5/4/2018	In-Situ	< 0.0189	< 0.0189	< 0.0189	< 0.0189	< 0.0189	<3.77	<25.0	<25.0	<25.0	375
T-4 @ 4	6'	5/4/2018	In-Situ	<0.0189	<0.0189	< 0.0189	<0.0189	<0.0189	<3.77	<25.2	<25.2	<25.2	39.0
1-4 (0) 0	0	3/4/2018	III-SIIU	~0.0190	~0.0190	~0.0190	~0.0190	~0.0190	\J.61	~23.2	~23.2	~23.2	39.0
T. 5. O. 51		E/21/2016	D1E .:										(210
T-5 @ 5'	5'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-		6,310
T-5 @ 7'	7'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	1,400
T-5 @ 9'	9'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	946
T-5 @ 11'	11'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	177
T-6 @ 6'	6'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	3,240
T-6 @ 8'	8'	5/31/2018	In-Situ	-	-	-	_	-	-	-	_	-	423
T-6 @ 10'	10'	5/31/2018	In-Situ	_	-	-	-	-	-	-	_	-	35.2
1 0 0 10													
T-7 @ 6'	6'	5/31/2018	Proposed Excavation	_	_	_	_	-	_	_	_	-	2,900
	8'												
T-7 @ 8'		5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,910
T-7 @ 10'	10'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	121
						1							1
T-8 @ 6'	6'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	216
T-8 @ 8'	8'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	1,100
T-8 @ 10'	10'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	653
T-8 @ 12'	12'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	719
T-8B @ 16'	16'	6/20/2018	Proposed Risk-Based	-	-	-	-	-	-	-	_	-	676
			•										
T-9 @ 6'	6'	5/31/2018	Proposed Risk-Based	-	_	-	_	-	-	_	_	-	598
T-9 @ 8'	8'	5/31/2018	Proposed Risk-Based	-	_	_	_	_	_	_	_		745
T-9 @ 10'	10'	5/31/2018	Proposed Risk-Based	_	_	_	-		_	_	-		506
T-9 @ 12'	12'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-		655
T-9B @ 16'	16'	6/20/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	1,360
SB-9B @ 16'	16'	10/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	481
SB-9B @ 18'	18'	10/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	430
T-10 @ 2'	2'	6/19/2018	Proposed Excavation	-	-	-	-	-	-	-			5,240
T-10 @ 6'	6'	6/19/2018	Proposed Excavation	-	-	-	-	-	-	-	-	_	8,410
T-10 @ 10'	10 '	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	841
T-10 @ 12'	12'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	378
T-11 @ 2'	2'	6/19/2018	Proposed Excavation	_		_			_		_		133
T-11 @ 6'	6'	6/19/2018	Proposed Excavation		-				_				3,840
T-11 @ 0						-							
	10'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	511
T-11 @ 12'	12'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	40.8
T-12 @ 4'	4'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	4,390
T-12 @ 8'	8'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,084*
T-12 @ 10'	10'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	46.1
T-12 @ 12'	12'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	39.5
T-13 @ 4'	4'	6/19/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	5,330
T-13 @ 8'	8'	6/20/2018	In-Situ	_	_	_	-	-	_	-	_	-	505
T-13 @ 10'	10'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	37.0
1 13 (6) 10	10	3/20/2010	III Situ										57.0
NMOCD	Dogor	od Domodi-	tion Action Lavel	10				5 0				E 000	600
NMOCD	Recommend	ed Kemediai	tion Action Level	10	-	-	-	50	-	-	-	5,000	600
* Denotes Hach O			n 1										

^{*} Denotes Hach Quantab Chloride Field Test Results

In-Situ

Excavcated/Proposed Excavation

Proposed Risk-Based

CONCENTRATION OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL (Vertical)

COG OPERATING, LLC APPLE 5 STATE SWD #001 EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

				All concentrations are reported in mg/kg METHODS: SW 846-8021b METHOD: SW 8015M						E 300.1			
SAMPLE		SAMPLE			ME							TOTAL	E 300.1
LOCATION	DEPTH	DATE	SOIL STATUS	BENZENE	TOLUENE	ETHYL-	TOTAL	TOTAL	TPH GRO	TPH DRO	TPH ORO	TPH	CHLORIDE
						BENZENE	XYLENES	BTEX	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₂₈ -C ₃₅	C ₆ -C ₃₅	
T-14 @ 4'	4'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,630
T-14 @ 6'	6'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	2,256*
T-14 @ 8'	8'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	622
T-14 @ 10'	10	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	59.1
T-15 @ 6'	6'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	4,790
T-15 @ 8'	8'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	2,280
T-15 @ 10'	10'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	319
T-16 @ 2'	2'	6/7/2018	Proposed Excavation	-	_	-	_	_	_	_	_	-	8,980
T-16 @ 4'	4'	6/7/2018	Proposed Excavation	-	_	_	_	_	-	_	-	-	>2,600*
T-16 @ 6'	6'	6/7/2018	In-Situ	-	_	_	-	-	-	_	_	-	37.4
1 10 65 0		0.772010	III Ditta										37.11
T-17 @ 2'	2'	6/7/2018	Proposed Excavation	-	_	_	_	_	_	_	_	-	1,932*
T-17 @ 2	4'	6/7/2018	Proposed Excavation	-							_		1,820
T-17 @ 6'	6'	6/7/2018	In-Situ	-	_	_	-	_	_	_	_	-	135
1-17 (6) 0	0	3/1/2018	III-Ditu										133
T-18 @ 2'	2'	6/7/2018	Proposed Excavation	_	_			_	_				10,000
T-18 @ 4'	4'	6/7/2018	Proposed Risk-Based	_		_	_	_	_	_	_		>2,600*
T-18 @ 6'	6'	6/7/2018	Proposed Risk-Based	_	-	_	-	-	_	-	_	-	540
T-18 @ 8'	8'	6/7/2018	Proposed Risk-Based	-	-	-	-	-	-		-	-	111
1-10 @ 0	0	0///2018	Proposed Risk-Based	-			-	-	-	-	-	-	111
T 10 @ 41	4'	C/20/2019	D		_		_				l <u>.</u>	_	2.520
T-19 @ 4'		6/20/2018	Proposed Excavation	-		-		-	-	-			3,530
T-19 @ 10'	10'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	506
T-19 @ 12'	12'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	34.3
C 1	4'	Z/21/2010	D 1E .:			l							4 220
G-1	5'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	4,230
G-1b @ 5'	_	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	134
G-1b @ 6'	6'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	50.6
G-2	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	3,590
G-2	6'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	305
G-3	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	3,600
G-3b @ 7'	7'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
G-4	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	151
G-5	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,900
G-5b @ 5'	5'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	26.4
G-5b @ 6'	6'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
G-6	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	292
G-7	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	2,960
G-7	6'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	33.1
G-8	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
G-9	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	348
G-10	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	241
G-11	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	3,420
G-11	6'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	23.1
G-12	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	367
G-13	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	340
NMOCD 1	Recommend	led Remediat	tion Action Level	10	-	-	-	50	-	-	-	5,000	600

* Denotes Hach Quantab Chloride Field Test Results

In-Situ

Excavcated/Proposed Excavation

Proposed Risk-Based

TABLE 2

CONCENTRATION OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL (Horizontal)

COG OPERATING, LLC APPLE 5 STATE SWD #001 EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

	All concentrations are reported in mg/kg METHODS: SW 846-8021b METHOD: SW 8015M							E 300.1					
SAMPLE		SAMPLE			MEI							TOTAL	E 300.1
LOCATION	DEPTH	DATE	SOIL STATUS	BENZENE	TOLUENE	ETHYL- BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO	TPH DRO		TPH	CHLORIDE
T-1 NSW	3'	5/10/2018	Proposed Excavation			-		-	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₂₈ -C ₃₅	C ₆ -C ₃₅	832
T-1 NEW	3'	5/10/2018	In-Situ	-	-	-	-	-	_	-	-		29.6
T-1 SSW1	3'	5/16/2018	In-Situ	-	-	-	_	-		-	-		<25.0
T-1 SSW2	3'	5/16/2018	In-Situ	-	-	-	-	-	_	-	-	-	<25.0
T-1 SSW3	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-		<25.0
T-1 SSW5	3'	5/16/2018	In-Situ	_	-		_	_	_	-	-		30.0
T-1 NSWb	4'	6/19/2018	In-Situ	_	_	_	_	_	_	_	_	_	84.3
T-1 NWW 1	4'	6/19/2018	In-Situ	_	_	_	_	_	_	_	_		27.3
T-1 NWW 2	4'	6/19/2018	In-Situ	_	_		_	_	_	_	_	_	168
T-1 ESW	4'	6/20/2018	Proposed Excavation	-	-	-	_	-	_	_	-		727
112511	•	0/20/2010	1 Toposed Excavation										727
T-2 WW1	3'	5/10/2018	In-Situ	_	_	-	_	_	_	_	_		34.1
T-2 SSW	3'	5/10/2018	In-Situ	_	_	-	_	-	_	-	-	-	<25.0
T-2 SWW	3'	5/10/2018	In-Situ	_	_	-	_	_	_	_	_		238
T-3 WW1	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-3 WW2	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-3 ESW1	3'	6/7/2018	In-Situ	_	-	-	-	_	_	-	_	-	177
T-3 ESW2	3'	6/7/2018	Excavated	_	_	-	_	_	_	_	_	-	3,750
T-3 ESW2b	3'	6/7/2018	Excavated	-	-	-	-	-	-	-	-	-	1,140
T-4 EW1	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-4 EW2	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-4 WW2	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	29.7
T-4 NWW	3'	5/10/2018	In-Situ	-	-		-	-	-	-	-	-	25.9
T-4 NEW	3'	5/10/2018	In-Situ	-	-		-	-	-	-	-	-	175
T-4 NEWb	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-4 NWWb	4'	6/20/2018	In-Situ	-	-		-	-	-	-	-	-	682
T-4 WW1	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	51.4
T-5 NSW	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-5 SSW	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	34.2
T-5 SSW**	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-5 WSW	4'	6/20/2018	In-Situ	-	-	1	-	-	-	-	-	-	<25.0
T-12 SSW	4'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	38.0
T-12 WSW	4'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	220
T-12 ESW	4'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	210
T-14 SWSW	3'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,790
T-14 ESW	4'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-15 WSW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	183
T-15 ESW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-16 ESW1	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	479
T-16 ESW2	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	438
T-16 WSW1	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	574
T-16 WSW2	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	422
T-16 NWW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	147
T-16 NSW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	205
m 15 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		C/20/2015	Y 6:										25.0
T-17 NSW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
NMOCD	Recommen	ded Remedia	tion Action Level	10	-	-	-	50	-	-	-	5,000	600

^{**} Denotes Duplicate Sample Name

In-Situ

Excavcated/Proposed Excavation

Proposed Risk-Based

Analytical Report 585303

TRC Solutions, Inc

Project Manager: Joel Lowry

Apple State 5 SWD #1

18-MAY-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-25), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)

Page 1 of 23

Final 1.001



18-MAY-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 585303

Apple State 5 SWD #1

Project Address: Eddy Co, NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 585303. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 585303 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Knis Roah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 585303

TRC Solutions, Inc, Midland, TX

Apple State 5 SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 @ 2'	S	05-04-18 09:00	2 ft	585303-001
T-1 @ 4'	S	05-04-18 09:05	4 ft	585303-002
T-1 @ 6'	S	05-04-18 09:10	6 ft	585303-003
T-1 @ 8'	S	05-04-18 09:15	8 ft	585303-004
T-1 @ 10'	S	05-04-18 09:20	10 ft	585303-005
T-1 @ 12'	S	05-04-18 09:25	12 ft	585303-006
T-1 @ 14	S	05-04-18 09:30	14 ft	585303-007
T-3 @ 4'	S	05-04-18 10:05	4 ft	585303-014
T-3 @ 6'	S	05-04-18 10:10	6 ft	585303-015
T-4 @ 4'	S	05-04-18 10:15	4 ft	585303-016
T-4 @ 6'	S	05-04-18 10:20	6 ft	585303-017
NP @ 1'	S	05-04-18 10:30	1 ft	585303-018
NP @ 3'	S	05-04-18 10:35	3 ft	585303-019
NP @ 6'	S	05-04-18 10:40	6 ft	585303-020
NP @ 9'	S	05-04-18 10:45	9 ft	585303-021
NP @ 12'	S	05-04-18 10:50	12 ft	585303-022
T-1 @ 16'	S	05-04-18 09:35	16 ft	Not Analyzed
T-1 @ 18'	S	05-04-18 09:40	18 ft	Not Analyzed
T-2 @ 4'	S	05-04-18 09:45	4 ft	Not Analyzed
T-2 @ 6'	S	05-04-18 09:50	6 ft	Not Analyzed
T-2 @ 8'	S	05-04-18 09:55	8 ft	Not Analyzed
T-2 @ 10'	S	05-04-18 10:00	10 ft	Not Analyzed

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple State 5 SWD #1

Project ID: Report Date: 18-MAY-18 Work Order Number(s): 585303 Date Received: 05/08/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3049784 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3049788 TPH GRO by EPA 8015 Mod.

Surrogate a,a,a-Trifluorotoluene recovered above QC limits Data confirmed by re-analysis. Samples

affected are: 7644525-1-BLK.

Batch: LBA-3049899 Chloride by EPA 300

Lab Sample ID 585303-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 585303-004, -005, -006, -007, -008, -009, -013, -017, -019, -020, -021, -022.

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

Batch: LBA-3049901 Chloride by EPA 300

Lab Sample ID 585303-018 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 585303-001, -002, -003, -010, -011, -012, -014, -015, -016, -018.

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

Received by OCD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

Certificate of Analysis Summary 585303

TRC Solutions, Inc, Midland, TX Project Name: Apple State 5 SWD #1

Project Id: Contact:

Joel Lowry

Project Location: Eddy Co, NM

Date Received in Lab: Tue May-08-18 12:40 pm

Report Date: 18-MAY-18 **Project Manager:** Kelsey Brooks

	Lab Id:	585303-0	001	585303-0	002	585303-0	03	585303-0	04	585303-0	005	585303-0	006
Analysis Daguastad	Field Id:	T-1 @ 2	2'	T-1 @ 4	4'	T-1 @ 6	5'	T-1 @ 8	<u>'</u>	T-1 @ 1	0'	T-1 @ 1	2'
Analysis Requested	Depth:	2- ft		4- ft		6- ft		8- ft		10- ft		12- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-04-18	09:00	May-04-18	09:05	May-04-18	09:10	May-04-18 (9:15	May-04-18	09:20	May-04-18 (09:25
BTEX by EPA 8021B	Extracted:	May-10-18	13:00										
	Analyzed:	May-11-18	06:12										
	Units/RL:	mg/kg	RL										
Benzene		< 0.0187	0.0187										
Toluene		< 0.0187	0.0187										
Ethylbenzene		< 0.0187	0.0187										
m,p-Xylenes		< 0.0374	0.0374										
o-Xylene		< 0.0187	0.0187										
Total Xylenes		< 0.0187	0.0187										
Total BTEX		< 0.0187	0.0187										
Chloride by EPA 300	Extracted:	May-11-18	09:00	May-11-18	09:00	May-11-18 (9:00	May-11-18 (9:00	May-11-18	09:00	May-11-18 (09:00
	Analyzed:	May-11-18	11:34	May-11-18	11:46	May-11-18	11:58	May-11-18 1	8:25	May-11-18	18:37	May-11-18	18:50
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		12900	2500	8010	1250	4710	2500	762	125	412	125	405	125
DRO-ORO By SW8015B	Extracted:	May-11-18	12:00		ĺ								
	Analyzed:	May-11-18	21:08										
	Units/RL:	mg/kg	RL										
Diesel Range Organics (DRO)		<25.1	25.1										
Oil Range Hydrocarbons (ORO)		<25.1	25.1										
TPH GRO by EPA 8015 Mod.	Extracted:	May-10-18	13:00		İ								
	Analyzed:	May-11-18	06:12										
	Units/RL:	mg/kg	RL										
TPH-GRO		<3.74	3.74										

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Kelsey Brooks Project Manager



Certificate of Analysis Summary 585303

TRC Solutions, Inc, Midland, TX Project Name: Apple State 5 SWD #1

Project Id:

Contact: Joel Lowry

Project Location: Eddy Co, NM

Date Received in Lab: Tue May-08-18 12:40 pm

Report Date: 18-MAY-18 **Project Manager:** Kelsey Brooks

	Lab Id:	585303-0	07	585303-0)14	585303-0)15	585303-0	016	585303-0	017	585303-0)18
Analogia Danasatad	Field Id:	T-1 @ 1	4	T-3 @ 4	4'	T-3 @	6'	T-4 @	4'	T-4 @	6'	NP @ 1	1'
Analysis Requested	Depth:	14- ft		4- ft		6- ft		4- ft		6- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	,	SOIL	
	Sampled:	May-04-18	09:30	May-04-18	10:05	May-04-18	10:10	May-04-18	10:15	May-04-18	10:20	May-04-18	10:30
BTEX by EPA 8021B	Extracted:			May-10-18	13:00								
	Analyzed:			May-11-18	10:15	May-11-18	10:42	May-11-18	11:09	May-11-18	11:36	May-11-18	12:03
	Units/RL:			mg/kg	RL								
Benzene	·			< 0.0182	0.0182	< 0.0183	0.0183	< 0.0189	0.0189	< 0.0190	0.0190	< 0.0195	0.0195
Toluene				< 0.0182	0.0182	< 0.0183	0.0183	< 0.0189	0.0189	< 0.0190	0.0190	< 0.0195	0.0195
Ethylbenzene				< 0.0182	0.0182	< 0.0183	0.0183	< 0.0189	0.0189	< 0.0190	0.0190	< 0.0195	0.0195
m,p-Xylenes				< 0.0364	0.0364	< 0.0366	0.0366	< 0.0377	0.0377	< 0.0381	0.0381	< 0.0389	0.0389
o-Xylene				< 0.0182	0.0182	< 0.0183	0.0183	< 0.0189	0.0189	< 0.0190	0.0190	< 0.0195	0.0195
Total Xylenes				< 0.0182	0.0182	< 0.0183	0.0183	< 0.0189	0.0189	< 0.019	0.019	< 0.0195	0.0195
Total BTEX				< 0.0182	0.0182	< 0.0183	0.0183	< 0.0189	0.0189	< 0.019	0.019	< 0.0195	0.0195
Chloride by EPA 300	Extracted:	May-11-18	09:00	May-11-18	09:00	May-11-18	09:00	May-11-18	09:00	May-11-18	09:00	May-11-18	09:00
	Analyzed:	May-11-18	19:02	May-11-18	13:25	May-11-18	15:42	May-11-18	15:54	May-11-18	19:52	May-11-18	14:15
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride	·	533	125	300	125	52.9	50.0	375	125	39.0	25.0	<25.0	25.0
DRO-ORO By SW8015B	Extracted:			May-11-18	12:00								
	Analyzed:			May-12-18	00:30	May-12-18	01:04	May-12-18	01:37	May-12-18	02:11	May-12-18	02:45
	Units/RL:			mg/kg	RL								
Diesel Range Organics (DRO)	·			<24.9	24.9	<24.9	24.9	<25.0	25.0	<25.2	25.2	<24.8	24.8
Oil Range Hydrocarbons (ORO)				<24.9	24.9	<24.9	24.9	<25.0	25.0	<25.2	25.2	<24.8	24.8
TPH GRO by EPA 8015 Mod.	Extracted:			May-10-18	13:00								
	Analyzed:			May-11-18	10:15	May-11-18	10:42	May-11-18	11:09	May-11-18	11:36	May-11-18	12:03
	Units/RL:			mg/kg	RL								
TPH-GRO	·			< 3.64	3.64	<3.66	3.66	<3.77	3.77	<3.81	3.81	<3.89	3.89

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Kelsey Brooks Project Manager



Certificate of Analysis Summary 585303

TRC Solutions, Inc, Midland, TX Project Name: Apple State 5 SWD #1

Project Id:

Contact:

Joel Lowry

Project Location: Eddy Co, NM

Date Received in Lab: Tue May-08-18 12:40 pm

Report Date: 18-MAY-18 **Project Manager:** Kelsey Brooks

	Lab Id:	585303-0	19	585303-0	20	585303-02	21	585303-02	22		
Analysis Requested	Field Id:	NP @ 3	,	NP @ 6	,	NP @ 9'	,	NP @ 12			
Analysis Requesieu	Depth:	3- ft		6- ft		9- ft		12- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	May-04-18 1	0:35	May-04-18 1	10:40	May-04-18 1	0:45	May-04-18 1	0:50		
Chloride by EPA 300	Extracted:	May-11-18 0	9:00	May-11-18 0	9:00	May-11-18 0	9:00	May-11-18 0	9:00		
	Analyzed:	May-11-18 1	7:48	May-11-18 2	20:41	May-11-18 2	0:04	May-11-18 2	0:29		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		<25.0	25.0	72.4	25.0	<25.0	25.0	<25.0	25.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mus Roah

Kelsey Brooks



Flagging Criteria

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

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

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

DL Method Detection Limit

NC Non-Calculable

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



Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

Sample: 585303-001 / SMP

Project ID:

Lab Batch #: 3049784 Units: mg/kg

a,a,a-Trifluorotoluene

Date Analyzed: 05/11/18 06:12

Matrix: Soil Batch:

Units: m	g/kg	Date Analyzed: 05/11/18 06:12	12 SURROGATE RECOVERY STUDY								
		by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
		Analytes			[-]						
4-Bromofluorober	nzene		0.102	0.100	102	68-120					
a,a,a-Trifluorotolu	ene		1.78	1.87	95	71-121					

Lab Batch #: 3049788 Sample: 585303-001 / SMP Batch: Matrix: Soil

Units: mg/kg **Date Analyzed:** 05/11/18 06:12 SURROGATE RECOVERY STUDY Amount True Control TPH GRO by EPA 8015 Mod. Limits Found Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 4-Bromofluorobenzene 0.0987 0.100 99 76-123

1.55

Lab Batch #: 3049784 Sample: 585303-014 / SMP Matrix: Soil Batch:

Units: mg/kg **Date Analyzed:** 05/11/18 10:15 SURROGATE RECOVERY STUDY

83

69-120

1.87

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0962	0.100	96	68-120	
a,a,a-Trifluorotoluene	1.73	1.82	95	71-121	

Lab Batch #: 3049788 Sample: 585303-014 / SMP Batch: Matrix: Soil

Units: m	ng/kg	Date Analyzed: 05/11/18 10:15	SU	RROGATE RE	ECOVERY S	STUDY	
T	PH GR	O by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorober	nzene		0.0955	0.100	96	76-123	
a,a,a-Trifluorotolu	iene		1.62	1.82	89	69-120	

Sample: 585303-015 / SMP Lab Batch #: 3049784 Batch: Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 10:42	SURROGATE RECOVERY STUDY							
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
4-Bromoflu	orobenzene	Analytes	0.0977	0.100	98	68-120				
a,a,a-Trifluo	orotoluene		1.78	1.83	97	71-121				

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Batch:

Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

Sample: 585303-015 / SMP

Project ID:

Lab Batch #: 3049788

Sample. 383303-013 / SWII

1 Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 10:42	SURROGATE RECOVERY STUDY							
	TPH GR	O by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
		Analytes			[D]					
4-Bromofluo	robenzene		0.0964	0.100	96	76-123				
a,a,a-Trifluor	otoluene		1.66	1.83	91	69-120				

Units: mg/kg Date Analyzed: 05/11/18 11:09 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Limits Flags Found Amount Recovery [A] [B] %R %R [D] **Analytes** 4-Bromofluorobenzene 0.0946 0.100 95 68-120 a,a,a-Trifluorotoluene 1.89 71-121 1.88 99

Units: mg/kg Date Analyzed: 05/11/18 11:09 SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0938	0.100	94	76-123	
a,a,a-Trifluorotoluene	1.76	1.89	93	69-120	

Lab Batch #: 3049784Sample: 585303-017 / SMPBatch: 1Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 11:36	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
4-Bromoflu	uorobenzene		0.0969	0.100	97	68-120			
a,a,a-Trifluorotoluene			1.79	1.90	94	71-121			

Lab Batch #: 3049788 Sample: 585303-017 / SMP Batch: 1 Matrix: Soil

Units: mg	g/kg	Date Analyzed: 05/11/18 11:36	SURROGATE RECOVERY STUDY					
TP	PH GR	O by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
		Analytes			נטן			
4-Bromofluorobenz	zene		0.0959	0.100	96	76-123		
a,a,a-Trifluorotoluene			1.67	1.90	88	69-120		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Batch:

Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

Sample: 585303-018 / SMP

Project ID:

Lab Batch #: 3049784 IInite.

Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 12:03	SURROGATE RECOVERY STUDY					
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		Analytes			[D]			
4-Bromoflu	orobenzene		0.0957	0.100	96	68-120		
a,a,a-Trifluo	orotoluene		1.84	1.95	94	71-121		

Lab Batch #: 3049788 Sample: 585303-018 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/11/18 12:03 SURROGATE RECOVERY STUDY Amount True Control TPH GRO by EPA 8015 Mod. Limits Flags Found Amount Recovery [A] [B] %R %R [D] **Analytes** 4-Bromofluorobenzene 0.0952 0.100 95 76-123 a,a,a-Trifluorotoluene 1.74 1.95 69-120 89

Lab Batch #: 3049907 Sample: 585303-001 / SMP Batch: Matrix: Soil

Units: mg/kg Date Analyzed: 05/11/18 21:08 SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	9.54	10.0	95	65-144	
n-Triacontane	8.29	10.0	83	46-152	

Lab Batch #: 3049907 Sample: 585303-014 / SMP Batch: Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/12/18 00:30	SURROGATE RECOVERY STUDY						
	DRO-	ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Tricosane		Maryus	10.1	9.95	102	65-144			
n-Triaconta	ine		9.39	9.95	94	46-152			

Lab Batch #: 3049907 Sample: 585303-015 / SMP Batch: Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/12/18 01:04	SURROGATE RECOVERY STUDY					
	DRO-	ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Tricosane		Timaly tes	9.27	9.96	93	65-144		
n-Triacontai	ne		8.03	9.96	81	46-152		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

n-Triacontane

Sample: 585303-016 / SMP

Project ID:

Lab Batch #: 3049907 Unites Data Analyzadi 05/12/19 01:27 --- -- /1- --

Matrix: Soil Batch:

10.1

76

46-152

Units:	mg/kg	Date Analyzed: 05/12/18 01:37	SURROGATE RECOVERY STUDY								
	DRO-ORO By SW8015B			True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes	[A]	(2)	[D]	, , , ,					
Tricosane			9.05	9.98	91	65-144					
n-Triacontan	e		7.48	9.98	75	46-152					

Lab Batch #: 3049907 Sample: 585303-017 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/12/18 02:11 SURROGATE RECOVERY STUDY Amount True Control DRO-ORO By SW8015B Limits Flags **Found** Amount Recovery [A] [B] %R %R [D] **Analytes** Tricosane 9.31 10.1 92 65-144

7.68

Lab Batch #: 3049907 Sample: 585303-018 / SMP Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 05/12/18 02:45 SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	8.40	9.91	85	65-144	
n-Triacontane	7.81	9.91	79	46-152	

Sample: 7644524-1-BLK / BLK **Lab Batch #: 3049784** Batch: Matrix: Solid

Units:	mg/kg	Date Analyzed: 05/11/18 05:45	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
4-Bromoflu	uorobenzene		0.0912	0.100	91	68-120			
a,a,a-Trifluorotoluene			1.72	2.00	86	71-121			

Sample: 7644525-1-BLK / BLK Lab Batch #: 3049788 Batch: Matrix: Solid

Units:	mg/kg	Date Analyzed: 05/11/18 05:45	SURROGATE RECOVERY STUDY						
	ГРН GR	O by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
4-Bromofluorob	enzene	Amarytes	0.0909	0.100	91	76-123			
a,a,a-Trifluorotoluene			2.51	2.00	126	69-120	**		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Batch:

Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

Project ID:

Lab Batch #: 3049907 **Sample:** 7644548-1-BLK / BLK Matrix: Solid

Units: mg/kg Date Analyzed: 05/11/18 19:29 SURROGATE RECOVERY S							
	DRO-	ORO By SW8015B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
Tricosane			10.2	10.0	102	65-144	
n-Triacontai	ne		9.00	10.0	90	46-152	

Lab Batch #: 3049784 Sample: 7644524-1-BKS / BKS Batch: Matrix: Solid

Units:	mg/kg	Date Analyzed: 05/11/18 03:03	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
4-Bromoflu	orobenzene		0.0885	0.100	89	68-120			
a,a,a-Trifluo	orotoluene		1.54	2.00	77	71-121			

Lab Batch #: 3049788 **Sample:** 7644525-1-BKS / BKS Matrix: Solid Batch: 1

Units: mg/kg Date Analyzed: 05/11/18 03:57 SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.100	0.100	100	76-123	
a,a,a-Trifluorotoluene	1.85	2.00	93	69-120	

Sample: 7644548-1-BKS / BKS **Lab Batch #: 3049907** Batch: 1 Matrix: Solid

Units:	mg/kg	Date Analyzed: 05/11/18 20:02	SURROGATE RECOVERY STUDY						
	DRO-	ORO By SW8015B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
Tricosane			10.3	10.0	103	65-144			
n-Triaconta	ne		8.00	10.0	80	46-152			

Lab Batch #: 3049784 **Sample:** 7644524-1-BSD / BSD Batch: Matrix: Solid

Units:	mg/kg	Date Analyzed: 05/11/18 03:30	SURROGATE RECOVERY STUDY						
	ВТЕ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
4-Bromoflu	orobenzene	•	0.0885	0.100	89	68-120			
a,a,a-Trifluorotoluene			1.54	2.00	77	71-121			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

Sample: 7644525-1-BSD / BSD

Project ID:

Lab Batch #: 3049788 Unites --- -- /1- --

Date Analyzed: 05/11/18 04:24

Matrix: Solid Batch:

Units: mg/kg	Date Analyzed: 05/11/18 04:24	SURROGATE RECOVERY STUDY							
TPH GI	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes	[]	[2]	[D]	, , ,				
4-Bromofluorobenzene		0.0992	0.100	99	76-123				
a,a,a-Trifluorotoluene		1.77	2.00	89	69-120				

Lab Batch #: 3049907 Sample: 7644548-1-BSD / BSD Batch: 1 Matrix: Solid

Units:	mg/kg	Date Analyzed: 05/11/18 20:36	SURROGATE RECOVERY STUDY						
	DRO-	ORO By SW8015B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
Tricosane			11.7	10.0	117	65-144			
n-Triaconta	ine		9.64	10.0	96	46-152			

Sample: 585303-001 S / MS Lab Batch #: 3049784 Batch: 1 Matrix: Soil

Date Analyzed: 05/11/18 06:38 **Units:** mg/kg SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0935	0.100	94	68-120	
a,a,a-Trifluorotoluene	1.69	1.96	86	71-121	

Lab Batch #: 3049788 Sample: 585303-001 S / MS Batch: 1 Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 07:31	SURROGATE RECOVERY STUDY						
	TPH GR	O by EPA 8015 Mod.	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
		Analytes			[D]				
4-Bromoflu	ıorobenzene		0.100	0.100	100	76-123			
a,a,a-Triflu	orotoluene		1.53	1.94	79	69-120			

Batch: Lab Batch #: 3049907 **Sample:** 585303-013 S / MS Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 23:23	SURROGATE RECOVERY STUDY						
	DRO-	ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Tricosane		Maryes	10.2	10.0	102	65-144			
n-Triaconta	ne		8.18	10.0	82	46-152			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Apple State 5 SWD #1

Work Orders: 585303, 585303

Sample: 585303-001 SD / MSD

Project ID:

Lab Batch #: 3049784

Date Analyzed: 05/11/18 07:05

Matrix: Soil Batch: 1

Units:	mg/kg	Date Analyzed: 05/11/18 07:05	SURROGATE RECOVERY STUDY						
	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
4-Bromoflu	orobenzene		0.0946	0.100	95	68-120			
a,a,a-Triflu	orotoluene		1.61	1.89	85	71-121			

Sample: 585303-001 SD / MSD **Lab Batch #:** 3049788 Batch: 1 Matrix: Soil

Units:	mg/kg	Date Analyzed: 05/11/18 07:59	SURROGATE RECOVERY STUDY							
TPH GRO by EPA 8015 Mod.		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]					
4-Bromoflu	uorobenzene		0.104	0.100	104	76-123				
a,a,a-Triflu	orotoluene		1.51	1.98	76	69-120				

Sample: 585303-013 SD / MSD Lab Batch #: 3049907 Batch: 1 Matrix: Soil

Date Analyzed: 05/11/18 23:56 **Units:** mg/kg SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	9.90	10.0	99	65-144	
n-Triacontane	8.01	10.0	80	46-152	

Surrogate Recovery [D] = 100 * A / B

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



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Project Name: Apple State 5 SWD #1

Batch #: 1

Work Order #: 585303, 585303

Project ID:

Analyst: MIT

Date Prepared: 05/10/2018

Date Analyzed: 05/11/2018

Lab Batch ID: 3049784

Sample: 7644524-1-BKS

Matrix: Solid

Units: mg/kg BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.0200	2.00	1.75	88	2.00	1.78	89	2	55-120	20	
Toluene	< 0.0200	2.00	1.76	88	2.00	1.80	90	2	77-120	20	
Ethylbenzene	< 0.0200	2.00	1.77	89	2.00	1.86	93	5	77-120	20	
m,p-Xylenes	< 0.0400	4.00	3.55	89	4.00	3.73	93	5	78-120	20	
o-Xylene	< 0.0200	2.00	1.79	90	2.00	1.89	95	5	78-120	20	

RNL **Date Prepared:** 05/11/2018 **Date Analyzed:** 05/11/2018 **Analyst:**

Lab Batch ID: 3049899 **Batch #:** 1 Matrix: Solid **Sample:** 7644599-1-BKS

Units: mg/kg BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	266	106	250	264	106	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



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Project Name: Apple State 5 SWD #1

Work Order #: 585303, 585303

Project ID:

Analyst: RNL

Date Prepared: 05/11/2018

Date Analyzed: 05/11/2018

Lab Batch ID: 3049901

Sample: 7644605-1-BKS **Batch #:** 1 Matrix: Solid

Units: mg/kg

BLAN	(K/BLANK)	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVE	KY STUD	Y
Spike	Blank	Blank	Spike	Blank	Blk. Spk		Control	Control

Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<25.0	250	265	106	250	266	106	0	90-110	20	

PGM **Date Prepared:** 05/11/2018 **Date Analyzed:** 05/11/2018 **Analyst:**

Lab Batch ID: 3049907 **Sample:** 7644548-1-BKS **Batch #:** 1 Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

DRO-ORO By SW8015B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Diesel Range Organics (DRO)	<25.0	100	88.3	88	100	97.0	97	9	63-139	20	

Date Prepared: 05/10/2018 Analyst: MIT **Date Analyzed:** 05/11/2018

Lab Batch ID: 3049788 Sample: 7644525-1-BKS **Batch #:** 1 Matrix: Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH-GRO	<4.00	20.0	21.3	107	20.0	22.4	112	5	35-129	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Apple State 5 SWD #1

Work Order #: 585303

Project ID:

Lab Batch ID:

3049784

QC- Sample ID: 585303-001 S

Batch #:

Matrix: Soil

Date Analyzed:

05/11/2018

Date Prepared: 05/10/2018

Analyst: MIT

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	< 0.0196	1.96	1.60	82	1.89	1.50	79	6	54-120	25	
Toluene	< 0.0196	1.96	1.73	88	1.89	1.65	87	5	57-120	25	
Ethylbenzene	< 0.0196	1.96	1.82	93	1.89	1.75	93	4	58-131	25	
m,p-Xylenes	< 0.0392	3.92	3.63	93	3.77	3.49	93	4	62-124	25	
o-Xylene	< 0.0196	1.96	1.84	94	1.89	1.75	93	5	62-124	25	

Lab Batch ID:

3049899

QC- Sample ID: 585303-019 S

Batch #:

Matrix: Soil

Date Analyzed:

05/11/2018

Date Prepared: 05/11/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	267	107	250	271	108	1	80-120	20	

Lab Batch ID:

3049899

QC-Sample ID: 585303-020 S

Batch #:

Matrix: Soil

Date Analyzed:

05/11/2018

Date Prepared: 05/11/2018

Analyst: RNL

Reporting Units:

mg/kg

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	Added [B]	[C]	%K [D]	[E]	Result [F]	%K [G]	70	%0K	%KPD	
Chloride	<125	250	1410	564	250	1420	568	1	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F) Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E



Form 3 - MS / MSD Recoveries

Project Name: Apple State 5 SWD #1

Work Order #: 585303

585303 3049901

QC- Sample ID: 585303-014 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

05/11/2018

Date Prepared: 05/11/2018

Analyst: RNL

Reporting Units:

mg/kg

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	300	250	632	133	250	632	133	0	80-120	20	X

Lab Batch ID: 3049901

QC- Sample ID: 585303-018 S

Batch #: 1

Matrix: Soil

Date Analyzed:

05/11/2018

Date Prepared: 05/11/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R		Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[C]	[D]	[E]	Kesuit [F]	/6K [G]	/6	/0K	/oKI D	
Chloride	<25.0	250	283	113	250	285	114	1	80-120	20	

Lab Batch ID:

3049907

QC- Sample ID: 585303-013 S

Batch #:

Matrix: Soil

Date Analyzed:

05/11/2018

Date Prepared: 05/11/2018

Analyst: PGM

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

DRO-ORO By SW8015B	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %R	Spike Added	Duplicate Spiked Sample		RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	Added [B]	[C]	%K [D]	[E]	Result [F]	%R [G]	%	%K	%KPD	
Diesel Range Organics (DRO)	<25.0	100	80.7	81	100	83.3	83	3	63-139	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F) Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E



Form 3 - MS / MSD Recoveries

Project Name: Apple State 5 SWD #1

Work Order #: 585303

Project ID:

Lab Batch ID:

3049788

QC- Sample ID: 585303-001 S

Batch #:

Matrix: Soil

Date Analyzed:

05/11/2018

Date Prepared: 05/10/2018

Analyst: MIT

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH-GRO	<3.88	19.4	10.0	52	19.8	11.0	56	10	35-129	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

CHAIN OF CUSTODY

XENCO

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

Midland, Texas (432-704-5251)

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

											The same of the sa	
								Analytic	Analytical Information		Matr	Matrix Codes
Client / Reporting Information		Project	Project Information									200
Company Name / Branch: TRC Environmental Corporation	Project Name/Number:	ne/Number:									W = Water	ater
Company Address: 2057 Commerce Drive	Project Locat	ation:									S = S GW = G	S = Soil/Sed/Solid GW =Ground Water
Midland, TX 79703											DW=	DW = Drinking Water
Phone No:	Invoice To: COG Opera	Invoice To: COG Operating C/O Becky Haskell	=								P = Product SW = Surfac SL = Sludge	P = Product SW = Surface water SL = Studge
Project Contact: Joel Lowry											0= MO	OW =Ocean/Sea Water
Samplers's Name: Zach Conder	Invoice:							,			wi = wipe	e
	Collection	u		Numb	Number of preserved bottles	oottles		051B			WW= W A = Air	WW= Waste Water A = Air
No. Field ID / Point of Collection	Sample		# 04	OH/Zn etate	103 103	OH	PH 80°	TEX 80				
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7-1 (8) 15-1	14!	04.6						5			0	
10 7-2 @ 4:	7	3.45						1 5			Ç	
7-2 @ 6-	8	05.6						-	+		2 =	
1-2 B S.	,0	3.6						+	+	+		
Turnaround Time (Business days)			Data Deliver	Data Deliverable Information	- Io		X				7	
Same Day TAT 5 Day TAT		Level II S	Std QC			Level IV (Full Data Pkg /raw data)	w data)		Notes:	acc acc		
Next Day EMERGENCY 7 Day TAT		Level III S	Std QC+ Forms	8 S	TRRP Level IV	.		1 -	rhaskell@concho com	100 Section 100 Se	zconder(@ircsolutions.com	solutions.o
2 Day EMERGENCY X Contract TAT		Level 3 (c	(CLP Forms)		UST / RG -411	-			lackhurn@tro	khlackhum@trcsolutions com		
3 Day EMERGENCY		TRRP Checklist	ecklist							100.510000		
TAT Starts Day received by Lab. if received by 5:00 pm]							dneel2@concho.com	.com		
	SUST BE DOCUMENTER	DEI OW EACH						E	FED-EX / UPS: Tracking #	racking #		
Sampler:	Date Time A Haccelved By	Received By	\mathcal{M}	HANGE PUS	Relinquished By:	NG COURIER DI By:		Date Time:	Rec	Received By:		
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Relinquished by: Da	Date Time:	Received By:			Custody Seal	2	Preser	reserved where applicable		On Ice	Cooler Temp. Thermo. C	Thermo. Corp. Factor
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CHAIN OF CUSTODY

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

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

Phoenix, Arizona (480-355-0900)

Clear of Septicing Information Control Septicing Informati	nformation oration Phone No: A32-466-4450 ons.com	ject Information	286
Cheen Control Section Co	oration Oration Phone No: 432-466-4450 Ons. com	oject Information	
The Continue and	oration Oration Phone No: 432-466-4450 ONS.COM	oject Information	
Provide Company Account Comp	oration	ple State 5 SWD #1	
100 100	Phone No:	DIE S(31e 5 SWU #1 lect I nostion	
Contract 20	Phone No:		A = NoilShadis
The control of the	Phone No: 118.Com 432.466.4450 ons.com	ly Co, NM	GW =Ground Water
Production of the production	<u>105.com</u> 432.466.4450 <u>ons.com</u>	iva To-	D = Brading Water
Final Dr. Force Colorish Section Secti		Joe 10. 3 Operating C/O Becky Haskell	F - Frouge SW = Surface water SI = Surface water
No.			OW =Ocean/Sea Water
No.	Campiers 5 reduce Lacil Conner	Ext	Wi = Wipe
No.		30 W	WW= Waste Water
1	Field ID / Point of Collection	Number of preserved bottles 65 LD	A=Air
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1	, V	Time Matrix bottles HO Nation Not HO Nation Not Hold Nation N	Field Comments
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Same Day TAT Same Day TAT Level II Std QC Level IV (Full Data Pkg fraw data) Ilourn/@Ucsolutions.com Zoonder@Ricsolutions.com Zoonder@Ricsolut		Data Deliverable Information	Nicker
Next Day EMERGENCY		Level IV (Full Data Pkr. fraw. data)	
2 Day EMERGENCY X Contract TAT Level 3 (CLP Forms) UST / RG 441 this Sculment and religious by Samples. TAT Starts Day received by Lab, if received by 5:00 pm Sample CUSTODY MUST BE DOQUMENTED BELOW EACH TANK BANDES CHANGE POSSESSION, INCLIDING COURIER DELIVERY Reliquished by: Reliquished by: Reliquished by: Received By: Reliquished by: Reliquished by: Received By: Re		Std OC+ Forms	
TAT Starts Day received by Lab, if received by S:00 pm TAT Starts Day received by Lab, if received by S:00 pm SAMPLE CUSTODY MUST BE DOGUMENTED BELOW EACHANGE POSSESSION, INCLUDING COURIER DELIVERY Relinquished by: Relinquished by: Relinquished by: Date Time: Received By: Received By: Received By: Received By: Received By: Custody Seaj# Custo		NI DECEMBER OF THE PROPERTY OF	maskeli@concho.com
TAT Starts Day received by Lab, if received by 5:00 pm SAMPLE CUSTODY MUST BE DOGUMENTED BELOW EACH TUBE SAMPLES SION, INCLUDING COURIER DELIVERY Relinquished by: Date Time: Date Tim		USI / RG 411	xblackbum@trcsolutions.com
Relinquished by: Relinquished by: Relinquished by: Date Time: Received By: Relinquished by: Received By: Received By: Received By: Received By: Received By: Relinquished by: Date Time: Date Time: Date Time: Received By: Rece	TAT Seattle Day of the Control of th		Ineel2@concho.com
Relinquished by: Received By: Re	IAI Statts Day received by Lab, it received by 5:00 pm		ED-EX / UPS: Tracking #
Relinquished by: Received By: Custody Seal# On Ice Cooler Timp. Thermo. Correspond		ARSAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY	
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Relinquished by: Received By: Custoof Seal# Prescribed Where applicable On los Cooler Temp. Thermo. Correspond On los Cooler Temp.		Relinquished By:	Repáived By:
ice. Notice. Stanature of this document and relininishment of granular contractions and the company of the contraction of the c		Custody Seal#	On Ice Cooler Tife
	ice: Notice: Signature of this document and relinguishment of complants and relinguishment of complants.		Coole I mp. Contractor

Released to Imaging: 5/9/2023 2:18:38 PM



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 05/08/2018 12:40:00 PM

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

Work Order #: 585303

Temperature Measuring device used: IR-3

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6*Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	
* Must be completed for after-hours delivery of samples prior to placing in	the vetrice	

* Must be c	completed for after-hours de	livery of samples prior to pla	cing in the refrigerator
Analyst:	·	PH Device/Lot#:	
	Checklist completed by:	Branda Ward Brenda Ward	Date: <u>05/08/2018</u>
	Checklist reviewed by:	Mus Moah Kelsey Brooks	Date: 05/09/2018

Received by OCD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

Certificate of Analysis Summary 586204

TRC Solutions, Inc, Midland, TX Project Name: Apple S State SWD

Project Id:

Contact: Joel Lowry

Project Location: Eddy Co., NM

Date Received in Lab: Wed May-16-18 08:55 am

Report Date: 23-MAY-18 **Project Manager:** Kelsey Brooks

	Lab Id:	586204-0	01	586204-00	02	586204-0	03	586204-0	04	586204-0	005	586204-0	006
A 7 : D 7	Field Id:	T-1 NSV	V	T-1 NEV	v	T-2 @ 4	<u>ا</u> '	T-2 @ 6	5'	T-2 @	8'	T-2 @ 1	0'
Analysis Requested	Depth:	2- ft		2- ft		4- ft		6- ft		8- ft		10- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-10-18 (08:00	May-10-18 0	08:05	May-10-18 (08:10	May-10-18 (08:15	May-10-18	08:20	May-10-18	08:25
BTEX by EPA 8021B	Extracted:					May-21-18	12:30					May-21-18	12:30
	Analyzed:					May-22-18 (08:37					May-22-18	08:09
	Units/RL:					mg/kg	RL					mg/kg	RL
Benzene						< 0.0187	0.0187					< 0.0179	0.0179
Toluene						< 0.0187	0.0187					< 0.0179	0.0179
Ethylbenzene						< 0.0187	0.0187					< 0.0179	0.0179
m,p-Xylenes						< 0.0375	0.0375					< 0.0358	0.0358
o-Xylene						< 0.0187	0.0187					< 0.0179	0.0179
Xylenes, Total						< 0.0187	0.0187					< 0.0179	0.0179
Total BTEX						< 0.0187	0.0187					< 0.0179	0.0179
Chloride by EPA 300	Extracted:	May-18-18 10:30		May-21-18 10:30		May-21-18	10:30	May-21-18 1	10:30	May-21-18	10:30	May-21-18	10:30
	Analyzed:	May-21-18	12:32	May-21-18 1	17:54	May-21-18 18:06		May-21-18 1	18:18	May-21-18	18:31	May-21-18	18:43
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		832	125	29.6	25.0	3210	250	702	125	47.3	25.0	33.1	25.0
DRO-ORO By SW8015B	Extracted:					May-21-18	16:00					May-21-18	16:00
	Analyzed:					May-21-18	18:46					May-21-18	20:38
	Units/RL:					mg/kg	RL					mg/kg	RL
Diesel Range Organics (DRO)						<25.2	25.2					<24.8	24.8
Oil Range Hydrocarbons (ORO)						<25.2	25.2					<24.8	24.8
TPH GRO by EPA 8015 Mod.	Extracted:					May-21-18	12:30					May-21-18	12:30
	Analyzed:					May-22-18 (08:37					May-22-18	08:09
	Units/RL:					mg/kg	RL					mg/kg	RL
TPH-GRO						<3.75	3.75					<3.58	3.58

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks Project Manager



Certificate of Analysis Summary 586204

TRC Solutions, Inc, Midland, TX **Project Name: Apple S State SWD**

Project Id:

Project Location:

Contact: Joel Lowry Eddy Co., NM **Date Received in Lab:** Wed May-16-18 08:55 am

Report Date: 23-MAY-18 Project Manager: Kelsey Brooks

	Lab Id:	586204-0	07	586204-00	08	586204-00)9	586204-01	0	586204-0	11	586204-0	12
Analysis Requested Chloride by EPA 300	Field Id:	T-2 WW	1	T-3 WW	1	T-3 WW	2	T-4 EW1		T-4 EW2	2	T-4 WW	2
Anaiysis Kequesieu	Depth:	2- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-10-18	08:30	May-10-18 0	8:35	May-10-18 0	8:40	May-10-18 0	8:45	May-10-18 0	08:50	May-10-18 (08:55
Chloride by EPA 300	Extracted:	May-18-18	10:00	May-18-18 1	0:00	May-18-18 1	10:30						
	Analyzed:	May-18-18	20:04	May-18-18 2	0:53	May-18-18 2	1:18	May-18-18 2	1:43	May-18-18 2	2:08	May-21-18 1	12:57
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		34.1	25.0	<25.0	25.0	<25.0	25.0	<25.0	25.0	<25.0	25.0	29.7	25.0

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

Kelsey Brooks Project Manager



Certificate of Analysis Summary 586204

TRC Solutions, Inc, Midland, TX Project Name: Apple S State SWD

Project Id:

Project Location:

Contact: Joel Lowry

Eddy Co., NM

Date Received in Lab: Wed May-16-18 08:55 am

Report Date: 23-MAY-18

Project Manager: Kelsey Brooks

	Lab Id:	586204-0	13	586204-0	14	586204-01	15	586204-0	16	586204-0	17	586204-0	18
Analysis Requested	Field Id:	T-4 NWV	W	T-4 NEV	V	T-5 NSW	V	T-5 SWV	V	T-2 SSV	v	T-2 SWV	N
Anaiysis Kequesieu	Depth:	2- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-10-18 (9:00	May-10-18 (9:05	May-10-18 0	9:10	May-10-18 0	9:15	May-10-18 (9:20	May-10-18 ()9:25
Chloride by EPA 300	Extracted:	May-18-18	10:30	May-18-18 1	0:30	May-18-18 1	0:30	May-18-18 1	0:30	May-21-18 1	0:30	May-18-18 1	0:30
	Analyzed:	May-21-18	11:18	May-21-18 1	1:43	May-21-18 1	2:08	May-21-18 1	4:12	May-21-18 1	7:04	May-21-18 1	.4:37
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		25.9	25.0	175	25.0	<25.0	25.0	34.2	25.0	<25.0	25.0	238	25.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mus Roah

Kelsey Brooks

Analytical Report 586204

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple S State SWD

23-MAY-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-25), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



23-MAY-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 586204

Apple S State SWD

Project Address: Eddy Co., NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 586204. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 586204 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Knus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 586204

TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 NSW	S	05-10-18 08:00	2 ft	586204-001
T-1 NEW	S	05-10-18 08:05	2 ft	586204-002
T-2 @ 4'	S	05-10-18 08:10	4 ft	586204-003
T-2 @ 6'	S	05-10-18 08:15	6 ft	586204-004
T-2 @ 8'	S	05-10-18 08:20	8 ft	586204-005
T-2 @ 10'	S	05-10-18 08:25	10 ft	586204-006
T-2 WW1	S	05-10-18 08:30	2 ft	586204-007
T-3 WW1	S	05-10-18 08:35	2 ft	586204-008
T-3 WW2	S	05-10-18 08:40	2 ft	586204-009
T-4 EW1	S	05-10-18 08:45	2 ft	586204-010
T-4 EW2	S	05-10-18 08:50	2 ft	586204-011
T-4 WW2	S	05-10-18 08:55	2 ft	586204-012
T-4 NWW	S	05-10-18 09:00	2 ft	586204-013
T-4 NEW	S	05-10-18 09:05	2 ft	586204-014
T-5 NSW	S	05-10-18 09:10	2 ft	586204-015
T-5 SWW	S	05-10-18 09:15	2 ft	586204-016
T-2 SSW	S	05-10-18 09:20	2 ft	586204-017
T-2 SWW	S	05-10-18 09:25	2 ft	586204-018

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple S State SWD

Project ID: Report Date: 23-MAY-18 Work Order Number(s): 586204 Date Received: 05/16/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3050718 Chloride by EPA 300

Lab Sample ID 586204-007 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 586204-007, -008, -009, -010, -011. The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3050891 Chloride by EPA 300

Lab Sample ID 586207-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 586204-002, -003, -004, -005, -006, -017.

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

Batch: LBA-3050908 DRO-ORO By SW8015B

Surrogate Tricosane recovered above QC limits. Matrix interferences is suspected; data confirmed by reanalysis.

Samples affected are: 586204-003 S,586204-003 SD,586204-003.

Received by OGD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple S State SWD

Project ID: Report Date: 23-MAY-18 Work Order Number(s): 586204 Date Received: 05/16/2018

Batch: LBA-3050917 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030. Lab Sample ID 586204-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 586204-003, -006. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate 4-Bromofluorobenzene, Surrogate a,a,a-Trifluorotoluene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis. Samples affected are: 586204-003 S.

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits. Samples in the analytical batch are: 586204-003, -006

Batch: LBA-3050920 TPH GRO by EPA 8015 Mod.

Surrogate a,a,a-Trifluorotoluene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7645206-1-BLK.



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-1 NSW Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-001 Date Collected: 05.10.18 08.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst:

Date Prep: 05.18.18 10.30

Basis: Wet Weight

Seq Number: 3050795

RNL

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	832	125	mg/kg	05.21.18 12.32		5



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-002 Date Collected: 05.10.18 08.05

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

T-1 NEW

Prep Method: E300P

Tech: RNL % Moisture:

RNL Analyst:

05.21.18 10.30 Date Prep:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.6	25.0	mg/kg	05.21.18 17.54		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: **T-2** @ **4**'

Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-003

Date Collected: 05.10.18 08.10

Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:
Analyst:

RNL RNL

Date Prep: 05.21.18 10.30

Basis:

Wet Weight

Seq Number: 3050891

 Parameter
 Cas Number
 Result
 RL
 Units
 Analysis Date
 Flag
 Dil

 Chloride
 16887-00-6
 3210
 250
 mg/kg
 05.21.18 18.06
 10

Analytical Method: DRO-ORO By SW8015B

Prep Method: SW8015P

% Moisture:

Tech: Analyst: PGM PGM

Date Prep: 05.21.18 16.00

Basis:

Wet Weight

Seq Number: 3050908

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<25.2	25.2		mg/kg	05.21.18 18.46	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<25.2	25.2		mg/kg	05.21.18 18.46	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
Tricosane		638-67-5	157	%	65-144	05.21.18 18.46	**	
n-Triacontane		638-68-6	130	%	46-152	05.21.18 18.46		

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: MIT MIT

% Moisture:

05.21.18 12.30

Basis:

Wet Weight

Seq Number: 3050917

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.0187	0.0187		mg/kg	05.22.18 08.37	U	1
Toluene	108-88-3	< 0.0187	0.0187		mg/kg	05.22.18 08.37	U	1
Ethylbenzene	100-41-4	< 0.0187	0.0187		mg/kg	05.22.18 08.37	U	1
m,p-Xylenes	179601-23-1	< 0.0375	0.0375		mg/kg	05.22.18 08.37	U	1
o-Xylene	95-47-6	< 0.0187	0.0187		mg/kg	05.22.18 08.37	U	1
Xylenes, Total	1330-20-7	< 0.0187	0.0187		mg/kg	05.22.18 08.37	U	1
Total BTEX		< 0.0187	0.0187		mg/kg	05.22.18 08.37	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	105	%	68-120	05.22.18 08.37		
a,a,a-Trifluorotoluene		98-08-8	100	%	71-121	05.22.18 08.37		

Date Prep:



Lab Sample Id: 586204-003

MIT

Certificate of Analytical Results 586204

TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-2 @ 4' Matrix: Soil

Date Received:05.16.18 08.55

Date Collected: 05.10.18 08.10

Sample Depth: 4 ft

Analytical Method: TPH GRO by EPA 8015 Mod.

Prep Method: SW5030B

% Moisture:

MIT Analyst:

Tech:

05.21.18 12.30 Date Prep:

Basis: Wet Weight

Seq Number: 30	50920
----------------	-------

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.75	3.75		mg/kg	05.22.18 08.37	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	110	%	76-123	05.22.18 08.37		
a,a,a-Trifluorotoluene	!	98-08-8	107	%	69-120	05.22.18 08.37		



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: **T-2** @ **6**'

Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-004

Date Collected: 05.10.18 08.15

Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: RNL

Analyst:

RNL

Date Prep: 05.21.18 10.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	702	125	mg/kg	05.21.18 18.18		5



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Soil

Sample Id: T-2 @ 8' Matrix:

Date Received:05.16.18 08.55

Date Collected: 05.10.18 08.20

Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

RNL

Lab Sample Id: 586204-005

Date Prep: 05.21.18 10.30

Basis: Wet Weight

Seq Number: 3050891

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.3	25.0	mg/kg	05.21.18 18.31		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-2 @ 10'

Matrix: Soil Date Received:05.16.18 08.55

Lab Sample Id: 586204-006

Date Collected: 05.10.18 08.25

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: RNL RNL

Date Prep:

05.21.18 10.30

Basis:

Wet Weight

Seq Number: 3050891

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.1	25.0	mg/kg	05.21.18 18.43		1

Analytical Method: DRO-ORO By SW8015B

PGM

Prep Method: SW8015P

% Moisture:

PGM Analyst:

Tech:

05.21.18 16.00 Date Prep:

Basis:

Wet Weight

Seq Number: 3050908

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<24.8	24.8		mg/kg	05.21.18 20.38	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<24.8	24.8		mg/kg	05.21.18 20.38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
Tricosane		638-67-5	127	%	65-144	05.21.18 20.38		
n-Triacontane		638-68-6	119	%	46-152	05.21.18 20.38		

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

MIT

MIT Analyst:

Date Prep: 05.21.18 12.30 Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.0179	0.0179		mg/kg	05.22.18 08.09	U	1
Toluene	108-88-3	< 0.0179	0.0179		mg/kg	05.22.18 08.09	U	1
Ethylbenzene	100-41-4	< 0.0179	0.0179		mg/kg	05.22.18 08.09	U	1
m,p-Xylenes	179601-23-1	< 0.0358	0.0358		mg/kg	05.22.18 08.09	U	1
o-Xylene	95-47-6	< 0.0179	0.0179		mg/kg	05.22.18 08.09	U	1
Xylenes, Total	1330-20-7	< 0.0179	0.0179		mg/kg	05.22.18 08.09	U	1
Total BTEX		< 0.0179	0.0179		mg/kg	05.22.18 08.09	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	68-120	05.22.18 08.09		
a,a,a-Trifluorotoluene		98-08-8	101	%	71-121	05.22.18 08.09		



TRC Solutions, Inc, Midland, TX

Apple S State SWD

111

104

05.21.18 12.30

Sample Id: Matrix: Soil T-2 @ 10'

Date Received:05.16.18 08.55

Lab Sample Id: 586204-006 Date Collected: 05.10.18 08.25 Sample Depth: 10 ft

05.22.18 08.09

05.22.18 08.09

Analytical Method: TPH GRO by EPA 8015 Mod.

Prep Method: SW5030B

Wet Weight

MIT

460-00-4

98-08-8

Date Prep:

% Moisture:

Basis:

76-123

69-120

Seq Number: 3050920

4-Bromofluorobenzene

a,a,a-Trifluorotoluene

MIT

Tech:

Analyst:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.58	3.58		mg/kg	05.22.18 08.09	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-2 WW1 Matrix: Soil

Date Received:05.16.18 08.55

Date Collected: 05.10.18 08.30

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

RNL

Lab Sample Id: 586204-007

Date Prep: 05.18.18 10.00

Basis: Wet Weight

Seq Number: 3050718

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.1	25.0	mg/kg	05.18.18 20.04		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

05.18.18 10.00

Sample Id: T-3 WW1 Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-008 Date Collected: 05.10.18 08.35

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: RNL

% Moisture:

Analyst: RNL

Basis: Wet Weight

Seq Number: 3050718

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	05.18.18 20.53	U	1

Date Prep:



Lab Sample Id: 586204-009

Certificate of Analytical Results 586204

TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: Matrix: Soil T-3 WW2

Date Collected: 05.10.18 08.40

Date Received:05.16.18 08.55

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

% Moisture:

Tech: RNL RNL Analyst:

05.18.18 10.00 Date Prep:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	05.18.18 21.18	U	1



Lab Sample Id: 586204-010

Analytical Method: Chloride by EPA 300

RNL

Certificate of Analytical Results 586204

TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-4 EW1 Matrix: Soil

Date Received:05.16.18 08.55

Date Collected: 05.10.18 08.45

Sample Depth: 2 ft

Prep Method: E300P

% Moisture:

Tech: RNL

Date Prep: 05.18.18 10.00

Basis: Wet Weight

Seq Number: 3050718

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	05.18.18 21.43	U	1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: Matrix: Soil T-4 EW2

Date Received:05.16.18 08.55

Date Collected: 05.10.18 08.50

Sample Depth: 2 ft

Prep Method: E300P

% Moisture:

Basis:

Seq Number: 3050718

Tech:

Analyst:

Lab Sample Id: 586204-011

Analytical Method: Chloride by EPA 300

RNL

RNL

05.18.18 10.00 Date Prep:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	05.18.18 22.08	U	1



Lab Sample Id: 586204-012

Analytical Method: Chloride by EPA 300

RNL

RNL

Certificate of Analytical Results 586204

TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: Matrix: Soil T-4 WW2

Date Received:05.16.18 08.55

Date Collected: 05.10.18 08.55

Sample Depth: 2 ft

Prep Method: E300P

% Moisture:

05.18.18 10.30 Date Prep:

Basis: Wet Weight

Seq Number: 3050795

Tech:

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.7	25.0	mg/kg	05.21.18 12.57		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-4 NWW Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-013 Date Collected: 05.10.18 09.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: RNL

% Moisture:

Analyst: RNL

Date Prep: 05.18.18 10.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.9	25.0	mg/kg	05.21.18 11.18		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-4 NEW Matrix: Soil

Date Received:05.16.18 08.55

Lab Sample Id: 586204-014 Date Collected: 05.10.18 09.05

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst: RNL

Date Prep: 05.18.18 10.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	175	25.0	mg/kg	05.21.18 11.43		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-5 NSW Matrix: Soil

Date Received:05.16.18 08.55

Date Collected: 05.10.18 09.10

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst:

Lab Sample Id: 586204-015

RNL

Date Prep: 05.18.18 10.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	05.21.18 12.08	U	1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-5 SWW Matrix: Soil

Date Received:05.16.18 08.55

Date Collected: 05.10.18 09.15

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst: RNL

Lab Sample Id: 586204-016

Date Prep: 05.18.18 10.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.2	25.0	mg/kg	05.21.18 14.12		1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-2 SSW Matrix: Soil

Sample Depth: 2 ft

05.21.18 10.30

Lab Sample Id: 586204-017 Date Collected: 05.10.18 09.20

Prep Method: E300P

Basis:

Date Received:05.16.18 08.55

Wet Weight

Analytical Method: Chloride by EPA 300

Date Prep:

Tech: RNL % Moisture: RNL

Seq Number: 3050891

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	05.21.18 17.04	U	1



TRC Solutions, Inc, Midland, TX

Apple S State SWD

Sample Id: T-2 SWW Matrix:

Soil Date Received:05.16.18 08.55

Lab Sample Id: 586204-018 Date Collected: 05.10.18 09.25 Sample Depth: 2 ft

Prep Method: E300P

Tech: RNL % Moisture:

RNL Analyst: 05.18.18 10.30 Basis: Wet Weight Date Prep:

Seq Number: 3050795

Analytical Method: Chloride by EPA 300

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	238	25.0	mg/kg	05.21.18 14.37		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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



QC Summary 586204

TRC Solutions, Inc

Apple S State SWD

Analytical Method:Chloride by EPA 300Prep Method:E300PSeq Number:3050718Matrix: SolidDate Prep:05.18.18

MB Sample Id: 7645106-1-BLK LCS Sample Id: 7645106-1-BKS LCSD Sample Id: 7645106-1-BSD

MR Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result 05.18.18 16:57 Chloride <25.0 250 262 105 264 106 90-110 20 mg/kg

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Seq Number: 3050795 Matrix: Solid Date Prep: 05.18.18

MB Sample Id: 7645135-1-BLK LCS Sample Id: 7645135-1-BKS LCSD Sample Id: 7645135-1-BSD

MB Spike LCS LCS %RPD RPD Limit Units LCSD LCSD Limits Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec Chloride <25.0 250 257 103 258 103 90-110 0 20 mg/kg 05.21.18 09:51

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Seq Number: 3050891 Matrix: Solid Date Prep: 05.21.18

MB Sample Id: 7645195-1-BLK LCS Sample Id: 7645195-1-BKS LCSD Sample Id: 7645195-1-BSD

LCS %RPD RPD Limit Units MB Spike LCS LCSD LCSD Limits **Analysis** Flag **Parameter** Result Date Result Amount %Rec Result %Rec Chloride <25.0 250 260 104 249 100 90-110 4 20 05.21.18 16:39 mg/kg

Analytical Method: Chloride by EPA 300

 Seq Number:
 3050718
 Matrix:
 Soil
 Date Prep:
 05.18.18

 Parent Sample Id:
 586204-007
 MS Sample Id:
 586204-007 S
 MSD Sample Id:
 586204-007 SD

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec Chloride < 50.0 250 302 121 305 80-120 20 05.18.18 20:28 122 X 1 mg/kg

Analytical Method:Chloride by EPA 300Prep Method:E300PSeq Number:3050795Matrix: SoilDate Prep: 05.18.18

Parent Sample Id: 585987-001 MS Sample Id: 585987-001 S MSD Sample Id: 585987-001 SD

Parent Spike MS MS Limits %RPD RPD Limit Units Analysis **MSD MSD** Flag **Parameter** Result Date Result Amount %Rec Result %Rec Chloride 35.9 250 292 102 285 100 80-120 2 20 mg/kg 05.21.18 10:28

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference
$$\begin{split} [D] &= 100*(\text{C-A}) \, / \, \text{B} \\ \text{RPD} &= 200* \mid (\text{C-E}) \, / \, (\text{C+E}) \mid \\ [D] &= 100*(\text{C}) \, / \, [\text{B}] \end{split}$$

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

E300P

Prep Method:

X



Parameter

Seq Number:

Parent Sample Id:

QC Summary 586204

TRC Solutions, Inc

Apple S State SWD

MSD

MSD

Limits

Analytical Method: Chloride by EPA 300

Seq Number: 3050795 Matrix: Soil

MS

Spike

MS Sample Id: 586204-012 S Parent Sample Id: 586204-012

Parent

E300P Prep Method:

Date Prep: 05.18.18 MSD Sample Id: 586204-012 SD

%RPD RPD Limit Units Analysis Flag Date

Result Amount Result %Rec %Rec Result 05.21.18 13:22 Chloride < 50.0 250 250 100 255 102 80-120 2 20 mg/kg

MS

Analytical Method: Chloride by EPA 300

3050891 Matrix: Soil

586204-017

MS Sample Id: 586204-017 S

E300P Prep Method: Date Prep:

05.21.18

MSD Sample Id: 586204-017 SD

Spike MS MS %RPD RPD Limit Units Parent **MSD MSD** Limits Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec

Chloride <125 250 315 126 318 127 80-120 20 mg/kg 05.21.18 17:29

Analytical Method: Chloride by EPA 300

Prep Method: E300P Seq Number: 3050891 Matrix: Soil 05.21.18 Date Prep:

MS Sample Id: 586207-004 S MSD Sample Id: 586207-004 SD Parent Sample Id: 586207-004

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result %Rec Amount Result %Rec

Chloride 48.8 250 290 96 295 98 80-120 2 20 05.21.18 19:58 mg/kg

Analytical Method: DRO-ORO By SW8015B

SW8015P Prep Method: Seq Number: 3050908 Matrix: Solid Date Prep: 05.21.18

MB Sample Id: LCSD Sample Id: 7645186-1-BSD LCS Sample Id: 7645186-1-BKS 7645186-1-BLK

LCS %RPD RPD Limit Units MB Spike LCS LCSD Limits Analysis **LCSD** Flag **Parameter** Amount Result %Rec Date Result %Rec 05.21.18 17:27 Diesel Range Organics (DRO) 100 105 105 63-139 20 <25.0 100 100 5 mg/kg

MB MB LCS LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Flag %Rec Date 05.21.18 17:27 Tricosane 118 124 115 65-144 % 05.21.18 17:27 n-Triacontane 106 99 81 46-152

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

= MSD/LCSD Result

Flag

XF

XF

XF

XF

XF



QC Summary 586204

TRC Solutions, Inc

Apple S State SWD

586204-003 S

Analytical Method: DRO-ORO By SW8015B

Seq Number: 3050908 Matrix: Soil

MS Sample Id: Parent Sample Id: 586204-003

SW8015P Prep Method:

Date Prep: 05.21.18

MSD Sample Id: 586204-003 SD

Spike MS MS %RPD RPD Limit Units Parent **MSD MSD** Limits Analysis Flag **Parameter** Result Result Date Amount %Rec %Rec Result 05.21.18 19:22 Diesel Range Organics (DRO) <25.1 100 99.7 100 98.7 98 63-139 20 mg/kg

MSD MS MS **MSD** Limits Units Analysis **Surrogate** Flag %Rec Flag Date %Rec Tricosane 176 178 65-144 % 05.21.18 19:22 n-Triacontane 126 128 46-152 % 05.21.18 19:22

Analytical Method: BTEX by EPA 8021B

Seq Number: 3050917

7645205-1-BLK MB Sample Id:

Matrix: Solid

LCS Sample Id: 7645205-1-BKS

Prep Method:

SW5030B

Date Prep: 05.21.18

LCSD Sample Id: 7645205-1-BSD

Parameter	MB Result	Spike Amount		LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date]
Benzene	< 0.0200	2.00	1.84	92	1.88	94	55-120	2	20	mg/kg	05.22.18 03:36	
Toluene	< 0.0200	2.00	1.75	88	1.80	90	77-120	3	20	mg/kg	05.22.18 03:36	
Ethylbenzene	< 0.0200	2.00	1.71	86	1.75	88	77-120	2	20	mg/kg	05.22.18 03:36	
m,p-Xylenes	< 0.0400	4.00	3.42	86	3.54	89	78-120	3	20	mg/kg	05.22.18 03:36	
o-Xylene	< 0.0200	2.00	1.76	88	1.82	91	78-120	3	20	mg/kg	05.22.18 03:36	
Surrogate	MB %Rec	MB Flag	LCS %Re		CS lag	LCSD %Rec			Limits	Units	Analysis Date	

4-Bromofluorobenzene 97 91 92 68-120 % 05.22.18 03:36 a,a,a-Trifluorotoluene 95 85 82 71-121 % 05.22.18 03:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3050917

586204-003

Matrix: Soil MS Sample Id: 586204-003 S Prep Method:

SW5030B

Date Prep: 05.21.18

MSD Sample Id: 586204-003 SD Parent Sample Id: %RPD RPD Limit Units Parent Spike MS MS **MSD** Limits Analysis **MSD** Flag **Parameter** Result Result Amount %Rec Result %Rec Date 44 54-120 05.22.18 09:04 Benzene < 0.0196 1.96 0.855 1.54 78 57 25 mg/kg 57-120 25 05.22.18 09:04 Toluene < 0.0196 1.96 0.861 44 1.71 86 66 mg/kg

Ethylbenzene < 0.0196 1.96 0.839 43 1.79 90 58-131 72 25 05.22.18 09:04 mg/kg m,p-Xylenes < 0.0392 3.92 1.57 40 3.56 90 62-124 78 25 05.22.18 09:04 mg/kg 05.22.18 09:04 o-Xylene < 0.0196 1.96 0.845 43 1.81 91 62-124 73 2.5 mg/kg

MS MS **MSD MSD** Limits Units Analysis **Surrogate** %Rec Flag Flag Date %Rec 05.22.18 09:04 ** 4-Bromofluorobenzene 49 102 68-120 % a,a,a-Trifluorotoluene 53 89 71-121 % 05.22.18 09:04

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result

= MS/LCS Result = MSD/LCSD Result

SW5030B

05.21.18



QC Summary 586204

TRC Solutions, Inc

Apple S State SWD

Analytical Method:TPH GRO by EPA 8015 Mod.Prep Method:Seq Number:3050920Matrix: SolidDate Prep:

MB Sample Id: 7645206-1-BLK LCS Sample Id: 7645206-1-BKS LCSD Sample Id: 7645206-1-BSD

MB Spike LCS LCS Limits %RPD RPD Limit Units **LCSD** LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result TPH-GRO 05.22.18 05:25 <4.00 20.0 21.9 110 23.1 116 35-129 5 20 mg/kg

LCSD LCS MB MB LCS LCSD Limits Units Analysis **Surrogate** Flag Flag %Rec %Rec Flag Date %Rec 4-Bromofluorobenzene 102 113 112 76-123 % 05.22.18 05:25 a,a,a-Trifluorotoluene 144 88 104 69-120 % 05.22.18 05:25

Analytical Method: TPH GRO by EPA 8015 Mod. Prep Method: SW5030B

 Seq Number:
 3050920
 Matrix:
 Soil
 Date Prep:
 05.21.18

 Parent Sample Id:
 586204-003
 MS Sample Id:
 586204-003 S
 MSD Sample Id:
 586204-003 SD

Spike MS MS MSD Limits %RPD RPD Limit Units Analysis Parent **MSD Parameter** Flag Result Amount Result %Rec Result %Rec Date TPH-GRO 05.22.18 09:59 < 3.83 19.2 16.8 88 17.4 93 35-129 4 20 mg/kg

MS MS MSD **MSD** Limits Units Analysis **Surrogate** %Rec Flag Flag Date %Rec 4-Bromofluorobenzene 115 122 76-123 % 05.22.18 09:59 a,a,a-Trifluorotoluene 89 90 69-120 05.22.18 09:59 %

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

XENCO	CHAIN OF	CUSTODY	
Setting the Standard since 1990	Page 1 Of	d Z	
Stafford, Texas (281-240-4200)	San Antonio, Texas (210-509-3334)	9	
Dallas Texas (214-902-0300)	Midland, Texas (432-704-5251)		FIIOEIIIX, ATZODA (480-355-0900)
500000	www.xenco.com	5	Xenco Job # X61,000
			7
Client / Reporting Information	Project Information		Matrix Codes
TRC Environmental Corporation	nber:	CMS:	W = Water
Company Address: 10 Desta Drive, Suite 150E, Midland, TX, 79705			S = Soil/Sed/Solid GW =Ground Water
Email: Phone No:	Invoice To:		DW = Drinking Water
trcsolutions.com	Conche Operating, LL C		SW = Surface water
Project Contact: Joel Lowry	Inteles	7	OW = Ocean/Sea Water
Samplers's Name Joel Lowry	i and a second		
	Collection	Number of preserved bottles	
No. Held ID / Point of Collection	UZ/H ₹ #	H #00+	b X = 2 × 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3 ×
T-I NSW	Date Time Matrix bottles T	MEONINGHEON NGHEONIN	
2 7-1	00.00		
T-2 @	.]=	×	
1 - 1		× ×	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		<i>></i>	
7-1	8:20	>	
9	6:35	×	2
1.6			
T C T	8:35	\rightarrow \right	
-	05:8	'	
10 Turnaround Time (Business days)		To the state of th	
Same Day TAT	Data Deliverable Information	-1 -	Notes:
	Level II Std QC	Level IV (Full Data Pkg /raw data)	ilowry@trcsolutions.com
5	Level III Std QC+ Forms	TRRP Level IV	zconder@trcsolutions.com
Contract TAT	Level 3 (CLP Forms)	UST / RG -411	kblackburn@trcsolutions.com
3 Day EMERGENCY	TRRP Checklist		
TAT Starts Day received by Lab, if received by 5:00 pm	md 00		FED-EX / 1106. Troobling #
Relinquished by Sampler:	ACH TIME	SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY	
	\mathcal{H}		Date Time: Received By:
reiniquished by:		Relinquished By:	2 Date Time: Received By:
Relinquished by:	Date Time: Received By:	,	4
5 Notice: Notice: Signature of this document and refinmishment of samples Appears	5	_	Preserved where applicable On Ice Cooler Temp. Shermo-Con Factor
losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xencos flability will be enforced unless previously negotiated under a fully executed client contract.	ouse a varie potentiese of the from client company to Xenco, its affiliates and subco beyond the control of Xenco. A minimum charge of \$75 will be applied to each pr	De de	end conditions of service. Xenco will be liable only for the cost of samples and shall not researed any responsibility for any to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5,
		7	THE STATE OF THE OFFICE OF THE OFFICE

Received by OCD: 4/7/2023 7:11:16 AM Page 77 of 423 OW =Ocean/Sea Water Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractives or expenses increased in the Colent if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xencot's liability will be limited to the cost of samples. Any samples, received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be included to the cost of samples. Any samples and shall be invoiced at \$5 per sample. These terms will be DW = Drinking Water SW = Surface water O = Oil WW= Waste Water A = Air concho. con GW =Ground Water S = Soil/Sed/Solid Matrix Codes SL = Sludge P = Product W = Water Field Comments W! = Wipe neel Concho - com kblackburn@trcsolutions.com zconder@trcsolutions.com llowry@trcsolutions.com Xenco Job # FED-EX / UPS: Tracking # Received By: Received By: Analytical Information Phoenix, Arizona (480-355-0900) Notes: Preserved where app Hold Date Time: Date Time: BTEX 8021B Chloride E 300 Level IV (Full Data Pkg /raw data) TPH 8015 M Ext CHAIN OF CUSTODY IONE COG Openting to Rebecc Hastail NEOH Number of preserved bottles TRRP Level IV POSHE UST / RG -411 Astody Seal ISOH 15204 кои Data Deliverable Information cetate nZ/HO6 www.xenco.com Project Name/Number: IOI Level III Std QC+ Forms San Antonio, Texas (210-509-3334) Project Information # of bottles Level 3 (CLP Forms) Level II Std QC TRRP Checklist Midland, Texas (432-704-5251) Matrix Received By: 3116 9:20 8.53 8:50 8:4 9:05 9:10 F-11-18 Collection Date Depth Date Time: 0 0 2 C TAT Starts Day received by Lab, if received by 5:00 pm Phone No: 432-466-4450 Contract TAT X 5 Day TAT 7 Day TAT MU Field ID / Point of Collection 586204 10 Desta Drive, Suite 150E, Midland, TX, 79705 XENCO IFN NSN 320 NMS 3 Turnaround Time (Business days) Client / Reporting Information Setting the Standard since 1990 Stafford, Texas (281-240-4200) Dallas Texas (214-902-0300) RC Environmental Corporation ilowry@trcsolutions.com Next Day EMERGENCY Project Contact: Joel Lowry Samplers's Name Joel Lowry 2 Day EMERGENCY Relinquished by Sampler 3 Day EMERGENCY ナーサ ケーナ Company Name / Branch ナノナ Same Day TAT 17+-2 ompany Address: Relinquished by: Relinquished by: 1 $\bar{\pi}$ žσ ġ

Released to Imaging: 5/9/2023 2:18:38 PM

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Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 05/16/2018 08:55:00 AM

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

Work Order #: 586204

Temperature Measuring device used: IR-3

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

* Must be o	completed for after-hours de	livery of samples prior to plac	cing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brenda Ward Brenda Ward	Date: 05/16/2018
	Checklist reviewed by:	Mmy froak Kelsey Brooks	Date: 05/18/2018

Analytical Report 586531

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple State 5 SWD #1

24-MAY-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-25), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



24-MAY-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 586531

Apple State 5 SWD #1

Project Address: Eddy Co. NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 586531. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 586531 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Knus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 586531

TRC Solutions, Inc, Midland, TX

Apple State 5 SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 SSW1	S	05-16-18 10:05	2 ft	586531-001
T-1 SSW2	S	05-16-18 10:10	2 ft	586531-002
T-1 SSW3	S	05-16-18 10:15	2 ft	586531-003
T-1 SSW4	S	05-16-18 10:20	2 ft	586531-004
T-5 SSW	S	05-16-18 10:25	2 ft	586531-005

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple State 5 SWD #1

Project ID: Report Date: 24-MAY-18 Work Order Number(s): 586531 Date Received: 05/18/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 586531

TRC Solutions, Inc, Midland, TX Project Name: Apple State 5 SWD #1

Project Id:

Project Location:

Contact: Joel Lowry

Eddy Co. NM

Date Received in Lab: Fri May-18-18 04:20 pm

Report Date: 24-MAY-18 **Project Manager:** Kelsey Brooks

	Lab Id:	586531-00	01	586531-00	02	586531-0	03	586531-0	04	586531-0	05	
Analysis Requested	Field Id:	T-1 SSW	1	T-1 SSW	2	T-1 SSW	3	T-1 SSW	4	T-5 SSV	v	
Anatysis Requested	Depth:	2- ft		2- ft		2- ft		2- ft		2- ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		
	Sampled:	May-16-18 1	0:05	May-16-18 1	0:10	May-16-18 1	0:15	May-16-18 1	0:20	May-16-18	10:25	
Chloride by EPA 300	Extracted:	May-23-18 0	8:45	May-23-18 0	8:45	May-23-18 1	0:30	May-23-18 1	0:30	May-23-18 1	10:30	
	Analyzed:	May-23-18 1	3:31	May-23-18 1	4:21	May-23-18 2	0:15	May-23-18 2	20:53	May-23-18 2	21:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		<25.0	25.0	<25.0	25.0	<25.0	25.0	30.0	25.0	<25.0	25.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks Project Manager



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



mg/kg

Units:

BS / BSD Recoveries



Page 85 of 423

Project Name: Apple State 5 SWD #1

Project ID: Work Order #: 586531

Analyst: RNL Date Prepared: 05/23/2018 **Date Analyzed:** 05/23/2018

Lab Batch ID: 3051139 **Sample:** 7645327-1-BKS **Batch #:** 1 Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Chloride by EPA 300 Blank Spike Blank Blank Blk. Spk Control Blank Spike Control Sample Result Added Spike Spike Added Spike Dup. RPD Limits Limits Flag **Duplicate** %R %RPD [A] Result %R % %R [B] [C] [D]Result [F] [G] $[\mathbf{E}]$ **Analytes** Chloride <25.0 250 240 96 250 238 95 1 90-110 20

RNL **Date Prepared:** 05/23/2018 **Analyst: Date Analyzed:** 05/23/2018

Lab Batch ID: 3051171 **Batch #:** 1 Matrix: Solid **Sample:** 7645350-1-BKS

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Spike Chloride by EPA 300 Blank Blank Blank Blank Blk. Spk Control Control Spike RPD Sample Result Added Spike Spike Spike Dup. Limits Limits Flag Added %R %RPD [A] Result %R **Duplicate** % %R [B] [C] Result [F] [G] [D] $[\mathbf{E}]$ **Analytes** Chloride 250 252 <25.0 250 261 104 101 4 90-110 20

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Apple State 5 SWD #1

Work Order #: 586531

3051139

QC- Sample ID: 586531-001 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

05/23/2018

Date Prepared: 05/23/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<50.0	250	284	114	250	267	107	6	80-120	20	

Lab Batch ID: 3051139

QC- Sample ID: 586668-001 S

Batch #:

Matrix: Soil

Date Analyzed:

05/23/2018

Date Prepared: 05/23/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]	Kesuit [F]	[G]	70	/0K	/0KFD	
Chloride	<25.0	250	263	105	250	280	112	6	80-120	20	

Lab Batch ID:

3051171

QC- Sample ID: 586531-003 S

Batch #:

Matrix: Soil

Date Analyzed:

05/23/2018

Date Prepared: 05/23/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

Chloride by EPA 300	Parent Sample	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample	. 1	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Chloride	<25.0	250	267	107	250	272	109	2	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

CHAIN OF CUSTODY

Page 4 Of ,

San Antonio, Texas (210-509-3334)

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

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

Client / Reporting Information Company Name / Branch: TRC Environmental Corporation Company Address: 2057 Commerce Drive Midland, TX 79703 Email: ilowry@trcsolutions.com 432-466-4450 Zconder@trcsolutions.com 432-466-4450 Project Contact:																
oration oration ns.com					THE PERSON NAMED IN		STATE OF			Ā	Analytical Information	formatio	E			Matrix Codes
oration Os.com ons.com		Projec	Project Information	no					_							200
ns.com	Project Name/Number: Apple State 5 SWD	umber: SWD #1														W = Water
ins.com	Project Location: Eddy Co, NM														w	S = Soil/Sed/Solid GW =Ground Water DW = Drinking Water
ject Contact:	Invoice To: COG Operating C/O Becky Haskell	3/0 Becky Ha.	skell					T							E 07 07	P = Product SW = Surface water SL = Sludge
Joel Lowry Samplers's Name: Zach Gonder	Invoice:															OW =Ocean/Sea Water WI = Wipe O = Oil
	Collection				Number of preserved bottles	preserve	d bottles								> `	WW= Waste Water A = Air
No. Field ID / Point of Collection Sample Depth	Date	E S	# of Watrix bottles	ICI	taOH/Zn toetate	HOBI	8HSO4	ONE	PDB HGT BbinoldC	3TEX 80	bloH					
1 T-1 SSW1 2'	5/					+-	+-	+-		+-	1				Field	Field Comments
	5/16/2018	10:10	S					+	×				-		- C	
	5/16/2018	10:15	S						×		-				Q	
4 T-1 SSW4	5/16/2018	10:20	S						×		-	-	-		77	
5 T-5 SSW 2'	5/16/2018	10:25	S						×		+	1	-		210	
9								1	+	T	+	1	-	Ŧ	3	
			-					_	+		+		T	+		
						-			-				+	-		
						-					+			+		
10									-		-		1			
11							-	-	-				F			
12									-		+					
Turnaround Time (Business days)			Data De	Data Deliverable Information	ormation				12			Notes:				
Same Day TAT 6 Day TAT		Level	Std QC			Level IV (Level IV (Full Data Pkg /raw data)	Pkg /raw	(data)		ilowr	v@trcsol	llowry@trcsolutions.com		Zconde	zconder@trcsolutions.com
Next Day EMERGENCY 7 Day TAT		Level III	I Std QC+ Forms	Forms		TRRP Level IV	VI IV				rhas	rhaskell@concho.com	cho.com			
2 Day EMERGENCY X Contract TAT		Level 3	(CLP Forms)	ns)		UST / RG -411	411				kblac	kburn@t	kblackburn@trcsolutions.com	S.com		
3 Day EMERGENCY		TRRPC	TRRP Checklist								dnee	dneel2@concho.com	no.com			
TAT Starts Day received by Lab, if received by 5:00 pm			A								-GE	EX / UPS:	FED-EX / UPS: Tracking #	*		
Relinquished by Sampler:	2 16 20 R	Received By	MP 3AM	LES CHANGE POSSESSION, INCLUDING COURIER DELIVERY Relinquished By:	POSSESS	SION, INCLUDING Relinquished By	ad By:	JRIER DE	LIVERY	Date Time:		8	Received By:			
Relinquished by:		Bcelved Br:	L	K	2 8	Relinquished By:	ed By:			Date Time:	ne:	2 8 Z	Received By:			
Relinquished by: Cuftook Seal # Preserved where applicable On ice Cooler Temp. 8 Thermo-Corp. Factor	R. A	Received By:			4 0	Curtody Se	sal#	1 4	Prese	rved w	Preserved where applicable	able 4	oL	On Ice	Cooler Temp. The	Thermo Gorf. Factor



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 05/18/2018 04:20:00 PM

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

Work Order #: 586531

Temperature Measuring device used: IR-3

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		4.1	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?		N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/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 headsp	ace?	N/A	

* Must be o	completed for after-hours de	elivery of samples prior to place	sing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brenda Ward Brenda Ward	Date: <u>05/18/2018</u>
	Checklist reviewed by:	Mmy Moah Kelsey Brooks	Date: <u>05/21/2018</u>



Joel Lowry

Lea Co. NM

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 588397

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Date Received in Lab: Wed Jun-06-18 09:00 am

Report Date: 11-JUN-18
Project Manager: Kelsey Brooks

	Lab Id:	588397-00	01	588397-0	02	588397-00	03	588397-0	04	588397-0	05	588397-00	06
Anglusis Paguastad	Field Id:	G-1		G-1 G-2		G-3		G-4		G-5	4- SOIL May-31-18 12:30 Jun-11-18 08:30 Jun-11-18 12:00 mg/kg RL	G-6	
Analysis Requested	Depth:	4-		4-		4-		4-		4-		4-	
	Matrix:	SOIL				SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-31-18 1	May-31-18 12:10		2:15	May-31-18 1	2:20	May-31-18 1	2:25	May-31-18	12:30	May-31-18 1	2:35
Chloride by EPA 300	Extracted:	Jun-11-18 0	8:30	Jun-11-18 0	8:30	Jun-11-18 0	8:30	Jun-11-18 0	8:30	Jun-11-18 0	8:30	Jun-11-18 0	8:30
	Analyzed:	Jun-11-18 1	1:11	Jun-11-18 1	1:23	Jun-11-18 1	1:35	Jun-11-18 1	4:04	Jun-11-18 1	2:00	Jun-11-18 12	2:13
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		4230	250	3590	250	3600	250	151	25.0	1900	125	292	50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.%

Kelsey Brooks Project Manager



Certificate of Analysis Summary 588397

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id:

Project Location:

Contact: Joel Lowry

Lea Co. NM

Date Received in Lab: Wed Jun-06-18 09:00 am

Report Date: 11-JUN-18 **Project Manager:** Kelsey Brooks

	Lab Id:	588397-00)7	588397-0	08	588397-0	09	588397-0	10		
Analysis Paguested	Field Id:	G-7		G-8		G-9		G-10			
Analysis Requested	Depth:	4-		4-		4-		4-			
	Matrix:	rix: SOIL		SOIL	SOIL			SOIL			
	Sampled:	May-31-18 1	2:40	May-31-18 1	2:45	May-31-18	12:50	May-31-18	12:55		
Chloride by EPA 300	Extracted:	Jun-11-18 08	3:30	Jun-11-18 0	8:30	Jun-11-18 0	8:30	Jun-11-18 0	8:30		
	Analyzed:	Jun-11-18 12	2:25	Jun-11-18 1	4:17	Jun-11-18 1	2:50	Jun-11-18 1	3:15		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		2960	250	<25.0	25.0	348	50.0	241	125		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.%

Kelsey Brooks Project Manager

Analytical Report 588397

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State

11-JUN-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



11-JUN-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 588397

Apple 5 State

Project Address: Lea Co. NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 588397. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 588397 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Krus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 588397

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
G-1	S	05-31-18 12:10	4	588397-001
G-2	S	05-31-18 12:15	4	588397-002
G-3	S	05-31-18 12:20	4	588397-003
G-4	S	05-31-18 12:25	4	588397-004
G-5	S	05-31-18 12:30	4	588397-005
G-6	S	05-31-18 12:35	4	588397-006
G-7	S	05-31-18 12:40	4	588397-007
G-8	S	05-31-18 12:45	4	588397-008
G-9	S	05-31-18 12:50	4	588397-009
G-10	S	05-31-18 12:55	4	588397-010

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State

Project ID: Report Date: 11-JUN-18
Work Order Number(s): 588397
Date Received: 06/06/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



TRC Solutions, Inc, Midland, TX

Apple 5 State

Soil

Sample Id: G-1

Matrix:

Date Received:06.06.18 09.00

Lab Sample Id: 588397-001

Date Collected: 05.31.18 12.10

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: RNL RNL

Date Prep: 06.11.18 08.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4230	250	mg/kg	06.11.18 11.11		10



TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id: G-2 Matrix: Soil Date Received:06.06.18 09.00

Lab Sample Id: 588397-002

Date Collected: 05.31.18 12.15

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: RNL

Analyst:

RNL Date Prep:

% Moisture: 06.11.18 08.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3590	250	mg/kg	06.11.18 11.23		10



TRC Solutions, Inc, Midland, TX

Apple 5 State

Soil

Sample Id: Matrix: G-3

Date Received:06.06.18 09.00

Date Collected: 05.31.18 12.20

Sample Depth: 4

Prep Method: E300P

% Moisture:

Basis:

Tech: RNL

RNL Analyst: Seq Number: 3053012

Analytical Method: Chloride by EPA 300

Lab Sample Id: 588397-003

06.11.18 08.30 Date Prep:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3600	250	mg/kg	06.11.18.11.35		10



Lab Sample Id: 588397-004

Certificate of Analytical Results 588397

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id: G-4

Matrix: Soil

Date Received:06.06.18 09.00

Date Collected: 05.31.18 12.25

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst: RNL

Date Prep: 06.11.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	25.0	mg/kg	06.11.18 14.04		1



TRC Solutions, Inc, Midland, TX

Apple 5 State

Soil

Sample Id: G-5 Matrix:

Date Received:06.06.18 09.00

Lab Sample Id: 588397-005 Date Collected: 05.31.18 12.30

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Basis:

Tech: RNL

Analyst:

Date Prep: 06.11.18 08.30

Wet Weight

Seq Number: 3053012

RNL

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1900	125	mg/kg	06.11.18 12.00		5



TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id: G-6

Analytical Method: Chloride by EPA 300

Lab Sample Id: 588397-006

Matrix: Soil

Date Received:06.06.18 09.00

Date Collected: 05.31.18 12.35

Sample Depth: 4

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst: RNL

Date Prep: 06.11.18 08.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	292	50.0	mg/kg	06.11.18 12.13		2



TRC Solutions, Inc, Midland, TX

Apple 5 State

Soil

Sample Id: G-7

Matrix:

Date Received:06.06.18 09.00

Lab Sample Id: 588397-007

Date Collected: 05.31.18 12.40

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: RNL

Analyst:

RNL

Date Prep: 06.11.18 08.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2960	250	mg/kg	06.11.18 12.25		10



TRC Solutions, Inc, Midland, TX

Apple 5 State

Soil

06.11.18 08.30

Sample Id: G-8 Matrix:

Date Received:06.06.18 09.00

Lab Sample Id: 588397-008 Date Collected: 05.31.18 12.45

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: RNL

Analyst:

Date Prep:

Basis:

Wet Weight

Seq Number: 3053012

RNL

Parameter	Cas Number	Result	RL	Uni	its	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/l	kg	06.11.18 14.17	U	1



TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id: G-9 Matrix:

Soil

Date Received:06.06.18 09.00

Lab Sample Id: 588397-009

Date Collected: 05.31.18 12.50

Sample Depth: 4

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

RNL

% Moisture:

Analyst:

RNL

06.11.18 08.30 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	348	50.0	mg/kg	06.11.18 12.50		2



Lab Sample Id: 588397-010

Certificate of Analytical Results 588397

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id: G-10 Matrix: Soil

Date Received:06.06.18 09.00

Date Collected: 05.31.18 12.55

Sample Depth: 4

Prep Method: E300P

% Moisture:

Tech: RNL

Analytical Method: Chloride by EPA 300

Analyst: RNL

Date Prep: 06.11.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	241	125	mg/kg	06.11.18 13.15		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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.

E300P

06.11.18

Prep Method:

Date Prep:



Seq Number:

QC Summary 588397

TRC Solutions, Inc

Apple 5 State

Analytical Method: Chloride by EPA 300

3053012 Matrix: Solid

LCS Sample Id: 7656430-1-BKS LCSD Sample Id: 7656430-1-BSD MB Sample Id: 7656430-1-BLK

MR Spike LCS LCS Limits %RPD RPD Limit Units LCSD **LCSD** Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result

Chloride 20 06.11.18 10:01 <25.0 250 225 90 230 92 90-110 2 mg/kg

Analytical Method: Chloride by EPA 300

E300P Prep Method: Seq Number: 3053012 Matrix: Soil Date Prep: 06.11.18

Parent Sample Id: 588326-001 MS Sample Id: 588326-001 S MSD Sample Id: 588326-001 SD

Spike MS MS %RPD RPD Limit Units Parent **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result Amount %Rec Result %Rec

Chloride <25.0 250 200 80 228 91 80-120 13 20 06.11.18 10:38 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: E300P Seq Number: 3053012 Matrix: Soil Date Prep: 06.11.18

MS Sample Id: 588406-001 S MSD Sample Id: 588406-001 SD Parent Sample Id: 588406-001

%RPD RPD Limit Units MS Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec 06.11.18 13:40 Chloride 2900 250 3150 100 4040 80-120 25 20 mg/kg XF 456

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample A = Parent Result

= MS/LCS Result = MSD/LCSD Result

CHAIN OF CUSTODY

X ENCO

Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

Phoenix, Arizona (480-355-0900)

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

P = Product SW = Surface water SL = Sludge OW = Ocean/Sea Water bcooper@trcsolutions.com S = Soil/Sed/Solid GW =Ground Water DW = Drinking Water O = Oil WW= Waste Water Matrix Codes Field Comments WI = Wipe A = Air ? 900 200 zconder@trcsolutions.com Xenco Job# <u>llowry@trcsolutions.com</u> rhaskell@concho.com Analytical Information Notes: BTEX 8021B Chloride E 300 × × × × × × × × × × Level IV (Full Data Pkg /raw data) **LPH 8015 M EX** ONE NEOH POSHB1 TRRP Level IV UST / RG -411 HOBI 15204 Data Deliverable Informatio NaOH/Zn Acetate www.xenco.com Level III Std QC+ Forms # of bottles Level 3 (CLP Forms) Project Information -TRRP Checklist Level II Std QC Matrix Invoice To: COG Operating C/O Becky Haskell s S s S S v Ø 12:10 12:15 Time 12:20 12:25 12:30 12:35 12:40 12:45 12:50 12:55 Apple 5 State Project Location: Lea Co, NM Collection 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 Date Sample Depth 4 4 4 4 4 4 Phone No: 432-466-4450 X Contract TAT S Day TAT 7 Day TAT Field ID / Point of Collection Client / Reporting Information Company Name / Branch:
TRC Environmental Corporation
Company Address: 588397 <u>llowry@trcsolutions.com</u> Next Day EMERGENCY nplers's Name Joel Lown 2 Day EMERGENCY ☐ 3 Day EMERGENCY Same Day TAT 2057 Commerce Drive roject Contact: Joel Lowry Midland, TX 79703 10 G-10 G-2 6-3 6-4 6-5 ဗှ G-7 8-6 6 Š

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

On Ice

Preserved where applicable

eceived By:

FED-EX / UPS: Tracking #

Date Time: Date Time:

SAMPLE CUSTODY MUST RE DOCUMENTED BELOW EAGH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Date Time:

| Received By | Received By | Received By | Relinquished By:

Date Time:

2 Relinquished By:

dneel2@concho.com

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

Relinquished by Sample

Relinquished by: Relinquished by:



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/06/2018 09:00:00 AM

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

Work Order #: 588397

Temperature Measuring device used: IR-3

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		3.5	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping conta	niner/ cooler?	N/A	
#5 Custody Seals intact on sample bottles	?	N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquis	shed/ 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 deliv	very of samples prior to placing in	the refrig	erator
A I t-	DU Davida a // a t //		

Must be	completed for after-hours de	elivery of samples prior to plac	cing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brenda Ward	Date: 06/06/2018
	Checklist reviewed by:	Kelsey Brooks	Date: 06/07/2018

Analytical Report 588406

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State

12-JUN-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)



12-JUN-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 588406

Apple 5 State

Project Address: Lea Co. NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 588406. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 588406 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Krus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 588406

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-7 @ 6'	S	05-31-18 13:50	6	588406-001
T-7 @ 8'	S	05-31-18 13:55	8	588406-002
T-7 @ 10'	S	05-31-18 14:00	10	588406-003
T-8 @ 6'	S	05-31-18 14:05	6	588406-004
T-8 @ 8'	S	05-31-18 14:10	8	588406-005
T-8 @ 10'	S	05-31-18 14:15	10	588406-006
T-8 @ 12'	S	05-31-18 14:20	12	588406-007
T-9 @ 6'	S	05-31-18 14:25	6	588406-008
T-9 @ 8'	S	05-31-18 14:30	8	588406-009
T-9 @ 10'	S	05-31-18 14:35	10	588406-010

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State

Project ID: Report Date: 12-JUN-18 Work Order Number(s): 588406 Date Received: 06/06/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3053012 Inorganic Anions by EPA 300

Lab Sample ID 588406-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588406-001, -002, -007.

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

Chloride Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.

Samples in the analytical batch are: 588406-001, -002, -007



Certificate of Analysis Summary 588406

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id:

Project Location:

Contact: Joel Lowry Lea Co. NM Date Received in Lab: Wed Jun-06-18 09:00 am

Report Date: 12-JUN-18 Project Manager: Kelsey Brooks

	Lab Id:	588406-0	01	588406-0	02	588406-0	03	588406-0)4	588406-0	05	588406-0	06
Analysis Requested	Field Id:	T-7 @ 6	5'	T-7 @ 8	3'	T-7 @ 10)'	T-8 @ 6	'	T-8 @ 8	3'	T-8 @ 10	0'
Analysis Requested	Depth:	6-		8-		10-		6-		8-		10-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-31-18	13:50	May-31-18	13:55	May-31-18	4:00	May-31-18 1	4:05	May-31-18	14:10	May-31-18 1	14:15
Chloride by EPA 300	Extracted:	Jun-11-18 (8:30	Jun-11-18 (8:30	Jun-12-18 0	8:10	Jun-11-18 0	8:30	Jun-11-18 0	8:30	Jun-12-18 0	8:10
	Analyzed:	Jun-11-18 1	3:27	Jun-11-18 1	4:29	Jun-12-18 0	9:47	Jun-11-18 1	7:24	Jun-11-18 1	7:37	Jun-12-18 0	9:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2900	250	1910	1250	121	25.0	216	125	1100	125	653	125

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks Project Manager



Certificate of Analysis Summary 588406

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id: Contact:

Project Location:

Joel Lowry Lea Co. NM **Date Received in Lab:** Wed Jun-06-18 09:00 am

Report Date: 12-JUN-18 **Project Manager:** Kelsey Brooks

	Lab Id:	588406-0	07	588406-0	08	588406-0	09	588406-0	10		
Analysis Paguastad	Field Id:	T-8 @ 12	2'	T-9 @ 6	'	T-9 @ 8	·	T-9 @ 1	0'		
Analysis Requested	Depth:	12-		6-		8-		10-			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	May-31-18	4:20	May-31-18	4:25	May-31-18 1	4:30	May-31-18	14:35		
Chloride by EPA 300	Extracted:	Jun-11-18 0	8:30								
	Analyzed:	Jun-11-18 1	5:31	Jun-11-18 1	8:39	Jun-11-18 1	9:04	Jun-11-18 1	9:29		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		719	250	598	125	745	125	506	125		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



mg/kg

Units:

BS / BSD Recoveries

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY



Page 116 of 423

Project Name: Apple 5 State

Work Order #: 588406 Project ID:

Analyst: RNL Date Prepared: 06/11/2018 Date Analyzed: 06/11/2018

Lab Batch ID: 3053012 **Sample:** 7656430-1-BKS **Batch #:** 1 **Matrix:** Solid

			DLIII		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				TELCO 11			
	Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Γ	Chloride	<25.0	250	225	90	250	230	92	2	90-110	20	

Analyst: RNL **Date Prepared:** 06/11/2018 **Date Analyzed:** 06/11/2018

Units: mg/kg BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<25.0	250	239	96	250	232	93	3	90-110	20	

Analyst: RNL Date Prepared: 06/12/2018 Date Analyzed: 06/12/2018

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	226	90	250	226	90	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Apple 5 State

Work Order #: 588406

3053012

QC- Sample ID: 588326-001 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

06/11/2018

Date Prepared: 06/11/2018

Analyst: RNL

Reporting Units:

Date Analyzed:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	200	80	250	228	91	13	80-120	20	

3053012 Lab Batch ID: **QC- Sample ID:** 588406-001 S Batch #: Matrix: Soil

06/11/2018 **Date Prepared:** 06/11/2018 Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	2900	250	3150	100	250	4040	456	25	80-120	20	XF

Lab Batch ID:

3053036

QC- Sample ID: 588483-001 S

Batch #:

Matrix: Soil

Date Analyzed:

06/11/2018

Date Prepared: 06/11/2018

Analyst: RNL

Reporting Units:

mg/kg

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[C]	[D]	[E]	Kesuit [F]	[G]	70	/0K	70KI D	
Chloride	2400	250	3520	448	250	3860	NC	9	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Form 3 - MS / MSD Recoveries

Project Name: Apple 5 State

Work Order #: 588406 **Project ID:**

Lab Batch ID:

3053154

QC- Sample ID: 588483-002 S

Batch #:

Matrix: Soil

Date Analyzed:

06/12/2018

Date Prepared: 06/12/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	367	250	602	94	250	587	88	3	80-120	20	

Lab Batch ID: 3053154 **QC- Sample ID:** 588483-009 S Batch #:

Matrix: Soil

Date Analyzed:

06/12/2018

Date Prepared: 06/12/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	Kesuit [F]	[G]	70	/0K	/0KI D	
Chloride	<1250	250	1490	596	250	1450	580	3	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

CHAIN OF CUSTODY

Stafford, Texas (281-240-4200)		0)	San Antonio, Texas (210-509-3334)	, Texas (21	0-509-3	134)					Phoen	x, Arizo	Phoenix, Arizona (480-355-0900)	(0060-				
Dallas Texas (214-902-0300)		_	Midland, Texas (432-704-5251)	tas (432-70	4-5251)													
288400					WW	www.xenco.com	<u> </u>							Xenco Job #	# qor	58841	204	
								THE PERSON				_	Analytical Information	ormation			Matrix Codes	Codes
Client / Reporting Information					Project Information	ation												
Company Name / Branch: TRC Environmental Corporation		4	Project Name/Number: Apple 5 State	umber:													W = Water S = Soil/Se	W = Water S = Soil/Sed/Solid
Company Address: 2057 Commerce Drive Midjand, TX 79703			Project Location: Lea Co, NM	ë								-		,			GW =Ground DW = Drinki P = Product	GW =Ground Water DW = Drinking Water P = Product
rcsolutions.com	Phone No: 432-466-4450	<u> </u>	Invoice To: COG Operating C/O Becky Haskell	C/O Becky Ha	skell												SW = Surface SL = Sludge OW =Ocean	SW = Surface water SL = Sludge OW =Ocean/Sea Water
Project Contact: Joel Lowry			Invoice:									0					WI = Wip	WI = Wipe O = Oil
Samplers's Name Joel Lowry			100														WW= Wa A = Air	WW= Waste Water A = Air
No. Field ID / Point of Collection	Se D	Sample Depth	Collection	Time	Matrix	# of Dottles	NaOH/Zn Acetate	HZSO4 PGSSH	Number of preserved bottless	NONE WEOH	S 108 H9T	Chloride E					Field Comments	nts
1 T-7 @ 6'		9.9	5/31/2018	1:50	s	1						×					~	
2 T-7 @ 8'		.00	5/31/2018	1:55	s	-						×					B	
₃ T-7 @ 10'		10.	5/31/2018	2:00	s	1						×					<u>ე</u>	
₄ T-8 @ 6'		.9	5/31/2018	2:05	ø	-						×					?	
₅ T-8@8'		io.	5/31/2018	2:10	v	-						×					5	
6 T-8 @ 10'		10,	5/31/2018	2:15	S	τ-						×					9	
7 T-8 @ 12'		12.	5/31/2018	2:20	so	-						×					0	
,3 @ 6, T-9 @ 6,		,9	5/31/2018	2:25	s	1						×					مه	
₉ T-9 @ 8'	3	.00	5/31/2018	2:30	s	1						×					0	
10 T-9 @ 10'		10,	5/31/2018	2:35	s	-						×					01	
					۵	Data Deliverable Information	le Informatic	uc						Notes:		in the control of		
Same Day TAT	5 Day TAT			Leve	Level II Std QC	ပ္က		Leve	Level IV (Full Data Pkg /raw data)	Data Pkg	/raw dat		ilow	ilowry@trcsolutions.com	ns.com		bcooper(bcooper@trcsolutions.com
Next Day EMERGENCY	7 Day TAT				III Std	Level III Std QC+ Forms	Ш	☐ TRR	TRRP Level IV				mas	maskell@concho.com	com			
2 Day EMERGENCY X C	X Contract TAT			Leve	Level 3 (CLP Forms)	Forms)	Ш	□ UST	UST / RG -411				ZCOL	zconder@trcsolutions.com	ions.com			
3 Day EMERGENCY				TRR	TRRP Checklist	ist							due	dneel2@concho.com	<u>woc</u>			
TAT Starts Day received by Lab, if received by 5:00 pm	seived by 5:00 p	Ε.			fo		000	1000					9	FED-EX / UPS: Tracking #	cking #			
Sampler:	SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH I	e Time:	18 9.	Received E		read By: Relinquished By: Relinquished By:	ANGE POS	Reline 2	quished B	y:	K DELIVE	\Box	Date Time:	Receiv 2	Received By:			
Relinquished by:	Oat	Time		Received 1	iż.			Reling 4	Relinquished By:	34:		Date	Date Time:	Receiv 4	Received By: 4	-	Ĺ	7
Relinquished by:	Dat	Date Time:		Received By:	3y:			Cysto	Custody Spal #	100	1	reserved	Preserved where applicable	cable	ر ا ا	Cooler Jenap	Thermo	Corr. Factor

losses or expenses incurred by the Client if such loses are due to circumstances beyond the control enforced unless previously negotiated under a fully executed client contract.



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/06/2018 09:00:00 AM

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

Work Order #: 588406

Temperature Measuring device used: IR-3

Sample Receip	t Checklist Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be o	completed for after-hours de	livery of samples prior to placi	ng in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brenda Ward	Date: 06/06/2018
	Checklist reviewed by:	Mnur Hoah Kelsey Brooks	Date: <u>06/07/2018</u>

Analytical Report 588483

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State

13-JUN-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)

Page 1 of 13



13-JUN-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 588483

Apple 5 State

Project Address: Lea, Co., NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 588483. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 588483 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Krus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 588483

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
G-11	S	05-31-18 13:00	4 ft	588483-001
G-12	S	05-31-18 13:05	4 ft	588483-002
G-13	S	05-31-18 13:10	4 ft	588483-003
T-5 @ 5'	S	05-31-18 13:15	5 ft	588483-004
T-5 @ 7'	S	05-31-18 13:20	7 ft	588483-005
T-5 @ 9'	S	05-31-18 13:25	9 ft	588483-006
T-5 @ 11'	S	05-31-18 13:30	11 ft	588483-007
T-6 @ 6'	S	05-31-18 13:35	6 ft	588483-008
T-6 @ 8'	S	05-31-18 13:40	8 ft	588483-009
T-6 @ 10'	S	05-31-18 13:45	10 ft	588483-010

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State

Project ID: Report Date: 13-JUN-18 Work Order Number(s): 588483 Date Received: 06/06/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3053036 Chloride by EPA 300

Lab Sample ID 588483-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588483-001.

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

Batch: LBA-3053154 Chloride by EPA 300

Lab Sample ID 588483-009 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588483-002, -003, -004, -005, -006, -007, -008, -009, -010.

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



Joel Lowry

Lea, Co., NM

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 588483

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Date Received in Lab: Wed Jun-06-18 09:00 am

Report Date: 13-JUN-18 **Project Manager:** Kelsey Brooks

	Lab Id:	588483-00)1	588483-0	02	588483-0	03	588483-0	04	588483-0	05	588483-00	06
Analysis Requested	Field Id:	G-11		G-12		G-13		T-5 @ 5'		T-5 @ 7	7'	T-5 @ 9'	
Analysis Requesieu	Depth:	4- ft		4- ft		4- ft		5- ft		7- ft		9- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-31-18 1	3:00	May-31-18	13:05	May-31-18	13:10	May-31-18	13:15	May-31-18	13:20	May-31-18 1	3:25
Chloride by EPA 300	Extracted:	Jun-11-18 0	8:30	Jun-12-18 0	8:10	Jun-12-18 0	8:10	Jun-12-18 0	8:10	Jun-12-18 (8:10	Jun-12-18 0	8:10
	Analyzed:	Jun-11-18 1	7:49	Jun-12-18 1	0:12	Jun-12-18 1	4:57	Jun-12-18 1	1:14	Jun-12-18 1	1:26	Jun-12-18 14	4:20
	Units/RL:	mg/kg	mg/kg RL		RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3420 D	250	367	25.0	340	25.0	6310	1250	1400	1250	946	125

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks



Certificate of Analysis Summary 588483

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id:

Project Location:

Contact: Joel Lowry Lea, Co., NM Date Received in Lab: Wed Jun-06-18 09:00 am

Report Date: 13-JUN-18

Project Manager: Kelsey Brooks

	Lab Id:	588483-007	7	588483-0	08	588483-00	09	588483-0	10		
Analysis Requested	Field Id:	T-5 @ 11'		T-6 @ 6	'	T-6 @ 8'		T-6 @ 1	0'		
Anaiysis Requesieu	Depth:	11- ft		6- ft		8- ft		10- ft			
	Matrix: SOIL			SOIL		SOIL		SOIL			
	Sampled:	May-31-18 13	May-31-18 13:30		3:35	May-31-18 1	3:40	May-31-18	13:45		
Chloride by EPA 300	Extracted:	Jun-12-18 08	:10	Jun-12-18 0	8:10	Jun-12-18 0	8:10	Jun-12-18 0	8:10		
	Analyzed:	Jun-12-18 14	:32	Jun-12-18 1	2:03	Jun-12-18 12	2:28	Jun-12-18 1	4:45		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		177	125	3240	1250	423	125	35.2	25.0		

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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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



BS / BSD Recoveries



Page 128 of 423

Project Name: Apple 5 State

Work Order #: 588483 Project ID:

Analyst: RNL Date Prepared: 06/11/2018 Date Analyzed: 06/11/2018

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	239	96	250	232	93	3	90-110	20	

Analyst: RNL **Date Prepared:** 06/12/2018 **Date Analyzed:** 06/12/2018

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	226	90	250	226	90	0	90-110	20	

Form 3 - MS / MSD Recoveries

Project Name: Apple 5 State

Work Order #: 588483

588483 3053036

QC- Sample ID: 588483-001 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

06/11/2018

Date Prepared: 06/11/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
7 mary tes	[]	[10]		[10]	[12]		[0]				
Chloride	2400	250	3520	448	250	3860	NC	9	80-120	20	X

Lab Batch ID: 3053154

QC- Sample ID: 588483-002 S

Batch #: 1 **N**

Matrix: Soil

Date Analyzed:

06/12/2018

Date Prepared: 06/12/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	367	250	602	94	250	587	88	3	80-120	20	

Lab Batch ID:

3053154

QC- Sample ID: 588483-009 S

Batch #:

Matrix: Soil

Date Analyzed:

06/12/2018

Date Prepared: 06/12/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1250	250	1490	596	250	1450	580	3	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

CHAIN OF CUSTODY

XENCO

Stafford, Texas (281-240-4200)

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

Phoenix, Arizona (480-355-0900)

Project Name/Number: Project Name/Number: Project Information	BTEX 8021B	Analytical information	Matrix Codes W = Water S = Soil/Sed/Soild GW = Ground Water DW = Drinking Water P = Product SW = Sinface water
Project NameNumber: Apple 5 State Project Location: Lea Co., NM Phone No: Invoice To: Invoice To: CoG Operating C/O Becky Haskell Phone No: Invoice To: CoG Operating C/O Becky Haskell Phone No: Invoice To: CoG Operating C/O Becky Haskell Phone No: Invoice To: CoG Operating C/O Becky Haskell Phone No: CoG Operating C/O S Phone No: Cog Op	TPH 8015 M Ext Chloride E 300 BTEX 8021B	normanon manon man	W = Water S = Soil/Sed/Solid GW = Ground Water DW = Drinking Wate P = Product SW = Surface water
Project NameNumber: Apple 5 State Project Location: Lea Co, NM	Chloride E 300 TPH 8015 M Ext		W = Water S = Soil/Sed/Solid GW = Ground Water DW = Drinking Wate P = Product SW = Surface water
Propier Location: Lea Co. NM Invoice To: Cod Operating C/O Becky Haskell	Chloride E 300		W = Water S = Soil/Sed/Solid GW = Ground Water DW = Drinking Wate P = Product SW = Surface water
Invoice To:	Chloride E 300 Chl		GW =Ground Water DW = Drinking Water P = Product SW = Surface water
Phone No: Invoice To: COG Operating C/O Becky Haskell	NONE Chloride E 300		P = Product SW = Surface water
Invoice: Collection Sample Date Time Matrix Date	NONE TPH 8015 M EXT		OI - OI - OI
Time Matrix Point of Collection Sample Depth Date Time Matrix Dottles Collection At 5/31/2018 1:05 S 1	NONE TPH 8015 M Ext		SL = Sludge OW =Ocean/Sea Water
Collection Sample Date Time Matrix Date Date	иоиE E 30		WI = Wipe
G-11 Sample Depth Date Date Date Date Date Date Date Date	NONE TPH 8019		WW= Waste Water
Depth Date Time Matrix prior 2 A S S I 2 A S A S A S A S A S A S A S A S A S A	CPII LDI NONE NEOI NªH2 H32C		A≃Air
4' 5/31/2018 1:00 s 4' 5/31/2018 1:05 s 5' 5/31/2018 1:10 s 7' 5/31/2018 1:20 s 9' 5/31/2018 1:26 s 11' 5/31/2018 1:25 s 11' 5/31/2018 1:26 s		2	Field Commente
4' 5/31/2018 1:05 s 4' 5/31/2018 1:10 s 5' 5/31/2018 1:15 s 7' 5/31/2018 1:20 s 9' 5/31/2018 1:25 s 11' 5/31/2018 1:26 s	×		
4' 5/31/2018 1:10 s 5' 5/31/2018 1:15 s 7' 5/31/2018 1:20 s 9' 5/31/2018 1:25 s 11' 5/31/2018 1:25 s	>		
5r 5/31/2018 1:15 s 7r 5/31/2018 1:20 s 9r 5/31/2018 1:25 s 11r 5/31/2018 1:25 s	()		
77 5/31/2018 1:20 S 97 5/31/2018 1:25 S 117 5/31/2018 1:30 S	×		
9r 5/31/2018 1:25 s 11r 5/31/2018 1:30 s	×		
11, 5/31/2018 1:30 s	×		
1:30	×		
T-6 @ 6'	×		
5/34/2019	×		
1:40 %	×		
10. 5/31/2018 1:45 \$	×		
Same Day TAT 5 Day TAT	Ιг	Notes:	金の金を のののの
	Level IV (Full Data Pkg /raw data)	ilowry@trcsolutions.com	bcooper@trcsolutions.com
ם כ 	TRRP Level IV	rhaskell@concho.com	
2 Day EMERGENCY X Contract TAT Level 3 (CLP Forms)] UST / RG -411	zconder@trcsolutions.com	
3 Day EMERGENCY		Company	
TAT Starts Day received by Lab, if received by 5:00 pm		uneerz(g)concho.com	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW F		FED-EX / UPS: Tracking #	
Received	1 By: Relinquished By: Relinquished By: Date Time:		
Date Time: Received By:	Relinquished By: Date Time:	Received By:	
eceived By:	Custody Seal # Preserved where applicable	e applicable On Ice Cooler Temps	Therma. Cerr. Factor

ings and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any independent of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms in the cost of sample invoiced at \$5 per sample.

CHAIN OF CUSTODY

XENCO LABORATORIES

Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

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

Phoenix, Arizona (480-355-0900)

GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe bcooper@trcsolutions.com O = Oil WW= Waste Water Matrix Codes Field Comments Xenco Job # 588 zconder@trcsolutions.con llowny@trcsolutions.com FED-EX / UPS: Tracking # Received By: Received By: rhaskell@concho.com dneel2@concho.com Analytical Information Preserved where applicab Date Time: BTEX 8021B Chloride E 300 × × × × × × × × × Level IV (Full Data Pkg /raw data) SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

| Date Time: / _ _ _ _ | Received By: | _ _ | Reinquished By: | 17H 8015 M Ext IONE Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontradors. It assigns standard teal losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be liny enforced unless previously negotiated under a fully executed client contract. NEOH Relinquished By: TRRP Level IV POSHB1 UST / RG -411 HOBI 4280¢ Data Deliverable Information VaOH/Zn Acetate Level III Std QC+ Forms # of bottles Project Information Level 3 (CLP Forms) Level II Std QC TRRP Checklist Matrix COG Operating C/O Becky Haskel S s S s received By: eceived By: Project Name/Number: Apple 5 State Project Location: Lea Co, NM Тіте 1:00 1:05 1:10 1:15 1:20 1:25 1:30 1:35 1:40 1:45 Collection 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 5/31/2018 Date Time: Š = ī ō 9 ė ò TAT Starts Day received by Lab, if received by 5:00 pm Phone No: 432-466-4450 X Contract TAT S Day TAT 7 Day TAT Field ID / Point of Collection Client / Reporting Information SEUR3 **TRC Environmental Corporation** <u>llowry@trcsolutions.com</u> Next Day EMERGENCY 2 Day EMERGENCY Relinquished by Sampler 3 Day EMERGENCY any Name / Branch roject Contact: Joel Lowry amplers's Name Joel Lo Same Day TAT Company Address: 2057 Commerce Drive T-5 @ 11' Refinduished by: T-5 @ 5' T-6 @ 10' Relinquished by: T-5 @ 9' T-6 @ 8' T-5 @ 7' 7-6 @ 6' fidland, TX 79703 G-12 9-11 G-13 ġ 9

Released to Imaging: 5/9/2023 2:18:38 PM

Page 12 of 13

Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/06/2018 09:00:00 AM

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

Work Order #: 588483

Temperature Measuring device used: IR-3

s	ample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping contained	er/ cooler? N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6*Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished	d/ received? Yes	
#10 Chain of Custody agrees with sample lab	els/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 tes	st(s)? Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	N/A	
#18 Water VOC samples have zero headspace	re? N/A	

* Must be o	ompleted for after-hours de	PH Device/Lot#:	g in the refrigerator
	Checklist completed by:	Brenda Ward	Date: <u>06/07/2018</u>
	Checklist reviewed by:	Kelsey Brooks	Date: 06/07/2018

Analytical Report 588489

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State

12-JUN-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



12-JUN-18

Project Manager: **Joel Lowry TRC Solutions, Inc**2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): 588489

Apple 5 State

Project Address: Lea Co., NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 588489. 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.

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

Respectfully,

Kelsey Brooks

Krus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 588489

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-9 @ 12'	S	05-31-18 14:40	12 ft	588489-001

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State

Project ID: Report Date: 12-JUN-18 Work Order Number(s): 588489 Date Received: 06/06/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 588489

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id: Contact:

Chloride

Project Location:

Joel Lowry Lea Co., NM **Date Received in Lab:** Wed Jun-06-18 09:00 am

Report Date: 12-JUN-18 **Project Manager:** Kelsey Brooks

	Lab Id:	588489-001			
Analysis Paguestad	Field Id:	T-9 @ 12'			
Analysis Requested	Depth:	12- ft			
	Matrix:	SOIL			
	Sampled:	May-31-18 14:40			
Chloride by EPA 300	Extracted:	Jun-12-18 08:10			

Jun-12-18 14:08

655

RL

125

mg/kg

Analyzed:

Units/RL.

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks Project Manager



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.

Received by OCD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

BS / BSD Recoveries

Project Name: Apple 5 State

Work Order #: 588489 Project ID:

Analyst: RNL Date Prepared: 06/12/2018 Date Analyzed: 06/12/2018

Lab Batch ID: 3053154 **Sample:** 7656501-1-BKS **Batch #:** 1 **Matrix:** Solid

Units:	mg/kg		BLAN	K/BLANK S	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUL	ΟY	
	Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analy	rtes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride		<25.0	250	226	90	250	226	90	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Apple 5 State

Work Order #: 588489

Project ID:

Lab Batch ID:

3053154

QC- Sample ID: 588483-002 S

Batch #:

Matrix: Soil

Date Analyzed:

06/12/2018

Date Prepared: 06/12/2018

Analyst: RNL

Reporting Units: mg/kg

Analyst: RNL

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample Result	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Chloride	367	250	602	94	250	587	88	3	80-120	20	

Lab Batch ID: 3053154

QC- Sample ID: 588483-009 S

Batch #: 1

Matrix: Soil

Date Analyzed:

06/12/2018

Date Prepared: 06/12/2018

Analyst: RNL

anyst. Rive

Reporting Units: mg/kg

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1250	250	1490	596	250	1450	580	3	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

CHAIN OF CUSTODY

XENCO

J X X 70	midialis,	Midland, Texas (432-704-5251)	1-5251)				L							1
,0100			WWW.XE	www.xenco.com							Xenco Job#		5	6818
		Section 1				S. 600 cm	ALC: N		Analytica	Analytical Information	Ju lic			Matrix Codes
Client / Reporting Information		Proje	Project Information								-			
Company Name / Branch: TRC Environmental Corporation	Project Name/Number: Apple 5 State	e/Number: ate												W = Water S = Soil/Sed/Solid
Company Address: 2057 Commerce Drive Midland, TX 79703	Project Location Lea Co, NM	tion:												GW =Ground Water DW = Drinking Water P = Product
Email: Phone No: ilowry@trcsolutions.com 432-466-4450	Invoice To: COG Operat	Invoice To: COG Operating C/O Becky Haskell	skell											SW = Surface water SL = Sludge OW = Ocean/Sea Water
Project Contact: Joel Lowry	Invoice:						+^=							WI = Wipe
Samplers's Name Joel Lowry							N E		В		_			WW= Waste Water
	Collection	U		Nun	ber of pres	Number of preserved bottles		_	1208					A = Air
No. Field ID / Point of Collection Sample Depth	iple Date	Time	# of # of Matrix bottles	HCI VaOH/Zn Acetate	1580¢	HOBN 408HBV	ТРН 80	Chlorid	3 X3T8					Field Comments
1 T-9 @ 12'	2/3		2				-	×						
2														
0														
7														
ν.														
9														
7														
8														
O.														
10														
	THE STORE	THE STATE OF	Data De	Data Deliverable Information	nation	No. of the last				Notes:				STATE OF THE PARTY
Same Day TAT 5 Day TAT		Leve	Level II Std QC		Fe Fe	Level IV (Full Data Pkg /raw data)	ta Pkg /raw	data)		ilowry@trcsolutions.com	olutions.co	티		bcooper@trcsolutions.com
Next Day EMERGENCY		Leve	Level III Std QC+ Forms	отто	THE STATE OF THE S	TRRP Level IV			J	rhaskell@concho.com	oncho.com			
2 Day EMERGENCY X Contract TAT		Leve	Level 3 (CLP Forms)	(s)	ISN	UST / RG -411			181	zconder@trcsolutions.com	csolutions	com		
3 Day EMERGENCY		TRRI	RRP Checklist						- OI	dneel2@concho.com	ncho.com			
TAT Starts Day received by Lab, if received by 5:00 pm		6								FED-EX / UPS: Tracking #	S: Trackin	# 6		
SAMPLE CUSTODY MUST BE DOCUMENTED BELOWA Retinguished by Sample:	ST BE DOCUMENT	ED BELOW/ENCI	EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY	S CHANGE P	OSSESSION,	INCLUDING C	OURIER DEL	I. Г	Date Time.		Received Ry-			MEWINE SWINS IN
	1000		7		2	da policiale					2			
Relinquished by: Date Time	lime	Received By			Relin	Relinquished By:			Date Time:		Received By:	y:		
Reinquished by: Received By: Custody, Seal # Preserved where applicable On Ice Cooler Temps Thermo. Corr. Factor	īme:	Received By:			Cust	Custody Seal #	7	Presen	Preserved where applicable	pplicable		On ice	Cooler Temp	Thermo, Corr. Facto

Released to Imaging: 5/9/2023 2:18:38 PM

Page 9 of 10

Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/06/2018 09:00:00 AM

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

Work Order #: 588489

Temperature Measuring device used: IR-3

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		3.5	
#2 *Shipping container in good condition?	?	Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping con	tainer/ cooler?	N/A	
#5 Custody Seals intact on sample bottle	s?	N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinqu	ished/ received?	Yes	
#10 Chain of Custody agrees with sample	e 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 indicate	ed test(s)?	Yes	
#16 All samples received within hold time	?	Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero head	space?	N/A	

* Must be o	completed for after-hours de	livery of samples prior to placir	g in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brenda Ward	Date: <u>06/07/2018</u>
	Checklist reviewed by:	Kelsey Brooks	Date: 06/07/2018

Analytical Report 588930

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State

01-AUG-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)

Xenco-Tampa: Florida (E84098) Xenco-Lakeland: Florida (E84098)





01-AUG-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 588930

Apple 5 State

Project Address: Eddy, CO., NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 588930. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 588930 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Krus Hoah

Project Manager

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A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 588930

Rage 146 of 423

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-12 @4'	S	06-07-18 12:00	4 ft	588930-001
T-12 @10'	S	06-07-18 12:05	10 ft	588930-002
T-12 @12'	S	06-07-18 12:10	12 ft	588930-003
T-14 @4'	S	06-07-18 12:15	4 ft	588930-004
T-14 @'8	S	06-07-18 12:20	8 ft	588930-005
T-14 @10'	S	06-07-18 12:25	10 ft	588930-006
T-15 @6'	S	06-07-18 12:30	6 ft	588930-007
T-15 @8'	S	06-07-18 12:35	8 ft	588930-008
T-15 @10'	S	06-07-18 12:40	10 ft	588930-009
T-16 @2'	S	06-07-18 12:50	2 ft	588930-010
T-16 @6'	S	06-07-18 12:55	6 ft	588930-011
T-17 @4'	S	06-07-18 13:00	4 ft	588930-012
T-17 @6'	S	06-07-18 13:05	6 ft	588930-013
T-18 @2'	S	06-07-18 13:10	2 ft	588930-014
T-18 @6'	S	06-07-18 13:15	6 ft	588930-015
T-18 @8'	S	06-07-18 13:20	8 ft	588930-016
T-3 ESW-2	S	06-07-18 13:25	4 ft	588930-017
T-3 ESW-2b	S	06-07-18 13:30	4 ft	588930-018
T-14 SWSW	S	06-07-18 13:15	4 ft	588930-019
T-3 ESW-1	S	06-07-18 13:20	4 ft	588930-020
G2@6'	S	06-07-18 13:25	6 ft	588930-021
G7@6'	S	06-07-18 13:30	6 ft	588930-022
G11@6'	S	06-07-18 13:35	6 ft	588930-023

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State

Project ID: Report Date: 01-AUG-18
Work Order Number(s): 588930 Date Received: 06/12/2018

Sample receipt non conformances and comments:

Sample name changes made per Joel Lowry e-mail:

T-4 ESW2 to T-3 ESW1

T-4 ESW1 to T-13 SESW

T-3 ESW1 to T-3 ESW2

T-4 ESW1 to T-14 SESW

Sample receipt non conformances and comments per sample:

None

Final 1.001



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State



Project Id: Contact:

Joel Lowry

Project Location: Eddy, CO., NM

Date Received in Lab: Tue Jun-12-18 10:45 am

Report Date: 01-AUG-18

Project Manager: Kelsey Brooks

	Lab Id:	588930-0	01	588930-0	02	588930-0	03	588930-0	04	588930-0	05	588930-0	06
Analysis Requested	Field Id:	T-12 @4	1'	T-12 @1	0'	T-12 @1	2'	T-14 @4	t'	T-14 @'	8	T-14 @1	0'
Anaiysis Requesieu	Depth:	4- ft		10- ft		12- ft		4- ft		8- ft		10- ft	
	Matrix:	SOIL				SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-07-18 1	Jun-07-18 12:00		2:05	Jun-07-18 1	2:10	Jun-07-18 1	2:15	Jun-07-18 1	2:20	Jun-07-18 1	2:25
Chloride by EPA 300	Extracted:	Jun-13-18 0	Jun-13-18 08:00		8:00	Jun-13-18 0	8:00						
	Analyzed:	Jun-13-18 0	9:37	Jun-14-18 16:43		Jun-14-18 1	7:02	Jun-13-18 1	0:04	Jun-13-18 1	0:10	Jun-14-18 1	7:08
	Units/RL:	mg/kg	0 0		RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		4390	100	46.1	5.00	39.5	4.96	1630	25.0	622	49.0	59.1	4.97

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Knishoah



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State



Project Id:

Contact: Joel Lowry

Project Location: Eddy, CO., NM

Date Received in Lab: Tue Jun-12-18 10:45 am

Report Date: 01-AUG-18

Project Manager: Kelsey Brooks

	Lab Id:	588930-0	07	588930-0	08	588930-0	09	588930-0	10	588930-0	11	588930-0	12
Analysis Requested	Field Id:	T-15 @6	5'	T-15 @8	3'	T-15 @1	0'	T-16 @2	2'	T-16 @	6'	T-17 @4	4'
Anaiysis Requesieu	Depth:	6- ft		8- ft		10- ft		2- ft		6- ft		4- ft	
	Matrix:	SOIL				SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-07-18 1	Jun-07-18 12:30		2:35	Jun-07-18 1	2:40	Jun-07-18 1	2:50	Jun-07-18 1	2:55	Jun-07-18 1	3:00
Chloride by EPA 300	Extracted:	Jun-13-18 0	Jun-13-18 08:00		8:00	Jun-13-18 0	8:00	Jun-13-18 0	8:00	Jun-13-18 (08:00	Jun-13-18 0	08:00
	Analyzed:	Jun-13-18 1	0:21	Jun-13-18 1	0:26	Jun-13-18 1	0:48	Jun-13-18 1	0:53	Jun-13-18 1	1:09	Jun-13-18 1	1:15
	Units/RL:	mg/kg			RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		4790	4790 98.6		49.2	319	24.9	8980	98.6	37.4	25.0	1820	50.0

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Knis Moah



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State



Project Id:

Project Location:

Contact: Joel Lowry

Eddy, CO., NM

Date Received in Lab: Tue Jun-12-18 10:45 am

Report Date: 01-AUG-18

Project Manager:	Kelsey Brooks

	Lab Id:	588930-0	13	588930-0	14	588930-0	15	588930-0	16	588930-0	17	588930-0	18
Analysis Requested	Field Id:	T-17 @6	5'	T-18 @2	2'	T-18 @	5'	T-18 @8	3'	T-3 ESW	7-2	T-3 ESW-	2b
Anaiysis Kequesieu	Depth:	6- ft		2- ft		6- ft		8- ft		4- ft		4- ft	
	Matrix:	SOIL				SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-07-18 1	Jun-07-18 13:05		3:10	Jun-07-18 1	3:15	Jun-07-18 1	3:20	Jun-07-18 1	3:25	Jun-07-18 1	3:30
Chloride by EPA 300	Extracted:	Jun-13-18 0	Jun-13-18 08:00		8:00	Jun-13-18 0	8:00	Jun-13-18 0	8:00	Jun-13-18 0	08:00	Jun-13-18 1	5:00
	Analyzed:	Jun-13-18 1	1:20	Jun-13-18 1	1:25	Jun-13-18 1	1:31	Jun-13-18 1	1:36	Jun-13-18 1	1:42	Jun-14-18 1	4:23
	Units/RL:	mg/kg			RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		135	135 50.0		250	540	49.7	111	49.8	3750	49.9	1140	24.6

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Kelsey Brooks
Project Manager



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State



Project Id:

Project Location:

Contact: Joel Lowry

Eddy, CO., NM

Date Received in Lab: Tue Jun-12-18 10:45 am

Report Date: 01-AUG-18 **Project Manager:** Kelsey Brooks

	1									I			
	Lab Id:	588930-0)19	588930-0	20	588930-0	21	588930-0)22	588930-	-023	ı	
Analysis Requested	Field Id:	T-14 SWS	SW	T-3 ESW	-1	G2@6'	'	G7@6	,	G11@	6'	ı	
Anatysis Requested	Depth:	4- ft		4- ft		6- ft		6- ft		6- ft	:	ı	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOII	L	ı	
	Sampled:	Jun-07-18	13:15	Jun-07-18 13:20		Jun-07-18 1	3:25	Jun-07-18	13:30	Jun-07-18	13:35		
Chloride by EPA 300	Extracted:	Jun-13-18	15:00	Jun-13-18 1	Jun-13-18 15:00		5:00	Jun-13-18	15:00	Jun-13-18	15:00		
	Analyzed:	Jun-14-18	14:28	Jun-14-18 1	4:34	Jun-14-18 1	4:44	Jun-15-18	12:15	Jun-14-18	15:05		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		1790	24.9	177	4.96	305	4.97	33.1	4.92	23.1	4 95		

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

Kelsey Brooks
Project Manager



Flagging Criteria



- Page 152 of 423
- 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.
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- **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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



BS / BSD Recoveries



Page 153 of 423

Project Name: Apple 5 State

Work Order #: 588930 Project ID:

Analyst: SCM Date Prepared: 06/13/2018 Date Analyzed: 06/13/2018

Units: mg/kg BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	< 5.00	250	248	99	250	249	100	0	90-110	20	

Analyst: SCM Date Prepared: 06/13/2018 Date Analyzed: 06/14/2018

Lab Batch ID: 3053525 **Sample:** 7656631-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	< 5.00	250	257	103	250	257	103	0	90-110	20	





Page 154 of 423

Project Name: Apple 5 State

Work Order #: 588930

3053394 **QC- Sample ID:** 588924-001 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

Reporting Units:

06/13/2018

Date Prepared: 06/13/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.95	248	258	104	248	257	104	0	90-110	20	

3053394 Lab Batch ID: **QC- Sample ID:** 588924-002 S Batch #: Matrix: Soil

Date Analyzed: 06/13/2018

mg/kg

Date Prepared: 06/13/2018 Analyst: SCM

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.90	245	246	100	245	247	101	0	90-110	20	

3053525 **QC- Sample ID:** 588924-003 S Batch #: Matrix: Soil Lab Batch ID: 1

06/14/2018 **Date Analyzed:**

Date Prepared: 06/13/2018 Analyst: SCM

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[21]	[D]		נען	[L]		լցյ				
Chloride	< 5.00	250	259	104	248	262	106	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)|





Page 155 of 423

Project Name: Apple 5 State

Work Order #: 588930

Project ID:

Lab Batch ID: 3053525

QC- Sample ID: 588924-004 S

Batch #:

Matrix: Soil

Date Analyzed:

06/14/2018

Date Prepared: 06/13/2018

Analyst: SCM

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	264	106	250	260	104	2	90-110	20	

Stafford, Texas (281-240-4200) Setting the Standard since 1990

Stafford, Texas (281-240-4200)	"	San Antonio, Texas (210-509-3334)	Texas (21	0-509-33	34)							Phoe	nix, Ar	hoenix, Arizona (480-355-0900)	(480-	55-09	00)					
Dallas Texas (214-902-0300)	-	Midland, Texas (432-704-5251)	as (432-70	4-5251)																		
				WWW	www.xenco.com	com											Xe	Xenco Job#	*			02,6820
														Ana	Analytical Information	Inforn	ation	1000				Matrix Codes
Client / Reporting Information			Projec	Project Information	ation																	
Company Name / Branch: TRC Environmental Corporation	. T	Project Name/Number: Apple 5 State	ımber:																			W = Water
Company Address: 2057 Commerce Drive	m 70	Project Location: Eddy, Co. NM	i i																			GW =Ground Water DW = Drinking Water
Email: Phone No: iowry@ircsolutions.com 432-466-4450	0.=	Invoice To: COG Operating C/O Becky Haskell	C/O Becky Ha	askell																		SW = Surface water SL = Sludge
Project Contact: Joel Lowry		Invoice:										xt)									OW =Ocean/Sea Water WI = Wipe
Samplers's Name Joel Lowry												M E	300	В								WW= Waste Water
		Collection				Nun	Number of preserved bottles	resen	red bo	ttles		15 N	Ε:	021								A = Air
No. Field ID / Point of Collection						Zn e		1	04			80	ride	X 80							_	
	Sample Depth	Date	Time	Matrix b	# of bottles	NaOH/	HNO3	H2SO4 NaOH	NaHSC	МЕОН	NONE	TPH	Chlo	BTE								Field Comments
1 T-12 @ 4'	4.	6/7/2018		s	_			-					×		\dashv	\dashv	\dashv	\dashv	\dashv	-	-	
2 T-12 @ 10'	10'	6/7/2018	12;05	v	1								×	\dashv	\dashv	\dashv	\dashv	-	\dashv	\dashv	\dashv	
3 T-12 @ 12'	12'	6/7/2018	12:10	v									×		_		-	_		-	\dashv	
4 T-14 @ 4'	4.	6/7/2018	12:15	s	1								×				-			\dashv	\dashv	
5 T-14 @ 8'	œ	6/7/2018	12:20	s									×						\dashv	\dashv	\dashv	
6 T-14 @ 10'	10'	6/7/2018	12:25	s	_			\dashv	\exists				×	\dashv	\dashv	\dashv	-		\dashv	\dashv	\dashv	
7 T-15 @ 6'	6'	6/7/2018	12:30	s				-					×	\dashv	\dashv	\dashv	-	-	\dashv	\dashv	\dashv	
8 T-15 @ 8'	81	6/7/2018	12:35	s									×	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	
₉ T-15 @ 10'	10'	6/7/2018	12:40	w	_			\dashv	\dashv				×	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	
10														\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	\dashv	
				Dat	Data Deliverable Information	ble Infor	nation									8	Notes:		-			
Same Day TAT 6 Day TAT			Leve	Level II Std QC	, c			Level IV (Full Data Pkg /ra	V (Ful	Data	Pkg	raw data)	ita)		F	llowry@trcsolutions.com	trcsol	utions	.com			bcooper@trcsolutions.com
Next Day EMERGENCY 7 Day TAT			Leve	Level III Std QC+ Forms	C+ Form	S		TRRP Level IV	Leve	<					I 3	rhaskell@concho.com	@con	cho.c	om			
2 Day EMERGENCY X Contract TAT			Leve	Level 3 (CLP Forms)	Forms)			UST / RG -411	RG -41	_					Z	onde	@trcs	olutio	zconder@trcsolutions.com	B		
3 Day EMERGENCY			TRR	TRRP Checklist	ist										IΩ	dneel2@concho.com	conc	ho.co	3			
TAT Starts Day received by Lab, if received by 5:00 pm	0 pm	OCIMENTED										1				D-EX	/ UPS	: Trac	FED-EX / UPS: Tracking #			
Relinquished by Sampler: Date Time: Received By: Relinquished By: Relinquished By:	Date Time:	1:000	Received By:	3y:		TANGE	-	Relinquished By:	ished	By:		. 10		Date Time: U:78	ne:	: 75		Received By:	d By:			
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Relinquished by:	Date Time:		Received By:	y:		Ī		Custody Seal#	y Seal	*			Preser	Preserved where applicable	lere a	plical	9		<u></u> 0	On Ice		Cooler Temp. Thermo. Corr. Factor
Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These	utes a valid punces beyond th	rchase order fro e control of Xen	om client comp	pany to Xer n charge o	nco, its aff f \$75 will t	lliates and be applied	subcont to each p	actors. I	t assign	ns star liabilit	dard to	e limite	d condit	ions of s	service.	Xenco Any s	will be amples	liable o	only for	the co	st of s	samples and shall not assume any responsibility for analyzed will be invoiced at \$5 per sample. These
				•			COLOR DE LA COLOR								and division		and direct	10001	for mo	100	2000	or allianted will be involved at to bell adilible. Illese

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San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

routice. You'd a superior of the cost of samples constructed 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 desponses incurred by the Client it such toses as are due to circumstance beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be involced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.	6 6	3 MATANUCOV	Reinquisned by Sampler:		TAT Starts Day received by Lab, if received by 5:00 pm	3 Day EMERGENCY	2 Day EMERGENCY	Next Day EMERGENCY	Same Day TAT		10	9 T-3 ESW-2	8 T-3 ESW-1	7 T-18 @ 8'	6 T-18 @ 6'	₅ T-18 @ 2'	4 T-17 @ 6'	3 T-17 @ 4'	₂ T-16 @ 6'	1 T-16 @ 2'	No. Field ID / Point of Collection		Samplers s Name Joel Lowry	Joel Lowry	Project Contact:	ilowry@trcsolutions.com	Email:	2057 Commerce Drive	Company Address:	Company Name / Branch:	Client / Reporting Information			Dallas Texas (214-902-0300)
shment of samples constituses are due to circumstantes are fully executed client of				SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER	if received by 5:00		x Contract TAT	7 Day TAT	6 Day TAT												ction					432-466-4450	Phone No:							
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sponsibil sample.]	Thermo. Corr. Factor								bcooper@trcsolutions.com														WW= Waste Water		OW =Ocean/Sea Water WI = Wipe	SL = Sludge		DW = Ground Water DW = Drinking Water	/Solid			es		
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San Antonio, Texas (210-509-3334) Midland, Texas (432-704-5251) Phoenix, Arizona (480-355-0900)

Dallas Texas (214-902-0300)	Mic	Midland, Texas (432-704-5251)	(432-704-5	251)													
				www.xenco.com	ico.com								Xenco Job #	*	∞	かりのか	<u> </u>
											Analytica	Analytical Information	tion				Matrix Codes
Client / Reporting Information			Project I	Project Information						_		\dashv		\dashv			
Company Name / Branch: TRC Environmental Corporation	Proj	Project Name/Number:	ber:														W = Water
Company Address:	Proj	Project Location:							_								GW =Ground Water
2057 Commerce Drive Midland, TX 79703	Edd	Eddy, Co. NM	5 181														DW = Drinking Water P = Product
Email: Phone No: ilowry@trcsolutions.com 432-466-4450	lnva	Invoice To: COG Operating C/O Becky Haskell	O Becky Hask	œll													SW = Surface water SL = Sludge
Project Contact: Joel Lowry	Invo	Invoice:							ext)							WI = Wipe
Samplers's Name Joel Lowry									ИΕ								WW= Waste Water
	0	Collection			Z	Number of preserved bottles	preserved	bottles	15 N		021						A = Air
No. Field ID / Point of Collection					Zn	,)4	801		X 00						
	Sample Depth	Date	Time Ma	# of Matrix bottles	HCI NaOH/	Acetate	H2SO4 NaOH	MEOH	TPH	Chlo	DIL					Fiel	Field Comments
1 T-4 ESW-1		6/7/2018		s						×							
₂ T-4 ESW-2	4. 6	6/7/2018		s						×				\dashv			
3 G 2 @ 6'	6' 6	6/7/2018		S						×		\dashv					
4 G7@6'	6' 6	6/7/2018		s 1						×				-			
5 G 11 @ 6'	6 ' 6	6/7/2018		s 1						×							
6																	
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ω																	
9														Н			
10												-					
	_			Data Del	Data Deliverable Information	formation						Notes:	s:				
Same Day TAT			Level	Level II Std QC			Level IV (Full Data Pkg /raw data)	Full Data F	kg /raw d	ata)		ilowry@trcsolutions.com	csolution	is.com			bcooper@trcsolutions.com
Next Day EMERGENCY			Levell	Level III Std QC+ Forms	orms		TRRP Level IV	el IV				rhaskell@concho.com	concho.	com			
2 Day EMERGENCY X Contract TAT		П	Level 3	Level 3 (CLP Forms)	18)		UST / RG -411	411				zconder@trcsolutions.com	trcsoluti	ons.com			
3 Day EMERGENCY		П	☐ TRRP	TRRP Checklist								dneel2@concho.com	concho.c	om			
TAT Starts Day received by Lab, if received by 5:00 pm	pm											FED-EX / UPS: Tracking #	UPS: Tra	cking#			
Reliaquished by Sampler: Date Time: Received By: Reliaquished By:	Date Time:	R	Received By:	IME SAMPL	ES CHANG	E POSSES	Relinquished By:	ed By:	RIER DELI	DELIVERY	Date Time:	3000	Receiv	Received By:			
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rounce, voluce, signature or this occurrient and reinflyasiment of samples constitutes a valid purchase order from client company to Aerico, its affiliates and subcontractors, it assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be efforced unless receivered under a fully expected effect or cortect.	ites a valid purci ses beyond the c	ontrol of Xenco	. A minimum c	harge of \$75	will be app	lied to each	project. Xeni	co's liability	ard terms and will be limite	d to the co	ns of servicest of sample	e. Xenco w es. Any sar	nples rece	only for the	ne cost of enco but r	f samples and shall no not analyzed will be inv	nt assume any responsibility for oiced at \$5 per sample. These
terms will be enforced unless previously negotiated under a fully executed client	ontract																



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/12/2018 10:45:00 AM

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

Comments

Work Order #: 588930

Temperature Measuring device used: R8

#1 *Temperature of cooler(s)?		0
#2 *Shipping container in good condition	?	Yes
#3 *Samples received on ice?		Yes
#4 *Custody Seals intact on shipping cor	ntainer/ cooler?	N/A
#5 Custody Seals intact on sample bottle	es?	N/A
#6*Custody Seals Signed and dated?		N/A
#7 *Chain of Custody present?		Yes
#8 Any missing/extra samples?		No
#9 Chain of Custody signed when relinqu	uished/ received?	Yes
#10 Chain of Custody agrees with sample	le 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 indicat	ed test(s)?	Yes
#16 All samples received within hold time	e?	Yes
#17 Subcontract of sample(s)?		No
#18 Water VOC samples have zero head	dspace?	N/A
* Must be completed for after-hours de Analyst:	elivery of samples prior to placing in	the refrigerator
Checklist completed by: Checklist reviewed by:	Madull Katie Lowe	Date: 06/12/2018
Checklist reviewed by:	Kelsey Brooks	Date: 06/13/2018

Sample Receipt Checklist

Analytical Report 590246

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State

23-JUL-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



23-JUL-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 590246

Apple 5 State

Project Address: Lea Co., NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 590246. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 590246 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Krus Hoah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 590246

TRC Solutions, Inc, Midland, TX

Apple 5 State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
G-1b @ 5'	S	06-19-18 12:00	5 ft	590246-001
G-1b @ 6'	S	06-19-18 12:05	6 ft	590246-002
G-3b @ 7'	S	06-19-18 12:10	7 ft	590246-003
G-5b @ 5'	S	06-19-18 12:15	5 ft	590246-004
G-5b @ 6'	S	06-19-18 12:20	6 ft	590246-005
T-1 ESW	S	06-19-18 12:25	4 ft	590246-006
T-1 NSWb	S	06-19-18 12:30	4 ft	590246-007
T-1 NWW1	S	06-19-18 12:35	4 ft	590246-008
T-1 NWW2	S	06-19-18 12:40	4 ft	590246-009
T-4 WW1	S	06-19-18 12:45	4 ft	590246-010
T-4 NWWb	S	06-19-18 13:00	4 ft	590246-011
T-4 NEWb	S	06-19-18 13:05	4 ft	590246-012
T-5 WSW	S	06-19-18 13:10	4 ft	590246-013
T-8b @ 16'	S	06-19-18 13:15	16 ft	590246-014
T-9b @ 16'	S	06-19-18 13:20	16 ft	590246-015
T-10 @ 2'	S	06-19-18 13:25	2 ft	590246-016
T-10 @ 6'	S	06-19-18 13:30	6 ft	590246-017
T-10 @ 10'	S	06-19-18 13:35	10 ft	590246-018
T-10 @ 12'	S	06-19-18 13:40	12 ft	590246-019
T-11 @ 2'	S	06-19-18 13:45	2 ft	590246-020
T-11 @ 6'	S	06-20-18 12:00	6 ft	590246-021
T-11 @ 10'	S	06-20-18 12:05	10 ft	590246-022
T-11 @ 12'	S	06-20-18 12:10	12 ft	590246-023
T-12 ESW	S	06-20-18 12:15	4 ft	590246-024
T-12 WSW	S	06-20-18 12:20	4 ft	590246-025
T-12 SSW	S	06-20-18 12:25	4 ft	590246-026
T-13 @ 4'	S	06-20-18 12:30	4 ft	590246-027
T-13 @ 8'	S	06-20-18 12:35	8 ft	590246-028
T-13 @ 10'	S	06-20-18 12:40	10 ft	590246-029
T-14 ESW	S	06-20-18 12:45	4 ft	590246-030
T-15 WSW	S	06-20-18 13:00	4 ft	590246-031
T-15 ESW	S	06-20-18 13:05	4 ft	590246-032
T-16 ESW 1	S	06-20-18 13:10	4 ft	590246-033
T-16 ESW 2	S	06-20-18 13:15	4 ft	590246-034
T-16 WSW 1	S	06-20-18 13:20	4 ft	590246-035
T-16 WSW 2	S	06-20-18 13:25	4 ft	590246-036
T-16 NSW	S	06-20-18 13:30	4 ft	590246-037
T-16 NWW	S	06-20-18 13:35	4 ft	590246-038
T-17 NSW	S	06-20-18 13:40	4 ft	590246-039
T-19 @ 4	S	06-20-18 13:45	4 ft	590246-040
T-19 @ 10'	S	06-20-18 14:00	10 ft	590246-041
T-19 @ 12'	S	06-20-18 14:05	12 ft	590246-042

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State

Project ID: Report Date: 23-JUL-18
Work Order Number(s): 590246 Date Received: 06/25/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055146 Chloride by EPA 300

Lab Sample ID 590246-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 590246-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

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

Batch: LBA-3055267 Chloride by EPA 300

Lab Sample ID 590246-030 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 590246-018, -019, -022, -023, -024, -025, -027, -028, -030.

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

Batch: LBA-3055281 Chloride by EPA 300

Lab Sample ID 590246-035 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 590246-014, -026, -031, -032, -033, -034, -035, -036, -037, -038. The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3055282 Chloride by EPA 300

Lab Sample ID 590246-041 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 590246-029, -040, -041, -042.

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

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Apple 5 State

Project ID: Report Date: 23-JUL-18 Work Order Number(s): 590246 Date Received: 06/25/2018

Received by OCD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

Certificate of Analysis Summary 590246

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id: Contact:

Project Location:

Joel Lowry

Lea Co., NM

Date Received in Lab: Mon Jun-25-18 03:00 pm

Report Date: 23-JUL-18 **Project Manager:** Kelsey Brooks

	Lab Id:	590246-0	01	590246-0	02	590246-0	03	590246-0	04	590246-0	05	590246-00	06
Analysis Requested	Field Id:	G-1b @	5'	G-1b @	6'	G-3b @ 7	7'	G-5b @	5'	G-5b @	6'	T-1 ESW	<i>I</i>
Analysis Requesiea	Depth:	5- ft		6- ft		7- ft		5- ft		6- ft		4- ft	
	Matrix:	SOIL											
	Sampled:	Jun-19-18 1	2:00	Jun-19-18 1	2:05	Jun-19-18 1	2:10	Jun-19-18 1	2:15	Jun-19-18 1	2:20	Jun-19-18 1	2:25
Chloride by EPA 300	Extracted:	Jun-28-18	0:00	Jun-28-18 1	0:00								
	Analyzed:	Jun-28-18	7:28	Jun-28-18 1	8:05	Jun-28-18 1	8:17	Jun-28-18 1	8:30	Jun-28-18 1	8:42	Jun-28-18 1	8:55
	Units/RL:	mg/kg	RL										
Chloride		134	25.0	50.6	25.0	<25.0	25.0	26.4	25.0	<25.0	25.0	727 D	125

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Kelsey Brooks

Received by OCD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

Joel Lowry

Lea Co., NM

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 590246

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

State

Date Received in Lab: Mon Jun-25-18 03:00 pm

Report Date: 23-JUL-18 **Project Manager:** Kelsey Brooks

	Lab Id:	590246-0	07	590246-0	08	590246-0	09	590246-0	10	590246-0	11	590246-01	12
Analysis Requested	Field Id:	T-1 NSW	/b	T-1 NWV	V1	T-1 NWV	V2	T-4 WW	1	T-4 NWW	/b	T-4 NEW	'b
Anaiysis Kequesieu	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-19-18 1	2:30	Jun-19-18 1	2:35	Jun-19-18 1	2:40	Jun-19-18 1	2:45	Jun-19-18 1	3:00	Jun-19-18 13	3:05
Chloride by EPA 300	Extracted:	Jun-28-18 1	0:00	Jun-28-18 1	0:00	Jun-28-18 1	0:00	Jun-28-18 1	0:00	Jun-28-18 1	0:00	Jun-28-18 10	0:00
	Analyzed:	Jun-28-18 1	9:19	Jun-28-18 1	9:44	Jun-28-18 2	0:22	Jun-28-18 20	0:46	Jun-28-18 2	1:36	Jun-28-18 22	2:01
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		84.3	25.0	27.3	25.0	168	25.0	51.4	25.0	682 D	250	<25.0	25.0

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Kelsey Brooks

Project Manager



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id: Contact:

Joel Lowry

Project Location: Lea Co., NM

Date Received in Lab: Mon Jun-25-18 03:00 pm

Report Date: 23-JUL-18 **Project Manager:** Kelsey Brooks

	Lab Id:	590246-0	13	590246-0	14	590246-0	15	590246-0	16	590246-0	17	590246-0	18
Analysis Paguastad	Field Id:	T-5 WSV	V	T-8b @ 1	6'	T-9b @ 1	.6'	T-10 @	2'	T-10 @	6'	T-10 @ 1	0'
Analysis Requested	Depth:	4- ft		16- ft		16- ft		2- ft		6- ft		10- ft	
	Matrix:	SOIL		SOIL									
	Sampled:	Jun-19-18 1	3:10	Jun-19-18 1	3:15	Jun-19-18 1	3:20	Jun-19-18 1	3:25	Jun-19-18 1	3:30	Jun-19-18 1	3:35
Chloride by EPA 300	Extracted:	Jun-28-18 1	0:00	Jul-02-18 0	3:45	Jun-29-18 1	0:00	Jun-29-18 1	0:00	Jun-29-18 1	0:00	Jun-28-18 1	0:00
	Analyzed:	Jun-28-18 2	2:13	Jul-02-18 1	7:01	Jun-29-18 1	1:18	Jun-29-18 1	1:31	Jun-29-18 1	1:43	Jul-02-18 10	0:33
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		<25.0	25.0	676	125	1360	125	5240	1250	8410	1250	841	125

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Knis Moah



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id:

Project Location:

Contact: Joel Lowry

Lea Co., NM

Date Received in Lab: Mon Jun-25-18 03:00 pm

Report Date: 23-JUL-18

Project Manager: Kelsey Brooks

	Lab Id:	590246-0	19	590246-0	20	590246-0	21	590246-0	22	590246-0	23	590246-0	24
Analysis Requested	Field Id:	T-10 @ 1	12'	T-11 @ :	2'	T-11 @	6'	T-11 @ 1	.0'	T-11 @ 1	2'	T-12 ESV	w
Anaiysis Kequesieu	Depth:	12- ft		2- ft		6- ft		10- ft		12- ft		4- ft	
	Matrix:	SOIL											
	Sampled:	Jun-19-18 1	3:40	Jun-19-18 1	3:45	Jun-20-18 1	2:00	Jun-20-18 1	2:05	Jun-20-18 1	2:10	Jun-20-18 1	2:15
Chloride by EPA 300	Extracted:	Jun-28-18 1	0:00	Jun-29-18 1	0:00	Jun-29-18 1	0:00	Jun-28-18 1	0:00	Jun-28-18 1	0:00	Jun-28-18 1	0:00
	Analyzed:	Jul-02-18 1	0:46	Jun-29-18 1	4:00	Jun-29-18 1	4:37	Jul-02-18 1	0:58	Jul-02-18 1	1:11	Jul-02-18 1	1:23
	Units/RL:	mg/kg	RL										
Chloride		378	125	133	125	3840	1250	511	125	40.8	25.0	210	125

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Kalsay Brooks

Received by OCD: 4/7/2023 7:11:16 AM XENCO LABORATORIES

Certificate of Analysis Summary 590246

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id: Contact:

Project Location:

Joel Lowry Lea Co., NM 110Jeet 1 (united 11pp1e e Seul

Date Received in Lab: Mon Jun-25-18 03:00 pm **Report Date:** 23-JUL-18

Project Manager: Kelsey Brooks

	Lab Id:	590246-02	25	590246-0	26	590246-0	27	590246-0	28	590246-0	29	590246-03	30
Analysis Requested	Field Id:	T-12 WS	W	T-12 SS	W	T-13 @	4'	T-13 @	3'	T-13 @ 1	.0'	T-14 ESV	N
Anaiysis Requesieu	Depth:	4- ft		4- ft		4- ft		8- ft		10- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-20-18 1	2:20	Jun-20-18 1	2:25	Jun-20-18 1	2:30	Jun-20-18 1	2:35	Jun-20-18 1	2:40	Jun-20-18 1	2:45
Chloride by EPA 300	Extracted:	Jun-28-18 1	0:00	Jul-02-18 0	8:45	Jun-28-18 1	0:00	Jun-28-18 1	0:00	Jul-02-18 0	8:45	Jun-28-18 1	0:00
	Analyzed:	Jul-02-18 12	2:13	Jul-02-18 2	1:59	Jul-02-18 1	3:15	Jul-02-18 1	3:39	Jul-03-18 0	0:41	Jul-02-18 14	4:29
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		220	125	38.0	25.0	5330 D	1250	505	125	37.0	25.0	<25.0	25.0

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Kelsey Brooks



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id:

Project Location:

Contact: Joel Lowry

Lea Co., NM

Date Received in Lab: Mon Jun-25-18 03:00 pm

Report Date: 23-JUL-18

Project Manager: Kelsey Brooks

	Lab Id:	590246-0	31	590246-03	32	590246-0	33	590246-0	34	590246-03	35	590246-03	36
A multiplica D manager I	Field Id:	T-15 WS	W	T-15 ESV	V	T-16 ESW	<i>l</i> 1	T-16 ESW	2	T-16 WSV	V 1	T-16 WSW	V 2
Analysis Requested	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-20-18 1	3:00	Jun-20-18 1	3:05	Jun-20-18 1	3:10	Jun-20-18 1	3:15	Jun-20-18 1	3:20	Jun-20-18 1	3:25
Chloride by EPA 300	Extracted:	Jul-02-18 0	8:45	Jul-02-18 08	3:45	Jul-02-18 0	8:45	Jul-02-18 0	3:45	Jul-02-18 08	3:45	Jul-02-18 08	8:45
	Analyzed:	Jul-02-18 1	7:13	Jul-02-18 18	3:03	Jul-02-18 1	8:28	Jul-02-18 18	3:53	Jul-02-18 19	9:18	Jul-02-18 20	0:20
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		183	25.0	<25.0	25.0	479	25.0	438	25.0	574 D	125	422	25.0

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Kalsay Brooks



TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State

Project Id:

Project Location:

Contact: Joel Lowry Lea Co., NM **Date Received in Lab:** Mon Jun-25-18 03:00 pm

Report Date: 23-JUL-18

Project Manager: Kelsey Brooks

	Lab Id:	590246-0	37	590246-0	38	590246-03	39	590246-0	40	590246-04	41	590246-04	42
A multiplica D a manufact	Field Id:	T-16 NS	W	T-16 NW	w	T-17 NSV	N	T-19 @	4	T-19 @ 1	0'	T-19 @ 1	.2'
Analysis Requested	Depth:	4- ft		4- ft		4- ft		4- ft		10- ft		12- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-20-18 1	3:30	Jun-20-18 1	3:35	Jun-20-18 1	3:40	Jun-20-18 1	3:45	Jun-20-18 1	4:00	Jun-20-18 1	4:05
Chloride by EPA 300	Extracted:	Jul-02-18 0	8:45	Jul-02-18 0	8:45	Jul-03-18 08	3:45	Jul-02-18 0	3:45	Jul-02-18 08	3:45	Jul-02-18 08	8:45
	Analyzed:	Jul-02-18 2	0:45	Jul-02-18 2	1:09	Jul-03-18 10	0:11	Jul-02-18 23	3:01	Jul-02-18 23	3:26	Jul-03-18 00	0:16
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		205	25.0	147	25.0	<25.0	25.0	3530 D	1250	506 D	250	34.3	25.0

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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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



BS / BSD Recoveries



Page 173 of 423

Project Name: Apple 5 State

Work Order #: 590246, 590246

Project ID:

Analyst: RNL

Sample: 7657601-1-BKS

Date Prepared: 06/29/2018 **Batch #:** 1

Date Analyzed: 06/29/2018

Matrix: Solid

Lab Batch ID: 3055086 **Units:** mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<25.0	250	249	100	250	253	101	2	90-110	20	

RNL **Date Prepared:** 06/28/2018 **Date Analyzed:** 06/28/2018 **Analyst:**

Lab Batch ID: 3055146 **Batch #:** 1 Matrix: Solid **Sample:** 7657627-1-BKS

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	258	103	250	254	102	2	90-110	20	

Date Analyzed: 07/02/2018 Analyst: **RNL Date Prepared:** 06/28/2018

Lab Batch ID: 3055267 Sample: 7657688-1-BKS **Batch #:** 1 Matrix: Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	260	104	250	260	104	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Page 174 of 423

Project Name: Apple 5 State

Work Order #: 590246, 590246

Project ID:

Analyst:

RNL

Date Prepared: 07/02/2018 **Batch #:** 1

Date Analyzed: 07/02/2018

Lab Batch ID: 3055281

Sample: 7657716-1-BKS

Matrix: Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<25.0	250	254	102	250	260	104	2	90-110	20	

RNL **Date Prepared:** 07/02/2018 **Date Analyzed:** 07/02/2018 **Analyst:**

Lab Batch ID: 3055282 **Batch #:** 1 Matrix: Solid **Sample:** 7657718-1-BKS

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<25.0	250	247	99	250	249	100	1	90-110	20	

Analyst: RNL Date Prepared: 07/03/2018 **Date Analyzed:** 07/03/2018

Lab Batch ID: 3055325 **Sample:** 7657742-1-BKS **Batch #:** 1 Matrix: Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	246	98	250	244	98	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

Project Name: Apple 5 State

Work Order #: 590246

4.6

Project ID:

Lab Batch ID:

3055086

QC- Sample ID: 590246-020 S

Batch #:

Matrix: Soil

Date Analyzed:

06/29/2018

Date Prepared: 06/29/2018

Analyst: RNL

Reporting Units:

mg/kg

Z010 Analyst. Kive

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	149	250	413	106	250	427	111	3	80-120	20	

Lab Batch ID: 3055086

QC- Sample ID: 590755-002 S

Batch #: 1

Matrix: Soil

Date Analyzed: Reporting Units: 06/29/2018

mg/kg

Date Prepared: 06/29/2018

Analyst: RNL

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	3.90	25.0	29.0	100	25.0	29.0	100	0	80-120	20	

Lab Batch ID:

3055146

QC- Sample ID: 590246-001 S

Batch #:

Matrix: Soil

Date Analyzed:

06/28/2018

Date Prepared: 06/28/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[-]	[D]	[E]	[-]	[G]	, ,		,,,	
Chloride	134	250	382	99	250	385	100	1	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F)|

Project Name: Apple 5 State

Work Order #: 590246

590246 3055146

QC- Sample ID: 590246-010 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

06/28/2018

Date Prepared: 06/28/2018

Analyst: RNL

Reporting Units:

Date Analyzed:

mg/kg

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	%R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
Chloride	<125	250	347	139	250	332	133	4	80-120	20	X

Lab Batch ID: 3055267 **QC- Sample ID:** 590246-024 S

Batch #: 1 Matrix: Soil

07/02/2018 **Date Prepared:** 06/28/2018

Analyst: RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1250	250	<1250	0	250	<1250	0	NC	80-120	20	X

Lab Batch ID:

3055267

QC- Sample ID: 590246-030 S

Batch #:

Matrix: Soil

Date Analyzed:

07/02/2018

Date Prepared: 06/28/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1250	250	<1250	0	250	<1250	0	NC	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F)|

Project Name: Apple 5 State

Work Order #: 590246

590246 3055281

QC- Sample ID: 590246-031 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: Date Analyzed:

07/02/2018

Date Prepared: 07/02/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	183	250	469	114	250	456	109	3	80-120	20	

Lab Batch ID: 3055281

QC- Sample ID: 590246-035 S

Batch #: 1

Matrix: Soil

Date Analyzed:

07/02/2018

Date Prepared: 07/02/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	604	250	910	122	250	903	120	1	80-120	20	X

Lab Batch ID:

3055282

QC- Sample ID: 590246-041 S

Batch #:

Matrix: Soil

Date Analyzed:

07/02/2018

Date Prepared: 07/02/2018

Analyst: RNL

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

1

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	549	250	866	127	250	811	105	7	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)|



Project Name: Apple 5 State

Work Order #: 590246

Lab Batch ID:

3055325

QC- Sample ID: 584939-003 S

Batch #:

Matrix: Soil

Date Analyzed:

07/03/2018

Date Prepared: 07/03/2018

Analyst: RNL

Project ID:

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	7050	250	8700	NC	250	8610	NC	1	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

CHAIN OF CUSTODY

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Setting the Standard since 1990 Stafford, Texas (281-240-4200)

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

Phoenix, Arizona (480-355-0900)

J/29/26			WW (+24-) 04-9291)	www.xenco.com	o.com			L			Your	Your Joh #		
				The state of the s				+			Venc	# gor	100%	7
Client / Reporting Information			a de la constante de la consta				No. of the last		THE STREET	Analytical	Analytical Information			Matrix Codes
Company Name / Branch: TRC Environmental Corporation		Project Name/Number:	mber:	Information										
Company Address: 2057 Commerce Drive Midland, TX 79703		Project Location: Lea Co, NM												W = Water S = Soil/Sed/Solid GW =Ground Water
Email: Phone No: ilowry@trcsolutions.com	No: 6-4450	Invoice To: COG Operating C/O Becky Haskell	O Becky Hasi	lei				Ţ						DW = Drinking Water P = Product SW = Surface water
Project Contact: Joel Lowry								1						SL = Sludge OW =Ocean/Sea Water
Samplers's Name Joel Lowry		Invoice:						Exi						WI = Wipe
No. Field ID / Point of Collection		Collection			Number of	of preserved bottles	d bottles	M 910		Q1 700	•			O = Oil WW= Waste Water A = Air
7-11-66	Sample Depth	Date	Time Matrix	# of bottles	HCI NaOH/Zn Acetate HNO3	H2SO4	MEOH NaHSO4	трн 8(Chlorid	BTEX 8			ï	
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	ГАТ		Level II Std	td QC		Level IV (F	Level IV (Full Data Pkg /raw data)	J /raw dat	e e	ilowi	Notes: lowry@trcsolutions.com	mod		
ιςγ	17		Level III ;	Level III Std QC+ Forms		TRRP Level IV	el IV			rhas	rhaskell@concho.com	Ē		pcooper@ircsolutions.com
Z Day EMERGENCY X Contract TAT	t TAT		Level 3 (Level 3 (CLP Forms)		UST / RG -411	411			2000	2000der@trasslutional			
3 Day EMERGENCY			TRRP Checklist	ecklist							on management	IB.COIII		
TAT Starts Day received by Lab, if received by 5:00 pm	by 5:00 pm									gue	dneel2@concho.com	티		
Relinguished by Sample:	SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME	OCUMENTED BEL	OW EACH TIM	E SAMPLES CH	SAMPLES CHANGE POSSESSION INCLUDING COURSED BETWEEN	SION INC. I	DING	100	à	FED.	FED-EX / UPS: Tracking #	# Bui		
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Released to Im

Page 20 of 25

Final 1.001

CHAIN OF CUSTODY

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Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

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

Phoenix, Arizona (480-355-0900)

SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe bcooper@trcsolutions.com DW = Drinking Water P = Product S = Soil/Sed/Solid GW =Ground Water O = Oil WW= Waste Water A = Air Matrix Codes Field Comments JE 06 Xenco Job # zconder@trcsolutions.com ilowry@trcsolutions.com maskell@concho.com Analytical Information BTEX 8021B Chloride E 300 × × × × × × × Level IV (Full Data Pkg /raw data) **TPH 8015 M Ext** ONE NEOH TRRP Level IV #OSHPI UST / RG -411 7OSZI EON! Data Deliverable Information ASOH/Zn www.xenco.com 1OF Level III Std QC+ Forms Project Information # of bottles Level 3 (CLP Forms) Level II Std QC Matrix Invoice To: COG Operating C/O Becky Haskell 1% 1:00 2 Ch, 3 Time Project Location: Lea Co, NM Apple 5 State Collection 5 voice: 00 7 10 1 7 7 Phone No: 432-466-4450 X Contract TAT S Day TAT 7 Day TAT Field ID / Point of Collection Client / Reporting Information Company Name / Branch: TRC Environmental Corporation Company Address: という NEW 6 @ 10° 0/6 ilowry@trcsolutions.com 3 00 Next Day EMERGENCY samplers's Name Joel Lown 2 Day EMERGENCY ☐ 3 Day EMERGENCY 9 Same Day TAT 2057 Commerce Drive 7-86 roject Contact: Joel Lowry イン 4.96 1-10 7-10 0 Midland, TX 79703 1.0 7.4 1-1 Š

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliate-and subsciond account tends of the conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for tends of samples. Any samples received by Xenco and its benievable will be invoiced at \$5 per samples. Any samples necessary of samples and while he invoiced at \$5 per samples. Any samples necessary of samples and will be invoiced at \$5 per samples.

Received By:

Preserved where applicable

Received By

Date Time: Date Time:

2 Relinquished By:

Received By:

Date Time: Date Time:

Custody Seal #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY |
| Date Time: | Received By: | Relinquished By: |

TRRP Checklist

FED-EX / UPS: Tracking #

dneel2@concho.com

Relinquished by Sample

Relinquished by: Relinquished by:

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

CHAIN OF CUSTODY

XENCO

Stafford, Texas (281-240-4200) Dallas Texas (214-902-0300)

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

Phoenix, Arizona (480-355-0900)

Projection Project Name Number Project Information Project Name Number Project							6				Analy	ical Infor	notion			
Provided	Client / Reporting Information		Proje	t Information	5				H	F	daily	- Internation	llation	F		Matrix Codes
Manney No. Prince No.	ompany Name / Branch: RC Environmental Corporation	Project Name	umber:						T							
Comparison Content of Collection Content of Coll	Company Address:	Project Locati	20 15									_				W = Water
Fines No. Fines No. Fines No. Fines No. Fines Fine	2057 Commerce Drive Midland, TX 79703	Lea Co, NM														GW = Ground Water
Collection Sample Die Time Manipur of preserved bottles Manipur of preserved by 200 Manipur of preserved		Invoice To: COG Operating	C/O Becky Ha	skeil												DW - Drinking wate P = Product SW = Surface water
Collection Sample Does	Project Contact: Joel Lowry															SL = Sludge OW =Ocean/Sea Wat
Field D Pent of Collection Sample Collection Sample Collection Sample Collection Sample Collection C	Samplers's Name Joel Lowry	IIIVOICE:							×∃ I				_			WI = Wipe
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Cander A Contract TAT Contract TAT Cevel 3 (CLP Forms) UST / RG 411 Zonder@ttcsolutions.com			Level	Std QC+ F	orms		TRRP Leve	≥ 1				haskell@	concho.co			
GENCY Day received by Lab, if received by 5:00 pm Sampler: Sampl			Level 3	(CLP Form	<u></u>		UST / RG	111								
Date Files by Lab, if received by 5:00 pm Sample: Sample Custopy MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY Bampler: Received By: A bate Time: Received By: A bate Time: Received By: Bate Time: Received By: A bate Time: Received By: Bate Time: Received By: A bate Time: Received By: Bate T	3 Day EMERGENCY		TRRP	hecklist]						connerta	resolution	com		
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Unice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Amoro, 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 terms will be enforced unless previously negotiated under a fully executed client contract.

Thermo. Corr. Factor

2 Received By:

Date Time: Date Time:

2 Relinquished By:

Received By:

Date Time: Date Time

Relinquished by:

Custody Seal #

Preserved where applicable

Received By:

CHAIN OF CUSTODY

XENCO

Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

Phoenix, Arizona (480-355-0900)

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

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Cocan/Sea Water
WI = Wipe bcooper@trcsolutions.com O = Oil WW= Waste Water Matrix Codes Field Comments zconder@trcsolutions.com Xenco Job # lowry@trcsolutions.com FED-EX / UPS: Tracking # maskell@concho.com dneel2@concho.com Analytical Information Notes: BTEX 8021B Chloride E 300 × × × × × × × Level IV (Full Data Pkg /raw data) SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY | Pate Time: | Received By: 17PH 8015 M Ext IONE MEOH TRRP Level IV UST / RG -411 POSHE H2SO4 EON Data Deliverable Information NaOH/Zn Acetate нсі Level III Std QC+ Forms Level 3 (CLP Forms) Project Information # of bottles Level II Std QC TRRP Checklist Invoice To: COG Operating C/O Becky Haskell Matrix S 00 125 35 Ď 20 3 Project Name/Number: Apple 5 State Project Location: Lea Co, NM Collection 6/20 Date Invoice: Sample Depth T 1 T 2 7 I TAT Starts Day received by Lab, if received by 5:00 pm Phone No: 432-466-4450 x Contract TAT 5 Day TAT 7 Day TAT Field ID / Point of Callection Client / Reporting Information ESW 2 **USW** 2 Company Name / Branch: TRC Environmental Corporation Company Address: w5w 7 U50 ESW. 匠ろし 335 ~5√ 255 ilowry@trcsolutions.com ☐ Next Day EMERGENCY Relinquished by Sampler 2 Day EMERGENCY 3 Day EMERGENCY amplers's Name Joel Lowry Same Day TAT 2057 Commerce Drive roject Contact: Joel Lowry アバ Midland, TX 79703 9-7 1-16 7-16 1-10 -16 7-18 ī 1 Š

Information of the standard terms and reinquishment of samples constitutes a valid purchase order from olient 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 constitutes a valid purchase order from olient company to Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples and stall not assume any responsibility for terms will be envirously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

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

Phoenix, Arizona (480-355-0900)

				WWW.XE	www.xenco.com				4			Xenco Job #	15	MC OB	
										2000				2	
Client / Reporting Information			Decion	la formation							Analytical Information	rmation			Matrix Codes
Company Name / Branch:		Project Name/Number:	Imper:	Project Information					7						
INC Environmental Corporation Company Address:		Apple 5 State Project Location:												<i>≥ u</i> .	W = Water S = Soil/Sod/Solid
2057 Commerce Drive Midland, TX 79703		Lea Co, NM												0 0 0	GW =Ground Water DW = Drinking Water
Email: <u>jlowry@trcsolutions.com</u>	Phone No: 432-466-4450	Invoice To: COG Operating C/O Becky Haskell	3/0 Becky Has	rell										i a 15 i	P = Product SW = Surface water
Project Contact: Joel Lowry		Invoice							þ					7 6	SL = Sludge OW =Ocean/Sea Water
Samplers's Name Joel Lowry									91					S C	WI≡ Wipe
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Same Day TAT	5 Day TAT		Level II Std	std QC		1 -	Level IV (Full Data Pkg /raw data)	Data Pkg	/raw data	-	ilowry@	lowry@trcsolutions.com	8		
Next Day EMERGENCY	7 Day TAT		Level III §	Level III Std QC+ Forms	TIIIS	T A	TRRP Level IV				lodoch	- House) I	pcooper@ircsolutions.com
2 Day EMERGENCY	X Contract TAT		Level 3 (c	Level 3 (CLP Forms)		S	UST / RG -411				DVODE I	Collello coll			
3 Day EMERGENCY			TRRP Checklist	ecklist							ani ion	conider (controls, com	Som		
TAT Starts Day received by Lab, if received by 5:00 pm	if received by 5:00 pm										aneeiz	dneelz(@concho.com			
Relinfuished by Samular	SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME	BE DOCUMENTED BE	LOW EACH TIM	E SAMPLES	CHANGE	SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY	1, INCLUDIN	G COURIE	S DELIVER	À	reo-ex	FED-EX / UPS: Tracking #	#=		
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yemiquisited by:	Date Time:		Received By:		(Reli	Relinquished By:	ły:		Date	Date Time:	Received By:			
Relinquished by:	Date Time:		Received By:	0	+	4 0	4			_		4			

Notice: Signature of this document and relinquishment of samples consistutes a valid purchase order from client company to Xenco, its affiliates and subcontractions. 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 the cost of samples and shall not assume any responsibility for the cost of samples and shall not assume any responsibility for the cost of samples and shall not assume any responsibility for the cost of samples and shall not assume any septimized will be invoiced at \$5 per sample. These



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/25/2018 03:00:00 PM

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

Work Order #: 590246

Temperature Measuring device used: IR-3

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		4.7	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping con-	tainer/ cooler?	N/A	
#5 Custody Seals intact on sample bottles	s?	N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinqu	ished/ received?	Yes	
#10 Chain of Custody agrees with sample	e 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 indicate	ed test(s)?	Yes	
#16 All samples received within hold time	?	Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero head	space?	N/A	

* Must be d	ompleted for after-hours de	livery of samples prior to pla	cing in the refrigerator
Analyst:	·	PH Device/Lot#:	
	Checklist completed by:	Brenda Ward	Date: 06/25/2018
	Checklist reviewed by:	Muny froak Kelsey Brooks	Date: 06/25/2018

Analytical Report 601637

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State SWD #1

16-OCT-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



16-OCT-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 601637

Apple 5 State SWD #1

Project Address: Eddy Co, NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 601637. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 601637 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Kuns Roah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 601637

TRC Solutions, Inc, Midland, TX

Apple 5 State SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-9B @ 16'	S	10-04-18 14:00	16 ft	601637-001
SB-9B @ 18'	S	10-04-18 14:10	18 ft	601637-002

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State SWD #1

Project ID: Report Date: 16-OCT-18
Work Order Number(s): 601637
Date Received: 10/05/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 601637

TRC Solutions, Inc, Midland, TX **Project Name: Apple 5 State SWD #1**

Project Id:

Contact: Joel Lowry

Eddy Co, NM **Project Location:**

Date Received in Lab: Fri Oct-05-18 05:00 pm

Report Date: 16-OCT-18 Project Manager: Kelsey Brooks

				ı			1	1
	Lab Id:	601637-001		601637-00	02			
Analysis Requested	Field Id:	SB-9B @ 16	5'	SB-9B @	18'			
Anatysis Requested	Depth:	16- ft		18- ft				
	Matrix:	SOIL		SOIL				
	Sampled:	Oct-04-18 14:	00	Oct-04-18 1	4:10			
Chloride by EPA 300	Extracted:	Oct-11-18 10:	30	Oct-16-18 0	8:30			
	Analyzed:	Oct-11-18 15:	23	Oct-16-18 10	0:59			
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		481	250	430	125			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks Project Manager



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

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

^{**} Surrogate recovered outside laboratory control limit.



BS / BSD Recoveries



Page 191 of 423

Project Name: Apple 5 State SWD #1

Work Order #: 601637 Project ID:

Analyst: RNL Date Prepared: 10/11/2018 Date Analyzed: 10/11/2018

 Lab Batch ID: 3066120
 Sample: 7663990-1-BKS
 Batch #: 1
 Matrix: Solid

|--|

	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[2]	[0]	[2]	[12]	1105010 [2]	[0]				
Chloride	1.25	250	253	101	250	252	101	0	90-110	20	

Analyst: RNL Date Prepared: 10/16/2018 Date Analyzed: 10/16/2018

Lab Batch ID: 3066480 **Sample:** 7664233-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	< 0.572	250	253	101	250	250	100	1	90-110	20	

Form 3 - MS / MSD Recoveries

Project Name: Apple 5 State SWD #1

Work Order #: 601637

7

Project ID:

Lab Batch ID:

3066120

QC- Sample ID: 601773-001 S

Batch #:

Matrix: Soil

Date Analyzed:

10/11/2018

Date Prepared: 10/11/2018

Analyst: RNL

Reporting Units:

mg/kg

Z010 Analyst. KNL

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[24]	[10]		[D]	[L]		լԺյ				
Chloride	30.9	25.0	156	500	25.0	158	508	1	80-120	20	X

Lab Batch ID: 3066480 **QC- Sample ID:** 602420-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/16/2018 **Date Prepared:** 10/16/2018 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Parent Sample	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Chloride	18.8	250	282	105	250	272	101	4	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

3

Crary

CHAIN OF CUSTODY

XENCO

Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

601637				WWW	www.xenco.com	EΙ								×	Xenco Job#	*	1	60163	7
												Analy	Analytical Information	ormation	100			Mat	Matrix Codes
Client / Reporting Information		74	Projec	Project Information	io					L		_	_				Page 1		Sanon VI
Company Name / Branch: TRC Environmental Corporation Company Address: 2057 Commerce Drive Midland, TX/ 59703	<u>c</u> ∢ <u>c</u> m	Project Name/Number: Apple 5 State SWD #1 Project Location: Eddy Co, NM	iber: ND #1															W = Water S = Soil/Se GW = Grou DW = Drinl	W = Water S = Soil/Sed/Solid GW =Ground Water DW = Drinking Water
Email: Phone No: Ilowry@trcsolutions.com 432-466-4450 zconder@trcsolutions.com	= X	Invoice To: COG Operating C/O Becky Haskell) Becky Ha	kell						1								P=Pr SW=S SL=S	P = Product SW = Surface water SL = Sludge OW =Ocean/Sea Water
Project Confact: Joel Lowry Samplers's Name: Joel Lowry	Ė	Invoice:								I Ext	00	8						WI = Wipe O = Oil	//pe
		Collection				Numbe	r of pres	Number of preserved bottles	ttles	M SI	€3	0216						WW A = A	ww= waste water A = Air
No. Field ID / Point of Collection	Sample	Date	Time	# Matrix bot	# of bottles	nZ\HObV	12SO4	HORN POSHRIV	NONE	08 H9T	Chloride	BTEX 8	DIOL					Field Commonts	space
1 SB-9B @ 16'	16 FT 1	10/4/2018	14:00	S			\vdash	\vdash	-		×								200
₂ SB-9B @ 18'		10/4/2018	14:10	S	-						×							0	
8						,						\vdash							
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Same Day TAT X 6 Day TAT			Level II Std	Std QC			Leve	Level IV (Full Data Pkg /raw data)	Data Pkg	g /raw da	ata)		ilowry	@trcsolt	ilowry@trcsolutions.com	틹		zconder@tr	zconder@trcsolutions.com
Next Day EMERGENCY 7 Day TAT			Level	Level III Std QC+ Forms	Forms		TRR	TRRP Level IV					rhask	ell@con	rhaskell@concho.com				
2 Day EMERGENCY Contract TAT			Level	Level 3 (CLP Forms)	rms)		UST	UST / RG -411					pcoop	er@trcs	bcooper@trcsolutions.com	COM			
3 Day EMERGENCY			TRRP Checklist	Checklist									dneel	dneel2@concho.com	ho.com				
TAT Starts Day received by Lab, if received by 5:00 pm	:00 pm				1								FED-E	X / UPS:	FED-EX / UPS: Tracking #	# 69			
Relinquished by Sampler:	SAMPLE CUSTODY MUST BE DOCUMENTED BELOWEACH TIME Date Time: PAC Received BY	I SE REGINEACH TIM	SIVE BY	IME SAM	SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY Relinquished By:	NGE POS	SESSION, Relint	Relinquished By:	G COURIE	ER DELIN		Date Time:		- 8	Received By:	y:			
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Relinquished by:	Date Time:	R 3	3 Received By:				4 Custo	Custody Seal #			Preserv	ed wher	Preserved where applicable	able		on los	Cooler Temp.		Thermo, Corr. Factor
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Notice. Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be invited by the Client faulth executed by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 10/05/2018 05:00:00 PM

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

Work Order #: 601637

Temperature Measuring device used: IR-3

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.3	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	er/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?		N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquished	ed/ received?	Yes	
#10 Chain of Custody agrees with sample la	bels/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 to	est(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		N/A	
#18 Water VOC samples have zero headspa	ace?	N/A	

Must be completed for after-hours delivery of samples prior to placing in the refrigerator							
Analyst:		PH Device/Lot#:					
	Checklist completed by:		Date: <u>10/08/2018</u>				
	Checklist reviewed by:	Brenda Ward	Date: 10/09/2018				
		Kelsey Brooks					



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD

Sub- Q Q Q C Code basin County 64 16 4 Sec Tws Rng

Rng

X Y 583848 3549325*

 $Water\\ Distance Depth Well Depth Water Column$

i* **(a)** 245 100

Average Depth to Water:

Minimum Depth:

Maximum Depth: --

Record Count: 1

POD Number

C 02478

UTMNAD83 Radius Search (in meters):

Easting (X): 583880.1 **Northing (Y):** 3549568.1

Radius: 1000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/19/18 9:03 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

CUB

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

586687 3549347*

(In feet)

		Sub-		Q (Q)							,	Water
POD Number	Code	basin	County	64 1	6 4	Sec	Tws	Rng	X	Y	DistanceDep	thWellDep	thWater C	olumn
<u>C 02478</u>		CUB	ED	2	2 1	05	26S	28E	583848	3549325*	239	100		
<u>C 01278</u>		C	ED	2	1 3	28	25S	28E	585470	3551338*	2361	205	90	115
C 03836 POD1		C	ED	2 2	2 4	29	25S	28E	584682	3551934	2500	300	30	270

1 1 03 26S 28E

Average Depth to Water: 60 feet

Minimum Depth: 30 feet

2767

Maximum Depth: 90 feet

150

Record Count: 4

C 02477

UTMNAD83 Radius Search (in meters):

Easting (X): 583926.6 **Northing (Y):** 3549551.1 **Radius:** 3000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/18/18 1:24 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Figure 1 - View of the affected dry dirt tank, facing North.



Figure 2 - View of the initial release, facing West.



Figure 3 - View of portion of the excavated area, facing Northwest.



Figure 4 - View of portion of the excavated area, facing Northwest.



Figure 5 - View of portion of the excavated area, facing Southeast.



Figure 6 - View of portion of the excavated area, facing West.



Figure 7 - View of portion of the excavated area, facing Northwest.



Figure 8 - View of portion of the excavated area, facing West.



Figure 9 - View of additional delineation activities, facing Northeast.



Figure 10 - View of additional delineation activities, facing North.

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

MAY 0 4 2018

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 DISTRICT II-ART E accordance with 19.15.29 NMAC.

Release Notification and Corrective Action **OPERATOR** Initial Report Final Report Name of Company: COG Operating, LLC (OGRID #229137) Contact: Robert McNeill Address: 600 West Illinois Avenue, Midland, TX 79701 Telephone No. 432-683-7443 Facility Name: Apple 5 State SWD #001 Facility Type: Flowline Surface Owner: Mineral Owner: **Private** API No. 30-015-41402 State LOCATION OF RELEASE Unit Letter Section Township Feet from the North/South Line Feet from the East/West Line Range County N 32 **25S** 28E Eddy Latitude 32.079207 Longitude -104.111194 NAD83 NATURE OF RELEASE Type of Release: Volume of Release: Volume Recovered Produced Water 12,897 bbl. 4,633 bbl. Source of Release: Date and Hour of Occurrence: Date and Hour of Discovery: April 29, 2018 9:30am Valve Failure April 29, 2018 9:30am Was Immediate Notice Given? If YES, To Whom? Mike Bratcher - NMOCD, Crystal Weaver - NMOCD Date and Hour: April 29, 2018 8:45pm By Whom? Dakota Neel Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes ☒ No If a Watercourse was Impacted, Describe Fully,* Describe Cause of Problem and Remedial Action Taken.* The release was caused by a mechanical valve failure on a trunk line. The valve has been replaced. Describe Area Affected and Cleanup Action Taken.* The release was within a pasture. Vacuum trucks were dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Approved by Environmental Specialist. **Printed Name:** Robert McNeill **Expiration Date:** Approval Date: **Environmental Manager** Conditions of Approv E-mail Address: rmcneill@concho.com Attached

* Attach Additional Sheets If Necessary

Phone: 432-638-6470

5/ali8AB

Date: May 3, 2018



Remediation Summary and Site Closure Request

July 12, 2019

Prepared by: Jared Stoffel, PG Staff Geologist

Apple 5 State SWD #001 (2RP-4739)

Prepared For:

COG Operating LLC 600 W Illinois Avenue Midland, TX 79701

Prepared By:

TRC Environmental Corp. 10 Desta Dr. STE 150E Midland, TX 79705

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1.0 Introduction and Background Information

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG) has prepared this *Remediation Summary and Site Closure Request* for the Apple 5 State SWD #001 (Release Site). The legal description of the Release Site is Unit Letter "N", Section 32, Township 25 South, Range 28 East, in Eddy County, New Mexico. The GPS coordinates for the site are N 32.079207° W 104.111194°. The subject property is located on private land. The Site Location and Release area are shown in Figure 1- Site Location Map and Figure 2- Site & Sample Location Map, respectively.

On April 29, 2018, a release was discovered on the Apple 5 State SWD #001 trunk line. The initial Release Notification and Corrective Action (Form C-141) indicated failure of a valve resulted in the release of approximately twelve-thousand, eight-hundred ninety-seven (12,897) barrels (bbls) of produced water. During initial response activities, the affected valve was replaced and vacuum trucks were utilized to recover approximately four thousand, six hundred thirty-three (4,633) bbls of produced water. The Release affected an area within the pasture measuring approximately fourteen-thousand, three-hundred (14,300) square feet (sq. ft.) prior to flowing into a "dry dirt tank". The total surface area affected measured approximately thirty-seven thousand (37,000) sq. ft. Following the discovery of the Release, a COG representative notified NMOCD and a Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD on May 3, 2018. The Form C-141 is provided in Appendix A.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 32, Township 25 South, Range 28 East. A reference map utilized by the NMOCD Artesia District Office indicated groundwater should be encountered at approximately twenty-five (25) feet below ground surface (bgs). A one thousand (1,000) meter radius search of the groundwater database maintained by the NMOSE indicated depth to groundwater information was not available for the closest well (C 02478) which is inferred to have been located approximately two hundred forty-five (245) meters southwest of the site. The water well was drilled in 1916 and could not be located during the initial site assessment. A three thousand (3,000) meter radius search of the groundwater database indicated the average depth to groundwater as measured in the two (2) wells with available information is sixty (60) feet bgs, with a minimum well depth of thirty (30) feet bgs. Based on the reference map utilized by the NMOCD, information available on the groundwater databased maintained by the NMOSE, and the topography of the area, the depth to groundwater is estimated to be approximately thirty (30) to thirty-five (35) ft. bgs. Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion. Results of the NMOSE database search are provided in Appendix B.

A one thousand (1,000) meter radius search of the groundwater database maintained by the NMOSE indicated one (1) water well (C 02478) was drilled in 1916 approximately two-hundred forty-five (245) meters southwest of the Release Site. Depth to groundwater information is not available for the water well and the water well could not be located during the initial site assessment. Based on the NMOCD site classification system, zero (0) points will be assigned to



the subject area ranking as a result of this criterion. The Release affected a "dirt tank", which was dry at the time of the Release, but has contained water in the past. Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion.

Based on the NMOCD Site Classification criteria, the Recommended Remediation Action Levels (RRAL) for a Site with a ranking score of greater than nineteen (>19) points are 10 mg/kg for benzene, 50 mg/kg for benzene, toluene, ethylbenzene, and xylenes (BTEX), and one hundred (100) milligrams per kilogram (mg/kg) for total petroleum hydrocarbons (TPH). Based on the depth to groundwater and presence of surface water, the NMOCD Closure Criteria for Soils Impacted by a Release for the Apple 5 State SWD #001 Release Site are as follows:

- Benzene 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) 100 mg/kg

2.0 Initial Investigation

Following the discovery of the Release, an immediate response was initiated. Vacuum trucks were utilized to recover free-standing liquids. Following the removal of free-standing liquids, remediation activities commenced at the Release Site. Heavily saturated soil was excavated and temporarily stockpiled on-site, atop an impacted area in the eastern portion of the Release Site, pending transportation to an NMOCD-approved disposal facility.

On May 4, 2018, TRC conducted an initial investigation at the Release Site. During the initial investigation, a series of test trenches (T-1, T-3, and T-4) were advanced within the affected area in an effort to determine the vertical extent of soil impact. Test trench T-1 was advanced in the southeastern portion of the Release Site adjacent to the release point. During the advancement of the test trench, seven (7) soil samples (T-1 @ 2', T-1 @ 4', T-1 @ 6', T-1 @ 8', T-1 @ 10', T-1 @ 12', and T-1 @ 14') were collected and submitted to Xenco Laboratories in Midland, Texas for determination of chloride concentrations using Method E300. Laboratory analytical results indicated chloride concentrations ranged from 12,900 mg/kg in soil sample T-1 @ 2' to 405 mg/kg in soil sample T-1 @ 12'. Soil sample T-1 @ 2' was analyzed for concentrations of BTEX using Method SW 846-8021B and TPH using Method SW 846-8015M, and the results were determined to be less than the applicable laboratory sample detection limit (SDL) for Benzene, BTEX, and TPH. A table summarizing concentrations of Benzene, BTEX, TPH, and Chloride in Soil is provided as Table 1. Laboratory analytical reports are provided as Appendix C.

Test trench T-3 was advanced in the central portion of the affected "dry dirt tank". During the advancement of the test trench, two (2) soil samples (T-3 @ 4' and T-3 @ 6') were collected and submitted to the laboratory for analysis of chloride, BTEX, and TPH. Laboratory analytical results indicated soil samples T-3 @ 4' and T-3 @ 6' exhibited chloride concentrations of 300 mg/kg and 52.9 mg/kg, respectively. BTEX and TPH concentrations were less than the applicable laboratory SDL in each of the submitted soil samples.



Test trench T-4 was advanced in the northern portion of the affected "dry dirt tank". During the advancement of the test trench, two (2) soil samples (T-4 @ 4' and T-4 @ 6') were collected and submitted to the laboratory for analysis of chloride, BTEX, and TPH concentrations. Laboratory analytical results indicated soil samples T-4 @ 4' and T-4 @ 6' exhibited chloride concentrations of 375 mg/kg and 39.0 mg/kg, respectively. BTEX and TPH concentrations were less than the applicable laboratory SDL in each of the submitted soil samples.

On May 10, 2018, TRC advanced one (1) test trench (T-2) at the Site in an effort to further characterize affected soil at the site. Test trench T-2 was advanced in the southern portion of the affected "dry dirt tank". During the advancement of the test trench, four (4) soil samples (T-2 @ 4', T-2 @ 6', T-2 @ 8', and T-2 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,210 mg/kg in soil sample T-2 @ 4' to 33.1 mg/kg in soil sample T-2 @ 10'. Soil samples T-2 @ 4' and T-2 @ 10' were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory SDL in each of the submitted soil samples.

In addition, TRC collected fourteen (14) interim excavation confirmation soil samples (T-1 NSW, T-1 NEW, T-2 WW1, T-2 SSW, T-2 SWW, T-3 WW1, T-3 WW2, T-4 EW1, T-4 EW2, T-4 WW2, T-4 NWW, T-4 NEW, T-5 NSW, and T-5 SSW) from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples, with the exception of soil sample T-1 NSW, which exhibited a concentration of 832 mg/kg.

On May 16, 2018, TRC collected five (5) interim excavation confirmation soil samples (T-1 SSW1, T-1 SSW2, T-1 SSW3, T-1 SSW4, and T-5 SSW) from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples.

May 31, 2018, TRC advanced five (5) test trenches (T-5 through T-9) at the Site in an effort to further characterize affected soil at the Site. Test trench T-5 was advanced in the southwest portion of the affected "dry dirt tank". During the advancement of the test trench, four (4) soil samples (T-5 @ 5', T-5 @ 7', T-5 @ 9', and T-5 @ 11') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 6,310 mg/kg in soil sample T-5 @ 5' to 177 mg/kg in soil sample T-5 @ 11'.

Test trench T-6 was advanced in the southern portion of the Release Site on the east side of the affected "dry dirt tank". During the advancement of the test trench, three (3) soil samples (T-6 @ 6', T-6 @ 8', and T-6 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,240 mg/kg in soil sample T-6 @ 6' to 35.2 mg/kg in soil sample T-6 @ 10'.

Test trench T-7 was advanced in the southern portion of the Release Site on the southeast side of the affected "dry dirt tank". During the advancement of the test trench, three (3) soil samples (T-



7 @ 6', T-7 @ 8', and T-7 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 2,900 mg/kg in soil sample T-7 @ 6' to 121 mg/kg in soil sample T-7 @ 10'.

Test trench T-8 was advanced outside the "dry dirt tank" in the southeast portion of the release site. During the advancement of the test trench, four (4) soil samples (T-8 @ 6', T-8 @ 8', T-8 @ 10', and T-8 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,100 mg/kg in soil sample T-8 @ 8' to 216 mg/kg in soil sample T-8 @ 6'.

Test trench T-9 was advanced outside the "dry dirt tank" in the southeast portion of the Release Site adjacent to the release point. During the advancement of the test trench, four (4) soil samples (T-9 @ 6', T-9 @ 8', T-9 @ 10', and T-9 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 745 mg/kg in soil sample T-9 @ 8' to 506 mg/kg in soil sample T-9 @ 10'.

In addition, thirteen (13) interim excavation confirmation soil samples (G1 through G-13) were collected from the floor of the excavated "dry dirt tank". The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 4,230 mg/kg in soil sample G-1 to less than the laboratory SDL in soil sample G-8. Chloride concentrations were below the NMODC regulatory guidelines in each of the submitted soil samples, with the exception of soil sample G-1 (4,230 mg/kg), G-2 (3,590 mg/kg), G-3 (3,600 mg/kg), G-5 (1,900 mg/kg), G-7 (2,960 mg/kg), and G-11 (3,420 mg/kg).

On June 7, 2018, TRC advanced nine (9) test trenches (T-12, T-14 through T-18, G-2, G-7 and G-11) at the Site in an effort to further characterize affected soil at the site. Test trench T-12 was advanced outside the "dry dirt tank" in the western portion of the Release Site. During the advancement of the test trench, three (3) soil samples (T-12 @ 4', T-12 @ 10', and T-12 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 4,390 mg/kg in soil sample T-12 @ 4' to 39.5 mg/kg in soil sample T-12 @ 12'.

Test trench T-14 was advanced outside the "dry dirt tank" in the northeastern portion of the Release Site. During the advancement of the test trench, three (3) soil samples (T-14 @ 4', T-14 @ 8', and T-14 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,630 mg/kg in soil sample T-14 @ 4' to 59.1 mg/kg in soil sample T-14 @ 10'.

Test trench T-15 was advanced outside the "dry dirt tank" in the northeastern portion of the Release Site. During the advancement of the test trench, three (3) soil samples (T-15 @ 6', T-15 @ 8', and T-15 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 4,790 mg/kg in soil sample T-15 @ 6' to 319 mg/kg in soil sample T-15 @ 10'.



Test trench T-16 was advanced outside the "dry dirt tank" in the northwestern portion of the Release Site. During the advancement of the test trench, two (2) soil samples (T-16 @ 2' and T-16 @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples T-16 @ 2' and T-16 @ 6' exhibited chloride concentrations of 8,980 mg/kg and 37.4 mg/kg, respectively.

Test trench T-17 was advanced outside the "dry dirt tank" in the northwestern portion of the Release Site. During the advancement of the test trench, two (2) soil samples (T-17 @ 4' and T-17 @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples T-17 @ 4' and T-17 @ 6' exhibited chloride concentrations of 1,820 mg/kg and 135 mg/kg, respectively.

Test trench T-18 was advanced outside the "dry dirt tank" in the southeastern portion of the Release Site. During the advancement of the test trench, three (3) soil samples (T-18 @ 2', T-18 @ 6' and T-18 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 10,000 mg/kg in soil sample T-18 @ 2' to 111 mg/kg in soil sample T-18 @ 8'.

In addition, four (4) interim excavation confirmation soil sample (T-3 ESW1, T-3 ESW2, T-3 ESW2b, and T-14 SWSW) were collected from the excavation sidewall and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,750 mg/kg in soil sample T-3 ESW2 to 177 mg/kg in soil sample T-3 ESW1. Chloride concentrations were above the NMODC regulatory guidelines in each of the submitted soil samples with the exception of soil sample T-3 ESW1 (177 mg/kg).

Test trench G-2 was advanced in the area characterized by soil sample G-2. During the advancement of the test trench, one (1) soil sample (G-2 @ 6') was collected and submitted to the laboratory for analysis of chloride concentrations, which was determined to be 305 mg/kg.

Test trench G-7 was advanced in the area characterized by soil sample G-7. During the advancement of the test trench, one (1) soil sample (G-7 @ 6') was collected and submitted to the laboratory for analysis of chloride concentrations, which was determined to be 33.1 mg/kg.

Test trench G-11 was advanced in the area characterized by soil sample G-2. During the advancement of the test trench, one (1) soil sample (G-11 @ 6') was collected and submitted to the laboratory for analysis of chloride concentrations, which was determined to be 23.1 mg/kg.

On June 13, 2018, COG and NMOCD representatives met to discuss remediation activities at the Site. During the meeting, the results of laboratory analysis from soil samples collected to date and site conditions were discussed, along with the proposed remediation strategies.

On June 19, 2018, TRC advanced six (6) test trenches (T-8b, T-9b, T-10, G-1b, G-3b, and G-5b) at the site in an effort to further characterize affected soil at the Site. Test trench T-8b was advanced in the area characterized by test trench T-8. During the advancement of the test trench, one (1)



soil sample (T-8b @ 16') was collected and submitted to the laboratory for analysis of chloride concentrations, which was determined to be 676 mg/kg.

Test trench T-9b was advanced in the area characterized by test trench T-9. During the advancement of the test trench, one (1) soil sample (T-9b @ 16') was collected and submitted to the laboratory for analysis of chloride concentrations, which was determined to be 1,360 mg/kg.

Test trench T-10 was advanced outside the "dry dirt tank" in the southern portion of the Release Site. During the advancement of the test trench, four (4) soil samples (T-10 @ 2', T-10 @ 6', T-10 @ 10', and T-10 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 8,410 mg/kg in soil sample T-10 @ 6' to 378 mg/kg in soil sample T-10 @ 12'.

Test trench G-1b was advanced in the area characterized by soil sample G-1. During the advancement of the test trench, two (2) soil samples (G-1b @ 5' and G-1b @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples G-1b @ 5' and G-1b @ 6'exhibited chloride concentrations of 134 mg/kg and 50.6 mg/kg, respectively.

Test trench G-3b was advanced in the area characterized by soil sample G-3. During the advancement of the test trench, one (1) soil sample (G-3b @ 7') was collected and submitted to the laboratory for analysis of chloride concentrations, which was determined to be less than the laboratory SDL.

Test trench G-5b was advanced in the area characterized by soil sample G-5. During the advancement of the test trench, two (2) soil samples (G-5b @ 5' and G-5b @ 6') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples G-1b @ 5' and G-1b @ 6'exhibited chloride concentrations of 26.4 mg/kg and less than the laboratory SDL, respectively.

In addition, three (3) interim excavation confirmation soil samples (T-1 NSWb, T-1 NWW1, and T-1 NWW 2) were collected from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMODC regulatory guidelines in each of the submitted soil samples.

On June 20, 2018, TRC advanced three (3) test trenches (T-11, T-13, and T-19) at the Site in an effort to further characterize affected soil at the Site. Test trench T-11 was advanced outside the "dry dirt tank" in the southern portion of the Release Site. During the advancement of the test trench, four (4) soil samples (T-11 @ 2', T-11 @ 6', T-11 @ 10', and T-11 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,840 mg/kg in soil sample T-11 @ 6' to 40.8 mg/kg in soil sample T-11 @ 12'.



Test trench T-13 was advanced one the west side of the "dry dirt tank" in the central portion of the Release Site. During the advancement of the test trench, three (3) soil samples (T-13 @ 4', T-13 @ 8', and T-13 @ 10') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 5,330 mg/kg in soil sample T-13 @ 4' to 37.0 mg/kg in soil sample T-13 @ 10'.

Test trench T-19 was advanced outside the "dry dirt tank" in the northeastern portion of the Release Site. During the advancement of the test trench, three (3) soil samples (T-19 @ 4', T-19 @ 10', and T-19 @ 12') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 3,530 mg/kg in soil sample T-19 @ 4' to 34.3 mg/kg in soil sample T-19 @ 12'.

In addition, eighteen (18) interim excavation confirmation soil samples (T-1 ESW, T-4 NEWb, T-4 NWWb, T-4 WW1, T-5 WSW, T-12 SSW, T-12 WSW. T-12 ESW. T-14 ESW, T-15 WSW, T-15 ESW, T-16 ESW1, T7 16 ESW2, T-16 WSW1, T-16 WSW2, T-16 NWW, T-16 NSW, and T-17 NSW) were collected from the sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were below the NMODC regulatory guidelines in each of the submitted soil samples, with the exception of soil sample T-1 ESW which exhibited a chloride concentration of 727 mg/kg and soil sample T-4 NWWb, which exhibited a chloride concentration of 682 mg/kg.

On October 4, 2018, TRC revisited the Release Site in an effort to further investigate an anomalous analytical result from a soil sample collected in the area represented by test trenches T-9 and T-9B. During the site visit, a Geoprobe® was utilized to collect two (2) discrete soil samples (SB-9B @ 16' and SB-9B @ 18') from the area characterized by test trenches T-8 and T-8B. The collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples SB-9B @ 16' and SB-9B @ 18' exhibited chloride concentrations of 481 mg/kg and 430 mg/kg, respectively. Laboratory analytical results from soil samples collected utilizing the Geoprobe® suggests the detected chloride concentration in soil sample T-9B @ 16' does not appear to be representative of conditions at the Site. Between May 9 and June 18, 2018, approximately sixteen-thousand, two-hundred eighty (16,280) cubic yards of impacted soil was transported to R360 Environmental Solutions, LLC, Red Bluff Facility. A "Photographic Log" is provided as Appendix D.

3.0 NMOCD Approved Workplan

The release occurred on April 29, 2018. Due to the volume of the release and sensitive nature of the Release Site, excavation and remediation activities commenced immediately on discovery. Remediation and delineation activities were conducted in accordance with the industry standards at the time of the Release. On June 13, 2018, COG and NMOCD representatives met to discuss remediation activities at the Site. During the meeting, the results of laboratory analysis from soil samples collected to date and site conditions were discussed. A *Proposed Closure Strategy*, designed to advance the site toward an NMOCD-approved closure, was outlined to the NMOCD.



On NMOCD approval of the *Proposed Closure Strategy*, remediation and delineation activities continued in accordance with the objectives set forth during the NMOCD meeting.

Based on field observations, site conditions, laboratory analytical results, and the NMOCD meeting, COG proposed the following field activities designed to advance the Apple 5 State SWD #001 Release Site toward an NMOCD-approved closure:

- In accordance with the NMOCD meeting, impacted soil in the areas characterized by test trenches T-2, T-16 and T-17 will be excavated to a minimum depth of four (4) ft. bgs.
- Impacted soil in the area characterized by test trenches T-5, T-6 and T-14 will be excavated to a minimum depth of six (6) ft. bgs.
- Impacted soil in the area characterized by test trenches T-7 and T-15 will be excavated to a minimum depth of eight (8) ft. bgs. Chloride concentrations remaining in-situ for the above mentioned excavation depths are in accordance with the June 13, 2018 meeting with NMOCD. A "Proposed Excavation & Liner Installation Map" is provided as Figure 3.
- Impacted soil in the areas characterized by test trenches T-3, T-4, T-10, T-11, T-12, T-13, and T-19 will be excavated until laboratory analytical results from confirmation soil samples collected from the floor of the excavated area indicate concentrations of chloride are below 1,000 mg/kg.
- Impacted soil in the areas characterized by test trenches G-1, G-2, G-3, G-5, G-7, and G-11 will be excavated until laboratory analytical results from confirmation soil samples collected from the floor of the excavated area indicate concentrations of chloride are below 1,000 mg/kg.
- Impacted soil in the southeastern portion of the Release Site, in the areas characterized by test trenches T-1, T-8, T-8b T-9, T-9b, and T-18 will be excavated to a depth of approximately four (4) ft. bgs. During the course of remediation activities, a delineation trench will be advanced vertically in the area characterized by test trench T-9b until laboratory analytical results from confirmation soil samples indicate chloride concentrations are below 600 mg/kg.
- COG proposes to install an engineering control (40-mil polyurethane liner) within the affected area on the north side of the produced water transfer line in the southeast portion of the remediation site. On excavating impacted soil in the areas characterized by test trenches T-1, T-8, T-9 and T-18, a 40-mil polyurethane liner will be installed on the floor of the excavated area. This engineering control is designed to inhibit the vertical migration of contaminants left in-situ. The edges of the liner will be "key set" to a depth of approximately ten (10) ft. bgs in an effort to inhibit potential contact between percolating rainwater and impacted soil affected above the NMOCD regulatory guidelines beneath the polyurethane liner. The base of the excavation beneath the liner will be mounded in the center in an effort to shed percolating rainwater to the liner edges.
- The liner will be cushioned by an approximate six (6) inch layer of pad sand above and below the liner in an effort to maintain its integrity during backfilling activities.



- Excavation sidewalls will be advanced horizontally until chloride field test results indicate chloride concentrations are below 600 mg/kg. Excavation confirmation soil samples will be collected from the sidewalls of the excavated area at approximate fifty (50) ft. intervals, where horizontal delineation is not adequately defined with existing data.
- As per the NMOCD, laboratory analysis of excavation confirmation soil samples collected from the floor of the excavated areas at depths greater than six (6) ft. will not be required.
- Impacted soil excavated from the Release Site will be transported to an NMOCD-approved disposal facility.
- After receiving laboratory analytical results from excavation confirmation soil samples and NMOCD approval, the excavated areas outside the "dry dirt tank" will be backfilled with locally-sourced, nonimpacted "like" material.
- The excavated areas within the affected "dry dirt tank" will be backfilled to approximately four (4) ft. bgs. Upon backfilling the excavated areas within the affected dry dirt tank, an approximate six (6) in. layer of suitable clay material will be installed on the floor and up the sloped sidewalls of the excavated area characterized as the former dry dirt pond.
- After backfilling the excavated areas and restoring the affected pond, water diversions and erosion controls will be installed, as necessary. The affected area outside the "dry dirt tank" will be reseeded in accordance with the landowner requirements.

On January 11, 2019, the NMOCD approved the submitted workplan with the single stipulation requiring the area of T-1 be excavated to a depth of six (6) feet bgs, backfilled with locally-sourced, non-impacted "like" material to four (4) feet bgs. On completion, of the stipulated activities, the 40-mil liner may be installed atop the area.

4.0 Summary of Soil Remediation Activities

On March 20, 2019, excavation activities in adherence to the NMOCD-approved workplan commenced. The area south of the COG pipline right-of way was excavated to approximately seven (7) feet bgs, beginning on the east and working westward. Excavated soil was stockpiled onsite atop polyurethane sheeting, pending final disposition. As excavation activities continued, impacted material was transported to an NMOCD approved disposal facility, and non-impacted, locally sourced "like" material was transported to the Site to backfill the excavation following review of analytical results.

On March 21, 2019, three (3) five-point composite floor confirmation soil samples (FL-A1-7, FL-A2-7, and FL-A4-7) were collected from the base of the excavation and were submitted to Cardinal Laboratories in Hobbs, NM for chloride analysis. The analytical results indicated two (2) soil samples, FL-A1-7 and FL-A2-7, were above NMOCD regulatory guidelines. Following a review of the analytical results, the areas represented by soil samples FL-A1-7 and FL-A2-7 were further excavated to 7.5 feet bgs and the excavation advanced westward.

On March 27, 2019, three (3) five-point composite sidewall confirmation soil samples (SW-A1-3.5, SW-A3-3.5, and SW-A4-3.5) and six (6) five-point composite floor confirmation soil samples



(FL-A3-7, FL-A5-7, FL-A6-7, FL-A7-7, FL-A8-7, and FL-A9-7) were collected from the excavated area and submitted to the laboratory for chloride analysis. Each soil sample exhibited chloride concentrations below NMOCD regulatory guidelines, with the exception of soil sample SW-A1-3.5, which exceeded NMOCD regulatory guidelines. The sidewall represented by soil sample SW-A1-3.5 was excavated further to the south. Excavation south of the COG pipeline continued to the west.

On April 1, 2019, three (3) five-point composite sidewall confirmation soil samples (SW-A2-3.5, SW-A5-3.5, and EW-A1-3.5) and three (3) five-point composite floor confirmation soil samples (FL-A1-7.5, FL-A2-7.5, and FL-A10-7) were collected and submitted to the laboratory for chloride analysis. Each soil sample exhibited chloride concentrations below NMOCD regulatory guidelines, with the exception of soil sample FL-A1-7.5, which exceeded NMOCD regulatory guidelines. After review of the analytical results, the area represented by soil sample FL-A1-7.5 was further excavated to eight (8) feet bgs.

On April 5, 2019, one (1) five-point composite sidewall confirmation soil sample (SW-A1-4) and one (1) five-point composite floor confirmation soil sample (FL-A1-8) were collected and submitted to the laboratory for chloride analysis. Each soil sample exhibited chloride concentrations below NMOCD regulatory guidelines. After a review of the analytical results, the area south of the COG pipeline was backfilled to grade with non-impacted, locally sourced "like" material.

On April 8, 2019, excavation of the impacted area north of the COG pipeline commenced. The existing excavation was laterally expanded at a depth of four (4) feet bgs. Excavation began at the southeast corner and continued around the existing excavation in a counter-clockwise manner. Five-point composite sidewall confirmation soil samples were collected from halfway down the four (4) foot excavation sidewalls to confirm the full lateral extent of the impact had been removed. Further vertical excavation was not conducted until the lateral extent of the impact had been delineated and excavated.

On April 9, 2019, two (2) five-point composite sidewall confirmation soil samples (SW-B1-2 and SW-B2-2) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated the submitted soil samples exhibited chloride concentrations below NMOCD regulatory guidelines. The area represented by trench T-1 was further excavated to a depth of six (6) feet bgs, as stipulated in the NMOCD approval response to the workplan. Following excavation activities in the area represented by trench T-1, the area was backfilled to four (4) feet bgs. A trench around the proposed polyurethane lined area was completed to a depth of ten (10) feet bgs for key-setting of the 40-mil polyurethane liner. On April 15, 2019, a 40-mil polyurethane liner was installed by a subcontractor experienced in the installation of this engineering control, as approved by the NMOCD in the workplan. The keyset trench was backfilled and the area atop the liner was backfilled to grade utilizing non-impacted, locally sourced "like" material. Further excavation continued to the northeast.

On April 18, 2019, four (4) five-point composite sidewall confirmation soil samples (SW-B3-2, SW-B4-2, SW-B5-2, and SW-C1-2) were collected and submitted to the laboratory for chloride



analysis. The analytical results indicated chloride concentrations in each submitted soil sample were below NMOCD regulatory guidelines. Excavation continued to the northeast.

On April 19, 2019, two (2) five-point composite sidewall confirmation soil samples (SW-C2-2 and SW-C3-2) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated chloride concentrations in each submitted soil sample were below NMOCD regulatory guidelines. Comparison of the NMOCD approved workplan map and the sample map indicated soil samples SW-C1-2, SW-C2-2, and SW-C3-2 were proximal to the positions of trenches T-12 and T-13. Based on soil sample locations and to ensure the impact indicated in the two (2) areas was removed, the excavation was advanced laterally further to the northeast prior to continuing north and west. The areas represented by soil samples SW-C1-2, SW-C2-2 and SW-C3-2 were re-sampled in the new sidewall locations.

On April 26, 2019, ten (10) five-point composite sidewall confirmation soil samples (SW-C1-2R, SW-C2-2R, SW-C3-2R, SW-C4-2, SW-C5-2, SW-D1-2, SW-D2-2, SW-D3-2, SW-D4-2, and SW-D5-2) were collected and submitted to the laboratory for chloride analysis. Each soil sample was below NMOCD regulatory guidelines for chloride concentrations. Excavation continued to the south.

On April 30, 2019, seven (7) five-point composite sidewall confirmation soil samples (SW-C6-2, SW-C7-2, SW-E1-2, SW-E2-2, SW-E3-2, SW-E4-2, and SW-E5-2) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated chloride concentrations in each submitted soil sample was below NMOCD regulatory guidelines. Excavation continued to the south.

On May 1, 2019, five (5) five-point composite sidewall confirmation soil samples (SW-E6-2, SW-E7-2, SW-F1-2, SW-F2-2, and SW-F3-2) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated chloride concentrations were below NMOCD regulatory guidelines. After a review of the analytical results, the lateral extents of the impacted area had been removed, and the floor of the excavation was further excavated based on the NMOCD approved workplan and chloride field screen results.

On May 7, 2019, twenty (20) five-point composite floor confirmation soil samples (FL-C1-4, FL-C2-5, FL-C3-5, FL-C4-6, FL-C6-6, FL-C7-6, FL-C8-6, FL-C9-9, FL-D2-4, FL-D3-4, FL-E4-5, FL-E5-4, FL-F1-4, FL-F2-4, FL-F5-6, FL-F6-4, FL-F7-4, FL-F13-4, and FL-F14-8) were collected and submitted to the laboratory for TPH, BTEX, and/or chloride analysis. The analytical results indicated chloride concentrations in each sample were below NMOCD regulatory guidelines, with the exception of FL-C7-6. The analytical results indicated each soil sample submitted for TPH and BTEX analyses were below laboratory detection limits for each constituent. The floor of the excavation continued to advance in areas with chloride concentrations above NMOCD regulatory guidelines, including the area represented by soil sample FL-C7-6.

On May 8, 2019, one (1) five-point composite floor confirmation soil sample (FL-B1-6) was collected and submitted to the laboratory for TPH, BTEX, and chloride analyses. The analytical results indicated the soil sample was below NMOCD regulatory guidelines for chlorides, and



below the laboratory detection limits for TPH and BTEX constituents. The floor of the excavation continued to advance in areas with chloride concentrations above NMOCD regulatory guidelines.

On May 9, 2019, two (2) five-point composite floor confirmation soil samples (FL-B2-6, FL-C7-6.5) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated both soil samples were below NMOCD regulatory guidelines for chloride concentrations. The floor of the excavation continued to advance in areas with chloride concentrations above NMOCD regulatory guidelines.

On May 13, 2019, ten (10) five-point composite floor confirmation soil samples (FL-D1-5.5, FL-D4-5.5, FL-D5-5.5, FL-D6-5.5, FL-D7-5.5, FL-E2-5.5, FL-E3-5.5, FL-E6-5, FL-E7-5, and FL-E8-5.5) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated each soil sample was below NMOCD regulatory guidelines for chloride concentrations. The floor of the excavation continued to advance in areas with chloride concentrations above NMOCD regulatory guidelines.

On May 14, 2019, seven (7) five-point composite floor confirmation soil samples (FL-F3-5.5, FL-F4-5.5, FL-F8-5.5, FL-F9-5.5, FL-F10-4.5, FL-F11-7, and FL-F15-8.5) were collected and submitted to the laboratory for chloride analysis. The analytical results indicated each soil sample was below NMOCD regulatory guidelines for chloride concentrations. The floor of the excavation continued to advance in areas with chloride concentrations above NMOCD regulatory guidelines.

On May 20, 2019, two (2) five-point composite floor confirmation soil samples (FL-E1-5 and FL-F12-6) were collected and submitted to the laboratory for TPH, BTEX, and/or chloride analyses. The laboratory analytical results indicated TPH and BTEX concentrations were below laboratory detection limits in the soil sample submitted for TPH and BTEX analyses. The analytical results indicate soil sample FL-E1-5 was below NMOCD regulatory guidelines for chloride concentrations, and soil sample FL-F12-6 was above NMOCD regulatory guidelines for chloride concentrations. The floor of the excavation in the area represented by soil sample FL-F12-6 was further advanced until chloride concentrations were below NMOCD regulatory guidelines.

On May 21, 2019, one (1) five-point composite floor confirmation soil sample (FL-F12-7) was collected and submitted to the laboratory for chloride analysis. The analytical results indicated soil sample FL-F12-7 was below NMOCD regulatory guidelines for chloride concentrations. A review of the laboratory analytical data indicated the vertical extents of the area of impact adjacent to the polyurethane liner had been excavated, and backfill to grade with non-impacted, locally sourced "like" material began. In addition, the construction of an expanded "dry dirt tank" commenced.

Approximately 20,200 cubic yards of impacted material was disposed of at an NMOCD approved disposal facility. The Site was returned to grade, with the exception of the expanded "dry dirt tank". The "dry dirt tank" was completed to approximately four feet bgs, then lined with a GSE Bentoliner® Fabric Encased geosynthetic clay liner (GCL). The expanded footprint of the expanded "dry dirt tank" was approximately sixty-thousand square feet. Approximately one (1)



foot of non-impacted, locally sourced "like" material was placed atop the GCL liner for erosion control.

5.0 Site Closure Request

Remediation activities were conducted in accordance with NMCOD guidelines. Impacts immediately adjacent to or surrounding active pipelines were excavated to the maximum extent practicable based on ensuring the health and safety of onsite personnel and limiting potential further exposure of the environment to further releases. Laboratory analytical results from excavation confirmation soil samples indicated TPH, BTEX, and/or chloride concentrations were below the NMOCD regulatory guidelines in the submitted confirmation soil samples. The impacted soil was transported to an NMOCD approved disposal facility, and the Site was returned to grade with locally sourced non-impacted backfill material, with the exception of the constructed "dry dirt tank". Based on laboratory analytical results and field activities conducted to date, TRC recommends COG provide copies of this Remediation Summary and Site Closure Request to the NMOCD and request closure status for the Apple 5 State SWD #001.

6.0 Limitation

TRC has prepared this Remediation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or COG Operating, LLC.



7.0 Distribution

Copy 1: Bradford Billings

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 4

1220 South St. Francis Drive

Santa Fe, NM 87505

Copy 2: Rebecca Haskell

COG Operating, LLC 600 W. Illinois Avenue Midland, Texas 79701

Copy 3: TRC Environmental Corporation

10 Desta Dr STE 150E Midland, TX 79705

TABLE 1

CONCENTRATION OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL (Delineation Phase)

COG OPERATING, LLC APPLE 5 STATE SWD #001 EDDY COUNTY, NEW MEXICO

					All concentr	rations are reported	l in mg/kg						
					MET	THODS: SW 846-	8021b			METHOD:	SW 8015M		E 300.1
SAMPLE LOCATION	DEPTH	SAMPLE	SOIL STATUS	nn.		ETHYL-	TOTAL	TOTAL	TPH GRO	TPH DRO	TPH ORO	TOTAL	arr anini
LUCATION		DATE		BENZENE	TOLUENE	BENZENE	XYLENES	BTEX	C C	C C	C C	ТРН	CHLORIDE
T-1 @ 2'	2'	5/4/2018	Evenyated	< 0.0187	< 0.0187	< 0.0187	< 0.0187	< 0.0187	C ₆ -C ₁₀ <3.74	C ₁₀ -C ₂₈ <25.1	C ₂₈ -C ₃₅ <25.1	C ₆ -C ₃₅ <25.1	12 000
T-1 @ 2	4'	5/4/2018	Excavated Excavated	-0.0167	-0.0187	-0.0167	-0.0167	-0.0187		-23.1	-23.1	-23.1	12,900 8,010
T-1 @ 4	6'	5/4/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	4,710
T-1 @ 8'	8'	5/4/2018	Proposed Risk-Based				-	-	_	-	-	-	762
T-1 @ 10'	10'	5/4/2018	Proposed Risk-Based	_	_	_	-	-	_	-	-	-	412
T-1 @ 10	12'	5/4/2018	Proposed Risk-Based			-	-	-	_	-	-	-	405
T-1 @ 12	14'	5/4/2018	Proposed Risk-Based	-	-	-	-	-	_	-	-	-	533
1-1 (0) 14	17	3/4/2016	Troposed Risk-Dased				-	-					333
T-2 @ 4'	4'	5/10/2018	Proposed Excavation	< 0.0187	< 0.0187	< 0.0187	< 0.0187	< 0.0187	<3.75	<25.2	<25.2	<25.2	3,210
T-2 @ 6'	6'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	702
T-2 @ 8'	8'	5/10/2018	In-Situ	-	_	_	_	_	-	-	-	_	47.3
T-2 @ 10'	10'	5/10/2018	In-Situ	< 0.0179	< 0.0179	< 0.0179	< 0.0179	< 0.0179	<3.58	<24.8	<24.8	<24.8	33.1
1 2 (6) 10	10		III Ditta				******	0.0077					33.1
T-3 @ 4'	1'	5/4/2018	In-Situ	< 0.0182	< 0.0182	< 0.0182	< 0.0182	< 0.0182	<3.64	<24.9	<24.9	<24.9	300
T-3 @ 6'	2'	5/4/2018	In-Situ	< 0.0183	< 0.0183	< 0.0183	< 0.0183	< 0.0183	<3.66	<24.9	<24.9	<24.9	52.9
1 3 @ 0		3/4/2010	III Situ	0.0103	-0.0103	0.0103	-0.0103	0.0103	-5.00	-24.7	21.7	-21.7	32.7
T-4 @ 4'	4'	5/4/2018	In-Situ	< 0.0189	< 0.0189	< 0.0189	< 0.0189	< 0.0189	<3.77	<25.0	<25.0	<25.0	375
T-4 @ 6'	6'	5/4/2018	In-Situ	< 0.0190	< 0.0190	< 0.0190	< 0.0190	< 0.0190	<3.81	<25.2	<25.2	<25.2	39.0
		2 2010	III Sila						5.51	25.2	25.2	25.2	57.0
T-5 @ 5'	5'	5/31/2018	Proposed Excavation	- 1	-	-	-	-	-	-	- 1	-	6,310
T-5 @ 7'	7'	5/31/2018	In-Situ	-		-	-	-	-	-	-	-	1,400
T-5 @ 7	9'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	946
T-5 @ 9	11'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	177
1 3 (6) 11	**	5.51,2010	III Ditta		-			_				-	1//
T-6 @ 6'	6'	5/31/2018	Proposed Excavation	- 1	-	-	-	-	I -	l -	- 1	-	3,240
T-6 @ 8'	8'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	423
T-6 @ 10'	10'	5/31/2018	In-Situ	<u> </u>	-	<u> </u>	-	-	-	-	-	-	35.2
1-0 (6) 10	10	3/31/2016	III-Situ					-					33.2
T-7 @ 6'	6'	5/31/2018	Proposed Excavation	- 1	-	-	-	-	-	-	-	-	2,900
T-7 @ 8'	8'	5/31/2018	Proposed Excavation		-		_	-	_	_		-	1,910
T-7 @ 10'	10'	5/31/2018	In-Situ	-	-	_	-	_	-	-	-	_	121
1-7 (0) 10	10	3/31/2010	III Situ				-	-	_				121
T-8 @ 6'	6'	5/31/2018	Proposed Risk-Based	- 1	-	-	-	-	-	-	- 1	-	216
T-8 @ 8'	8'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	1,100
T-8 @ 10'	10'	5/31/2018	Proposed Risk-Based			-	-	-	-	-	-	-	653
T-8 @ 10	12'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	719
T-8B @ 16'	16'	6/20/2018	Proposed Risk-Based	-	-	-	-	-	_	-	-	-	676
1-8B (# 10	10	0/20/2016	r roposed Kisk-Based				-		_				070
T-9 @ 6'	6'	5/31/2018	Proposed Risk-Based	I .			_	_	_	l -	I - I	_	598
T-9 @ 8'	8'	5/31/2018	Proposed Risk-Based	-		-	-	-	-	-	-	-	745
T-9 @ 10'	10'	5/31/2018	Proposed Risk-Based	- -	-	-	-	-	-	-	-	-	506
T-9 @ 10'	12'	5/31/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	655
T-9B @ 16'	16'	6/20/2018	Proposed Risk-Based	-		-	-	-	-	-	H	-	1,360
1-915 (#) 10	10	0/20/2018	r toposed Kisk-Based				-	-	-	_			1,500
T-10 @ 2'	2'	6/19/2018	Proposed Excavation	T - 1						l -	I - I		5,240
T-10 @ 2'	6'	6/19/2018	Proposed Excavation Proposed Excavation	-	-	-	-	-	-	-	-	-	5,240 8,410
T-10 @ 6'	10'	6/19/2018	In-Situ		-	-	-	-	-				841
T-10 @ 10'	10'	6/19/2018	In-Situ In-Situ	-	-	-	-	-	-	-		-	378
1-10 W 12	14	0/17/2010	III-SII.U		-							-	3/0
T-11 @ 2'	2'	6/19/2018	Proposed Excavation	T - 1	_	Ι.	_	_	l <u>-</u>	l -	-	_	133
T-11 @ 2'	6'	6/19/2018	Proposed Excavation Proposed Excavation	-	-	-	-	-	-	-	-	-	3,840
T-11 @ 6'	10'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	511
T-11 @ 10'	12'	6/19/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	40.8
1-11 (# 12	12	0/17/2010	III-SILU		-	_	-	-	_	_	-	-	40.6
T 12 🗇 41	4'	6/7/2010	Dunmand Francis										4 200
T-12 @ 4'	8'	6/7/2018 6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	4,390
T-12 @ 8'			Proposed Excavation	-	-	-	-	-	-	-	-	-	1,084*
T-12 @ 10'	10'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	46.1
T-12 @ 12'	12'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	39.5
T 12 @ 4!	4'	6/10/2019	Proposed Evenuetic										5 220
T-13 @ 4'		6/19/2018 6/20/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	5,330
T-13 @ 8'	8' 10'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	505
T-13 @ 10'	10.	0/20/2018	In-Situ		-	-	-	-	-		-	-	37.0
T 14 🗇 41	Al	6/7/2019	Dunnan I Dun						I				1.620
T-14 @ 4'	4'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,630
T-14 @ 6'	6'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	 - 	-	2,256*
T-14 @ 8'	8'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	622
TO 14 C 100 1	10	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	59.1
T-14 @ 10'													
		od Dom - 1	tion Action Level	10			-	50	_		_	5,000	600

CONCENTRATION OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL (Delineation Phase)

COG OPERATING, LLC APPLE 5 STATE SWD #001 EDDY COUNTY, NEW MEXICO

411 -----

					All concents	rations are reporte	d in mg/kg						
T-15 @ 6'	6'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	4,790
T-15 @ 8'	8'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	2,280
T-15 @ 10'	10'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	319
		•						•	•		•	•	
T-16 @ 2'	2'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	8,980
T-16 @ 4'	4'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	>2,600*
T-16 @ 6'	6'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	37.4
T-17 @ 2'	2'	6/7/2018	Proposed Excavation	-	-	_	-	-	-	_	-	-	1,932*
T-17 @ 4'	4'	6/7/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	1,820
T-17 @ 6'	6'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	135
T-18 @ 2'	2'	6/7/2018	Proposed Excavation	-	_	_	-	-	-	_	-	-	10,000
T-18 @ 4'	4'	6/7/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	>2,600*
T-18 @ 6'	6'	6/7/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	540
T-18 @ 8'	8'	6/7/2018	Proposed Risk-Based	-	-	-	-	-	-	-	-	-	111
T-19 @ 4'	4'	6/20/2018	Proposed Excavation	-	-	_	-	-	-	-	-	-	3,530
T-19 @ 10'	10'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	506
T-19 @ 12'	12'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	34.3
,		1			1		l						
G-1	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	4,230
G-1b @ 5'	5'	6/19/2018	In-Situ	-	-	_	_	-	-	_	-	-	134
G-1b @ 6'	6'	6/19/2018	In-Situ	_	-	_	_	-	-	_	-	-	50.6
G-2	4'	5/31/2018	Proposed Excavation	-	-	_	-	-	-	-	-	-	3,590
G-2	6'	6/7/2018	In-Situ	-	-	_	-	-	-	_	-	-	305
G-3	4'	5/31/2018	Proposed Excavation	_	-	_	_	-	-	_	-	-	3,600
G-3b @ 7'	7'	6/19/2018	In-Situ	_	-	_	-	_	-	_	-	-	<25.0
G-4	4'	5/31/2018	In-Situ	_	_	_	_	-	-	_	-	-	151
G-5	4'	5/31/2018	Proposed Excavation	_	-	_	_	-	-	_	-	-	1,900
G-5b @ 5'	5'	6/19/2018	In-Situ	_	-	-	_	_	-	-	-	<u> </u>	26.4
G-5b @ 5'	6'	6/19/2018	In-Situ	_	-	-	-	-	-	-	-	-	<25.0
G-6	4'	5/31/2018	In-Situ	_	-	_	_	<u> </u>	-	-	-	<u> </u>	292
G-7	4'	5/31/2018	Proposed Excavation	_	_	_	_	_	_	_	_		2,960
G-7	6'	6/7/2018	In-Situ	_	-	-	-	-	-	-	-	<u> </u>	33.1
G-8	4'	5/31/2018	In-Situ		-	-	-	-	-		-	-	<25.0
G-9	4'	5/31/2018	In-Situ		-		-	-	-		-	-	348
G-10	4'	5/31/2018	In-Situ		-		-	-	-		-	-	241
G-10 G-11	4'	5/31/2018	Proposed Excavation	-	-	-	-	-	-	-	-	-	3,420
G-11	6'	6/7/2018	In-Situ		-	-	-	-	-		-	-	23.1
G-11 G-12	4'	5/31/2018	In-Situ	-	-	-	-	-	-	-	-	-	367
G-12 G-13	4'	5/31/2018	In-Situ In-Situ		-	-	-	-	-	-	-	-	340
		1	tion Action Level	10	-	-	-	50	-	-	-	5,000	600

^{*} Denotes Hach Quantab Chloride Field Test Results

CONCENTRATION OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL (Delineation Phase)

COG OPERATING, LLC APPLE 5 STATE SWD #001 EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

						THODS: SW 846				METHOD:	SW 8015M		E 300.1
SAMPLE	DEPTH	SAMPLE	SOIL STATUS			ETHYL-	TOTAL	TOTAL	TPH GRO			TOTAL	
LOCATION	DETTI	DATE	SOIL STATUS	BENZENE	TOLUENE	BENZENE	XYLENES	BTEX	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₂₈ -C ₃₅	TPH C ₆ -C ₃₅	CHLORIDI
T-1 NSW	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	832
T-1 NEW	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	29.6
T-1 SSW1	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-1 SSW2	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-1 SSW3	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-1 SSW5	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-	-	30.0
T-1 NSWb	4'	6/19/2018	In-Situ										84.3
T-1 NWW 1	4'	6/19/2018	In-Situ										27.3
T-1 NWW 2	4'	6/19/2018	In-Situ										168
T-1 ESW	4'	6/20/2018	In-Situ										727
			III Ditta		l								
T-2 WW1	3'	5/10/2018	In-Situ	T -	I -	-	- I	_	Ι.	-		-	34.1
T-2 SSW	3'	5/10/2018	In-Situ	-	-	-	-	-	_	-	-	-	<25.0
T-2 SWW	3'	5/10/2018	In-Situ	_	-	_	-	_	_	_	_	_	238
		5/10/2010	III Dita										230
T-3 WW1	3'	5/10/2018	In-Situ	Т -		-	I -	_	_	-	_		<25.0
T-3 WW2	3'	5/10/2018	In-Situ	-	-	-	-		-	-	_		<25.0
T-3 ESW1	3'	6/7/2018	In-Situ	+ -	-		-	-	-		-		177
T-3 ESW2	3'	6/7/2018	In-Situ	-	-	-	-		-	-	-		3,750
T-3 ESW2b	3'	6/7/2018	In-Situ	+ -	-	-	-		-	-	-		1,140
1-3 E3 W20	,	0/ //2016	III-Situ		_			_					1,140
T-4 EW1	3'	5/10/2018	In-Situ	Т -	_		_	_	_		_	-	<25.0
T-4 EW2	3'	5/10/2018	In-Situ	 	-		-			-	-		<25.0
T-4 WW2	3'	5/10/2018	In-Situ	 			-			-	-		29.7
T-4 NWW	3'	5/10/2018		+									25.9
		5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	
T-4 NEW	3' 4'	6/20/2018	In-Situ	<u> </u>	-	-	-	-	-	-	-	-	175
T-4 NEWb	4'		In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-4 NWWb	4'	6/20/2018	In-Situ	-	-	-		-	-	-	-	-	682
T-4 WW1	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	51.4
m # 2 1 0 11 1		5/10/2010	I 0:	Т	ı — —						1		250
T-5 NSW	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-5 SSW	3'	5/10/2018	In-Situ	-	-	-	-	-	-	-	-	-	34.2
T-5 SSW*	3'	5/16/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-5 WSW	4'	6/20/2018	In-Situ	-	-	-	<u> </u>	-	-	-	-	-	<25.0
m 40	I	5/40/5		1	ı				1				
T-12 SSW	4'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	38.0
T-12 WSW	4'	6/19/2018	In-Situ	-	-	-	-	-	-	-	-	-	220
T-12 ESW	4'	6/19/2018	In-Situ	<u> </u>	-		-				-	-	210
		L s/#/2015	7 00		1						, ,		
T-14 SWSW	3'	6/7/2018	In-Situ	-	-	-	-	-	-	-	-	-	1,790
T-14 ESW	4'	6/19/2018	In-Situ	<u> </u>	-	-	-		-	-	-	-	<25.0
T-15 WSW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	183
T-15 ESW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
T-16 ESW1	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	479
T-16 ESW2	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	438
T-16 WSW1	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	574
T-16 WSW2	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	422
T-16 NWW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	147
T-16 NSW	4'	6/20/2018	In-Situ	-	-	-	-	-	-	-	-	-	205
T-17 NSW	4'	6/20/2018	In-Situ										<25.0
NMOCD	Recommend	led Remediati	on Action Level	10	-	-	-	50	-	-	-	5,000	600

Table 2 Concentrations of Benzene, BTEX, TPH and Chloride in Soil (Confirmation Phase)

				SW 840	6 8021B			SW 846 80	15M Ext.		E 300
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆₋ C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SB-9B @ 16'	10/4/18	16'	In-Situ								481
SB-9B @ 18'	10/4/18	18'	In-Situ								430
SW- A1- 3.5	3/27/19	3.5'	Excavated								603
SW- A1- 4	4/5/19	4'	In-Situ								361
SW- A2- 3.5	4/1/19	3.5'	In-Situ								93.6
SW-A3-3.5	3/27/19	3.5'	In-Situ								34.5
SW- A4- 3.5	3/27/19	3.5'	In-Situ								312
SW- A5- 3.5	4/1/19	3.5'	In-Situ								268
EW- A1- 3.5	4/1/19	3.5'	In-Situ								149
FL- A1- 7	3/21/19	7'	Excavated								1,210
FL- A1- 7.5	4/1/19	7.5'	Excavated								1,660
FL- A1- 8	4/5/19	8'	In-Situ								632
FL- A2- 7	3/21/19	7'	Excavated								1,110
FL- A2- 7.5	4/1/19	7.5'	In-Situ								159
FL- A3- 7	3/27/19	3.5'	In-Situ								702
FL- A4- 7	3/21/19	7'	In-Situ								818
FL- A5- 7	3/27/19	7'	In-Situ								103
FL- A6- 7	3/27/19	7'	In-Situ								33.7
FL- A7- 7	3/27/19	7'	In-Situ								26.4
FL- A8- 7	3/27/19	7'	In-Situ								32.2
FL- A9- 7	3/27/19	7'	In-Situ								15.6
FL-A10-7	4/1/19	7'	In-Situ								201
SW- B1- 2	4/9/19	2'	In-Situ								288
SW- B2- 2	4/9/19	2'	In-Situ								160
SW- B3 2	4/18/19	2'	In-Situ								80.0
SW- B4- 2	4/18/19	2'	In-Situ								96.0
SW- B5- 2	4/18/19	2'	In-Situ								48.0
FL- B1- 6	5/8/19	6'	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
FL- B2- 6	5/9/19	6'	In-Situ								704
	NMOCD Clo	sure Criteria		10	50	-	-	1,000	-	2,500	1,000 (Floor) 600 (Sidewall)

Table 2 Concentrations of Benzene, BTEX, TPH and Chloride in Soil (Confirmation Phase)

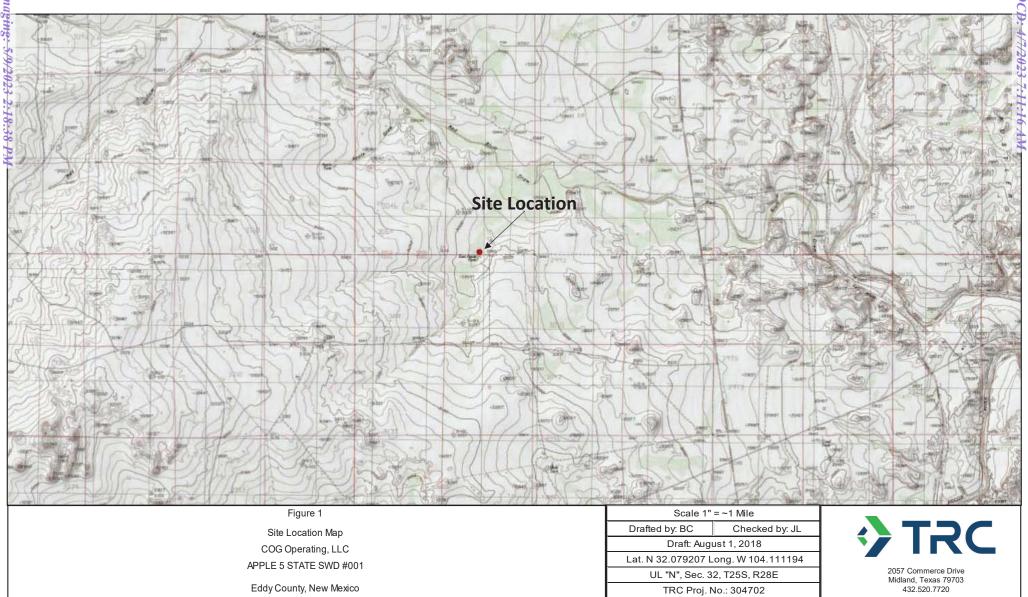
				SW 840	6 8021B			SW 846 80	15M Ext.		E 300
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆₋ C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SW- C1- 2	4/18/19	2'	Excavated								96.0
SW- C1- 2R	4/26/19	2'	In-Situ								336
SW- C2- 2	4/19/19	2'	Excavated								256
SW- C2- 2R	4/26/19	2'	In-Situ								144
SW- C3- 2	4/19/19	2'	Excavated								80.0
SW- C3- 2R	4/26/19	2'	In-Situ								80.0
SW- C4- 2	4/26/19	2'	In-Situ								48.0
SW- C5- 2	4/26/19	2'	In-Situ								32.0
SW- C6- 2	4/30/19	2'	In-Situ								<16.0
SW- C7- 2	4/30/19	2'	In-Situ								<16.0
FL- C1- 4	5/7/19	4'	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FL- C2- 5	5/7/19	5'	In-Situ								912
FL- C3- 5	5/7/19	5'	In-Situ								176
FL- C4- 6	5/7/19	6'	In-Situ								192
FL- C5- 6	5/7/19	6'	In-Situ								592
FL- C6- 8	5/7/19	8'	In-Situ								688
FL- C7- 6	5/7/19	6'	Excavated								2,320
FL- C7- 6.5	5/9/19	6.5'	In-Situ								80.0
FL- C8- 6	5/7/19	6'	In-Situ								336
FL- C9- 9	5/7/19	9'	In-Situ								112
SW- D1- 2	4/26/19	2'	In-Situ								96.0
SW- D2- 2	4/26/19	2'	In-Situ								48.0
SW- D3- 2	4/26/19	2'	In-Situ								48.0
SW- D4- 2	4/26/19	2'	In-Situ								192
SW- D5- 2	4/26/19	2'	In-Situ								32.0
FL- D1- 5.5	5/13/19	5.5'	In-Situ								96.0
FL- D2- 4	5/7/19	4'	In-Situ								320
FL- D3- 4	5/7/19	4'	In-Situ								544
FL- D4- 5.5	5/13/19	5.5'	In-Situ								864
FL- D5- 5.5	5/13/19	5.5'	In-Situ								304
FL- D6- 5.5	5/13/19	5.5'	In-Situ								320
	NMOCD Clos	sure Criteria		10	50	-	-	1,000	-	2,500	1,000 (Floor) 600 (Sidewall

Table 2 SConcentrations of Benzene, BTEX, TPH and Chloride in Soil (Confirmation Phase)

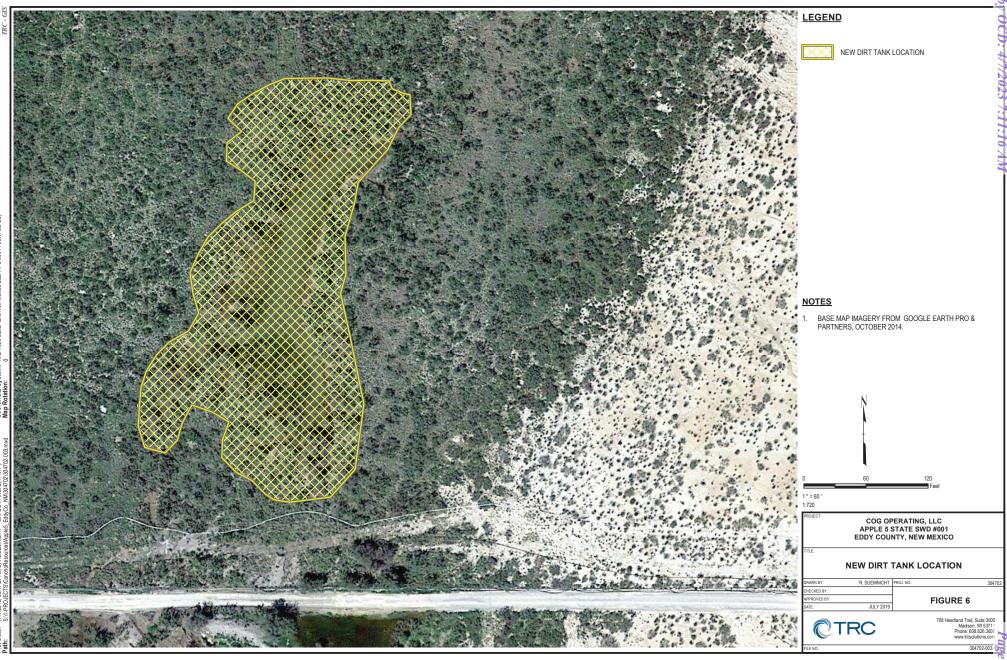
				SW 840	6 8021B			SW 846 80	15M Ext.		E 300
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆₋ C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
FL- D7- 5.5	5/13/19	5.5'	In-Situ								64.0
SW- E1- 2	4/30/19	2'	In-Situ								32.0
SW- E2- 2	4/30/19	2'	In-Situ								64.0
SW- E3- 2	4/30/19	2'	In-Situ								96.0
SW- E4- 2	4/30/19	2'	In-Situ								32.0
SW- E5- 2	4/30/19	2'	In-Situ								64.0
SW- E6- 2	5/1/19	2'	In-Situ								80.0
SW- E7- 2	5/1/19	2'	In-Situ								<16.0
FL-E1-5	5/20/19	5'	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<10.0	<10.0	<10.0	880
FL- E2- 5.5	5/13/19	5.5'	In-Situ								464
FL- E3- 5.5	5/13/19	5.5'	In-Situ								688
FL- E4- 5	5/7/19	5'	In-Situ								864
FL-E5- 4	5/7/19	4'	In-Situ								896
FL- E6- 5	5/13/19	5'	In-Situ								848
FL- E7- 5	5/13/19	5'	In-Situ								704
FL- E8- 5.5	5/13/19	5.5'	In-Situ								656
	= // // 2	21									4.6.0
SW- F1- 2	5/1/19	2'	In-Situ								16.0
SW- F2- 2	5/1/19	2'	In-Situ								48.0
SW- F3- 2	5/1/19	2'	In-Situ								64.0
FL- F1- 4	5/7/19	4'	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<10.0	<10.0	<10.0	560
FL- F2- 4	5/7/19	4'	In-Situ								352
FL- F3- 5.5	5/14/19	5.5'	In-Situ								224
FL- F4- 5.5	5/14/19	5.5'	In-Situ								272
FL- F5- 6	5/7/19	6'	In-Situ								944
FL- F6- 4	5/7/19	4'	In-Situ								304
FL- F7- 4	5/7/19	4'	In-Situ								832
FL- F8- 5.5	5/14/19	5.5'	In-Situ								304
FL- F9- 5.5	5/14/19	5.5'	In-Situ								256
FL- F10- 4.5	5/14/19	4.5'	In-Situ								256
FL- F11- 6	5/14/19	6'	In-Situ								128
	NMOCD Clos	sure Criteria		10	50	-	-	1,000	-	2,500	1,000 (Floor) 600 (Sidewall)

Table 2 Concentrations of Benzene, BTEX, TPH and Chloride in Soil (Confirmation Phase)

				SW 840	5 8021B		SW 846 8015M Ext.						
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆₋ C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)		
FL-F12-6	5/20/19	6'	Excavated								10,000		
FL-F12-7	5/21/19	7'	In-Situ								928		
FL- F13- 4	5/7/19	4'	In-Situ								832		
FL- F14- 8	5/7/19	8'	In-Situ								192		
FL- F15- 8.5	5/14/19	8.5'	In-Situ								112		
	NMOCD Clos	sure Criteria		10	50	-	-	1,000	-	2,500	1,000 (Floor) 600 (Sidewall)		



Puge 230 of 423



Appendix A: Release Notification and Corrective Action (Form C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

	Release Notification and Corrective Action											
						OPERA	TOR		Initia	al Report		Final Report
Name of Co	mpany: C	OG Operatin	g, LLC (OGRID #22913	7)	Contact:	Rob	ert McN				
Address: 60	00 West II	linois Avenu	e, Midla	nd, TX 79701		Telephone No. 432-683-7443						
Facility Nan	ne: Apple	5 State SW	D #001			Facility Typ	e: Flowline					
Surface Own	ner: Pri	vate	wner:	State			API No	. 30-015-4	1402			
				LOCA	TIO	N OF REI	LEASE					
Unit Letter N	Section 32	Township 25S	Range 28E	Feet from the	North	/South Line	Feet from the	East/W	est Line		Coun Edd	•
			L	atitude 32.0792		Ū		83				
T CD I				NAI	UKE	OF REL			1/ 1 F			
Type of Relea	ise:	Produced	Water			volume of	Volume of Release: 12,897 bbl.			Recovered 4,633	bbl.	
Source of Rel	ease: Valve F	ailure					Date and Hour of Occurrence: April 29, 2018 9:30am			Date and Hour of Discovery: April 29, 2018 9:30am		
Was Immedia	ite Notice (Yes [No Not Re	equired	If YES, To Whom? Mike Bratcher – NMOCD, Crystal Weaver – NMOCD						
By Whom? I	Dakota Nee	1				Date and F	lour: April 29, 20	18 8:45pi	m			
Was a Watero	Was a Watercourse Reached? ☐ Yes ☒ No						olume Impacting t	he Water	course.			
If a Watercou	rse was Im	pacted, Descri	ibe Fully.	*								
Describe Cau	se of Probl	em and Reme	n Taken.*									

Describe Area Affected and Cleanup Action Taken.*

The release was caused by a mechanical valve failure on a trunk line. The valve has been replaced.

Phone: 432-638-6470

The release was within a pasture. Vacuum trucks were dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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

		OIL CC	DNSERVATION	DIVISION	
Signature: Ru	1 hyull				
Printed Name:	Robert McNeill	Approved by Environment	al Specialist:		
Title:	Environmental Manager	Approval Date:	Expiration D	ate:	
E-mail Address:	rmcneill@concho.com	Conditions of Approval:		Attached	

* Attach Additional Sheets If Necessary

Date: May 3, 2018

of New Mexico

Incident ID	
District RP	2RP-4739
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~35 (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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well 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	ls.

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.

Received by OCD: 4/7/2023 7:11:16 AM State of New Mexico
Page 4 Oil Conservation Division

State of New Mexico

Incident ID

Incident ID	
District RP	2RP-4739
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.								
Printed Name: Ike Tavarez	Title: Senior HSE Coordinator							
Signature:	Date: 7/12/2019							
email: itavarez@concho.com	Telephone: 432-685-2573							
	1							
OCD Only								
Received by:	Date:							

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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Incident ID	
District RP	2RP-4739
Facility ID	
Application ID	

Closure

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

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

Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
■ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certamay endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regulatore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15.29.13 NMAC i	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in
Signature:	Date: 7/12/2019
email: itavarez@concho.com	Date: 7/12/2019 Telephone: 432-685-2573
OCD Only	
Received by:	Date:
remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by: Juttam Hall	Date: 5/9/2023
Printed Name: Brittany Hall	Title: Environmental Specialist



Appendix B: Depth to Groundwater Data



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD

Sub-Code basin Count

basin County 64 16 4 Sec Tws Rng

Q Q Q

X Y 583848 3549325*

 $Water\\ Distance Depth Well Depth Water Column$

Average Depth to Water:

Minimum Depth:

Maximum Depth: --

Record Count: 1

POD Number

C 02478

UTMNAD83 Radius Search (in meters):

Easting (X): 583880.1

Northing (Y): 3549568.1 Radius: 1000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/19/18 9:03 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

		Sub-		0 (**	7 4
POD Number	Code		County				Tws	Rng	X	Y	DistanceDep	thWellDep		'ater lumn
<u>C 02478</u>		CUB	ED	2	2 1	05	26S	28E	583848	3549325*	239	100		
<u>C 01278</u>		C	ED	4	1 3	28	25S	28E	585470	3551338*	2361	205	90	115
C 03836 POD1		C	ED	2 2	2 4	29	25S	28E	584682	3551934	2500	300	30	270
C 02477		CUB	ED	1	1	03	26S	28E	586687	3549347*	2767	150		

Average Depth to Water: 60 feet

Minimum Depth: 30 feet

Maximum Depth: 90 feet

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 583926.6 Northing (Y): 3549551.1 Radius: 3000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/18/18 1:24 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Appendix C: Analytical Data



May 20, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/09/19 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)

Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project Number: NONE GIVEN

Project: APPLE 5 STATE SWD Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 15:59

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW - B1 - 2	H901295-01	Soil	09-Apr-19 00:00	09-Apr-19 16:20
SW - B2 - 2	H901295-02	Soil	08-Apr-19 00:00	09-Apr-19 16:20

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 04/10/19.

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Celeg D. Keine

Reported:

20-May-19 15:59



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - B1 - 2 H901295-01 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

 Chloride
 288
 16.0
 mg/kg
 4
 9041007
 AC
 10-Apr-19
 4500-Cl-B

Cardinal Laboratories *=Accredited Analyte

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Celes D. Keene



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 15:59

SW - B2 - 2 H901295-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	160		16.0	mg/kg	4	9041007	AC	10-Apr-19	4500-Cl-B	

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 15:59

Inorganic Compounds - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9041007 - General Prep - Wet Chem										
Blank (9041007-BLK1)				Prepared &	Analyzed:	10-Apr-19				
Chloride	ND	16.0	mg/kg							
LCS (9041007-BS1)			Prepared & Analyzed: 10-Apr-19							
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9041007-BSD1)				Prepared &	Analyzed:	10-Apr-19				
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

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Celeg D. Keine



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 6 of 7

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: TRC	2//4		ANALYSIS REQUEST
Project Manager: Tared St. A.	P.O. #:		
Address: 16 Posts Dr. Soite 150 1	Company: C	90	
City: Myland State: TX	p: 79705-		
Phone #: Fax #:	Address:		
Project #: Project Owner:	City:		
Project Name: Apple 5 Skk Sw	State:	Zip:	
Project Location:	Phone #:		
Sampler Name: Lyle Schmandt	Fax #:		
FOR LAB USE ONLY	MATRIX PRESERV.	SAMPLING	
Lab I.D. Sample I.D.	WATER /ATER	1500	
5	(G)RAB C # CONTA GROUNE WASTEW SOIL OIL SLUDGE OTHER: ACID/BAS ICE / COC OTHER:	DATE TIME	
1 SW-+B-2 B1-2	*	1 21-6-6	
2 56-28 Ba-2	61 K	4-8-12	
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Relinquished By: Pate: Phone Result: Fax Result:	Received/By:	Phone Result:	o Add'l Phone #: o Add'l Fax #:
the	Tamara Midal	-	
Relinquished By: Time:	Received By:	Desper @ Loss lotions . c	502. Cod
Delivered By: (Circle One)	le Condition CH	Kehmidt @ Lea	Solohious case
Sampler - UPS - Bus - Other:	197 Yes T Yes TO.	The Towares	Rush:
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	* Sample Id	Sample Id's runised per Jaruel. 5/17/19 to

Released to Imaging: 5/9/2023 2:18:38 PM



May 20, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/22/19 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 16:04

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW - B3 - 2	H901437-01	Soil	18-Apr-19 00:00	22-Apr-19 16:15
SW - B4 - 2	H901437-02	Soil	18-Apr-19 00:00	22-Apr-19 16:15
SW - B5 - 2	H901437-03	Soil	18-Apr-19 00:00	22-Apr-19 16:15
SW - C1 - 2	H901437-04	Soil	18-Apr-19 00:00	22-Apr-19 16:15
SW - C2 - 2	H901437-05	Soil	19-Apr-19 00:00	22-Apr-19 16:15
SW - C3 - 2	H901437-06	Soil	22-Apr-19 00:00	22-Apr-19 16:15

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 04/23/19.

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Celey D. Keine



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 16:04

SW - B3 - 2

H901437-01 (Soil)

4	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
				Cardina	al Laborat	ories					
In	organic Compounds										
Cl	hloride	80.0		16.0	mg/kg	4	9042312	AC	23-Apr-19	4500-Cl-B	

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Celes D. Keene



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 16:04

SW - B4 - 2 H901437-02 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 96.0 16.0 mg/kg 4 9042312 AC 23-Apr-19 4500-Cl-B

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Keene



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 16:04

SW - B5 - 2 H901437-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	tories					
Inorganic Compounds										
Chloride	48.0		16.0	mø/kø	4	9042312	AC	23-Apr-19	4500-Cl-B	

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Celey D. Keene

20-May-19 16:04



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - C1 - 2

H901437-04 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories*

Inorganic Compounds

Chloride 96.0 16.0 mg/kg 4 9042312 AC 23-Apr-19 4500-Cl-B

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Keine

20-May-19 16:04



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - C2 - 2

H901437-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	tories					
Inorganic Compounds										
Chloride	256		16.0	mg/kg	4	9042312	AC	23-Apr-19	4500-Cl-B	

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Celey D. Keene

4500-Cl-B

20-May-19 16:04



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

23-Apr-19

Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - C3 - 2

H901437-06 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories*

 Inorganic Compounds
 80.0
 16.0
 mg/kg
 4
 9042312
 AC

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Keine



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 20-May-19 16:04

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042312 - General Prep - Wet Chem										
Blank (9042312-BLK1)				Prepared &	Analyzed:	23-Apr-19				
Chloride	ND	16.0	mg/kg							
LCS (9042312-BS1)				Prepared &	Analyzed:	23-Apr-19				
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (9042312-BSD1)				Prepared &	z Analyzed:	23-Apr-19				
Chloride	416	16.0	mg/kg	400		104	80-120	3.77	20	

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: 7/ // C		B/LL 70	ANALYSIS REQUEST
Project Manager:	P.O. #:	A CONTRACTOR OF THE CONTRACTOR	
Address: 10, Posta Rive Soite 150	Company:	200 11	
City: M. Jard State: TX Zip:			
Phone #: Fax #:	Address:		
Project #: Project Owner:	City:		
Project Name: Apple 5 State Swill	State:	Zip:	
Project Location:	Phone #:	200	
Sampler Name: Kyle Schoold	Fax #:		
FOR LAB USE ONLY P.	MATRIX PRESERV	ERV. SAMPLING	
Lab I.D. Sample I.D. Sirab or (C) OM	CONTAINERS ROUNDWATER //ASTEWATER OIL IL LUDGE THER: CID/BASE: EE / COOL	THER:	CI-
3 6-58 2-8E-MS1	×	4-18-14	8
2 Sw-46-2 B4-2 6	>>	4-18-4	X
3 Sw-58- + 105-2 6		4-18-19	>>
4 58-10 201-20	\ \>	4-18-19	*
S 38-36-4 C3-3 6	* >	4-19-19	×
6 Su - 36 - 7 C3-2 6	>	91-22-4	
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Relinquished By: 4-22-19	Received By:	Phone Result:	ısult: ☐ Yes ☐ No Add'l Phone #:
Date:	Received By:	B coopers	The last tions con mone fress to figures con milt a fresh trons con
Delivered By: (Circle One)	Sample Condition CH Cool Intact	CHECKED BY:	
Sampler - UPS - Bus - Other:	· CD	* *	mole Ids runned per Jared. 3/17/14 to.



May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/26/19 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Reported: 21-May-19 11:39

Project Manager: JARED STOFFEL

Fax To:

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW - C1 - 2R	H901508-01	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - C2 - 2R	H901508-02	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - C3 - 2R	H901508-03	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - C4 - 2	H901508-04	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - C5 - 2	H901508-05	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - D1 - 2	H901508-06	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - D2 - 2	H901508-07	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - D3 - 2	H901508-08	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - D4 - 2	H901508-09	Soil	26-Apr-19 00:00	26-Apr-19 16:05
SW - D5 - 2	H901508-10	Soil	26-Apr-19 00:00	26-Apr-19 16:05

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 04/30/19.

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Celeg D. Keine



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:39

SW - C1 - 2R H901508-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										
Chloride	336		16.0	mg/kg	4	9042903	AC	30-Apr-19	4500-Cl-B	

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Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Chloride

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Reported: 21-May-19 11:39

Project Manager: JARED STOFFEL

Fax To:

SW - C2 - 2R H901508-02 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
				Cardina	al Laborat	ories					
I	norganic Compounds										
(Chloride	144		16.0	mg/kg	4	9042903	AC	30-Apr-19	4500-Cl-B	

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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:39

SW - C3 - 2R H901508-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborato	ories					

Inorganic Compounds 16.0 9042903 AC 30-Apr-19 4500-Cl-B Chloride 80.0 mg/kg

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48.0

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Analytical Results For:

TRC

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

9042903

AC

30-Apr-19

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Reported: 21-May-19 11:39

4500-Cl-B

Fax To:

SW - C4 - 2 H901508-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										

mg/kg

16.0

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21-May-19 11:39



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Analytical Results For:

TRC

Inorganic Compounds

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - C5 - 2

H901508-05 (Soil)

Reporting Limit Result MDL Dilution Units Analyzed Method Notes Analyte Batch Analyst **Cardinal Laboratories**

16.0 9042903 AC 30-Apr-19 4500-Cl-B Chloride 32.0 mg/kg

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:39

SW - D1 - 2 H901508-06 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories*

 Inorganic Compounds

 Chloride
 96.0
 16.0
 mg/kg
 4
 9042903
 AC
 30-Apr-19
 4500-Cl-B

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21-May-19 11:39



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

10 DESTA DR. SUITE 150 MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - D2 - 2

H901508-07 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

 Chloride
 48.0
 16.0
 mg/kg
 4
 9043011
 AC
 30-Apr-19
 4500-Cl-B
 QR-03

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21-May-19 11:39



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - D3 - 2

H901508-08 (Soil)

Reporting Limit Result MDL Units Dilution Analyzed Method Notes Analyte Batch Analyst

Cardinal Laboratories

Inorganic Compounds

16.0 9043011 AC 30-Apr-19 4500-Cl-B Chloride 48.0 mg/kg

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21-May-19 11:39



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - D4 - 2

H901508-09 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

 Chloride
 192
 16.0
 mg/kg
 4
 9043011
 AC
 30-Apr-19
 4500-Cl-B

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4500-Cl-B



32.0

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

9043011

AC

30-Apr-19

Project Number: NONE GIVEN
Project Manager: JARED STOFFEL

Fax To:

N 21-May-19 11:39 FFEL

SW - D5 - 2 H901508-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										

mg/kg

16.0

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Celey D. Keene



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:39

Inorganic Compounds - Quality Control

Cardinal Laboratories

Austra	D14	Reporting	T I 14	Spike	Source	0/DEC	%REC	DDD	RPD	Notes
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9042903 - General Prep - Wet Chem										
Blank (9042903-BLK1)				Prepared &	z Analyzed:	29-Apr-19				
Chloride	ND	16.0	mg/kg	·			·		·	
LCS (9042903-BS1)				Prepared &	z Analyzed:	29-Apr-19				
Chloride	400	16.0	mg/kg	400		100	80-120			·
LCS Dup (9042903-BSD1)				Prepared &	z Analyzed:	29-Apr-19				
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	
Batch 9043011 - General Prep - Wet Chem										
Blank (9043011-BLK1)				Prepared &	z Analyzed:	30-Apr-19				
Chloride	ND	16.0	mg/kg							
LCS (9043011-BS1)				Prepared &	Analyzed:	30-Apr-19				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9043011-BSD1)				Prepared &	Analyzed:	30-Apr-19				
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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Celey D. Keine



Notes and Definitions

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476 101 East Marland, Hobbs, NM 88240

Company Name: 1 2 C	The state of the s	8/14/70	ANALYSIS REQUEST
Project Manager: Tared Staffel	ק	P.O. #: Coc	
Address: 10 Dista 2, Suit	c 150 c	Company:	
City: M. State: TK	Zip: Ai	Attn:	
Phone #: Fax #:	A	Address:	
Project #: Project Owner:		City:	
Project Name:	St	State: Zip:	
Project Location: Appl556 Lb SWD	P	#	
Sampler Name: 12/2 Schnerde	Fa	Fax #:	
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING	
Lab I.D. **Sample I.D.	RAB OR (C)OMP. ONTAINERS OUNDWATER STEWATER L JDGE HER:	D/BASE: / COOL HER :	
154-45 C1-2R	ズ	4-26-19	2
2 Su-26 - 28 Ca-28		/	又,
3 Su-36-38 C3-28			χ.
4 55-45 -2 64-2			2
56			又
-13			.8
Sw-28-6			.×
30-2			Z.
SU-48 &			χ,
PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remark for a	nv claim arising whether based in contract or to	or shall be limited to the amount paid but	X
An Executive in Learning and Jean Industry and Jean's administration of the Anomal Park Process of the Anomal Park Process of the Anomal Park Process of the Anomal Park Park Park Park Park Park Park Park	iny claim arising whether based in contract or its deemed waived unless made in writing and rec without limitation, business interruptions, loss ardinal, regardless of whether such claim is ba	ort, shall be limited to the amount paid by the served by Cardinal within 30 days after come of use, or loss of profits incurred by client, the state of the server are server as the server are server as the server are server as the server as the server are server as the server as t	e clent for the splicable state of the applicable state of the applicable of the applicable or otherwise.
Kelinduished By:	Received By:	Ph	Phone Result: Yes No Add'l Phone #: Fax Result: Yes No Add'l Fax #:
hal	Jamara	& Molaton RE	16 Local times
Time:	Necelved by.	(2)	-10
Delivered By: (Circle One)	Sample Condition	H	-5ch 1 (1) (1) +10 5010 5073 .co
Sampler - UPS - Bus - Other:	Yes Tyes	(initials)	* Sample I'ds received per Jared. 5/17/19 To.



May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/01/19 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Reported: 21-May-19 11:44

MIDLAND TX, 79705 Project Manager: JARED STOFFEL

Fax To:

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW - C6 - 2	H901575-01	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - C7 - 2	H901575-02	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - E1 - 2	H901575-03	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - E2 - 2	H901575-04	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - E3 - 2	H901575-05	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - E4 - 2	H901575-06	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - E5 - 2	H901575-07	Soil	30-Apr-19 00:00	01-May-19 15:30
SW - E6 - 2	H901575-08	Soil	01-May-19 00:00	01-May-19 15:30
SW - E7 - 2	H901575-09	Soil	01-May-19 00:00	01-May-19 15:30
SW - F1 - 2	H901575-10	Soil	01-May-19 00:00	01-May-19 15:30
SW - F2 - 2	H901575-11	Soil	01-May-19 00:00	01-May-19 15:30
SW - F3 - 2	H901575-12	Soil	01-May-19 00:00	01-May-19 15:30

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 05/06/19.

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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:44

SW - C6 - 2

H901575-01 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
Cardinal Laboratories												
	Inorganic Compounds											
	Chloride	<16.0		16.0	mg/kg	4	9050216	AC	06-May-19	4500-Cl-B		

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Celey D. Keine

21-May-19 11:44



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - C7 - 2

H901575-02 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride <16.0 16.0 mg/kg 4 9050216 AC 06-May-19 4500-Cl-B

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:44

SW - E1 - 2 H901575-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
Cardinal Laboratories											
Inorganic Compounds											
Chloride	32.0		16.0	mg/kg	4	9050216	AC	06-May-19	4500-Cl-B		

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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Reported: 21-May-19 11:44

Fax To:

SW - E2 - 2 H901575-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes

Cardinal Laboratories

Inorganic Compounds 9050216 AC 06-May-19 4500-Cl-B Chloride 64.0 16.0 mg/kg

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21-May-19 11:44



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - E3 - 2

H901575-05 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 96.0 16.0 mg/kg 4 9050216 AC 06-May-19 4500-Cl-B

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21-May-19 11:44



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - E4 - 2

H901575-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										

 Inorganic Compounds

 Chloride
 32.0
 16.0
 mg/kg
 4
 9050216
 AC
 06-May-19
 4500-Cl-B

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64.0

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Chloride

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

9050216

AC

06-May-19

Fax To:

Reported: 21-May-19 11:44

4500-Cl-B

SW - E5 - 2 H901575-07 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories Inorganic Compounds											

mg/kg

16.0

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - E6 - 2 H901575-08 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

 Chloride
 80.0
 16.0
 mg/kg
 4
 9050216
 AC
 06-May-19
 4500-Cl-B

Cardinal Laboratories *=Accredited Analyte

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:44

SW - E7 - 2

H901575-09 (Soil)

Analyte	Result	MDL	Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Reporting							3.7

Inorganic Compounds <16.0 16.0 9050216 AC 06-May-19 4500-Cl-B Chloride mg/kg

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:44

SW - F1 - 2 H901575-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										

Inorganic Compounds 16.0 9050216 AC 06-May-19 4500-Cl-B Chloride 16.0 mg/kg

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Reported: 21-May-19 11:44

Project Manager: JARED STOFFEL

Fax To:

SW - F2 - 2 H901575-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	48.0		16.0	mg/kg	4	9050216	AC	06-May-19	4500-Cl-B	

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21-May-19 11:44



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

10 DESTA DR. SUITE 150 MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

SW - F3 - 2

H901575-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										

 Inorganic Compounds

 Chloride
 64.0
 16.0
 mg/kg
 4
 9050216
 AC
 06-May-19
 4500-Cl-B

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:44

Inorganic Compounds - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9050216 - General Prep - Wet Chem										
Blank (9050216-BLK1)				Prepared &	Analyzed:	02-May-19)			
Chloride	ND	16.0	mg/kg							
LCS (9050216-BS1)				Prepared &	Analyzed:	02-May-19)			
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9050216-BSD1)				Prepared &	Analyzed:	02-May-19)			
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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Celey D. Keine



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 16 of 18

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Address: Address: Address: City: M. Manager: Tax Zip: State: Tx Zip: Project Owner: Project Name: Project Name: Project Name: Sample I.D. Sample I.D. Attn: Project Name: Pro	BILL TO	ANALYSIS REQUEST
City: M. Mark: Tex Zip: Phone #: Fax #: Project Name: Project Location: Apple S Ship Ship Sample I.D. Sampler Name: Lab I.D. FOR US USE ONLY MATRIX MAT	P.O. #:	
City: M. J. State: TX Zip: Phone #: Fax #: Project Name: Project Name: Project Location: Appl. S St.t. Supple I.D. Sampler Name: S St.t. Supple I.D. Lab I.D. Lab I.D. Lab I.D. Lab I.D. Supple	Company: CoC	
Project Wame: Project Location: Apple S State Sull Sampler Name: FOR LAB USE DNLY FOR LAB USE DNLY FOR LAB USE DNLY FOR LAB USE DNLY AS A STATE	Attn:	
Project Name: Project Location: Apple S State Swll Sampler Name: FOR LAB USE ONLY ASAmple I.D. Lab I.	Address:	
Project Location: Apple S State Swill Sampler Name: 4/6 State Swill FOR USE ONLY FOR USE USE FOR USE USE ONLY FOR USE USE FOR U	City:	
Sampler Name: 15/6 Style Sulf FOR LAB USE ONLY A Support of the second of the performance of services hereunder by Cardinal, regardless of whether such claim is informatical, regardless of whether such claim is informatical, regardless of whether such claim is informatical, regardless of whether such claim is informatical.	State: Zip:	
FOR LAB USE ONLY Lab I.D. A Sample I.D. Lab I.D. OR INTER OR ATER OR INTER OR INTER OR INTER OR INTER OR ATER OR INTER OR	#	
Lab I.D. Lab I.	Fax #:	
Lab I.D. Lab II.D. Lab III.D. Lab	PRESERV. SAMPLING	
H9DIS75 H9DIS75 Lab II.D. H9DIS75 Lab III.9 H9DIS75		
HQDIS75 SW + E -2 G C R S G L	HER: D/BASE: / COOL HER:	
2 Sw-7423 C7-2 3 Sw-7423 C7-2 4 Sw-7423 C7-2 4 Sw-7423 E2-2 4 Sw-7423 E2-2 4 Sw-7423 E2-2 5 Sw-7423 E2-2 6 Sw-7423 E2-2 7 Sw-7423 E2-2 7 Sw-7423 E2-2 7 Sw-7424 E2-2 8 Sw-7424 E2-2 9 Lability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsower shall be deemed waived unless made in writing and service. In no went shall Cardinal be liable for incidential or consequental damages, including without limitation, business interruptions, attiting out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is	ACII	
2 Sw-7+2 E1-2 4 Sw-7+2 E2-2 4 Sw-7+2 E2-2 5 Sw-7+2 E3-2 5 Sw-7+2 E3-2 7 Sw-7+2 E3-2 9 Sw-7+2 E3-2 9 Sw-7+2 E3-2 PLEASE NOTE: Liability and Damages. Cardinat's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsower shall be deemed waived unless made in writing and service. In no weenst shall Cardinal be liable for incidential or consequental damages, including without limitation, business interruptions, I still alter or successors arising out of or reliated to the performance of services hereunder by Cardinal, regardless of whether such claim is	4-30-19	
4 Su-1E-2 E2-2 4 Su-1E-2 E2-2 5 Su-3E-2 E3-2 6 Su-1E-2 E4-2 7 Su-5E-2 E4-2 9 Su-5E-2 E4-2 9 Su-5E-2 E4-2 10 Su-7E-2 E4-2 10 Su-7E-2 E4-2 9 Su-7E-2 E4-2 PLEASE NOTE: Liability and Damages. Cardinat's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsoever shall be deemed waived unless made in writing and service. In no went shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, I stillates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is		
4 Su-3E 22 5 Su-3E 2 E3-2 6 Su-4E E4-2 7 Su-5E 2 E6-2 9 Su-4E 2 E7-2 PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsower shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, attiting out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is		
5 Sw-3E & E3-2 6 Sw-4E E4-2 7 Sw-5E E5-2 8 Sw-4E-2 E6-2 9 Sw-4E-2 E6-2 9 Sw-4E-2 E6-2 9 Sw-4E-2 E7-2 10 Sw-4E-2 E7-2 PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsoever shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is		
Swy + E + 2 Swy + E + 2 Swy + E + 2 PLEASE NOTE: Liability and Damages. Cardinat's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsower shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, I, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is		
Sw-stee E5-2 Sw-stee E6-2 G Sw-stee E6-2 PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other crause whatsoever shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is		
A SWITE LIABILITY AND A STATE		
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, I affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is	5-1-14	
PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim erising whether based in contract analyses. All claims including those for negligence and any other crause whatsoever shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim; it	5-1-19	
PLEASE NOTE: Liability and Damages. Cardina'ts liability and client's exclusive remedy for any claim arising whether based in contract analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is	5-1-19	
affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is	or tort, shall be limited to the amount paid by the client for the received by Cardinal within 30 days after completion of the applicable ss of use, or loss of profits incurred by client, its subsidiaries,	
Relinquished By: Date: Received By:	Phone Result: Yes	□ No
Mary or wall	PEMARKS:	res No Add'l Fax #:
Relinguished By:	1	@ tresolutions con
Time:	0	tesolution.com
Samp	@ 0	1+ @ tresolutions, con
Sampler - UPS - Bus - Other: 31,00 TH Executives	CHECKED BY: Usehum	or this are and on the or of the

Relinquished By:

Relinquished By:

18:30

Received by

Phone Result: Fax Result: REMARKS:

□ Yes

No No

Add'I Phone #: Add'I Fax #:

Received By:

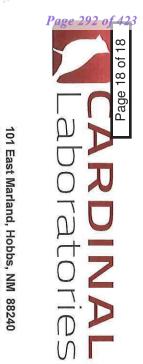
Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

31.20/ #97

Sample Condition
Cool Intact
Yes Yes
No No

* Sample I'd's revised wer Jared 5/17/19 To

Date: Time:



(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name.	I KI					7:15:10:0	10000
Project Manager:	Jan 5 + 42		P.O. #:				
Address: 10	losk Drive Suite	150	Company: (06			
city: M. J.	State: TX	Zip:	Attn:				
Phone #:	Fax #:		Address:				
Project #:	Project Owner:	er.	City:				
Project Name:			State: Zi	Zip:			
Project Location:	Apple 554 to , SWI	9	Phone #:				
Sampler Name: /	Kille Schneidt		Fax #:				
FOR LAB USE ONLY	/	MATRIX	PRESERV.	SAMPLING			
Lab I.D.	X Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:	DATE TIME	CI-		-
2 11	ひーをナーマード・ユース	又	New	5-1-19	×		
12 5	w-3/-2 F3-2	× ×	6	5-1-19	X		



May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/07/19 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)

Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Reported: 21-May-19 11:50

Project Manager: JARED STOFFEL Fax To:

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL - C2-5	H901649-01	Soil	07-May-19 00:00	07-May-19 16:45
FL - C3-5	H901649-02	Soil	07-May-19 00:00	07-May-19 16:45
FL - C4-6	H901649-03	Soil	07-May-19 00:00	07-May-19 16:45
FL - C5-6	H901649-04	Soil	07-May-19 00:00	07-May-19 16:45
FL - C6-8	H901649-05	Soil	07-May-19 00:00	07-May-19 16:45
FL - C7-6	H901649-06	Soil	07-May-19 00:00	07-May-19 16:45
FL - C8-6	H901649-07	Soil	07-May-19 00:00	07-May-19 16:45
FL - C9-9	H901649-08	Soil	07-May-19 00:00	07-May-19 16:45
FL - D2-4	H901649-09	Soil	07-May-19 00:00	07-May-19 16:45
FL - D3-4	H901649-10	Soil	07-May-19 00:00	07-May-19 16:45
FL - E4-5	H901649-11	Soil	07-May-19 00:00	07-May-19 16:45
FL - E5-4	H901649-12	Soil	07-May-19 00:00	07-May-19 16:45
FL - F2-4	H901649-13	Soil	07-May-19 00:00	07-May-19 16:45
FL - F5-6	H901649-14	Soil	07-May-19 00:00	07-May-19 16:45
FL - F6-4	H901649-15	Soil	07-May-19 00:00	07-May-19 16:45
FL - F7-4	H901649-16	Soil	07-May-19 00:00	07-May-19 16:45
FL - F13-4	H901649-17	Soil	07-May-19 00:00	07-May-19 16:45
FL - F14-8	H901649-18	Soil	07-May-19 00:00	07-May-19 16:45

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 05/08/19.

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Celey D. Keine

21-May-19 11:50



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - C2-5

H901649-01 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
				Cardina	ıl Laborat	ories					
]	Inorganic Compounds										
(Chloride	912		16.0	mg/kg	4	9050807	AC	08-May-19	4500-Cl-B	

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Celey D. Keine



176

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Analytical Results For:

TRC

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

9050807

AC

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:50

08-May-19

4500-Cl-B

FL - C3-5 H901649-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
Cardinal Laboratories												
Inorganic Compounds	norganic Compounds											

mg/kg

16.0

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Celey D. Keene

21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - C4-6

H901649-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					

Inorganic Compounds 16.0 9050807 AC 08-May-19 4500-Cl-B Chloride 192 mg/kg

Cardinal Laboratories *=Accredited Analyte

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21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - C5-6

H901649-04 (Soil)

Reporting Limit Result MDL Units Dilution Analyzed Method Notes Analyte Batch Analyst **Cardinal Laboratories**

Inorganic Compounds

16.0 9050807 AC 08-May-19 4500-Cl-B Chloride 592 mg/kg

Cardinal Laboratories *=Accredited Analyte

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21-May-19 11:50



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - C6-8

H901649-05 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 688 16.0 mg/kg 4 9050807 AC 08-May-19 4500-Cl-B

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21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - C7-6

H901649-06 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 2320 16.0 mg/kg 4 9050807 AC 08-May-19 4500-Cl-B

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Celes D. Keene

21-May-19 11:50



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - C8-6

H901649-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborato	ories					

 Inorganic Compounds

 Chloride
 336
 16.0
 mg/kg
 4
 9050807
 AC
 08-May-19
 4500-Cl-B

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Celeg D. Keene



112

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Chloride

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

9050808

AC

08-May-19

Fax To:

Reported: 21-May-19 11:50

4500-Cl-B

FL - C9-9

H901649-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
Cardinal Laboratories												
norganic Compounds												

mg/kg

16.0

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Celeg D. Keene

21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - D2-4 H901649-09 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

 Inorganic Compounds

 Chloride
 320
 16.0
 mg/kg
 4
 9050808
 AC
 08-May-19
 4500-Cl-B

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Celeg D. Keine



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN
Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:50

FL - D3-4 H901649-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	544		16.0	mg/kg	4	9050808	AC	08-May-19	4500-Cl-B	

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21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - E4-5

H901649-11 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 864 16.0 mg/kg 4 9050808 AC 08-May-19 4500-Cl-B

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Celes D. Keene



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:50

FL - E5-4 H901649-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	tories					

Inorganic Compounds 16.0 9050808 AC 08-May-19 4500-Cl-B Chloride 896 mg/kg

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Celey D. Keene



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Analytical Results For:

TRC

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

9050808

AC

08-May-19

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:50

4500-Cl-B

FL - F2-4 H901649-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
Cardinal Laboratories												
Inorganic Compounds	parganie Campounds											

mg/kg

16.0

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Celey D. Keene



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:50

FL - F5-6 H901649-14 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

 Chloride
 944
 16.0
 mg/kg
 4
 9050808
 AC
 08-May-19
 4500-Cl-B

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Celes D. Keene

4500-Cl-B

08-May-19



304

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Chloride

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

21-May-19 11:50 Project Manager: JARED STOFFEL

AC

9050808

Fax To:

16.0

FL - F6-4 H901649-15 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Inorganic Compounds			Cardin	al Laborat	tories					

mg/kg

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:50

FL - F7-4 H901649-16 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	832		16.0	mg/kg	4	9050808	AC	08-May-19	4500-Cl-B	

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21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F13-4

H901649-17 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 832 16.0 mg/kg 4 9050808 AC 08-May-19 4500-Cl-B

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21-May-19 11:50



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F14-8

H901649-18 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 192 16.0 mg/kg 4 9050808 AC 08-May-19 4500-Cl-B

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN
Project Manager: JARED STOFFEL

SIVEN 21-May-19 11:50

Fax To:

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050807 - 1:4 DI Water										
Blank (9050807-BLK1)				Prepared &	Analyzed:	08-May-19)			
Chloride	ND	16.0	mg/kg						·	
LCS (9050807-BS1)				Prepared &	Analyzed:	08-May-19)			
Chloride	400	16.0	mg/kg	400	·	100	80-120		·	
LCS Dup (9050807-BSD1)				Prepared &	Analyzed:	08-May-19)			
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
Batch 9050808 - 1:4 DI Water										
Blank (9050808-BLK1)				Prepared &	Analyzed:	08-May-19)			
Chloride	ND	16.0	mg/kg							
LCS (9050808-BS1)				Prepared &	Analyzed:	08-May-19)			
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9050808-BSD1)				Prepared &	Analyzed:	08-May-19)			
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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Celey D. Keene



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(a.a) aaa					
Company Name: 7/2	75	BILL TO	ANALYSIS	SIS REQUEST	
Project Manager: Jand Stoffe!	P.O. #:				
Address: 10 Poste Dr Suite	1500 Company:	E100			
City: Midland State: TX Z	Zip: Attn:				
Phone #: Fax #:	Address:	20			
Project #: Project Owner:	City:			3	
Project Name:	State:	Zip:			
Project Location: Apple 5 stile Swl	Phone #:				
Sampler Name: Kile Schnarde	Fax #:				
	MATRIX PRESERV	V. SAMPLING			
(C)OMP	ATER ER				
Lab I.D. Sample I.D.	TAINE NDW/ EWAT GE R: BASE: OOL				
H901649 FZ-	# CON' GROUI WASTE SOIL OIL SLUDG OTHEF ACID/B ICE / C OTHEF	DATE TIME			
5-27 1 . 8	, y	8-7-19			
2 63-5		\			
3 64-8					
4 5-6					
56-8					
6 67-8					
7 68-6					
8 6-63					
9 02-4					
D 103-4	-				
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Relinquished By: Residence of the parameter of the par	Received By:	E.	☐ Yes ☐ No Add'l Phone #:	ne#:	
M. Chi. 115	your seems		□ No	#	
Refinguished By: Time:	Received By:	-101	tresolution con		
Delivered By: (Circle One)	Sample Condition			17/2 1200	1970
Sampler - UPS - Bus - Other: 29.66/ #97	Cool Intact Yes Yes	* Sam	of Id's remor	Id's remarch per Javed 3/1.	



(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Rush 2 / 2.12

Company Ivanie.	11/1/		6/11/0	ANALYSIS	SIS REQUEST
Project Manager:	Jaired Stoffel		P.O. #:		
Address: 10	Orsta O, Site	150	Company:		
city: And la	State: 7x	Zip:	Attn:		
Phone #:	Fax #:		Address:		
Project #:	Project Owner:		City:		
Project Name:			State: Zip:		
Project Location:	Apple 5 Style SWA	0	Phone #:		
Sampler Name:	Kyle Schnick		Fax #:		
FOR LAB USE ONLY	8	MATRIX	PRESERV. SAMPLING	<u></u>	
		TER R			
Lab I.D.	¥Sample I.D.	TAINEI NDWA ⁻ EWATE	ASE: OOL	1-	
4 Stallably	FL	# CON GROU	OTHEF ACID/B ICE / C OTHEF DATE	TIME	
	5-43	- X		X	
2	6-5				
13	2-4				
7	2.36				
U	8-9				
16	7-4				
17 8	13-4				
188	14-8				
PLEASE NOTE: Liability and Da analyses. All claims including the service. In no event shall Cardina affiliates or successors arising ou	PLEASE NOTE: Lability and Damages, Cardinal's lability and client's exclusive remedy for any claim arising where based in contract or fort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hearurder by Cardinal repartless of whether such claims is based upon any of the above strated consequence or extractions.	any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the determent within 30 days after completion of the determed waived unless made in writing and received by Cardinal within 30 days after completion of the great waived unless made in writing and received by Cardinal within 30 days after completion of the great value of profits increased by Cardinal within 10 days after complete or the great value of the cardinal state of th	or tort, shall be limited to the amount paid received by Cardinal within 30 days after ass of use, or loss of profits incurred by clinhased upon any of the above stated roce.	y the client for the completion of the applicable completion of the applicable completion of the applicable completion of the applicable completions of the	
Relinquished By:	Pate:n/19	Received By:		ılt: □ Yes □ No	ne#:
M	Time: 45	Joan Ster	room	□ No	#
Reinquising By:	Date:	Received By:			
Delivered By: (Circle One)	Sircle One)	- (0	On CHECKED BY:	V2 2 + 1	a + 1 5/17/19 TO
Sampler - UPS - E	Sampler - UPS - Bus - Other: 27.62/ #		1	* Somple Las recursed	I as runged per Jarea. J' 11:1 15.



May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/08/19 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC Project: APPLE 5 STATE SWD 10 DESTA DR. SUITE 150 E Project Number: NONE GIVEN

MIDLAND TX, 79705 Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:53

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL - C1-4	H901675-01 H901675-02	Soil Soil	07-May-19 00:00 07-May-19 00:00	08-May-19 16:45 08-May-19 16:45
FL - F1-4 FL - B1-6	H901675-03	Soil	08-May-19 00:00	08-May-19 16:45

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 05/09/19.

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Celey D. Keine

21-May-19 11:53



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

...

FL - C1-4 H901675-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	160		16.0	mg/kg	4	9050915	AC	09-May-19	4500-Cl-B	
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	9050818	ms	09-May-19	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	9050818	ms	09-May-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	73.3	-129	9050818	ms	09-May-19	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
Surrogate: 1-Chlorooctane			101 %	41-	142	9050819	MS	09-May-19	8015B	
Surrogate: 1-Chlorooctadecane			100 %	37.6	-147	9050819	MS	09-May-19	8015B	

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Celey D. Keine



Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 11:53

FL - F1-4 H901675-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	560		16.0	mg/kg	4	9050915	AC	09-May-19	4500-Cl-B	
Volatile Organic Compounds by I	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	9050818	ms	09-May-19	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	9050818	ms	09-May-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			107 %	73.3	-129	9050818	ms	09-May-19	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
Surrogate: 1-Chlorooctane			102 %	41-	142	9050819	MS	09-May-19	8015B	
Surrogate: 1-Chlorooctadecane			101 %	37.6	-147	9050819	MS	09-May-19	8015B	

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Celey D. Keene

21-May-19 11:53



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - B1-6 H901675-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	480		16.0	mg/kg	4	9050915	AC	09-May-19	4500-Cl-B	
Volatile Organic Compounds by E	PA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9050818	ms	09-May-19	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	9050818	ms	09-May-19	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	9050818	ms	09-May-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			106 %	73.3	-129	9050818	ms	09-May-19	8021B	
Petroleum Hydrocarbons by GC I	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9050819	MS	09-May-19	8015B	
Surrogate: 1-Chlorooctane			87.2 %	41-	142	9050819	MS	09-May-19	8015B	
Surrogate: 1-Chlorooctadecane			91.3 %	37.6	-147	9050819	MS	09-May-19	8015B	

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Celey D. Keene



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Reported: 21-May-19 11:53

Project Manager: JARED STOFFEL

Fax To:

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Lillit	Ollits	Level	Kesuit	70KEC	Lillits	KFD	LIIIII	Notes
Batch 9050915 - 1:4 DI Water										
Blank (9050915-BLK1)				Prepared &	Analyzed:	09-May-19				
Chloride	ND	16.0	mg/kg							
LCS (9050915-BS1)				Prepared &	Analyzed:	09-May-19				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9050915-BSD1)				Prepared &	Analyzed:	09-May-19				
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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0/DEC

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Reported: 21-May-19 11:53

Project Manager: JARED STOFFEL

Fax To:

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9050818 - Volatiles										
Blank (9050818-BLK1)				Prepared: (08-May-19	Analyzed:	09-May-19			
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.106		mg/kg	0.100		106	73.3-129			
LCS (9050818-BS1)				Prepared: (08-May-19	Analyzed:	09-May-19			
Benzene	2.03	0.050	mg/kg	2.00		102	72.2-131			
Toluene	2.11	0.050	mg/kg	2.00		106	71.7-126			
Ethylbenzene	2.03	0.050	mg/kg	2.00		102	68.9-126			
Total Xylenes	6.19	0.150	mg/kg	6.00		103	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.103		mg/kg	0.100		103	73.3-129			
LCS Dup (9050818-BSD1)				Prepared: (08-May-19	Analyzed:	09-May-19			
Benzene	2.02	0.050	mg/kg	2.00		101	72.2-131	0.692	6.91	<u> </u>
Toluene	2.14	0.050	mg/kg	2.00		107	71.7-126	1.27	7.12	
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	68.9-126	0.563	7.88	
Total Xylenes	6.20	0.150	mg/kg	6.00		103	71.4-125	0.127	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.103		mg/kg	0.100		103	73.3-129			

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%REC

Limits

RPD

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Analyte

Surrogate: 1-Chlorooctadecane

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Spike

Level

50.0

Source

Result

%REC

117

37.6-147

Fax To:

Reported: 21-May-19 11:53

RPD

Limit

Notes

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Units

Reporting

Limit

Result

58.6

Blank (9050819-BLK1)				Prepared & Anal	lyzed: 08-May-1	9			
GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	55.0		mg/kg	50.0	110	41-142			
Surrogate: 1-Chlorooctadecane	54.4		mg/kg	50.0	109	37.6-147			
LCS (9050819-BS1)				Prepared & Anal	lyzed: 08-May-1	9			
GRO C6-C10	209	10.0	mg/kg	200	105	76.5-133			
DRO >C10-C28	189	10.0	mg/kg	200	94.6	72.9-138			
Total TPH C6-C28	398	10.0	mg/kg	400	99.5	78-132			
Surrogate: 1-Chlorooctane	60.2		mg/kg	50.0	120	41-142			
Surrogate: 1-Chlorooctadecane	57.1		mg/kg	50.0	114	37.6-147			
LCS Dup (9050819-BSD1)				Prepared & Anal	lyzed: 08-May-1	9			
GRO C6-C10	208	10.0	mg/kg	200	104	76.5-133	0.395	20.6	
DRO >C10-C28	192	10.0	mg/kg	200	96.1	72.9-138	1.62	20.6	
Total TPH C6-C28	400	10.0	mg/kg	400	100	78-132	0.566	18	
Surrogate: 1-Chlorooctane	61.5		mg/kg	50.0	123	41-142			

mg/kg

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Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine



101 East Marland, Hobbs, NM 88240

N-OF-CUSTODY AND ANALYS

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

City: Project Manager: Company Name: Sampler - UPS - Bus - Other: 5,4°C/#Q-Religiquished By: Relinquished By: PLEASE NOTE: Liability and Damages. Cardinal's liability and clients excusive remous usually seal nature security and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable in the claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable in the claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable in the claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable in the claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable in the claims including without including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, Sampler Name: Project Location: Project Name: Project #: Phone #: Address: Delivered By: (Circle One) Lab I.D. FOR LAB USE ONLY (575) 393-2326 FAX (575) 393-2476 h-170 0 1-4 1-6 *Sample I.D. The Fax #: Date: Project Owner: Date: 5-8-19 Time: State: K Zip: 60 (G)RAB OR (C)OMP. Received By: Received By: 150 # CONTAINERS GROUNDWATER Sample Condition Cool Intact Yes Yes No No WASTEWATER MATRIX X SOIL OIL SLUDGE P.O. #: Fax #: State: City: Attn: OTHER: Phone #: Company: Address: ACID/BASE PRESERV R × ICE / COOL BILL 70 OTHER: Zip: 000 5-8-19 5-7-19 5-749 DATE SAMPLING Fax Result: REMARKS: Sample I'ds remised per Jared 5/17/19 To Phone Result: Beaper@ tre solutions. con TIME 9 If @ tresolutions con ☐ Yes☐ Yes tresolutions.com 2 R X 8 No No ANALYSIS REQUEST Add'I Fax #: Add'l Phone #:



May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/13/19 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)

Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:03

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL - B2-6	H901729-01	Soil	09-May-19 00:00	13-May-19 16:25
FL - C7-6.5	H901729-02	Soil	09-May-19 00:00	13-May-19 16:25
FL - D1-5.5	H901729-03	Soil	13-May-19 00:00	13-May-19 16:25
FL - D4-5.5	H901729-04	Soil	13-May-19 00:00	13-May-19 16:25
FL - D5-5.5	H901729-05	Soil	13-May-19 00:00	13-May-19 16:25
FL - D6-5.5	H901729-06	Soil	13-May-19 00:00	13-May-19 16:25
FL -D7-5.5	H901729-07	Soil	13-May-19 00:00	13-May-19 16:25
FL - E2-5.5	H901729-08	Soil	13-May-19 00:00	13-May-19 16:25
FL - E3-5.5	H901729-09	Soil	13-May-19 00:00	13-May-19 16:25
FL - E6-5	H901729-10	Soil	13-May-19 00:00	13-May-19 16:25
FL - E7-5	H901729-11	Soil	13-May-19 00:00	13-May-19 16:25
FL - E8-5.5	H901729-12	Soil	13-May-19 00:00	13-May-19 16:25

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 05/14/19.

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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:03

FL - **B2-6**

H901729-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	tories					
Inorganic Compounds										
Chloride	704		16.0	mg/kg	4	9051412	AC	14-May-19	4500-Cl-B	

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:03

FL - C7-6.5 H901729-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chlorida	80 O		16.0	mø/kø	4	9051412	AC	14-May-19	4500-Cl-B	

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21-May-19 12:03



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - D1-5.5

H901729-03 (Soil)

Reporting Limit Result MDL Units Dilution Analyzed Method Notes Analyte Batch Analyst

Cardinal Laboratories

Inorganic Compounds

16.0 9051412 AC 14-May-19 4500-Cl-B Chloride 96.0 mg/kg

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4500-Cl-B

21-May-19 12:03



864

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Chloride

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - D4-5.5 H901729-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Inorganic Compounds			Cardin	al Laborat	tories					

mg/kg

9051412

AC

14-May-19

16.0

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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - D5-5.5

H901729-05 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 304 16.0 mg/kg 4 9051412 AC 14-May-19 4500-Cl-B

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - D6-5.5 H901729-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chlorido	220		16.0	ma/ka	4	0051/12	۸C	14 May 10	4500 CLB	

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21-May-19 12:03



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL-D7-5.5

H901729-07 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

 Chloride
 64.0
 16.0
 mg/kg
 4
 9051413
 AC
 14-May-19
 4500-Cl-B
 QR-03

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464

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Analytical Results For:

TRC

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

9051413

AC

14-May-19

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Reported: 21-May-19 12:03

4500-Cl-B

Fax To:

FL - E2-5.5

H901729-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	tories					
Inorganic Compounds										

mg/kg

16.0

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21-May-19 12:03



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - E3-5.5

H901729-09 (Soil)

Reporting Limit Result MDL Units Dilution Analyzed Method Notes Analyte Batch Analyst **Cardinal Laboratories**

Inorganic Compounds

16.0 9051413 AC 14-May-19 4500-Cl-B Chloride 688 mg/kg

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21-May-19 12:03



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - E6-5 H901729-10 (Soil)

Reporting Limit Result MDL Units Dilution Analyzed Method Notes Analyte Batch Analyst

Cardinal Laboratories

Inorganic Compounds

16.0 9051413 AC 14-May-19 4500-Cl-B Chloride 848 mg/kg

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4500-Cl-B

21-May-19 12:03



704

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Analytical Results For:

TRC

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

9051413

AC

14-May-19

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - E7-5 H901729-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Inorganic Compounds			Cardin	al Laborat	tories					

mg/kg

16.0

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Keine



656

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

Chloride

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

9051413

AC

14-May-19

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:03

4500-Cl-B

FL - E8-5.5 H901729-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										

mg/kg

16.0

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:03

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051412 - 1:4 DI Water										
Blank (9051412-BLK1)				Prepared &	Analyzed:	14-May-19)			
Chloride	ND	16.0	mg/kg							
LCS (9051412-BS1)				Prepared &	Analyzed:	14-May-19)			
Chloride	400	16.0	mg/kg	400	·	100	80-120		·	
LCS Dup (9051412-BSD1)				Prepared &	Analyzed:	14-May-19)			
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	
Batch 9051413 - 1:4 DI Water										
Blank (9051413-BLK1)				Prepared &	Analyzed:	14-May-19)			
Chloride	ND	16.0	mg/kg							
LCS (9051413-BS1)				Prepared &	Analyzed:	14-May-19)			
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9051413-BSD1)				Prepared &	Analyzed:	14-May-19)			
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

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Notes and Definitions

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: TRC	OFFIRE	ANALYSIS REQUEST
Project Manager: Jared Stoffel	P.O. #:	
Address: 10 Vista O, Suit 15	50 Company: Cov	
City: State: Z	Zip: Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name:	State: Zip:	
Project Location: Apple S Suk SWD	Phone #:	
Sampler Name: Kyle Schwidt	Fax #:	
FOR LAB USE ONLY	MATRIX PRESERV.	SAMPLING
Lab I.D. * Sample I.D.	DWATER VATER SE:	
H901729 FL	# CONT GROUN WASTE SOIL OIL SLUDG OTHER ACID/B/ ICE / CO	DATE TIME
1 6-59 1	×	
2 67-65	5-9-14	4
301-5.5	5-13-19	74
· 4 py- 5.5		
\$ 05-5.5		
606-5.5		
7 07 - 5.5		
8 62 - 5.5		
9 63 - 5.5		
10 E6-5		
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Relinquished By: Date: 5-12-19	Received By:	Phone Result: ☐ Yes ☐ No Add'I Phone #: Fax Result: ☐ Yes ☐ No Add'I Fax #:
Relinguished-By: Date: R	Received By:	e Salution
Time:		Jetaffel Insolutions con
Delivered By: (Circle One)	Sample Condition CHECKED BY:	
Sampler - UPS - Bus - Other: 20.6; #97	Yes Tres	* Sample I'ds removed per Jarea. 5/11/17 1:0

Rush Lk

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	240 76	8	
Project Manager: T. 1 SLC	P.O. #:	<i>L T0</i>	ANALYSIS REQUEST
Address: 10 11.52 11.00 Sun	6 150 Company:	666	
City: M. & land State: TX	Zip: Attn:		
Phone #: Fax #:	Address:		
Project #: Project Owner:	city:		
Project Name:	State:	Zip:	
Project Location: Apple 5 Shte Su	#		
Sampler Name: Lyle School H	Fax #:		
FOR LAB USE ONLY	MATRIX	SAMPLING	
Lab I.D. FL *Sample I.D.	G)RAB OR (C)OMP. CONTAINERS GROUNDWATER WASTEWATER COIL CIL CIL CIL CIL CIL CIL CIL CIL CIL C	TIME	
	~ X		
12 8-8-5.5	×		
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6 -	Received By:	ılt: □ Yes	□ No Add'I Phone #: □ No Add'I Fax #:
Relinguished By: Date:	Received By:	REMARKS:	
Sampler - UPS - Bus - Other:	Sample Condition CHECKED BY: Cool Infact (Initials)		* Sample I'ds Revised on James 5/17/19 To



May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/14/19 17:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celecy D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Project: APPLE 5 STATE SWD
Project Number: NONE GIVEN

Reported: 21-May-19 12:07

Project Manager: JARED STOFFEL

Fax To:

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL - F3 - 5.5	H901754-01	Soil	14-May-19 00:00	14-May-19 17:05
FL - F4 - 5.5	H901754-02	Soil	14-May-19 00:00	14-May-19 17:05
FL - F8 - 5.5	H901754-03	Soil	14-May-19 00:00	14-May-19 17:05
FL - F9 - 5.5	H901754-04	Soil	14-May-19 00:00	14-May-19 17:05
FL - F10 - 4.5	H901754-05	Soil	14-May-19 00:00	14-May-19 17:05
FL - F11 - 6	H901754-06	Soil	14-May-19 00:00	14-May-19 17:05
FL - F15 - 8.5	H901754-07	Soil	14-May-19 00:00	14-May-19 17:05

Sample IDs revised as per Jared 05/16/19. This is the revised report and will replace the one sent on 05/15/19.

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Celes D. Keene

21-May-19 12:07



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F3 - 5.5

H901754-01 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
Cardinal Laboratories														
	Inorganic Compounds													
	Chloride	224		16.0	mg/kg	4	9051511	HM	15-May-19	4500-Cl-B				

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Celeg D. Keine

21-May-19 12:07



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F4 - 5.5

H901754-02 (Soil)

Analyte Result MDL Reporting Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories*

Inorganic Compounds

Chloride 272 16.0 mg/kg 4 9051511 HM 15-May-19 4500-Cl-B

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21-May-19 12:07



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Analytical Results For:

TRC 10 DESTA DR. SUITE 150

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F8 - 5.5

H901754-03 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
Cardinal Laboratories												

 Inorganic Compounds

 Chloride
 304
 16.0
 mg/kg
 4
 9051511
 HM
 15-May-19
 4500-Cl-B

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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:07

FL - F9 - 5.5 H901754-04 (Soil)

	Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories											

Inorganic Compounds 16.0 9051511 НМ 15-May-19 4500-Cl-B Chloride 256 mg/kg

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4500-Cl-B

21-May-19 12:07



256

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E

MIDLAND TX, 79705

Chloride

Project: APPLE 5 STATE SWD

9051511

НМ

15-May-19

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F10 - 4.5

H901754-05 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

mg/kg

16.0

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21-May-19 12:07



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Analytical Results For:

TRC

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

FL - F11 - 6

H901754-06 (Soil)

Analyte Result MDL Reporting Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

Inorganic Compounds

Chloride 128 16.0 mg/kg 4 9051511 HM 15-May-19 4500-Cl-B

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Analytical Results For:

TRC

Chloride

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Project: APPLE 5 STATE SWD

Project Number: NONE GIVEN Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:07

9051511

НМ

15-May-19

4500-Cl-B

FL - F15 - 8.5 H901754-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
Cardinal Laboratories													
Inorganic Compounds													

mg/kg

16.0

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Analytical Results For:

TRC 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Project: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Manager: JARED STOFFEL

Fax To:

Reported: 21-May-19 12:07

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	Tresure	2		20101	1000010	70120	Ziiiiko		2	110105
Batch 9051511 - 1:4 DI Water										
Blank (9051511-BLK1)				Prepared &	Analyzed:	15-May-19				
Chloride	ND	16.0	mg/kg							
LCS (9051511-BS1)				Prepared &	Analyzed:	15-May-19				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9051511-BSD1)		Prepared &	Analyzed:	15-May-19						
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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Celeg D. Keine



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Relinquished By:	Relinquished By:	ArLEASE NOTE: Liability and Damages, Cardinal's liat analyses. All claims including those for negligence and service. In no event shall Cadrinal be liable for incident affiliates or successors arising out of or related to the po		7 1-13 - 8.5	6 RH-6	5 -10- 4.5	4 50-5.5	3 FB - 5.5	2.8 - 43 2	1 £3-5.5	H901754/	Lab I.D. FL_*Sam	TOX LAB CORE ONLY	Sampler Name: Ky/c	Project Location:	Project Name: Q	Project #:	Phone #:	City: M. Aland	Address: 16 //sk	Project Manager:	Company Name: TRC	(575) 393-232	101 East Mari
Received	Date: Received By:	billity and client's exclusive remedy for any dairn arising whether based it Jany other cause whatsoever shall be deemed walved unless made in via tal or consequental damages, including without limitation, business inter enformance of services hereunder by Cardinal, regardless of whether su		2	2	2	2	0	1 1 2		# CO GRO WAS SOIL	AB OR (C)C NTAINERS UNDWATEI	₹			John 5 State Swa	Project Owner:	Fax #:	State: Zip:	11. ve Sike 150	120161		6 FAX (575) 393-2476	and Hobbe NM 88940
Mohatye		n contract or tort, shall be limited to the amount paid t writing and received by Cardinal within 30 days after or truptions, loss of use, or loss of profits incurred by clie ich claim is based upon any of the above stated reaso							-		SLUE OTHE ACIDA	ER : /BASE: COOL	PRESERV.	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn:	Company: CoG	P.O. #:	8/14/70		
> (D):	ult: □ Yes	y the client for the ompletion of the applicable nt, its subsidiaries, ons or otherwise.								R	TIME	<i>1</i> ~	<u>ο</u>											
1.5.00 1 15.00 1	No Add'I Phone #: No Add'I Fax #:																				_			
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May 21, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/20/19 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Celey D. Keene

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TRC JARED STOFFEL 10 DESTA DR. SUITE 150 E MIDLAND TX, 79705 Fax To:

Received: 05/20/2019 Sampling Date: 05/20/2019 Reported: 05/21/2019 Sampling Type: Soil

Project Name: APPLE 5 STATE SWD Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: COG

Sample ID: FL - E1-5 (H901810-01)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/21/2019	ND	1.67	83.6	2.00	1.49	
Toluene*	<0.050	0.050	05/21/2019	ND	1.77	88.3	2.00	0.893	
Ethylbenzene*	<0.050	0.050	05/21/2019	ND	1.71	85.7	2.00	1.51	
Total Xylenes*	<0.150	0.150	05/21/2019	ND	5.20	86.7	6.00	1.65	
Total BTEX	<0.300	0.300	05/21/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.2	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyze	d By: AC					
Analyte	Result Reporting Limi		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880 16.0		05/21/2019 ND		416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/21/2019	ND	198	99.1	200	3.28	
DRO >C10-C28*	<10.0	10.0	05/21/2019	ND	192	95.9	200	4.80	
EXT DRO >C28-C36	<10.0	10.0	05/21/2019	ND					
Surrogate: 1-Chlorooctane	83.6	% 41-142	,						
Surrogate: 1-Chlorooctadecane	82.9	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

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

Celeg D. Freene



Analytical Results For:

TRC

JARED STOFFEL

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Fax To:

Received: 05/20/2019 Reported:

05/21/2019 APPLE 5 STATE SWD

Project Name: Project Number: NONE GIVEN

Project Location: COG Sampling Date: 05/20/2019

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By:

Tamara Oldaker

Sample ID: FL - F12 - 6 (H901810-02)

Chioride, SM4500CI-B	mg/	кд	Anaiyze	а ву: АС					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	05/21/2019	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

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Celeg D. Freene



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

A Tanana Mana	20.	ľ						l		١						1
company name:	ナアフ					BILL 10					AN	ANALYSIS		REQUEST	EST	
Project Manager:	Jane Stoffer			P.O. #:	#											
Address: IO	Desta Dr STE 150	M		Com	Company:	90)										
city: Midland	State: TX	Zip:	30464	Attn	Attn: Bedy	y Haskell	5	H .								
Phone #: (432)	432) 238-3003 Fax#: -	'		Add	Address:				*							
Project #:	Project Owner:	-	50 6	City:												
Project Name: /	look 5 State	2		State:	œ.	Zip:			in.							
Project Location:	Lovins, N			Pho	Phone #:						_					
Sampler Name:	Jule			Fax #:	#:											
FOR LAB USE ONLY		P.	MATRIX	סי	PRESERV.	N. SAMPLING	ดี			<u>e</u>						
Lab I.D.	Samp	(G)RAB OR (C)OMP # CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER:	ACID/BASE: ICE / COOL	OTHER:	TIME	HAL	BTEX	Chloride				141		
1,000	FL- E1-5		×		×	25	1300	×	K	×	-	-	\dashv		1	
h	FL- F12-6	0	K		7	3/20/18	1310			×						
										12						
PLEASE NOTE: Liability and analyses. All claims including service. In no event shall Car affiliates or successors arising	PLEASE NOTE: Liability and Damagas. Cardinal's liability and client's exclusive remety for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unliess made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising outfor it elated to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	ny claim a deemed w without lii ardinal, re	rising whether based in contra alved unless made in writing a mitation, business interruptions gardless of whether such clain	ct or tort, s nd receive , loss of u	shall be lim d by Cardi se, or loss upon any	ited to the amount paid nal within 30 days after of profits incurred by cl of the above stated rea	by the client for completion of th ient, its subsidiar sons or otherwis	the le applicat ries, e.	Sie .							
Relinquished By	Date: \$/20/14	Rece	Received By:	de	3	18	Phone Result: Fax Result: REMARKS:	sult:	□ Yes	N N		Add'l Phone #: Add'l Fax #:	# #			
Refinquished By:		Rec	Received By:							2	S	7				
Delivered By: (Circle One)	(Circle One)	i i	Sample Condition Cool Intact	tion	CHE	CHECKED BY: (Initials)										
Sampler - UPS -	Bus - Other: 5,40	#97	7 Pres Pres	5 %\	4	9										



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 23, 2019

JARED STOFFEL

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: APPLE 5 STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/22/19 9:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC

JARED STOFFEL

10 DESTA DR. SUITE 150 E MIDLAND TX, 79705

Fax To:

Received: 05/22/2019 Reported: 05/23/2019

Project Name: APPLE 5 STATE SWD Project Number: NONE GIVEN

Project Location: COG

Sampling Date: 05/21/2019

Sampling Type: Soil

Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: FL - F12 - 7 (H901828-01)

Chloride, SM4500Cl-B Analyzed By: AC Analyte Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Result 928 400 Chloride 16.0 05/23/2019 ND 432 108 7.69

Cardinal Laboratories *=Accredited Analyte

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Celey D. Kreine

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: TRC		8/1-1-70	And Person Control Con	ANALYSIS REQUEST	
Project Manager: Jared Stoffel		P.O. #:			_
O		Company: CO6			
State	Zip: 7970S	Attn: Becky Haskell	ieli		
Phone #: (432) 238 - 3003 Fax #: -		Address:			
Project #: Project Owner:	. 606	City:			
Project Name: Apple 5 State		State: Zip:			
on: Loving. 7		Phone #:			
Jored S		Fax #:			
	MATRIX	PRESERV. SAMPLING	ด็		
Lab I.D. Sample I.D.	OWATER VATER	SE: OL	oride		_
Ж	(G)RAB O # CONTA GROUND WASTEW SOIL OIL SLUDGE	OTHER: ACID/BAS ICE / COC OTHER: DATE	Chlo		
EL - 612 - 3	~ ×	X 5/21/19	1300 X		
PLEASE IN LE. Leading and paringles. Cardinals industry and unlines exclusive trained by the control of the con	any claim arising whether beset in conting and r deemed waived unless made in writing and g without limitation, business interruptions, Cardinal repartless of whether such claim	or tot, shall be limited to the aniotic part of received by Cardinal within 30 days after loss of use, or loss of profits incurred by di is based inon any of the above stated rea	completion of the applicable flent, its subsidiaries, sons or otherwise.		
Relinquished By: Date:	Received By:	000	llt: U Yes U	S S	
Time to the time of time of the time of time of the time of the time of time o	hmore t	Walker		NO Add Fax #:	
Relinquished By: Time:	Received By:			Rush	
Delivered By: (Circle One)	Sample Condition Cool Intact	ion CHECKED BY: (Initials)			
Sampler - UPS - Bus - Other: 7.32	地つ	7			

Analytical Report 601637

for TRC Solutions, Inc

Project Manager: Joel Lowry

Apple 5 State SWD #1

16-OCT-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



16-OCT-18

Project Manager: Joel Lowry TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 601637

Apple 5 State SWD #1

Project Address: Eddy Co, NM

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 601637. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 601637 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Knus Roah

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 601637

TRC Solutions, Inc, Midland, TX

Apple 5 State SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-9B @ 16'	S	10-04-18 14:00	16 ft	601637-001
SB-9B @ 18'	S	10-04-18 14:10	18 ft	601637-002

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State SWD #1

Project ID: Report Date: 16-OCT-18
Work Order Number(s): 601637
Date Received: 10/05/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Contact:

Project Location:

Received by OCD: 4/7/2023 7:11:16 AM



Joel Lowry Eddy Co, NM Certificate of Analysis Summary 601637

TRC Solutions, Inc, Midland, TX

Project Name: Apple 5 State SWD #1

Date Received in Lab: Fri Oct-05-18 05:00 pm

Report Date: 16-OCT-18 Project Manager: Kelsey Brooks

	Lab Id:	601637-00)1	601637-0	02		
Analysis Requested	Field Id:	SB-9B @ 1	16'	SB-9B @	18'		
Anatysis Kequesteu	Depth:	16- ft		18- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	Oct-04-18 14	4:00	Oct-04-18 1	4:10		
Chloride by EPA 300	Extracted:	Oct-11-18 10	0:30	Oct-16-18 0	8:30		
	Analyzed:	Oct-11-18 1:	5:23	Oct-16-18 1	0:59		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		481	250	430	125		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks Project Manager



Flagging Criteria

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

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

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

DL Method Detection Limit

NC Non-Calculable

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



BS / BSD Recoveries



Project Name: Apple 5 State SWD #1

Work Order #: 601637

Project ID:

Analyst: RNL

Date Prepared: 10/11/2018

Date Analyzed: 10/11/2018

Lab Batch ID: 3066120

Sample: 7663990-1-BKS

Batch #: 1 Matrix: Solid

Units: mg/	kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1.25	250	253	101	250	252	101	0	90-110	20	

Analyst: RNL **Date Prepared:** 10/16/2018 **Date Analyzed:** 10/16/2018

Lab Batch ID: 3066480 **Sample:** 7664233-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	< 0.572	250	253	101	250	250	100	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

Received by OCD: 4/7/2023 7:11:16 AM



Form 3 - MS / MSD Recoveries

Project Name: Apple 5 State SWD #1

Work Order #: 601637

3066120

mg/kg

QC- Sample ID: 601773-001 S

Project ID:

Batch #:

Matrix: Soil

Date Analyzed: Reporting Units:

Lab Batch ID:

10/11/2018

Date Prepared: 10/11/2018

Analyst: RNL

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	30.9	25.0	156	500	25.0	158	508	1	80-120	20	X

QC- Sample ID: 602420-001 S 3066480 Lab Batch ID: Batch #: Matrix: Soil

Date Analyzed: 10/16/2018 **Date Prepared:** 10/16/2018 Analyst: RNL

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	18.8	250	282	105	250	272	101	4	80-120	20	



CHAIN OF CUSTODY

Setting the Standard since 1990 Stafford, Texas (281-240-4200)

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

Da	alias Texas (214-902-0300)			Midland, Te	xas (432-7	04-5251	1)																				
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	d, TX 79703																									P = Produ	
Email:	jlowry@trcsolutions.com zconder@trcsolutions.com	Phone No: 432-466-4450		Invoice To: COG Operating	g C/O Becky	Haskell																				SW = Sur SL = Sluc	face water ige
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=	Next Day EMERGENCY	7 Day TAT			Lev	el III Std	QC+ Fo	orms			TRR	RP Lev	el IV						rhasi	kell@c	oncho	com.					
Ш	2 Day EMERGENCY	Contract TAT			Lev	el 3 (CLI	Forms	5)			UST	/ RG	411						bcoo	per@t	rcsolu	itions.	com				
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	TAT Starts Day received by Lab, if																		FED-	EX / UF	S: Tr	acking	g #				
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tice: N	Notice: Signature of this document and relinquish	ment of samples constitu	ites a valid p	urchase order fro	om client com	pany to X	enco its	affiliate	s and s	ubcontr	actor	s Itass	ians s	tandard	terms a	and co	ndition		ice Yer	co will b	a liable	e only	for the	cost of	samples and shall		es so il ibility for

any losses of expenses incurred by the Client if such loss are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

CARRY IN



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 10/05/2018 05:00:00 PM

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

Work Order #: 601637

Temperature Measuring device used: IR-3

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.3	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?		N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		N/A	
#18 Water VOC samples have zero headsp	ace?	N/A	

* Must be o	completed for after-hours de	elivery of samples prior to placi	ng in the refrigerator
Analyst:		PH Device/Lot#:	g a.e romgerate.
	Checklist completed by:	Bronda Ward Brenda Ward	Date: <u>10/08/2018</u>
	Checklist reviewed by:	Mmw Moah Kelsey Brooks	Date: <u>10/09/2018</u>

Analytical Report 618707

TRC Solutions, Inc

Project Manager: Jared Stoffel Apple 5 State SWD

29-MAR-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757) Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429), North Carolina (483)

Xenco-Lakeland: Florida (E84098)





29-MAR-19

Project Manager: Jared Stoffel TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 618707

Apple 5 State SWD

Project Address: Apple 5 State SWD

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 618707. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 618707 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Mike Kimmel

Client Services Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 618707



TRC Solutions, Inc, Midland, TX

Apple 5 State SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-A1-7	S	03-21-19 00:00	7 ft	618707-001
FL-A2-7	S	03-21-19 00:00	7 ft	618707-002
FL-A4-7	S	03-21-19 00:00	7 ft	618707-003

Version: 1.%

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: Apple 5 State SWD

Project ID: Report Date: 29-MAR-19 Work Order Number(s): 618707 Date Received: 03/25/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 618707

TRC Solutions, Inc, Midland, TX Project Name: Apple 5 State SWD



Project Id:

Contact: Jared Stoffel

Project Location: Apple 5 State SWD

Date Received in Lab: Mon Mar-25-19 07:35 am

Report Date: 29-MAR-19 **Project Manager:** Mike Kimmel

	Lab Id:	618707-0	01	618707-0	02	618707-0	03			
Analysis Requested	Field Id:	FL-A1-	7	FL-A2-	7	FL-A4-7	7			
Anuiysis Kequesieu	Depth:	7- ft		7- ft		7- ft				
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Mar-21-19 (00:00	Mar-21-19 (00:00	Mar-21-19 0	00:00			
Chloride by EPA 300	Extracted:	Mar-25-19	15:20	Mar-25-19 1	5:20	Mar-25-19 1	5:20			
	Analyzed:	Mar-25-19	18:03	Mar-25-19 1	8:13	Mar-25-19 1	8:23			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		1210	99.2	1110	49.6	818	50.0			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.%



Mike Kimmel Client Services Manager



Flagging Criteria





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

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

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

DL Method Detection Limit

NC Non-Calculable

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



BS / BSD Recoveries



Project Name: Apple 5 State SWD

Work Order #: 618707

Project ID:

Analyst: SPC

Date Prepared: 03/25/2019

Date Analyzed: 03/25/2019

Lab Batch ID: 3083312

Sample: 7674297-1-BKS

Batch #: 1

Matrix: Solid

Unit

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	< 0.858	250	256	102	250	256	102	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Apple 5 State SWD

Work Order #: 618707

3083312

QC- Sample ID: 618678-002 S

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: **Date Analyzed:**

03/25/2019

Date Prepared: 03/25/2019

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	103	249	364	105	249	364	105	0	90-110	20	

QC- Sample ID: 618757-004 S 3083312 Lab Batch ID: Batch #: Matrix: Soil

Date Prepared: 03/25/2019 Date Analyzed: 03/25/2019 Analyst: SPC

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	24.8	250	283	103	250	284	104	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

CHYIN OF CUSTODY

Phoenix, Arizona (480-355-0900)



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

Setting the Standard since 1990

Oslias Texas (214-902-0300)
(003F-0F3-103) epvalinioum

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Page 9 of 9

Final 1.000

Analytical Report 619564

for TRC Solutions, Inc

Project Manager: Jared Stoffel COG General Project

04-APR-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Xenco-Lakeland: Florida (E84098)





04-APR-19

Project Manager: Jared Stoffel TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 619564

COG General Project

Project Address: Apple 5 State SWD

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 619564. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 619564 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Mike Kimmel

Client Services Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 619564



TRC Solutions, Inc, Midland, TX

COG General Project

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-A1-3.5	S	03-27-19 00:00		619564-001
FL-A3-7	S	03-27-19 00:00	3.5 ft	619564-002
FL-A5-7	S	03-27-19 00:00	7 ft	619564-003
FL-A6-7	S	03-27-19 00:00	7 ft	619564-004
FL-A7-7	S	03-27-19 00:00	7 ft	619564-005
FL-A8-7	S	03-27-19 00:00	7 ft	619564-006
FL-A9-7	S	03-27-19 00:00	7 ft	619564-007
SW-A3-3.5	S	03-27-19 00:00	3.5 ft	619564-010
SW-A4-3.5	S	03-27-19 00:00	3.5 ft	619564-011
EW-A1-3.5	S	03-27-19 00:00	3.5 ft	Not Analyzed
SW-A2-3.5	S	03-27-19 00:00	3.5 ft	Not Analyzed

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: COG General Project

Project ID: Report Date: 04-APR-19
Work Order Number(s): 619564
Date Received: 04/01/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 619564

TRC Solutions, Inc, Midland, TX Project Name: COG General Project



Project Id:

Contact: Jared Stoffel

Project Location: Apple 5 State SWD

Date Received in Lab: Mon Apr-01-19 07:30 am

Report Date: 04-APR-19 **Project Manager:** Mike Kimmel

	Lab Id:	619564-0	01	619564-0	02	619564-0	03	619564-0	04	619564-0	05	619564-0	06
Analysis Requested	Field Id:	SW-A1-3	3.5	FL-A3-	7	FL-A5-	7	FL-A6-	7	FL-A7-	7	FL-A8-	7
Anulysis Kequesieu	Depth:			3.5- ft		7- ft		7- ft		7- ft		7- ft	
	Matrix:	SOIL											
	Sampled:	Mar-27-19 (00:00	Mar-27-19 (00:00	Mar-27-19 (00:00	Mar-27-19 (00:00	Mar-27-19	00:00	Mar-27-19 (00:00
S	Extracted:	Apr-01-19	14:30	Apr-01-19 1	4:30	Apr-01-19 1	4:30	Apr-01-19 1	4:30	Apr-01-19	4:30	Apr-01-19 1	4:30
	Analyzed:	Apr-01-19	19:27	Apr-01-19 1	9:32	Apr-01-19 1	9:38	Apr-02-19 (9:19	Apr-01-19 2	20:01	Apr-02-19 0	9:25
	Units/RL:	mg/kg	RL										
Chloride		603	49.5	702	49.9	103	50.3	33.7	4.96	26.4	25.0	32.2	4.98

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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





Certificate of Analysis Summary 619564

TRC Solutions, Inc, Midland, TX Project Name: COG General Project



Project Id:

Contact: Jared Stoffel

Project Location: Apple 5 State SWD

Date Received in Lab: Mon Apr-01-19 07:30 am

Report Date: 04-APR-19 **Project Manager:** Mike Kimmel

	Lab Id:	619564-0	007	619564-0	10	619564-0	11		
Analysis Requested	Field Id:	FL-A9-	7	SW-A3-3	.5	SW-A4-3	.5		
Analysis Kequesieu	Depth:	7- ft		3.5- ft		3.5- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Mar-27-19	00:00	Mar-27-19 (00:00	Mar-27-19 0	00:00		
S	Extracted:	Apr-01-19	14:30	Apr-01-19 1	4:30	Apr-01-19 1	4:30		
	Analyzed:	Apr-02-19 (09:30	Apr-01-19 2	0:46	Apr-01-19 2	0:52		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		15.6	4.95	34.5	5.02	312	4.99		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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



Mike Kimmel Client Services Manager



Flagging Criteria





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

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

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

DL Method Detection Limit

NC Non-Calculable

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



BS / BSD Recoveries



Project Name: COG General Project

Work Order #: 619564

Project ID:

SPC Analyst:

Date Prepared: 04/01/2019

Date Analyzed: 04/01/2019

Lab Batch ID: 3084162

Sample: 7674817-1-BKS

Batch #: 1

Matrix: Solid

Units:

mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

S	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	. ,	[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<0.858	250	251	100	250	247	99	2	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: COG General Project

Work Order #: 619564

QC- Sample ID: 619563-009 S 3084162

Batch #:

Matrix: Soil

Project ID:

Lab Batch ID: **Date Analyzed: Reporting Units:**

04/01/2019

Date Prepared: 04/01/2019

Analyst: SPC

mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

S Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	8.79	250	256	99	250	256	99	0	90-110	20	

Lab Batch ID: 3084162 **QC- Sample ID:** 619565-001 S Batch #: Matrix: Soil

Date Prepared: 04/01/2019 Date Analyzed: 04/01/2019 Analyst: SPC

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

S Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	25.8	248	272	99	248	271	99	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Cooler Temp.

Thermo. Corr. Factor

Page 10 of 12

Final 1.000

On Ice

Preserved where applicable

Phoenix, Arizona (480-355-0900)

CHYIN OF CUSTODY

Page 1 Of 1

Setting the Standard since 1990

San Antonio, Texas (210-509-3334)

Stafford, Texas (281-240-4200)

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-		Chloride TPH 8015	P	P	_	RM	Chloride	Ž	"	1		4	"	te I/Zn						, ,	noit	oeld ID / Point of Collec	Ħ	.oN		
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WI = Wipe		Ext (NM)	Me.																ioojonaj	1	173)			Droject Co		
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DW = Drinking Water P = Product							4 44		. 10				U	M5	•	4	5 -	5 %	rot Joy				3021 Suite 150E	10 Desta C		
S = Soil/Sed/Solid GW =Ground Water									-									:00	Project Location			boration	vironmental Cor			
W = Water																			NemeN toelo19	ı İ			Name / Branch:			
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Custody Seal #

seljudnjapeq gà:

Received by OCD: 4/7/2023 7:11:16 AM

Relinquished by:

Relinquished by Sampler

be enforced unless previously negotiated under a fully executed client contract. Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subnociative of this document and relinquishment of samples considered by Xenco but not analyzed will be invoiced leaves are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be spplied to each process incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be invoiced

:emiT etsQ

Date Time:

:emiT etsG

Received By:

Jeceived By:

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

Field Comments

TiA = A WW= Waste Water

1!0 = 09qiW = IW

OW =Ocean/Sea Water SL = Sludge

SW = Surface water P = ProductDW = Drinking Water GW = Ground Water pilos/pas/lios = s W = Water

Matrix Codes

Page

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Final 1.000

Cooler Temp.

On Ice

Received Byr

Received By:

ED-EX / NPS: Tracking #

moo.anoitulosott@tecoodd

TCLP TCLP

RCRA 8 Metals Benzene

Analytical Information

Phoenix, Arizona (480-355-0900)

TPH 8015 M Chloride

Ext (NM)

dot oons)

Chloride

m

300

Xenco Quote #

TPH TX1005

CHYIN OF CUSTODY

NO3



Relinquished by:

Relinquished

Relinquished by Sameler

3 Day EMERGENCY

2 Day EMERGENCY

TAT yad emas

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Mext Day EMERGENCY

Turnaround Time (Business days)

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

TAT fontract TAT

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OCD:

4/7/2023 7:11:16

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169 0262 9044 losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco but not analyzed will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be fivolced at \$5 Notice: Standard to the country of samples constitutes a valid purchase order from client company to Xenco, the additions of sastions and conditions of sarvice. Xenco will be liable only for the cost of samples and sylic sasting and solutions of sarvice. Service will be liable only for the cost of samples and sylic sasting and solutions of sarvice. Thermo. Covr. Factor

Custody Seal #

delinquished By:

delinduished By:

114-DR \ TSU

VI ISVSJ 9RRT

Level IV (Full Data Pkg /raw data)

geceived By:

seceived By:

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

TRRP Checklist

Level II Std QC

Level 3 (CLP Forms)

Level III Std QC+ Forms

Data Deliverable Information

Date Time:

:emiT etsO 91-05-E

Date Time:

Preserved where applicable



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 04/01/2019 07:30:00 AM

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

Work Order #: 619564

Temperature Measuring device used: R8

	Sample Receipt Checklist	Comments							
#1 *Temperature of cooler(s)?		3.6							
#2 *Shipping container in good condition	?	Yes							
#3 *Samples received on ice?		Yes							
#4 *Custody Seals intact on shipping co	ntainer/ cooler?	N/A							
#5 Custody Seals intact on sample bottle	es?	N/A							
#6*Custody Seals Signed and dated?		N/A							
#7 *Chain of Custody present?		Yes							
#8 Any missing/extra samples?		No							
#9 Chain of Custody signed when relinq	uished/ received?	Yes							
#10 Chain of Custody agrees with samp	le 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 indicat	ed test(s)?	Yes							
#16 All samples received within hold tim	e?	Yes							
#17 Subcontract of sample(s)?		N/A							
#18 Water VOC samples have zero hea	dspace?	N/A							
* Must be completed for after-hours delivery of samples prior to placing in the refrigerator Analyst: PH Device/Lot#:									
Checklist completed by:	Brianna Teel	Date: 04/01/2019							
Checklist reviewed by:	Mike Kimmel	Date: 04/02/2019							

Mike Kimmel

Analytical Report 619854

for TRC Solutions, Inc

Project Manager: Jared Stoffel
COG General Project

04-APR-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Xenco-Lakeland: Florida (E84098)





04-APR-19

Project Manager: Jared Stoffel TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 619854

COG General Project

Project Address: Apple 5 State SWD

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 619854. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 619854 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Mike Kimmel

Client Services Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 619854



TRC Solutions, Inc, Midland, TX

COG General Project

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-A1-7.5	S	04-01-19 00:00	7.5 ft	619854-001
FL-A2-7.5	S	04-01-19 00:00	7.5 ft	619854-002
FL-A10-7	S	04-01-19 00:00	7 ft	619854-003
SW-A2-3.5	S	04-01-19 00:00	3.5 ft	619854-004
SW-A5-3.5	S	04-01-19 00:00	3.5 ft	619854-005
EW-A1-3.5	S	04-01-19 00:00	3.5 ft	619854-006

Version: 1.%

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: COG General Project

Project ID: Report Date: 04-APR-19
Work Order Number(s): 619854
Date Received: 04/03/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Final 1.000



Certificate of Analysis Summary 619854

TRC Solutions, Inc, Midland, TX Project Name: COG General Project



Project Id:

Contact: Jared Stoffel

Project Location: Apple 5 State SWD

Date Received in Lab: Wed Apr-03-19 11:25 am

Report Date: 04-APR-19 **Project Manager:** Mike Kimmel

	Lab Id:	619854-0	619854-001		02	619854-0	619854-003		04	619854-0	005	619854-0	06	
Analysis Requested	Field Id:	FL-A1-7.	.5	FL-A2-7	.5	FL-A10-	7	SW-A2-3	.5	SW-A5-3	3.5	EW-A1-3	3.5	
Anulysis Requesteu	Depth:	7.5- ft	7.5- ft		7.5- ft 7.5- ft		7- ft 3.5- ft			3.5- ft		3.5- ft		
	Matrix:	SOIL	SOIL		SOIL SOIL		L SOIL SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-01-19 0	Apr-01-19 00:00		Apr-01-19 00:00		Apr-01-19 00:00		Apr-01-19 00:00		Apr-01-19 00:00		00:00	
Chloride by EPA 300	Extracted:	Apr-03-19 1	7:00	Apr-03-19 17:00		Apr-03-19 17:00 Apr-03-19 17:00		Apr-03-19 17:00		Apr-03-19 17:00				
	Analyzed:	Apr-04-19 0	Apr-04-19 05:21		Apr-04-19 05:31		Apr-04-19 05:41 Apr-04-19 05:51		5:51	Apr-04-19 06:01		Apr-04-19 06:10		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		1660	101	159	49.6	201	5.04	93.6	4.95	268	4.95	149	49.5	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.%



Mike Kimmel Client Services Manager



Flagging Criteria





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

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

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

DL Method Detection Limit

NC Non-Calculable

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



BS / BSD Recoveries



Project Name: COG General Project

Work Order #: 619854

Project ID:

Analyst: CHE

HE

Date Prepared: 04/03/2019

Date Analyzed: 04/04/2019

Lab Batch ID: 3084530

Sample: 7675002-1-BKS

Batch #: 1 Matrix: Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE REC	ECOVERY STUDY
---	---------------

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	0.977	250	267	107	250	267	107	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: COG General Project

Work Order #:

619854

QC- Sample ID: 619598-002 S 3084530

Batch #:

Project ID: Matrix: Soil

Lab Batch ID: **Date Analyzed:**

04/04/2019

Date Prepared: 04/03/2019

Analyst: CHE

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	43.5	252	317	109	252	317	109	0	90-110	20	

QC- Sample ID: 619598-003 S 3084530 Lab Batch ID: Batch #: Matrix: Soil

Date Analyzed: 04/04/2019 **Date Prepared:** 04/03/2019 Analyst: CHE

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]		Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	35.1	250	307	109	250	305	108	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

be enforced unless previously negotiated under a fully executed client contract.

.oN

Samplers's Name:

Project Contact:

20767 XT ,bnslblN

Company Address:

10 Desta Dr. Suite 150E

Company Name / Branch:

TRC Environmental Corporation

Client / Reporting Information

XIII

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

Field ID / Point of Collection

Phone No:

m

300

Xenco Quote #

M Ext (NM)

Xenco Job#

Metals

Analytical information

 $\pi A = A$

9qiW = IW

P = Product

W = Water

WW= Waste Water 110 = 0

OW =Ocean/Sea Water 2F = Sindge

2M = Surface water

DW = Drinking Water

GW =Ground Water

piloS/paS/lioS = S

Matrix Codes

Final 1.000

Phoenix, Arizona (480-355-0900)

MWW.X600.C011	
Midland, Texas (432-704-5251)	allas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)	bething the Standard since 1990 italiord,Texas (281-240-4200)
CHVIN OF CUSTO	XENCO

volce:

roject Name/Number:

Project Information

losses or expenses incurred by the Client it such toses are due to circumatances beyond the control of Xenco. A minimum charge of \$75 will be implied to each project. Xenco's liability will be implied to the cost of samples. Any samples received by Xenco, but not analyzed will be invoiced at \$5 per sample. These terms will be supplied to expense. Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, it settiliates and subcontractors. It sestigns stand from conditions of services. Service will be liable only for the cost of samples and shall not assume any responsibility for any Cooler Temp. OINCO Thermo. Corr. Factor Preserved where applicable Custody Seal # Received By: :emiT etsQ Relinquished by: Heundriggyed by: Relinquished By: Received By: Date Time: seceived By: Received By:-Relinguished by Sampler Relindulahed By: SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY TAT Starts Day received by Lab, if received by 5:00 pm **LED-EX / NBS: Tracking #** 3 DGY EMERGENCY TRRP Checklist X Contract TAT 2 Day EMERGENCY occoper@ircsolulions.com IND- DR / TRU Level 3 (CLP Forms) TAT YEQ Y Next Day EMERGENCY VI level 1Y Level III Std QC+ Forms TAT yed sme2 TAT YAG & Level IV (Full Data Pkg /raw data) Level II Std QC Data Deliverable information Turnaround Time (Business days) 10 6 8 brz-h からと 5 Page 5 9 5 으 6 サム 5 5 1752 61-1-h Chloride Field Comments XittsM Depth Chloride RCI NORM H2SO4 seppoo TPH 8015 TCLP RCRA 8 TCLP Benzene TPH TX1005 MEOH NaOH 103 Ö JO # Sample



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 04/03/2019 11:25:00 AM

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

Work Order #: 619854

Temperature Measuring device used: R8

	Sample Receipt Checklist	Comments			
#1 *Temperature of cooler(s)?		3.3			
#2 *Shipping container in good condition	?	Yes			
#3 *Samples received on ice?		Yes			
#4 *Custody Seals intact on shipping co	ntainer/ cooler?	N/A			
#5 Custody Seals intact on sample bottle	es?	N/A			
#6*Custody Seals Signed and dated?		N/A			
#7 *Chain of Custody present?		Yes			
#8 Any missing/extra samples?		No			
#9 Chain of Custody signed when reling	uished/ received?	Yes			
#10 Chain of Custody agrees with samp	le 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 indicat	ed test(s)?	Yes			
#16 All samples received within hold tim	e?	Yes			
#17 Subcontract of sample(s)?		N/A			
#18 Water VOC samples have zero hea	dspace?	N/A			
* Must be completed for after-hours de Analyst:	elivery of samples prior to placing in	the refrigerator			
Checklist completed by:	Brianna Teel	Date: 04/03/2019			
Checklist reviewed by:	Mike Kimmel	Date: 04/03/2019			

Analytical Report 620476

for TRC Solutions, Inc

Project Manager: Jared Stoffel

10-APR-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Atlanta (EEEAT Eat 15 #04176)

Xenco-Tampa: Florida (E87429), North Carolina (483)

Xenco-Lakeland: Florida (E84098)





10-APR-19

Project Manager: Jared Stoffel TRC Solutions, Inc 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 620476

Project Address: Apple 5 Site SWD

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 620476. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 620476 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kalei Stout

Midland Laboratory Director

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 620476



TRC Solutions, Inc, Midland, TX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-A1-8	S	04-05-19 00:00	8 ft	620476-001
SW-A1-4	S	04-05-19 00:00	4 ft	620476-002

Version: 1.%

CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: ---

Project ID: --- Report Date: 10-APR-19
Work Order Number(s): 620476 Date Received: 04/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 620476

TRC Solutions, Inc, Midland, TX

Project Name: ---



Project Id: ---

Contact: Jared Stoffel

Project Location: Apple 5 Site SWD

Date Received in Lab: Tue Apr-09-19 12:15 pm

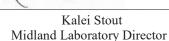
Report Date: 10-APR-19 **Project Manager:** Mike Kimmel

						1		
	Lab Id:	620476-001		620476-0	02			
Analysis Requested	Field Id:	FL-A1-8		SW-A1-	4			
Analysis Requesieu	Depth: 8- ft		4- ft					
	Matrix:	SOIL	SOIL					
	Sampled:	Apr-05-19 00:00	Apr-05-19 00:00		00:00			
Chloride by EPA 300	Extracted:	Apr-09-19 16:50)	Apr-09-19 1	6:50			
	Analyzed:	Apr-10-19 11:42	2	Apr-10-19 1	1:49			
	Units/RL:	mg/kg R	RL	mg/kg	RL			
Chloride		632 49	9.5	361	49.5			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 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.
- 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



mg/kg

BS / BSD Recoveries



Project Name: ---

Work Order #: 620476

Project ID: ---

Analyst: CHE **Date Prepared:** 04/09/2019

Date Analyzed: 04/10/2019

Lab Batch ID: 3085164

Sample: 7675407-1-BKS

Matrix: Solid

Units:

Batch #: 1

Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Chloride by EPA 300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag			
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]							
Chloride	< 0.858	250	261	104	250	246	98	6	90-110	20				

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

Received by OCD: 4/7/2023 7:11:16 AM



Form 3 - MS / MSD Recoveries



Project Name: ---

Work Order #: 620476

Project ID: ---

Lab Batch ID:

3085164

QC- Sample ID: 619862-003 S

Batch #:

Matrix: Soil

Date Analyzed:

04/10/2019

Date Prepared: 04/09/2019

Analyst: CHE

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	68.1	249	518	181	249	511	178	1	90-110	20	X

QC- Sample ID: 620421-001 S 3085164 Lab Batch ID: Batch #: Matrix: Soil

Date Prepared: 04/09/2019 Date Analyzed: 04/10/2019 Analyst: CHE

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	6.93	250	257	100	245	240	95	7	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relinquished by:

3 Day EMERGENCY

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

CHYIN OF CUSTODY

Page 1 Of 1

San Antonio, Texas (210-509-3334)

seceived By:

Received By:

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

THRP Checklist

Date Time:

Stafford, Texas (281-240-4200) Setting the Standard since 1990

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9qiW = IW iO = 0		Ext (NM)	Me	Φ		-													involce:		/t	7°75 po		Contact:	
SW = Surface water SL = Sludge OW = Ocean/Sea Water	Alki)	Š	lals						a a									907	Involce To:		Phone No:	UR	ceophpoue ec		
S = SolvSed/Solid GW =Ground Water DW = Drinking Water P = Product				,											G	TMS	°t	745 g	Project Locati				120E ::	28 Dr. Suite 1 2016 TX 79705	ompai dest
W = Water												11							Project Name			ration	Branch: ental Corpor	ny Name / E	HC toubs
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			(0060	-99E-0	184) eu	OZIJA	'xıuə	Pho								(beec-	600-017	o' lexas (v	HOUSE HEE			loome	ora (0a) ou	va i fa iairi	

pe eutoced nujezs breviously negotiated under a fully executed client contract. losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples received by Xenco but not analyzed will be involced at \$5 per sample Notice: Storice: Storice: Storice: Storice: Storice: Notice: Storice: Notice: Storice: Notice: Notice: Notice: Storice: Notice: Storice: Notice: Thermo. Corr. Factor

Custody Seal #

Relinquished By:

IIP-DH/TSU

Preserved where applicable

FED-EX / UPS: Tracking #

bcooper@trcsolutions.com

Page 9 of 10

Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 04/09/2019 12:15:00 PM

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

Comments

Work Order #: 620476

Temperature Measuring device used: R8

#1 *Temperature of cooler(s)?		3.9
#2 *Shipping container in good condition	1?	Yes
#3 *Samples received on ice?		Yes
#4 *Custody Seals intact on shipping co	ntainer/ cooler?	N/A
#5 Custody Seals intact on sample bottle	es?	N/A
#6*Custody Seals Signed and dated?		N/A
#7 *Chain of Custody present?		Yes
#8 Any missing/extra samples?		No
#9 Chain of Custody signed when relinq	uished/ received?	Yes
#10 Chain of Custody agrees with samp	le 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 indicat	ted test(s)?	Yes
#16 All samples received within hold tim	e?	Yes
#17 Subcontract of sample(s)?		No
#18 Water VOC samples have zero hea	dspace?	N/A
* Must be completed for after-hours de		in the refrigerator
Analyst:	PH Device/Lot#:	
Checklist completed by:	Little Lowe	Date: 04/09/2019
Checklist reviewed by:	Laen Stort	Date: 04/10/2019

Kalei Stout

Sample Receipt Checklist



Appendix D: Photographic Documentation



Figure 1 - View of excavated area A, facing east.



Figure 2 - View of excavated area proximal to trench T-1, facing northwest.



Figure 3 - View of installed polyuruthane liner, facing east.



Figure 4 - View of portion of the liner keyset, facing west.



Figure 5 - View of excavated area C, facing northeast.



Figure 6 - View of portion of the excavated areas D, E and F, facing south.



Figure 7 - View of portion of excavated area F, facing south.



Figure 8 - View of construction of the dirt tank, facing north.



Figure 9 - View of installation of the bentoliner, facing north.



Figure 10 - View of completed dirt tank and site grade, facing north.

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1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 205075

CONDITIONS

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
907 Tradewinds Blvd, Suite B	Action Number:
Midland, TX 79706	205075
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Create By	d Condition	Condition Date
bhall	None	5/9/2023