Oil Conservation Division

Incident ID	nAB1729754125
District RP	2RP-4454
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.

<u>Closure Report Attachment Checklist</u>: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

 Printed Name:
 Charles R. Beauvais II
 Title:
 Senior Environmental Engineer

 Signature:
 Charles R. Beauvais ??
 Date: 4/5/2023

 email:
 charles.r.beauvais@conocophillips.com
 Telephone: 575-988-2043

OCD Only

Page 6

Received by:

Date:

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

Closure Approved by: Buttan Hall	Date: <u>5/2/2023</u>
Printed Name: Brittany Hall	Title: Environmental Specialist



REMEDIATION SUMMARY AND

RISK-BASED SITE CLOSURE REQUEST

COG Operating, LLC GJ West Coop Unit #108 Eddy County, New Mexico Unit Letter "E", Section 28, Township 17 South, Range 29 East Latitude 32.8073502° North, Longitude 104.0862198° West NMOCD Reference No. 2RP-4351

COG Operating, LLC GJ West Coop Unit #011 Eddy County, New Mexico Unit Letter "E", Section 28, Township 17 South, Range 29 East Latitude 32.8073502° North, Longitude 104.0862198° West NMOCD Reference No. 2RP-4454

Prepared For:

COG Operating, LLC 600 W Illinois Avenue Midland, Texas 79701

Prepared By:

TRC Environmental Corporation 10 Desta Drive, Suite 150E Midland, Texas 79705

April 2019

Jared E. Stoffel, PG Staff Geologist

Curt Stanley Senior Project Manager

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- Appendix B General Photographs
- Appendix C Release Notification and Corrective Action (Form C-141)

INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Risk-Based Soil Closure Request* for the Release Sites known as GJ West Coop Unit #108 (2RP-4351) and GJ West Coop Unit #011 (2RP-4454). The legal description of the Sites is Unit Letter "E", Section 28, Township 17 South, Range 29 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). Based on the proximity, cause and current status of each of the Release Sites, the Sites were remediated concurrently under one (1) Approved Workplan. A "Site Location Map" is provided as Figure 1. General Photographs are provided in Appendix B.

GJ West Coop Unit #108 (2RP-4351)

On August 7, 2017, COG discovered a release had occurred from the previously plugged and abandoned GJ West Coop Unit #108 well. During initial response activities, the affected portion of the well casing was exhumed and the Release was mitigated. The initial Release Notification and Corrective Action (Form C-141) indicated approximately three thousand, seventy-five (3,075) barrels (bbls) of produced water was released with approximately three thousand, fifty-five (3,055) bbls of produced water recovered. After the completion of recovery efforts it was determined seven thousand, seven hundred eleven (7,711) bbls of produced water was recovered, which will be reflected on the Final C-141. During initial response activities, released fluids were diverted into a makeshift containment in an effort to minimize the affected area and assist in fluid recovery. In an effort to exhume the casing, isolate the release, and re-plug the well, an approximate twenty-eight (28) ft. excavation was conducted around the affected well. After completion of excavation and sloping activities, approximately 7,847 cubic yards (cy) of affected soil was excavated from an area measuring approximately twenty-two thousand (22,000) sq. ft. Excavated soil was transported to an NMOCD-approved disposal facility. A copy of the initial Form C-141 for the GJ West Coop Unit #108 (2RP-4351) is provided in Appendix C.

GJ West Coop Unit #011 (2RP-4454)

On October 15, 2017, a similar release occurred on an adjacent plugged and abandoned well, the GJ West Coop Unit #011 (2RP-4454). During initial response activities, the release was mitigated and the affected well was re-plugged. The initial Release Notification and Corrective Action (Form C-141) indicated an unknown volume of produced water was released with approximately eight thousand, seven hundred forty (8,740) bbls of produced water recovered. After completion of recovery efforts it was determined eleven thousand, four hundred thirty (11,430) bbls of produced water was recovered, which will be reflected on the Final C-141. The Release affected an area measuring approximately sixteen thousand (16,000) sq. ft. A majority of the Release was limited to the former well pad location and the adjacent well pad to the south of the subject well. Portions of the release affected the caliche access road and an area within the pasture north of the subject well. A copy of the initial Form C-141 for the GJ West Coop Unit #011 is provided in Appendix C.

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 28, Township 17 South, Range 29 East. A

reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred seventy-five (175) feet (ft.) below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) 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) are 10 mg/kg for benzene, 50 mg/kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and 5,000 mg/kg for total petroleum hydrocarbons (TPH). As per the NMOCD, the Recommended Remediation Action Levels for chloride will be 600 mg/kg.

INITIAL INVESTIGATION AND PROPOSED REMEDIATION WORKPLAN

GJ West Coop Unit #108 (2RP-4351)

On August 17, 2017, during initial response activities and exhumation of the affected well casing, a COG representative collected four (4) soil samples (S1 3'-4', S1 5'-6', S1 13'-14', and S1 16'-17') southwest of the affected casing. The collected soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of chloride concentrations using method 4500 Cl-B. Laboratory analytical results indicated chloride concentrations ranged from 28,000 mg/kg in soil sample S1 5'-6' to 992 mg/kg in soil sample S1 3'-4'. Impacted soil represented by soil samples S1 3'-4', S1 5'-6', S1 13'-14', and S1 16'-17' was excavated and transported to an NMOCD-approved disposal facility during initial response activities. Please reference Figure 2A – Site & Sample Location Map – Initial Investigation (2RP-4351).

On March 22 and 23, 2018, TRC conducted an initial soil investigation at the Release Site. During the initial soil investigation, eight (8) test trenches (NE-1, SE-2, SE-1, S-2, S-1, SW-1, NW-1, and N-1) were advanced at the Release Site in an effort to characterize the affected area. The test trenches were advanced vertically and horizontally to the maximum extent practicable, or until chloride field test results suggested soil was no longer affected above the NMOCD regulatory guidelines for chloride concentrations.

Test trench NE-1 was advanced radially toward the northeast from the affected well. During the advancement of the test trench, six (6) soil samples (NE-1A @ 18', NE-1B @ 10', NE-1B @ 20', NE-1C @ 3', NE-1C @ 12', and NE-1C @ 20') were collected from three (3) sample points and submitted to Xenco Laboratories in Midland, Texas for analysis of chloride concentrations using Method E300. Laboratory analytical results indicated chloride concentrations ranged from 723 mg/kg in soil sample NE-1A @ 18' to 72.4 mg/kg in soil sample NE-1C @ 20'. Soil samples collected from sample points NE-1A and NE-1B were analyzed for concentrations of BTEX using Method SW 846-8021B and TPH using Method SW 846-8015M. Analytical results indicated BTEX and TPH concentrations were less than the applicable laboratory reporting limit (RL) in each of the submitted soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride horizontally toward the northeast beyond sample point NE-1B.

Test trench SE-2 was advanced radially toward the east-southeast from the affected well. During the advancement of the test trench, thirteen (13) soil samples (SE-2A @ 18', SE-2B @ 10', SE-2B @ 20', SE-2C @ 3', SE-2C @ 6', SE-2C @ 12', SE-2C @ 20', SE-2D @ 3', SE-2D @ 9', SE-2D @ 12', SE-2D @ 20', SE-2E @ 3', and SE-2E @ 6') were collected from five (5) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 20,600 mg/kg in soil sample SE-2D @ 3' to 48.7 mg/kg in soil sample SE-2B @ 20'. Soil samples collected from sample points SE-2A and SE-2B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Laboratory analytical results indicated soil was not affected above the NMOCD regulatory guidelines for chloride beyond eighteen (18) ft. bgs in the area characterized by sample point SE-2A, ten (10) ft. bgs in the area characterized by sample point SE-2B, six (6) ft. bgs in the area characterized by sample point SE-2C, twelve (12) ft. bgs in the area characterized by sample point SE-2D and six (6) ft. bgs in the area characterized by sample point SE-2E. Review of laboratory analytical results suggests impacted soil affected above the NMOCD regulatory guidelines for chloride concentrations in the areas characterized by sample points SE-2A and SE-2B was removed during initial response activities. Impacted soil affected above the NMOCD regulatory guidelines remaining in-situ in the areas characterized by sample points SE-2C, SE-2D, and SE-2E was limited to the top six (6) ft. to twelve (12) ft bgs.

Test trench SE-1 was advanced radially toward the southeast from the affected well. During the advancement of the test trench, six (6) soil samples (SE-1A @ 18', SE-1B @ 10', SE-1B @ 20', SE-1C @ 3', SE-1C @ 12' and SE-1C @ 20') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 2,940 mg/kg in soil sample SE-1B @ 10' to 65.7 mg/kg in soil sample SE-2C @ 20'. Soil samples collected from sample points SE-1A and SE-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations horizontally toward the southeast beyond sample point SE-1C.

Test trench S-2 was advanced on the southern edge of the existing excavation. During the advancement of the test trench, three (3) soil samples (S-2 @ 3', S-2 @ 12', and S-2 @ 20') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 169 mg/kg in soil sample S-2 @ 3' to less than the laboratory RL in soil sample S-2 @ 20'. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations horizontally toward the south beyond test trench S-2.

Test trench S-1 was advanced radially toward the south-southwest from the affected well. During the advancement of the test trench, six (6) soil samples (S-1A @ 18', S-1B @ 10', S-1B @ 20', S-1C @ 3', S-1C @ 12', and SE-1C @ 20') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 18,500 mg/kg in soil sample S-1B @ 10' to less than the laboratory RL in soil sample S-1C @ 20'. Soil samples collected from sample points S-1A and S-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride

concentrations horizontally toward the south-southwest beyond sample point S-1C. Impacted soil in the areas characterized by sample points S-1A and S-1B was excavated in an effort to increase the stability of the southern portion of the excavation. Excavated soil was stockpiled on-site, atop an impermeable liner pending final disposition.

Test trench SW-1 was advanced radially toward the southwest from the affected well. During the advancement of the test trench, six (6) soil samples (SW-1A @ 18', SW-1B @ 10', SW-1B @ 20', SW-1C @ 3', SW-1C @ 12', and SW-1C @ 20') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 257 mg/kg in soil sample SW-1C @ 3' to 25.8 mg/kg in soil sample SW-1C @ 20'. Soil samples collected from sample points SW-1A and SW-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Review of laboratory analytical results suggests impacted soil affected above the NMOCD regulatory guidelines for chloride concentrations in the areas characterized by test trench SW-1 was removed during initial response activities.

Test trench NW-1 was advanced radially toward the northwest from the affected well. During the advancement of the test trench, eleven (11) soil samples (NW-1A @ 18', NW-1B @ 10', NW-1B @ 20', NW-1C @ 3', NW-1C @ 6', NW-1C @ 9', NW-1C @ 20', NW-1D @ 3', NW-1D @ 6', NW-1D @ 9', and NW-1D @ 20') were collected from four (4) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 5,700 mg/kg in soil sample NW-1C @ 20' to 29.5 mg/kg in soil sample NW-1D @ 3'. Soil samples collected from sample points NW-1A and NW-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. During the advancement of the test trench, evidence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit were discovered.

Test trench N-1 was advanced radially toward the north from the affected well. During the advancement of the test trench, four (4) soil samples (N-1A @ 18', N-1B @ 10', N-1B @ 20', and N-1C @ 3') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,260 mg/kg in soil sample N-1A @ 18' to 583 mg/kg in soil sample N-1C @ 3'. Soil samples collected from sample points N-1A and N-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples, with the exception of soil sample N-1B @ 10', which exhibited a TPH concentration of 245.3 mg/kg. During the advancement of the test trench N-1, evidence of a historical drilling reserve pit was discovered. Based on the presence of the historical drilling reserve pit, further advancement of test trench N-1 was precluded.

Following the advancement of test trenches NE-1, SE-2, SE-1, S-2, S-1, SW-1, NW-1, N-1, and stabilizing portions of the open excavation, the excavated area was backfilled to approximately nineteen (19') ft. bgs with locally sourced, non-impacted material, in an effort to mitigate safety hazards and facilitate further investigation of soil impact from within the open excavation.

On March 29, 2018, following the backfilling of the excavated area to nineteen (19) ft. bgs, two (2) test trenches (RP-N and RP-S) were advanced adjacent to the release point in an effort to determine the vertical extent of soil impact.

Test trench RP-N was advanced approximately ten (10) ft. north of the affected well. During the advancement of the test trench, two (2) soil samples (RP-N @ 28' and RP-N @ 37') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples RP-N @ 28' and RP-N @ 37' exhibited chloride concentrations of 3,440 mg/kg and 8,560 mg/kg, respectively. Further advancement of test trench RP-N was precluded due to the limitations of the heavy equipment. Based on laboratory analytical results, further delineation was required in the area characterized by test trench RP-N.

Test trench RP-S was advanced approximately ten (10) ft. south of the affected well. During the advancement of the test trench, three (3) soil samples (RP-S @ 28', RP-S @ 31', and RP-S @ 34') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,830 mg/kg in soil sample RP-S @ 28' to 853 mg/kg in soil sample RP-S @ 34'.

Additionally, soil samples were collected from deeper intervals in the areas characterized by sample points N-1A and NW-1A in an effort to further characterize soil impacts in the vicinity of the inferred historic drilling reserve pit. During the advancement of the test trenches, six (6) soil samples (N-1A @ 20', N-1A @ 23', N-1A @ 26',NW-A @ 20', NW-A @ 23', and NW-A @ 29') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 564 mg/kg in soil sample N-1A @ 20' to 179 mg/kg in soil sample NW-A @ 20'. Laboratory analytical results indicated chloride concentrations guidelines in each of the submitted soil samples.

On April 24, 2018, TRC collected one (1) soil sample (S-3) from soil remaining in-situ beneath the former makeshift containment utilized to contain the release and assist in fluid recovery. The collected soil sample was submitted to the laboratory for analysis of chloride concentrations, which were determined to be 10,000 mg/kg. Please reference Table 1 – Concentrations of Benzene, BTEX, TPH and Chloride in Soil (2RP-4454). Laboratory analytical results are provided as Appendix A.

GJ West Coop Unit #011 (2RP-4454)

On March 30, 2018, an initial investigation was conducted at the adjacent Release Site. During the initial investigation, six (6) test trenches (RP, RP-2, DT-1, DT-2, DT-3 and N) were advanced at the Release Site in an effort to characterize the vertical extent of soil impacts. Please reference Figure 2B – Site & Sample Location Map – Initial Investigation (2RP-4454).

Test trench RP was advanced approximately ten (10) ft. south of the affected well. During the advancement of the test trench, three (3) soil samples (RP @ 3', RP @ 9', and RP @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,890 mg/kg in soil sample RP @ 9' to 241 mg/kg in soil sample RP @ 18'. Soil samples RP @ 3' and RP @ 18' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable

laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond eighteen (18) ft. bgs in the area characterized by test trench RP.

Test trench RP-2 was advanced approximately ten (10) ft. north of the affected well. During the advancement of the test trench, three (3) soil samples (RP-2 @ 3', RP-2 @ 6', and RP-2 @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,410 mg/kg in soil sample RP-2 @ 3' to 105 mg/kg in soil sample RP-2 @ 18'. Soil samples RP-2 @ 3' and RP-2 @ 18' were also analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond six (6) ft. bgs in the area characterized by test trench RP-2.

Test trench DT-1 was advanced in the central portion of the release flow path. During the advancement of the test trench, three (3) soil samples (DT-1 @ 3', DT-1 @ 6', and DT-1 @ 18') 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 DT-1 @ 3' to 101 mg/kg in soil sample DT-1 @ 6'. Soil samples DT-1 @ 3' and DT-1 @ 18' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride beyond six (6) ft. bgs in the area characterized by test trench DT-1.

Test trench DT-2 was advanced in the south-central portion of the release flow path. During the advancement of the test trench, three (3) soil samples (DT-2 @ Surface, DT-2 @ 4', and DT-2 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 53,100 mg/kg in soil sample DT-2 @ Surface to 16.4 mg/kg in soil sample DT-2 @ 4'. Soil samples DT-2 @ Surface and DT-2 @ 8' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples, with the exception of soil sample DT-2 @ SURFACE, which exhibited a TPH concentration of 26.1 mg/kg. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond four (4) ft. bgs in the area characterized by test trench DT-2.

Test trench DT-3 was advanced in the southern portion of the release flow path. During the advancement of the test trench, three (3) soil samples (DT-3 @ Surface, DT-3 @ 4', and DT-3 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 15,600 mg/kg in soil sample DT-3 @ Surface to 7.10 mg/kg in soil sample DT-3 @ 4'. Soil samples DT-3 @ Surface and DT-3 @ 8' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples, with the exception of soil sample DT-3 @ SURFACE, which exhibited a TPH concentration of 66.1 mg/kg. Based upon laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond four (4) ft. bgs in the area characterized by test trench DT-3.

Test trench N was advanced in the northern portion of the release flow path, adjacent to the affected well. During the advancement of the test trench, three (3) soil samples (N @ 3', N @ 6',

and N @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,390 mg/kg in soil sample N @ 6' to 178 mg/kg in soil sample N @ 3'. Soil samples N @ 3' and N @ 18' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, further delineation was required in the area characterized by test trench N.

Additionally, TRC advanced six (6) test trenches (N-2, E, E-2, W, W-2 and S) at the inferred margins of the affected area in an effort to characterize the horizontal extent of soil impact. During the advancement of the test trenches, eighteen (18) soil samples (N-2 @ 3', N-2 @ 6', N-2 @ 18', E @ 3', E @ 9', E @ 18', E-2 @ 3', E-2 @ 9', E-2 @ 18', W @ 3', W @ 6', W @ 18', W-2 @ Surface, W-2 @ 2', W-2 @ 8', S @ Surface, S @ 2', and S @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,840 mg/kg in soil sample S @ Surface to below the applicable laboratory RL in soil sample W-2 @ 8'. Chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples, with the exception of soil sample S @ Surface, which exhibited a chloride concentration of 1,840 mg/kg. Soil samples N-2 (a) 3', N-2 (a) 18', E (a) 3', E (a) 18', E-2 (a) 3', E-2 (a) 18', W (a) 3', W (a) 18', W-2 (a) Surface, W-2 @ 8', S @ Surface, and S @ 8' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples, with the exception of soil sample S @ Surface, which exhibited a TPH concentration of 36.3 mg/kg. BTEX and TPH concentrations were below the NMOCD regulatory guidelines for TPH and BTEX concentrations in each of the analyzed soil samples. Based on laboratory analytical results, further delineation and excavation was required south of the area characterized by soil sample S @ Surface. Please reference Table 2 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil (2RP-4454).

On July 19, 2018, COG submitted a *Soil Investigation Summary and Proposed Remediation Workplan (Workplan)* to the NMOCD and NMSLO, proposing the following remediation activities designed to advance the Sites toward an approved closure:

GJ West Coop Unit #108 (2RP-4351)

- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench SE-2 to beyond sample point SE-2E. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench NE-1 to sample point NE-1C. Excavated soil will be placed into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench N-1 to beyond sample point N-1C. Excavated soil will be placed into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench NW-1 to sample point NW-1C. Excavated soil will be placed

into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.

- Laboratory analytical results indicated further excavation is not required in the area represented by test trench SW.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench S-1 to sample point S-1C. Excavated soil will be placed into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by soil sample S-3 @ 4' to beyond sample point S-2. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench SE-1 to beyond sample point SE-1C. Excavated soil will stockpiled on-site, atop an impermeable liner pending final disposition.
- After advancing the excavation sidewalls horizontally at four (4) ft. bgs, effectively "benching" the open excavation, and receiving laboratory analytical results from confirmation soil samples, install a bentonite or polyurethane liner on the floor of the excavated area at approximately nineteen (19) ft. bgs. This engineering control is designed to mitigate the vertical migration of contaminants. During the installation of the liner an approximate six (6)-inch layer of "pad sand" will be installed above and below the liner in an effort to maintain its integrity during backfilling activities.
- After installing the liner on the floor of the excavated area, an eight (8)-inch PVC conduit will be installed, and extended vertically to the surface, in the area requiring additional vertical delineation, represented by test trench RP-N.
- After receiving laboratory analytical results from confirmation soil samples and installing the bentonite or polyurethane liner and associated PVC casing, backfill the excavated area to approximately four (4) ft. bgs utilizing stockpiled soil generated from "benching" the subject excavation, excavation activities associated with the remediation of GJ West Coop Unit #011 and locally sourced non-impacted material.
- After backfilling the excavated area to four (4) ft. bgs, install a second bentonite or polyurethane liner at four (4) ft. bgs atop impacted soil exhibiting chloride concentrations above the NMOCD regulatory guidelines. The liner will be extended vertically along the excavation sidewalls in the area of the inferred historical drilling reserve pit in an effort to limit the amount of moisture shed toward the north in the vicinity of the historical drilling reserve pit. This engineering control is designed to mitigate the vertical migration of contaminants left in-situ along with contaminants within portions of the proposed fill material. During the installation of the liner an approximate six (6)-inch layer of "pad sand" will be installed above and below the liner in an effort to maintain its integrity during backfilling activities.
- The eight (8)-inch PVC conduit will be extended through the second bentonite or polyurethane liner, to the surface for the advancement of a proposed investigative soil boring.
- After installing the second bentonite or polyurethane liner, backfill the remaining excavated area with locally sourced, non-impacted topsoil.
- Utilizing mechanical equipment, advance one (1) investigative soil bore through the established PVC casing in an effort to determine the vertical extent of chloride impact. The investigative soil bore will be advanced until chloride field screen results suggests two consecutive soil samples collected at five (5) ft. intervals exhibit chloride

concentrations below the NMOCD regulatory guidelines; soil samples will also be collected for confirmation laboratory analysis.

GJ West Coop Unit #011 (2RP-4454)

- Utilizing mechanical equipment, excavate impacted soil within the release margins in the area characterized by test trench DT-1 to a depth of approximately four (4) to six (6) ft. bgs or until laboratory analytical results from confirmation soil samples indicate chloride concentrations are below the NMOCD regulatory guidelines. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Excavate impacted soil within the release margins in the areas characterized by test trenches DT-2 and DT-3 to a depth of approximately one (1) to four (4) ft. bgs or until laboratory analytical results from confirmation soil samples indicate chloride concentrations are below the NMOCD regulatory guidelines. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Advance the excavation sidewalls until laboratory guidelines. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Excavate impacted soil within the release margins in the areas characterized by test trenches RP, RP-2 and N to a depth of approximately four (4) ft. bgs. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Install a bentonite or polyurethane liner on the floor of the excavation at approximately four (4) ft bgs in the areas characterized by test trenches RP, RP-2 and N. This engineering control is designed to mitigate the vertical migration of contaminants left insitu. During the installation of the liner an approximate six (6)-inch layer of "pad sand" will be installed above and below the liner in an effort to maintain its integrity during backfilling activities.
- After installing the liner on the floor of the excavated area, an eight (8)-inch PVC conduit will be installed, and extended vertically to the surface, in the area requiring additional vertical delineation, represented by test trench N.
- After receiving laboratory analytical results from confirmation soil samples and installing the bentonite or polyurethane liner and associated PVC casing, backfill the excavated area with locally sourced, non-impacted "like" material.
- Utilizing mechanical equipment, advance one (1) investigative soil bore through the established PVC casing in an effort to determine the vertical extent of chloride impact. The investigative soil bore will be advanced until chloride field screen results suggests two (2) consecutive soil samples collected at five (5) ft. intervals exhibit chloride concentrations below the NMOCD regulatory guidelines; soil samples will also be collected for confirmation laboratory analysis.

The Workplan was subsequently approved.

SUMMARY OF SOIL REMEDIATION ACTIVITIES

GJ West Coop Unit #108 (2RP-4351)

On August 14, 2018, excavation activities commenced at the Release Site. As per the approved *Workplan*, the open excavation was 'benched' to increase sidewall stability for the nineteen (19) ft. open excavation. On August 15, 2018, a twenty (20) mil polyurethane liner was placed at the base of the open nineteen (19) ft. bgs excavation, and an eight (8) inch PVC conduit was installed through the liner. The excavation was subsequently backfilled with locally sourced non-impacted soil to a depth of four (4) feet bgs. Excavated soil was stockpiled on-site pending final disposition.

On August 22, 2018, six (6) confirmation soil samples (RP NSW-1 @ 2', RP NSW-2 @ 2', RP ESW-1 @ 2', RP ESW-2 @ 2', RP WSW-1 @ 2', and RP WSW-2 @ 2') were collected from the sidewalls of the remaining excavation, which had a depth of approximately four (4) feet bgs. The collected soil samples were submitted for chloride analysis. The concentrations of chloride in the submitted soil samples were below NMOCD regulatory guidelines for chlorides. The excavation was subsequently advanced laterally to remove the remaining impacts above NMOCD regulatory guidelines.

On September 25, 2018, ten (10) confirmation soil samples (108-SSW#1, 108-SSW#3, 108-SSW#4, 108-NSW#1, 108-NSW#2, 108-NSW#3, 108-ESW#1, 108-SSW#2, 108-SSW#5, and 108-ESW#2) were collected from the sidewalls of the excavation and were submitted to the laboratory for chloride analysis. The concentrations of chloride in the submitted soil samples were below NMOCD regulatory guidelines for chlorides.

On October 8, 2018, as per the approved *Workplan*, a 20-mil polyurethane liner was installed in the entirety of the excavated area atop impacted soil affected above the NMOCD regulatory guidelines remaining in-situ. An approximate six (6)-inch layer of "pad sand" was installed above and below the liner in an effort to maintain the integrity of the liner during backfilling activities. This engineering control is designed to minimize the vertical migration of impact left in-situ. In accordance with the approved *Workplan*, an eight (8)-inch PVC conduit was installed to allow for the advancement of an investigative soil boring.

Following the installation of the liner atop the impacted soil affected above the NMOCD regulatory guidelines remaining in-situ, the excavated area was backfilled with locally sourced, non-impacted "like" material. Affected areas not on active oilfield production pads and/or lease roads were contoured to fit the surrounding topography and will be reseeded in accordance with NMSLO guidelines at a time more conducive to seed germination.

Prior to backfilling, the final dimensions of the excavated area were approximately two hundred and fifty (250) ft. in length, one hundred and fifty (150) ft. in width, and four (4) to nineteen (19) ft. in depth.

On March 21, 2019, in accordance with the NMOCD-approved *Workplan*, TRC advanced one (1) investigative soil boring (SB-1) through the PVC conduit installed above the affected area requiring additional vertical delineation. During the advancement of the soil boring, two (2) soil samples (SB-1 @ 35' and SB-1 @ 40') were collected and submitted to the laboratory for

analyses of TPH, BTEX, and chloride. Laboratory analytical results indicated TPH and BTEX concentrations were below the applicable laboratory RL for each constituent, with the exception of BTEX constituents in SB-1 @ 35', which were below NMOCD regulatory guidelines. Chloride concentrations were below NMOCD guidelines in both submitted soil samples. Soil boring samples SB-1 @ 35' and SB-1 @ 40' are representative of the chloride concentrations at depths ranging from thirty-five (35) to forty (40) ft. bgs. The elevated chloride concentration at thirty-seven (37) feet bgs in soil sample RP-N @ 37' was likely due to 'sluff' from impacted soil stratigraphically above thirty-seven (37) ft. bgs. Based on laboratory analytical results from delineation soil samples collected from the investigation soil boring, soil was not affected above the NMOCD regulatory guidelines beyond 35 ft. bgs in the area represented by soil boring SB-1. The soil boring conduit was filled with bentonite, capped with concrete, and cut to below grade.

GJ West Coop Unit #011 (2RP-4454)

On August 14, 2018, excavation activities commenced at the Release Site. As per the approved *Workplan*, the northern portion of the Release Site, in the areas characterized by delineation trenches RP, RP-2, and N were excavated to a depth of approximately four (4) ft. bgs. The floor of the excavation in the areas characterized by delineation trenches DT-1, DT-2, and DT-3 were advanced until chloride field test results suggested concentrations of chloride were below the NMOCD regulatory guidelines. Excavation sidewalls were advanced until chloride field test results suggested concentrations of chloride were below the NMOCD regulatory guidelines. Excavated soil was stockpiled on-site pending final disposition.

On August 22, 2018, following the excavation of the impacted soil from within the northern portion of the Release Site, TRC collected six (6) excavation confirmation soil samples (RP NSW-1 @ 2', RP NSW-2 @ 2', RP ESW-1 @ 2', RP ESW-2 @ 2', RP WSW-1 @ 2', and RP WSW-2 @ 2') from sidewalls of the excavated area and submitted the soil samples to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples. Excavation activities continued toward the south. Please reference Figure 3B – Site & Confirmation Sample Location Map (2RP-4454).

On September 5, 2018, TRC collected eleven (11) excavation confirmation soil samples (DT-1 SSW-1 @ 3', DT-1 SSW-2 @ 3', DT-1 SSW-3 @ 3', DT-1 ESW @ 3', DT-1 ESW-2 @ 3', DT-1 ESW-3 @ 1.5', DT-1 WSW-1 @ 3', DT-1 WSW-2 @ 1.5' DT-1 FL-1 @ 6', DT-1 FL-2 @ 6' and DT-3 SSW @ 1') from the floor and sidewalls of the excavated area and submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples. Excavation activities continued toward the south.

On September 12, 2018, TRC collected nine (9) excavation confirmation soil samples (DT-2 SSW-1 @ 1', DT-2 SSW-2 @ 1', DT-2 WSW @ 1', DT-2 FL-1 @ 2', DT-2 FL-2 @ 2', DT-3 WSW @ 1.5', DT-3 ESW-1 @ 1.5', DT-3 ESW-2 @ 1.5', and DT-3 FL @ 3') from the floor and sidewalls of the excavated area and submitted the soil samples to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples. Excavation activities continued toward the south.

On September 17, 2018, TRC collected ten (10) excavation confirmation soil samples (DT-2 FL-3 @ 2', DT-2 NSW-1 @ 1', DT-2 NSW-2 @ 1', DT-2 WSW-2 @ 1', DT-2 ESW-1 @ 1', DT-2 ESW-2 @ 1', DT-2 SSW @ 1', DT-3 FL-2 @ 3', DT-3 NSW @ 1.5', and DT-3 WSW-2 @ 1.5') from the floor and sidewalls of the excavated area and submitted the soil samples to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples.

On September 25, 2018, as per the approved *Workplan*, a 20-mil polyurethane liner was installed in the northern portion of the excavated area atop impacted soil affected above the NMOCD regulatory guidelines remaining in-situ. An approximate six (6)-inch layer of "pad sand" was installed above and below the liner in an effort to maintain the integrity of the liner during backfilling activities. This engineering control is designed to minimize the vertical migration of impact left in-situ. In accordance with the approved *Workplan*, an eight (8)-inch PVC conduit was installed in the area represented by test trench N to allow for the advancement of an investigative soil boring.

After installing the liner atop impacted soil affected above the NMOCD regulatory guidelines remaining in-situ, the excavated area was backfilled with locally sourced, non-impacted "like" material. Affected areas not on active oilfield production pads and/or lease roads were contoured to fit the surrounding topography and will be reseeded in accordance with NMSLO guidelines at a time more conducive to seed germination.

Prior to backfilling, the final dimensions of the excavated area were approximately three hundred (300) ft. in length, thirty-five (35) ft. to one hundred (100) ft. in width, and two (2) to six (6) ft. in depth.

On March 21, 2019, in accordance with the NMOCD-approved *Workplan*, TRC advanced one (1) investigative soil boring (SB-2) through the PVC conduit installed above the affected area requiring additional vertical delineation. During the advancement of the soil boring, four (4) soil samples (SB-2 @ 20', SB-2 @ 25', SB-2 @ 30', and SB-2 @ 35') were collected and submitted to the laboratory for analyses of TPH, BTEX, and chloride. Laboratory analytical results indicated chloride concentrations ranged from 337 mg/kg in soil sample SB-2 @ 20' to 50.3 mg/kg in soil sample SB-2 @ 30'. TPH and BTEX concentrations were below the applicable laboratory RL for each constituent. Based on laboratory analytical results from delineation soil samples collected from the investigation soil boring, soil was not affected above the NMOCD regulatory limits beyond 20 ft. bgs in the area represented by soil boring SB-2. The soil boring conduit was filled with bentonite, capped with concrete, and cut to below grade.

SITE CLOSURE REQUEST

Remediation activities were conducted in accordance with an NMOCD-approved *Workplan*. Laboratory analytical results from excavation confirmation soil samples indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted confirmation soil samples. Impacted soil affected above the NMOD regulatory guidelines remaining in-situ was capped with an NMOCD approved 20-mil polyurethane liner. This engineering control is designed to minimize the vertical migration of impact remaining in-situ. Approximately, two thousand, seven hundred forty (2,740) cy of impacted soil was transported to an approved disposal facility; the remaining portion of the excavated soil was reused in conjunction with the two (2) Release Sites.

Based on laboratory analytical results and field activities conducted to date, TRC recommends COG provide copies of this Remediation Summary and Risk-Based Site Closure Request to the NMOCD and NMSLO and request closure status to the GJ West Coop Unit #108 (2RP-4351) and GJ West Coop Unit #011 (2RP-4454).

LIMITATIONS

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.

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DISTRIBUTION

Copy 1:	Mike Bratcher New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 2 811 S. First Street Artesia, NM 88210
Copy 2:	Ryan Mann Hobbs Field Office New Mexico State Land Office 2827 North Dal Paso St., Suite 117 Hobbs, New Mexico 88240
Copy 3:	Rebecca Haskell COG Operating, LLC 600 W. Illinois Avenue Midland, Texas 79701
Copy4:	TRC Environmental Corporation 10 Desta Drive STE 150E Midland, Texas 79705





Received by OCD: 4/7/2023 9:35:52 AM





* - Samples at this location collected by COG personnel



TABLE 1 Concentrations of BTEX, TPH and Chloride in Soil (2RP-4351) COG OPERATING, LLC GJ WEST COOP UNIT #108 EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

					METHODS: SW 846-8021b					METHOD: SW 8015M					
SAMPLE LOCATION	DEPTH	SAMPLE DATE	SOIL STATUS	BENZENE	TOLUENE	ETHYL- BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO	TPH DRO	TPH ORO	TOTAL TPH	CHLORIDE		
									C ₆ -C ₁₀	C ₁₀ -C ₂₈	$C_{28}-C_{35}$	C ₆ -C ₃₅			
SI 3'-4'	3'-4'	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	992		
SI 5'-6'	5'-6'	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	28,000		
S 13'-14'	13-14	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	7,200		
5 10-1/	10-1/	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	21,200		
RP-N @ 28'	28'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	3,440		
RP-N @ 37'	37	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	8,560		
RP-S @ 28'	28'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	1,830		
RP-S @ 31'	31'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	1,030		
RP-S @ 34'	34'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	853		
SE-1A @ 18'	18'	3/22/2018	Lined	< 0.00202	< 0.00202	< 0.00202	< 0.00202	< 0.00202	<15.0	<15.0	<15.0	<15.0	791		
SE-1B @ 10'	10'	3/22/2018	Lined	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	<15.0	<15.0	<15.0	2,940		
SE-1B @ 20'	20'	3/22/2018	Lined	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	96.5		
SE-1C @ 3'	3'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	255		
SE-1C @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	73.5		
SE-1C @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	65.7		
SE-2A @ 18'	18'	3/22/2018	Lined	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	409		
SE-2B @ 10'	10'	3/22/2018	In-Situ	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<15.0	<15.0	<15.0	<15.0	491		
SE-2B @ 20'	20'	3/22/2018	In-Situ	< 0.00202	< 0.00202	< 0.00202	< 0.00202	< 0.00202	<14.9	<14.9	<14.9	<14.9	48.7		
SE-2C @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	4,570		
SE-2C @ 6'	6'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	96.8		
SE-2C @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	267		
SE-2C @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	423		
SE-2D @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	20.600		
SE-2D @ 9'	9'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	8,210		
SE-2D @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	443		
SE-2D @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	374		
SE-2E @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	687		
SE-2E @ 6'	6'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	135		
NE-1A @ 18'	18'	3/22/2018	Lined	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	<15.0	<15.0	<15.0	723		
NE-1B @ 10'	10'	3/22/2018	Lined	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	302		
NE-1B @ 20'	20'	3/22/2018	Lined	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<14.9	<14.9	<14.9	<14.9	77.1		
NE-1C @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	139		
NE-1C @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	84.0		
NE-1C @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	72.4		
N-1A @ 18'	18'	3/22/2018	Lined	< 0.00202	< 0.00202	< 0.00202	< 0.00202	< 0.00202	<15.0	<15.0	<15.0	<15.0	1,260		
N-1A @ 20'	20'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	564		
N-1A @ 23'	23'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	486		
N-1A @ 26'	26'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	412		
N-1B @ 10'	10'	3/22/2018	Lined	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	216	29.3	245.3	593		
N-1B @ 20'	20'	3/22/2018	Lined	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	866		
N-1C @ 3'	3'	3/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	583		
NW-1A @ 18'	18'	3/23/2018	Lined	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<15.0	<15.0	<15.0	<15.0	769		
NW-1A @ 18' 18' 3/23/2018 Lined NMOCD Recommended Remediation Action Level		10	-	-	-	50	-	-	-	5,000	600				

TABLE 1 Concentrations of BTEX, TPH and Chloride in Soil (2RP-4351) COG OPERATING, LLC GJ WEST COOP UNIT #108 EDDY COUNTY, NEW MEXICO

					A	Ill concentrations of	are reported in m	g/kg					
CAMDI E		CAMDI E	EOH		MET	HODS: SW 846-	8021b			METHOD:	SW 8015M	TOTAL	E 300.1/4500 Clb
SAMPLE	DEPTH	DATE	SOIL STATUS	BENZENE	TOLUENE	ETHYL- BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C ₆ -C ₁₀	TPH DRO C ₁₀ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NW-A @ 20'	20'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	179
NW-A @ 23'	23'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	375
NW-A @ 29'	29'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	265
NW-1B @ 10'	10'	3/23/2018	Lined	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<15.0	<15.0	<15.0	<15.0	38.8
NW-1B @ 20'	20'	3/23/2018	Lined	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	<15.0	<15.0	<15.0	1,300
NW-1C @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	259
NW-1C @ 6'	6'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	414
NW-1C @ 9'	9'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	1,570
NW-1C @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	5,700
NW-1D @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	29.5
NW-1D @ 6'	6'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	704
NW-1D @ 9'	9'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	1,090
NW-1D @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	2,280
SW-1A @ 18'	18'	3/23/2018	Lined	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<14.9	<14.9	<14.9	<14.9	62.1
SW-1B @ 10'	10'	3/23/2018	In-Situ	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	76.4
SW-1B @ 20'	20'	3/23/2018	In-Situ	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<15.0	<15.0	<15.0	<15.0	29.6
SW-1C @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	257
SW-1C @ 12'	12'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	50.9
SW-1C @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	25.8
S-1A @ 18'	18'	3/23/2018	Excavated	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	<15.0	<15.0	<15.0	7,660
S-1B @ 10'	10'	3/23/2018	Excavated	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	18,500
S-1B @ 20'	20'	3/23/2018	Excavated	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<15.0	<15.0	<15.0	<15.0	4,300
S-1C @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	421
S-1C @ 12'	12'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	26.7
S-1C @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	<5.00
S-2 @ 3'	3'	3/23/2018	Excavated	-	-	-	-	-	-	-	-	-	169
S-2 @ 12'	12'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	14.9
S-2 @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	<4.92
S-3	4'	4/24/2018	Excavated	-	-	-	-	-	-	-	-	-	10,000
RP NSW-1 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	<4.99
RP NSW-2 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	235
RP ESW-1 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	12.9
RP ESW-2 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	210
RP WSW-1 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	153
RP-WSW-2 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	97.8
108- SSW#1	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	26.2
108- SSW#3	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	35.9
108- SSW#4	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	47.8
108- NSW#1	3.5	9/25/2018	In-Situ In Situ	-	-	-	-	-	-	-	-	-	199
108- NSW#2	3.5	9/25/2018	In-Situ		-	-	-	-	-		_	-	<25.0
108- KSW#1	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	224
108-SSW#2	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
108- SSW#5	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	312
108- ESW#2	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	361
SB-1 @ 35'	35'	3/21/2019	Lined	< 0.00202	0.00267	< 0.00202	0.00513	0.0078	<15.0	<15.0	<15.0	<15	205
SB-1 @ 40'	40'	3/21/2019	Lined	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	<15.0	<15.0	<15	103
NMOCD Recommended Remediation Action Level		10	-	-	-	50	-	-	-	5,000	600		

TABLE 2

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL (2RP-4454)

COG OPERATING, LLC GJ WEST COOP UNIT #011 EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

				METHODS: SW 846-8021b				METHOD: SW 8015M				E 300.1	
SAMPLE LOCATION	DEPTH	SAMPLE DATE	SOIL STATUS	BENZENE	TOLUENE	ETHYL-	TOTAL	TOTAL	TPH GRO	TPH DRO	TPH ORO	TOTAL TPH	CHLORIDE
						BENZENE	XYLENES	BTEX	C6-C10	C ₁₀ -C ₂₈	C ₂₈ -C ₃₅	C ₆ -C ₃₅	
RP @ 3'	3'	3/30/2018	Excavated	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<15.0	<15.0	<15.0	<15.0	977
RP @ 9' RP @ 18'	9'	3/30/2018	Risked	-	-	-	-	-	-	-	- <15.0	-	1,890 241
RP-2 @ 3'	3'	3/30/2018	Excavated	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	1 410
RP-2 @ 5	6'	3/30/2018	Risked					-		-			145
RP-2 @ 18'	18'	3/30/2018	Risked	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	105
DT -1 @ 3'	3'	4/2/2018	In-Situ	< 0.00200	< 0.00200	< 0.00200	< 0.002	< 0.002	<15.0	<15.0	<15.0	<15.0	2,900
DT -1 @ 6'	6'	4/2/2018	In-Situ	-	-	-	-	-	-	-	-	-	101
DT -1 @ 18'	18'	4/2/2018	In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	124
DT -2 @ SURFACE	Surface	4/2/2018	Excavated	< 0.00200	< 0.00200	< 0.00200	< 0.002	< 0.002	<15.0	26.1	<15.0	26.1	53,100
DT -2 @ 8'	8'	4/2/2018	In-Situ In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	19.4
DT -3 @ SURFACE	Surface	4/2/2018	Excavated	< 0.00198	< 0.00198	< 0.00198	< 0.00198	< 0.00198	<15.0	46.2	19.9	66.1	15.600
DT -3 @ 4'	4'	4/2/2018	In-Situ	-	-	-	-	-	-	-	-	-	7.10
DT -3 @ 8'	8'	4/2/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	7.30
N @ 3'	3'	3/30/2018	Excavated	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<14.9	<14.9	<14.9	<14.9	178
N @ 6'	6'	3/30/2018	Risked	-	-	-	-	-	-	-	-	-	1,390
N @ 18'	18	3/30/2018	Risked	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	1,310
N-2 @ 5	<u> </u>	3/30/2018	In-Situ In-Situ	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	322
N-2 @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	119
E @ 3'	3'	3/30/2018	In-Situ	< 0.00202	< 0.00202	< 0.00202	< 0.00202	< 0.00202	<15.0	<15.0	<15.0	<15.0	214
E @ 9'	9'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	84.1
E @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	36.0
E-2 @ 3'	3'	3/30/2018	In-Situ	< 0.00198	< 0.00198	< 0.00198	< 0.00198	< 0.00198	<15.0	<15.0	<15.0	<15.0	82.7
E-2 @ 9' E-2 @ 18'	9' 18'	3/30/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	54.6 23.8
	3'	3/30/2018	In-Situ	- <0.00200	-	- <0.00200	-	- <0.002	<15.0	<15.0	<15.0	<15.0	78.7
W @ 5'	6'	3/30/2018	In-Situ		-	-0.00200			-15.0	-15.0		-15.0	245
W @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	73.4
W-2 @ SURFACE	Surface	3/30/2018	In-Situ	< 0.00202	< 0.00202	< 0.00202	< 0.00202	< 0.00202	<15.0	<15.0	<15.0	<15.0	253
W-2 @ 2'	2'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	9.55
W-2 @ 8'	8'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	<4.95
S @ SURFACE	Surface	4/2/2018	Excavated	< 0.00201	< 0.00201	< 0.00201	< 0.00201	< 0.00201	<15.0	36.3	<15.0	36.3	1,840
<u>S@2</u> S@8'	<u>2'</u> 8'	4/2/2018	In-Situ In-Situ	-	-	-	-	-	<14.9	- <14.9	- <14.9	<14.9	11.8
RP NSW-1 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	<4.99
RP NSW-2 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	235
RP ESW-1 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	12.9
RP ESW-2 @ 2'	2'	8/22/2018	In-Situ In Situ	-	-	-	-	-	-	-	-	-	210
RP WSW-1 @ 2' RP WSW-2 @ 2'	2'	8/22/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	97.8
DT-1 SSW-1 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	82.5
DT-1 SSW-2 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	121
DT-1 SSW-3 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	193
DT-1 ESW-1 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	104
DT-1 ESW-2 @ 3'	3' 1.5'	9/5/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	23.0
DT-1 WSW-1 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	156
DT-1 WSW-2 @ 1.5'	1.5'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	169
DT-1 FL-1 @ 6'	6'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	50.2
DT-1 FL-2 @ 6'	6' 1'	9/5/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	247
DT-2 SSW-1 @ 1'	1'	9/12/2018	In-Situ	-					-		-		36.4
DT-2 SSW-2 @ 1'	1'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	30.5
DT-2 WSW @ 1'	1'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	156
DT-2 FL-1 @ 2'	2'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	71.5
DT-2 FL-2 @ 2'	2'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	33.5
DT-3 ESW-1 @ 1.5'	1.5	9/12/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	319
DT-3 ESW-2 @ 1.5'	1.5'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	96.5
DT-3 FL @ 3'	3'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	20.2
DT-2 FL-3 @ 2'	2'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	59.9
DT-2 NSW-1 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	290
DT-2 INSW-2 @ 1' DT-2 WSW-2 @ 1'	1'	9/17/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	4.97
DT-2 ESW-1 @ 1'	1'	9/17/2018	In-Situ		-	-		-	-	-	-	-	234
DT-2 ESW-2 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	264
DT-2 SSW @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	406
DT-3 FL-2 @ 3'	3'	9/17/2018	In-Situ In-Situ	-	-	-	-	-	-	-	-	-	4.99
DT-3 WSW-2 @ 1.5'	1.5	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	<5.00
SB-2 @ 20'	20'	9/17/2018	Risked	< 0.00200	< 0.00200	< 0.00200	< 0.002	< 0.002	<15.0	<15.0	<15.0	<15.0	337
SB-2 @ 25'	25'	9/17/2018	Risked	< 0.00200	< 0.00200	< 0.00200	< 0.002	< 0.002	<15.0	<15.0	<15.0	<15.0	142
SB-2 @ 30'	30'	9/17/2018	Risked	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	50.3
SB-2 @ 35'	35'	9/17/2018	Risked	<0.00199	<0.00199	<0.00199	<0.00199	< 0.00199	<15.0	<15.0	<15.0	<15.0	61.6
NMOCD Recomme	nded Remed	liation Actio	on Level	10	-	-	-	50	-	-	-	5,000	600

Analytical Report 597000

for TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit #108

12-SEP-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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 (T104704400-18-16) 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)





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

Reference: XENCO Report No(s): **597000 GJ West Coop Unit #108** Project Address: Lea County,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) 597000. 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. 597000 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,

Huns hoah

Kelsey Brooks Project Manager

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





Sample Id

RP NSW-1 @ 2'
RP NSW-2 @ 2'
RP ESW-1 @ 2'
RP ESW-2 @ 2'
RP WSW-1 @ 2'
RP WSW-2 @ 2'

Sample Cross Reference 597000



TRC Solutions, Inc, Midland, TX

GJ West Coop Unit #108

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	08-22-18 09:00	2 ft	597000-001
S	08-22-18 09:15	2 ft	597000-002
S	08-22-18 09:30	2 ft	597000-003
S	08-22-18 09:45	2 ft	597000-004
S	08-22-18 10:00	2 ft	597000-005
S	08-22-18 10:15	2 ft	597000-006



Client Name: TRC Solutions, Inc Project Name: GJ West Coop Unit #108

Project ID: Work Order Number(s): 597000 Report Date:12-SEP-18Date Received:08/24/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Id:Contact:Joel LowryProject Location:Lea County,NM

Certificate of Analysis Summary 597000

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit #108



Date Received in Lab:Fri Aug-24-18 12:29 pmReport Date:12-SEP-18Project Manager:Kelsey Brooks

	Lab Id:	597000-0	01	597000-002		597000-003		597000-004		597000-005		597000-0	006	
Analysis Requested	Field Id:	RP NSW-1	RP NSW-1 @ 2'		RP NSW-2 @ 2'		RP ESW-1 @ 2'		@ 2'	RP WSW-1 @ 2'		RP WSW-2 @ 2'		
Analysis Requested	Depth:	2- ft	2- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
	Sampled:	Aug-22-18 (Aug-22-18 09:00		Aug-22-18 09:15		Aug-22-18 09:30		Aug-22-18 09:45		Aug-22-18 10:00		Aug-22-18 10:15	
Chloride by EPA 300	Extracted:	Aug-28-18	0:00	Aug-28-18	Aug-28-18 10:00		Aug-28-18 10:00		10:00	Aug-28-18 10:00		Aug-28-18 10:00		
	Analyzed:	Aug-28-18	Aug-28-18 12:23		12:39	Aug-28-18	Aug-28-18 12:45		13:01	Aug-28-18 13:06		Aug-28-18 13:12		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		<4.99	4.99	235	4.97	12.9	4.98	210	4.99	153	4.98	97.8	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 - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kurshoah

Kelsey Brooks Project Manager



Flagging Criteria



Page 31 of 116

- 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.
- RPD exceeded lab control limits. F
- The target analyte was positively identified below the quantitation limit and above the detection limit. J
- 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.
- Reporting Limit RL
- MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection
- **PQL** Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- Method Detection Limit DL
- NC Non-Calculable

SMP Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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



Form 3 - MS / MSD Recoveries

Project Name: GJ West Coop Unit #108



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Work Order # :	597000						Project II):				
Lab Batch ID:	3061452	QC- Sample ID:	596609	-025 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed:	08/28/2018	Date Prepared:	08/28/2	018	An	alyst: S	SCM					
Reporting Units:	mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample Besult [F]	Spiked Dup.	RPD	Control Limits	Control Limits	Flag	
	Analytes	[A]	[B]	[C]	⁷ 0K [D]	[E]	Kesun [r]	5%K [G]	70	70K	70KPD	
Chloride		324	283	599	97	283	599	97	0	90-110	20	
Lab Batch ID:	3061452	QC- Sample ID:	597000	-001 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed:	08/28/2018	Date Prepared:	08/28/2	018	An	Analyst: SCM						
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	IKE DUPLICA	TE REC	OVERY	STUDY		
	Chloride by EPA 300	Parent Sample Bogylt	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Kesult [F]	%R [G]	%	%R	%RPD	
Chloride		<4.99	250	243	97	250	243	97	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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

			(5	www.xer	1CO.CON					L						Xenco	lob #			160	g	
											_		Analy	ical Inf	ormati	ă					M	atrix Cod
Company Name / Branch:		Pro	ject Info	rmation																		
Company Name I Branch: TRC Environmental Corporation	Project Nam GJ West (te/Number: Coop Unit #10	8																		>≤	"Water
Company Address: 2057 Commerce Drive	Project Loc: Lea County,	ation: .NM												,,							GW -	=Ground
Inidiand, 1X /9/03 Email: Phone No:	Invoice To:																				SM = 1	Product = Surfac
Project Contact:		ing C/O becky	Haskei								·		·								ON SL	= Sludge =Ocean/
Joel Lowry	Invoice:										Ext)									2	= Wipe
Samplers's Name Becky Griffin				1							ME	300									₩o #	= Oil /= Waste V
	Collecto					Number	pre		bottles		015	8021									A =	- Air
Samp	Date	Time	Matrix	# of	ICI	laOH/Zr	1NO3 12SO4	IaOH	IaHSO4 IEOH	ONE	TPH 8											
1 RP NSW-1 @2' 2ft	8/22/2018	9:00	s									×	\neg			_			-+			JUIIII
2 RP NSW-2 @2' 2ff	8/22/2018	9:15	s									×					_		-			
3 RP ESW-1 @2' 2tt	8/22/2018	9:30	s	- - -								×							-+			
4 RP ESW-2 @2' 2ft	8/22/2018	9:45	s									×										
5 RP WSW-1 @2' 2ft	8/22/2018	10:00	s									×				_			+			
6 RP WSW-2 @2' 2ft	8/22/2018	10:15	s	-1								×				_		-+	+			
V 0											_							+				
						_			+			_	+				_					
10																		+				
				Data Deliv	verable I	nformatic	9								Notes:							
Same Day TAT 5 Day TAT			rel II Std	R				/el IV (F	ull Data	h Pkg /r	aw data	2		ilown	/@trcs	olution	s.com				bcoo) per@trcsc
Next Day EMERGENCY			/el III Sto	I QC+ F	orms		╞	RP Levi	N IS			-		rhasł	ell@co	ncho.	om					
2 Day EMERGENCY X Contract TAT		Lev	rel 3 (CL	.P Form	s		l L s	T/RG-	411					zcon	ter@tr	csoluti	ons.co	E				
3 Day EMERGENCY			RP Chec	sklist										dnee	2@.co	ncho.c	Ĕ					
TAT Starts Day received by Lab, if received by 5:00 pm														Ē	EX / UP	S: Tra	king #					
Relinguished by Sampleret Date Th	me:	Received	BV:	SAMPLE	S CHAN	GE POSS	Reli	l, INCLU nauisha	d By:	OURIER	DELIVE	RY	a Time		1753							
Relinguished by: A.	3-183	122	al al al	E.	¢.	Aza la		hand								Kecelv	id By:					
	me;		<i>C</i>				4 Reli	nquishe	d By:			ې≣ ۲	e Time	212	75	Receiv	id By:					
5 Volice: Nolice: Signature of this document and relinouishment of samples constitutes a val	me: lid ourchase orde	6 5	By:	Kenno ite	affiliate		Cus	lody Se	2#		פ	eserve	dwher	applic	able		29		6	oler Temp.	Then	mo. Corr. I
any losses or expenses incurred by the Client If such loses are due to circumstances beyo terms will be enforced unless previously negotiated under a fully executed client contract.	and the control of)	Xenco, A minimu	um charge	e of \$75 v	will be ap	plied to ea	ach proje	ct. Xenco	o's liabilit	y will be	limited t	o the cos	t of sam	ples. An	y sampl	e llavio 35 recei	ied by >	ne cosi enco bi	t of sam It not ar	ipies and shai ialyzed will be	invoiced a	me any respo. at \$5 per sam

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HAIN OF CUSTODY

Page 1 Of 🔐 🕽

San Antonio, Texas (210-509-3334)

Received by OCD: 4/7/2023 9:35:52 AM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Date/ Time Received: 08/24/2018 12:29:00 PM Work Order #: 597000 Comments Sample Receipt Checklist .8 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? Yes #5 Custody Seals intact on sample bottles? No #6*Custody Seals Signed and dated? No #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)?

#18 Water VOC samples have zero headspace?

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

Analyst:

PH Device/Lot#:

Date: 08/24/2018

No

N/A

Checklist completed by: Jawe Matto Shawnee Gomez Checklist reviewed by: Marto Shawnee Gomez Kelsey Brooks

Date: 08/27/2018

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

Temperature Measuring device used : R8

Analytical Report 598350

for TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit #011

13-SEP-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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 (T104704400-18-16) 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)



13-SEP-18

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

Reference: XENCO Report No(s): **598350 GJ West Coop Unit #011** 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) 598350. 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. 598350 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,

Huns hoah

Kelsey Brooks 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

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Sample Id

DT-1 SSW-1 @ 3'
DT-1 SSW-2 @ 3'
DT-1 SSW-3 @ 3'
DT-1 ESW-1 @ 3'
DT-1 ESW-2 @ 3'
DT-1 ESW-3 @ 1.5'
DT-1 WSW-1 @ 3'
DT-1 WSW-2 @ 1.5'
DT-1 FL-1@ 6'
DT-1 FL-2 @ 6'
DT-3 SSW @ 1'

Sample Cross Reference 598350



TRC Solutions, Inc, Midland, TX

GJ West Coop Unit #011

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	09-05-18 09:00	3 ft	598350-001
S	09-05-18 09:10	3 ft	598350-002
S	09-05-18 09:20	3 ft	598350-003
S	09-05-18 09:30	3 ft	598350-004
S	09-05-18 09:35	3 ft	598350-005
S	09-05-18 09:50	1.5 ft	598350-006
S	09-05-18 10:00	3 ft	598350-007
S	09-05-18 10:10	1.5 ft	598350-008
S	09-05-18 10:20	6 ft	598350-009
S	09-05-18 10:30	6 ft	598350-010
S	09-05-18 10:40	1 ft	598350-011

.



CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: GJ West Coop Unit #011

Project ID: Work Order Number(s): 598350 Report Date: 13-SEP-18 Date Received: 09/07/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Id:Contact:Joel LowryProject Location:Eddy Co,NM

Certificate of Analysis Summary 598350

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit #011



Date Received in Lab:Fri Sep-07-18 01:15 pmReport Date:13-SEP-18Project Manager:Kelsey Brooks

	Lab Id:	598350-0	01	598350-0	02	598350-0	003	598350-0	004	598350-0	005	598350-006		
Analysis Requested	Field Id:	DT-1 SSW-1	@ 3'	DT-1 SSW-2	2@3'	DT-1 SSW-3	3@3'	DT-1 ESW-	1@3'	DT-1 ESW-2	2@3'	DT-1 ESW-3 @ 1.5'		
Analysis Requested	Depth:	3- ft		3- ft		3- ft		3- ft		3- ft		1.5- ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
	Sampled:	Sep-05-18 (9:00	Sep-05-18 ()9:10	Sep-05-18 (09:20	Sep-05-18 (09:30	Sep-05-18 (09:35	Sep-05-18 09:50		
Chloride by EPA 300	Extracted:	Sep-11-18 1	2:15	Sep-11-18	2:15	Sep-10-18 1	16:30	Sep-11-18	12:15	Sep-11-18	12:15	Sep-11-18	12:15	
	Analyzed:	Sep-11-18	3:25	Sep-11-18	3:43	Sep-10-18 1	18:48	Sep-11-18	13:50	Sep-11-18	13:56	Sep-11-18	14:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		82.5	4.99	121	4.95	193	4.98	104	4.95	179	4.95	23.0	4.96	

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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Kms Boah

Kelsey Brooks Project Manager

Page 5 of 13



Project Id:Contact:Joel LowryProject Location:Eddy Co,NM

Certificate of Analysis Summary 598350

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit #011



Date Received in Lab:Fri Sep-07-18 01:15 pmReport Date:13-SEP-18Project Manager:Kelsey Brooks

	Lab Id:	598350-0	07	598350-0	08	598350-0	09	598350-0	10	598350-0	11	
Analysis Paguested	Field Id:	DT-1 WSW-	1@3'	DT-1 WSW-2	@ 1.5'	DT-1 FL-1	@ 6'	DT-1 FL-2	@ 6'	DT-3 SSW	@ 1'	
Analysis Kequestea	Depth:	3- ft		1.5- ft		6- ft		6- ft		1- ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		
	Sampled:	Sep-05-18 10:00		Sep-05-18 1	0:10	Sep-05-18	10:20	Sep-05-18	0:30	Sep-05-18 1	0:40	
Chloride by EPA 300	Extracted:	Sep-10-18 1	6:30	Sep-11-18 1	2:15	Sep-11-18 1	2:15	Sep-11-18 1	2:15	Sep-11-18 1	2:15	
	Analyzed:	Sep-10-18 2	20:14	Sep-11-18 1	4:21	Sep-11-18 1	4:27	Sep-11-18 1	4:33	Sep-11-18 1	4:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		156	5.02	169	4.96	50.2	5.00	247	4.94	252	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.

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Kuns Boah

Kelsey Brooks Project Manager

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Flagging Criteria



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- 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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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: GJ West Coop Unit #011

Work Orde	er #: 598350							Pro	ject ID:								
Analyst:	SCM	D	ate Prepar	red: 09/10/20	18			Date A	nalyzed:	09/10/2018							
Lab Batch II	D: 3062687 Sample: 76619	93-1-BKS	Bate	h #: 1		Matrix: Solid											
Units:	mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY														
Anal	Chloride by EPA 300	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	255	102	250	254	102	0	90-110	20						
Analyst:	SCM	D	ate Prepar	ed: 09/11/20	18	-	1	Date A	nalyzed:	09/11/2018	+	+					
Lab Batch II	D: 3062836 Sample: 76620	38-1-BKS	Bate	h #: 1					Matrix:	Solid							
Units:	mg/kg		BLAN	K/BLANK	SPIKE /	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	D Y						
Anal	Chloride by EPA 300 lytes	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	254	102	250	255	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: GJ West Coop Unit #011



.

Work Order # : 598350						Project II	D:				
Lab Batch ID: 3062687	QC- Sample ID:	598350	-003 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed: 09/10/2018	Date Prepared:	09/10/2	018	Ar	nalyst: S	SCM					
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	'RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Chloride by EPA 300	Parent Sample Result	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	[B]		/0K [D]	[E]	Kesunt [F]	[G]	70	701	70KI D	
Chloride	193	249	435	97	249	437	98	0	90-110	20	
Lab Batch ID: 3062687	QC- Sample ID:	598350	-007 S	Ba	tch #:	1 Matri	x: Soil				
Date Analyzed: 09/10/2018	Date Prepared:	09/10/2	018	Ar	nalyst: S	SCM					
Reporting Units: mg/kg	ng/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
Chloride by EPA 300	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	% 0	%K	%RPD	
Chloride	156	251	407	100	251	403	98	1	90-110	20	
Lab Batch ID: 3062836	QC- Sample ID:	598340	-001 S	Ba	tch #:	1 Matri	x: Soil				
Date Analyzed: 09/11/2018	Date Prepared:	09/11/2	018	Ar	nalyst: S	SCM					
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	'RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Chloride by EPA 300	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

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Project Name: GJ West Coop Unit #011

Work Order # :	598350						Project II	D:					
Lab Batch ID:	3062836	QC- Sample ID:	598350	-001 S	Ba	tch #:	1 Matri	x: Soil					
Date Analyzed:	09/11/2018	Prepared: 09/11/2018 Analyst: SCM											
Reporting Units:	mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY			
	Chloride by EPA 300	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag	
	Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD		
Chloride		82.5	250	330	99	250	331	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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Setting the Standard since 1990	LABORATORIES	XENCO

CHAIN OF CUSTODY

Project Contact: Joel Lowry Samplers's Name: Email: 10 Desta Dr. Suite 150E Company Address: Company Name / Branch: TRC Environmental Corporation 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 built 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 tability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negolitated under a fully executed client contract. <u>N</u>o. Midland, TX 79705 4 თ сл ω N 5 ശ œ Þ Dallas Texas (214-902-0300) 2 Day EMERGENCY **Relinquished by:** 3 Day EMERGENCY Relinquished **Relinguished by Sau** 7 ilowry@trcsolutions.com **Client / Reporting Information** Next Day EMERGENCY TAT Starts Day received by Lab, if received by 5:00 pm Same Day TAT Turnaround Time (Business days) E N Field ID / Point of Collection 22 0 X Contract TAT 7 Day TAT 5 Day TAT • Phone No: 432-466-4450 SAMPLE CUSTODY MUST 9 - 6 - 18 Date Time: Sample Date Time: Date Time: Depth -8-5-18 LOG OPELATINGS/BECKY HASKED Midland, Texas (432-704-5251) DOCUMENTED Collection Epty Co, Sr Date ļ, BELOW EACH TIME SAMPLES CHANGE POSS Received By: 10:61 SEST COOP LINIT Received By Time Project Information **TRRP** Checklist Level 3 (CLP Forms) Level III Std QC+ Forms Level II Std QC Matrix angon www.xenco.com Data Deliverable Information bottles # of HCI NaOH/Zn Number of preserved bottles cetate -INO3 Relinquished By: UST / RG -411 12504 Custody Seal # Relinquished By: SION, INCLUDING COURIER DELIVERY TRRP Level IV Level IV (Fuli Data Pkg /raw data) man iaOH 110 # laHSO4 **IEOH** NONE Xenco Quote # TPH TX1005 Preserved where applicable Chloride E 300 81/0/18 Date Time: Date Time: NORM Analytical Information RCI 4:23 FED-EX/UPS: Tracking # bcooper@trcsolutions.com ilowry@trcsolutions.com zconder@trcsolutions.com TCLP Benzene Notes: TCLP RCRA 8 Metals Xenco Job # Chloride TPH 8015 M Ext (NM) On Ice ł Cooler Ĉ 'emp Field Comments S = Soil/Sed/Soiid GW =Ground Water DW = Drinking Water P = Product SL = Sludge OW =Ocean/Sea Water SW = Surface water A = Air0 = 01 WI = Wipe W = Water WW= Waste Water perme Corr. Factor Matrix Codes è S 0

Received by OCD: 4/7/2023 9:35:52 AM

Final 1.000

Page 46 of 116

Stafford, Texas (281-240-4200)

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

Received by OCD: 4/7/2023 9:35:52 AM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/07/2018 01:15:00 PM Temperature Measuring device used : R8 Work Order #: 598350 Comments Sample Receipt Checklist -.4 #1 *Temperature of cooler(s)? #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)?

#18 Water VOC samples have zero headspace?

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

Analyst:

PH Device/Lot#:

Date: 09/07/2018

N/A

N/A

Checklist completed by: Bianna Teel Checklist reviewed by: Markoath Kelsey Brooks

Date: 09/07/2018

Analytical Report 598987

for TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit 011

19-SEP-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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 (T104704400-18-16) 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)



19-SEP-18

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

Reference: XENCO Report No(s): **598987 GJ West Coop Unit 011** 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) 598987. 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. 598987 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,

Huns hoah

Kelsey Brooks Project Manager

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Sample Id

DT-3 FL @3'
DT-3-WSW @1.5'
DT-3 ESW-1 @1.5'
DT-3 ESW-2 @ 1.5'
DT-2 SSW-1 @1'
DT-2 SSW-2 @1'
DT-2 WSW @1'
DT-2 FL-1 @2'
DT-2 FL-2 @2'

Sample Cross Reference 598987



GJ West Coop Unit 011

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	09-12-18 09:00	3 ft	598987-001
S	09-12-18 09:10	1.5 ft	598987-002
S	09-12-18 09:20	1.5 ft	598987-003
S	09-12-18 09:30	1.5 ft	598987-004
S	09-12-18 09:40	1 ft	598987-005
S	09-12-18 09:50	1 ft	598987-006
S	09-12-18 10:00	1 ft	598987-007
S	09-12-18 10:10	2 ft	598987-008
S	09-12-18 10:20	2 ft	598987-009

Page 50 of 116



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Client Name: TRC Solutions, Inc Project Name: GJ West Coop Unit 011

Project ID: Work Order Number(s): 598987 Report Date: 19-SEP-18 Date Received: 09/13/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Id:Contact:Joel LowryProject Location:Eddy Co, NM

Certificate of Analysis Summary 598987

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit 011



Date Received in Lab:Thu Sep-13-18 12:51 pmReport Date:19-SEP-18Project Manager:Kelsey Brooks

	Lab Id:	598987-0	01	598987-0	02	598987-0	003	598987-0	004	598987-0	005	598987-0	006
Analysis Requested	Field Id:	DT-3 FL (@3'	DT-3-WSW	@1.5'	DT-3 ESW-1	@1.5'	DT-3 ESW-2	@ 1.5'	DT-2 SSW-	1 @1'	DT-2 SSW-	2 @1'
Analysis Requested	Depth:	3- ft		1.5- ft		1.5- ft		1.5- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	,
	Sampled:	Sep-12-18 (9:00	Sep-12-18)9:10	Sep-12-18	09:20	Sep-12-18 (09:30	Sep-12-18 (09:40	Sep-12-18	09:50
Chloride by EPA 300	Extracted:	Sep-17-18 16:45		Sep-17-18 16:45 Sep-17-		Sep-17-18	7-18 16:45 Sep-17-18 16:45		Sep-17-18 16:45		Sep-17-18 16:45		
	Analyzed:	Sep-17-18 19:07		Sep-17-18 19:17		Sep-17-18 19:27		Sep-17-18 19:38		Sep-18-18 09:09		Sep-18-18 09:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		20.2	4.98	30.7	4.96	319	4.98	96.5	4.97	36.4	4.95	30.5	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.

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Kurshoah

Kelsey Brooks Project Manager

Page 5 of 11



Project Id:Contact:Joel LowryProject Location:Eddy Co, NM

Certificate of Analysis Summary 598987

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit 011



Date Received in Lab:Thu Sep-13-18 12:51 pmReport Date:19-SEP-18Project Manager:Kelsey Brooks

							1		
	Lab Id:	598987-0	07	598987-0	08	598987-0	09		
Analysis Requested	Field Id:	DT-2 WSW	@1'	DT-2 FL-1	@2'	DT-2 FL-2	@2'		
Analysis Requested	Depth:	1- ft		2- ft		2- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Sep-12-18 1	0:00	Sep-12-18	0:10	Sep-12-18	10:20		
Chloride by EPA 300	Extracted:	Sep-17-18 1	6:45	Sep-17-18 1	Sep-17-18 16:45		16:45		
	Analyzed:	Sep-18-18 0	9:50	Sep-18-18 1	0:00	Sep-18-18 10:11			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		156	4.96	71.5	4.98	33.5	4.97		

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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Kms Boah

Kelsey Brooks Project Manager



Flagging Criteria



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- 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 Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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: GJ West Coop Unit 011

Work Order	* #: 598987							Pro	ject ID:			
Analyst:	SCM	Da	ate Prepar	red: 09/17/201	8			Date A	nalyzed: (09/17/2018		
Lab Batch ID:	: 3063649 Sample: 766	62457-1-BKS	Bate	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K /BLANK S	SPIKE / I	BLANK	SPIKE DUPI	LICATE	RECOVI	ERY STUI	νY	
Analy	Chloride by EPA 300	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		<4.99	250	249	100	250	248	99	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

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Page 56 of 116

.

Project Name: GJ West Coop Unit 011

Work Order # :	598987						Project II):				
Lab Batch ID:	3063649	QC- Sample ID:	598987	-004 S	Ba	tch #:	1 Matri	x: Soil				
Date Analyzed:	09/18/2018	Date Prepared:	09/17/2	018	An	alyst: S	SCM					
Reporting Units:	mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	IKE DUPLICA	TE REC	OVERY	STUDY		
	Chloride by EPA 300	Parent Sample Result	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample Bognit [E]	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	[B]	[C]	%K [D]	E]	Kesun [F]	%K [G]	70	%0K	%KPD	
Chloride		96.5	249	336	96	249	333	95	1	90-110	20	
Lab Batch ID:	3063649	QC- Sample ID:	599223	-028 S	Ba	tch #:	1 Matri	x: Soil				
Date Analyzed:	09/17/2018	Date Prepared:	09/17/2	018	An	alyst: S	SCM					
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	IKE DUPLICA	TE REC	OVERY	STUDY		
	Chloride by EPA 300	Parent Sample Posult	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	[B]	[U]	%к [D]	E]	Kesuit [F]	%к [G]	70	70K	70KrD	
Chloride		76.8	249	351	110	249	352	111	0	90-110	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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Page 9 of 11

Page 57 of 116

CHAIN OF CUSTODY

Page 1 Of

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	<u>WWW.Xerico.com</u>		Appletion	Xenco Job #	10.01
Project Nam	Project Information	1 H			W = Water
E Carling	ation:	01			S = Soll/Sed/Solid GW =Ground Water DW = Drinking Water
Invoice To:	0			s 1)	SW = Surface water SL = Sludge
Coc	+ OPELATING &Z	-cky/HASKE	<u></u>	Metals	OW =Ocean/Sea Wat WI = Wipe
	0	0	05 300	A 8 I	O = Oll WW= Waste Water
Collectio		per of preserved bottles	X10 de E 1	Ben RCF de 015	A = Air
ample Depth Date	Time Matrix bottles HCI NaOH/Zn Accetate	+NO3 +2SO4 NaOH NaHSO4 MEOH	TPH T Chloric NORM RCI	TCLP TCLP Chloric TPH 8	Field
2FT 9-12.	1 5 00:9 81		*		
SAT /	1 5 al:6		×		
507	9:205 1		×		
SFT	4:30 S 1		X		
	1 5 94:4		×		
	1 5 95:4		X		
287 1	10:10 \$ 1		× >		
12	10:20 5 1		X		
	Level II Std QC	ation Level IV (Full Data Pkg	/raw data)	Notes: DWry@trcsolutions.com	
	Level III Std QC+ Forms	TRAP Level IV	22	conder@trcsolutions.com	
	Level 3 (CLP Forms)	UST / RG -411	<u>p</u>	cooper@trcsolutions.com	
	TRRP Checklist		-	HASKELLO	back HO. COM
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ate Time:	Received By: 5	Custody Seal #	Preserved where an	oplicable On Ice	Cooler Temp. Thermo. Corr. Factor
	ample Collection	Project NameNumber: Project NameNumber: Project Location: Project Location: Project Location: Project Location: Project Location: Project Location: Project NameNumber: Project NameNumber: Project NameNumber: Project NameNumber: Project Information: Project Information: Pr	November: Project Information Project Information Project Information Number: Number: <td>Investig Project Information Name Project Name Proje</td> <td>Non-Order Non-Order Non-Order Project Hormation Project Hormation Analytical Hormation Provide In Provide Intermation Non-Order Provide Intermation Non-Order No-Order Provide Intermation No-Order No-Order Provide Intermation No-Order No-Order Provide Intermation No-Order</td>	Investig Project Information Name Project Name Proje	Non-Order Non-Order Non-Order Project Hormation Project Hormation Analytical Hormation Provide In Provide Intermation Non-Order Provide Intermation Non-Order No-Order Provide Intermation No-Order No-Order Provide Intermation No-Order No-Order Provide Intermation No-Order

Final 1.000

Received by OCD: 4/7/2023 9:35:52 AM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/13/2018 12:51:00 PM Temperature Measuring device used : R8 Work Order #: 598987 Comments Sample Receipt Checklist 1.4 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? N/A

#18 Water VOC samples have zero headspace?

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

Analyst:

PH Device/Lot#:

Date: 09/13/2018

N/A

Checklist completed by: Bianna Teel Checklist reviewed by: Markoath Kelsey Brooks

Date: 09/14/2018

Analytical Report 599392

for TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit #011

25-SEP-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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 (T104704400-18-16) 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)



25-SEP-18

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

Reference: XENCO Report No(s): **599392** GJ West Coop Unit #011 Project Address:

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) 599392. 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. 599392 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,

Huns hoah

Kelsey Brooks Project Manager

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Sample Id

DT-2 FL-3 @2'
DT-2 NSW- 1@1'
DT-2 NSW-2 @1'
DT-2 WSW-2 @1'
DT-2 ESW-1 @1'
DT-2 ESW-2@1'
DT-2 SSW @1'
DT-3 FL-2 @3'
DT-3 NSW- @1.5
DT-3 WSW-2 @1.5

Sample Cross Reference 599392



TRC Solutions, Inc, Midland, TX

GJ West Coop Unit #011

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	09-17-18 08:00	2 ft	599392-001
S	09-17-18 08:10	1 ft	599392-002
S	09-17-18 08:20	1 ft	599392-003
S	09-17-18 08:30	1 ft	599392-004
S	09-17-18 08:40	1 ft	599392-005
S	09-17-18 08:50	1 ft	599392-006
S	09-17-18 09:00	1 ft	599392-007
S	09-17-18 10:00	1 ft	599392-008
S	09-17-18 10:10	1.5 ft	599392-009
S	09-17-18 10:20	1.5 ft	599392-010



CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: GJ West Coop Unit #011

Project ID: Work Order Number(s): 599392 Report Date:25-SEP-18Date Received:09/18/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Id: Contact: Joel Lowry Project Location:

Certificate of Analysis Summary 599392

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit #011



Date Received in Lab:Tue Sep-18-18 09:47 amReport Date:25-SEP-18Project Manager:Kelsey Brooks

	Lab Id:	599392-0	01	599392-0	02	599392-0	03	599392-0	004	599392-0	005	599392-0)06
Analysis Paguested	Field Id:	DT-2 FL-3	@2'	DT-2 NSW-	1@1'	DT-2 NSW-2	2@1'	DT-2 WSW-	-2 @1'	DT-2 ESW-	1@1'	DT-2 ESW-	-2@1'
Anaiysis Kequesiea	Depth:	2- ft		1- ft		1- ft		1- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-17-18 (08:00	Sep-17-18	08:10	Sep-17-18 0	08:20	Sep-17-18 (08:30	Sep-17-18 (08:40	Sep-17-18	08:50
Chloride by EPA 300	Extracted:	Sep-21-18 10:50		Sep-21-18 10:50 Sep-21-18 10::		0:50	Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50		
	Analyzed:	Sep-21-18 16:34		Sep-21-18 16:51		Sep-21-18 16:56		Sep-21-18 16:00		Sep-21-18 17:22		Sep-21-18 17:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		59.9	4.95	290	4.95	<4.97	4.97	58.3	4.97	234	5.00	264	5.00

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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Kms Boah

Kelsey Brooks Project Manager

Page 5 of 12



Project Id: Contact: Joel Lowry Project Location:

Certificate of Analysis Summary 599392

TRC Solutions, Inc, Midland, TX Project Name: GJ West Coop Unit #011



Date Received in Lab:Tue Sep-18-18 09:47 amReport Date:25-SEP-18Project Manager:Kelsey Brooks

	Lab Id:	599392-0	07	599392-0	08	599392-0	09	599392-0	10		
Analysis Paguested	Field Id:	DT-2 SSW	@1'	DT-3 FL-2	@3'	DT-3 NSW-	@1.5	DT-3 WSW-2	2 @1.5		
Analysis Kequestea	Depth:	1- ft	1- ft			1.5- ft		1.5- ft			
	Matrix:	SOIL	SOIL			SOIL		SOIL			
	Sampled:	Sep-17-18 (Sep-17-18 1	0:00	Sep-17-18 1	10:10	Sep-17-18	0:20			
Chloride by EPA 300	Extracted:	Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50			
	Analyzed:	Sep-21-18	Sep-21-18 17:33		Sep-21-18 17:56		Sep-21-18 18:02		8:19		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		406	4.95	<4.99	4.99	51.8	4.95	<5.00	5.00		

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Kms Boah

Kelsey Brooks Project Manager

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Flagging Criteria



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- 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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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: GJ West Coop Unit #011

Work Order	#: 599392			Project ID:											
Analyst:	SCM	D	ate Prepar	red: 09/21/201	2018 Date Analyzed: 09/21/2018										
Lab Batch ID:	Sample: 7662774-1	-BKS	Bate	h #: 1					Matrix: S	Solid					
Units:	mg/kg		BLAN	K /BLANK S	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOV	ERY STUI	νY				
Analy	Chloride by EPA 300	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	250	100	250	252	101	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



Form 3 - MS / MSD Recoveries

TNI REGRATORY

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.

Project Name: GJ West Coop Unit #011

Work Order # :	599392						Project II):					
Lab Batch ID:	3064137	QC- Sample ID:	599392	-004 S	Batch #:		1 Matrix	k: Soil					
Date Analyzed:	09/21/2018	Date Prepared:	09/21/2	21/2018 Analyst: SCM									
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY			
	Chloride by EPA 300	Parent Sample Posult	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag	
	Analytes	[A]	Added [B]	[C]	%K [D]	E]	Kesuit [F]	%K [G]	70	%0K	%KPD		
Chloride		58.3	249	325	107	249	326	108	0	90-110	20		
Lab Batch ID:	3064137	QC- Sample ID:	599508	-001 S	Ba	tch #:	1 Matrix	k: Soil					
Date Analyzed:	09/21/2018	Date Prepared:	09/21/2	018	An	alyst: S	SCM						
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERYS	STUDY			
	Chloride by EPA 300	Parent Sample Bosult	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag	
	Analytes	[A]	Added [B]		%R [D]	Added [E]	Kesult [F]	%R [G]	~⁄o	%K	%RPD		
Chloride		674	248	896	90	248	898	90	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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Page 9 of 12

a valid purchase order from client c a valid purchase order from clie	Inv: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Wandard TAT is provided and and TAT is provided and and the structure of the structure	trix: Air (A), Product (P), Solid (S), Water (W), Liquid (L) Notice: Signature of this document and relinquishment of these samples constitutes :	servatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), Zi nt. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (40), 1L (1), 500ml (5), Tedlar Bag (B), Various (V		B. CUPAT A-17-18 7: 20 20 DONION CONTIN	Relinquished by (Initials and Sign) Date & Time Relinquished to (Initials and Sign)	T-3NSW-201/ 9-17-18 10:20 15575 11 I	1-3 NSW - 1/2 9-17-18 10:10 1.5 12 11 I I	1-3 FL-203 9-17-18 10:00 3FTS 1 I I	T-255WB1 9-17-18 9:00 1FTS 1 F	-2ESW-2@1'9-17-18 8:50 1875 1 I	F-2 ESW-18/ 9-17-18 8:40 1875 11 7	T-2 WSW-2019-17-18 8:30 1573 1 I	-2 WSW-20119-17-18 8:20 1FTS 1 I	1-2 12512-10 1'9-17-18 8: 10 1FTS 1 F	-2FU3@219-17-18 8:00 2rts 1 I	Sample D Sampling Depth ft' In" m Matrix Composite Grab # Container Size Container Type Preservatives VOA: Full-List BTE VOA: PP TCL DV	Image: Construction of the second
	For For For For For For For For vel II and 10+ Working days for level III. Intervising days for level III. For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and 10+ Working days for level III. For For For vel II and II. For For For For <td>Excellence in Service al</td> <td>nAc&NaOH (Z), (Cool, <4C) (C), Other</td> <td>Oquin he</td> <td>9-17-12 7-20 Ot</td> <td>) Date & Time To</td> <td></td> <td>PAHs SIM 8310 TX-1005 DRO GR SVOCs: Full-List D OC Pesticides PCB Metals: RCRA-8 RC SPLP - TCLP (Meta EDB / DBCP</td> <td>8270 Pically 5-7 8270 SAP 5h IO MA EPH MA VPH 5-7 W BN&AE TCLP PP Appdx-2 CALL Vorking Days for 12h Is Herbicides OP Pesticides Pesticides RA-4 Pb 13PP 23TAL Appdx 1 Appdx2 Is VOCs SVOCs Pest. Herb. PCBs) Is VOCs SVOCs Pest. Herb. PCBs) Is VOCs SVOCs Pest. Herb. PCBs</td>	Excellence in Service al	nAc&NaOH (Z), (Cool, <4C) (C), Other	Oquin he	9-17-12 7-20 Ot) Date & Time To											PAHs SIM 8310 TX-1005 DRO GR SVOCs: Full-List D OC Pesticides PCB Metals: RCRA-8 RC SPLP - TCLP (Meta EDB / DBCP	8270 Pically 5-7 8270 SAP 5h IO MA EPH MA VPH 5-7 W BN&AE TCLP PP Appdx-2 CALL Vorking Days for 12h Is Herbicides OP Pesticides Pesticides RA-4 Pb 13PP 23TAL Appdx 1 Appdx2 Is VOCs SVOCs Pest. Herb. PCBs) Is VOCs SVOCs Pest. Herb. PCBs) Is VOCs SVOCs Pest. Herb. PCBs

Received by OCD: 4/7/2023 9:35:52 AM

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ANALTOID KERVEDI & CHAIN OF CUDIODY RECORD



Released to Imaging: 5/2/2023 2:21:34 PM

Received by OCD: 4/7/2023 9:35:52 AM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/18/2018 09:47:00 AM Temperature Measuring device used : R8 Work Order #: 599392 Comments Sample Receipt Checklist .2 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? N/A

#18 Water VOC samples have zero headspace?

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

Analyst:

PH Device/Lot#:

Date: 09/18/2018

N/A

Checklist completed by: Bianna Teel Checklist reviewed by: Markoath Kelsey Brooks

Date: 09/19/2018



Project Id:GJ West #108Contact:Joel LowryProject Location:Loco Hiss, NM

Certificate of Analysis Summary 600459

TRC Solutions, Inc, Midland, TX Project Name: GJ West #108

Date Received in Lab:Thu Sep-27-18 03:05 pmReport Date:03-OCT-18Project Manager:Kelsey Brooks

	Lab Id:	600459-0	01	600459-0	02	600459-0	003	600459-0	04	600459-0	005	600459-0)06
Analysis Paguastad	Field Id:	108 - SSW	7#1	108 - SSV	V #3	108 - SSV	V #4	108 - NSV	V #1	108 - NSV	V #2	108 - NSV	W #3
Anaiysis Kequesiea	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-25-18 0	8:45	Sep-25-18 (Sep-25-18 09:00 Sep-25-18 09:05			Sep-25-18 (9:10	Sep-25-18 09:15		Sep-25-18 09:20	
Chloride by EPA 300	Extracted:	Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00	
	Analyzed:	<i>lyzed:</i> Oct-01-18 14:34		Oct-01-18 1	Oct-01-18 15:11		Oct-01-18 15:23		Oct-01-18 15:36		Oct-01-18 15:48		16:00
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		26.2	25.0	35.9	25.0	47.8	25.0	199	25.0	287	25.0	<25.0	25.0

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fession kramer

Jessica Kramer Project Assistant

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Project Id:GJ West #108Contact:Joel LowryProject Location:Loco Hiss, NM

Certificate of Analysis Summary 600459

TRC Solutions, Inc, Midland, TX Project Name: GJ West #108

Date Received in Lab:Thu Sep-27-18 03:05 pmReport Date:03-OCT-18Project Manager:Kelsey Brooks

	Lab Id:	600459-0	07	600459-0	08	600459-0	09	600459-0	10	
Analysis Paguested	Field Id:	108 - ESW	108 - ESW #1		108 - SSW #2		108 - SSW #5		V #2	
Analysis Kequesieu	Depth:									
	Matrix:	SOIL		SOIL		SOIL		SOIL		
	Sampled:	Sep-25-18 0	9:25	Sep-25-18 0	9:30	Sep-25-18 09:35		Sep-25-18 09:40		
Chloride by EPA 300	Extracted:	Oct-01-18 1	1:00	Oct-01-18 1	1:00	Oct-01-18 1	1:00	Oct-01-18 1	1:00	
	Analyzed:	<i>nalyzed:</i> Oct-01-18 16:13		Oct-01-18 1	Oct-01-18 16:25		Oct-01-18 16:38		6:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		224	25.0	<25.0	25.0	312	25.0	361	25.0	

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Version: 1.%

fession kramer

Jessica Kramer Project Assistant

Final 1.000
Analytical Report 600459

for TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West #108

GJ West #108

03-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 (T104704400-18-16) 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)





03-OCT-18

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

Reference: XENCO Report No(s): 600459 **GJ West #108** Project Address: Loco Hiss, 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) 600459. 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. 600459 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,

Jessica Veramer

Jessica Kramer **Project Assistant**

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Sample Cross Reference 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	09-25-18 08:45		600459-001
S	09-25-18 09:00		600459-002
S	09-25-18 09:05		600459-003
S	09-25-18 09:10		600459-004
S	09-25-18 09:15		600459-005
S	09-25-18 09:20		600459-006
S	09-25-18 09:25		600459-007
S	09-25-18 09:30		600459-008
S	09-25-18 09:35		600459-009
S	09-25-18 09:40		600459-010

|--|

108 -	SSW #1
108 -	SSW #3
108 -	SSW #4
108 -	NSW #1
108 -	NSW #2
108 -	NSW #3
108 -	ESW #1
108 -	SSW #2
108 -	SSW #5
108 -	ESW #2

Version: 1.%

.



CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: GJ West #108

Project ID: *GJ West #108* Work Order Number(s): 600459

ATORIES

 Report Date:
 03-OCT-18

 Date Received:
 09/27/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - SSW #1		Matrix:	Soil	Γ	Date Received:	09.27.18 15.05	
Lab Sample Id:	600459-001		Date Collecte	d: 09.25.18 08.45				
Analytical Meth Tech:	nod: Chloride by EPA 30 RNL	00			P %	rep Method:	E300P	
Analyst: I	RNL		Date Prep:	10.01.18 11.00	E	Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result F	RL	Units	Analysis Dat	te Flag	Dil

16887-00-6 26.2

25.0

10.01.18 14.34

mg/kg

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - SSW #3		Matrix:	Soil		Date Received	:09.27.18 15.0	5
Lab Sample Id	: 600459-002		Date Collect	ed: 09.25.18 09.00				
Analytical Met	hod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	RNL					% Moisture:		
Analyst:	RNL		Date Prep:	10.01.18 11.00		Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ite Flag	Dil

16887-00-6 35.9

25.0

10.01.18 15.11 mg/kg

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - SSW #4		Matrix:	Soil		Date Received	:09.27.18	15.05
Lab Sample Id	: 600459-003		Date Collect	ed: 09.25.18 09.05				
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	RNL					% Moisture:		
Analyst:	RNL		Date Prep:	10.01.18 11.00		Basis:	Wet Weig	ht
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	g Dil

16887-00-6 47.8

25.0

10.01.18 15.23

mg/kg

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - NSW #1		Matrix:	Soil		Date Received	:09.27.18 15	5.05
Lab Sample Io	l: 600459-004		Date Colle	cted: 09.25.18 09.10				
Analytical Me	ethod: Chloride by EPA	300				Prep Method:	E300P	
Tech:	RNL					% Moisture:		
Analyst:	RNL		Date Prep:	10.01.18 11.00		Basis:	Wet Weigh	t
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil
Chloride		16887-00-6	199	25.0	mg/kg	10.01.18 15.	36	1

25.0

.



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - NSW #2		Matrix:	Soil	Ι	Date Received:	09.27.18 15.05	5
Lab Sample Id	: 600459-005		Date Collect	ed: 09.25.18 09.15				
Analytical Met	thod: Chloride by EPA 30	00			F	Prep Method:	E300P	
Tech:	RNL				9	6 Moisture:		
Analyst:	RNL		Date Prep:	10.01.18 11.00	E	Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	te Flag	Dil

287

16887-00-6

25.0

10.01.18 15.48 mg/kg

1

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TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - NSW #3		Matrix:	Soil		Date Received	:09.27.18 15.0)5
Lab Sample Id	: 600459-006		Date Collect	ed: 09.25.18 09.20				
Analytical Met	thod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	RNL					% Moisture:		
Analyst:	RNL		Date Prep:	10.01.18 11.00		Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ite Flag	Dil

16887-00-6

<25.0 25.0

mg/kg

10.01.18 16.00

U

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - ESW #1		Matrix:	Soil	I	Date Received:	09.27.18 15.05	i
Lab Sample Id	: 600459-007		Date Collect	ed: 09.25.18 09.25				
Analytical Met Tech:	hod: Chloride by EPA 30 RNL	00			l	Prep Method: 7 % Moisture:	E300P	
Analyst:	RNL		Date Prep:	10.01.18 11.00	1	Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Dat	te Flag	Dil

16887-00-6 224

25.0

10.01.18 16.13

mg/kg

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - SSW #2		Matrix:	Soil]	Date Received	:09.27.18 15.05	5
Lab Sample Id	: 600459-008		Date Collect	ed: 09.25.18 09.30				
Analytical Met	thod: Chloride by EPA 30)0]	Prep Method:	E300P	
Tech:	RNL				(% Moisture:		
Analyst:	RNL		Date Prep:	10.01.18 11.00]	Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	te Flag	Dil

16887-00-6

<25.0 25.0

mg/kg

10.01.18 16.25

U

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - SSW #5		Matrix:	Soil	Ι	Date Received	:09.27.18 15.05	5
Lab Sample Id	: 600459-009		Date Collect	ed: 09.25.18 09.35				
Analytical Met	hod: Chloride by EPA 30	00			F	Prep Method:	E300P	
Tech: Analyst:	RNL		Date Pren	10 01 18 11 00	y F	% Moisture: Basis:	Wet Weight	
Seq Number:	3064981		Date Thep.	10.01.10 11.00	-		er er ergite	
Parameter		Cas Number	Result	RL	Units	Analysis Da	te Flag	Dil

16887-00-6 312

25.0

10.01.18 16.38

mg/kg

1



TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	108 - ESW #2		Matrix:	Soil	I	Date Received	:09.27.18 15.0	5
Lab Sample Id	: 600459-010		Date Collect	ed: 09.25.18 09.40				
Analytical Met	hod: Chloride by EPA 30	00			I	Prep Method:	E300P	
Analyst:	RNL		Date Prep:	10.01.18 11.00	I	Basis:	Wet Weight	
Seq Number:	3064981							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ite Flag	Dil

Chloride

16887-00-6 361

25.0

10.01.18 16.50 mg/kg



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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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



ORATORIES



TRC Solutions, Inc

GJ West #108

Analytical Method:	Chloride by EPA	A 300						Р	rep Meth	od: E300	OP	
Seq Number:	3064981			Matrix:	Solid				Date Pr	ep: 10.0	1.18	
MB Sample Id:	7663353-1-BLK		LCS Sat	mple Id:	7663353-	1-BKS		LCS	D Sample	e Id: 7663	3353-1-BSD	
Parameter	M Resu	IB Spike Ilt Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	uit Units	Analysis Date	Flag
Chloride	1.	18 250	257	103	251	100	90-110	2	20	mg/kg	10.01.18 14:09	

Analytical Method:	Chloride by EPA 3	300						Pi	ep Meth	od: E30	0P	
Seq Number:	3064981			Matrix:	Soil				Date Pr	ep: 10.0	1.18	
Parent Sample Id:	600459-001		MS Sar	nple Id:	600459-00	01 S		MS	D Sample	e Id: 6004	459-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	26.2	250	277	100	277	100	80-120	0	20	mg/kg	10.01.18 14:46	

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference [D] = 100*(C-A) / B RPD = 200* | (C-E) / (C+E) | [D] = 100 * (C) / [B] Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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XENCO			CH	AI	v v	H	CU	STC	Add									
					Page 1	ð	-											
Setting the Standard since 1990																		
Stafford, Texas (281-240-4200)	Sa	n Antoni	o, Texas (:	10-509-	3334)					Phoenix	, Arizon	a (480-3	55-0900					~,
Dallas Texas (214-902-0300)	Mi	dland, Te	xas (432-;	04-5251	~													
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Client / Reporting Information			Proje	ct Inform	ation		1			-							Matrix Codes	
Company Name / Branch: TRC Environmental Corporation	Pro G.J	ect Name/ West #1(Jumber:												_		W = Water	_
Company Address: 10 Desta Dr. Suite 150E	Pro	ect Locatic o Hills, NM	Ë							_							S = Soil/Sed/Solid GW =Ground Water	
Midland, TX 79705 Email: Dhone No.	Juni	ire To												-			P = Product	
ilowry@trcsolutions.com 432-466-4450				-						_			S	(SW = Surface water SL = Sludge	
Project Contact: Joel Lowry	3	d Uperat	Ing, C/U B	ecky Ha	skell								letal	MN)			OW =Ocean/Sea Wa WI = Wipe	er
Samplers's Name:		ice:								00		Ju	N 8	1×∃			0 = 01	
	Ö	llection				Numbe	r of prese	irved bottle	Se	E 30			ARC	МЗ			WW= Waste Water A = Air	
No. Field ID / Point of Collection					4 	e uz	1	+(-XT ebin	M	∍8 c)ਮ c	901 108				
	Sample Depth	Date	Time	Matrix t	# of ottles	NaOH/ Acetate	HSSO4	NgHSCH NgHSC	NONE WEOH	СИО НАТ	HON	RCI TCLI	IJDT	СЫо			Field Comments	
1 108 - SSW #1	4' 9/2	5/2018	845	s	F					×								Τ
2 108 - SSW #3	4' 9/2	5/2018	900	s	-					×		+-		-			6	Τ
3 108 - SSW #4	4' 9/2	5/2018	905	s	-					×		-		-			tre	
4 108 - NSW #1	4' 9/2	5/2018	910	s	-					×				+			N N	
5 108 - NSW #2	4' 9/2	5/2018	915	s	-		-			×		-		-		. 7		T
6 108 - NSW #3	4' 9/2	5/2018	920	s	-					×		+	1	+				
7 108 - ESW #1	4' 9/2	5/2018	925	s	-				_			+		-		5.	d	Τ
8 108-55w#2	4' 9-	\$1-52	930	S	-					X		┼		+-				Т
9 108-550 # 6	4' 9.	23-NS	335	S	-							-		-		20		Τ
10 108-ESW# 2	4' 2.2	5-18	990	S	1				-	X		-		-		Ŷ	0	T
Turnaround Time (Business days)				Dat	Deliverabl	e Informativ	ų	Section Section				9	Notes:	met	an Distance			
Same Day TAT			Level	II Std Q(~		Level	IV (Full Dé	ata Pkg /ra	w data)		ilow	ry@trcso	lutions.c	뗑			
Next Day EMERGENCY			Level	III Std Q	C+ Forms			, Level IV				ZCOL	ider@tro	solutions	COM			T
2 Day EMERGENCY			Level	3 ACLP F	orms)		_ UST /	RG -411				pcoc	pper@tro	solutions	com			Τ
3 Day EMERGENCY			TRRE	Checkli	1							-						Т
TAT Starts Day received by Lab, if received by 5:0	u pm		T	8	P							E	EX / UPS	: Trackin	# 5			T
Relinouished by Sampler:	Y MUST BE DOCU	MENTED 8	ELOW EAC!		WPLES CH.	ANGE POS	SESSION, I	NCLUDING (COURIER D	ELIVERY		-		1000	A COLORADO			
	Ol Du li P	D		K	X	2	Relinq	uished By:			Date Tin	ue:	<u> </u>	sceived B	;A;	1		
Berlingurshed by.	Date Time		eceived By	A			Reling	uished By:			Date Tin	ie:	100	scelved B	jy:			Т
Relinquished by:	Date Time:		eceived Bv)		Custor	VRob #/	K	Droc	when being	land over	A.			-		4
5 1		5					Linn	X V V	\int				came			Cooler Tem	F (Thermo. Corr. Factor	1
vouce: notice: signature of this document and relinquishment of samples constitu- losses or expenses incurred by the Client if such loses are due to circumstances b	es a valid purchase eyond the control of	order from Xenco. A rr	client compa. inimum charg	ny to Xenc. le of \$75 w	 its affiliate ill be applied 	s and subco	intractors/It	assigns stan 's liability will	idard terms	and bonditi	ons of services	ice. Xence	o will be lia	ole only for	the cost of sa	mples and shall	not assume any responsibility for an	٦ ,
De enforced unless previously negotiated under a fully executed client contract.					-			6				line file .		au oy venc	u dur nor ana	yzea will be invo	biced at \$5 per sample. These terms	
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Received by OCD: 4/7/2023 9:35:52 AM

Received by OCD: 4/7/2023 9:35:52 AM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/27/2018 03:05:00 PM Temperature Measuring device used : IR-3 Work Order #: 600459 Comments Sample Receipt Checklist 4.4 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? N/A

#18 Water VOC samples have zero headspace?

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

Analyst:

PH Device/Lot#:

Date: 09/27/2018

N/A

Checklist completed by: Brenda Ward Brenda Ward Checklist reviewed by: March Kelsev Brooks

Date: 09/27/2018

Analytical Report 618678

for TRC Solutions, Inc

Project Manager: Jared Stoffel

GJ West

30-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)





30-MAR-19

Project Manager: **Jared Stoffel TRC Solutions, Inc** 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): 618678 GJ West Project Address: Loco Hills, NM

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) 618678. 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. 618678 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,

Muly K.

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 618678



TRC Solutions, Inc, Midland, TX

GJ West

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @ 35'	S	03-21-19 10:00		618678-001
SB-1 @ 40'	S	03-21-19 10:10		618678-002
SB-2 @ 20'	S	03-21-19 13:50		618678-003
SB-2 @ 25'	S	03-21-19 14:00		618678-004
SB-2 @ 30'	S	03-21-19 14:10		618678-005
SB-2 @ 35'	S	03-21-19 14:20		618678-006

Version: 1.%

.



CASE NARRATIVE

Client Name: TRC Solutions, Inc Project Name: GJ West

Project ID: Work Order Number(s): 618678 Report Date: 30-MAR-19 Date Received: 03/22/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3083758 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030. Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 618678-003,618678-001.

Batch: LBA-3083865 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 618678-006.

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



Project Id:Contact:Jared StoffelProject Location:Loco Hills, NM



TRC Solutions, Inc, Midland, TX Project Name: GJ West



Date Received in Lab:Fri Mar-22-19 04:18 pmReport Date:30-MAR-19Project Manager:Mike Kimmel

	Lab Id:	618678-0	001	618678-0	002	618678-0	003	618678-	004	618678-	005	618678-	006
Analusia Baavastad	Field Id:	SB-1 @	35'	SB-1 @	40'	SB-2 @	20'	SB-2 @	25'	SB-2 @	30'	SB-2 @	35'
Analysis Kequesiea	Depth:												
	Matrix:	SOIL											
	Sampled:	Mar-21-19	10:00	Mar-21-19	10:10	Mar-21-19	13:50	Mar-21-19	14:00	Mar-21-19	14:10	Mar-21-19	14:20
BTEX by EPA 8021B	Extracted:	Mar-27-19	17:00	Mar-27-19	17:00	Mar-27-19	17:00	Mar-28-19	13:00	Mar-28-19	13:00	Mar-28-19	13:00
	Analyzed:	Mar-28-19	14:55	Mar-28-19	15:14	Mar-28-19	15:33	Mar-28-19	19:31	Mar-28-19	19:50	Mar-28-19	20:09
	Units/RL:	mg/kg	RL										
Benzene		< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Toluene		0.00267	0.00202	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Ethylbenzene		< 0.00202	0.00202	<0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
m,p-Xylenes		0.00513	0.00403	< 0.00398	0.00398	< 0.00400	0.00400	< 0.00401	0.00401	< 0.00402	0.00402	< 0.00398	0.00398
o-Xylene		< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Total Xylenes		0.00513	0.00202	<0.00199	0.00199	< 0.002	0.002	< 0.002	0.002	< 0.00201	0.00201	< 0.00199	0.00199
Total BTEX		0.0078	0.00202	<0.00199	0.00199	< 0.002	0.002	< 0.002	0.002	< 0.00201	0.00201	< 0.00199	0.00199
Chloride by EPA 300	Extracted:	Mar-25-19	15:20										
	Analyzed:	Mar-25-19	19:12	Mar-25-19	18:33	Mar-25-19	20:10	Mar-25-19	20:20	Mar-25-19	20:30	Mar-25-19	20:40
	Units/RL:	mg/kg	RL										
Chloride		205	5.01	103	4.97	337	4.99	142	4.98	50.3	4.95	61.6	5.00
TPH by SW8015 Mod	Extracted:	Mar-25-19	17:00										
	Analyzed:	Mar-26-19	03:47	Mar-26-19	04:06	Mar-26-19	04:25	Mar-26-19	04:44	Mar-26-19	05:03	Mar-26-19	05:22
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15	15	<15	15	<15	15	<15	15	<15	15	<15	15

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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Version: 1.%

Mike Kimmel Client Services Manager

Final 1.000



Flagging Criteria



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- 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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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: GJ West

Work Ord Lab Batch #	ers: 61867 : 3083357	8, Sample: 618678-001 / SMP	Batch:	Project ID 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/19 03:47	SUR	ROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooctar	ne		90.9	99.7	91	70-135	
o-Terphenyl			44.7	49.9	90	70-135	
Lab Batch #	: 3083357	Sample: 618678-002 / SMP	Batch:	1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/19 04:06	SUR	ROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctar	ne		92.4	99.9	92	70-135	
o-Terphenvl	-		44.8	50.0	90	70-135	
Lab Batch #	: 3083357	Sample: 618678-003 / SMP	Batch:	1 Matrix	: Soil	10 155	
Units:	mg/kg	Date Analyzed: 03/26/19 04:25	SUR	ROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooctar	ne		106	100	106	70-135	
o-Terphenyl			52.3	50.0	105	70-135	
Lab Batch #	: 3083357	Sample: 618678-004 / SMP	Batch:	1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/19 04:44	SUR	ROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctar	ne		91.9	99.8	92	70-135	
o-Terphenvl			45.7	49.9	92	70-135	
Lab Batch #	3083357	Sample: 618678-005 / SMP	Batch:	1 Matrix	: Soil	10155	
Units:	mg/kg	Date Analyzed: 03/26/19 05:03	SUR	ROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[10]		
1-Chlorooctar	ne		91.6	99.7	92	70-135	
o-Terphenyl			45.2	49.9	91	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: GJ West

Work Ord Lab Batch #:	ers: 61867 3083357	8, Sample: 618678-006 / SMP	Batch:	Project ID: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/26/19 05:22	SUR	ROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooctan	e		92.6	99.8	93	70-135	
o-Terphenyl			45.9	49.9	92	70-135	
Lab Batch #:	3083758	Sample: 618678-001 / SMP	Batch:	1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/28/19 14:55	SUR	ROGATE R	ECOVERY S	STUDY	
	BTEX	A polytos	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobe	nzene	Anarytes	0.0326	0.0200	100	70.120	
4 Promofluoro	honzono		0.0320	0.0300	109	70-130	**
4-Bioinonuoro	2022752	Sompley 619679 002 / SMD	0.0407	0.0300	130	/0-130	**
Lad Batch #:	3083738	Sample: 018078-0027 SMP	Batch:		: 5011		
Units:	mg/kg	Date Analyzed: 03/28/19 15:14	SUR	ROGATE R	ECOVERY	STUDY	
	втеу	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluorobe	enzene		0.0347	0.0300	116	70-130	
4-Bromofluoro	benzene		0.0370	0.0300	123	70-130	
Lab Batch #:	3083758	Sample: 618678-003 / SMP	Batch:	1 Matrix	: Soil	11	
Units:	mg/kg	Date Analyzed: 03/28/19 15:33	SUR	ROGATE R	ECOVERY S	STUDY	
	втеу	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobe	nzene		0.0338	0.0300	113	70.130	
4-Bromofluoro	benzene		0.0412	0.0300	113	70-130	**
ah Batch #•	3083865	Sample: 618678-004 / SMP	Batch	1 Matrix		/0-150	
Units:	mg/kg	Date Analyzed: 03/28/19 19:31	SUR	ROGATE R	FCOVERY	STUDY	
	втех	X by EPA 8021B	Amount Found	True Amount	Recovery	Control Limits	Flags
		Analytes	[A]	[B]	%К [D]	%K	
1,4-Difluorobe	enzene		0.0349	0.0300	116	70-130	
4.D. (1	1						

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: GJ West

Bits: mg/kg Date Analyzet: SURROGATE RECOVERY STUDY BTEX by EPA 8021B Amount (A) True (A) Amount (B) Recovery 5% R Control 5% R Control 5% R F 1.4-Diffuorobenzene 0.0347 0.0300 123 70-130 1 1.4-Diffuorobenzene 0.0368 0.0300 123 70-130 1 1.4-Diffuorobenzene 0.0368 0.0300 123 70-130 1 1.4-Diffuorobenzene 0.0367 Summer 1 Matrix: Soit 1 1.4-Diffuorobenzene 0.0343 0.0300 114 70-130 1 1.4-Diffuorobenzene 0.0343 0.0300 131 70-130 1 1.4-Diffuorobenzene 0.0343 0.0300 131 70-130 1 1.4-Diffuorobenzene 0.0343 0.0300 114 70-130 1 1.4-Diffuorobenzene 0.03375 Sample: 7674328-1-BLK / BLK Batch : 1 Matrix: Soit Immits 1.4-Diffuorobenzene 0.03251 0.0300 <	Work Ord Lab Batch #	lers : 61867 : 3083865	8, Sample: 618678-005 / SMP	Batch:	Project ID 1 Matrix	: Soil		
BTEX by EPA 8021B Analytes Amount Found [A] True Amount [B] Recovery (D) Control Linits (SR Control Linits (SR F 1.4-Difluorobenzene 0.0347 0.0300 116 70-130 2 4-Bromofluorobenzene 0.0347 0.0300 123 70-130 2 4-Bromofluorobenzene 0.0347 0.0300 123 70-130 2 Lab Batch #: 3083865 Sample: 613678-006 / SMP Batch: Matrix: Soit - Units: mg/kg Date Analyzed: 0328/19 20:09 SURROGATE RECOVERY SUDY - - 1.4-Difluorobenzene 0.0343 0.0300 114 70-130 - 1.4-Difluorobenzene 0.0343 0.0300 114 70-130 - Lab Batch #: 308357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Soit Lab Batch #: 308357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Soit Lab Batch #: 3083758	Units:	mg/kg	Date Analyzed: 03/28/19 19:50	SUR	ROGATE R	ECOVERY S	STUDY	
1.4-Diffuorobenzene 0.0347 0.0300 116 70-130 4-Bromofluorobenzene 0.0368 0.0300 123 70-130 Lab Batch #: 3083865 Sample: 618678-006 / SMP Batch : 1 Matrix: Soil Units: mg/kg Date Analyzed: 03/28/19 20:09 SURROGATE RECOVERY STUDY Control BTEX by EPA 8021B Amount Amount True Recovery Control 1.4-Diffuorobenzene 0.0343 0.0300 114 70-130 70-130 Lab Batch #: 308357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Solid 1 Units: mg/kg Date Analyzed: 03/25/19 21:25 SURROGATE RECOVERY STUDY 1 1-Chlorooctane 106 100 106 70-135 1 1-Chlorooctane 0.33758 Sample: 7674521-1-BLK / BLK Batch: 1<		BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene 0.0368 0.0300 123 70-130 Lab Batch #: 3083865 Sample: 618678-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 03/28/19 20:09 SUERCOGATE Recovery film Control Limits Soil Soil Soil Soil Ferromation Feromation Ferromation <t< td=""><td>1,4-Difluorob</td><td>enzene</td><td></td><td>0.0347</td><td>0.0300</td><td>116</td><td>70-130</td><td></td></t<>	1,4-Difluorob	enzene		0.0347	0.0300	116	70-130	
Lab Batch #: 3083865 Sample: 618678-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 03/28/19 20:09 SURROGATE RECOVERY STUDY Ecovery [BTEX by EPA 8021B Amount [B] % R Control Limits % R F Analytes 0.0343 0.0300 114 70-130 E 1.4-Difluorobenzene 0.0343 0.0300 131 70-130 E Lab Batch #: 308357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Solid Lab Batch #: 308357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Solid Lab Batch #: 308375 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid I.imits % R Recovery % SR Recovery % SR Recovery % SR Recovery % SR I.imits % R Recovery % SR R R R Recovery % SR R R R R Recovery % SR R R R R R	4-Bromofluor	obenzene		0.0368	0.0300	123	70-130	
Units:mg/kgDate Analyzed: $3U2RFOGATE RECOVERY SUUTY$ BTEX by EPA 8021BAmount AnalytesAmount Found [A]True Amount [B]Recovery $\frac{9}{90}$ R [D]Control Limits $\frac{9}{90}$ R [D]70-13011.4-Difluorobenzene0.03430.030011470-13014-Bromofluorobenzene0.03430.030013170-1301Lab Batch #:3083357Sample:7674328-1-BLK / BLK PARABatch:1Matrix: SolidSolidLab Batch #:3083357Sample:7674328-1-BLK / BLK PARABatch:1Matrix: Matrix: SolidControl LimitsII-Chlorooctane03/25/19 21:25SURROGATE RECOVERYControl Nomunt [B]Control Nomunt Nomunt [B]Recovery Nomunt Nomunt ParaControl Nomunt Nomunt [B]Control Nomunt Nomunt Nomunt (B]Control Nomunt Nomunt Nomunt Nomunt Nomunt Nomunt (B]Control Nomunt 	Lab Batch #	: 3083865	Sample: 618678-006 / SMP	Batch:	1 Matrix	: Soil		
BTEX by EPA 8021B Analytes Amount [A] True Amount [B] Recovery %R [D] Control 1%R %R F 1.4-Difluorobenzene 0.0343 0.0300 114 70-130 2 Lab Batch #: 3083357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Solid 5 Lab Batch #: 3083357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Solid 5 Units: mg/kg Date Analyzed: 03/25/19 21:25 SURROGATE Recovery %R Control Limits F Analytes 1/6 100 106 70-130 1 1-Chorooctane 106 100 108 70-135 1 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid Lab Batch #: 3083758 Sample: 7674524-1-BLK / BLK Batch: 1 <	Units:	mg/kg	Date Analyzed: 03/28/19 20:09	SUR	ROGATE R	ECOVERY S	STUDY	
1.4-Difluorobenzene 0.0343 0.0300 114 70-130 4-Bromofluorobenzene 0.0393 0.0300 131 70-130 Lab Batch #: 3083357 Sample: 7674328-1-BLK / BLK Batch : 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/25/19 21:25 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [B] Recovery % R [D] Control Limits % R F 1-Chlorooctane 106 100 106 70-135 Control Limits F 1-Chlorooctane 106 100 106 70-135 Control Limits F 1-Stab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 07:40 SURROGATE RECOVERY STUDY Limits BTEX by EPA 8021B Amount [A] True Amount [B] Recovery % R [D] Control Limits F 1.4-Difluorobenzene 0.0352 0.0300 113 70-130 I 1.4-Difluorobenzene 0.0339 0.0300 113 70-130 I Lab Batch #: 308365 Sample:		BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene 0.0393 0.0300 131 70-130 Lab Batch #: 3083357 Sample: 7674328-1-BLK / BLK Batch : 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/25/19 21:25 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [B] Recovery %R Control Linnits %R P 1-Chlorooctane 106 100 106 70-135 0 1-Chlorooctane 106 100 106 70-135 0 1-Chlorooctane 106 100 106 70-135 0 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch : 1 Matrix: Solid V Units: mg/kg Date Analyzed: 03/28/19 07:40 SURROGATE RECOVERY STUDY V BTEX by EPA 8021B Amount [A] [B] Matrix: Solid V 1.4-Difluorobenzene 0.0339 0.0300 111 70-130 0 1.4-Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch : 1 Matrix: Solid V Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch : 1 Matrix: Solid V	1,4-Difluorob	enzene	•	0.0343	0.0300	114	70-130	
Lab Batch #: 3083357 Sample: 7674328-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/25/19 21:25 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] Amount [A] True Mamount [B] Recovery %R Control Limits F 1-Chlorooctane 106 100 106 70-135 0 1-Chlorooctane 54.0 50.0 108 70-135 0 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 O7:40 True Amount [A] Matrix: Solid To135 0 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 O3/28/19 0.0330 1117 70-130 1.4-Difluorobenzene	4-Bromofluor	obenzene		0.0393	0.0300	131	70-130	**
Units:mg/kgDate Analyzed: $03/25/19$ $21:25$ SURROGATE RECOVERY STUDYTIPH by SW8015 ModAmountAmountFoundTrueRecoveryControlLinik%RI-Chlorooctane10610010670-1350i-Chlorooctane10610010670-1351i-Chlorooctane54.050.010870-1351i-Chlorooctane54.050.010870-1351i-Chlorooctane03/28/1907:4521-1-BLK / BLKBatch:1Matrix:SolidUnits:mg/kgDate Analyzed:03/28/1907:400SURROGATE RECOVERY STUDYIBTEX by EPA 8021BAmount Found [A]True AnalytesControl [B]Recovery %R [D]Control LinitsF1.4-Difluorobenzene0.03520.030011370-13014-Bromofluorobenzene0.03390.030011370-1301Lab Batch #:3083865Sample:7674624-1-BLK / BLKBatch:1Matrix:SultUnits:mg/kgDate Analyzed:03/28/1918:54Sult1Matrix:SultUnits:mg/kgDate Analyzed:03/28/1918:54Sult1Matrix:Sult1.4-Difluorobenzene0.03480.030011670-13011.4-Difluorobenzene0.03480.030011670-1301	Lab Batch #	: 3083357	Sample: 7674328-1-BLK / B	BLK Batch:	1 Matrix	: Solid		
TPH by SW8015 Mod Analytes Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R [D] F 1-Chlorooctane 106 100 106 70-135 7 1-Chlorooctane 54.0 50.0 108 70-135 7 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid 7 Units: mg/kg Date Analyzed: 03/28/19 07:40 SURROGATE RECOVERY STUDY 7 BTEX by EPA 8021B Amount [A] Amount [B] Recovery %R [D] Control Limits %R F 1.4-Difluorobenzene 0.0352 0.0300 117 70-130 7 4-Bromofluorobenzene 0.0339 0.0300 113 70-130 7 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch: 1 Matrix: Solid 7 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch: 1 Matrix: Solid 7 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch: 1 Matrix: Solid 7 <t< td=""><td>Units:</td><td>mg/kg</td><td>Date Analyzed: 03/25/19 21:25</td><td>SUR</td><td>ROGATE R</td><td>ECOVERY S</td><td>STUDY</td><td></td></t<>	Units:	mg/kg	Date Analyzed: 03/25/19 21:25	SUR	ROGATE R	ECOVERY S	STUDY	
Analytes [D] [D] 1-Chlorooctane 106 100 106 70-135 0 o-Terphenyl 54.0 50.0 108 70-135 0 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch : 1 Matrix: Solid 0 Units: mg/kg Date Analyzed: 03/28/19 07:40 SURFOGATE RECOVERY STUDY 1 Imits: % Recovery % R (D) Control Limits % Recovery % R (D) P BTEX by EPA 8021B Amalytes 0.0352 0.0300 117 70-130 0 1.4-Difluorobenzene 0.0339 0.0300 113 70-130 0 4-Bromofluorobenzene 0.0328/19 18:54 SURFOGATE RECOVERY STUDY 0 0 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch : 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 18:54 SURFOGATE RECOVERY STUDY 1 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch :: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 18:54		TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1-Chlorooctane 106 100 106 70-135 0 o-Terphenyl 54.0 50.0 108 70-135 0 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid 0 Units: mg/kg Date Analyzed: 03/28/19 07:40 SURROGATE RECOVERY STUDY 0 <td></td> <td></td> <td>Analytes</td> <td></td> <td></td> <td>[D]</td> <td></td> <td></td>			Analytes			[D]		
o-Terphenyl 54.0 50.0 108 70-135 Lab Batch #: 3083758 Sample: 7674521-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 07:40 SURROGATE RECOVERY STUDY BTEX by EPA 8021B Amount Analytes Amount [A] True Amount [B] Recovery %R [D] Control Limits %R F 1.4-Difluorobenzene 0.0352 0.0300 117 70-130 4 4-Bromofluorobenzene 0.0339 0.0300 113 70-130 1 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 18:54 Batch: 1 Matrix: Solid BTEX by EPA 8021B Amount [A] Found [A] True Amount [B] Recovery %R [D] Control Limits %R F J.4-Difluorobenzene 0.0348 0.0300 116 70-130 F	1-Chlorooctar	ne		106	100	106	70-135	
Lab Batch #: 3083758Sample: 7674521-1-BLK / BLKBatch:1Matrix: SolidUnits:mg/kgDate Analyzed: 03/28/19 07:40SURROGATE RECOVERY STUDYBTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RF1,4-Difluorobenzene0.03520.030011770-13044-Bromofluorobenzene0.03390.030011370-130113Lab Batch #:3083865Sample: 7674624-1-BLK / BLKBatch:1Matrix: Solid113Units:mg/kgDate Analyzed: 03/28/19 18:54SURROGATE RECOVERY STUDY500011370-130BTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RF1,4-Difluorobenzene0.03480.030011670-130	o-Terphenyl			54.0	50.0	108	70-135	
Units:mg/kgDate Analyzed: $03/28/19$ SURROGATERECOVERYSUDYBTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery $%R$ [D]Control Limits $%R$ [D]F1,4-Difluorobenzene0.03520.030011770-130	Lab Batch #	: 3083758	Sample: 7674521-1-BLK / H	BLK Batch:	1 Matrix	: Solid		
BTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RF1,4-Difluorobenzene0.03520.030011770-13004-Bromofluorobenzene0.03390.030011370-13004-Bromofluorobenzene0.03390.030011370-1300Lab Batch #: 3083865Sample: 7674624-1-BLK / BLKBatch:1Matrix: SolidVUnits:mg/kgDate Analyzed: 03/28/19 18:54SURFOGATE RECOVERY STUDYSURFOGATE RECOVERY STUDYBTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R (D]Control Limits %RF1,4-Difluorobenzene0.03480.030011670-13016	Units:	mg/kg	Date Analyzed: 03/28/19 07:40	SUR	ROGATE R	ECOVERY S	STUDY	
1,4-Difluorobenzene 0.0352 0.0300 117 70-130 4-Bromofluorobenzene 0.0339 0.0300 113 70-130 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 18:54 SURROGATE RECOVERY STUDY True BTEX by EPA 8021B Amount Found [A] True Amount [B] %R [D] Control Limits %Recovery %R [D] %R [D] F 1,4-Difluorobenzene 0.0348 0.0300 116 70-130 F		ВТЕУ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene 0.0339 0.0300 113 70-130 Lab Batch #: 3083865 Sample: 7674624-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 03/28/19 18:54 SURROGATE RECOVERY STUDY BTEX by EPA 8021B Amount [A] True Amount [A] Recovery %R [D] Control Limits %R F 1,4-Difluorobenzene 0.0348 0.0300 116 70-130	1,4-Difluorob	enzene		0.0352	0.0300	117	70-130	
Lab Batch #:3083865Sample:7674624-1-BLK / BLKBatch:1Matrix:SolidUnits:mg/kgDate Analyzed:03/28/1918:54SURROGATERECOVERYSTUDYBTEX by EPA 8021BAmount [A]True [B]Recovery %R [D]Control Limits %RF1,4-Difluorobenzene0.03480.030011670-130	4-Bromofluor	obenzene		0.0339	0.0300	113	70-130	
Units: mg/kg Date Analyzed: 03/28/19 18:54 SURROGATE RECOVERY SUDY BTEX by EPA 8021B Amount [A] True Amount [B] Recovery %R [D] Control Limits %R [D] F 1,4-Difluorobenzene 0.0348 0.0300 116 70-130	Lab Batch #	: 3083865	Sample: 7674624-1-BLK / H	BLK Batch:	1 Matrix	: Solid	1	
BTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R %R [D]F1,4-Difluorobenzene0.03480.030011670-130	Units:	mg/kg	Date Analyzed: 03/28/19 18:54	SUR	ROGATE R	ECOVERY S	STUDY	
1,4-Difluorobenzene 0.0348 0.0300 116 70-130		BTE	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	1,4-Difluorob	enzene	•	0.0348	0.0300	116	70-130	
4-Bromofluorobenzene 0.0327 0.0300 109 70-130	4-Bromofluor	obenzene		0.0327	0.0300	109	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Work Orders: 618678, Lab Batch #: 3083357

mg/kg

TPH by SW8015 Mod

Analytes

Units:

1-Chlorooctane o-Terphenyl

Form 2 - Surrogate Recoveries

Project Name: GJ West

G 1 7/7/200 1 DVG //		Project ID:	0.1.1		
Sample: 7674328-1-BKS7	BKS Bate	h: 1 Matrix	Solid		
Date Analyzed: 03/25/19 21:44	SU	RROGATE R	ECOVERY	STUDY	
SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
alytes			[D]		
	127	100	127	70-135	
	56.7	50.0	113	70-135	

Sample: 7674521-1-BKS / BKS Lab Batch #: 3083758 Batch: 1 Matrix: Solid

Units:	mg/kg	Date Analyzed: 03/28/19 06:07	SU	RROGATE RI	ECOVERY S	STUDY	
	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	robenzene		0.0333	0.0300	111	70-130	
4-Bromoflu	uorobenzene		0.0335	0.0300	112	70-130	
Lab Batch	#: 3083865	Sample: 7674624-1-BKS / 1	BKS Bate	h: 1 Matrix:	Solid		

mø/kø Units

Units:	mg/kg	Date Analyzed: 03/28/19 17:20	SU	RROGATE RI	ECOVERY S	STUDY	
	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene		0.0337	0.0300	112	70-130	
4-Bromoflu	orobenzene		0.0324	0.0300	108	70-130	
Lab Batch	#: 3083357	Sample: 7674328-1-BSD / 1	BSD Batch	n: 1 Matrix:	Solid	•	

Units: mg/kg

Date Analyzed: 03/25/19 22:03

Matrix: Solid

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70 125	
1-Chiofooetane	124	100	124	70-135	
o-Terphenyl	56.3	50.0	113	70-135	
Lab Batch #: 3083758 Sample: 7674521-1-BSD /	BSD Batch	n: 1 Matrix:	Solid		

Units: mg/kg Date Analyzed: 03/28/19 06:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0330	0.0300	110	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: GJ West

Work Oi Lab Batch	r ders : 61867 #: 3083865	8, Sample: 7674624-1-BSD /	BSD Batcl	Project ID	: :: Solid		
Units:	mg/kg	Date Analyzed: 03/28/19 17:39	SU	RROGATE R	ECOVERY	STUDY	
	BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes					
1,4-Difluor	obenzene		0.0335	0.0300	112	70-130	
4-Bromoflu	orobenzene		0.0320	0.0300	107	70-130	
Lab Batch	#: 3083357	Sample: 618713-021 S / M	S Batcl	h: 1 Matrix	: Soil		
U nits:	mg/kg	Date Analyzed: 03/25/19 22:41	SU	RROGATE R	RECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooc	tane		125	100	125	70-135	
o-Terpheny	1		54.0	50.0	108	70-135	
Lab Batch	#: 3083758	Sample: 619201-001 S / M	S Batcl	h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/28/19 06:45	SU	RROGATE R	ECOVERY	STUDY	
	BTEX	K by EPA 8021B	Amount Found	True Amount	Recovery	Control Limits	Flags
		Analytes	[A]	[B]	%R [D]	%R	
1,4-Difluor	obenzene		0.0323	0.0300	108	70-130	
4-Bromoflu	orobenzene		0.0390	0.0300	130	70-130	
Lab Batch	#: 3083865	Sample: 619284-001 S / M	S Batel	h: 1 Matrix	Soil	1	
Units:	mg/kg	Date Analyzed: 03/28/19 17:58	SU	RROGATE R	ECOVERY	STUDY	
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0339	0.0300	113	70-130	
4-Bromoflu	orobenzene		0.0339	0.0300	113	70-130	
Lab Batch	#: 3083357	Sample: 618713-021 SD / 1	MSD Batcl	h: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 03/25/19 23:00	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

1-Chlorooctane

o-Terphenyl

115

48.8

100

50.0

115

98

70-135

70-135



Project Name: GJ West

Work O	rders : 618678	3,		Project ID:			
Lab Batch	#: 3083758	Sample: 619201-001 SD / M	MSD Batcl	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 03/28/19 07:04	SU	RROGATE RI	ECOVERY S	STUDY	
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		L
1,4-Difluor	robenzene		0.0332	0.0300	111	70-130	
4-Bromoflu	ıorobenzene		0.0365	0.0300	122	70-130	
Lab Batch	#: 3083865	Sample: 619284-001 SD / M	MSD Batcl	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 03/28/19 18:17	SU	RROGATE RI	ECOVERY	STUDY	
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0339	0.0300	113	70-130	
4-Bromoflu	ıorobenzene		0.0338	0.0300	113	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



BS / BSD Recoveries



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Project Name: GJ West

work Urder #: 618678							Proj	ect ID:			
Analyst: SCM	Da	ate Prepar	ed: 03/27/202	19			Date A	nalyzed: (03/28/2019		
Lab Batch ID: 3083758 Sample: 7674521-1-	BKS	Batcl	n #: 1					Matrix:	Solid		
Units: mg/kg		BLAN	K /BLANK	SPIKE / 1	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
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	<0.00199	0.0996	0.122	122	0.0998	0.119	119	2	70-130	35	
Toluene	<0.00199	0.0996	0.120	120	0.0998	0.117	117	3	70-130	35	
Ethylbenzene	< 0.000563	0.0996	0.102	102	0.0998	0.100	100	2	70-130	35	
m,p-Xylenes	<0.00101	0.199	0.198	99	0.200	0.196	98	1	70-130	35	
o-Xylene	< 0.00199	0.0996	0.101	101	0.0998	0.0997	100	1	70-130	35	
				-							
Analyst: ALJ	D	ate Prepar	ed: 03/28/202	19			Date A	nalyzed: (03/28/2019		
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1-	D: BKS	ate Prepar Batcl	ed: 03/28/202	19			Date A	nalyzed: (Matrix: S) 03/28/2019 Solid	1	
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1- Units: mg/kg	BKS	ate Prepar Batcl BLAN	ed: 03/28/202 h #: 1 K /BLANK	19 SPIKE / 1	BLANK S	SPIKE DUP	Date A	nalyzed: (Matrix: \$ RECOV))) 	DY	ļ
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1- Units: mg/kg BTEX by EPA 8021B Analytes	Da BKS Blank Sample Result [A]	ate Prepar Batcl BLAN Spike Added [B]	ed: 03/28/203 h #: 1 K /BLANK S Blank Spike Result [C]	SPIKE /] Blank Spike %R [D]	BLANK S Spike Added [E]	SPIKE DUP Blank Spike Duplicate Result [F]	Date A LICATE Blk. Spk Dup. %R [G]	nalyzed: (Matrix: \$ RECOV RECOV \$	D3/28/2019 Solid ERY STUI Control Limits %R	DY Control Limits %RPD	Flag
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1- Units: mg/kg BTEX by EPA 8021B Analytes Benzene	Da BKS Blank Sample Result [A] <0.00198	ate Prepar Batcl BLAN Spike Added [B] 0.0992	ed: 03/28/202 h #: 1 K /BLANK 3 Blank Spike Result [C] 0.122	SPIKE /] Blank Spike %R [D] 123	BLANK S Spike Added [E] 0.0996	Blank Spike Duplicate Result [F] 0.129	Date A LICATE Blk. Spk Dup. %R [G] 130	nalyzed: (Matrix: S RECOV RPD % 6	D3/28/2019 Solid ERY STUI Control Limits %R 70-130	DY Control Limits %RPD 35	Flag
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1- Units: mg/kg BTEX by EPA 8021B Analytes Benzene Toluene	D: BKS Blank Sample Result [A] <0.00198 <0.00198	ate Prepar Batcl BLAN Spike Added [B] 0.0992 0.0992	ed: 03/28/202 h #: 1 K /BLANK Spike Result [C] 0.122 0.118	SPIKE / 1 Blank Spike %R [D] 123 119	BLANK S Spike Added [E] 0.0996	SPIKE DUP Blank Spike Duplicate Result [F] 0.129 0.126	Date A LICATE Blk. Spk Dup. %R [G] 130 127	nalyzed: (Matrix: S RECOV RPD % 6 7	D3/28/2019 Solid ERY STUI Control Limits %R 70-130 70-130	DY Control Limits %RPD 35 35	Flag
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1- Units: mg/kg BTEX by EPA 8021B Analytes Benzene Toluene Ethylbenzene	D: BKS Blank Sample Result [A] <0.00198 <0.00198 <0.00198	ate Prepar Batcl BLAN Spike Added [B] 0.0992 0.0992 0.0992	ed: 03/28/202 h #: 1 K /BLANK S Blank Spike Result [C] 0.122 0.118 0.101	SPIKE / 1 Blank Spike %R [D] 123 119 102	BLANK S Spike Added [E] 0.0996 0.0996	SPIKE DUP Blank Spike Duplicate Result [F] 0.129 0.126 0.107	Date A LICATE Blk. Spk Dup. %R [G] 130 127 107	nalyzed: (Matrix: S RECOV RPD % 6 7 6	D3/28/2019 Solid ERY STUI Control Limits %R 70-130 70-130 70-130	Control Limits %RPD 35 35 35 35	Flag
Analyst: ALJ Lab Batch ID: 3083865 Sample: 7674624-1- Units: mg/kg BTEX by EPA 8021B Analytes Benzene Toluene Ethylbenzene m,p-Xylenes	D: BKS Blank Sample Result [A] <0.00198 <0.000560 <0.00101	ate Prepar Batcl BLAN Spike Added [B] 0.0992 0.0992 0.0992 0.198	ed: 03/28/202 h #: 1 K /BLANK Spike Result [C] 0.122 0.118 0.101 0.197	Blank Spike %R [D] 123 119 102 99 99	BLANK S Spike Added [E] 0.0996 0.0996 0.0996 0.199	SPIKE DUP Blank Spike Duplicate Result [F] 0.129 0.126 0.107 0.209	Date A LICATE Blk. Spk Dup. %R [G] 130 127 107 105	nalyzed: (Matrix: S RECOV % 6 7 6 6 6 6	D3/28/2019 Solid ERY STUI Limits %R 70-130 70-130 70-130 70-130	DY Control Limits %RPD 35 35 35 35 35	Flag

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

Version: 1.%



BS / BSD Recoveries



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Project Name: GJ West

Work Orde	er #: 618678							Proj	ject ID:			
Analyst:	SPC	D	ate Prepar	red: 03/25/20	19			Date A	nalyzed: (03/25/2019		
Lab Batch II	D: 3083312 Sample: 767429	7-1-BKS	Batc	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K/BLANK	SPIKE /]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
	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
Ana	lytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	e	< 0.858	250	256	102	250	256	102	0	90-110	20	
Analyst:	ARM	D	ate Prepar	ed: 03/25/20	19			Date A	nalyzed: (03/25/2019		
Lab Batch II	D: 3083357 Sample: 767432	8-1-BKS	Batc	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K /BLANK	SPIKE /]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Anal	TPH by SW8015 Mod	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
Gasoline	e Range Hydrocarbons (GRO)	<8.00	1000	1120	112	1000	1100	110	2	70-135	20	
Diesel R	Range Organics (DRO)	<8.00	1000	1120	112	1000	1050	105	5	70-135	20	
Dieserik	unge organies (Brio)	<0.1J	1000	1100	110	1000	1050	105	5	10-155	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

Version: 1.%



Form 3 - MS / MSD Recoveries

Project Name: GJ West



Work Order # :	618678						Project II):				
Lab Batch ID:	3083758	QC- Sample ID:	619201	-001 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	03/28/2019	Date Prepared:	03/27/2	019	An	nalyst: S	SCM					
Reporting Units:	mg/kg		M	IATRIX SPIK	E / MAT	'RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	BTEX by EPA 8021B	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]	L - J	[D]	[E]		[G]				
Benzene		0.000481	0.0992	0.0942	94	0.100	0.114	114	19	70-130	35	
Toluene		0.00906	0.0992	0.102	94	0.100	0.116	107	13	70-130	35	
Ethylbenzene		0.0786	0.0992	0.0851	7	0.100	0.0959	17	12	70-130	35	X
m,p-Xylenes		0.0665	0.198	0.188	61	0.201	0.211	72	12	70-130	35	X
o-Xylene		0.0339	0.0992	0.0971	64	0.100	0.107	73	10	70-130	35	X
Lab Batch ID:	3083865	QC- Sample ID:	619284	-001 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	03/28/2019	Date Prepared:	03/28/2	.019	An	alyst: 4	ALJ					
Reporting Units:	mg/kg		\mathbf{M}	IATRIX SPIK	E / MAT	'RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	BTEX by EPA 8021B	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]				
Benzene		<0.000383	0.0996	0.102	102	0.100	0.113	113	10	70-130	35	
Toluene		<0.000454	0.0996	0.0985	99	0.100	0.108	108	9	70-130	35	
Ethylbenzene		<0.000563	0.0996	0.0829	83	0.100	0.0914	91	10	70-130	35	
m,p-Xylenes		< 0.00101	0.199	0.163	82	0.201	0.179	89	9	70-130	35	

0.000349

0.0996

0.0816

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

o-Xylene

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

82

0.100

0.0896

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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89

9

70-130

35



Form 3 - MS / MSD Recoveries



Project Name: GJ West

Work Order # :	618678						Project II):				
Lab Batch ID:	3083312	QC- Sample ID:	618678	-002 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	03/25/2019	Date Prepared:	03/25/2	019	An	alyst: S	SPC					
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	Chloride by EPA 300	Parent Sample Result	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample Besult [F]	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	[B]	[C]	[D]	[E]	Kesunt [F]	[G]	/0	70K	70KI D	
Chloride		103	249	364	105	249	364	105	0	90-110	20	
Lab Batch ID:	3083312	QC- Sample ID:	618757	-004 S	Ba	tch #:	1 Matri	x: Soil				
Date Analyzed:	03/25/2019	Date Prepared:	03/25/2	019	An	alyst: S	SPC					
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	Chloride by EPA 300	Parent Sample Posult	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%K [D]	E]	Kesuit [F]	%K [G]	70	% K	%KPD	
Chloride		24.8	250	283	103	250	284	104	0	90-110	20	
Lab Batch ID:	3083357	QC- Sample ID:	618713	-021 S	Ba	tch #:	1 Matri	x: Soil				
Date Analyzed:	03/25/2019	Date Prepared:	03/25/2	.019	An	alyst: A	ARM					
Reporting Units:	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%к [D]	Added [E]	Result [F]	%К [G]	%	%K	%RPD	
Gasoline Rang	ge Hydrocarbons (GRO)	<8.00	1000	1160	116	1000	1020	102	13	70-135	20	
Diesel Range	Organics (DRO)	12.3	1000	1140	113	1000	1010	100	12	70-135	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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Page 16 of 18

Setting the Standard since 1990									
Stafford, Lexas (281-240-4200)			•	0)dessa, T	exas (43)	2-563-1800)	Lal	keland, Florida (863-646-8526)
Dallas, Texas (214-902-0300)				7	lorcross,	Georgia	(770-449-8800)	Ta	npa, Florida (813-620-2000)
Service Center - San Antonio, Texas (210-	(09-3334)		www.xenco.com	×	enco Quote	3#	Xet	nco Job #	11/10/07
						Analyt	ical Information		Matrix Codes
Client / Reporting Information			Project Information						
Company barner Branch:		Project Name	Wumber: WeSt		x)		*****		A= Air S = Soil/Sed/Solid
10 Pestic Dr STE ISOE			HUN ENLH		(BTE))			GW =Ground Water DW = Drinking Water P = Product
istoff() Officso which we	Phone No: ?		λ.		218 (TPH	oride			SW = Surface water SL = Sludge WW = Waste Water
Project Contact-Jacel Stoffel		PO Number:			80i 1	(h)			W = Wipe
Samplers's Name-Jaced Stoff()					46- 151	(WW= Waste Water
]	Collection	Number of	preserved bottles	1 80 80	00	;		
No. Field ID / Point of Collectic	n San	nple T	Matrix bottes 4Cl 4Cl Accetate	H2SO4 NaOH NaHSO4 MEOH NONE	SV SW	E3	110 11		
1 58-1 @ 35		3/21/1/ 10	1 1 1 1 00	×	x x	×			
2 SB-1 @ 401		3/21/10 10	010 Soil 1	×	××	×			
3 <u>3</u> 2 <u>6</u> 20		3/21/113	50 3011	~	×	×			
4 SB-2 @ 25		1/11/14	1 100 5001	*	× ×	×			
5 SB-2 (2) 30,		That we we	10 501 1	*	XX	*			
6 38 - 32 3		1/1/14 1	420 5011 1	×	×	* .			
10									
Turnaround Time (Business days)			Data Deliverable Information				Notes:		
Same Day TAT	5 Day TAT		Level II Std QC	Level IV (Full Data Pkg /	raw data)				
Next Day EMERGENCY	7 Day TAT		Level III Std QC+ Forms	TRRP Level IV					
2 Day EMERGENCY	Contract TAT		Level 3 (CLP Forms)	UST / RG -411					
3 Day EMERGENCY			TRRP Checklist						
TAT Starts Day received by Lab, if re	ceived by 3:00 pm						FED-EX / UPS	3: Tracking #	
Reproduished by Sampler.		Time: R	Byyed By A L 10 P	Relinquished By:	RER DELIV	Date Tim		eceived By:	
Refinit uished by:	Date	Time: Re	ceived By:	Relinquished By:		Date Tin	e:	eceived By:	
Relinquished by: 5	Date	Time: Re	sceived By:	Custody Seal #	Pres	served who	ere applicable	() On too	Cooler Temp. Thermo. Corr. Factor
Notice: Signature of this document and relinquishment of sa	mples constitutes a valid p	ourchase order from clier	nt company to XENCO Laboratories and its affi	liates, subcontractors and assig	gns XENCO	's standard	terms and condition	is of service unless p	reviously negiotiated under a fully executed client contract.

RATORIES O

CHAIN OF CUSTODY Page Δ of Δ Received by OCD: 4/7/2023 9:35:52 AM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 03/22/2019 04:18:00 PM Temperature Measuring device used : R8 Work Order #: 618678 Comments Sample Receipt Checklist -.1 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? N/A #18 Water VOC samples have zero headspace?

* 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: 03/22/2019

N/A

Checklist reviewed by:

Vike Kimmel

Date: 03/27/2019
COG- GJ West #108 (2RP-4351)

Date: 4/12/2019



COG- GJ West #108 (2RP-4351) Date: 4/12/2019



5

6

COG- GJ West #011 (2RP-4454) Date: 4/12/2019

Photographic Documentation Photograph No. Date: 9/17/2018 Direction: North **Description:** View of excavated area. Photograph No. Si kin Date: 9/17/2018 Direction: South **Description:** View of excavated area.

COG- GJ West #011 (2RP-4454) Date: 4/12/2019



COG- GJ West #011 (2RP-4454) Date: 4/12/2019



District 1 1625 N. French Dr., Hobbs, NM 88240 District 11

BII S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1270 S. S. F.

1220 S. St. Francis Dr., Santa Fc, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

Page 114 of 116

State of New Mexico	ARTES	IA D	ISTRIC
Energy Minerals and Natural Resour	ceAUG	17	7 2017

Oil Conservation Division 1220 South St. Francis Dr. Form C-141 Revised August 8, 2011

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

Santa Fe, NM 87505	
Notification and Convert	

Release Notification and Corrective Action

NAB1723329504	OPERATOR	Initial Report	Final Report
Name of Company: COG Operating LLC OGRID	# 229137 Contact:	Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 7	79701 Telephone No.	432-683-7443	
Facility Name: G J West Coop Unit #108	Facility Type:	Well	
Surface Owner: State Mine	eral Owner: State	API No. 30-015-2	0192

Surface Owner: State Mineral Owner: State

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	28	175	29Ē	1980	North	660	West	Eddy

Latitude 32.8073502 Longitude -104.0862198

NATURE OF RELEASE

Type of Release: Volume of Release: Volume Recovered: Source of Release: Plaged Weil J075 bbl. J005 bbl. J055 bbl. Source of Release: Plaged Weil August 7, 2017 12:00 pm August 7, 2017 12:00 pm Was Immediate Notice Given? Ø Yes No Not Required Mress, 2017 12:00 pm August 7, 2017 12:00 pm Was a Watercourse Reached? Yes No Not Required Mress, 2017 8:42 am Mress, 2017 8:42 am Was a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* If YES, Volume Impacting the Watercourse. If YES, Volume Impacting the Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* The release was from a well that was previously plagged in 2015. The release was discovered by air patrol and immediate actions were taken to regain control of the vell. The well will be re-plagged. The release is currently under control, if additional fluids are tost subsequent to the filling of this Initial C 141 a revised C-141 will be re-plagged. The release of action release and we will present a remediation work all that the filling patrol and immediate actions were taken to regain and patrol. The release was on location. A liner was installed to capture produced water and limit impact to soil. Vacuum trucks were dispatched to remove all freestanding fluids. Approximately 1,008 cubic yards of impacted and water as ava			
Source of Release: Produced Water Jobs ball. Yource of Release: Pigged Well Date and Hour of Occurrence: August 7, 2017 12:00 pm Date and Hour of Occurrence: August 7, 2017 12:00 pm Was Immediate Noice Given? By Whom? Rebecea Haskell Mires To Whom? Ms. Weaver - NMOCD / Ms. Groves - SLO By Whom? Rebecea Haskell Date and Hour: August 9, 2017 8:42 am Ms. Weaver - NMOCD / Ms. Groves - SLO Was a Watercourse Resched? Yes Ø No If YES, Volume Impacting the Watercourse. The aver of the Resched? Yes Ø No If Yes Ø No Describe Cause of Problem and Remedial Action Taken.* The release was from a well that was previously plagged in 2015. The release was discovered by air patrol and immediate actions were taken to regain control of the well. The well will be replagged. The release is currently under control, if additional fluids are lost subsequent to the filling of this Initial C 141 a revisad C-141 will be submitted with updated volumes. Describe Area Affected and Cleanup Action Taken.* The release was no location. A liner was installed to capture produced water and limit impact to soil. Vacuum trucks were dispatched to remove all freestanding fluids. Approximately 1,008 cubic yards of impacted soil was excavated and taken to a NMOCD approved disposal facility. Concho will have significant renediation and reform the release and we will present a remediation work plan to the NMOCD for approval provide disposal facility. Concho will have significant remediation and reform corner reduced as "final Report" does not release which may endager public health or the environment. The acceptance of a C-141 report by the NM	Type of Release:	Volume of Release:	Volume Recovered:
Source of Release: Date and Hour of Occurrence: Was Inmediate Notice Given? Styles No Not Required Mrs. Waver – NMOCD / Ms. Groves – SLO By Whom? Rebecea Haskell Date and Hour: August 7, 2017 2:42 am If YES, Volume Impacting the Watercourse. Was a Watercourse Reached? Yes Ø No Not Required Nrs. Waver – NMOCD / Ms. Groves – SLO Describe Cause of Problem and Remedial Action Taken.* If YES, Volume Impacting the Watercourse. If YES, Volume Impacting the Watercourse. Describe Cause of Problem and Remedial Action Taken.* The release was from a well that was previously plagged in 2015. The release is currently under control, if additional fluids are lost subsequent to the filling of this finital C 141 are release was on location. A liner was installed to capture produced water and timit impact to soil. Vacuum trucks were dispatched to remove all freestanding fluids. Approximately 1,008 cubic yards of impactod soil was excavated and taken to a NMOCD approved disposal facility. Concho will have height and analytic to adoptately into the additional divides are used understand that pursuent to NMOCD rules and regulations and poprovid approved disposal facility. Concho will have height operation function group and/or file certain release und remoting on and unsert to NMOCD rules and regulations and poprovid approved disposal facility. Concho will have height operation function group and/or file certain release notifications and perform corrective aton preleve th opproval	Produced Water	3,075 661.	<u>3,055 bbl.</u>
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With Hamedular Notice Order Yes No No Required Ms. Weaver - NMOCD / Ms. Groves - SLO By Whom? Rebecta Hiskell Date and Hour. August 9, 2017 3:42 am. If YES, Volume Impacting the Watercourse. Was a Watercourse was Impacted, Describe Fully.* If a Watercourse was Impacted, Describe Fully.* If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* The release was from a well that was previously plugged in 2015. The release was discovered by air patrol and immediate actions were taken to regain control of the well. The well will be re-plugged. The release is carrently under control, if additional fluids are lost subsequent to the filling of this Initial C 141 a revised C-141 will be submitted with updated volumes. Describe Cause on location. A liner was installed to capture produced water and limit impact to soil. Vacuum trucks were dispatched to remove all freestanding fluids. Approximately 1,098 cubic yards of impacted soil was excavated and taken to a NMOCD paproved disposal facility. Concho will have he spil 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 my significant remediation activities. There years in the excitation activities. Inter years the bast of my knowledge and understand that pursuant to NMOCD for approval prior to my significant remediation activities. The release was on location. Report does not regulation set for equival to report whet MNOCD marked as an 'Final Report' does not regulations and the regorule of a cport of resports of Inability.	Pluggeo well	1 August 7, 2017 12:00 pm	August 7, 2017 12:00 pm
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Signature: Rebute OIL CONSERVATION DIVISION Printed Name: Rebecca Haskell Approved by Environmental Specialist: WHE WHE Title: Senior HSE Coordinator Approval Date: \$\mathbf{N} 17\$ Expiration Date: N/A E-mail Address: rhaskell@concho.com Conditions of Approval: Superval Attached Attached Date: August 17, 2017 Phone: 432-683-7443 Please refer to the New Mexico Oil Attached Attached APP-4355 Attached form Singervation Division Website for Attached forms.html Thank you	The release was on location. A liner was instanted to capture produced was freestanding fluids. Approximately 1,008 cubic yards of impacted soil was the spill area sampled to delineate any possible impact from the release ar any significant remediation activities. I hereby certify that the information given above is true and complete to to regulations all operators are required to report and/or file certain release an public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediat or the environment. In addition, NMOCD acceptance of a C-141 report defearal, state, or local laws and/or regulations.	the best of my knowledge and unders notifications and perform corrective r to NMOCD marked as "Final Report te contamination that pose a threat to loes not relieve the operator of respo	approved disposal facility. Concho will have k plan to the NMOCD for approval prior to stand that pursuant to NMOCD rules and actions for releases which may endanger " does not relieve the operator of liability ground water, surface water, human health nsibility for compliance with any other
Printed Name: Rebecca Haskell Approved by Environmental Specialist: MATURE Title: Senior HSE Coordinator Approval Date: \$18/17 Expiration Date: N/A E-mail Address: thaskell@concho.com Conditions of Approval: Attached Attached Date: August 17, 2017 Phone: 432-683-7443 Please refer to the New Mexico Oil Attached Attached <td>Signature: Releva Hashell</td> <td>OIL CONSER</td> <td>VATION DIVISION</td>	Signature: Releva Hashell	OIL CONSER	VATION DIVISION
Title: Senior HSE Coordinator Approval Date: \$\begin{tabular}{lllllllllllllllllllllllllllllllllll	Printed Name: Rebecca Haskell	Approved by Environmental Specia	list: UHSEL UM
E-mail Address: thaskell@concho.com Date: August 17, 2017 Phone: 432-683-7443 Please refer to the New Mexico Oil Attach Additional Sheets If Necessary Conservation Division Website for OCD/ forms. html Thank you	Title: Senior HSE Coordinator	Approval Date: 8/18/17	Expiration Date: N/A
Date: August 17, 2017 Phone: 432-683-7443 Please refer to the New Mexico Oil Attach Additional Sheets If Necessary Conservation Division Website for OCD/ forms. html Thank you	E-mail Address: rhaskell@concho.com	Conditions of Approval:	Attached D
* Attach Additional Sheets If Necessary Conservation Division Wekico Oil <u>http://www.emnrd.state.nm.us/</u> <u>OCD/ forms.html</u> <u>Thank you</u>	Date: August 17, 2017 Phone: 432-683-7443 Please	see attac	201- 2RP-235
updated form(s) at: <u>OCD/ forms.html</u> <u>OCD/ forms.html</u> <u>Thank you</u>	r Attach Additional Sheets II Necessary Conserver	to the state	
······································	updated form(<u>http://www.em</u> <u>OCD/ forms.htm</u>	Division Website for S) at: <u>Inrd.state.nm.us/</u> Thank	
	140 Investiges 5/2/2022 2-21-24 BM	iank you	

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					ONSERVATION	SN
2istrict 625 N. French Dr., Hobbs, NM 88240 2istrict 1. S. Finn Fr. Annuin NM 68240	Sta Energy Mir	ate of 1 nerals a	Vew Mexi	co Resources	2 3 2017	Form C-141 Revised April 3, 2017
Sister III	Oil C	onser	vation Div	rision	Submit I Copy (o appropriate District Office in
000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u>	1220	South	St. Franc	is Dr. Ri	ECEIVED acc	ordance with 19.15.29 NMAC.
220 S. St. Francis Dr., Santa Fe, NM 87505	Sa	nta Fe	, NM 875	05		
	Release Notific	ation	and Co	rrective A	ction	
NABI129754125			OPERA 7	OR	🛛 Initial	Report 🔲 Final Repo
Name of Company: COG Operating,	LLC OGRID #229137	7 (Contact:	Rob	ert McNeil	
Address: 600 West Illinois Avenue, Facility Name: G I West Coop Unit #	Midland, 1X 79701		elephone N facility Typ	lo. 432- e: Injection We	583-7443 1	
		[_	acinty 1 jp	e. injection we		10.015.10927
Surrace Owner: State		wher: 2	laic		API NO.	30-015-10827
	LOCA	TION	OF REI	EASE		-
E 28 175	ange Feet from the 29E 1980	North/	South Line	Feet from the 330	East/West Line West	County Eddy
		T	-14	1.0070055	NIAD92	
L8	mude_32.80/3302	Lon	gituae104	1.08/2955	NAD83	
	NAT	URE	OF RELI	EASE	1.1/-1	1 0 740 111
Type of Release: Produced water			TBD	Kelease: Unknov	am Octobe	r 23, 2017
Source of Release: Injection Well			Date and H	our of Occurrenc	e: Date and H	lour of Discovery:
Was Immediate Notice Given?			If YES, To	, 2017 10:20 am Whom?	October 15	5, 2017 10:20 am
X Y	es 🔲 No 🔲 Not Re	equired	,	Ms. Weave	r – NMOCD / Ms. (Groves - SLO
By Whom? Rebecca Haskell			Date and H	our: October 15,	2017 12:50 pm	
Was a Watercourse Reached?	(es 🕅 No		If YES, Vo	lume Impacting t	he Watercourse.	
Describe Cause of Problem and Remedia	I Action Taken.*					
The release is from an injection well. Pro ongoing. The well will be plugged. A ber Initial C-141 will be revised with a corre Describe Area Affected and Cleanup Act The release is on location. A bern was co	duced water is coming u m was constructed aroun cted volume once the rele ion Taken.*	p to the we ad the we ease is so produce	surface. Imm surface. Imm surface. opped. d water and I	ediate actions we the produced wat imit impact to so	re taken to regain co er and is being reco I. Vacuum trucks w	ere dispatched to remove all
to the NMOCD for approval prior to any	spill area sampled to de significant remediation a	uneate a activities	ny possible il	npact from the re	icase and we will pr	esent a remediation work plan
I hereby certify that the information give regulations all operators are required to r public health or the environment. The ac should their operations have failed to ade or the environment. In addition, NMOCI federal, state, or local laws and/or regular	n above is true and comp eport and/or file certain r ceptance of a C-141 repor- quately investigate and r D acceptance of a C-141 tions.	olete to the release n ort by the remediat report d	te best of my otifications au NMOCD m e contaminations not reliev	knowledge and u nd perform correc arked as "Final R on that pose a thr e the operator of	nderstand that purse tive actions for rele eport" does not relic eat to ground water, responsibility for co	uant to NMOCD rules and ases which may endanger eve the operator of liability , surface water, human health mpliance with any other
Signature: Rebecca Has	kell			OIL CON	SERVATION	DIVISION An VILL -
Printed Name: Rebecca Hask	<u>ell</u>		Approved by	Environmental S		anive
Title: Senior HSE C	oordinator		Annroval Da	10/24/14	1 Expiration	Date: N/A
E-mail Address: shaekell@con		E^*				T
E-mail Address. masken@com	cho.com		Conditions o	f Approval:	roland	Attached Attached

* Attach Additional Sheets If Necessary

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	205120
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	5/2/2023

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Action 205120