

Ms. Olivia Yu Environmental Specialist New Mexico Oil Conservation Division – District I 1625 N. French Drive Hobbs. New Mexico 88240

Subject: 2018 Remediation Activities – Scope of Work and Cost Estimate 2018 HES Transfer Site –Vacuum Glorieta West Unit 61

Lea County, New Mexico

Dear Ms. Yu:

Arcadis U.S., Inc. (Arcadis) has prepared this scope of services to Chevron Environmental Management Company (CEMC) to perform environmental consulting services for Vacuum Glorieta West Unit (VGWU) 61 (the Site), located in Lea County, New Mexico.

The specific tasks for the proposed scope of work are detailed below.

PROJECT SUMMARY

Pursuant to New Mexico Oil Conservation Division (NMOCD) requirements (NMOCD 1993), a Notification of Release and Correction (Form C-141) detailing the location, volume of release, and initial and planned cleanup efforts taken was submitted for the site by Josie DeLeon (Chevron Mid Continent Business Unit [MCBU]). A release of approximately 121.8 bbls (bbls [42 gallons per bbls]) of produced water and 0.45 bbls of oil occurred at the Site on October 16, 2012 due to the failure of a water injection station pump. The Form C-141 is presented in Attachment 1.

RESPONSE ACTIVITIES

Chevron personnel stopped the release and recovered approximately 60 bbls of fluids using a vacuum truck. Chevron MCBU personnel excavated visually impacted soil in the area to a depth of approximately 2 feet below ground surface

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Arcadis U.S., Inc. 101 Creekside Ridge Court Suite 200 Roseville California 95678 Tel 916 786 0320 Fax 916 786 0366 www.arcadis.com

ENVIRONMENT

Date: September 13, 2018

Contact: Brett Krehbiel

Phone: 916.786.5382 Email: Brett.Krehbiel@arcadis.com Our ref: B0048616 (bgs) and collected four discrete confirmation soil samples from the base of the excavation on January 22, 2013. Soil samples were submitted for the analysis of benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) in accordance with United States Environmental Protection Agency (USEPA) Method 8021B, Total Petroleum Hydrocarbon (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) in accordance with USEPA 8015M, and chloride in accordance with USPEA Method SM45000CI-B. Information regarding the disposal of the excavated soil was not available to Arcadis. After collecting the soil samples, the excavated area was reportedly backfilled with imported soil.

In November 2013, Arcadis collected soil samples to characterize the lateral and vertical extents of potential soil impacts at the Site. Soil boring locations were selected based on the results of confirmation soil sampling completed at the Site in January 2013, locations of pipelines and other equipment at the site, and the extent of the release as documented by Chevron personnel during the initial response activities. Nine soil borings (VGWU61-01 through VGWU61-09) were installed on November 5 and 6, 2013. Six soil samples were collected from each boring location (for a total of 54 soil samples) beginning at a depth of 2 feet bgs (the approximate depth of the soil excavation in the initial release response activities) and continuing at 5-foot intervals from 5 to 25 feet bgs. Soil samples were submitted for analysis of chloride in accordance with USEPA Method 9056 and percent moisture in accordance with ASTM International Method D2216.

In September 2016, two groundwater monitoring wells (VGWU61-MW1 and VGWU61-MW2) were installed and groundwater samples were submitted for chloride analysis in accordance with USEPA Method 300.0 in September 2016, June 2017, August 2017 and July 2018.

In September and October 2017, Arcadis completed excavated impacted soils. The dimensions of the excavations were limited due to both natural and industrial features. The borders of both excavation areas were bound by underground utilities on two or more sides. Additionally, maintaining the structural integrity of facility equipment limited the excavation boundaries. The excavation depths were impacted by maintaining structural integrity of facility equipment and cap rock. A total of 19 soil samples were collected at depths between 2 and 3 feet bgs. A liner was placed at approximately 4 feet bgs and the excavated area was backfilled with clean soil. Additionally in 2017, Arcadis performed an electromagnetic (EM) conductivity survey over accessible areas of the Site covering approximately 3.2 acres on December 6 and 7 to determine background electrical conductivity (EC) response and identify EC anomalies within the surveyed area to assess the lateral extent of possible produced water-related soil and impacts. The particularly high electrical conductivity of oil field production water makes the electromagnetic detection of produced water-related impacts in soil and groundwater a reliable approach.

INVESTIGATION RESULTS

Before January 2018, all delineation activities were targeting a remediation/delineation goal of under 600 mg/kg. Pursuant to NMED Rule 29, monitoring wells installed in September 2016 (VGWU61-MW1 and VGWU61-MW2) were sampled and submitted for chloride analysis in accordance with USEPA Method 300.0 in September 2016, June 2017, and July 2018. The highest chloride concentrations detected

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Ms. Olivia Yu September 13, 2018

were; 293 mg/l at VGWU61-MW1 in June 2017 and 98.9 mg/l at VGWU61-MW2 in July 2018. During the July 2018 groundwater sampling event the static water level at VGWU61-MW1 was 128.78' and 128.45 at VGWU61-MW2. Referencing Table I from NMED Rule 29, the closure release limit for chloride concentration using EPA 300.0 method for release to groundwater less than 10,000 mg/l TDS greater than 100 feet is 20,000 mg/kg.

During the initial response activities in October 2012, chloride was detected below NMOCD soil remediation action levels (SRAL) of 20,000 mg/kg at the soil samples collected from VGWU #61 Sample #1 and VGWU #61 Sample #3. TPH GRO, TPH DRO and BTEX were not detected above laboratory reporting limits.

During the 2013 investigation, chloride was detected in all soil samples at concentrations ranging from 14 mg/kg (VGWU61-02 at 25 feet bgs) to 8,200 mg/kg (VGWU61-05 at 5 feet bgs). Chloride concentrations did not exceed NMOCD SRAL of 20,000 mg/kg in any of the 54 soil samples.

Groundwater samples from the three groundwater sampling events in 2016, 2017 and 2018 were below NMOCD SRAL for chlorides.

Chloride concentrations did not exceed NMOCD SRAL of 20,000mg/kg in any of the 19 soil samples collected during the September and October 2017 events.

Based on the EM survey conducted in December 2017, several zones of moderate-high EC are present within and surrounding the Site; these zones are primarily located outside of the spill area to the east and north of the spill area. The EM Survey identified four distinct perched moderate-high conductivity zones underly the Site and surrounding area and generally occur from 6 to 15 feet bgs.

Figures 1 and 2 present soil and groundwater analytical data. Laboratory reports are presented in Attachment 2.

SCOPE OF WORK

Utility Locate and Well Abandonment

Arcadis proposes abandoning the two groundwater monitoring wells (VGWU61-MW1 and VGWU61-MW2). Monitoring well abandonment will include:

- Coordinating utility clearance activities (e.g. New Mexico State One Call, private locating service and Dig Plan process).
- Submit required documentation to the appropriate State of New Mexico agencies prior to and following abandonment activities.
- Destruction and removal of aboveground features of the well including stovepipe and concrete pad.
- After the removal of the aboveground features, the well casing will be cut to 3 feet bgs using a
- pneumatic tool in order minimize damage to equipment that may operate in this area in the future.
- The wells will be pressure grouted with a bentonite or concrete slurry.
- As necessary, the work area will be backfilled with clean fill to ground surface.

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Ms. Olivia Yu September 13, 2018

• Debris including poly vinyl chloride well casing, concrete, and well monuments will be disposed of at a Chevron approved waste facility, as construction debris.

Data Analysis and Report Preparation

Arcadis will prepare a letter report to summarize field activities to date, as well as the analytical data and findings from the EM survey for submittal to the NMOCD. The report will include boring logs, data tables, sampling/survey location figures.

If you have any questions or comments, please contact Brett Krehbiel at 916.786.5382 or by email at brett.krehbiel@arcadis.com or Greg Cutshall at 859.287.0242 or by e-mail at greg.cutshall@arcadis.com.

Sincerely,

Arcadis U.S., Inc.

the hablen

Brett Krehbiel Certified Project Manager

ang that

Greg Cutshall, PG Program Manager

Copies: File

Figure

- 1 VGWU 61 Soil Analytical Results
- 2 VGWU 61 Groundwater Analytical Results

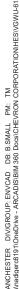
Attachments

- 1 Notification of Release and Correction Form (Form C-141)
- 2 Laboratory Analytical Reports

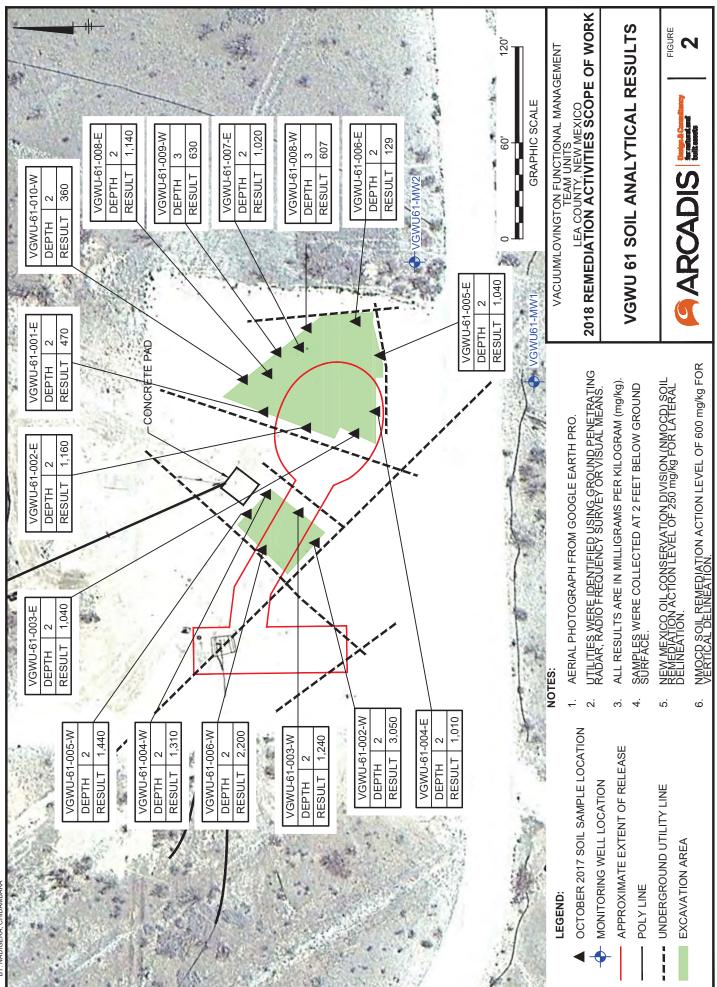
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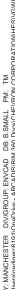
FIGURES



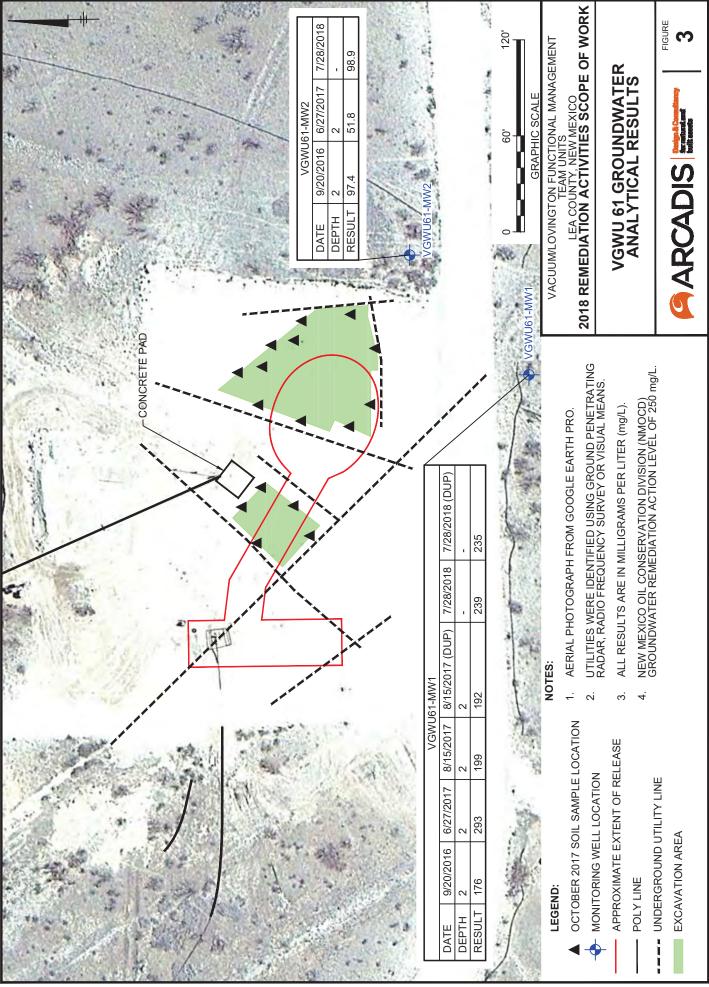


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ATTACHMENT 1

Notification of Release and Correction Form

(Form C-141)



Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| 1220 S St Fran | ncis Dr. Santa | Fe NM 87505 | | | | St. Manc | | | | | | |
|----------------------------|---|-----------------|-------------------------|---------------------|------------|-----------------------|-----------------------------|--|-------------------------|-----------|--------------|--|
| 1220 5. St. Fla | 1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 | | | | | | | | | | | |
| | | | Rele | ease Notific | ation | and Co | orrective A | ction | | | | |
| | | | | | | OPERA | ГOR | 🛛 Initia | ıl Report | | Final Report | |
| | ompany CH | | | | | | osie DeLeon | | | | | |
| | | | | n, NM 88260 | | | | -396-4414 ext 275 | Cellular: 50 |)5-787-9 | 9816 | |
| Facility Na | me Vacu | um Gloriett | a West U | nit #61 |] | Facility Typ | e Submersible | e Production Well | | | | |
| Surface Ow | vner State | of New Me | exico | Mineral C | Owner | State of N | ew Mexico | API No. | . 3002 | 521432 | 2 | |
| | | | | LOCA | TION | N OF RE | LEASE | | | | | |
| Unit Letter | Section | Township | Range | Feet from the | North/ | South Line | Feet from the | East/West Line | County | | | |
| А | 36 | 17.0S | 34.0E | | | | | | | Lea | | |
| | | | 1 | 9698832 | 1 | Longitud | e | 93 | | | | |
| | | | <u></u> | | TIRE | OF REL | | <u> </u> | _ | | | |
| Type of Rele | ease Crude | Oil and Proc | luced Wat | | UKL | Volume of | | bbls Volume R | ecovered | | | |
| | | | | * | | of pw & 0. | 45bbl of oil | 60bbls | | | | |
| Source of Re | elease Wate | er Injection S | Station Pu | mp | | Date and H 10/16/12 8 | Hour of Occurrent :50 PM | Date and I 10/16/12 | Hour of Dis 10:20 PM | covery | | |
| Was Immedi | iate Notice G | | | | | If YES, To | Whom? | Ι | | | | |
| | 🛛 Yes 🗌 No 🗌 Not Required | | | | | | | | | | | |
| | By Whom? Josie DeLeon Was a Watercourse Reached? | | | | | | Hour 8/17/12 2:0 | | | | | |
| \square Yes \square No | | | | | II YES, VO | fume impacting | the watercourse. | | | | | |
| If a Waterco | urse was Imp | acted, Descr | ibe Fully. ⁴ | * | | | | | | | | |
| | | * | 2 | | | | | | | | | |
| | | | | | | | | | | | | |
| Describe Car | use of Proble | m and Reme | dial Actio | n Taken.* | | | | | | | | |
| Check valve | failed on we | ll head leadir | ng to relea | se. | | | | | | | | |
| | | | -8 | | | | | | | | | |
| Describe Are | ea Affected a | nd Cleanun 4 | Action Tal | zen * | | | | | | | | |
| Desenter Int | | | Tetton 1 a | ten. | | | | | | | | |
| | | | | | | | | ry vacuum truck co | | | | |
| standing flui | ds which wei | re sent to disj | posal. 60t | obls of fluids reco | vered. V | isually conta | aminated soil has | been excavated and | sent off for | r disposa | 11. | |
| | | | | | | | | inderstand that purs | | | | |
| | | | | | | | | ctive actions for rele | | | | |
| | | | | | | | | eport" does not reli reat to ground water | | | | |
| or the enviro | onment. In ad | ldition, NMC | OCD accept | | | | | | | | | |
| federal, state | or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. | | | | | | | | | | | |
| | | | | | | | <u>OIL CON</u> | SERVATION | DIVISIC | <u>JN</u> | | |
| Signature: | | | | | | | | | | | | |
| Printed Nam | e: David P | agano | | | | Approved by | Environmental S | pecialist: | | | | |
| Finica Ivam | ie. David P | agano | | | | | | | | | | |
| Title: Hea | lth & Enviro | nmental Spec | cialist | | | Approval Da | te: | Expiration I | Date: | | | |
| E-mail Addr | ess: dpgn(a | thevron.com | n | | | Conditions of | f Approval: | | | _ | | |
| | | - | | | | | ** | | Attached | | | |
| Date: 10/23/ | /12 | Phone: | 505-787- | 9816 | | | | | 1 | | | |

* Attach Additional Sheets If Necessary

ATTACHMENT 2

Laboratory Analytical Reports



January 29, 2013

DAVID PAGANO Chevron - Lovington HCR 60 Box 423 Lovington, NM 88260

RE: SOIL SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 01/22/13 16:56.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
|------------------|------------------------------|
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



| | | Chevron - L DAVID PAG HCR 60 Box Lovington N | ANO (423 | | |
|-------------------|--------------|---|--------------|---------------------|---------------|
| | | Fax To: | None | | |
| Received: | 01/22/2013 | | | Sampling Date: | 01/22/2013 |
| Reported: | 01/29/2013 | | | Sampling Type: | Soil |
| Project Name: | SOIL SAMPLES | | | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | | | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | | | |

Sample ID: VGWU #61 SAMPLE #1 (H300181-01)

| BTEX 8021B | mg/kg | | Analyzed By: AP | | | | | | |
|--------------------------------------|--------|-----------------|-----------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.76 | 88.2 | 2.00 | 25.1 | |
| Toluene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.89 | 94.6 | 2.00 | 24.5 | |
| Ethylbenzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.95 | 97.6 | 2.00 | 24.5 | |
| Total Xylenes* | <0.150 | 0.150 | 01/28/2013 | ND | 5.97 | 99.6 | 6.00 | 24.0 | |
| Total BTEX | <0.300 | 0.300 | 01/28/2013 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 102 % | % 89.4-12 | 6 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyzed By: DW | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 14400 | 16.0 | 01/28/2013 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | Analyzed By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 01/26/2013 | ND | 152 | 76.0 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 01/26/2013 | ND | 142 | 70.9 | 200 | 15.1 | |
| Surrogate: 1-Chlorooctane | 72.7 9 | 65.2-14 | 0 | | | | | | |
| | | | | | | | | | |

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*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



| | | Chevron - DAVID PA HCR 60 Bo Lovington | GANO | | |
|-------------------|--------------|---|------|---------------------|---------------|
| | | Fax To: | None | | |
| Received: | 01/22/2013 | | | Sampling Date: | 01/22/2013 |
| Reported: | 01/29/2013 | | | Sampling Type: | Soil |
| Project Name: | SOIL SAMPLES | | | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | | | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | | | |

Sample ID: VGWU #61 SAMPLE #2 (H300181-02)

| BTEX 8021B | mg/kg | | Analyzed By: AP | | | | | | |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.76 | 88.2 | 2.00 | 25.1 | |
| Toluene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.89 | 94.6 | 2.00 | 24.5 | |
| Ethylbenzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.95 | 97.6 | 2.00 | 24.5 | |
| Total Xylenes* | <0.150 | 0.150 | 01/28/2013 | ND | 5.97 | 99.6 | 6.00 | 24.0 | |
| Total BTEX | <0.300 | 0.300 | 01/28/2013 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 102 9 | % 89.4-12 | 6 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyzed By: DW | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 288 | 16.0 | 01/28/2013 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | S-04 | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 01/28/2013 | ND | 152 | 76.0 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 01/28/2013 | ND | 142 | 70.9 | 200 | 15.1 | |
| Surrogate: 1-Chlorooctane | 55.0 | 65.2-14 | 0 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 63.9 | 63.6-15 | 4 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



| | | Chevron - DAVID PA HCR 60 Bo Lovington | GANO | | |
|-------------------|--------------|---|------|---------------------|---------------|
| | | Fax To: | None | | |
| Received: | 01/22/2013 | | | Sampling Date: | 01/22/2013 |
| Reported: | 01/29/2013 | | | Sampling Type: | Soil |
| Project Name: | SOIL SAMPLES | | | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | | | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | | | |

Sample ID: VGWU #61 SAMPLE #3 (H300181-03)

| BTEX 8021B | mg/kg | | Analyze | d By: AP | | | | | |
|--------------------------------------|--------|-----------------|-----------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.76 | 88.2 | 2.00 | 25.1 | |
| Toluene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.89 | 94.6 | 2.00 | 24.5 | |
| Ethylbenzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.95 | 97.6 | 2.00 | 24.5 | |
| Total Xylenes* | <0.150 | 0.150 | 01/28/2013 | ND | 5.97 | 99.6 | 6.00 | 24.0 | |
| Total BTEX | <0.300 | 0.300 | 01/28/2013 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 101 | % 89.4-12 | 6 | | | | | | |
| Chloride, SM4500Cl-B | mg, | /kg | Analyzed By: DW | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 9400 | 16.0 | 01/28/2013 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | mg, | /kg | Analyze | Analyzed By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 01/26/2013 | ND | 152 | 76.0 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 01/26/2013 | ND | 142 | 70.9 | 200 | 15.1 | |
| Surrogate: 1-Chlorooctane | 70.9 | % 65.2-14 | 0 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 84.9 | % 63.6-15 | 4 | | | | | | |

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*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



| | | Chevron - DAVID PA HCR 60 Bo Lovington | GANO | | |
|-------------------|--------------|---|------|---------------------|---------------|
| | | Fax To: | None | | |
| Received: | 01/22/2013 | | | Sampling Date: | 01/22/2013 |
| Reported: | 01/29/2013 | | | Sampling Type: | Soil |
| Project Name: | SOIL SAMPLES | | | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | | | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | | | |

Sample ID: VGWU #61 SAMPLE #4 (H300181-04)

| BTEX 8021B | mg/kg | | Analyze | d By: AP | | | | | |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.76 | 88.2 | 2.00 | 25.1 | |
| Toluene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.89 | 94.6 | 2.00 | 24.5 | |
| Ethylbenzene* | <0.050 | 0.050 | 01/28/2013 | ND | 1.95 | 97.6 | 2.00 | 24.5 | |
| Total Xylenes* | <0.150 | 0.150 | 01/28/2013 | ND | 5.97 | 99.6 | 6.00 | 24.0 | |
| Total BTEX | <0.300 | 0.300 | 01/28/2013 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 103 | % 89.4-12 | 6 | | | | | | |
| Chloride, SM4500Cl-B | mg, | /kg | Analyzed By: DW | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 288 | 16.0 | 01/28/2013 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | mg, | /kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 01/28/2013 | ND | 152 | 76.0 | 200 | 12.7 | |
| DRO >C10-C28 | <10.0 | 10.0 | 01/28/2013 | ND | 142 | 70.9 | 200 | 15.1 | |
| Surrogate: 1-Chlorooctane | 97.6 | % 65.2-14 | 0 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 106 | % 63.6-15 | 4 | | | | | | |

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*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

| ished control limits due to a sample matrix effect. |
|---|
| |
| |
| w. |
| |
| ved at or below 6°C |
| erwise noted on report |
| |

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*=Accredited Analyte

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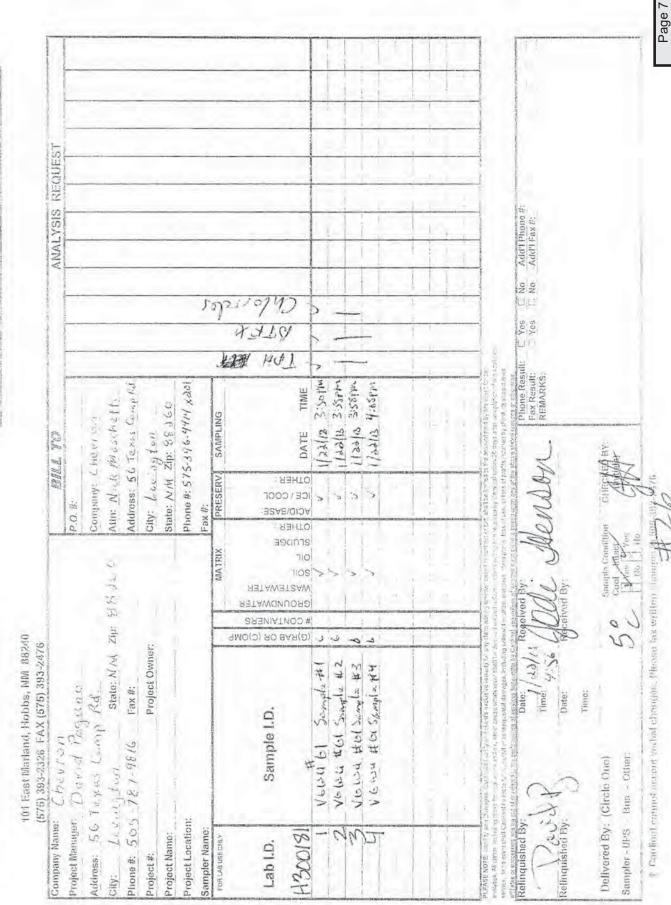
Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 7 of

SOL N. S. D. S. H. B. W. B. C. N. T. orat(-03131700

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST





THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-82342-1 Client Project/Site: HES Transfer Sites, Lea County NM

For: ARCADIS U.S., Inc. 2929 Briarpark Drive Suite 300 Houston, Texas 77042

Attn: Mr. Jonathan Olsen

& Kudchadker

Authorized for release by: 11/21/2013 5:53:15 PM Sachin Kudchadkar, Senior Project Manager (713)690-4444 sachin.kudchadkar@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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| | |

Job ID: 600-82342-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-82342-1

Comments

No additional comments.

Receipt

The samples were received on 11/8/2013 7:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 1.2° C, 1.4° C, 1.5° C, 1.5° C, 1.7° C, 1.8° C and 2.6° C.

General Chemistry

Method(s) 9056: Thematrix spike duplicate (MSD) recovery for batch 120998 were outside control limits for Chloride. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Industrial Hygiene

No analytical or quality issues were noted.

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM

| 4 |
|----|
| 5 |
| 6 |
| |
| 8 |
| 9 |
| |
| |
| |
| 13 |

| Method | Method Description | Protocol | Laboratory |
|----------|----------------------------|----------|------------|
| 9056 | Anions, Ion Chromatography | SW846 | TAL HOU |
| Moisture | Percent Moisture | EPA | TAL HOU |

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Matrix

Solid

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM

Client Sample ID

VGWU61-02-02

Lab Sample ID

600-82342-1

11/05/13 14:20 11/08/13 07:00

Received

Collected

5

| 6 |
|----|
| |
| 8 |
| 9 |
| |
| |
| |
| 13 |

| 600-82342-1 | VGWU61-02-02 | Solid | 11/05/13 14:20 | 11/08/13 07:00 |
|--------------|--------------|-------|----------------|----------------|
| 600-82342-2 | VGWU61-02-05 | Solid | 11/05/13 14:22 | 11/08/13 07:00 |
| 600-82342-3 | VGWU61-02-10 | Solid | 11/05/13 14:24 | 11/08/13 07:00 |
| 600-82342-4 | VGWU61-02-15 | Solid | 11/05/13 14:26 | 11/08/13 07:00 |
| 600-82342-5 | VGWU61-02-25 | Solid | 11/05/13 14:30 | 11/08/13 07:00 |
| 600-82342-6 | VGWU61-01-02 | Solid | 11/05/13 14:48 | 11/08/13 07:00 |
| 600-82342-7 | VGWU61-01-05 | Solid | 11/05/13 14:50 | 11/08/13 07:00 |
| 600-82342-8 | VGWU61-01-10 | Solid | 11/05/13 14:52 | 11/08/13 07:00 |
| 600-82342-9 | VGWU61-01-15 | Solid | 11/05/13 14:54 | 11/08/13 07:00 |
| 600-82342-10 | VGWU61-01-20 | Solid | 11/05/13 14:56 | 11/08/13 07:00 |
| 600-82342-11 | VGWU61-01-25 | Solid | 11/05/13 14:58 | 11/08/13 07:00 |
| 600-82342-12 | VGWU61-03-02 | Solid | 11/05/13 15:15 | 11/08/13 07:00 |
| 600-82342-13 | VGWU61-03-05 | Solid | 11/05/13 15:17 | 11/08/13 07:00 |
| 600-82342-14 | VGWU61-03-10 | Solid | 11/05/13 15:19 | 11/08/13 07:00 |
| 600-82342-15 | VGWU61-03-15 | Solid | 11/05/13 15:21 | 11/08/13 07:00 |
| 600-82342-16 | VGWU61-03-20 | Solid | 11/05/13 15:23 | 11/08/13 07:00 |
| 600-82342-17 | VGWU61-03-25 | Solid | 11/05/13 15:25 | 11/08/13 07:00 |
| 600-82342-18 | VGWU61-04-02 | Solid | 11/05/13 16:02 | 11/08/13 07:00 |
| 600-82342-19 | VGWU61-04-05 | Solid | 11/05/13 16:04 | 11/08/13 07:00 |
| 600-82342-20 | VGWU61-04-10 | Solid | 11/05/13 16:06 | 11/08/13 07:00 |
| 600-82342-21 | VGWU61-04-15 | Solid | 11/05/13 16:08 | 11/08/13 07:00 |
| 600-82342-22 | VGWU61-04-20 | Solid | 11/05/13 16:10 | 11/08/13 07:00 |
| 600-82342-23 | VGWU61-02-20 | Solid | 11/05/13 14:28 | 11/08/13 07:00 |
| 600-82342-24 | VGWU61-04-25 | Solid | 11/05/13 16:12 | 11/08/13 07:00 |
| 600-82342-25 | VGWU61-05-02 | Solid | 11/06/13 09:05 | 11/08/13 07:00 |
| 600-82342-26 | VGWU61-05-05 | Solid | 11/06/13 09:07 | 11/08/13 07:00 |
| 600-82342-27 | VGWU61-05-10 | Solid | 11/06/13 09:09 | 11/08/13 07:00 |
| 600-82342-28 | VGWU61-05-15 | Solid | 11/06/13 09:11 | 11/08/13 07:00 |
| 600-82342-29 | VGWU61-05-20 | Solid | 11/06/13 09:13 | 11/08/13 07:00 |
| 600-82342-30 | VGWU61-05-25 | Solid | 11/06/13 09:15 | 11/08/13 07:00 |
| 600-82342-31 | VGWU61-06-02 | Solid | 11/06/13 10:00 | 11/08/13 07:00 |
| 600-82342-32 | VGWU61-06-05 | Solid | 11/06/13 10:02 | 11/08/13 07:00 |
| 600-82342-33 | VGWU61-06-10 | Solid | 11/06/13 10:04 | 11/08/13 07:00 |
| 600-82342-34 | VGWU61-07-02 | Solid | 11/06/13 10:30 | 11/08/13 07:00 |
| 600-82342-35 | VGWU61-07-05 | Solid | 11/06/13 10:32 | 11/08/13 07:00 |
| 600-82342-36 | VGWU61-07-10 | Solid | 11/06/13 10:34 | 11/08/13 07:00 |
| 600-82342-37 | VGWU61-07-15 | Solid | 11/06/13 10:36 | 11/08/13 07:00 |
| 600-82342-38 | VGWU61-07-20 | Solid | 11/06/13 10:38 | 11/08/13 07:00 |
| 600-82342-39 | VGWU61-07-25 | Solid | 11/06/13 10:40 | 11/08/13 07:00 |
| 600-82342-40 | VGWU61-06-15 | Solid | 11/06/13 10:06 | 11/08/13 07:00 |
| 600-82342-41 | VGWU61-06-20 | Solid | 11/06/13 10:08 | 11/08/13 07:00 |
| 600-82342-42 | VGWU61-06-25 | Solid | 11/06/13 10:10 | 11/08/13 07:00 |
| 600-82342-43 | VGWU61-08-02 | Solid | 11/06/13 11:30 | 11/08/13 07:00 |
| 600-82342-44 | VGWU61-08-05 | Solid | 11/06/13 11:32 | 11/08/13 07:00 |
| 600-82342-45 | VGWU61-08-10 | Solid | 11/06/13 11:34 | 11/08/13 07:00 |
| 600-82342-46 | VGWU61-08-15 | Solid | 11/06/13 11:36 | 11/08/13 07:00 |
| 600-82342-47 | VGWU61-08-20 | Solid | 11/06/13 11:38 | 11/08/13 07:00 |
| 600-82342-48 | VGWU61-08-25 | Solid | 11/06/13 11:40 | 11/08/13 07:00 |
| 600-82342-49 | VGWU61-09-02 | Solid | 11/06/13 11:10 | 11/08/13 07:00 |
| 600-82342-50 | VGWU61-09-05 | Solid | 11/06/13 11:12 | 11/08/13 07:00 |
| 600-82342-51 | VGWU61-09-10 | Solid | 11/06/13 11:14 | 11/08/13 07:00 |
| 600-82342-52 | VGWU61-09-15 | Solid | 11/06/13 11:16 | 11/08/13 07:00 |
| 600-82342-53 | VGWU61-09-20 | Solid | 11/06/13 11:18 | 11/08/13 07:00 |
| | | | | |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 600-82342-54 | VGWU61-09-25 | Solid | 11/06/13 11:20 | 11/08/13 07:00 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/05/13 14:20 Date Received: 11/08/13 07:00 | -02 | | | | | | Lab San | nple ID: 600-8 Matri | 2342-1 x: Solid |
|--|---|-----------|---|-----|---------------------------------|----------|---------------------------------|---|--|
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 6.8 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 93 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 1300 | | 21 | | mg/Kg | <u> </u> | | 11/19/13 20:18 | 5 |
| Client Sample ID: VGWU61-02 | -05 | | | | | | Lab San | nple ID: 600-8 | 2342-2 |
| Date Collected: 11/05/13 14:22 | | | | | | | | Matri | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 5.0 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 95 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| | | | | | | | | | |
| Chloride Client Sample ID: VGWU61-02 | 340 -10 | | 8.4 | | mg/Kg | <u></u> | Lab San | 11/19/13 21:05 | 2 2342-3 |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry | -10 | | | | | | | nple ID: 600-8 Matri | 2342-3 x: Solid |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte | -10 Result | Qualifier | RL | RL | Unit | ÷ | Lab San | nple ID: 600-8 Matri Analyzed | 2342-3 x: Solid Dil Fac |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry | -10 | Qualifier | | RL | | | | nple ID: 600-8 Matri | 2342-3 x: Solid |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | -10 <u>Result</u> 15 85 | | RL 1.0 1.0 | | Unit % % | <u>D</u> | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 2342-3 x: Solid Dil Fac |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | -10 Result 15 85 Result | Qualifier | RL 1.0 1.0 RL | | Unit % % | D | | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed | 2342-3 x: Solid Dil Fac |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | -10 <u>Result</u> 15 85 | | RL 1.0 1.0 | | Unit % % | <u>D</u> | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 2342-3 x: Solid Dil Fac |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | -10 Result 15 85 Result 63 | | RL 1.0 1.0 RL | | Unit % % | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed 0.00-8 | 2342-3 x: Solid Dil Fac 1 1 Dil Fac 1 |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:26 | -10 Result 15 85 Result 63 | | RL 1.0 1.0 RL | | Unit % % | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed 0.00-8 | 2342-3 x: Solid Dil Fac 1 1 Dil Fac 1 2342-4 |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:26 Date Received: 11/08/13 07:00 | -10 Result 15 85 Result 63 -15 | | RL 1.0 1.0 RL | MDL | Unit % % | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed 0.00-8 | 2342-3 x: Solid Dil Fac 1 1 Dil Fac 1 2342-4 |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:26 Date Received: 11/08/13 07:00 General Chemistry | -10 Result 15 85 Result 63 -15 | Qualifier | RL 1.0 1.0 4.7 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed Matri | 2342-3 x: Solid Dil Fac 1 2342-4 x: Solid Dil Fac |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:26 Date Received: 11/05/13 07:00 General Chemistry Analyte | -10 Result 15 85 Result 63 -15 Result | Qualifier | RL 1.0 1.0 RL 4.7 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed Analyzed | 2342-3 x: Solid 1 1 2342-4 x: Solid Dil Fac 1 Dil Fac |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:26 Date Received: 11/05/13 14:26 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | -10 Result 15 85 Result 63 -15 Result 8.7 91 | Qualifier | RL 1.0 1.0 4.7 RL 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared Lab San | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed 11/10/13 12:08 11/10/13 12:08 | 2342-3 x: Solid Dil Fac 1 2342-4 x: Solid Dil Fac 1 1 1 |
| Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:24 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-02 Date Collected: 11/05/13 14:26 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | -10 Result 15 85 Result 63 -15 Result 8.7 91 | Qualifier | RL 1.0 1.0 4.7 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 21:51 Analyzed Matri Analyzed 11/10/13 12:08 | 2342-3 x: Solid Dil Fac 1 2342-4 x: Solid Dil Fac 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/05/13 14:30 Date Received: 11/08/13 07:00 | | | | | | | Lab San | nple ID: 600-8 Matri | 2342-5 x: Solid |
|---|--|-----------|--|-----|---------------------------------|----------------------|----------------------|---|--|
| General Chemistry | | | | | | _ | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 4.7 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 95 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 14 | | 4.2 | | mg/Kg | <u>¥</u> | | 11/19/13 22:22 | 1 |
| Client Sample ID: VGWU61-01-02 | | | | | | | Lab San | nple ID: 600-8 | 2342-6 |
| Date Collected: 11/05/13 14:48 | | | | | | | | - | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | matri | x. 00110 |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 5.3 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 95 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| _ General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | МОІ | Unit | D | Prepared | Analyzed | Dil Fac |
| | rtoount | quannor | | | onne | | riopulou | | Dirrao |
| Chloride Client Sample ID: VGWU61-01-05 | 830 | | 21 | | mg/Kg | <u></u> | Lab San | 11/19/13 22:38 | |
| | 830 | | 21 | | mg/Kg | | Lab San | nple ID: 600-8 | |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 | 830 | | 21 | | mg/Kg | ¥ - | Lab San | nple ID: 600-8 | 2342-7 |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte | | Qualifier | 21 RL | RL | Unit | <u></u> | Lab San | nple ID: 600-8 | 2342-7 |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 | | Qualifier | RL 1.0 | RL | Unit % | | | Analyzed 11/10/13 12:08 | 2342-7 x: Solid |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result | Qualifier | RL | RL | Unit | | | n ple ID: 600-8 Matri Analyzed | 2342-7 x: Solid Dil Fac |
| Chloride Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | Result 3.9 | Qualifier | RL 1.0 | RL | Unit % | | | Analyzed 11/10/13 12:08 | 2342-7 x: Solid |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | Result 3.9 96 | Qualifier | RL 1.0 1.0 RL | RL | Unit % | D | | Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed | 2342-7 x: Solid Dil Fac |
| Chloride Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | Result 3.9 96 | | RL 1.0 1.0 | | Unit % | <u>D</u> | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 2342-7 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | Result 3.9 96 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 | 2342-7 x: Solid Dil Fac 1 1 Dil Fac 2 |
| Chloride Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 | Result 3.9 96 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed 11/19/13 22:53 | 2342-7 x: Solid Dil Fac 1 1 Dil Fac 2 2 2342-8 |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | Result 3.9 96 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed 11/19/13 22:53 | 2342-7 x: Solid Dil Fac 1 1 Dil Fac 2 |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 Date Received: 11/08/13 07:00 | Result 3.9 96 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed 11/19/13 22:53 | 2342-7 x: Solid Dil Fac 1 1 Dil Fac 2 2 2342-8 |
| Chloride Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 | Result 3.9 96 Result 400 | | RL 1.0 1.0 RL | MDL | Unit % Wunit | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed 11/19/13 22:53 | 2342-7 x: Solid Dil Fac 1 1 Dil Fac 2 2 2342-8 |
| Chloride Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 Date Received: 11/08/13 07:00 General Chemistry | Result 3.9 96 Result 400 | Qualifier | RL 1.0 1.0 RL 8.3 | MDL | Unit % % Unit mg/Kg | D D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed Matri | 2342-7 x: Solid Dil Fac 1 Dil Fac 2 2342-8 x: Solid |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 Date Received: 11/05/13 14:52 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result 3.9 96 Result 400 Result | Qualifier | RL 1.0 1.0 RL 8.3 | MDL | Unit % % Unit mg/Kg | D D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed Analyzed | 2342-7 x: Solid Dil Fac 1 Dil Fac 2 2342-8 x: Solid Dil Fac 1 |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 Date Received: 11/05/13 14:52 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | Result 3.9 96 Result 400 Result 20 | Qualifier | RL 1.0 1.0 8.3 | MDL | Unit % % Unit mg/Kg | D D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed Matri Analyzed 11/10/13 12:08 | 2342-7 x: Solid Dil Fac 1 Dil Fac 2 2342-8 x: Solid |
| Chloride Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 Date Received: 11/05/13 14:52 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture | Result 3.9 96 Result 400 Result 20 80 | Qualifier | RL 1.0 1.0 8.3 | MDL | Unit % % Wnit mg/Kg | D D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/19/13 22:53 Analyzed Matri Analyzed 11/10/13 12:08 | 2342-7 x: Solid Dil Fac 1 Dil Fac 2 2342-8 x: Solid Dil Fac 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/05/13 14:54 Date Received: 11/08/13 07:00 | -15 | | | | | | Lab San | nple ID: 600-8 Matri | 2342-9 x: Solid |
|--|--|-----------|--|-----|---------------------------------|---------|----------------------|--|---|
| General Chemistry | Desult | Qualifian | | | 11 | | Durana | Averbased | D!! |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 7.7 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 92 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 41 | | 4.3 | | mg/Kg | <u></u> | - | 11/19/13 23:24 | 1 |
| Client Sample ID: VGWU61-01- | -20 | | | | | | Lab Sam | ole ID: 600-82 | 342-10 |
| Date Collected: 11/05/13 14:56 | | | | | | | | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 4.0 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 96 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| | 42 | | | | | | | 11/20/13 00:42 | 1 |
| • | | | 4.2 | | mg/Kg | | Lab Sam | ole ID: 600-82 | |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 | | | 4.2 | | ing/Kg | | Lab Sam | ole ID: 600-82 | 342-11 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 | 25 | Qualifier | 4.2 | RL | Unit | D | Lab Sam | ole ID: 600-82 | 342-11 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry | 25 | Qualifier | | RL | | | | ole ID: 600-82 Matri | 342-11 x: Solid |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte | 25 Result | Qualifier | RL | RL | Unit | | | ole ID: 600-82 Matri Analyzed | 342-11 x: Solid Dil Fac |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | -25 Result 5.1 | Qualifier | RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | 342-11 x: Solid |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | -25 <u>Result</u> 5.1 95 | Qualifier | RL 1.0 1.0 RL | RL | Unit % | D | | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed | 342-11 x: Solid |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | -25 <u>Result</u> 5.1 95 | | RL 1.0 1.0 | | Unit % | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-11 x: Solid Dil Fac |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | Result 5.1 95 Result 25 | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed | 342-11 x: Solid Dil Fac 1 1 Dil Fac 1 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | Result 5.1 95 Result 25 | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 01:28 Die ID: 600-82 | 342-11 x: Solid Dil Fac 1 1 Dil Fac 1 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:15 | Result 5.1 95 Result 25 | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 01:28 Die ID: 600-82 | 342-11 x: Solid Dil Fac 1 1 Dil Fac 1 342-12 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:15 Date Received: 11/08/13 07:00 | -25 Result 5.1 95 Result 25 -02 | | RL 1.0 1.0 RL | MDL | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 01:28 Die ID: 600-82 | 342-11 x: Solid Dil Fac 1 1 Dil Fac 1 342-12 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:15 Date Received: 11/08/13 07:00 General Chemistry | -25 Result 5.1 95 Result 25 -02 | Qualifier | RL 1.0 1.0 RL 4.2 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 01:28 Die ID: 600-82 Matri | 342-11 x: Solid Dil Fac 1 Dil Fac 1 342-12 x: Solid |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:15 Date Received: 11/05/13 07:00 General Chemistry Analyte | -25 Result 5.1 95 Result 25 -02 Result | Qualifier | RL 1.0 1.0 RL 4.2 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Malyzed Die ID: 600-82 Matri Analyzed | 342-11 x: Solid Dil Fac 1 Dil Fac 1 342-12 x: Solid Dil Fac |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:15 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | -25 Result 5.1 95 Result 25 -02 Result 6.1 | Qualifier | RL 1.0 1.0 4.2 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/20/13 01:28 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-11 x: Solid Dil Fac 1 1 Dil Fac 1 342-12 x: Solid Dil Fac 1 |
| Client Sample ID: VGWU61-01- Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:15 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | -25 Result 5.1 95 Result 25 -02 Result 6.1 94 | Qualifier | RL 1.0 1.0 4.2 | MDL | Unit % % Wnit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/20/13 01:28 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-11 x: Solid Dil Fac 1 1 Dil Fac 1 342-12 x: Solid Dil Fac 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/05/13 15:17 | -05 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-13 x: Solid |
|---|--|-----------|---|-----|---|----------|----------------------|--|--|
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 6.5 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 93 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | | Qualifier | RL | MDL | | D | Prepared | Analyzed | Dil Fac |
| Chloride | 550 | | 8.6 | | mg/Kg | <u></u> | | 11/20/13 01:59 | 2 |
| Client Sample ID: VGWU61-03- | -10 | | | | | | Lab Sam | ole ID: 600-82 | 342-14 |
| Date Collected: 11/05/13 15:19 | | | | | | | | Matri | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 2.9 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 97 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| _ General Chemistry - Soluble | | | | | | | | | |
| | | 0 | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Analyte | Result | Qualifier | | | | | | | |
| Analyte Chloride Client Sample ID: VGWU61-03- | 190 | Qualifier | 4.1 | | mg/Kg | <u> </u> | Lab Sam | 11/20/13 02:15 | |
| Analyte | 190 | Quaimer | | | | <u>*</u> | Lab Sam | ole ID: 600-82 | |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 | 190 | Quaimer | | | | <u>~</u> | Lab Sam | ole ID: 600-82 | 342-15 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 | 190 - 15 | Qualifier | | | | ☆ | Lab Sam | ole ID: 600-82 | 342-15 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry | 190 - 15 | | 4.1 | | mg/Kg | | | ole ID: 600-82 Matri | 342-15 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte | 190 -15 Result | | 4.1 | | mg/Kg | | | ole ID: 600-82 Matri Analyzed | 342-15 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 190 -15 Result 4.8 | | 4.1 RL 1.0 | | Unit | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | 342-15 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 190 -15 <u>Result</u> 4.8 95 | | 4.1 RL 1.0 | | Unit % | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | 342-15 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 190 -15 <u>Result</u> 4.8 95 | Qualifier | 4.1 RL 1.0 1.0 | RL | Unit % | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-15 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 190 -15 Result 4.8 95 Result 180 | Qualifier | 4.1 RL 1.0 1.0 RL | RL | Unit % Unit | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 | 342-15 x: Solid Dil Fac 1 Dil Fac 1 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- | 190 -15 Result 4.8 95 Result 180 | Qualifier | 4.1 RL 1.0 1.0 RL | RL | Unit % Unit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 02:30 Die ID: 600-82 | 342-15 x: Solid Dil Fac 1 Dil Fac 1 342-16 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 190 -15 Result 4.8 95 Result 180 | Qualifier | 4.1 RL 1.0 1.0 RL | RL | Unit % Unit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 02:30 Die ID: 600-82 | 342-15 x: Solid Dil Fac 1 Dil Fac 1 Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:23 Date Received: 11/08/13 07:00 | 190 -15 Result 4.8 95 Result 180 | Qualifier | 4.1 RL 1.0 1.0 RL | RL | Unit % Unit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 02:30 Die ID: 600-82 | 342-15 x: Solid Dil Fac 1 Dil Fac 1 342-16 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:23 | 190 -15 <u>Result</u> 4.8 95 <u>Result</u> 180 -20 | Qualifier | 4.1 RL 1.0 1.0 RL | RL | Unit % Unit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 02:30 Die ID: 600-82 | 342-15 x: Solid Dil Fac 1 Dil Fac 1 342-16 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:23 Date Received: 11/08/13 07:00 General Chemistry | 190 -15 <u>Result</u> 4.8 95 <u>Result</u> 180 -20 | Qualifier | 4.1 RL 1.0 1.0 RL 4.2 | RL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 02:30 Die ID: 600-82 Matri | 342-15 x: Solid Dil Fac 1 Dil Fac 1 342-16 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:23 Date Received: 11/05/13 07:00 General Chemistry Analyte | 190 -15 <u>Result</u> 4.8 95 <u>Result</u> 180 -20 <u>Result</u> | Qualifier | 4.1 RL 1.0 1.0 RL 4.2 RL | RL | Unit Unit Unit mg/Kg Unit | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/20/13 02:30 Ole ID: 600-82: Matri | 342-15 x: Solid Dil Fac 1 Dil Fac 1 342-16 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:23 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 190 -15 Result 4.8 95 Result 180 -20 Result 5.2 | Qualifier | 4.1 RL 1.0 1.0 RL 4.2 RL 1.2 | RL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 02:30 Die ID: 600-82: Matri Analyzed 11/20/13 02:30 Die ID: 600-82: Matri Analyzed 11/10/13 12:08 | 342-15 x: Solid 1 1 Dil Fac 1 342-16 x: Solid Dil Fac 1 |
| Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:21 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-03- Date Collected: 11/05/13 15:23 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture | 190 -15 Result 4.8 95 Result 180 -20 -20 Result 5.2 95 | Qualifier | 4.1 RL 1.0 1.0 RL 4.2 RL 1.2 | RL | Unit % % Unit mg/Kg Unit % % | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 02:30 Die ID: 600-82: Matri Analyzed 11/20/13 02:30 Die ID: 600-82: Matri Analyzed 11/10/13 12:08 | 342-15 x: Solid Dil Fac 1 342-16 x: Solid Dil Fac 1 |

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| Client Sample ID: VGWU61-03-25 Date Collected: 11/05/13 15:25 Date Received: 11/08/13 07:00 | | | | | | | Lab Samı | ole ID: 600-82 Matri | 342-17 x: Solid |
|--|---|-----------|--|-----|---------------------------------|-----------------------|----------------------|---|---|
| General Chemistry | | | | | | _ | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 4.9 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 95 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 330 | | 8.4 | | mg/Kg | <u></u> | | 11/20/13 04:03 | 2 |
| Client Sample ID: VGWU61-04-02 | | | | | | | Lab Sam | ole ID: 600-82 | 342-18 |
| Date Collected: 11/05/13 16:02 | | | | | | | | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | Math | x. 00110 |
| _ General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 17 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 83 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| – General Chemistry - Soluble | | | | | | | | | |
| General Chemistry - Soluble | | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| | Result | | | | | | rioparoa | Analyzou | Birrao |
| Analyte Chloride Client Sample ID: VGWU61-04-05 | Result 4100 | | 240 | | mg/Kg | <u> </u> | Lab Sam | 11/20/13 04:19 | |
| Analyte Chloride | | | | | mg/Kg | \vec{1}{2} | Lab Sam | ole ID: 600-82 | |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 | | | 240 | | mg/Kg | <u>~</u> | Lab Samı | ole ID: 600-82 | 342-19 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte | 4100 Result | Qualifier | 240 | RL | Unit | D | Lab Sam | Die ID: 600-82 Matri Analyzed | 342-19 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 4100 Result 23 | | 240 | RL | Unit % | | | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-19 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte | 4100 Result | | 240 | RL | Unit | | | Die ID: 600-82 Matri Analyzed | 342-19 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 4100 Result 23 | | 240 | RL | Unit % | | | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-19 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 4100 Result 23 77 | | 240 | RL | Unit % | D | | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-19 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 4100 Result 23 77 | Qualifier | 240 RL 1.0 1.0 | | Unit % | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-19 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 4100 Result 23 77 Result | Qualifier | 240 RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 | 342-19 x: Solid Dil Fac 1 1 Dil Fac 50 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 | 4100 Result 23 77 Result | Qualifier | 240 RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Die ID: 600-82 | 342-19 x: Solid Dil Fac 1 1 1 Dil Fac 50 342-20 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 4100 Result 23 77 Result | Qualifier | 240 RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Die ID: 600-82 | 342-19 x: Solid Dil Fac 1 1 Dil Fac 50 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 Date Collected: 11/05/13 16:06 Date Received: 11/08/13 07:00 | 4100 Result 23 77 Result | Qualifier | 240 RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Die ID: 600-82 | 342-19 x: Solid Dil Fac 1 1 1 Dil Fac 50 342-20 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 Date Collected: 11/05/13 16:06 Date Received: 11/08/13 07:00 General Chemistry | 4100 Result 23 77 Result 3300 | Qualifier | 240 RL 1.0 1.0 RL 260 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Die ID: 600-82 Matri | 342-19 x: Solid Dil Fac 1 1 Dil Fac 50 342-20 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 Date Collected: 11/05/13 16:06 Date Received: 11/08/13 07:00 General Chemistry Analyte | 4100 Result 23 77 Result 3300 Result | Qualifier | 240 RL 1.0 1.0 RL | MDL | Unit % Wunit | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 04:34 Die ID: 600-82 Matri | 342-19 x: Solid Dil Fac 1 1 1 Dil Fac 50 342-20 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 Date Collected: 11/05/13 16:06 Date Received: 11/08/13 07:00 General Chemistry | 4100 Result 23 77 Result 3300 | Qualifier | 240 RL 1.0 1.0 RL 260 RL | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Dle ID: 600-82 Matri | 342-19 x: Solid Dil Fac 1 1 Dil Fac 50 342-20 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 Date Collected: 11/05/13 16:06 Date Received: 11/05/13 16:06 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 4100 Result 23 77 Result 3300 Result 9.5 | Qualifier | 240 RL 1.0 1.0 RL 260 RL 1.0 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-19 x: Solid Dil Fac 1 1 Dil Fac 50 342-20 x: Solid Dil Fac 1 1 |
| Analyte Chloride Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-10 Date Collected: 11/05/13 16:06 Date Received: 11/05/13 16:06 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 4100 Result 23 77 Result 3300 Result 9.5 91 | Qualifier | 240 RL 1.0 1.0 RL 260 RL 1.0 | MDL | Unit % % Wnit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 04:34 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-19 x: Solid Dil Fac 1 1 1 Dil Fac 50 342-20 x: Solid Dil Fac 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/05/13 16:08 Date Received: 11/08/13 07:00 | 5 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-21 ix: Solid |
|---|--|-----------|---|-----------|---------------------------------|--------------|----------|--|--|
| General Chemistry | | | | | | | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 8.3 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 92 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 110 | | 4.4 | | mg/Kg | <u>Å</u> | | 11/20/13 05:05 | 1 |
| Client Sample ID: VGWU61-04-20 | 0 | | | | | | Lab Sam | ole ID: 600-82 | 342-22 |
| Date Collected: 11/05/13 16:10 | | | | | | | | | ix: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 5.3 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 95 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| _ General Chemistry - Soluble | | | | | | | | | |
| | | | | МП | Unit | D | Prepared | Analyzed | Dil Fac |
| | Result | Qualifier | | | | | | | Diriao |
| Analyte Chloride Client Sample ID: VGWU61-02-20 | 79 | Qualifier | <u>RL</u> 4.2 | | mg/Kg | 2 | - | 11/20/13 05:21 | |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 | 79 | Qualifier | | | | | - | ole ID: 600-82 | 1 342-23 ix: Solid |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry | 79 D | | 4.2 | | mg/Kg | | Lab Sam | ole ID: 600-82 Matri | ix: Solid |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte | 79 D Result | Qualifier | 4.2 | | mg/Kg | | - | ole ID: 600-82 Matri Analyzed | ix: Solid |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 79 D Result 9.0 | | 4.2 RL 1.0 | | Unit | | Lab Sam | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte | 79 D Result | | 4.2 | | mg/Kg | | Lab Sam | ole ID: 600-82 Matri Analyzed | ix: Solid |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 79 0 Result 9.0 91 | Qualifier | 4.2 RL 1.0 1.0 | RL | Unit % | <u> </u> | Lab Sam | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 79 0 Result 9.0 91 | | 4.2 RL 1.0 1.0 RL | RL | Unit | <u>D</u> | Lab Sam | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 | Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 79 0 Result 9.0 91 | Qualifier | 4.2 RL 1.0 1.0 | RL | Unit % | <u> </u> | Lab Sam | Analyzed 11/10/13 12:08 11/10/13 12:08 | Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 79 0 Result 9.0 91 Result 19 | Qualifier | 4.2 RL 1.0 1.0 RL | RL | Unit % Unit | <u>D</u> | Lab Sam | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 | Dil Fac 1 1 Dil Fac 1 1 |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-23 | 79 0 Result 9.0 91 Result 19 | Qualifier | 4.2 RL 1.0 1.0 RL | RL | Unit % Unit | <u>D</u> | Lab Sam | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 11/10/13 12:08 - <u>Analyzed</u> 11/20/13 05:36 Die ID: 600-82 | Dil Fac 1 1 1 Dil Fac 1 342-24 |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-25 Date Collected: 11/05/13 16:12 | 79 0 Result 9.0 91 Result 19 | Qualifier | 4.2 RL 1.0 1.0 RL | RL | Unit % Unit | <u>D</u> | Lab Sam | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 11/10/13 12:08 - <u>Analyzed</u> 11/20/13 05:36 Die ID: 600-82 | Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-25 Date Collected: 11/05/13 16:12 Date Received: 11/08/13 07:00 | 79 0 Result 9.0 91 Result 19 | Qualifier | 4.2 RL 1.0 1.0 RL | RL | Unit % Unit | <u>D</u> | Lab Sam | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 11/10/13 12:08 - <u>Analyzed</u> 11/20/13 05:36 Die ID: 600-82 | Dil Fac 1 1 1 Dil Fac 1 342-24 |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-29 Date Collected: 11/05/13 16:12 Date Received: 11/08/13 07:00 General Chemistry | 79 0 <u>Result</u> 9.0 91 <u>Result</u> 19 5 | Qualifier | 4.2 RL 1.0 1.0 RL 4.4 | RL | Unit % % Unit mg/Kg | D | Lab Sam | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 05:36 Die ID: 600-82 Matri | Dil Fac 1 1 1 1 1 342-24 ix: Solid |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-25 Date Collected: 11/05/13 16:12 Date Received: 11/05/13 07:00 General Chemistry Analyte | 79 0 <u>Result</u> 9.0 91 <u>Result</u> 19 5 <u>Result</u> | Qualifier | 4.2 RL 1.0 1.0 RL 4.4 | RL | Unit % % Unit mg/Kg | <u>D</u> | Lab Sam | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed Die ID: 600-82 Matri Analyzed | Dil Fac 1 1 1 Dil Fac 1 342-24 |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-22 Date Collected: 11/05/13 16:12 Date Received: 11/08/13 07:00 General Chemistry | 79 0 <u>Result</u> 9.0 91 <u>Result</u> 19 5 | Qualifier | 4.2 RL 1.0 1.0 RL 4.4 | RL | Unit % % Unit mg/Kg | D | Lab Sam | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 05:36 Die ID: 600-82 Matri | Dil Fac 1 1 1 1 1 342-24 ix: Solid |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-29 Date Collected: 11/05/13 16:12 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 79 0 Result 9.0 91 Result 19 5 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | Qualifier | 4.2 RL 1.0 1.0 RL 4.4 RL 1.0 | RL | Unit % % Unit mg/Kg | D | Lab Sam | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 05:36 Die ID: 600-82 Matri Analyzed 11/20/13 05:36 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | Dil Fac 1 Dil Fac 1 1 Dil Fac 1 342-24 ix: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Analyte Chloride Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-04-29 Date Collected: 11/05/13 16:12 Date Received: 11/05/13 07:00 General Chemistry Analyte Percent Moisture | 79 0 Result 9.0 91 Result 19 5 7 8 8 8 8 8 8 95 | Qualifier | 4.2 RL 1.0 1.0 RL 4.4 RL 1.0 | RL MDL | Unit % % Unit mg/Kg | D | Lab Sam | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 05:36 Die ID: 600-82 Matri Analyzed 11/20/13 05:36 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | Dil Fac 1 Dil Fac 1 1 Dil Fac 1 342-24 ix: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/06/13 09:05 Date Received: 11/08/13 07:00 | 02 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-25 x: Solid |
|--|--|---------------------------|---|-----|---------------------------------|----------|----------------------|---|--|
| General Chemistry | Decult | Qualifier | RL | ы | Unit | D | Drenered | Analyzad | Dil Fac |
| Analyte | | | KL | KL | 01111 % | | Prepared | Analyzed 11/10/13 12:08 | 1 |
| Percent Moisture Percent Solids | 24 76 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| - | 10 | | 1.0 | | 70 | | | 11/10/13 12:00 | |
| _ General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 570 | B | 10 | | mg/Kg | <u></u> | | 11/20/13 07:40 | 2 |
| Client Sample ID: VGWU61-05-0 | 05 | | | | | | Lab Sam | ole ID: 600-82 | 342-26 |
| Date Collected: 11/06/13 09:07 | | | | | | | | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 3.4 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 97 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Analyte | | | | | | | | | |
| | 490 | | 8.3 | | mg/Kg | <u> </u> | Lab Sam | 11/20/13 07:56 | 2 342-27 x: Solid |
| | 490 | | 8.3 | | mg/Kg | × . | Lab Sam | ole ID: 600-82 | 342-27 |
| Chloride Client Sample ID: VGWU61-05-7 Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 | 490 10 | | 8.3 | RL | mg/Kg Unit | × . | Lab Sam | ole ID: 600-82 | 342-27 |
| Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 | 490 10 | B | | RL | | | | ole ID: 600-82 Matri | 342-27 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte | 490 10 Result | B | RL | RL | Unit | | | ole ID: 600-82 Matri Analyzed | 342-27 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-05-7 Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 490 10 Result 18 | B | RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | 342-27 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-05-7 Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 490 10 Result 18 82 | B | RL 1.0 1.0 RL | RL | Unit % | D | | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-27 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-05-7 Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 490 10 Result 18 82 | Qualifier | RL 1.0 1.0 | | Unit % | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-27 x: Solid Dil Fac |
| Chloride Chloride Chloride Client Sample ID: VGWU61-05-7 Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05-7 Date Collected: 11/06/13 09:11 | 490 10 Result 18 82 Result 190 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 14:56 Die ID: 600-82 | 342-27 x: Solid Dil Fac 1 Dil Fac 1 342-28 |
| Chloride Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:11 Date Received: 11/08/13 07:00 | 490 10 Result 18 82 Result 190 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 14:56 Die ID: 600-82 | 342-27 x: Solid 1 1 1 1 1 1 342-28 |
| Chloride Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:11 Date Received: 11/08/13 07:00 General Chemistry | 490 10 Result 18 82 Result 190 | Qualifier Qualifier | RL 1.0 1.0 RL 4.9 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 0 Analyzed 11/20/13 14:56 0 11 10 11/20/13 14:56 0 11 | 342-27 x: Solid Dil Fac 1 Dil Fac 1 342-28 x: Solid |
| Chloride Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:11 Date Received: 11/08/13 07:00 General Chemistry Analyte | 490 10 Result 18 82 Result 190 15 Result | Qualifier | RL 1.0 1.0 RL 4.9 | MDL | Unit % % Unit mg/Kg | D | Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 14:56 Die ID: 600-82 Matri Analyzed | 342-27 x: Solid |
| Chloride Chloride Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:11 Date Received: 11/08/13 07:00 General Chemistry | 490 10 Result 18 82 Result 190 | Qualifier Qualifier | RL 1.0 1.0 RL 4.9 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 0 Analyzed 11/20/13 14:56 0 11 10 11/20/13 14:56 0 11 | 342-27 x: Solid Dil Fac Dil Fac 1 342-28 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05- Date Collected: 11/06/13 09:11 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 490 10 Result 18 82 Result 190 15 Result 28 | Qualifier Qualifier | RL 1.0 1.0 4.9 RL 4.9 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 14:56 Die ID: 600-82 Matri Analyzed 11/20/13 14:56 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-27 x: Solid 1 1 Dil Fac 1 342-28 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-05- Client Sample ID: VGWU61-05- Client Solucted: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-05- Client Sample ID: | 490 10 Result 18 82 Result 190 15 Result 28 72 | Qualifier Qualifier | RL 1.0 1.0 4.9 RL 4.9 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 14:56 Die ID: 600-82 Matri Analyzed 11/20/13 14:56 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-27 x: Solid Dil Fac 1 Dil Fac 1 342-28 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/06/13 09:13 Date Received: 11/08/13 07:00 | 20 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-29 x: Solid |
|---|--|-----------|---|-----|---------------------------------|-----------|----------------------|--|---|
| General Chemistry | | | | | | _ | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 6.3 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 94 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 200 | | 4.3 | | mg/Kg | <u></u> | | 11/20/13 15:27 | 1 |
| Client Sample ID: VGWU61-05- | 25 | | | | | | Lab Sam | ole ID: 600-82 | 342-30 |
| Date Collected: 11/06/13 09:15 Date Received: 11/08/13 07:00 | | | | | | | | | x: Solid |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 6.3 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 94 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| | | | | | | | - | | |
| Chloride Client Sample ID: VGWU61-06- | 130 02 | | 4.3 | | mg/Kg | <u>\$</u> | Lab Sam | 11/20/13 15:42 | |
| Chloride | | | 4.3 | | mg/Kg | | Lab Samı | ole ID: 600-82 | |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 | 02 | Qualifier | 4.3 | RL | mg/Kg Unit | © D | Lab Samp | ole ID: 600-82 | 342-31 x: Solid |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry | 02 | Qualifier | | RL | | | | ole ID: 600-82 Matri | 342-31 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte | 02 Result | Qualifier | RL | RL | Unit | | | ole ID: 600-82 Matri Analyzed | 342-31 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 02 <u>Result</u> 2.2 | Qualifier | RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | 342-31 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 02 <u>Result</u> 2.2 98 | Qualifier | RL 1.0 | | Unit % | D | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 12:08 | 342-31 x: Solid |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 02 <u>Result</u> 2.2 98 | | RL 1.0 1.0 | | Unit % | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-31 x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | 02 <u>Result</u> 2.2 98 <u>Result</u> 1100 | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri - Analyzed 11/10/13 12:08 11/10/13 12:08 - Analyzed 11/20/13 16:29 Die ID: 600-82 | 342-31 x: Solid Dil Fac 1 Dil Fac 5 |
| Chloride Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:02 | 02 <u>Result</u> 2.2 98 <u>Result</u> 1100 | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri - Analyzed 11/10/13 12:08 11/10/13 12:08 - Analyzed 11/20/13 16:29 Die ID: 600-82 | 342-31 x: Solid Dil Fac 1 Dil Fac 5 342-32 |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:02 Date Received: 11/08/13 07:00 General Chemistry Analyte | 02 <u>Result</u> 2.2 98 <u>Result</u> 1100 05 | | RL 1.0 1.0 RL 20 | MDL | Unit % % Unit mg/Kg | D | Prepared | Die ID: 600-82 Matri - Analyzed 11/10/13 12:08 11/10/13 12:08 - Analyzed 11/20/13 16:29 Die ID: 600-82 | 342-31 x: Solid Dil Fac 1 1 Dil Fac 5 342-32 x: Solid |
| Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:02 Date Received: 11/08/13 07:00 General Chemistry | 02 <u>Result</u> 2.2 98 <u>Result</u> 1100 05 | Qualifier | RL 1.0 1.0 20 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 16:29 Die ID: 600-82 Matri | 342-31 x: Solid Dil Fac 1 Dil Fac 5 342-32 x: Solid Dil Fac |
| Chloride Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:02 Date Received: 11/08/13 07:00 General Chemistry Analyte | 02 Result 2.2 98 Result 1100 05 Result | Qualifier | RL 1.0 1.0 RL 20 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Malyzed Die ID: 600-82 Matri Analyzed | 342-31 x: Solid Dil Fac 1 Dil Fac 5 342-32 x: Solid Dil Fac |
| Chloride Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:02 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture | 02 Result 2.2 98 Result 1100 05 Result 4.6 | Qualifier | RL 1.0 1.0 20 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 16:29 Die ID: 600-82 Matri Analyzed 11/20/13 16:29 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-31 x: Solid 1 1 Dil Fac 5 342-32 x: Solid Dil Fac 1 |
| Chloride Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:00 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:02 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 02 Result 2.2 98 Result 1100 05 Result 4.6 95 | Qualifier | RL 1.0 1.0 20 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Malyzed 11/20/13 16:29 Die ID: 600-82 Matri Analyzed 11/20/13 16:29 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-31 x: Solid 1 1 Dil Fac 5 342-32 x: Solid Dil Fac 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Client Sample ID: VGWU61-06- Date Collected: 11/06/13 10:04 Date Received: 11/08/13 07:00 | 10 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-33 x: Solid |
|---|---|-----------|---|-----|---------------------------------|----------|----------------------|---|---|
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 4.4 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 96 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 120 | | 4.2 | | mg/Kg | <u>Å</u> | | 11/20/13 17:31 | 1 |
| Client Sample ID: VGWU61-07- | 02 | | | | | | Lab Sam | ole ID: 600-82 | 342-34 |
| Date Collected: 11/06/13 10:30 | | | | | | | | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 3.0 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| Percent Solids | 97 | | 1.0 | | % | | | 11/10/13 12:08 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| | | Qualifian | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Analyte | Result | Quaimer | | | | | | | |
| | 1400 | | 41 | | mg/Kg | <u></u> | Lab Sam | 11/20/13 17:46 | 10 342-35 |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 | 1400 | | | | mg/Kg | <u>~</u> | Lab Samı | ole ID: 600-82 | |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry | 1400 05 | | 41 | RL | | | | ole ID: 600-82 Matri | 342-35 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte | 1400 05 Result | Qualifier | 41 | RL | Unit | <u>×</u> | Lab Samp | Die ID: 600-82 Matri Analyzed | 342-35 |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry | 1400 05 | | 41 | RL | | | | ole ID: 600-82 Matri | 342-35 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 1400 05 Result 12 | | 41 RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-35 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 1400 05 Result 12 88 | | 41 RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-35 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 1400 05 Result 12 88 | Qualifier | 41 RL 1.0 1.0 | | Unit % | D | Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 | 342-35 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | 1400 05 Result 12 88 Result 3700 | Qualifier | 41 RL 1.0 1.0 RL | | Unit % Wunit | D D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 <u>Analyzed</u> 11/20/13 18:02 Die ID: 600-82 | 342-35 x: Solid Dil Fac 1 1 Dil Fac 100 |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-07-7 Date Collected: 11/06/13 10:34 Date Received: 11/08/13 07:00 | 1400 05 Result 12 88 Result 3700 | Qualifier | 41 RL 1.0 1.0 RL | | Unit % Wunit | D D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 <u>Analyzed</u> 11/20/13 18:02 Die ID: 600-82 | 342-35 x: Solid Dil Fac 1 1 1 Dil Fac 100 342-36 |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-07-7 Date Collected: 11/06/13 10:34 Date Received: 11/08/13 07:00 General Chemistry | 1400 05 Result 12 88 Result 3700 | Qualifier | 41 RL 1.0 1.0 RL 450 | MDL | Unit % % Unit mg/Kg | D D | Prepared Prepared | Analyzed 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 18:02 Die ID: 600-82 Matri | 342-35 x: Solid Dil Fac 1 1 1 Dil Fac 100 342-36 |
| Analyte Chloride Client Sample ID: VGWU61-07-1 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-07-7 Date Collected: 11/06/13 10:34 Date Received: 11/08/13 07:00 General Chemistry Analyte | 1400 05 Result 12 88 Result 3700 10 Result | Qualifier | 41 RL 1.0 1.0 RL 450 RL | MDL | Unit % Wunit | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 <u>Analyzed</u> 11/20/13 18:02 Die ID: 600-82 | 342-35 x: Solid Dil Fac 1 Dil Fac 100 342-36 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-07-0 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-07-7 Date Collected: 11/06/13 10:34 Date Received: 11/08/13 07:00 General Chemistry | 1400 05 Result 12 88 Result 3700 | Qualifier | 41 RL 1.0 1.0 RL 450 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 18:02 Die ID: 600-82 Matri Analyzed | 342-35 x: Solid Dil Fac 1 Dil Fac 100 342-36 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-07-1 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-07-7 Date Collected: 11/06/13 10:34 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 1400 05 Result 12 88 Result 3700 10 Result 4.9 | Qualifier | 41 RL 1.0 1.0 RL 450 RL 1.0 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 18:02 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-35 x: Solid Dil Fac 1 1 Dil Fac 100 342-36 x: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Analyte Chloride Client Sample ID: VGWU61-07-1 Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-07-7 Date Collected: 11/06/13 10:34 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 1400 05 Result 12 88 Result 3700 10 Result 4.9 95 | Qualifier | 41 RL 1.0 1.0 RL 450 RL 1.0 | MDL | Unit % % Wnit mg/Kg | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 12:08 11/10/13 12:08 Analyzed 11/20/13 18:02 Die ID: 600-82 Matri Analyzed 11/10/13 12:08 | 342-35 x: Solid Dil Fac 1 1 Dil Fac 100 342-36 x: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Client Sample ID: VGWU61-07-15 Date Collected: 11/06/13 10:36 Date Received: 11/08/13 07:00 |) | | | | | | Lab Samı | ole ID: 600-82 Matri | 342-37 x: Solid |
|--|---|-----------|--|-----|---------------------------------|--------------|----------------------|--|---|
| General Chemistry | | | | | | | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 25 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 75 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 92 | | 5.4 | | mg/Kg | | | 11/20/13 18:33 | 1 |
| Client Sample ID: VGWU61-07-20 |) | | | | | | Lab Sam | ole ID: 600-82 | 342-38 |
| Date Collected: 11/06/13 10:38 | | | | | | | | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 5.7 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 94 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| – General Chemistry - Soluble | | | | | | | | | |
| | Popult | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Analyte | | | | | | - | | · · · · · , - · · · | |
| | 27 | | 4.2 | | mg/Kg | <u> </u> | Lab Sam | 11/20/13 19:19 | |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 | 27 | | 4.2 | | mg/Kg | x | Lab Sam | ole ID: 600-82 | 1 342-39 x: Solid |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry | 27 | | | RL | | | | ole ID: 600-82 Matri | x: Solid |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte | 27 Result | Qualifier | RL | RL | Unit | <u> </u> | Lab Sam | ole ID: 600-82 Matri Analyzed | |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry | 27 | | | RL | | | | ole ID: 600-82 Matri | x: Solid |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 27 Result 28 | | RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 13:47 | x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 27 Result 28 72 | Qualifier | RL 1.0 1.0 | | Unit % | <u> </u> | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 | x: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | 27 Result 28 72 Result | | RL 1.0 1.0 RL | RL | Unit % Wunit | <u>D</u> | | Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed | Dil Fac |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 27 Result 28 72 | Qualifier | RL 1.0 1.0 | | Unit % | <u> </u> | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 | Dil Fac 1 |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | 27 Result 28 72 Result 23 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed | x: Solid Dil Fac 1 1 Dil Fac 1 |
| Chloride Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 27 Result 28 72 Result 23 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 20:37 Die ID: 600-82 | x: Solid Dil Fac 1 1 Dil Fac 1 |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 | 27 Result 28 72 Result 23 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 20:37 Die ID: 600-82 | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 |
| Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06 | 27 Result 28 72 Result 23 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 20:37 Die ID: 600-82 | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 |
| Chloride Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06 Date Received: 11/08/13 07:00 | 27 Result 28 72 Result 23 | Qualifier | RL 1.0 1.0 RL | MDL | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 20:37 Die ID: 600-82 | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 |
| Chloride Chloride Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06 Date Received: 11/08/13 07:00 General Chemistry | 27 Result 28 72 Result 23 | Qualifier | RL 1.0 1.0 RL 5.5 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 20:37 Die ID: 600-82 Matri | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 x: Solid |
| Chloride Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06 Date Received: 11/08/13 07:00 General Chemistry Analyte | 27 Result 28 72 Result 23 Result | Qualifier | RL 1.0 1.0 RL 5.5 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 20:37 Die ID: 600-82 Matri Analyzed | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 x: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Chloride Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 27 Result 28 72 Result 23 6 72 72 72 72 72 72 72 72 | Qualifier | RL 1.0 1.0 S.5 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 20:37 Die ID: 600-82 Matri Analyzed 11/20/13 13:47 | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 x: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Chloride Chloride Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture | 27 Result 28 72 Result 23 5 72 Result 23 5 72 8 92 | Qualifier | RL 1.0 1.0 S.5 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 20:37 Die ID: 600-82 Matri Analyzed 11/20/13 13:47 | x: Solid Dil Fac 1 1 Dil Fac 1 342-40 x: Solid |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/06/13 10:08 | 20 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-41 x: Solid |
|--|---|-----------|-------------------------------------|-----|--|------------|----------------------|--|---|
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 5.6 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 94 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 96 | | 4.2 | | mg/Kg | <u></u> | | 11/20/13 21:08 | 1 |
| Client Sample ID: VGWU61-06- | 25 | | | | | | Lab Sam | ole ID: 600-82 | 342-42 |
| Date Collected: 11/06/13 10:10 | 20 | | | | | | Lub Ourin | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | Watri | x. 3011u |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 4.7 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 95 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Posult | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 110 | | 4.2 | MDL | mg/Kg | — <u> </u> | riepaieu | 11/20/13 21:23 | 1 |
| | 110 | | = | | | | | 11120110 21120 | |
| _ | 02 | | | | | | Lab Sam | ole ID: 600-82 | 342-43 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 | 02 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-43 x: Solid |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 | 02 | | | | | | Lab Sam | | |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 | | Qualifier | RL | RL | Unit | D | Lab Sam | | |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry | | Qualifier | RL 1.0 | RL | Unit % | D | | Matri | x: Solid |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result | Qualifier | | RL | | D | | Matri | x: Solid |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | Result 18 | Qualifier | 1.0 | RL | % | D | | Matri Analyzed 11/10/13 13:47 | Dil Fac |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | Result 18 82 | Qualifier | 1.0 | RL | % | D | | Matri Analyzed 11/10/13 13:47 | Dil Fac |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | Result 18 82 | | 1.0 1.0 | | % | | Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 | Dil Fac 1 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | Result 18 82 Result 1300 | | 1.0 1.0 RL | | % % Unit | D | Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed | x: Solid Dil Fac 1 1 Dil Fac 5 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | Result 18 82 Result 1300 | | 1.0 1.0 RL | | % % Unit | D | Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 21:39 Die ID: 600-82 | x: Solid Dil Fac 1 1 Dil Fac 5 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- | Result 18 82 Result 1300 | | 1.0 1.0 RL | | % % Unit | D | Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 21:39 Die ID: 600-82 | 2011 Fac Dil Fac 1 1 Dil Fac 5 342-44 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:32 | Result 18 82 Result 1300 | | 1.0 1.0 RL | MDL | % % Unit mg/Kg | D | Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 21:39 Die ID: 600-82 | 2011 Fac Dil Fac 1 1 Dil Fac 5 342-44 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:32 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result 18 82 Result 1300 | | 1.0 1.0 RL 24 | MDL | % % Unit mg/Kg | D | Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed Die ID: 600-82 Matri Analyzed | 2011 Fac Dil Fac 1 1 Dil Fac 5 342-44 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:32 Date Received: 11/08/13 07:00 General Chemistry | Result 18 82 Result 1300 | Qualifier | 1.0 1.0 RL 24 RL 1.0 | MDL | % % Unit mg/Kg Unit % | <u> </u> | Prepared Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 21:39 Die ID: 600-82 Matri Analyzed 11/10/13 13:47 | x: Solid Dil Fac 1 1 1 Dil Fac 5 342-44 x: Solid |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:32 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result 18 82 Result 1300 05 Result | Qualifier | 1.0 1.0 RL 24 | MDL | % % Unit mg/Kg | <u> </u> | Prepared Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed Die ID: 600-82 Matri Analyzed | x: Solid Dil Fac 1 1 1 Dil Fac 5 342-44 x: Solid Dil Fac |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | Result 18 82 Result 1300 05 Result 3.1 | Qualifier | 1.0 1.0 RL 24 RL 1.0 | MDL | % % Unit mg/Kg Unit % | <u> </u> | Prepared Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 21:39 Die ID: 600-82 Matri Analyzed 11/10/13 13:47 | x: Solid Dil Fac 1 1 Dil Fac 5 342-44 x: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08- Date Collected: 11/06/13 11:32 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | Result 18 82 Result 1300 05 Result 3.1 97 | Qualifier | 1.0 1.0 RL 24 RL 1.0 | MDL | % % Unit mg/Kg | <u> </u> | Prepared Prepared | Matri Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 21:39 Die ID: 600-82 Matri Analyzed 11/10/13 13:47 | x: Solid Dil Fac 1 1 Dil Fac 5 342-44 x: Solid Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 |

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Client Sample ID: VGWU61-08-10 Date Collected: 11/06/13 11:34 Date Received: 11/08/13 07:00 | | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-45 x: Solid |
|---|--|-----------|---|-----|---------------------------------|----------|----------------------|--|---|
| General Chemistry | | | | | | | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 16 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 84 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 380 | | 9.5 | | mg/Kg | <u></u> | | 11/20/13 22:56 | 2 |
| Client Sample ID: VGWU61-08-15 | | | | | | | Lab Sam | ole ID: 600-82 | 342-46 |
| Date Collected: 11/06/13 11:36 | | | | | | | | | x: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | | |
| – General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 18 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 82 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Scheral Shernistry - Schable | Desult | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| | Result | | | | | _ | | / | |
| Analyte Chloride Client Sample ID: VGWU61-08-20 | 270 | | 9.7 | | mg/Kg | <u></u> | Lab Sam | 11/20/13 23:43 | |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 | | | | | mg/Kg | <u> </u> | Lab Sam | ole ID: 600-82 | |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry | 270 | | 9.7 | PI | | | | ole ID: 600-82 Matri | 342-47 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte | 270 Result | Qualifier | 9.7 | RL | Unit | <u></u> | Lab Sam | ole ID: 600-82 Matri Analyzed | 342-47 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 270 Result 16 | | 9.7 RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 | 342-47 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte | 270 Result | | 9.7 | RL | Unit | | | ole ID: 600-82 Matri Analyzed | 342-47 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 270 Result 16 84 | Qualifier | 9.7 RL 1.0 | | Unit % | <u>D</u> | | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 | 342-47 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | 270 Result 16 84 | | 9.7 RL 1.0 1.0 RL | RL | Unit % | <u>D</u> | | Analyzed 11/10/13 13:47 11/10/13 13:47 Analyzed | 342-47 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | 270 Result 16 84 | Qualifier | 9.7 RL 1.0 1.0 | | Unit % | <u>D</u> | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 | 342-47 x: Solid Dil Fac |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | 270 Result 16 84 Result | Qualifier | 9.7 RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 23:58 | 342-47 x: Solid Dil Fac 1 1 Dil Fac 2 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 | 270 Result 16 84 Result | Qualifier | 9.7 RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 23:58 Die ID: 600-82 | 342-47 x: Solid Dil Fac 1 1 Dil Fac 2 342-48 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | 270 Result 16 84 Result | Qualifier | 9.7 RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 23:58 Die ID: 600-82 | 342-47 x: Solid Dil Fac 1 Dil Fac 2 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 Date Received: 11/08/13 07:00 | 270 Result 16 84 Result | Qualifier | 9.7 RL 1.0 1.0 RL | | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 23:58 Die ID: 600-82 | 342-47 x: Solid Dil Fac 1 1 Dil Fac 2 342-48 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 | 270 Result 16 84 Result 390 | Qualifier | 9.7 RL 1.0 1.0 RL | MDL | Unit % Wunit | <u>D</u> | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/20/13 23:58 Die ID: 600-82 | 342-47 x: Solid Dil Fac 1 1 Dil Fac 2 342-48 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 Date Received: 11/08/13 07:00 General Chemistry | 270 Result 16 84 Result 390 | Qualifier | 9.7 RL 1.0 1.0 RL 9.6 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 23:58 Die ID: 600-82 Matri | 342-47 x: Solid Dil Fac 1 Dil Fac 2 342-48 x: Solid |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 Date Received: 11/08/13 07:00 General Chemistry Analyte | 270 Result 16 84 Result 390 | Qualifier | 9.7 RL 1.0 1.0 RL 9.6 RL | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 23:58 Die ID: 600-82 Matri Analyzed | 342-47 x: Solid Dil Fac 1 1 Dil Fac 2 342-48 x: Solid Dil Fac 1 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture Percent Solids | 270 Result 16 84 Result 390 Result 28 | Qualifier | 9.7 RL 1.0 1.0 RL 9.6 RL 1.0 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 23:58 Die ID: 600-82 Matri Analyzed 11/20/13 13:47 | 342-47 x: Solid Dil Fac 1 1 Dil Fac 2 342-48 x: Solid Dil Fac 1 |
| Analyte Chloride Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture | 270 Result 16 84 Result 390 Result 28 72 | Qualifier | 9.7 RL 1.0 1.0 RL 9.6 RL 1.0 | MDL | Unit % % Wnit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/20/13 23:58 Die ID: 600-82 Matri Analyzed 11/20/13 13:47 | 342-47 x: Solid Dil Fac 1 Dil Fac 2 342-48 x: Solid |

Client Sample Results

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Date Collected: 11/06/13 11:10 Date Received: 11/08/13 07:00 | | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-49 ix: Solid |
|---|--|-----------|---|-----|---------------------------------|----------|----------------------|---|---|
| General Chemistry | | | | | | | | | |
| Analyte | | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 2.5 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 97 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 4400 | | 410 | | mg/Kg | | | 11/21/13 00:29 | 100 |
| Client Sample ID: VGWU61-09-05 | | | | | | | Lab Sam | ole ID: 600-82 | 342-50 |
| Date Collected: 11/06/13 11:12 | | | | | | | | | ix: Solid |
| Date Received: 11/08/13 07:00 | | | | | | | | matri | |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 3.4 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 97 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| _ General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| | | Q | | | | | | | |
| Chloride Client Sample ID: VGWU61-09-10 | 3800 | | 410 | | mg/Kg | <u> </u> | Lab Sam | 11/21/13 01:00 | |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 | 3800 | | 410 | | mg/Kg | ÷ | Lab Sam | ole ID: 600-82 | |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry | | Qualifier | | RL | | | | ole ID: 600-82 Matri | 342-51 ix: Solid |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result | Qualifier | RL | RL | Unit | | Lab Sam | ole ID: 600-82 Matri Analyzed | 342-51 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry | | Qualifier | | RL | | | | ole ID: 600-82 Matri | 342-51 ix: Solid Dil Fac |
| Chloride Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | Result 6.7 | Qualifier | RL 1.0 | RL | Unit % | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 13:47 | 342-51 ix: Solid Dil Fac |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble | Result 6.7 93 | | RL 1.0 1.0 | | Unit % | D | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 | 342-51 ix: Solid Dil Fac |
| Chloride Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | Result 6.7 93 Result | Qualifier | RL 1.0 | RL | Unit % Wunit | | | Die ID: 600-82 Matri - <u>Analyzed</u> 11/10/13 13:47 | 342-51 ix: Solid |
| Chloride Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride | Result 6.7 93 | | RL 1.0 1.0 RL | | Unit % | D | Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 |
| Chloride Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 | Result 6.7 93 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 Die ID: 600-82 | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 342-52 |
| Chloride Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 | Result 6.7 93 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 Die ID: 600-82 | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte | Result 6.7 93 Result | | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 Die ID: 600-82 | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 342-52 |
| Chloride Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 | Result 6.7 93 Result 830 | Qualifier | RL 1.0 1.0 RL | | Unit % Wunit | D | Prepared Prepared | Die ID: 600-82 Matri Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 Die ID: 600-82 | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 342-52 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result 6.7 93 Result 830 | | RL 1.0 1.0 RL 21 | MDL | Unit % % Unit mg/Kg | D | Prepared | Analyzed Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 Die ID: 600-82 Matri Analyzed | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 342-52 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture | Result 6.7 93 Result 830 Result 15 | Qualifier | RL 1.0 1.0 21 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 ole ID: 600-82 Matri Analyzed 11/21/13 01:31 ole ID: 600-82 Matri Analyzed 11/10/13 13:47 | 342-51 ix: Solid Dil Fac 5 342-52 ix: Solid Dil Fac 1 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 Date Received: 11/08/13 07:00 General Chemistry Analyte | Result 6.7 93 Result 830 | Qualifier | RL 1.0 1.0 RL 21 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 Die ID: 600-82 Matri Analyzed | 342-51 ix: Solid Dil Fac 5 342-52 ix: Solid Dil Fac 1 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Moisture | Result 6.7 93 Result 830 Result 15 | Qualifier | RL 1.0 1.0 21 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 ole ID: 600-82 Matri Analyzed 11/21/13 01:31 ole ID: 600-82 Matri Analyzed 11/10/13 13:47 | 342-51 ix: Solid Dil Fac 1 1 Dil Fac 5 342-52 ix: Solid Dil Fac 1 |
| Chloride Client Sample ID: VGWU61-09-10 Date Collected: 11/06/13 11:14 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids General Chemistry - Soluble Analyte Chloride Client Sample ID: VGWU61-09-15 Date Collected: 11/06/13 11:16 Date Received: 11/08/13 07:00 General Chemistry Analyte Percent Moisture Percent Solids | Result 6.7 93 Result 830 Result 15 85 | Qualifier | RL 1.0 1.0 21 | MDL | Unit % % Unit mg/Kg | D | Prepared Prepared | Analyzed 11/10/13 13:47 11/10/13 13:47 11/10/13 13:47 Analyzed 11/21/13 01:31 ole ID: 600-82 Matri Analyzed 11/21/13 01:31 ole ID: 600-82 Matri Analyzed 11/10/13 13:47 | 342-51 ix: Solid Dil Fac 1 Dil Fac 5 342-52 ix: Solid |

Client Sample Results

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM TestAmerica Job ID: 600-82342-1

| Client Sample ID: VGWU61-09 Date Collected: 11/06/13 11:18 Date Received: 11/08/13 07:00 | -20 | | | | | | Lab Sam | ole ID: 600-82 Matri | 342-53 ix: Solid |
|--|--------|-----------|-----|-----|-------|----------|----------|-------------------------|---------------------|
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 5.9 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 94 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 370 | | 21 | | mg/Kg | <u>¥</u> | | 11/21/13 03:35 | 5 |
| Client Sample ID: VGWU61-09 | -25 | | | | | | Lab Sam | ole ID: 600-82 | 342-54 |
| Date Collected: 11/06/13 11:20 Date Received: 11/08/13 07:00 | | | | | | | | Matri | ix: Solid |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Percent Moisture | 28 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| Percent Solids | 72 | | 1.0 | | % | | | 11/10/13 13:47 | 1 |
| - General Chemistry - Soluble | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloride | 310 | | 11 | | mg/Kg | <u> </u> | | 11/21/13 03:51 | 2 |

Qualifiers

General Chemistry

| General Che | mistry | Λ |
|-------------|---|---|
| Qualifier | Qualifier Description | |
| F | MS/MSD Recovery and/or RPD exceeds the control limits | 5 |
| В | Compound was found in the blank and sample. | |

Glossary

| | | _ |
|----------------|---|--------|
| Abbreviation | These commonly used abbreviations may or may not be present in this report. | 7 |
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis | |
| %R | Percent Recovery | 8 |
| CNF | Contains no Free Liquid | |
| DER | Duplicate error ratio (normalized absolute difference) | 9 |
| Dil Fac | Dilution Factor | |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample | |
| DLC | Decision level concentration | |
| MDA | Minimum detectable activity | |
| EDL | Estimated Detection Limit | |
| MDC | Minimum detectable concentration | |
| MDL | Method Detection Limit | |
| ML | Minimum Level (Dioxin) | 12 |
| NC | Not Calculated | 13 |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) | |
| PQL | Practical Quantitation Limit | |
| QC | Quality Control | |
| RER | Relative error ratio | |
| RL | Reporting Limit or Requested Limit (Radiochemistry) | |
| RPD | Relative Percent Difference, a measure of the relative difference between two points | |
| TEE | Toxicity Equivalent Factor (Dioxin) | |

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

8 9

Method: 9056 - Anions, Ion Chromatography

| Lab Sample ID: MB 600-120665/2 Matrix: Solid | 1-A | | | | | | | | | Client | Sample ID Prei | : Metho p Type: \$ | |
|--|--|-----------------|--|-----|---|-----------------------------------|-------|--------------------------------|-----------|--|--|--|---|
| Analysis Batch: 120998 | | | | | | | | | | | | p Type. | oorabic |
| | MB | МВ | | | | | | | | | | | |
| Analyte | Result | Qualifier | | RL | | MDL | Unit | | D | Prepared | Anal | yzed | Dil Fac |
| Chloride | ND | | | 4.0 | | | mg/Kg | | | | 11/19/1 | 3 17:59 | 1 |
| Lab Sample ID: MB 600-120666/1- | -A | | | | | | | | | Client | Sample ID | : Metho | d Blank |
| Matrix: Solid | | | | | | | | | | | - | p Type: \$ | |
| Analysis Batch: 120998 | | | | | | | | | | | | | |
| Analyte | MB Result | MB Qualifier | | RL | | MDL | Unit | | D | Prepared | ۸nal | yzed | Dil Fac |
| Chloride | ND | Quaimer | | 4.0 | | | mg/Kg | | | riepaieu | 11/20/1 | - | 1 |
| - | | | | | | | | | | | | | |
| Lab Sample ID: MB 600-120666/2* Matrix: Solid | 1-A | | | | | | | | | Client | Sample ID Prei | : Metho p Type: \$ | |
| Analysis Batch: 120998 | | | | | | | | | | | | | |
| | | MB | | | | | | | | | | | |
| Analyte | | Qualifier | | RL | | MDL | | | D | Prepared | | yzed | Dil Fac |
| Chloride | 5.98 | | | 4.0 | | | mg/Kg | | | | 11/20/1 | 3 06:23 | 1 |
| Lab Sample ID: LCS 600-120665/2 | 22-A | | | | | | | | Clie | nt Samp | le ID: Lab | Control | Sample |
| Matrix: Solid | | | | | | | | | | | | p Type: \$ | |
| Analysis Batch: 120998 | | | Spike | | LCS | 1.09 | | | | | %Rec. | | |
| Analyte | | | Added | 1 | Result | | ifier | Unit | I |) %Rec | | | |
| Chloride | | | 200 | | 193 | | | mg/Kg | | 96 | 90 - 110 | | · |
| | | | | | | | | 0 0 | | | | | |
| - | 00.4 | | | | | | | 0 0 | | | In ID: Lab | O a setura la | 0 |
| _ Lab Sample ID: LCS 600-120666/2 | 22-A | | | | | | | 0 0 | Clie | nt Samp | le ID: Lab | | |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid | 22-A | | | | | | | | Clie | nt Samp | | Control : p Type: : | |
| _ Lab Sample ID: LCS 600-120666/2 | 22-A | | Spike | | LCS | LCS | | | Clie | nt Samp | | | |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid | 22-A | | Spike Added | I | | | ifier | Unit | | nt Samp | Prej %Rec. | | |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 | 22-A | | • | 1 | LCS | | ifier | | | - | Pre %Rec. Limits | | - |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride | | | Added | | LCS Result | | ifier | Unit | [| D %Rec 98 | Pre %Rec. Limits 90 - 110 | p Type: \$ | Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte | | | Added | | LCS Result | | ifier | Unit | [| D %Rec 98 | Pre %Rec. Limits 90 - 110 | p Type: \$ | Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 | | | Added 200 | 1 | LCS Result 196 | Qual | ifier | Unit | [| D %Rec 98 | Pre %Rec. Limits 90 - 110 Die ID: Lab Pre | o Type: \$ Control \$ | Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 | | | Added 200 Spike | | LCS Result 196 LCS | Qual | | Unit mg/Kg | Clie | 0 %Rec 98 nt Samp | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. | o Type: \$ Control \$ | Soluble Sample |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte | | | Added 200 Spike Added | | LCS Result 196 LCS Result | Qual | | Unit mg/Kg Unit | Clie | 0 %Rec 98 nt Samp 0 %Rec | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. Limits | o Type: \$ Control \$ | Soluble Sample |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 | | | Added 200 Spike | | LCS Result 196 LCS | Qual | | Unit mg/Kg | Clie | 0 %Rec 98 nt Samp | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. | o Type: \$ Control \$ | Soluble Sample |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte | | | Added 200 Spike Added | | LCS Result 196 LCS Result | Qual | | Unit mg/Kg Unit | Clie | 2 %Rec 98 nt Samp 2 %Rec 97 | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. Limits | Control S D Type: S | Soluble Sample Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride | | | Added 200 Spike Added | | LCS Result 196 LCS Result | Qual | | Unit mg/Kg Unit | Clie | 2 %Rec 98 nt Samp 2 %Rec 97 | Pre %Rec. Limits 90 - 110 ble ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: | Control S D Type: S | Soluble Sample Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS | 2-A | | Added 200 Spike Added 200 | | LCS Result 196 LCS Result 194 | Qual LCS Qual | | Unit mg/Kg Unit | Clie | 2 %Rec 98 nt Samp 2 %Rec 97 | Pre %Rec. Limits 90 - 110 Ole ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre | Control S D Type: S D Type: S VGWU6 | Soluble Sample Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 | 2-A Sample Sam | - | Added 200 Spike Added 200 Spike | | LCS Result 196 LCS Result 194 | Qual LCS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | 2 %Rec 98 nt Samp 2 %Rec 97 Client \$ | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. | Control S D Type: S D Type: S VGWU6 | Soluble Sample Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 Analyte | 2-A Sample Sam Result Qua | - | Added 200 Spike Added 200 Spike Added | | LCS Result 196 LCS Result 194 MS Result | Qual LCS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | 0 %Rec 98 nt Samp 0 %Rec 97 Client \$ | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. Limits | Control S D Type: S D Type: S VGWU6 | Soluble Sample Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 | 2-A Sample Sam | - | Added 200 Spike Added 200 Spike | | LCS Result 196 LCS Result 194 | Qual LCS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | 0 %Rec 98 nt Samp 0 %Rec 0 %Rec 0 %Rec 0 %Rec 0 %Rec | Pre %Rec. Limits 90 - 110 ole ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. Limits | Control S D Type: S D Type: S VGWU6 | Soluble Sample Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 Analyte | 2-A Sample Sam Result Qua 340 | - | Added 200 Spike Added 200 Spike Added | | LCS Result 196 LCS Result 194 MS Result | Qual LCS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | %Rec 98 nt Samp %Rec 97 Client \$ 0 %Rec 100 | Pre %Rec. Limits 90 - 110 ble ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. Limits 80 - 120 Sample ID: | Control S D Type: S D Type: S VGWU6 D Type: S VGWU6 | Soluble Sample Soluble 1-02-05 Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MSD Matrix: Solid | 2-A Sample Sam Result Qua 340 | - | Added 200 Spike Added 200 Spike Added | | LCS Result 196 LCS Result 194 MS Result | Qual LCS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | %Rec 98 nt Samp %Rec 97 Client \$ 0 %Rec 100 | Pre %Rec. Limits 90 - 110 ble ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. Limits 80 - 120 Sample ID: | Control : p Type: : p Type: : VGWU6 p Type: : | Soluble Sample Soluble 1-02-05 Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MSD | 2-A Sample Sam Result Qua 340 | lifier | Added 200 Spike Added 200 Spike Added 210 | | LCS Result 196 LCS Result 194 MS Result 547 | Qual LCS Qual MS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | %Rec 98 nt Samp %Rec 97 Client \$ 0 %Rec 100 | Pre %Rec. Limits 90 - 110 ble ID: Lab (Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. Limits 80 - 120 Sample ID: Pre | Control S D Type: S D Type: S VGWU6 D Type: S VGWU6 | Soluble Sample Soluble 1-02-05 Soluble 1-02-05 Soluble |
| Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: LCS 600-120666/2 Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MS Matrix: Solid Analysis Batch: 120998 Analyte Chloride Lab Sample ID: 600-82342-2 MSD Matrix: Solid | 2-A Sample Sam Result Qua 340 | ple | Added 200 Spike Added 200 Spike Added | | LCS Result 196 LCS Result 194 MS Result | Qual LCS Qual MS Qual | ifier | Unit mg/Kg Unit mg/Kg | [Clie | %Rec 98 nt Samp %Rec 97 Client \$ 0 %Rec 100 | Pre %Rec. Limits 90 - 110 ble ID: Lab Pre %Rec. Limits 90 - 110 Sample ID: Pre %Rec. Limits 80 - 120 Sample ID: | Control S D Type: S D Type: S VGWU6 D Type: S VGWU6 | Soluble Sample Soluble 1-02-05 Soluble 1-02-05 Soluble RPD |

Analyte Chloride 8

| Lab Sample ID: 600-82342-10 MS | | | | | | | | C | lient Sa | mple ID: V | GWU61 | -01-20 |
|---|----------|---------------------|--------|---------------|-----------------|-----------------|---|---------------|------------|--------------------|---------------------------------|---------|
| Matrix: Solid | | | | | | | | | | Prep | Type: S | oluble |
| Analysis Batch: 120998 | | | | | | | | | | | | |
| | Sample | Sample | Spike | MS | MS | | | | | %Rec. | | |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | | D | %Rec | Limits | | |
| Chloride | 42 | | 104 | 129 | | mg/Kg | | × | 83 | 80 - 120 | | |
| Lab Sample ID: 600-82342-10 MSD |) | | | | | | | C | lient Sa | mple ID: V | GWU61 | -01-20 |
| Matrix: Solid | | | | | | | | | | | Type: S | |
| Analysis Batch: 120998 | | | | | | | | | | | | |
| | Sample | Sample | Spike | MSD | MSD | | | | | %Rec. | | RPD |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | | D | %Rec | Limits | RPD | Limit |
| Chloride | 42 | | 104 | 127 | | mg/Kg | | ¤ | 81 | 80 - 120 | 2 | 20 |
| Lab Sample ID: 600-82342-16 MS | | | | | | | | C | lient Sa | mple ID: V | | |
| Matrix: Solid | | | | | | | | | | Prep | Type: S | oluble |
| Analysis Batch: 120998 | Comula | Commis | Calles | ме | ме | | | | | %Rec. | | |
| Analyta | | Sample Qualifier | Spike | MS | MS Qualifiar | Unit | | Р | % Baa | | | |
| Analyte Chloride | 240 | Quaimer | Added | Result 328 | Qualifier | | | D ÿ | %Rec 85 | Limits 80 - 120 | | |
| Chionde | 240 | | 100 | 320 | | mg/Kg | | ~~ | 60 | 00 - 120 | | |
| Lab Sample ID: 600-82342-16 MSD Matrix: Solid | | | | | | | | C | lient Sa | mple ID: \ Prep | / <mark>GWU61</mark> Type: S | |
| Analysis Batch: 120998 | | | | | | | | | | | | |
| , , , , , , , , , , , , , , , , , , , | Sample | Sample | Spike | MSD | MSD | | | | | %Rec. | | RPD |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | | D | %Rec | Limits | RPD | Limit |
| Chloride | 240 | | 106 | 321 | F | mg/Kg | | \\ | 78 | 80 - 120 | 2 | 20 |
| Γ | | | | | | | | | | | | |
| Lab Sample ID: 600-82342-24 MS | | | | | | | | C | lient Sa | mple ID: V | | |
| Matrix: Solid | | | | | | | | | | Prep | Type: S | oluble |
| Analysis Batch: 120998 | Comula | Commis | Calles | ме | MS | | | | | % Dee | | |
| Anchite | | Sample | Spike | MS | | 11 | | | % Dee | %Rec. | | |
| Analyte Chloride | 95 | Qualifier | Added | Result 189 | Qualifier | _ Unit mg/Kg | | D x | %Rec 90 | Limits 80 - 120 | | |
| Chionde | 95 | D | 105 | 109 | | тну/ку | | ~~ | 90 | 00 - 120 | | |
| Lab Sample ID: 600-82342-24 MSD |) | | | | | | | С | lient Sa | mple ID: V | GWU61 | -04-25 |
| Matrix: Solid | | | | | | | | | | - | Type: S | |
| Analysis Batch: 120998 | | | | | | | | | | | | |
| | Sample | Sample | Spike | MSD | MSD | | | | | %Rec. | | RPD |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | | D | %Rec | Limits | RPD | Limit |
| Chloride | 95 | B | 105 | 188 | | mg/Kg | | ₽ | 90 | 80 - 120 | 0 | 20 |
| | • | | | | | | | | | annula ID. | Mathaal | Disale |
| Lab Sample ID: MB 600-120666/21 | -A | | | | | | | | Client 5 | ample ID: | | |
| Matrix: Solid | | | | | | | | | | Frep | Type: S | oluble |
| Analysis Batch: 121126 | | MB MB | | | | | | | | | | |
| Analyte | Б | esult Qualifier | | RL | MDL Unit | | D | D | repared | Analy | od | Dil Fac |
| Chloride | N | ND Quanner | | 4.0 | mg/K | ία | | FI | epareu | 11/20/13 | | 1 |
| | | | | | iiig/N | . . | | | | 11/20/13 | 17.20 | I |
| | | | | | | | | | 0 | | | |
| Lab Sample ID: MB 600-120667/1- | A | | | | | | | | Client S | ample ID: | Method | Blank |
| Lab Sample ID: MB 600-120667/1-/ Matrix: Solid | 4 | | | | | | | | Client S | ample ID: Prep | | |
| Matrix: Solid | 4 | | | | | | | | Client S | | Method Type: S | |
| | A | MB MB | | | | | | | Client S | | | |

TestAmerica Houston

11/20/13 18:48

4.0

mg/Kg

ND

8 9

Method: 9056 - Anions, Ion Chromatography (Continued)

| Lab Sample ID: MB 600-12066 Matrix: Solid | 7/21-A | | | | | | | Client S | ample ID: N Prep T | | |
|--|--|--------------------------|---|--|---|-------------------------------|--|--|--|---|---|
| Analysis Batch: 121126 | | | | | | | | | | | |
| Analyte | P | MB MB esult Qualifier | | RL | MDL Unit | | D P | repared | Analyze | d | Dil Fac |
| Chloride | ĸ | ND Quaimer | | 4.0 | mg/K | a | <u>р</u> – | repareu | | | 1 |
| | | ne - | | 1.0 | ing/it | 9 | | | 11/21/10/0 | | |
| Lab Sample ID: LCS 600-12066 Matrix: Solid | 66/22-A | | | | | | Client | Sample | ID: Lab Co Prep T | | - |
| Analysis Batch: 121126 | | | | | | | | | | | |
| | | | Spike | LCS | LCS | | | | %Rec. | | |
| Analyte | | | Added | | Qualifier | Unit | D | %Rec | Limits | | |
| Chloride | | | 200 | 195 | | mg/Kg | | 98 | 90 - 110 | | |
| Lab Sample ID: LCS 600-12066 Matrix: Solid | 67/22-A | | | | | | Client | Sample | ID: Lab Co Prep T | | |
| Analysis Batch: 121126 | | | | | | | | | | | |
| | | | Spike | | LCS | | _ | ~ = | %Rec. | | |
| Analyte | | | Added | | Qualifier | Unit | D | %Rec | Limits | | |
| Chloride | | | 200 | 191 | | mg/Kg | | 95 | 90 - 110 | | |
| Lab Sample ID: LCS 600-12066 Matrix: Solid | 67/2-A | | | | | | Client | Sample | ID: Lab Co Prep T | | |
| Analysis Batch: 121126 | | | Calka | 1.00 | 1.00 | | | | %/ De e | | |
| Analyte | | | Spike Added | | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
| Chloride | | | 200 | 195 | Quanner | | | | | | |
| _ | MS | | 200 | 195 | | mg/Kg | (| 98 Client Sa | 90 - 110 | 3WU61 | -05-25 |
| Lab Sample ID: 600-82342-30 I Matrix: Solid Analysis Batch: 121126 | MS | | 200 | 190 | | тіg/кg | (| | mple ID: VC Prep T | | |
| Lab Sample ID: 600-82342-30 I Matrix: Solid | | Sample | Spike | | MS | mg/Kg | C | | mple ID: VC | | |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | Client Sa | mple ID: V(Prep T %Rec. Limits | | |
| Lab Sample ID: 600-82342-30 I Matrix: Solid Analysis Batch: 121126 | Sample | | Spike | MS | | | | Client Sa | mple ID: V(Prep T %Rec. | | |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride | Sample Result 130 | | Spike Added | MS Result | | Unit | D | NRec 80 | wmple ID: VC Prep T %Rec. Limits 80 - 120 | ype: S | oluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 M | Sample Result 130 | | Spike Added | MS Result | | Unit | D | NRec 80 | mple ID: V(Prep T %Rec. Limits 80 - 120 | ype: S | oluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid | Sample Result 130 | | Spike Added | MS Result | | Unit | D | NRec 80 | wmple ID: VC Prep T %Rec. Limits 80 - 120 | ype: S | oluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 M | Sample Result 130 | | Spike Added | MS Result 217 | | Unit | D | NRec 80 | mple ID: V(Prep T %Rec. Limits 80 - 120 | ype: S | l-05-25 |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid | Sample Result 130 MSD Sample | Qualifier | Spike Added 107 | MS Result 217 MSD | Qualifier | Unit | <u>D</u> | NRec 80 | Marker Marker Marker Limits 80 - 120 Marker | ype: S | i-05-28 Soluble RPE |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 | Sample Result 130 MSD Sample | Qualifier | Spike Added 107 Spike | MS Result 217 MSD | Qualifier | Unit mg/Kg | <u> </u> | Client Sa %Rec 80 Client Sa | Marker Marker Marker Limits 80 - 120 Marker Marker Marker | ype: S GWU61 ype: S | l-05-25 Soluble RPD Limit |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride | Sample Result 130 VISD Sample Result 130 | Qualifier | Spike Added 107 Spike Added | MS Result 217 MSD Result | Qualifier | Unit mg/Kg Unit | D x D x x | Client Sa %Rec 80 Client Sa %Rec 90 | Marker Ma | Type: S GWU61 Type: S RPD 5 | l-05-25 soluble RPE Limi 20 |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix | Sample Result 130 VISD Sample Result 130 | Qualifier | Spike Added 107 Spike Added | MS Result 217 MSD Result | Qualifier | Unit mg/Kg Unit | D x D x x | Client Sa %Rec 80 Client Sa %Rec 90 | Margine ID: VC Prep T %Rec. Limits 80 - 120 Margine ID: VC Prep T %Rec. Limits 80 - 120 Margine ID: VC | Type: S GWU61 Type: S RPD 5 GWU61 | |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid | Sample Result 130 VISD Sample Result 130 | Qualifier | Spike Added 107 Spike Added | MS Result 217 MSD Result | Qualifier | Unit mg/Kg Unit | D x D x x | Client Sa %Rec 80 Client Sa %Rec 90 | Marker Ma | Type: S GWU61 Type: S RPD 5 GWU61 | |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix | Sample Result 130 MSD Sample Result 130 | Qualifier | Spike Added 107 Spike Added | MS Result 217 MSD Result 228 | Qualifier | Unit mg/Kg Unit | D x D x x | Client Sa %Rec 80 Client Sa %Rec 90 | Margine ID: VC Prep T %Rec. Limits 80 - 120 Margine ID: VC Prep T %Rec. Limits 80 - 120 Margine ID: VC | Type: S GWU61 Type: S RPD 5 GWU61 | Coluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid | Sample Result 130 VISD Sample Result 130 VIS Sample | Qualifier | Spike Added 107 Spike Added 107 | MS Result 217 MSD Result 228 | Qualifier MSD Qualifier | Unit mg/Kg Unit | D D Q D | Client Sa %Rec 80 Client Sa %Rec 90 | Marken ID: VC Prep T %Rec. Limits 80 - 120 Marken ID: VC Prep T %Rec. Limits 80 - 120 Marken ID: VC Prep T | Type: S GWU61 Type: S RPD 5 GWU61 | Coluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid Analysis Batch: 121126 | Sample Result 130 VISD Sample Result 130 VIS Sample | Qualifier | Spike Added 107 Spike Added 107 Spike | MS Result 217 MSD Result 228 | Qualifier MSD Qualifier MS Qualifier | Unit mg/Kg | D 0 7 | Client Sa %Rec 80 Client Sa %Rec 90 | mple ID: VC Prep T %Rec. Limits 80 - 120 mple ID: VC Prep T %Rec. Limits 80 - 120 mple ID: VC Prep T %Rec. | Type: S GWU61 Type: S RPD 5 GWU61 | Coluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid Analysis Batch: 121126 Analyte | Sample Result 130 MSD Sample Result 130 MS Sample Result 27 | Qualifier | Spike Added 107 Spike Added 107 Spike Added | MS Result 217 MSD Result 228 MS Result | Qualifier MSD Qualifier MS Qualifier | Unit mg/Kg Unit Unit | D x D x C D x C C x | Client Sa %Rec %Rec 90 Client Sa %Rec 78 | mple ID: VC Prep T %Rec. Limits 80 - 120 mple ID: VC Prep T %Rec. Limits 80 - 120 mple ID: VC Prep T %Rec. Limits | Type: S GWU61 Type: S RPD 5 GWU61 Type: S GWU61 SWU61 GWU61 GWU61 GWU61 | 1-05-25 Soluble Limit 20 1-07-20 Soluble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid Analyte Chloride | Sample Result 130 MSD Sample Result 130 MS Sample Result 27 | Qualifier | Spike Added 107 Spike Added 107 Spike Added 106 | MS Result 217 MSD Result 228 MS Result 110 | Qualifier MSD Qualifier MS Qualifier F | Unit mg/Kg Unit Unit | D x D x C D x C C x | Client Sa %Rec %Rec 90 Client Sa %Rec 78 | Marker Ma | Type: S GWU61 Type: S RPD 5 GWU61 Type: S GWU61 SWU61 GWU61 GWU61 GWU61 | 601uble 1-05-25 601uble RPD Limit 20 1-07-20 601uble 1-07-20 601uble |
| Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-30 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid Analysis Batch: 121126 Analyte Chloride Lab Sample ID: 600-82342-38 Matrix: Solid Analyte Chloride | Sample Result 130 MSD Sample Result 130 MS Sample Result 27 MSD Sample | Qualifier | Spike Added 107 Spike Added 107 Spike Added | MS Result 217 MSD Result 228 MS Result 110 | Qualifier MSD Qualifier MS Qualifier | Unit mg/Kg Unit Unit | D x D x C D x C C x | Client Sa %Rec %Rec 90 Client Sa %Rec 78 | Marker Ma | Type: S GWU61 Type: S RPD 5 GWU61 Type: S GWU61 SWU61 GWU61 GWU61 GWU61 | 1-05-25 Soluble Limit 20 1-07-20 Soluble |

| a county i | | | | | | | | | | |
|------------|--|---|---|---|---|--|--|--|---|---|
| | | | | | | c | lient Sa | mple ID: V | GWU61- | -09-15 |
| | | | | | | | | Prep | Type: So | oluble |
| | | | | | | | | | | |
| Sample | Sample | Spike | MS | MS | | | | %Rec. | | |
| Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | | |
| 250 | | 236 | 499 | | mg/Kg | <u>Å</u> | 105 | 80 - 120 | | |
| D | | | | | | c | lient Sa | mple ID: V | GWU61- | -09-15 |
| | | | | | | | | Prep | Type: So | oluble |
| | | | | | | | | | | |
| Sample | Sample | Spike | MSD | MSD | | | | %Rec. | | RPD |
| Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| 250 | | 236 | 498 | | mg/Kg | <u></u> | 104 | 80 - 120 | 0 | 20 |
| B MS | | | | | c | lient S | Sample I | D: 600-823 | 42-A-44- | -B MS |
| | | | | | | | | Prep | Type: So | oluble |
| | | | | | | | | | | |
| Sample | Sample | Spike | MS | MS | | | | %Rec. | | |
| Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | | |
| 10000 | | 51600 | 52600 | | mg/Kg | <u>Å</u> | 82 | 80 - 120 | | |
| MSD | | | | | Cli | ent Sa | mple ID | : 600-8234 | 2-A-44-C | S MSD |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Samala | Sample | Spike | MSD | MSD | | | | %Rec. | | RPD |
| Sample | •••••• | | | | | | | | | |
| | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| | Sample Result 250 D Sample Result 250 B MS Sample Result 10000 | D Sample Sample Result Qualifier 250 S MS Sample Sample Result Qualifier 10000 | Sample Sample Spike Result Qualifier Added 250 236 D Sample Sample Result Qualifier Added 250 Sample Result Qualifier Added 250 236 BMS Sample Sample Qualifier Added 10000 51600 | Sample Result 250Sample QualifierSpike Added Added 236MSSample Result 250Sample QualifierSpike Added Added 236MSDSample 250Sample 236Spike 498MSSSample 250Spike 236MSSample 250Spike 236MSSample 250Spike 236MSSMSSample 250Spike 250MSSample 250Spike 250MSSMSSample 250Spike 250MSSample 250Spike 2500Spike 2600 | Sample ResultSample QualifierSpike AddedMS ResultMS Qualifier250236499250236499Sample ResultSample QualifierSpike AddedMSD ResultResult 250QualifierAdded AddedResult QualifierSample 250Sample 236Spike 498MSD QualifierSample 250Sample 236Spike 498MSD QualifierSMSSample 2000Spike 51600MS 52600SMSDSample 51600Spike 52600MS Spike | Sample ResultSample QualifierSpike AddedMS ResultMS QualifierUnit mg/Kg250236499Image: MSD mg/KgMSD MSDMSD mg/KgSample 250Sample 236Spike 236MSD 498MSD mg/KgSMSSample 236Spike 498MSD mg/KgUnit mg/KgSMSSample 236Spike 498MS mg/KgMS ClinitSample 10000Sample 236Spike 51600MS 52600MS ClinitSMSDClinit MSDClinit MSDClinit MSDClinit MSD | Sample Sample Spike MS MS Result Qualifier Added Result Qualifier Unit D 250 236 399 Gualifier Unit D Gualifier D 0 Sample Sample Spike MSD MSD MSD Result Qualifier Added Result Qualifier Unit D 250 236 236 498 Client S Gualifier D Gualifier 8 MS Client S Sample Sample Spike MS MS MS 8 MS Client S Sample Spike MS MS MS MS 8 MS Gualifier Added Result Qualifier Unit D Gualifier Mainer Mainer 9 MS Sample Sample Spike MS MS MS MS MS 8 MS Gualifier Added Result Qualifier Unit D Gualifier Mainer Mainer <td< td=""><td>Sample Sample Spike MS MS MS Result Qualifier Added Result Qualifier Unit D %Rec 250 236 499 Qualifier Unit D %Rec 105 D Client Sa Sample Sample Spike MSD MSD Qualifier Unit D %Rec 105 Sample Sample Spike MSD MSD MSD Qualifier Unit D %Rec 104 0<td>Sample Sample Spike MS MS MS MS MS MRec. Limits MRec. Limits B MRec. MRec. Limits B</td><td>Sample Sample Spike MS MS MS MS MS %Rec. 250 236 236 499 Unit D %Rec. Limits — D Client Sample ID: VGWU61 705 80.120 — Client Sample ID: VGWU61 D Sample Sample Spike MSD MSD Client Sample ID: VGWU61 Sample Sample Spike MSD MSD %Rec. Limits RPD 250 236 498 Qualifier Unit D %Rec. Limits RPD 250 236 498 Qualifier Unit D %Rec. Rec. 250 236 498 Qualifier Unit D %Rec. RPD 0 38 MS Client Sample ID: 600-82342-A-44 Prep Type: St St</td></td></td<> | Sample Sample Spike MS MS MS Result Qualifier Added Result Qualifier Unit D %Rec 250 236 499 Qualifier Unit D %Rec 105 D Client Sa Sample Sample Spike MSD MSD Qualifier Unit D %Rec 105 Sample Sample Spike MSD MSD MSD Qualifier Unit D %Rec 104 0 <td>Sample Sample Spike MS MS MS MS MS MRec. Limits MRec. Limits B MRec. MRec. Limits B</td> <td>Sample Sample Spike MS MS MS MS MS %Rec. 250 236 236 499 Unit D %Rec. Limits — D Client Sample ID: VGWU61 705 80.120 — Client Sample ID: VGWU61 D Sample Sample Spike MSD MSD Client Sample ID: VGWU61 Sample Sample Spike MSD MSD %Rec. Limits RPD 250 236 498 Qualifier Unit D %Rec. Limits RPD 250 236 498 Qualifier Unit D %Rec. Rec. 250 236 498 Qualifier Unit D %Rec. RPD 0 38 MS Client Sample ID: 600-82342-A-44 Prep Type: St St</td> | Sample Sample Spike MS MS MS MS MS MRec. Limits MRec. Limits B MRec. MRec. Limits B | Sample Sample Spike MS MS MS MS MS %Rec. 250 236 236 499 Unit D %Rec. Limits — D Client Sample ID: VGWU61 705 80.120 — Client Sample ID: VGWU61 D Sample Sample Spike MSD MSD Client Sample ID: VGWU61 Sample Sample Spike MSD MSD %Rec. Limits RPD 250 236 498 Qualifier Unit D %Rec. Limits RPD 250 236 498 Qualifier Unit D %Rec. Rec. 250 236 498 Qualifier Unit D %Rec. RPD 0 38 MS Client Sample ID: 600-82342-A-44 Prep Type: St St |

Method: Moisture - Percent Moisture

| | | | | | | Client Sar | nple ID: VGWU61 | -01-05 |
|------------------------------------|--------|-----------|--------|-----------|------|------------|-----------------|--------|
| Matrix: Solid | | | | | | | Prep Type: To | tal/NA |
| Analysis Batch: 120079 | | | | | | | | |
| | Sample | Sample | DU | DU | | | | RPD |
| Analyte | Result | Qualifier | Result | Qualifier | Unit | D | RPD | Limit |
| Percent Moisture | 3.9 | | 4.2 | | % | | 7 | 20 |
| Percent Solids | 96 | | 96 | | % | | 0.3 | 20 |
| Lab Sample ID: 600-82342-17 DU | | | | | | Client Sar | nple ID: VGWU61 | -03-25 |
| Matrix: Solid | | | | | | | Prep Type: To | tal/NA |
| Analysis Batch: 120079 | | | | | | | | |
| - | Sample | Sample | DU | DU | | | | RPD |
| Analyte | Result | Qualifier | Result | Qualifier | Unit | D | RPD | Limit |
| Percent Moisture | 4.9 | | 4.5 | | % | | 9 | 20 |
| Percent Solids | 95 | | 96 | | % | | 0.4 | 20 |
| Lab Sample ID: 600-82342-27 DU | | | | | | Client Sar | nple ID: VGWU61 | -05-10 |
| Matrix: Solid | | | | | | | Prep Type: To | tal/NA |
| Analysis Batch: 120079 | | | | | | | | |
| - | Sample | Sample | DU | DU | | | | RPD |
| Analyte | Result | Qualifier | Result | Qualifier | Unit | D | RPD | Limit |
| Percent Moisture | 18 | | 18 | | % | | 2 | 20 |
| Percent Solids | 82 | | 82 | | % | | 0.5 | 20 |

TestAmerica Houston

TestAmerica Job ID: 600-82342-1

Method: Moisture - Percent Moisture (Continued)

| Lab Sample ID: 600-82342-37 DL Matrix: Solid Analysis Batch: 120083 | J | | | | | Client Sa | mple ID: VGWU61 Prep Type: To | |
|---|--------|-----------|--------|-----------|------|-----------|----------------------------------|-------|
| | Sample | Sample | DU | DU | | | | RPD |
| Analyte | Result | Qualifier | Result | Qualifier | Unit | D | RPD | Limit |
| Percent Moisture | 25 | | 24 | | % | | 3 | 20 |
| Percent Solids | 75 | | 76 | | % | | 1 | 20 |
| Lab Sample ID: 600-82342-47 DL Matrix: Solid | J | | | | | Client Sa | mple ID: VGWU61 Prep Type: To | |
| Analysis Batch: 120083 | | | | | | | | |
| | Sample | Sample | DU | DU | | | | RPD |
| Analyte | Result | Qualifier | Result | Qualifier | Unit | D | RPD | Limit |
| Percent Moisture | 16 | | 16 | | % | | 0.5 | 20 |
| Percent Solids | 84 | | 84 | | % | | 0.1 | 20 |

General Chemistry

Analysis Batch: 120079

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|----------|------------|
| 600-82342-1 | VGWU61-02-02 | Total/NA | Solid | Moisture | |
| 600-82342-2 | VGWU61-02-05 | Total/NA | Solid | Moisture | |
| 600-82342-3 | VGWU61-02-10 | Total/NA | Solid | Moisture | |
| 600-82342-4 | VGWU61-02-15 | Total/NA | Solid | Moisture | |
| 600-82342-5 | VGWU61-02-25 | Total/NA | Solid | Moisture | |
| 600-82342-6 | VGWU61-01-02 | Total/NA | Solid | Moisture | |
| 600-82342-7 | VGWU61-01-05 | Total/NA | Solid | Moisture | |
| 600-82342-7 DU | VGWU61-01-05 | Total/NA | Solid | Moisture | |
| 600-82342-8 | VGWU61-01-10 | Total/NA | Solid | Moisture | |
| 600-82342-9 | VGWU61-01-15 | Total/NA | Solid | Moisture | |
| 600-82342-10 | VGWU61-01-20 | Total/NA | Solid | Moisture | |
| 600-82342-11 | VGWU61-01-25 | Total/NA | Solid | Moisture | |
| 600-82342-12 | VGWU61-03-02 | Total/NA | Solid | Moisture | |
| 600-82342-13 | VGWU61-03-05 | Total/NA | Solid | Moisture | |
| 600-82342-14 | VGWU61-03-10 | Total/NA | Solid | Moisture | |
| 600-82342-15 | VGWU61-03-15 | Total/NA | Solid | Moisture | |
| 600-82342-16 | VGWU61-03-20 | Total/NA | Solid | Moisture | |
| 600-82342-17 | VGWU61-03-25 | Total/NA | Solid | Moisture | |
| 600-82342-17 DU | VGWU61-03-25 | Total/NA | Solid | Moisture | |
| 600-82342-18 | VGWU61-04-02 | Total/NA | Solid | Moisture | |
| 600-82342-19 | VGWU61-04-05 | Total/NA | Solid | Moisture | |
| 600-82342-20 | VGWU61-04-10 | Total/NA | Solid | Moisture | |
| 600-82342-21 | VGWU61-04-15 | Total/NA | Solid | Moisture | |
| 600-82342-22 | VGWU61-04-20 | Total/NA | Solid | Moisture | |
| 600-82342-23 | VGWU61-02-20 | Total/NA | Solid | Moisture | |
| 600-82342-24 | VGWU61-04-25 | Total/NA | Solid | Moisture | |
| 600-82342-25 | VGWU61-05-02 | Total/NA | Solid | Moisture | |
| 600-82342-26 | VGWU61-05-05 | Total/NA | Solid | Moisture | |
| 600-82342-27 | VGWU61-05-10 | Total/NA | Solid | Moisture | |
| 600-82342-27 DU | VGWU61-05-10 | Total/NA | Solid | Moisture | |
| 600-82342-28 | VGWU61-05-15 | Total/NA | Solid | Moisture | |
| 600-82342-29 | VGWU61-05-20 | Total/NA | Solid | Moisture | |
| 600-82342-30 | VGWU61-05-25 | Total/NA | Solid | Moisture | |
| 600-82342-31 | VGWU61-06-02 | Total/NA | Solid | Moisture | |
| 600-82342-32 | VGWU61-06-05 | Total/NA | Solid | Moisture | |
| 600-82342-33 | VGWU61-06-10 | Total/NA | Solid | Moisture | |
| 600-82342-34 | VGWU61-07-02 | Total/NA | Solid | Moisture | |
| 600-82342-35 | VGWU61-07-05 | Total/NA | Solid | Moisture | |
| 600-82342-36 | VGWU61-07-10 | Total/NA | Solid | Moisture | |

Analysis Batch: 120083

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|----------|------------|
| 600-82342-37 | VGWU61-07-15 | Total/NA | Solid | Moisture | |
| 600-82342-37 DU | VGWU61-07-15 | Total/NA | Solid | Moisture | |
| 600-82342-38 | VGWU61-07-20 | Total/NA | Solid | Moisture | |
| 600-82342-39 | VGWU61-07-25 | Total/NA | Solid | Moisture | |
| 600-82342-40 | VGWU61-06-15 | Total/NA | Solid | Moisture | |
| 600-82342-41 | VGWU61-06-20 | Total/NA | Solid | Moisture | |
| 600-82342-42 | VGWU61-06-25 | Total/NA | Solid | Moisture | |
| 600-82342-43 | VGWU61-08-02 | Total/NA | Solid | Moisture | |
| 600-82342-44 | VGWU61-08-05 | Total/NA | Solid | Moisture | |

General Chemistry (Continued)

Analysis Batch: 120083 (Continued)

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|----------|------------|
| 600-82342-45 | VGWU61-08-10 | Total/NA | Solid | Moisture | |
| 600-82342-46 | VGWU61-08-15 | Total/NA | Solid | Moisture | |
| 600-82342-47 | VGWU61-08-20 | Total/NA | Solid | Moisture | |
| 600-82342-47 DU | VGWU61-08-20 | Total/NA | Solid | Moisture | |
| 600-82342-48 | VGWU61-08-25 | Total/NA | Solid | Moisture | |
| 600-82342-49 | VGWU61-09-02 | Total/NA | Solid | Moisture | |
| 600-82342-50 | VGWU61-09-05 | Total/NA | Solid | Moisture | |
| 600-82342-51 | VGWU61-09-10 | Total/NA | Solid | Moisture | |
| 600-82342-52 | VGWU61-09-15 | Total/NA | Solid | Moisture | |
| 600-82342-53 | VGWU61-09-20 | Total/NA | Solid | Moisture | |
| 600-82342-54 | VGWU61-09-25 | Total/NA | Solid | Moisture | |

Leach Batch: 120665

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|---------------------|--------------------|-----------|--------|----------|------------|
| 600-82342-1 | VGWU61-02-02 | Soluble | Solid | DI Leach | |
| 600-82342-2 | VGWU61-02-05 | Soluble | Solid | DI Leach | |
| 600-82342-2 MS | VGWU61-02-05 | Soluble | Solid | DI Leach | |
| 600-82342-2 MSD | VGWU61-02-05 | Soluble | Solid | DI Leach | |
| 600-82342-3 | VGWU61-02-10 | Soluble | Solid | DI Leach | |
| 600-82342-4 | VGWU61-02-15 | Soluble | Solid | DI Leach | |
| 600-82342-5 | VGWU61-02-25 | Soluble | Solid | DI Leach | |
| 600-82342-6 | VGWU61-01-02 | Soluble | Solid | DI Leach | |
| 600-82342-7 | VGWU61-01-05 | Soluble | Solid | DI Leach | |
| 600-82342-8 | VGWU61-01-10 | Soluble | Solid | DI Leach | |
| 600-82342-9 | VGWU61-01-15 | Soluble | Solid | DI Leach | |
| LCS 600-120665/22-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| MB 600-120665/21-A | Method Blank | Soluble | Solid | DI Leach | |

Leach Batch: 120666

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|----------|------------|
| 600-82342-10 | VGWU61-01-20 | Soluble | Solid | DI Leach | |
| 600-82342-10 MS | VGWU61-01-20 | Soluble | Solid | DI Leach | |
| 600-82342-10 MSD | VGWU61-01-20 | Soluble | Solid | DI Leach | |
| 600-82342-11 | VGWU61-01-25 | Soluble | Solid | DI Leach | |
| 600-82342-12 | VGWU61-03-02 | Soluble | Solid | DI Leach | |
| 600-82342-13 | VGWU61-03-05 | Soluble | Solid | DI Leach | |
| 600-82342-14 | VGWU61-03-10 | Soluble | Solid | DI Leach | |
| 600-82342-15 | VGWU61-03-15 | Soluble | Solid | DI Leach | |
| 600-82342-16 | VGWU61-03-20 | Soluble | Solid | DI Leach | |
| 600-82342-16 MS | VGWU61-03-20 | Soluble | Solid | DI Leach | |
| 600-82342-16 MSD | VGWU61-03-20 | Soluble | Solid | DI Leach | |
| 600-82342-17 | VGWU61-03-25 | Soluble | Solid | DI Leach | |
| 600-82342-18 | VGWU61-04-02 | Soluble | Solid | DI Leach | |
| 600-82342-19 | VGWU61-04-05 | Soluble | Solid | DI Leach | |
| 600-82342-20 | VGWU61-04-10 | Soluble | Solid | DI Leach | |
| 600-82342-21 | VGWU61-04-15 | Soluble | Solid | DI Leach | |
| 600-82342-22 | VGWU61-04-20 | Soluble | Solid | DI Leach | |
| 600-82342-23 | VGWU61-02-20 | Soluble | Solid | DI Leach | |
| 600-82342-24 | VGWU61-04-25 | Soluble | Solid | DI Leach | |
| 600-82342-24 MS | VGWU61-04-25 | Soluble | Solid | DI Leach | |
| 600-82342-24 MSD | VGWU61-04-25 | Soluble | Solid | DI Leach | |

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General Chemistry (Continued)

Leach Batch: 120666 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------|-----------|--------|----------|------------|
| 600-82342-25 | VGWU61-05-02 | Soluble | Solid | DI Leach | |
| 600-82342-26 | VGWU61-05-05 | Soluble | Solid | DI Leach | |
| 600-82342-27 | VGWU61-05-10 | Soluble | Solid | DI Leach | |
| 600-82342-28 | VGWU61-05-15 | Soluble | Solid | DI Leach | |
| 600-82342-29 | VGWU61-05-20 | Soluble | Solid | DI Leach | |
| 600-82342-30 | VGWU61-05-25 | Soluble | Solid | DI Leach | |
| 600-82342-30 MS | VGWU61-05-25 | Soluble | Solid | DI Leach | |
| 600-82342-30 MSD | VGWU61-05-25 | Soluble | Solid | DI Leach | |
| 600-82342-31 | VGWU61-06-02 | Soluble | Solid | DI Leach | |
| 600-82342-32 | VGWU61-06-05 | Soluble | Solid | DI Leach | |
| 600-82342-33 | VGWU61-06-10 | Soluble | Solid | DI Leach | |
| 600-82342-34 | VGWU61-07-02 | Soluble | Solid | DI Leach | |
| 600-82342-35 | VGWU61-07-05 | Soluble | Solid | DI Leach | |
| 600-82342-36 | VGWU61-07-10 | Soluble | Solid | DI Leach | |
| 600-82342-37 | VGWU61-07-15 | Soluble | Solid | DI Leach | |
| LCS 600-120666/22-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCS 600-120666/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| MB 600-120666/1-A | Method Blank | Soluble | Solid | DI Leach | |
| MB 600-120666/21-A | Method Blank | Soluble | Solid | DI Leach | |

Leach Batch: 120667

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|----------------------|----------------------|-----------|--------|----------|------------|
| 600-82342-38 | VGWU61-07-20 | Soluble | Solid | DI Leach | |
| 600-82342-38 MS | VGWU61-07-20 | Soluble | Solid | DI Leach | |
| 600-82342-38 MSD | VGWU61-07-20 | Soluble | Solid | DI Leach | |
| 600-82342-39 | VGWU61-07-25 | Soluble | Solid | DI Leach | |
| 600-82342-40 | VGWU61-06-15 | Soluble | Solid | DI Leach | |
| 600-82342-41 | VGWU61-06-20 | Soluble | Solid | DI Leach | |
| 600-82342-42 | VGWU61-06-25 | Soluble | Solid | DI Leach | |
| 600-82342-43 | VGWU61-08-02 | Soluble | Solid | DI Leach | |
| 600-82342-44 | VGWU61-08-05 | Soluble | Solid | DI Leach | |
| 600-82342-45 | VGWU61-08-10 | Soluble | Solid | DI Leach | |
| 600-82342-46 | VGWU61-08-15 | Soluble | Solid | DI Leach | |
| 600-82342-47 | VGWU61-08-20 | Soluble | Solid | DI Leach | |
| 600-82342-48 | VGWU61-08-25 | Soluble | Solid | DI Leach | |
| 600-82342-49 | VGWU61-09-02 | Soluble | Solid | DI Leach | |
| 600-82342-50 | VGWU61-09-05 | Soluble | Solid | DI Leach | |
| 600-82342-51 | VGWU61-09-10 | Soluble | Solid | DI Leach | |
| 600-82342-52 | VGWU61-09-15 | Soluble | Solid | DI Leach | |
| 600-82342-52 MS | VGWU61-09-15 | Soluble | Solid | DI Leach | |
| 600-82342-52 MSD | VGWU61-09-15 | Soluble | Solid | DI Leach | |
| 600-82342-53 | VGWU61-09-20 | Soluble | Solid | DI Leach | |
| 600-82342-54 | VGWU61-09-25 | Soluble | Solid | DI Leach | |
| 600-82342-A-44-B MS | 600-82342-A-44-B MS | Soluble | Solid | DI Leach | |
| 600-82342-A-44-C MSD | 600-82342-A-44-C MSD | Soluble | Solid | DI Leach | |
| LCS 600-120667/22-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCS 600-120667/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| MB 600-120667/1-A | Method Blank | Soluble | Solid | DI Leach | |
| MB 600-120667/21-A | Method Blank | Soluble | Solid | DI Leach | |

| General | Chemistry | (Continued) |
|----------|-----------|-------------|
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Analysis Batch: 120998

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|--------------------|-----------|--------|--------|------------|
| 600-82342-1 | VGWU61-02-02 | Soluble | Solid | 9056 | 120665 |
| 600-82342-2 | VGWU61-02-05 | Soluble | Solid | 9056 | 120665 |
| 600-82342-2 MS | VGWU61-02-05 | Soluble | Solid | 9056 | 120665 |
| 600-82342-2 MSD | VGWU61-02-05 | Soluble | Solid | 9056 | 120665 |
| 600-82342-3 | VGWU61-02-10 | Soluble | Solid | 9056 | 120665 |
| 600-82342-4 | VGWU61-02-15 | Soluble | Solid | 9056 | 120665 |
| 600-82342-5 | VGWU61-02-25 | Soluble | Solid | 9056 | 120665 |
| 600-82342-6 | VGWU61-01-02 | Soluble | Solid | 9056 | 120665 |
| 600-82342-7 | VGWU61-01-05 | Soluble | Solid | 9056 | 120665 |
| 600-82342-8 | VGWU61-01-10 | Soluble | Solid | 9056 | 120665 |
| 600-82342-9 | VGWU61-01-15 | Soluble | Solid | 9056 | 120665 |
| 600-82342-10 | VGWU61-01-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-10 MS | VGWU61-01-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-10 MSD | VGWU61-01-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-11 | VGWU61-01-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-12 | VGWU61-03-02 | Soluble | Solid | 9056 | 120666 |
| 600-82342-13 | VGWU61-03-05 | Soluble | Solid | 9056 | 120666 |
| 600-82342-14 | VGWU61-03-10 | Soluble | Solid | 9056 | 120666 |
| 600-82342-15 | VGWU61-03-15 | Soluble | Solid | 9056 | 120666 |
| 600-82342-16 | VGWU61-03-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-16 MS | VGWU61-03-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-16 MSD | VGWU61-03-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-17 | VGWU61-03-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-18 | VGWU61-04-02 | Soluble | Solid | 9056 | 120666 |
| 600-82342-19 | VGWU61-04-05 | Soluble | Solid | 9056 | 120666 |
| 600-82342-20 | VGWU61-04-10 | Soluble | Solid | 9056 | 120666 |
| 600-82342-21 | VGWU61-04-15 | Soluble | Solid | 9056 | 120666 |
| 600-82342-22 | VGWU61-04-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-23 | VGWU61-02-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-24 | VGWU61-04-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-24 MS | VGWU61-04-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-24 MSD | VGWU61-04-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-25 | VGWU61-05-02 | Soluble | Solid | 9056 | 120666 |
| 600-82342-26 | VGWU61-05-05 | Soluble | Solid | 9056 | 120666 |
| LCS 600-120665/22-A | Lab Control Sample | Soluble | Solid | 9056 | 120665 |
| LCS 600-120666/22-A | Lab Control Sample | Soluble | Solid | 9056 | 120666 |
| LCS 600-120666/2-A | Lab Control Sample | Soluble | Solid | 9056 | 120666 |
| MB 600-120665/21-A | Method Blank | Soluble | Solid | 9056 | 120665 |
| MB 600-120666/1-A | Method Blank | Soluble | Solid | 9056 | 120666 |
| MB 600-120666/21-A | Method Blank | Soluble | Solid | 9056 | 120666 |

Analysis Batch: 121126

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 600-82342-27 | VGWU61-05-10 | Soluble | Solid | 9056 | 120666 |
| 600-82342-28 | VGWU61-05-15 | Soluble | Solid | 9056 | 120666 |
| 600-82342-29 | VGWU61-05-20 | Soluble | Solid | 9056 | 120666 |
| 600-82342-30 | VGWU61-05-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-30 MS | VGWU61-05-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-30 MSD | VGWU61-05-25 | Soluble | Solid | 9056 | 120666 |
| 600-82342-31 | VGWU61-06-02 | Soluble | Solid | 9056 | 120666 |
| 600-82342-32 | VGWU61-06-05 | Soluble | Solid | 9056 | 120666 |

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General Chemistry (Continued)

Analysis Batch: 121126 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|----------------------|-----------|--------|--------|------------|
| 600-82342-33 | VGWU61-06-10 | Soluble | Solid | 9056 | 12066 |
| 600-82342-34 | VGWU61-07-02 | Soluble | Solid | 9056 | 12066 |
| 600-82342-35 | VGWU61-07-05 | Soluble | Solid | 9056 | 120666 |
| 600-82342-36 | VGWU61-07-10 | Soluble | Solid | 9056 | 12066 |
| 600-82342-37 | VGWU61-07-15 | Soluble | Solid | 9056 | 12066 |
| 600-82342-38 | VGWU61-07-20 | Soluble | Solid | 9056 | 12066 |
| 600-82342-38 MS | VGWU61-07-20 | Soluble | Solid | 9056 | 12066 |
| 600-82342-38 MSD | VGWU61-07-20 | Soluble | Solid | 9056 | 12066 |
| 600-82342-39 | VGWU61-07-25 | Soluble | Solid | 9056 | 12066 |
| 600-82342-40 | VGWU61-06-15 | Soluble | Solid | 9056 | 12066 |
| 600-82342-41 | VGWU61-06-20 | Soluble | Solid | 9056 | 12066 |
| 600-82342-42 | VGWU61-06-25 | Soluble | Solid | 9056 | 12066 |
| 600-82342-43 | VGWU61-08-02 | Soluble | Solid | 9056 | 12066 |
| 600-82342-44 | VGWU61-08-05 | Soluble | Solid | 9056 | 12066 |
| 600-82342-45 | VGWU61-08-10 | Soluble | Solid | 9056 | 12066 |
| 600-82342-46 | VGWU61-08-15 | Soluble | Solid | 9056 | 12066 |
| 600-82342-47 | VGWU61-08-20 | Soluble | Solid | 9056 | 12066 |
| 600-82342-48 | VGWU61-08-25 | Soluble | Solid | 9056 | 12066 |
| 600-82342-49 | VGWU61-09-02 | Soluble | Solid | 9056 | 12066 |
| 600-82342-50 | VGWU61-09-05 | Soluble | Solid | 9056 | 12066 |
| 600-82342-51 | VGWU61-09-10 | Soluble | Solid | 9056 | 12066 |
| 600-82342-52 | VGWU61-09-15 | Soluble | Solid | 9056 | 12066 |
| 600-82342-52 MS | VGWU61-09-15 | Soluble | Solid | 9056 | 12066 |
| 600-82342-52 MSD | VGWU61-09-15 | Soluble | Solid | 9056 | 12066 |
| 600-82342-53 | VGWU61-09-20 | Soluble | Solid | 9056 | 12066 |
| 600-82342-54 | VGWU61-09-25 | Soluble | Solid | 9056 | 12066 |
| 600-82342-A-44-B MS | 600-82342-A-44-B MS | Soluble | Solid | 9056 | 12066 |
| 600-82342-A-44-C MSD | 600-82342-A-44-C MSD | Soluble | Solid | 9056 | 12066 |
| _CS 600-120666/22-A | Lab Control Sample | Soluble | Solid | 9056 | 12066 |
| CS 600-120667/22-A | Lab Control Sample | Soluble | Solid | 9056 | 12066 |
| _CS 600-120667/2-A | Lab Control Sample | Soluble | Solid | 9056 | 12066 |
| MB 600-120666/21-A | Method Blank | Soluble | Solid | 9056 | 12066 |
| MB 600-120667/1-A | Method Blank | Soluble | Solid | 9056 | 12066 |
| MB 600-120667/21-A | Method Blank | Soluble | Solid | 9056 | 12066 |

Dil

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5

Factor

Run

Batch

Туре

Leach

Analysis

Analysis

Batch

Method

Moisture

DI Leach

9056

Client Sample ID: VGWU61-02-02

Date Collected: 11/05/13 14:20

Date Received: 11/08/13 07:00

Prep Type

Total/NA

Soluble

Soluble

Lab Sample ID: 600-82342-1

Analyst

KRD

Prepared

or Analyzed

11/15/13 10:45

11/10/13 12:08 MJB

11/19/13 20:18 DAW

Lab Sample ID: 600-82342-2 Matrix: Solid

Matrix: Solid

TAL HOU

TAL HOU

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Lab

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| | |
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| | 9 |
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Lap Sample ID: 600-82342 Matrix: Solid

Lab Sample ID: 600-82342-4

Lab Sample ID: 600-82342-5

Matrix: Solid

Matrix: Solid

| Prep Type Total/NA | Batch Type Analysis | Batch Method Moisture | Run | Dil Factor | Initial Amount | Final Amount | Batch <u>Number</u> 120079 | Prepared or Analyzed 11/10/13 12:08 | Analyst MJB | _ Lab TAL HOU |
|-----------------------|---------------------------|-----------------------------|-----|---------------|-------------------|-----------------|----------------------------------|---|----------------|--------------------|
| Soluble Soluble | Leach Analysis | DI Leach 9056 | | 1 | 5 g 5 mL | 50 mL 5 mL | 120665 120998 | 11/15/13 10:45 11/19/13 21:51 | KRD DAW | TAL HOU TAL HOU |

Client Sample ID: VGWU61-02-15 Date Collected: 11/05/13 14:26 Date Received: 11/08/13 07:00

| Γ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120665 | 11/15/13 10:45 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/19/13 22:07 | DAW | TAL HOU |

Client Sample ID: VGWU61-02-25 Date Collected: 11/05/13 14:30

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120665 | 11/15/13 10:45 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/19/13 22:22 | DAW | TAL HOU |

TestAmerica Houston

Initial

Amount

5 g

5 mL

Final

Amount

50 mL

5 mL

Batch

Number

120079

120665

120998

Client Sample ID: VGWU61-02-05 Date Collected: 11/05/13 14:22

Date Received: 11/08/13 07:00

Date Collected: 11/05/13 14:24

Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|--------------------|------------|-----------|-----|--------|---------|--------|--------|----------------|-----------|------------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120665 | 11/15/13 10:45 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 120998 | 11/19/13 21:05 | DAW | TAL HOU |
| | | | | | | | | | | |
| Client Samp | le ID: VGW | J61-02-10 | | | | | | Lab Samp | le ID: 60 | 00-82342-3 |

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Date Received: 11/08/13 07:00

Lab Sample ID: 600-82342-8

Lab Sample ID: 600-82342-9

Lab Sample ID: 600-82342-10

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Sample ID: 600-82342-6 Matrix: Solid 5

10

Client Sample ID: VGWU61-01-02

Date Collected: 11/05/13 14:48 Date Received: 11/08/13 07:00

| _ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120665 | 11/15/13 10:45 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 5 | 5 mL | 5 mL | 120998 | 11/19/13 22:38 | DAW | TAL HOU |

Client Sample ID: VGWU61-01-05 Date Collected: 11/05/13 14:50 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120665 | 11/15/13 10:45 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 120998 | 11/19/13 22:53 | DAW | TAL HOU |

Client Sample ID: VGWU61-01-10 Date Collected: 11/05/13 14:52 Date Received: 11/08/13 07:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---------------------|-------------------|----------------------|-----|---------------|-------------------|-----------------|------------------|----------------------------------|------------|--------------------|
| Total/NA Soluble | Analysis Leach | Moisture DI Leach | | 1 | 5 g | 50 mL | 120079 120665 | 11/10/13 12:08 11/15/13 10:45 | MJB KRD | TAL HOU TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/19/13 23:09 | DAW | TAL HOU |

Client Sample ID: VGWU61-01-15 Date Collected: 11/05/13 14:54 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120665 | 11/15/13 10:45 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/19/13 23:24 | DAW | TAL HOU |

Client Sample ID: VGWU61-01-20

Date Collected: 11/05/13 14:56 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 00:42 | DAW | TAL HOU |

Client Sample ID: VGWU61-01-25

Date Collected: 11/05/13 14:58 Date Received: 11/08/13 07:00

| _ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Ргер Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 01:28 | DAW | TAL HOU |

Client Sample ID: VGWU61-03-02 Date Collected: 11/05/13 15:15 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 5 | 5 mL | 5 mL | 120998 | 11/20/13 01:44 | DAW | TAL HOU |

Client Sample ID: VGWU61-03-05 Date Collected: 11/05/13 15:17 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 120998 | 11/20/13 01:59 | DAW | TAL HOU |

Client Sample ID: VGWU61-03-10 Date Collected: 11/05/13 15:19 Date Received: 11/08/13 07:00

| Prep Type | | atch ype | Batch Method | R | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|----|-------------|-----------------|---|-----|---------------|-------------------|-----------------|-----------------|----------------------|---------|---------|
| Total/NA | Ai | nalysis | Moisture | | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Le | each | DI Leach | | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | A | nalysis | 9056 | | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 02:15 | DAW | TAL HOU |

Client Sample ID: VGWU61-03-15 Date Collected: 11/05/13 15:21

Date Received: 11/08/13 07:00

| Γ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 02:30 | DAW | TAL HOU |

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10

Matrix: Solid

Lab Sample ID: 600-82342-12

Lab Sample ID: 600-82342-13 Matrix: Solid

Lab Sample ID: 600-82342-14

Lab Sample ID: 600-82342-15

Matrix: Solid

Matrix: Solid

Client Sample ID: VGWU61-03-20

Date Collected: 11/05/13 15:23 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 03:17 | DAW | TAL HOU |

Client Sample ID: VGWU61-03-25 Date Collected: 11/05/13 15:25 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 120998 | 11/20/13 04:03 | DAW | TAL HOU |

Client Sample ID: VGWU61-04-02 Date Collected: 11/05/13 16:02 Date Received: 11/08/13 07:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 50 | 5 mL | 5 mL | 120998 | 11/20/13 04:19 | DAW | TAL HOU |

Client Sample ID: VGWU61-04-05 Date Collected: 11/05/13 16:04 Date Received: 11/08/13 07:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analvzed | Analvst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 50 | 5 mL | 5 mL | 120998 | 11/20/13 04:34 | DAW | TAL HOU |

Client Sample ID: VGWU61-04-10

Date Collected: 11/05/13 16:06 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 04:50 | DAW | TAL HOU |

Matrix: Solid

5 6

10

Lab Sample ID: 600-82342-18 Matrix: Solid

Lab Sample ID: 600-82342-17

Lab Sample ID: 600-82342-19

Lab Sample ID: 600-82342-20

Matrix: Solid

Matrix: Solid

Lab Sample ID: 600-82342-22

Matrix: Solid

Matrix: Solid

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10

Client Sample ID: VGWU61-04-15

| Date Collected: | 11/05/13 16:08 |
|-----------------|----------------|
| Data Bassivadu | 44/00/42 07:00 |

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Ргер Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOL |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 05:05 | DAW | TAL HOU |

Client Sample ID: VGWU61-04-20 Date Collected: 11/05/13 16:10 Date Received: 11/08/13 07:00

| 「 | Batch | Batch | _ | Dil | Initial | Final | Batch | Prepared | | |
|-----------------------|----------|--------------------|-----|--------|---------|--------|--------|----------------------------|----------------|------------------|
| Prep Type Total/NA | Analysis | Method Moisture | Run | Factor | Amount | Amount | | or Analyzed 11/10/13 12:08 | Analyst MJB | – Lab TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 05:21 | DAW | TAL HOU |

Client Sample ID: VGWU61-02-20 Date Collected: 11/05/13 14:28 Date Received: 11/08/13 07:00

| Prep Type Total/NA | Batch Type Analysis | Batch Method Moisture | Run | Dil Factor | Initial Amount | Final Amount | Batch | Prepared or Analyzed 11/10/13 12:08 | Analyst MJB | _ Lab TAL HOU |
|-----------------------|---------------------------|-----------------------------|-----|---------------|-------------------|-----------------|----------------------------|---|----------------|-------------------------|
| Soluble | Leach Analysis | DI Leach 9056 | | 1 | 5 g 5 mL | 50 mL 5 mL | 120679 120666 120998 | 11/15/13 11:00 11/20/13 05:36 | KRD DAW | TAL HOU TAL HOU |

Client Sample ID: VGWU61-04-25 Date Collected: 11/05/13 16:12 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 120998 | 11/20/13 06:54 | DAW | TAL HOU |

Client Sample ID: VGWU61-05-02 Date Collected: 11/06/13 09:05

Date Received: 11/08/13 07:00

| _ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Ргер Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 120998 | 11/20/13 07:40 | DAW | TAL HOU |

Lab Sample ID: 600-82342-23 Matrix: Solid

Lab Sample ID: 600-82342-24

Lab Sample ID: 600-82342-25

Matrix: Solid

Matrix: Solid

Client Sample ID: VGWU61-05-05

Date Collected: 11/06/13 09:07

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 120998 | 11/20/13 07:56 | DAW | TAL HOU |

Client Sample ID: VGWU61-05-10 Date Collected: 11/06/13 09:09 Date Received: 11/08/13 07:00

| Γ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 14:56 | DAW | TAL HOU |

Client Sample ID: VGWU61-05-15 Date Collected: 11/06/13 09:11 Date Received: 11/08/13 07:00

| Prep T Total/I | уре Ту | atch ype nalysis | Batch Method Moisture | Run | Dil Factor | Initial Amount | Final Amount | Batch Number 120079 | Prepared or Analyzed 11/10/13 12:08 | Analyst MJB | - Lab TAL HOU |
|-------------------|--------|------------------------|-----------------------------|-----|---------------|-------------------|-----------------|---------------------------|---|----------------|--------------------|
| Solubl Solubl | | each nalysis | DI Leach 9056 | | 1 | 5 g 5 mL | 50 mL 5 mL | 120666 121126 | 11/15/13 11:00 11/20/13 15:11 | KRD DAW | TAL HOU TAL HOU |

Client Sample ID: VGWU61-05-20 Date Collected: 11/06/13 09:13 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 15:27 | DAW | TAL HOU |

Client Sample ID: VGWU61-05-25 Date Collected: 11/06/13 09:15

Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Ty | ре Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 15:42 | DAW | TAL HOU |

Lab Sample ID: 600-82342-28 Matrix: Solid

Lab Sample ID: 600-82342-29

Lab Sample ID: 600-82342-30

Matrix: Solid

Matrix: Solid

TestAmerica Houston

Client Sample ID: VGWU61-06-02

| Date Collected: | 11/06/13 10:00 |
|-----------------|----------------|
| Date Received: | 11/08/13 07:00 |

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 5 | 5 mL | 5 mL | 121126 | 11/20/13 16:29 | DAW | TAL HOU |

Client Sample ID: VGWU61-06-05 Date Collected: 11/06/13 10:02 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 16:44 | DAW | TAL HOU |

Client Sample ID: VGWU61-06-10 Date Collected: 11/06/13 10:04 Date Received: 11/08/13 07:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | - Lab |
|--------------------------------|-------------------------------|------------------------------|-----|---------------|-------------------|-----------------|----------------------------|--|-------------------|-------------------------------|
| Total/NA Soluble Soluble | Analysis Leach Analysis | Moisture DI Leach 9056 | | 1 | 5 g 5 mL | 50 mL 5 mL | 120079 120666 121126 | 11/10/13 12:08 11/15/13 11:00 11/20/13 17:31 | MJB KRD DAW | TAL HOU TAL HOU TAL HOU |

Client Sample ID: VGWU61-07-02 Date Collected: 11/06/13 10:30 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|----------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 10 | 5 mL | 5 mL | 121126 | 11/20/13 17:46 | DAW | TAL HOU |

Client Sample ID: VGWU61-07-05

Date Collected: 11/06/13 10:32 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 100 | 5 mL | 5 mL | 121126 | 11/20/13 18:02 | DAW | TAL HOU |

TestAmerica Houston

10

Lab Sample ID: 600-82342-33 Matrix: Solid

Lab Sample ID: 600-82342-34

Matrix: Solid

| Lab Sample | ID: | 600-82342-35 |
|------------|-----|---------------|
| | | Matrix: Solid |

Client Sample ID: VGWU61-07-10

| Date Collected: | 11/06/13 10:34 |
|-----------------|----------------|
| Date Received | 11/08/13 07.00 |

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120079 | 11/10/13 12:08 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 10 | 5 mL | 5 mL | 121126 | 11/20/13 18:17 | DAW | TAL HOU |

Client Sample ID: VGWU61-07-15 Date Collected: 11/06/13 10:36 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120666 | 11/15/13 11:00 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 18:33 | DAW | TAL HOU |

Client Sample ID: VGWU61-07-20 Date Collected: 11/06/13 10:38 Date Received: 11/08/13 07:00

| | Batch B | | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 19:19 | DAW | TAL HOU |

Client Sample ID: VGWU61-07-25 Date Collected: 11/06/13 10:40 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 20:37 | DAW | TAL HOU |

Client Sample ID: VGWU61-06-15 Date Collected: 11/06/13 10:06

Date Received: 11/08/13 07:00

| Γ | - | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|---|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| | Prep Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| | Total/NA | Analysis | Moisture | · · | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| | Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| | Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 20:52 | DAW | TAL HOU |

Matrix: Solid

Matrix: Solid

Lab Sample ID: 600-82342-37 Matrix: Solid

10

Lab Sample ID: 600-82342-38 Matrix: Solid

Lab Sample ID: 600-82342-39 Matrix: Solid

Lab Sample ID: 600-82342-40

Matrix: Solid

Matrix: Solid

Client Sample ID: VGWU61-06-20

Date Collected: 11/06/13 10:08 Date Received: 11/08/13 07:00

| | . 11/00/15 07.0 | | | | | | | | | |
|-----------|-----------------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
| Ргер Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 21:08 | DAW | TAL HOU |

Client Sample ID: VGWU61-06-25 Date Collected: 11/06/13 10:10 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 1 | 5 mL | 5 mL | 121126 | 11/20/13 21:23 | DAW | TAL HOU |

Client Sample ID: VGWU61-08-02 Date Collected: 11/06/13 11:30 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|----------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 5 | 5 mL | 5 mL | 121126 | 11/20/13 21:39 | DAW | TAL HOU |

Client Sample ID: VGWU61-08-05 Date Collected: 11/06/13 11:32 Date Received: 11/08/13 07:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 100 | 5 mL | 5 mL | 121126 | 11/20/13 21:54 | DAW | TAL HOU |

Client Sample ID: VGWU61-08-10

Date Collected: 11/06/13 11:34 Date Received: 11/08/13 07:00

| Γ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Type | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 121126 | 11/20/13 22:56 | DAW | TAL HOU |

Lab Sample ID: 600-82342-42

Lab Sample ID: 600-82342-43 Matrix: Solid

Lab Sample ID: 600-82342-44

Lab Sample ID: 600-82342-45

Matrix: Solid

Matrix: Solid

Lab Sample ID: 600-82342-47

Matrix: Solid

Matrix: Solid

5

10

Client Sample ID: VGWU61-08-15

Date Collected: 11/06/13 11:36 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Ргер Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 121126 | 11/20/13 23:43 | DAW | TAL HOU |

Client Sample ID: VGWU61-08-20 Date Collected: 11/06/13 11:38 Date Received: 11/08/13 07:00

| Γ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 121126 | 11/20/13 23:58 | DAW | TAL HOU |

Client Sample ID: VGWU61-08-25 Date Collected: 11/06/13 11:40 Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 121126 | 11/21/13 00:14 | DAW | TAL HOU |

Client Sample ID: VGWU61-09-02 Date Collected: 11/06/13 11:10 Date Received: 11/08/13 07:00

| Ргер Туре | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 100 | 5 mL | 5 mL | 121126 | 11/21/13 00:29 | DAW | TAL HOU |

Client Sample ID: VGWU61-09-05 Date Collected: 11/06/13 11:12

Date Received: 11/08/13 07:00

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 100 | 5 mL | 5 mL | 121126 | 11/21/13 01:00 | DAW | TAL HOU |

Lab Sample ID: 600-82342-48

Matrix: Solid

Lab Sample ID: 600-82342-49

Lab Sample ID: 600-82342-50

Matrix: Solid

Matrix: Solid

Initial

Amount

5 g

5 mL

Final

Amount

50 mL

5 mL

Batch

Number

120083

120667

121126

Batch

Туре

Leach

Client Sample ID: VGWU61-09-15

Date Collected: 11/06/13 11:16

Date Received: 11/08/13 07:00

Analysis

Analysis

Batch

Method

Moisture

DI Leach

9056

Client Sample ID: VGWU61-09-10

Date Collected: 11/06/13 11:14

Date Received: 11/08/13 07:00

Prep Type

Total/NA

Soluble

Soluble

Lab Sample ID: 600-82342-51

Analyst

MJB

KRD

DAW

Matrix: Solid

TAL HOU

TAL HOU

TAL HOU

Lab

2 3 4 5 6 7 8 9

10

Lab Sample ID: 600-82342-52 Matrix: Solid

Prepared

or Analyzed

11/10/13 13:47

11/15/13 11:15

11/21/13 01:31

| | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 121126 | 11/21/13 02:49 | DAW | TAL HOU |

Dil

1

5

Factor

Run

Client Sample ID: VGWU61-09-20 Date Collected: 11/06/13 11:18 Date Received: 11/08/13 07:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|---------------|-----------------|-----|---------------|-------------------|-----------------|-----------------|-------------------------|---------|---------|
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 5 | 5 mL | 5 mL | 121126 | 11/21/13 03:35 | DAW | TAL HOU |

Client Sample ID: VGWU61-09-25 Date Collected: 11/06/13 11:20 Date Received: 11/08/13 07:00

| _ | Batch | Batch | | Dil | Initial | Final | Batch | Prepared | | |
|-----------|----------|----------|-----|--------|---------|--------|--------|----------------|---------|---------|
| Ргер Туре | Туре | Method | Run | Factor | Amount | Amount | Number | or Analyzed | Analyst | Lab |
| Total/NA | Analysis | Moisture | | 1 | | | 120083 | 11/10/13 13:47 | MJB | TAL HOU |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 120667 | 11/15/13 11:15 | KRD | TAL HOU |
| Soluble | Analysis | 9056 | | 2 | 5 mL | 5 mL | 121126 | 11/21/13 03:51 | DAW | TAL HOU |

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Lab Sample ID: 600-82342-53 Matrix: Solid

Lab Sample ID: 600-82342-54 Matrix: Solid

Certification Summary

Client: ARCADIS U.S., Inc. Project/Site: HES Transfer Sites, Lea County NM

TestAmerica Job ID: 600-82342-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|--------------|---------------|------------|------------------|-----------------|
| Arkansas DEQ | State Program | 6 | 88-0759 | 08-04-14 |
| Louisiana | NELAP | 6 | 30643 | 06-30-14 |
| Oklahoma | State Program | 6 | 9503 | 08-31-13 * |
| Texas | NELAP | 6 | T104704223 | 10-31-14 |
| USDA | Federal | | P330-08-00217 | 04-01-14 |
| Utah | NELAP | 8 | TX00083 | 10-31-13 * |

* Expired certification is currently pending renewal and is considered valid.

| TestAmerica Houston | | | | Chain of Custody Record | of Cus | stody | Reco | ord | | |
|---|---------------------------------|-------------|----------------------------|---|--|------------------------------|----------------------|-------------------|---|--|
| Client Information | Sample' WELLSA PHAN | キの光を | Z | Lat | Lab PM Kudchadkar, Sachin G | Sachin G | | Q. | 600-82342 Chain of Custody | |
| Client Contact Mr. Jonathan Olsen | Phone: 11391534800 | 84 65 | 8 | E-N | E-Mail: sachin.kudchadkar@testamericainc.c | idkar@tes | tamericai | 10.00m | Page Page | e of g |
| ARCADIS U.S., Inc. | | | | | | | Analysi | N. | Requested Job # | |
| Address. 2929 Brianpark Drive Suite 300 | Due Date Requested: | ted: | | | | | | | Press | ration Cod |
| | TAT Requested (days): | lays): | 1 | | | | _ | | | NaOH N+None Zn Acetate O - AsNaO2 |
| TX, 77042 | STANDARD | APO | | | | _ | | _ | m 0 (| D - Nibic Acid P - Na204S E - NaHSO4 D - Na2SO3 |
| Phone: 113 1534 800 | PO# Purchase Order Requested | r Requester | | |) | _ | | | G-A | H - Ascorbic Acid T - TSP Dodecahvdrate |
| arcadis-u | WO井 | ľ | | | | | _ | | - | ler. |
| Projed Name: HES Transfer Sites, Lea County NM | Project # 60004633 | | | | _ | | - | | tainer K-EDA | DA Z - other (specify) |
| NACHUM GLERENA WEST UNIT & 61 | SSOW# | | | | _ | oride | - | | of col | đ |
| Samola (deptification | Sample Date | Sample | Sample Type (C=comp, | Matrix (Wewater, Sesolid, Dewasteroit, | E Field Filtered Perform MS/N 1015B_DRO | 1056_28D - Chi | 021B- BTEX | | Total Number | Special Instructions/Note: |
| | X | X | Preserv | 0.1 | X | Z | - | | X | |
| VGWU61-02-02 | n 5/13 | 1470 | 9 | Solid | | × | | | | |
| NGW161-02-05 | 11/5/13 | 1422 | - | Solid | | × | | | | |
| VGWW101-02-10 | 145/13 | 1424 | _ | Solid | | X | | | | |
| NGWUG1-02-15 | 115/12 | 1426 | - | Solid | | × | | | | |
| VGWU61-02-25 | 14/5/13 | 1430 | | Solid | | ÿ, | | | | |
| VGWA61-01-02 | 11/5/13 | 1448 | _ | Solid | | × | | | | |
| 1. | W6/13 | 1450 | - | Solid | | × | - | | | |
| NGWWW 1-01-10 | 11/5/13 | 1452 | - | Solid | | X | - | | | |
| VGWU61-01-15 | in/5/13 | 1454 | - | Solid | | × | | | | |
| NGWU61-01-20 | w/5/13 | 1450 | | Solid | | K | - | | | |
| NGWU1-01-25 | 11/5/13 | 1458 | 4 | Solid | | 8. | - | | | |
| ammable Skin Imitant | Poison B Unknown | | Radiological | - | Samp | Return To Client | al (A fee Client | may be as | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Month | or Months |
| ested: I, II, III, IV, Other (specify) | | | | | Speci | Special Instructions/QC Req | ons/QC F | uirer | > 0 | |
| Empty Kit Relinquished by: | (tre | Date: | | | Time: | | IVI | ~ ~~ | Method of Shipment | |
| Relinquished by [. Kul C | DeterTime: / 1 | 51/13 | Seg | Company | R | Received by: | 1 | NON | CIISI IL Date THE CALL | -OULineauna QOL |
| Relinquished by | Date/Time. | - | | Company | R | Received by: | 8 | 1 1 | Date/Timet | Company |
| Relinguished by | Date/Time; | | | Company | R | Received by: | | | Date/Time | Company |
| Custody Seals Intact: Custody Seal No.: Δ Yes Δ No | | | | | Q | Cooler Temperature(s) °C and | rature(s) °C | and Other Remarks | arks; | |
| | | | | | | | | | | |

| 6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646 | | | C | Chain of Custody Record | of Cu | stod | y Re | cord | | | |
|---|--------------------------------|----------------|---------------------------------------|---|---|------------------------------|---------------------------------------|-----------------|---|---|----------------------------|
| Client Information | Sampler: MELISA PHAN | ISA PH | PZ | Lab PM: Kudcha | Lab PM: Kudohadkar, Sachin G | Sachin C | 42 | | Carrier Tracking No(s): | COC No 600-23595-8666.1 | 566.1 |
| Client Contact Mr. Jonathan Olsen | Phone: 113 | 1139534800 | 8 | E-Mail: sachi | E-Mail: sachin.kudchadkar@testamencainc. | adkar@t | estame | ncaine, com | 3 | Page 2of X | |
| Company: ARCADIS U.S., Inc. | | | | | | | Þ | Analysis | Requested | Job # | |
| Address: 2929 Brianpark Drive Suite 300 | Due Date Requested: | led: | | | - | | - | | | Preservation Codes: | Codes: M - Hexane |
| | TAT Requested (days): STAND | STANDARD | | | | | | | | B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 | |
| Phone: | PO非 | | | | | - | - | | | | R-Na2S2SO3 |
| 113-9153-14800 | Purchase Order Requested | r Requested | | | No) | _ | - | - | | G - Amchlor H - Ascorbic Acid | |
| Email Jonathan.olsen@arcadis-us.com | WO # | | | | | | - | - | | - | V - MCAA |
| Project Name HES Transfer Sites, Lea County NM | Project #: 60004633 | | | | | _ | | - | | L-EDA | Z - other (specify) |
| Sile NGWU WI | SSOW#: | | | | | oride | e | - | | of co Other | |
| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (Wawater, Sasahd, Dawaste/oli, BT=Tissue, AnAir) | Field Filtered Perform MS/N | 8015B_DRO 9056_28D - Chi | 8015B_GRO 8021B- BTEX | | | Total Number | Special Instructions/Note: |
| | X | X | CO L | on Code: | Ă | z | - | - | | | |
| VGWU61-03-02 | 1115/13 | 1515 | 9 | Solid | | × | | | | | |
| 03 | 11/5/13 | 1517 | 1. | Solid | | × | | | | | |
| 1-60 | inistra | 1519 | - | Solid | | × | - | | | | |
| NGW461-03-15 | 51/5/13 | 1521 | | Solid | | X | | | | | |
| VGWU61-03-20 | NIS/13 | 1523 | _ | Solid | | X | - | | | | |
| NGWN61-03-25 | 11/5/13 | 1525 | | Solid | | X | | | | | |
| | n 5 13 | 1602 | | Solid | | X | | | | | |
| NUMAI-04-05 | FI S113 | 1604 | | Solid | | X | | | | | |
| NEWN 61-04-10 | 11/5/13 | 1606 | | Solid | | X | | | | | |
| NGWUBI- 04-15 | 11/5/13 | 1608 | | Solid | | X | | | | | |
| VGWW61-04-20 | 11/5/13 | 1610 | 4 | Salid | | × | | | | | |
| Skin Irritant | Poison B Unknown | 1.46.1 | Radiological | 5 | Sam | Return | le Disposal (A f Return To Client | l fee may nt | Sample Disposal (A fee may be assessed if samples ar | are retained longer than 1 month) Archive For Mon | n 1 month) Manths |
| V, Other (specify) | . 1 | | 1 | | Spec | Special Instructions/QC Req | ctions/C | 2C Requir | uirements: | | |
| Empty Kit Relinquisyed by: | | Date: | | | Time: | | > | 2 | Method of Shipment | 1 1 | |
| Reimquished by 1 JM [[]7]3 | Date/Time | | | Company | 20 | Received by: | A | V | UNI/ Date/Time | 118112J | 00 company |
| Relinquished by | Date/Time: | | 0 | Company | R | Received by | 4 | (| V U / Date/Time | | Company |
| Reilinquished by | Date/Time: | | 0 | Company | R | Received by: | | | Date/Time | | Company |
| Custody Seals Intact Custody Seal No.: | | | | | 0 | Cooler Temperature(s) °C and | perature() | | Other Remarks: | | |
| | | | | | | | 1 | | | | |

| Phone (713) 690-4444 Fax (713) 690-5646 | | | | | | | | | | | | | | |
|--|---------------------------------|-----------|--|-----------------|--|-------------------|--|---|-----------------|------------------------|--------------|-----------------------------|--|-----------------------------------|
| Client Information | Sampler MELISA-PAAN | Poptan? | | Lab PM Kudch | Lab PM. Kudchadkar, Sachin G | achin G | | | Carrier Tra | Carrier Tracking No(s) | 2 | 0.0 | COC No: 600-23595-8666.1 | |
| Sient Contact: Mr. Jonathan Olsen | Phone: 11399 | 9153460r | 8 | E-Mail sachi | n.kudcha | dkar@te | stameric | E-Mail sachin.kudchadkar@testamericainc.com | | | | 71 70 | Page Sof 8 | |
| Company ARCADIS U.S., Inc. | | | | | | | An | Analysis Rec | Requested | | | 6 | Job # | |
| ladress. 2929 Briarpark Drive Suite 300 | Due Date Requested: | H | | | _ | | | | | | | | ration Cod | |
| oly Houston | TAT Requested (days): | /s): | | | _ | _ | | | _ | _ | _ | | B - NeOH N | N - Hexane N - None |
| State.Zip: TX, 77042 | SPANDARD | re-D | | | | | | | _ | | _ | | | P - Na2045 Q - Na2SO3 |
| Phone: 13953 URD | PO并 Purchase Order Requested | Requested | | |) | | | | _ | | _ | | G - Amehior Anid T | R - Na2S2SO3 S - H2SO4 |
| inali onathan olsen@arcadis-us.com | WO # | | | | - | _ | | | | _ | _ | - | | U - Acetone V - MCAA |
| roject Name: ⊣ES Transfer Sites ↓ea County NM | Project #. 60004633 | | | | - | | | | | _ | _ | | | W - ph 4-5 Z - other (specify) |
| | SSUW# | | | | | ie | - | | | _ | _ | - | Other | |
| ACAUM GUEENA WEST UN IT THE | T | | Cample | Matrix | IS/MS | | | _ | _ | | _ | ber of | | |
| Sample Identification | Sample Date | Sample (I | Sample Type (C=comp, G=grab) er | | Field Filter Perform M 8015B_DRO | 9056_28D - 0 | 8015B_GRO 8021B- BTE | | | | | Total Num | Special Inst | Special Instructions/Note: |
| | X | 1 | Preservation Code: | - | X | Z | - | | | | | X | | |
| JGWU61-0220 | 11/5/13 | 1428 | 9 | Solid | | × | | | 1012 | | | _ | | |
| VGWK61-04-25 | 11/5/13 | 1612 | - | Solid | | × | | | | | | | | |
| VGWU61-05-02 | 1116/13 | Sala | _ | Solid | | × | | | | | | | | |
| NGWINE1-05-05 | 11/16/13 | 907 | - | Solid | - | X | | | | | | | | |
| NGWUG1-05-10 | 11/10/13 | 909 | | Solid | | × | | | | | | | | |
| VGWUBI-OS-IS | 11/6/13 | 94 | | Solid | | × | | | | | | | | |
| VGWH61-05-20 | 11/16/13 | 913 | | Solid | - | × | | | | | | | | |
| VGWUE1-05-25 | 11/6/13 | 915 | | Solid | _ | × | _ | | | | | | | |
| 15-WM61-06-02 | 11/6/13 | 1000 | | Solid | | X | | 9 | | | | | | |
| - | 11/6/13 | 1002 | | Solid | _ | X | | | | | | | | |
| VGWU101-06-10 | 111613 | 1004 | 4 | Solid | - | X | - | - | | | | _ | | |
| n ble Skin Initant | Paison B Unknown | Sec. 1 | Radiological | | Samp | le Disp Return | Sample Disposal (A fee ma Return To Client | ee may be a | Disposal By Lab | if samp. Y Lab | es are r | etained long Archive For | y be assessed if samples are retained longer than 1 month) | onth) Months |
| ested: I, II, III, IV, Other (specify) | | | | | Specia | al Instru | tions/QC | Special Instructions/QC Requirements | its: | | | | | |
| Empty Kit Relipeuished by | | Date: | | | Time: | | 3 | V | Net | thod of Shipment | nent: | | | |
| telinquished by M (| Date/Time/7/ | 2 XOO | | Company | Re | Received by | 0 | MY. | D. | Dat | Date/Time(| 81 | 3760 | Company |
| celinguished by: | Date/Time: 1 | • | | Company | Re | Received by | 0 | 0 | 10 | Dat | Date/Time: * | 1 | | Company |
| Refinquished by: | Date/Time, | | 0 | Company | Re | Received by, | | | | Dat | Date/Time: | | | Company |
| A Yes A No | | | | | 3 | | | Conler Temperature/s) ⁰ C and Other Remarks: | madan | - | | | | |

11/21/2013

TestAmerica Houston

5 6

| Phone (713) 690-4444 Fax (713) 690-5646 | | | | | | | | |
|--|----------------------------------|----------------|---------------------------------------|--|--|--------------------------------------|---|---|
| Client Information | Sampler, MELL | MELISAPHAN | A | Lab PM: Kudcha | Lab PM: Kudchadkar, Sachin G | Q | Carrier Tracking No(s) | GOC No: 600-23595-8666.1 |
| Client Contact Mr. Jonathan Olsen | Phone 7139 | 1139534800 | O | E-Mait sachi | E-Mail: sachin.kudchadkar@testamericainc | mericainc.com | | Page Hot S |
| Company ARCADIS U.S., Inc. | | | | | | Analysis Requested | ested | Job # |
| Address 2929 Briarpark Drive Suite 300 | Due Date Requested: | đ | | | | | | Cod |
| | | 2 ys): | | | | | | B - NaOH N - None C - Zn Acetate O - AsNaO2 |
| State, Zio TX, 77042 | SILAN | - ANDROU | | | | | | |
| Phone 7139534800 | Po # Purchase Order Requested | Requested | 1 | |) | | | |
| Email Ionathan.olsen@arcadis-us.com | WO #. | | | | _ | | | 1- Ice J - DI Water |
| Project Name: HES Transfer Sites ea County NM | Project #; 60004633 | | | 3 | | | | _ |
| | SSOW# | | | | ISD (Y | | | of cor Other |
| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (Wewater, Sesolid, Omwaste/oil, BToTissue, AmAir) | Field Filtered Perform MS/I 8015B_DRO 9056_28D - Chi 8015B_GRO | 8021B- BTEX | | Total Numbe Special Instructions/Note: |
| | X | \square | | ion Code: | X N N N | Z | | X |
| VGWUL61-07-02 | 51 0 11 | 1630 | D | Solid | X | | | |
| VGWU61-07-05 | 11/6/13 | 1032 | | Solid | X | | | - |
| VGWUBI-07-10 | 11/10/13 | 1034 | _ | Solid | X | | | |
| NGWH61-07-15 | 11/10/13 | 1036 | _ | Solid | X | | | |
| VGWU61-07-20 | 11/10/13 | 3501 | | Solid | X | | | |
| - P | 11/10/13 | 1040 | | Solid | X | | | |
| NGW461-06-15 | 11/6/13 | hoole | | Solid | X X | | | |
| VGWN61-06-20 | 21/3/11 | 1005 | | Solid | X | | | |
| VGWU61-06-25 | 11/6/13 | 0101 | | Solid | X | | | |
| VGWU61-08-02 | 11/6/13 | 1130 | | Solid | * | | | |
| VGWU61-08-05 | 11/6/13 | 1132 | 4 | Solid | X | | | |
| Possible Hazard Identification | Poison B Unknown | 6.15 | Radiological | | Sample Disposal (A t | fee may be | assessed if samples are Disposal By Lab | are retained longer than 1 month) Archive For Months |
| ested: I, II, III, IV, Other | | | | | Special Instruction | Special Instructions/QC Requirements | 0 | |
| Empty Kit Relinquished by: | | Date: | | | Time: | 12 | Method of Shipment | |
| Relinquished by | Date/Time-7/13 | Soc | | Company | Received by: | MAN 11 | MY YDaterTind | 18/13 760 Company |
| Relinquished by | Date/Kime: | | 0 | Company | Received by | TX N. | V / Date/Time:* | Company |
| Reinquished by: | Date/Time | | 0 | Company | Received by | | Date/Time: | Company |
| Custody Seals Intact: Custody Seal No.: | | | | | | | | |

| 3310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646 | | | ~ | Chain of Custody Record | of Cu | stody | Reco | ord | | | | | | |
|---|----------------------------------|-------------|---------------------------------------|---|---|--|-------------------------|-------------------|------------------------------------|---------------------|-----------------|--|----------------------------|--|
| Client Information | Sampler MELLS | MELSA-DIAN | Z | E. | Lab PM: Kudchadkar, Sachin | Sachin G | | - | Carrier Tracking No(s) | g No(s) | 00 | COC No: 600-23595-8666 | 66,1 | |
| Client Contact: Mr. Jonathan Olsen | Phone 7139 | 11395834800 | 8 | Sa | E-Mail: sachin.kudchadkar@testamericainc | adkar@tes | tamericair | IC COM | | | ס בר | Page Sof 8 | | |
| Company, ARCADIS U.S., Inc. | | | | | | | Analys | 10 | Requested | | 96 | Job # | | |
| Address: 2929 Briarpark Drive Suite 300 | Due Date Requested: | * | | | _ | _ | | _ | | | 0 | Preservation Codes: | odes: | |
| | TAT Requested (days): | ‡(s) | | | | _ | _ | _ | | | 0.00.3 | B - NaOH C - Zn Acetate | N - None O - AsNaO2 | ις f |
| State, Z)p TX, 77042 | STANDARD | 8 | | | | | _ | - | | - | | D - Nitric Acid E - NaHSO4 | P - Na204S O - Na2SO3 | 36 |
| Phone: 113 acaulan | PO#_ Purchase Order Requested | Paniested | | |) | - | | - | _ | _ | - G T | F - MeOH G - Amchlor | | R - Na2S2S03 S - H2SO4 T - TSP Dodecatoriate |
| Email: | WO# | | | | - | _ | _ | | | _ | 1 | I - Ice | | 8 |
| jonathan.olsen@arcadis-us.com + | Dravent # | l | | | | | _ | | _ | - | 1 | K - EDTA | W - ph 4-5 | |
| HES Transfer Sites, Lea County NM | 60004633 | | | | - | 1 | | - | | | | - EDA | Z - other (specify) | specity) |
| Site: VACUULAN WEST GLOBETTA VINIT HOL | SSOW#: | | | | | oride | | | | | 1 | Other: | | |
| Sample Identification | Sample Date | Sample | Sample Type (C=comp, G=grab) | Matrix (Wawater, S-solid, Dawaste/oit, BT=Tissue, 5=Alt | Field Filtered Perform MS/N | 80158_DRO 9056_28D - Chi 80158_GRO | 80218- BTEX | | | | Total Number | Special | Special Instructions/Note: | s/Note: |
| | X | X | Preserva | Preservation Code: | X | Z | - | | | | X | V | X | |
| NGWU61-08-10 | 11/6/13 | 124 | 9 | Solid | | - | | | | | | | | |
| VGWM61-08-15 | 11/6/13 | 1136 | | Solid | | × | | | | | | | | |
| VGW161-08-20 | 11613 | ころの | | Solid | | × | | | | | | | | |
| WGWIN101-08-25 | ~ | пно | - | Solid | | × | | | | | | | | |
| VGNU61-09-02 | 16/13 | 0111-99100 | _ | Solid | | × | | | | | | | | |
| VGWM61-09-05 | 11/6/13 | 1112 | | Solid | | X | | | | | 1.11 | | | |
| VGWU61-09-10 | 11/6/13 | 1114 | | Solid | - | ×. | | | | | | | | l |
| VGWU101-09-15 | 11/6/13 | 116 | | Solid | | × | | | | | | | | |
| VGWU161-09-20 | 11/6/13 | 8111 | | Solid | | × | - | | | | | | | |
| VGWU121-09-25 | 11/6/13 | 1120 | | Solid | | X | | | - | | | | | |
| VGWUG1-11-02 | 11/5/13 | 1480 | 4 | Solid | | R | _ | | | | | Hord Hord | | ľ |
| Possible Hazard Identification | Poison B Unknown | | Radiological | | Sam | ple Disposal (A f Retum To Client | sal (A fee) Client | may be as: | assessed if san Disposal By Lab | amples ar ab | e retained long | Sample Disposal (A fee may be assessed if samples are retained longer than Return To Client Disposal By Lab | 1 month) Months | |
| ested: I, II, III, IV, Other | 61 | | | | Spec | Special Instructions/QC Req | ons/QC R | equirements | | | | | | |
| Empty Kit Relinquished by | | Date: | | | Time | | 2 | | Nechod o | Cerhod of Shipment. | 1 | | | |
| Relinquished by UUL | Date/Time / 13 | 800 | | Company | 2 2 | Received by: / | C | and 1 | ALC DA | Date/Time | 2113 | 766 | Company | 3 |
| Relinquished by: | Date/Time | | | Company | 20 | Received by. | | ~ | | Date/Time: | | | Company | |
| Custody Seals Intact: Custody Seal No.: ∆ Yes ∆ No | | | | | 0 | Cooler Temperature(s) °C and | ature(s) °C : | and Other Remarks | arks: | | | | | |
| Dies Divo | | ł | | | | | | | | | | | | |

| 6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646 | | | | Chain | Chain of Custody Record | |
|---|----------------------------------|-------------|----------------------------|--|--|---|
| Client Information | Sample WELLSA- DIAM | A pita | 4 | Lab | Lab PM Kudchadkar, Sachin G | Carrier Tracking No(s); COC Na 600-23595-8666.1 |
| Client Contact Mr. Jonathan Olsen | Phone 713 9534800 | 84821 | 9 | E-Mail Sachi | E-Mail: sachin.kudchadkar@testamericainc.com | Page April 2 |
| Company ARCADIS U.S., Inc. | | | | | /sīs | Requested Job # |
| Advess 2929 Briarpark Drive Suite 300 | Due Date Requested: | ed: | | | | Preservation Coc |
| | TAT Requested (days): | ays): | Į | | | |
| State, Zip: 17X, 77042 | SI ANNATON | ALL ALL | | | | E - Natic Acid P - Na2SOS E - National Q - Na2SOS F - MeDH R - Na2SOS |
| Phone. 112 9534X00 | Po # Purchase Order Requested | r Requester | | | >) | - Amchlor - Ascorbic Acid |
| arcadis- | WO # | Í | | | - | I - Ice J - DI Water |
| Project Name. HES Transfer Sites Lea County NM | Project #: 60004633 | | | | - | L-EDA |
| She VALWIM GLODETTA WEST WIT 61 | SSOW#: | | 2 | | 1SD () | e of co Other: |
| | Sample Date | Sample | Sample Type (C=comp, | Matrix (www.ater, S=solid, G=wasto/oil, | Eleid Filtered Perform MS/I 1015B_DRO 1056_28D - Ch 1015B_GRO 1021B- BTEX | Total Number |
| equipte to surroutent | X | X | Preserv | 0. L | X Z Z Z Z | X |
| Vanin/21-11-05 | 11/5/13 | 1402 | 9 | Solid | ~ | theup |
| VGW/1/01-11-10 | 11/5/13 | 1404 | | Solid | × | HouD |
| NGWU61-11-15 | 11/5/13 | 1406 | | 'Solid | ,× | Hero |
| VG WAI 101-11-20 | 11/5/13 | gonl | | Salid | X | Hou |
| NGWM101-11-25 | 11[男13 | 1410 | _ | Solid | × | Hout |
| VGWU61-12-02 | 1115/13 | 1539 | | Solid | × | total total |
| 12, NAWA61-12-05 | 11/5/13 | 1541 | | Solid | X | teus |
| VGWUB1-12-10 | 11/5/13 | 1543 | | Solid | × | thout |
| VGWU101-12-15 | 11/5/13 | 1545 | | Solid | X | Hous |
| VGWM161-12-20 | 11/5/13 | 1547 | | Solid | X | Edd Here |
| VGWU61-12-25 | Internation | 1547 | 6 | Solid | X | 0年 |
| Possible Hazard Identification | Poison B Unknown | Π | Radiological | 14 | Sample Disposal (A fee may t | may be assessed if samples are retained longer than 1 month) |
| ested: I, II, III, IV, Other | | | | | Special Instructions/QC Require | equirements: |
| Empty Kit Relinguished by: | | Date: | | | Time: 1 \\ | Method of Shipment 1 |
| Relinquisted by UWC | | 3 | | Company | Received by: | Company Date/Time: 12/12 10 Company |
| Relinguistred by | Date/Time | | | Company | Received by. | Date/Time: Company |
| Custody Seals Intact: Custody Seal No.: | | | | | Cooler Temperature(s) *C and Other Remarks: | her Remarks: |
| | | | | | | |

| 6370 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646 | | | 0 | Chain | Chain of Custody Record | | |
|---|----------------------------------|----------------|---------------------------------------|--|--|----------------------------------|---|
| Client Information | Sampler NEUGA | A PHAN | ~ | Lab Ku | Lab PM: Kudchadkar, Sachin G | Carrier Tracking No(s) | COC No: 600-23595-8666.1 |
| Client Contact Mr. Jonathan Olsen | Phone: 713 | 113 953 4800 | 0281 | E-Mait sachi | E-Mail [.] sachin.kudchadkar@testamericainc.com | | Page of X |
| Company ARCADIS U.S., Inc. | | | 1 | | Analysis | Analysis Requested | Job # |
| Address 2929 Briarpark Drive Suite 300 | Due Date Requested: | ed: | 1 | | | | ion Cod |
| | TAT Requested (days): | ays): | 1 | | | | B - NaOH N - None C - Zn Acetate O - AsNaO2 |
| State, Zip' TX, 77042 | SAN | SAVAD | | | | | |
| phone 1139534800 | PO # Purchase Order Requested | r Requested | | | >) | | G - Amehlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecalnydrate |
| Email ionathan.olsen@arcadis-us.com | WO# | | | | - | | I - Ice J - DI Water |
| Project Name: HES Transfer Sites, Lea County NM | Project #: 60004633 | | | | | | L-EDA Z-other (specify) |
| NACUUM GUDDETA WEST UNIT U | SSOW# | | | | NSD () | | of co Other |
| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, C=wasteloil, BT=Tesue, A=Air | Eield Filtered Perform MS/I 8015B_DRO 9056_28D - Chil 8015B_GRO 8021B- BTEX | | Total Number Special Instructions/Note: |
| | X | X | | Preservation Code: | XXN N N N | | X |
| NGN11101-13-02 | 11/6/13 | 1150 | Ð | Solid | X | | Herd |
| NGW461-13-05 | Weliz | IISZ | | Solid | X | | HELD |
| NEWM61-13-10 | 11 6/13 | HSH | | Solid | X | | Haud |
| NGWM61-13-15 | 11/6/13 | 1156 | | Solid | X | | きい |
| VGWULE 1-13-20 | 11/4/13 | 1158 | | Solid | | | Hard |
| VGW461-13-25 | 11/6/13 | 1200 | | Solid | × | | Houd |
| | 11/5/13 | hear | | Solid | X | | Houd |
| -14- | 11/5/13 | 1626 | | Solid | X | | ficul |
| VGWU101-14-10 | 11 5 13 | 1628 | _ | Solid | X | | Hous |
| VGWU101-14-15 | 11/5/13 | 1630 | | Solid | X | | Hout |
| NGWHU1-14-20 | 11/5/13 | 1632 | 4 | Solid | | | 一番 |
| Possible Hazard Identification | | | Dentintration | l | Sample Disposal (A fee may | may be assessed if samples are i | samples are retained longer than 1 month) |
| V. Off | - 1 I | - 1 | | | Special Instructions/QC Requirements: | ments: | |
| Empty Kit Relinquished by: | (1410), | Date: | | | Time: 11/1 | Mathod of Shipment | |
| Reinquished by | Date(Time | 3 800 | 0 | Company | Received by: | Date/Times | CIR ADD Company |
| Relinquished by | Date/Tane: | 0 | | Company | Received by | V V / Date/Time: L | Company |
| Reinquished by | Date/Time* | | | Company | Received by: | - Date/Time: | Company |
| Custody Seals Intact: Custody Seal No.: △ Yes △ No | | | | | Cooler Temperature(s) °C and Other Remarks | er Remarks, | |
| | | | | | | | |

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| 6310 Rothwey Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646 | | | ~ | Chain of Custody Reco | ofC | ust | od | × 7 | ec | ord | | | | | | | | | | | 5.0 | | |
|---|-----------------------------------|----------------|---------------------------------------|---|---|-------------------------|---------------------------------------|--------------|------------|---------|---------------------------------------|--|------------------------|-----------------|------------|-------|--------------|-------------------------------|--|---------------------|----------------------------|-----------------------------------|--|
| Client Information | Sampler. MELISA | A TYPE | 艺 | Lab | Lab PM: Kudchadkar, | | Sachin G | | | | | Carrie | Carrier Tracking No(s) | ng No(| S. | | 0.0 | COC No: | COC No: 600-23595-8666. | 666.1 | | | |
| Client Contact. Mr. Jonathan Olsen | Phone: 7130 | 2 | 1800 | E-M | E-Mail sachin.kudchadkar@testamericain | chadk | ar@t | estan | nerica | inc.com | m | | | | | | 5 7 | Page Sof S | of | 2 | | | |
| Company: ARCADIS U.S., Inc. | | | | | 57 | | | 21 | Analy | lysis | s Rec | sis Requested | ed | | | | 5 | Job #: | 14 | | | | |
| Address: 2929 Briarpark Drive Suite 300 | Due Date Requested | d, | | | - | | - | _ | - | - | | | - | - | | | | resen | ration | Preservation Codes: | - 21 Line | | |
| | TAT Requested (days); | iys); | | | _ | | | _ | | _ | | | | | - | | 0.0.1 | B - NaOH C - Zn Acet | H | | N - None O - AsNaO2 | 102 and | |
| State, Zip: TX, 77042 | STANDARD | Net | | | _ | | _ | | | | - | | | | | | | D - Nitric Acid E - NaHSO4 | D - Nithic Acid E - NaHSO4 | | P - Na204S Q - Na2SO3 | 503 503 | |
| Phone: 7139534800 | Po #: Purchase Order Requested | Requested | | |) | _ | | _ | _ | | - | | | | | | | - Amchic - Amchic | r - MeOH G - Amchior H - Ascorbic Acid | | - H2S | D4 D4 Dodecat | K - NaZSZSU3 S - H2SO4 T - TSP Dodecahydrate |
| Email: ionathan olsen@arcadis-us.com | wO 非 | | | | _ | | | | - | - | - | | | | | | - | 1 - Ice J - DI Water | ater | | U - Acetone V - MCAA | A | |
| Project Name: | Project #. | | | | _ | | _ | _ | - | - | | | - | | | | - | K-EDTA | Ъ | NE | W - ph 4-5 Z - other (s | W - ph 4-5 Z - other (specify) | 3 |
| Site. | SSOW#: | | | | | | rido | | _ | | - | _ | | | - | | _ | Others | | | | | |
| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (www.ater. Sasolid, Owwasteioi, BTaTassue, AnAir | 5 Field Filtered Perform MS/N | 8015B_DRO | 9056_28D - Chie | 8015B_GRO | 8021B-BTEX | - | | | | | 1 | | Total Number | 10 | pecia | al Inst | ructio | Special Instructions/Note: | ġ. |
| | X | X | Preserva | Preservation Code: | X | - | - | - | - | - | | | _ | | | | X | I | | V | | | |
| NGWU161-14-25 | 14stis | 1634 | 9 | Solid | | | × | | | 111 | T | | | - | | | | Ŧ | 言い | | | | |
| | | | | Solid | _ | | | 1 | | | | | | | | | | | | | | | |
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| | | | | Solid | | | | _ | | | - | | | | | | | | | | | | |
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| | | | | Solid | | | | 11 | | | 111 | | | | | 11 | | | | | | | |
| | | | | Solid | | | | | | | | | | | | | | | | | | | |
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| | | | - | Solid | | | | _ | | 1.1 | | | | | | | | | | | | | |
| | | | | Solid | - | | | 2 | | | | | | - | | | | | | | | | |
| | | | | Solid | - | | | | | | | | | - | | | | | | | | | |
| Possible Hazard Identification | Poison B Unknown | | Radiological | | S | Sample Disposal (A fee | le Disposal (A f Return To Client | osal To C | (A fe | | y be a | may be assessed if samples are retained longer than 1 month) | ed if : | samp | les ai | e ret | stained long | long | er tha | n 1 m | onth) Months | hs | |
| sted: I, II, III, IV, Other | | | | | S | pecial | Instru | ctions | s/QC | Requ | Special Instructions/QC Requirements: | nts: | 2 | | | | | | | | | | |
| Empty Kit Relinquished by: | | Date: | | | Time: | | | - | \leq | - | | _ | Method | od of Shipment. | ment. | | | 1 | | | 3 | | |
| Refinquished by | Date/Time/7/ | ox bi | 00 | Company | Ì | Rece | Received by: | > | - | | 202 | 3 | - | Dat | Date/Time | 10 | à | 2 | 0 | 0 | Company | B | 5 |
| Relinquished by | Date/Tinfe: | | | Company | | Rece | Received by. | - | S | (| - | 20 | - | Dat | Date/Time/ | Y | 1 | | 4 | | Company | 5 | |
| Relinquished by | Date/Time: | | | Company | - | Rece | Received by | | | | | | | Dat | Date/Time: | | 1 | 1 | | 0 | Company | Y | |
| Custody Seals Intact: Custody Seal No.: | | | | | | Coole | rTem | peratu | ne(s) er | and C | ther Re | Cooler Temperature(s) °C and Other Remarks. | | ł | | | | | 24 | | | | |
| 10 140 LI 110 | | | | | | ľ | | | | | | | | | | | 1 | | | | | | |

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Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Login Number: 82342 List Number: 1

Creator: Capps, Dana R

| Question | Answer | Comment |
|---|--------|-----------------------------|
| Radioactivity wasn't checked or is = background as measured by a<br survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.2/1.4/1.8/1.5/1.7/2.6/1.5 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

List Source: TestAmerica Houston



Project Location:

Certificate of Analysis Summary 563441 Arcadis - Houston, Houston, TX Project Name: HES Transfer



Date Received in Lab: Wed Sep-20-17 03:45 pm

Report Date: 27-SEP-17 Project Manager: Kelsey Brooks

| | I.ah Id: | 563441-001 |
|-----------------------------------|------------|----------------------------------|
| | | |
| Analysis Romostod | Field Id: | <i>Field 1d</i> : VGWLL-61-003-W |
| narcanhavr credimity | Depth: | 2- In |
| | Matrix: | SOIL |
| | Sampled: | Sep-20-17 09:00 |
| Inorganic Anions by EPA 300/300.1 | Extracted: | Extracted: Sep-25-17 17:20 |
| | Analyzed: | Analyzed: Sep-26-17 12:20 |
| | Units/RL: | mg/kg RL |
| Chloride | | 1240 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. Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Munz Moah Kelsey Brooks

Project Manager

Final 1.000

Analytical Report 563441

for Arcadis - Houston

Project Manager: Brett Krehbiel

HES Transfer

27-SEP-17

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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

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



27-SEP-17



Project Manager: **Brett Krehbiel Arcadis - Houston** 10205 Westheimer Rd., Suite 800 Houston, TX 77042

Reference: XENCO Report No(s): 563441 HES Transfer Project Address:

Brett Krehbiel:

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) 563441. 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. 563441 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 Cross Reference 563441



Arcadis - Houston, Houston, TX

HES Transfer

| Matrix | Date Collected | Sample Depth | Lab Sample Id |
|--------|----------------|--------------|---------------|
| S | 09-20-17 09:00 | 2 In | 563441-001 |

Sample Id VGWLL-61-003-W



Client Name: Arcadis - Houston Project Name: HES Transfer

Project ID: Work Order Number(s): 563441
 Report Date:
 27-SEP-17

 Date Received:
 09/20/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample Id: | VGWLL-61-003-W 563441-001 | | Matrix: Date Collec | Soil ted: 09.20.17 09.00 | | Date Received: Sample Depth: | | 5 |
|------------------------------|-------------------------------------|------------------|------------------------|-----------------------------|-------|---------------------------------|------------|-----|
| Analytical Metho | od: Inorganic Anions l | oy EPA 300/300.1 | | | | Prep Method: | E300P | |
| Tech: M | INV | | | | | % Moisture: | | |
| Analyst: N | /INV | | Date Prep: | 09.25.17 17.20 | | Basis: | Wet Weight | |
| Seq Number: 3 | 028705 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Da | te Flag | Dil |
| Chloride | | 16887-00-6 | 1240 | 4.97 | mg/kg | 09.26.17 12.2 | 20 | 1 |



Flagging Criteria



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

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| | Phone | Fax |
|---|----------------|----------------|
| 4147 Greenbriar Dr, Stafford, TX 77477 | (281) 240-4200 | (281) 240-4280 |
| 9701 Harry Hines Blvd , Dallas, TX 75220 | (214) 902 0300 | (214) 351-9139 |
| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 1211 W Florida Ave, Midland, TX 79701 | (432) 563-1800 | (432) 563-1713 |
| 2525 W. Huntington Dr Suite 102, Tempe AZ 85282 | (602) 437-0330 | |
| | | |



QC Summary 563441

Arcadis - Houston HES Transfer

| Analytical Method: | Inorganic Anions b | y EPA 300 | /300.1 | | | | | Pr | ep Metho | od: E30 | OP | |
|---------------------------|--------------------|-----------------|---------------|-------------|----------------|--------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028705 | | | Matrix: | Solid | | | | Date Pre | ep: 09.2 | 5.17 | |
| MB Sample Id: | 731508-1-BLK | | LCS Sar | nple Id: | 731508-1- | BKS | | LCSI | O Sample | Id: 7315 | 508-1-BSD | |
| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | <5.00 | 250 | 273 | 109 | 274 | 110 | 90-110 | 0 | 20 | mg/kg | 09.26.17 10:35 | |

| Analytical Method: | Inorganic Anions b | y EPA 300/ | 300.1 | | | | | Pr | ep Metho | od: E30 |)0P | |
|--------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|--------------|---------|------------------|------|
| Seq Number: | 3028705 | | | Matrix: | Soil | | | | Date Pro | ep: 09. | 25.17 | |
| Parent Sample Id: | 563445-002 | | MS Sar | nple Id: | 563445-00 | 02 S | | MSI | D Sample | Id: 563 | 445-002 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 1310 | 246 | 1520 | 85 | 1520 | 85 | 90-110 | 0 | 20 | mg/kg | 09.26.17 12:41 | 37 |

| Analytical Method: | Inorganic Anions b | y EPA 300/ | 300.1 | | | | | Pr | ep Metho | d: E300 |)P | |
|--------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028705 | | | Matrix: | Soil | | | | Date Pre | ep: 09.2 | 5.17 | |
| Parent Sample Id: | 563777-001 | | MS Sar | nple Id: | 563777-00 | 01 S | | MSI | O Sample | Id: 5637 | 77-001 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 1670 | 249 | 1910 | 96 | 1950 | 112 | 90-110 | 2 | 20 | mg/kg | 09.26.17 14:19 | Х |

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CHAIN OF CUSTODY

| Stafford, Texas (281-240-4200) Dallas Texas (214-902-0300) | | | Ode | Odessa, Texas (432-563-1800) Norcross. Georgia (770-449-8800) | Lakeland, Florida (863-646-8526) Tampa. Florida (813-620-2000) |
|---|-------------------|---|--|---|---|
| Dallas Texas (214-902-0300) Service Center - San Antonio, Texas (210-508-3334) | 9 | WWW. Janco com | | Norcross, Georgia (770-449-8800) Xenco Quote # Q_14208 Xenco Job # | Tampa, Florida (813-620-2000) たいえロロー |
| | 4 | A DATE OF A | | Analytical informati | 5 65 991 Matrix Codes |
| Client / Reporting Information | | Project Information | | | |
| Company Name / Branch: Arcadis - Houston | | Project Name/Number: HES Transfer | | | S = Soil/Sod/Solid |
| Company Address: 10205 Westheimer Rd., Suite 800 Hiouston TX 77042 | | roject Location: | | | GW = Ground Water DW = Drinking Water |
| Email: Phone No: brett. krehbiel@arcadis.com | | Involca To: | | | SW = Surface water SL = Sludge |
| Project Contact: Brett Krehblel | | O Number | - | | OW =Ocean/Sea Water W = Wipe |
| Samplers's Name | | | | | |
| | | Collection | Number of preserved bottles | | A = Air |
| No. Field ID / Point of Collection | Sample | Date Time Matrix bottles T 1907 | Acetate HNO3 H2SO4 | | Field Comm |
| 1 1/GWUL-61-00-3-W | | 17 CSEC 5 1 | X | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 0 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| Ø | | | | | |
| 10 | | | | | |
| Turnaround Time (Business days) | | Data Deliverable Information | formation | Temp: 2 | |
| Same Day TAT | AT | Level II Std QC | Level IV (Full Data Pkg /raw data) | data) CF:(0-6: -0.200 | I IR ID:R-8 |
| Next Day EMERGENCY | AL. | Level III Std QC+ Forms | TRRP Level IV | (6-23: + | (6-23: +0.2°C) |
| 2 Day EMERGENCY | t TAT | Level 3 (CLP Forms) | UST/RG -411 | Corrected Temp: | Temp: 2 Q |
| 3 Day EMERGENCY | | TRRP Checklist | | | 1 |
| TAT Starts Day received by Lab, if received by 5:00 pm | by 5:00 pm | | | FED-EX / UPS: Tracking # | |
| | USTODY MUST BE DO | CUMENTED BELOW EACH TIME SAMPLES CHAN | GE POSSESSION, INCLUDING COURIER DELIVERY | | - |
| | Date Time: | | Relinquished By: | Plate Time: Received by: | NOWING . |
| Relinquished by: | Date Time: | Recoived By: | Relinquished By: | Date Time: Received By: | TALALAN L |
| Relinguished by: | Date Time: | 3 Received By: | 4 Custody Seal # | A A A Relinquished by: Date Time: Received By: Custody Seal # Preserved where applicable On Ice Cooler Temp. Thermo. Corr. Fa | On Ice Cooler Temp. Thermo. Corr. Factor |

Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Arcadis - Houston Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/20/2017 03:45:00 PM Temperature Measuring device used : R8 Work Order #: 563441 Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 2.9 #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? No #18 Water VOC samples have zero headspace? N/A

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

Analyst:

PH Device/Lot#:

Date: 09/21/2017

Checklist completed by: Connie Hernandez Checklist reviewed by: Kelsey Brooks

Date: 09/21/2017



Certificate of Analysis Summary 563445 Arcadis - Houston, Houston, TX Project Name: HES Transfer



Date Received in Lab: Wed Sep-20-17 04:00 pm

Contact: Project Location:

Report Date: 27-SEP-17 Project Manager: Kelsey Brooks

| Analysis Requested Field Id. VGWU-61-002-W VGWU-61-005-W VGWU-61-006-W VGWU-61-006-W $Depth$: $Depth$: $2 \cdot \ln$ $2 \cdot \ln$ $2 \cdot \ln$ $2 \cdot \ln$ $Matrix$: $Soll$ $2 \cdot \ln$ $2 \cdot \ln$ $2 \cdot \ln$ $2 \cdot \ln$ $Matrix$: $Soll$ $Soll$ $Soll$ $Soll$ $Soll$ $Sampled$: $Sep-19-1715:00$ $Sep-19-1715:20$ $Sep-19-1715:20$ $Soll$ $Sampled$: $Sep-19-1715:00$ $Sep-19-1715:20$ $Sep-19-1715:20$ $Sep-19-1715:20$ $Madyzed$: $Sep-25-1717:20$ $Sep-25-1717:20$ $Sep-25-1717:20$ $Sep-26-1712:27$ $Madyzed$: $Sep-26-1712:27$ $Sep-26-1712:55$ $Sep-26-1712:20$ $Sep-26-1712:20$ $Madyzed$: mg/kg RL mg/kg RL mg/kg RL $Madyzed$: $Sep-26-1712:24$ $Sep-26-1712:25$ $Sep-26-1712:20$ $Sep-26-1712:20$ $Sep-26-1712:20$ $Madyzed$: mg/kg RL Mg/kg RL $RP/26-1712:20$ $RP/26-1712:20$ | | Lab Id: | 563445-001 | 563445-002 | 563445-003 | 563445-004 | |
|--|---------------------|------------|-----------------|-----------------|-----------------|-----------------|---|
| | A malucis Dominated | Field Id: | VGWU-61-002-W | VGWU-61-004-W | VGWU-61-005-W | VGWU-61-006-W | |
| | naisanhaw sissimuw | Depth: | 2- In | 2- In | 2- In | 2- In | |
| | | Matrix: | SOIL | SOIL | SOIL | SOIL | |
| Chloride by EPA 300 Extracted: Sep-25-17 17:20 Sep-25-17 17:21 Analyzed: Sep-26-17 12:27 Sep-26-17 12:34 Sep-26-17 12:55 Sep-26-17 13:4 Sep-26-17 12:55 Sep-26-17 13:4 <i>Units/RL:</i> mg/kg RL mg/kg RL mg/kg RL mg/kg 3050 24.6 1310 4.91 1440 4.95 2200 | | Sampled: | Sep-19-17 15:00 | Sep-19-17 15:15 | Sep-19-17 15:21 | Sep-19-17 15:26 | |
| $\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$ | Chloride by EPA 300 | Extracted: | Sep-25-17 17:20 | Sep-25-17 17:20 | Sep-25-17 17:20 | Sep-25-17 17:20 | - |
| Units/RL: mg/kg RL mg/kg RL mg/kg RL mg/kg 3050 24.6 1310 4.91 1440 4.95 2200 | | Analyzed: | Sep-26-17 12:27 | Sep-26-17 12:34 | Sep-26-17 12:55 | Sep-26-17 13:02 | |
| 3050 24.6 1310 4.91 1440 4.95 2200 | | Units/RL: | | mg/kg RL | mg/kg RL | mg/kg RL | |
| | Chloride | | | | | | |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results repressed throughout this analytical report represent the best judgment of 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

Murs Doah Kelsey Brooks Project Manager

Final 1.000

Analytical Report 563445

for Arcadis - Houston

Project Manager: Brett Krehbiel

HES Transfer

27-SEP-17

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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

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



27-SEP-17



Project Manager: **Brett Krehbiel Arcadis - Houston** 10205 Westheimer Rd., Suite 800 Houston, TX 77042

Reference: XENCO Report No(s): 563445 HES Transfer Project Address:

Brett Krehbiel:

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) 563445. 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. 563445 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 Cross Reference 563445



Arcadis - Houston, Houston, TX

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---------------|--------|----------------|--------------|---------------|
| VGWU-61-002-W | S | 09-19-17 15:00 | 2 In | 563445-001 |
| VGWU-61-004-W | S | 09-19-17 15:15 | 2 In | 563445-002 |
| VGWU-61-005-W | S | 09-19-17 15:21 | 2 In | 563445-003 |
| VGWU-61-006-W | S | 09-19-17 15:26 | 2 In | 563445-004 |



Client Name: Arcadis - Houston Project Name: HES Transfer

Project ID: Work Order Number(s): 563445 Report Date: 27-SEP-17 Date Received: 09/20/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3028705 Inorganic Anions by EPA 300

Lab Sample ID 563777-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 563445-001, -002, -003, -004. The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-002-W d: 563445-001 | | Matrix: Date Colle | Soil cted: 09.19.17 15.00 | | Date Received:09 Sample Depth: 2 In | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|--|-----------|-----|
| 5 | ethod: Chloride by EPA | 300 | | | | Prep Method: E3 | 00P | |
| Tech: | MNV | | | 00 05 15 15 00 | | % Moisture: | | |
| Analyst: | MNV | | Date Prep: | 09.25.17 17.20 | | Basis: We | et Weight | |
| Seq Number: | 3028705 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 3050 | 24.6 | mg/kg | 09.26.17 12.27 | | 5 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-004-W d: 563445-002 | | Matrix: Date Colle | Soil cted: 09.19.17 15.15 | | Date Received:09. Sample Depth: 2 In | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|---|-----------|-----|
| 2 | ethod: Chloride by EPA | 300 | | | | Prep Method: E3 | 00P | |
| Tech: Analyst: | MNV MNV | | Date Prep: | 09.25.17 17.20 | | % Moisture: Basis: We | et Weight | |
| Seq Number: | 3028705 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1310 | 4.91 | mg/kg | 09.26.17 12.34 | | 1 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-005-W d: 563445-003 | | Matrix: Date Colle | Soil cted: 09.19.17 15.21 | | Date Received:09. Sample Depth: 2 In | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|---|----------|-----|
| Analytical M Tech: | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: E3 | 90P | |
| Analyst: | MNV | | Date Prep: | 09.25.17 17.20 | | | t Weight | |
| Seq Number: | 3028705 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1440 | 4.95 | mg/kg | 09.26.17 12.55 | | 1 |





Arcadis - Houston, Houston, TX

HES Transfer

| Parameter | | Cas Number | Result | RL | Units | Analysis D | ate | Flag | Dil |
|--------------|------------------------|------------|--------------|--------------------|-------|---------------|---------|-----------|-----|
| Seq Number: | 3028705 | | | | | | | | |
| Analyst: | MNV | | Date Prep: | 09.25.17 17.20 | | Basis: | Wet V | Veight | |
| Tech: | MNV | | | | | % Moisture: | | | |
| Analytical M | ethod: Chloride by EPA | 300 | | | | Prep Method: | E300I | Р | |
| Lab Sample I | d: 563445-004 | | Date Collect | ed: 09.19.17 15.26 | | Sample Depth | n:2 In | | |
| Sample Id: | VGWU-61-006-W | | Matrix: | Soil | | Date Received | d:09.20 | .17 16.00 | |

16887-00-6 **2200**

25.0

mg/kg

09.26.17 13.02

5



Flagging Criteria



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

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| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 1211 W Florida Ave, Midland, TX 79701 | (432) 563-1800 | (432) 563-1713 |
| 2525 W. Huntington Dr Suite 102, Tempe AZ 85282 | (602) 437-0330 | |
| | | |



QC Summary 563445

Arcadis - Houston HES Transfer

| Analytical Method: | Chloride by EPA 30 |)0 | | | | | | Pr | ep Metho | d: E30 | 0P | |
|--------------------|--------------------|-----------------|---------------|-------------|----------------|--------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028705 | | | Matrix: | Solid | | | | Date Pre | ep: 09.2 | 5.17 | |
| MB Sample Id: | 731508-1-BLK | | LCS Sar | nple Id: | 731508-1- | BKS | | LCSI | D Sample | Id: 731 | 508-1-BSD | |
| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | < 5.00 | 250 | 273 | 109 | 274 | 110 | 90-110 | 0 | 20 | mg/kg | 09.26.17 10:35 | |

| Analytical Method: | Chloride by EPA 30 | 00 | | | | | | Pr | ep Metho | d: E30 | OP | |
|--------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028705 | | | Matrix: | Soil | | | | Date Pre | ep: 09.2 | 5.17 | |
| Parent Sample Id: | 563445-002 | | MS Sar | nple Id: | 563445-00 |)2 S | | MS | D Sample | Id: 5634 | 445-002 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 1310 | 246 | 1520 | 85 | 1520 | 85 | 90-110 | 0 | 20 | mg/kg | 09.26.17 12:41 | Х |

| Analytical Method: | Chloride by EPA 30 |)0 | | | | | | Pr | ep Metho | od: E30 | OP | |
|---------------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028705 | | | Matrix: | Soil | | | | Date Pro | ep: 09.2 | 5.17 | |
| Parent Sample Id: | 563777-001 | | MS Sar | nple Id: | 563777-00 | 01 S | | MSI | O Sample | Id: 5637 | 777-001 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 1670 | 249 | 1910 | 96 | 1950 | 112 | 90-110 | 2 | 20 | mg/kg | 09.26.17 14:19 | Х |

| Settin | 0 |
|----------------------------|----|
| tting the Standard since . | |
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| 0664 | 20 |
| | 50 |

Stafford, Texas (281-240-4200)

CHAIN OF CUSTODY

Page 1 Of 1

Odessa, Texas (432-563-1800)

Lakeland, Florida (863-646-8526)

No. Samplers's Name 10205 Westheimer Rd., Suite 800 Hiouston TX 77042 Company Name / Branch: Arcadis - Houston 10 9 8 1 6 Project Contact: brett.krehbiel@arcadis.com CINAL Company Address: cn 4 ω N Relinquished by: Relinquished by Sampler Relinquished by: 3 Day EMERGENCY 2 Day EMERGENCY Next Day EMERGENCY 1 Service Center - San Antonio, Texas (210-509-3334) Dallas Texas (214-902-0300) NGWUL-TAT Starts Day received by Lab, if received by 5:00 pm Same Day TAT **Client / Reporting Information** VGWUL-VGWUL-16WU-61-002-W Turnaround Time (Business days) Secol 15,00 61 61 - COS - W Field ID / Point of Collection 6. **Brett Krehbiel** 1-004-0 006-W A 5 Day TAT Contract TAT 7 Day TAT SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVER Phone No: Date Time: Date Time: Date Time: Sample N 2 V 1 g Project Name/Number: HES Transfer Project Location: 9.9.17 9.19.17 2 9.6.17 PO Number: nvoice To: Collection A.n Date 1151 1526 Level II Std QC 1.51.5 Received By: **Received By:** TRRP Checklist 122/ **Received By:** 800 Time Level III Std QC+ Forms Project Information Level 3 (CLP Forms) lune Matrix 5 s CA 5 Data Deliverable Information www.xenco.com # of bottles ~ ñ HCI NaOH/Zn Acetate Number HNO3 of preserved bottles Custody Seal # **Relinquished By:** Relinquished By: UST / RG -411 TRRP Level IV Level IV (Full Data Pkg /raw data) H2SO4 NaOH 5 NaHSO4 MEOH 5 5 2 5 NONE * X × Xenco Quote # Norcross, Georgia (770-449-8800) 2 X Chlorides Preserved where applicable Date Time: 9-20-17/Loo Date Time: Analytical Information Q_14208 Temp: 3 +) CF:(0-6: -0.2°C) FED-EX / UPS: Tracking # Corrected Temp: 2 (6-23: +0.2°C) 14 Xenco Job # Received By: Received On Ice Tampa, Florida (813-620-2000) 63442 Cooler Temp. IR ID:R-8 Field Comments SW = Surface water SL = Sludge OW =Ocean/Sea Water W = Wipe O = Oll WW- Waste Water Thermo, Corr. Factor A = Air P = Product DW = Drinking Water S = Soil/Sed/Solid GW =Ground Water Matrix Codes

5 /2.

Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Arcadis - Houston Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/20/2017 04:00:00 PM Temperature Measuring device used : R8 Work Order #: 563445 Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 2.9 #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? No #18 Water VOC samples have zero headspace? N/A

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

Analyst:

PH Device/Lot#:

Date: 09/21/2017

Checklist completed by: Connie Hernandez Checklist reviewed by: Kelsey Brooks

Date: 09/21/2017



Project Location:

Certificate of Analysis Summary 563446 Arcadis - Houston, Houston, TX Project Name: HES Transfer



Date Received in Lab: Wed Sep-20-17 04:00 pm Remort Date: 28-SFP-17

Report Date: 28-SEP-17 Project Manager: Kelsey Brooks

| | Lab Id: | 563446-001 | 563446-002 | 563446-003 | 563446-004 | 563446-005 | 563446-006 |
|---------------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| A malucia Domoctod | Field Id: | VGWU-61-003-E | VGWU-61-004-E | VGWU-61-007-E | VGWU-61-008-E | VGWU-61-001-E | VGWU-61-002-E |
| narcanhaw crechmutz | Depth: | 2.5- ft | 3- ft | 2- ft | 2.5- ft | 2- ft | 2- ft |
| | Matrix: | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL |
| | Sampled: | Sep-19-17 10:00 | Sep-19-17 10:10 | Sep-19-17 10:15 | Sep-19-17 10:20 | Sep-19-17 13:58 | Sep-19-17 14:07 |
| Chloride by EPA 300 | Extracted: | Sep-26-17 12:00 |
| | Analyzed: | Sep-26-17 13:23 | Sep-26-17 13:30 | Sep-26-17 13:37 | Sep-26-17 13:44 | Sep-26-17 13:51 | Sep-26-17 13:58 |
| | Units/RL: | mg/kg RL |
| Chloride | | 1040 25.0 | 1010 25.0 | 1020 5.00 | 1140 5.00 | 470 5.00 | 1160 5.00 |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and revalts repressed 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

Murs Roah Kelsey Brooks

Project Manager

Final 1.000



Project Location:

Certificate of Analysis Summary 563446 Arcadis - Houston, Houston, TX Project Name: HES Transfer



Date Received in Lab: Wed Sep-20-17 04:00 pm

Report Date: 28-SEP-17 Project Manager: Kelsey Brooks

| | Lab Id: | 563446-007 | 563446-008 | |
|---------------------|------------|----------------------------|-----------------|--|
| A malucia Domoctod | Field Id: | VGWU-61-005-E | VGWU-61-006-E | |
| naisanhay sissimity | Depth: | 2- ft | 2- | |
| | Matrix: | SOIL | SOIL | |
| | Sampled: | Sep-19-17 14:15 | Sep-19-17 14:22 | |
| Chloride by EPA 300 | Extracted: | Extracted: Sep-26-17 12:00 | Sep-26-17 12:00 | |
| | Analyzed: | Sep-26-17 15:41 | Sep-26-17 15:50 | |
| | Units/RL: | mg/kg RL | ш | |
| Chloride | | 1040 4.94 | | |
| | | | | |

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

Rung Moah Kelsey Brooks

Project Manager

Final 1.000

Analytical Report 563446

for Arcadis - Houston

Project Manager: Brett Krehbiel

HES Transfer

28-SEP-17

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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

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



28-SEP-17



Project Manager: **Brett Krehbiel Arcadis - Houston** 10205 Westheimer Rd., Suite 800 Houston, TX 77042

Reference: XENCO Report No(s): 563446 HES Transfer Project Address:

Brett Krehbiel:

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) 563446. 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. 563446 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

VGWU-61-003-E VGWU-61-004-E VGWU-61-007-E VGWU-61-008-E VGWU-61-002-E VGWU-61-002-E VGWU-61-005-E VGWU-61-006-E

Sample Cross Reference 563446



Arcadis - Houston, Houston, TX

| Matrix | Date Collected | Sample Depth | Lab Sample Id |
|--------|----------------|--------------|---------------|
| S | 09-19-17 10:00 | 2.5 ft | 563446-001 |
| S | 09-19-17 10:10 | 3 ft | 563446-002 |
| S | 09-19-17 10:15 | 2 ft | 563446-003 |
| S | 09-19-17 10:20 | 2.5 ft | 563446-004 |
| S | 09-19-17 13:58 | 2 ft | 563446-005 |
| S | 09-19-17 14:07 | 2 ft | 563446-006 |
| S | 09-19-17 14:15 | 2 ft | 563446-007 |
| S | 09-19-17 14:22 | 2 | 563446-008 |



Client Name: Arcadis - Houston Project Name: HES Transfer

Project ID: Work Order Number(s): 563446
 Report Date:
 28-SEP-17

 Date Received:
 09/20/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-003-E d: 563446-001 | | Matrix: Date Colle | Soil cted: 09.19.17 10.00 | | Date Received:09. Sample Depth: 2.5 | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|--|----------|-----|
| 2 | ethod: Chloride by EPA | 300 | | | | Prep Method: E30 | 00P | |
| Tech: Analyst: | MNV MNV | | Date Prep: | 09.26.17 12.00 | | % Moisture: Basis: We | t Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1040 | 25.0 | mg/kg | 09.26.17 13.23 | | 5 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-004-E d: 563446-002 | | Matrix: Date Colle | Soil cted: 09.19.17 10.10 | | Date Received:09. Sample Depth: 3 ft | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|---|----------|-----|
| Analytical M | ethod: Chloride by EPA | 300 | | | | Prep Method: E3 | 00P | |
| Tech: | MNV | | | | | % Moisture: | | |
| Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | Basis: We | t Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1010 | 25.0 | mg/kg | 09.26.17 13.30 | | 5 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-007-E d: 563446-003 | | Matrix: Date Colle | Soil cted: 09.19.17 10.15 | | Date Received:09. Sample Depth: 2 f | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|--|-----------|-----|
| Analytical Mo Tech: | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: E3 % Moisture: | 00P | |
| Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | | et Weight | |
| Seq Number: | 3028851 | | - | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1020 | 5.00 | mg/kg | 09.26.17 13.37 | | 1 |





Arcadis - Houston, Houston, TX

HES Transfer

| Sample Id: Lab Sample I | VGWU-61-008-E d: 563446-004 | | Matrix: Date Collec | Soil ted: 09.19.17 10.20 | | Date Received: Sample Depth: | 0 | |
|----------------------------|---------------------------------------|------------|------------------------|-----------------------------|-------|---------------------------------|------------|-----|
| Analytical Mo Tech: | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: % Moisture: | E300P | |
| Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | Basis: | Wet Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Da | te Flag | Dil |

16887-00-6 1140

5.00

mg/kg 09.26.17 13.44

1

Page 10 of 18





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-001-E d: 563446-005 | | Matrix: Date Colle | Soil cted: 09.19.17 13.58 | | Date Received:09. Sample Depth: 2 f | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|--|-----------|-----|
| Analytical M Tech: | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: E3 % Moisture: | 00P | |
| Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | | et Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 470 | 5.00 | mg/kg | 09.26.17 13.51 | | 1 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-002-E d: 563446-006 | | Matrix: Date Collec | Soil cted: 09.19.17 14.07 | | Date Received:09 Sample Depth: 2 f | | 0 |
|----------------------------|---------------------------------------|------------|------------------------|------------------------------|-------|---------------------------------------|-----------|-----|
| 2 | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: E3 % Moisture: | 00P | |
| Tech: Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | | et Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1160 | 5.00 | mg/kg | 09.26.17 13.58 | | 1 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-005-E d: 563446-007 | | Matrix: Date Colle | Soil cted: 09.19.17 14.15 | | Date Received:09. Sample Depth: 2 ft | | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|---|-----------|-----|
| Analytical Mo Tech: | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: E3 | 00P | |
| Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | | et Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 1040 | 4.94 | mg/kg | 09.26.17 15.41 | | 1 |





Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample I | VGWU-61-006-E d: 563446-008 | | Matrix: Date Colle | Soil cted: 09.19.17 14.22 | | Date Received:09. Sample Depth: 2 | 20.17 16.0 | 0 |
|----------------------------|---------------------------------------|------------|-----------------------|------------------------------|-------|--------------------------------------|------------|-----|
| Analytical M Tech: | ethod: Chloride by EPA MNV | 300 | | | | Prep Method: E3 % Moisture: | 00P | |
| Analyst: | MNV | | Date Prep: | 09.26.17 12.00 | | | t Weight | |
| Seq Number: | 3028851 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 129 | 4.96 | mg/kg | 09.26.17 15.50 | | 1 |



Flagging Criteria



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

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| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 1211 W Florida Ave, Midland, TX 79701 | (432) 563-1800 | (432) 563-1713 |
| 2525 W. Huntington Dr Suite 102, Tempe AZ 85282 | (602) 437-0330 | |
| | | |



QC Summary 563446

Arcadis - Houston HES Transfer

| Analytical Method: | Chloride by EPA 30 | 00 | | | | | | Pr | ep Metho | od: E30 | 0P | |
|--------------------|--------------------|-----------------|---------------|-------------|----------------|--------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028851 | | | Matrix: | Solid | | | | Date Pro | ep: 09.2 | 6.17 | |
| MB Sample Id: | 731556-1-BLK | | LCS Sar | nple Id: | 731556-1- | BKS | | LCSI | D Sample | Id: 731 | 556-1-BSD | |
| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | < 5.00 | 250 | 254 | 102 | 253 | 101 | 90-110 | 0 | 20 | mg/kg | 09.26.17 14:42 | |

| Analytical Method: | Chloride by EPA 30 | 00 | | | | | | Pr | ep Metho | d: E30 | 0P | |
|---------------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028851 | | | Matrix: | Soil | | | | Date Pre | ep: 09.2 | 6.17 | |
| Parent Sample Id: | 563566-010 | | MS Sar | nple Id: | 563566-0 | 10 S | | MSI | D Sample | Id: 563 | 566-010 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 77.6 | 248 | 331 | 102 | 331 | 102 | 90-110 | 0 | 20 | mg/kg | 09.26.17 16:26 | |

| Analytical Method: | Chloride by EPA 30 |)0 | | | | | | Pr | ep Metho | od: E300 |)P | |
|--------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|--------------|----------|------------------|------|
| Seq Number: | 3028851 | | | Matrix: | Soil | | | | Date Pre | ep: 09.2 | 6.17 | |
| Parent Sample Id: | 563567-004 | | MS Sar | nple Id: | 563567-00 |)4 S | | MSI | O Sample | Id: 5635 | 67-004 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 7560 | 249 | 7900 | 137 | 7890 | 133 | 90-110 | 0 | 20 | mg/kg | 09.26.17 18:12 | Х |

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CHAIN OF CUSTODY

| Odess, Texas (422-65-1900) Lakel Information Norross, Georgia (770-448-9800) Tanp Information Norross, Georgia (770-448-9800) Norross, Georgia (770-448-9800) Information Norross, Georgia (770-448-980) Norross, Georgia (770-448-980) Information Norross, Georgia (770-448-980) Noross, Georgia (770-480) |
|---|
| exas (432-563-1800) Lakeland, Florida (Georgia (770-449-8800) Tampa, Florida (81 * Q_14208 Xenco Jobs 5 6 3 41 40 Analytical Information Analytical Information FED-EX / UPS: Tracking # Date Time: Received By: Pred vibare applicable Onlege Cooler Temp. |
| exas (432-563-1800) Lakeland, Florida (Georgia (770-449-8800) Tampa, Florida (81 * Q_14208 Xenco Jobs 5 6 3 41 40 Analytical Information Analytical Information Temp: 5 6 3 41 40 Temp: 7 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7 |
| exas (432-563-1800) Lakeland, Florida (Georgia (770-449-8800) Tampa, Florida (81 * Q_14208 Xenco Jobs 5 6 3 41 40 Analytical Information Analytical Information Temp: 5 6 3 41 40 Temp: 7 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7 |
| exas (432-563-1800) Lakeland, Florida (Georgia (770-449-8800) Tampa, Florida (81 * Q_14208 Xanco Job * 5 6 3 41 40 Analytical Information Analytical Information Temp: 5 6 3 41 40 Temp: 7 60; -0, 2°C, IR ID; CF: (0-6: -0, 2°C, IR ID; COT rected Temp: 7 40, 2°C, IR ID; Date Time: Received By: rvid where applicable On Lee Cooler Temp. |
| exas (432-563-1800) Lakeland, Florida (Georgia (770-449-8800) Tampa, Florida (81 * Q_14208 Xanco Job * 5 6 3 41 40 Analytical Information Analytical Information Temp: 5 6 3 41 40 Temp: 7 60; -0, 2°C, IR ID; CF: (0-6: -0, 2°C, IR ID; COT rected Temp: 7 40, 2°C, IR ID; Date Time: Received By: rvid where applicable On Lee Cooler Temp. |
| exas (432-563-1800) Lakeland, Florida (Georgia (770-449-8800) Tampa, Florida (81 * Q_14208 Xenco Job * 5 63 (14 (4) Analytical Information Analytical Information Temp: 5 63 (14 (4) Temp: 6 (6) - 0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) (6-23: +0.2°C) CF(Cled Temp: 7 (4) 2°C) Date Time: Received By: Onice Cooler Temp. |
| Lakeland, Florida (81 Tampa, Florida (81 S. 6.3.41 41 S. 6.3.41 41 C. 6.2.0°C) S. 2.3: +0.2°C) Cted Temp: Cted Temp: Cted Temp: Onlee Cooler Temp. |
| Lakeland, Florida (81 5.63440 5.63440 0.2°C) IR ID: emp: 2 1R ID: |
| Imatrix Codes Matrix Codes S = Soil/Soil/Soild GW = Ground Water S = Producing Water S = Soil/Sed/Soild GW = Ground Water S = Soil/Sed/Soild GW = Ground Water S = Soil/Sed/Soild S = Soil/Sed/Soild GW = Ground Water S = Soil/Sed/Soild W = Wipe OW = Ocean/Sea W = Wipe OW = Ocian/Sea Water A = Air d Comments d Comments B 8 8 8 |

Page 17 of 18



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Arcadis - Houston Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/20/2017 04:00:00 PM Temperature Measuring device used : R8 Work Order #: 563446 Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 2.9 #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? No #18 Water VOC samples have zero headspace? N/A

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

Analyst:

PH Device/Lot#:

Date: 09/21/2017

Checklist completed by: Connie Hernandez Checklist reviewed by: Kelsey Brooks

Date: 09/21/2017



Project Location:

Certificate of Analysis Summary 564445 Arcadis - Houston, Houston, TX



Date Received in Lab: Tue Oct-03-17 10:11 am

Project Manager: Kelsey Brooks **Report Date:** 04-OCT-17

| | Lab Id: Field Id: | 56445-001 VGWU-61-008-W | 564445-002 VGWU-61-009-W | 564445-003 VGWU-61-010-W | |
|-----------------------------------|----------------------|----------------------------|-----------------------------|-----------------------------|---|
| Anurysis Requested | Depth: | 3- ft | 3- ft | 2- ft | |
| | Matrix: | SOIL | SOIL | SOIL | |
| | Sampled: | Oct-02-17 08:50 | Oct-02-17 08:54 | Oct-02-17 08:58 | |
| Inorganic Anions by EPA 300/300.1 | Extracted: | Oct-03-17 13:45 | Oct-03-17 13:45 | Oct-03-17 13:45 | - |
| | Analyzed: | Oct-03-17 18:59 | Oct-03-17 19:07 | Oct-03-17 19:15 | |
| | Units/RL: | mg/kg RL | mg/kg RL | mg/kg RL | |
| Chloride | | 607 4.96 | 630 4.97 | 360 4.97 | |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and result expressed throughout this analytical report represent the best judgement 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

Murs Roah Kelsey Brooks

Project Manager

Final 1.000

Analytical Report 564445

for Arcadis - Houston

Project Manager: Brett Krehbiel

HES Transfer

04-OCT-17

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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

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



04-OCT-17



Project Manager: **Brett Krehbiel Arcadis - Houston** 10205 Westheimer Rd., Suite 800 Houston, TX 77042

Reference: XENCO Report No(s): 564445 HES Transfer Project Address:

Brett Krehbiel:

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) 564445. 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. 564445 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 Cross Reference 564445



Arcadis - Houston, Houston, TX

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---------------|--------|----------------|--------------|---------------|
| VGWU-61-008-W | S | 10-02-17 08:50 | 3 ft | 564445-001 |
| VGWU-61-009-W | S | 10-02-17 08:54 | 3 ft | 564445-002 |
| VGWU-61-010-W | S | 10-02-17 08:58 | 2 ft | 564445-003 |



CASE NARRATIVE

Client Name: Arcadis - Houston Project Name: HES Transfer

Project ID: Work Order Number(s): 564445 Report Date: 04-OCT-17 Date Received: 10/03/2017

Sample receipt non conformances and comments: TCLP Metals, TCLP VOCs, TCLP SVOCs, and TPH added per Melisa Darrow e-mail 09/21/17-- KB

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3029501 Inorganic Anions by EPA 300/300.1

Lab Sample ID 564445-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 564445-001, -002, -003.

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



Certificate of Analytical Results 564445



Arcadis - Houston, Houston, TX

| 1 | VGWU-61-008-W | | Matrix: | Soil | | Date Received | :10.03.17 10.1 | 1 |
|------------------|------------------------|------------------|-------------|----------------------|-------|---------------|----------------|-----|
| Lab Sample Id: 5 | 564445-001 | | Date Collec | eted: 10.02.17 08.50 | | Sample Depth: | :3 ft | |
| Analytical Metho | od: Inorganic Anions b | by EPA 300/300.1 | | | | Prep Method: | E300P | |
| Tech: N | INV | | | | | % Moisture: | | |
| Analyst: N | INV | | Date Prep: | 10.03.17 13.45 | | Basis: | Wet Weight | |
| Seq Number: 3 | 029501 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Da | ate Flag | Dil |
| Chloride | | 16887-00-6 | 607 | 4.96 | mg/kg | 10.03.17 18. | 59 | 1 |



Certificate of Analytical Results 564445



Arcadis - Houston, Houston, TX

| Sample Id: VGWU-61-00 | 9-W | Matrix: | Soil | - | Date Received:1 | | |
|------------------------------|-------------------------|-------------|----------------------|-------|-----------------|------------|-----|
| Lab Sample Id: 564445-002 | | Date Collec | eted: 10.02.17 08.54 | | Sample Depth: 3 | ft | |
| Analytical Method: Inorganic | Anions by EPA 300/300.1 | | |] | Prep Method: E | E300P | |
| Tech: MNV | | | | (| % Moisture: | | |
| Analyst: MNV | | Date Prep: | 10.03.17 13.45 |] | Basis: V | Wet Weight | |
| Seq Number: 3029501 | | | | | | | |
| Parameter | Cas Number | Result | RL | Units | Analysis Date | e Flag | Dil |
| Chloride | 16887-00-6 | 630 | 4.97 | mg/kg | 10.03.17 19.07 | 7 | 1 |



Certificate of Analytical Results 564445



Arcadis - Houston, Houston, TX

| Sample Id: Lab Sample Id | VGWU-61-010-W | | Matrix: Date Collec | Soil sted: 10.02.17 08.58 | | Date Received: Sample Depth: | | l |
|-----------------------------|------------------------|------------------|------------------------|------------------------------|-------|---------------------------------|------------|-----|
| | thod: Inorganic Anions | by EPA 300/300.1 | Dute Cone | | | Prep Method: | | |
| Tech: | MNV | | | | | % Moisture: | | |
| Analyst: | MNV | | Date Prep: | 10.03.17 13.45 | i | Basis: | Wet Weight | |
| Seq Number: | 3029501 | | | | | | | |
| Parameter | | Cas Number | Result | RL | Units | Analysis Da | te Flag | Dil |
| Chloride | | 16887-00-6 | 360 | 4.97 | mg/kg | 10.03.17 19.1 | 5 | 1 |



Flagging Criteria



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

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| 9701 Harry Hines Blvd, Dallas, TX 75220 | (214) 902 0300 | (214) 351-9139 |
| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 1211 W Florida Ave, Midland, TX 79701 | (432) 563-1800 | (432) 563-1713 |
| 2525 W. Huntington Dr Suite 102, Tempe AZ 85282 | (602) 437-0330 | |
| | | |



QC Summary 564445

Arcadis - Houston HES Transfer

| Analytical Method: | Inorganic Anions b | organic Anions by EPA 300/300.1 | | | | | | Prep Method: E300P | | | | | |
|--------------------|--------------------|---------------------------------|---------------|-------------|----------------|--------------|--------|--------------------|--------------|----------|------------------|------|--|
| Seq Number: | 3029501 | 29501 Matrix: | | | | | | | Date Pre | ep: 10.0 | 3.17 | | |
| MB Sample Id: | 7632000-1-BLK | | LCS Sar | nple Id: | 7632000- | 1-BKS | | LCSI | O Sample | Id: 7632 | 2000-1-BSD | | |
| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag | |
| Chloride | <5.00 | 250 | 254 | 102 | 253 | 101 | 90-110 | 0 | 20 | mg/kg | 10.03.17 14:54 | | |

| Analytical Method: | Inorganic Anions b | norganic Anions by EPA 300/300.1 Prep Method: | | | | | | | | d: E30 | E300P | | |
|--------------------|--------------------|---|--------------|------------|---------------|-------------|--------|------|--------------|----------|------------------|------|--|
| Seq Number: | 3029501 | | | Matrix: | Soil | | | | Date Pre | ep: 10.0 | 03.17 | | |
| Parent Sample Id: | 564347-001 | | MS Sar | nple Id: | 564347-00 | 01 S | | MSI | D Sample | Id: 564 | 347-001 SD | | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag | |
| Chloride | 122 | 250 | 365 | 97 | 364 | 97 | 90-110 | 0 | 20 | mg/kg | 10.03.17 15:17 | | |

| Analytical Method: | Inorganic Anions by EPA 300/300.1 Prep Method: | | | | | | | | d: E30 | E300P | | |
|--------------------|--|---------------------------------------|--------------|------------|---------------|-------------|--------|------------|--------------|-------|------------------|------|
| Seq Number: | 3029501 | · · · · · · · · · · · · · · · · · · · | | | | | | ep: 10.0 | 10.03.17 | | | |
| Parent Sample Id: | 564445-003 | | MS Sar | nple Id: | 564445-00 |)3 S | | 145-003 SD | SD | | | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
| Chloride | 360 | 249 | 570 | 84 | 570 | 84 | 90-110 | 0 | 20 | mg/kg | 10.03.17 19:22 | Х |

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|----------------------------|------------------|--------------------------|--|-----------------|---------------------|-------------------------|------------------------|----------------------------------|----|---|---|---|---|-----------|--------------|--------|---------|------------|--------------------|-----------|-----------------|---------------------------|--|---|---|---------------------------------------|------------------------|--|----------------------------------|--------------------------------|
| Relinguished by: | Relinquished by: | Relinquished by Sampler: | TAT Starts Day received by Lab, if received by 5:00 pm | 3 Day EMERGENCY | 2 Day EMERGENCY | Next Day EMERGENCY | Same Day TAT | Turnaround Time (Business days) | | | | | | | Vana - CI-CI | 101 | 14 - | V6WU-61-00 | | | | ontact: Brett Krehblel | Email: brett krehbjel@arcadis.com | Company Address: 10205 Westhelimer Rd., Suite 800 Hiouston TX 77042 | Company Name / Branch: Arcadis - Houston | Client / Reporting Information | | Service Center - San Antonio, Texas (210-509-3334) | Dallas Texas (214-902-0300) | SIMIDIU, I FAUS (201-240-4200) |
| | 0 | whit | ab, if received by 5:00 pm | | Contract TAT | 7 Day TAT | 5 Day TAT | - | | | | | | | eie-w | | 100-41 | 008-W | Connection | | | | Phone No: | | | | | ıs (210-509-3334) | | |
| Date Time: | Date Time: | Date Time: | 00 pm | | | | | | - | | | | | | 2 | 1 | 1 2 | 31 | Sample Depth | | | | | | | | | | | |
| e: | | 7 3.54 | DOCUMENTE | | | | | | | | | | | | 10.21+ | in the | 10.5.14 | 10:017 | Date | Colection | | PO Number; | Invoice To: | Project Loc | Project Name/Number: HES Transfer | | | | | |
| Received By: | Received By: | Received By: | D BELOW E | RL [] | [] La | 5 | Eavel II Std QC | | | | | | | | (190 m | 1-00-l | 12380 | 0850 | Time | | | 3 | | ation: | ne/Number: ISfer | Pro | | | | |
| By: | By: | By: | ACH TIME | TRRP Checklist | Level 3 (CLP Forms) | Level III Std QC+ Forms | vel II Std | | | | | | | | 0 | - | ~ | 2 | Matrix | | | | | | | Project Information | | | | |
| | | N | SAMPL | cklist | _P Form | d QC+ F | lac | Data Deliverable Information | | | | | | | - | - | 1 | 1 | # of bottles | | | | | | | mation | | www.xenco.com | | |
| | | mai | ES CHA | | (BI | oms | | /erable | L | | | | | | | | | | НСІ | | | | | | | | | 100,001 | | |
| | | Serilia | NGE PO | | | | | nformat | L | | | | | | | - | _ | | NaOH/Zn Acetate | Numbe | | - | | | | | | IR. | | |
| Cu | Rel | Rei 2 | SSESS | | | | 5 | lon | F | + | - | - | - | | - | + | | | HNO3 H2SO4 | c of pre | | | | | | | | | | |
| 4 Custody Seal # | Relinquished By: | Relinquished By: | ON, INC | | UST / RG -411 | TRRP Level IV | Level IV (Full Data Pk | | E | | | | | | | | | | NaOH | Abresc | | | | | | | | | | |
| eal # | had By | ted By | LUDING | | -411 | VI Iov | Full Dr | | - | - | - | - | | | + | + | - | - | NaHSO4 | botte | | | | | | | | | | |
| | | | COUR | | | | ita Pkg | | F | - | | | | | 7 | 1 | × | × | NONE | | | | | | | | | | | |
| | | | ER DEL | | | | g Iraw data) | | | | | | | | X | \$ | < | × | Chlori | des | | | | | _ | | | Xenco Quote # | Norcro | |
| Presen | 0 | D | VERY | | | | (ta) | | L | - | - | | | | + | + | _ | - | - | _ | | | _ | | | - | | uote # | 155, Ge | |
| vod wh | Date Time: | Date Time: | | | | | | | ┝ | - | - | - | - | \square | + | + | - | - | - | | - | | - | | | - | Analyi | 0 | orgia | |
| Preserved where applicable | | | FED | - | - | - | - | ľ | - | 1 | | | | | - | + | | | | | - | | - | | | 2 | ical Inf | Q_14208 | 770-44 | |
| licable | | 3:59 | -EX / U | | | | | Notes: | | T | | | | | | | | | | | | | | | | | Analytical Information | | Norcross, Georgia (770-449-8800) | |
| 2 | Receiv | Receiv 2 | PS: Tr | | | | | | L | | | | | | - | - | | | | | | | | | | | ä | Xenco Job # | 9 | |
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| Onlice | | | - | | | | | | - | 1 | - | - | - | | + | + | | | | | - | | | | | | | 56 | Tam | |
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| Cooler Temp. | | | | | | | | | | | | | | | Leal | 001 | 604 | 800 | | | | | | | | | - | 544 | Tampa, Florida (813-620-2000) | |
| | | | | | | | | | | | | | | | | 1 | | | Field | | N | ~ ~ | 0 00 00 | 700 | 0 | | | 5 | 13-620 | |
| Thermo, Corr. Factor | | | | | | | | | | | | | | | | | | | Field Comments | A = AIr | ww= waste water | W = Wipe 0 = Oil | SW = Surface water SL = Sludge OW =Ocean/Sea Water | GW =Ground Water DW = Drinking Water P = Product | S = Soil/Sed/Solid | | Matrix Codes | | -2000) | |



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Arcadis - Houston Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 10/03/2017 10:11:00 AM Temperature Measuring device used : R8 Work Order #: 564445 Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 5.2 #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes #14 Sample container(s) intact? Yes #15 Sufficient sample amount for indicated test(s)? Yes #16 All samples received within hold time? Yes #17 Subcontract of sample(s)? No #18 Water VOC samples have zero headspace? N/A

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

Analyst:

PH Device/Lot#:

Date: 10/03/2017

Checklist completed by: Connie Hernandez Checklist reviewed by: Kelsey Brooks

Date: 10/04/2017

Analytical Report 556452

for Arcadis - Roseville, CA

Project Manager: Brett Krehbiel

VGWU-61

06-JUL-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

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

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



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06-JUL-17

Project Manager: **Brett Krehbiel** Arcadis - Roseville, CA 101 Creekside Ridge CT 200 Roseville, CA 95678

Reference: XENCO Report No(s): 556452 VGWU-61 Project Address: Buckeye NM

Brett Krehbiel:

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) 556452. 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. 556452 will be filed for 60 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 Boah

Kelsey Brooks Project Manager

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

Sample Cross Reference 556452



Arcadis - Roseville, CA, Roseville, CA

VGWU-61

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|-----------------|--------|----------------|--------------|---------------|
| MW-2-W-170627 | W | 06-27-17 13:27 | | 556452-001 |
| MW-1-W-170627 | W | 06-27-17 13:41 | | 556452-002 |
| EB-01-W-170627 | W | 06-27-17 13:34 | | 556452-004 |
| MW-3-W-170627 | W | 06-27-17 14:00 | | Not Analyzed |
| DUP-01-W-170627 | W | 06-27-17 00:00 | | Not Analyzed |

CASE NARRATIVE SUMMARY



Client Name: Arcadis - Roseville, CA Project Name: VGWU-61

Project ID: Work Order Number: 556452 Report Date: 06-JUL-17 Date Received: 28-JUN-17

Kms Boah

Kelsey Brooks Project Manager

Certificate of Analytical Results 556452 Arcadis - Roseville, CA, Roseville, CA



VGWU-61

| Sample Id: | MW-2-W-170627 | | Matrix: | Water | | Sample | e Depth: | | |
|---------------|---------------------------|---------------|---------------|---------------|--------|--------|------------------|---------|------------|
| Lab Sample Id | : 556452-001 | | Date Collecte | ed: 06.27.17 | 13.27 | Date R | eceived: 06.28. | 17 10.0 | 00 |
| Analytical Me | thod: Inorganic Anions by | EPA 300/300.1 | | | | Prep N | 1ethod: E300P | | |
| Analyst: | MGO | | % Moist: | | | Tech: | MGO | | |
| Seq Number: | 3021487 | | Date Prep: 06 | 5.30.17 13.30 | | | | | |
| | | | Prep seq: 72 | 27067 | | | | | |
| Parameter | | CAS Number | Result | MQL | SDL | Units | Analysis Date | Flag | Dil Factor |
| Chloride | | 16887-00-6 | 51.8 | 0.500 | 0.0858 | mg/L | 06.30.17 15:11 | | 1 |
| Sample Id: | MW-1-W-170627 | | Matrix: | Water | | Sample | e Depth: | | |
| Lab Sample Id | : 556452-002 | | Date Collecte | ed: 06.27.17 | 13.41 | Date R | eceived: 06.28. | 17 10.0 | 00 |
| Analytical Me | thod: Inorganic Anions by | EPA 300/300.1 | | | | Prep N | fethod: E300P | | |
| Analyst: | MGO | | % Moist: | | | Tech: | MGO | | |
| Seq Number: | 3021487 | | Date Prep: 06 | 5.30.17 13.30 | | | | | |
| | | | Prep seq: 72 | 27067 | | | | | |
| Parameter | | CAS Number | Result | MQL | SDL | Units | Analysis Date | Flag | Dil Factor |
| Chloride | | 16887-00-6 | 293 | 2.50 | 0.429 | mg/L | 06.30.17 15:18 | | 5 |
| Sample Id: | EB-01-W-170627 | | Matrix: | Water | | Sample | e Depth: | | |
| Lab Sample Id | : 556452-004 | | Date Collecte | ed: 06.27.17 | 13.34 | Date R | eceived: 06.28. | 17 10.0 | 00 |
| Analytical Me | thod: Inorganic Anions by | EPA 300/300.1 | | | | Prep N | fethod: E300P | | |
| Analyst: | MGO | | % Moist: | | | Tech: | MGO | | |
| Seq Number: | 3021487 | | Date Prep: 07 | 7.03.17 16.00 | | | | | |
| | | | Prep seq: 72 | 27067 | | | | | |
| Parameter | | CAS Number | Result | MQL | SDL | Units | Analysis Date | Flag | Dil Factor |
| Chloride | | 16887-00-6 | < 0.0858 | 0.500 | 0.0858 | mg/L | 07.04.17 03:49 | U | 1 |

Certificate of Analytical Results 556452 Arcadis - Roseville, CA, Roseville, CA VGWU-61



| Sample Id: | 727067-1-BLK | 1 | Matrix: | Water | | Sample | Depth: | | |
|----------------|---------------------------------|--------------|-----------------|------------|--------|---------|------------------|------|------------|
| Lab Sample Id: | 727067-1-BLK |] | Date Collected: | | | Date Re | eceived: | | |
| Analytical Met | hod: Inorganic Anions by EPA 30 | 0/300.1 | | | | Prep M | ethod: E300P | | |
| Analyst: | MGO | | % Moist: | | | Tech: | MGO | | |
| Seq Number: | 3021487 | 1 | Date Prep: 06.3 | 0.17 13.30 | | | | | |
| | | 1 | Prep seq: 727 | 067 | | | | | |
| Parameter | | CAS Imber | Result | MQL | SDL | Units | Analysis Date | Flag | Dil Factor |
| Chloride | 1688 | 7-00-6 | < 0.0858 | 0.500 | 0.0858 | mg/L | 06.30.17 13:40 | U | 1 |

CHRONOLOGY OF HOLDING TIMES



| Analytical Method : | Inorganic Anions by EPA 300/300.1 |
|---------------------|-----------------------------------|
| Work Order #: | 556452 |

Date Received: 06/28/17

Client : Arcadis - Roseville, CA

Project ID:

| Field Sample ID | Lab Sample ID | Date Collected | Date Extracted | Max Holding Time Extracted (Days) | Time Held Extracted (Days) | Date Analyzed | Max Holding Time Analyzed (Days) | Time Held Analyzed (Days) | Q |
|-----------------|---------------|-------------------|-------------------|---|-------------------------------------|------------------|--|------------------------------------|---|
| MW-2-W-170627 | 556452-001 | 06/27/17 | | | | 06/30/17 | 28 | 3 | Р |
| MW-1-W-170627 | 556452-002 | 06/27/17 | | | | 06/30/17 | 28 | 3 | Р |
| EB-01-W-170627 | 556452-004 | 06/27/17 | | | | 07/04/17 | 28 | 7 | Р |

F = These samples were analyzed outside the recommended holding time.

P = Samples analyzed within the recommended holding time.

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 LimitSDL Sample Detection LimitLOD Limit of DetectionPQL Practical Quantitation LimitMQL Method Quantitation LimitLOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 1211 W Florida Ave, Midland, TX 79701 | (432) 563-1800 | (432) 563-1713 |
| 2525 W. Huntington Dr Suite 102, Tempe AZ 85282 | (602) 437-0330 | |
| | | |

Analytical Log

| Analytical Method: | Inorganic Anions by EPA 300/3 | 00.1 | Batch #: | 3021487 |
|--------------------|-------------------------------|---------------|-------------|----------|
| Project Name: | VGWU-61 | | Project ID: | |
| Client Name: | Arcadis - Roseville, CA | | WO Number: | 556452 |
| Client San | | Lab Sample Id | | QC Types |
| EB-01-W-1 | 70627 | 556452-004 | | SMP |

556452-002

556452-001

556451-001 S

556451-001 SD

727067-1-BKS

727067-1-BLK

727067-1-BSD

SMP

SMP

MS

MSD

BKS

<u>BLK</u>

BSD

MW-1-W-170627

MW-2-W-170627



Project Name: VGWU-61



| ler ≠ | | ŝ | \$ | | t | | | Project ID: | ct ID: | 0 | |
|-----------------------------------|----------------------|----------------------|------------|---|-------------|----------------|--------------------|-------------|---------------------------|--------------|--------|
| Analyst: MGO | | D | ate Prepar | Date Prepared: 06/30/2017 | / | | | Date Ans | Date Analyzed: 06/30/2017 | 6/30 | /.107/ |
| Lab Batch ID: 3021487 | Sample: 727067-1-BKS | BKS | Batch #: | h#: 1 | | | | N | Matrix: W | Water | |
| Units: mg/L | | | BLAN | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | SPIKE / I | 3LANK S | PIKE DUP | LICATE R | ECOVE | RY | STUI |
| Inorganic Anions by EPA 300/300.1 | v EPA 300/300.1 | Blank | Spike | Blank | Blank | Spike | Blank | Blk. Spk | | Cont | rol |
| D | \$ | Sample Result [A] | - | Spike Result | Spike %R | Added | Spike Duplicate | Dup. %R | RPD % | Limits %R | R Its |
| Analytes | | | [B] | [C] | [D] | [E] | Result [F] | [6] | | | |

Flag

20

90-110

-

95

23.8

25.0 Ξ

2

23.5

25.0 B

<0.0858

Analytes Chloride 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

Page 11 of 19



Form 3 - MS / MSD Recoveries

Project Name: VGWU-61

| Control | Control Control | Spiked | Duplicate Spiked | | ole Spiked | Spiked Sample Spiked | Parent | Tunumuin Auinus hu EDA 200/200 1 | |
|---------|-----------------|--|------------------|--------------|------------|----------------------|-----------------------------|----------------------------------|-----------------------|
| | N STUDY | MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY | DUPLICA' | RIX SPIKE | KE / MATI | MATRIX SPI | | mg/L | Reporting Units: mg/L |
| | | | 0 | Analyst: MGO | An | 06/30/2017 | Date Prepared: 06/30/2017 | 06/30/2017 | Date Analyzed: |
| | | r: Water | Matrix: Water | Batch #: 1 | Bat | 556451-001 S | QC- Sample ID: 556451-001 S | 3021487 | Lab Batch ID: |
| | | ë | Project ID: | | | | | 556452 | Work Order # : |

| Increanic Anione by FDA 200/200 1 | 1 41 111 | | alding navide | | | Duplicate | opikeu | | COLLEGE | CUILLU | | |
|--------------------------------------|--------------|-------|---------------|-----|-------|----------------------|--------|-----|---------|--------|------|--|
| THUI SAME AMOUNT UT THE TANK OUT THE | Sample | Spike | Result | | Spike | Spiked Sample | Dup. | RPD | Limits | Limits | Flag | |
| | Result | Added | [C] | | Added | Result [F] | %R | % | %R | %RPD | | |
| Analytes | [A] | [B] | | [D] | E | | [6] | | | | | |
| | | | | | | | | | | | | |
| Chloride | 23.6 | 25.0 | 46.8 | 93 | 25.0 | 47.4 | 95 | 1 | 90-110 | 20 | | |
| | | | | | | | | | | | | |

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative 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.

Final 1.000

Page 12 of 19

Attachment A Laboratory Data Package Cover Page

Laboratory Batch No(s) 727067

Project Name:

This Data package consists of :

Laboratory Number: 556452

This signature page, the laboratory review checklist, and the following reportable data:

VGWU-61

- X R1 Field chain-of-custody documentation;
- X R2 Sample identification cross-reference;
- X R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- X R4 Surrogate Recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- X R5 Test reports/summary forms for blank samples;
- $\boxed{\mathbf{X}}$ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated % R for each analyte, and
 - c) The laboratory's LCS QC limits.
- X R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs) and
 - e) The laboratory's MS/MSD QC limits
- X R8 Laboratory anaytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.

 \boxed{X} R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;

 \mathbf{X} R10 Other problems or anomalies.

X Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies, observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC 25.6 and was last inspection by [] TCEQ or [] ______ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kmis hoah

Kelsey Brooks Name (Printed)

Signature

Project Manager Official Title (printed)

06-JUL-17 Date

| Labo | orator | y Name: XENCO LABORATORIES | LRC Date : 06-JUL-17 | | | | | |
|--------|----------------|---|--|----------|-----------|-----------------|-----------------|------------------|
| Proje | ect Na | ame: VGWU-61 | Laboratory Job Number : 556452 | | | | | |
| Revi | ewer | Name: KEB | Batch Number(s) : 727067 | | | | | |
| $\#^1$ | A ² | Description | | Yes | No | NA ³ | NR ⁴ | ⁴ ER# |
| R1 | OI | Chain-of-Custody (COC) | | 1 | | 1111 | | |
| | | Did samples meet the laboratory's standard condition | ons of sample accentability upon receipt? | X | | | | - |
| | | Were all departures from standard conditions descr | | | | X | | + |
| R2 | OI | Sample and Quality Control (QC) Identified | | 1 | | | | |
| | | Are all field sample ID numbers cross-referenced to | | X | | | | - |
| | | Are all laboratory ID numbers cross-referenced to t | | X | | | | + |
| R3 | OI | Test Reports | | 1 | | | | |
| | | Were all samples prepared and analyzed within hol | ding times? | X | | | | + |
| | | Other than those results $<$ MQL, were all other raw | - | X | | | | + |
| | | Were calculations checked by a peer or supervisor? | | X | | | | + |
| | | Were all analyte identifications checked by a peer of | | X | | | | + |
| | | Were sample detection limits reported for all analy | * | X | | | | + |
| | | Were all results for soil and sediment samples repo | rted on a dry weight basis? | 1 | | X | | \top |
| | | Were % moisture (or solids) reported for all soil an | * | | | X | | 1 |
| | | Were bulk soil/solid samples for volatile analysis e | xtracted with methanol per SW846 Method 5035? | | | X | | |
| | | If required for the project, were TICs reported? | | | | X | | |
| R4 | 0 | Surrogate Recovery Data | | | | | | |
| | | Were surrogates added prior to extraction? | | | | X | | |
| | | Were surrogate percent recoveries in all samples w | | | | X | | |
| R5 | OI | Test Reports/Summary Forms for Blank S | amples | | | | | |
| | | Were appropriate type(s) of blanks analyzed? | | Х | | | | |
| | | Were blanks analyzed at the appropriate frequency | | Х | | | | |
| | | | tical procedure, including preparation and, if applicable, cleanup | X | | | | |
| | | procedures ? Were Blank Concentrations <mql?< td=""><td></td><td>X</td><td></td><td></td><td></td><td>+</td></mql?<> | | X | | | | + |
| R6 | OI | Laboratory Control Samples (LCS): | | | | | | |
| 100 | | Were all COCs included in the LCS? | | X | | | | - |
| | | Was each LCS taken through the entire analytical p | rocedure including prep and cleanup steps? | X | ┼─── | | | + |
| | | Were LCSs analyzed at the required frequency? | rocodure, meruaning prop and creanup steps: | X | | | | + |
| | | Were LCS (and LCSD, if applicable) %Rs within the | he laboratory QC limits? | X | | | | + |
| | | | the laboratory's capability to detect the COCs at the MDL used to | X | | | | + |
| | | calculate the SDLs? | | | | | | |
| | | Was the LCSD RPD within the QC limits? | | X | | | | |
| R7 | 01 | Matrix Spike (MS) and Matrix Spike Dupl | | | | | | |
| | | Were the project/method specified analytes include | | X | \square | | | _ |
| | | Were MS/MSD analyzed at the appropriate frequent | • | X | <u> </u> | | | _ |
| | | Were MS (and MSD, if applicable) %Rs within the | | X | | | | _ |
| DQ | | Were MS/MSD RPDs within the laboratory QC lin | 118? | X | | | | |
| ко | | Analytical Duplicate Data | 1 | | | | | - |
| | | Were appropriate analytical duplicates analyzed for | | <u> </u> | ── | X | | |
| | | Were analytical duplicates analyzed at the appropri Were RPDs or relative standard deviations within t | | <u> </u> | ── | X X | | - |
| R9 | | | | 1 | | Λ | | |
| 17 | | Method Quantitation Limits (MQLs) | the laboratomy data people and | v | | | | - |
| | | Are the MQLs for each method analyte included in Do the MQLs correspond to the concentration of th | | X X | ── | | <u> </u> | + |
| | | Do the MQLs correspond to the concentration of the Are unadjusted MQLs and DCSs included in the lai | | X | ── | | | + |
| 210 | OT | | una parkage: | | | | | |
| | | Other Problems/Anomalies | ns noted in this LDC and ED? | v | | | | - |
| | | Are all known problems/anomalies/special condition Is the laboratory NELAC-accredited under the Tex | as Laboratory Accreditation Program for the analytes, matrices and | X X | | | | + |
| | | methods associated with this laboratory data packag | | | | | | |
| | | | wer the SDL to minimize the matrix interference effects on the | X | <u> </u> | | | + |

| Labo | rator | y Name: XENCO LABORATORIES LI | RC Date : 06-JUL-17 | | | | | |
|-------|-------|---|--|--------|----|-----------------|-----------------|--------------|
| Proie | ect N | ame: VGWU-61 La | aboratory Job Number : 556452 | | | | | |
| - | | | atch Number(s) : 727067 | | | | | |
| #1 | | Description | | Vas | | NA ³ | NR ⁴ | FD // |
| | | | | Yes | No | NA | NK | EK# |
| S1 | 01 | Initial Calibration (ICAL) | | | | | | |
| | | Were response factors and/or relative response factors for eac | h analyte within QC limits? | X | | | | <u> </u> |
| | | Were percent RSDs or correlation coefficient criteria met? Was the number of standards recommended in the method use | ad for all analytas? | X X | | | | |
| | | Were all points generated between the lowest and the highest | - | X | | | | |
| | | Are ICAL data available for all instruments used? | sundard used to calculate the curve. | X | | | | |
| | | Has the initial calibration curve been verified using an approp | riate second source standard? | X | | | | |
| S2 | OI | Initial and Continuing Calibration Verification (IC | | | | | | |
| | | Was the CCV analyzed at the method-required frequency? | ev and eev) and continuing canoration blank | X | | | | |
| | | Were percent differences for each analyte within the method-r | required OC limits? | X | | | | |
| | | Was the ICAL curve verified for each analyte? | | X | | | | |
| | | Was the absolute value of the analyte concentration in the inor | rganic CCB <mdl?< td=""><td></td><td></td><td>X</td><td></td><td></td></mdl?<> | | | X | | |
| S3 | 0 | Mass Spectral Tuning | - | | | | | |
| | | Was the appropriate compound for the method used for tuning | <u>2</u> ? | | | X | | |
| | | Were ion abundance data within the method-required QC limit | | | | X | | |
| S4 | 0 | Internal Standard (IS) | | | | | | |
| | | Were IS area counts and retention times within the method-red | quired QC limits? | | | X | | |
| S5 | OI | Raw Data (NELAC 5.5.10) | A ~ ~ | | | | | |
| | | Were the raw data (for example, chromatograms, spectral data | a) reviewed by an analyst? | X | | | | |
| | | Were data associated with manual integrations flagged on the | | X | | | | |
| S6 | 0 | Dual Column Confirmation | | | | | | |
| | | Did dual column confirmation results meet the method-require | ed QC? | | | X | | |
| S7 | 0 | Tentatively Identified Compounds (TICs) | | | | | | |
| | | If TICs were requested, were the mass spectra and TIC data su | ubject to appropriate checks? | | | X | | - |
| S8 | Ι | Interference Check Sample (ICS) Results | | | | | | |
| | | Were percent recoveries within method QC limits? | | | | X | | |
| S9 | Ι | Serial Dilutions, Post Digestions Spikes, and Metho | d of Standard Additions | | | | | |
| | | Were percent differences, recoveries, and the linearity within | | | | X | | |
| S10 | OI | Method Detection Limit (MDL) Studies | | | | | | |
| | | Was a MDL study performed for each reported analyte? | | X | | | | |
| | | Is the MDL either adjusted or supported by the analysis of DC | CSs? | X | | | | |
| 511 | OI | Proficiency Test Reports | | | | | | |
| | | Was the laboratory's performance acceptable on the applicable | e proficiency tests or evaluation studies? | X | | | | |
| 512 | OI | Standards Documentation | | | | | | |
| | | Are all standards used in the analyses NIST-traceable or obtai | ned from other appropriate sources? | X | | | | |
| 513 | OI | Compound/Analyte Identification Procedures | neu nom oner appropriate sources. | | | | | |
| | 01 | Are the procedures for compound/analyte identification docur | nented? | X | | | | |
| \$14 | OI | * * * | | Λ | | | | |
| | 51 | Demonstration of Analyst Competency (DOC) Was DOC conducted consistent with NELAC Chapter 5? | | X | | | | |
| | | Is documentation of the analyst's competency up-to-date and c | nn file? | X X | | | | - |
| \$15 | OI | | | Λ | | | | |
| 515 | | Verification/Validation Documentation for Methods Are all methods used to generate the data documented, verifie | | X | | | | |
| S16 | OT | - | | Λ | | | | |
| 210 | | Laboratory Standard Operating Procedures (SOPs |) | | | | | |

1. Items identified by the letter "R" must be included in the laboratory data package submitted to the TCEQ-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

2.

NA = Not applicable;
 NR = Not reviewed;

5. ER# = Exception Report Identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

| Attachment A (cont'd): Laboratory Review C | Checklist: Exception Reports |
|--|-------------------------------|
| Laboratory Name: XENCO LABORATORIES | LRC Date: 06-JUL-17 |
| Project Name: VGWU-61 | Laboratory Job Number: 556452 |
| Reviewer Name: KEB | Batch Number(s): 727067 |
| ER# 1 DESCRIPTION | |
| | |

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No is checked on the LRC).

DCS Summary

Arcadis - Roseville, CA, Roseville, CA

VGWU-61

Analytical Method: Inorganic Anions by EPA 300/300.1

Matrix: Water

| Parameter | Spike Amount | Actual Amount | Units |
|-----------|-----------------|------------------|-------|
| Chloride | 0.250 | 0.177 | mg/L |

| d by A | Lab copy | YELLOW – Lab copy | WHITE - Laboratory returns with results | Distribution: WHITE | 20730826 CofC AR Form 01.12.2007 |
|--|----------------|----------------------------------|---|----------------------------|--|
| Dateman 1/20/17 100 0 | Date/Time: | 1001 MILLING | c/23/12/1602 | Condition/Cooler Temp: | an Romanna Brandahan |
| NON | Firm/Couner | FIRMULAUNION | ARCATES | | Stander J |
| when we we we wanted | ognatura. | Strang widnes | Cassel | | Specify Jumaround Regultements: |
| MARY A Newron | Frinned Ivame, | Brianne Widner | my Shargerell | | Xence With los (V) |
| Relinquished By Laboratory Received By | Relin | Received By | Relinquished By | du Seel (2) | Laboratory Information and Receipt Lab Name: |
| Concorrect Lettip: 4.7.C | | ☐ Special QA/QC Instructions(✓): | | | o perviri ni su nocional committenas. |
| (o-z3: +U.2°C) | | | 1 | CA X / Plan | DUP-01-W-170CT |
| .2°C) | | | | 8 | |
| Temp: 4.9% IR ID:R-8 | | | | <u></u> | |
|) | | | | | |
| / | | | | | |
| / | | | K | æ | |
| / | | | | 1 | |
| | | | | | |
| / | | | | | |
| / | | | | | |
| | | | - | X X 401 1/21/20 | EB-01-W-A0527 |
| 6 | | | - | CM X 00 PI + U/2/30 | MW-3-W-170 (27 |
| b | | | - | WEARD 1341 X W | 1-2001 - M-1-50M |
| VEWU-61 Songoles | | | Y | CN X E25/ 5/23/2 | MW-2-W-170627 |
| REMARKS | / / | | | Time Co | Campie in |
| W - Water SL - Sludge SW - Sample Wipe T - Tissue A - Air Other: | / | 1 1 1 | 1 4 / | Collection Type (*) | Samuel |
| : SE - Sediment | / | / / / | 1 2 1 | Sakpler's Signature: | Sampler's Printed Name |
| 9. | / | / / / | / / / | Project # | - 61 Buche |
| F. Other: 6. 2 oz. Glass | DD | ER ANALYSIS & METHOD | PARAMETER ANA | Read And hickor and Discon | Resconte CA. |
| σ 4 r0 | | | Container Information | K.mail Addease: | R Cash: Soite 200 |
| | | | # of Containers | Fax | Sult Magness Creekisz Todse |
| A. H,SO, A. | | | Filtered (*) | 5 916-786-5392 | 2 Bres Krehbiel / ARCAD |
| Keys | | | Preservative | Telephone: | Contact & Company Name: |
| C9/1999 + | Page of _ | | ANALYSIS REQUEST FORM | AN | Infrastructure Water Environment Buldings |
| Ish Work Order # | | ABORATORY | CHAIN OF CUSTODY & LABORATORY | CHAIN C | G ARCANIC ID#: |

Final 1.000



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 06/28/2017 10:00:00 AM

Work Order #: 556452

Client: ARCADIS

Temperature Measuring device used : R8

| Sample Receipt Checklist | | Comments |
|--|-----|----------|
| #1 *Temperature of cooler(s)? | 4.7 | |
| #2 *Shipping container in good condition? | Yes | |
| #3 *Samples received on ice? | Yes | |
| #4 *Custody Seal present on shipping container/ cooler? | N/A | |
| #5 *Custody Seals intact on shipping container/ cooler? | N/A | |
| #6 Custody Seals intact on sample bottles? | N/A | |
| #7 *Custody Seals Signed and dated? | N/A | |
| #8 *Chain of Custody present? | Yes | |
| #9 Sample instructions complete on Chain of Custody? | Yes | |
| #10 Any missing/extra samples? | No | |
| #11 Chain of Custody signed when relinquished/ received? | Yes | |
| #12 Chain of Custody agrees with sample label(s)? | Yes | |
| #13 Container label(s) legible and intact? | Yes | |
| #14 Sample matrix/ properties agree with Chain of Custody? | Yes | |
| #15 Samples in proper container/ bottle? | Yes | |
| #16 Samples properly preserved? | Yes | |
| #17 Sample container(s) intact? | Yes | |
| #18 Sufficient sample amount for indicated test(s)? | Yes | |
| #19 All samples received within hold time? | Yes | |
| #20 Subcontract of sample(s)? | N/A | |
| #21 VOC samples have zero headspace? | N/A | |

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

Analyst: JKR

PH Device/Lot#: 213315

Date: 06/28/2017

Checklist completed by: Jessica WAMER Jessica Kramer Checklist reviewed by: Kelsey Brooks

Date: 06/28/2017

Analytical Report 560289

for Arcadis - Houston

Project Manager: Jonathan Olsen

Hes Transfer Sites

22-AUG-17

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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

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



22-AUG-17



Project Manager: **Jonathan Olsen Arcadis - Houston** 10205 Westheimer Rd., Suite 800 Houston, TX 77042

Reference: XENCO Report No(s): 560289 Hes Transfer Sites Project Address: Buckeye NM

Jonathan Olsen:

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) 560289. 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. 560289 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 Cross Reference 560289



Arcadis - Houston, Houston, TX

Hes Transfer Sites

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|------------|--------|----------------|--------------|---------------|
| VGWU61-MW1 | W | 08-15-17 14:37 | | 560289-001 |
| DUP-1 | W | 08-15-17 00:00 | | 560289-002 |
| EB-1 | W | 08-15-17 13:00 | | 560289-003 |



Client Name: Arcadis - Houston Project Name: Hes Transfer Sites

Project ID: Work Order Number(s): 560289 Report Date: 22-AUG-17 Date Received: 08/16/2017

Sample receipt non conformances and comments:

Level II Reporting

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3025544 Inorganic Anions by EPA 300/300.1

Lab Sample ID 560289-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 560289-001, -002, -003.

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



Buckeye NM

Project Location:

Certificate of Analysis Summary 560289 Arcadis - Houston, Houston, TX Project Name: Hes Transfer Sites



Date Received in Lab: Wed Aug-16-17 10:00 am

Report Date: 22-AUG-17 Project Manager: Kelsey Brooks

| | Lab 1a: | 560289-001 | 560289-002 | 560289-003 | |
|---------------------------------------|------------|-----------------|-----------------|-----------------|--|
| | Field Id: | VGWU61-MW1 | DUP-1 | EB-1 | |
| naisanhay sistimuty | Depth: | | | | |
| V | Matrix: | WATER | WATER | WATER | |
| Sa | Sampled: | Aug-15-17 14:37 | Aug-15-17 00:00 | Aug-15-17 13:00 | |
| Inorganic Anions by EPA 300/300.1 Ext | Extracted: | Aug-18-17 15:00 | Aug-18-17 15:00 | Aug-18-17 15:00 | |
| An | Analyzed: | Aug-18-17 17:01 | Aug-18-17 17:24 | Aug-18-17 17:31 | |
| | Units/RL: | mg/L RL | mg/L RL | mg/L RL | |
| Chloride | | 199 2.50 | 192 0.500 | ND 0.500 | |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results repressed throughout this analytical report represent the best judgment of 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

Murs Roah Kelsey Brooks

Final 1.000

Project Manager



Flagging Criteria



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

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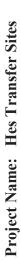
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| 9701 Harry Hines Blvd , Dallas, TX 75220 | (214) 902 0300 | (214) 351-9139 |
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| 1211 W Florida Ave, Midland, TX 79701 | (432) 563-1800 | (432) 563-1713 |
| 2525 W. Huntington Dr Suite 102, Tempe AZ 85282 | (602) 437-0330 | |
| | | |



BS / BSD Recoveries





| Work Order #: 560289 | | | | | | | | Proje | Project ID: | | | |
|-----------------------------------|----------------------|-------------|---------------------------|--------------|-------------|-------------|---|----------|---------------------------|-----------------|---------|---|
| Analyst: MGO | | D | Date Prepared: 08/18/2017 | I: 08/18/201 | 7 | | | Date An | Date Analyzed: 08/18/2017 | 8/18/2017 | | |
| Lab Batch ID: 3025544 | Sample: 729634-1-BKS | KS | Batch #: 1 | #: 1 | | | | | Matrix: Water | /ater | | |
| Units: mg/L | | | BLANK | /BLANK | SPIKE / B | LANK SI | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | LICATE F | RECOVE | RY STUD | Y | |
| Inorganic Anions by EPA 300/300.1 | y EPA 300/300.1 | Blank Spike | Spike | Blank | Blank Spike | Blank Spike | Blank | Blk. Spk | | Control Control | Control | 5 |

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result | Spike Added | Blank Spike | Blank Spike | Spike Added | Blank Spike | Blk. Spk Dup. | RPD | Control Limits | Control Limits | Flag |
|-----------------------------------|------------------------|----------------|----------------|----------------|----------------|----------------|------------------|-----|-------------------|-------------------|------|
| | [V] | | Result | %R | | Duplicate | %R | % | %R | %RPD | D |
| Analytes | | [B] | [C] | [D] | Ε | Result [F] | [G] | | | | |
| Chloride | <0.500 | 25.0 | 27.3 | 109 | 25.0 | 26.7 | 107 | 2 | 90-110 | 20 | |
| | - | | | | | | | | | | |

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



Form 3 - MS / MSD Recoveries





| Project ID: | -001 S Batch #: 1 Matrix: Water | 017 Analyst: MGO | MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY |
|---------------|---------------------------------|---------------------------|--|
| | QC- Sample ID: 560289-001 S | Date Prepared: 08/18/2017 | M |
| 560289 | 3025544 | 08/18/2017 | mg/L |
| Work Order #: | Lab Batch ID: | Date Analyzed: | Reporting Units: |

| Increanic Anions by FDA 300/300 1 | Parent | | Spiked Sample | Spiked | | Duplicate | Spiked | | Control | Control | |
|-----------------------------------|--------------|-------|---------------|--------------|-------|----------------------|--------|-----|---------|---------|------|
| THUT SAME AMOUS BY LT A JUN/JUNIT | Sample | Spike | Result | Sample | Spike | Spiked Sample | Dup. | RPD | Limits | Limits | Flag |
| | Result | Added | [C] | %R | Added | Result [F] | %R | % | %R | %RPD | 1 |
| Analytes | [A] | [B] | 1 | [<u>n</u>] | Ε | 1 | [6] | | | | |
| Chloride <08/21/2017 14:33> | 189 | 125 | 323 | 107 | 125 | 328 | 111 | 2 | 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 8 of 10

Final 1.000

| Results to Jon + then Olsen Arcarly Advess 10205 with e: mu Road Suite 800 Suite 800 | Telephone: 713-953-4874 Fex: MA E-mail Address: | Preservative E Filtered (*) | | Keys Keys Preservation Key: Container Information Key: A. H _x SO ₄ 1. 40 ml Vial B. HCL 2. 1 LAmber C. HNO ₃ 3. 250 ml Plastic D. NaOH 4. 500 ml Plastic E. None 5. Encore F. Other 5. Encore |
|---|---|----------------------------------|----------------------------------|--|
| ty. State): | Pro | | ETER ANALYSIS & METHOD | F. Other. |
| Sample's Printed Name: Styley North of the State State State State State States | Sample's Signature: | 1200 | 111 | |
| Sample ID | Collection Type (V) | Matrix 10 | / / / | W - Water SL - Studge T - Tissue A - Air |
| | Date Time Comp Grab | 1 | / / / | / REMARKS |
| V6WU61-MW1 | 8-15-17 1437 1/ 1 | - | | Run Samply |
| Dup-1 | 8-15-17 - VI | 6 1 | | |
| 1-01 | 8-15-17 1300 ~ | 3 | | Run Sample |
| | | | | |
| | | | | |
| | | | | |
| | | | / | / |
| | | | | =/ |
| | | | | CF:(0-6: -0.2°C) (6-23: +0.2°C) |
| Special Instructions/Comments: | | | ☐ Special QA/QC Instructions(✓): | Corrected Temp: 1.2 |
| Laboratory Information and Receipt Lab Name Cooler Custo | on and Receipt Cooler Custody Seal (イ) | Relinquished By Printed Name: | Received By Prighted/Name: | Relinquished By Laboratory Received By Printed Name: 1 Printed Name: |
| X cn Co Er Cooler packed with ice (*) | Intact Not Intact | Lungy with | Land Contraction | Signature: Printed Name: Signature: Signatur |
| Specily Turnaround Requirements Staroola col TAT | Sample Receipt: | for C | Firm/Courier: | Finn/Courier: Finn |
| Shipping Tracking #: | Condition/Cooler Temp: AO.O | Date/Time: | Date/Time: | Date/Time: Date/Time: |



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Arcadis - Houston Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 08/16/2017 10:00:00 AM Temperature Measuring device used : R8 Work Order #: 560289 Comments Sample Receipt Checklist 1.2 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seal present on shipping container/ cooler? N/A #5 *Custody Seals intact on shipping container/ cooler? N/A #6 Custody Seals intact on sample bottles? N/A #7 *Custody Seals Signed and dated? N/A #8 *Chain of Custody present? Yes #9 Sample instructions complete on Chain of Custody? Yes #10 Any missing/extra samples? No #11 Chain of Custody signed when relinguished/ received? Yes #12 Chain of Custody agrees with sample label(s)? Yes #13 Container label(s) legible and intact? Yes #14 Sample matrix/ properties agree with Chain of Custody? Yes #15 Samples in proper container/ bottle? Yes #16 Samples properly preserved? Yes #17 Sample container(s) intact? Yes #18 Sufficient sample amount for indicated test(s)? Yes #19 All samples received within hold time? Yes #20 Subcontract of sample(s)? N/A #21 VOC samples have zero headspace? Yes

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

Analyst: ss

PH Device/Lot#: 213315

Date: 08/16/2017

Checklist completed by: Jane Mato Shawnee Smith Checklist reviewed by: Mark Moak Kelsey Brooks

Date: 08/16/2017

| XENCO | B0048618 | Brett Krehbiel | ion: Hobbs, NM |
|-------|-------------|----------------|--------------------------|
| | Project Id: | Contact: | Project Location: |

Certificate of Analysis Summary 594041 ARCADIS, Midland, TX

Project Name: VGWU-61

Date Received in Lab:Mon Jul-30-18 04:20 pmReport Date:01-AUG-18

Project Manager: Kelsey Brooks

| | Lab Id: | 594041-001 | 594041-002 | 594041-003 | 594041-004 |
|---------------------|------------|-----------------|--|----------------------|-----------------|
| A malucic Dominated | Field Id: | Dup-1 (0272818) | VGWU61 - MW-1 (027281 VGWU61 - MW-2 (02728 | VGWU61 - MW-2 (02728 | EB1 (0272818) |
| naisanbay sistinity | Depth: | | | | |
| | Matrix: | WATER | WATER | WATER | WATER |
| | Sampled: | Jul-28-18 00:00 | Jul-28-18 13:50 | Jul-28-18 15:20 | Jul-28-18 15:35 |
| Chloride by EPA 300 | Extracted: | Jul-31-18 14:00 | Jul-31-18 14:00 | Jul-31-18 14:00 | Jul-31-18 14:00 |
| | Analyzed: | Jul-31-18 19:58 | Jul-31-18 20:11 | Jul-31-18 20:23 | Jul-31-18 20:35 |
| | Units/RL: | mg/L RL | mg/L RL | mg/L RL | mg/L RL |
| Chloride | | 235 25.0 | 239 25.0 | 98.9 12.5 | <0.347 2.50 |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results repressed 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

Hund Moah Kelsey Brooks Project Manager

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Analytical Report 594041

for ARCADIS

Project Manager: Brett Krehbiel

VGWU-61

B0048618

01-AUG-18

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16) Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757) Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)



01-AUG-18

Project Manager: **Brett Krehbiel ARCADIS** 1004 N. Big Spring St. Midland, TX 79701

Reference: XENCO Report No(s): **594041** VGWU-61 Project Address: Hobbs, NM

Brett Krehbiel:

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) 594041. 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. 594041 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

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



Sample Cross Reference 594041

ARCADIS, Midland, TX

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|-------------------------|--------|----------------|--------------|---------------|
| Dup-1 (0272818) | W | 07-28-18 00:00 | | 594041-001 |
| VGWU61 - MW-1 (0272818) | W | 07-28-18 13:50 | | 594041-002 |
| VGWU61 - MW-2 (0272818 | W | 07-28-18 15:20 | | 594041-003 |
| EB1 (0272818) | W | 07-28-18 15:35 | | 594041-004 |



CASE NARRATIVE

Client Name: ARCADIS Project Name: VGWU-61

Project ID:B0048618Work Order Number(s):594041

Report Date: 01-AUG-18 Date Received: 07/30/2018

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



ARCADIS, Midland, TX

| Sample Id: Lab Sample Id: | Dup-1 (0272818) : 594041-001 | | Matrix: Date Colle | Wat cted: 07.2 | er 28.18 00.00 | | Date Received:07.3 | 30.18 16.2 | 20 |
|------------------------------|--|------------|-----------------------|-------------------|-------------------|-------|---------------------------------|------------|-----|
| - | hod: Chloride by EPA RNL | 300 | | | | | Prep Method: E30 % Moisture: | 00P | |
| 100111 | RNL | | Date Prep: | 07.3 | 31.18 14.00 | | 70 Ivioisture. | | |
| Seq Number: | 3058427 | | | | | | | | |
| Parameter | | Cas Number | Result | RL | MDL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 235 | 25.0 | 3.47 | mg/L | 07.31.18 19.58 | | 10 |



ARCADIS, Midland, TX

| Sample Id: Lab Sample I | VGWU61 - MW-1 (1 d: 594041-002 | 0272818) | Matrix: Date Colle | Wat cted: 07.2 | er 8.18 13.50 | | Date Received:07.3 | 30.18 16.2 | 20 |
|----------------------------|--|------------|-----------------------|-------------------|------------------|-------|---------------------------------|------------|-----|
| Analytical M Tech: | ethod: Chloride by EPA RNL | 300 | | | | | Prep Method: E30 % Moisture: | 00P | |
| Analyst: | RNL | | Date Prep: | 07.3 | 1.18 14.00 | | 70 WOIsture. | | |
| Seq Number: | 3058427 | | | | | | | | |
| Parameter | | Cas Number | Result | RL | MDL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 239 | 25.0 | 3.47 | mg/L | 07.31.18 20.11 | | 10 |



ARCADIS, Midland, TX

| Sample Id: Lab Sample Id | VGWU61 - MW-2 (0 d: 594041-003 |)272818 | Matrix: Date Colle | Wat cted: 07.2 | er 8.18 15.20 | | Date Received:07.3 | 30.18 16.2 | 0 |
|-----------------------------|--|------------|-----------------------|-------------------|------------------|-------|---------------------------------|------------|-----|
| Analytical Me Tech: | ethod: Chloride by EPA RNL | 300 | | | | | Prep Method: E30 % Moisture: | 00P | |
| Analyst: | RNL | | Date Prep: | 07.3 | 1.18 14.00 | | 70 INIOISture. | | |
| Seq Number: | 3058427 | | | | | | | | |
| Parameter | | Cas Number | Result | RL | MDL | Units | Analysis Date | Flag | Dil |
| Chloride | | 16887-00-6 | 98.9 | 12.5 | 1.73 | mg/L | 07.31.18 20.23 | | 5 |



ARCADIS, Midland, TX

| Sample Id: EB1 (0272818) | | Matrix: | Wate | er | | Date Received:07.3 | 30.18 16.2 | 0 |
|------------------------------------|------------|------------|-------------|------------|-------|--------------------|------------|-----|
| Lab Sample Id: 594041-004 | | Date Colle | ected: 07.2 | 8.18 15.35 | | | | |
| Analytical Method: Chloride by EPA | 300 | | | | | Prep Method: E30 | 90P | |
| Tech: RNL | | | | | | % Moisture: | | |
| Analyst: RNL | | Date Prep: | . 07.3 | 1.18 14.00 | | | | |
| Seq Number: 3058427 | | | | | | | | |
| Parameter | Cas Number | Result | RL | MDL | Units | Analysis Date | Flag | Dil |
| Chloride | 16887-00-6 | < 0.347 | 2.50 | 0.347 | mg/L | 07.31.18 20.35 | U | 1 |



Flagging Criteria

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

| SMP Clie | ent Sample | BLK | Method Blank | |
|----------|---|-----------|----------------------------|---------------------------------|
| BKS/LCS | S Blank Spike/Laboratory Control Sample | BKSD/LCSD | Blank Spike Duplicate/Labo | ratory 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



ARCADIS

VGWU-61

| Analytical Method: | Chloride by EPA 30 | 00 | | | | | | Pr | ep Metho | d: E30 | OP 90 | |
|--------------------|--------------------|-----------------|---------------|-------------|----------------|--------------|--------|--------|----------|----------|------------------|------|
| Seq Number: | 3058427 | | | Matrix: | Water | | | | Date Pre | p: 07.3 | 1.18 | |
| MB Sample Id: | 7659486-1-BLK | | LCS Sar | nple Id: | 7659486- | 1-BKS | | LCSI | O Sample | Id: 7659 | 9486-1-BSD | |
| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD I | RPD Limi | t Units | Analysis Date | Flag |
| Chloride | < 0.347 | 25.0 | 26.1 | 104 | 26.0 | 104 | 90-110 | 0 | 20 | mg/L | 07.31.18 16:02 | |

| Analytical Method: | Chloride by EPA 30 | 00 | | | | | | Pr | ep Metho | d: E30 | 0P | |
|---------------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|----------|---------|------------------|------|
| Seq Number: | 3058427 | | | Matrix: | Waste Wa | ıter | | | Date Pre | p: 07.3 | 1.18 | |
| Parent Sample Id: | 593949-001 | | MS Sar | nple Id: | 593949-00 | 01 S | | MSI | O Sample | Id: 593 | 949-001 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limi | t Units | Analysis Date | Flag |
| Chloride | 471 | 1250 | 1830 | 109 | 1810 | 107 | 80-120 | 1 | 20 | mg/L | 07.31.18 16:52 | |

| Analytical Method: | Chloride by EPA 30 | 00 | | | | | | P | rep Metho | od: E30 | 0P | |
|---------------------------|--------------------|-----------------|--------------|------------|---------------|-------------|--------|------|-----------|----------|------------------|------|
| Seq Number: | 3058427 | | | Matrix: | Water | | | | Date Pro | ep: 07.3 | 1.18 | |
| Parent Sample Id: | 593985-001 | | MS Sar | nple Id: | 593985-00 | 01 S | | MS | D Sample | Id: 593 | 985-001 SD | |
| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limi | it Units | Analysis Date | Flag |
| Chloride | 130 | 250 | 417 | 115 | 411 | 112 | 80-120 | 1 | 20 | mg/L | 07.31.18 19:33 | |

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

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

| ARCADIS | ID#: | CHAIN O | DF CUSTO | DV & LA | IN OF CUSTODY & LABORATORY | | Lab Work Order # |
|--|---------------------------|-------------|---|--------------------|-------------------------------|--------------------|---|
| 59404 | | AN | ANALYSIS REQUEST FORM | EQUEST | FORM | Page (of / | 594041 |
| 0 | Telephone: | | Preservative | - | | | Koure |
| Dratt Kon Miel (Have | 15 916-286-5382 | | | 1 | | à | |
| auth Address: 1004 N. Bis 5/12-9 54. | | | # of Containers | | | | H_SO_ HCL |
| | | | Container 3 | | | | HNO ₃ NaOH |
| City State | E-mail Address: | | | PARAMETER ANALYSIS | ANALYSIS & METHOD | | None 5. Other |
| Midland to 79701 | Part Kin heir 10 | alex 1:5,00 | | | | | G. Other: 7.4 oz. Glass |
| Voject Name/Location (City, State): VGuu-61/Holbs, NM | Project # | | 5 2 | | | Н / Н. | ේ ත් |
| me: | Sampler's Signature: | | 011 | | | Ma | 10. Other: |
| Samula ID | Collection Type (1) | | 914 | | | | SO - Soil SE - Sediment NL - NAPL/Oil W - Water SL - Sludge SW - Sample Wipe T - Tissue A - Air Other |
| Sample ID | e Comp | Grab Matrix | 0 | | / | | IIV-V |
| Dup-1(072818) | 7-28-18 | 3 | | | | | |
| V6W U61-MW (07218) | 7-28-1350 | 3 | | | | | - (|
| V6WU61-MW 2 (07218) | | 1 m | | | | | de |
| EA-1677818) | | 1 | 4. | | _ | | 0 |
| 10102101-17 | 1211 122 | 3 | | | | | 5 |
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| Special Instructions/Comments: | | | | | Cancial OA/OC Instantioned () | | |
| JR. | もしのもく しんち | P | |] | | | |
| Laboratory Information and Receipt | tion and Receipt | | Relinquished By | - | Received Bv | Delineniched D. | |
| Lab Name: | Cooler Custody Seal (✓) | PrintedName | | Printed Name | نة | Printed Name: | Laboratory Received By Printed Name: |
| Confernanced with ina (2) | D Intact | | yan Nan | N | SPENDA WAR | 0 | |
| | | | S | Signature | made Ward | Signature: | Signature: |
| Specity lumatound Requirements: | Sample Receipt: | C I | 1.c | Firm/Courier. | ier | Firm/Courier: | Firm: |
| Shipping Tracking #: | Condition/Cooler Temp: 28 | Date/Time: | ate/Time: | Date/Time | 21/10 | Date/Time: | Date/Time: |
| 20730826 CofC AR Form 08.27.2015 | Distribution: | WHITE - L | WHITE - Laboratory returns with results | with results | VIII N. N. OU | ah 2000. | |
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Page 12 of 13

Final 1.000



XENCO Laboratories XENCO ABORATORIES Prelogin/Nonconformance Report- Sample Log-In

| Client: ARCADIS Date/ Time Received: 07/30/2018 04:20:00 PM Work Order #: 594041 | Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Temperature Measuring device used: IR-3 | | | | |
|--|--|--|--|--|--|
| Sample Rece | pt Checklist Comments | | | | |
| #1 *Temperature of cooler(s)? | 2.8 | | | | |
| #2 *Shipping container in good condition? | Yes | | | | |
| #3 *Samples received on ice? | Yes | | | | |
| #4 *Custody Seals intact on shipping container/ cooler? | N/A | | | | |
| #5 Custody Seals intact on sample bottles? | N/A | | | | |
| #6*Custody Seals Signed and dated? | N/A | | | | |
| #7 *Chain of Custody present? | Yes | | | | |
| #8 Any missing/extra samples? | Νο | | | | |
| #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)? | Νο | | | | |
| #18 Water VOC samples have zero headspace? | N/A | | | | |

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

Analyst: ASD

PH Device/Lot#: 208515

Date: 07/30/2018

Checklist completed by: Checklist reviewed by: Mand Brenda Ward Checklist reviewed by: Kelsey Brooks

Date: 08/01/2018