

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

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

Incident ID	NJMW1231341442
District RP	2RP-1395
Facility ID	30-015-28980
Application ID	pJMW1231341096

Release Notification

Responsible Party

Responsible Party: Chevron USA	OGRID: 4323
Contact Name: Armando Martinez	Contact Telephone: 505-690-5408
Contact email: amarti@chevron.com	Incident # (assigned by OCD) NJMW1231341442
Contact mailing address: P.O. Box 469 Questa NM, 87564	

Location of Release Source

Latitude 32.2738838 Longitude -104.0777435
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Pardue Farms 27-12	Site Type: Well head
Date Release Discovered: 06/7/2010	API# (if applicable): 30-015-28980

Unit Letter	Section	Township	Range	County
K	27	23S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private: Billy Melton

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 3.617	Volume Recovered (bbls): 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Flowline has a pin hole on the top side of the pipe caused by internal corrosion. The leak was stopped upon discovery and a subcontractor was called to remediate impacted soil and replace flowline. The release was initially estimated at less than 5 bbls and an internal report was produced.

State of New Mexico
Oil Conservation Division

Incident ID	NJMW1231341442
District RP	2RP-1395
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<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p>	

Incident ID	NJMW1231341442
District RP	2RP-1395
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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>30</u> (ft bgs)
Did this release impact groundwater or surface water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. **Attached.**
Field data: **Attached.**
Data table of soil contaminant concentration data: **Attached.**
Depth to water determination: **>50 feet bgs**
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release: **None identified.**
Boring or excavation logs: **Boring Logs attached.**
Photographs including date and GIS information: **Photographic log will be included in following report.**
Topographic/Aerial maps; **Topographic map attached.**
Laboratory data including chain of custody: **Attached.**


If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Oil Conservation Division

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Incident ID	NJMW1231341442
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Armando Martinez Title: Environmental Project ManagerSignature:  Date: 04/28/2022email: amarti@chevron.com Telephone: 505-690-5408**OCD Only**

Received by: _____ Date: _____



Chevron Environmental Management Company & Real Estate Co.

2020 Site Assessment Report

Pardue Farms 27-12 Well Site
Case No. 2RP-1395

May 2021

REVIEWED

By Mike Buchanan at 11:25 am, Feb 21, 2024

Review of the 2020 Site Assessment Report:

Content Satisfactory

1. Continue to fully delineate groundwater impact from chlorides, if not already conducted and complete.
2. Continue to sample quarterly as prescribed in 19.15.30 of the NMAC and submit recommendations for abatement or continued monitoring
3. Submit annual report no later than April 1, 2024.

2020 Site Assessment Report

2020 Site Assessment Report

Pardue Farms 27-12 Well Site
Case No. 2RP-1395

May 2021

Prepared By:

Arcadis U.S., Inc.
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Prepared For:

Armando Martinez
Chevron Environmental Management Company
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Our Ref:

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Russell Grant
Certified Project Manager



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Senior Project Geologist

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2020 Site Assessment Report

Version Control (optional)

Issue	Revision No.	Date Issued	Page No.	Description	Reviewed By

2020 Site Assessment Report

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Appendices

Appendix A. Site Background Information

Appendix B. Field Methodologies and Documentation

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Appendix D. Boring Logs

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2020 Site Assessment Report

1 Introduction

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this Site Assessment Report (Report) for Pardue Farms 27-12 (Site) in order for Chevron Mid-Continent Business Unit (MCBU) to document the environmental assessment activities performed at the Site. This Report summarizes the field activities completed, and the laboratory analytical results of samples collected during a soil and groundwater investigation conducted on-site in November 2020.

The Site is located in Eddy County approximately one mile southeast of Loving, New Mexico along the northeast quarter of the southwest quarter of Section 27, Township 23 South, Range 28 East. The Site surface is privately owned and Chevron Midcontinent, L.P. holds the oil and gas lease. The average depth to groundwater at the Site is approximately 30 feet below ground surface (bgs).

The Site is located on the western edge of the Permian Basin, a 75,000-square-mile area in Texas and New Mexico that is populated by numerous oil and gas production wells. In New Mexico, the Permian Basin extends to Roosevelt County to the north, Chaves and Eddy County to the west, and to Texas to the south. A Site Vicinity Map is presented as **Figure 1**. Additional Site background information is presented in **Appendix A**. Field methodologies and documentation is presented in **Appendix B**.

2 2020 Investigation

In November 2020, Arcadis advanced one monitoring well (MW-6) to a total depth of 60 feet (ft) bgs using an Atlas Copco T3W Air/Mud rotary drilling rig. Soil samples were collected from the boring location using a trowel at the surface (0 - 1 ft bgs), and additional soil samples were collected via trowel from the following depths:

- 1 - 2 ft bgs
- 2 - 3 ft bgs
- 3 - 4 ft bgs
- 9 - 10 ft bgs
- 14 - 15 ft bgs
- 19 - 20 ft bgs
- 24 - 25 ft bgs

Soil samples were continuously logged for stratigraphic characteristics according to the Unified Soil Classification System (USCS) and field screening methods were utilized to quantify soil hydrocarbon impacts. No staining was observed; however, elevated (>3.0 parts per million (ppm)) photo ionizing device (PID) readings were observed at a depth of 2 ft bgs to 25 ft bgs ranging from 6.7 ppm at 24 ft bgs to 186.8 ppm at 9 ft bgs. Soil samples collected from MW-6 were analyzed for:

- Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by U.S. Environmental Protection Agency (USEPA) 8260B
- Total Petroleum Hydrocarbon (TPH) - Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Oil Range Organics (ORO) by USEPA 8105D
- Chloride by USEPA 9056

A groundwater sample was collected from monitoring well MW-6 utilizing low flow technology and analyzed for the following analytes:

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- BTEX by USEPA 8260C
- TPH-GRO, by USEPA 8105B
- TPH-DRO, ORO by USEPA 8015D
- Chloride by USEPA 300
- Total Dissolved Solids (TDS) by Method 2540 C-1997

Groundwater and soil samples were collected via trowel and placed in clean, laboratory-supplied sample containers, labeled, placed on ice, cooled to approximately 4 degrees Celsius, and transported via overnight courier to Eurofins TestAmerica analytical laboratory in Houston, Texas for constituents of concern (COC) analysis.

Monitoring well MW-6 was drilled and installed to a total depth of 60 ft bgs and was constructed of 2-inch diameter polyvinyl chloride (PVC) with 35 ft of 0.010-inch slotted screen from 23.75 to 58.75 ft bgs. MW-6 was completed as a flush mount and was developed by over pumping the well until free of formation fine sediments.

Investigative derived waste (IDW), which includes soil cuttings from drilling activities and groundwater collected from monitoring well development and sampling, were contained in four properly labeled 55-gallon drums and stored onsite. The drum contents were sampled and classified as non-hazardous waste. Arcadis will arrange for a disposal company to transport the drums to a CEMC -approved waste disposal facility during the calendar year of 2021. Monitoring well MW-6 was constructed in accordance with the approved WR-07 application for permit to drill a well with no water right and identified as C-4351 POD-3. The approved application is presented in **Appendix C**. The boring logs are presented in **Appendix D**.

2.1 Soil Analytical Results

Soil analytical results were compared to the closure criteria outlined in Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) standards for chloride, BTEX and (TPH). A summary of the soil sample analytical results from the November 2020 soil investigation are presented in **Table 1**. Copies of the certified analytical reports and chain-of-custody documentation are presented in **Appendix E**. Soil analytical results are also presented on **Figure 2**.

2.1.1 Chloride

- Chloride concentrations exceeded the NMAC standard of 600 milligrams per kilogram (mg/kg) in two sample intervals collected during the advancement of MW-6:
 - 19 – 20 ft bgs: 1,230 mg/kg
 - 24 – 25 ft bgs: 920 mg/kg

2.1.2 BTEX

- BTEX concentrations were reported below the NMAC standard of 50 mg/kg at all sample locations.

2.1.3 TPH

- TPH concentrations were reported below the NMAC standard of 100 mg/kg at all sample locations.

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3 2020 Groundwater Investigation

Groundwater at the Site was monitored in 2020 from a network of four monitoring wells (MW-1 through MW-3) and from the newly installed monitoring well (MW-6). Arcadis gauged and sampled monitoring wells MW-1, MW-2, MW-3, and MW-6 on November 19th, 2020. All samples were collected via low flow purge technology. Samples collected were analyzed for:

- BTEX by USEPA 8260C
- TPH- GRO by USEPA 8105B
- TPH- DRO, ORO by USEPA 8015D
- Chloride by USEPA 300
- Total Dissolved Solids by Method 2540 C-1997

3.1 Groundwater Gauging Data

Groundwater and light non-aqueous phase liquid (LNAPL) measurements were collected utilizing a Solinst Oil/Water interface meter during the 2020 investigation event and indicated the following:

- Depth to groundwater ranged from 24.69 feet BTOC (MW-6) to 34.56 ft BTOC (MW-2) during the November 2020 gauging event
- LNAPL was not observed in any of the Site monitoring wells
- The groundwater elevations during the 2020 period appear to be consistent with historical levels, with groundwater flow to the northeast
- The calculated gradient was 0.00011 feet/foot (ft/ft) for the November 2020 gauging event.

Potentiometric elevation data collected from the November 2020 investigation is presented in **Table 2** and on **Figure 3**.

3.2 Groundwater Analytical Results

Four monitoring wells were sampled on November 19, 2020. Groundwater analytical results for chloride, BTEX, TPH, and TDS were compared to the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards for samples collected from MW-1 through MW-3, and MW-6 in November 2020. A summary of the groundwater sample analytical results is presented in **Table 3** and a cumulative summary of groundwater sample analytical results can be viewed in **Table 4**. Copies of the certified analytical reports and chain-of-custody documentation are presented in **Appendix E**. Groundwater analytical results are also presented on **Figure 4**.

The isoconcentration map for chloride for the November 2020 sampling event is presented in **Figure 5**. Analytical results from the November 2020 groundwater investigation are further discussed below.

3.2.1 Chloride

- Chloride concentrations exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) in four wells sampled during the November 2020 groundwater investigation. Chloride analytical results are as follows:
 - MW-1: 9,880 mg/L
 - MW-2: 6,580 mg/L

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- MW-3: 6,680 mg/L
- MW-6: 10,800 mg/L

3.2.2 BTEX

- BTEX were reported below the NMWQCC standard of 0.01, 0.75, 0.75 and 0.62 mg/L, respectively in all wells sampled during the November 2020 groundwater investigation.

3.2.3 TDS

- TDS concentrations exceeded the NMWQCC standard of 1,000 mg/L in four wells sampled during the November 2020 groundwater investigation. TDS analytical results are as follows:
 - MW-1: 14,800 mg/L
 - MW-2: 13,400 mg/L
 - MW-3: 14,100 mg/L
 - MW-6: 18,800 mg/L

4 Summary

To further delineate the chloride impacts to soil and groundwater at the Site, one monitoring well (MW-6) was installed downgradient of the release area.

- Soil analytical results exceeded the revised NMAC screening level for chloride of 600 mg/kg at two sample intervals from MW-6 at 19-20 ft bgs (1,230 mg/kg) and 24-25 ft bgs (920 mg/kg).

All four Site monitoring wells were gauged and sampled on November 19th, 2020. Potentiometric surface conditions were consistent with historical results, with groundwater flow to the north northeast.

Groundwater sample analytical results reported from the November 2020 groundwater investigation indicated:

- Chloride exceeded the NMWQCC groundwater standard in all Site wells sampled in November 2020.
- TDS exceeded the NMWQCC groundwater standard in in all Site wells sampled in November 2020.
- Chloride exhibited an increase in concentration during the 2020 sampling event
- TDS appears to be stable through the 2020 sampling event.

Chloride impact to soil and groundwater at the Site has not been fully delineated. Additional soil and groundwater assessment activities are recommended. If you have any question or comments regarding the information presented in this Report, please contact Russell Grant at 432.217.2064 or at Russell.Grant@arcadis.com.

Tables



Table 1
November 2020 Soil Investigation Analytical Summary
Chevron EMC
Pardue Farms 27-12
Eddy County, New Mexico

Boring Location ID	Sample Date	Sample Depth (feet bgs)	MW-6-S									
			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Chloride (mg/kg)	Moisture %
NMAC Closure Criteria (a)			10	--	--	--	50	--	100	--	600	--
Composite (S)	11/19/2020	--	<0.000647	<0.00142	<0.001050	<0.001160	<0.000647	<0.0637	24.90	66.50		
MW-6-S	11/16/2020	0 to 1	<0.000625	<0.00137	<0.001010	<0.001120	<0.000625	<0.5720	8.73	59.60	59.7 J F1	1.8
	11/16/2020	1 to 2	<0.000694	<0.00152	<0.001120	<0.001240	<0.000694	<0.7290	10.50	40.30	44.4 J	14.4
	11/16/2020	2 to 3	<0.000685	<0.00150	<0.001110	<0.001230	<0.000685	<0.6540	<1.81	29.50	64.6 J	5.8
	11/16/2020	3 to 4	<0.0006	<0.00131	<0.000971	<0.001080	<0.000600	<0.7490	7.96 J	36.20	97.2 J	21.1
	11/16/2020	9 to 10	<0.000648	<0.00142	<0.001050	<0.001160	<0.000648	<0.6900	<1.87	24.60	82.8 J	8.8
	11/16/2020	14 to 15	<0.000605	<0.00132	<0.000979	<0.001080	<0.000605	<0.8620	<2.37	<6.94	477.0	28.4
	11/16/2020	19 to 20	<0.000557	<0.00122	<0.000901	<0.000998	<0.000557	<0.6760	<1.93	<5.65	1,230	11.6
	11/16/2020	24 to 25	<0.000623	<0.00136	<0.001010	<0.001120	<0.000623	<0.6560	24.20	123.00	920.0	15.0
	11/16/2020											

Legend:

- Value
mg/kg Analytical value is greater than or equal to NMAC closure criteria
'<' Milligram per kilogram
BTEX Analyte was not detected at or above the Method Detection Limit (MDL)
ft bgs Below ground surface
TPH GRO Benzene, Toluene, Ethylbenzene, and Total Xylenes
TPH MRO Total Petroleum Hydrocarbons Gasoline Range Organics
TPH DRO Total Petroleum Hydrocarbons Motor Oil Range Organics
NMAC Total Petroleum Hydrocarbon Diesel Range Organics
New Mexico Administration Code

Lab Qualifiers:

- J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1 MS and/or MSD recovery exceeds control limits.

Notes:

1. Chloride analyzed by United States Environmental Protection Agency Method 300
2. TPH analyzed by USEPA Method 8015D
3. BTEX analyzed by USEPA Method 8260B
4. (a) Title 19, Chapter 15 of the NMAC for Natural Resources and Wildlife, Oil and Gas, and Releases, 19.15.29 NMAC. August

Table 2
November 2020 Potentiometric Elevation Data
Chevron EMC
Pardue Farms 27-12
Eddy County, New Mexico



Well ID TOC Elevation (ft. NAVD ,88)	Date	Depth to Groundwater (ft. below TOC)	Depth to LNAPL (ft. below TOC)	LNAPL Thickness	Groundwater Elevation (ft. NAVD,88)	Well Depth (ft below TOC)	Well screen interval (ft. below bgs)
MW-1 3,070.30	11/10/2020	33.03	ND	ND	3037.27	58.22	15 - 55
MW-2 3,071.87	11/10/2020	34.56	ND	ND	3037.31	58.35	15 - 55
MW-3 3,068.64	11/10/2020	31.36	ND	ND	3037.28	59.83	19 - 54
MW-6 --	11/10/2020	24.69	ND	ND	--	58.75	23.75 - 58.75

Notes:

TOC = Top of Casing

NAVD88 = North American Vertical Datum of 1988

bgs = below ground surface

NA = Not Detected

-- = Not measured



Table 3
November 2020 Groundwater Investigation Analytical Summary
Chevron EMC
Pardue Farms 27-12
Eddy County, New Mexico

Boring Location ID	Sample Date	Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH-ORO	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMAC Standards		250	0.01	0.75	0.75	0.62	--	--	--	--	1,000
MW-1	11/19/2020	9,880	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	<0.0450	<0.150	14,800
MW-2	11/19/2020	6,680	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	<0.0450	<0.150	13,400
MW-3	11/19/2020	6,680	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	<0.0450	0.256	14,100
MW-6	11/19/2020	10,800	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	0.0914 J	0.293	18,800
MW-6 (DUP-1)	11/19/2020	12,400	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	0.0994 J	0.202 J	16,600

Legend:

Value Analytical value is greater than or equal to NMAC clsource criteria

mg/L Milligram per kilogram

< Analyte was not detected at or above the Method Detection Limit (MDL)

NA Not Analyzed

ft bgs Below ground surface

NMAC New Mexico Administration Code

BTEX Benzene, Toluene, Ethylbenzene, and Total Xylenes

TPH GRO Total Petroleum Hydrocarbons Gasoline Range Organics

TPH DRO Total Petroleum Hydrocarbon Diesel Range Organics

TPH-ORO Total Petroleum Hydrocarbons Oil Range Organics

Lab Qualifiers:

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

DUP Duplicate result

Notes:

1. Chloride analyzed by United States Environmental Protection Agency Method 300.0

2. TPH analyzed by USEPA Method 8015D

3. BTEX analyzed by USEPA Method 8260B

4. (a) Title 19, Chapter 15 of the NMAC for Natural Resources and Wildlife, Oil and Gas, and Releases, 19.15.29 NMAC. August



Table 4
Cumulative Groundwater Investigation Analytical Summary
Chevron EMC
Pardue Farms 27-12
Eddy County, New Mexico

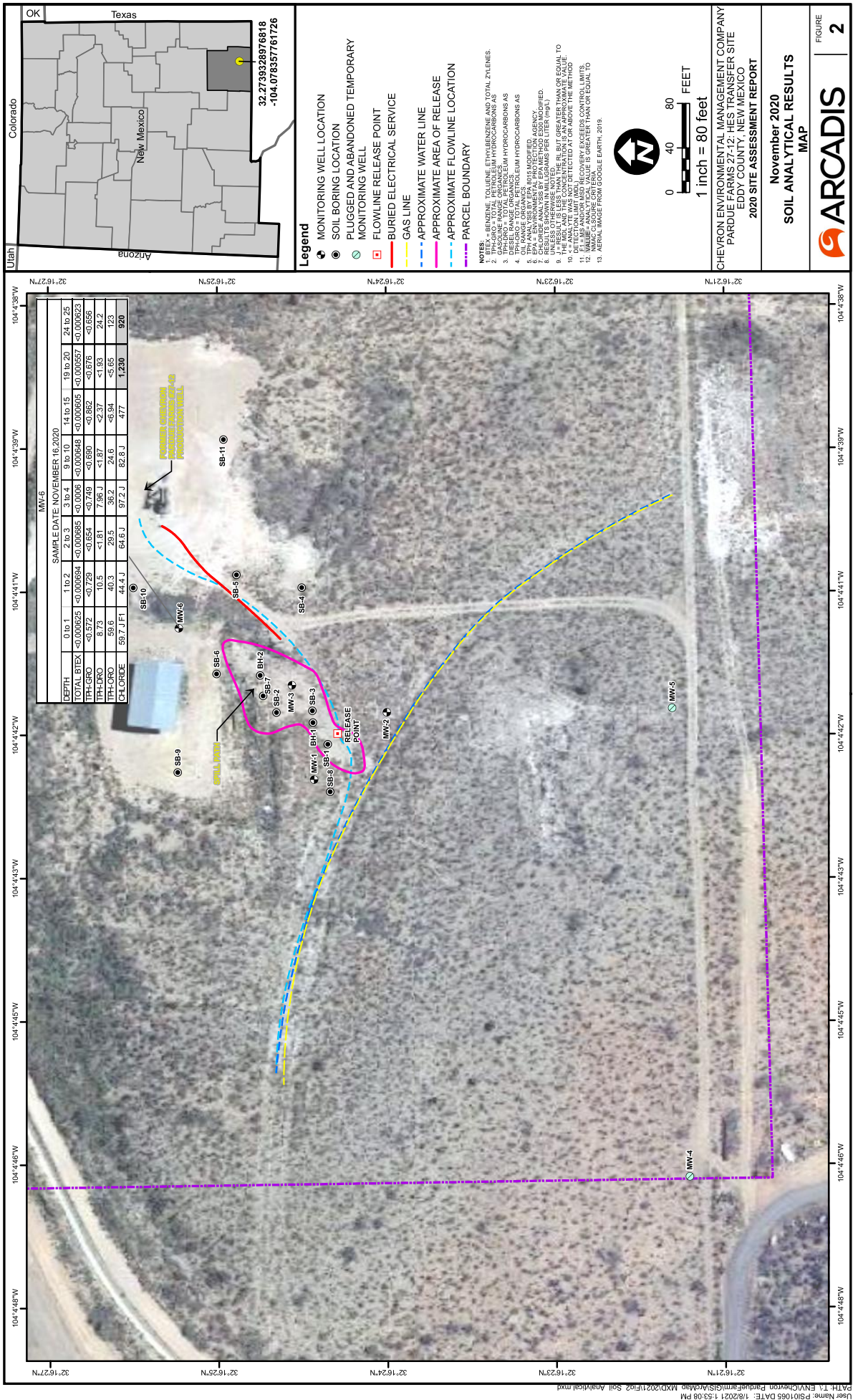
Boring Location ID	Sample Date	Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH-ORO	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMAC Standards		250	0.01	0.75	0.75	0.62	--	--	--	--	1,000
MW-1	6/27/2019	4,560	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/19/2020	9,880	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	<0.0450	<0.150	14,800
MW-2	6/27/2019	5,950	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/19/2020	6,580	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	<0.0450	<0.150	13,400
MW-3	6/27/2019	4,650	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/19/2020	6,680	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	<0.0450	0.256	14,100
MW-5	10/17/2019	2,180	0.000176	0.000198	0.000212	0.000366	0.000952	0.0492 U	0.4520 J	0.212 J	5,910
DUP-1	6/27/2019	5,710	NA	NA	NA	NA	NA	NA	NA	NA	NA
DUP-2	10/17/2019	1,290	NA	NA	NA	NA	NA	NA	0.4520 J	NA	5,880
MW-6	11/19/2020	10,800	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	0.0914 J	0.293	18,800
MW-6 (DUP-1)	11/19/2020	12,400	<0.000560	<0.000550	<0.00129	<0.00198	<0.000550	<0.0492	0.0994 J	0.202 J	16,600

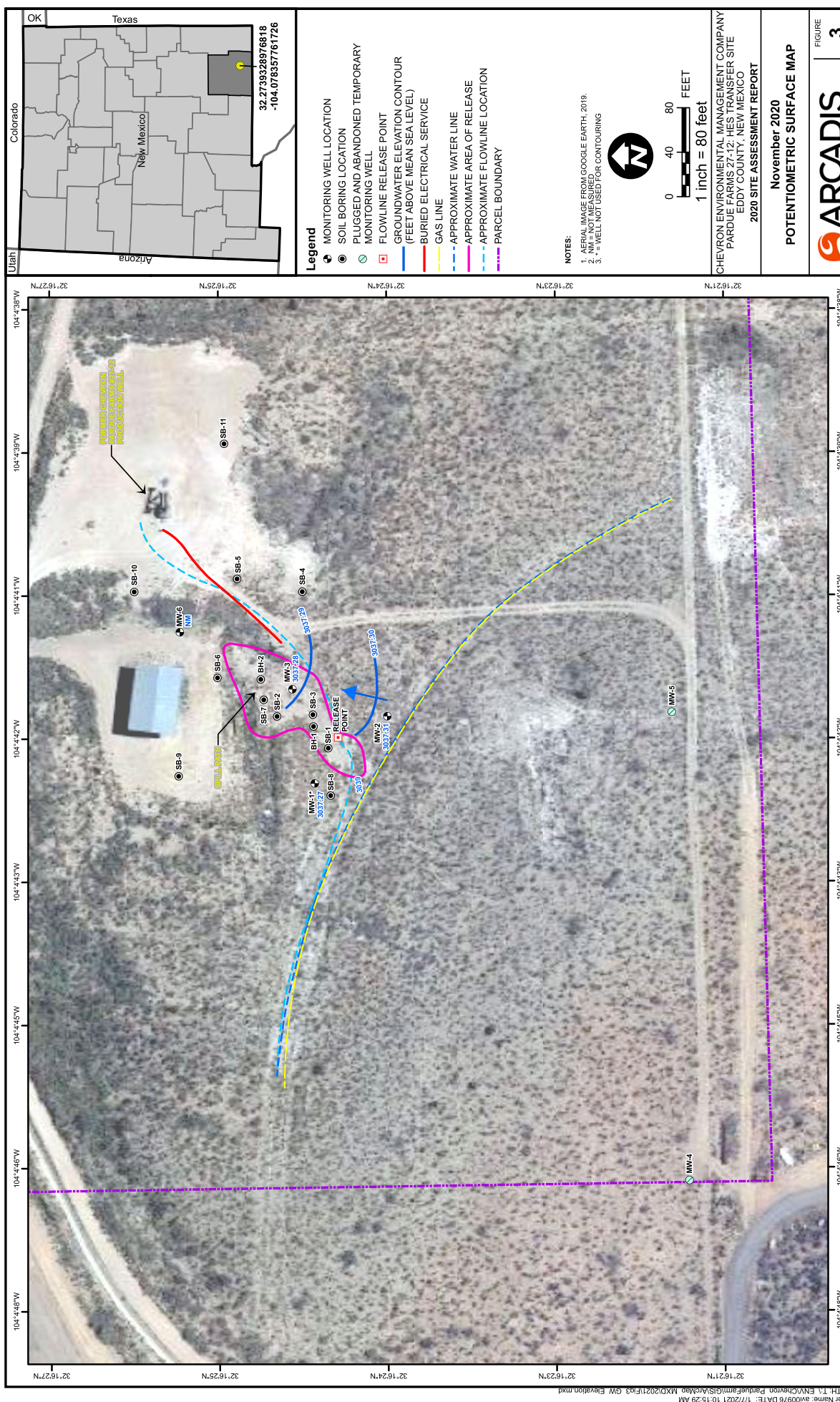
Legend:
Value Analytical value is greater than or equal to NMAC clsource criteria
mg/L Milligram per kilogram
< Analyte was not detected at or above the Method Detection Limit (MDL)
NA Not Analyzed
ft bgs Below ground surface
NMAC New Mexico Administration Code
BTEX Benzene, Toluene, Ethylbenzene, and Total Xylenes
TPH GRO Total Petroleum Hydrocarbons Gasoline Range Organics
TPH DRO Total Petroleum Hydrocarbon Diesel Range Organics
TPH-ORO Total Petroleum Hydrocarbons Oil Range Organics
Lab Qualifiers:
J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
DUP Duplicate result

- Notes:
- 1. Chloride analyzed by United States Environmental Protection Agency Method 300.0
 - 2. TPH analyzed by USEPA Method 8015D
 - 3. BTEX analyzed by USEPA Method 8260B
 - 4. (a) Title 19, Chapter 15 of the NMAC for Natural Resources and Wildlife, Oil and Gas, and Releases, 19.15.29 NMAC. August

Figures











Appendix A

Site Background Information



SITE DESCRIPTION AND BACKGROUND

The following site description and background section provides an overview of the site location and regional setting including geology, hydrogeology, nearby drinking water wells, surface water, and climate.

Site Location and Description

The Site is located approximately one mile southeast of Loving, New Mexico along the northeast quarter of the southwest quarter of Section 27, Township 23-South, Range 28-East. The properties surface ownership is privately owned and Chevron Midcontinent, L.P. hold the oil and gas lease.

The Site is located on the western edge of the Permian Basin, a 75,000-square-mile area in Texas and New Mexico that is populated by numerous oil and gas production wells. In New Mexico, the Permian Basin extends to Roosevelt County to the North, Chaves and Eddy County to the west, and to Texas to the south.

Nearby Water Wells and Surface Water

Based on review of satellite imagery, the Pecos River is located approximately 2.5 miles due northeast from the site. The southwestern edge of a salt-lake is located approximately 3.25 miles to the northeast. (GoogleEarth 2018). In November 2018, Arcadis field staff verified that there are no surface-water bodies located within 1,000 feet of the Site.

In January 2019, Arcadis reviewed information obtained from the New Mexico Office of the State Engineer (NMOSE) online database (NMOSE 2019), which indicated there is one water supply well located approximately 310 feet to the southwest from the Pardue Farms 27-12 oil well. The primary use for this water well is for domestic and livestock watering. The NMOSE online database identified 419 water-supply wells within a 5-mile radius of the site (NMOSE 2019).

Climate

Monthly average temperatures near the Site vary from a minimum of 33.1 degrees Fahrenheit (°F) in February to a maximum of 95.9°F in June (Western Regional Climate Center [WRCC] Carlsbad Cavern City Airport, New Mexico [291475] weather station). Average annual precipitation recorded for the area of the Site from the available WRCC period of record between 1930 and 2016 was approximately 12.84 inches per year (WRCC 2019a).

Due to the arid climate, the Site experiences low precipitation and high evaporation rates. Average annual evaporation from the available WRCC period of record between 1914 and 2005 was approximately 87.68 inches per year (WRCC 2019b).

Regional Geology and Hydrogeology

The Site elevation is approximately 3,070 feet above mean sea level (ft amsl) and is located in the Paleozoic era Delaware Basin with the Pecos River and the Grame Ridge to the east, the Guadalupe Mountains to the west, and the Capitan Reef limestone bed to the north (Bachman 1980). The Delaware Basin is overlain with



evaporites, primarily gypsum and halite, from the Castile and Salado Formations, followed by the carbonate, evaporite, and clastic sediments of the Rustler Formation, and lastly, by the red beds of the Dewey Lake Formation. The Delaware Basin underwent extensive erosion and dissolution throughout the Mesozoic and Cenozoic eras and resulted in an ancient karst plain that was subsequently filled in by alluvial deposits known as the Pecos Valley Alluvium (TWBD 2019). The Pecos Valley Alluvium is predominantly composed of surficial deposits of transmissive sands and gravels mixed with low-permeability clays, primarily from the Pecos River (Barrol 2004).

The main source of fresh groundwater in the area comes from the Pecos Valley Alluvium Aquifer which has a thickness of approximately 100 to 200 feet with a saturated thickness of up to 150 feet (Barrol 2004).

Average depth to water based on the current wells in the vicinity of the Site is approximately 54 feet below ground surface (bgs) (NMOSE 2019).

Water-supply wells are completed in the Pecos Valley Alluvium Aquifer which consists primarily of Quaternary alluvial and eolian sediments (TWBD 2010) as well as surficial deposits from the Pecos River (Barrol 2004). The aquifer is primarily recharged by the Pecos River as well as "on-farm return flow" water. The regional groundwater flow direction is generally towards the east-southeast (Barrol 2004).

INITIAL RELEASE RESPONSE

A release, initially estimated to be less than 5 bbls of oil and produced water, occurred at the Site in May 2010 due to a pinhole caused by internal corrosion located on the top side of a subsurface flowline. Chevron personnel from the Mid-Continent Business Unit (MCBU) stopped the release and conducted initial response activities. Chevron MCBU personnel subcontracted a third-party company to excavate the visually affected soil. Excavation activities were conducted in June 2010 during which Chevron MCBU personnel noted the release was greater than 5 bbls. Two boreholes, BH-1 and BH-2, (total depths of 26 feet bgs and 21 feet bgs, respectively), were installed and discrete soil samples were collected. After collecting the soil samples, the excavated area was reportedly backfilled with imported soil. Pursuant to New Mexico Oil Conservation Division (NMOCD) requirements (NMOCD 1993), Chevron MCBU submitted a Notification of Release and Correction (Form C-141) to the NMOCD, detailing the location, volume of release, and initial and planned cleanup efforts for the site.

Soil and groundwater assessment activities were conducted in April 2012 by Conestoga-Rovers & Associated (CRA). A total of three soil borings (SB-1, SB-2 and SB-3) and three groundwater monitoring wells (MW-1, MW-2 and MW-3) were installed on April 9-10, 2012.

2018 SOIL INVESTIGATION

In November 2018, Arcadis conducted site assessment activities to characterize the lateral and vertical extents of potential soil impacts at the Site. Soil boring locations were selected based on the results of previous soil sampling activities completed at the Site in April 2012, locations of pipelines and other equipment at the Site, and the extent of the release as documented by Chevron MCBU personnel during the initial response activities.

To evaluate the potential extent of impacts to soil at the Site, Arcadis advanced the five soil borings (SB-1 through SB-5) on November 11, 2018.



Prior to conducting drilling activities, each boring location was cleared for subsurface utilities with an air knife. The air knife could not be advanced more than 2 to 3 inches bgs due to the presence of a thick caliche layer. Each soil boring was then advanced to a total depth of approximately 25 feet bgs using air rotary drilling technology.

Soil was continuously logged for stratigraphic characteristics according to the Unified Soil Classification System (USCS). Arcadis used Quantab® field screening methods to quantify chloride concentrations in soil prior to sample collection (Boyer 2004). Field personnel recorded Quantab® readings, soil types, and other pertinent geologic data on boring logs. No staining or elevated photo ionizing device (PID) readings were observed. Lithologic data indicated the subsurface material consisted primarily of gravelly sand clays from approximately 0 to 10 feet bgs followed by sandy caliche layers from approximately 10 to 25 feet bgs. Six soil samples were collected from each boring location beginning at a depth of 0-1' foot bgs and continuing at 5- foot intervals from 5 to 25 feet bgs. A total of 30 samples were collected in clean, laboratory-supplied glass jars, labeled, placed in an ice-chilled cooler, and submitted under appropriate chain of custody protocols to Xenco Laboratories in Lubbock, TX. Soil samples collected from each boring were analyzed for the following:

- Chloride by USEPA Method 300
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8021B
- Total petroleum hydrocarbons (TPH) – diesel range organics (DRO), oil range organics (ORO), and gasoline range organics (GRO) by Method SW8015B
- Moisture content by SM 2540B

Following soil sample collection, the boreholes were filled with soil cuttings from total depth to ground surface. The ground surface was restored to match the surround conditions.

Soil Sample Results

The analytical data from the soil samples collected in November 2018 were compared to the closure criteria (CC) outlined in Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) concerning natural resources and wildlife, oil and gas, and releases which became effective on August 14, 2018. The analytical results for the 30 soil assessment samples are summarized below:

- Benzene was not detected above the laboratory reporting limit in any of the 30 soil samples
- Toluene was detected in three soil samples collected at 24 to 25 feet bgs with estimated concentrations of 0.00561 milligrams per kilogram (mg/kg) (SB-4), 0.00525 mg/kg (SB-7), and 0.00598 mg/kg (SB-8)
- Ethylbenzene was detected in one soil sample collected from SB-8 at 9 to 10 feet bgs with an estimated concentration of 0.0153 mg/kg
- Total Xylenes were detected in three of the 30 soil samples collected with concentrations ranging from an estimated 0.00741 mg/kg at SB-6 (0 to 1-foot bgs) to 0.213 mg/kg at SB-8 (9 to 10 feet bgs)
- Total BTEX compounds were detected in six of the 30 soil samples collected with concentrations ranging from an estimated 0.00525 mg/kg at SB-7 (24 to 25 feet bgs) to 0.228 mg/kg at SB-8 (9 to 10 feet bgs). Total BTEX concentrations did not exceed the 2018 NMAC CC of 50 mg/kg.
- Chloride was detected in each of the 30 soil samples collected from the Site with concentrations ranging from an estimated 14.7 mg/kg at SB-8 (0 to 1-foot bgs) to 8,940 mg/kg at SB-7 (24 to 25 feet bgs). Chloride concentrations exceeded the 2018 NMAC CC of 600 mg/kg in each of the samples collected from below four feet bgs at each soil boring location



- TPH-GRO was detected in five of the 30 soil samples collected with concentrations ranging from an estimated 0.565 mg/kg at SB-7 (2 to 3 feet bgs) to 9.76 mg/kg at SB-8 (9 to 10 feet bgs)
- TPH-DRO was detected in two of the 30 soil samples collected with estimated concentrations of 16.5 mg/kg at SB-5 (0 to 1-foot bgs) to 20.1 mg/kg at SB-6 (24 to 25 feet bgs)
- TPH-ORO was not detected above the laboratory reporting limit in any of the 30 soil samples.

The 2018 NMAC CC for total TPH compound (summation of ORO, GRO, and DRO) concentrations is 100 mg/kg for a site with groundwater less than 50 feet bgs. Total TPH concentrations did not exceed the CC in any of the 30 soil samples collected during the 2018 soil investigation.

2018 GROUNDWATER ASSESSMENT

Monitoring Well Installation and Groundwater Sampling

Soil and groundwater assessments conducted by CRA in April 2012 suggested potential impacts near groundwater at Pardue 27-12. Arcadis installed temporary groundwater monitoring well MW-4 on November 5, 2018. This temporary monitoring well was drilled southwest from the release area to confirm background concentrations in the aquifer and evaluate to potential impact of groundwater.

The monitoring well location was hand cleared using air knife to a minimum depth of 8 feet bgs and was advanced to a total of 58 feet bgs using air rotary drilling technology. The monitoring well was approved by the NMOSE for construction within the open borehole using nominal 4-inch outside diameter (OD) schedule 40 poly vinyl chloride (PVC) casing. The screened interval extended across the saturated thickness of the aquifer (18 feet to 58 feet bgs) and was constructed of 0.10-inch machine-slotted PVC casing. Depth to groundwater was measured following installation at approximately 20.50 feet bgs.

Soil was continuously logged for lithologic characteristics according to the USCS. After the temporary well installation and development, one groundwater sample and one duplicate were collected from the newly installed well in laboratory-supplied containers and submitted under appropriate chain of custody protocols to Xenco for the analysis of the following:

- BTEX by EPA Method 8021B
- TPH - GRO, DRO, ORO by EPA Method 8015M
- Chloride by EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method 2540C

MW-4 was plugged using 3/8 inch hydrated bentonite chips to approximately 0.5-foot bgs. The ground surface was restored to match the surrounding conditions. Soil cuttings were transported offsite to R360 Environmental Solutions in Hobbs, NM for disposal in accordance with state and federal regulations on December 11, 2018.

Groundwater Sample Results

Groundwater analytical results were compared the Human Health Standards outlined in Title 20, Chapter 6, Part 2 (20.6.2) of the NMAC concerning environmental protection, water quality, ground and surface water protection



which became effective on December 1, 1995. The analytical results for the groundwater sample collected from MW-4 in November 2018 are summarized below.

Chloride was detected at a concentration of 3,200 milligrams per liter (mg/L) in the groundwater sample collected from MW-4 which exceeded the NMAC human health standard value of 250 mg/L.

BTEX and TPH compounds were not detected above the laboratory reporting limit in the groundwater sample which is below the 2018 NMAC human health standards. Total dissolved solids were detected at a concentration of 5,400 mg/L which is above the 2018 NMAC human health standard value of 1,000 mg/L.

2019 SOIL INVESTIGATION

In October 2019, Arcadis conducted site assessment activities to characterize the lateral and vertical extents of potential soil impacts at the Site. Soil boring locations were selected based on the results of previous soil sampling activities completed at the Site in April 2012 and November 2018, locations of pipelines and other equipment at the Site, and the extent of the release as documented by Chevron MCBU personnel during the initial response activities. To evaluate the potential extent of impacts to soil at the Site, Arcadis advanced three shallow soil borings (SB-9 through SB-11) and one temporary monitoring well (MW-5) on October 15 through 16, 2019.

Prior to conducting drilling activities, each boring location was cleared for subsurface utilities with an air knife. Each soil boring was then advanced to a total depth of approximately 25 feet bgs using air rotary drilling technology, and temporary monitoring well MW-5 was advanced to a total depth of 45 feet bgs. Soil was continuously logged for stratigraphic characteristics according to the Unified Soil Classification System (USCS). No staining or elevated (<3.0 ppm) photo ionizing device (PID) readings were observed. Lithologic data indicated the subsurface material consisted primarily of gravely sand clays from approximately 0 to 10 feet bgs followed by sandy caliche layers from approximately 10 to 25 feet bgs, and clayey silt layers from 26 to 45 feet bgs. Six soil samples were collected from each boring location, beginning at a depth of 0-1' foot bgs and continuing at 5- foot intervals from 5 to 25 feet bgs, and nine soil samples were collected from temporary monitoring well MW-5, beginning at a depth of 0-1' foot bgs and continuing at 5- foot intervals from 5 to 40 feet bgs. A total of 27 samples were collected in clean, laboratory-supplied glass jars, labeled, placed in an ice-chilled cooler, and were shipped by Fed-Ex priority overnight to Eurofins TestAmerica analytical laboratory under chain-of-custody protocol. Soil samples collected from each boring were analyzed for the following:

- Chloride by USEPA Method 300
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8260B
- Total petroleum hydrocarbons (TPH) – diesel range organics (DRO), oil range organics (ORO), and gasoline range organics (GRO) by Method SW8015B

Following soil sample collection, the boreholes were filled with soil cuttings from total depth to ground surface. The ground surface was restored to match the surround conditions. Temporary monitoring well MW-5 was drilled via Air Rotary drilling technology to a total depth of 57.43 ft bgs and was constructed of 2-inch diameter polyvinyl chloride (PVC) with 10 feet of 0.010 inch slotted screen from 37.43 to 47.43 ft bgs. MW-5 was completed with a 2-foot PVC casing above land surface. MW-5 was developed by over pumping the well. Soil cuttings and development water produced during the installation of temporary well MW-5 were drummed and transported to R360 Halfway, a select for use facility, for disposal. Temporary monitoring well MW-5 was plugged in accordance with the approved well application and plugging plan of operations under C-4351 POD-1, presented in the Appendix C of the *2019 Site Assessment Report*.



Soil Sample Results

The analytical data from the soil samples collected in October 2019 were compared to the closure criteria (CC) outlined in Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) concerning natural resources and wildlife, oil and gas, and releases which became effective on August 14, 2018. The analytical results for the 27 soil assessment samples are summarized below:

- BTEX concentrations were reported below the NMAC standard of 50 milligrams per kilogram (mg/Kg) at all sample locations
- TPH concentrations were reported below the NMAC standard of 100 mg/Kg at all sample locations. The 2019 NMAC CC for total TPH compound (summation of ORO, GRO, and DRO) concentrations is 100 mg/kg for a site with groundwater less than 50 feet bgs.
- Chloride concentrations exceeded the NMAC standard of 600 mg/Kg in;
 - All (six) sample intervals collected at SB-9:
 - 0 – 1 ft bgs: 19,500 mg/Kg
 - 4 – 5 ft bgs: 3,030 mg/Kg
 - 9 – 10 ft bgs: 1,180 mg/Kg
 - 14 – 15 ft bgs: 2,620 mg/Kg
 - 19 – 20 ft bgs: 2,750 mg/Kg
 - 24 – 25 ft bgs: 1,940 mg/Kg
 - Four samples collected from SB-10:
 - 9 – 10 ft bgs: 868 mg/Kg
 - 14 – 15 ft bgs: 1,010 mg/Kg
 - 19 – 20 ft bgs: 1,300 mg/Kg
 - 24 – 25 ft bgs: 1,340 mg/kg
 - Three samples collected from SB-11:
 - 9 – 10 ft bgs: 1,400 mg/Kg
 - 19 – 20 ft bgs: 616 mg/Kg
 - 24 – 25 ft bgs: 1,200 mg/Kg
 - Two sample intervals collected from MW-5:
 - 24 – 25 ft bgs: 617 mg/Kg
 - 39 – 40 ft bgs: 630 mg/Kg

2019 GROUNDWATER ASSESSMENT

Temporary Monitoring Well Installation and Groundwater Sampling

Soil and groundwater assessments conducted by CRA in April 2012 and by Arcadis in 2018 suggested potential impacts near groundwater at Pardue 27-12. Arcadis installed temporary groundwater monitoring well MW-5 on October 15, 2019. This temporary monitoring well was drilled southwest from the release area to confirm background concentrations in the aquifer and evaluate to potential impact of groundwater.



Groundwater at the Site was monitored in 2019 from a network of three monitoring wells (MW-1 through MW-3) and one temporary monitoring wells (MW-5). Arcadis gauged and sampled monitoring wells MW-1, MW-2 and MW-3 in June 2019, and MW-5 in October 2019. All samples were collected via low flow purge methodology. Samples collected at MW-1, MW-2 and MW-3 were analyzed for chloride by EPA Method 300; the sample from temporary monitoring well MW-5 was analyzed for:

- BTEX by EPA 8260B
- TPH- GRO, DRO, ORO by EPA 8105B
- Chloride by EPA 300
- Total Dissolved Solids by Method 9056A

Groundwater Sample Results

Groundwater analytical results were compared the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards for MW-1 through MW-3 in June 2019. Groundwater analytical results for chloride, BTEX (benzene, toluene, ethylbenzene, and total xylenes), and TDS (total dissolved solids) were compared to the NMWQCC Groundwater standards for MW-5 in October 2019. The analytical results for the groundwater sample collected from MW-1 through MW-3 in June 2019 and MW-5 in October 2019 are summarized below.

Chloride concentrations exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) in all wells sampled in June 2019:

- MW-1: 4,560 mg/L
- MW-2: 5,950 mg/L
- MW-3: 4.650 mg/L

Chloride concentrations exceeded the NMWQCC standard of 250 mg/L in MW-5 at a concentration of 2,180 mg/L in October 2019.

BTEX were reported below the NMWQCC standard of 0.01, 0.75, 0.75 and 0.62 mg/L, respectively, in MW-5 in October 2019.

TDS concentrations exceeded the NMWQCC standard of 1,000 mg/L at temporary monitoring well MW-5 during October 2019 at a concentration of 5,910 mg/L.

Appendix B

Field Methodologies and Documentation



FIELD METHODOLOGY

Soil Investigation and Monitoring Well Installation

Soil cuttings from the monitoring well installation was logged on an Arcadis boring log according to Unified Soil Classification System (USCS) guidelines. Arcadis collected grab soil samples from the monitoring well boring advancement at the surface (0 to 1 feet bgs) and throughout subsurface soil (1 to 2 feet bgs, 2 to 3 feet bgs, 3 to 4 feet bgs, 9 to 10 feet bgs, 14 to 15 feet bgs, 19 to 20 feet bgs and 24 to 25 feet bgs). Arcadis utilized field screening methods to quantify hydrocarbon and chloride impacts in the soil cuttings. The soil samples were collected in clean, laboratory-supplied sample containers, labeled, placed on ice, cooled to approximately 4 degrees Celsius, and shipped via Fed-Ex priority overnight to Eurofins TestAmerica analytical laboratory in Houston, Texas, under chain-of-custody protocol for the following analysis:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B;
- Total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) by USEPA Method 8015M;
- Chloride by USEPA Method 300.0; and

The well development process was conducted after the installation of the monitoring well. Monitoring well development included bailing, swabbing, and pumping the well until groundwater parameters became stable. Soil cuttings were transported offsite to R360 Environmental Solutions located in Hobbs, New Mexico for disposal in accordance with state and federal regulations.

Groundwater Investigation

Prior to sampling, static fluid water levels were measured with an electronic interface probe to the nearest hundredth of a foot and recorded. After recording static water levels, discrete samples were collected using a Hydrasleeve™. All non-disposable groundwater sampling equipment was thoroughly decontaminated between measurements to prevent possible cross-contamination between wells. Laboratory-supplied sample containers were filled directly from the Hydrasleeve™.

Groundwater samples were placed on ice in insulated coolers and chilled to a temperature of approximately 4°C (40°F). The coolers were sealed for shipment with proper chain-of-custody documentation and shipped to Eurofins Test America, located in Houston, Texas, for analysis of BTEX by Environmental Protection Agency (EPA) 8260B, TPH-GRO, DRO, ORO by EPA 8105B, chloride by EPA 300, and Total Dissolved Solids (TDS) by Method 9056A.

Client:		Chevron				
Project Name:		Pardue Farms				
Date(s):		11/10/2020				
Sampler(s):		Justin Steinmann				
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Depth to LNAPL (ft)	Remarks
MW-1	11/10/2020	08:20:00	33.03	58.22	--	
MW-2	11/10/2020	08:20:00	34.56	58.35	--	
MW-3	11/10/2020	08:15:00	31.36	59.83	--	
MW-6	11/10/2020	08:15:00	24.69	58.75	--	

Project Name/ Location Pardue Farms 27-12				Well ID MW-6				Date 11/19/2020			
Project Number 30059172				Measuring Point Top of Casing				Weather (°F) Clear, warm			
Depth of Well (ft bgs) NA				Measured Well Depth (ft bmp) 58.8				Measuring Point Elevation NA			
Static Water Level (ft bmp) 25.15				Casing Diameter (in)				Screen Setting (ft bgs) to			
Purge Method Low-Flow				Sample Method Low-Flow				Pump Intake (ft bgs) 40.0			
Purge Start 09:14				Sample ID MW-6-W-20-11-19				QA/QC Sample MW-6-W-201119			
Purge End 09:44				Sample Time 09:45				Sampled By Justin Steinmann			

Time	Total Minutes Elapsed	Rate (mL/min)	Cumulative Volume Purged (mL)	Depth to Water (ft)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Appearance	
											Color	Odor
09:44	30	200	NA	28.73	6.89	21.600	58.6	6.32	19.49	130.0	Clear	None

Constituent Sampled	Container	Number	Filtered	Preservative
BTEX	40 mL Glass Vial	6	no	HCL
CL, TDS	1L poly	1	no	None
TPH	1 L Amber Glass	2	no	None

Comments: Needs lock

bgs = below ground surface
bmp = below measuring point
in = inches

mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
ORP = Oxidation Reduction Potential

SU = standard units
TDS = Total Dissolved Solids
°C = degrees Celsius
°F = degrees Fahrenheit

Project Name/ Location Pardue Farms 27-12				Well ID MW-2				Date 11/19/2020			
Project Number 30059172				Measuring Point Top of Casing				Weather (°F) Clear, warm			
Depth of Well (ft bgs) NA				Measured Well Depth (ft bmp) 58.4				Measuring Point Elevation NA			
Static Water Level (ft bmp) 34.56				Casing Diameter (in)				Screen Setting (ft bgs) to			
Purge Method Low-Flow				Sample Method Low-Flow				Pump Intake (ft bgs) 45.0			
Purge Start 11:47				Sample ID MW-2-W-20-11-19				QA/QC Sample NA			
Purge End 12:17				Sample Time 12:20				Sampled By Justin Steinmann			

Time	Total Minutes Elapsed	Rate (mL/min)	Cumulative Volume Purged (mL)	Depth to Water (ft)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Appearance	
											Color	Odor
12:17	30	150	NA	34.69	6.83	16.400	27.6	1.18	24.94	148.0	Clear	None

Constituent Sampled	Container	Number	Filtered	Preservative
BTEX	40 mL Glass Vial	6	no	HCL
CL, TDS	1L poly	1	no	None
TPH	1 L Amber Glass	2	no	None

Comments: Roots in well

bgs = below ground surface
bmp = below measuring point
in = inches

mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
ORP = Oxidation Reduction Potential

SU = standard units
TDS = Total Dissolved Solids
°C = degrees Celsius
°F = degrees Fahrenheit

Project Name/ Location Pardue Farms 27-12				Well ID MW-1				Date 11/19/2020			
Project Number 30059172				Measuring Point Top of Casing				Weather (°F) Clear, warm			
Depth of Well (ft bgs) NA				Measured Well Depth (ft bmp) 58.2				Measuring Point Elevation NA			
Static Water Level (ft bmp) 33.03				Casing Diameter (in)				Screen Setting (ft bgs) to			
Purge Method Low-Flow				Sample Method Low-Flow				Pump Intake (ft bgs) 45.0			
Purge Start 10:37				Sample ID MW-1-W-20-11-19				QA/QC Sample NA			
Purge End 11:07				Sample Time 11:09				Sampled By Justin Steinmann			

Time	Total Minutes Elapsed	Rate (mL/min)	Cumulative Volume Purged (mL)	Depth to Water (ft)	pH (SU)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Appearance	
											Color	Odor
11:07	30	120	NA	33.01	7.05	19.200	23.1	2.37	21.40	156.0	Clear	None

Constituent Sampled	Container	Number	Filtered	Preservative
BTEX	40 mL Glass Vial	6	no	HCL
CL, TDS	1L poly	1	no	None
TPH	1 L Amber Glass	2	no	None

Comments: Roots in well

bgs = below ground surface
bmp = below measuring point
in = inches

mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
ORP = Oxidation Reduction Potential

SU = standard units
TDS = Total Dissolved Solids
°C = degrees Celsius
°F = degrees Fahrenheit

Appendix C

Approved Well Application Permit to Drill C-4351 POD-3

John R. D Antonio, Jr., P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 681582
File Nbr: C 04351

Nov. 10, 2020

RUSSELL GRANT
ARCADIS US INC CHEVRON
10205 WESTHEIMER ROAD STE 800
HOUSTON, TX 77042

Greetings:

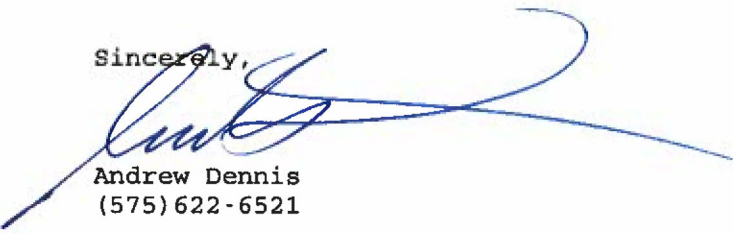
Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- * If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- * If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- * The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- * This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,


Andrew Dennis
(575) 622-6521

Enclosure

explore

File No. **C-4351-P003**

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:

☐ Exploratory Well (Pump test)☒ Monitoring Well☐ Pollution Control
And/Or Recovery☐ Construction Site/Public
Works Dewatering☐ Mine Dewatering☐ Ground Source Heat Pump☐ Other(Describe):

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☐ Temporary Request - Requested Start Date:

Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Arcadis US, Inc. on behalf of Chevron <i>Environmental Management Company</i>		Name:	
Contact or Agent: Russell Grant	check here if Agent <input type="checkbox"/>	Contact or Agent:	check here if Agent <input type="checkbox"/>
Mailing Address: 10205 Westheimer Rd. Suite 800		Mailing Address:	
City: Houston		City:	
State: TX	Zip Code: 77042	State:	Zip Code:
Phone: 432.214.1542 Phone (Work):	<input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell	Phone: Phone (Work):	<input type="checkbox"/> Home <input type="checkbox"/> Cell
E-mail (optional): russell.grant@arcadis.com		E-mail (optional):	

OSE DT OCT 26 2020 09:53

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-4351-P003	Tm. No.:	Receipt No.: 2-42661
Trans Description (optional): MAN		
Sub-Basin: CUB	PCW/LOG Due Date:	

Page 1 of 3

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
 District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
 ☐ UTM (NAD83) (Meters)
 ☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

☐ NM West Zone
 ☐ Zone 12N

☐ NM East Zone
 ☐ Zone 13N

☐ NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
MW-6	104°4'40.79"W	32°16'25.63"N	Private Property (Billy Melton)
L-4351-POD3			SW NESW, Section 27, T23S R.28E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
 Additional well descriptions are attached: ☐ Yes ☒ No If yes, how many _____

Other description relating well to common landmarks, streets, or other: _____

Well is on land owned by: Billy Melton

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ☒ No
 If yes, how many _____

Approximate depth of well (feet): 60' Outside diameter of well casing (inches): 4"

Driller Name: White Drilling Driller License Number: WD-1456

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Monitoring well (MW-6) will be installed at the location mentioned above to approximately 60 feet below ground surface. The monitoring well will be utilized for groundwater monitoring.

I (Landowner Full Name Printed) Billy Melton approve the selected location for the installation of MW-6 with the understanding that pending the utility locate, the location could be adjusted, within a 25 foot radius, only if needed to avoid subsurface utilities.

Landowner Signature: [Signature] Date: 10-22-2020

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: L-4351-POD3

Trm No.: _____

Page 2 of 3

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: <input checked="" type="checkbox"/> Include the reason for the monitoring well, and, <input checked="" type="checkbox"/> The duration of the planned monitoring.		Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Russell Grant

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

P. Grant

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved

☐ partially approved

☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 10th day of November 20 20, for the State Engineer

John R. D'Antonio Jr., P.E.

State Engineer

By: [Signature]
Signature

Juan Hernandez
Print

Title:
Print

Water Resources Manager I



FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-4351-P003

Tm No.:

Page 3 of 3

**NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE**

SPECIFIC CONDITIONS OF APPROVAL

- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.
- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

Trn Desc: C 04351 POD3File Number: C 04351Trn Number: 681582

page: 1

**NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE**

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.
- LOG The Point of Diversion C 04351 POD1 must be completed and the Well Log filed on or before 11/10/2021.
- LOG The Point of Diversion C 04351 POD2 must be completed and the Well Log filed on or before 11/10/2021.

Trn Desc: C 04351 POD3

File Number: C 04351

Trn Number: 681582

**NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE**

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 04351 POD3 must be completed and the Well
Log filed on or before 11/10/2021.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 10/26/2020	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 10 day of Nov A.D., 2020

John R. D Antonio, Jr., P.E. State Engineer

By: 

JUAN HERNANDEZ



Trn Desc: C 04351 POD3

File Number: C 04351

Trn Number: 681582

page: 3

SWNW

4166137132118

SENW

SWNE

Carlsbad Irrigation District Section

4166137396336

4166137032326

NWSW

4166137153325

NESW

NWSE

Old Ditch Rd

Esri, HERE, Garmin, (c) OpenStreetMap contributors, NMTRD GIS, OSE GIS, NM County Assessors, Santa Fe County Assessor's Office, OSE SLO, BLM

Coordinates**UTM - NAD 83 (m) - Zone 13**

Easting 586830.811

Northing 3571155.957

State Plane - NAD 83 (f) - Zone E

Easting 620255.520

Northing 463428.294

Degrees Minutes Seconds

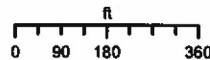
Latitude 32 : 16 : 25.630000

Longitude -104 : 4 : 40.790000

Location pulled from Coordinate Search

**NEW MEXICO OFFICE
OF THE
STATE ENGINEER**

1:4,514



A. DENNIS

11/10/2020



Field Office efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately interpret the source data used in their production. However, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, modification, positional accuracy, interpretation, methodology, interpretation of source data, and other considerations. These maps are disseminated "as is" without warranty of any kind.

Spatial Information**County: Eddy****Groundwater Basin: Carlsbad****Abstract Area: C****CUB****Land Grant:****Not in Land Grant****Restrictions:****NA****PLSS Description****NESWNESW Qtr of Sec 27 of 023S 028E**

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information**UPC/DocNum: 4166137153325****Parcel Owner: MELTON, BILLY J & LINDA****Address: 248 NYMEYER ROAD null null**

Legal: Quarter: SW S: 27 T: 23S R: 28E N2SW (LESS 400' X 1269' IN NW COR) MAP# 316-15 LOC BEHIND 248 NYMEYER ROAD

POD Information**Owner: ARCADIS US INC****File Number: C-4351-POD3****POD Status: NoData****Permit Status: NoData****Permit Use: NoData****Purpose: MON****Coord Search
Location****Hydro Survey
Boundary**WRAB Abstract
Project Areas<all other
values>

Counties



None

Eddy County
Parcels 2020

All



Partial

**Hydro Survey
Footprints****Sections****BLM Land
Grant****PLSSTownship****PLSSFirstDiv...****PLSSSecond...**

October 4, 2018

Arcadis U.S., Inc.
101 Creekside Ridge Court, Suite 200
Roseville, CA 95621

OSE DIT NOV 9 2020 AM 10:32

Reference: Agent Authorization Requestor for Monitoring Well Installation in Eddy County, New Mexico

Mr. Krehbiel:

As directed by the New Mexico Office of the State Engineer (NMOSE), Chevron Environmental Management Company (CEMC) is providing this letter to certify that Arcadis U.S., Inc (Arcadis) is authorized to act as an agent of CEMC for the monitoring well installation work outlined below, and will conduct this work under the direction of CEMC.

Under the direction of CEMC, Arcadis is managing and will oversee the installation of one monitoring well at one Chevron U.S.A Inc. (CUSA) oil production site in Eddy County, New Mexico. The name and anticipated coordinates of the well is included in the table below.

Well Name	Latitude	Longitude
Pardue Farm MW4	32.272519°	-104.070436°
MeHon, MW-6	32, 16, 25.63	-104, 4, 40.79

If you have any questions or require any additional information, please feel free to contact me at (985) 773-6746.

Sincerely,

Jason Michelson

cc: Brett Krehbiel, Arcadis, Roseville, CA

2018 OCT 11 PM 1:23

STATE ENGINEER'S OFFICE
ROSEVILLE, NEW MEXICO

OSE DIT NOV 9 2020 AM 10:32

Appendix D

Boring Logs



BORING LOG

Well No.: MW-6 Date Drilled: 11/16/20
 Client Name: Chevron
 Site Location: Pardue Farms 27-12
 Project No.: 30059172 Drilling Method: Air Rotary
 Logged By: J. Steinmann Sample Method: Crab
 Drilling Co.: White Driller: Bo Atkins

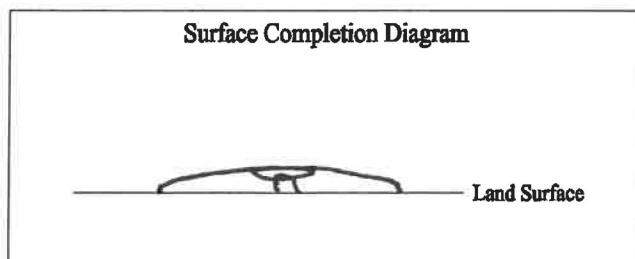
Sample / Core Interval			P. I. D. (PPM)		Sample Analysis	U. S. C. S.	Description Depth (ft)		Description (Lithology, Munsell Color, Grain Size w/percentages (most to least), Roundness, Sorting, Consistency/Hardness, Moisture Content, Bedding, Fractures, Additional Remarks)
Device	Depth (ft)	Recovery (ft)	Depth (ft)	Reading			from	to	
HA	0/1		0/1	0.0	(9/1)	SM	0	1	Silty Sand 7.5 YR 6/4 Light Brown
AR	1/2		1/2	0.1					Sand, v. fine-med gm, prly sorted, subrounded, w/ some silt.
	2/3		2/3	50.3					Little-some granules-cobbles, calcareous hard. Dry, loose.
	3/4		3/4	161.6					
	9/10		9/10	186.2					
	14/15		14/15	13.4	(1/2)	SM	1	4	Silty Sand 5 yr 7/4 Pink
	19/20		19/20	11.1	(2/3)				Sand; v. fine-fine, well sorted, silty, w/ trace-little granule-cobbles; hard, siliceous rounded, throughout. Dry, loose.
	24/25		24/25	6.7	(3/4)				
									@ 2' granules-cobbles become absent
						GW	4	9	Gravelly Sand 7.5 yr 6/4 Lt Brown
									Sand; v. fine-med gm, prly sorted, silty, loose, w/ pebbles-cobbles, subrounded-subangular, hard, calcareous, throughout.
									Dry.
CI-	0/1	<128			(9/10)	SP	9	14	Sand 5 yr 7/4 Pink
	1/2	<128			/CL				v. fine-fine sand well sorted, subrounded, trace silt, gypsiferous loose, dry.
	2/3	<128							w/ trace clay interbeds: 5 yr 6/6
	3/4	<128							Reddish yellow, soft, pliable, non plastic
	9/10	<128							slightly moist
	14/15	492							
	19/20	492							
	24/25	1420							
					(14/15)	SP	14	19	Sand, as above
					/CL				w/ clay interbeds increasing to hard some, becoming hard, nonpliable, dry.
					(19/20)	CL	19	24	Clay 5 yr 6/6 Reddish Yellow
									slightly pliable, non plastic, firm, dry, interbedded w/ some
									Sand; v. fine-fine, subrounded mod. sorted, trace gypsum
									Trace pebbles, hard, siliceous rounded-subrounded



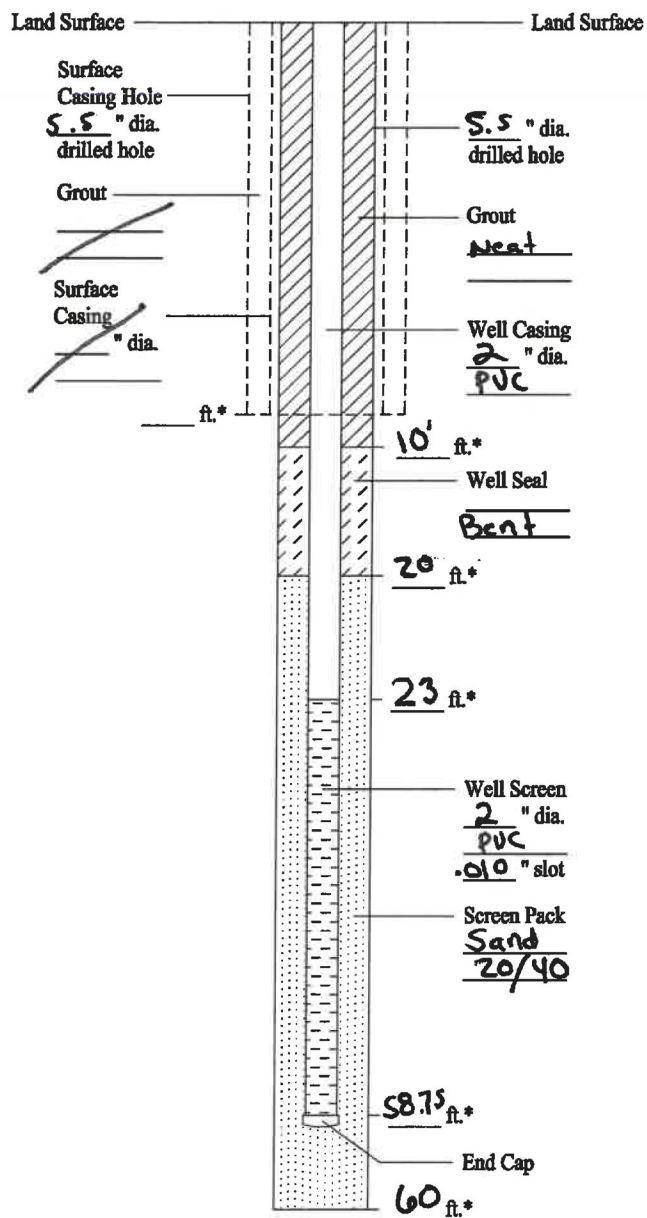
Well No.: MW-6 Date Drilled: 11/16/20
Client Name: Chevron
Site Location: Pardue Farms 27-12
Project No.: 30059172 Drilling Method: 11/16/20
Logged By: J. Steinmann Sample Method: Grab
Drilling Co.: White Driller: Bo Atkins

Released to Imaging: 2/21/2024 11:35:45 AM

Surface Completion Diagram



Well Construction Diagram



* Depth Below Land Surface

Measuring Point is Land Surface Unless Otherwise Noted.



BORING/MONITOR/WELL LOG

Well No.: MW-6 File Name: _____Client Name: ChemonSite Location: Pardue Farms 27-12Project No.: 300 59172 Drilling Method: Air RotaryLogged By: J. Steinmann Sample Method: GrabDrilling Co.: White Driller: Bo AtkinsDate Drilled: 11/16/20 Date Surveyed: _____Surface Elev.: _____ ☐ Surveyed ☐ EstimatedTop of Casing Elev.: _____ ☐ Surveyed ☐ EstimatedPermit No.: _____ Drilling Fluid: Air

Development Technique(s) and Date(s): _____

Well pumped off w/ sub pumpStatic Water Level: 25.15 Measuring Point: TOC Date: 11/17/20

Pumping Water Level: _____

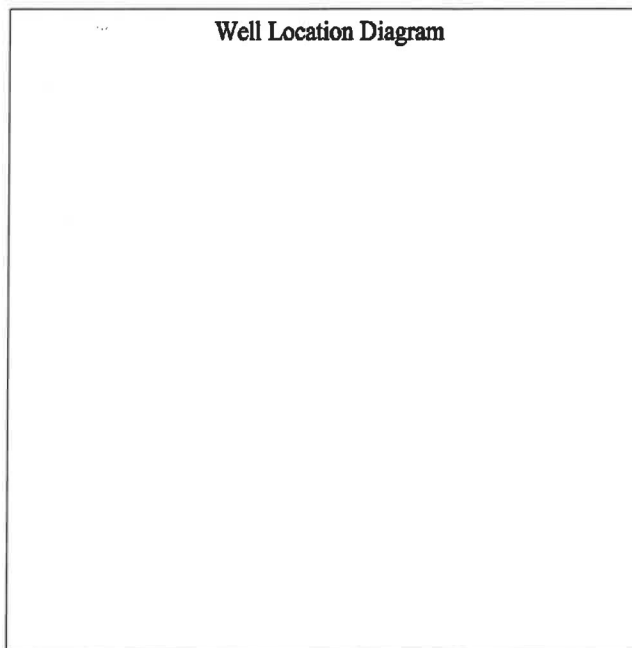
Yield: _____ gpm Date: _____

Well Purpose: Monitoring Well

Remarks: _____

Hole Size: 5.5" Grout Type: NeatSeal Type: Bentonite Screen Pack: 20/40 SandCasing Type: PVC sch 40 Casing Size: 2"Screen Type: .010 PVC Screen/Slot Size: .010Drilled Depth: 60' Plug-Back Depth: 1.25'

Well Location Diagram



Appendix E

Laboratory Reports



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 600-213947-1

Client Project/Site: Chevron Pardue Farms 27-12

For:

ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Ryan Nanny

Authorized for release by:
12/22/2020 8:52:26 AM

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

Sachin.Kudchadkar@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 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.

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Laboratory Job ID: 600-213947-1

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Method Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL HOU
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU
1010	Flashpoint	40CFR136A	TAL HOU
2540 C-1997	Total Dissolved Solids (Dried at 180 °C)	SM	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL CC
9040B	Corrosivity as pH	SW846	TAL HOU
9045C	Corrosivity	SW846	TAL HOU
D92	Flashpoint	ASTM	TAL CC
1311	TCLP Extraction	SW846	TAL HOU
3010A	Preparation, Total Metals	SW846	TAL HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL HOU
3546	Microwave Extraction	SW846	TAL HOU
5030A	Purge and Trap	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL HOU
5030C	Purge and Trap for Solids	SW846	TAL HOU
7470A	Preparation, Mercury	SW846	TAL HOU

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

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

Eurofins TestAmerica, Houston

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213947-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-213947-1	Pardue Farms 27-12 Purge Water	Water	11/19/20 13:14	11/20/20 09:13	
600-213947-2	Pardue Farms 27-12 Comp IDW	Solid	11/19/20 13:04	11/20/20 09:13	
600-213947-3	MW-6-WD-201119	Water	11/19/20 00:00	11/20/20 09:13	
600-213947-4	MW-2-W-201119	Water	11/19/20 12:20	11/20/20 09:13	
600-213947-5	MW-1-W-201119	Water	11/19/20 11:09	11/20/20 09:13	

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: Pardue Farms 27-12 Purge Water

Lab Sample ID: 600-213947-1

Date Collected: 11/19/20 13:14

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00500	0.000560	mg/L			11/24/20 22:30	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			11/24/20 22:30	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			11/24/20 22:30	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			11/24/20 22:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		11/24/20 22:30	1
4-Bromofluorobenzene	99		67 - 139		11/24/20 22:30	1
Dibromofluoromethane	110		62 - 130		11/24/20 22:30	1
Toluene-d8 (Surr)	107		70 - 130		11/24/20 22:30	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/27/20 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	93		63 - 125		11/27/20 23:39	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.113	J	0.253	0.0455	mg/L		11/24/20 13:21	11/25/20 11:43	1
Oil Range Organics (C28-C35)	0.152	U	0.253	0.152	mg/L		11/24/20 13:21	11/25/20 11:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	137		60 - 140	11/24/20 13:21	11/25/20 11:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0140	J B	0.100	0.0129	mg/L		11/27/20 06:00	11/27/20 13:41	1
Arsenic	0.0466	U	0.100	0.0466	mg/L		11/27/20 06:00	11/27/20 13:41	1
Barium	0.228	B	0.200	0.0162	mg/L		11/27/20 06:00	11/27/20 13:41	1
Cadmium	0.0111	U	0.0500	0.0111	mg/L		11/27/20 06:00	11/27/20 13:41	1
Chromium	0.0159	U	0.100	0.0159	mg/L		11/27/20 06:00	11/27/20 13:41	1
Lead	0.0219	U	0.100	0.0219	mg/L		11/27/20 06:00	11/27/20 13:41	1
Selenium	0.0589	U	0.400	0.0589	mg/L		11/27/20 06:00	11/27/20 13:41	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U F1	0.000250	0.000103	mg/L		11/27/20 07:56	11/30/20 12:21	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>150		1.00	1.00	Degrees F			11/28/20 17:10	1
pH	7.6	HF	0.01	0.01	SU			12/02/20 10:59	1

Client Sample ID: Pardue Farms 27-12 Comp IDW

Lab Sample ID: 600-213947-2

Date Collected: 11/19/20 13:04

Matrix: Solid

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000647	U	0.00513	0.000647	mg/Kg		11/23/20 14:52	11/23/20 15:21	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: Pardue Farms 27-12 Comp IDW

Lab Sample ID: 600-213947-2

Date Collected: 11/19/20 13:04

Matrix: Solid

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.00105	U	0.00513	0.00105	mg/Kg		11/23/20 14:52	11/23/20 15:21	1
Toluene	0.00142	U	0.00513	0.00142	mg/Kg		11/23/20 14:52	11/23/20 15:21	1
Xylenes, Total	0.00116	U	0.00513	0.00116	mg/Kg		11/23/20 14:52	11/23/20 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130	11/23/20 14:52	11/23/20 15:21	1
4-Bromofluorobenzene	103		57 - 140	11/23/20 14:52	11/23/20 15:21	1
Dibromofluoromethane	85		68 - 140	11/23/20 14:52	11/23/20 15:21	1
Toluene-d8 (Surr)	84		50 - 130	11/23/20 14:52	11/23/20 15:21	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.7	U	99.2	63.7	ug/Kg		11/25/20 18:59	11/26/20 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	86		20 - 140	11/25/20 18:59	11/26/20 15:03	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	24.9		8.26	1.70	mg/Kg		12/01/20 08:29	12/02/20 14:47	1
Oil Range Organics (C28-C35)	66.5		8.26	4.98	mg/Kg		12/01/20 08:29	12/02/20 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	149	X	60 - 140	12/01/20 08:29	12/02/20 14:47	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0129	U	0.100	0.0129	mg/L		11/27/20 06:00	11/27/20 14:02	1
Arsenic	0.0466	U	0.100	0.0466	mg/L		11/27/20 06:00	11/27/20 14:02	1
Barium	0.338		0.200	0.0162	mg/L		11/27/20 06:00	11/27/20 14:02	1
Cadmium	0.0111	U	0.0500	0.0111	mg/L		11/27/20 06:00	11/27/20 14:02	1
Chromium	0.0159	U	0.100	0.0159	mg/L		11/27/20 06:00	11/27/20 14:02	1
Lead	0.0219	U	0.100	0.0219	mg/L		11/27/20 06:00	11/27/20 14:02	1
Selenium	0.0589	U	0.400	0.0589	mg/L		11/27/20 06:00	11/27/20 14:02	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U	0.000250	0.000103	mg/L		11/27/20 07:56	11/30/20 12:39	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6	H	0.01	0.01	SU			11/30/20 13:15	1
Flashpoint	>212		70.0	70.0	Degrees F			12/21/20 16:00	1

Client Sample ID: MW-6-WD-201119

Lab Sample ID: 600-213947-3

Date Collected: 11/19/20 00:00

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00500	0.000560	mg/L			11/24/20 22:55	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			11/24/20 22:55	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-WD-201119

Lab Sample ID: 600-213947-3

Date Collected: 11/19/20 00:00

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.000550	U	0.00500	0.000550	mg/L			11/24/20 22:55	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			11/24/20 22:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		50 - 134					11/24/20 22:55	1
4-Bromofluorobenzene	99		67 - 139					11/24/20 22:55	1
Dibromofluoromethane	108		62 - 130					11/24/20 22:55	1
Toluene-d8 (Surr)	103		70 - 130					11/24/20 22:55	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	90		63 - 125					11/28/20 00:18	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0994	J	0.250	0.0450	mg/L		11/24/20 13:21	11/25/20 10:05	1
Oil Range Organics (C28-C35)	0.202	J	0.250	0.150	mg/L		11/24/20 13:21	11/25/20 10:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	115		60 - 140				11/24/20 13:21	11/25/20 10:05	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16600		200	200	mg/L			11/25/20 14:26	1
Chloride	12400		1000	192	mg/L			11/28/20 00:44	1000

Client Sample ID: MW-2-W-201119

Lab Sample ID: 600-213947-4

Date Collected: 11/19/20 12:20

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00500	0.000560	mg/L			11/24/20 23:19	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			11/24/20 23:19	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			11/24/20 23:19	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			11/24/20 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					11/24/20 23:19	1
4-Bromofluorobenzene	95		67 - 139					11/24/20 23:19	1
Dibromofluoromethane	104		62 - 130					11/24/20 23:19	1
Toluene-d8 (Surr)	103		70 - 130					11/24/20 23:19	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 00:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	93		63 - 125					11/28/20 00:56	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-2-W-201119

Lab Sample ID: 600-213947-4

Date Collected: 11/19/20 12:20

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		11/24/20 13:21	11/25/20 10:37	1
Oil Range Organics (C28-C35)	0.150	U	0.250	0.150	mg/L		11/24/20 13:21	11/25/20 10:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	78		60 - 140				11/24/20 13:21	11/25/20 10:37	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	13400		200	200	mg/L			11/25/20 14:24	1
Chloride	6580		1000	192	mg/L			11/27/20 23:36	1000

Client Sample ID: MW-1-W-201119

Lab Sample ID: 600-213947-5

Date Collected: 11/19/20 11:09

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00500	0.000560	mg/L			11/24/20 23:42	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			11/24/20 23:42	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			11/24/20 23:42	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			11/24/20 23:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		50 - 134					11/24/20 23:42	1
4-Bromofluorobenzene	94		67 - 139					11/24/20 23:42	1
Dibromofluoromethane	104		62 - 130					11/24/20 23:42	1
Toluene-d8 (Surr)	103		70 - 130					11/24/20 23:42	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 01:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	90		63 - 125					11/28/20 01:35	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		11/24/20 13:21	11/25/20 11:10	1
Oil Range Organics (C28-C35)	0.150	U	0.250	0.150	mg/L		11/24/20 13:21	11/25/20 11:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	64		60 - 140				11/24/20 13:21	11/25/20 11:10	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14800		200	200	mg/L			11/25/20 14:26	1
Chloride	9880		1000	192	mg/L			11/28/20 00:10	1000

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate recovery exceeds control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213947-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213947-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	BFB (57-140)	DBFM (68-140)	TOL (50-130)
600-213947-2	Pardue Farms 27-12 Comp IDW	93	103	85	84
LCS 600-307642/3	Lab Control Sample	87	103	82	78
LCSD 600-307642/4	Lab Control Sample Dup	89	107	81	80
MB 600-307642/6	Method Blank	92	104	81	80
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-213947-1	Pardue Farms 27-12 Purge Water	97	99	110	107
600-213947-3	MW-6-WD-201119	95	99	108	103
600-213947-4	MW-2-W-201119	94	95	104	103
600-213947-5	MW-1-W-201119	94	94	104	103
LCS 600-307717/4	Lab Control Sample	92	105	106	98
LCSD 600-307717/5	Lab Control Sample Dup	85	95	94	88
MB 600-307717/7	Method Blank	91	99	100	100
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TFT1 (20-140)	TFT1 (20-140)
600-213947-2	Pardue Farms 27-12 Comp IDW	86	86
LCS 240-462898/2-A	Lab Control Sample	93	93
MB 240-462898/1-A	Method Blank	94	94
Surrogate Legend			
TFT = Trifluorotoluene (Surr)			

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		TFT1 (63-125)
600-213947-1	Pardue Farms 27-12 Purge Water	93
600-213947-3	MW-6-WD-201119	90

Eurofins TestAmerica, Houston

Surrogate Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TFT1 (63-125)					
600-213947-4	MW-2-W-201119	93					
600-213947-5	MW-1-W-201119	90					
LCS 240-463064/5	Lab Control Sample	98					
LCS 240-463065/5	Lab Control Sample	98					
MB 240-463064/4	Method Blank	88					
MB 240-463065/4	Method Blank	88					
Surrogate Legend							
TFT = Trifluorotoluene (Surr)							

Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH (60-140)					
600-213947-2	Pardue Farms 27-12 Comp IDW	149 X					
LCS 600-307905/2-A	Lab Control Sample	132					
MB 600-307905/1-A	Method Blank	121					
Surrogate Legend							
OTPH = o-Terphenyl							

Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH (60-140)					
600-213947-1	Pardue Farms 27-12 Purge Water	137					
600-213947-3	MW-6-WD-201119	115					
600-213947-4	MW-2-W-201119	78					
600-213947-5	MW-1-W-201119	64					
LCS 600-307723/2-A	Lab Control Sample	97					
LCSD 600-307723/3-A	Lab Control Sample Dup	89					
MB 600-307723/1-A	Method Blank	93					
Surrogate Legend							
OTPH = o-Terphenyl							

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 600-307642/6

Matrix: Solid

Analysis Batch: 307642

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			11/23/20 11:08	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			11/23/20 11:08	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			11/23/20 11:08	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			11/23/20 11:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130		11/23/20 11:08	1
4-Bromofluorobenzene	104		57 - 140		11/23/20 11:08	1
Dibromofluoromethane	81		68 - 140		11/23/20 11:08	1
Toluene-d8 (Surr)	80		50 - 130		11/23/20 11:08	1

Lab Sample ID: LCS 600-307642/3

Matrix: Solid

Analysis Batch: 307642

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04561		mg/Kg		91	70 - 131
Ethylbenzene	0.0500	0.03809		mg/Kg		76	66 - 130
Toluene	0.0500	0.04056		mg/Kg		81	67 - 130
Xylenes, Total	0.100	0.07634		mg/Kg		76	63 - 130
m-Xylene & p-Xylene	0.0500	0.03843		mg/Kg		77	64 - 130
o-Xylene	0.0500	0.03791		mg/Kg		76	62 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		61 - 130
4-Bromofluorobenzene	103		57 - 140
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	78		50 - 130

Lab Sample ID: LCSD 600-307642/4

Matrix: Solid

Analysis Batch: 307642

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.0500	0.05735		mg/Kg		115	70 - 131	23	30
Ethylbenzene	0.0500	0.04822		mg/Kg		96	66 - 130	23	30
Toluene	0.0500	0.05036		mg/Kg		101	67 - 130	22	30
Xylenes, Total	0.100	0.09419		mg/Kg		94	63 - 130	21	30
m-Xylene & p-Xylene	0.0500	0.04709		mg/Kg		94	64 - 130	20	30
o-Xylene	0.0500	0.04710		mg/Kg		94	62 - 130	22	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		61 - 130
4-Bromofluorobenzene	107		57 - 140
Dibromofluoromethane	81		68 - 140
Toluene-d8 (Surr)	80		50 - 130

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 600-307717/7

Matrix: Water

Analysis Batch: 307717

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00500	0.000560	mg/L			11/24/20 14:18	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			11/24/20 14:18	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			11/24/20 14:18	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			11/24/20 14:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		11/24/20 14:18	1
4-Bromofluorobenzene	99		67 - 139		11/24/20 14:18	1
Dibromofluoromethane	100		62 - 130		11/24/20 14:18	1
Toluene-d8 (Surr)	100		70 - 130		11/24/20 14:18	1

Lab Sample ID: LCS 600-307717/4

Matrix: Water

Analysis Batch: 307717

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05307		mg/L		106	70 - 131
Ethylbenzene	0.0500	0.05313		mg/L		106	70 - 130
Toluene	0.0500	0.05534		mg/L		111	70 - 130
Xylenes, Total	0.100	0.1086		mg/L		109	70 - 130
m-Xylene & p-Xylene	0.0500	0.05506		mg/L		110	70 - 130
o-Xylene	0.0500	0.05352		mg/L		107	69 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		50 - 134
4-Bromofluorobenzene	105		67 - 139
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: LCSD 600-307717/5

Matrix: Water

Analysis Batch: 307717

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04619		mg/L		92	70 - 131	14	20
Ethylbenzene	0.0500	0.04787		mg/L		96	70 - 130	10	20
Toluene	0.0500	0.04846		mg/L		97	70 - 130	13	20
Xylenes, Total	0.100	0.09639		mg/L		96	70 - 130	12	20
m-Xylene & p-Xylene	0.0500	0.04956		mg/L		99	70 - 130	11	20
o-Xylene	0.0500	0.04683		mg/L		94	69 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		50 - 134
4-Bromofluorobenzene	95		67 - 139
Dibromofluoromethane	94		62 - 130
Toluene-d8 (Surr)	88		70 - 130

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 240-462898/1-A

Matrix: Solid

Analysis Batch: 462905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 462898

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.2	U	100	64.2	ug/Kg		11/25/20 18:59	11/25/20 22:53	1
Gasoline Range Organics [C6 - C10]	64.2	U	100	64.2	ug/Kg		11/25/20 18:59	11/25/20 22:53	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	94		20 - 140				11/25/20 18:59	11/25/20 22:53	1
Trifluorotoluene (Surr)	94		20 - 140				11/25/20 18:59	11/25/20 22:53	1

Lab Sample ID: LCS 240-462898/2-A

Matrix: Solid

Analysis Batch: 462905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 462898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	800	851.7		ug/Kg		106	75 - 126
Gasoline Range Organics [C6 - C10]	800	851.7		ug/Kg		106	75 - 126
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Trifluorotoluene (Surr)	93		20 - 140				
Trifluorotoluene (Surr)	93		20 - 140				

Lab Sample ID: MB 240-463064/4

Matrix: Water

Analysis Batch: 463064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/27/20 16:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		63 - 125					11/27/20 16:34	1

Lab Sample ID: LCS 240-463064/5

Matrix: Water

Analysis Batch: 463064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	800	838.2		ug/L		105	77 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Trifluorotoluene (Surr)	98		63 - 125				

Lab Sample ID: MB 240-463065/4

Matrix: Water

Analysis Batch: 463065

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/27/20 16:34	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MB 240-463065/4

Matrix: Water

Analysis Batch: 463065

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		63 - 125		11/27/20 16:34	1

Lab Sample ID: LCS 240-463065/5

Matrix: Water

Analysis Batch: 463065

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	800	838.2		ug/L		105	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	98		63 - 125

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 600-307723/1-A

Matrix: Water

Analysis Batch: 307710

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307723

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		11/24/20 13:20	11/25/20 07:17	1
Oil Range Organics (C28-C35)	0.150	U	0.250	0.150	mg/L		11/24/20 13:20	11/25/20 07:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		60 - 140	11/24/20 13:20	11/25/20 07:17	1

Lab Sample ID: LCS 600-307723/2-A

Matrix: Water

Analysis Batch: 307710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307723

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	1.00	1.167		mg/L		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	97		60 - 140

Lab Sample ID: LCSD 600-307723/3-A

Matrix: Water

Analysis Batch: 307710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 307723

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	1.00	1.168		mg/L		117	70 - 130	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	89		60 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 600-307905/1-A

Matrix: Solid

Analysis Batch: 307871

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307905

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.71	U	8.30	1.71	mg/Kg		12/01/20 08:29	12/02/20 04:17	1
Oil Range Organics (C28-C35)	5.00	U	8.30	5.00	mg/Kg		12/01/20 08:29	12/02/20 04:17	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	121		60 - 140				12/01/20 08:29	12/02/20 04:17	1

Lab Sample ID: LCS 600-307905/2-A

Matrix: Solid

Analysis Batch: 307871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307905

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.8	65.61		mg/Kg		98	66 - 134
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl	132		60 - 140				

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-307800/1-A

Matrix: Solid

Analysis Batch: 307831

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307800

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.002000	J	0.0100	0.00129	mg/L		11/27/20 06:00	11/27/20 12:41	1
Arsenic	0.00466	U	0.0100	0.00466	mg/L		11/27/20 06:00	11/27/20 12:41	1
Barium	0.00162	U	0.0200	0.00162	mg/L		11/27/20 06:00	11/27/20 12:41	1
Cadmium	0.00111	U	0.00500	0.00111	mg/L		11/27/20 06:00	11/27/20 12:41	1
Chromium	0.00159	U	0.0100	0.00159	mg/L		11/27/20 06:00	11/27/20 12:41	1
Lead	0.00219	U	0.0100	0.00219	mg/L		11/27/20 06:00	11/27/20 12:41	1
Selenium	0.00589	U	0.0400	0.00589	mg/L		11/27/20 06:00	11/27/20 12:41	1

Lab Sample ID: LCS 600-307800/2-A

Matrix: Solid

Analysis Batch: 307831

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.250	0.2578		mg/L		103	80 - 120
Arsenic	1.00	0.9989		mg/L		100	80 - 120
Barium	1.00	1.092		mg/L		109	80 - 120
Cadmium	1.00	1.017		mg/L		102	80 - 120
Chromium	1.00	1.020		mg/L		102	80 - 120
Lead	1.00	0.9770		mg/L		98	80 - 120
Selenium	1.00	1.027		mg/L		103	80 - 120

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QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 600-307748/1-B

Matrix: Water

Analysis Batch: 307831

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 307800

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.01600	J	0.100	0.0129	mg/L		11/27/20 06:00	11/27/20 12:45	1
Arsenic	0.0466	U	0.100	0.0466	mg/L		11/27/20 06:00	11/27/20 12:45	1
Barium	0.01900	J	0.200	0.0162	mg/L		11/27/20 06:00	11/27/20 12:45	1
Cadmium	0.0111	U	0.0500	0.0111	mg/L		11/27/20 06:00	11/27/20 12:45	1
Chromium	0.0159	U	0.100	0.0159	mg/L		11/27/20 06:00	11/27/20 12:45	1
Lead	0.0219	U	0.100	0.0219	mg/L		11/27/20 06:00	11/27/20 12:45	1
Selenium	0.0589	U	0.400	0.0589	mg/L		11/27/20 06:00	11/27/20 12:45	1

Lab Sample ID: LB 600-307752/1-B

Matrix: Solid

Analysis Batch: 307831

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 307800

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0129	U	0.100	0.0129	mg/L		11/27/20 06:00	11/27/20 13:59	1
Arsenic	0.0466	U	0.100	0.0466	mg/L		11/27/20 06:00	11/27/20 13:59	1
Barium	0.0162	U	0.200	0.0162	mg/L		11/27/20 06:00	11/27/20 13:59	1
Cadmium	0.0111	U	0.0500	0.0111	mg/L		11/27/20 06:00	11/27/20 13:59	1
Chromium	0.0159	U	0.100	0.0159	mg/L		11/27/20 06:00	11/27/20 13:59	1
Lead	0.0219	U	0.100	0.0219	mg/L		11/27/20 06:00	11/27/20 13:59	1
Selenium	0.0589	U	0.400	0.0589	mg/L		11/27/20 06:00	11/27/20 13:59	1

Lab Sample ID: 600-213947-1 MS

Matrix: Water

Analysis Batch: 307831

Client Sample ID: Pardue Farms 27-12 Purge Water

Prep Type: TCLP

Prep Batch: 307800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0140	J B	2.50	2.669		mg/L		106	75 - 125
Arsenic	0.0466	U	10.0	10.48		mg/L		105	75 - 125
Barium	0.228	B	10.0	11.17		mg/L		109	75 - 125
Cadmium	0.0111	U	10.0	10.41		mg/L		104	75 - 125
Chromium	0.0159	U	10.0	10.29		mg/L		103	75 - 125
Lead	0.0219	U	10.0	10.03		mg/L		100	75 - 125
Selenium	0.0589	U	10.0	10.62		mg/L		106	75 - 125

Lab Sample ID: 600-213947-2 MS

Matrix: Solid

Analysis Batch: 307831

Client Sample ID: Pardue Farms 27-12 Comp IDW

Prep Type: TCLP

Prep Batch: 307800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0129	U	2.50	2.653		mg/L		106	75 - 125
Arsenic	0.0466	U	10.0	10.36		mg/L		104	75 - 125
Barium	0.338		10.0	11.35		mg/L		110	75 - 125
Cadmium	0.0111	U	10.0	10.43		mg/L		104	75 - 125
Chromium	0.0159	U	10.0	10.37		mg/L		104	75 - 125
Lead	0.0219	U	10.0	9.852		mg/L		99	75 - 125
Selenium	0.0589	U	10.0	10.59		mg/L		106	75 - 125

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-213947-2 DU

Matrix: Solid

Analysis Batch: 307831

Client Sample ID: Pardue Farms 27-12 Comp IDW

Prep Type: TCLP

Prep Batch: 307800

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Silver	0.0129	U	0.0129	U	mg/L		NC	20
Arsenic	0.0466	U	0.0466	U	mg/L		NC	20
Barium	0.338		0.3250		mg/L		4	20
Cadmium	0.0111	U	0.0111	U	mg/L		NC	20
Chromium	0.0159	U	0.0159	U	mg/L		NC	20
Lead	0.0219	U	0.0219	U	mg/L		NC	20
Selenium	0.0589	U	0.0589	U	mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-307805/7-A

Matrix: Solid

Analysis Batch: 307884

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307805

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.000103	U	0.000250	0.000103	mg/L		11/27/20 07:56	11/30/20 12:14	1

Lab Sample ID: LCS 600-307805/8-A

Matrix: Solid

Analysis Batch: 307884

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00375	0.003682		mg/L		98	70 - 130

Lab Sample ID: LB 600-307748/1-C

Matrix: Water

Analysis Batch: 307884

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 307805

Analyte	LB	LB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.000103	U	0.000250	0.000103	mg/L		11/27/20 07:56	11/30/20 12:18	1

Lab Sample ID: LB 600-307752/1-C

Matrix: Solid

Analysis Batch: 307884

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 307805

Analyte	LB	LB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.0001388	J	0.000250	0.000103	mg/L		11/27/20 07:56	11/30/20 12:33	1

Lab Sample ID: 600-213947-1 MS

Matrix: Water

Analysis Batch: 307884

Client Sample ID: Pardue Farms 27-12 Purge Water

Prep Type: TCLP

Prep Batch: 307805

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Mercury	0.000103	U F1	0.00375	0.002609	F1	mg/L		70	75 - 125

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 600-213947-2 MS

Matrix: Solid

Analysis Batch: 307884

Client Sample ID: Pardue Farms 27-12 Comp IDW

Prep Type: TCLP

Prep Batch: 307805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000103	U	0.00375	0.003754		mg/L		100	75 - 125

Lab Sample ID: 600-213947-1 DU

Matrix: Water

Analysis Batch: 307884

Client Sample ID: Pardue Farms 27-12 Purge Water

Prep Type: TCLP

Prep Batch: 307805

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.000103	U F1	0.000103	U	mg/L		NC	20

Method: 1010 - Flashpoint

Lab Sample ID: MB 600-307846/1

Matrix: Water

Analysis Batch: 307846

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>150.0		1.00	1.00	Degrees F			11/28/20 17:10	1

Lab Sample ID: LCS 600-307846/2

Matrix: Water

Analysis Batch: 307846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	82.00		Degrees F		101	97 - 103

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 600-307784/1

Matrix: Water

Analysis Batch: 307784

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			11/25/20 14:24	1

Lab Sample ID: LCS 600-307784/2

Matrix: Water

Analysis Batch: 307784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1803		mg/L		100	90 - 110

Lab Sample ID: MB 600-307785/1

Matrix: Water

Analysis Batch: 307785

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			11/25/20 14:26	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: LCS 600-307785/2

Matrix: Water

Analysis Batch: 307785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1702		mg/L		95	90 - 110

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 560-180838/3

Matrix: Water

Analysis Batch: 180838

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.192	U	1.00	0.192	mg/L			11/27/20 12:52	1

Lab Sample ID: LCS 560-180838/4

Matrix: Water

Analysis Batch: 180838

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.24		mg/L		102	90 - 110

Method: 9040B - Corrosivity as pH

Lab Sample ID: LCS 600-307948/1

Matrix: Water

Analysis Batch: 307948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	6.9		SU		99	99 - 101

Method: 9045C - Corrosivity

Lab Sample ID: LCS 600-307886/1

Matrix: Solid

Analysis Batch: 307886

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Method: D92 - Flashpoint

Lab Sample ID: LCS 560-181536/1

Matrix: Solid

Analysis Batch: 181536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	82.00		Degrees F		101	88 - 112

Eurofins TestAmerica, Houston

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	MQL	MDL	Units
Benzene	0.00500	0.000560	mg/L
Ethylbenzene	0.00500	0.00129	mg/L
Toluene	0.00500	0.000550	mg/L
Xylenes, Total	0.00500	0.00198	mg/L

Method: 8260C - Volatile Organic Compounds by GC/MS

Prep: 5030C

Analyte	MQL	MDL	Units
Benzene	0.00500	0.000630	mg/Kg
Ethylbenzene	0.00500	0.00102	mg/Kg
Toluene	0.00500	0.00138	mg/Kg
Xylenes, Total	0.00500	0.00113	mg/Kg

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	100	49.2	ug/L

Method: 8015B - Gasoline Range Organics - (GC)

Prep: 5030A

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	100	64.2	ug/Kg

Method: 8015D - Diesel Range Organics (DRO) (GC)

Prep: 3510C

Analyte	MQL	MDL	Units
Diesel Range Organics [C10-C28]	0.250	0.0450	mg/L
Oil Range Organics (C28-C35)	0.250	0.150	mg/L

Method: 8015D - Diesel Range Organics (DRO) (GC)

Prep: 3546

Analyte	MQL	MDL	Units
Diesel Range Organics [C10-C28]	8.30	1.71	mg/Kg
Oil Range Organics (C28-C35)	8.30	5.00	mg/Kg

Method: 6010B - Metals (ICP) - TCLP

Prep: 3010A

Leach: 1311

Analyte	MQL	MDL	Units
Arsenic	0.0100	0.00466	mg/L
Barium	0.0200	0.00162	mg/L
Cadmium	0.00500	0.00111	mg/L
Chromium	0.0100	0.00159	mg/L
Lead	0.0100	0.00219	mg/L
Selenium	0.0400	0.00589	mg/L
Silver	0.0100	0.00129	mg/L

Method: 7470A - Mercury (CVAA) - TCLP

Prep: 7470A

Leach: 1311

Analyte	MQL	MDL	Units
Mercury	0.000200	0.0000820	mg/L

Eurofins TestAmerica, Houston

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213947-1

General Chemistry

Analyte	MQL	MDL	Units
Flashpoint	1.00	1.00	Degrees F
Total Dissolved Solids	10.0	10.0	mg/L
Chloride	1.00	0.192	mg/L
pH	0.01	0.01	SU
pH	0.01	0.01	SU
Flashpoint	70.0	70.0	Degrees F

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

GC/MS VOA

Analysis Batch: 307642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	8260C	307681
MB 600-307642/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-307642/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-307642/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Prep Batch: 307681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	5030C	

Analysis Batch: 307717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	Total/NA	Water	8260C	
600-213947-3	MW-6-WD-201119	Total/NA	Water	8260C	
600-213947-4	MW-2-W-201119	Total/NA	Water	8260C	
600-213947-5	MW-1-W-201119	Total/NA	Water	8260C	
MB 600-307717/7	Method Blank	Total/NA	Water	8260C	
LCS 600-307717/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 600-307717/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Prep Batch: 462898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	5030A	
MB 240-462898/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 240-462898/2-A	Lab Control Sample	Total/NA	Solid	5030A	

Analysis Batch: 462905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-462898/1-A	Method Blank	Total/NA	Solid	8015B	462898
LCS 240-462898/2-A	Lab Control Sample	Total/NA	Solid	8015B	462898

Analysis Batch: 462906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	8015B	462898
MB 240-462898/1-A	Method Blank	Total/NA	Solid	8015B	462898
LCS 240-462898/2-A	Lab Control Sample	Total/NA	Solid	8015B	462898

Analysis Batch: 463064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-463064/4	Method Blank	Total/NA	Water	8015B	
LCS 240-463064/5	Lab Control Sample	Total/NA	Water	8015B	

Analysis Batch: 463065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	Total/NA	Water	8015B	
600-213947-3	MW-6-WD-201119	Total/NA	Water	8015B	
600-213947-4	MW-2-W-201119	Total/NA	Water	8015B	
600-213947-5	MW-1-W-201119	Total/NA	Water	8015B	
MB 240-463065/4	Method Blank	Total/NA	Water	8015B	
LCS 240-463065/5	Lab Control Sample	Total/NA	Water	8015B	

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QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

GC Semi VOA

Analysis Batch: 307710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	Total/NA	Water	8015D	307723
600-213947-3	MW-6-WD-201119	Total/NA	Water	8015D	307723
600-213947-4	MW-2-W-201119	Total/NA	Water	8015D	307723
600-213947-5	MW-1-W-201119	Total/NA	Water	8015D	307723
MB 600-307723/1-A	Method Blank	Total/NA	Water	8015D	307723
LCS 600-307723/2-A	Lab Control Sample	Total/NA	Water	8015D	307723
LCSD 600-307723/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	307723

Prep Batch: 307723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	Total/NA	Water	3510C	
600-213947-3	MW-6-WD-201119	Total/NA	Water	3510C	
600-213947-4	MW-2-W-201119	Total/NA	Water	3510C	
600-213947-5	MW-1-W-201119	Total/NA	Water	3510C	
MB 600-307723/1-A	Method Blank	Total/NA	Water	3510C	
LCS 600-307723/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-307723/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 307871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	8015D	307905
MB 600-307905/1-A	Method Blank	Total/NA	Solid	8015D	307905
LCS 600-307905/2-A	Lab Control Sample	Total/NA	Solid	8015D	307905

Prep Batch: 307905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	3546	
MB 600-307905/1-A	Method Blank	Total/NA	Solid	3546	
LCS 600-307905/2-A	Lab Control Sample	Total/NA	Solid	3546	

Metals

Leach Batch: 307748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	TCLP	Water	1311	
LB 600-307748/1-B	Method Blank	TCLP	Water	1311	
LB 600-307748/1-C	Method Blank	TCLP	Water	1311	
600-213947-1 MS	Pardue Farms 27-12 Purge Water	TCLP	Water	1311	
600-213947-1 DU	Pardue Farms 27-12 Purge Water	TCLP	Water	1311	

Leach Batch: 307752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	TCLP	Solid	1311	
LB 600-307752/1-B	Method Blank	TCLP	Solid	1311	
LB 600-307752/1-C	Method Blank	TCLP	Solid	1311	
600-213947-2 MS	Pardue Farms 27-12 Comp IDW	TCLP	Solid	1311	
600-213947-2 DU	Pardue Farms 27-12 Comp IDW	TCLP	Solid	1311	

Prep Batch: 307800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	TCLP	Water	3010A	307748

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QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Metals (Continued)

Prep Batch: 307800 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	TCLP	Solid	3010A	307752
LB 600-307748/1-B	Method Blank	TCLP	Water	3010A	307748
LB 600-307752/1-B	Method Blank	TCLP	Solid	3010A	307752
MB 600-307800/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 600-307800/2-A	Lab Control Sample	Total/NA	Solid	3010A	
600-213947-1 MS	Pardue Farms 27-12 Purge Water	TCLP	Water	3010A	307748
600-213947-2 MS	Pardue Farms 27-12 Comp IDW	TCLP	Solid	3010A	307752
600-213947-2 DU	Pardue Farms 27-12 Comp IDW	TCLP	Solid	3010A	307752

Prep Batch: 307805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	TCLP	Water	7470A	307748
600-213947-2	Pardue Farms 27-12 Comp IDW	TCLP	Solid	7470A	307752
LB 600-307748/1-C	Method Blank	TCLP	Water	7470A	307748
LB 600-307752/1-C	Method Blank	TCLP	Solid	7470A	307752
MB 600-307805/7-A	Method Blank	Total/NA	Solid	7470A	
LCS 600-307805/8-A	Lab Control Sample	Total/NA	Solid	7470A	
600-213947-1 MS	Pardue Farms 27-12 Purge Water	TCLP	Water	7470A	307748
600-213947-2 MS	Pardue Farms 27-12 Comp IDW	TCLP	Solid	7470A	307752
600-213947-1 DU	Pardue Farms 27-12 Purge Water	TCLP	Water	7470A	307748

Analysis Batch: 307831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	TCLP	Water	6010B	307800
600-213947-2	Pardue Farms 27-12 Comp IDW	TCLP	Solid	6010B	307800
LB 600-307748/1-B	Method Blank	TCLP	Water	6010B	307800
LB 600-307752/1-B	Method Blank	TCLP	Solid	6010B	307800
MB 600-307800/1-A	Method Blank	Total/NA	Solid	6010B	307800
LCS 600-307800/2-A	Lab Control Sample	Total/NA	Solid	6010B	307800
600-213947-1 MS	Pardue Farms 27-12 Purge Water	TCLP	Water	6010B	307800
600-213947-2 MS	Pardue Farms 27-12 Comp IDW	TCLP	Solid	6010B	307800
600-213947-2 DU	Pardue Farms 27-12 Comp IDW	TCLP	Solid	6010B	307800

Analysis Batch: 307884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	TCLP	Water	7470A	307805
600-213947-2	Pardue Farms 27-12 Comp IDW	TCLP	Solid	7470A	307805
LB 600-307748/1-C	Method Blank	TCLP	Water	7470A	307805
LB 600-307752/1-C	Method Blank	TCLP	Solid	7470A	307805
MB 600-307805/7-A	Method Blank	Total/NA	Solid	7470A	307805
LCS 600-307805/8-A	Lab Control Sample	Total/NA	Solid	7470A	307805
600-213947-1 MS	Pardue Farms 27-12 Purge Water	TCLP	Water	7470A	307805
600-213947-2 MS	Pardue Farms 27-12 Comp IDW	TCLP	Solid	7470A	307805
600-213947-1 DU	Pardue Farms 27-12 Purge Water	TCLP	Water	7470A	307805

General Chemistry

Analysis Batch: 180838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-3	MW-6-WD-201119	Total/NA	Water	300.0	
600-213947-4	MW-2-W-201119	Total/NA	Water	300.0	

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QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

General Chemistry (Continued)

Analysis Batch: 180838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-5	MW-1-W-201119	Total/NA	Water	300.0	
MB 560-180838/3	Method Blank	Total/NA	Water	300.0	
LCS 560-180838/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 181536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	D92	
LCS 560-181536/1	Lab Control Sample	Total/NA	Solid	D92	

Analysis Batch: 307784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-4	MW-2-W-201119	Total/NA	Water	2540 C-1997	
MB 600-307784/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-307784/2	Lab Control Sample	Total/NA	Water	2540 C-1997	

Analysis Batch: 307785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-3	MW-6-WD-201119	Total/NA	Water	2540 C-1997	
600-213947-5	MW-1-W-201119	Total/NA	Water	2540 C-1997	
MB 600-307785/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-307785/2	Lab Control Sample	Total/NA	Water	2540 C-1997	

Analysis Batch: 307846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	Total/NA	Water	1010	
MB 600-307846/1	Method Blank	Total/NA	Water	1010	
LCS 600-307846/2	Lab Control Sample	Total/NA	Water	1010	

Analysis Batch: 307886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-2	Pardue Farms 27-12 Comp IDW	Total/NA	Solid	9045C	
LCS 600-307886/1	Lab Control Sample	Total/NA	Solid	9045C	

Analysis Batch: 307948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213947-1	Pardue Farms 27-12 Purge Water	Total/NA	Water	9040B	
LCS 600-307948/1	Lab Control Sample	Total/NA	Water	9040B	

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Lab Chronicle

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: Pardue Farms 27-12 Purge Water

Lab Sample ID: 600-213947-1

Date Collected: 11/19/20 13:14

Matrix: Water

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307717	11/24/20 22:30	KLV	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/27/20 23:39	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307710	11/25/20 11:43	RJV	TAL HOU
TCLP	Leach	1311			307748	11/24/20 17:00		TAL HOU
TCLP	Prep	3010A			307800	11/27/20 06:00	KP1	TAL HOU
TCLP	Analysis	6010B		1	307831	11/27/20 13:41	KP1	TAL HOU
TCLP	Leach	1311			307748	11/24/20 17:00		TAL HOU
TCLP	Prep	7470A			307805	11/27/20 07:56	SOT	TAL HOU
TCLP	Analysis	7470A		1	307884	11/30/20 12:21	SOT	TAL HOU
Total/NA	Analysis	1010		1	307846	11/28/20 17:10	ANP	TAL HOU
Total/NA	Analysis	9040B		1	307948	12/02/20 10:59	A1K	TAL HOU

Client Sample ID: Pardue Farms 27-12 Comp IDW

Lab Sample ID: 600-213947-2

Date Collected: 11/19/20 13:04

Matrix: Solid

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307681	11/23/20 14:52		TAL HOU
Total/NA	Analysis	8260C		1	307642	11/23/20 15:21	WS1	TAL HOU
Total/NA	Prep	5030A			462898	11/25/20 18:59	MBB	TAL CAN
Total/NA	Analysis	8015B		1	462906	11/26/20 15:03	MBB	TAL CAN
Total/NA	Prep	3546			307905	12/01/20 08:29		TAL HOU
Total/NA	Analysis	8015D		1	307871	12/02/20 14:47	RJV	TAL HOU
TCLP	Leach	1311			307752	11/24/20 17:00		TAL HOU
TCLP	Prep	3010A			307800	11/27/20 06:00	KP1	TAL HOU
TCLP	Analysis	6010B		1	307831	11/27/20 14:02	KP1	TAL HOU
TCLP	Leach	1311			307752	11/24/20 17:00		TAL HOU
TCLP	Prep	7470A			307805	11/27/20 07:56	SOT	TAL HOU
TCLP	Analysis	7470A		1	307884	11/30/20 12:39	SOT	TAL HOU
Total/NA	Analysis	9045C		1	307886	11/30/20 13:15	A1K	TAL HOU
Total/NA	Analysis	D92		1	181536	12/21/20 16:00	LDK	TAL CC

Client Sample ID: MW-6-WD-201119

Lab Sample ID: 600-213947-3

Date Collected: 11/19/20 00:00

Matrix: Water

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307717	11/24/20 22:55	KLV	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 00:18	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307710	11/25/20 10:05	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307785	11/25/20 14:26	KRD	TAL HOU
Total/NA	Analysis	300.0		1000	180838	11/28/20 00:44	JEM	TAL CC

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213947-1

Client Sample ID: MW-2-W-201119
Date Collected: 11/19/20 12:20
Date Received: 11/20/20 09:13

Lab Sample ID: 600-213947-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307717	11/24/20 23:19	KLK	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 00:56	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307710	11/25/20 10:37	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307784	11/25/20 14:24	KRD	TAL HOU
Total/NA	Analysis	300.0		1000	180838	11/27/20 23:36	JEM	TAL CC

Client Sample ID: MW-1-W-201119
Date Collected: 11/19/20 11:09
Date Received: 11/20/20 09:13

Lab Sample ID: 600-213947-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307717	11/24/20 23:42	KLK	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 01:35	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307710	11/25/20 11:10	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307785	11/25/20 14:26	KRD	TAL HOU
Total/NA	Analysis	300.0		1000	180838	11/28/20 00:10	JEM	TAL CC

Laboratory References:
TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673
TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213947-1

Project/Site: Chevron Pardue Farms 27-12

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-20-28	11-01-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	3510C	Water	Oil Range Organics (C28-C35)
8015D	3546	Solid	Oil Range Organics (C28-C35)

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

Laboratory: Eurofins TestAmerica, Corpus Christi

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05094	06-30-21
Oklahoma	State	2020-006	08-31-21
Texas	NELAP	T104704210-19-23	03-31-21
USDA	US Federal Programs	P330-18-00314	10-31-21

Eurofins TestAmerica, Houston

Chain of Custody Record



Client Information		Sampler: J. Steinmann		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		COO No: 600-79929-21574 2	
Client Contact: Ryan Nanny		Phone: 6019 848 792		E-Mail: Sachin.Kudchadkar@Eurofinset.com		Page: 2 of 2		Job # 101	
Company: ARCADIS U.S., Inc.		Address: 1004 North Big Spring Suite 121		City: Midland		State, Zip: TX, 79701		Phone: 432-684-5400(Tel) 432-687-5401(Fax)	
Email: ryan.nanny@arcadis.com		Project Name: Chevron Pardue Farms 27-12		Project #: 60012812		SSOW#: 60012812		Due Date Requested: TAT Requested (days):	
Site: Pardue Farms		Sample Date: 11/19/20		Sample Time: 1314		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Pardue Farms 27-12 Purge Water		Sample Date: 11/19/20		Sample Time: 1304		Sample Type (C=Comp, G=grab): C		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: MW-G-WD-201119		Sample Date: 11/19/20		Sample Time: 1220		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: MW-2-W-201119		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification: Temp Blank		Sample Date: 11/19/20		Sample Time: 1109		Sample Type (C=Comp, G=grab): G		Matrix (W=Water, S=Solid, O=Other): Solid	
Sample Identification									

Loc: 600

213947

20 NOV 20 9:13

Eurofins TestAmerica Houston

Environment Testing
TestAmerica

Sample Receipt Checklist

JOB NUMBER: _____

Date/Time Received: 11/20/20 9:13CLIENT: AccadisUNPACKED BY: ToCARRIER/DRIVER: FedExCustody Seal Present: ☒ YES ☐ NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
8587	(Y) / N	Y / (N)	2.6	681	+0.1	2.7
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are >pH 12: ☐ YES ☐ NOAcid preserved are <pH 2: ☐ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES

DATE & TIME PUT IN FREEZER: _____

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES ☐ NO

COMMENTS:

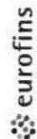
HS-SA-WI-013

Rev. 4A; 08/26/2019

Eurofins TestAmerica, Houston

6310 Rohlway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
America



Client Information (Sub Contract Lab) Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 4101 Shuffel Street NW, City: North Canton State Zip: OH, 44720 Phone: 330-497-9396(Tel) 330-497-0772(Fax) Email: Project Name: Chevron Pardue Farms 27-12 Site:		Sampler: Lab PM: Kudchadkar, Sachin G E-Mail: Sachin.Kudchadkar@Eurofinset.com Accreditations Required (See note): NELAP - Texas		Carrier Tracking No(s): 600-47873.1 State of Origin: Texas Page 1 of 1 Job #: 600-213947-1	
Due Date Requested: 12/4/2020 TAT Requested (days): PO #: WO #: Project #: 60012812 SSOW#:		Analysis Requested A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Sample Identification - Client ID (Lab ID)		Total Number of Containers			
Pardue Farms 27-12 Purge Water (600-213947-1)		Perform MS/MSD (Yes or No)		8015B_GRO/50308_Gasoline Range Organics [C6-C10]	
Pardue Farms 27-12 Comp IDW (600-213947-2)		Field Filtered Sample (Yes or No)		8015B_GRO/50308_SolidNAC Gasoline Range	
MW-6-WD-201119 (600-213947-3)		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)	
MW-2-W-201119 (600-213947-4)		Sample Time		Preservation Code:	
MW-1-W-201119 (600-213947-5)		Sample Date		Special Instructions/Note:	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.		Special Instructions/Note:			
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by:		Date/Time:			
Relinquished by:		Date/Time:			
Relinquished by:		Date/Time:			
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:			

Ver: 11/01/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Canton Facility				Login # : _____
Client <u>TA Houston</u>		Site Name _____		Cooler unpacked by: <u>Adam J. [Signature]</u>
Cooler Received on <u>11-25-20</u>		Opened on <u>11-25-20</u>		
FedEx: 1 st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____				
Receipt After-hours: Drop-off Date/Time _____			Storage Location _____	
TestAmerica Cooler # <u>TA</u> Foam Box Client Cooler Box Other _____ Packing material used: <u>Bubble Wrap</u> Foam Plastic Bag None Other _____ COOLANT: <u>Wet Ice</u> Blue Ice Dry Ice Water None _____				
1. Cooler temperature upon receipt <input type="checkbox"/> See Multiple Cooler Form IR GUN# IR-11 (CF +0.9 °C) Observed Cooler Temp. <u>0-9</u> °C Corrected Cooler Temp. <u>1-0</u> °C IR GUN #IR-12 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C				
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u> <input checked="" type="radio"/> Yes <input type="radio"/> No - Were the seals on the outside of the cooler(s) signed & dated? <input checked="" type="radio"/> Yes <input type="radio"/> No NA - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? <input checked="" type="radio"/> Yes <input type="radio"/> No NA - Were tamper/custody seals intact and uncompromised? <input checked="" type="radio"/> Yes <input type="radio"/> No NA				
3. Shippers' packing slip attached to the cooler(s)? <input checked="" type="radio"/> Yes <input type="radio"/> No 4. Did custody papers accompany the sample(s)? <input checked="" type="radio"/> Yes <input type="radio"/> No 5. Were the custody papers relinquished & signed in the appropriate place? <input checked="" type="radio"/> Yes <input type="radio"/> No 6. Was/were the person(s) who collected the samples clearly identified on the COC? <input checked="" type="radio"/> Yes <input type="radio"/> No 7. Did all bottles arrive in good condition (Unbroken)? <input checked="" type="radio"/> Yes <input type="radio"/> No 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? <input checked="" type="radio"/> Yes <input type="radio"/> No 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? <input checked="" type="radio"/> Yes <input type="radio"/> No 10. Were correct bottle(s) used for the test(s) indicated? <input checked="" type="radio"/> Yes <input type="radio"/> No 11. Sufficient quantity received to perform indicated analyses? <input checked="" type="radio"/> Yes <input type="radio"/> No 12. Are these work share samples and all listed on the COC? <input checked="" type="radio"/> Yes <input type="radio"/> No If yes, Questions 13-17 have been checked at the originating laboratory.				
13. Were all preserved sample(s) at the correct pH upon receipt? <input checked="" type="radio"/> Yes <input type="radio"/> No NA pH Strip Lot# <u>HC907861</u> 14. Were VOAs on the COC? <input checked="" type="radio"/> Yes <input type="radio"/> No 15. Were air bubbles >6 mm in any VOA vials? <input checked="" type="radio"/> Yes <input type="radio"/> No NA Larger than this. 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ <input checked="" type="radio"/> Yes <input type="radio"/> No 17. Was a LL Hg or Me Hg trip blank present? _____ <input checked="" type="radio"/> Yes <input type="radio"/> No				
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____ Concerning _____				
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES <input type="checkbox"/> additional next page Samples processed by: _____ _____ _____ _____				
19. SAMPLE CONDITION Sample(s) _____ were received after the recommended holding time had expired. Sample(s) _____ were received in a broken container. Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)				
20. SAMPLE PRESERVATION Sample(s) _____ were further preserved in the laboratory. Time preserved: _____ Preservative(s) added/Lot number(s): _____ VOA Sample Preservation - Date/Time VOAs Frozen: _____				

WT-NC-099



Client Information (Sub Contract Lab)				Sampler: Kudchadkar, Sachin G Lab PM: Kudchadkar, Sachin G Phone: Sachin.Kudchadkar@Eurofinset.com E-Mail: Sachin.Kudchadkar@Eurofinset.com State of Origin: Texas Carrier Tracking No(s): 600-47878.1 COC No: 600-47878.1	
Company: TestAmerica Laboratories, Inc. Address: 1733 N. Padre Island Drive, City: Corpus Christi State, Zip: TX, 78408 Phone: 361-289-2673(Tel) 361-289-2471(Fax) Email: Project Name: Chevron Pardue Farms 27-12 Site: 				Job #: 600-213947-1 Accreditations Required (See note): NELAP - Texas Page: Page 1 of 1	
Analysis Requested				Preservation Codes:	
Due Date Requested: 12/4/2020				Field Filtered Sample (Yes or No)	
TAT Requested (days):				Perform MS/MSD (Yes or No)	
PO #:				300	
WO #:				300	
Project #: 60012812				Field Filtered Sample (Yes or No)	
SSOW#:				300	
Sample Identification - Client ID (Lab ID)				Special Instructions/Note:	
Sample Date				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time				Sample Type (C=Comp, G=grab)	
Sample Time				Preservation Code:	
Sample Time				Matrix	
Sample Time					

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213947-1

Login Number: 213947

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Olson, Troy 1

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	2.6
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213947-1

Login Number: 213947

List Source: Eurofins TestAmerica, Corpus Christi

List Number: 2

List Creation: 11/25/20 11:33 AM

Creator: Sanchez, Allyse A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213947-1

Login Number: 213947

List Source: Eurofins TestAmerica, Corpus Christi

List Number: 4

List Creation: 12/16/20 01:00 PM

Creator: Cooper, Jenna L

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



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 600-213950-1

Client Project/Site: Chevron Pardue Farms 11/19/20

For:

ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Ryan Nanny

Authorized for release by:
12/7/2020 10:26:06 AM

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

Sachin.Kudchadkar@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 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.

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 11/19/20

Laboratory Job ID: 600-213950-1

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Method Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL HOU
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
2540 C-1997	Total Dissolved Solids (Dried at 180 °C)	SM	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL CC
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 11/19/20

Job ID: 600-213950-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-213950-1	MW-6-W-201119	Water	11/19/20 09:45	11/20/20 09:13	
600-213950-2	MW-6-WF-201119	Water	11/19/20 07:10	11/20/20 09:13	
600-213950-3	MW-6-WE-201119	Water	11/19/20 07:20	11/20/20 09:13	
600-213950-4	MW-3-W-201119	Water	11/19/20 08:25	11/20/20 09:13	

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Client Sample ID: MW-6-W-201119

Lab Sample ID: 600-213950-1

Date Collected: 11/19/20 09:45

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			11/25/20 19:10	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			11/25/20 19:10	1
Toluene	0.550	U	5.00	0.550	ug/L			11/25/20 19:10	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			11/25/20 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		11/25/20 19:10	1
4-Bromofluorobenzene	103		67 - 139		11/25/20 19:10	1
Dibromofluoromethane	109		62 - 130		11/25/20 19:10	1
Toluene-d8 (Surr)	99		70 - 130		11/25/20 19:10	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	96		63 - 125		11/28/20 02:14	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0914	J	0.250	0.0450	mg/L		11/24/20 13:21	11/27/20 08:01	1
C28-C36	0.293		0.250	0.150	mg/L		11/24/20 13:21	11/27/20 08:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		60 - 140	11/24/20 13:21	11/27/20 08:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18800		200	200	mg/L			11/25/20 14:24	1
Chloride	10800		1000	192	mg/L			11/27/20 23:02	1000

Client Sample ID: MW-6-WF-201119

Lab Sample ID: 600-213950-2

Date Collected: 11/19/20 07:10

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			11/25/20 19:35	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			11/25/20 19:35	1
Toluene	0.550	U	5.00	0.550	ug/L			11/25/20 19:35	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			11/25/20 19:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		11/25/20 19:35	1
4-Bromofluorobenzene	98		67 - 139		11/25/20 19:35	1
Dibromofluoromethane	101		62 - 130		11/25/20 19:35	1
Toluene-d8 (Surr)	98		70 - 130		11/25/20 19:35	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 02:52	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Client Sample ID: MW-6-WF-201119

Lab Sample ID: 600-213950-2

Date Collected: 11/19/20 07:10

Matrix: Water

Date Received: 11/20/20 09:13

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		63 - 125					11/28/20 02:52	1
Method: 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		11/24/20 13:21	11/25/20 21:00	1
C28-C36	0.218	J	0.250	0.150	mg/L		11/24/20 13:21	11/25/20 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	107		60 - 140				11/24/20 13:21	11/25/20 21:00	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			11/25/20 14:24	1
Chloride	1.92	U	10.0	1.92	mg/L			11/27/20 22:29	10

Client Sample ID: MW-6-WE-201119

Lab Sample ID: 600-213950-3

Date Collected: 11/19/20 07:20

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			11/25/20 19:59	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			11/25/20 19:59	1
Toluene	0.550	U	5.00	0.550	ug/L			11/25/20 19:59	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			11/25/20 19:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					11/25/20 19:59	1
4-Bromofluorobenzene	104		67 - 139					11/25/20 19:59	1
Dibromofluoromethane	113		62 - 130					11/25/20 19:59	1
Toluene-d8 (Surr)	106		70 - 130					11/25/20 19:59	1
Method: 8015B - Gasoline Range Organics - (GC)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 03:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	90		63 - 125					11/28/20 03:31	1
Method: 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.101	J	0.250	0.0450	mg/L		11/24/20 13:21	11/27/20 08:34	1
C28-C36	0.302		0.250	0.150	mg/L		11/24/20 13:21	11/27/20 08:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	109		60 - 140				11/24/20 13:21	11/27/20 08:34	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			11/25/20 14:24	1
Chloride	1.92	U	10.0	1.92	mg/L			11/27/20 21:55	10

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Client Sample ID: MW-3-W-201119

Lab Sample ID: 600-213950-4

Date Collected: 11/19/20 08:25

Matrix: Water

Date Received: 11/20/20 09:13

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			11/25/20 20:23	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			11/25/20 20:23	1
Toluene	0.550	U	5.00	0.550	ug/L			11/25/20 20:23	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			11/25/20 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		11/25/20 20:23	1
4-Bromofluorobenzene	92		67 - 139		11/25/20 20:23	1
Dibromofluoromethane	95		62 - 130		11/25/20 20:23	1
Toluene-d8 (Surr)	91		70 - 130		11/25/20 20:23	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/28/20 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	87		63 - 125		11/28/20 04:10	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		11/24/20 13:21	11/25/20 22:05	1
C28-C36	0.256		0.250	0.150	mg/L		11/24/20 13:21	11/25/20 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	115		60 - 140	11/24/20 13:21	11/25/20 22:05	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14100		200	200	mg/L			11/25/20 14:26	1
Chloride	6680		1000	192	mg/L			12/02/20 07:50	1000

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 11/19/20

Job ID: 600-213950-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Surrogate Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-213950-1	MW-6-W-201119	98	103	109	99
600-213950-2	MW-6-WF-201119	96	98	101	98
600-213950-3	MW-6-WE-201119	104	104	113	106
600-213950-4	MW-3-W-201119	91	92	95	91
LCS 600-307771/10	Lab Control Sample	97	110	107	97
LCSD 600-307771/11	Lab Control Sample Dup	92	101	101	93
MB 600-307771/15	Method Blank	97	97	103	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT1 (63-125)
600-213950-1	MW-6-W-201119	96
600-213950-2	MW-6-WF-201119	88
600-213950-3	MW-6-WE-201119	90
600-213950-4	MW-3-W-201119	87
LCS 240-463064/5	Lab Control Sample	98
LCS 240-463065/5	Lab Control Sample	98
MB 240-463064/4	Method Blank	88
MB 240-463065/4	Method Blank	88

Surrogate Legend

TFT = Trifluorotoluene (Surr)

Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH (60-140)
600-213950-1	MW-6-W-201119	84
600-213950-2	MW-6-WF-201119	107
600-213950-3	MW-6-WE-201119	109
600-213950-4	MW-3-W-201119	115
LCS 600-307723/2-A	Lab Control Sample	77
LCSD 600-307723/3-A	Lab Control Sample Dup	76
MB 600-307723/1-A	Method Blank	93

Surrogate Legend

OTPH = o-Terphenyl

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 600-307771/15

Matrix: Water

Analysis Batch: 307771

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			11/25/20 17:34	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			11/25/20 17:34	1
Toluene	0.550	U	5.00	0.550	ug/L			11/25/20 17:34	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			11/25/20 17:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		11/25/20 17:34	1
4-Bromofluorobenzene	97		67 - 139		11/25/20 17:34	1
Dibromofluoromethane	103		62 - 130		11/25/20 17:34	1
Toluene-d8 (Surr)	100		70 - 130		11/25/20 17:34	1

Lab Sample ID: LCS 600-307771/10

Matrix: Water

Analysis Batch: 307771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	47.80		ug/L		96	70 - 131
Ethylbenzene	50.0	50.11		ug/L		100	70 - 130
Toluene	50.0	49.94		ug/L		100	70 - 130
Xylenes, Total	100	101.0		ug/L		101	70 - 130
m-Xylene & p-Xylene	50.0	52.22		ug/L		104	70 - 130
o-Xylene	50.0	48.78		ug/L		98	69 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		50 - 134
4-Bromofluorobenzene	110		67 - 139
Dibromofluoromethane	107		62 - 130
Toluene-d8 (Surr)	97		70 - 130

Lab Sample ID: LCSD 600-307771/11

Matrix: Water

Analysis Batch: 307771

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.35		ug/L		93	70 - 131	3	20
Ethylbenzene	50.0	48.78		ug/L		98	70 - 130	3	20
Toluene	50.0	49.20		ug/L		98	70 - 130	1	20
Xylenes, Total	100	98.53		ug/L		99	70 - 130	2	20
m-Xylene & p-Xylene	50.0	50.56		ug/L		101	70 - 130	3	20
o-Xylene	50.0	47.97		ug/L		96	69 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		50 - 134
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	101		62 - 130
Toluene-d8 (Surr)	93		70 - 130

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 240-463064/4

Matrix: Water

Analysis Batch: 463064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/27/20 16:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		63 - 125					11/27/20 16:34	1

Lab Sample ID: LCS 240-463064/5

Matrix: Water

Analysis Batch: 463064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	800	838.2		ug/L		105	77 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Trifluorotoluene (Surr)	98		63 - 125				

Lab Sample ID: MB 240-463065/4

Matrix: Water

Analysis Batch: 463065

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	49.2	U	100	49.2	ug/L			11/27/20 16:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		63 - 125					11/27/20 16:34	1

Lab Sample ID: LCS 240-463065/5

Matrix: Water

Analysis Batch: 463065

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	800	838.2		ug/L		105	77 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Trifluorotoluene (Surr)	98		63 - 125				

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 600-307723/1-A

Matrix: Water

Analysis Batch: 307766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307723

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		11/24/20 13:20	11/25/20 18:50	1
C28-C36	0.150	U	0.250	0.150	mg/L		11/24/20 13:20	11/25/20 18:50	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 600-307723/1-A

Matrix: Water

Analysis Batch: 307766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307723

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		60 - 140	11/24/20 13:20	11/25/20 18:50	1

Lab Sample ID: LCS 600-307723/2-A

Matrix: Water

Analysis Batch: 307766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307723

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics			1.00	0.9831		mg/L		98	70 - 130		
[C10-C28]											

Lab Sample ID: LCSD 600-307723/3-A

Matrix: Water

Analysis Batch: 307766

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 307723

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics [C10-C28]			1.00	1.001		mg/L		100	70 - 130	2	30
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
o-Terphenyl	76		60 - 140								

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 600-307784/1

Matrix: Water

Analysis Batch: 307784

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			11/25/20 14:24	1

Lab Sample ID: LCS 600-307784/2

Matrix: Water

Analysis Batch: 307784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1803		mg/L		100	90 - 110

Lab Sample ID: MB 600-307785/1

Matrix: Water

Analysis Batch: 307785

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			11/25/20 14:26	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: LCS 600-307785/2

Matrix: Water

Analysis Batch: 307785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1702		mg/L		95	90 - 110

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 560-180838/3

Matrix: Water

Analysis Batch: 180838

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.192	U	1.00	0.192	mg/L			11/27/20 12:52	1

Lab Sample ID: LCS 560-180838/4

Matrix: Water

Analysis Batch: 180838

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.24		mg/L		102	90 - 110

Lab Sample ID: MB 560-180916/20

Matrix: Water

Analysis Batch: 180916

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.192	U	1.00	0.192	mg/L			12/01/20 20:31	1

Lab Sample ID: LCS 560-180916/21

Matrix: Water

Analysis Batch: 180916

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.28		mg/L		103	90 - 110

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	MQL	MDL	Units
Benzene	5.00	0.560	ug/L
Ethylbenzene	5.00	1.29	ug/L
Toluene	5.00	0.550	ug/L
Xylenes, Total	5.00	1.98	ug/L

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	100	49.2	ug/L

Method: 8015D - Diesel Range Organics (DRO) (GC)

Prep: 3510C

Analyte	MQL	MDL	Units
C28-C36	0.250	0.150	mg/L
Diesel Range Organics [C10-C28]	0.250	0.0450	mg/L

General Chemistry

Analyte	MQL	MDL	Units
Total Dissolved Solids	10.0	10.0	mg/L
Chloride	1.00	0.192	mg/L

QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

GC/MS VOA

Analysis Batch: 307771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-1	MW-6-W-201119	Total/NA	Water	8260C	
600-213950-2	MW-6-WF-201119	Total/NA	Water	8260C	
600-213950-3	MW-6-WE-201119	Total/NA	Water	8260C	
600-213950-4	MW-3-W-201119	Total/NA	Water	8260C	
MB 600-307771/15	Method Blank	Total/NA	Water	8260C	
LCS 600-307771/10	Lab Control Sample	Total/NA	Water	8260C	
LCSD 600-307771/11	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 463064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-463064/4	Method Blank	Total/NA	Water	8015B	
LCS 240-463064/5	Lab Control Sample	Total/NA	Water	8015B	

Analysis Batch: 463065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-1	MW-6-W-201119	Total/NA	Water	8015B	
600-213950-2	MW-6-WF-201119	Total/NA	Water	8015B	
600-213950-3	MW-6-WE-201119	Total/NA	Water	8015B	
600-213950-4	MW-3-W-201119	Total/NA	Water	8015B	
MB 240-463065/4	Method Blank	Total/NA	Water	8015B	
LCS 240-463065/5	Lab Control Sample	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 307723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-1	MW-6-W-201119	Total/NA	Water	3510C	
600-213950-2	MW-6-WF-201119	Total/NA	Water	3510C	
600-213950-3	MW-6-WE-201119	Total/NA	Water	3510C	
600-213950-4	MW-3-W-201119	Total/NA	Water	3510C	
MB 600-307723/1-A	Method Blank	Total/NA	Water	3510C	
LCS 600-307723/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-307723/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 307766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-1	MW-6-W-201119	Total/NA	Water	8015D	307723
600-213950-2	MW-6-WF-201119	Total/NA	Water	8015D	307723
600-213950-3	MW-6-WE-201119	Total/NA	Water	8015D	307723
600-213950-4	MW-3-W-201119	Total/NA	Water	8015D	307723
MB 600-307723/1-A	Method Blank	Total/NA	Water	8015D	307723
LCS 600-307723/2-A	Lab Control Sample	Total/NA	Water	8015D	307723
LCSD 600-307723/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	307723

General Chemistry

Analysis Batch: 180838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-1	MW-6-W-201119	Total/NA	Water	300.0	
600-213950-2	MW-6-WF-201119	Total/NA	Water	300.0	

Eurofins TestAmerica, Houston

QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

General Chemistry (Continued)

Analysis Batch: 180838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-3	MW-6-WE-201119	Total/NA	Water	300.0	
MB 560-180838/3	Method Blank	Total/NA	Water	300.0	
LCS 560-180838/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 180916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-4	MW-3-W-201119	Total/NA	Water	300.0	
MB 560-180916/20	Method Blank	Total/NA	Water	300.0	
LCS 560-180916/21	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 307784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-1	MW-6-W-201119	Total/NA	Water	2540 C-1997	
600-213950-2	MW-6-WF-201119	Total/NA	Water	2540 C-1997	
600-213950-3	MW-6-WE-201119	Total/NA	Water	2540 C-1997	
MB 600-307784/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-307784/2	Lab Control Sample	Total/NA	Water	2540 C-1997	

Analysis Batch: 307785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213950-4	MW-3-W-201119	Total/NA	Water	2540 C-1997	
MB 600-307785/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-307785/2	Lab Control Sample	Total/NA	Water	2540 C-1997	

Lab Chronicle

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Client Sample ID: MW-6-W-201119

Lab Sample ID: 600-213950-1

Date Collected: 11/19/20 09:45

Matrix: Water

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307771	11/25/20 19:10	KLV	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 02:14	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307766	11/27/20 08:01	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307784	11/25/20 14:24	KRD	TAL HOU
Total/NA	Analysis	300.0		1000	180838	11/27/20 23:02	JEM	TAL CC

Client Sample ID: MW-6-WF-201119

Lab Sample ID: 600-213950-2

Date Collected: 11/19/20 07:10

Matrix: Water

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307771	11/25/20 19:35	KLV	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 02:52	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307766	11/25/20 21:00	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307784	11/25/20 14:24	KRD	TAL HOU
Total/NA	Analysis	300.0		10	180838	11/27/20 22:29	JEM	TAL CC

Client Sample ID: MW-6-WE-201119

Lab Sample ID: 600-213950-3

Date Collected: 11/19/20 07:20

Matrix: Water

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307771	11/25/20 19:59	KLV	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 03:31	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307766	11/27/20 08:34	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307784	11/25/20 14:24	KRD	TAL HOU
Total/NA	Analysis	300.0		10	180838	11/27/20 21:55	JEM	TAL CC

Client Sample ID: MW-3-W-201119

Lab Sample ID: 600-213950-4

Date Collected: 11/19/20 08:25

Matrix: Water

Date Received: 11/20/20 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	307771	11/25/20 20:23	KLV	TAL HOU
Total/NA	Analysis	8015B		1	463065	11/28/20 04:10	MBB	TAL CAN
Total/NA	Prep	3510C			307723	11/24/20 13:21	MRA	TAL HOU
Total/NA	Analysis	8015D		1	307766	11/25/20 22:05	RJV	TAL HOU
Total/NA	Analysis	2540 C-1997		1	307785	11/25/20 14:26	KRD	TAL HOU
Total/NA	Analysis	300.0		1000	180916	12/02/20 07:50	JEM	TAL CC

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 11/19/20

Job ID: 600-213950-1

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673
TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213950-1

Project/Site: Chevron Pardue Farms 11/19/20

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-20-28	11-01-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	3510C	Water	C28-C36

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

Laboratory: Eurofins TestAmerica, Corpus Christi

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05094	06-30-21
Oklahoma	State	2020-006	08-31-21
Texas	NELAP	T104704210-19-23	03-31-21
USDA	US Federal Programs	P330-18-00314	10-31-21

Eurofins TestAmerica, Houston

[illegible]

All samples taken on 11/19 and should all ^{other samples} with "201119"

Ver: 01/16/2019

Loc: 600
213950

20 NOV 20 9:13

Eurofins TestAmerica Houston

Environment Testing
TestAmerica

Sample Receipt Checklist

JOB NUMBER: _____

Date/Time Received: 11/20/20 9:13CLIENT: ArcadisUNPACKED BY: ToCARRIER/DRIVER: FedExCustody Seal Present: ☒ YES ☐ NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
8576	Y / N	Y / N	1.9	681	+0.1	2.0
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are >pH 12: ☐ YES ☐ NOAcid preserved are <pH 2: ☐ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES

DATE & TIME PUT IN FREEZER: _____

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES ☐ NO

COMMENTS:

HS-SA-WI-013

Rev. 4A; 08/26/2019

Chain of Custody Record

 eurofins

Environment Testing
America

[illegible]

Eurofins TestAmerica Canton Sample Receipt Form/Narrative				Login # : _____
Canton Facility				
Client <u>TA Houston</u>	Site Name _____	Cooler unpacked by: <u>Adams</u>		
Cooler Received on <u>11-25-20</u>	Opened on <u>11-25-20</u>			
FedEx: 1 st Grd (Exp) <u>UPS</u> <u>FAS</u> <u>Clipper</u>	Client Drop Off <u>TestAmerica Courier</u>	Other _____		
Receipt After-hours: Drop-off Date/Time _____		Storage Location _____		
TestAmerica Cooler # <u>TA</u>	Foam Box _____	Client Cooler _____	Box _____	Other _____
Packing material used: <u>Bubble Wrap</u> <u>Foam</u> <u>Plastic Bag</u> <u>None</u> <u>Other</u> _____				
COOLANT: <u>Wet Ice</u> <u>Blue Ice</u> <u>Dry Ice</u> <u>Water</u> <u>None</u> _____				
<div style="display: flex; justify-content: space-between;"> <div> <p>1. Cooler temperature upon receipt <input type="checkbox"/> See Multiple Cooler Form</p> <p>IR GUN# IR-11 (CF +0.9 °C) Observed Cooler Temp. <u>0.9</u> °C Corrected Cooler Temp. <u>1.8</u> °C</p> <p>IR GUN #IR-12 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C</p> </div> <div style="border: 1px solid black; padding: 5px; width: 150px;"> <p>Tests that are not checked for pH by Receiving:</p> <p>VOAs</p> <p>Oil and Grease</p> <p>TOC</p> </div> </div>				
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u>		<u>Yes</u> No		
-Were the seals on the outside of the cooler(s) signed & dated?		<u>Yes</u> No NA		
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?		<u>Yes</u> <u>No</u>		
-Were tamper/custody seals intact and uncompromised?		<u>Yes</u> No NA		
3. Shippers' packing slip attached to the cooler(s)?		<u>Yes</u> No		
4. Did custody papers accompany the sample(s)?		<u>Yes</u> No		
5. Were the custody papers relinquished & signed in the appropriate place?		<u>Yes</u> No		
6. Was/were the person(s) who collected the samples clearly identified on the COC?		<u>Yes</u> <u>No</u>		
7. Did all bottles arrive in good condition (Unbroken)?		<u>Yes</u> No		
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?		<u>Yes</u> No		
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		<u>Yes</u> No		
10. Were correct bottle(s) used for the test(s) indicated?		<u>Yes</u> No		
11. Sufficient quantity received to perform indicated analyses?		<u>Yes</u> No		
12. Are these work share samples and all listed on the COC?		<u>Yes</u> No		
If yes, Questions 13-17 have been checked at the originating laboratory.				
13. Were all preserved sample(s) at the correct pH upon receipt?		<u>Yes</u> No NA	pH Strip Lot# <u>HC907861</u>	
14. Were VOAs on the COC?		<u>Yes</u> No		
15. Were air bubbles >6 mm in any VOA vials? Larger than this.		<u>Yes</u> No NA		
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____		<u>Yes</u> <u>No</u>		
17. Was a LL Hg or Me Hg trip blank present?		<u>Yes</u> No		
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____				
Concerning _____				

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES <input type="checkbox"/> additional next page	Samples processed by: _____
19. SAMPLE CONDITION	
Sample(s) _____ were received after the recommended holding time had expired.	
Sample(s) _____ were received in a broken container.	
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)	
20. SAMPLE PRESERVATION	
Sample(s) _____ were further preserved in the laboratory.	
Time preserved: _____ Preservative(s) added/Lot number(s): _____	
VOA Sample Preservation - Date/Time VOAs Frozen: _____	

WI-NC-099

5310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)				Sampler: Kudchadkar, Sachin G Lab PM: Kudchadkar, Sachin G Phone: Sachin.Kudchadkar@Eurofinset.com E-Mail: Sachin.Kudchadkar@Eurofinset.com State of Origin: Texas Carrier Tracking No(s): 600-47878.1 Page: Page 1 of 1 Job #: 600-213950-1	
Company: TestAmerica Laboratories, Inc. Address: 1733 N. Padre Island Drive, City: Corpus Christi State/Zip: TX, 78408 Phone: 361-289-2673(Tel) 361-289-2471(Fax) Email: Project Name: Chevron Pardue Farms 11/19/20 Site: 				Accreditations Required (See note): NELAP - Texas Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) 	
Analysis Requested				Total Number of containers	
Due Date Requested: 12/4/2020 TAT Requested (days): PO #: WO #: Project #: 60012812 SSOW#: 				Perform MS/MSD (Yes or No) 300 Field Filtered Sample (Yes or No) Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code:	
Sample Identification - Client ID (Lab ID) MW-6-W-201119 (600-213950-1) MW-6-WF-201119 (600-213950-2) MW-6-WF-201119 (600-213950-3) MW-3-W-201119 (600-213950-4)				Special Instructions/Note: 1 1 1 1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification			
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Date: Empty Kit Relinquished by: Relinquished by: Relinquished by: Relinquished by: 			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months Special Instructions/QC Requirements: 			

Date/Time: 11/24/20 17:00 Date/Time: Date/Time: Date/Time: 		Date/Time: Date/Time: Date/Time: Date/Time: 	
Company: ETA Company: Company: Company: 		Company: Company: Company: Company: 	
Received by: Sachin Kudchadkar Received by: Received by: Received by: 		Received by: Received by: Received by: Received by: 	
Date: 11/24/20 17:00 Date: Date: Date: 		Date: Date: Date: Date: 	
Method of Shipment: Method of Shipment: Method of Shipment: Method of Shipment: 		Method of Shipment: Method of Shipment: Method of Shipment: Method of Shipment: 	

Cooler Temperature(s) °C and Other Remarks: **-2.4 1210 - 1.3 CP**

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213950-1

Login Number: 213950

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Olson, Troy 1

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	1.9
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers received broken. No volume could be salvaged for analysis.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213950-1

Login Number: 213950

List Source: Eurofins TestAmerica, Corpus Christi

List Number: 2

List Creation: 11/25/20 11:34 AM

Creator: Sanchez, Allyse A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 600-213833-1

Client Project/Site: Chevron Pardue Farms 27-12

For:

ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Ryan Nanny

Authorized for release by:
12/7/2020 8:13:21 AM

Sachin Kudchadkar, Senior Project Manager
(713)690-4444
Sachin.Kudchadkar@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 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.

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Laboratory Job ID: 600-213833-1

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Method Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL HOU
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
9056	Anions, Ion Chromatography	SW846	TAL CC
3546	Microwave Extraction	SW846	TAL HOU
5030C	Purge and Trap Methanol Dilution	SW846	TAL HOU
5035	Closed System Purge & Trap/Laboratory Preservation	SW846	TAL HOU
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL CC

Protocol References:

ASTM = ASTM International

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

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

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213833-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-213833-1	MW-6-S-0-1-201116	Solid	11/16/20 12:00	11/17/20 10:22	
600-213833-2	MW-6-S-1-2-201116	Solid	11/16/20 12:15	11/17/20 10:22	
600-213833-3	MW-6-S-2-3-201116	Solid	11/16/20 12:20	11/17/20 10:22	
600-213833-4	MW-6-S-3-4-201116	Solid	11/16/20 12:25	11/17/20 10:22	
600-213833-5	MW-6-S-9-10-201116	Solid	11/16/20 12:30	11/17/20 10:22	
600-213833-6	MW-6-S-14-15-201116	Solid	11/16/20 12:33	11/17/20 10:22	
600-213833-7	MW-6-S-19-20-201116	Solid	11/16/20 12:35	11/17/20 10:22	
600-213833-8	MW-6-S-24-25-201116	Solid	11/16/20 12:38	11/17/20 10:22	

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-0-1-201116

Lab Sample ID: 600-213833-1

Date Collected: 11/16/20 12:00

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.625	U	4.96	0.625	ug/Kg		11/17/20 13:37	11/17/20 14:14	1
Ethylbenzene	1.01	U	4.96	1.01	ug/Kg		11/17/20 13:37	11/17/20 14:14	1
Toluene	1.37	U	4.96	1.37	ug/Kg		11/17/20 13:37	11/17/20 14:14	1
Xylenes, Total	1.12	U	4.96	1.12	ug/Kg		11/17/20 13:37	11/17/20 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130	11/17/20 13:37	11/17/20 14:14	1
4-Bromofluorobenzene	88		57 - 140	11/17/20 13:37	11/17/20 14:14	1
Dibromofluoromethane	87		68 - 140	11/17/20 13:37	11/17/20 14:14	1
Toluene-d8 (Surr)	91		50 - 130	11/17/20 13:37	11/17/20 14:14	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.8		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	98.2		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.7	J F1	200	9.98	mg/Kg			12/02/20 22:33	20

Client Sample ID: MW-6-S-0-1-201116

Lab Sample ID: 600-213833-1

Date Collected: 11/16/20 12:00

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 98.2

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.572	U	0.976	0.572	mg/Kg	☼	11/18/20 09:00	11/18/20 11:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		70 - 130	11/18/20 09:00	11/18/20 11:41	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	8.73		8.40	1.73	mg/Kg	☼	11/25/20 13:23	11/30/20 16:27	1
Oil Range Organics (C28-C35)	59.6		8.40	5.06	mg/Kg	☼	11/25/20 13:23	11/30/20 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	144	X	60 - 140	11/25/20 13:23	11/30/20 16:27	1

Client Sample ID: MW-6-S-1-2-201116

Lab Sample ID: 600-213833-2

Date Collected: 11/16/20 12:15

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.694	U	5.51	0.694	ug/Kg		11/17/20 13:37	11/17/20 14:37	1
Ethylbenzene	1.12	U	5.51	1.12	ug/Kg		11/17/20 13:37	11/17/20 14:37	1
Toluene	1.52	U	5.51	1.52	ug/Kg		11/17/20 13:37	11/17/20 14:37	1
Xylenes, Total	1.24	U	5.51	1.24	ug/Kg		11/17/20 13:37	11/17/20 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130	11/17/20 13:37	11/17/20 14:37	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-1-2-201116

Lab Sample ID: 600-213833-2

Date Collected: 11/16/20 12:15

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		57 - 140	11/17/20 13:37	11/17/20 14:37	1
Dibromofluoromethane	89		68 - 140	11/17/20 13:37	11/17/20 14:37	1
Toluene-d8 (Surr)	93		50 - 130	11/17/20 13:37	11/17/20 14:37	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.4		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	85.6		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.4	J	198	9.90	mg/Kg			12/03/20 00:15	20

Client Sample ID: MW-6-S-1-2-201116

Lab Sample ID: 600-213833-2

Date Collected: 11/16/20 12:15

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 85.6

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.729	U	1.24	0.729	mg/Kg	✱	11/18/20 09:00	11/18/20 12:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		70 - 130	11/18/20 09:00	11/18/20 12:06	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	10.5		9.69	2.00	mg/Kg	✱	11/25/20 13:23	11/30/20 16:58	1
Oil Range Organics (C28-C35)	40.3		9.69	5.84	mg/Kg	✱	11/25/20 13:23	11/30/20 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	134		60 - 140	11/25/20 13:23	11/30/20 16:58	1

Client Sample ID: MW-6-S-2-3-201116

Lab Sample ID: 600-213833-3

Date Collected: 11/16/20 12:20

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.685	U	5.43	0.685	ug/Kg		11/17/20 13:37	11/17/20 15:00	1
Ethylbenzene	1.11	U	5.43	1.11	ug/Kg		11/17/20 13:37	11/17/20 15:00	1
Toluene	1.50	U	5.43	1.50	ug/Kg		11/17/20 13:37	11/17/20 15:00	1
Xylenes, Total	1.23	U	5.43	1.23	ug/Kg		11/17/20 13:37	11/17/20 15:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	11/17/20 13:37	11/17/20 15:00	1
4-Bromofluorobenzene	92		57 - 140	11/17/20 13:37	11/17/20 15:00	1
Dibromofluoromethane	91		68 - 140	11/17/20 13:37	11/17/20 15:00	1
Toluene-d8 (Surr)	94		50 - 130	11/17/20 13:37	11/17/20 15:00	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.8		1.0	1.0	%			11/18/20 15:55	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-2-3-201116

Lab Sample ID: 600-213833-3

Date Collected: 11/16/20 12:20

Matrix: Solid

Date Received: 11/17/20 10:22

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94.2		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.6	J	200	9.98	mg/Kg			12/03/20 00:48	20

Client Sample ID: MW-6-S-2-3-201116

Lab Sample ID: 600-213833-3

Date Collected: 11/16/20 12:20

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 94.2

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.654	U	1.12	0.654	mg/Kg	☼	11/18/20 09:00	11/18/20 12:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		70 - 130	11/18/20 09:00	11/18/20 12:30	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.81	U	8.79	1.81	mg/Kg	☼	11/25/20 13:23	11/30/20 17:30	1

Oil Range Organics (C28-C35)	29.5		8.79	5.30	mg/Kg	☼	11/25/20 13:23	11/30/20 17:30	1
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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	135		60 - 140	11/25/20 13:23	11/30/20 17:30	1

Client Sample ID: MW-6-S-3-4-201116

Lab Sample ID: 600-213833-4

Date Collected: 11/16/20 12:25

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.600	U	4.76	0.600	ug/Kg		11/17/20 13:37	11/17/20 15:23	1
Ethylbenzene	0.971	U	4.76	0.971	ug/Kg		11/17/20 13:37	11/17/20 15:23	1
Toluene	1.31	U	4.76	1.31	ug/Kg		11/17/20 13:37	11/17/20 15:23	1
Xylenes, Total	1.08	U	4.76	1.08	ug/Kg		11/17/20 13:37	11/17/20 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130	11/17/20 13:37	11/17/20 15:23	1
4-Bromofluorobenzene	90		57 - 140	11/17/20 13:37	11/17/20 15:23	1
Dibromofluoromethane	89		68 - 140	11/17/20 13:37	11/17/20 15:23	1
Toluene-d8 (Surr)	91		50 - 130	11/17/20 13:37	11/17/20 15:23	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.1		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	78.9		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	97.2	J	200	10.0	mg/Kg			12/03/20 01:22	20

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-3-4-201116

Lab Sample ID: 600-213833-4

Date Collected: 11/16/20 12:25

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 78.9

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.749	U	1.28	0.749	mg/Kg	☆	11/18/20 09:00	11/18/20 12:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		70 - 130				11/18/20 09:00	11/18/20 12:55	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	7.96	J	10.5	2.16	mg/Kg	☆	11/25/20 13:23	11/30/20 18:02	1
Oil Range Organics (C28-C35)	36.2		10.5	6.31	mg/Kg	☆	11/25/20 13:23	11/30/20 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	129		60 - 140				11/25/20 13:23	11/30/20 18:02	1

Client Sample ID: MW-6-S-9-10-201116

Lab Sample ID: 600-213833-5

Date Collected: 11/16/20 12:30

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.648	U	5.14	0.648	ug/Kg		11/17/20 13:37	11/17/20 15:46	1
Ethylbenzene	1.05	U	5.14	1.05	ug/Kg		11/17/20 13:37	11/17/20 15:46	1
Toluene	1.42	U	5.14	1.42	ug/Kg		11/17/20 13:37	11/17/20 15:46	1
Xylenes, Total	1.16	U	5.14	1.16	ug/Kg		11/17/20 13:37	11/17/20 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130				11/17/20 13:37	11/17/20 15:46	1
4-Bromofluorobenzene	91		57 - 140				11/17/20 13:37	11/17/20 15:46	1
Dibromofluoromethane	91		68 - 140				11/17/20 13:37	11/17/20 15:46	1
Toluene-d8 (Surr)	91		50 - 130				11/17/20 13:37	11/17/20 15:46	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	91.2		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.8	J	200	10.0	mg/Kg			12/03/20 01:56	20

Client Sample ID: MW-6-S-9-10-201116

Lab Sample ID: 600-213833-5

Date Collected: 11/16/20 12:30

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 91.2

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.690	U	1.18	0.690	mg/Kg	☆	11/18/20 09:00	11/18/20 13:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		70 - 130				11/18/20 09:00	11/18/20 13:20	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-9-10-201116

Lab Sample ID: 600-213833-5

Date Collected: 11/16/20 12:30

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 91.2

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.87	U	9.08	1.87	mg/Kg	☆	11/25/20 13:23	11/30/20 18:33	1
Oil Range Organics (C28-C35)	24.6		9.08	5.47	mg/Kg	☆	11/25/20 13:23	11/30/20 18:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	121		60 - 140				11/25/20 13:23	11/30/20 18:33	1

Client Sample ID: MW-6-S-14-15-201116

Lab Sample ID: 600-213833-6

Date Collected: 11/16/20 12:33

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.605	U	4.80	0.605	ug/Kg		11/17/20 13:37	11/17/20 16:10	1
Ethylbenzene	0.979	U	4.80	0.979	ug/Kg		11/17/20 13:37	11/17/20 16:10	1
Toluene	1.32	U	4.80	1.32	ug/Kg		11/17/20 13:37	11/17/20 16:10	1
Xylenes, Total	1.08	U	4.80	1.08	ug/Kg		11/17/20 13:37	11/17/20 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		61 - 130				11/17/20 13:37	11/17/20 16:10	1
4-Bromofluorobenzene	95		57 - 140				11/17/20 13:37	11/17/20 16:10	1
Dibromofluoromethane	90		68 - 140				11/17/20 13:37	11/17/20 16:10	1
Toluene-d8 (Surr)	92		50 - 130				11/17/20 13:37	11/17/20 16:10	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.4		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	71.6		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	477		197	9.85	mg/Kg			12/03/20 02:30	20

Client Sample ID: MW-6-S-14-15-201116

Lab Sample ID: 600-213833-6

Date Collected: 11/16/20 12:33

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 71.6

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.862	U	1.47	0.862	mg/Kg	☆	11/18/20 09:00	11/18/20 13:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		70 - 130				11/18/20 09:00	11/18/20 13:44	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.37	U	11.5	2.37	mg/Kg	☆	11/25/20 13:23	11/30/20 19:36	1
Oil Range Organics (C28-C35)	6.94	U	11.5	6.94	mg/Kg	☆	11/25/20 13:23	11/30/20 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	118		60 - 140				11/25/20 13:23	11/30/20 19:36	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-19-20-201116

Lab Sample ID: 600-213833-7

Date Collected: 11/16/20 12:35

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.557	U	4.42	0.557	ug/Kg		11/17/20 13:37	11/17/20 16:33	1
Ethylbenzene	0.901	U	4.42	0.901	ug/Kg		11/17/20 13:37	11/17/20 16:33	1
Toluene	1.22	U	4.42	1.22	ug/Kg		11/17/20 13:37	11/17/20 16:33	1
Xylenes, Total	0.998	U	4.42	0.998	ug/Kg		11/17/20 13:37	11/17/20 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130	11/17/20 13:37	11/17/20 16:33	1
4-Bromofluorobenzene	90		57 - 140	11/17/20 13:37	11/17/20 16:33	1
Dibromofluoromethane	88		68 - 140	11/17/20 13:37	11/17/20 16:33	1
Toluene-d8 (Surr)	90		50 - 130	11/17/20 13:37	11/17/20 16:33	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.6		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	88.4		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1230		199	9.95	mg/Kg			12/03/20 03:04	20

Client Sample ID: MW-6-S-19-20-201116

Lab Sample ID: 600-213833-7

Date Collected: 11/16/20 12:35

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 88.4

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.676	U	1.15	0.676	mg/Kg	☼	11/18/20 09:00	11/18/20 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		70 - 130				11/18/20 09:00	11/18/20 14:09	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.93	U	9.38	1.93	mg/Kg	☼	11/25/20 13:23	11/30/20 20:08	1
Oil Range Organics (C28-C35)	5.65	U	9.38	5.65	mg/Kg	☼	11/25/20 13:23	11/30/20 20:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	125		60 - 140				11/25/20 13:23	11/30/20 20:08	1

Client Sample ID: MW-6-S-24-25-201116

Lab Sample ID: 600-213833-8

Date Collected: 11/16/20 12:38

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.623	U	4.94	0.623	ug/Kg		11/17/20 13:37	11/17/20 16:56	1
Ethylbenzene	1.01	U	4.94	1.01	ug/Kg		11/17/20 13:37	11/17/20 16:56	1
Toluene	1.36	U	4.94	1.36	ug/Kg		11/17/20 13:37	11/17/20 16:56	1
Xylenes, Total	1.12	U	4.94	1.12	ug/Kg		11/17/20 13:37	11/17/20 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	11/17/20 13:37	11/17/20 16:56	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-24-25-201116

Lab Sample ID: 600-213833-8

Date Collected: 11/16/20 12:38

Matrix: Solid

Date Received: 11/17/20 10:22

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		57 - 140	11/17/20 13:37	11/17/20 16:56	1
Dibromofluoromethane	90		68 - 140	11/17/20 13:37	11/17/20 16:56	1
Toluene-d8 (Surr)	88		50 - 130	11/17/20 13:37	11/17/20 16:56	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.0		1.0	1.0	%			11/18/20 15:55	1
Percent Solids	85.0		1.0	1.0	%			11/18/20 15:55	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	920		199	9.95	mg/Kg			12/03/20 03:38	20

Client Sample ID: MW-6-S-24-25-201116

Lab Sample ID: 600-213833-8

Date Collected: 11/16/20 12:38

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 85.0

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.656	U	1.12	0.656	mg/Kg	✱	11/18/20 09:00	11/18/20 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		70 - 130	11/18/20 09:00	11/18/20 14:33	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	24.2		9.72	2.00	mg/Kg	✱	11/25/20 13:23	12/01/20 08:21	1
Oil Range Organics (C28-C35)	123		9.72	5.86	mg/Kg	✱	11/25/20 13:23	12/01/20 08:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	107		60 - 140	11/25/20 13:23	12/01/20 08:21	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213833-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate recovery exceeds control limits

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Surrogate Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	BFB (57-140)	DBFM (68-140)	TOL (50-130)
600-213833-1	MW-6-S-0-1-201116	83	88	87	91
600-213833-2	MW-6-S-1-2-201116	83	95	89	93
600-213833-3	MW-6-S-2-3-201116	85	92	91	94
600-213833-4	MW-6-S-3-4-201116	82	90	89	91
600-213833-5	MW-6-S-9-10-201116	85	91	91	91
600-213833-6	MW-6-S-14-15-201116	78	95	90	92
600-213833-7	MW-6-S-19-20-201116	80	90	88	90
600-213833-8	MW-6-S-24-25-201116	85	90	90	88
LCS 600-307349/3	Lab Control Sample	85	99	91	92
LCSD 600-307349/4	Lab Control Sample Dup	82	94	87	90
MB 600-307349/6	Method Blank	82	95	89	91

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TFT1 (70-130)			
600-213833-1	MW-6-S-0-1-201116	98			
600-213833-2	MW-6-S-1-2-201116	89			
600-213833-3	MW-6-S-2-3-201116	94			
600-213833-4	MW-6-S-3-4-201116	91			
600-213833-5	MW-6-S-9-10-201116	98			
600-213833-6	MW-6-S-14-15-201116	98			
600-213833-7	MW-6-S-19-20-201116	94			
600-213833-8	MW-6-S-24-25-201116	102			
LCS 600-307379/1-A	Lab Control Sample	88			
LCSD 600-307379/2-A	Lab Control Sample Dup	88			
MB 600-307379/3-A	Method Blank	87			

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		OTPH (60-140)			
600-213833-1	MW-6-S-0-1-201116	144 X			
600-213833-2	MW-6-S-1-2-201116	134			
600-213833-3	MW-6-S-2-3-201116	135			
600-213833-4	MW-6-S-3-4-201116	129			
600-213833-5	MW-6-S-9-10-201116	121			
600-213833-6	MW-6-S-14-15-201116	118			

Eurofins TestAmerica, Houston

Surrogate Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH (60-140)					
600-213833-7	MW-6-S-19-20-201116	125					
600-213833-8	MW-6-S-24-25-201116	107					
LCS 600-307778/2-A	Lab Control Sample	95					
MB 600-307778/1-A	Method Blank	138					
Surrogate Legend							
OTPH = o-Terphenyl							

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-307349/6

Matrix: Solid

Analysis Batch: 307349

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			11/17/20 10:52	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			11/17/20 10:52	1
Toluene	1.38	U	5.00	1.38	ug/Kg			11/17/20 10:52	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			11/17/20 10:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130		11/17/20 10:52	1
4-Bromofluorobenzene	95		57 - 140		11/17/20 10:52	1
Dibromofluoromethane	89		68 - 140		11/17/20 10:52	1
Toluene-d8 (Surr)	91		50 - 130		11/17/20 10:52	1

Lab Sample ID: LCS 600-307349/3

Matrix: Solid

Analysis Batch: 307349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	40.33		ug/Kg		81	70 - 131
Ethylbenzene	50.0	42.65		ug/Kg		85	66 - 130
m-Xylene & p-Xylene	50.0	40.20		ug/Kg		80	64 - 130
o-Xylene	50.0	42.49		ug/Kg		85	62 - 130
Toluene	50.0	40.94		ug/Kg		82	67 - 130
Xylenes, Total	100	82.69		ug/Kg		83	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
4-Bromofluorobenzene	99		57 - 140
Dibromofluoromethane	91		68 - 140
Toluene-d8 (Surr)	92		50 - 130

Lab Sample ID: LCSD 600-307349/4

Matrix: Solid

Analysis Batch: 307349

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	50.15		ug/Kg		100	70 - 131	22	30
Ethylbenzene	50.0	53.49		ug/Kg		107	66 - 130	23	30
m-Xylene & p-Xylene	50.0	50.66		ug/Kg		101	64 - 130	23	30
o-Xylene	50.0	53.50		ug/Kg		107	62 - 130	23	30
Toluene	50.0	52.80		ug/Kg		106	67 - 130	25	30
Xylenes, Total	100	104.2		ug/Kg		104	63 - 130	23	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		61 - 130
4-Bromofluorobenzene	94		57 - 140
Dibromofluoromethane	87		68 - 140
Toluene-d8 (Surr)	90		50 - 130

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 600-307379/3-A

Matrix: Solid

Analysis Batch: 307385

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307379

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.586	U	1.00	0.586	mg/Kg		11/18/20 09:00	11/18/20 11:17	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		70 - 130				11/18/20 09:00	11/18/20 11:17	1

Lab Sample ID: LCS 600-307379/1-A

Matrix: Solid

Analysis Batch: 307385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	5.04	5.520		mg/Kg		110	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	88		70 - 130				

Lab Sample ID: LCSD 600-307379/2-A

Matrix: Solid

Analysis Batch: 307385

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 307379

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	5.04	5.588		mg/Kg		111	70 - 130	1	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	88		70 - 130						

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 600-307778/1-A

Matrix: Solid

Analysis Batch: 307871

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 307778

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.71	U	8.30	1.71	mg/Kg		11/25/20 13:23	11/30/20 12:32	1
Oil Range Organics (C28-C35)	5.00	U	8.30	5.00	mg/Kg		11/25/20 13:23	11/30/20 12:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	138		60 - 140				11/25/20 13:23	11/30/20 12:32	1

Lab Sample ID: LCS 600-307778/2-A

Matrix: Solid

Analysis Batch: 307871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307778

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.8	70.67		mg/Kg		106	66 - 134

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 600-307778/2-A

Matrix: Solid

Analysis Batch: 307871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 307778

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	95		60 - 140

Method: 2540B - Percent Moisture

Lab Sample ID: 600-213833-5 DU

Matrix: Solid

Analysis Batch: 307460

Client Sample ID: MW-6-S-9-10-201116

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	8.8		9.3		%		5	20
Percent Solids	91.2		90.7		%		0.5	20

Lab Sample ID: 600-213833-6 DU

Matrix: Solid

Analysis Batch: 307460

Client Sample ID: MW-6-S-14-15-201116

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	28.4		27.5		%		3	20
Percent Solids	71.6		72.5		%		1	20

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 560-180935/1-A

Matrix: Solid

Analysis Batch: 180951

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.420	J	10.0	0.500	mg/Kg			12/02/20 21:25	1

Lab Sample ID: LCS 560-180935/2-A

Matrix: Solid

Analysis Batch: 180951

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	103.7		mg/Kg		104	80 - 120

Lab Sample ID: 600-213833-1 MS

Matrix: Solid

Analysis Batch: 180951

Client Sample ID: MW-6-S-0-1-201116

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	59.7	J F1	2000	1573	F1	mg/Kg		76	80 - 120

Lab Sample ID: 600-213833-1 MSD

Matrix: Solid

Analysis Batch: 180951

Client Sample ID: MW-6-S-0-1-201116

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	59.7	J F1	2000	1585	F1	mg/Kg		76	80 - 120	1	30

Eurofins TestAmerica, Houston

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Prep: 5035

Analyte	MQL	MDL	Units
Benzene	5.00	0.630	ug/Kg
Ethylbenzene	5.00	1.02	ug/Kg
Toluene	5.00	1.38	ug/Kg
Xylenes, Total	5.00	1.13	ug/Kg

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Prep: 5030C

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	1.00	0.586	mg/Kg

Method: 8015D - Diesel Range Organics (DRO) (GC)

Prep: 3546

Analyte	MQL	MDL	Units
Diesel Range Organics [C10-C28]	8.30	1.71	mg/Kg
Oil Range Organics (C28-C35)	8.30	5.00	mg/Kg

General Chemistry

Analyte	MQL	MDL	Units
Percent Moisture	1.0	1.0	%
Percent Solids	1.0	1.0	%

General Chemistry - Soluble

Leach: DI Leach

Analyte	MQL	MDL	Units
Chloride	10.0	0.500	mg/Kg

QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

GC/MS VOA

Analysis Batch: 307349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	8260B	307359
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	8260B	307359
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	8260B	307359
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	8260B	307359
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	8260B	307359
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	8260B	307359
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	8260B	307359
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	8260B	307359
MB 600-307349/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-307349/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-307349/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 307359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	5035	
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	5035	
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	5035	
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	5035	
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	5035	
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	5035	
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	5035	
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	5035	

GC VOA

Prep Batch: 307379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	5030C	
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	5030C	
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	5030C	
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	5030C	
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	5030C	
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	5030C	
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	5030C	
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	5030C	
MB 600-307379/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 600-307379/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 600-307379/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 307385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	8015D	307379
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	8015D	307379
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	8015D	307379
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	8015D	307379
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	8015D	307379
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	8015D	307379
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	8015D	307379
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	8015D	307379
MB 600-307379/3-A	Method Blank	Total/NA	Solid	8015D	307379
LCS 600-307379/1-A	Lab Control Sample	Total/NA	Solid	8015D	307379

Eurofins TestAmerica, Houston

QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

GC VOA (Continued)

Analysis Batch: 307385 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 600-307379/2-A	Lab Control Sample Dup	Total/NA	Solid	8015D	307379

GC Semi VOA

Prep Batch: 307778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	3546	
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	3546	
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	3546	
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	3546	
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	3546	
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	3546	
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	3546	
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	3546	
MB 600-307778/1-A	Method Blank	Total/NA	Solid	3546	
LCS 600-307778/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 307871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	8015D	307778
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	8015D	307778
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	8015D	307778
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	8015D	307778
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	8015D	307778
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	8015D	307778
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	8015D	307778
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	8015D	307778
MB 600-307778/1-A	Method Blank	Total/NA	Solid	8015D	307778
LCS 600-307778/2-A	Lab Control Sample	Total/NA	Solid	8015D	307778

General Chemistry

Leach Batch: 180935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Soluble	Solid	DI Leach	
600-213833-2	MW-6-S-1-2-201116	Soluble	Solid	DI Leach	
600-213833-3	MW-6-S-2-3-201116	Soluble	Solid	DI Leach	
600-213833-4	MW-6-S-3-4-201116	Soluble	Solid	DI Leach	
600-213833-5	MW-6-S-9-10-201116	Soluble	Solid	DI Leach	
600-213833-6	MW-6-S-14-15-201116	Soluble	Solid	DI Leach	
600-213833-7	MW-6-S-19-20-201116	Soluble	Solid	DI Leach	
600-213833-8	MW-6-S-24-25-201116	Soluble	Solid	DI Leach	
MB 560-180935/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 560-180935/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-213833-1 MS	MW-6-S-0-1-201116	Soluble	Solid	DI Leach	
600-213833-1 MSD	MW-6-S-0-1-201116	Soluble	Solid	DI Leach	

Analysis Batch: 180951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Soluble	Solid	9056	180935
600-213833-2	MW-6-S-1-2-201116	Soluble	Solid	9056	180935
600-213833-3	MW-6-S-2-3-201116	Soluble	Solid	9056	180935

Eurofins TestAmerica, Houston

QC Association Summary

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

General Chemistry (Continued)

Analysis Batch: 180951 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-4	MW-6-S-3-4-201116	Soluble	Solid	9056	180935
600-213833-5	MW-6-S-9-10-201116	Soluble	Solid	9056	180935
600-213833-6	MW-6-S-14-15-201116	Soluble	Solid	9056	180935
600-213833-7	MW-6-S-19-20-201116	Soluble	Solid	9056	180935
600-213833-8	MW-6-S-24-25-201116	Soluble	Solid	9056	180935
MB 560-180935/1-A	Method Blank	Soluble	Solid	9056	180935
LCS 560-180935/2-A	Lab Control Sample	Soluble	Solid	9056	180935
600-213833-1 MS	MW-6-S-0-1-201116	Soluble	Solid	9056	180935
600-213833-1 MSD	MW-6-S-0-1-201116	Soluble	Solid	9056	180935

Analysis Batch: 307460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-213833-1	MW-6-S-0-1-201116	Total/NA	Solid	2540B	
600-213833-2	MW-6-S-1-2-201116	Total/NA	Solid	2540B	
600-213833-3	MW-6-S-2-3-201116	Total/NA	Solid	2540B	
600-213833-4	MW-6-S-3-4-201116	Total/NA	Solid	2540B	
600-213833-5	MW-6-S-9-10-201116	Total/NA	Solid	2540B	
600-213833-6	MW-6-S-14-15-201116	Total/NA	Solid	2540B	
600-213833-7	MW-6-S-19-20-201116	Total/NA	Solid	2540B	
600-213833-8	MW-6-S-24-25-201116	Total/NA	Solid	2540B	
600-213833-5 DU	MW-6-S-9-10-201116	Total/NA	Solid	2540B	
600-213833-6 DU	MW-6-S-14-15-201116	Total/NA	Solid	2540B	

Lab Chronicle

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-0-1-201116

Lab Sample ID: 600-213833-1

Date Collected: 11/16/20 12:00

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 14:14	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/02/20 22:33	JEM	TAL CC

Client Sample ID: MW-6-S-0-1-201116

Lab Sample ID: 600-213833-1

Date Collected: 11/16/20 12:00

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 98.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 11:41	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 16:27	RJV	TAL HOU

Client Sample ID: MW-6-S-1-2-201116

Lab Sample ID: 600-213833-2

Date Collected: 11/16/20 12:15

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 14:37	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 00:15	JEM	TAL CC

Client Sample ID: MW-6-S-1-2-201116

Lab Sample ID: 600-213833-2

Date Collected: 11/16/20 12:15

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 12:06	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 16:58	RJV	TAL HOU

Client Sample ID: MW-6-S-2-3-201116

Lab Sample ID: 600-213833-3

Date Collected: 11/16/20 12:20

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 15:00	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-2-3-201116

Lab Sample ID: 600-213833-3

Date Collected: 11/16/20 12:20

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 00:48	JEM	TAL CC

Client Sample ID: MW-6-S-2-3-201116

Lab Sample ID: 600-213833-3

Date Collected: 11/16/20 12:20

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 12:30	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 17:30	RJV	TAL HOU

Client Sample ID: MW-6-S-3-4-201116

Lab Sample ID: 600-213833-4

Date Collected: 11/16/20 12:25

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 15:23	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 01:22	JEM	TAL CC

Client Sample ID: MW-6-S-3-4-201116

Lab Sample ID: 600-213833-4

Date Collected: 11/16/20 12:25

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 12:55	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 18:02	RJV	TAL HOU

Client Sample ID: MW-6-S-9-10-201116

Lab Sample ID: 600-213833-5

Date Collected: 11/16/20 12:30

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 15:46	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 01:56	JEM	TAL CC

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.

Job ID: 600-213833-1

Project/Site: Chevron Pardue Farms 27-12

Client Sample ID: MW-6-S-9-10-201116

Lab Sample ID: 600-213833-5

Date Collected: 11/16/20 12:30

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 13:20	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 18:33	RJV	TAL HOU

Client Sample ID: MW-6-S-14-15-201116

Lab Sample ID: 600-213833-6

Date Collected: 11/16/20 12:33

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 16:10	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 02:30	JEM	TAL CC

Client Sample ID: MW-6-S-14-15-201116

Lab Sample ID: 600-213833-6

Date Collected: 11/16/20 12:33

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 71.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 13:44	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 19:36	RJV	TAL HOU

Client Sample ID: MW-6-S-19-20-201116

Lab Sample ID: 600-213833-7

Date Collected: 11/16/20 12:35

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 16:33	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 03:04	JEM	TAL CC

Client Sample ID: MW-6-S-19-20-201116

Lab Sample ID: 600-213833-7

Date Collected: 11/16/20 12:35

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 14:09	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	11/30/20 20:08	RJV	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.

Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213833-1

Client Sample ID: MW-6-S-24-25-201116

Lab Sample ID: 600-213833-8

Date Collected: 11/16/20 12:38

Matrix: Solid

Date Received: 11/17/20 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			307359	11/17/20 13:37	WS1	TAL HOU
Total/NA	Analysis	8260B		1	307349	11/17/20 16:56	WS1	TAL HOU
Total/NA	Analysis	2540B		1	307460	11/18/20 15:55	KRD	TAL HOU
Soluble	Leach	DI Leach			180935	12/02/20 17:22	JEM	TAL CC
Soluble	Analysis	9056		20	180951	12/03/20 03:38	JEM	TAL CC

Client Sample ID: MW-6-S-24-25-201116

Lab Sample ID: 600-213833-8

Date Collected: 11/16/20 12:38

Matrix: Solid

Date Received: 11/17/20 10:22

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			307379	11/18/20 09:00	WS1	TAL HOU
Total/NA	Analysis	8015D		1	307385	11/18/20 14:33	WS1	TAL HOU
Total/NA	Prep	3546			307778	11/25/20 13:23	RLK	TAL HOU
Total/NA	Analysis	8015D		1	307871	12/01/20 08:21	RJV	TAL HOU

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Pardue Farms 27-12

Job ID: 600-213833-1

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-20-28	11-01-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
2540B		Solid	Percent Moisture
2540B		Solid	Percent Solids
8015D	3546	Solid	Oil Range Organics (C28-C35)

Laboratory: Eurofins TestAmerica, Corpus Christi

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05094	06-30-21
Oklahoma	State	2020-006	08-31-21
Texas	NELAP	T104704210-19-23	03-31-21
USDA	US Federal Programs	P330-18-00314	10-31-21

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
America

Client Information Client Contact: Ryan Nanny Company: ARCADIS U.S., Inc. Address: 1004 North Big Spring Suite 121 City: Midland State, Zip: TX, 79701 Phone: 432-684-5400(Tel) 432-687-5401(Fax) Email: ryan.nanny@arcadis.com Project Name: Chevron Pardue Farms 27-12 Site: <u>Pardue 27-12</u>		Sampler: J. SKINMANN Lab PM: Kudchadkar, Sachin G Phone: 619 851 8792 E-Mail: Sachin.Kudchadkar@Eurofins.com		Carrier Tracking Note(s) COC No: 600-79929-21574.1 Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): <u>5</u> PO #: <u>3004, Moulton</u> Purchase Order Requested WO #: <u>82608 BTEX 95</u> Project #: 60012812 SSOW#:		Analysis Requested 8015D_GRO - Gasoline Range Organics 8260B - BTEX Only 9040B - Corrosivity 1010, 6010B, 7470A 8015D_DRO - (MOD) Diesel Range Organics 8015D_GRO - Gasoline Range Organics 8260B - BTEX Only Perform MS/MSD (Yes or No)			
Sample Identification MW-6-S-0-1-20116 MW-6-S-1-2-20116 MW-6-S-2-3-20116 MW-6-S-3-4-20116 MW-6-S-9-10-20116 MW-6-S-14-15-20116 MW-6-S-19-20-20116 MW-6-S-24-25-20116 Temp Blank		Sample Date 11/16/20 1215 1220 1225 1230 1233 1235 1238	Sample Time 1200 1215 1220 1225 1230 1233 1235 1238	Sample Type (C=Comp, G=grab) G G G G G G G G	Matrix (W=water, S=solid, O=oil, A=air) Water Water Water Water Water Water Water Water Solid Solid
Special Instructions/Note: 600-213833 Chain of Custody		Total Number of Containers: <u>2</u>			
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 X - other (specify) Other:		Special Instructions/Note:			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested I, II, III, IV, Other (specify)					
Empty Kit Relinquished by:					
Relinquished by: <u>[Signature]</u> Date/Time: 11/16/20 1715 Company: <u>ARCADIS</u>		Relinquished by: <u>[Signature]</u> Date/Time: 11/17/20 1022 Company: <u>ETA</u>			
Relinquished by: <u>[Signature]</u> Date/Time: <u>11/16/20</u> Company: <u>ARCADIS</u>		Relinquished by: <u>[Signature]</u> Date/Time: <u>11/17/20</u> Company: <u>ETA</u>			
Relinquished by: <u>[Signature]</u> Date/Time: <u>11/16/20</u> Company: <u>ARCADIS</u>		Relinquished by: <u>[Signature]</u> Date/Time: <u>11/17/20</u> Company: <u>ETA</u>			
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:			

Ver: 01/16/2019

20 NOV 17 10:22

Eurofins TestAmerica Houston

Loc: 600
213833Environment Testing
TestAmerica

Sample Receipt Checklist

JOB NUMBER: _____ Date/Time Received: _____
CLIENT: Arcadis
UNPACKED BY: YR CARRIER/DRIVER: FedEx
Custody Seal Present: ☒ YES ☐ NO Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
1786	Y / N	Y / N	2.8	681	0.1	2.9
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are >pH 12: ☐ YES ☐ NOAcid preserved are <pH 2: ☐ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☒ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES ☐ NO

COMMENTS:

YR 11/17/20

HS-SA-WI-013

Rev. 4A; 08/26/2019

Eurofins TestAmerica, Houston
5310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

 eurofinsEnvironment Testing
America

Client Information (Sub Contract Lab)						Sampler:	Lab PM:	Kudchadkar, Sachin G	Carrier Tracking No(s)	COC No:				
Client Contact: Shipping/Receiving						Phone:		E-Mail: Sachin.Kudchadkar@Eurofinset.com	Slate of Origin: Texas	Page: Page 1 of 1				
Company: TestAmerica Laboratories, Inc.						Accreditations Required (See note): NELAP - Texas								
Address: 1733 N. Padre Island Drive,						Job #: 600-213833-1								
City: Corpus Christi						Preservation Codes:								
State, Zip: TX, 78408						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:								
Phone: 361-289-2673(Tel) 361-289-2471(Fax)														
Email: 														
Project Name: Chevron Pardue Farms 27-12														
Site: 														
Sample Identification - Client ID (Lab ID)						Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=Tissue, AA=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	905/DI LEACH (MOD) Local Method	Total Number of containers	Special Instructions/Note:
MW-6-S-0-1-201116 (600-213833-1)	11/16/20	12:00 Central				X							1	
MW-6-S-1-2-201116 (600-213833-2)	11/16/20	12:15 Central				X							1	
MW-6-S-2-3-201116 (600-213833-3)	11/16/20	12:20 Central				X							1	
MW-6-S-3-4-201116 (600-213833-4)	11/16/20	12:25 Central				X							1	
MW-6-S-9-10-201116 (600-213833-5)	11/16/20	12:30 Central				X							1	
MW-6-S-14-15-201116 (600-213833-6)	11/16/20	12:33 Central				X							1	
MW-6-S-19-20-201116 (600-213833-7)	11/16/20	12:35 Central				X							1	
MW-6-S-24-25-201116 (600-213833-8)	11/16/20	12:38 Central				X							1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>														
Possible Hazard Identification														
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)														
Primary Deliverable Rank: 2														
Date: _____ Time: _____														
Empty Kit Relinquished by: _____														
Relinquished by: _____ Date/Time: 11/27/20 17:00 Company: ECA														
Relinquished by: _____ Date/Time: _____ Company: _____														
Relinquished by: _____ Date/Time: _____ Company: _____														
Custody Seal Intact: _____ Custody Seal No.: _____														

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213833-1

Login Number: 213833

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213833-1

Login Number: 213833

List Source: Eurofins TestAmerica, Corpus Christi

List Number: 2

List Creation: 11/28/20 12:52 PM

Creator: Sanchez, Allyse A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-213833-1

Login Number: 213833

List Source: Eurofins TestAmerica, Corpus Christi

List Number: 3

List Creation: 11/30/20 11:09 AM

Creator: Cooper, Jenna L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Arcadis U.S., Inc.
1004 North Big Spring Street, Suite 121
Midland
Texas 79701
Phone: 432 687 5400
Fax: 432 687 5401
www.arcadis.com

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 103468

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 103468
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2020 Site Assessment Report: Content Satisfactory 1.Continue to fully delineate groundwater impact from chlorides, if not already conducted and complete. 2. Continue to sample quarterly as prescribed in 19.15.30 of the NMAC and submit recommendations for abatement or continued monitoring 3. Submit annual report no later than April 1, 2024.	2/21/2024