April 18, 2020

Incident ID: NCE2003540506
Characterization, Remediation and Closure Report
Dagger Lake to Merchant Pond Line Test

Prepared for
Advance Energy Partners Hat Mesa LLC
Houston, Texas

Prepared by
R.T. Hicks Consultants, Ltd.
Albuquerque, New Mexico

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	NCE2003540506
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Advance Energy Partners Hat Mesa LLC	OGRID: 372417
Contact Name: David Harwell	Contact Telephone: 281-235-3431
Contact email: DHarwell@advanceenergypartners.com	Incident # *(assigned by OCD)*
Contact mailing address: 11490 Westheimer Rd. Suite 950. Houston, TX 77077	

Location of Release Source

Latitude 32.4201070 Longitude -103.6043589
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Dagger Lake to Merchant Pond Line Test	Site Type: Pipeline
Date Release Discovered: January 08, 2020 at 1:30am	API#

Unit Letter	Section	Township	Range	County
I	06	T22S	R33E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Merchant Livestock)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 4.3	Volume Recovered (bbls): 0
☒ Produced Water	Volume Released (bbls) 52	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Pressure line test using fresh water from a nearby fresh water containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the water from the line was released along with the unknown contents of produced water and oil. The presence of produced water was confirmed upon receipt of laboratory analysis of soil sampling conducted on January 9, 2020

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 barrels produced water
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? See attached email	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

All free liquids infiltrated into the silty sand.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Andrew Parker Title: Sr. Env. Specialist

Signature: Andrew Parker Date: Jan 17 , 2020

email: andrew@rthicksconsult.com Telephone: 970-570-9535

OCD Only

Received by: Cristina Eads Date: 02/04/2020

NCE2003540506

Spill Dimensions to Volume of Release (Produced Water)			
Input	**volume of affected soil**	**[feet^3]**	8335.85
Input	Porosity: typically is .35 to .40 for most soils	[-]	0.35
Input	Proportion of porosity filled with release fluid [0,1]	[-]	0.10
Output	volume of fluid	[feet^3]	**291.8**
		[gal]	**2182.5**
		Barrels	52.0

From GIS	
Sq. Ft	16671.7
Depth (ft)	0.500
Cu. Ft	8335.85

Spill Dimensions to Volume of Release (Oil)			
Input	**volume of affected soil**	**[feet^3]**	694.65
Input	Porosity: typically is .35 to .40 for most soils	[-]	0.35
Input	Proportion of porosity filled with release fluid [0,1]	[-]	0.10
Output	volume of fluid	[feet^3]	**24.3**
		[gal]	**181.9**
		Barrels	4.3

From GIS	
Sq. Ft	16671.7
Depth (ft)	0.042
Cu. Ft	694.6542

NCE2003540506

andrew@rthicksconsult.com

To: EMNRD-OCD-District1spills@state.nm.us
Cc: 'David Harwell'; 'robbyo@roctx.com'; Robert Munoz; 'jacob@rthicksconsult.com'; laura@rthicksconsult.com; 'Mann, Ryan'
Subject: 24-Hour Notification of Major Release

NMOCD:

Per 19.15.29.10.A(1), on the behalf of Advance Energy Partners Hat Mesa, R.T. Hicks Consultants submits this 24-hour Notification of a Major Release.

The release occurred on January 8, 2020 at approximately 1:30am during a pressure line test using fresh water from a nearby fresh water containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the fresh water from the line was released along with the unknown contents of produced water and oil. The presence of produced water was confirmed upon receipt of laboratory analysis of soil sampling conducted on January 9, 2020.

After clearance from the on-call, excavation began January 15th for the removal of hydrocarbons observed on surface soils within the release extent. It was not until evaluation of laboratory results that identified produced water was present in the released fluid.

Attached is a copy of the C-141. Portions reproduced below.

Responsible Party

Responsible Party: Advance Energy Partners Hat Mesa LLC	OGRID: 372417
Contact Name: David Harwell	Contact Telephone: 281-235-3431
Contact email: DHarwell@advanceenergypartners.com	Incident # *(assigned by OCD)*
Contact mailing address: 11490 Westheimer Rd. Suite 950. Houston, TX 77077	

Location of Release Source

Latitude 32.4201070 Longitude -103.6043589
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Dagger Lake to Merchant Pond Line Test	Site Type: Pipeline
Date Release Discovered: January 08, 2020 at 1:30am	API#

Unit Letter	Section	Township	Range	County
I	06	T22S	R33E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Merchant Livestock)

Andrew Parker
R.T. Hicks Consultants
Durango Field Office
970-570-9535

State of New Mexico
Oil Conservation Division

Incident ID	NRM2000354631
District RP	
Facility ID	
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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? **Plate 4 & 5**	370 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? **Plate 7**	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? **Plate 7**	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? **Plate 8**	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? **Plate 6**	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? **Plate 6**	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? **Plate 6**	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland? **Plate 9**	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine? **Plate 10**	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology? **Plate 11**	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain? **Plate 12**	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

Characterization Report Checklist: ***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.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

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State of New Mexico
Oil Conservation Division

Incident ID	NRM2000354631
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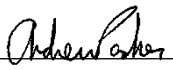
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public 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: Andrew Parker Title: Sr. Env. Specialist

Signature:  Date: April 18, 2020

email: andrew@rthicksconsult.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2000354631
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Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Andrew Parker Title: Sr. Env. Specialist

Signature: Andrew Parker Date: April 18, 2020

email: andrew@rthicksconsult.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2000354631
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

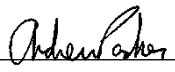
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

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

☒ Description of remediation activities

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

Printed Name: Andrew Parker Title: Sr. Env. Specialist

Signature:  Date: April 18, 2020

email: andrew@rthicksconsult.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

R. T. HICKS CONSULTANTS, LTD.
901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Since 1996
▲ Carlsbad ▲ Durango

April 13, 2020

NMOCD District 1
District 1 - HOBBS
1625 N. French Drive
Hobbs, New Mexico 88240
Electronic Submittal via portal

RE: Incident ID: NCE2003540506
Characterization, Remediation and Closure Report
Dagger Lake to Merchant Pond Line Test
Advance Energy Partners Hat Mesa, LLC

NMOCD:

R.T. Hicks Consultants submits this characterization, remediation and closure report on the behalf of Advance Energy Partners Hat Mesa, LLC (Advance Energy). The location of the release is 32.4201070, -103.604.3589 (Latitude/Longitude; NAD 83); Unit Letter I, Sec 06, T22S., R33E; Lea County.

The release occurred on January 8, 2020. State of New Mexico is the surface owner. The release occurred during pressure line testing using fresh water from a nearby freshwater containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the water from the line was released along with the unknown presence of produced water and oil. The discovery of produced water was confirmed upon receipt of laboratory analysis of soil sampling conducted on January 9, 2020.

Excavation of impacted soil began on January 9th and was completed by April 3rd, 2020. Surface flow lines (lay flats) used for completion operations delayed the remediation until well completion.

The C-141, including the Characterization, Remediation, and Closure Forms, is attached.

We respectfully ask NMOCD for closure of the regulatory file.

Hick Consultants relied on 19.15.29 NMAC for characterization, remediation, and closure reporting for the above referenced release.

The report is divided into three sections:

I. Initial Response
II. Characterization
III. Remediation and Closure

Plates

- Plate 1 – Site Map
- Plate 2 – EMI Survey In-Phase Metal Susceptibility (Horizontal Mode at 1m Separation)
- Plate 3 – EMI Survey ECa in the Horizontal Dipole Mode at 1.0 m coil separation.
- Plate 4 – Depth to Water
- Plate 5 – Potentiometric Surface
- Plate 6 – Wellhead Protection
- Plate 7 – Water Courses
- Plate 8 – Nearby Structures
- Plate 9 – Wetlands
- Plate 10 – Mines and Minerals
- Plate 11 – Karst Potential
- Plate 12 – Flood Hazard Potential (FEMA)
- Plate 13 – Base Sample Grid Diagram
- Plate 14 – Wall Sample Grid Diagram

Tables

- Table 1 – Sample Results Summary
- Table 2 – Nearby OSE Well Summary

Appendices

- Appendix A – Laboratory Certificate of Analyses
- Appendix B - OSE Well Logs

1 Initial Response

The release occurred on January 08, 2020 during pressure line testing using fresh water from a nearby freshwater containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the water from the line was released along with the unknown presence of produced water and oil. The release occurred in a pipeline right-of-way, flowed west across a lease road and into two more pipeline right-of-ways then into pasture land (Plate 1 and Figure 1).

All free liquids infiltrated into the silty sand. Excavation of impacted soil caused by the release began on January 09, 2020. Excavated material was transported to an approved disposal facility.

Figure 1: Photograph viewing northeast toward the source of the release. A pipeline right-of-way is visible in photo center. Date: 0/09/2020. GPS: 32.4193722 N, 103.6051722 W.

2 Characterization

The following sections address items as described in 19.15.29.11.A, paragraphs 1- 4. Please refer to the C-141 characterization checklist for additional setback criteria and verification (Plates 4-12).

2.1 Site Map

Horizontal extent of the release was determined by visual observations. R.T. Hicks Consultants was on-location the day of the release and mapped the release extent using GPS technology.

Plate 1 shows the release extent relative to the source point and pipelines.

2.2 Electromagnetic Induction Survey (EMI)

EMI Surveys are commonly used to measure apparent electrical conductivity (EC_a, "soil salinity") in soils. Employing a Geonics EM38-MKII, field personnel can effectively delineate the horizontal and vertical (up to a depth of 5-feet) extent of a produced water release by measuring EC_a and monitoring for EC changes between background and higher EC readings. At produced water releases, increasing EC measurements suggest a higher chloride.

On January 19, 2020 we performed an EMI Survey to measure the electrical conductivity of the release area. The EMI Survey was conducted in the horizontal and vertical dipole modes at 0.5 and 1.0 meter coil separations. Sensitivity to surface material is greatest at the 0.5 coil separation, zero feet in the horizontal mode and 0.66 feet in the vertical mode (below table and Figure 2a). At the 1.0 meter coil separation, greatest sensitivity is zero feet in the horizontal mode and 1.31 feet in the vertical mode (Figure 2b). Furthermore, at the 1.0 meter coil separation, sensitivity to subsurface material has a greater depth range. For example, at the 0.5 meter coil separation in the vertical mode the sensitivity ranges from 0.7 to 2.5 feet below ground surface; at the 1.0 meter coil separation in the vertical mode the sensitivity ranges from 1.3 to 4.9 feet below ground surface.

Coil Separation	Dipole Mode	Greatest Sensitivity	Relative Range	
meters		meters (feet)	Depth (meters)	Depth (feet)
0.5				
	Horizontal	0	0 - 0.4	0 - 1.3
	Vertical	0.2 (0.66)	0.2 - 0.8	0.7 - 2.5
1				
	Horizontal	0	0 - 0.8	0 - 2.5
	Vertical	0.4 (1.31)	0.4 - 1.5	1.3 - 4.9

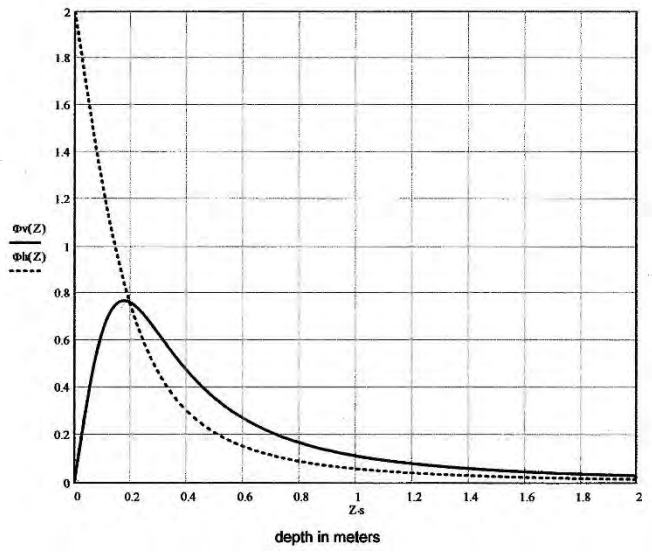


Figure 2a: 0.5-meter coil separation. Relative sensitivity with depth. Dashed line horizontal dipole mode. Solid line vertical dipole mode.

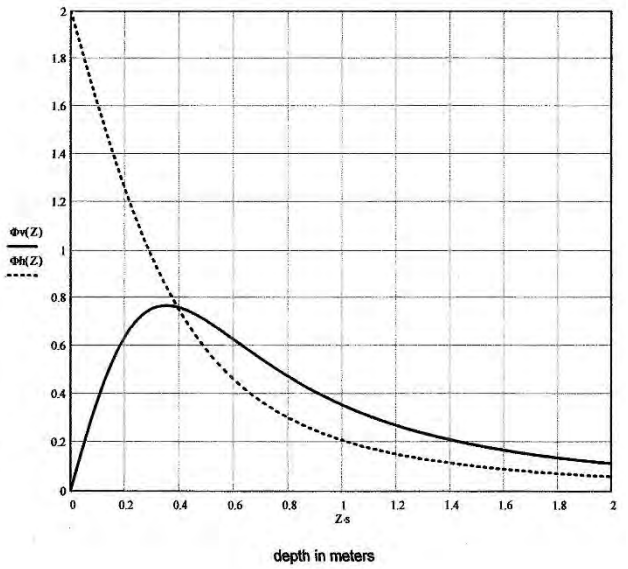


Figure 2b: 1.0-meter coil separation. Relative sensitivity with depth. Dashed line horizontal dipole mode. Solid line vertical dipole mode.

The difference in sensitivity ranges in the two coil configurations and dipole modes is important; the horizontal dipole mode will be relatively sensitive to variations near surface whereas the vertical dipole mode will be insensitive near the surface and sensitive at greater depths. This difference in sensitivity allows for a quick method for determining whether the near surface soil is more conductive (higher chloride concentration) than soils at depth, where

> *if a higher EC_a reading is obtained in the horizontal position than the vertical position, chloride has likely impacted the upper surface more than soils at lower depths. If a higher EC_a reading is obtained in the vertical position than the horizontal position, chloride has likely impacted soils at lower depths than the upper surface soils.*

It is important to note that the EM38 is very susceptible to metal and electrical interferences. A metal object small as a steel nail can cause the apparent electrical conductivity to read high or go negative. EMI surveys near pipelines, wellheads, tank batteries, and powerlines must account for these interferences.

2.3 Metal Interference

As discussed above, the EM38-MK2 is susceptible to metal and electrical interference. These interferences need to be identified and evaluated prior to evaluation of electrical conductivity of subsurface soils.

The In-phase (IP) susceptibility of metal and electrical interferences is measured in parts per thousand (PPT). It is common for susceptibility readings to have very high and very low (negative) value.

Plate 2 shows the IP readings in the horizontal dipole mode at the 1.0 meter receiver coil separation relative to IP interferences within the survey area. The IP susceptibility in this mode/coil separation, is most sensitive from 0.0 to 2.5 ft below ground surface (bgs). Red, yellow, and bright blue shading highlights areas with greatest IP susceptibility. Purple shading represents areas of no metal susceptibility. The following areas shows high IP susceptibility:

- At the pipeline riser connection (source)
- Along the metal pipelines and connectors (yellow, red and bright blue).
- Polyline roll feeder. South of the release area near the source (yellow and bright blue)
- Light pole and generator. North of the release area near the source (red, yellow, bright blue)
- An unknown metal object at the southwest corner of the release (yellow and bright blue).

Interpretation notes:

- Metal objects will have an influence on the electrical conductivity readings during the Quad-phase (QP) EMI survey. The user of the EMI survey needs to be aware of QP false readings near these two objects.

2.4 Electrical Conductivity

Field soil testing of electrical conductivity at discreate depths were obtained from four hand auger samples (PA-02, SF-01, Source, and WNH). Discrete soil samples were field tested for electrical conductivity using a Hanna DiST 4 EC Tester. EC readings were measured using a saturated paste in a 1-part soil to 5-parts distilled water solution ($EC_{1:5}$).

The purpose of the soil sampling was to

1) correlate the EMI survey with site specific $EC_{(1:5)}$ and chloride concentrations to a depth of no greater than 4-feet bgs and
2) determine chloride impairment relative to depth.

As shown in Figure 3, $EC_{1:5}$ readings <0.20 dS/m correlates with a chloride concentration approximately <600 mg/kg.

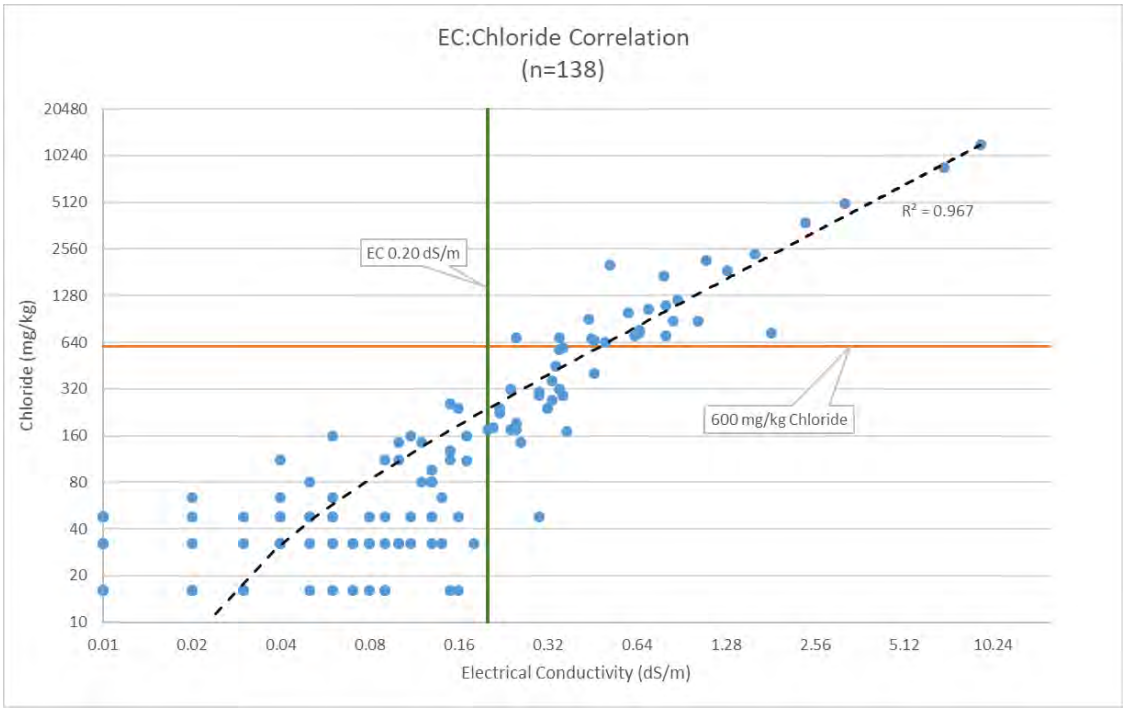


Figure 3: $EC_{1:5}$ vs Chloride. Soil samples with an $EC_{1:5}$ < 0.2 dS/m are likely to exhibit chloride concentrations below 600 mg/kg.

The Quad-phase (QP) readings of the EMI Survey measures apparent electrical conductivity (EC_a) in both the horizontal and vertical dipole modes.

Plate 3 shows the EC_a in the horizontal dipole mode at 1.0 m coil separation with a relative sensitivity range of 0 to 2.5 ft bgs with the greatest sensitivity at the surface.

Within the release extent ECa readings are affected by metal interference at the source (pipeline riser) and along pipelines. The dark-blue purple colors represent areas below 600 mg/kg chloride within the upper 2.5-feet. Soil sample WNH, which is within the dark-blue purple color, confirms that chloride is below 600 mg/kg.

The bright-blue, green, yellow, and red shading represent areas of increasing EC_a, thus higher chloride concentration potential.

- Soil sample SF-01, which is within yellow shading has a surface chloride concentration of 7,200 mg/kg.
- PA-02, which is within the higher EC_a red shading has a chloride concentration of 8,640 mg/kg at the surface.

The EMI survey indicates that remediation in areas with shading of bright-blue, green, and yellow are likely to have an excavation depth of 3 to 4-feet below

ground surface (bgs). Red areas indicate that chloride is likely to exceed 600 mg/kg in the upper 4-feet of the soil profile.

Table 1 is a summary of analytical results and $EC_{1:5}$ field readings. Table 1 includes characterization and confirmation sampling results. Appendix A contains the laboratory certificate of analysis.

2.5 Depth to Ground Water

Most recent depth to water data was queried from the USGS and New Mexico Office of the State Engineer (OSE) online databases (Plate 4). Spatial analysis shows:

- The nearest well (CP-00854) is approximately 2.3 miles to the northeast with a depth to water of 600 feet.
- The second nearest well (CP-01356) is approximately 2.5 miles to the east-northeast with a depth to water of 555 feet.

Ground water flow is to the southeast as demonstrated on the potentiometric surface map (Plate 5). We relied on the USGS water wells to generate the potentiometric surface. Regionally, USGS water wells show that ground water is within the alluvium, Santa Rosa, and Chinle formations.

The potentiometric surface indicates that the depth to water is approximately 370 feet below ground surface, where 370 feet = 3645 ft surface elevation – 3275 ft potentiometric surface.

Table 2 lists nearby water wells from the Office of the State Engineer's (OSE) online database. Appendix B are the wells logs listed in Table 2.

2.6 Wellhead Protection Area

Plate 6 shows that the release extent is not:

- Within incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within ½-mile private and domestic water sources (wells and springs).
- 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
- Within 1000 feet of any other fresh water well or spring

2.7 Distance to Nearest Significant Water Course

Plate 7 shows that the release extent is not:

- Within ½ mile of any significant water course.
- Within 300 feet of a continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

2.8 Soil/Waste Characteristics

The release occurred in an area where depth to water is greater than 100 ft below ground surface (bgs), in three pipeline right-of-ways, and pasture land.

The release area was remediated (discussed below, Section 3) according to Closure Criteria listed in Table 1 of 19.15.29 NMAC.

Table 1 shows the analytical results of confirmation sampling. The Laboratory Certificate of Analyses are located in Appendix A.

Release excavation showed the lithology as:

0 – 4.5 ft: silty sand
4.5 - 5 ft: hard caliche layer

3 Remediation and Closure

3.1 Excavation Protocol

All surfaces were remediated in accordance with 19.15.29.13 NMAC. Per Table 1 of 19.15.29 NMAC, closure criteria concentrations where depth to water >100 feet are:

Table 1 19.15.29 NMAC		Chloride	GRO+DRO	TPH+Ext	BTEX	Benzene
DTW > 100ft		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Closure Criteria	**0-4 ft (not in-use)**	**600**	**1,000**	**2,500**	**50**	**10**
Closure Criteria	**>4 ft or "in-use"**	**20,000**	**1,000**	**2,500**	**50**	**10**

Excavation of the base and walls in the upper 4-feet continued until field screening of electrical conductivity ($EC_{1:5}$) was less than 0.2 to 0.3 dS/m (Figure 4 & 5). As shown previously in Figure 3, EC < 0.2 dS/m correlates with a chloride concentration <600 mg/kg.

Figure 4: Excavation of bases and wall until electrical conductivity (EC) <0.2 dS/m. Date 02/13/2020. GPS: 32.4198528 N, 103.6048194 W

Figure 5: Excavation of bases and walls near pipeline riser source area. Date: 03/31/2020. GPS: 32.4200278 N, 103.6044136 W

3.2 Remediation Activities

The excavation extent is irregular in shape and covers a surface area of 1,852 square yards with an excavated volume of 1,080 cu. yards.

Plate 13 shows the sampling diagram for base samples. A 5-point composite sample was collected from each grid for confirmation sampling. Five-point

composite sample points were evenly spaced within each sample grid to obtain a representative sample of the area (Figure 6, below example).

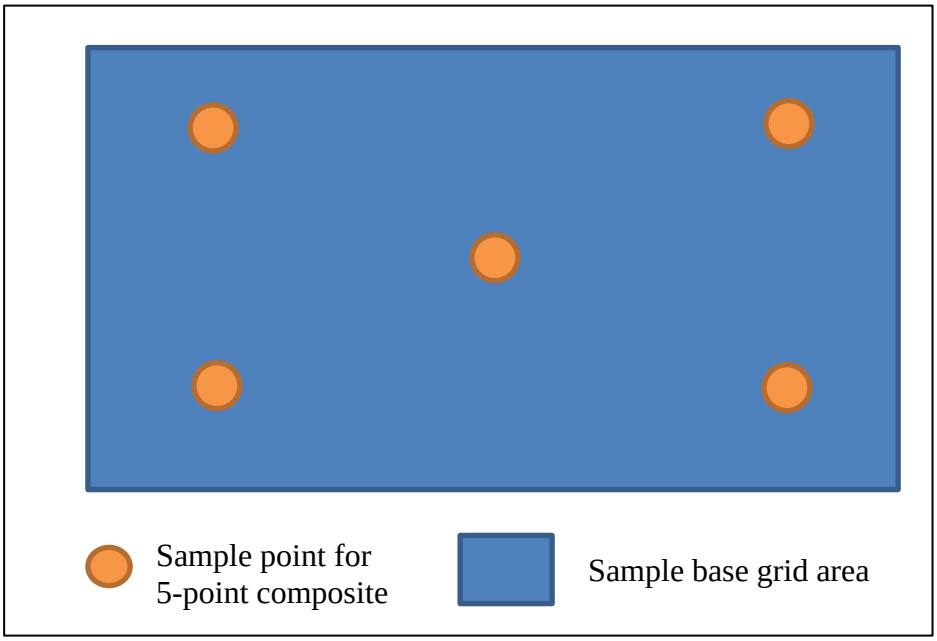


Figure 6: Example of 5-point sample grid for composite sampling.

Five-point composite soil samples were collected along the walls of the excavation as shown on Plate 14. Sample points for the composite wall samples were evenly distributed along the wall to obtain a representative 5-point composite sample. Samples were collected from the surface to 4-feet or excavation base depth, whichever is less.

If soil confirmation sampling exceeded 19.15.29 NMAC Table 1 Closure Criteria concentrations, excavation continued until soil confirmation results were below Closure Criteria.

Table 1 is a summary of analytical from confirmation sampling.

- Base confirmation samples exhibit concentrations below 19.15.29 NMAC Table 1 Closure Criteria.
- Wall confirmation samples exhibit concentrations below 19.15.29 NMAC Table 1 Closure Criteria.

Excavated material was transported to an approved disposal facility. Clean backfill material was purchased from Merchant Livestock under a surface use agreement. Figure 7 & 8 shows the restored surface.

Figure 7: Reclaimed release area east side of road near pipeline riser viewing south. Date: 04/03/2020. GPS: 32.4186969 N, 103.5974589 W

Figure 8: Reclaimed release area west of lease road viewing south. Date: 03/05/2020 GPS: 32.4202431 N, 103.6047419 W

Please contact me with any questions at andrew@rthicksconsult.com or 970-570-9535.

Sincerely,
R.T. Hicks Consultants, Ltd.

Andrew Parker
Sr. Env. Specialist

Copy: David Harwell (DHarwell@advanceenergypartners.com); Advance Energy Partners Hat Mesa, LLC
Ryan Mann (rmann@slo.state.nm.us); State Land Office

Plates

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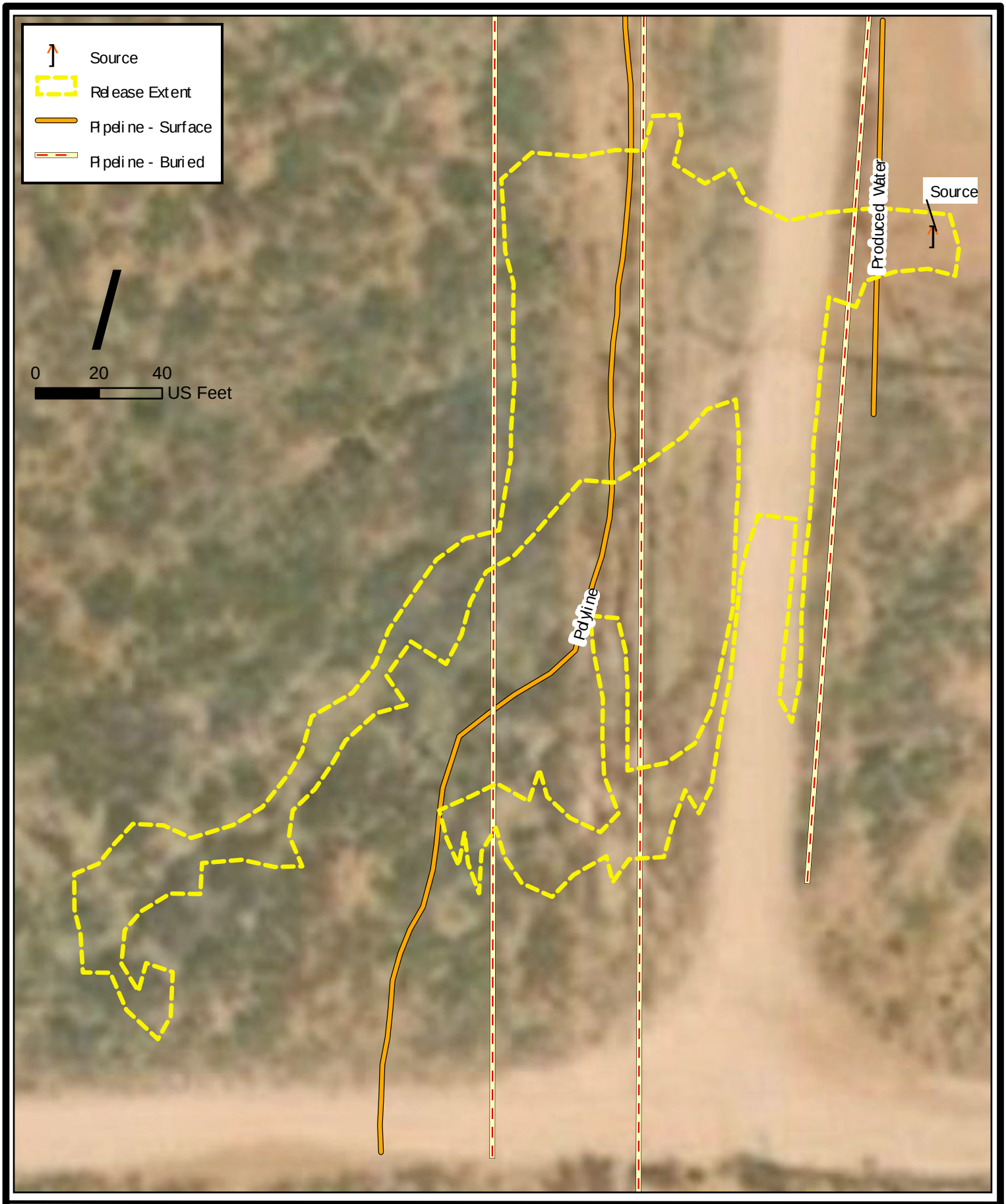

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Release Extent (Release: 01/08/2020)	Plate 1
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/13/2020

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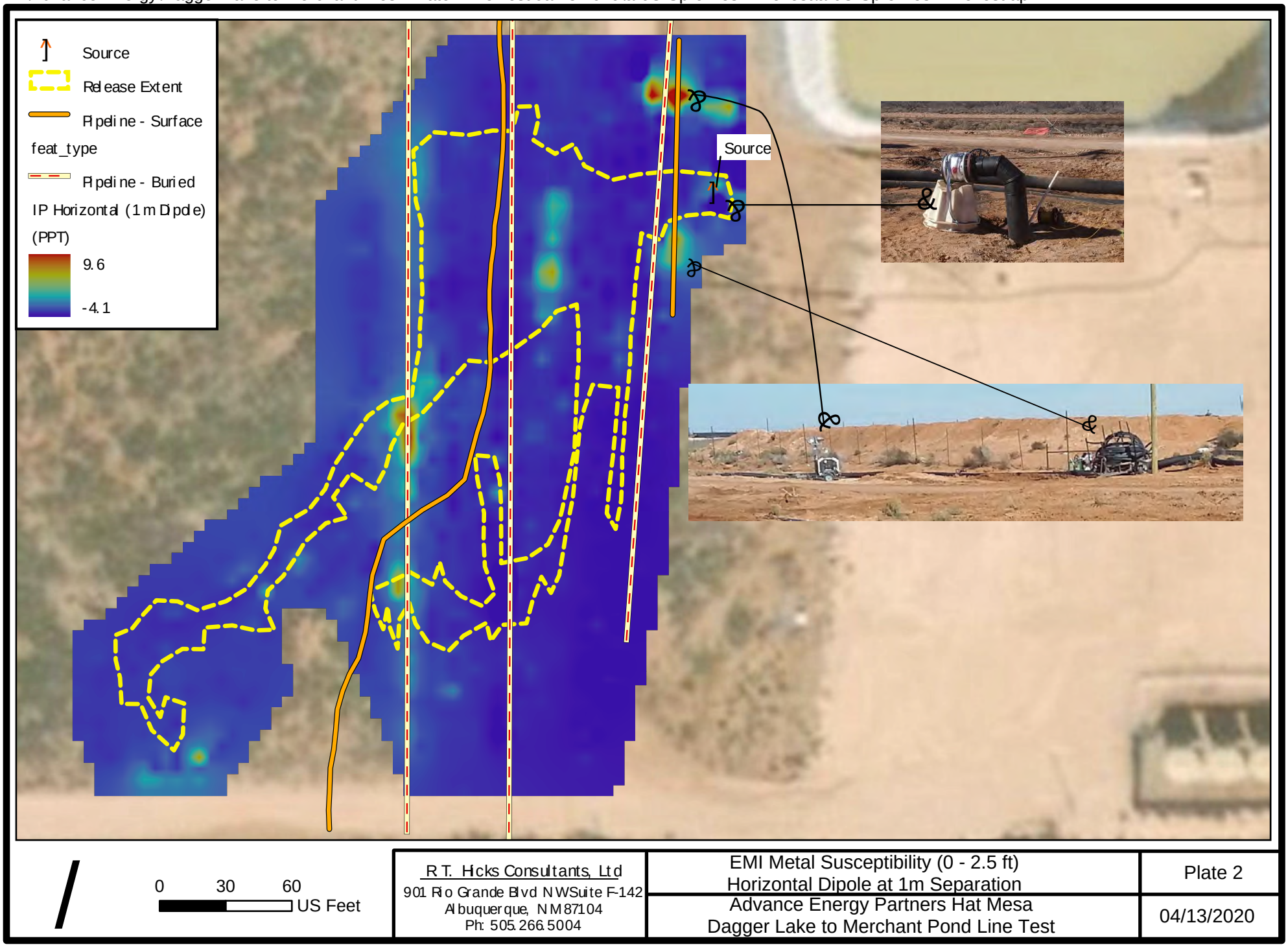
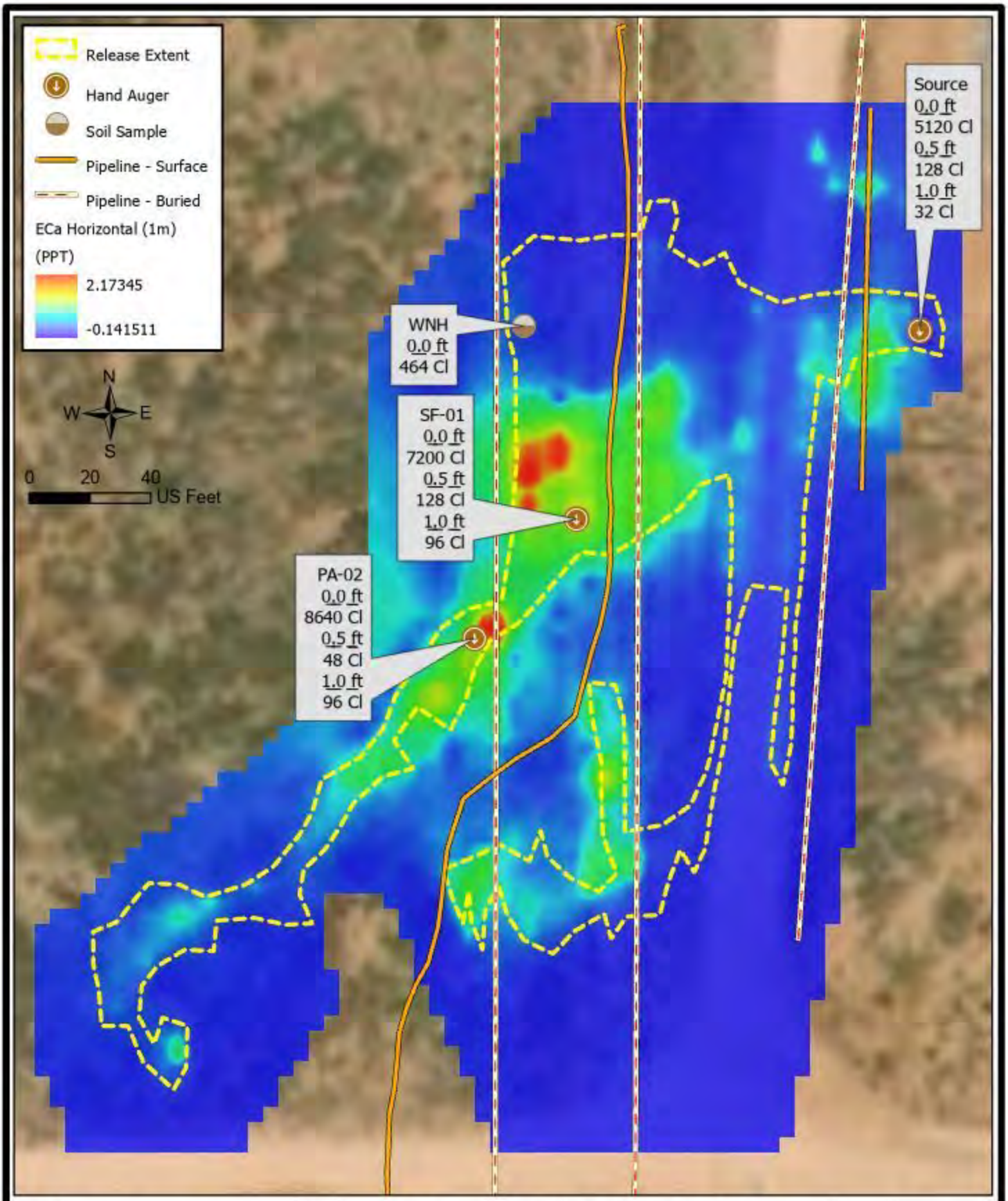


R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	EMI Metal Susceptibility (0 - 2.5 ft) Horizontal Dipole at 1m Separation	Plate 2
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/13/2020



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	EMI Apparent Electrical Conductivity (0 - 2.5 ft) Horizontal Dipole Mode at 1m Separation	Plate 3
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/13/2020

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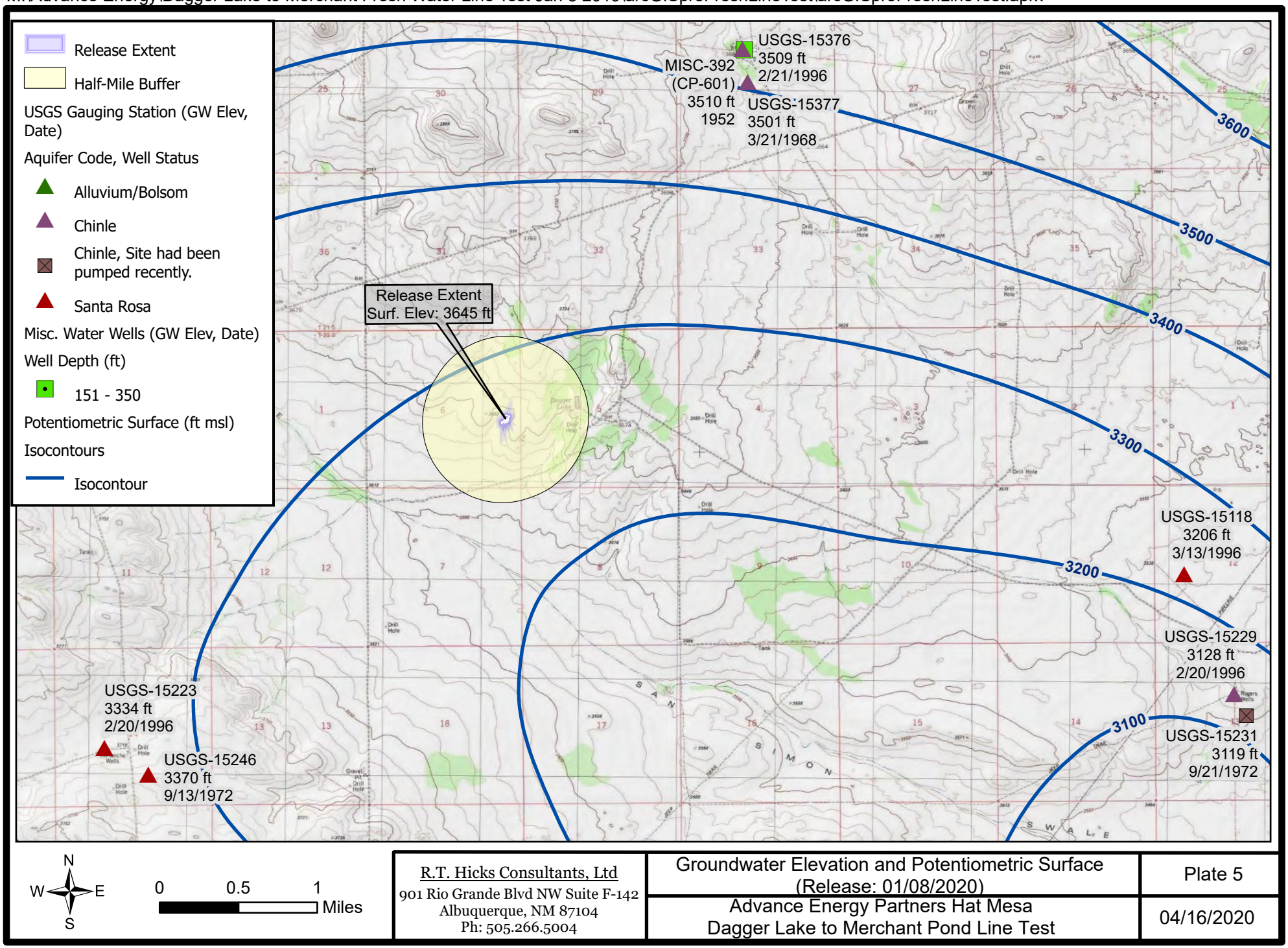

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Groundwater Elevation and Potentiometric Surface (Release: 01/08/2020) Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test
	Plate 5 04/16/2020

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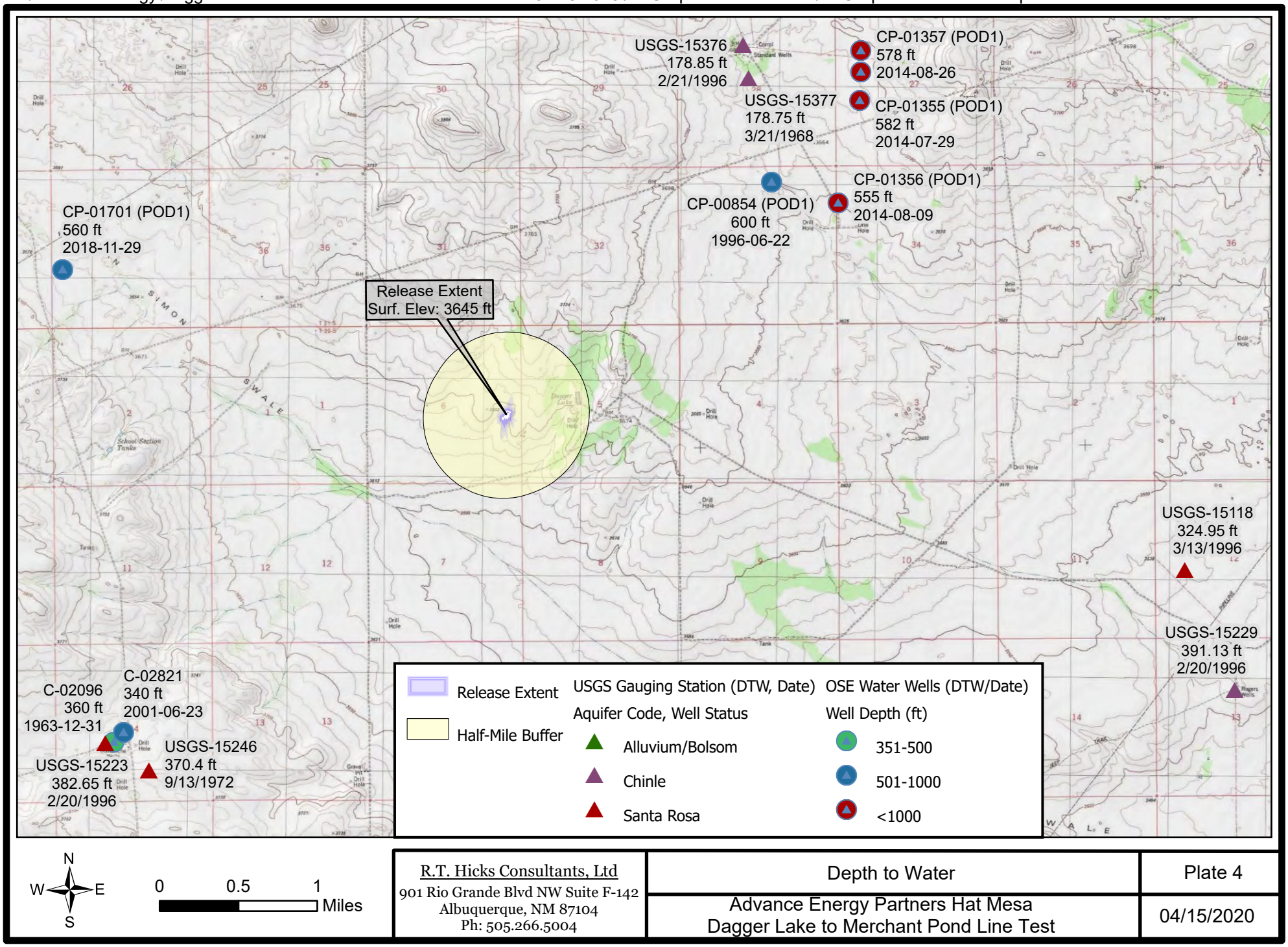

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Depth to Water	Plate 4
Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

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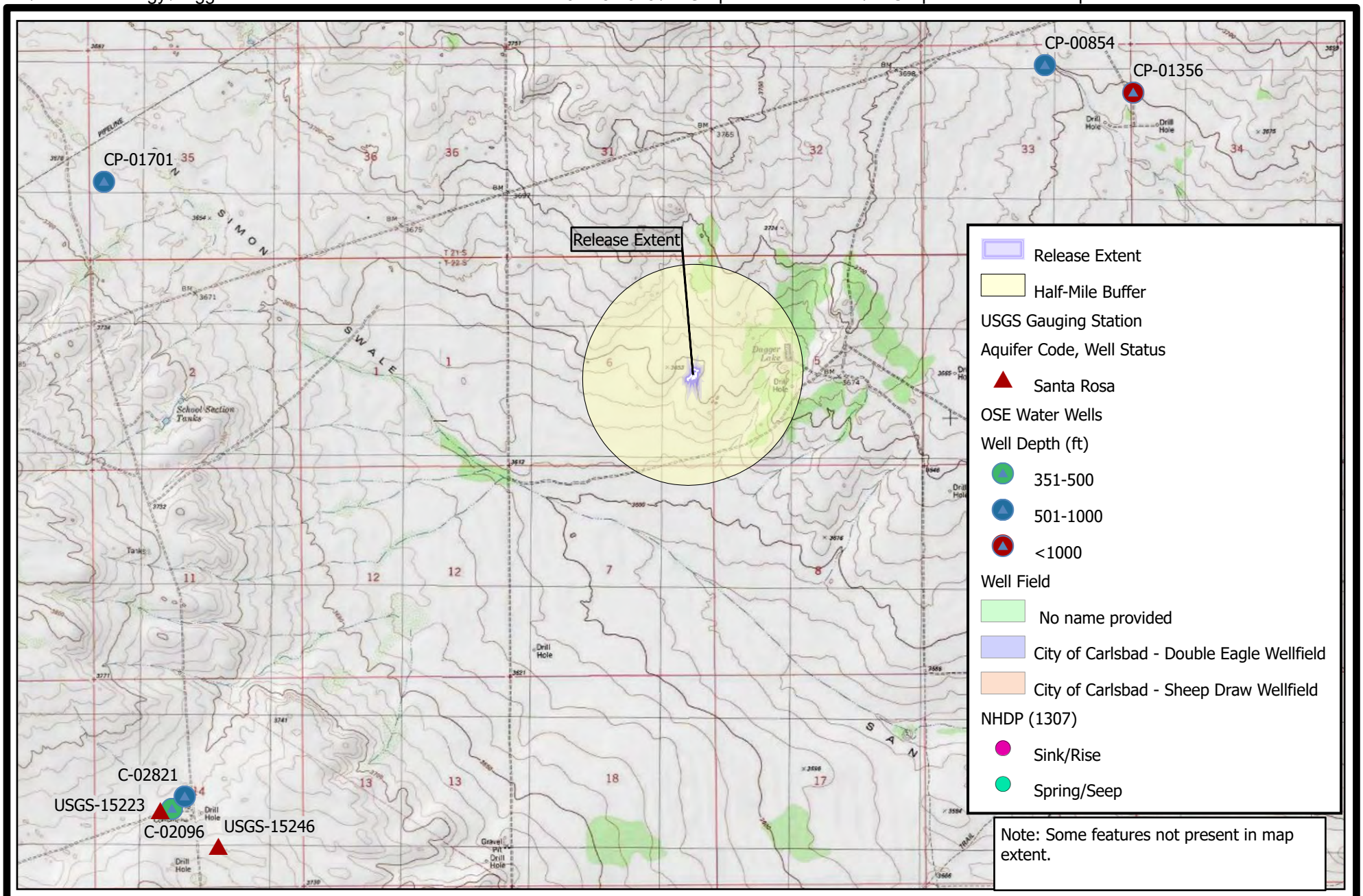

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Wellhead Protection	Plate 6
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

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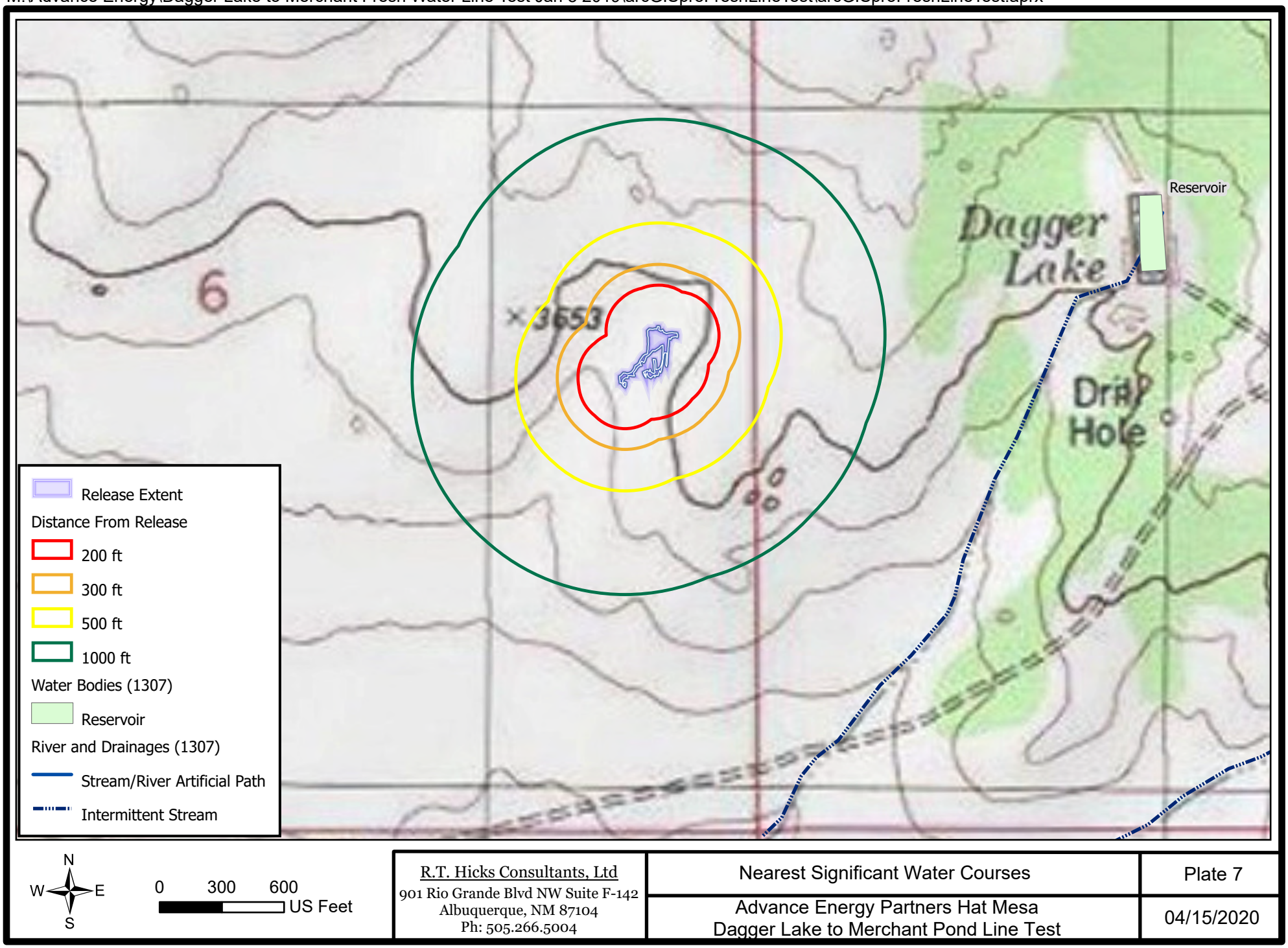

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearest Significant Water Courses	Plate 7
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

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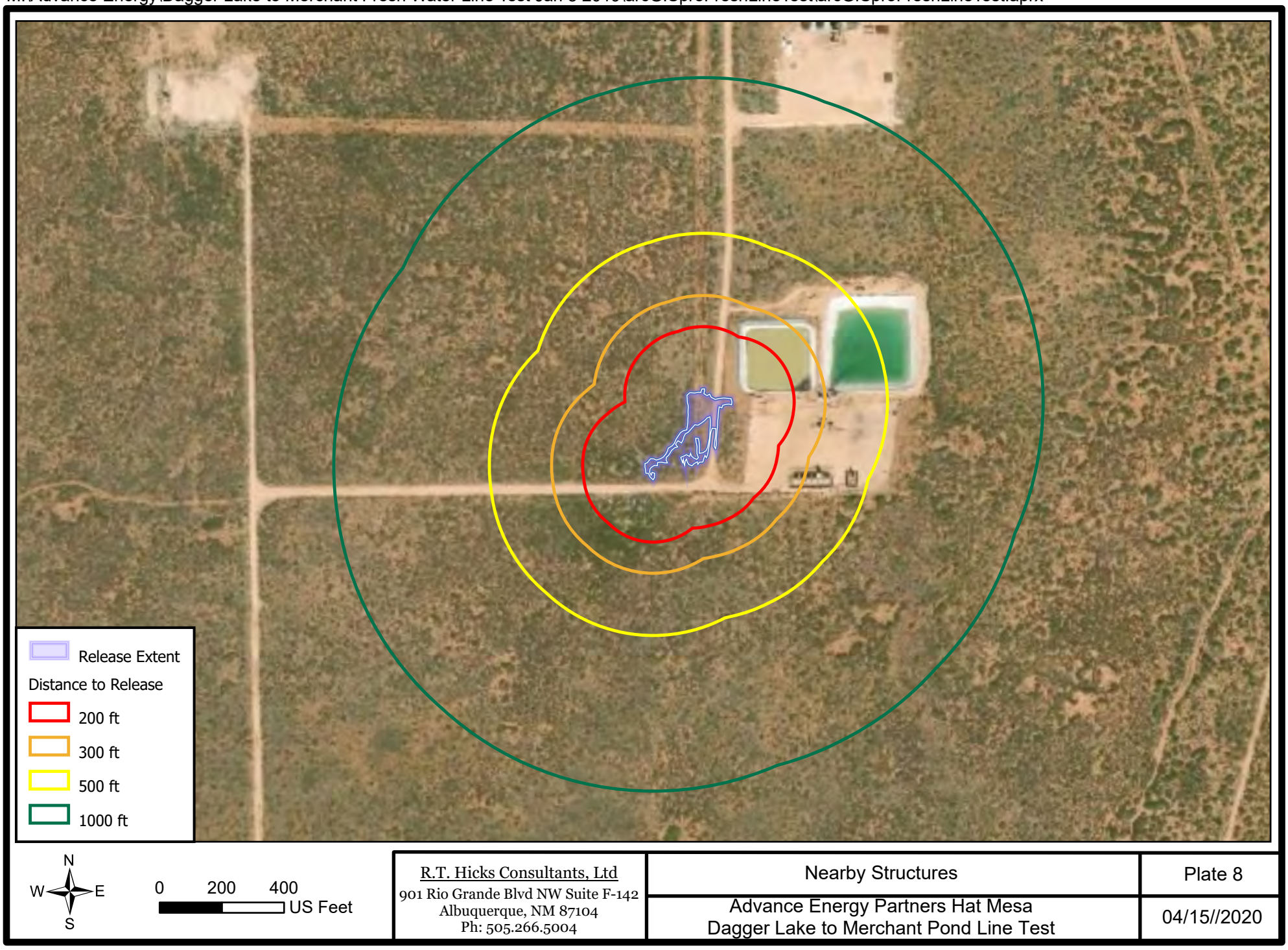

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearby Structures	Plate 8
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15//2020

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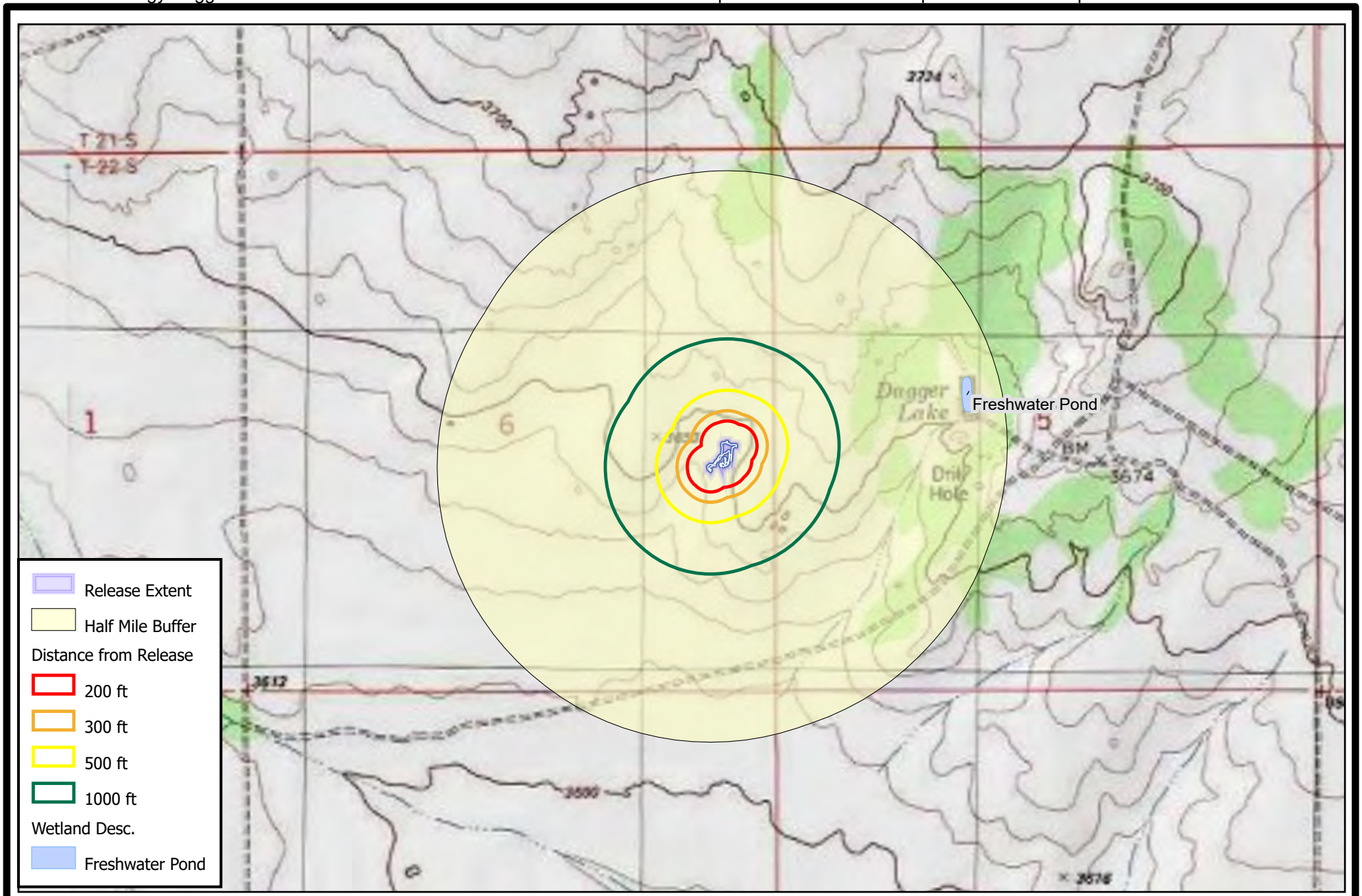

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Nearby Wetlands	Plate 9
Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

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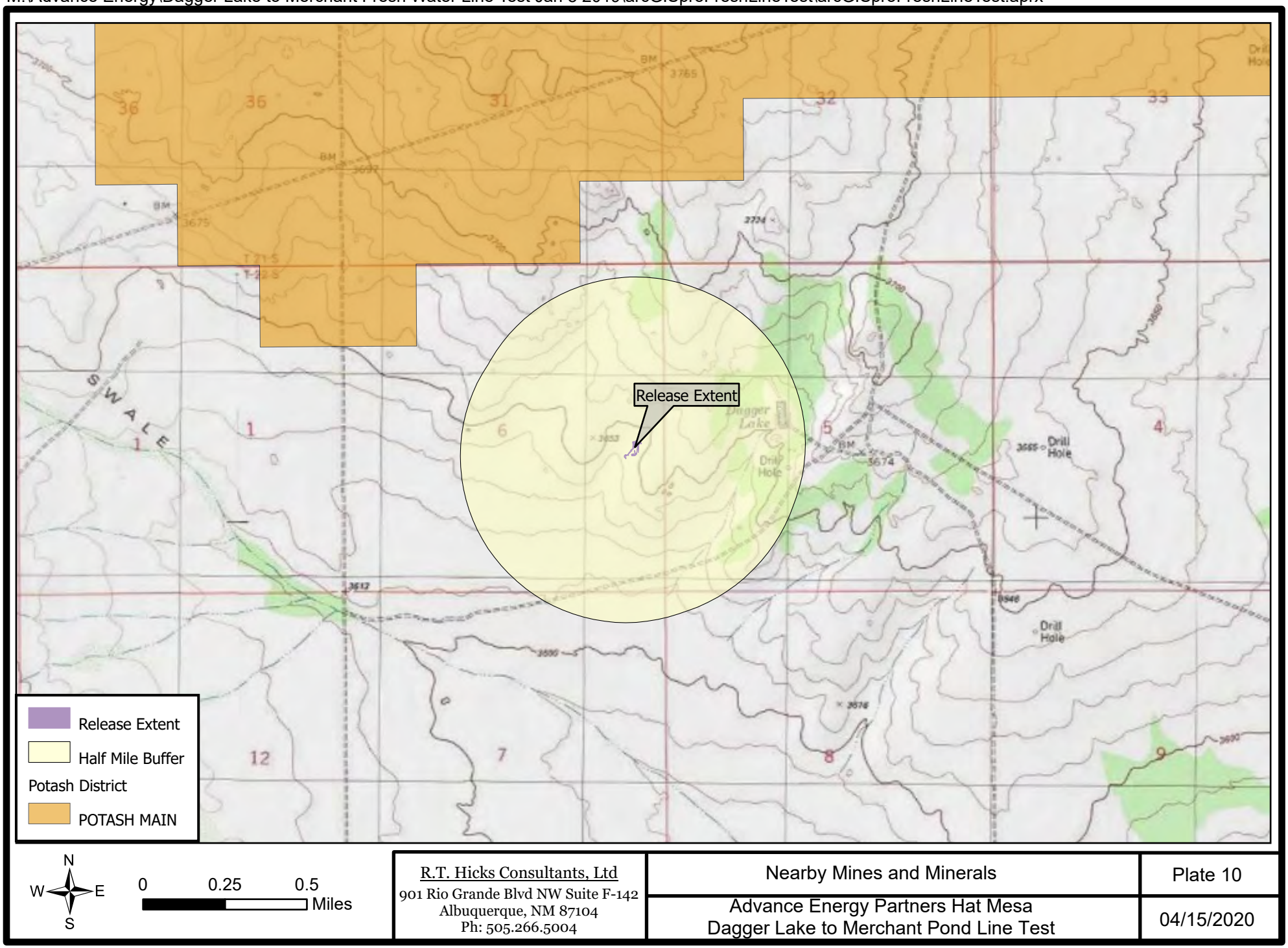

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearby Mines and Minerals	Plate 10
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

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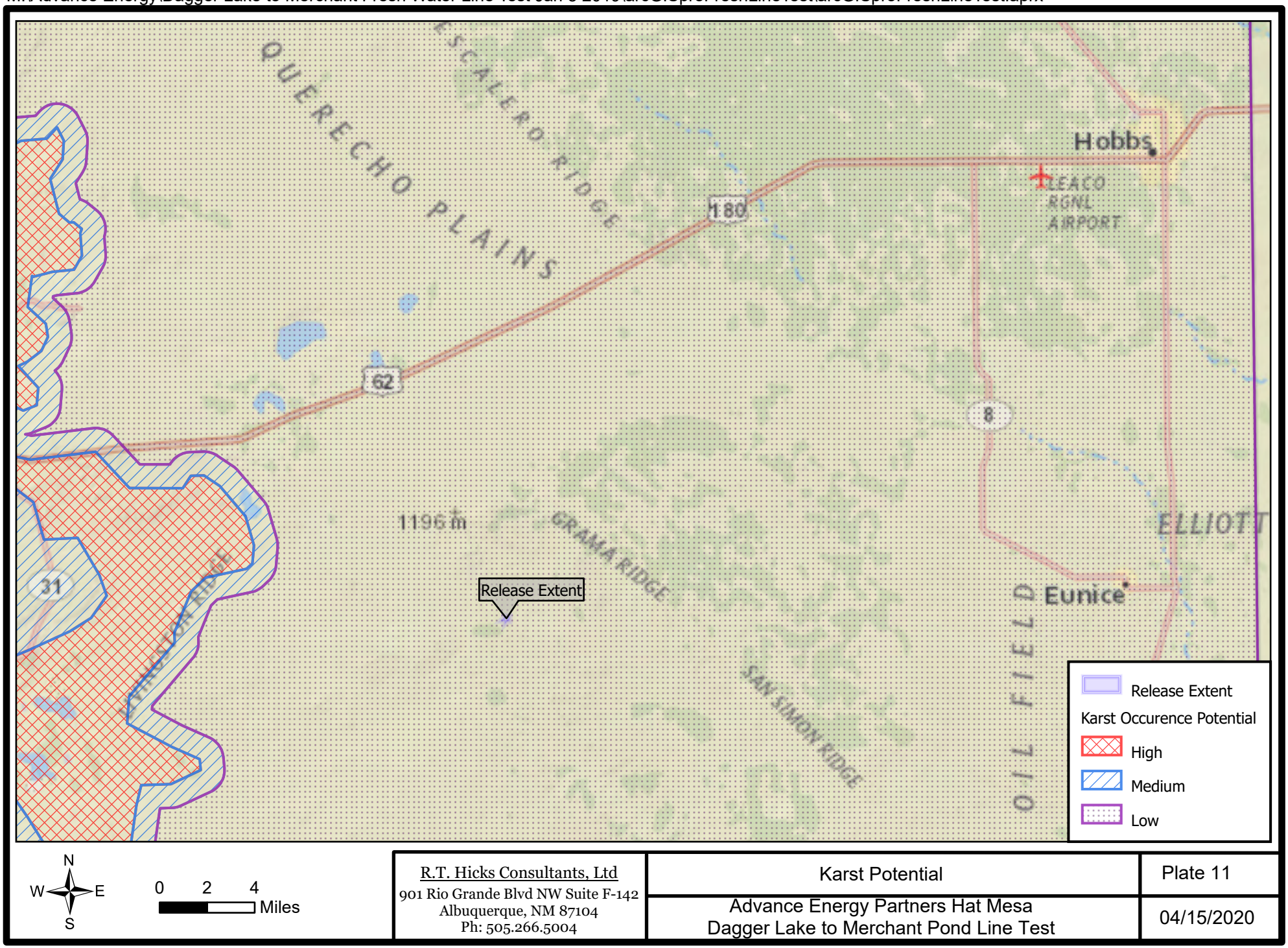

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Karst Potential	Plate 11
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

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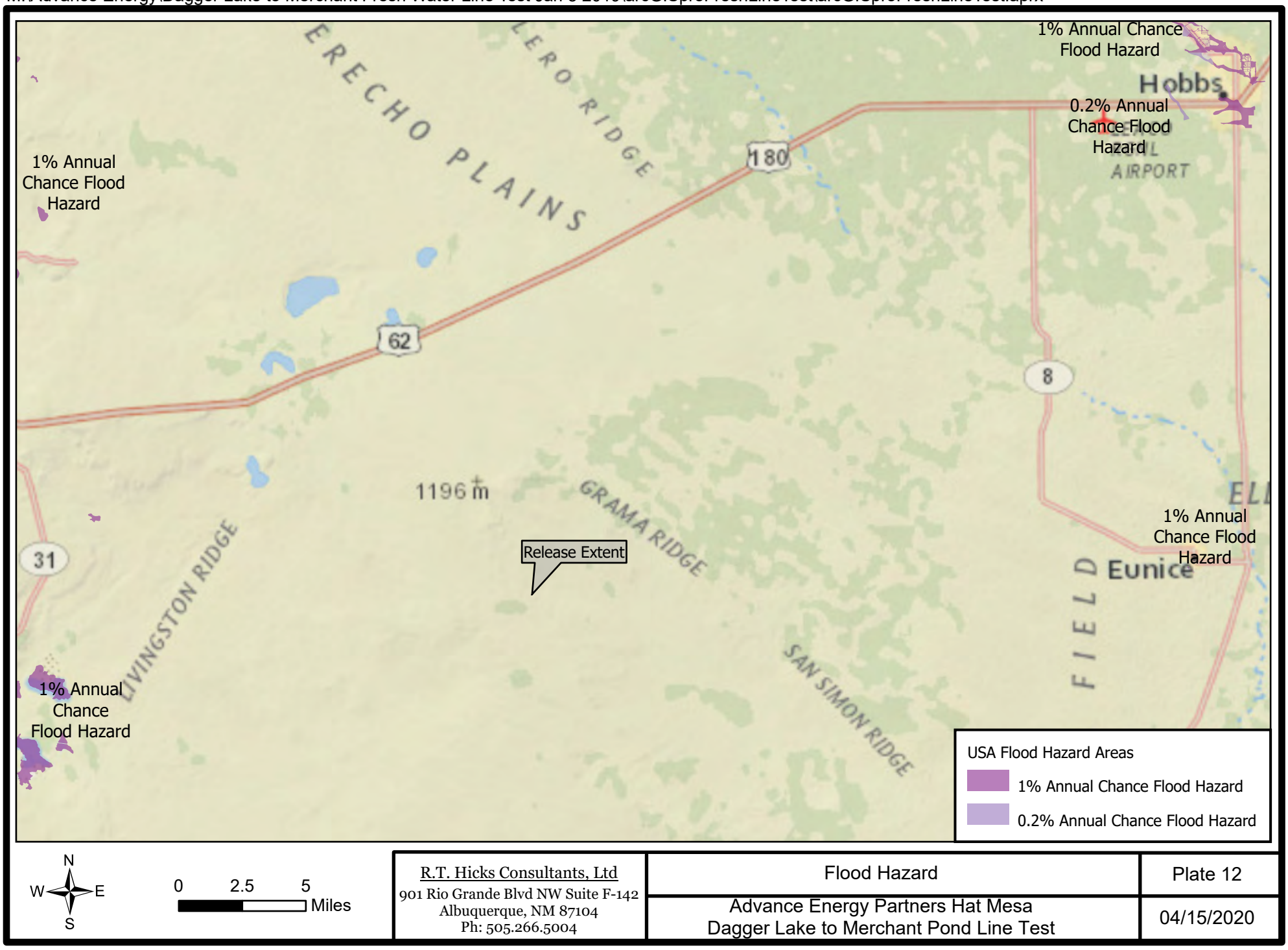
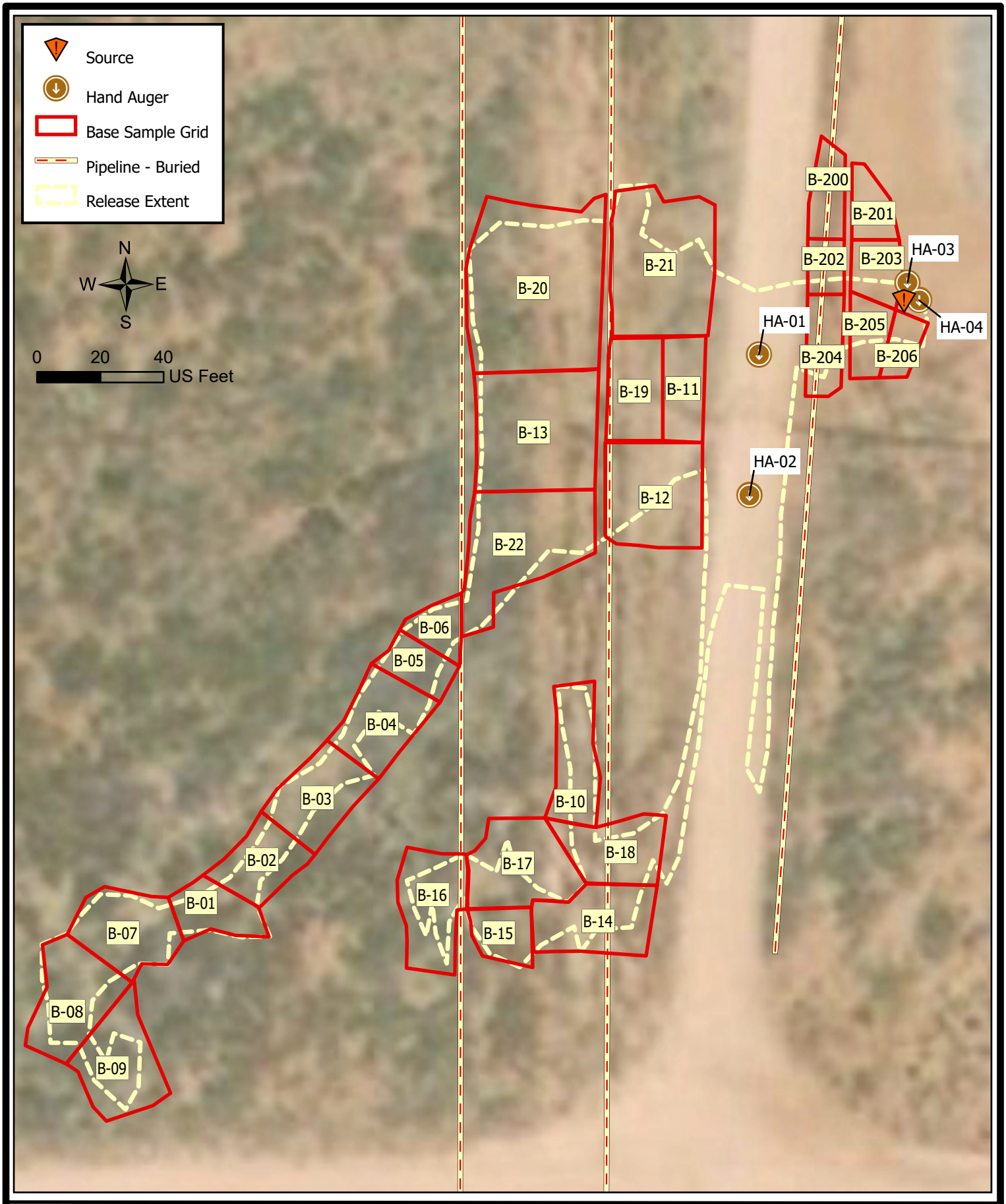
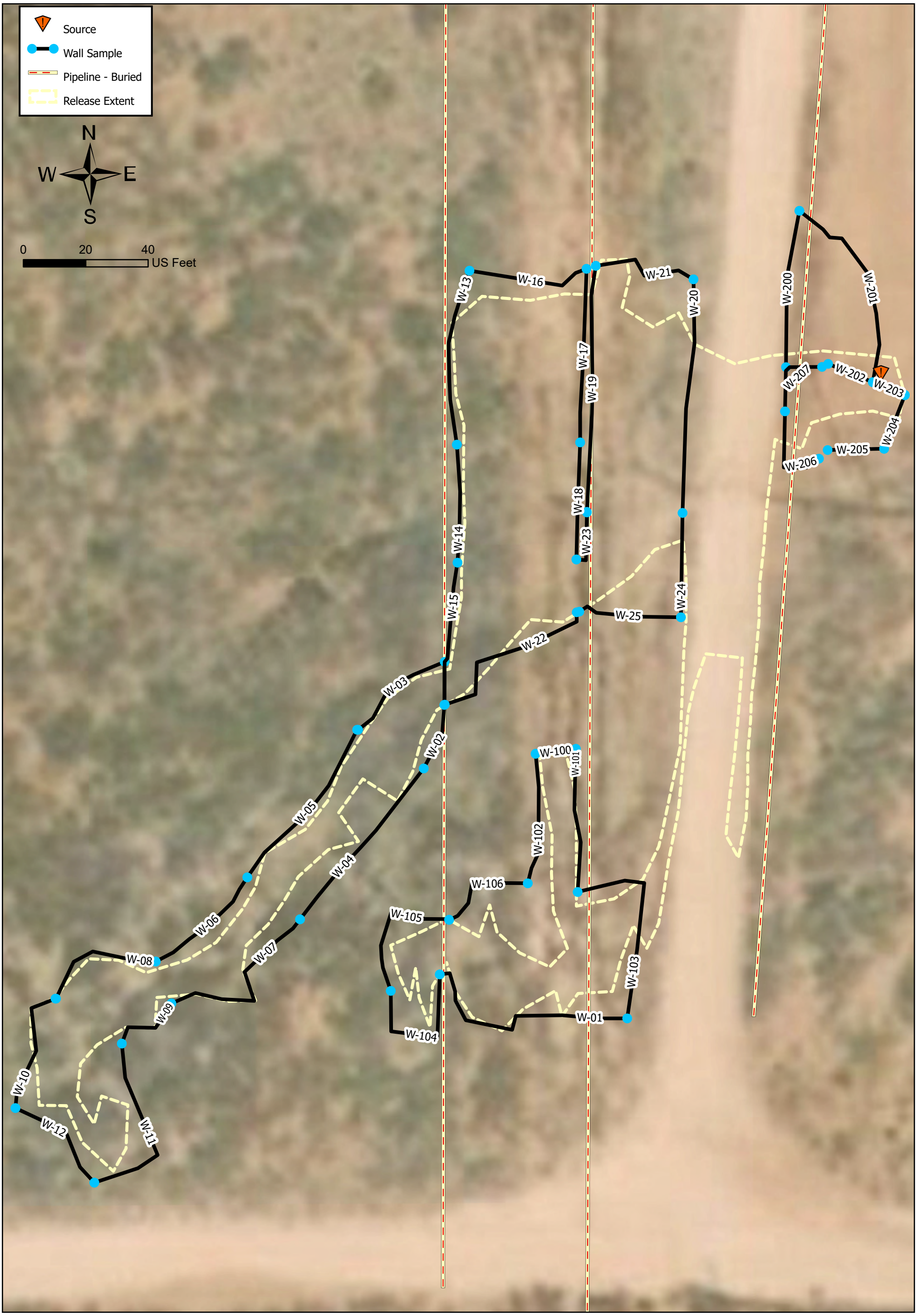


R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Flood Hazard	Plate 12
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Base Sampling Diagram (Release: 01/08/2020)	Plate 13
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/16/2020



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Wall Sampling Diagram (Release: 01/08/2020)	Plate 14
	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

Tables

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

04/15/2020

Table 1:
Summary of Sampling

Advance Energy Partners
Dagger to Merchant Line Test (ROC)

Sample ID	Date	Location	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria											
0 - 4 feet & "not in-use"						600	--	2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
Characterization											
PA-02	1/9/2020	Grab	0.0			8640	<1193.1	<1324.1	0.134	4.36	Characterization
PA-02	1/9/2020	Grab	0.5			48	<20	<30	<0.05	<0.3	Characterization
PA-02	1/9/2020	Grab	1.0			96	<20	<30	<0.05	<0.3	Characterization
SF-01	1/9/2020	Grab	0.0			7200	170.2	<180.2	<0.05	<0.3	Characterization
SF-01	1/9/2020	Grab	0.5			128	<20	<30	<0.05	<0.3	Characterization
SF-01	1/9/2020	Grab	1.0			96	<20	<30	<0.05	<0.3	Characterization
Source	1/9/2020	Grab	0.0			5120	<91.3	<101.3	<0.05	<0.3	Characterization
Source	1/9/2020	Grab	0.5			128	<20	<30	<0.05	<0.3	Characterization
Source	1/9/2020	Grab	1.0			32	<20	<30	<0.05	<0.3	Characterization
WNH	1/9/2020	Grab	0.0			464	<20	<30	<0.05	<0.3	Characterization
Confirmation											
B-01	2/14/2020	Base	4.2			320					Confirmation
B-02	2/14/2020	Base	4.2			864	<20	<30	<0.05	<0.30	Confirmation
B-03	2/14/2020	Base	4.2			1380					Confirmation
B-04	2/14/2020	Base	4.2			1940					Confirmation
B-05	2/14/2020	Base	4.2			2100					Confirmation
B-06	2/14/2020	Base	4.2			2260					Confirmation
B-07	2/14/2020	Base	2.5			336					Confirmation
B-08	2/19/2020	Base	4.0			192					Confirmation
B-09	2/19/2020	Base	4.2			448	<20	<30	<0.05	<0.30	Confirmation
B-10	2/19/2020	Base	3.0			192					Confirmation
B-11	2/21/2020	Base	3.0			160					Confirmation
B-12	2/21/2020	Base	4.2			2280					Confirmation

04/15/2020

Table 1:
Summary of Sampling

Advance Energy Partners
Dagger to Merchant Line Test (ROC)

Sample ID	Date	Location	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria											
0 - 4 feet & "not in-use"						600	--	2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
B-13	2/21/2020	Base	4.5			1680					Confirmation
B-14	1/18/2020	Base	2.0			48	<20	<30	<0.05	<0.3	Confirmation
B-15	1/18/2020	Base	1.0			96	<20	<30	<0.05	<0.3	Confirmation
B-16	2/19/2020	Base	4.2			1250	<20	<30	<0.05	<0.30	Confirmation
B-17	2/19/2020	Base	2.0			80					Confirmation
B-18	2/19/2020	Base	3.0			112					Confirmation
B-19	2/21/2020	Base	4.2			688					Confirmation
B-20	1/18/2020	Base	1.0			32	<20	<30	<0.05	<0.3	Confirmation
B-21	2/21/2020	Base	3.5			480	<20	<30	<0.05	<0.30	Confirmation
B-22	1/18/2020	Base	1.0			256	<20	<30	<0.05	<0.3	Confirmation
B-200	4/1/2020	Base	0.5			96					Confirmation
B-201	4/1/2020	Base	1.0			16					Confirmation
B-202	4/1/2020	Base	0.5			272					Confirmation
B-203	4/1/2020	Base	1.5			128	<20	<30	<0.05	<0.30	Confirmation
B-204	4/1/2020	Base	4.2			656					Confirmation
B-205	4/1/2020	Base	4.2			816					Confirmation
B-206	4/1/2020	Base	4.2			1460	<20	<30	<0.05	<0.30	Confirmation
W-01	2/14/2020	Wall		0.0	2.0	128	<20	<30	<0.05	<0.30	Confirmation
W-02	2/13/2020	Wall		0.0	4.0	96					Confirmation
W-03	2/14/2020	Wall		0.0	4.0	192					Confirmation
W-04	2/14/2020	Wall		0.0	4.0	144					Confirmation
W-05	2/14/2020	Wall		0.0	4.0	160					Confirmation
W-06	2/14/2020	Wall		0.0	4.0	48					Confirmation
W-07	2/14/2020	Wall		0.0	4.0	160					Confirmation
W-08	2/14/2020	Wall		0.0	2.5	64	<20	<30	<0.05	<0.30	Confirmation
W-09	2/14/2020	Wall		0.0	2.5	32					Confirmation
W-10	2/19/2020	Wall		0.0	4.0	112					Confirmation
W-11	2/19/2020	Wall		0.0	4.0	64					Confirmation
W-12	2/19/2020	Wall		0.0	4.0	32	<20	<30	<0.05	<0.30	Confirmation
W-13	2/21/2020	Wall		0.0	1.0	80	<20	<30	<0.05	<0.30	Confirmation
W-14	2/21/2020	Wall		0.0	4.0	208	<20	<30	<0.05	<0.30	Confirmation
W-15	2/21/2020	Wall		0.0	4.0	320	<20	<30	<0.05	<0.30	Confirmation
W-16	2/21/2020	Wall		0.0	1.0	16	<20	<30	<0.05	<0.30	Confirmation
W-17	2/21/2020	Wall		0.0	1.0	<16	<20	<30	<0.05	<0.30	Confirmation
W-18	2/21/2020	Wall		0.0	4.0	144	<20	<30	<0.05	<0.30	Confirmation
W-19	2/21/2020	Wall		0.0	2.0	144					Confirmation

04/15/2020

Table 1:
Summary of Sampling

Advance Energy Partners
Dagger to Merchant Line Test (ROC)

Sample ID	Date	Location	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria											
0 - 4 feet & "not in-use"						600	--	2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
W-20	2/21/2020	Wall		0.0	2.0	192					Confirmation
W-21	2/21/2020	Wall		0.0	3.0	80					Confirmation
W-22	2/21/2020	Wall		0.0	1.0	32	<20	<30	<0.05	<0.30	Confirmation
W-23	2/21/2020	Wall		0.0	2.0	176	<20	<30	<0.05	<0.30	Confirmation
W-24	2/21/2020	Wall		0.0	4.0	128					Confirmation
W-25	2/21/2020	Wall		0.0	4.0	96					Confirmation
W-100	2/14/2020	Wall		0.0	1.5	48					Confirmation
W-101	2/19/2020	Wall		0.0	3.0	240					Confirmation
W-102	2/19/2020	Wall		0.0	3.0	160					Confirmation
W-103	2/19/2020	Wall		0.0	3.0	64					Confirmation
W-104	2/19/2020	Wall		0.0	3.0	48	<20	<30	<0.05	<0.30	Confirmation
W-105	2/19/2020	Wall		0.0	4.0	80					Confirmation
W-106	2/19/2020	Wall		0.0	2.0	272					Confirmation
W-200	4/1/2020	Wall		0.0	0.5	80	<20	<30	<0.05	<0.30	Confirmation
W-201	4/1/2020	Wall		0.0	1.5	80	<20	<30	<0.05	<0.30	Confirmation
W-202	4/1/2020	Wall		1.0	4.0	192	<20	<30	<0.05	<0.30	Confirmation
W-203	4/1/2020	Wall		0.0	4.0	160					Confirmation
W-204	4/1/2020	Wall		0.0	4.0	80	<20	<30.6	<0.05	<0.30	Confirmation
W-205	4/1/2020	Wall		0.0	4.0	144					Confirmation
W-206	4/1/2020	Wall		0.0	4.0	144	<20	<30.8	<0.05	<0.30	Confirmation
W-207	4/1/2020	Wall		0.0	4.0	144					Confirmation
HA-01	3/12/2020	Grab	1.0			96	<20	<30	<0.05	<0.30	Confirmation
HA-02	3/12/2020	Grab	1.0			48	<20	<30	<0.05	<0.30	Confirmation
HA-03	4/2/2020	Grab		0.0	4.0	96	<20	<30	<0.05	<0.30	Confirmation
HA-04	4/2/2020	Grab		0.0	4.0	96					Confirmation

April 15, 2020

Table 2
OSE Water Well Log Data Summary

Dagger Lake to Merchant Line Test
Advance Energy Partners Hat Mesa, LLC

POD Number	Date	Top of Water Bearing Strata	Bottom of Water Bearing Strata	Depth to Water	Source	Height Above Confining Layer
		Feet	Feet	Feet		Feet
C-02096	12/31/1963		435	360		
C-02821	6/23/2001	410	540	340	Artesian	70
CP 00854	6/22/1996	755	890	600	Artesian	155
CP 01349 POD 1	7/18/2014	990	1188	572	Artesian	418
CP 01355 POD 1	7/29/2014	925	1185	582	Artesian	343
CP 01356 POD 1	8/9/2014	765	1092	555	Artesian	210
CP 01357 POD 1	8/26/2014	945	1286	578	Artesian	367
CP 01701 POD 1	11/29/2018	560	840	457	Artesian	103
CP-00600	4/23/1905		65	37		
CP-00601	1/1/1952		223	178		
CP-1411 POD 1	10/14/2014	800	1149	800	Artesian	
CP-1411 POD 2	10/7/2014	840	1125	840	Artesian	
	Average of all	777	835	492		238

Appendix A
Certificate of Analysis

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 13, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 01/10/20 10:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOURCE 0' (H000089-01)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**5120**	16.0	01/10/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	**81.3**	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane *94.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *96.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOURCE 0.5' (H000089-02)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	01/10/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane *93.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.1 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOURCE 1' (H000089-03)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/10/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane *92.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *93.6 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SF -01 0' (H000089-04)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	**0.130**	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	**0.055**	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7200**	16.0	01/10/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**11.2**	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	**159**	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane *93.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *98.8 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SF -01 0.5' (H000089-05)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	01/10/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane *94.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SF -01 1' (H000089-06)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	01/10/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane *97.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *99.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: PA -02 0' (H000089-07)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.134**	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	**2.04**	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	**0.666**	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	**1.52**	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	**4.36**	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8640**	16.0	01/10/2020	ND	416	104	400	0.00	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**53.1**	10.0	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	**1140**	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	**131**	10.0	01/11/2020	ND					

Surrogate: 1-Chlorooctane *98.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *126 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: PA -02 0.5' (H000089-08)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	01/10/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/11/2020	ND					

Surrogate: 1-Chlorooctane *93.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *93.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: PA -02 1' (H000089-09)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	01/10/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/11/2020	ND					

Surrogate: 1-Chlorooctane *89.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *90.1 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WNH 0' (H000089-10)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**464**	16.0	01/10/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/11/2020	ND					

Surrogate: 1-Chlorooctane *88.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.4 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	**P.O. #:**	
Address:	On-File	**Company:**	R.T. Hicks
City:	**State:** **Zip:**	**Attn:**	Send to
Phone #:	**Fax #:**	**Address:**	ABQ Office
Project #:	**Project Owner:**	**City:**	
Project Name:	Advance Energy	**State:** **Zip:**	
Project Location:	Dagger Lake to Merchant Line Test	**Phone #:**	
Sampler Name:	Jacob Saenz	**Fax #:**	

FOR LAB USE ONLY Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000089																		
1	Source	0FT	G	1			X					X		1/9/20	12pm	X	X	X
2	Source	0.5FT													12:30pm			
3	Source	1FT													1pm			
4	SF-01	0FT													1:30pm			
5	SF-01	0.5FT													2pm			
6	SF-01	1FT													2:30pm			
7	PA-02	0FT													3pm			
8	PA-02	0.5ft													3:30pm			
9	PA-02	1FT													4pm			
10	WNH	0FT													4:30pm			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Jacob Saenz	**Date:** 1-10-20 **Time:** 1020	**Received By:**
Relinquished By:		**Date:** **Time:**	**Received By:**
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	#113 3.6°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO

Phone Result:	☐ Yes	☐ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☐ No	**Add'l Fax #:**
REMARKS:	Rush		

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 26, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 01/22/20 8:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B - 05 4.2'	H000208-01	Soil	18-Jan-20 08:00	22-Jan-20 08:55
B - 22 1'	H000208-02	Soil	18-Jan-20 08:30	22-Jan-20 08:55
B - 07 3'	H000208-03	Soil	18-Jan-20 09:00	22-Jan-20 08:55
B - 20 1'	H000208-04	Soil	18-Jan-20 09:30	22-Jan-20 08:55
B - 09 2'	H000208-05	Soil	18-Jan-20 10:00	22-Jan-20 08:55
B - 12 1'	H000208-06	Soil	18-Jan-20 10:30	22-Jan-20 08:55
B - 14 2'	H000208-07	Soil	18-Jan-20 11:00	22-Jan-20 08:55
B - 15 1'	H000208-08	Soil	18-Jan-20 11:30	22-Jan-20 08:55
B - 16 2'	H000208-09	Soil	18-Jan-20 12:00	22-Jan-20 08:55
B - 17 1'	H000208-10	Soil	18-Jan-20 12:30	22-Jan-20 08:55

02/24/20 - Client revised sample IDs for -02 and -04 via email.
02/26/20 - This is the revised report and will replace the one sent on 01/23/20.

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 05 4.2'

H000208-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**448**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.7 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	22-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	22-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	22-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*101 %*	*41-142*		*0012113*	MS	*22-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*104 %*	*37.6-147*		*0012113*	MS	*22-Jan-20*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 22 1'

H000208-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**256**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.5 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*106 %*	*41-142*		*0012113*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*112 %*	*37.6-147*		*0012113*	MS	*23-Jan-20*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

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CARDINAL Laboratories

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 07 3'

H000208-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**704**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.2 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*106 %*	*41-142*		*0012113*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*109 %*	*37.6-147*		*0012113*	MS	*23-Jan-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 20 1'

H000208-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**32.0**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.5 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*106 %*	*41-142*		*0012113*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*110 %*	*37.6-147*		*0012113*	MS	*23-Jan-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 09 2'

H000208-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**240**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.3 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*105 %*	*41-142*		*0012204*	MS	*22-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*107 %*	*37.6-147*		*0012204*	MS	*22-Jan-20*	*8015B*	

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 12 1'

H000208-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**64.0**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.5 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*102 %*	*41-142*		*0012204*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*104 %*	*37.6-147*		*0012204*	MS	*23-Jan-20*	*8015B*	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 14 2'

H000208-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**48.0**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*94.7 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*99.9 %*	*41-142*		*0012204*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*98.6 %*	*37.6-147*		*0012204*	MS	*23-Jan-20*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 15 1'

H000208-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**96.0**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*96.4 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*106 %*	*41-142*		*0012204*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*107 %*	*37.6-147*		*0012204*	MS	*23-Jan-20*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 16 2'

H000208-09 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**144**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.9 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*103 %*	*41-142*		*0012204*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*101 %*	*37.6-147*		*0012204*	MS	*23-Jan-20*	*8015B*	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

B - 17 1'

H000208-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**160**		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*95.5 %*	*73.3-129*		*0012210*	MS	*22-Jan-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			*103 %*	*41-142*		*0012204*	MS	*23-Jan-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*101 %*	*37.6-147*		*0012204*	MS	*23-Jan-20*	*8015B*	

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CARDINAL Laboratories

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0012211 - 1:4 DI Water										
Blank (0012211-BLK1)				Prepared & Analyzed: 22-Jan-20						
Chloride	ND	16.0	mg/kg							
LCS (0012211-BS1)				Prepared & Analyzed: 22-Jan-20						
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (0012211-BSD1)				Prepared & Analyzed: 22-Jan-20						
Chloride	400	16.0	mg/kg	400		100	80-120	3.92	20	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LIN Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0012210 - Volatiles										
Blank (0012210-BLK1)				Prepared & Analyzed: 22-Jan-20						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*ND*		mg/kg	*0.0500*		*94.4*	*73.3-129*			
LCS (0012210-BS1)				Prepared & Analyzed: 22-Jan-20						
Benzene	1.95	0.050	mg/kg	2.00		97.3	72.2-131			
Toluene	1.94	0.050	mg/kg	2.00		97.0	71.7-126			
Ethylbenzene	1.96	0.050	mg/kg	2.00		98.2	68.9-126			
Total Xylenes	5.73	0.150	mg/kg	6.00		95.4	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0471*		mg/kg	*0.0500*		*94.1*	*73.3-129*			
LCS Dup (0012210-BSD1)				Prepared & Analyzed: 22-Jan-20						
Benzene	2.06	0.050	mg/kg	2.00		103	72.2-131	5.89	14.6	
Toluene	2.06	0.050	mg/kg	2.00		103	71.7-126	6.20	17.4	
Ethylbenzene	2.09	0.050	mg/kg	2.00		105	68.9-126	6.41	18.9	
Total Xylenes	6.13	0.150	mg/kg	6.00		102	71.4-125	6.75	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0472*		mg/kg	*0.0500*		*94.5*	*73.3-129*			

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LIN Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0012113 - General Prep - Organics										
Blank (0012113-BLK1)				Prepared: 21-Jan-20 Analyzed: 22-Jan-20						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*51.2*		mg/kg	*50.0*		*102*	*41-142*			
Surrogate: 1-Chlorooctadecane	*52.6*		mg/kg	*50.0*		*105*	*37.6-147*			
LCS (0012113-BS1)				Prepared: 21-Jan-20 Analyzed: 22-Jan-20						
GRO C6-C10	206	10.0	mg/kg	200		103	76.5-133			
DRO >C10-C28	218	10.0	mg/kg	200		109	72.9-138			
Total TPH C6-C28	424	10.0	mg/kg	400		106	78-132			
Surrogate: 1-Chlorooctane	*56.0*		mg/kg	*50.0*		*112*	*41-142*			
Surrogate: 1-Chlorooctadecane	*56.8*		mg/kg	*50.0*		*114*	*37.6-147*			
LCS Dup (0012113-BSD1)				Prepared: 21-Jan-20 Analyzed: 22-Jan-20						
GRO C6-C10	209	10.0	mg/kg	200		104	76.5-133	1.03	20.6	
DRO >C10-C28	220	10.0	mg/kg	200		110	72.9-138	1.06	20.6	
Total TPH C6-C28	428	10.0	mg/kg	400		107	78-132	1.05	18	
Surrogate: 1-Chlorooctane	*56.5*		mg/kg	*50.0*		*113*	*41-142*			
Surrogate: 1-Chlorooctadecane	*58.0*		mg/kg	*50.0*		*116*	*37.6-147*			
Batch 0012204 - General Prep - Organics										
Blank (0012204-BLK1)				Prepared & Analyzed: 22-Jan-20						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*51.4*		mg/kg	*50.0*		*103*	*41-142*			
Surrogate: 1-Chlorooctadecane	*49.8*		mg/kg	*50.0*		*99.7*	*37.6-147*			

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE	Reported: 26-Feb-20 10:15

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0012204 - General Prep - Organics										
LCS (0012204-BS1)				Prepared & Analyzed: 22-Jan-20						
GRO C6-C10	196	10.0	mg/kg	200		97.9	76.5-133			
DRO >C10-C28	183	10.0	mg/kg	200		91.6	72.9-138			
Total TPH C6-C28	379	10.0	mg/kg	400		94.7	78-132			
Surrogate: 1-Chlorooctane	*52.1*		mg/kg	*50.0*		*104*	*41-142*			
Surrogate: 1-Chlorooctadecane	*51.1*		mg/kg	*50.0*		*102*	*37.6-147*			
LCS Dup (0012204-BSD1)				Prepared & Analyzed: 22-Jan-20						
GRO C6-C10	202	10.0	mg/kg	200		101	76.5-133	3.17	20.6	
DRO >C10-C28	183	10.0	mg/kg	200		91.5	72.9-138	0.0634	20.6	
Total TPH C6-C28	385	10.0	mg/kg	400		96.3	78-132	1.62	18	
Surrogate: 1-Chlorooctane	*54.9*		mg/kg	*50.0*		*110*	*41-142*			
Surrogate: 1-Chlorooctadecane	*53.8*		mg/kg	*50.0*		*108*	*37.6-147*			

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

		BILL TO	
Company Name:	R.T. Hicks Consultants	P.O. #:	
Project Manager:	Andrew Parker	Company:	R.T. Hicks
Address:	On-File	Attn:	Send to
City:	State: Zip:	Address:	ABQ Office
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State:	Zip:
Project Name:	Advance Energy	Phone #:	
Project Location:	~~NM~~ Dagger Lake to Merchant Line Test	Fax #:	
Sampler Name:	Jacob Saenz		

FOR LAB USE ONLY					MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000208																		
1	B-05	4.2FT	C	1			X					X		1/14/20	8 am	X	X	X
2	B-06 22	1FT													8:30 am			
3	B-07	3FT													9 am			
4	B-08 20	1FT													9:30 am			
5	B-09	2FT													10 am			
6	B-12	1FT													10:30 am			
7	B-14	2FT													11 am			
8	B-15	1FT													11:30 am			
9	B-16	2FT													12 pm			
10	B-17	1FT													12:30			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 1-22-20	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:	
Jacob Saenz	Time: 0855	Tamara Oldaker	Fax Result: ☐ Yes ☐ No	Add'l Fax #:	
Relinquished By:	Date:	Received By:	REMARKS: Rush - CL only		
	Time:				
Delivered By: (Circle One)	Sample Condition: Cool: Yes / No; Intact: Yes / No	CHECKED BY: (Initials)	* Name change per Andrew P. See email.		
Sampler - UPS - Bus - Other: #113 -3.9°c					

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 17, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 02/14/20 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 01 4.2' (H000465-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 02 4.2' (H000465-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2020	ND	1.76	87.9	2.00	2.96	
Toluene*	<0.050	0.050	02/14/2020	ND	1.80	89.9	2.00	3.92	
Ethylbenzene*	<0.050	0.050	02/14/2020	ND	1.85	92.4	2.00	3.06	
Total Xylenes*	<0.150	0.150	02/14/2020	ND	5.36	89.4	6.00	3.00	
Total BTEX	<0.300	0.300	02/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.3 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**864**	16.0	02/17/2020	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2020	ND	209	105	200	0.101	
DRO >C10-C28*	<10.0	10.0	02/15/2020	ND	198	99.1	200	0.678	
EXT DRO >C28-C36	<10.0	10.0	02/15/2020	ND					

Surrogate: 1-Chlorooctane *97.1 %* *41-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 02 4.2' (H000465-02)

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	*100 %*	*37.6-147*							

Sample ID: B - 03 4.25' (H000465-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1380**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 04 4.2' (H000465-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1940**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 05 4.25' (H000465-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2100**	16.0	02/17/2020	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 06 4.25' (H000465-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2260**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 07 2.5' (H000465-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	02/17/2020	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 01 0-2' (H000465-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2020	ND	1.76	87.9	2.00	2.96	
Toluene*	<0.050	0.050	02/14/2020	ND	1.80	89.9	2.00	3.92	
Ethylbenzene*	<0.050	0.050	02/14/2020	ND	1.85	92.4	2.00	3.06	
Total Xylenes*	<0.150	0.150	02/14/2020	ND	5.36	89.4	6.00	3.00	
Total BTEX	<0.300	0.300	02/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	02/17/2020	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2020	ND	209	105	200	0.101	
DRO >C10-C28*	<10.0	10.0	02/15/2020	ND	198	99.1	200	0.678	
EXT DRO >C28-C36	<10.0	10.0	02/15/2020	ND					

Surrogate: 1-Chlorooctane *94.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *98.2 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/13/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 02 0-4' (H000465-09)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 03 0-4' (H000465-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 04 0-4' (H000465-11)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 05 0-4' (H000465-12)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 06 0-4' (H000465-13)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/17/2020	ND	432	108	400	0.00	

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 07 0-4' (H000465-14)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	02/17/2020	ND	432	108	400	0.00	

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 08 0-2.5' (H000465-15)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2020	ND	1.76	87.9	2.00	2.96	
Toluene*	<0.050	0.050	02/14/2020	ND	1.80	89.9	2.00	3.92	
Ethylbenzene*	<0.050	0.050	02/14/2020	ND	1.85	92.4	2.00	3.06	
Total Xylenes*	<0.150	0.150	02/14/2020	ND	5.36	89.4	6.00	3.00	
Total BTEX	<0.300	0.300	02/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.6 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	02/17/2020	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2020	ND	209	105	200	0.101	
DRO >C10-C28*	<10.0	10.0	02/15/2020	ND	198	99.1	200	0.678	
EXT DRO >C28-C36	<10.0	10.0	02/15/2020	ND					

Surrogate: 1-Chlorooctane *95.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *99.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 09 0-2.5' (H000465-16)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 100 0-1.5' (H000465-17)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/17/2020	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	R.T. Hicks Consultants	P.O. #:	D2MLT
Project Manager:	Andrew Parker	Company:	
Address:	on file	Attn:	email Andrew
City:	State: Zip:	Address:	
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State: Zip:	
Project Name:	Advance Energy	Phone #:	970-570-9535
Project Location:	D2MLT	Fax #:	
Sampler Name:	Laura Parker		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	BTEX	TPH ext								
H000405																									
1	B-01 - 4.2ft	G	1			✓					✓		2/14/2020	08:00	✓										
2	B-02 - 4.2ft													08:15	✓	✓	✓								
3	B-03 4.25ft													08:30	✓										
4	B-04 4.2ft													08:45	✓										
5	B-05 4.25ft													09:00	✓										
6	B-06 4.25ft													09:15	✓										
7	B-07 2.5ft													09:30	✓										
8	W-01 0-2ft													09:45	✓	✓	✓								
9	W-02 0-4ft												2/13/20	10:00	✓										
10	W-03 0-4ft	↓	↓			↓					↓		2/14/20	10:15	✓										

Relinquished By: Laura Parker	Date: 2/14/2020 Time: 13:25	Received By: Tamara Oldaker	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address:
			REMARKS: RFN

Delivered By: (Circle One)	Observed Temp. °C 4.2	Sample Condition	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☑	Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	TO	Thermometer ID #97 Correction Factor +0.4 °C	Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.0

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	P.O. #:	D2MLT
Address:	on file	Company:	
City:	State: Zip:	Attn:	email Andrew
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	Advance Energy	State: Zip:	
Project Location:	D2MLT	Phone #:	970-570-9535
Sampler Name:	Laura Parker	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	BTEX	TPH ext.								
H000465																									
11	W-04	0-4ft	C	1			✓					✓		2/14/20	10:30	✓									
12	W-05	0-4ft													10:45	✓									
13	W-06	0-4ft													10:00	✓									
14	W-07	0-4ft													11:15	✓									
15	W-08	0-2.5ft													11:30	✓	✓	✓							
16	W-09	0-2.5ft													11:45	✓									
17	W-100	0-1.5ft													12:00	✓									

Relinquished By:	Date: 2/14/2020 Time: 15:25	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
			All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS: RFN

Delivered By: (Circle One)	Observed Temp. °C 4.2	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☑
Sampler - UPS - Bus - Other:	Corrected Temp. °C	☑ Yes ☑ Yes ☐ No ☐ No	TO	Thermometer ID #97 Correction Factor +0.4 °C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.0

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 20, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 02/19/20 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 08 4' (H000529-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: B - 09 4.2' (H000529-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	02/20/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane *94.4 %* *44.3-144*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 09 4.2' (H000529-02)

TPH 8015M **mg/kg** **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	*98.9 %*	*42.2-156*							

Sample ID: B - 10 3' (H000529-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	02/20/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 16 4.2' (H000529-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1250**	16.0	02/20/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane *92.0 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *97.0 %* *42.2-156*

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Analytical Results For:

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ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 17 2' (H000529-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: B - 18 3' (H000529-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 10 0-4' (H000529-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 11 0-4' (H000529-08)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	02/20/2020	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 12 0-4' (H000529-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	02/20/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane *96.3 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *101 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 101 0-3' (H000529-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 102 0-3' (H000529-11)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 103 0-3' (H000529-12)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	02/20/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 104 0-3' (H000529-13)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/20/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane *92.3 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *97.4 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 105 0-4' (H000529-14)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 106 0-2' (H000529-15)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	02/20/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	**P.O. #:**	
Address:	On-File	**Company:**	R.T. Hicks
City:	**State:** **Zip:**	**Attn:**	Send to
Phone #:	**Fax #:**	**Address:**	andrew@rthicks
Project #:	**Project Owner:**	**City:**	consult.com
Project Name:	Advance Energy	**State:**	**Zip:**
Project Location:	D2M LT	**Phone #:**	
Sampler Name:	Jacob Saenz	**Fax #:**	

FOR LAB USE ONLY			(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
Lab I.D.	**Sample I.D.**																	
H000529																		
1	B-08	4FT	C	1			X					X		2/19/20	8am	X		
2	B-09	4.2FT													8:30am		X	X
3	B-10	3FT													9am			
4	B-16	4.2FT													9:30am		X	X
5	B-17	2FT													10am			
6	B-18	3FT													10:30am			
7	W-10	0-4FT													11am			
8	W-11	0-4FT													11:30am			
9	W-12	0-4FT													12pm		X	X
10	W-101	0-3FT													12:30pm			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 2-19-20	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Shaun Salem	**Time:** 1630		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	REMARKS: RUSH
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 2.3°C #113	**Sample Condition** Cool: ☒ Yes ☐ No Intact: ☐ Yes ☐ No	**CHECKED BY: (Initials)** LJ	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	**P.O. #:**	
Address:	On-File	**Company:**	R.T. Hicks
City:	**State:** **Zip:**	**Attn:**	Send to
Phone #:	**Fax #:**	**Address:**	andrew@rthicks
Project #:	**Project Owner:**	**City:**	consult.com
Project Name:		**State:**	**Zip:**
Project Location:		**Phone #:**	
Sampler Name:	Jacob Saenz	**Fax #:**	

FOR LAB USE ONLY Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000529																		
11	W-102	0-3FT	C	1			X					X		2/19/20	1pm	X		
12	W-103	0-3FT	↓	↓			↓					↓			1:30pm			
13	W-104	0-3FT													2pm		X	X
14	W-105	0-4FT													2:30pm			
15	W-106	0-2FT	↓	↓			↓					↓		↓	3pm	↓		

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 2-19-20 **Time:** 1630	**Received By:**	
Relinquished By:	**Date:** **Time:**	**Received By:**	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 2.3°C #113	**Sample Condition** Cool: ☐ Yes ☐ No Intact: ☒ Yes ☐ No	**CHECKED BY: (Initials)**	

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS: RUSH

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 25, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 02/21/20 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B - 13 4.5'	H000558-01	Soil	21-Feb-20 08:00	21-Feb-20 14:35
B - 21 3.5'	H000558-02	Soil	21-Feb-20 08:15	21-Feb-20 14:35
B - 11 3'	H000558-03	Soil	21-Feb-20 08:30	21-Feb-20 14:35
B - 12 4.2'	H000558-04	Soil	21-Feb-20 09:00	21-Feb-20 14:35
B - 19 4.2'	H000558-05	Soil	21-Feb-20 09:15	21-Feb-20 14:35
W - 13 0-1'	H000558-06	Soil	21-Feb-20 09:30	21-Feb-20 14:35
W - 14 0-4'	H000558-07	Soil	21-Feb-20 10:00	21-Feb-20 14:35
W - 15 0-4'	H000558-08	Soil	21-Feb-20 10:15	21-Feb-20 14:35
W - 16 0-1'	H000558-09	Soil	21-Feb-20 10:30	21-Feb-20 14:35
W - 17 0-1'	H000558-10	Soil	21-Feb-20 10:45	21-Feb-20 14:35
W - 18 0-4'	H000558-11	Soil	21-Feb-20 11:00	21-Feb-20 14:35
W - 19 0-2'	H000558-12	Soil	21-Feb-20 11:30	21-Feb-20 14:35
W - 20 0-2'	H000558-13	Soil	21-Feb-20 11:45	21-Feb-20 14:35
W - 21 0-3'	H000558-14	Soil	21-Feb-20 12:00	21-Feb-20 14:35
W - 22 0-1'	H000558-15	Soil	21-Feb-20 12:15	21-Feb-20 14:35
W - 23 0-2'	H000558-16	Soil	21-Feb-20 12:30	21-Feb-20 14:35
W - 24 0-4'	H000558-17	Soil	21-Feb-20 13:00	21-Feb-20 14:35
W - 25 0-4'	H000558-18	Soil	21-Feb-20 13:30	21-Feb-20 14:35

02/24/20 - Client revised sample IDs for -01 and -02 via email.
02/25/20 - This is the revised report and will replace the one sent on 02/24/20.

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

B - 13 4.5'

H000558-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1680**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

B - 21 3.5'

H000558-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**480**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*79.9 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*84.9 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

B - 11 3'

H000558-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**160**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

B - 12 4.2'

H000558-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2280**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

B - 19 4.2'

H000558-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**688**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 13 0-1'

H000558-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**80.0**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*87.1 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*90.8 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 14 0-4'

H000558-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**208**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*100 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*85.8 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*88.5 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 15 0-4'

H000558-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**320**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*88.5 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*92.2 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 16 0-1'

H000558-09 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**16.0**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*99.6 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*87.6 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*91.9 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 17 0-1'

H000558-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	<16.0		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*100 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*85.3 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*86.7 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 18 0-4'

H000558-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**144**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*86.3 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*91.1 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 19 0-2'

H000558-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**144**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 20 0-2'

H000558-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**192**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 21 0-3'

H000558-14 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**80.0**		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 22 0-1'

H000558-15 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**32.0**		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*99.7 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*87.5 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*90.8 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 23 0-2'

H000558-16 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**176**		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*73.3-129*		*0022114*	CK	*22-Feb-20*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			*84.6 %*	*44.3-144*		*0022117*	CK	*22-Feb-20*	*8015B*	
Surrogate: 1-Chlorooctadecane			*88.8 %*	*42.2-156*		*0022117*	CK	*22-Feb-20*	*8015B*	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 24 0-4'

H000558-17 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**128**		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

W - 25 0-4'

H000558-18 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**96.0**		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0022409 - 1:4 DI Water										
Blank (0022409-BLK1)				Prepared & Analyzed: 24-Feb-20						
Chloride	ND	16.0	mg/kg							
LCS (0022409-BS1)				Prepared & Analyzed: 24-Feb-20						
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (0022409-BSD1)				Prepared & Analyzed: 24-Feb-20						
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	
Batch 0022412 - 1:4 DI Water										
Blank (0022412-BLK1)				Prepared & Analyzed: 24-Feb-20						
Chloride	ND	16.0	mg/kg							
LCS (0022412-BS1)				Prepared & Analyzed: 24-Feb-20						
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (0022412-BSD1)				Prepared & Analyzed: 24-Feb-20						
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0022114 - Volatiles										
Blank (0022114-BLK1)				Prepared: 21-Feb-20 Analyzed: 22-Feb-20						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0502*		mg/kg	*0.0500*		*100*	*73.3-129*			
LCS (0022114-BS1)				Prepared: 21-Feb-20 Analyzed: 22-Feb-20						
Benzene	1.86	0.050	mg/kg	2.00		93.2	72.2-131			
Toluene	1.87	0.050	mg/kg	2.00		93.4	71.7-126			
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.6	68.9-126			
Total Xylenes	5.43	0.150	mg/kg	6.00		90.5	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0503*		mg/kg	*0.0500*		*101*	*73.3-129*			
LCS Dup (0022114-BSD1)				Prepared: 21-Feb-20 Analyzed: 22-Feb-20						
Benzene	1.87	0.050	mg/kg	2.00		93.5	72.2-131	0.358	14.6	
Toluene	1.87	0.050	mg/kg	2.00		93.6	71.7-126	0.169	17.4	
Ethylbenzene	1.88	0.050	mg/kg	2.00		94.1	68.9-126	0.568	18.9	
Total Xylenes	5.46	0.150	mg/kg	6.00		91.0	71.4-125	0.559	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0499*		mg/kg	*0.0500*		*99.8*	*73.3-129*			

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Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: ADVANCE ENERGY Project Number: D2MLT Project Manager: ANDREW PARKER Fax To: NONE	Reported: 25-Feb-20 08:23

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0022117 - General Prep - Organics										
Blank (0022117-BLK1)				Prepared: 21-Feb-20 Analyzed: 22-Feb-20						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*47.7*		mg/kg	*50.0*		*95.4*	*44.3-144*			
Surrogate: 1-Chlorooctadecane	*48.7*		mg/kg	*50.0*		*97.4*	*42.2-156*			
LCS (0022117-BS1)				Prepared: 21-Feb-20 Analyzed: 22-Feb-20						
GRO C6-C10	193	10.0	mg/kg	200		96.4	78.8-127			
DRO >C10-C28	188	10.0	mg/kg	200		94.0	80-132			
Total TPH C6-C28	381	10.0	mg/kg	400		95.2	81.3-128			
Surrogate: 1-Chlorooctane	*49.0*		mg/kg	*50.0*		*98.0*	*44.3-144*			
Surrogate: 1-Chlorooctadecane	*49.0*		mg/kg	*50.0*		*98.1*	*42.2-156*			
LCS Dup (0022117-BSD1)				Prepared: 21-Feb-20 Analyzed: 22-Feb-20						
GRO C6-C10	198	10.0	mg/kg	200		99.1	78.8-127	2.80	15.1	
DRO >C10-C28	193	10.0	mg/kg	200		96.4	80-132	2.59	17.1	
Total TPH C6-C28	391	10.0	mg/kg	400		97.8	81.3-128	2.70	15	
Surrogate: 1-Chlorooctane	*50.0*		mg/kg	*50.0*		*100*	*44.3-144*			
Surrogate: 1-Chlorooctadecane	*50.7*		mg/kg	*50.0*		*101*	*42.2-156*			

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	BILL TO	
Project Manager:	Andrew Parker	P.O. #:	
Address:	On-File	Company:	R.T. Hicks
City:	State: Zip:	Attn:	Send to
Phone #:	Fax #:	Address:	andrew@rthicks
Project #:	Project Owner:	City:	consult.com
Project Name:	Advance Energy	State:	Zip:
Project Location:	D2MLT	Phone #:	
Sampler Name:	Jacob Saenz	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000558																		
1	B-07 13	4.5FT	C	1			X					X		2/21/20	8am	X		
2	B-09 21	3.5FT													8:15am		X	X
3	B-11	3FT													8:30am			
4	B-12	4.2FT													9am			
5	B-19	4.2FT													9:15am		.	
6	W-13	0-1FT													9:30am		X	X
7	W-14	0-4FT													10am		X	X
8	W-15	0-4FT													10:15am		X	X
9	W-16	0-1FT													10:30am		X	X
10	W-17	0-1FT													10:45am		X	X

Relinquished By:	Date: 2-21-20	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
SAenz SAENZ	Time: 1435	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Rush!! Name changes per Andrew Parker See Email.
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 4.4c #113

Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No

CHECKED BY: (Initials) T.O.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	BILL TO	
Project Manager:	Andrew Parker	P.O. #:	
Address:	On-File	Company:	R.T. Hicks
City:	State: Zip:	Attn:	Send to
Phone #:	Fax #:	Address:	andrew@rthicks
Project #:	Project Owner:	City:	consult.com
Project Name:	Advance Energy	State: Zip:	
Project Location:	D2MLT	Phone #:	
Sampler Name:	Jacob Saenz	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000558																	
11	W-18	0-4FT	C	1			X						2/21/20	11 am	X	X	X
12	W-19	0-2FT												11:30 am			
13	W-20	0-2FT												11:45 am			
14	W-21	0-3FT												12 pm			
15	W-22	0-1FT												12:15 pm		X	X
16	W-23	0-2FT												12:30 pm		X	X
17	W-24	0-4FT												1 pm			
18	W-25	0-4FT												1:30 pm			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 2-21-20	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
JACOB SAENZ	Time: 1435		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Rush!!
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.4c #113	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

March 17, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 03/16/20 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	03/16/2020	Sampling Date:	03/12/2020
Reported:	03/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA - 01 1' (H000812-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2020	ND	1.83	91.4	2.00	8.04	
Toluene*	<0.050	0.050	03/16/2020	ND	1.83	91.6	2.00	8.29	
Ethylbenzene*	<0.050	0.050	03/16/2020	ND	1.85	92.7	2.00	8.49	
Total Xylenes*	<0.150	0.150	03/16/2020	ND	5.43	90.5	6.00	8.72	
Total BTEX	<0.300	0.300	03/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	03/17/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/17/2020	ND	199	99.3	200	0.846	
DRO >C10-C28*	<10.0	10.0	03/17/2020	ND	189	94.4	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/17/2020	ND					

Surrogate: 1-Chlorooctane *103 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *106 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	03/16/2020	Sampling Date:	03/12/2020
Reported:	03/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA - 02 1' (H000812-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2020	ND	1.83	91.4	2.00	8.04	
Toluene*	<0.050	0.050	03/16/2020	ND	1.83	91.6	2.00	8.29	
Ethylbenzene*	<0.050	0.050	03/16/2020	ND	1.85	92.7	2.00	8.49	
Total Xylenes*	<0.150	0.150	03/16/2020	ND	5.43	90.5	6.00	8.72	
Total BTEX	<0.300	0.300	03/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/17/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/17/2020	ND	199	99.3	200	0.846	
DRO >C10-C28*	<10.0	10.0	03/17/2020	ND	189	94.4	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/17/2020	ND					

Surrogate: 1-Chlorooctane *106 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *109 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	P.O. #:	D2MLT Line Test
Address:	On-File	Company:	R.T. Hicks
City:	State: Zip:	Attn:	Send to
Phone #:	Fax #:	Address:	andrew@rthicks
Project #:	Project Owner:	City:	consult.com
Project Name:	Advance Energy	State:	Zip:
Project Location:	D2MLT Line Test	Phone #:	
Sampler Name:	Jacob Saenz	Fax #:	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX									
H000812																											
1	HA-01	1FT	G	1			X					X		3/12/20	11am	X	X	X									
2	HA-02	1FT	G	1			X					X		3/12/20	12pm	X	X	X									

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 3-16-20	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
JACOB SAENZ	Time: 1535		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: TO.	Received By:	REMARKS:
	Time:		RFN

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 4.1c #113

Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No

CHECKED BY: (Initials) TO.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 02, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 04/01/20 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 200 0.5' (H000975-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	04/02/2020	ND	432	108	400	3.77	

Sample ID: B - 201 1' (H000975-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	04/02/2020	ND	432	108	400	3.77	

Sample ID: B - 202 0.5' (H000975-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	04/02/2020	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 203 1.5' (H000975-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *93.9 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *98.4 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 204 4.2' (H000975-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	04/02/2020	ND	432	108	400	3.77	

Sample ID: B - 205 4.2' (H000975-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**816**	16.0	04/02/2020	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 206 4.2' (H000975-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.9 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1460**	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *93.9 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *99.6 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 200 0-0.5' (H000975-08)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *99.2 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *104 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 201 0-1.5' (H000975-09)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *99.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *104 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 202 1-4' (H000975-10)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.6 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *99.6 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *105 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	P.O. #:	DLTMLT
Address:	On-File	Company:	R.T. Hicks
City:	State: Zip:	Attn:	Send to
Phone #:	Fax #:	Address:	andrew@rthicks
Project #:	Project Owner:	City:	consult.com
Project Name:	Advance Energy	State:	Zip:
Project Location:	Dagger Lake to Merchant Line Test	Phone #:	
Sampler Name:	Jacob Saenz	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000975																	
1	B-200 0-5FT	C	1			X					X		4/1/20	9am	X		
2	B-201 1FT													9:30am			
3	B-202 0.5Ft													9:45am			
4	B-203 1.5FT													10am		X	X
5	B-204 4.2FT													10:30am			
6	B-205 4.2FT													10:45am			
7	B-206 4.2FT													11am		X	X
8	W-200 0 - 0.5FT													11:30am		X	X
9	W-201 0 - 10SFT													12:45pm		X	X
10	W-202 1-4 FT													12pm		X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: JACOB SAENZ	Date: 4-1-20 Time: 1640	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) 4.9°c Sampler - UPS - Bus - Other: #113	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) LS	REMARKS: RUSH!

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 02, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 04/01/20 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 203 0-4' (H000977-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	04/02/2020	ND	416	104	400	0.00	

Sample ID: W - 204 0-4' (H000977-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	04/02/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	167	83.7	200	15.3	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	163	81.7	200	12.0	
EXT DRO >C28-C36	**10.6**	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *89.2 %* *44.3-144*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 204 0-4' (H000977-02)

TPH 8015M **mg/kg** **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	*96.5 %*	*42.2-156*							

Sample ID: W - 205 0-4' (H000977-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	04/02/2020	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 206 0-4' (H000977-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	04/02/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	167	83.7	200	15.3	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	163	81.7	200	12.0	
EXT DRO >C28-C36	**10.8**	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane *86.0 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *92.2 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 207 0-4' (H000977-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	04/02/2020	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants	**BILL TO**	
Project Manager:	Andrew Parker	P.O. #:	OLTMLT
Address:	On-File	Company:	R.T. Hicks
City:	State: Zip:	Attn:	Send to
Phone #:	Fax #:	Address:	andrew@rthicks
Project #:	Project Owner:	City:	consult.com
Project Name:	Advance Energy	State:	Zip:
Project Location:	Dagger Lake To Merchant Line Test	Phone #:	
Sampler Name:	Jacob Saenz	Fax #:	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX									
H000977																											
1	W-203	0-4FT	C	1			X					X		4/1/20	12:15pm	X											
2	W-204	0-4FT													12:30pm		X	X									
3	W-205	0-4FT													12:45pm												
4	W-206	0-4FT													1pm		X	X									
5	W-207	0-4FT													1:15pm												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 4-1-20	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
JACOB SAENZ	Time: 1640		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: RUSH!
	Time:		
Delivered By: (Circle One) 4.9E	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other: #113			

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 03, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 04/02/20 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/02/2020	Sampling Date:	04/02/2020
Reported:	04/03/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: HA - 03 0-4' (H000990-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2020	ND	2.18	109	2.00	5.62	
Toluene*	<0.050	0.050	04/03/2020	ND	2.18	109	2.00	5.70	
Ethylbenzene*	<0.050	0.050	04/03/2020	ND	2.19	109	2.00	5.74	
Total Xylenes*	<0.150	0.150	04/03/2020	ND	6.32	105	6.00	6.02	
Total BTEX	<0.300	0.300	04/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.9 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	04/03/2020	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/03/2020	ND	187	93.5	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/03/2020	ND	182	90.8	200	0.355	
EXT DRO >C28-C36	<10.0	10.0	04/03/2020	ND					

Surrogate: 1-Chlorooctane *98.6 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *103 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/02/2020	Sampling Date:	04/02/2020
Reported:	04/03/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: HA - 04 0-4' (H000990-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	04/03/2020	ND	400	100	400	3.92	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants
Project Manager:	Andrew Parker
Address:	On-File
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	Advance Energy
Project Location:	Pagger Lake to Merchant Line Test
Sampler Name:	Jacob Saenz

BILL TO

P.O. #:	OLTMLT
Company:	R.T. Hicks
Attn:	Send to
Address:	andrew@rthicks
City:	consult.com
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
H000990																	
1	HA-03 0-4FT	C	1			X					X		4/2/20	2:10	X	X	X
2	HA-04 0-4FT	C	1			X					X		4/2/20	2:30pm	X		

Relinquished By: JACOB SAENZ	Date: 4-2-20 Time: 1635	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: #113	4.0°C	Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: Rush

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Appendix B
OSE Well Logs

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02096		2	3	14	22S	32E	627204	3584464*

x

Driller License: **Driller Company:**

Driller Name: JOHN H. TRIGG CO.

Drill Start Date: **Drill Finish Date:** 12/31/1963 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 25 GPM

Casing Size: 7.00 **Depth Well:** 435 feet **Depth Water:** 360 feet

x

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02821	2	2	3	14	22S	32E	627303	3584563*

x

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name:

Drill Start Date: 06/12/2001 **Drill Finish Date:** 06/23/2001 **Plug Date:**

Log File Date: 10/04/2001 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 2 GPM

Casing Size: 5.00 **Depth Well:** 540 feet **Depth Water:** 340 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	410	540	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	410	430
	440	540

x

***UTM location was derived from PLSS - see Help**

Revised December 1975

IMPORTANT — READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM.

Declaration of Owner of Underground Water Right

80227

'79 APR 20 PM 3 01

CAPITAN BASIN
BASIN NAME

Declaration No. CP-601 Date received April 17, 1979

STATE ENGINEER OFFICE
SANTA FE, N.M. 87501

STATEMENT

1. Name of Declarant THE MERCHANT LIVESTOCK COMPANY
   Mailing Address P.O. Box 548 Carlsbad
   County of Eddy, State of New Mexico
2. Source of water supply shallow
   (artesian or shallow water aquifer)
3. Describe well location under one of the following subheadings:
   a. ____ ¼ NE ¼ NW ¼ of Sec. 28 Twp. 21S Rge. 33-E N.M.P.M., in Lea County.
   b. Tract No. ____ of Map No. ____ of the ____.
   c. X = ____ feet, Y = ____ feet, N. M. Coordinate System ____ Zone in the ____ Grant.
   On land owned by ____.
4. Description of well: date drilled 1952 driller ____ depth 223' feet.
   outside diameter of casing 6 5/8 inches; original capacity ____ gal. per min.; present capacity 3 gal. per min.; pumping lift ____ feet; static water level 178 feet (above) (below) land surface;
   make and type of pump ____
   make, type, horsepower, etc., of power plant ____
   Fractitional or percentage interest claimed in well 100%
5. Quantity of water appropriated and beneficially used ~~(acre feet per annum)~~ up to 3 (acre feet per annum)
   for stock water purposes.
6. Acreage actually irrigated ____ acres, located and described as follows (describe only lands actually irrigated):

Subdivision	Sec.	Twp.	Range	Acres Irrigated	Owner
			stock only		The Merchant Livestock Co.

'79 APR 17 AM 8 1
STATE ENGINEER OFFICE
ROSWELL, N. M.

(Note: location of well and acreage actually irrigated must be shown on plat on reverse side.)

7. Water was first applied to beneficial use ____ month ____ day 1952 year and since that time has been used fully and continuously on all of the above described lands or for the above described purposes except as follows: ____

8. Additional statements or explanations
   name of well - Standard

I, J. D. Merchant, Jr., President being first duly sworn upon my oath, depose and say that the above is a full and complete statement prepared in accordance with the instructions on the reverse side of this form and submitted in evidence of ownership of a valid underground water right, that I have carefully read each and all of the items contained therein and that the same are true to the best of my knowledge and belief.

THE MERCHANT LIVESTOCK CO. declarant.
by: J. D. Merchant, Jr. President

Subscribed and sworn to before me this 12th day of April, A.D. 1979

My commission expires March 2, 1980 Notary Public

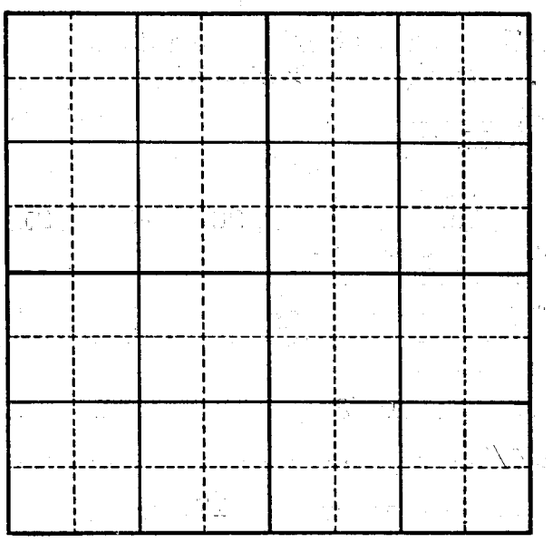
563298

FILED

UNDER NEW MEXICO LAW A DECLARATION IS ONLY A STATEMENT OF DECLARANT'S CLAIM. ACCEPTANCE FOR FILING DOES NOT CONSTITUTE APPROVAL OR REJECTION OF THE CLAIM.

Locate well and areas actually irrigated as accurately as possible on following plat:

Section (s) ....., Township ....., Range ..... N. M. P. M.



INSTRUCTIONS

Declaration shall be executed (preferably typewritten) in triplicate and must be accompanied by a **$1.00 filing fee.** Each of triplicate copies must be properly signed and attested.

A separate declaration must be filed for each well in use.

All blanks shall be filled out fully. Required information which cannot be sworn to by declarant shall be supplied by affidavit of person or persons familiar with the facts and shall be submitted herewith.

Secs. 1-3. Complete all blanks.

Sec. 4. Fill out all blanks applicable as fully as possible.

Sec. 5. Irrigation use shall be stated in acre feet of water per acre per year applied on the land. If used for domestic, municipal. or other purposes, state total quantity in acre feet used annually.

Sec. 6. Describe only the acreage actually irrigated. When necessary to clearly define irrigated acreages, describe to nearest 2½ acre subdivision. If located on unsurveyed lands. describe by legal supdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily-located natural object.

Sec. 7. Explain and give dates as nearly as possible of any years when all or part of acreage claimed was not irrigated.

Sec. 8. If well irrigates or supplies supplemental water to any other land than that described above, or if land is also irrigated from any other source, explain under this section. Give any other data necessary to fully describe water right.

If additional space is necessary, use a separate sheet or sheets and attach securely hereto.

SF EC

'79 APR 20 PM 3 00

STATE ENGINEER OFFICE
SANTA FE, N.M. 87501

April 17, 1979

Files: CP-584; CP-585; CP-586; CP-587; CP-588;
CP-589; CP-590; CP-591; CP-592; CP-593;
CP-594; CP-595; CP-596; CP-597; CP-598;
CP-599; CP-600; CP-601; CP-602

The Merchant Livestock Company
P. O. Box 548
Carlsbad, NM 88220

Gentlemen:

Enclosed are your copies of Declarations of Owner of Underground Water Right as numbered above, which have been filed for record in the office of the State Engineer.

Please refer to each individual number in all future correspondence concerning these declarations.

The filing of these declarations does not indicate affirmation or rejection of the statements contained therein.

Yours very truly,

J. C. Groseclose
Basin Supervisor

JCG/fh
Encls.
cc: Santa Fe

563298

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00854 POD1	1	1	2	33	21S	33E	633879	3590223

Driller License: 421 **Driller Company:** GLENN'S WATER WELL SERVICE
Driller Name: GLENN, CLARK A."CORKY" (LD)

Drill Start Date: 06/22/1996 **Drill Finish Date:** 06/22/1996 **Plug Date:**
Log File Date: 07/11/1996 **PCW Rcv Date:** 10/17/2013 **Source:** Shallow
Pump Type: SUBMER **Pipe Discharge Size:** 2.875 **Estimated Yield:** 100 GPM
Casing Size: 6.63 **Depth Well:** 950 feet **Depth Water:** 600 feet

Water Bearing Stratifications:

Top	Bottom	Description
755	805	Sandstone/Gravel/Conglomerate
860	890	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
760	950

Meter Number: 8514 **Meter Make:** BLANCETT
Meter Serial Number: 040711711 **Meter Multiplier:** 1.0000
Number of Dials: 7 **Meter Type:** Diversion
Unit of Measure: Barrels 42 gal. **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
03/15/2004	2004	121	A	jw		0
03/29/2004	2004	69871	A	jw		0
05/17/2004	2004	8758	A	jw		2.651
06/11/2004	2004	79641	A	jw		2.998
01/27/2012	2012	18062553	A	RPT	Initial reading	0
03/01/2012	2012	19039807	A	RPT		2.999
05/29/2013	2013	179696	A	RPT	initial reading	0
10/07/2013	2013	460774	A	RPT	Qtr IV 2013	36.229
11/11/2013	2013	540326	A	RPT		10.254
01/01/2014	2013	614283	A	RPT		9.533
10/01/2014	2014	1122654	A	RPT		65.526
01/01/2015	2014	1212343	A	RPT		11.560
03/31/2015	2015	1307063	A	RPT		12.209
06/27/2015	2015	1369556	A	RPT		8.055

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
09/30/2015	2015	1371471	A	RPT		0.247
10/22/2015	2015	1400502	A	RPT		3.742
11/30/2015	2015	1400502	A	RPT		0
04/28/2016	2016	1464116	A	RPT	"JD33 Well"	8.199
06/01/2016	2016	1464116	A	RPT		0
07/27/2016	2016	1496980	A	RPT	JD33 Well	4.236
09/01/2016	2016	1510835	A	RPT	JD 33 Well	1.786
09/30/2016	2016	1517146	A	RPT		0.813
10/31/2016	2016	1531178	A	RPT	JD 33 well	1.809
11/29/2016	2016	1553285	A	RPT	JD33 Well	2.849
03/01/2017	2017	1583100	A	RPT		3.843

**YTD Meter Amounts:	Year	Amount
	2004	5.649
	2012	2.999
	2013	56.016
	2014	77.086
	2015	24.253
	2016	19.692
	2017	3.843

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01349 POD1	2	3	1	27	21S	33E	635304	3591576

Driller License:	421	**Driller Company:**	GLENN'S WATER WELL SERVICE		
Driller Name:	GLENN, CLARK A."CORKY"				
Drill Start Date:	07/12/2014	**Drill Finish Date:**	07/18/2014	**Plug Date:**	
Log File Date:	08/04/2014	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	1188 feet	**Depth Water:**	572 feet

Water Bearing Stratifications:	Top	Bottom	Description
	990	1188	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	721	1188

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2014 SEP 10 PM 2:15

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): CP-1355 (East Standard South) *** Revised 09/09/14 ***	OSE FILE NUMBER(S):
WELL OWNER NAME(S): Merchants/Glenn's Water Well Service, Inc.	PHONE (OPTIONAL): 575-398-2424
WELL OWNER MAILING ADDRESS: P. O. Box 692	CITY: Tatum STATE: NM ZIP: 88267

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	26	54.8	N
LONGITUDE	103	33	58.3	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE:
NE1/4NW1/4SW1/4 Section 27, Township 21 South, Range 33 East on Merchants Livestock Land

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
07/22/14	07/29/14	1,192'	1,192'	925'

COMPLETED WELL IS: (•) ARTESIAN ( ) DRY HOLE ( ) SHALLOW (UNCONFINED)
STATIC WATER LEVEL IN COMPLETED WELL (FT): 582'

DRILLING FLUID: (•) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0'	40'	20"	16"	None	15 1/2"	.250	
0'	757'	14 3/4"	9 5/8"	Thread & Collar	8.921"	36 lbs.	none
690'	1,192'	8 3/4"	7" (502.14' Total)	Thread & Collar	6.366"	23 lbs.	1/8"
			317.96 perforated				
			on bottom of liner				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	40'	20"	Cemented	2 yds.	Top Pour
0	757'	14 3/4"	Float and shoe cemented to surface	962	Circulated

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1355	POD NUMBER	1	TRN NUMBER	549450
LOCATION	Expl	21S.33E.27.312			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4'	4'	Sand	○ Y ◉ N	
4'	28'	24'	Caliche	○ Y ◉ N	
28'	120'	92'	Sand & Clay	○ Y ◉ N	
120'	260'	140'	Red Clay	○ Y ◉ N	
260'	757'	497'	Red & Brown Shale, and Clay (some blue)	○ Y ◉ N	
757'	815'	58'	Red & Brown Shale	○ Y ◉ N	
815'	840'	25'	Blue Clay & Shale	○ Y ◉ N	
840'	925'	85'	Red and Brown Shale (some sandrock)	○ Y ◉ N	
925'	975'	50'	Watersand and Gravel	◉ Y ○ N	
975'	1,185'	210'	Watersand (brown sandrock)	◉ Y ○ N	
1,185'	1,192'	7'	Red Shale	○ Y ◉ N	
				○ Y ◉ N	
				○ Y ◉ N	
				○ Y ◉ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ◉ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

0' to 757' drilled with mud.
757' to 1192' drilled with air and foam.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

Corky Glenn

9/9/14 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1355	POD NUMBER	1	TRN NUMBER	549450
LOCATION	21S.33E.27.312				PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE RECEIVED NEW MEXICO 2014 AUG 18 A 8:53

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
CP - 1355 East Standard (South)	
WELL OWNER NAME(S)	PHONE (OPTIONAL)
Merchants Livestock/Glenn's Water Well Service, Inc.	(575)398-2424
WELL OWNER MAILING ADDRESS	CITY / STATE / ZIP
P.O. Box 692	Tatum / NM / 88267

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	26	54.8	N
LONGITUDE	103	33	58.3	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE/NW/SW Sec. 27, T21S, R33E on Merchants Livestock Land

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7/29/14	8/2/14	1192'	1192'	925'

COMPLETED WELL IS: (•) ARTESIAN ( ) DRY HOLE ( ) SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 582'

DRILLING FLUID: ( ) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0'	40'	20"	16"	None	15 1/2"	.250	
0'	757'	14 3/4"	9 5/8"	Thread and Collar	.352	36 lbs.	none
757'	1192'	8 3/4'	7"	Thread and Collar	6.5"	23 lbs.	1/8"

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0'	40'	20"	Cemented	2 yds	Top Pour
0'	757'	14 3/4"	Float and Shoe Cemented to Surface	1034	Circulated

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1355	POD NUMBER	1	TRN NUMBER	549450
LOCATION	Exp1	21S.33E.27.312			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0'	4'	4'	Soil	○ Y ◉ N	
4'	28'	24'	Caleche	○ Y ◉ N	
28'	120'	92'	Sand and Clay	○ Y ◉ N	
120'	260'	140'	Red Clay	○ Y ◉ N	
260'	757'	497'	Red and Brown Shale and Clay(some blue)	○ Y ◉ N	
757'	815'	58'	Red and Brown Shale	○ Y ◉ N	
815'	840'	25'	Blue Clay and Shale	○ Y ◉ N	
840'	925'	85'	Red and Brown Shale(some sandrock)	○ Y ◉ N	
925'	975'	50'	Watersand and Gravel	◉ Y ○ N	
975'	1185'	210'	Watersand(brown sandrock)	◉ Y ○ N	
1185'	1192'	7'	Red Shale	○ Y ◉ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ◉ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 50

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

0' to 757' drilled with mud. 757' to 1192' drilled with air and foam.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8/7/14 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1355	POD NUMBER	1	TRN NUMBER	549450
LOCATION	Exp1	21S.33E.27.312			PAGE 2 OF 2

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 01356 POD1	4	2	2	33	21S	33E	634560	3590014

Driller License:	421	**Driller Company:**	GLENN'S WATER WELL SERVICE		
Driller Name:	GLENN, CLARK A."CORKY"				
Drill Start Date:	08/01/2014	**Drill Finish Date:**	08/09/2014	**Plug Date:**	
Log File Date:	08/25/2014	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.37	**Depth Well:**	1098 feet	**Depth Water:**	555 feet

Water Bearing Stratifications:	Top	Bottom	Description
	765	795	Sandstone/Gravel/Conglomerate
	795	825	Shale/Mudstone/Siltstone
	825	920	Sandstone/Gravel/Conglomerate
	920	935	Shale/Mudstone/Siltstone
	935	968	Sandstone/Gravel/Conglomerate
	968	976	Shale/Mudstone/Siltstone
	976	1005	Sandstone/Gravel/Conglomerate
	1005	1092	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	735	1098

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 01357 POD1	4	3	1	27	21S	33E	634782	3591347

Driller License:	421	**Driller Company:**	GLENN'S WATER WELL SERVICE		
Driller Name:	GLENN, CLARK A."CORKY"				
Drill Start Date:	08/16/2014	**Drill Finish Date:**	08/26/2014	**Plug Date:**	
Log File Date:	09/10/2014	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.37	**Depth Well:**	1286 feet	**Depth Water:**	578 feet

Water Bearing Stratifications:	Top	Bottom	Description
	945	960	Sandstone/Gravel/Conglomerate
	960	1077	Shale/Mudstone/Siltstone
	1077	1215	Sandstone/Gravel/Conglomerate
	1215	1286	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	846	1286

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1701-POD1		

WELL OWNER NAME(S)	PHONE (OPTIONAL)
The Jimmy Mills GST and 2005 GST Trusts	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
c/o Stacey Mills PO Box 1359	Loving	NM	88256-1358

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	26	0.5	N
	LONGITUDE	103	39	10.1	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1706	Bryce Wallace	Elite Drillers Corporation

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
10/15/18	11/29/18	840	880	560

COMPLETED WELL IS: [x] ARTESIAN [ ] DRY HOLE [ ] SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 457

DRILLING FLUID: [x] AIR [ ] MUD ADDITIVES – SPECIFY:

DRILLING METHOD: [x] ROTARY [ ] HAMMER [ ] CABLE TOOL [ ] OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	20	12.75	ASTM53 Grade B Steel	N/A	12.57	.188	
+2	460	12.25	ASTM53 Grade B steel	Welded	6.065	.28	
460	840	12.25	SDR17 PVC	Spline	6	SDR17	.032

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	12.75	Portland I/II Cement	17	Pour
0	453	12.25	Baroid Benseal Grout	247	Trimmie
453	860	12.25	8/16 Silica Sand	285	Pour

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	CP-1701	POD NO.	1	TRN NO.	619305
LOCATION	Exp1	21S.32E.35.31		WELL TAG ID NO.	—

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	5	5	Topsoil	Y N	
5	8	3	Caliche	Y N	
8	80	72	Tan/Red sandy caliche	Y N	
80	190	110	Red clay	Y N	
190	400	210	Tan/Red sandstone	Y N	
400	560	160	Red siltstone	Y N	
560	575	15	Red siltstone/Gyp	✓ Y N	5.00
575	750	175	Red siltstone	Y N	
750	770	20	Red siltstone/Gyp	✓ Y N	25.00
770	840	70	Red siltstone	Y N	
840	880	40	Red Shale	Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☑ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 30.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Bryce Wallace — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

12/10/2018 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. CP-1701	POD NO. 1	TRN NO. 619305
LOCATION Exp1 215.32E.35.31	WELL TAG ID NO. —	PAGE 2 OF 2