March 24, 2020

Tracking #: nRM2000354631
Dagger Lake Battery Oct 30 2019
Remediation/Workplan

Prepared for
Advance Energy Partners Hat Mesa LLC
Houston, Texas

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

C-141

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	NRM2000354631
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party IAG9G-191112-C-1410

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 32.418707 Longitude -103.601703
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Dagger Lake Tank Battery	Site Type: Tank Battery
Date Release Discovered: October 30, 2019	API# 30-025-45579, 30-025-45854, 30-025-45703, 30-025-45853

Unit Letter	Section	Township	Range	County
L	05	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) 16	Volume Recovered (bbls): 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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: Well head pressures and tank levels trends suggest that the separator dump valves failed around 8:18 am and pressure started building up on the separators until the releases occurred at 8:33 am. The wells supply the tank battery subsequently were shut-in at 8:48 am. Taking in consideration flowing well conditions and adjusting for back pressure changes, the estimates combined oil flow rate of all four (4) wells during this timeframe was about 1.06 bbl/mi which equates to a total release of 16 bbl of oil.

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Oil Conservation Division

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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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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:

The release area had to be verified that it was not within an archeological area. Archeologists determined the release area is not within the nearby archeological area. After verification on Nov. 1st, 2019; Microblaze was applied to the release area on Nov. 4th, 2019. Vertical and Horizontal characterization will be conducted.

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: Nov, 07, 2019

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

OCD Only

Received by: Ramona Marcus Date: 01/03/2020

State of New Mexico
Oil Conservation Division

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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**	395 (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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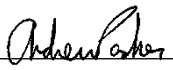
Printed Name: Andrew Parker Title: Sr. Env. Specialist

Signature:  Date: March 24, 2020

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

OCD Only

Received by: Cristina Eads Date: 03/27/2020

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: March 24, 2020

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

OCD Only

Received by: Cristina Eads Date: 03/27/2020

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

Signature: Cristina Eads Date: 05/04/2020

Remediation/Workplan

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

R. T. HICKS CONSULTANTS, LTD.
901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745
✖ Durango, CO ✖ Carlsbad-Hobbs, NM ✖

March 24, 2020

NMOCD District 1
District 1 - HOBBS
1625 N. French Drive
Hobbs, New Mexico 88240

RE: Remediation/Workplan
Incident #: nRM2000354631
Dagger Lake Tank Battery 10302019
Lat/Long: 32.418707 / -103.601703 (NAD 83)
UL L, Sec 5, T22S R33E; Lea County

NMOCD:

R.T. Hicks Consultants is pleased to submit the following workplan, on the behalf of Advance Energy Partners Hat Mesa LLC, to remediate the crude oil release at the Dagger Lake Battery that occurred on October 30, 2019. The cause of the release was failure of the separator dump valves. The estimated volume of the release was 16 bbl of oil. The release occurred on New Mexico State land.

The report is divided into five sections:

Plates
- *Plate 1-3 – Site Map*
- *Plates 4 through 12 – As labeled on the C-141 Characterization Checklist*

Tables
- *Table 1 – Summary of Soil Sampling*
- *Table 2 – Nearby OSE Well Summary*

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

Initial Response - Remediation

R.T. Hicks Consultants mapped the release extent on the day of the release. As shown on Plate 1, the release area consisted of:

- An area of saturation immediately south of the well pad and extending south approximately 28-feet into an area of prior disturbance caused by the construction of the well pad (Figure 1).
- An area of surface spray. Windy conditions at the time of the release caused oil to spray approximately 650-feet south-southwest. Oil spray was limited to the vegetation and surface soils. Visual observations suggested that impact to sub-surface soils did not occur.

Figure 1: Photo of release area viewing west-southwest. The south edge production pad berm is visible photo right. The area of saturation is visible photo center. The pastureland exhibits oil surface spray, background center and left.

Soil samples were obtained during the release mapping and was limited to the location extent due to concerns of encroachment onto an archeology area. The soil samples (Plate 2 & Table 1) demonstrate:

- the surface at sample ID "S1 Pad" exhibit chloride and hydrocarbon constituents below Table 1 of NMAC 19.15.29 Closure Criteria at 0.25 and 0.75-feet below ground surface (bgs).
- the upper few inches of soil within the area of saturation at sample ID "RS" exhibit TPH Ext. concentrations of 33,540 mg/kg at the surface. A composite sample from the surface to 3-ft bgs exhibit TPH Ext. concentrations below Table 1 of NMAC 19.15.29 Closure Criteria.

On Nov. 1st, 2019 archeologists determined the release area was not within the nearby archeological area. Therefore, on Nov. 4th, 2019 the release area was treated with Microblaze (Figure 2) to begin the biodegradation process of hydrocarbons.

Figure 2: Microblaze application in the oil spray area in pastureland.

Shortly after the application of Microblaze, cooler temperatures prevented the microbial process to occur and cause biodegradation of hydrocarbons. It is anticipated that upon return of warmer temperatures this spring, the microbial activity of the Microblaze will resume the natural bioremediation process of hydrocarbons.

On March 12, 2020, additional sampling was conducted to determine the effect of initial Microblaze application and to determine whether the release impacted subsurface soils.

- The sample furthest from the release (HA-01) had chloride and hydrocarbon constituents below Table 1 of NMAC 19.15.29 Closure Criteria at 0.5 and 1 foot below ground surface.
- The elevated TPH concentrations in sample HA-02 at 1 ft below ground surface was likely the result of cross-contamination from hydrocarbons at the surface during the collection of the deeper hand auger sample. Therefore, the location was resampled using a trench (HA-02 +3Ft East) dug with a hand shovel. Analytical results show that TPH is below Table 1 of NMAC 19.15.29 Closure Criteria.

Characterization

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

Site Map

Horizontal extent of the release was determined by visual observations. Plate 1 shows the release extent relative to pipelines, the production pad, and tank batteries.

Plate 2 show sample locations relative to release extent, as well as corresponding chloride and TPH Extended concentrations.

Plate 3 shows the proposed confirmation sampling grid.

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). OSE well logs are located in Appendix A. Spatial analysis shows:

- The nearest water well (CP-00854) is approximately 2.2-miles to the northeast with a depth to water of 600 feet.
- The second nearest water well (CP-01356) is approximately 2.4-miles to the northeast with a depth to water of 555 feet.

Review of well logs available from the New Mexico Office of the State Engineer (OSE) online database (see Table 2) shows that the average depth to the top of the water-bearing zone, for nearby wells under Artesian pressure, exceeds 800 feet below land surface, as shown in the “top of water bearing strata” column. Appendix B contains well logs available online from the OSE.

OSE well logs show that the nearby wells have a minimum of 266 feet of pressure head above the confining layer. It is important to recognize that at CP-00854 ground water is at a depth of 755 feet and confining pressure causes the water column to rise 155 feet for a perceived depth to water of 600 feet below ground surface (bgs).

We recognize that thin water-bearing units above the regional water-bearing zone may not have been recorded by the well drillers. However, more shallow water-bearing zones would be sandstone units within the Dockum Group redbeds and, like the regional water-bearing zone, would be under artesian pressure.

Ground water flow is to the south-southeast as demonstrated on the potentiometric surface map (Plate 5). We relied on USGS well to create the potentiometric surface map to determine direction of ground water flow and calculated depth to water at the release location.

The potentiometric surface indicates that the depth to water is approximately 395 feet below ground surface, where 395 feet = 3650 ft surface elevation – 3255 ft potentiometric surface.

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

Distance to Nearest Significant Water Course

Plate 7 shows that the release extent is:

- Within ½ mile of any significant water course. The water course is located 600 feet west of the release.
- Not within 300 feet of a continuously flowing watercourse or any other significant watercourse.
- Not within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

Soil/Waste Characteristics

The release occurred in an area where depth to water is greater than 100 ft below ground surface (bgs) and south of an active production pad.

Advance Energy will reclaim the surface according to Closure Criteria listed in Table 1 of 19.15.29 NMAC. With a depth to water >100 feet, closure criteria limits 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

The release occurred within an area of silty sand from the surface to 4.5 feet. Caliche is present at 4 to 4.5 feet below ground surface.

The release extent covers an area of approximately 16,339 sq. yrds. Assuming an impacted depth of 0.5 feet, the volume to be remediated is 2,723 cu. yrds.

Proposed Workplan - Remediation

We propose to resume remediation of impacted areas by the end of March 2020 when warmer temperatures will promote efficacy of the biologic activity of Microblaze.

Important: No surface disturbance or trespass shall occur within the "Access Prohibited" area without prior authorization and R.T. Hicks Consultants personnel present.

Access to the release area is limited by:

- Tank battery and steep berm north of the release (southern edge of production pad)
- Surface flow lines
- "Access Prohibited" area to the east
- No access roads into the release area to load impacted dirt into dump trucks without causing additional surface disturbance.

While it is possible to install half-moon crossovers over the layflats, the loose silty sand surface will not support the crossovers as heavy equipment drives over the crossover – risking damage to the layflat and increasing the potential for additional releases. A caliche road base will be required to support the crossovers. These factors prevent a dig-haul remedy without causing unnecessary surface disturbance and suggests that in-situ bioremediation is a preferred option.

We therefore recommend using a skid steer to access the release area to assist with remedial activities.

1. Remove surface lines no longer in-use (Figure 3).

Figure 3: Surface flow lines within remediation area. The layflat in the foreground can be removed prior to remedial activities.

2. Install crossovers, that will support a skid steer, over the remaining flowlines.
3. Remediation of "Oil Spray Area"
    a. Using a skid steer, brush hog and mulch dead vegetation impacted by the release and disk soil that has been previously treated with Microblaze. The mulch will add

organic matter into the soil providing essential nutrients for germination and growth during revegetation.

b. Apply 2nd treatment of Microblaze.
c. One month after 2nd treatment, apply additional fresh water and disk area.
d. Two months after treatment, obtain confirmation soil samples for analysis of chloride, BTEX, TPH, at
    - the surface,
    - 0.5-ft below ground surface
e. If soil samples exhibit concentrations below Table 1 of 19.15.29 NMAC Closure Criteria,
    - seed the area
    - submit final closure plan.
f. If soil samples do not meet closure criteria, we will repeat with Microblaze application processes as described above (steps 3b – e).

4. Remediation of "Area of Saturation"
    a. Using a skid steer, disk soil that has been previously treated with Microblaze.
    b. Apply 2nd treatment of Microblaze.
    c. One month after 2nd treatment, apply additional fresh water and disk area.
    d. Two months after treatment, obtain confirmation soil samples for analysis of chloride, BTEX, TPH, at
        - the surface,
        - 0.5-ft below ground surface
    e. If soil samples exhibit concentrations below Table 1 of 19.15.29 NMAC Closure Criteria,
        - seed and contour the area
        - submit final closure plan.

    otherwise, repeat steps 4b – e.

Proposed Confirmation Sampling

Plate 3 shows the proposed sampling grid for confirmation sampling. Sampling grids within the oil spray area are larger as the area was only impacted by an oil spray on the surface and no saturation of subsurface soils was observed during initial remediation response.

A 5-point composite base sample (at surface and 0.5 ft) will be collected from each sample grid for confirmation sampling. Five-point composite sample points will be evenly spaced within each sample grid to obtain a representative sample of the area (Figure 4, below example).

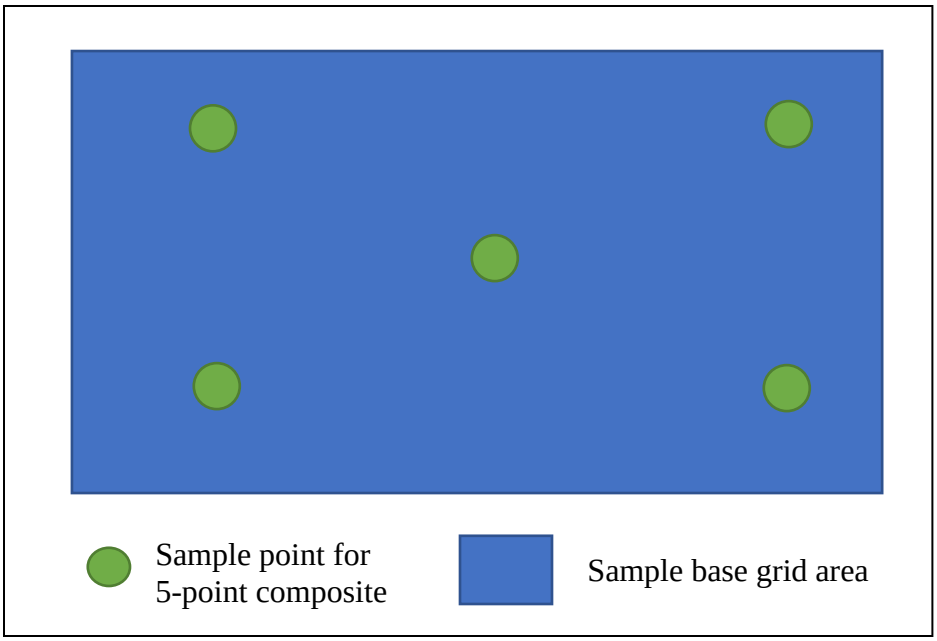

Figure 4: Example of 5-point sample grid for composite sampling.

Five-point composite soil samples will be collected along the walls of the sample grid. Sample points for the composite wall sample will be evenly distributed along the wall to obtain a representative 5-point composite sample.

If soil confirmation sampling exceeds Table 1 of 19.15.29 NMAC Closure Criteria concentrations, remediation will continue until soil confirmation results are below Closure Criteria.

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
Clabe Pearson (clabe@merchantlivestock.com); Merchant Livestock
Brad Blevins (bblevins5252@gmail.com); Merchant Livestock

Plates

R.T. Hicks Consultants, Ltd.
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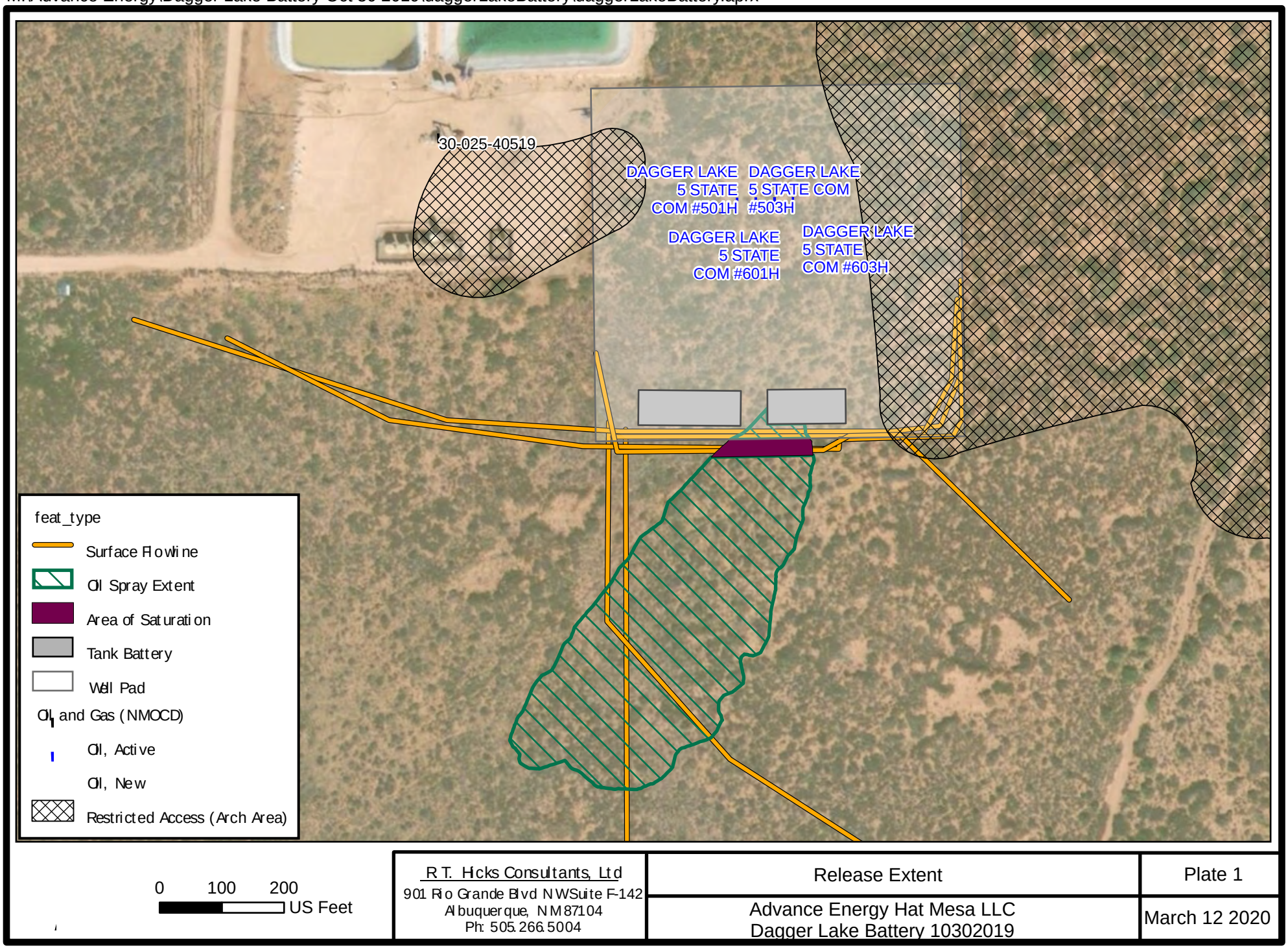

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Release Extent	Plate 1
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

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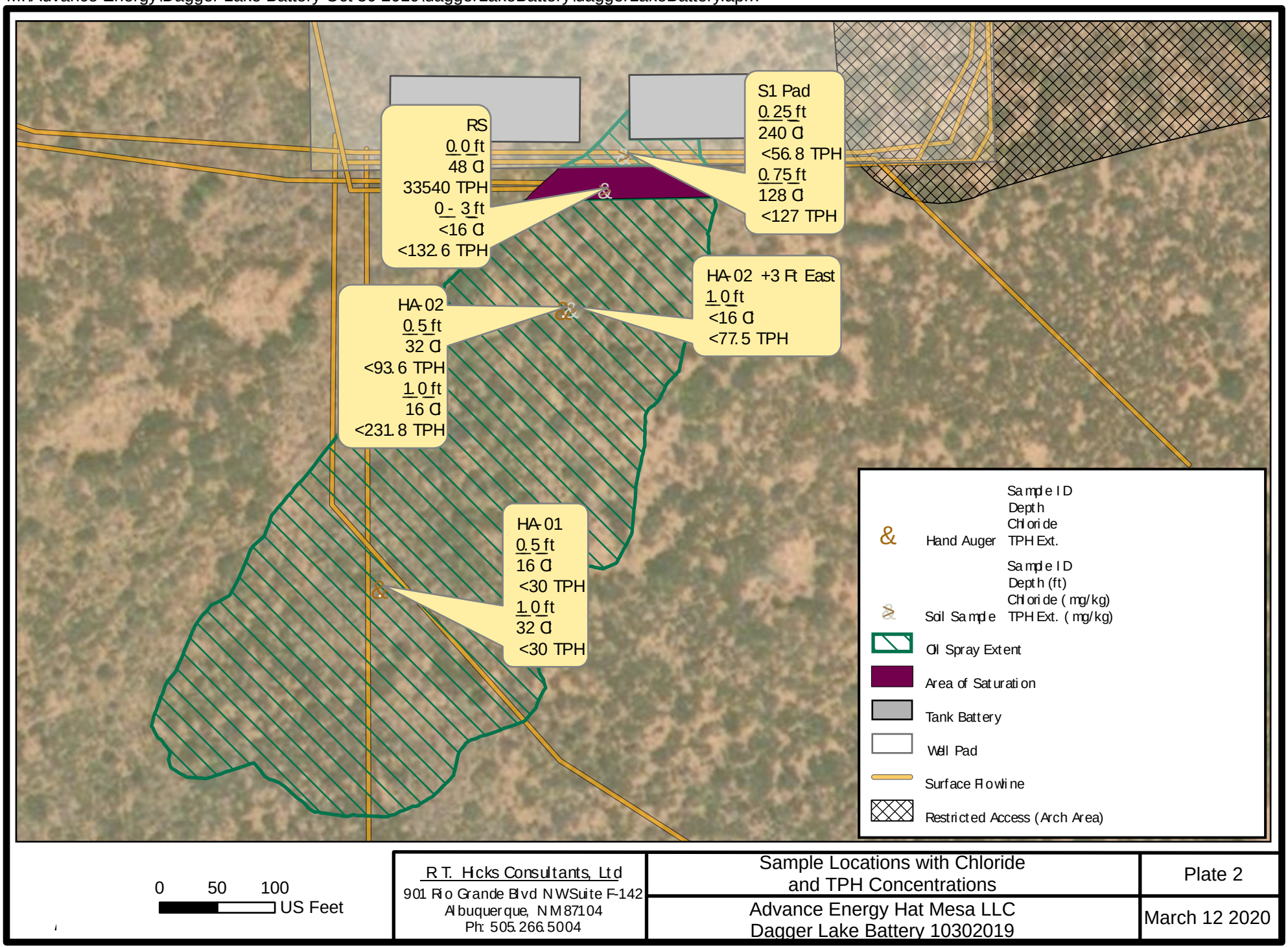

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Sample Locations with Chloride and TPH Concentrations	Plate 2
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

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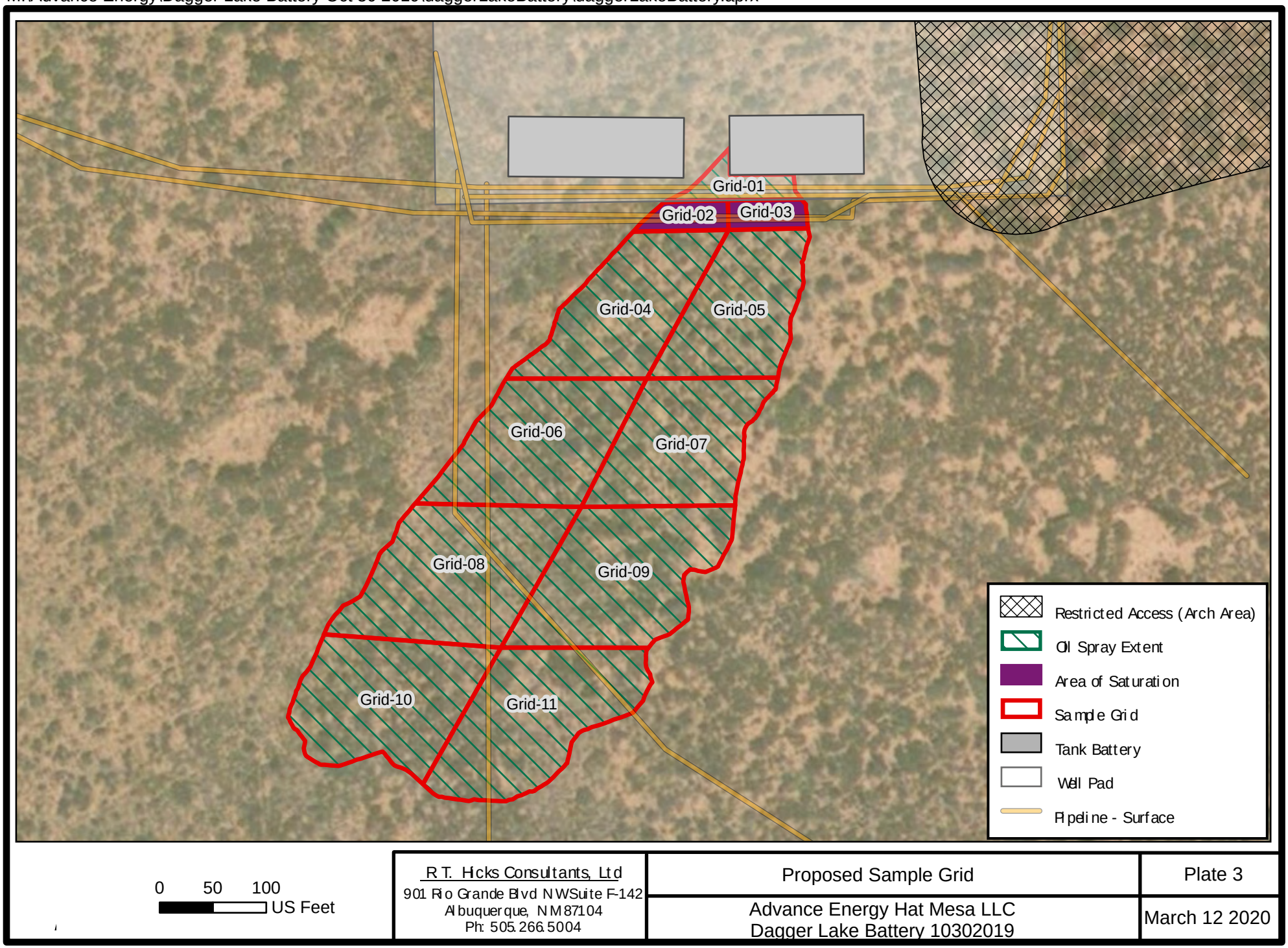

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Proposed Sample Grid	Plate 3
Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

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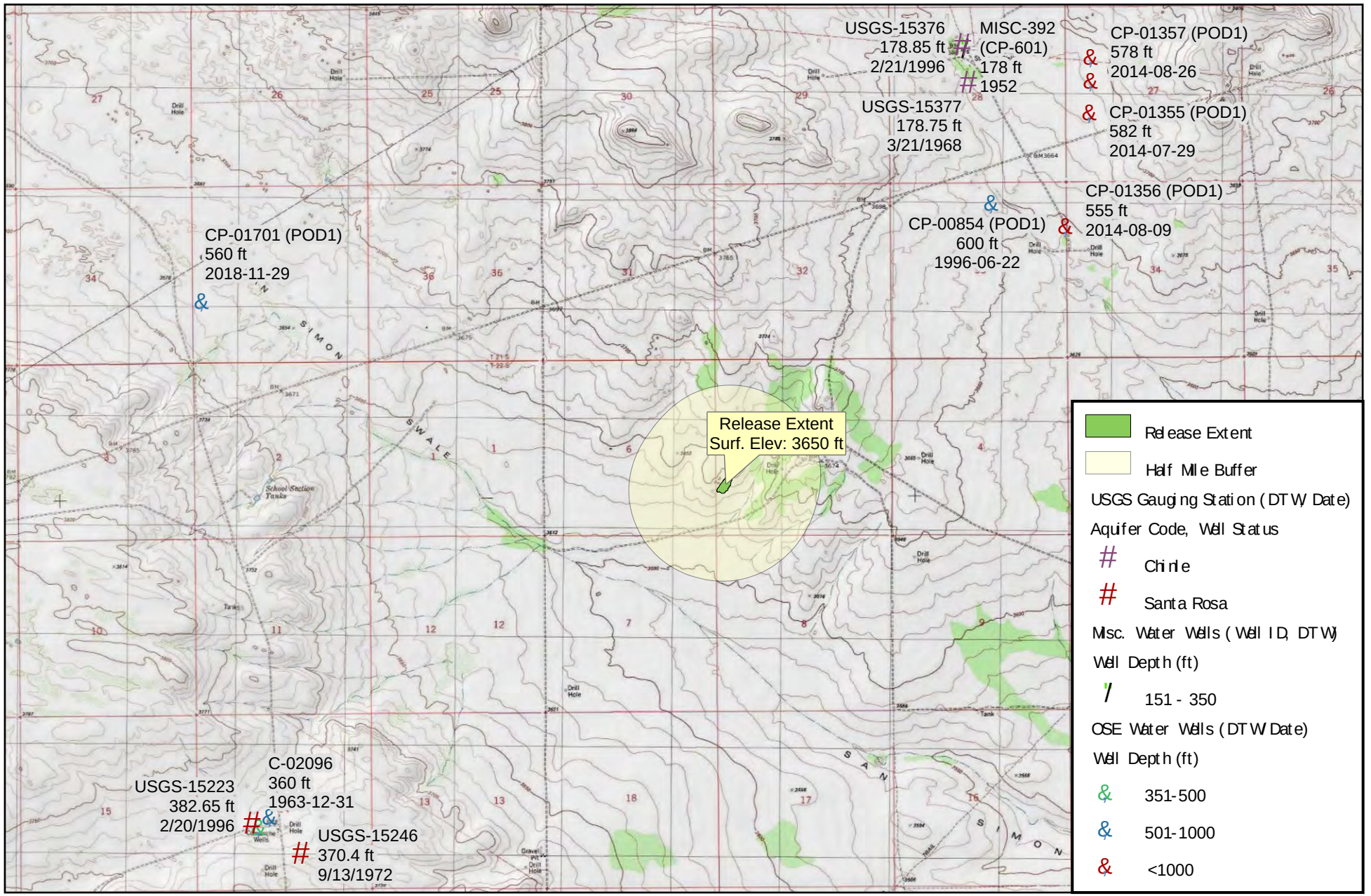

0 0.5 1 Miles

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Depth to Water

Plate 4

Advance Energy Hat Mesa LLC
Dagger Lake Battery 10302019

March 12 2020

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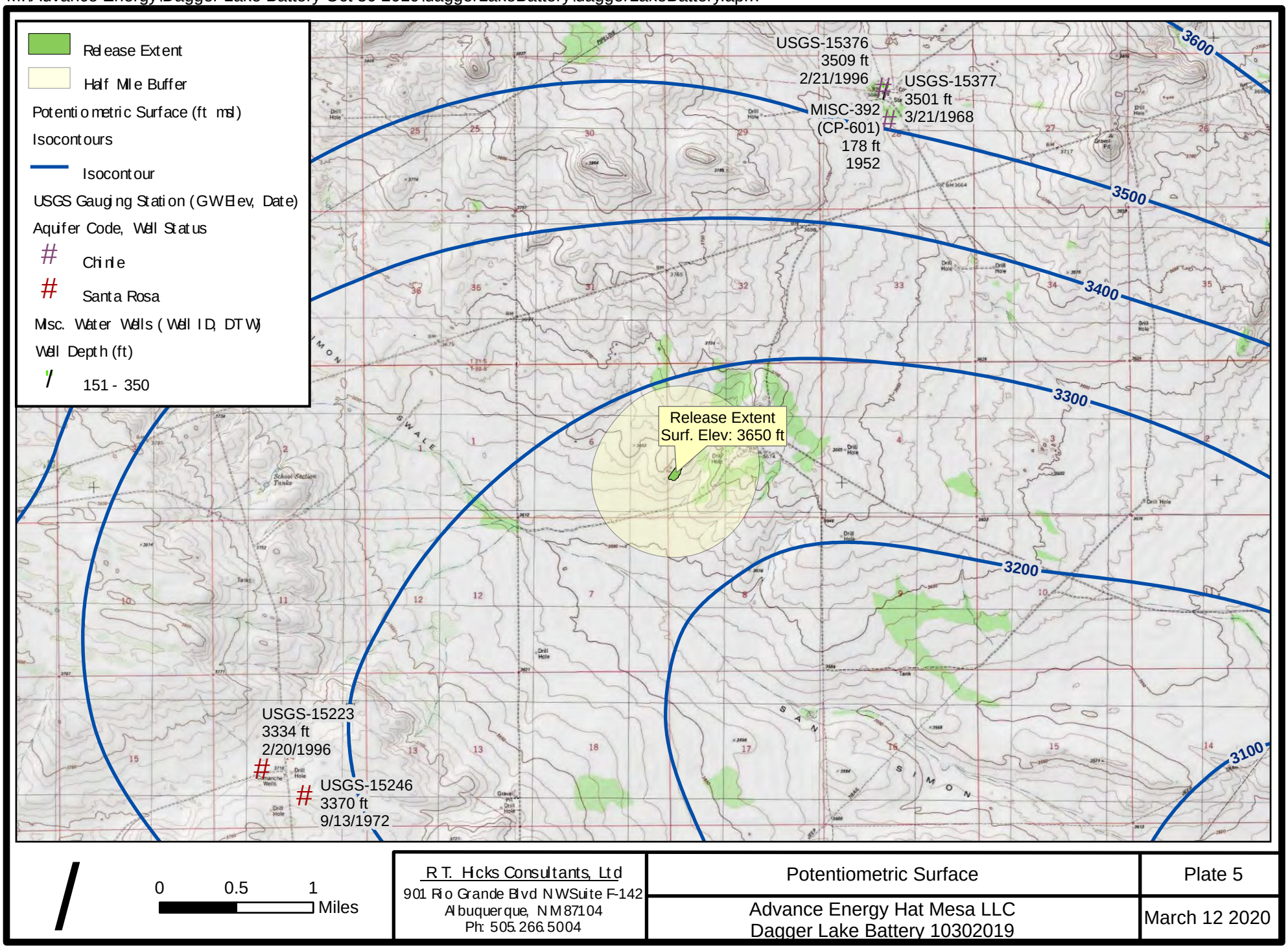

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Potentiometric Surface	Plate 5
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

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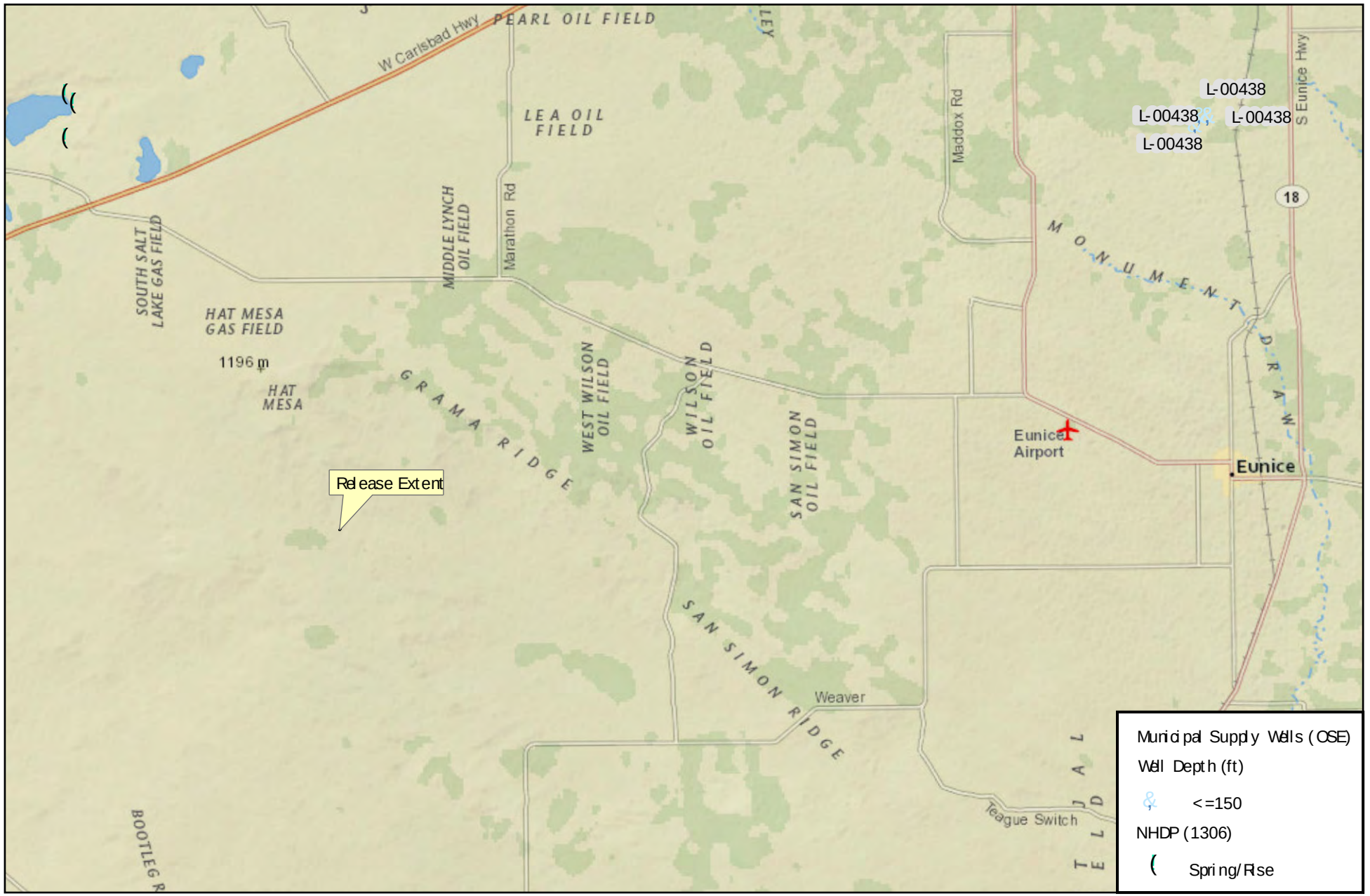

0 2 4 Miles

R.T. Hicks Consultants, Ltd
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Albuquerque, NM 87104
Ph: 505.266.5004

Wellhead Protection	Plate 6
Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

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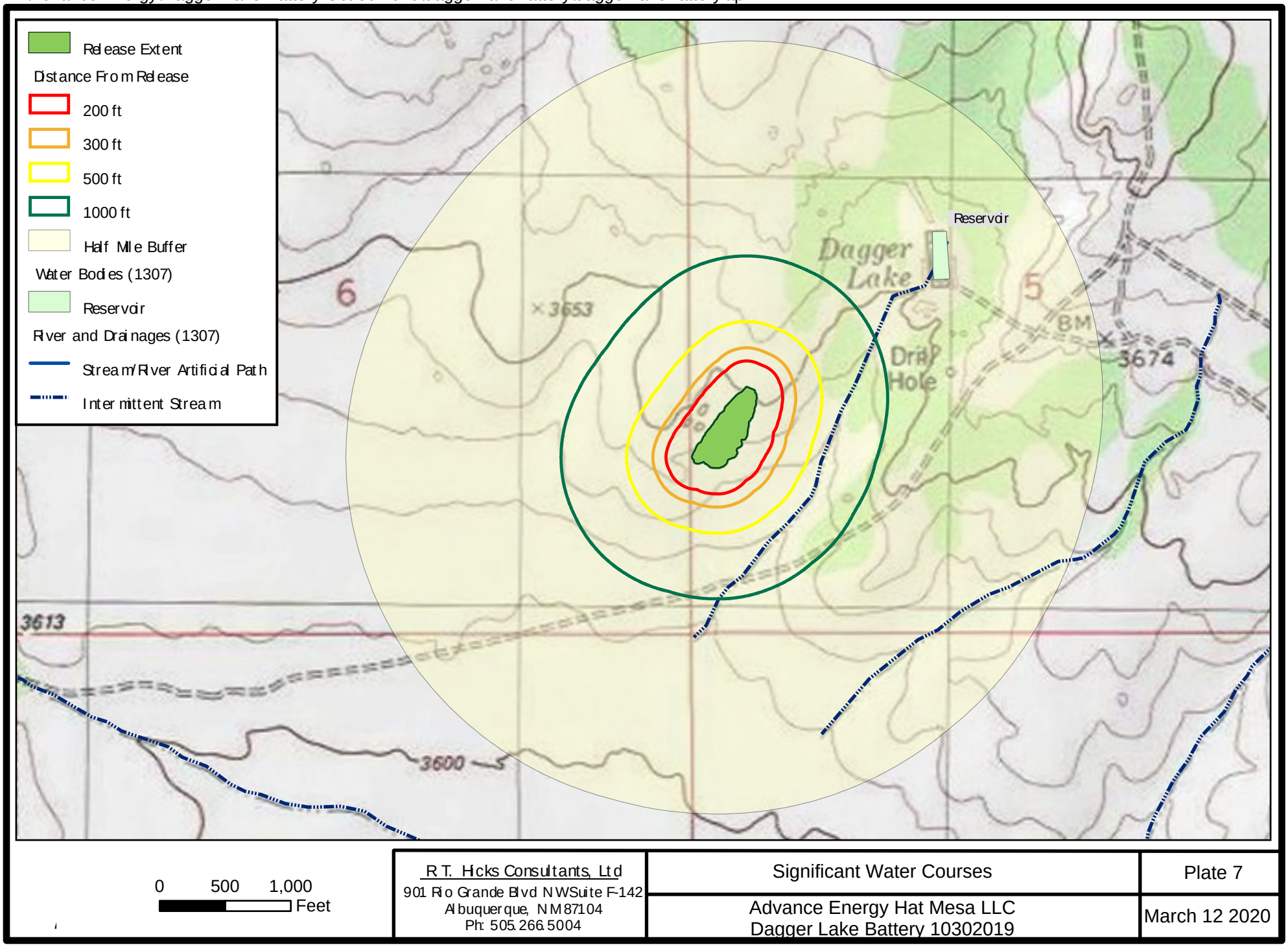

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Significant Water Courses	Plate 7
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

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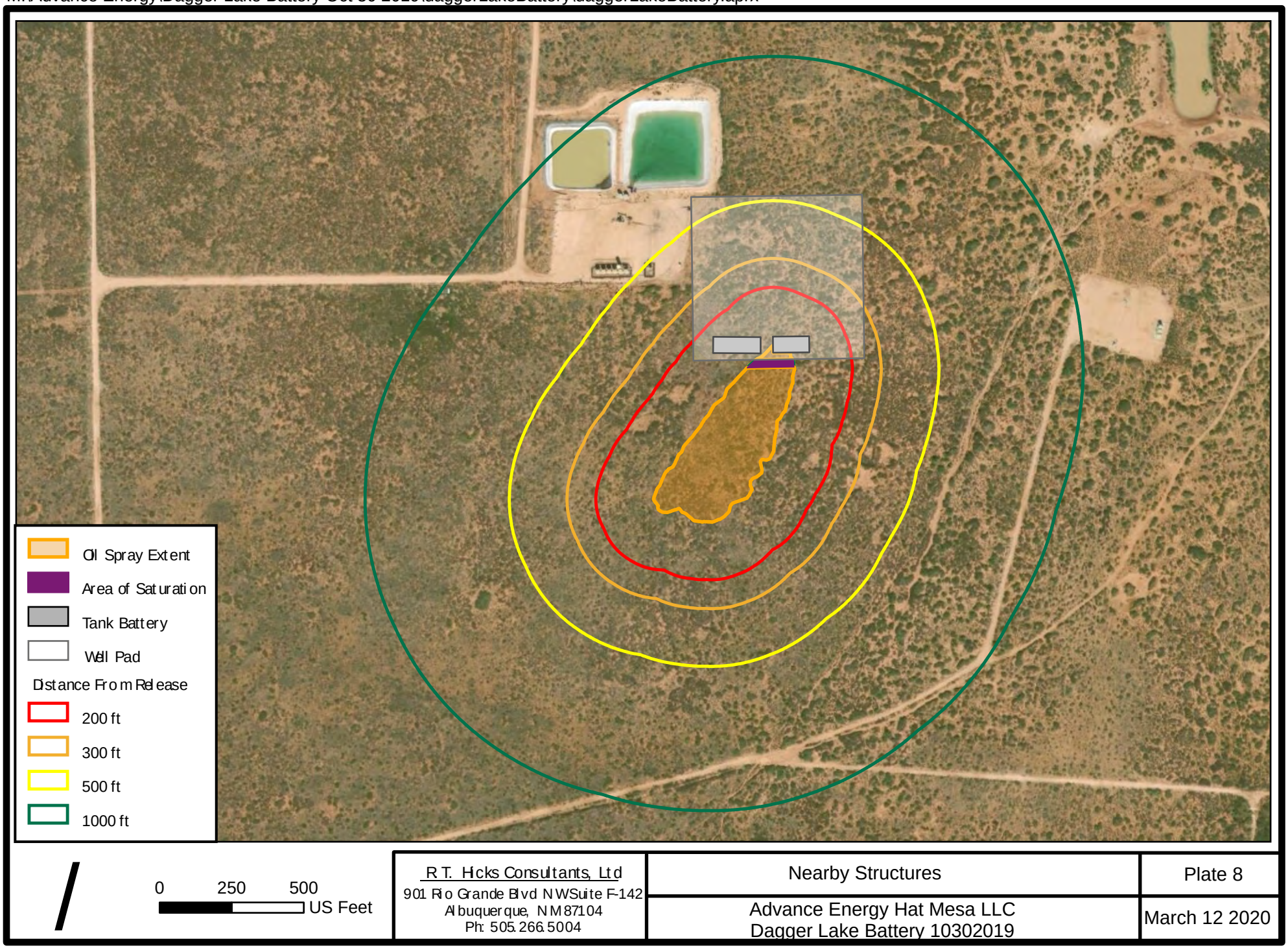
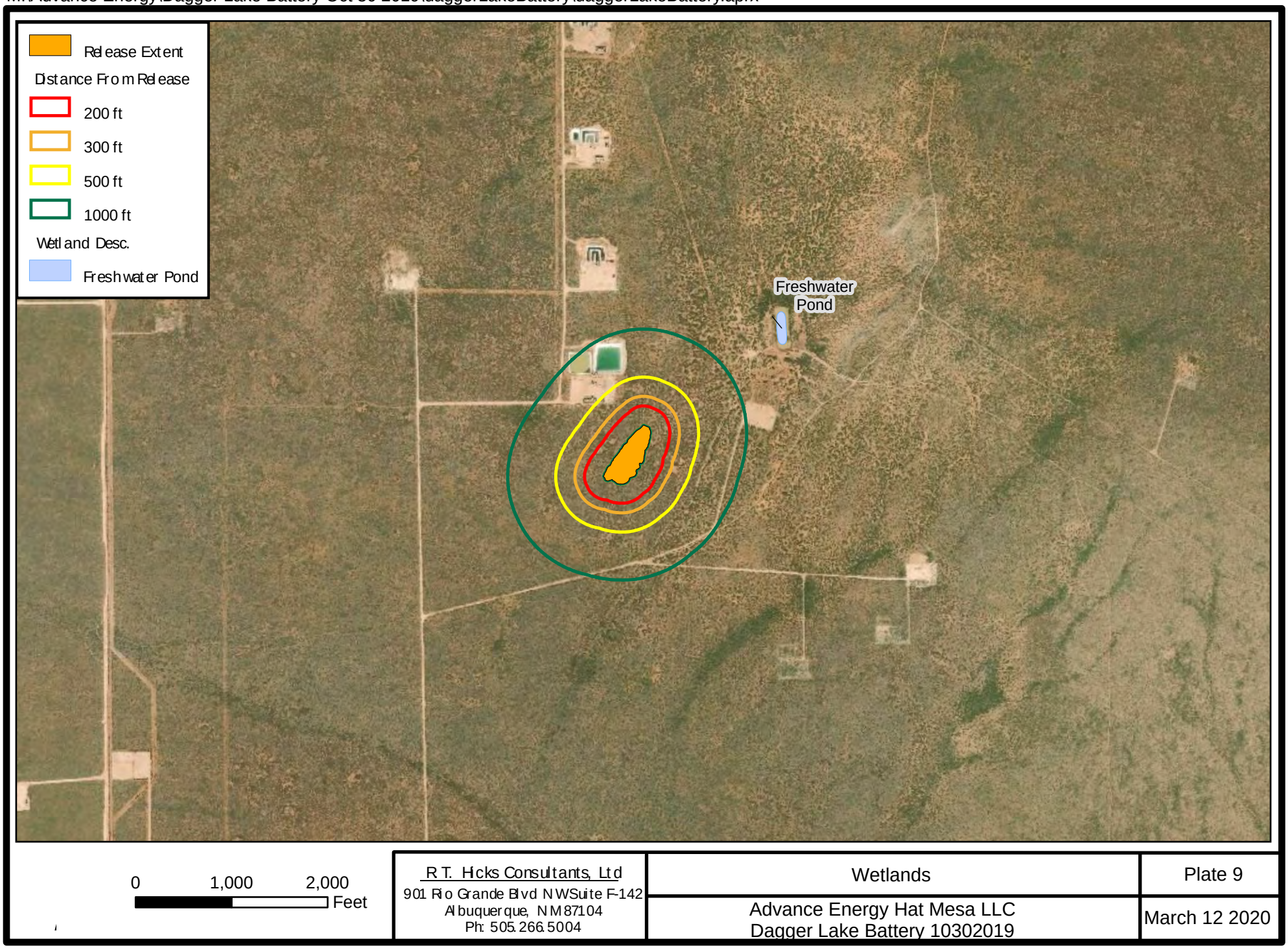


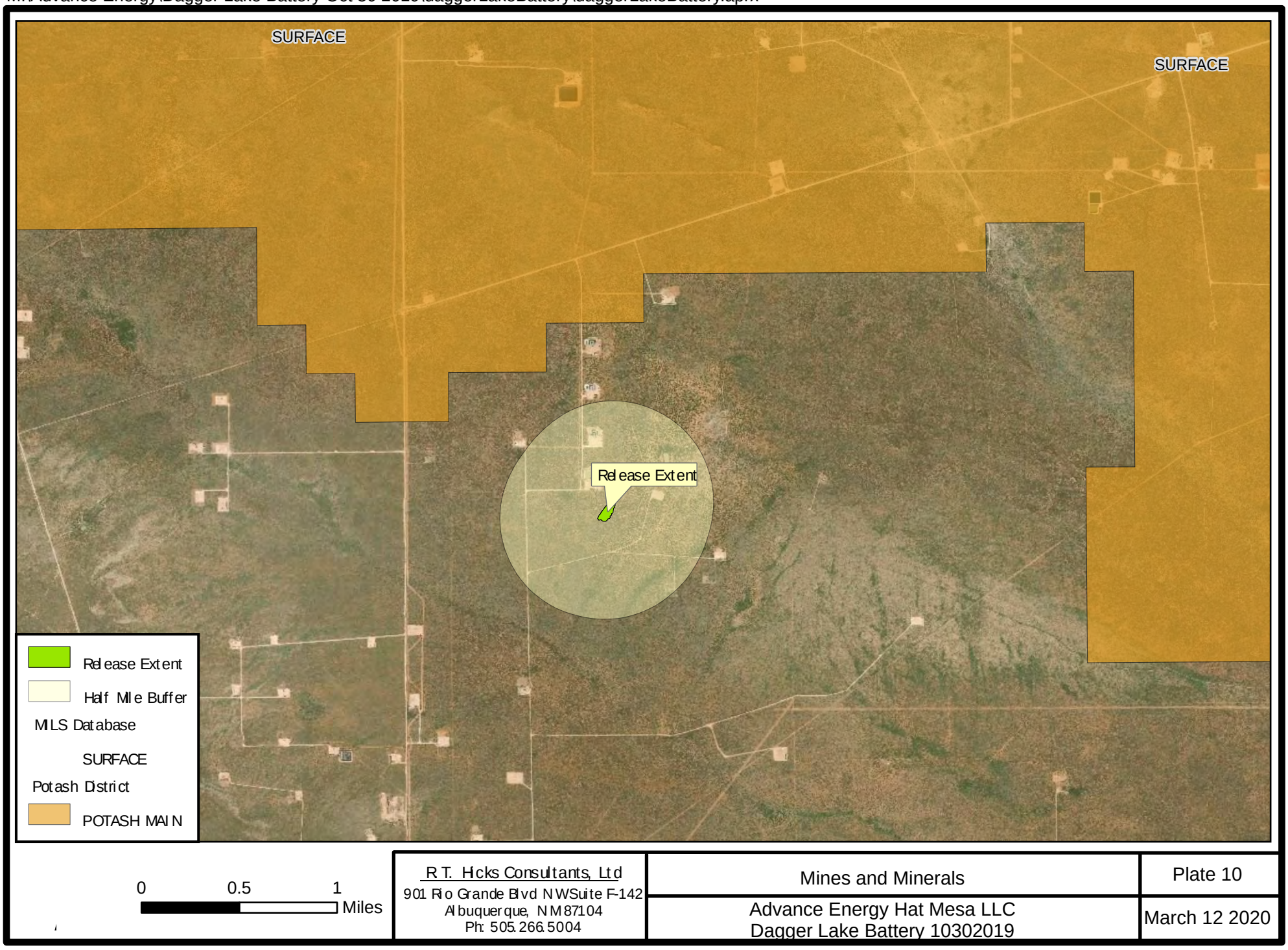
R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearby Structures	Plate 8
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

M:\Advance Energy\Dagger Lake Battery Oct 30 2019\daggerLakeBattery\daggerLakeBattery.aprx



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Wetlands	Plate 9
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

M:\Advance Energy\Dagger Lake Battery Oct 30 2019\daggerLakeBattery\daggerLakeBattery.aprx



R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

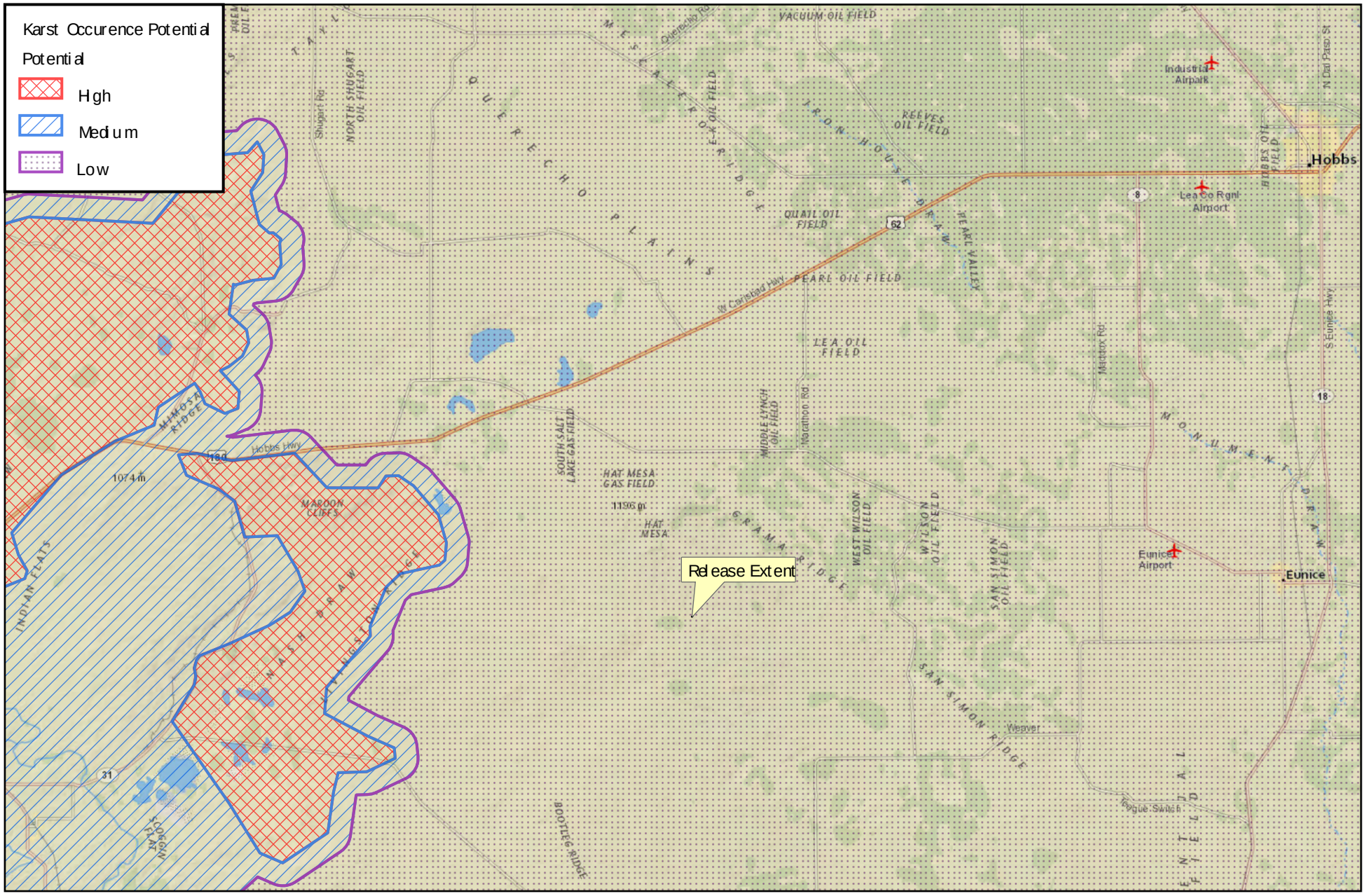
Mines and Minerals

Plate 10

Advance Energy Hat Mesa LLC
Dagger Lake Battery 10302019

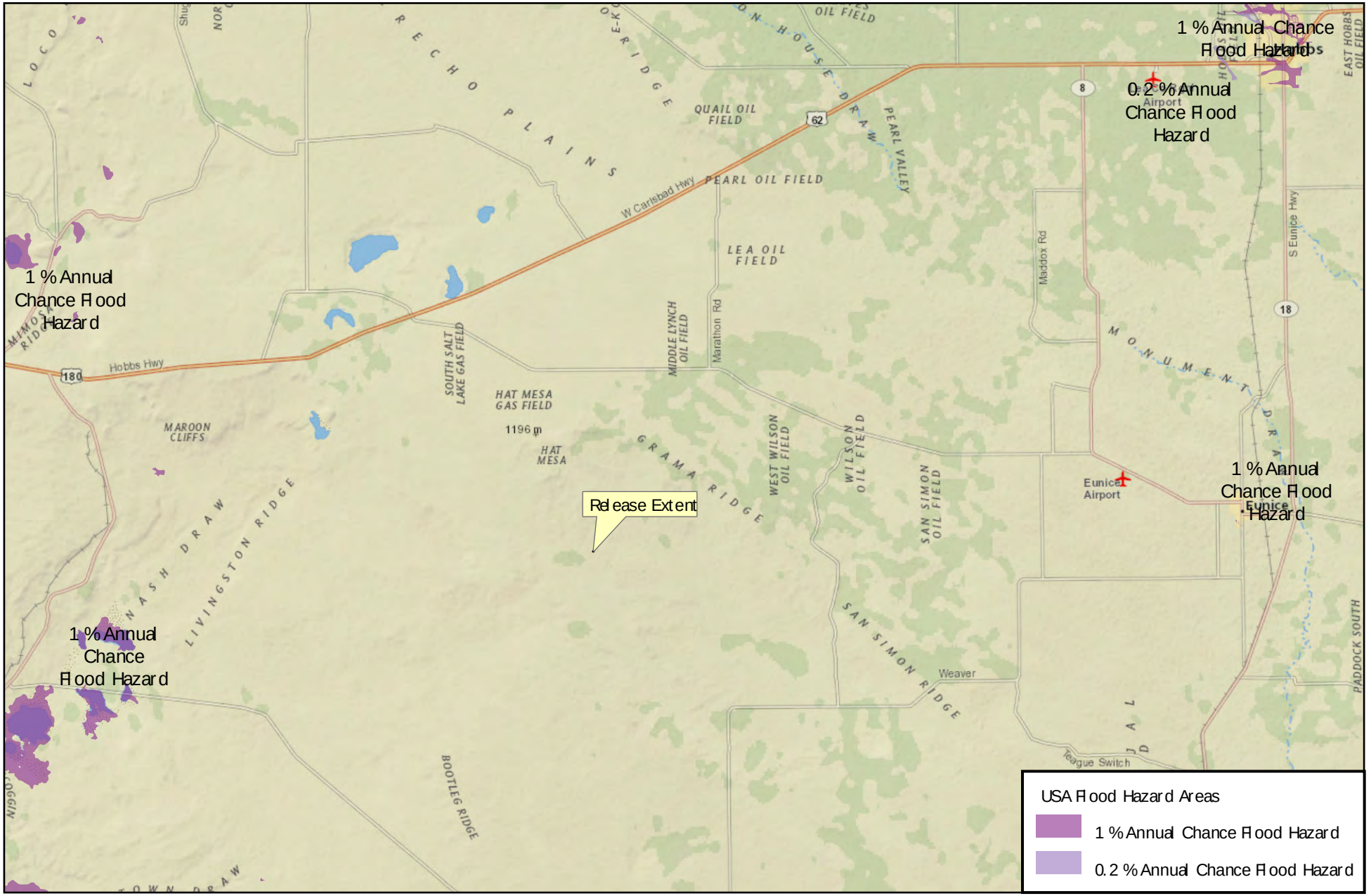
March 12 2020

M:\Advance Energy\Dagger Lake Battery Oct 30 2019\daggerLakeBattery\daggerLakeBattery.aprx



R T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Karst	Plate 11
	Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

M:\Advance Energy\Dagger Lake Battery Oct 30 2019\daggerLakeBattery\daggerLakeBattery.aprx



0 2 4 Miles

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Flood Hazard Zones (FEMA)	Plate 12
Advance Energy Hat Mesa LLC Dagger Lake Battery 10302019	March 12 2020

Tables

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

March 2020

Table 1
Summary of Analytical

Dagger Lake Tank Battery 10302019
Advance Energy Partners Hat Mesa

Sample ID	Date	Sample Type (Comp./Grab)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Limits											
0 - 4 feet & "not in-use"						600	--	2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
S1 Pad	10/30/2019	Grab	0.25			240	<46.8	<56.8	<0.05	<0.3	Hand Auger
S1 Pad	10/30/2019	Grab	0.75			128	<117	<127	<0.05	<0.3	Hand Auger
RS	12/11/2019	Grab	0.00			48	27950	33540	<0.1	25.2	Hand Auger
RS	12/11/2019	Composite		0.0	3.0	<16	<116	<132.6	<0.05	<0.3	Hand Auger
HA-01	3/12/2020	Grab	0.50			16	<20	<30	<0.05	<0.3	Hand Auger
HA-01	3/12/2020	Grab	1.00			32	<20	<30	<0.05	<0.3	Hand Auger
HA-02	3/12/2020	Grab	0.50			32	<83.6	<93.6	<0.05	<0.3	Hand Auger
HA-02	3/12/2020	Grab	1.00			16	<193	<231.8	<0.05	<0.3	Hand Auger
HA-02 +3 Ft East	3/19/2020	Grab	1.00			<16	<67.5	<77.5	<0.05	<0.3	Shovel Trench

March 13, 2020

Table 2
OSE Water Well Log Data Summary

NRM2000354631
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
CP-00601	1952		223	178		
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

Appendix A
OSE Well Logs

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

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

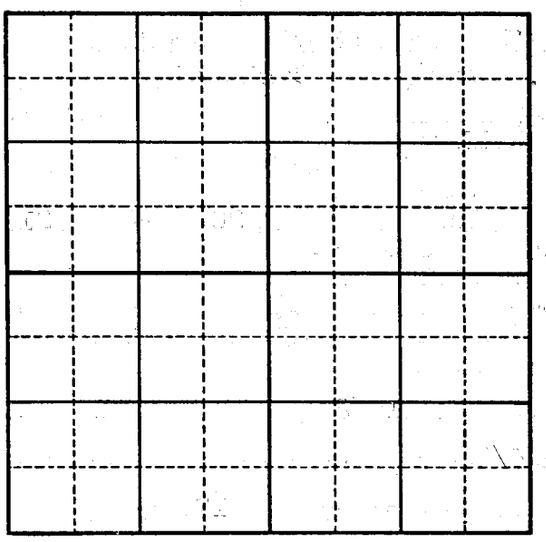
563298

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

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 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	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'	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

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): CP - 1355 East Standard (South)	OSE FILE NUMBER(S):
WELL OWNER NAME(S): Merchants Livestock/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

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 — 12/10/2018

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — 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

Appendix B

Laboratory Certificates 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

November 04, 2019

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 10/31/19 11:20.

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	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 BATTERY Project Manager: ANDREW PARKER Fax To: NONE	Reported: 04-Nov-19 14:00

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S1 PAD 0.25'	H903714-01	Soil	30-Oct-19 14:00	31-Oct-19 11:20
S1 PAD 0.75'	H903714-02	Soil	30-Oct-19 14:30	31-Oct-19 11:20

Client changed project name to Dagger Lake Battery on 11/04/19. This is the revised report and will replace the one sent on 11/01/19.

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 BATTERY Project Manager: ANDREW PARKER Fax To: NONE	Reported: 04-Nov-19 14:00

S1 PAD 0.25'

H903714-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**240**		16.0	mg/kg	4	9110105	AC	01-Nov-19	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*73.3-129*		*9103110*	MS	*31-Oct-19*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	9103113	MS	01-Nov-19	8015B	
DRO >C10-C28*	**36.8**		10.0	mg/kg	1	9103113	MS	01-Nov-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9103113	MS	01-Nov-19	8015B	
Surrogate: 1-Chlorooctane			*94.9 %*	*41-142*		*9103113*	MS	*01-Nov-19*	*8015B*	
Surrogate: 1-Chlorooctadecane			*101 %*	*37.6-147*		*9103113*	MS	*01-Nov-19*	*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 BATTERY Project Manager: ANDREW PARKER Fax To: NONE	Reported: 04-Nov-19 14:00

S1 PAD 0.75'

H903714-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**128**		16.0	mg/kg	4	9110105	AC	01-Nov-19	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9103110	MS	31-Oct-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*73.3-129*		*9103110*	MS	*31-Oct-19*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	9103113	MS	01-Nov-19	8015B	
DRO >C10-C28*	**107**		10.0	mg/kg	1	9103113	MS	01-Nov-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9103113	MS	01-Nov-19	8015B	
Surrogate: 1-Chlorooctane			*102 %*	*41-142*		*9103113*	MS	*01-Nov-19*	*8015B*	
Surrogate: 1-Chlorooctadecane			*108 %*	*37.6-147*		*9103113*	MS	*01-Nov-19*	*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 BATTERY Project Manager: ANDREW PARKER Fax To: NONE	Reported: 04-Nov-19 14:00

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9110105 - 1:4 DI Water										
Blank (9110105-BLK1)				Prepared & Analyzed: 01-Nov-19						
Chloride	ND	16.0	mg/kg							
LCS (9110105-BS1)				Prepared & Analyzed: 01-Nov-19						
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9110105-BSD1)				Prepared & Analyzed: 01-Nov-19						
Chloride	432	16.0	mg/kg	400		108	80-120	7.69	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 BATTERY Project Manager: ANDREW PARKER Fax To: NONE	Reported: 04-Nov-19 14:00

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 9103110 - Volatiles										
Blank (9103110-BLK1)				Prepared & Analyzed: 31-Oct-19						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0503*		mg/kg	*0.0500*		*101*	*73.3-129*			
LCS (9103110-BS1)				Prepared & Analyzed: 31-Oct-19						
Benzene	1.92	0.050	mg/kg	2.00		95.8	72.2-131			
Toluene	1.92	0.050	mg/kg	2.00		95.8	71.7-126			
Ethylbenzene	1.95	0.050	mg/kg	2.00		97.4	68.9-126			
Total Xylenes	5.81	0.150	mg/kg	6.00		96.8	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0494*		mg/kg	*0.0500*		*98.8*	*73.3-129*			
LCS Dup (9103110-BSD1)				Prepared & Analyzed: 31-Oct-19						
Benzene	1.84	0.050	mg/kg	2.00		91.9	72.2-131	4.21	6.91	
Toluene	1.84	0.050	mg/kg	2.00		92.2	71.7-126	3.85	7.12	
Ethylbenzene	1.89	0.050	mg/kg	2.00		94.5	68.9-126	3.06	7.88	
Total Xylenes	5.65	0.150	mg/kg	6.00		94.2	71.4-125	2.72	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0499*		mg/kg	*0.0500*		*99.8*	*73.3-129*			

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 BATTERY Project Manager: ANDREW PARKER Fax To: NONE	Reported: 04-Nov-19 14:00

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 9103113 - General Prep - Organics										
Blank (9103113-BLK1)				Prepared: 31-Oct-19 Analyzed: 01-Nov-19						
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	*50.0*		mg/kg	*50.0*		*100*	*41-142*			
Surrogate: 1-Chlorooctadecane	*50.1*		mg/kg	*50.0*		*100*	*37.6-147*			
LCS (9103113-BS1)				Prepared: 31-Oct-19 Analyzed: 01-Nov-19						
GRO C6-C10	228	10.0	mg/kg	200		114	76.5-133			
DRO >C10-C28	226	10.0	mg/kg	200		113	72.9-138			
Total TPH C6-C28	455	10.0	mg/kg	400		114	78-132			
Surrogate: 1-Chlorooctane	*56.2*		mg/kg	*50.0*		*112*	*41-142*			
Surrogate: 1-Chlorooctadecane	*56.1*		mg/kg	*50.0*		*112*	*37.6-147*			
LCS Dup (9103113-BSD1)				Prepared: 31-Oct-19 Analyzed: 01-Nov-19						
GRO C6-C10	212	10.0	mg/kg	200		106	76.5-133	7.39	20.6	
DRO >C10-C28	208	10.0	mg/kg	200		104	72.9-138	8.27	20.6	
Total TPH C6-C28	420	10.0	mg/kg	400		105	78-132	7.82	18	
Surrogate: 1-Chlorooctane	*51.8*		mg/kg	*50.0*		*104*	*41-142*			
Surrogate: 1-Chlorooctadecane	*50.7*		mg/kg	*50.0*		*101*	*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

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	**BILL TO**	
Project Manager:	Andrew Parker	P.O. #:	
Address:	on File	Company:	R.T. Hicks
City:	State: Zip:	Attn:	Send to ABQ office
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	Advance Energy *Dagger Lake Battery	State: Zip:	
Project Location:	~~Dagger State Battery~~ AOG	Phone #:	
Sampler Name:	JACOB STAEN 2	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, GRO, DRO, MRO	TDH								
H903714																									
1	S1 Pad 0.25FT	G	1			X					X		10/30/19	2pm	X	X	X								
2	S1 Pad 0.75 FT	↓	↓			↓					↓		10/30/19	2:30pm	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: 10/31/19	Received By:	Tamara Oldaker
	Time: 11:20		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One) 3.8° #97
Sampler - UPS - Bus - Other: Corrected 4.2°

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

CHECKED BY: (Initials) TO

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

RUSH!!
*Project name changed as per Andrew. 11/4/19 CH

CARDINAL Laboratories

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

December 18, 2019

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 12/12/19 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:	12/12/2019	Sampling Date:	12/11/2019
Reported:	12/18/2019	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE BATTERY	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: RS 0' (H904168-01)

BTEX 8021B mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	12/16/2019	ND	1.76	88.2	2.00	12.6	
Toluene*	**0.319**	0.100	12/16/2019	ND	1.73	86.7	2.00	17.5	
Ethylbenzene*	**5.56**	0.100	12/16/2019	ND	1.75	87.7	2.00	16.0	
Total Xylenes*	**19.3**	0.300	12/16/2019	ND	5.08	84.7	6.00	16.0	
Total BTEX	**25.2**	0.600	12/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *307 %* *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	12/16/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**1250**	50.0	12/14/2019	ND	212	106	200	1.12	
DRO >C10-C28*	**26700**	50.0	12/14/2019	ND	231	116	200	1.59	
EXT DRO >C28-C36	**5590**	50.0	12/14/2019	ND					

Surrogate: 1-Chlorooctane *166 %* *41-142*

Surrogate: 1-Chlorooctadecane *1060 %* *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:	12/12/2019	Sampling Date:	12/11/2019
Reported:	12/18/2019	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE BATTERY	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: RS 0-3' (H904168-02)

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	12/14/2019	ND	1.76	88.2	2.00	12.6	
Toluene*	<0.050	0.050	12/14/2019	ND	1.73	86.7	2.00	17.5	
Ethylbenzene*	<0.050	0.050	12/14/2019	ND	1.75	87.7	2.00	16.0	
Total Xylenes*	<0.150	0.150	12/14/2019	ND	5.08	84.7	6.00	16.0	
Total BTEX	<0.300	0.300	12/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *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	<16.0	16.0	12/16/2019	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	12/14/2019	ND	212	106	200	1.12	
DRO >C10-C28*	**106**	10.0	12/14/2019	ND	231	116	200	1.59	
EXT DRO >C28-C36	**16.6**	10.0	12/14/2019	ND					

Surrogate: 1-Chlorooctane *80.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.7 %* *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

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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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.
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: RT Hicks	**BILL TO**
Project Manager: Andrew Parker	P.O. #:
Address:	Company: RT Hicks
City: State: Zip:	Attn: Send to ABQ Alice
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: Advance Energy	State: Zip:
Project Location: Dagger Lake Battery	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	BTEX	TOH
H904168																	
1	RS OFT	G	1			X					X		12/11				
2	RS 0-3FT	G	1			X					X		12/11				

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: 12/12/19	Received By: Jodi Henson	
Relinquished By:	Time: 16:35	Received By:	
	Date:		
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other: -1.1°C/-0.7°C #97

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:

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:	DAGGER BATTERY (10/30/19)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA-01 0.5' (H000813-01)

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	**16.0**	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 *104 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *108 %* *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:	DAGGER BATTERY (10/30/19)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA-01 1' (H000813-02)

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	**32.0**	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 *105 %* *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

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:	DAGGER BATTERY (10/30/19)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA-02 0.5' (H000813-03)

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	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	**32.0**	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*	**73.6**	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 *111 %* *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:	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:	DAGGER BATTERY (10/30/19)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA-02 1' (H000813-04)

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	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	**16.0**	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*	**183**	10.0	03/17/2020	ND	189	94.4	200	4.01	
EXT DRO >C28-C36	**38.8**	10.0	03/17/2020	ND					

Surrogate: 1-Chlorooctane *102 %* *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
Project Manager:	Andrew Parker
Address:	On-File
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	Advance Energy
Project Location:	Dagger Draw 10.30.19
Sampler Name:	Jacob Saenz

BILL TO

P.O. #:	Dagger Draw 10.30.19
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
H000813																	
1	HA-01 0.5FT	G	1			X					X		3/12/20	8am	X	X	X
2	HA-01 1FT	↓	↓			↓					↓		↓	8:30am	↓	↓	↓
3	HA-02 0.5FT													9am			
4	HA-02 1FT	✓	✓			↓					↓		↓	9:30am	↓	↓	↓

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: 3-16-20 Time: 1435	Received By: Tamara Oldaker	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.1c #113	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials) TO	REMARKS: RFN

† 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 20, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: DAGGER BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/19/20 16:21.

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:	03/19/2020	Sampling Date:	03/19/2020
Reported:	03/20/2020	Sampling Type:	Soil
Project Name:	DAGGER BATTERY	Sampling Condition:	Cool & Intact
Project Number:	10-30-2019	Sample Received By:	Kelly Jacobson
Project Location:	LEA COUNTY, NM		

Sample ID: HA - 02 +3 FT EAST 1 FT (H000860-01)

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	03/20/2020	ND	1.86	92.9	2.00	7.57	
Toluene*	<0.050	0.050	03/20/2020	ND	1.87	93.7	2.00	8.06	
Ethylbenzene*	<0.050	0.050	03/20/2020	ND	1.89	94.6	2.00	8.76	
Total Xylenes*	<0.150	0.150	03/20/2020	ND	5.48	91.3	6.00	8.55	
Total BTEX	<0.300	0.300	03/20/2020	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	<16.0	16.0	03/20/2020	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	03/20/2020	ND	202	101	200	2.33	
DRO >C10-C28*	**57.5**	10.0	03/20/2020	ND	195	97.5	200	2.08	
EXT DRO >C28-C36	<10.0	10.0	03/20/2020	ND					

Surrogate: 1-Chlorooctane *96.1 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *100 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

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
Project Manager:	Andrew Parker
Address:	On-File
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	Advance Energy
Project Location:	Dagger Battery 10.30.2019
Sampler Name:	Jacob Saenz

BILL TO

P.O. #:	Dagger Battery 10.30.2019
Company:	R.T. Hicks
Attn:	Send to
Address:	andrew@rthicks
City:	consult.com
State:	Zip:
Phone #:	
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								
H000860 1	HA-02 +3ft East 1FT	G	1			X					X		3/19/20	9am	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 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: 3-19-20 Time: 1621	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) Sampler - UPS - Bus - Other: #113	3.4°C	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)

REMARKS: RUSH

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