District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 106782

QUESTIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 106782
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Location of Release Source *Please answer all of the questions in this group.*	
Site Name	Dagger State Unit 2H Hydrovac
Date Release Discovered	05/10/2022 **Revised to 05/05/2022**
Surface Owner	Private

Incident Details *Please answer all of the questions in this group.*	
Incident Type	Release Other
Did this release result in a fire or is the result of a fire	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release *Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of dissolved chloride in the produced water >10,000 mg/l	*Not answered.*
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	Cause: Human Error | Other (Specify) | Other (Specify) | Released: 216,000 LBS | Recovered: 0 LBS | Lost: 216,000 LBS]
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Hydrovac disposal on production site. 80 cubic yards.

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QUESTIONS (continued)

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 106782
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**More volume information must be supplied to determine if this will be treated as a "gas only" report.**
Was this a major release as defined by 19.15.29.7(A) NMAC	**No, not enough information provided to determine release severity.**
Reasons why this would be considered a submission for a notification of a major release	
If YES, was immediate notice given to the OCD, by whom	*Not answered.*
If YES, was immediate notice given to the OCD, to whom	*Not answered.*
If YES, was immediate notice given to the OCD, when	*Not answered.*
If YES, was immediate notice given to the OCD, by what means (phone, email, etc.)	*Not answered.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
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 prepare and attach a narrative of actions to date in the follow-up C-141 submission. 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 prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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ACKNOWLEDGMENTS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 106782
	Action Type: [NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

☑	I acknowledge that I am authorized to submit notification of a releases on behalf of my operator.
☑	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
☑	I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
☑	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.
☑	I acknowledge the fact that 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.
☑	I acknowledge the fact that, 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.

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Oil Conservation Division
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Santa Fe, NM 87505

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 106782
	Action Type: [NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
aparker	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.	5/13/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213353279
District RP	
Facility ID	
Application ID	

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? **Plates 2**	>100 (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 4**	☐ 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 4**	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? **Plate 5**	☐ 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 3**	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? **Plate 3**	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? **Plate 3**	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland? **Plate 6**	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine? **Plate 7**	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology? **Plate 8**	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain? **Plate 9**	☐ 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.

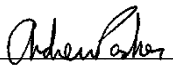
State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213353279
District RP	
Facility ID	
Application ID	

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: Env. Scientist

Signature: 

Date: October 14, 2022

email: aparker@advanceenergypartners.com

Telephone: 970-570-9535

OCD Only

Received by: Jocelyn Harimon

Date: 10/14/2022

Incident ID	nAPP2213353279
District RP	
Facility ID	
Application ID	

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: Env. Scientist

Signature: Andrew Parker Date: October 14, 2022

email: aparker@advanceenergypartners.com Telephone: 970-570-9535

OCD Only

Received by: Jocelyn Harimon Date: 10/14/2022

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

Signature: Jennifer Nobui Date: 11/10/2022

ADVANCE ENERGY PARTNERS

11490 Westheimer Road,
Suite 950, Houston, Texas 77077 • Phone 832-672-4700 • Fax 832-672-4609

October 14, 2022

NM Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: Characterization and Remediation Workplan
Incident ID: nAPP2213353279
Dagger State Unit 2H
AEP #: 20220510-1650-hydrovac

NMOCD:

Advance Energy Partners Hat Mesa LLC submits this characterization report and remediation plan for incident number nAPP2213353279. A corrected C-141 Notification of Release (NOR) is attached (Appendix A) with one (1) correction noted:

- The date discovered was corrected to 05/05/2022

The unauthorized discharge was discovered on May 5, 2022 on the northeastern quadrant of Dagger State Unit 2H "D" Pad. Surface is Fee (Merchant Livestock). Field investigations suggest that a hydrovac discharged excavated soil/slurry after performing surface trenching for construction purposes for the installation of flowlines and electrical associated with oil and gas operations. The discharge did not impact surface or groundwater. Figure 1 shows the discharge extent.

Figure 1: Discharge extent facing north. Date Taken: 2022-05-05 11:20:34. GPS: 32.4253858, -103.6255994

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 2-9).

1.1. Site Map

Horizontal extent of the discharge was determined by visual observations. The discharge extent mapping utilized GPS technology with sub-meter accuracy.

Plate 1 shows the discharge extent relative to the Dagger State Unit 2H production site and closed adjacent reserve pit. *A tank battery, which was constructed on-site after the initial discharge delineation, is also shown.* The coordinates of the discharge site are 32.4302253, -103.6029392 (Lat, Long; NAD83). The discharge extent covered approximately 1757 sq feet.

1.2. *Depth to Ground Water*

The two nearest depth-to-water borings relative to the discharge extent are mapped on Plate 2. The Office of the State Engineer well logs are attached in Appendix B:

1. MISC_400 (CP-1879) located 0.45-miles north of the discharge extent with a depth to water of > 105 ft. dated 09/22/2021.
2. MISC-402 (CP-1881) located 0.53-miles south of the discharge extent with a depth to water of >105 ft. dated 10/12/2021.

1.3. Wellhead Protection Area

Plate 3 shows that the discharge extent is:

- Not within incorporated municipal boundaries or within a defined municipal fresh water well field.
- Not within ½-mile private and domestic water sources (wells and springs).
- Not 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
- Not within 1000 feet of any other fresh water well or spring.

1.4. Distance to Nearest Significant Water Course

Plate 4 shows that the discharge extent is:

- Not within ½ mile of any significant water course.
- 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).

1.5. Soil/Waste Characteristics

The discharge occurred in an area where depth to water is greater than 100 ft below ground surface (bgs) and on an active production site used for oil and gas operations.

The release occurred in Tonuco loamy fine sand soil complex with 0 to 3 percent slopes. The USDA Natural Resources Conservation Service (NRCS)[1] soil survey describes the upper 39 inches (3.25-feet) of lithology as

- *A - 0 to 12 inches:* loamy fine sand
- *Bw - 12 to 17 inches:* loamy sand
- *Bkkm - 17 to 39 inches:* cemented material

The lithology as descibed by the NRCS is consitent with observed remediation and construction activities through the area of interest.

On May 5, 2022, a grab sample was obtained from the source material (hydrovac slurry). Analysis of source material exhibited constituents of concern below closure criteria listed in Table 1 of 19.15.29 NMAC for the release area on an active production site that is in use for oil and gas operations and where depth to water is > 100 ft (Table B Summary of Analytical):

- Chloride < 20,000 mg/kg
- TPH (GRO + DRO + MRO) < 2,500 mg/kg
- TPH (GRO + DRO) < 1,000 mg/kg
- BTEX < 50 mg/kg
- Benzene < 10 mg/kg

On May 19, 2022; approximately 80 cubic yards of source material (hydrovac slurry) was excavated from the surface of the production site and hauled offsite for proper disposal. The discharge extent was divided into grid areas of no more than 200 sq ft for further characterization/delineation sampling. All surface samples exhibited constituents of concern below closure criteria for the release area on and active production site (see above), except for base grid G-08. Further samples were obtained to further delineate this area (S-08 at depth for vertical delineation, and S-08 W for western horizontal delineation.) Adjacent grid samples provided remaining directional horizontal delineation.

- Plate 10 shows the sample grid layout with associated square footage.
- Plate 11 shows surface sample locations to show vertical and horizontal delineation.
- Table A identifies sample point coordinates
- Summary of analytical is shown in Table B
- Certificates of Analysis are included in Appendix C

Characterization results caused the following remediation plan.

1 https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Incident ID: nAPP2213353279
Dagger State Unit 2H
AEP #: 20220510-1650-hydrovac

Remediation & Restoration Workplan

Advance Energy Partners proposes to excavate within base grid G-08 until the walls and bases meet Closure Criteria per Table 1 of 19.15.29 NMAC as defined below.

- For the release area on an active production site that is in use for oil and gas operations and where depth to water is > 100 ft):
  - Chloride < 20,000 mg/kg
  - TPH (GRO + DRO + MRO) < 2,500 mg/kg
  - TPH (GRO + DRO) < 1,000 mg/kg
  - BTEX < 50 mg/kg
  - Benzene < 10 mg/kg

A confirmation soil sample will be collected from grid G-08 base and along excavation walls for laboratory analysis of chloride, TPH, Benzene, and BTEX. Confirmation sample locations will be adjusted as needed to maintain a sample grid not to exceed 200 sq. ft. Based on delineation samples, it is anticipated that the upper 0.5 ft of material within grid G-08 will be removed.

Grids G-01 – G-07 and G-09 do not require remediation as the surface samples met above closure criteria for active production site.

An estimated 4 cu. yrds. of material will be excavated and hauled off-site to an approved disposal facility. Remediation will begin within 90-days of workplan approval.

If confirmation samples meet the above closure criteria, Advance Energy Partners will restore the remediated area per 19.15.29.C.12.C.(2) and 19.15.29.13.A-C NMAC. Final remediation and reclamation shall take place in accordance with 19.15.29.13 NMAC when the production site is no longer in-use for oil and gas operations.

Please contact me with any questions.

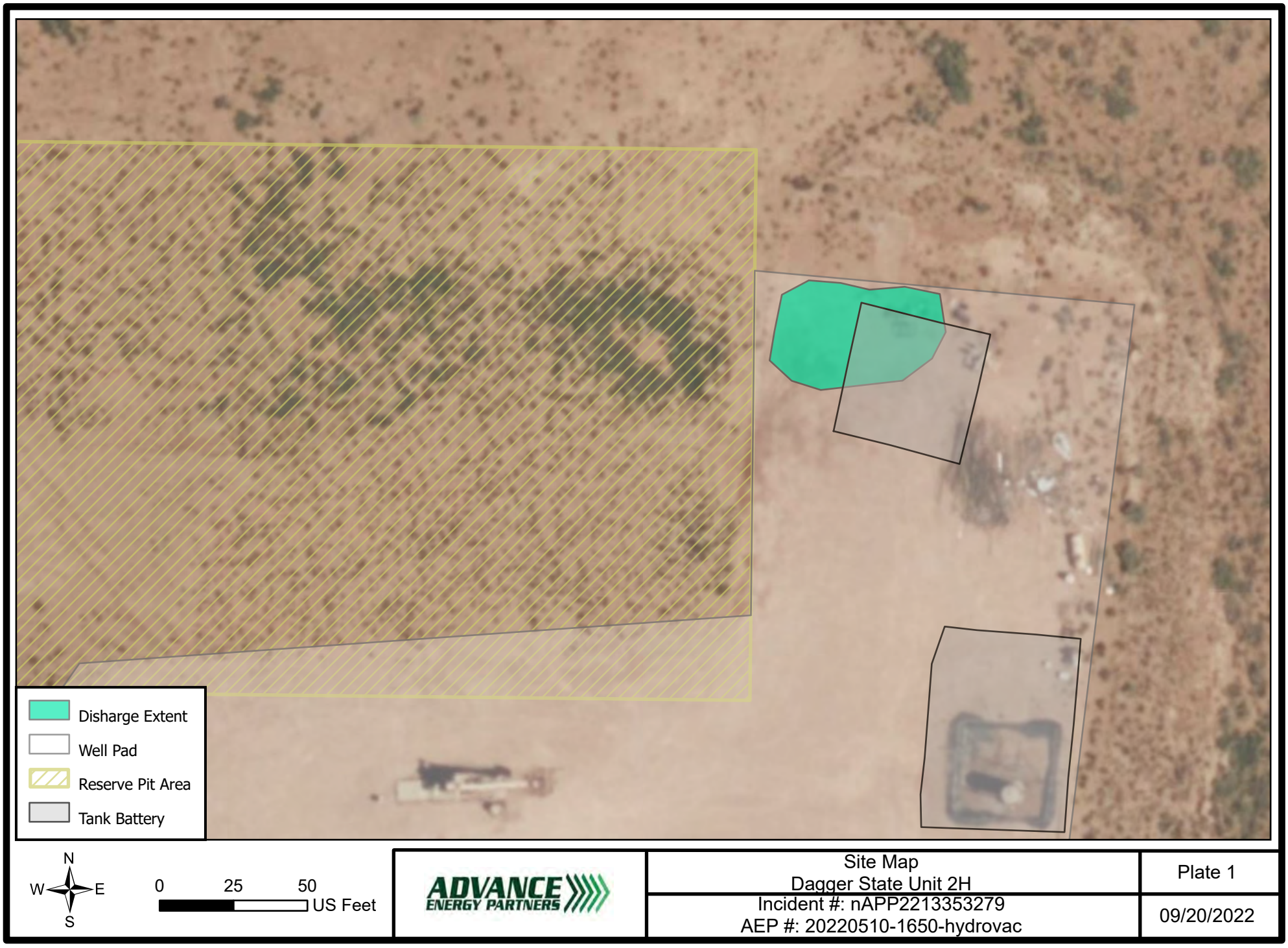
Sincerely,

Andrew Parker
Ameredev Operating, on the behalf of
Advance Energy Partners, LLC
Environmental Scientist

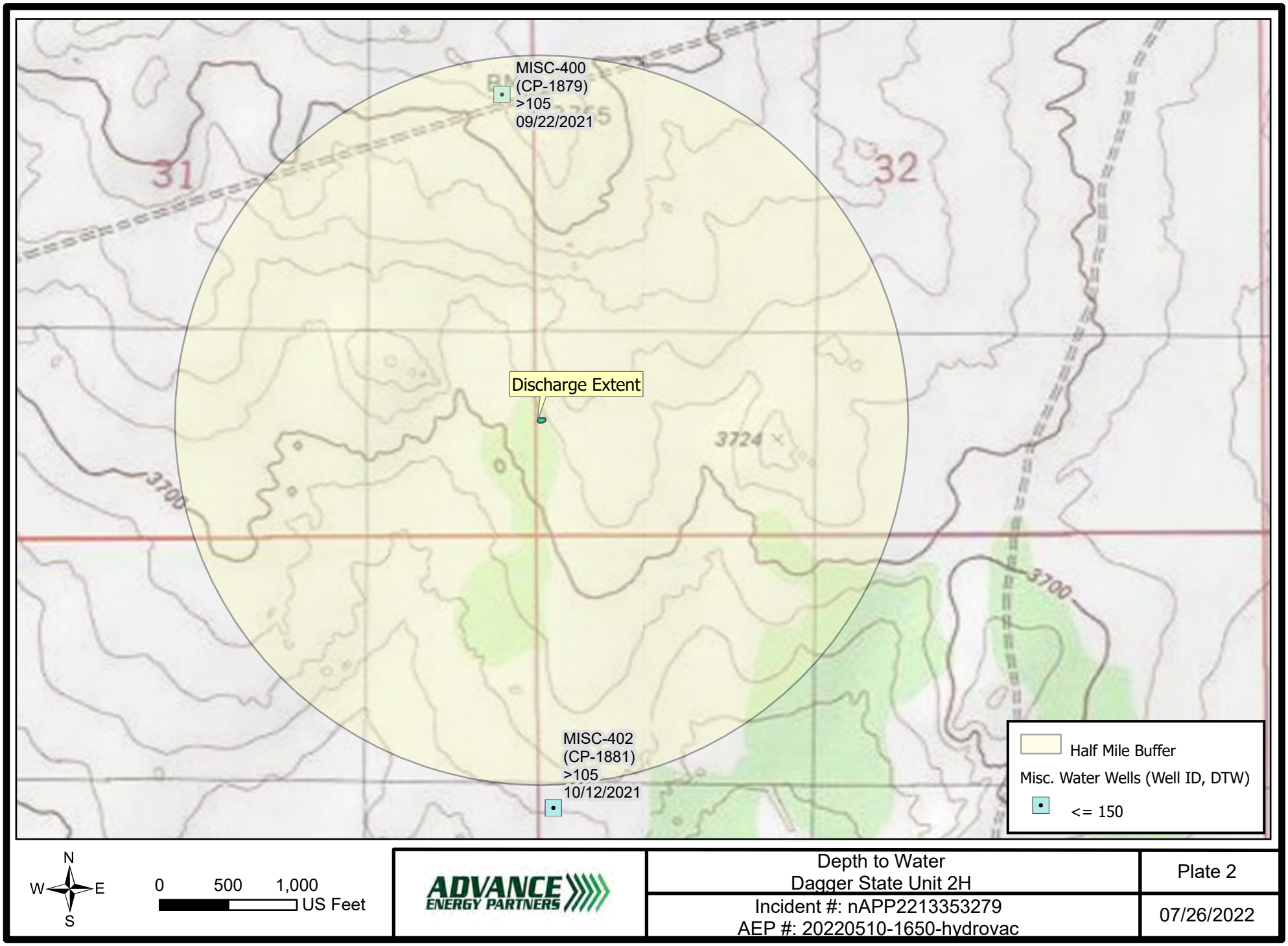
Cc: Dayeed Kahn, Ameredev Operating.

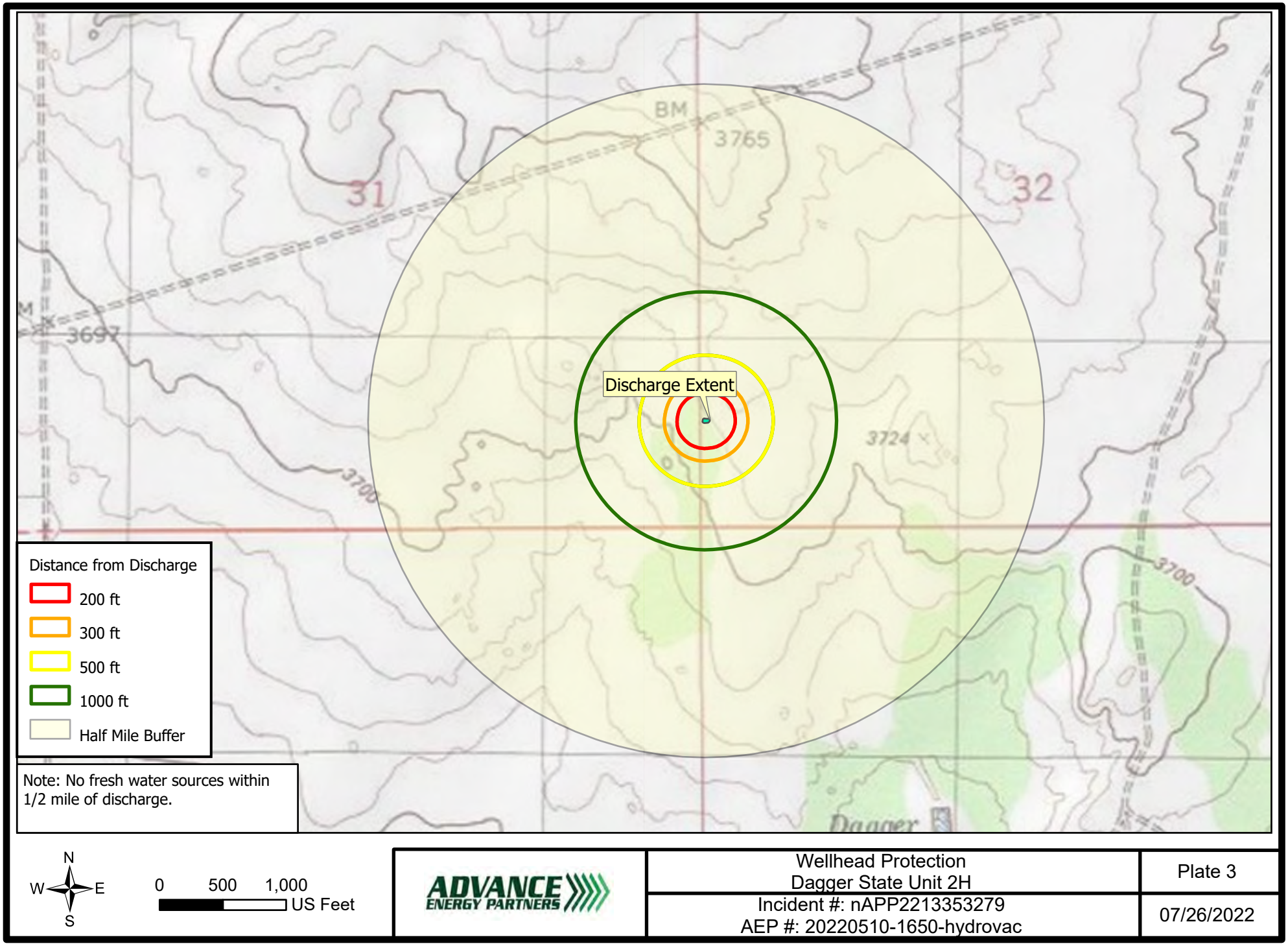
10/14/2022

Plates

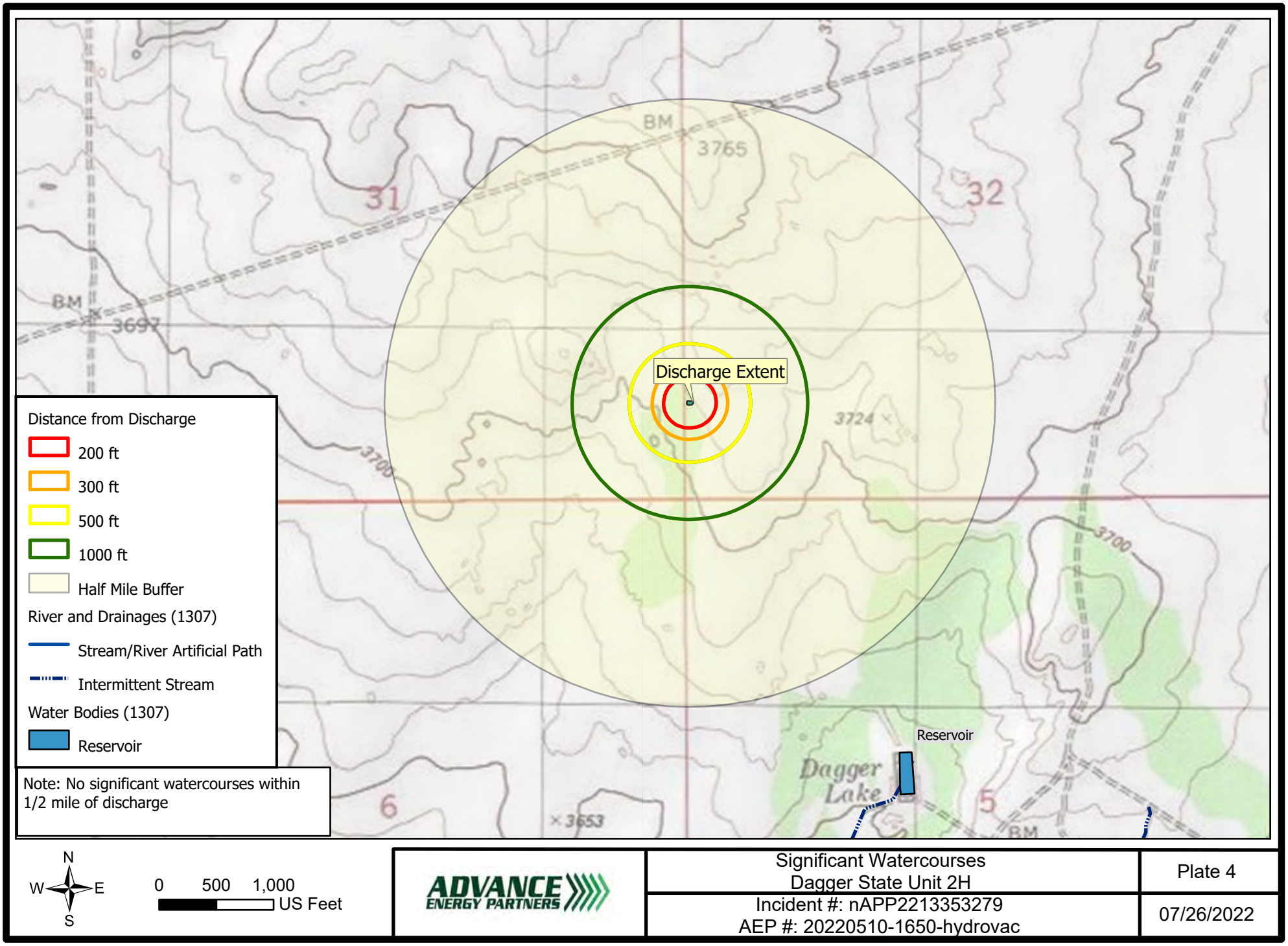


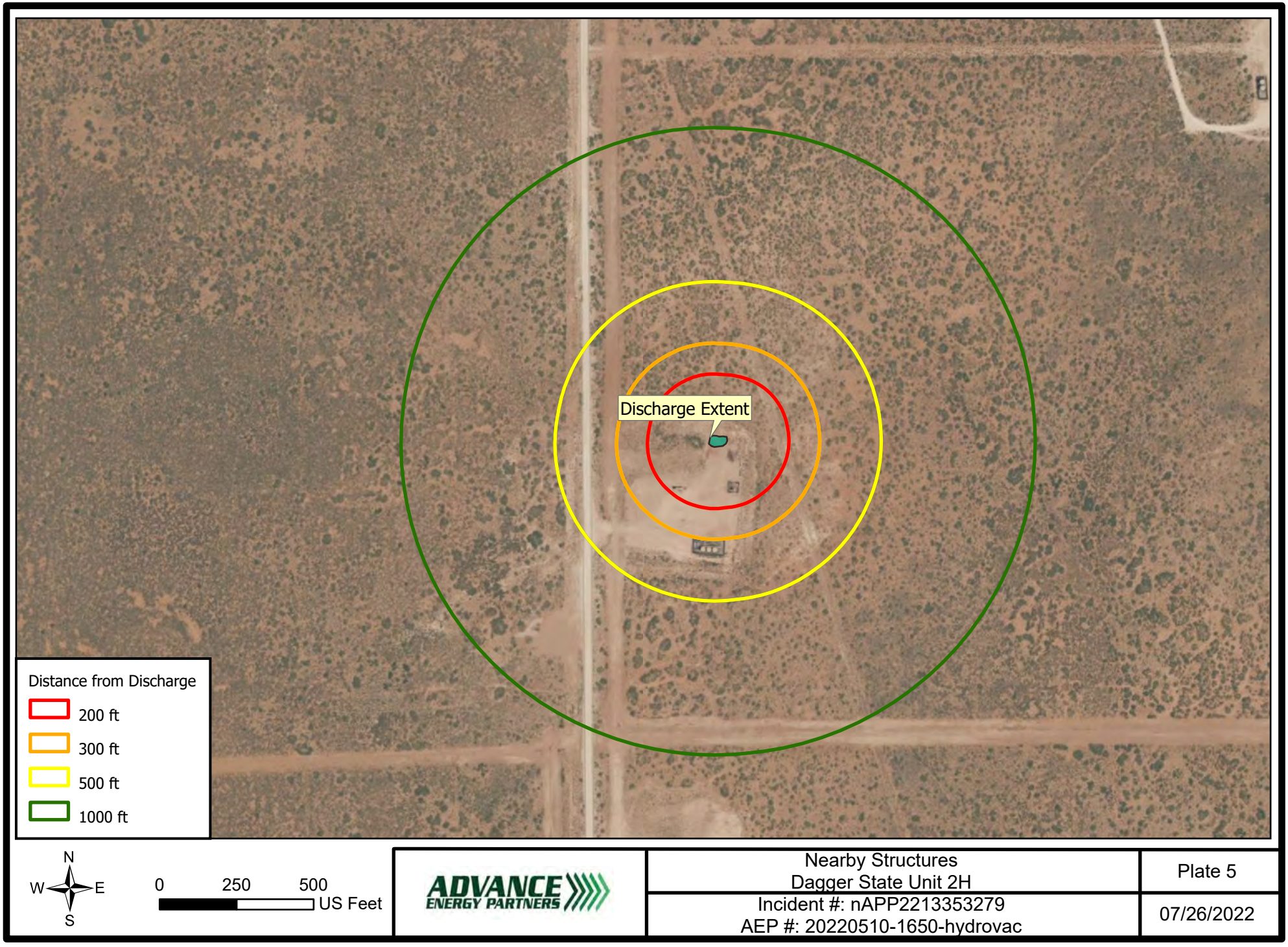
	Site Map Dagger State Unit 2H	Plate 1
	Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	09/20/2022


MISC-400
(CP-1879)
>105
09/22/2021
31
32
Discharge Extent
3724
3700
3700
MISC-402
(CP-1881)
>105
10/12/2021
Half Mile Buffer
Misc. Water Wells (Well ID, DTW)
<= 150
N
W
E
S
0
500
1,000
US Feet
ADVANCE ENERGY PARTNERS
Depth to Water
Dagger State Unit 2H
Plate 2
Incident #: nAPP2213353279
AEP #: 20220510-1650-hydrovac
07/26/2022



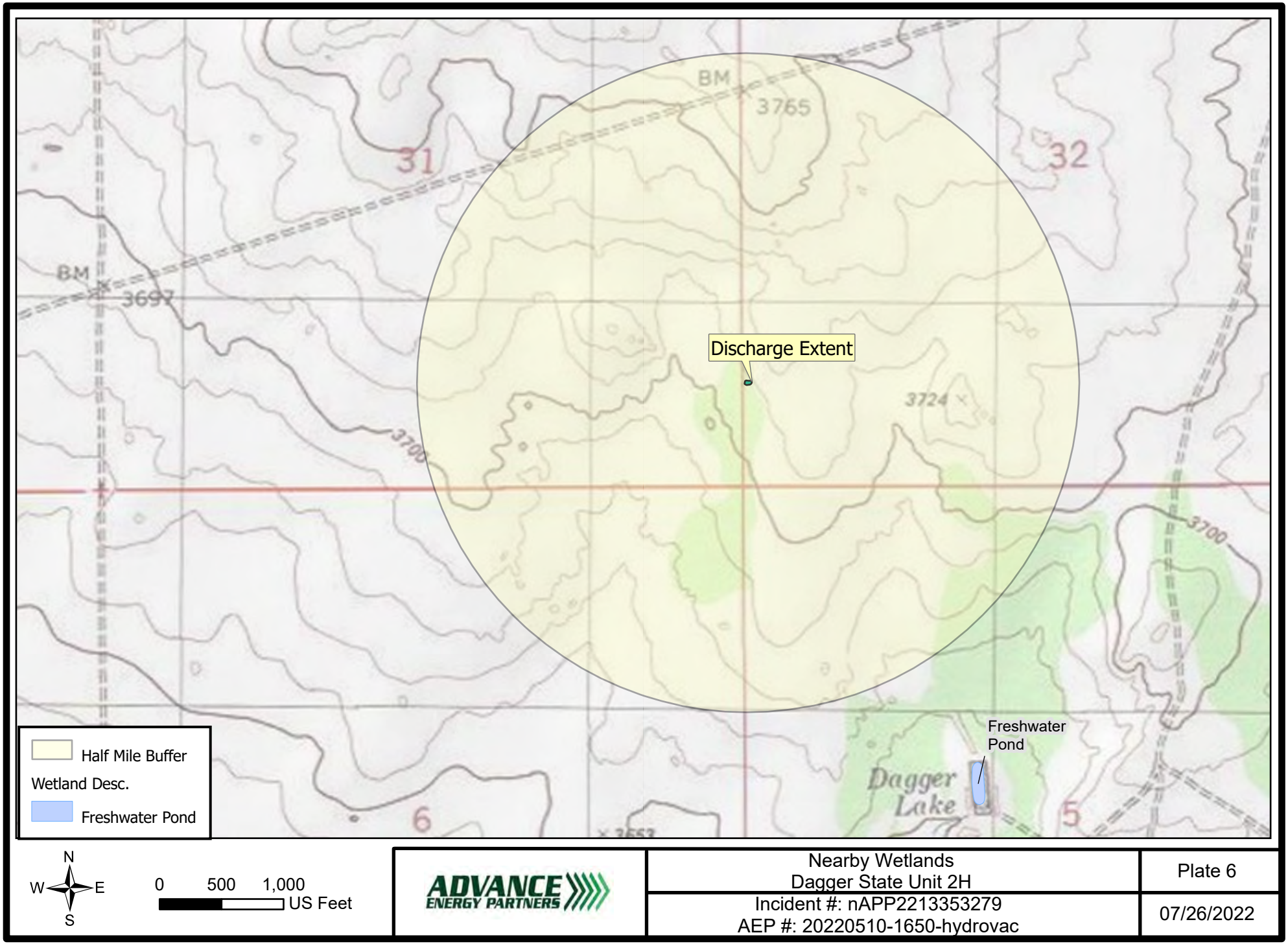
Wellhead Protection Dagger State Unit 2H	Plate 3
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	07/26/2022


Discharge Extent
Distance from Discharge
200 ft
300 ft
500 ft
1000 ft
Half Mile Buffer
River and Drainages (1307)
Stream/River Artificial Path
Intermittent Stream
Water Bodies (1307)
Reservoir
Note: No significant watercourses within 1/2 mile of discharge
Reservoir
Dagger Lake
BM 3765
BM 3697
31
32
6
5
3724
3700
3653
N
W
E
S
0 500 1,000
US Feet
ADVANCE ENERGY PARTNERS
Significant Watercourses
Dagger State Unit 2H
Incident #: nAPP2213353279
AEP #: 20220510-1650-hydrovac
Plate 4
07/26/2022



ADVANCE ENERGY PARTNERS

Nearby Structures Dagger State Unit 2H	Plate 5
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	07/26/2022



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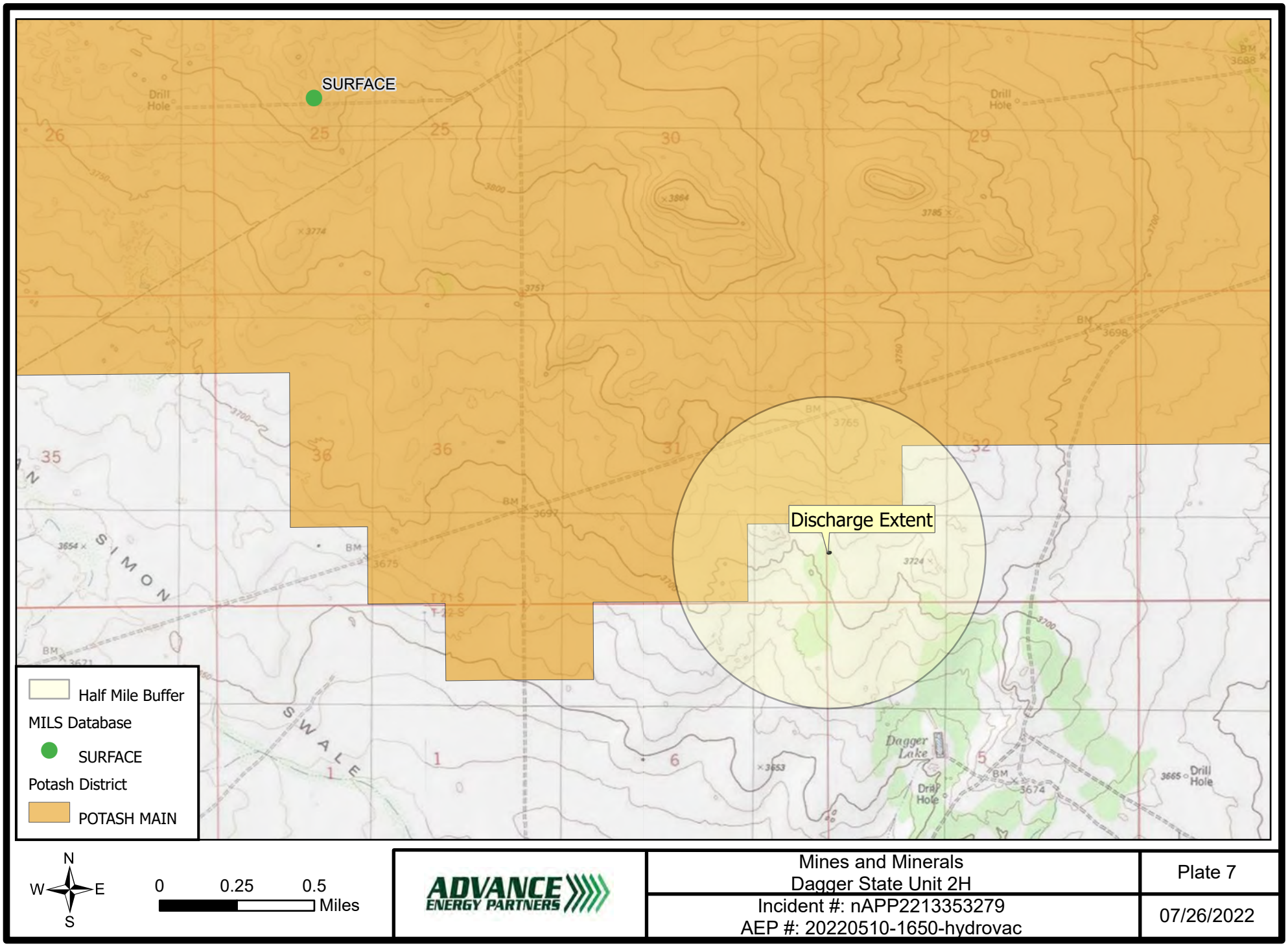
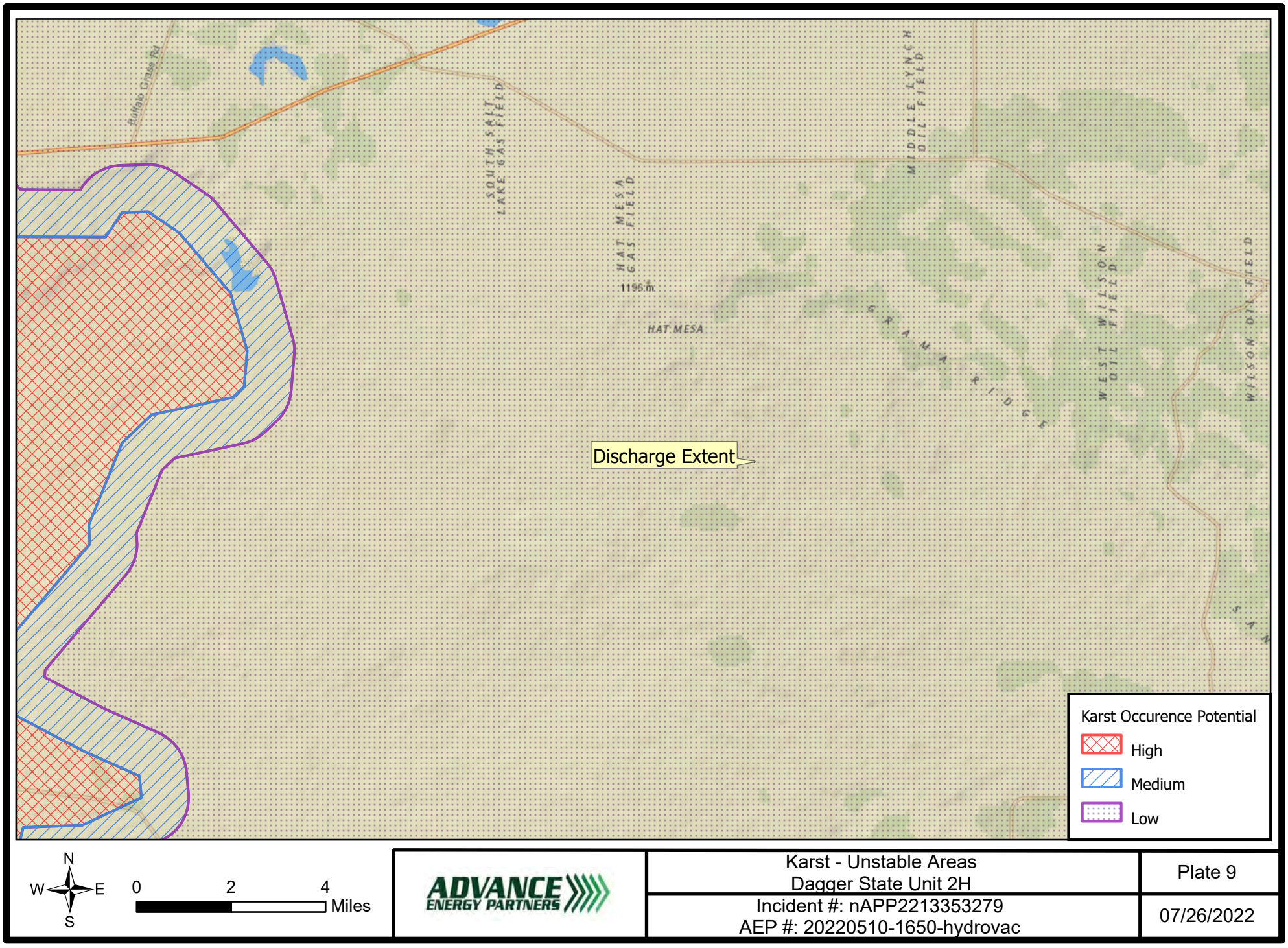
Nearby Wetlands Dagger State Unit 2H	Plate 6
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	07/26/2022

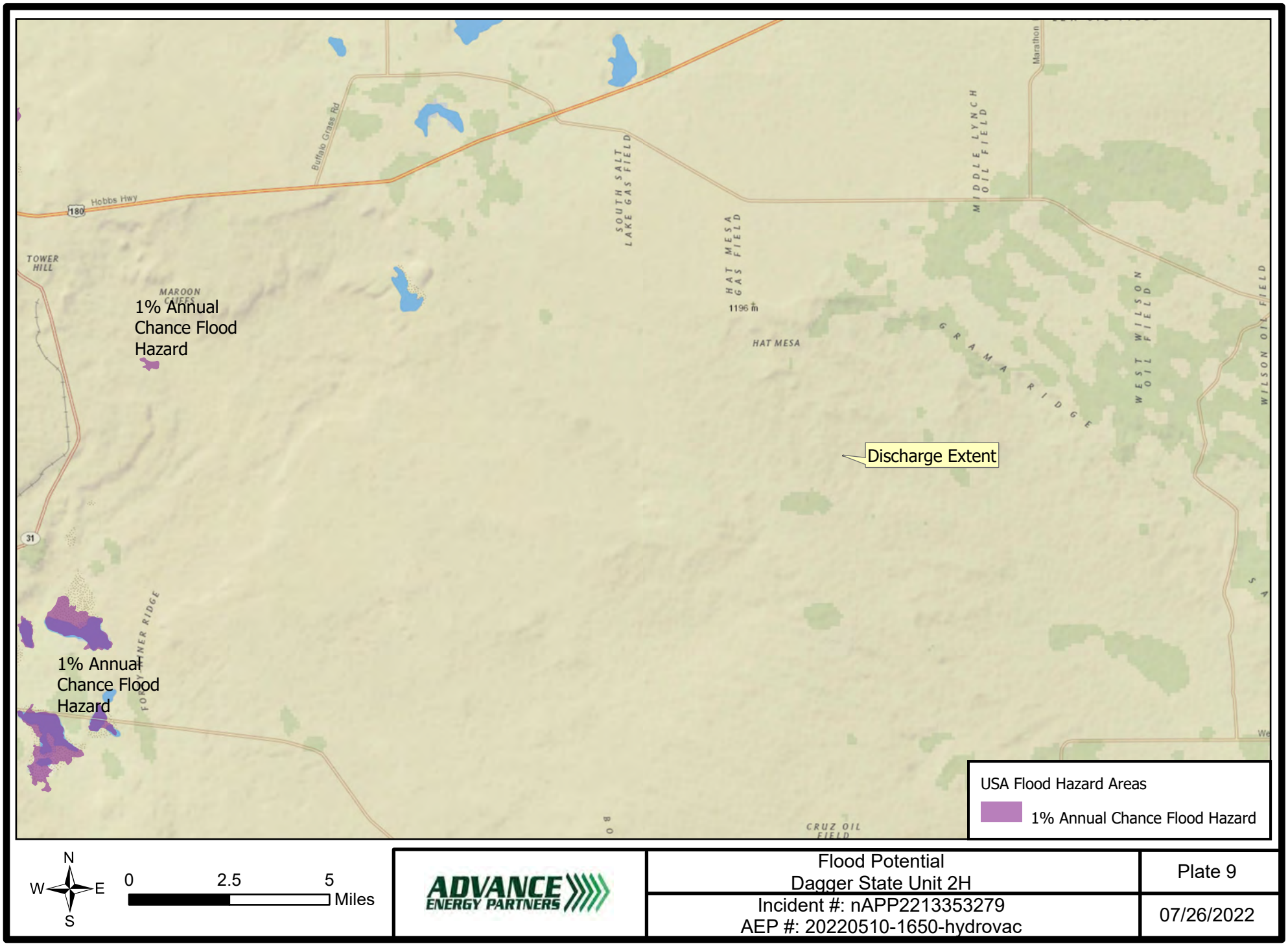


ADVANCE ENERGY PARTNERS

Mines and Minerals Dagger State Unit 2H	Plate 7
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	07/26/2022

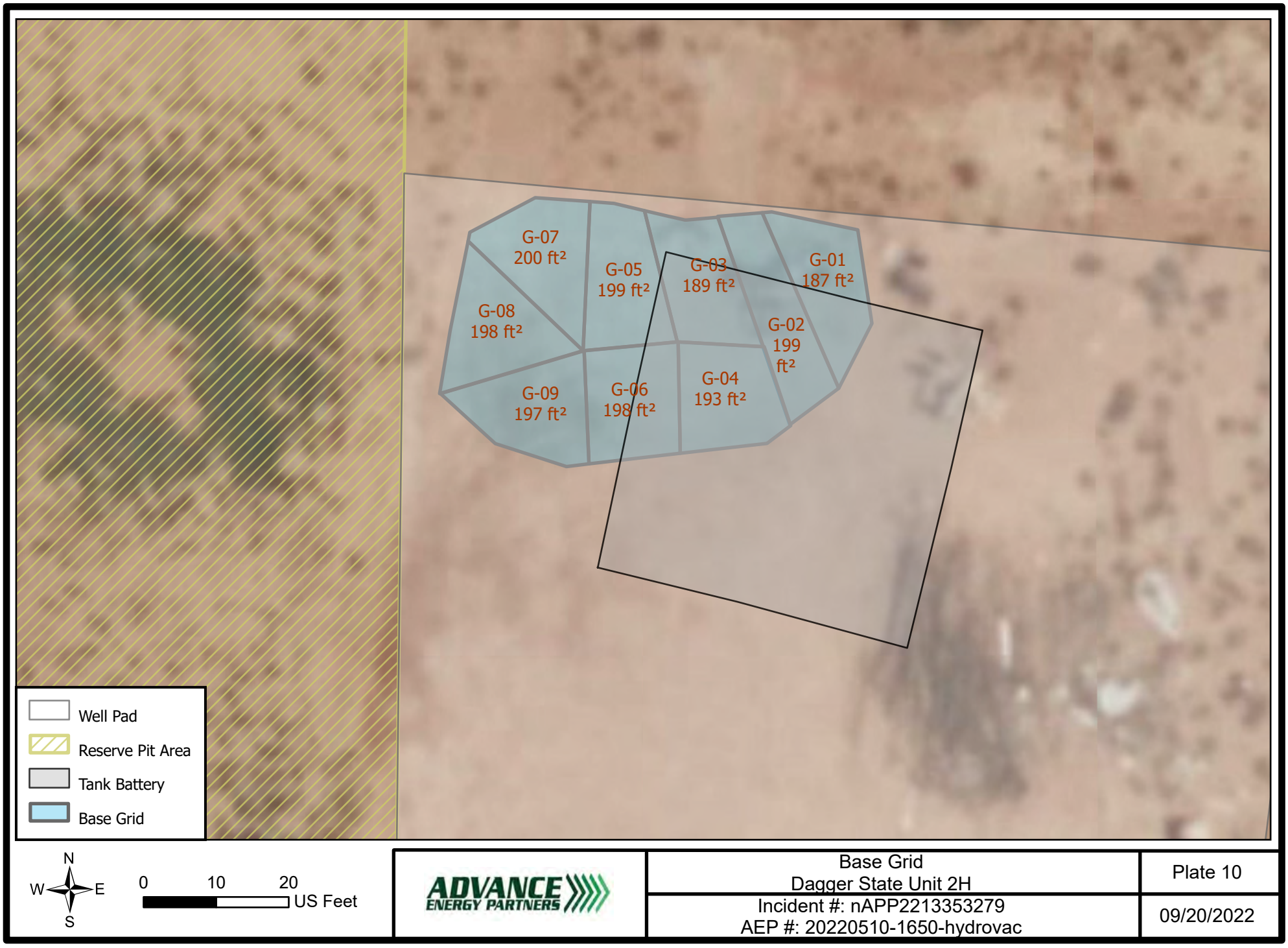


ADVANCE ENERGY PARTNERS	Karst - Unstable Areas Dagger State Unit 2H	Plate 9
	Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	07/26/2022

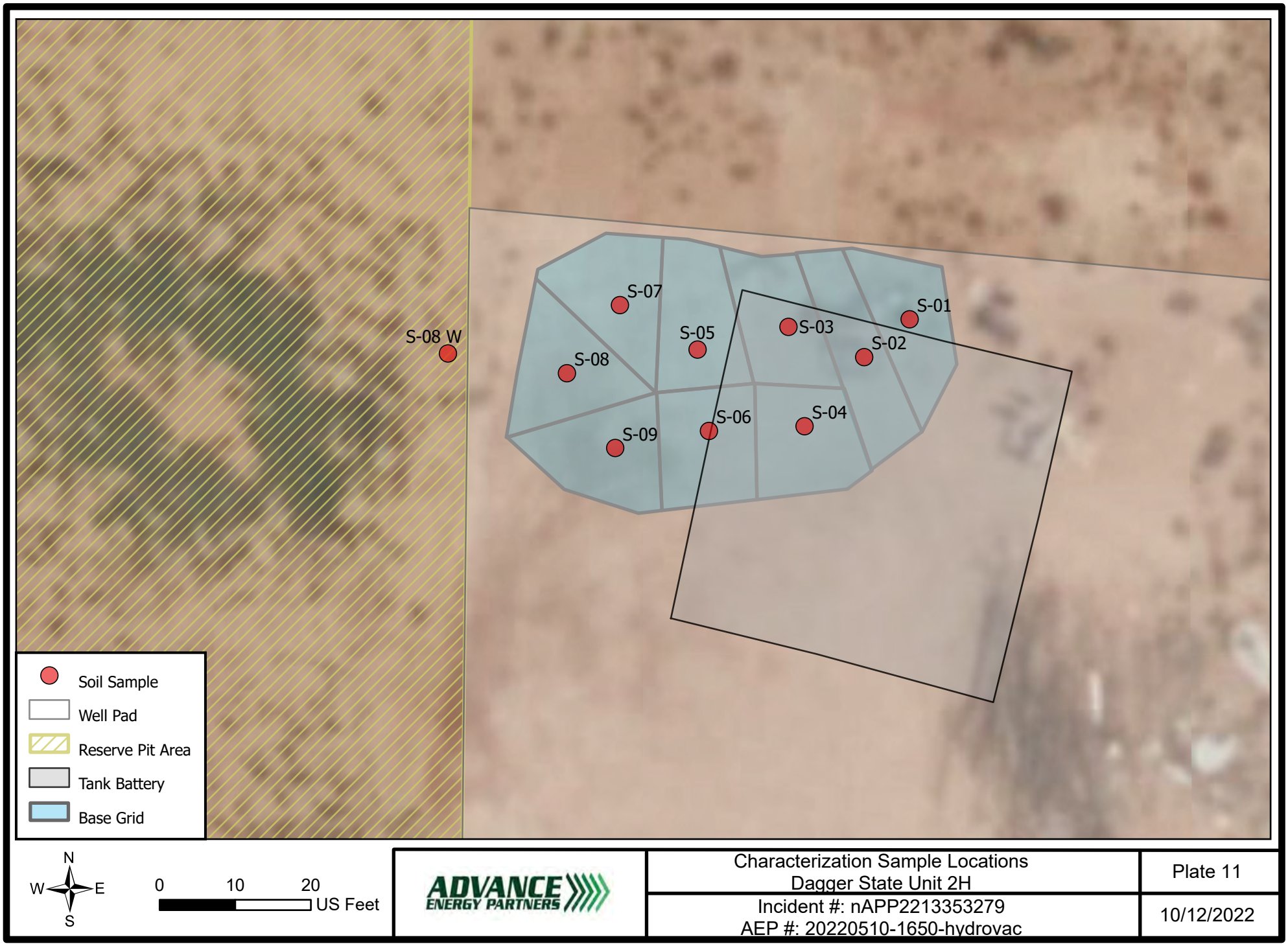


ADVANCE ENERGY PARTNERS

Flood Potential Dagger State Unit 2H	Plate 9
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	07/26/2022



Base Grid Dagger State Unit 2H	Plate 10
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	09/20/2022



ADVANCE ENERGY PARTNERS

Characterization Sample Locations Dagger State Unit 2H	Plate 11
Incident #: nAPP2213353279 AEP #: 20220510-1650-hydrovac	10/12/2022

Tables

Sample Point	Latitude	Longitude
S-01	32.43036727	-103.6029101
S-02	32.43035362	-103.6029297
S-03	32.43036482	-103.6029621
S-04	32.43032864	-103.6029555
S-05	32.43035678	-103.6030011
S-06	32.43032716	-103.6029965
S-07	32.43037315	-103.6030342
S-08	32.43034851	-103.6030572
S-08 W	32.43035599	-103.6031081
S-09	32.43032120	-103.6030367

October 12, 2022

Table B
Summary of Analytical

Incident ID: nAPP2213353279
Dagger State Unit 2H
AEP #: 20220510-1650-hydrovac

Sample ID	Date	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	In Use (Yes/No)	Chloride (mg/kg)	GRO+DRO (mg/kg)	TPH Ext. (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Comments	Lab (Hall/Cardinal)	Lab #
NMOCD Closure Criteria													
0 - 4 feet & "not in-use"						600	--	100	10	50			
> 4 ft or "in-use"						20,000	1,000	2,500	10	50			
DSU 2	5/5/2022				Yes	720	<20	<30	<0.05	<0.3	Source	Cardinal	H221905
S-01	5/23/2022	0			Yes	208	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-02	5/23/2022	0			Yes	464	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-03	5/23/2022	0			Yes	208	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-04	5/23/2022	0			Yes	608	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-05	5/23/2022	0			Yes	224	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-06	5/23/2022	0			Yes	1800	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-07	5/23/2022	0			Yes	2560	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-08	5/23/2022	0			Yes	26800	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
S-08	9/21/2022	0.5			Yes	3000	<20	<30	<0.05	<0.3	Delineation	Cardinal	H224396
S-08 W	9/21/2022	0			No	32	<20	<30	<0.05	<0.3	Delineation	Cardinal	H224396
S-09	5/23/2022	0			Yes	7600	<20	<30	<0.05	<0.3	Delineation	Cardinal	H222194
Above Closure Criteria													

Appendix A

Communications

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

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Incident ID	nAPP2213353279
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Advance Energy Partners Hat Mesa LLC	OGRID: 372417
Contact Name: Andrew Parker	Contact Telephone: 832-672-4700 (office)
Contact email: aparker@advanceenergypartners.com	Incident # *(assigned by OCD)*
Contact mailing address: 11490 Westheimer Rd. Suite 950. Houston, TX 77077	

Location of Release Source

Latitude 32.4302253 Longitude -103.6029392

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Dagger State Unit 2H Hydrovac	Site Type Production Facility
Date Release Discovered 05/10/2022 (Revised)	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
M	32	21S	33E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: 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)	Volume Recovered (bbls)
☐ 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) Hydrovac slurry 80 cu yrds	Volume/Weight Recovered (provide units)
Cause of Release Hydrovac disposal on production pad.		

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213353279
District RP	
Facility ID	
Application ID	

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:

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: Env. Scientist

Signature: Andrew Parker Date: 05/13/2022

email: aparker@advanceenergypartners.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

Appendix B

Well Logs

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

10/22/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record CP-1879 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, CP-1879 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

RECEIVED OCD OCT 22 2021 PM2:38

PLUGGING RECORD

NOTE: **A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-1879 POD1

Well owner: Advanced Energy Partners Phone No.: 832.672.4700

Mailing address: 11490 Westheimer Rd. Stuit 950

City: Houston State: Texas Zip code: 77077

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge, Carmelo Trevino, Cameron Pruitt

4) Date well plugging began: 09/29/21 Date well plugging concluded: 09/29/21

5) GPS Well Location: Latitude: 32 deg, 26 min, 12.94 sec
Longitude: 103 deg, 36 min, 13.61 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 105 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 07/08/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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Version: September 8, 2009
Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	15.6 gallons	15 gallons	Augers	
	10'-110' Drill Cuttings	Approx. 151 gallons	151 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

OCD DT OCT 22 2021 PM2:33

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

10-21-2021

Date

Version: September 8, 2009
Page 2 of 2

2021-10-21_C-1879__WD-11 Plugging Record-forsign

Final Audit Report 2021-10-22

Created:	2021-10-22
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA1ApUSY7h0qCOb9SKzBy1e34FYF5YuMGs

"2021-10-21_C-1879__WD-11 Plugging Record-forsign" History

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2021-10-22 - 5:51:12 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-10-22 - 6:04:33 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-10-22 - 6:04:52 PM GMT - Time Source: server- IP address: 64.90.153.232

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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).
POD1 (TW-1)	n/a	C-1879

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Advanced Energy Partners	832.672.4700

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
11490 Westheimer Rd. Stuit 950	Houston	TX	77077

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	26	12.94	N
	LONGITUDE	103	36	23.61	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

SE SE NE Sec. 31 T21S R33E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
09/22/2021	09/22/2021	temporary well material	105	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

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	105	±6.5	Boring- HSA	--	--	--	--

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

OCD 2022 OCT 27 P2:39

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	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, Fine-grained, poorly graded, with caliche Brown, Dry	Y ✓N	
4	49	45	Sand, Fine-grained, poorly graded, Reddish Brown, Dry	Y ✓N	
49	69	20	Sand, Fine-grained, poorly graded, with gravel (0.25-.75) Reddish Brown, Dry	Y ✓N	
69	94	25	Sand, Fine-grained, poorly graded, with clay, Reddish Brown, Dry	Y ✓N	
94	105	11	Sand, Fine-grained, poorly graded, Tan Brown, Dry	Y ✓N	
				Y N	
				Y N	
				Y N	
				Y N	
				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): 0.00

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: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

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 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — OSE DII OCT 22 2021 PM2:33 — 10-21-2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

2021-10-21_C-1879_OSE_Well Record and Log_-forsign

Final Audit Report 2021-10-22

Created:	2021-10-22
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAvGf3y7IYZwmN7U5X4Ryi9X8lqynslAXa

"2021-10-21_C-1879_OSE_Well Record and Log_-forsign" History

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2021-10-22 - 5:52:00 PM GMT

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2021-10-22 - 6:05:00 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-10-22 - 6:05:29 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-10-22 - 6:05:29 PM GMT

OSE OIL OCT 22 2021 PM2:39

Adobe Sign

Atkins
ENGINEERING ASSOCIATES INC.

2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

10/29/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record CP-1881 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, CP-1881 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

OSE DII NOV 1 2021 PM12:23

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).
POD1 (TW-1)	n/a	CP-1881

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Advanced Energy Partners	832.672.4700

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
11490 Westheimer Rd. Stuit 950	Houston	TX	77077

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	25	22	N
	LONGITUDE	103	36	12	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 SE NE Sec. 06 T22S R33E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
10/12/2021	10/12/2021	temporary well material	105	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

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	105	±6.5	Boring- HSA	--	--	--	--

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

OSE DIT NOV 1 2021 RECEIVED

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	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	14	14	Sand, fine-grained, poorly graded with Caliche, Brown	Y ✓ N	
14	19	5	Caliche, consolidated with fin-grained sand, White/Tan	Y ✓ N	
19	24	5	Sand, fine-grained, poorly graded with Caliche, Reddish Brown	Y ✓ N	
24	44	20	Sand, fine-grained, poorly graded with clay, Reddish Brown	Y ✓ N	
44	64	20	Sand, fine-grained, poorly graded with clay, Brown Tan	Y ✓ N	
64	105	41	Sand, fine-grained, poorly graded with clay, Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				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): 0.00

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: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

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 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 10/27/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

CP-1881_OSE_Well Record and Log-forsign

Final Audit Report 2021-10-29

Created:	2021-10-29
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAQ3vtH-svpKXba6sweCTSv6bY9FHI1cHt

"CP-1881_OSE_Well Record and Log-forsign" History

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2021-10-29 - 3:54:01 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-10-29 - 4:18:46 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-10-29 - 4:19:17 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-10-29 - 4:19:17 PM GMT

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-1881-POD1

Well owner: Advanced Energy Partners Phone No.: 832.672.4700

Mailing address: 11490 Westheimer Rd. Stuit 950

City: Houston State: Texas Zip code: 77077

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Lupe Leyba

4) Date well plugging began: 10/14/2021 Date well plugging concluded: 10/14/2021

5) GPS Well Location: Latitude: 32 deg, 25 min, 22 sec
Longitude: 103 deg, 36 min, 12 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 105 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 07/08/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

OSE DIT NOV 1 2021 PM2:44

Version: September 8, 2009
Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	15.6 gallons	15 gallons	Augers	
	10'-110' Drill Cuttings	Approx. 151 gallons	151 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

OSE DII NOV 1 2021 PM4:44

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins — Signature of Well Driller

10/27/2021 — Date

Version: September 8, 2009
Page 2 of 2

DATE__WD-11 Plugging Record-forsign

Final Audit Report 2021-10-29

Created:	2021-10-29
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAtR6dClvgQcGMZKORwRcBWHfk6EYZjwn4

"DATE__WD-11 Plugging Record-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-10-29 - 3:51:59 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-10-29 - 3:54:13 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-10-29 - 4:18:25 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-10-29 - 4:18:39 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-10-29 - 4:18:39 PM GMT

Appendix C

Certificates of Analysis

CARDINAL Laboratories

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

May 10, 2022

ANDREW PARKER

ADVANCE ENERGY PARTNERS

11490 WESTHEIMER ROAD, STE. 950

HOUSTON, TX 77077

RE: DSU 2H

Enclosed are the results of analyses for samples received by the laboratory on 05/05/22 15:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/05/2022	Sampling Date:	05/05/2022
Reported:	05/10/2022	Sampling Type:	Soil
Project Name:	DSU 2H	Sampling Condition:	Cool & Intact
Project Number:	HYDROVAC	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: DSU 2 (H221905-01)

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	05/09/2022	ND	1.94	97.0	2.00	4.72	
Toluene*	<0.050	0.050	05/09/2022	ND	1.92	96.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	05/09/2022	ND	1.82	91.2	2.00	4.06	
Total Xylenes*	<0.150	0.150	05/09/2022	ND	5.67	94.4	6.00	4.24	
Total BTEX	<0.300	0.300	05/09/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	05/09/2022	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	05/09/2022	ND	213	107	200	10.3	
DRO >C10-C28*	<10.0	10.0	05/09/2022	ND	196	98.1	200	14.5	
EXT DRO >C28-C36	<10.0	10.0	05/09/2022	ND					

Surrogate: 1-Chlorooctane *91.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *95.4 %* *59.5-142*

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:	Advance Energy Partners
Project Manager:	Andrew Parker
Address:	On-File
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	
Project Location:	DS4 2H Hydrovac
Sampler Name:	Jacob Saenz

BILL TO

P.O. #:	
Company:	AEP
Attn:	Send to
Address:	aparker@
City:	ameredev.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
H021905 1	DS4 2	C	1			X					X		5/5/22	1:20pm	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: SAENZ SAENZ	Date: 5502 Time: 1519	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	5.3°C -0.5°C 4.8°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:

† 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

May 27, 2022

ANDREW PARKER

ADVANCE ENERGY PARTNERS

11490 WESTHEIMER ROAD, STE. 950

HOUSTON, TX 77077

RE: DSU 2

Enclosed are the results of analyses for samples received by the laboratory on 05/24/22 9:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 01 0' (H222194-01)

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	05/26/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/26/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/26/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/26/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.5 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *114 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *128 %* *59.5-142*

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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 02 0' (H222194-02)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *108 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *119 %* *59.5-142*

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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 03 0' (H222194-03)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *110 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *122 %* *59.5-142*

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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 04 0' (H222194-04)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**608**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *113 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *125 %* *59.5-142*

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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 05 0' (H222194-05)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *114 %* *59.5-142*

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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 06 0' (H222194-06)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1800**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *114 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *126 %* *59.5-142*

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:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 07 0' (H222194-07)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2560**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *110 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *121 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 08 0' (H222194-08)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**26800**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *112 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

September 26, 2022

ANDREW PARKER

AMEREDEV

2901 VIA FORTUNA , SUITE 600

AUSTIN, TX 78746

RE: DAGGER STATE UNIT 2H

Enclosed are the results of analyses for samples received by the laboratory on 09/21/22 16:33.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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:

AMEREDEV
ANDREW PARKER
2901 VIA FORTUNA , SUITE 600
AUSTIN TX, 78746
Fax To:

Received:	09/21/2022	Sampling Date:	09/21/2022
Reported:	09/26/2022	Sampling Type:	Soil
Project Name:	DAGGER STATE UNIT 2H	Sampling Condition:	Cool & Intact
Project Number:	20220510-1650-HYDROVAC	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: S - 08 0.5' (H224396-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/23/2022	ND	1.98	98.9	2.00	0.312	
Toluene*	<0.050	0.050	09/23/2022	ND	2.22	111	2.00	0.477	
Ethylbenzene*	<0.050	0.050	09/23/2022	ND	2.10	105	2.00	0.739	
Total Xylenes*	<0.150	0.150	09/23/2022	ND	6.45	108	6.00	2.12	
Total BTEX	<0.300	0.300	09/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3000**	16.0	09/22/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/22/2022	ND	191	95.5	200	5.19	
DRO >C10-C28*	<10.0	10.0	09/22/2022	ND	190	94.8	200	0.431	
EXT DRO >C28-C36	<10.0	10.0	09/22/2022	ND					

Surrogate: 1-Chlorooctane *81.9 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *94.0 %* *46.3-178*

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:

AMEREDEV
ANDREW PARKER
2901 VIA FORTUNA , SUITE 600
AUSTIN TX, 78746
Fax To:

Received:	09/21/2022	Sampling Date:	09/21/2022
Reported:	09/26/2022	Sampling Type:	Soil
Project Name:	DAGGER STATE UNIT 2H	Sampling Condition:	Cool & Intact
Project Number:	20220510-1650-HYDROVAC	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: S - 08 W 0' (H224396-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/23/2022	ND	1.98	98.9	2.00	0.312	
Toluene*	<0.050	0.050	09/23/2022	ND	2.22	111	2.00	0.477	
Ethylbenzene*	<0.050	0.050	09/23/2022	ND	2.10	105	2.00	0.739	
Total Xylenes*	<0.150	0.150	09/23/2022	ND	6.45	108	6.00	2.12	
Total BTEX	<0.300	0.300	09/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	09/22/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/22/2022	ND	191	95.5	200	5.19	
DRO >C10-C28*	<10.0	10.0	09/22/2022	ND	190	94.8	200	0.431	
EXT DRO >C28-C36	<10.0	10.0	09/22/2022	ND					

Surrogate: 1-Chlorooctane *92.2 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *108 %* *46.3-178*

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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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ameredev
Project Manager: Andrew Parker
Address:
City: State: Zip:
Phone #: Fax #:
Project #: Project Owner:
Project Name: 20220510-1650 - hydrovac
Project Location: Poggor State Unit 2H
Sampler Name:

BILL TO
P.O. #: 20220510-1650-hydrovac
Company:
Attn:
Address:
City:
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	SAMPLING TIME	Chloride	BTEX	TPH 6RO/DRO/ORO
H224396 1	S-08	0.5FT	C	1			X					X		9/21/22	11:38am	X	X	X
2	S-08W	0FT	C	1			X					X		↓	1:30pm	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: SPUB SHERZ Date: 9/22 Time: 1633 Received By: S Rodriguez
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 7.4°
Corrected Temp. °C -8.0°
Sample Condition Cool Intact: Yes Yes / No No
CHECKED BY: (Initials) SR

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:
Turnaround Time: Standard ☐ Rush ☐
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
Observed Temp. °C
Thermometer ID #113
Correction Factor -0.6°C
Corrected Temp. °C

FORM-006 R 3.3 07/18/22

† 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

Analytical Results For:

ADVANCE ENERGY PARTNERS
ANDREW PARKER
11490 WESTHEIMER ROAD, STE. 950
HOUSTON TX, 77077
Fax To: (832) 672-4609

Received:	05/24/2022	Sampling Date:	05/23/2022
Reported:	05/27/2022	Sampling Type:	Soil
Project Name:	DSU 2	Sampling Condition:	Cool & Intact
Project Number:	20220504-0657- CONSTRUCTION	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: S - 09 0' (H222194-09)

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	05/27/2022	ND	2.14	107	2.00	1.92	
Toluene*	<0.050	0.050	05/27/2022	ND	2.11	106	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/27/2022	ND	2.08	104	2.00	2.03	
Total Xylenes*	<0.150	0.150	05/27/2022	ND	6.44	107	6.00	2.58	
Total BTEX	<0.300	0.300	05/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7600**	16.0	05/26/2022	ND	448	112	400	3.64	

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	05/26/2022	ND	187	93.7	200	0.104	
DRO >C10-C28*	<10.0	10.0	05/26/2022	ND	187	93.6	200	0.966	
EXT DRO >C28-C36	<10.0	10.0	05/26/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *112 %* *59.5-142*

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

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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

Company Name:	Advance Energy Partners
Project Manager:	Andrew Parker
Address:	On-File
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	20220504-0657 - Construction
Project Location:	DSU 2
Sampler Name:	Jacob Saenz

BILL TO

P.O. #:	
Company:	AEP
Attn:	Send to
Address:	aparker@ameredev.com
City:	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
H222194																	
1	S-01	C	1			X					X		5/23/22	3pm	X	X	X
2	S-02													3:05pm			
3	S-03													3:15pm			
4	S-04													3:25pm			
5	S-05													3:30pm			
6	S-06													3:40pm			
7	S-07													3:45pm			
8	S-08													4pm			
9	S-09													4:05pm			

Relinquished By:	Date: 5-24-22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 0920		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 2.5°C C-0.5°C 2.0°C #13

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 150970

CONDITIONS

Operator:	OGRID:
ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	372417
	Action Number: 150970
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Delineation samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release on pad, please complete lateral delineation at points S-06, S-07, and S-09.	11/10/2022