

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**SECOND APPLICATION OF SALT CREEK MIDSTREAM, LLC
TO AMEND ORDER NO. R-20913-D**

CASE NO. _____

**SALT CREEK MIDSTREAM, LLC'S
SECOND APPLICATION TO AMEND ORDER NO. R-20913-D**

Salt Creek Midstream, LLC ("Salt Creek") requests that the New Mexico Oil Conservation Commission ("Commission") issue an order amending Order No. R-20913-D to: (1) approve a new well design and location for the Salt Creek Midstream AGI No. 1 Well ("Well"); and (2) extend the deadline for Salt Creek to commence injection into the Well until twenty-four (24) months from the date of the amended order. In support of its Application, Salt Creek states the following.

1. On August 5, 2019, Salt Creek filed an application seeking authorization to inject treated acid gas ("TAG") into the Well. The application was assigned Case No. 20780.
2. The Well is an Underground Injection Control Class II well subject to the requirements of 19.15.26 NMAC.
5. The New Mexico State Land Office ("SLO") and Oil Conservation Division ("OCD") entered appearances in Case No. 20780.
6. Salt Creek, OCD, and SLO agreed upon a set of permit conditions ("Permit Conditions").
7. The Commission heard Case No. 20780 on December 11, 2019.
8. On January 16, 2020, the Commission issued Order No. R-20913-C approving Salt Creek's application with the Permit Conditions agreed upon by the Parties.

9. As approved, the Well had an approximate surface and bottom hole location 594 feet from the West line and 2,370 feet from the South line of Section 21, Township 26 South, Range 36 East, Lea County, New Mexico.

10. The target injection zone for the Well was in the Bell Canyon and Cherry Canyon formations of the Delaware Mountain Group (“DMG”) at depths of approximately 5,410 feet to 7,000 feet.

11. Salt Creek’s ability to spud the Well was subsequently delayed, and its injection authority under Order No. R-20913-C lapsed.

12. On September 17, 2020, Salt Creek filed an application requesting that the Commission amend Order No. R-20913-C to reinstate Salt Creek’s authorization to commence injection of TAG into the Well.

13. On December 28, 2020, the Commission issued Order No. R-20913-D approving Salt Creek’s application.

14. Order No. R-20913-D required Salt Creek to commence injection into the Well no later than two years from the date of issuance, December 28, 2020.

15. Salt Creek spudded the Well (API: 30-25-46746) on October 19, 2022 and commenced drilling on October 24, 2022. However, Salt Creek encountered technical complications that ultimately caused Salt Creek to plug the well.

16. On December 6, 2022, Salt Creek filed an application seeking to amend Order No. R-20913-D to extend the deadline to commence injection of TAG into the Well until six months from the date of the amended order. That application has been assigned Case No. 23294 and is set for hearing on April 13, 2023.

17. On January 6, 2023, the Commission issued an order staying the injection deadline until the Commission issues a decision in Case No. 23294.

18. Due to the technical complications that Salt Creek encountered while drilling the Well, Salt Creek has determined it is necessary to: (a) revise the well design to add two additional casing strings; and (b) drill the Well at a location 277 feet from the West line and 2,350 feet from the South line of Section 21, Township 26 South, Range 36 East, resulting in an as-drilled location approximately 120' from the original location. Salt Creek's Amended C-108 reflects these changes and is attached as Exhibit A.

19. As a result of the need to alter the well design and location, Salt Creek requests that the Commission extend the deadline for Salt Creek to commence injection into the Well until 24 months from the date of the amended order.

21. The target injection zone for the Well will remain in the Bell Canyon and Cherry Canyon formations of the DMG, and the Well will have an injection interval of approximately 5,580 feet to 7,040 feet, which reflects the requirement of Order No. R-20913-C (Condition 6c) that the uppermost perforation of the injection interval will be at least 500 feet below the base of the Capitan Reef aquifer or stratigraphic equivalent.

22. The Well, as proposed in the Amended C-108, will not cause waste, impair correlative rights, or harm public health or the environment. Also, as recognized in Order No. R-20913-C, the Well will facilitate the sequestration of CO₂ and TAG, which is in the public interest. Accordingly, Salt Creek's request to relocate and redesign the well is reasonable and consistent with the order and the requirements of the Oil and Gas Act.

23. Because approval of the Amended C-108 is required before Salt Creek can spud the Well, Salt Creek requests that the Commission set a hearing on this application in conjunction with

the hearing on Salt Creek's application to extend the injection deadline in Case No. 23294 and that both matters be heard on April 13, 2023.

24. Salt Creek will provide notice of this application to all affected parties.

For the foregoing reasons, Salt Creek requests that the Commission issue an order: (1) approving Salt Creek's Amended C-108; and (2) extend the deadline for Salt Creek to commence injection into the Well until 24 months from the date of the amended order.

Respectfully submitted,

HINKLE SHANOR LLP

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Counsel for Salt Creek Midstream, LLC

CERTIFICATE OF SERVICE

I certify that a true and correct copy of the foregoing Application was sent to the following counsel by electronic mail on March 13, 2023.

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Assistant General Counsel
New Mexico Energy, Minerals, and Natural Resources Dept.
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Santa Fe, NM 87505
Jessek.tremaine@emnrd.nm.gov
Counsel for New Mexico Oil Conservation Division

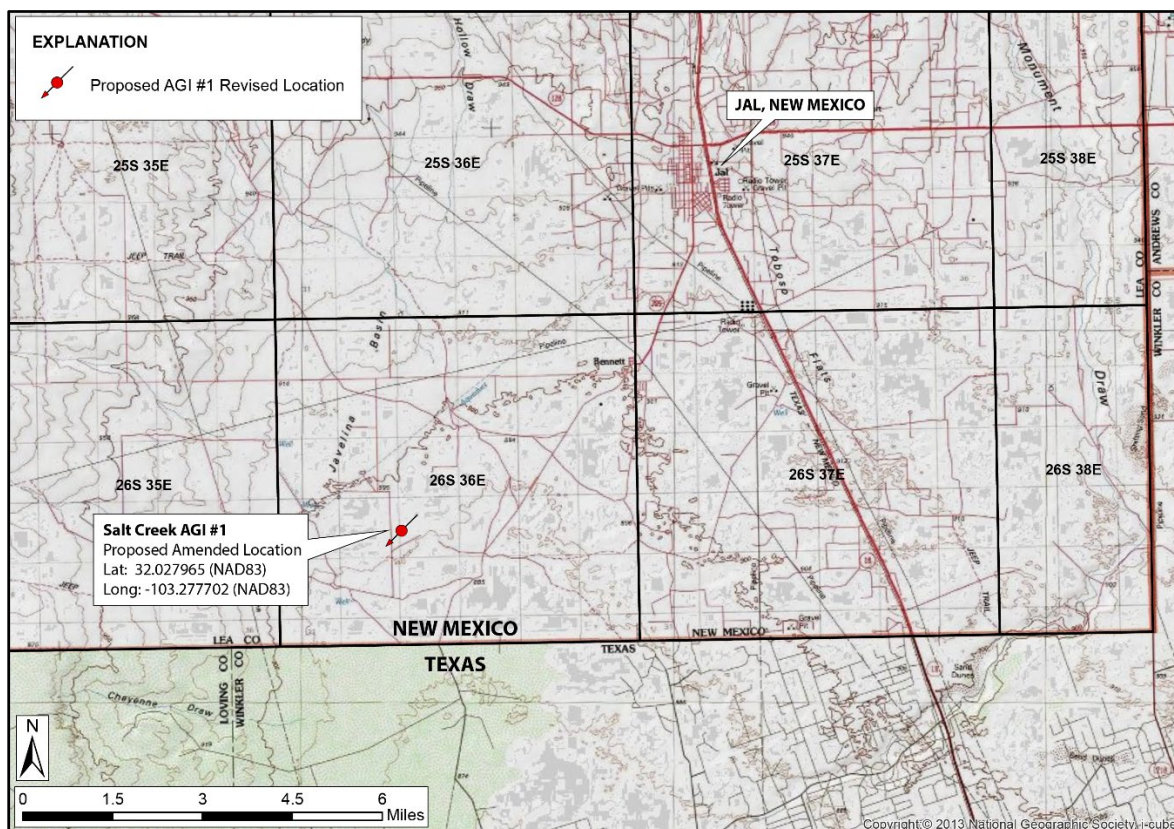
/s/ Dana S. Hardy
Dana S. Hardy



APPLICATION TO AMEND EXISTING UIC CLASS II INJECTION WELL PERMIT

REQUEST TO AMEND AGI WELL DESIGN AND WELL LOCATION
NMOCC ORDER R-20913 (C, D)

Salt Creek Midstream, LLC (OGRID #373554)
Salt Creek AGI #1



Proposed Surface Location: 2,350' FSL & 277' FWL (S21, T26S, R36E)
NAD83 Coordinates: 32.027965, -103.277702

February 2023

Prepared for:

Salt Creek Midstream, LLC
5775 N. Sam Houston, Pkwy W, #600
Houston, Texas 77086

Prepared by:

Geolex, Inc.[®]
500 Marquette Ave NW, #1350
Albuquerque, New Mexico 87102

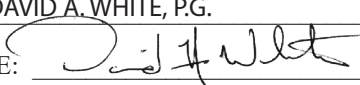
Exhibit A

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No
- II. OPERATOR: SALT CREEK MIDSTREAM, LLC
ADDRESS: 5775 N. SAM HOUSTON PKWY W, SUITE 600; HOUSTON, TX 77086
CONTACT PARTY: GEOLEX, INC. PHONE: (505) 842-8000
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? X Yes _____ No
If yes, give the Division order number authorizing the project: REQUEST FOR AMENDMENT OF NMOCC ORDER R-20913
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: DAVID A. WHITE, P.G. TITLE: CONSULTANT TO SALT CREEK
SIGNATURE:  DATE: FEBRUARY 18, 2023
E-MAIL ADDRESS: DWHITE@GEOLEX.COM
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

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1.0 EXECUTIVE SUMMARY

On behalf of Salt Creek Midstream, LLC (Salt Creek, OGRID #373554), Geolex, Inc.[®] (Geolex) has prepared and is hereby submitting a complete C-108 Application to Amend New Mexico Oil Conservation Commission (NMOCC) Order 20913 (C, D) seeking authorization for redesign of the previously approved Salt Creek AGI #1 well (API: 30-025-46746) and relocation to an amended surface location on the existing Salt Creek Midstream, Ameredev South Gas Processing Plant property. Additionally, Salt Creek seeks approval for an extension of the permit expiration date of 24 months from the approval date of this application to complete these operations. Redesign and relocation of the AGI well is necessary, as initial attempts to drill and complete the AGI well encountered severe subsurface hazards that resulted in the requirement to plug and abandon the well in its original location.

In developing this C-108 application for amendment, we have prepared specific application components that address the primary issues that are the subject of this request and have updated additional critical application components with respect to interested parties, areas of administrative and technical review, and a summary of recent seismic events and updated induced seismicity risk assessment in accordance with guidance provided by New Mexico Oil Conservation Division (NMOCD) technical staff. All remaining typical C-108 application components can be found in the original application, which was approved in calendar year 2020 and is publicly available in NMOCD well records.

Salt Creek received approval to construct and operate the Salt Creek AGI #1 well on January 16, 2020, through issuance of NMOCC Order No. 20913-C. Due to changes in the gas-disposal needs at the Salt Creek, Ameredev South Facility, the AGI well was not drilled, and injection authority was allowed to expire. Subsequently, a permit extension request was filed and approved by the NMOCC, in hearing, in December 2020. Prior to expiration of the existing permit, on December 28, 2022, Salt Creek has made substantial effort to drill, complete, and bring the Salt Creek AGI #1 well into service, however, subsurface conditions in the area of the Salt Creek Facility have prevented completion of the AGI well, and Salt Creek has requested and received approval for a temporary stay of the injection permit expiration.

In attempting to complete and bring the AGI well into service, Salt Creek AGI #1 was spudded on October 18, 2022, by Permian Oilfield Partners (Permian Oilfield). The well was drilled to a measured depth (MD) of 7,040 feet within the Cherry Canyon Formation of the Delaware Mountain Group. While drilling the production casing interval, from approximately 2,100 to 7,040 feet, severe borehole stability issues (persistent wellbore pack off) and lost circulation zones were encountered within the sub-Rustler Formation strata and Capitan Reef, respectively. Utilizing geophysical logging tools conveyed on drill pipe (SLB ThruBit), the production casing interval was successfully logged, however, production casing became stuck during installation, and following numerous attempts, was unable to be retrieved or advance to the total depth of the well.

Unable to continue with drilling and completion operations, Salt Creek consulted with NMOCD technical staff to develop a suitable plan to complete plugging operations. These operations included setting six (6) intervals of cement plugs at key intervals from the total depth of the well to just below the surface casing shoe (2,065' MD). Additionally, high-density perforation and cement squeeze operations were completed above and below critical geologic strata transitions between the Capitan Reef and Delaware Mountain Group and at the top of the Capitan Reef. With the exception of the intervals of shallow geologic strata (approx. 2,064' to 3,028'), all plugging operations were completed utilizing corrosion-resistant cement slurries (i.e., Halliburton CorrosaCem[™]) to assure the long-term integrity of the remedial operations completed. A subsequent report of the completed plugging operations was submitted to NMOCD on December 9, 2022.

Following plugging operations, Salt Creek received approval to sidetrack a new wellbore below the existing 9-5/8" surface casing, which was to be deviated away from the trajectory of the previously plugged section. In planning to drill the sidetrack, slight modifications to the installation procedures and well design were made to better prepare for down-hole issues previously encountered and anticipated in a new sidetracked wellbore. These modifications included utilization of smaller diameter casing, specifically 7-inch outer diameter (OD) casing in lieu of previously planned 7 5/8-inch OD casing, as well as preparations to allow for rotation of the casing to better navigate tight intervals of the wellbore. Despite these efforts, subsurface hazards, specifically severe lost circulation issues, persisted while drilling the sidetrack. To address these issues, cementing operations were attempted to seal off and isolate the problematic intervals with fluid loss, however, these operations were unsuccessful as the drill string became differentially stuck at a bit depth of 5,111 MD and was cemented in place. Following these events, NMOCD staff were consulted and plugging operations for the sidetrack wellbore were completed in accordance with an approved plugging plan. The current state of the original AGI wellbore and sidetrack wellbore is illustrated and summarized in Figure 1 and Figure 1A.

To assure the successful drilling and completion of the AGI #1 well, Salt Creek requests approval for a revised injection well design, authorization to revise the well location to another area within the boundary of the existing Salt Creek Facility property, and extension of the injection permit duration to allow sufficient time to drill the AGI well.

Salt Creek requests approval to revise the AGI well casing program, specifically to include the incorporation of two additional casing strings to address (1) intervals of shallow strata instability, and (2) zones of severe lost circulation within the Capitan Reef and distal reef strata. The proposed well redesign is illustrated in Figure 2. Modification of the casing plan is limited only to the surface- and intermediate-casing strings. All critical AGI well design considerations, including the utilization of corrosion-resistant alloy materials (CRA), corrosion-resistant cements in the production casing string, and all down-hole well equipment, will remain unchanged.

In addition to the request to alter the AGI #1 well design, Salt Creek is seeking approval to relocate the position of the AGI well to another location within the boundary of the existing gas facility property. The amended surface location proposed is approximately 120 feet from the plugged and abandoned wellbore and is illustrated in Figure 3. At this location, the AGI well can be constructed such that its position does not impact surface processing infrastructure critical to the plant and will provide adequate capability to avoid the area occupied by the original plugged and abandoned wellbore. To assure the well maintains lateral separation from the plugged wellbore, an anti-collision evaluation will be completed, and the new well will be drilled with directional measurement while drilling (MWD) tools and directional motors.

As the proposed amendments regarding well design and surface-hole location reflect significant change to the AGI well project, a re-evaluation of the Salt Creek AGI #1 Area of Review (AOR) was completed to assure all oil and gas operators, as well as new interested parties, have been identified and are provided written notification of any hearing that will occur to consider this application.

In total, there are 58 wells within the one-mile radius of the revised AGI well surface-hole location. Specific well data are summarized in Table 4 and Appendix A (Table A-1) along with relevant plugging documentation. Of these wells, 22 are active and 22 are plugged. Additionally, there are 14 locations permitted, but have not yet been drilled or completed. Within one mile of the Salt Creek AGI revised location, the injection zone is penetrated by seven (7) wells. Active wells penetrating the injection zone primarily target underlying Wolfcamp and Bone Spring plays, which are commonly separated from the injection zone by approximately 1,200 feet of low-permeability strata. Appendix A includes relevant plugging documents for inactive well penetrations within a one-mile radius.

In re-evaluating the AGI #1 well area of review, Salt Creek completed a detailed review of Lea County, New Mexico land records to identify all operators, oil and gas lessees, and surface owners within a one-mile radius of the proposed amended AGI well surface location. Section 7.0 of this application includes the results from that review. Prior to this amendment application being presented in NMOCC hearing, all identified interested parties will be provided a letter of notice that includes the date and time of the associated NMOCC hearing, as well as detailed information on how they can participate or request additional information.

To evaluate the potential for seismic events in response to injected TAG and disposal fluids in the vicinity of the AGI well, Geolex has re-evaluated the seismic event history of the project area and conducted additional fault slip probability simulations to assess the risk of induced fault slip in response to injection well operations in the area. Fault slip probability modeling was completed using the Fault Slip Potential (FSP) model developed by Walsh and Zoback (2016), the results of which confirm the results of prior induced-seismicity risk assessment, in that operation of the Salt Creek AGI #1 well, as proposed, will not result in an increased risk for injection-induced fault slip in the area. In fact, FSP model results predict no risk (probability = 0.00) for all fault structures that have been identified in the area of the Salt Creek AGI well.

As the proposed modifications to NMOCC Order No. 20913 (C, D), will significantly improve Salt Creek's ability to successfully drill and complete Salt Creek AGI #1, Salt Creek requests approval of this Form C-108 injection permit amendment application to allow for the following specific changes in the well construction plan:

1. Approval of a new well casing program, which incorporates two additional strings of casing (set and cemented to surface), which will allow Salt Creek to specifically isolate depth intervals where well stability and severe lost circulation hazards were encountered.
2. Approval to relocate the Salt Creek AGI #1 well to a new surface-hole location on the existing plant property. Investigation of the associated Area of Review has identified all wells penetrating the injection reservoir, all active operators and lessees, and all surface owners. All interested parties will be provided notice of the application hearing and provided specific instruction regarding their ability to participate.
3. Approval to extend Salt Creek's deadline to commence injection into the Salt Creek AGI #1 well until twenty four (24) months from the approval date of this application.

Following approval of the application for amendment of NMOCC Order 20913 (C, D) Salt Creek will file a new Form C-101 Application for Permit to Drill to have a new well API number assigned, which will ensure all records of the original plugged wellbore are retained and easily identifiable in public well records.

2.0 INTRODUCTION AND REQUEST FOR AMENDMENT OF NMOCC ORDER 20913 (C, D)

The completed New Mexico Oil Conservation Division (NMOCD) Form C-108 is included before the Table of Contents of this document and references appropriate sections where data required to be submitted are included.

In accordance with guidance provided by NMOCD Underground Injection Control (UIC) personnel, this application has been developed as a request to amend New Mexico Oil Conservation Commission (NMOCC) Order R-20913-C, which includes specific application sections that only address the issues that are the subject of this request for amendment, as well as select additional critical application components, which relate to interested parties, evaluation of the area of review and identification of potentially interested parties, and a re-evaluation of the seismic event history and induced-seismicity risk within the project area. The information is presented in the following sections:

- A detailed summary of the AGI well permitting history and a summary of recent attempted operations to drill and complete the Salt Creek AGI #1 well. (Section 3.0)
- An overview of proposed revisions to the Salt Creek AGI #1 casing program, which will allow specific intervals of down-hole hazards to be physically isolated and the associated risk mitigated (Section 4.0)
- Re-evaluation of the Salt Creek Area of Review, as modified with proposal of a new AGI well location on the Salt Creek property, and the identification of oil and gas wells, active operators, lessees, and surface owners within the area of review (Sections 5.0 and 7.0)
- Re-evaluation of seismic event history and induced-seismicity risk within the project area (Section 6.0)

In addition, this application includes the following supporting information:

- **Appendix A:** Data tables showing all active, temporarily abandoned, and plugged and abandoned oil and gas wells included within a two-mile radius and associated plugging documentation for wells within one mile of the proposed AGI well location.

3.0 SALT CREEK AGI #1 PERMITTING HISTORY AND SUMMARY OF RECENT AGI DRILLING OPERATIONS

3.1 PERMITTING HISTORY AND AUTHORIZATION FOR INJECTION

Initial authorization to construct and operate the Salt Creek AGI #1 was granted on January 16, 2020, through issuance of NMOCC Order No. 20913-C. The well was designed and permitted to meet the waste gas disposal needs of the Ameredev South Gas Processing Plant. The plant was anticipated to require the ability to dispose of up to 8 million standard cubic feet per day (MMSCFD) of treated acid gas (TAG) consisting of primarily carbon dioxide (CO₂) and hydrogen sulfide (H₂S) resulting from natural gas processing operations at the facility.

Salt Creek AGI #1 was authorized to inject a mixed acid gas stream, consisting of CO₂ and H₂S, at a maximum daily injection rate of 8 MMSCF and a maximum allowable operating pressure of 2,149 psig. Injection and disposal of TAG was approved for the interval of Delaware Mountain Group geologic strata, specifically including the Bell Canyon and Cherry Canyon formations. To assure sufficient vertical separation was maintained between the injection reservoir target and overlying strata, conditions of approval required that the uppermost perforation be placed no less than 500 feet from the top of the Delaware Mountain Group.

Following initial approval and authorization of the project by NMOCC, the Salt Creek AGI #1 well was not drilled, and the injection authorization expired on July 16, 2020. As the need for acid gas disposal methods at the Salt Creek Facility was still anticipated, a request to reinstate injection authority was filed with the NMOCC. Following a subsequent NMOCC hearing, authorization to inject via the Salt Creek AGI #1 well was reinstated on December 28, 2020, and the duration of the injection permit was extended for a period of two (2) years.

3.2 SALT CREEK AGI #1 DRILLING OPERATIONS (OCTOBER 2022 THROUGH JANUARY 2023)

In attempting to drill, complete, and bring the AGI well into service, Salt Creek spudded the AGI #1 well on October 18, 2022, by Permian Oilfield Partners (Permian Oilfield). Prior to spudding the well, all administrative tasks and submittals required by NMOCC Order 20913-D had been completed. Specifically, these tasks included (1) development and submittal of a redundant AGI well application (Salt Creek AGI #2), seeking authorization to construct a redundant AGI well in the Devonian reservoir, and (2) re-assessment of the AGI #1 well area of review and notification of all new interested parties identified.

Drilling of the AGI #1 well progressed, with the total depth of the surface casing interval (2,100 feet) being reached on October 21, 2022. Permian Oilfield ran and set 9 5/8-inch, 40 #/ft., BTC surface casing to 2,100 feet and successfully cemented the casing string back to surface by October 22, 2022. In total, 283 sacks of cement were circulated to the surface, and the adequacy of cementing operations was confirmed through an evaluation of a cement bond log (CBL) over the interval.

From October 23 through October 26, 2022, Permian Oilfield drilled the production casing interval to the total depth of the well (approximately 7,040 feet MD). During these operations, several zones of lost circulation and borehole stability issues were encountered within sub-Rustler Formation and Capitan Reef strata. Issues of fluid loss and sticking of drill pipe continued throughout the interval from a depth interval of approximately 2,100 to 7,040 feet MD. Lost circulation material (LCM) treatments were initially effective in managing fluid loss and attempts to run conventional open-hole geophysical logging operations began on October 26, 2022, however, tight-hole intervals and irregular borehole profile below the surface casing (approximately 2,110 to 2,380 feet) prevented the conventional tool string from being

run in to the total depth of the well. To meet the requirements of the approved NMOCC Order, geophysical logging tools conveyed by drill pipe (SLB ThruBit) were acquired and utilized to successfully log the production casing interval.

Permian Oilfield began production casing (7.625-inch) installation operations on November 4, 2022, but issues quickly arose as the casing string became stuck at a depth of 5,696 feet MD. Over the following days, multiple attempts to work the pipe free were made, including displacement of mud with freshwater and nitrogen in attempt to reduce overburden pressure and free the stuck casing. Attempts to free the casing were unsuccessful and resulted in parting of the casing at a depth of 1,785 feet MD. Free-point tools and wireline jet cutting were utilized over the following days to partially retrieve stuck casing material, but ultimately, 7.625-inch casing, from 3,148 to 5,696 feet MD, was left in the borehole.

Unable to continue with drilling and completion operations, Salt Creek consulted with NMOCD staff to develop a suitable plan to plug the existing wellbore and sidetrack the AGI well. In accordance with an agreed upon plan, six (6) intervals of cement plugs were set below the interval of surface casing. Plugging operations completed are summarized in Table 1.

Table 1. Summary of plugging operations completed in the original Salt Creek AGI #1 wellbore

Plug No.	Type/Class	No. Sacks	Yield (ft ³ /sk)	Density (ppg)	Top of Plug (ft)	Est. Base of Plug (ft)
1	Halliburton CorrosaCem	600	1.221	14.5	5,720	7,040
2	Halliburton CorrosaCem	35	1.221	14.5	5,620	5,720
3*	Halliburton CorrosaCem	362	1.241	14.5	4,111	5,128
4*	Halliburton CorrosaCem	400	1.241	14.5	3,028	3,210
5	HalCem C “neat”	800	1.332	14.8	2,680	3,028
6	HalCem C w/ 1% CaCl ₂	800	1.332	14.8	2,064	2,680

*Denotes inclusion of high-density perforation (12 shots/foot) and squeeze operations to improve isolation across critical depth intervals and geologic transitions

In accordance with plugging operations developed through collaboration with NMOCD staff, plugging across key geologic transitions included the completion of high-density perforation and cement squeeze operations to assure adequate isolation from the plugged wellbore. These intervals include the top and base of the interval of Capitan Reef strata. Additionally, all plugs set below the depth of approximately 3,028 feet utilized corrosion-resistant cement slurries (Halliburton CorrosaCemTM) to ensure the long-term integrity of remedial operations completed. Additional information regarding well plugging operations can be found in the Form C-103 Subsequent Report of Plugging Operations, which was approved by NMOCD on December 9, 2022.

3.2.1 Salt Creek AGI #1 Sidetrack Wellbore

Following approval of prior plugging operations, Salt Creek received authorization to sidetrack a new wellbore, which was to be kicked off below the interval of 9.625-inch surface casing and deviated away from the trajectory of the original plugged wellbore.

In preparing for these operations, modification to casing installation procedures and AGI well design was made in an attempt to better prepare for the down-hole conditions that were encountered previously and anticipated to be encountered in the sidetrack. These modifications included utilization of smaller diameter production casing, specifically 7-inch outer diameter (OD), HP-P110 casing in lieu of previously utilized 7 5/8-inch, L-80 grade casing. With these modifications, it was anticipated that down-hole

hazards could be mitigated, as additional wellbore clearance would be present, and the revised casing material could be rotated to navigate down-hole tight intervals.

Sidetrack drilling operations began on December 10, 2022, and reached a total measured depth of 5,111 feet by December 17, 2022, however, down-hole issues of severe lost circulation persisted during these operations. To address these issues, prior to reaching the anticipated total depth of the well and the installation of production casing, cementing operations were attempted to seal off and isolate problematic intervals of fluid loss. These efforts were unsuccessful as the drill string became differentially stuck at a bit depth of 5,111 feet MD while attempting to trip out of the well. Permian Oilfield made several attempts to free the stuck drill pipe, however, the string was unable to be freed and the pipe was inadvertently cemented in place, with cement being emplaced from approximately 3,880 feet to 5,020 feet MD.

Following these events, NMOCD staff were again consulted and a sidetrack plugging plan was developed and completed. Figures 1 and 1A illustrate the current state of the original AGI wellbore and sidetrack wellbore.

4.0 PROPOSED REDESIGN AND RELOCATION OF SALT CREEK AGI #1

Despite prior challenges experienced while drilling the original Salt Creek AGI #1 wellbore and sidetrack, Salt Creek maintains that utilization of an AGI well to handle and dispose of waste acid gases remains the preferred and safest H₂S handling method at the Ameredev South Facility. Disposal of acid gas wastes, via well injection, significantly increases the safety and reliability of operations and has substantial environmental benefit, as significant volumes of CO₂ are also sequestered through utilization of an AGI well.

In their continuing pursuit to successfully integrate an AGI well at the facility, Salt Creek requests approval of a redesign to the AGI well casing plan, relocation of the AGI well to an alternative, but suitable, location on the existing plant property, and a 24-month extension in the duration of the injection permit to allow sufficient time for the well to be drilled in accordance with the revised casing and location plan.

4.1 REDESIGN OF SALT CREEK AGI #1

The proposed AGI well redesign schematic is illustrated in Figure 2. Generally, modifications include the utilization of two additional casing strings, which will allow for the specific isolation of (1) shallow intervals of wellbore instability, and (2) zones of severe lost circulation within the Capitan Reef and distal reef strata. Table 2 summarizes the proposed casing plan, which has been revised to mitigate risk associated with down-hole hazards in the area. Additionally, Table 3 summarizes the associated cementing plan.

Table 2. Revised casing schedule proposed for Salt Creek AGI #1

Casing	Hole Size (in.)	Csg. Size (in.)	Pound per foot	Grade	Thread	Top (ft., MD)	Base (ft. MD)	Length (ft., MD)
Conductor	-	30	-	-	-	0	80	80
Surface	26	20	133	K55	BTC	0	2100	2100
1 st Int.	17.5	13.325	54.5	HPL-80	BTC	0	3100	3100
2 nd Int.	12.25	9.625	40	L80	BTC	0	5110	5110
Production	8.75	7	29	HP-P110	Rattler	0	5180	5180
Production	8.75	7	26	SM2535	VAMTOP	5180	5480	300
Production	8.75	7	29	HP-P110	Rattler	5480	7040	1560

Table 3. Revised cementing plan proposed for Salt Creek AGI #1

Casing String	Stage #	Cement Type	# Sacks	Density (ppg)	Coverage Interval (MD)
Conductor	1	Redimix	-	-	0-80'
Surface	1	Lead: EconoCem Tail: HalCem	Lead: 2580 Tail: 1100	Lead: 12.9 Tail: 14.8	0-2100'
1 st Intermediate	1	Lead: EconoCem HLC Tail: HalCem C	Lead: 1185 Tail: 495	Lead: 12.9 Tail: 14.8	0-3100'
2 nd Intermediate	1	Lead: NeoCem Tail: VersaCem	Lead: 135 bbl Tail: 195	Lead: 11.0 Tail: 14.5	3000-5180'
2 nd Intermediate	2	Lead: NeoCem Tail: HalCem C	Lead: 189 bbl Tail: 195	Lead: 11.5 Tail: 14.8	0-3000'
Production	1	NeoCem	54.9 bbl	13.2	5480-7040'
Production	2	WellLock Resin	10 bbl	9.28	5180-5480'
Production	3	Lead: NeoCem Tail: HalCem C	Lead: 149 bbl Tail: 50	Lead: 11.0 Tail: 14.8	0-5180'

As shown in Figure 2 and summarized in Tables 2 and 3, modification of the Salt Creek AGI #1 casing plan is limited only to the addition of intermediate casing strings and required changes to the size of the surface casing material. All other critical AGI well design considerations, including the utilization of corrosion-resistant alloy (CRA) materials and corrosion-resistant cement in the production casing, as well as all down-hole well components, remains unchanged. Furthermore, the AGI well design and completion operations will continue to meet the requirements of NMOCC R-20913-C, which require specific conditions regarding the placement of the uppermost perforation point within the injection reservoir.

While the risk of subsurface hazards cannot be fully mitigated, the proposed changes in well design will significantly improve Salt Creek's ability to drill, complete, and bring the well into service.

4.2 RELOCATION OF SALT CREEK AGI #1

In addition to the request to alter the AGI well design, Salt Creek is seeking approval to relocate the surface-hole location of the AGI well to another location on the existing plant property, which will be suitable with respect to required surface infrastructure at the facility and allows for the ability to maintain sufficient lateral separation from the original plugged and sidetracked wellbores.

The amended surface-hole location proposed is illustrated in Figure 3 and will be spudded approximately 120 feet from the original plugged and abandoned wellbore. At this location, the AGI well can be constructed such that its position does not impact surface processing infrastructure critical to plant operations and will provide sufficient capability to avoid the area occupied by the original plugged and abandoned wellbore. Prior to spudding of the well at the revised location, an anti-collision assessment will be completed, and the new AGI wellbore will be drilled utilizing directional measurement while drilling (MWD) tools and directional motors to ensure lateral separation is maintained.

5.0 RE-EVALUATION OF THE SALT CREEK AGI #1 AREA OF REVIEW

As Salt Creek's requests to amend NMOCC Order R-20913 (C-D) with respect to well design, well location, and the duration of the injection authorization, represents significant change to the AGI well project, re-evaluation of the Salt Creek AGI #1 area of review was completed. This review is necessary in order to assure all oil and gas operators, as well as new interested parties have been identified and will be provided notification of the NMOCC hearing that will be held to consider this application.

5.1 OIL AND GAS WELLS IN THE SALT CREEK AGI #1 AREA OF REVIEW AND VICINITY

Appendix A summarizes in detail all NMOCD recorded wells within a one- and two-mile radius of the revised location proposed for Salt Creek AGI #1. The location of these wells is illustrated in Figures 4 and 5 and include active, plugged, and permitted well locations. Table A-1 details all wells within two mile of the AGI well location and well located within one mile are summarized in Table 4.

In total, there are 118 wells within a two-mile radius of Salt Creek AGI #1 (Appendix A, Figure 4, Table A-1). Of these, there are 25 active wells, 21 permitted, and 72 plugged. Active and permitting wells in the area primarily target Wolfcamp and Bone Spring reservoirs, however, there are 16 active wells, which are marginal producers completed in the Tansill-Queen interval.

Within one mile of the revised AGI well location, there are 58 wells, of which 22 are active, 14 are permitted, and 22 are plugged (Figure 5, Table 4).

Currently, there are 15 wells (active and plugged) that penetrate the approved Delaware Mountain Group injection zone (Table 5). Active wells penetrating the injection zone primarily target Wolfcamp, Bone Spring, and Strawn reservoirs in intervals that are commonly isolated from the Salt Creek AGI #1 injection zone by a minimum of 1,300 feet of low permeability lithologies (Brushy Canyon Fm.). There are six (6) plugged and abandoned wells that penetrate the approved injection zone within one mile of Salt Creek AGI #1. Relevant plugging documents relating to these wells, which demonstrate their isolation from the Salt Creek injection interval, are included in Appendix A.

Table 4. All wells located within a one-mile radius of the Salt Creek AGI #1 revised location

API	Well Name	Well Type	Well Status	Operator Name	LAT83	LONG83	MD (ft)	Associated Pools	Spud Year	Plug Date	Mi to AGI
3002526134	Wilson 21 Fed #4	Oil	Active	Fulfer Oil & Cattle	32.026	-103.2754	3575	Tan-Yates-7Riv-Qu	1979	-	0.16
3002526718	Wilson 21 Fed 6Y	Oil	Plugged	HNG Oil Company	32.0313	-103.2757	3750	Tan-Yates-7Riv-Qu	1980	1986	0.23
3002526136	Lowe Estate #1	Oil	Plugged	Cayman Corp	32.0313	-103.2754	1682	Yates	1969	1969	0.24
3002526133	Wilson 21 Fed #3	Oil	Active	Fulfer Oil & Cattle	32.0267	-103.2728	3797	Tan-Yates-7Riv-Qu	1979	-	0.25
3002509858	Federal #1	Oil	Plugged	Roy Smith Drilling	32.0269	-103.2722	3940	Wildcat	1962	1962	0.27
3002525957	Lea 20 #1	SWD	Plugged	Chance Properties	32.0242	-103.2796	3420	SWD, Capitan	1978	2021	0.31
3002526135	Wilson 21 Fed #5	Oil	Active	Fulfer Oil & Cattle	32.0305	-103.2722	3800	Tan-Yates-7Riv-Qu	1979	-	0.32
3002526132	Wilson 21 Fed #2	Oil	Active	Fulfer Oil & Cattle	32.0224	-103.2754	3500	Tan-Yates-7Riv-Qu	1979	-	0.39
3002545984	Camellia Fed Com 26 36 21 #091H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2776	0	Bone Spring	-	-	0.40
3002545982	Camellia Fed Com 26 36 21 #081H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2777	0	Bone Spring	-	-	0.40
3002545897	Camellia Fed Com 26 36 21 #121H	Oil	Active	Ameredev Operating, LLC	32.0223	-103.2777	22641	Wolfcamp	-	-	0.40
3002545837	Camellia Fed Com 26 36 #111H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2778	0	Wolfcamp	-	-	0.40
3002545918	Camellia Fed Com 26 36 #101H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2778	0	Wolfcamp	-	-	0.40
3002509856	Sand Hills Unit #6	Oil	Plugged	Cities Service Oil Co	32.0233	-103.2807	1247	Wildcat	1959	1960	0.40
3002526131	Wilson 21 Fed #1	Oil	Active	Fulfer Oil & Cattle	32.0224	-103.2732	3340	Tan-Yates-7Riv-Qu	1978	-	0.44
3002526138	Wilson 21 Fed #8	Oil	Active	Fulfer Oil & Cattle	32.0343	-103.2754	3700	Tan-Yates-7Riv-Qu	1980	-	0.44
3002509857	Sand Hills Unit #6A	Oil	Plugged	Cities Service Oil Co	32.0224	-103.2807	3349	Wildcat	1959	1960	0.45
3002544105	Azalea 26 36 28 State #121	Oil	New	Ameredev Operating, LLC	32.0209	-103.2777	994	Wolfcamp	-	-	0.49
3002544104	Azalea 26 36 28 State #111H	Oil	Active	Ameredev Operating, LLC	32.0209	-103.2778	18993	Wolfcamp	2017	-	0.49
3002544229	Azalea 26 36 28 State #121Y	Oil	Active	Ameredev Operating, LLC	32.0209	-103.2778	19469	Wolfcamp	2017	-	0.49
3002526137	Wilson 21 Fed #7	Oil	Active	Fulfer Oil & Cattle	32.0342	-103.2721	3700	Tan-Yates-7Riv-Qu	1980	-	0.51
3002527197	Lea Jv 7426 #2	Oil	Plugged	BTA Oil Producers	32.0351	-103.2796	3670	Tan-Yates-7Riv-Qu	1981	1982	0.52

3002527029	Lea 21, 7406 Jv-S #3	Oil	Active	Fulfer Oil & Cattle	32.0269	-103.2679	3574	Tan-Yates-7Riv-Qu	2010	-	0.52
3002527028	Lea 21, 7406 Jv-S #2	Oil	Active	Fulfer Oil & Cattle	32.0306	-103.2679	3658	Tan-Yates-7Riv-Qu	1980	-	0.55
3002526056	Lea 7406 JV-S #9	Oil	Plugged	BTA Oil Producers	32.0197	-103.2754	1406	Yates	1978	1978	0.58
3002549931	Azalea 26 36 28 State Com #104H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2714	0	Wolfcamp	-	-	0.58
3002549932	Azalea 26 36 28 State Com #123H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2714	0	Wolfcamp	-	-	0.58
3002526068	Lea 7406 Jv-S #9Y	Oil	Plugged	BTA Oil Producers	32.0196	-103.2754	3270	Tan-Yates-7Riv-Qu	1978	2009	0.58
3002544112	Wildhog BWX State Com #002H	Oil	Active	Ameredev Operating, LLC	32.0353	-103.2819	16659	Wolfcamp	2018	-	0.59
3002527030	Lea 21 7406 JV-S	Oil	Plugged	BTA Oil Producers	32.0233	-103.2679	1060	Tansill-Yates	1980	1980	0.61
3002545983	Camellia Fed Com 26 36 21 #083H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2723	0	Bone Spring	-	-	0.63
3002545985	Camellia Fed Com 26 36 21 #093H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2722	0	Bone Spring	-	-	0.63
3002545986	Camellia Fed Com 26 36 21 #104H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2721	0	Wolfcamp	-	-	0.63
3002545987	Camellia Fed Com 26 36 21 #114H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2721	0	Wolfcamp	-	-	0.63
3002545988	Camellia Fed Com 26 36 21 #124H	Oil	New	Ameredev Operating, LLC	32.0197	-103.272	0	Wolfcamp	-	-	0.63
3002527207	Lea 21, 7406 Jv-S #4Y	Oil	Active	Fulfer Oil & Cattle	32.0242	-103.2668	3550	Tan-Yates-7Riv-Qu	1981	-	0.64
3002525930	Lea 7406 Jv-S #8	Oil	Plugged	BTA Oil Producers	32.019	-103.2732	3270	Tan-Yates-7Riv-Qu	1978	2009	0.65
3002549590	Azalea 26 36 28 State Com #125H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2692	0	Wolfcamp	-	-	0.66
3002527000	Lea 21, 7406 Jv-S #1	Oil	Active	Fulfer Oil & Cattle	32.0342	-103.2679	3668	Tan-Yates-7Riv-Qu	1980	-	0.67
3002509847	Maralo SV 16 State #6	Oil	Plugged	Maralo, LLC	32.0378	-103.2765	11492	Yates	1958	1981	0.68
3002526806	Maralo 16 State #6Y	Oil	Plugged	Northern Pacific Oil & Gas	32.0378	-103.2761	3800	Tan-Yates-7Riv	1980	2018	0.68
3002526816	Wilson 17 Fed	Oil	Plugged	HNG Oil Company	32.0378	-103.2807	3700	Tan-Yates-7Riv	1980	1982	0.71
3002538885	Eagle Feather Fed #2	Gas	Active	Ameredev Operating, LLC	32.0342	-103.2668	13179	Strawn	2008	-	0.72
3002526751	Maralo 16 State #07	Oil	Plugged	Draco Energy, Inc.	32.0378	-103.2722	3800	Tan-Yates-7Riv	1980	2003	0.73
3002525920	Lea 7406 Jv-S #7	Oil	Plugged	BTA Oil Producers	32.017	-103.2775	3270	Tan-Yates-7Riv-Qu	1978	1984	0.76
3002527042	Lea 21, 7406 Jv-S #7	Oil	Active	Fulfer Oil & Cattle	32.0269	-103.2636	3525	Tan-Yates-7Riv-Qu	1980	-	0.77
3002527041	Lea 21, 7406 Jv-S #6	Oil	Active	Fulfer Oil & Cattle	32.0306	-103.2637	3495	Tan-Yates-7Riv-Qu	1980	-	0.78

3002549933	Azalea 26 36 28 State Com #127H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2655	0	Wolfcamp	-	-	0.82
3002527043	Lea 21, 7406 Jv-S #8	Oil	Active	Fulfer Oil & Cattle	32.0233	-103.2636	3570	Tan-Yates-7Riv-Qu	1981	-	0.83
3002526805	Maralo 16 State #10	Oil	Active	Northern Pacific Oil & Gas	32.0378	-103.2679	3800	Tan-Yates-7Riv	1980	-	0.85
3002527031	Lea 21, 7406 Jv-S #5	Oil	Active	Fulfer Oil & Cattle	32.0342	-103.2637	3660	Tan-Yates-7Riv-Qu	1980	-	0.87
3002542733	Wildhog BWX State Com #001H	Oil	Active	Ameredev Operating, LLC	32.0355	-103.2892	17244	B Spring, Wlfcmp	2015	-	0.90
3002525909	Lea 7406 Jv-S #6	Oil	Plugged	BTA Oil Producers	32.0151	-103.2732	3250	Tan-Yates-7Riv-Qu	1978	2009	0.91
3002526753	Maralo 16 State #09	Oil	Plugged	Northern Pacific Oil & Gas	32.0415	-103.2765	3800	Tan-Yates-7Riv	1980	2018	0.93
3002526815	Wilson 17 Fed #2	Oil	Plugged	HNG Oil Company	32.0415	-103.2807	3700	Tan-Yates-7Riv	1980	1982	0.96
3002526752	Maralo 16 State #08	Oil	Plugged	Northern Pacific Oil & Gas	32.0415	-103.2722	3750	Tan-Yates-7Riv	1980	2018	0.97
3002540170	Good Chief State #1	Oil	Plugged	Northern Pacific Oil & Gas	32.0206	-103.2626	3873	Tan-Yates-7Riv-Qu	2011	2018	0.97
3002525841	Quanah Parker #er #2	Oil	Plugged	Gifford, Mitchell, & Wisenbaker	32.0151	-103.269	284	Comanche	1978	1978	1.00

Table 5. All wells penetrating the approved Delaware Mountain Group injection reservoir within two miles of the Salt Creek AGI #1 well.

API	Well Name	Pool	Status	Lat83	Long83	MD (ft)	Mi from AGI
3002545897	Camellia Fed Com 26 36 21 #121H	Wolfcamp	Active	32.0223	-103.278	22641	0.40
3002544104	Azalea 26 36 28 State #111H	Wolfcamp	Active	32.0209	-103.278	18993	0.49
3002544229	Azalea 26 36 28 State #121Y	Wolfcamp	Active	32.0209	-103.278	19469	0.49
3002544112	Wildhog BWX St Com #2H	Wolfcamp	Active	32.0353	-103.282	16659	0.59
3002509847	Maralo SV 16 St #6	Yates (plugged back)	Plugged	32.0378	-103.277	11492	0.68
3002538885	Eagle Feather Fed #2	Strawn	Active	32.0342	-103.267	13179	0.72
3002542733	Wildhog BWX St Com #1H	B. Spring, Wolfcamp	Active	32.0355	-103.289	17244	0.90
3002523197	South Lea Fed #1	Strawn	Plugged	32.0415	-103.289	21252	1.18
3002526557	Pawnee Deep Unit #1	DMG, B Spring, Strawn	Plugged	32.0315	-103.254	18577	1.35
3002544111	Prizehog BWZ St Com #2H	Wolfcamp	Active	32.0338	-103.299	17188	1.36
3002544810	Magnolia 26 36 22 St Com #125H	Wolfcamp	Active	32.0226	-103.252	22108	1.49
3002509843	Sand Hills Unit #3	Wildcat	Plugged	32.0523	-103.285	55	1.74
3002525354	Horse Back #1	Wildcat	Plugged	32.0031	-103.268	21750	1.79
3002542744	Prizehog BWZ St Com #1H	B. Spring, Wlfcmp	Active	32.0351	-103.307	17417	1.87
3002524719	Dogie Draw Fed #1	Wildcat	Plugged	32.056	-103.285	20971	1.99

6.0 POTENTIAL FOR INDUCED SEISMICITY IN THE AREA OF THE SALT CREEK AGI #1

In developing this application for amendment, Geolex conducted a re-assessment of the risk for induced seismicity in response to the proposed injection scenario. In doing so, the current landscape of injection operations in the area can be assessed to confirm the original findings that the proposed operation of the AGI well will not produce elevated risk for injection-induced seismicity.

In the following paragraphs, we include the results of Fault Slip Probability (FSP) modeling and simulation, which demonstrate that the proposed AGI operations are not predicted to produce an elevated risk for induced seismic events. In fact, modeling and simulation results predict zero probability for injection induced slip in response to the proposed TAG injection operations. From geologic evaluation of the area, this outcome is expected, as review of subsurface structures in the area of Salt Creek AGI #1 has not identified any faults aligned with the maximum horizontal stress directions, and thus, are not critically stressed.

In assessing induced seismicity risk, Geolex constructed a hydrologic model to simulate the impact of the Salt Creek AGI #1 well, as well as four nearby SWD wells over a 30-year simulation period. Identified faults in the project area were represented as six fault segments, as shown in Figure 6, in order to represent their non-linear expression. The assessment was completed utilizing the Stanford Center for Induced and Triggered Seismicity's (SCITS) Fault Slip Potential Model (FSP). To produce a conservative estimate of induced seismicity risk, all wells were simulated at their maximum anticipated daily injection volume for the full duration of the simulation.

Model and simulation input parameters for this study are included in Table 6 and Table 7. Figures 7 and 8 and Table 8 include the results of the simulated injection scenario. As previously described, the SCITS FSP Model predicts 0.00 probability for injection-induced slip in response to the proposed injection scenarios. Along the midpoint of each modeled fault segment, model-predicted pore pressure increase is significantly short of the anticipated pressure increase required to induce slip.

Table 6. Input parameters and source material for FSP model simulation

Modeled Parameter	Input Value	Variability (+/-)	UOM	Source
<i>Stress</i>				
Vertical Stress Gradient	1.05	0.105	psi/foot	Nearby well estimate
Max. Horizontal Stress Direction	N75E	5	Deg.	Lund Snee & Zoback, 2018
Reference Depth	6,200	-	Feet	Nearby well estimate
Initial Reservoir Pressure Gradient	0.43	0.043	psi/foot	Lund Snee & Zoback, 2018
A-Phi Parameter	0.6	0.06	-	Lund Snee & Zoback, 2018
Reference Friction Coefficient (mu)	0.6	0.06	-	Published standard value
<i>Hydrologic</i>				
Aquifer Thickness	1000	100	Feet	Nearby well evaluation
Porosity	10	1	%	Nearby well evaluation
Permeability	20	2	mD	Nearby well evaluation
<i>Material Properties</i>				
Density	1040	10	Kg/m ³	AQUALibrium™
Dynamic Viscosity (water)	0.0008	0	Pa.s	AQUALibrium™
Fluid Compressibility (water)	3.6 x 10 ⁻¹⁰	0	Pa ⁻¹	Standard Value
Rock Compressibility	1.08 x 10 ⁻⁹	0	Pa ⁻¹	Standard Value

Table 7. Location and characteristics of injection wells modeled in FSP assessment

API	Well Name	Simulated Volume	Simulated Period	Lat83	Long83
3002546746	Salt Creek AGI #1	5000	2023-2053	32.027965	-103.277702
3002520857	West Jal B #1	15000	2017-2053	32.128483	-103.284981
3002537517	Momentum 36 St #1	5000	2015-2053	32.084114	-103.322372
3002544863	Nkatata FED SWD #1	30000	2023-2053	32.059514	-103.333456
4249534281	COM 27-C23 #2D	25000	2023-2053	31.999674	-103.321276

Table 8. Summary of model simulation results showing the required pore pressure change to induce fault slip, model-predicted pressure change, and model-predicted fault slip probability at the end of the simulated injection scenario.

Fault Segment #	Pressure Necessary to Induce Fault Slip (psi)	Model-Predicted Pressure Change (psi)	Fault Slip Probability
1	2070	44	0.00
2	2348	52	0.00
3	2197	58	0.00
4	2388	79	0.00
5	1960	87	0.00
6	2350	93	0.00

Based on these results, it is anticipated that operation of the Salt Creek AGI #1 well, as proposed, will not result in an increased risk for injection induced seismic events. This is further supported by U.S. Geological Survey records of seismic events in the area. These events, recorded from 1973 to present, demonstrate that there is not a significant history of seismic events in the area of the proposed well. The location of these events and NMOCD-defined seismic response areas, relative to the proposed AGI well, are illustrated in Figure 9.

7.0 IDENTIFICATION AND REQUIRED NOTIFICATION OF OPERATORS, SUBSURFACE LESSEES, AND SURFACE OWNERS WITHIN THE AREA OF REVIEW

In developing this amendment application, Salt Creek completed a detailed review of Lea County, New Mexico land records to obtain a listing of all operators, oil and gas mineral lessees, and surface owners within a one-mile radius of the proposed AGI well.

Table 9 summarizes all active operators, oil and gas lessees, and surface owners within a one-mile radius of the revised AGI well surface location. The table is inclusive of all persons who will be provided notice no less than 20 days before the NMOCC hearing which considers this application. Figure 10 shows the location of all active wells, operators, surface ownership, and other interested parties within one mile of the Salt Creek AGI #1 amended surface location.

All interested parties will be provided a letter of notice information them of submission of the C-108 application to NMOCD as well as a true and complete copy of the application and all supporting materials. Appendix B includes a draft of the notice letter text that will be provided to interested parties. Individual notices will be sent and copies of the individual notice letters and certified mail receipts will be provided to the Commission after the receipt of a case number and a date for the hearing.

Table 9. Summary of all interested parties to be provided notice of application and NMOCC hearing

Interested Party	Name/Address	
Surface Owner	New Mexico State Land Office Allison Marks 310 Old Santa Fe Trail Santa Fe, NM 87504-1148	NGL Energy Partners, LP 6120 South Yale Avenue, #805 Tulsa, OK 74136 (918) 481-1119
Operators	Ameredev Operating, LLC 2901 Via Fortuna, #600 Austin, TX 78746 (737) 300-4700	Driftwood Oil, LLC PO Box 1224 Jal, NM 88252 (575) 395-9970
	Fulfer Oil & Cattle PO Box 1224 Jal, NM 88252 (505) 935-9970	Impetro Operating, LLC 300 East Sonterra Blvd. San Antonio, TX 78258
	Marathon Oil Permian, LLC 990 Town and Country Blvd Houston, TX 77024	Northern Pacific Oil & Gas 530-B Harkle Road Santa Fe, NM 87505 (505) 738-3809
Additional Interested Parties	EOG Resources 1111 Bagby Street Sky Lobby 2 Houston, TX 77002	Oxy Y-1 5 Greenway Plaza Suite 110 Houston, TX 77046
	Award Energy Ventures, LLC 4209 Schuler Street Houston, TX 77007	

8.0 SALT CREEK'S REQUEST OF THE NMOCC

While drilling the Salt Creek AGI #1 has proven challenging, Salt Creek maintains that the utilization of AGI wells to dispose of waste gases from natural gas processing operations at the Ameredev South Facility represents the best H₂S handling method to assure safety of personnel at the facility and improve operations at the facility.

As the proposed modifications to NMOCC Order No. 20913-C will significantly improve Salt Creek's ability to successfully drill and complete the Salt Creek AGI #1 well, Salt Creek requests approval of this Form C-108 injection permit amendment application, to allow for the specific changes in the well construction plan and timeline.

1. Approval of a new well casing program, which incorporates two additional strings of casing (both set and cemented back to surface), which will allow Salt Creek to specifically isolate depth intervals where well stability and severe lost circulation hazards were encountered.
2. Approval to relocate the Salt Creek AGI #1 well to a new surface-hole location on the existing plant property. Investigation of the associated Area of Review has identified all wells penetrating the injection reservoir, all active operators and lessees, and all surface owners. All interested parties will be provided notice of the application hearing and specific instruction regarding their opportunity and ability to participate.
3. Approval of a twenty four (24) month extension in the injection permit expiration date, to allow construction of the redesigned and relocated Salt Creek AGI #1 well.

Following approval of the application for amendment of NMOCC Order 20913 (C, D), Salt Creek will file a new Form C-101 Application for Permit to Drill to have a new well API number assigned, which will ensure all records of the original plugged wellbore are retained and easily identifiable in public well records.

FIGURES

WELLBORE SCHEMATIC

Salt Creek Midstream
Salt Creek AGI #1
2370' FSL, 594' FWL
Sec. 21, T26S, R36E

Surface - (Conventional)

Hole Size: 12.25"
Casing: 9.625" - 40# J-55 BTC Casing
Depth Top: Surface
Depth Btm: 2100'
Cement: 670 sks Econocem w/5% Salt, 3# KOL Seal,
0.125Poly-E-Flake, .25# D-air, .2% HR-800

Cement Top: Surface (Circulated)

Production Csg #1 - (Cut Off)

Hole Size: 8.75"
Hole Depth: 7040'
Casing: 7.625" - 29.7# L-80 FJ x 7" 29# SM2535 VAMTOP
Depth Top: 3140'
Depth Btm: 5687'
ECP/DV Tool: 4200'

Cement: Stage 1 - CorrosaCem cement plug from 5680' - 7040'
Stage 2 - CorrosaCem cement "spot & squeeze" from 3140' - 5680' utilizing cement
retainer set @ 3150' & perforations @ 5678'
Stage 3 - HalCem cement plug from 3140' - Surface Casing Shoe (Tied Back)

Production Csg #2 - (Side Track)

Hole Size: 8.75"
Hole Depth: 7040'
Casing: 7" - 29# HP-110 CDC HTQ x 7" 29# SM2535 VAMTOP (CRA csg above injection interval)
Depth Top: Surface
Depth Btm: 7040'
ECP/DV Tool: 3120'
ECP/DV Tool: 5554'

Cement: Stage 1 - CorrosaCem cement to surface
Stage 2 - Lead w/CorrosaCem, Tail w/Halliburton WellLock Resin across CRA csg
Stage 3 - HalCem cement to surface

Cement Top: Surface (Circulated)

Tubing - (Conventional)

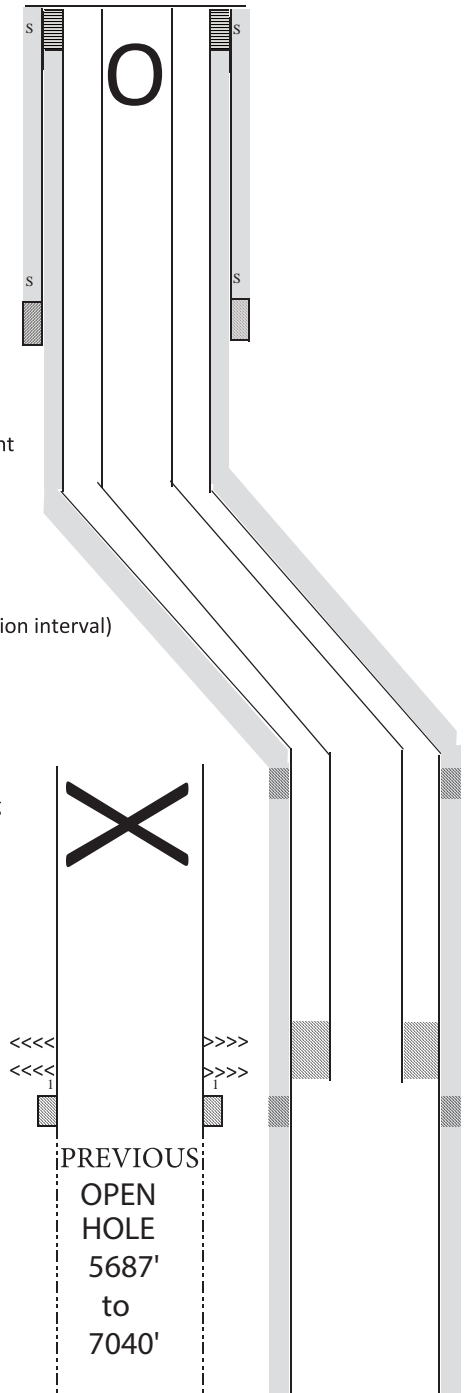
Tbg Size: 3.5" 9.3# L80 BTS-8 x 3.5" 9.2# G3 VAMTOP
Tbg Depth: 5540'
Packer: Inconel 925 Permanent Packer w/PT guages
Accessories: PT guages @ 5520', SSSV @ less than 100'
Packer Fluid: Corrosion inhibited diesel

Perforations - (6 SPF - 60 deg phasing)

Top Shot: TBD'
Btm Shot: TBD'

PRODUCTION CASING
FROM 3,140' TO
SURFACE HAS BEEN
REMOVED FROM
HOLE

STUCK CASING FROM
3,140' TO 5,687'



To resolve the issue of stuck casing in the original wellbore, plugs were set in accordance with the table below.

CEMENT	TYPE/CLASS	# SACKS	YIELD (FT3/SK)	DENSITY (PPG)	TOP (FEET)	EST BASE (FT)
Plug #1	Halliburton CorrosaCem	600	1.221	14.5	5,720	7,040
Plug #2	Halliburton CorrosaCem	35	1.221	14.5	5,620	5,720
Plug #3*	Halliburton CorrosaCem	362	1.241	14.5	4,111	5,128
Plug #4*	Halliburton CorrosaCem	400	1.241	14.5	3,028	3,210
Plug #5	HalCem C "neat"	800	1.332	14.8	2,680	3,028
Plug #6	HalCem C w/ 1% CaCl2	800	1.332	14.8	2,064	2,680

Figure 1. Salt Creek AGI #1 well schematic and proposed sidetrack design following original plugging operations

WELLBORE SCHEMATIC

Salt Creek Midstream
Salt Creek AGI #1
2370' FSL, 594' FWL
Sec. 21, T26S, R36E

Surface - (Conventional)

Hole Size: 12.25"
Casing: 9.625" - 40# J-55 BTC Casing
Depth Top: Surface
Depth Btm: 2100'
Cement: 670 sks Econocem w/5% Salt, 3# KOL Seal,
0.125 Poly-E-Flake, .25# D-air, .2% HR-800

Cement Top: Surface (Circulated)

Production Csg #1 - (Cut Off)

Hole Size: 8.75"
Hole Depth: 7040'
Casing: 7.625" - 29.7# L-80 FJ x 7" 29# SM2535 VAMTOP
Depth Top: 3140'
Depth Btm: 5687'
ECP/DV Tool: 4200'

Cement: Stage 1 - CorrosaCem cement plug from 5680' - 7040'
Stage 2 - CorrosaCem cement "spot & squeeze" from 3140' - 5680' utilizing cement
retainer set @ 3150' & perforations @ 5678'
Stage 3 - HalCem cement plug from 3140' - Surface Casing Shoe (Tied Back)

Production Hole #2 - (Side Track)

Hole Size: 8.75"
Hole Depth: 5511'
Drill Pipe: 4.5" 16.6# XH w/ float & 8.75" bit
Depth Top: 3880'
Depth Btm: 5111'

Cement: Stage 1 - CorrosaCem cement to 3880'
Stage 2 - HalCem C from 3880' to 2100' (csg shoe)
Stage 3 - HalCem C from 2100' to surface

Cement Top: Surface (Circulated)

Perforations - (12 SPF - 60 deg phasing)
50' above and 50' below the
Reef/ Delaware transition @ 5050'

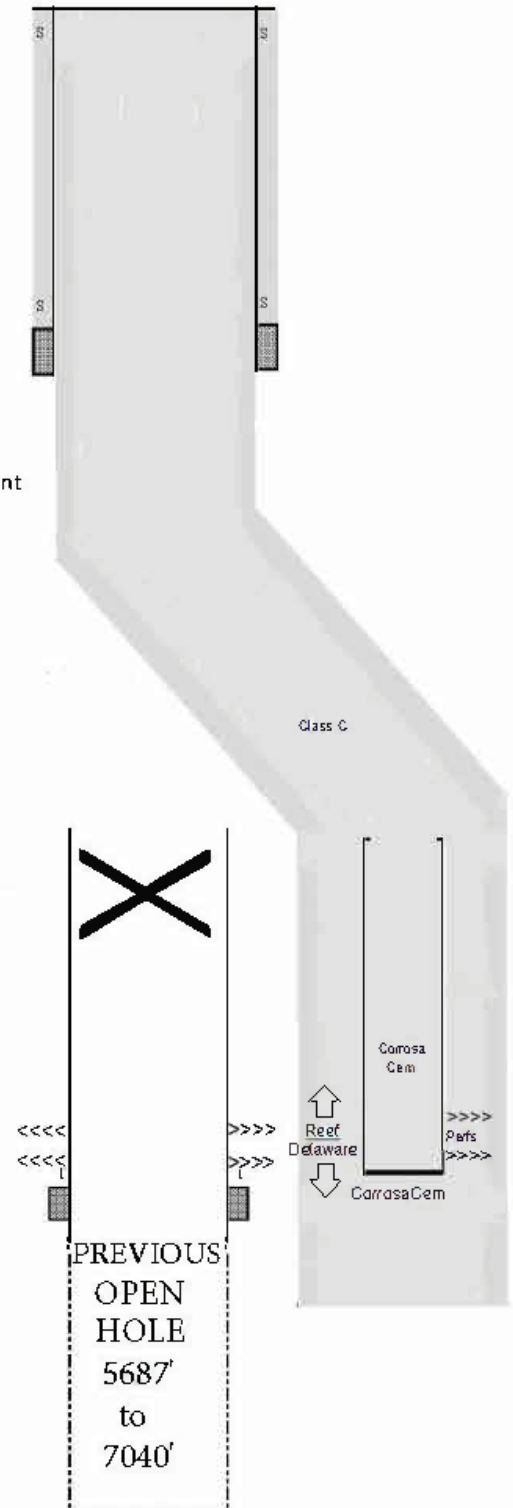
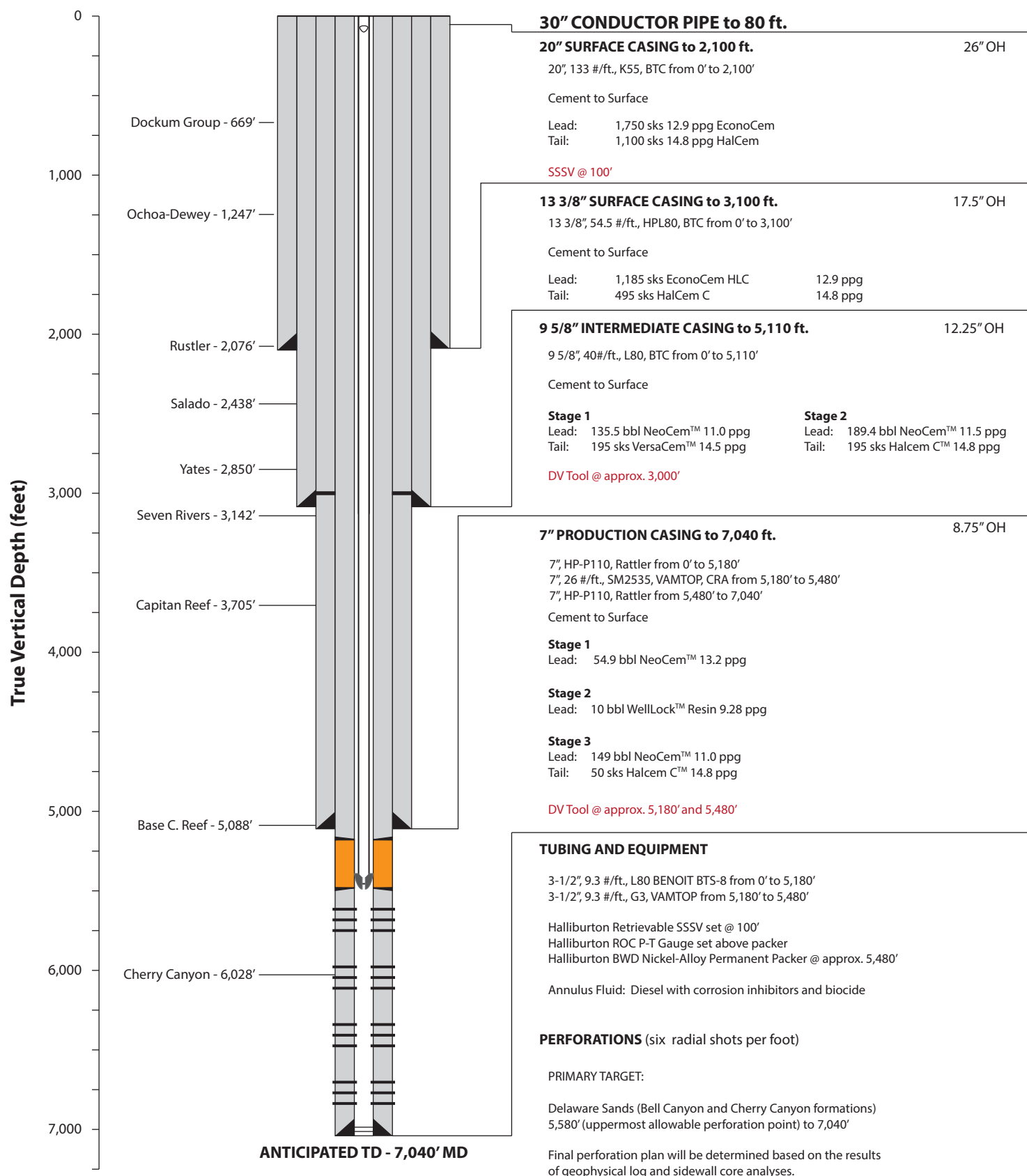


Figure 1A. Salt Creek AGI #1 well schematic following sidetrack plugging operations



SALT CREEK AGI #1 REVISED WELL SCHEMATIC

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*All depths are approximate and subject to change based off of the geology encountered

Date prepared: 01/20/2023

Figure 2. Redesign wellbore schematic for Salt Creek AGI #1

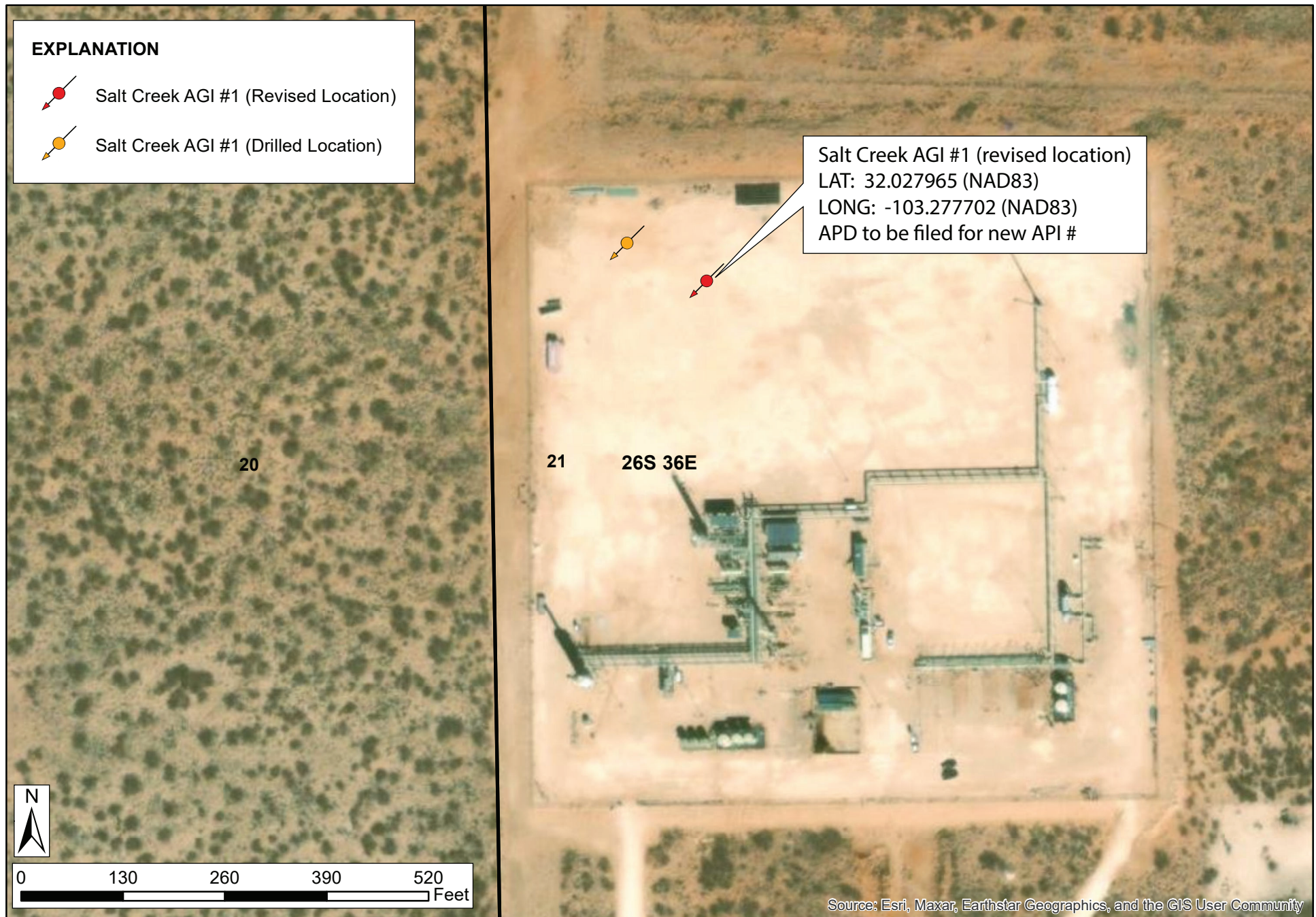


Figure 3. Location map illustrating proposed Salt Creek AGI #1 revised location, approximately 120 feet from plugged AGI location



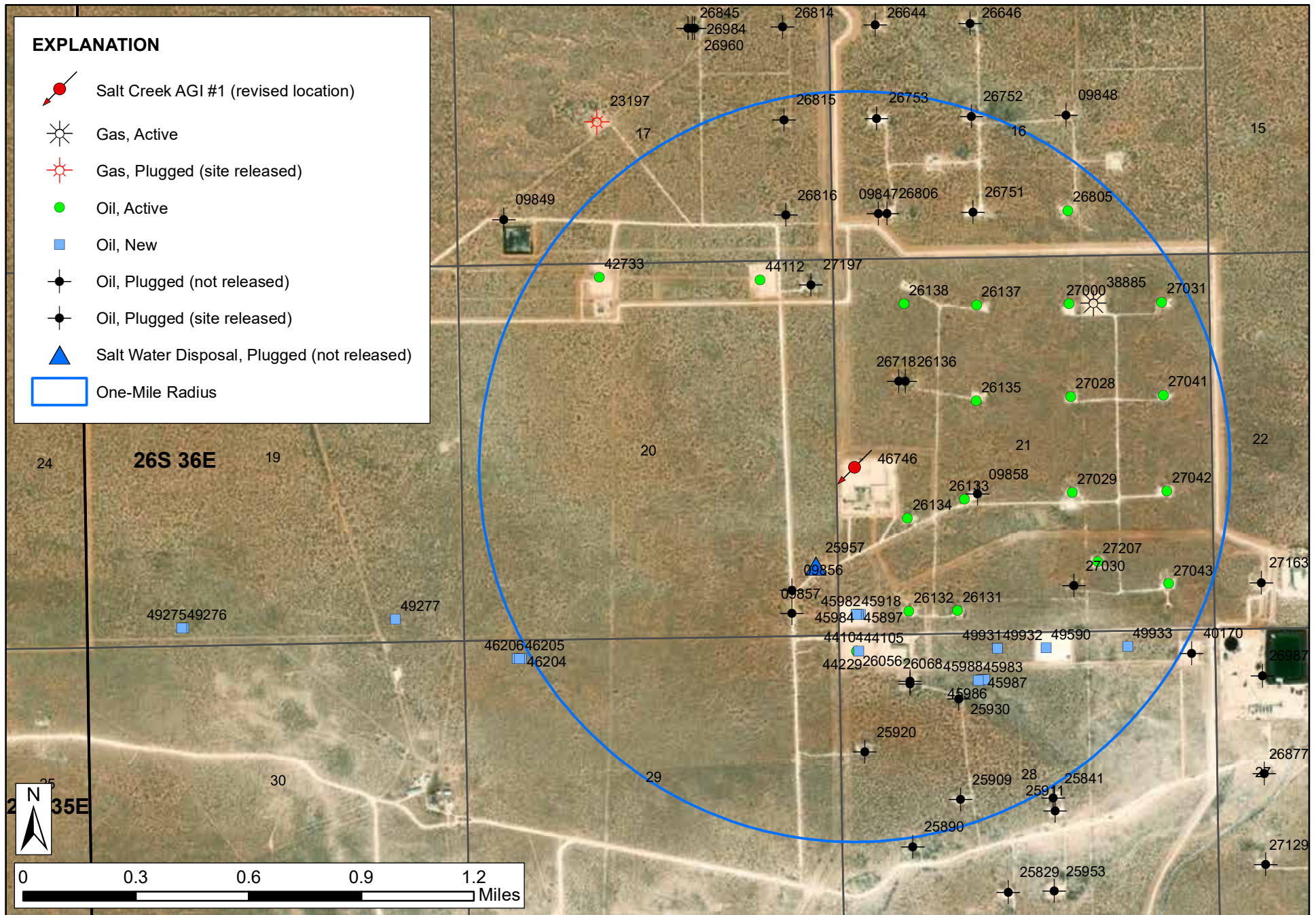


Figure 5. All wells located within one mile of the Salt Creek AGI #1 amended surface location

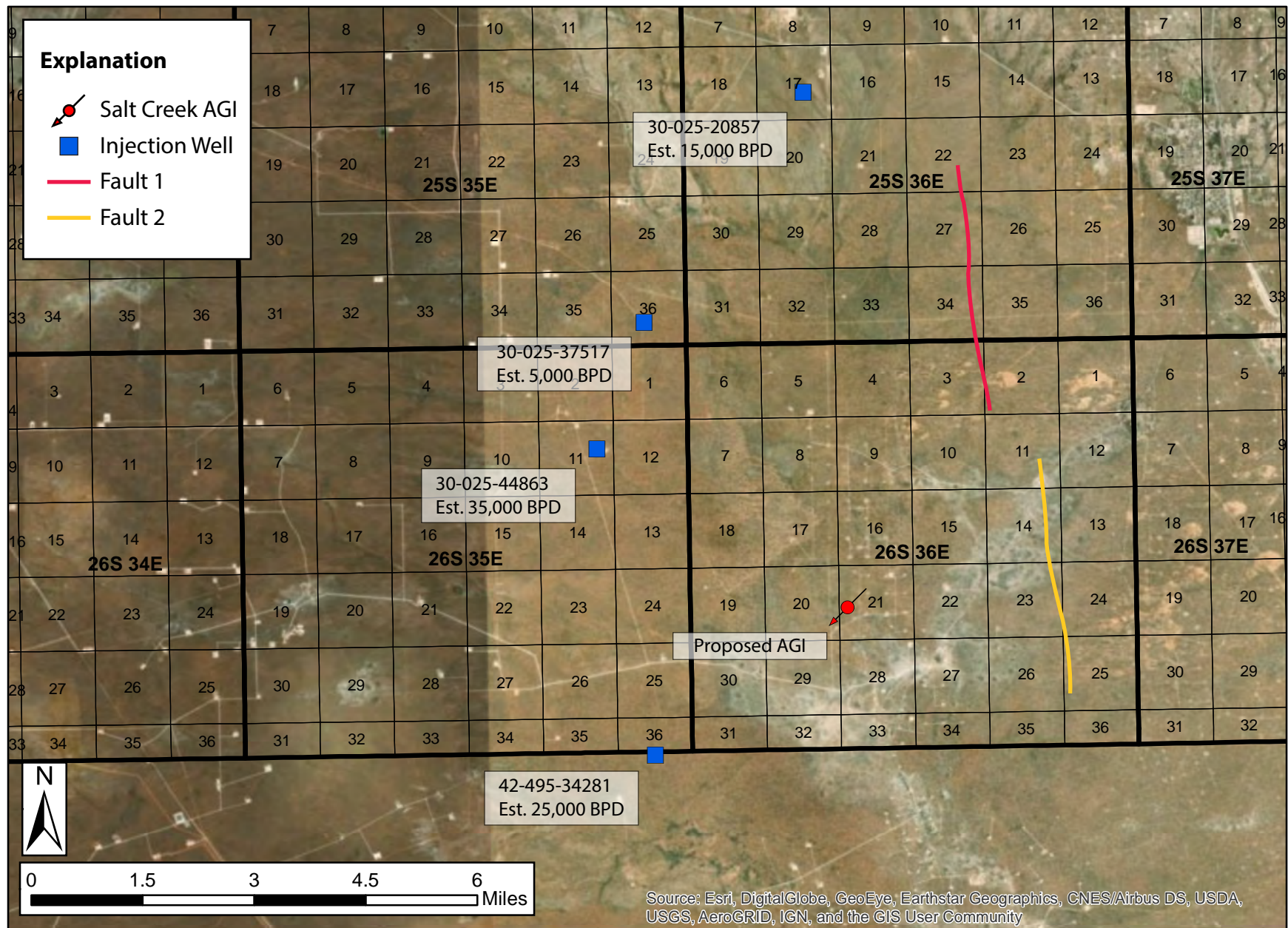
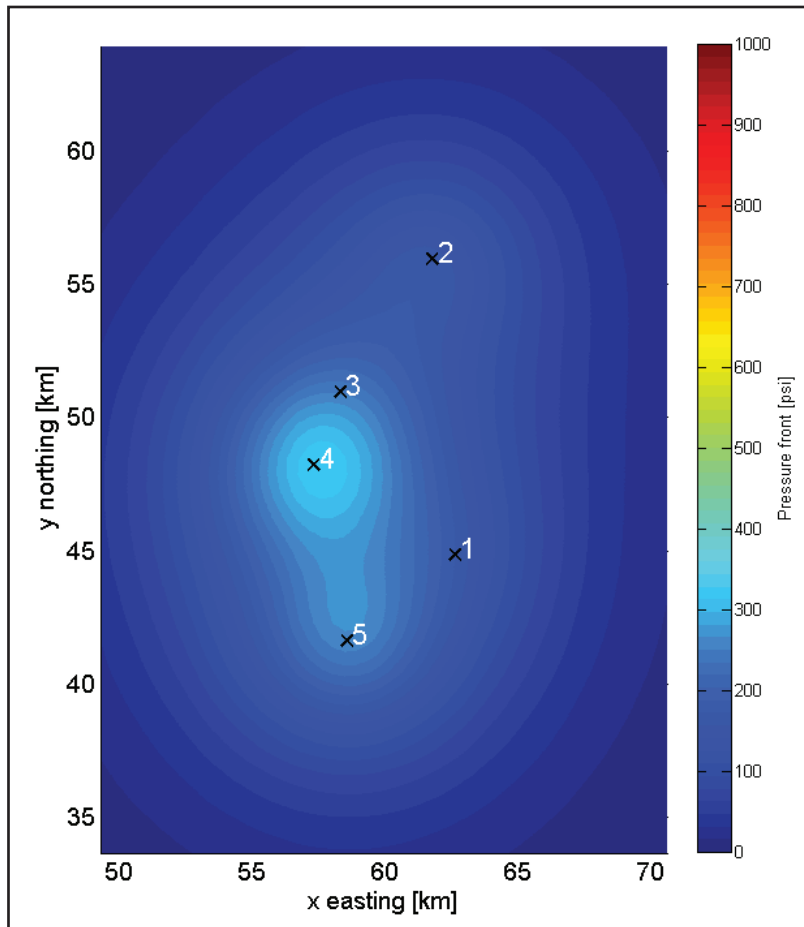


Figure 6. Injection wells and faults identified in the area of Salt Creek AGI #1

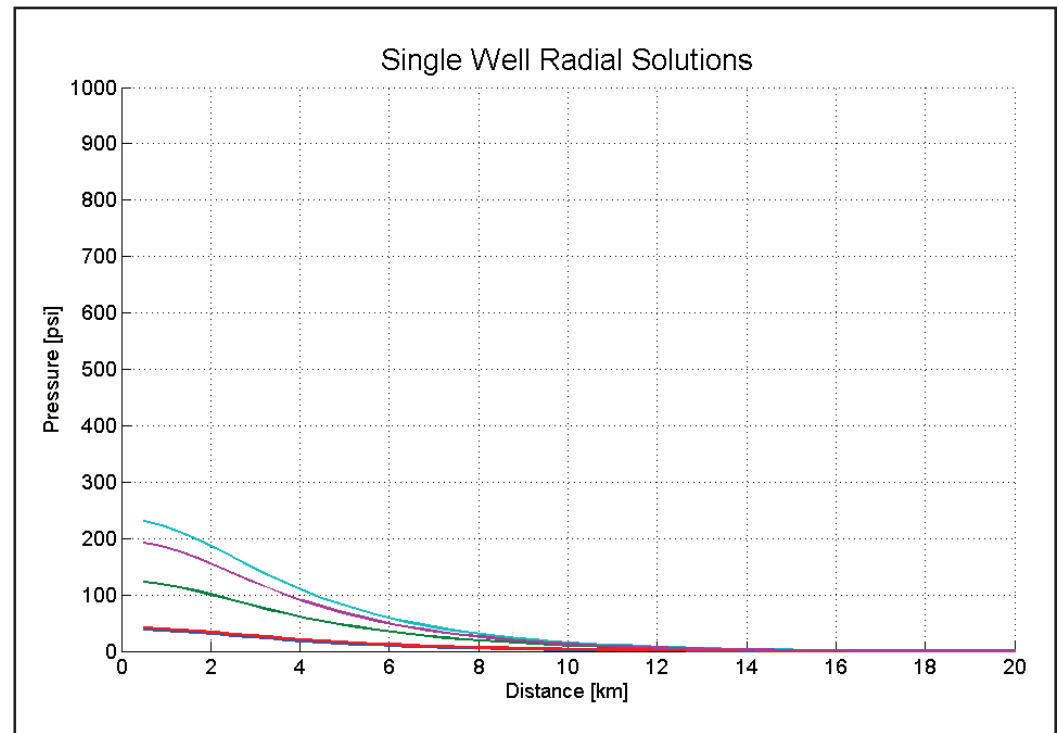


**SALT
CREEK
MIDSTREAM**

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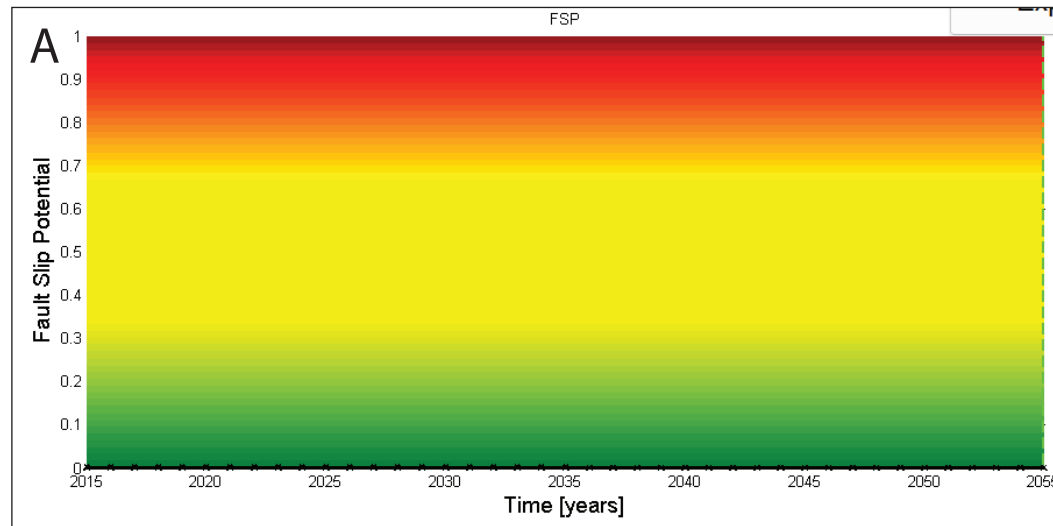


Panel A. Model-predicted pressure front after 30 years of simulation

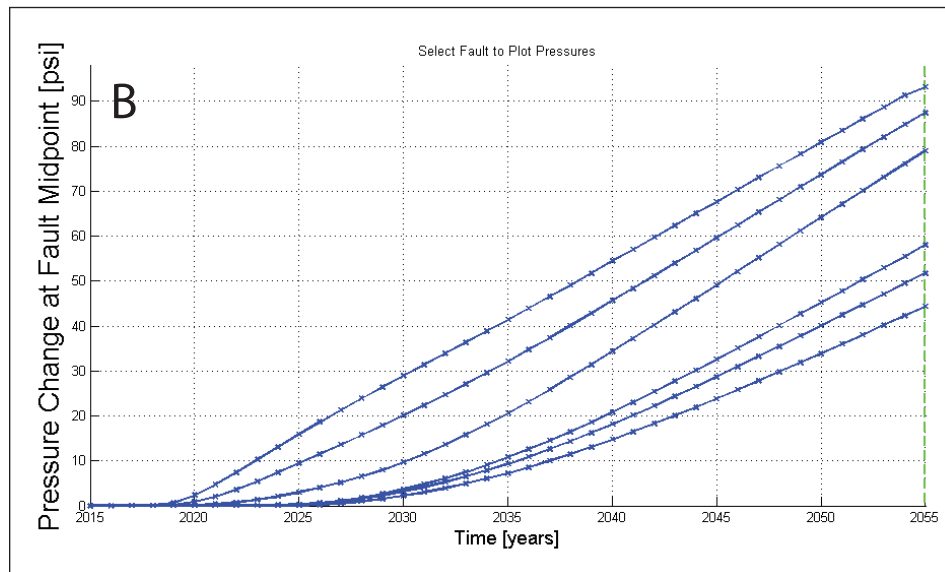


Panel B. Model-predicted radial pressure solution for Wildcat AGI #2

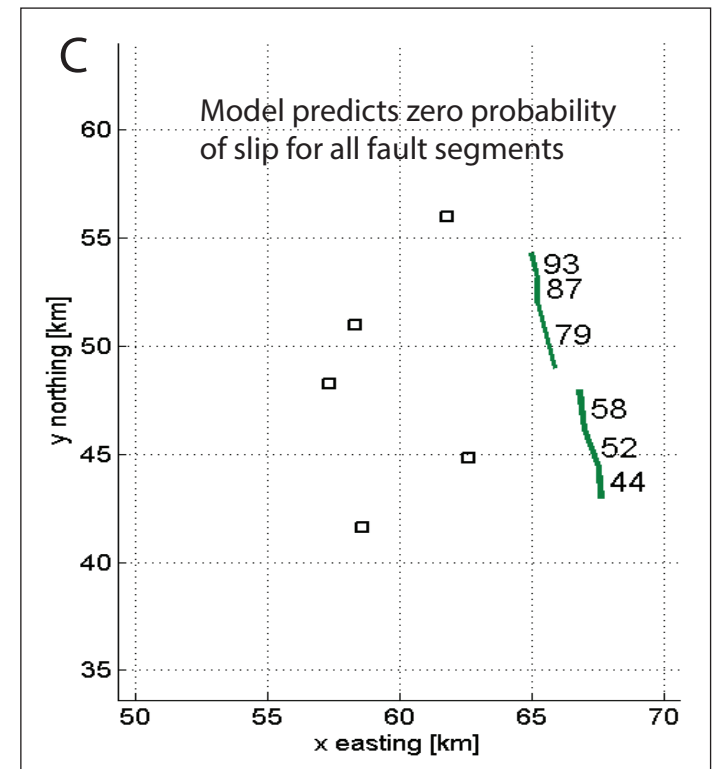
Figure 7. Model-predicted pressure front after 30 years (Panel A) and corresponding well radial pressure solution (Panel B) for the simulated TAG injection scenario. Note the maximum pressure conditions, which are observed near the AGI #1 wellbore, are significantly lower than model-predicted pore pressure increase required to induce slip.



Panel A. Model-predicted slip probability versus time



Panel B. Pressure change along fault midpoints versus time



Panel C. Map view illustrating faults, predicted pressure increase, and resultant slip probability

Figure 8. Summary of model-simulation results, including fault slip potential (Panel A), predicted pore pressure change at fault midpoints (Panel B), and a map view illustrating model-predicted slip potential at the end of the 30-year simulation period. As anticipated, FSP result indicate no potential for injection-induced fault slip in response to the proposed injection scenario.

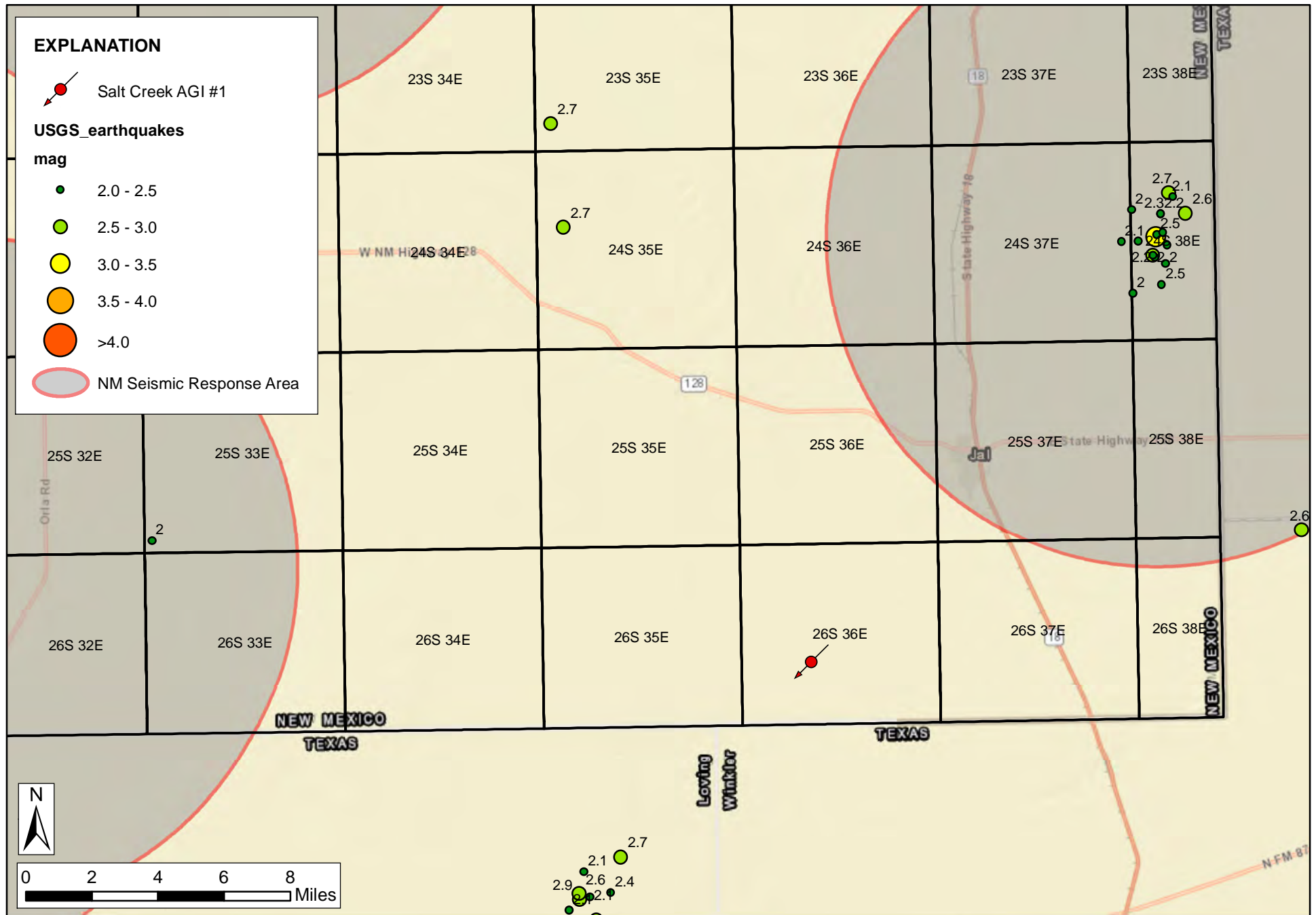


Figure 9. Seismic event history in the area of the Salt Creek AGI #1 well, as documented by USGS records (1973 to present)

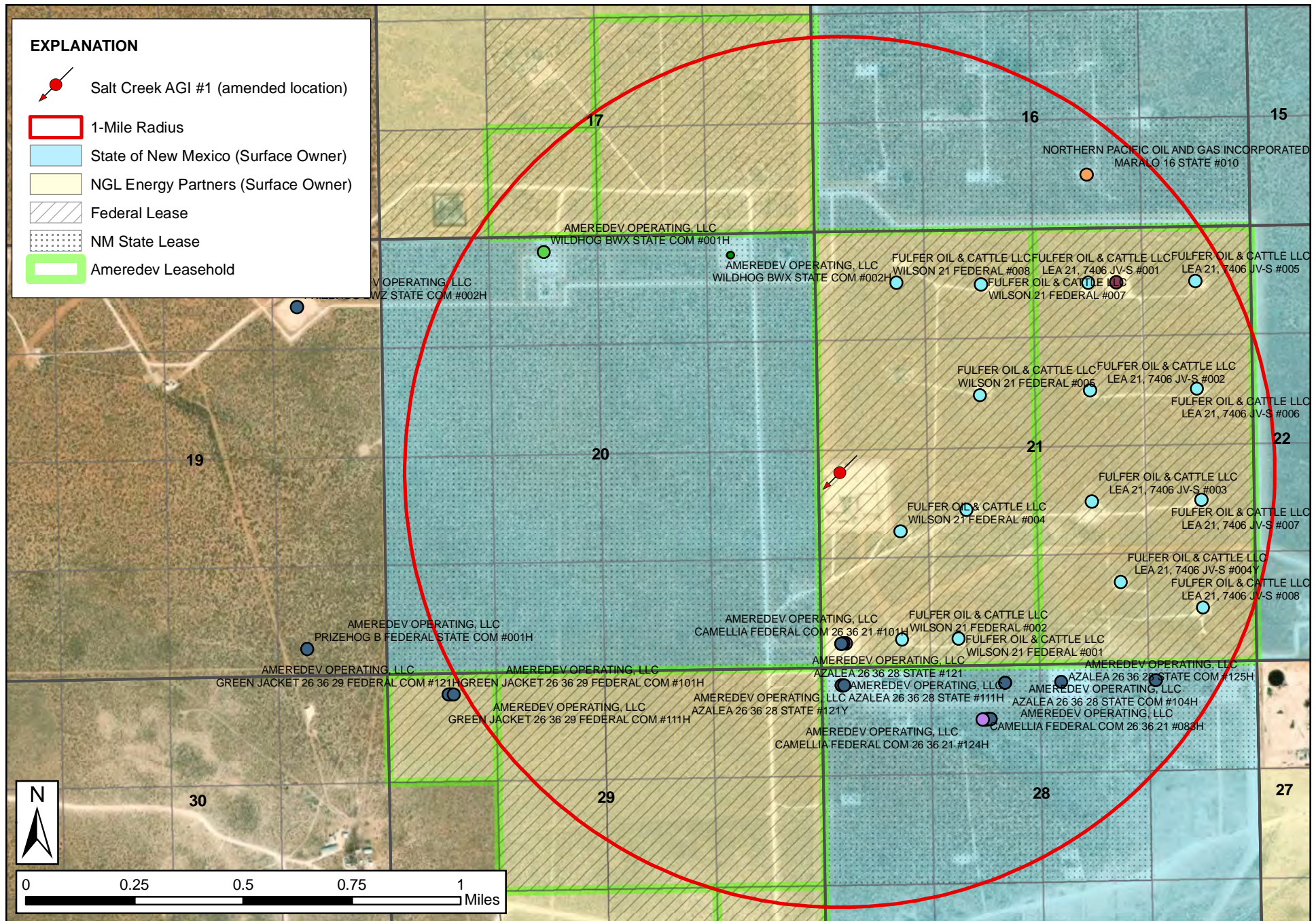


Figure 10. Lessees, operators, and surface ownership within one mile of the proposed Salt Creek AGI #2

APPENDIX A

TABLE A-1. ALL WELLS LOCATED WITHIN TWO MILES OF THE SALT CREEK AGI #1 REVISED SURFACE LOCATION

API	Well Name	Well Type	Well Status	Operator Name	LAT83	LONG83	MD (ft)	Associated Pools	Spud Year	Plug Date	Mi to AGI
3002545984	Camellia Fed Com 26 36 21 #091H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2776	0	Bone Spring	-	-	0.40
3002545982	Camellia Fed Com 26 36 21 #081H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2777	0	Bone Spring	-	-	0.40
3002545837	Camellia Federal Com Com 26 36 #111H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2778	0	Wolfcamp	-	-	0.40
3002545918	Camellia Federal Com Com 26 36 #101H	Oil	New	Ameredev Operating, LLC	32.0223	-103.2778	0	Wolfcamp	-	-	0.40
3002549931	Azalea 26 36 28 State Com #104H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2714	0	Wolfcamp	-	-	0.58
3002549932	Azalea 26 36 28 State Com #123H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2714	0	Wolfcamp	-	-	0.58
3002545983	Camellia Fed Com 26 36 21 #083H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2723	0	Bone Spring	-	-	0.63
3002545985	Camellia Fed Com 26 36 21 #093H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2722	0	Bone Spring	-	-	0.63
3002545986	Camellia Fed Com 26 36 21 #104H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2721	0	Wolfcamp	-	-	0.63
3002545987	Camellia Fed Com 26 36 21 #114H	Oil	New	Ameredev Operating, LLC	32.0197	-103.2721	0	Wolfcamp	-	-	0.63
3002545988	Camellia Fed Com 26 36 21 #124H	Oil	New	Ameredev Operating, LLC	32.0197	-103.272	0	Wolfcamp	-	-	0.63
3002549590	Azalea 26 36 28 State Com #125H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2692	0	Wolfcamp	-	-	0.66
3002549933	Azalea 26 36 28 State Com #127H	Oil	New	Ameredev Operating, LLC	32.0209	-103.2655	0	Wolfcamp	-	-	0.82
3002546204	Green Jacket 26 36 29 Fed Com #101H	Oil	New	Ameredev Operating, LLC	32.0208	-103.293	0	Wolfcamp	-	-	1.08
3002546205	Green Jacket 26 36 29 Fed Com #111H	Oil	New	Ameredev Operating, LLC	32.0208	-103.2931	0	Wolfcamp	-	-	1.08
3002546206	Green Jacket 26 36 29 Fed Com #121H	Oil	New	Ameredev Operating, LLC	32.0208	-103.2932	0	Wolfcamp	-	-	1.09
3002549277	Prizehog B Fed State Com #001H	Oil	New	Ameredev Operating, LLC	32.0224	-103.2987	0	Wolfcamp	-	-	1.35
3002546665	Holly 26 36 05 Fed Com #104H	Oil	New	Ameredev Operating, LLC	32.0507	-103.2902	0	Wolfcamp	-	-	1.75
3002549275	Prizehog A Fed State Com #001H	Oil	New	Ameredev Operating, LLC	32.0222	-103.3083	0	Wolfcamp	-	-	1.90
3002549276	Prizehog A Fed State Com #002H	Oil	New	Ameredev Operating, LLC	32.0222	-103.3084	0	Wolfcamp	-	-	1.90
3002525841	Quanah Parker #er #2	Oil	Plugged	Gifford, Mitchell, &	32.0151	-103.269	284	Comanche	1978	1978	1.00
3002525923		Oil	Plugged	Gifford, Mitchell, &	32.0061	-103.2711	748	Comanche	1978	1978	1.54
3002525954	Horse Back ##4Y #4Y	Oil	Plugged	Gifford, Mitchell, &	32.0059	-103.2711	749	Comanche	1978	1979	1.56
3002525784	Lea 7406 Jv-S ##3	Oil	Plugged	BTA Oil Producers	32.0079	-103.2754	887	Undesignated	1978	1978	1.39
3002544105	Azalea 26 36 28 State #121	Oil	New	Ameredev Operating, LLC	32.0209	-103.2777	994	Wolfcamp	-	-	0.49
3002540169	Big Brave State #1	Oil	Plugged	Northern Pacific Oil & Gas	32.0061	-103.2626	999	Tan-Yates-7Riv-Qu	2011	2018	1.72
3002527030	Lea 21 7406 JV-S	Oil	Plugged	BTA Oil Producers	32.0233	-103.2679	1060	Tansill-Yates	1980	1980	0.61
3002509856	Sand Hills Unit #6	Oil	Plugged	Cities Service Oil Co	32.0233	-103.2807	1247	Wildcat	1959	1960	0.40
3002526960	Wilson 17 Fed #4Y	Oil	Plugged	HNG Oil Company	32.0451	-103.2848	1331	Yates	1980	1980	1.27
3002526056	Lea 7406 JV-S #9	Oil	Plugged	BTA Oil Producers	32.0197	-103.2754	1406	Yates	1978	1978	0.58
3002526645	Maralo SV 16 State #3	Oil	Plugged	Maralo, LLC	32.0487	-103.2722	1576	Yates	1980	1980	1.45
3002526136	Lowe Estate #1	Oil	Plugged	Cayman Corp	32.0313	-103.2754	1682	Yates	1969	1969	0.24
3002526845	Wilson 17 Fed #4	Oil	Plugged	HNG Oil Company	32.0451	-103.285	1950	Yates	1980	1980	1.27
3002527288	Lea Jv 742 #1	Oil	Plugged	BTA Oil Producers	32.0487	-103.2807	2879	Tan-Yates	1981	1981	1.45
3002525778	Quanah Parker #1	Oil	Plugged	Whiting O&G CORPORATION	32.0079	-103.269	3022	Tan-Yates-7Riv-Qu	1978	2005	1.46
3002525924	Horseback #5	Oil	Plugged	Whiting O&G CORPORATION	32.0012	-103.2647	3226	Tan-Yates-7Riv-Qu	1978	2005	1.98
3002525925	Horseback #6	Oil	Plugged	Whiting O&G CORPORATION	32.0043	-103.2647	3228	Tan-Yates-7Riv-Qu	1978	2005	1.78
3002525953	New Mexico Cv State #1	Oil	Plugged	Whiting O&G CORPORATION	32.0115	-103.269	3239	Tan-Yates-7Riv-Qu	1978	2005	1.22
3002525909	Lea 7406 Jv-S #6	Oil	Plugged	BTA Oil Producers	32.0151	-103.2732	3250	Tan-Yates-7Riv-Qu	1978	2009	0.91
3002525662	Horseback #2	Oil	Plugged	Whiting O&G CORPORATION	32.0022	-103.2679	3250	Tan-Yates-7Riv-Qu	1977	2005	1.85
3002525907	Horseback #3	Oil	Plugged	Whiting O&G CORPORATION	32.0049	-103.2687	3255	Tan-Yates-7Riv-Qu	1978	2005	1.66

3002525911	Quannah Parker #2Y	Oil	Plugged	Whiting O&G CORPORATION	32.0146	-103.2689	3258	Tan-Yates-7Riv-Qu	1978	2005	1.03
3002525890	Lea 7406 Jv-S #5	Oil	Plugged	BTA Oil Producers	32.0133	-103.2754	3266	Tan-Yates-7Riv-Qu	1978	1981	1.02
3002525829	Lea 7406 Jv-S #4	Oil	Plugged	BTA Oil Producers	32.0115	-103.2711	3268	Tan-Yates-7Riv-Qu	1978	2009	1.18
3002526068	Lea 7406 Jv-S #9Y	Oil	Plugged	BTA Oil Producers	32.0196	-103.2754	3270	Tan-Yates-7Riv-Qu	1978	2009	0.58
3002525930	Lea 7406 Jv-S #8	Oil	Plugged	BTA Oil Producers	32.019	-103.2732	3270	Tan-Yates-7Riv-Qu	1978	2009	0.65
3002525920	Lea 7406 Jv-S #7	Oil	Plugged	BTA Oil Producers	32.017	-103.2775	3270	Tan-Yates-7Riv-Qu	1978	1984	0.76
3002526044	Horseback #7	Oil	Plugged	Whiting O&G CORPORATION	32.0043	-103.2711	3277	Tan-Yates-7Riv-Qu	1978	2005	1.67
3002526131	Wilson 21 Fed #1	Oil	Active	Fulfer Oil & Cattle	32.0224	-103.2732	3340	Tan-Yates-7Riv-Qu	1978	-	0.44
3002509842	Sand Hills Unit #8	Oil	Plugged	Cities Service Oil Co	32.0532	-103.2925	3348	Wildcat	1960	1960	1.97
3002509857	Sand Hills Unit #6A	Oil	Plugged	Cities Service Oil Co	32.0224	-103.2807	3349	Wildcat	1959	1960	0.45
3002525702	Lea 7406 Jv-S #2	Oil	Plugged	BTA Oil Producers	32.0079	-103.2711	3349	Tan-Yates-7Riv-Qu	1977	2009	1.42
3002526048	New Mexico Cv State #2	Oil	Plugged	Whiting O&G CORPORATION	32.0079	-103.2647	3400	Tan-Yates-7Riv-Qu	1978	2004	1.55
3002525957	Lea 20 #1	SWD	Plugged	Chance Properties	32.0242	-103.2796	3420	SWD, Capitan	1978	2021	0.31
3002509849	Sand Hills Unit #7	Oil	Plugged	Cities Service Oil Co	32.0378	-103.2935	3471	Wildcat	1959	1960	1.20
3002527041	Lea 21, 7406 Jv-S #6	Oil	Active	Fulfer Oil & Cattle	32.0306	-103.2637	3495	Tan-Yates-7Riv-Qu	1980	-	0.78
3002526132	Wilson 21 Fed #2	Oil	Active	Fulfer Oil & Cattle	32.0224	-103.2754	3500	Tan-Yates-7Riv-Qu	1979	-	0.39
3002527042	Lea 21, 7406 Jv-S #7	Oil	Active	Fulfer Oil & Cattle	32.0269	-103.2636	3525	Tan-Yates-7Riv-Qu	1980	-	0.77
3002526987	Buffalo Hump #2	Oil	Plugged	Whiting O&G CORPORATION	32.0197	-103.2594	3545	Tan-Yates-7Riv-Qu	1980	2005	1.17
3002527207	Lea 21, 7406 Jv-S #4Y	Oil	Active	Fulfer Oil & Cattle	32.0242	-103.2668	3550	Tan-Yates-7Riv-Qu	1981	-	0.64
3002527163	American Eagle #1	Oil	Plugged	Whiting O&G CORPORATION	32.0233	-103.2594	3550	Tan-Yates-7Riv-Qu	1981	2005	1.07
3002527127	Buffalo Hump #5	Oil	Plugged	Whiting O&G CORPORATION	32.0124	-103.2551	3554	Tan-Yates-7Riv-Qu	1980	2005	1.66
3002527128	Buffalo Hump #6	Oil	Plugged	Whiting O&G CORPORATION	32.0088	-103.2551	3564	Tan-Yates-7Riv-Qu	1980	2005	1.83
3002527043	Lea 21, 7406 Jv-S #8	Oil	Active	Fulfer Oil & Cattle	32.0233	-103.2636	3570	Tan-Yates-7Riv-Qu	1981	-	0.83
3002527029	Lea 21, 7406 Jv-S #3	Oil	Active	Fulfer Oil & Cattle	32.0269	-103.2679	3574	Tan-Yates-7Riv-Qu	2010	-	0.52
3002526134	Wilson 21 Fed #4	Oil	Active	Fulfer Oil & Cattle	32.026	-103.2754	3575	Tan-Yates-7Riv-Qu	1979	-	0.16
3002526877	Buffalo Hump #1	Oil	Plugged	Whiting O&G CORPORATION	32.0159	-103.2594	3585	Tan-Yates-7Riv-Qu	1980	2005	1.31
3002526984	Wilson 17 Fed #42	Oil	Plugged	HNG Oil Company	32.0451	-103.2847	3603	Tan-Yates-7Riv	1980	1982	1.27
3002527129	Buffalo Hump #8	Oil	Plugged	Whiting O&G CORPORATION	32.0124	-103.2594	3606	Tan-Yates-7Riv-Qu	1980	2005	1.48
3002527094	Buffalo Buffalo 3 Hump #3	Oil	Plugged	RR Cagle	32.0197	-103.2546	3608	Comanche	1980	1982	1.42
3002526979	Iron Mountain #1	Oil	Plugged	RR Cagle	32.0052	-103.2594	3624	Tan-Yates-7Riv-Qu	1980	1982	1.87
3002526717	Wilson 9 Fed #6	Oil	Plugged	HNG Oil Company	32.0523	-103.2679	3650	Tan-Yates-7Riv	1980	1982	1.75
3002527028	Lea 21, 7406 Jv-S #2	Oil	Active	Fulfer Oil & Cattle	32.0306	-103.2679	3658	Tan-Yates-7Riv-Qu	1980	-	0.55
3002527031	Lea 21, 7406 Jv-S #5	Oil	Active	Fulfer Oil & Cattle	32.0342	-103.2637	3660	Tan-Yates-7Riv-Qu	1980	-	0.87
3002527000	Lea 21, 7406 Jv-S #1	Oil	Active	Fulfer Oil & Cattle	32.0342	-103.2679	3668	Tan-Yates-7Riv-Qu	1980	-	0.67
3002527197	Lea Jv 7426 #2	Oil	Plugged	BTA Oil Producers	32.0351	-103.2796	3670	Tan-Yates-7Riv-Qu	1981	1982	0.52
3002526259	Wilson 9 Fed #3	Oil	Plugged	HNG Oil Company	32.0523	-103.2722	3684	Tan-Yates-7Riv	1980	1982	1.69
3002526138	Wilson 21 Fed #8	Oil	Active	Fulfer Oil & Cattle	32.0343	-103.2754	3700	Tan-Yates-7Riv-Qu	1980	-	0.44
3002526137	Wilson 21 Fed #7	Oil	Active	Fulfer Oil & Cattle	32.0342	-103.2721	3700	Tan-Yates-7Riv-Qu	1980	-	0.51
3002526816	Wilson 17 Fed	Oil	Plugged	HNG Oil Company	32.0378	-103.2807	3700	Tan-Yates-7Riv	1980	1982	0.71
3002526815	Wilson 17 Fed #2	Oil	Plugged	HNG Oil Company	32.0415	-103.2807	3700	Tan-Yates-7Riv	1980	1982	0.96
3002526253	Wilson 8 Fed #7	Oil	Plugged	HNG Oil Company	32.0529	-103.2844	3700	Tan-Yates-7Riv	1980	1982	1.77
3002526260	Wilson 9 Fed #4	Oil	Plugged	HNG Oil Company	32.056	-103.2722	3700	Tan-Yates-7Riv	1980	1982	1.95
3002526251	Wilson 8 Fed #5	Oil	Plugged	HNG Oil Company	32.0564	-103.2844	3700	Tan-Yates-7Riv	1980	1982	2.01
3002526254	Wilson 9 Fed #1	Oil	Plugged	HNG Oil Company	32.056	-103.2765	3730	Tan-Yates-7Riv	1979	1982	1.93

3002526718	Wilson 21 Fed 6Y	Oil	Plugged	HNG Oil Company	32.0313	-103.2757	3750	Tan-Yates-7Riv-Qu	1980	1986	0.23
3002526752	Maralo 16 State #08	Oil	Plugged	Northern Pacific Oil & Gas	32.0415	-103.2722	3750	Tan-Yates-7Riv	1980	2018	0.97
3002526644	Maralo 16 State #02	Oil	Plugged	Northern Pacific Oil & Gas	32.0451	-103.2765	3770	Tan-Yates-7Riv	1980	2018	1.18
3002526646	Maralo 16 State #04	Oil	Plugged	Northern Pacific Oil & Gas	32.0451	-103.2722	3780	Tan-Yates-7Riv	1980	2018	1.21
3002526249	Wilson 8 Fed #3	Oil	Plugged	HNG Oil Company	32.056	-103.2807	3795	Tan-Yates-7Riv	1979	1982	1.94
3002526133	Wilson 21 Fed #3	Oil	Active	Fulfer Oil & Cattle	32.0267	-103.2728	3797	Tan-Yates-7Riv-Qu	1979	-	0.25
3002526135	Wilson 21 Fed #5	Oil	Active	Fulfer Oil & Cattle	32.0305	-103.2722	3800	Tan-Yates-7Riv-Qu	1979	-	0.32
3002526805	Maralo 16 State #10	Oil	Active	Northern Pacific Oil & Gas	32.0378	-103.2679	3800	Tan-Yates-7Riv	1980	-	0.85
3002526806	Maralo 16 State #6Y	Oil	Plugged	Northern Pacific Oil & Gas	32.0378	-103.2761	3800	Tan-Yates-7Riv	1980	2018	0.68
3002526751	Maralo 16 State #07	Oil	Plugged	Draco Energy, Inc.	32.0378	-103.2722	3800	Tan-Yates-7Riv	1980	2003	0.73
3002526753	Maralo 16 State #09	Oil	Plugged	Northern Pacific Oil & Gas	32.0415	-103.2765	3800	Tan-Yates-7Riv	1980	2018	0.93
3002526814	Wilson 17 Fed #1	Oil	Plugged	HNG Oil Company	32.0451	-103.2807	3800	Tan-Yates-7Riv	1980	1982	1.20
3002526546	Maralo 16 State #01	Oil	Plugged	RMR Operating, LLC	32.0487	-103.2765	3800	Tan-Yates-7Riv	1979	2012	1.43
3002526922	Maralo 16 State #3Y	Oil	Plugged	Draco Energy, Inc.	32.0486	-103.2722	3800	Tan-Yates-7Riv	1980	2003	1.44
3002526258	Wilson 9 Fed #2	Oil	Plugged	HNG Oil Company	32.0523	-103.2765	3800	Tan-Yates-7Riv	1979	1986	1.67
3002540170	Good Chief State #1	Oil	Plugged	Northern Pacific Oil & Gas	32.0206	-103.2626	3873	Tan-Yates-7Riv-Qu	2011	2018	0.97
3002509858	Federal #1	Oil	Plugged	Roy Smith Drilling	32.0269	-103.2722	3940	Wildcat	1962	1962	0.27
3002509848	Maralo 16 State #05	Oil	Plugged	Draco Energy, Inc.	32.0415	-103.2679	4149	Tan-Yates-7Riv	1951	2003	1.06
3002545897	Camellia Fed Com 26 36 21 #121H	Oil	Active	Ameredev Operating, LLC	32.0223	-103.2777	22641	Wolfcamp	-	-	0.40
3002544104	Azalea 26 36 28 State #111H	Oil	Active	Ameredev Operating, LLC	32.0209	-103.2778	18993	Wolfcamp	2017	-	0.49
3002544229	Azalea 26 36 28 State #121Y	Oil	Active	Ameredev Operating, LLC	32.0209	-103.2778	19469	Wolfcamp	2017	-	0.49
3002544112	Wildhog BWX State Com #002H	Oil	Active	Ameredev Operating, LLC	32.0353	-103.2819	16659	Wolfcamp	2018	-	0.59
3002509847	Maralo SV 16 State #6	Oil	Plugged	Maralo, LLC	32.0378	-103.2765	11492	Yates	1958	1981	0.68
3002538885	Eagle Feather Fed #2	Gas	Active	Ameredev Operating, LLC	32.0342	-103.2668	13179	Strawn	2008	-	0.72
3002542733	Wildhog BWX State Com #001H	Oil	Active	Ameredev Operating, LLC	32.0355	-103.2892	17244	B Spring, Wlfcmp	2015	-	0.90
3002523197	South Lea Fed #1	Gas	Plugged	Energen Resources	32.0415	-103.2892	21252	Strawn, Devonian	1969	2015	1.18
3002526557	Pawnee Deep Unit #1	Oil	Plugged	Heritage Resources	32.0315	-103.2541	18577	DMG, B. Spring, Strwn	1979	2014	1.35
3002544111	Prizehog BWZ State Com #002H	Oil	Active	Ameredev Operating, LLC	32.0338	-103.2989	17188	Wolfcamp	2018	-	1.36
3002544810	Magnolia 26 36 22 State Com #125H	Oil	Active	Ameredev Operating, LLC	32.0226	-103.2521	22108	Wolfcamp	-	-	1.49
3002509843	Sand Hills Unit #3	Oil	Plugged	Sinclair Oil & Gas Co.	32.0523	-103.285	5500	Wildcat	1957	1957	1.74
3002525354	#001	Oil	Plugged	Gifford, Mitchell, &	32.0031	-103.2679	21750	Wildcat	1976	1977	1.79
3002542744	Prizehog BWZ State Com #001H	Oil	Active	Ameredev Operating, LLC	32.0351	-103.3074	17417	B Spring, Wlfcmp	2015	-	1.87
3002524719	Dogie Draw Fed #1	Oil	Plugged	HNG Oil Company	32.056	-103.285	20971	Wildcat	1974	1975	1.99

OK

Form 9-381a
(Feb. 1954)

APPROVED

NOV 19 1957

H. A. DUPOUT
DISTRICT ENGINEER

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R288.4
Approval expires 12-31-60.

Land Office **Las Cruces**
Lease No. **LC-069213**
Unit **Sand Hills Unit**

RECEIVED

AUG 23 1957

SUNDRY NOTICES AND REPORTS ON WELLS

U.S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

August 22, 1957

Well No. **3** is located **660** ft. from **XX** line and **1980** ft. from **E** line of sec. **8**

SE 1/4 Sec 8 **26S** **36E** **NMPM**

(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Wildcat **Las** **New Mexico**

(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **2978** ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

8-22-57: 5500' Total Depth. Plugged and Abandoned.
Filled hole with heavy mud. Set 25 sack cement plug from 521 1/4' - 5280', 25 sack cement plug from 35 3/4' - 3600', 25 sack cement plug from 308 1/4' - 3150', 25 sack cement plug from 163 1/4' - 1700', 25 sack cement plug from 53 1/4' - 600', and set 4" Regulation Marker extending 4' above surface level in 15 sacks cement in top of 10-3/4" Casing and bottom of cellar.

*Inspected Location 11-4-57 (Sign on marker)
OK (very clear).
NLS*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **Sinclair Oil & Gas Company**

Address **520 East Broadway**

Hobbs, New Mexico

By *CG Luter*

Title **District Superintendent**

Orig 3cc:UBGS
cc:PHR, HPD, File

SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

5a. Indicate Type of Lease

State ☒ Fee ☐

5. State Oil & Gas Lease No.

SUNDY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL ☐ GAS WELL ☐

OTHER- Re-entry

Name of Operator

Maralo, Inc.

Address of Operator

P. O. Box 832, Midland, Texas 79702

Location of Well

 UNIT LETTER M 660 FEET FROM THE South LINE AND 660 FEET FROM
 THE West LINE, SECTION 16 TOWNSHIP 26-S RANGE 36-E NMPM.

7. Unit Agreement Name

8. Farm or Lease Name

Maralo "16" State

9. Well No.

6

10. Field and Pool, or Wildcat

Sioux Yates

15. Elevation (Show whether DF, RT, CR, etc.)

2946' GL

12. County

Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐TEMPORARILY ABANDON ☐ILL OR ALTER CASING ☐OTHER ☐PLUG AND ABANDON ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☒COMMENCE DRILLING OPNS. ☐CASING TEST AND CEMENT JOB ☐OTHER ☐ALTERING CASING ☐PLUG AND ABANDONMENT ☒

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work.) SEE RULE 1103.

Commenced operations 2-29-80 - Dug out cellar and removed 4" marker. Welded on 13 3/8" csg. Installed cellar. Installed BOP. Drld. 5' cement plug to open casing. Tagged plug @ 188'. Washed to 278' open hole to 600'. Drld. Washed to 679'. Checked for leak is csg. - 15' from surface. Squeezed w/50 sx Class C 50% Calseal.WOC 3 hrs. Drod. out cement. Washed & circ. hold clean. Ran 5 stands to bottom 963'. Washed and cleaned to top of 9 5/8" csg. to 1004'. Circ'd hole clean. Tagged 9 5/8" csg. @ 1006'. POH. Lay down 6 - 4 3/4" DC, subs and 11" bit. WIH w/2 7/8" 8 rd upset N-80 tbg. to bottom of 13 3/8" csg. Rigged down reverse unit. SDON Ran tbg. open ended to 1005'. Sptd. 65 sx Class C cement 2% CaCl2. Lay down 10 jts. 2 7/8" tbg. to 686'. Spotted 60 sx Class C cement 2% CaCl2. TOC @ 636'. Spotted 50 sx Class C cement 2% CaCl2 @ 636' 75' plug to 561'. Lay down all tbg. Plug top of 13 3/8" casing. 10' cement. Installed dry hole marker. Well plugged & abandoned 3-16-80
Pits have been filled and location levelled and cleared of junk.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

by Brenda Coffman

TITLE Production Clerk

DATE 6-5-81

by Ronald Castleberry

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Form 9-331
(May 1963)UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM18644

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1.

OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

HNG Oil Company

3. ADDRESS OF OPERATOR

P. O. Box 2267, Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)

At surface

1980' FSL & 1980' FEL, Sec. 8, T26S, R36E, NMPM

7. UNIT AGREEMENT NAME

Dogie Draw Federal

8. FARM OR LEASE NAME

Dogie Draw Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREASec. 8, T26S, R36E,
NMPM

12. COUNTY OR PARISH

Lea

13. STATE

New Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

2907.8'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

12-19-74 to 3-13-75: Spotted 42 sks Cl H cmt from 20,313 to 19,563'. Set CIBP at 19,000'. Squeezed Fusselman perms 18,410-18,430' w/200 sks Cl H. Squeezed Fusselman perms 18,029-18,051' w/150 sks Cl H. Squeezed Devonian perms 17,248-17,260' w/150 sks Cl H. Squeezed Strawn perms 12,576-12,617' w/100 sks Cl H. Squeezed Bone Springs perms 10,646-10,655' w/200 sks Cl H. 4-24-75 - Shot 9-5/8" casing at 4300' & pulled 4280' of same.

4-26-75 - Spotted 100 sks Cl H cmt 6540' to 6820'; spotted 100 sks Cl H 4818 to 5100'; spotted 100 sks Cl H 4181 to 4317'.

4-27-75 - Spotted 100 sks Cl H 3218' to 3354'; spotted 100 sks 2536' to 2672'; spotted 100 sks Cl H 1611' to 1747'; Spotted 20 sks Cl H in top of surface and installed 4" well marker. Cleaned location.

18. I hereby certify that the foregoing is true and correct

SIGNED

H. G. Livingston, Jr.

TITLE Petroleum Engineer

DATE 5-29-75

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

ACCEPTED FOR RECORD

JUL 30 1975

U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO REOPEN OR PLUG A WELL TO A DIFFERENT RESERVOIR. USE APPLICATION FOR PERMIT TO DRILL OR REOPEN CASES FOR SUCH PROPOSALS.)

1. ☐ OIL WELL ☒ GAS WELL ☐ OTHER-

2. Name of Operator
Gifford, Mitchell & Wisenbaker

3. Address of Operator
P.O. Box 7040 Midland, Texas 79703

4. Location of Well
UNIT LETTER G 1000 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 33 TOWNSHIP 26S RANGE 36E NMPM.

5. Elevation (Show whether DF, RT, GR, etc.)
2898.7' GL

5a. Indicate Type of Lease
State ☒ Free ☐

5. State Oil & Gas Lease No.
L 6379

7. Unit Agreement Name
Horse Back-Pennsylvania Gas Pool

6. Farm or Lease Name
Horse Back

9. Well No.
1

10. Field and Pool, or Wildcat
wildcat

12. County
Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	
		OTHER <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Plug #1 - 21,650'-21,000' (650')- 100 sacks Class H cement & 35% silica flour & 1.4% HR-12.
Halliburton - 5/21/77

Plug #2 - 19,350'-18,700' (650')-100 sacks Class H cement & 35% silica flour & 1.4% HR-12.
Halliburton - 5/21/77

Plug #3 - 18,074'-17,424' (650')-100 sacks Class H cement & 35% silica flour & 1.0% HR-12.
Halliburton - 5/21/77

Plug #4 - 13,265'-13,115' (150')-75 sacks Class H cement % 0.3% HR-7.
Halliburton - 5/21/77

Plug #5 - 9-5/8" cast iron bridge plug set at 12,800'.

Plug #6 - 9-5/8" cast iron bridge plug set at 11,940; 20' cement plug on top of bridge plug.

Plug #7 - Cement retainer at 9650'. 200 sacks Class H cement from 9650' to 9962' (312').
Dropped 4 bbls cement on top of cement retainer.
Halliburton - 10/3/77 (See additional plugs on attached sheet)

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED EK West TITLE Drilling Consultant DATE 10/17/77

APPROVED BY Eddie W. Seay TITLE OIL & GAS INSPECTOR DATE JAN 2 1980

CONDITIONS OF APPROVAL, IF ANY:

OK

Form 9-381a
(Feb. 1954)

APPROVED

NOV 19 1957

H. A. DUPOUT
DISTRICT ENGINEER

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R288.4
Approval expires 12-31-60.

Land Office **Las Cruces**
Lease No. **LC-069213**
Unit **Sand Hills Unit**

RECEIVED

AUG 23 1957

SUNDRY NOTICES AND REPORTS ON WELLS

U.S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

August 22, 1957

Well No. **3** is located **660** ft. from **XX** line and **1980** ft. from **E** line of sec. **8**

SE 1/4 Sec 8 **26S** **36E** **NMPM**

(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Wildcat **Las** **New Mexico**

(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **2978** ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

8-22-57: 5500' Total Depth. Plugged and Abandoned.
Filled hole with heavy mud. Set 25 sack cement plug from 521 1/4' - 5280', 25 sack cement plug from 35 3/4' - 3600', 25 sack cement plug from 308 1/4' - 3150', 25 sack cement plug from 163 1/4' - 1700', 25 sack cement plug from 53 1/4' - 600', and set 4" Regulation Marker extending 4' above surface level in 15 sacks cement in top of 10-3/4" Casing and bottom of cellar.

*Inspected Location 11-4-57 (Sign on marker)
OK (very clear).
NLS*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **Sinclair Oil & Gas Company**

Address **520 East Broadway**

Hobbs, New Mexico

By *CG Luter*

Title **District Superintendent**

Orig 3cc:UBGS
cc:PHR, HPD, File

Form 3160-5
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**5. Lease Serial No.
NMNM18644

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
SOUTH LEA FEDERAL 0019. API Well No.
30-025-2319710. Field and Pool, or Exploratory
PAWNEE STRAWN; 9704011. County or Parish, and State
LEA COUNTY, NM

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

ENERGEN RESOURCES CORPORATION

Contact: BRENDA F RATHJEN

Email: brenda.rathjen@energen.com

3a. Address

3510 NORTH "A" STREET BLGS A & B
MIDLAND, TX 79705

3b. Phone No. (include area code)

Ph: 432-688-3323

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 17 T26S R36E Mer NMP NESW 1980FSL 1980FWL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NAT

TYPE OF SUBMISSION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture☐ New Construction☒ Plug and Abandon☐ Plug BackE-PERMITTING <SWD>
CONVERSION
RETURN TO
CSNG
INT TO PA
ENVIRO
P&A NR
INJECTION
RBDMS
TA
CHG LOC
P&A R☐ Temporarily Abandon☐ Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

ATTACHED IS THE P&A PROCEDURE AS SUBMITTED FROM THE PLUGGING COMPANY FOR THE SOUTH LEA FEDERAL #1.

THANK YOU.

Accepted as to plugging of the well bore.
Liability under bond is retained until
Surface restoration is completed.

12-17-15

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #309836 verified by the BLM Well Information System
For ENERGEN RESOURCES CORPORATION, sent to the Hobbs
Committed to AFMSS for processing by LINDA JIMENEZ on 08/31/2015 ()

Name (Printed/Typed) BRENDA F RATHJEN

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 07/21/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

MAR/10CD
12/22/2015

DEC 31 2015

11/4/16

Form 3160-5
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.*
SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Lease Serial No. NMNM18644
2. Name of Operator Energen Resources Corporation		6. If Indian, Allottee or Tribe Name
3a. Address 3510 N. 'A' St, Bldg A&B Midland, TX 79705		7. If Unit of CA / Agreement, Name and/or No.
3b. Phone No. (include area code) 432-688-3323		8. Well Name and No. South Lea Federal 001
4. Location of (Footage, Sec., T., R., or Survey Description) Sec 17 T26S R36E Mer NMP NESW 1980 FSL 1980FWL		9. API Well No. 30-025-23197
		10. Field and Pool, or Exploratory Area Pawnee Strawn; 97040
		11. County or Parish, State Lea, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the bond No. on file with the BLM / BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

SEE ATTACHED

14. I hereby certify that the following is true and correct	
Name Brenda Frathgen - Energen Resources - Regulatory Analyst - 7/13/15 432-688-3323	Title P&A Tech
Signature Greg Bryant	Date 6/20/15
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved by	Title
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office
Title 18 U.S.C., Section 1001 and Title 43 U.S.C., Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	

ACCEPTED FOR RECORD

DEC 9 2015

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Energen Resources – South Lea Federal 001 – 30-025-23197

Subsequent Report of Plug and Abandonment

4/8/15---MIRU

4/9/15---RIH w/ WL & Tag in Tbg @ 12,675'

4/10/15---Unset PKR & start to POOH w/ 2½" Tbg, total of 180 stands so far, PKR depth was 10,436'

4/11/15---Finish POOH w/ Tbg, total of 195 stands (12,347' EOT). RIH w/ gauge ring to 12,630'. Pat @ BLM OK'd to set 5" CIBP @ 12,500' tomorrow

4/14/15---Set 5" CIBP @ 12,500'. RIH Tbg, kept getting behind liner @ 10,510'

4/15/15---Still cannot get inside liner, POOH. RIH w/ mule shoe, tag CIBP @ 12,500'. Spot 40sx H cmt @ 12,500' to CTOC 12,055'

4/16/15---POOH Tbg. RIH w/ 5" model R PKR & set @ 10,574'. RIH WL to perf @ 11,560' – WL stuck @ 11,500'

4/17/15---Still cannot get WL free. Set off perf charges @ 11,500'

4/20/15---Cut WL & POOH w/ 5000' line. Able to pump down line through Tbg – Sqz 80sx cmt @ 11,500' to CTOC 11,316'. SIW on slight vacuum.

4/21/15---Test below PKR, holding 750#. RIH WL & cannot get past 5,038'. Attempt to POOH w/ PKR, stuck inside 5" liner, worked pipe, still stuck.

4/23/15---Cut Tbg @ 5,044' & POOH. RIH w/ perf sub to 5,044', back off @ 8,250', POOH.

4/27/15---RIH PKR to 4,432', test well, holding 1300#, POOH

4/28/15---RIH w/ 2½" Tbg & corkscrew wireline catch to 8,105', tried retrieving wireline & Tbg parted @ 7,472'. POOH Tbg.

4/29/15---RIH 7" gauge ring to 2,281'. RIH w/ overshot – POOH w/ 77 jts of Tbg and overshot.

4/30/15---Tag w/ 2½ Tbg @ 4,793'

5/1/15---Cannot catch fish, POOH Tbg. RIH w/ new grapple – start pulling on Tbg, parted @ 37'

5/4/15---Cannot catch fish

5/5/15---Cannot catch fish. Got a fisherman on location, finally got onto fish

5/6/15---Backed off 3 jts below overshot @ 158', LD Tbg. RIH w/ OS & backed off @ 4505'. LD Tbg

5/7/15---Run tally on PH6 Tbg. RIH w/ 137 jts Tbg

5/8/15---Cannot get past 6,380'. POOH

5/11/15---RIH w/ 6¼" impression block to 6,388', wire on block, POOH

5/12/15---RIH w/ wire spear to 6,413', POOH w/ 1000' wire, start to RIH w/ overshot

5/13/15---TD @ 6,691', POOH w/ no fish. RIH w/ wire spear & POOH w/ 3000' wire

5/14/15---RIH w/ overshot to 7,450' – SD for weather

5/15/15---POOH, no fish. RIH w/ spear, POOH w/ 150'-200' of wire

5/18/15---RIH overshot to 7,485', POOH w/ no fish

5/19/15---RIH w/ impression block to 7,485'

5/20/15---POOH, block shows more wire. RIH w/ Cut Right w/ Diamond Cut inserts to 7,485' – POOH w/ no fish

5/21/15---RIH w/ wire spear to 7,485', POOH w/ no wire. Start RIH w/ overshot

5/22/15---Worked over fish w/ overshot, POOH w/ no fish

5/26/15---RIH w/ 6½" concave mill to 7,485', milled 2-3 hrs, POOH w/ Tbg

5/27/15---RIH w/ overshot and Jars to 7,485', cannot get fish, POOH. RIH w/ new grapple

5/28/15---Overshot on fish, jarred on fish @ 7,485' for 5 hrs, made 1'. Jarred and bumped fish, worked up to 7,479'

6/1/15---RIH w/ washpipe to 7,479' & rotated on fish – made hole down to 7,505', cannot POOH. Jarred on Tbg all day

6/2/15---Freepoint shows 100% free @ 7,411'. Con't jarring – no success

6/3/15---Con't jarring – no success

6/4/15---Backed off below jars @ 7,418'. POOH w/ jars, leaving 1 jt of washpipe w/ bushing & shoe. RIH w/ PKR

6/5/15---Set PKR @ 6,979', test well, holding 1450#. Jim Amos OK to spot 40sx cmt. POOH w/ PKR

6/8/15---RIH w/ perf sub to 6,987' – Spot 40sx cmt @ 6,987' to CTOC 6,767'

6/9/15---Tag @ 6,738'. Perf @ 6,680' (per BLM - Jim Amos). Test well – held 1800# - Spot 40sx cmt @ 6,738' to CTOC 6,518'

6/10/15---Tag @ 6,397'. BLM – Jim Amos – says to go back to procedure. Perf @ 5,300' – Sqz 80sx cmt to 5,100'

6/11/15---Tag @ 5,094'. Pump 150bbl MLF. Spot 200sx cmt @ 4,102' to CTOC 3,533'

6/12/15---Tag @ 3,558'. Spot 90sx cmt @ 3,558' to CTOC 3,320' – Tag @ 3,486'. BLM – Pat ok'd to spot 70sx cmt @ 3,486' to CTOC 3,301'

6/15/15---Tag @ 3,442'. BLM ok'd to spot 45sx cmt @ 3,419' to CTOC 3,300' – Tag @ 3,305'. Spot 45sx cmt @ 1,899' to CTOC 1,780'

6/16/15---Tag @ 1,713'. Test well – held 1800#. Perf @ 690' – Sqz 85sx cmt to 540'

6/17/15---Tag @ 504'. Perf @ 100' – cannot est rate w/ 1500#. BLM – Pat OK'd to spot cmt to surface – RIH to 155' – pump 80sx cmt to surface inside 10½". RDMO

Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

Energy, Minerals and Natural Resources

May 27, 2004

HOBBS OGD

JUN 19 2014

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-26557
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. LG 3340
7. Lease Name or Unit Agreement Name Pawnee Deep Unit
8. Well Number 1
9. OGRID Number 289348
10. Pool name or Wildcat Bone Spring
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other2. Name of Operator
Heritage Resources, Inc.3. Address of Operator 3131 McKinney, Avenue, Suite 710
Dallas, Texas 75204

4. Well Location

Unit Letter F : 1650 feet from the North line and 2310 feet from the West line
Section 22 Township 26S Range 36E NMPM County LEAPit or Below-grade Tank Application ☐ or Closure ☐

Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

E-PERMITTING - CSNG _____

PERFORM (P&A) KZ TA _____
TEMPORARY COMP _____ NEW WELL _____
PULL OR LOC CHG _____ON ☐☐☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☒
CASING/CEMENT JOB ☐OTHER: ☐OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

5/13/14- Spot 50sx Cmt @ 6340' POOH WOC & Tag @ 6338' Spoke w/ Mark RRC advised to spot 50sx more WOC & Tag. RIH w/ Tbg. Tag Cmt @ 6268' POOH

5/20/14- Perf @ 5000' RIH w/ Pkr to 4850' Sqz 75sx Cmt WOC & Tag @ 4785'

5/21/14- @ 2995' Load hole set Pkr & Pump fluid up to 2000 PSI. Did not Sqz down to 2230' Spot 65sx Cmt. POOH w/ Tbg WOC & Tag RIH w/ Tbg Cmt @ 2180' Spot 65sx more @ 2119' WOC & Tag @ 1956'

5/22/14- Perf @ 975' Set Pkr @ 847' Sqz 100sx Cmt WOC & Tag @ 838' POOH w/ Pkr. Pump fluid to backside up to 300 PSI. Advised to RBIH w/ Pkr to 260' Sqz 100sx Cmt. Pump fluid did not get Pres. RIH w/ Tbg. Did not Tag Cmt

5/23/14- 100sx Started pump Cmt Pres. to 1500 PSI. Was able to Sqz 35sx Co. Man advised to Disp to 302' Shut Tbg valve w/ 1000 PSI & SDFD

5/27/14- Perf @ 60' Try Sqz. Did not Inj. RIH w/ Tbg to 230' spot Cmt to Surf. Visual w/ 85sx Cmt. WOC & Tag @ 10'

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.SIGNATURE Mark RRC TITLE General Manager DATE 6.2.14

Type or print name

E-mail address:

Telephone No.

For State Use Only

APPROVED BY: Mary Brown TITLE Dist. Supervisor DATE 6/23/2014

Conditions of Approval (if any):

HERITAGE RESOURCES, INC.

June 16, 2014

HOBBS OCD

JUN 19 2014

RECEIVED

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

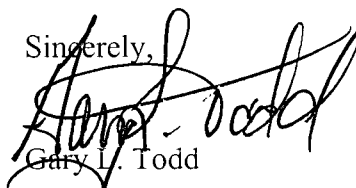
Re: OCD Form C-103
Pawnee Deep Unit #1
API #30-205-26557
Section 22, T-26-S, R-36-E,
Lea County, New Mexico

Gentlemen,

Enclosed please find OCD form C-103 on the plugging and abandonment of the referenced well for processing.

Should you have any questions regarding this issue, please contact the undersigned at (214) 526-8118.

Sincerely,



Gary L. Todd

GLT

Enc.

HERITAGE RESOURCES, INC.
3131 McKinney Avenue Suite 710 Dallas, Texas 75204 (214) 526-8118 Fax (214) 522-7182