AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Operator Letter of Designation: 1 file(s)
  -- Well Plat: 2 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 2 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 3 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  -- Other Facets: 1 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 1 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Well Site Layout Diagram: 1 file(s)
  -- Existing Vegetation at the well pad attachment: 1 file(s)
  -- Existing Vegetation at the road attachment: 1 file(s)
  -- Existing Vegetation Community at the pipeline attachment: 1 file(s)
  -- Other SUPO Attachment: 11 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments
  -- None

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-039-31468

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)

16. No of acres in lease

17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.

19. Proposed Depth

20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

22. Approximate date work will start*

23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature

Name *(Printed/Typed)*

Date

Title

Approved by *(Signature)*

Name *(Printed/Typed)*

Date

Title

Office

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

Approval Date: 07/11/2024

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 07/11/2024

Additional Operator Remarks

Location of Well

0. SHL: TR H.E.S. 281 / 1659 FNL / 1326 FEL / TWSP: 29N / RANGE: 4W / SECTION: 1 / LAT: 36.756314 / LONG: -107.201616 (TVD: 0 feet, MD: 0 feet)

PPP: TR H.E.S. 281 / 2532 FNL / 1080 FEL / TWSP: 29N / RANGE: 4W / SECTION: 1 / LAT: 36.753964 / LONG: -107.200828 (TVD: 7455 feet, MD: 8385 feet)

PPP: LOT 8 / 2532 FNL / 660 FEL / TWSP: 29N / RANGE: 4W / SECTION: 1 / LAT: 36.753892 / LONG: -107.199321 (TVD: 7455 feet, MD: 7965 feet)

PPP: LOT 10 / 2532 FNL / 2399 FWL / TWSP: 29N / RANGE: 4W / SECTION: 1 / LAT: 36.754 / LONG: -107.206586 (TVD: 7455 feet, MD: 9704 feet)

PPP: SENE / 2532 FNL / 0 FEL / TWSP: 29N / RANGE: 4W / SECTION: 2 / LAT: 36.754058 / LONG: -107.214717 (TVD: 7455 feet, MD: 12103 feet)

BHL: SWNW / 2532 FNL / 660 FWL / TWSP: 29N / RANGE: 4W / SECTION: 2 / LAT: 36.75419 / LONG: -107.230057 (TVD: 7455 feet, MD: 16970 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN
Title: Natural Resource Specialist
Phone: (505) 564-7727
Email: cwenman@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

CONDITIONS OF APPROVAL

Operators:	Robert L. Bayless Producer LLC & Blackhawk Energy Corporation
Well Name:	La Jara Federal 1-2 #001H Natural Gas Wells and SJ-15 ROSA 181 to LA JARA CDP Temporary Water Line Project
EA Number:	DOI-BLM-NM-F010-2023-0061-EA
Inspection Date:	April 20, 2023
Lease Number:	NMNM010431

The following conditions of approval will apply to the La Jara Federal 1-2 #001H Natural Gas Wells and SJ-15 ROSA 181 to LA JARA CDP Temporary Water Line Project well pad, access road and pipeline and other associated facilities, unless a particular Surface Managing Agency or private surface owner has supplied to Bureau of Land Management and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2.

Disclaimers: BLM's approval of the APD does not relieve the lessee and operator from obtaining any other authorizations that may be required by the BIA, Navajo Tribe, State, or other jurisdictional entities.

Copy of Plans: A complete copy of the APD package, including Surface Use Plan of Operations, Bare Soil Reclamation Plan, Plan of Development (if required), Conditions of Approval, Cultural Resource Record of Review, Cultural Resources Compliance Form (if required), and Project Stipulations (if required) shall be at the project area at all times and available to all persons.

Review of NEPA documents: It is the responsibility of the operator to follow all the design features, best management practices, and mitigation measures as contained in the Environmental Assessment DOI-BLM-NM-F010-2023-0061-EA, which contains additional design features and best management practices that must be followed. Copies of the EA, Decision Record, and Finding of No Significant Impact may be obtained from the BLM FFO public room, or online at: EplanningUi (blm.gov).

Best Management Practices (BMPs): Farmington Field Office established environmental Best Management Practices (BMP's) will be followed during construction and reclamation of well site pads, access roads, pipeline ties, facility placement or any other surface disturbing activity associated with this project. Bureau wide standard BMP's are found in the Gold Book, Fourth Edition-Revised 2007 and at The Gold Book | Bureau of Land Management (blm.gov). Farmington Field Office BMPs are integrated into the Environmental Assessment, Surface Use Plan of Operations, Bare Soil Reclamation Plan, and COAs.

Construction, Production, Facilities, Reclamation & Maintenance

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Environmental Protection Staff (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project.

Production Facilities: Design and layout of facilities will be deferred until an onsite with BLM-FFO surface protection staff is conducted to determine the best location. Bayless and BHEC or their contractor will contact the Bureau of Land Management, Farmington Field Office, Surface, and Environmental Protection Staff (505) 564-7600 to schedule a facility layout onsite.

Berms: Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of 110% of the largest tank, or 110% of the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper

construction. Metal containment barriers, used for secondary containment, will be properly installed, per the manufacturer directions.

Painting of Equipment: Within 90 days of installation, all above ground structures not subject to safety requirements shall be painted by the Holder to blend with the natural color of the landscape. A reflective material may be used to reduce hazards that may occur when such structures are near roads. Otherwise, the paint use shall be a non-glare, non-reflective, non-chalking color of: **Juniper Green**

Staking: The holder shall place slope stakes, culvert location and grade stakes, and other construction control stakes as deemed necessary by the authorized officer to ensure construction in accordance with the plan of development. If stakes are disturbed, they shall be replaced before proceeding with construction.

Weather: No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.

Stockpile of Soil: The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks and roots. The stockpiled soil material will be spread on the reclaimed portions of the pad [including the cut and fill slopes] prior to re-seeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

Storage Tanks: All open top permanent production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted, or otherwise covered to protect migratory birds and other wildlife from access.

Compressors: Compressor units on this well location not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and a 12-inch berm. The compressor will be painted to match the well facilities. Any variance to this will be approved by the Authorized Officer (AO). Noise mitigation may be required at the time of compressor installation.

Culverts: Silt Traps/Bell Holes will be built upstream of all culvert locations.

Driving Surface Area: All activities associated within the construction, operation, maintenance, and abandonment of the well location is limited to areas approved in the APD or ROW permit. During the production of the well, vehicular traffic is limited to the daily driving surface area established during interim reclamation construction operations. This area typically forms a keyhole or teardrop driving surface from which all production facilities may be serviced or inspected. A v-type ditch will be constructed on the outside of the driving surface to further define the driving surface and to deter vehicular traffic from entering onto the interim reclamation areas.

Contouring of Cut and Fill Slopes: The interim cut and fill slope grade shall be as close to the original contour as possible. To obtain this ratio, pits and slopes shall be back sloped into the pad during interim reclamation. Only subsurface soil and material shall be utilized in the contouring of the cut and fill slopes. Under no circumstances shall topsoil be utilized as substrate material for contouring of cut and fill slopes.

Maintenance: In order to perform subsequent well operations, right-of-way (ROW) operations, or install new/additional equipment, it may be necessary to drive, park, and operate on restored, interim vegetation within the previously disturbed area. This is generally acceptable provided damage is promptly repaired and reclaimed following use. Where vehicular travel has occurred as a “convenience” and interim reclamation/vegetation has been compromised, immediate remediation of the affected areas is required. Additionally, where erosion has occurred and compromised the reclamation of the well location, the

affected area must be promptly remediated so that future erosion is prevented, and the landform is stabilized.

Layflat Lines: Layflat lines used for development of the wells may be on the ground for a maximum of 6 months and shall be retrieved within 30 days of ending completion operations. If the layflat lines are needed for longer than 6 months or cannot be retrieved within 30 days of ending completion operations, a Sundry NOI shall be submitted to the BLM FFO for review and decision that includes a rationale for the time extension.

"Hotwork" and Construction Affecting Fire Safety: The holder or its contractors will notify the BLM of any fires and comply with all rules and regulations administered by the BLM concerning the use, prevention and suppression of fires on federal lands, including any fire prevention orders that may be in effect at the time of the permitted activity. The holder or its contractors may be held liable for the cost of fire suppression, stabilization and rehabilitation. In the event of a fire, personal safety will be the first priority of the holder or its contractors.

The holder or its contractors shall:

1. Operate all internal and external combustion engines (including off-highway vehicles, chainsaws, generators, heavy equipment, etc.) with a qualified spark arrester. Qualified spark arresters are maintained and not modified and meet the Society of Automotive Engineers (SAE) Recommended Practices J335 or J350. Refer to 43 CFR §8343.1.
    a. *Refueling of any combustible engine equipment must be minimum of 3 meters away from any ignition source (open flame, smoking, etc.).*
2. Maintain and clean all equipment regularly to remove flammable debris buildup and prevent fluid leaks that can lead to ignitions.
3. Carry at least one shovel or wildland fire hand tool (combi, Pulaski, McLeod) per person working, minimum 5 gallons of water, and a fire extinguisher rated at a minimum as ABC - 10 pound on each piece of equipment and each vehicle.
4. When conducting "hotwork" such as, but not limited to welding, grinding, cutting, spark-producing work with metal, work that creates hot material or slag; choose an area large enough to contain all hot material that is naturally free of all flammable vegetation or remove the flammable vegetation in a manner compliant with the permitted activity. If adequate clearance cannot be made, wet an area large enough to contain all hot material prior to the activity and periodically throughout the activity to reduce the risk of wildfire ignition. Regardless of clearance, maintain readiness to respond to an ignition at all times. In addition, keep one hand tool per person and at least one fire extinguisher ready, minimum, as specified earlier (#3) during this activity.
5. Keep apprised of current and forecasted weather at https://www.weather.gov/abq/forecasts-fireweather-links and fire conditions at www.wfas.net and take additional fire precautions when fire danger is rated High or greater. Red Flag Warnings are issued by the National Weather Service when fire conditions are most dangerous, and ignitions escape control quickly. Extra precautions are required during these warnings such as additional water, designate a fire watch/patrol and tools. If work is being conducted in an area that is not clear of vegetation within 50 feet of work area; then, when fire danger is rated High or greater and 1. There is a predicted Red Flag warning for your area or 2. If winds are predicted to be greater than 10 mph, stop all hotwork activities for the day at 10 am.
6. In the event of an ignition, initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If a fire spreads beyond the capability of workers with the stipulated tools, all will cease fire suppression action and leave the area immediately via pre-identified escape routes.
7. Call **911** or the **Taos Interagency Fire Dispatch Center (575-758-6208)** immediately of the location and status of any fire.

AND

Notify the respective BLM field office for which the permit or contract was issued immediately of the incident.
Farmington Field Office at 505-564-7600

Noxious Weeds

Inventory the proposed site for the presence of noxious and invasive weeds. Noxious weeds are those listed on the New Mexico Noxious Weed List and USDA's Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA's Noxious Weed List can be updated at any time and should be regularly check for any changes. Invasive species may or may not be listed as a noxious weed but have been identified to likely cause economic or environmental harm or harm to human health. The following noxious weeds have been identified as occurring on lands within the boundaries of the Farmington Field Office (FFO). There are numerous invasive species on the FFO such as Russian thistle (*Salsola spp.)* and field bindweed (*Convolvulus arvensis*).

Russian Knapweed (*Centaurea repens*)	Musk Thistle (*Carduss nutans*)
Bull Thistle (*Cirsium vulgare*)	Canada Thistle (*Cirsium arvense*)
Scotch Thistle (*Onopordum acanthium)*	Hoary Cress (*Cardaria draba*)
Perennial Pepperweed (*Lepdium latiofolfium*)	Halogeton (*Halogeton glomeratus*)
Spotted Knapweed (*Centaurea maculosa*)	Dalmation Toadflax (*Linaria genistifolia*)
Yellow Toadflax (*Linaria vulgaris*)	Camelthorn (*Alhagi pseudalhagi*)
African Rue (*Penganum harmala*)	Salt Cedar (*Tamarix spp*.)
Diffuse Knapweed (*Centaurea diffusa*)	Leafy Spurge (*Euphorbia esula*)

a. Identified weeds will be treated prior to new surface disturbance if determined by the FFO Noxious Weed Coordinator. A Pesticide Use Proposal (PUP) must be submitted to and approved by the FFO Noxious Weed Coordinator prior to application of pesticide. The FFO Noxious Weeds Coordinator (505-564-7600) can provide assistance in the development of the PUP.

b. Vehicles and equipment should be inspected and cleaned prior to coming onto the work site. This is especially important on vehicles from out of state or if coming from a weed-infested site.

c. Fill dirt or gravel may be needed for excavation, road construction/repair, or for spill remediation. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the FFO Noxious Weed Coordinator.

d. The site shall be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found the FFO Coordinator shall be notified at (505) 564-7600 and provided with a Weed Management Plan and if necessary, a Pesticide Use Proposal (PUP). The FFO Coordinator can provide assistance developing the Weed Management Plan and/or the Pesticide Use Proposal.

e. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. Bayless and BHEC's weed-control contractor would contact the BLM-FFO prior to using these chemicals.

f. Noxious/invasive weed treatments must be reported to the FFO Noxious Weed

Coordinator. A Pesticide Use Report (PUR) is required to report any mechanical, chemical, biological, or cultural treatments used to eradicate, and/or control noxious or invasive species. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

Bare ground vegetation trim-out: If bare ground vegetation treatment (trim-out) is desired around facility structures, the operator will submit a bare ground/trim-out design included in their Surface Use Plan of Operations (SUPO). The design will address vegetation safety concerns of the operator and BLM while minimizing impacts to interim reclamation efforts. The design must include what structures to be treated and buffer distances of trim-out. Pesticide use for vegetation control around anchor structures is not approved. If pesticides are used for bare ground trim-out, the trim-out will not exceed three feet from the edge of any eligible permanent structure (i.e., well heads, fences, tanks). Additional distance/areas may be requested and must be approved by the FFO authorized officer. The additional information below must also be provided to the FFO:

a. Pesticide use for trim out will require a Pesticide Use Proposal (PUP). A PUP is required ***prior*** to any treatment and must be approved by the FFO Noxious Weed Coordinator. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. Bayless and BHEC's weed-control contractor would contact the BLM-FFO prior to using these chemicals and provide Pesticide Use Reports (PURs) post treatment.

b. A Pesticide Use Report (PUR) or a Biological Use Report (BUR) is required to report any chemical, or biological treatments used to eradicate, or control vegetation on site. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

Paleontology

Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.

Visual Resources

Dark Sky COAs need to be applied to existing lighting, which is not dark sky friendly and to any additional lights added as part of pad expansion. All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source). All permanent lighting will be pointed straight down at the ground in order to prevent light spill to the sides. All permanent lighting will be 4000° Kelvin or less with 3000° Kelvin preferred. Warmer light colors are less noticeable by humans and cause less impact to wildlife. All permanent lighting will be controlled by a switch and/or timer which allows the lights to be turned on when workers are on location during dark periods but will keep the lights off the majority of the time.

Wildlife Resources

Wildlife: F-4 Timing Limitation Stipulation-Important Seasonal Wildlife Habitat Rosa Mesa Wildlife SDA. No surface use is allowed during the following time period: December 1 - March 31.

Hazards: Wildlife hazards associated with the proposed project would be fenced, covered, and/or contained in storage tanks, as necessary.

Migratory Bird: Migratory nest survey stipulations. Once drilling and completion activities are complete, any open water that could be harmful to birds and wildlife. must be covered, screened, or netted to prevent entry.

Threatened, Endangered or Sensitive Species: If, in operations the operator/holder discovers any Threatened, Endangered, or Sensitive species, work in the vicinity of the discovery will be suspended and the discovery promptly reported to the BLM-FFO T&E specialist at (505) 564-7600. The BLM-FFO will then specify what action is to be taken. Failure to notify the BLM-FFO about a discovery may result in civil or criminal penalties in accordance with The Endangered Species Act (as amended).

Nesting: If a bird nest containing eggs or young is encountered in the path of construction the operator will cease construction and consult with BLM to determine appropriate actions.
Livestock Grazing: Cattle are in allotment between 5/1 and 10/31. Industry may need to coordinate with permittee if concerns of livestock in area during construction.

Soil, Air, Water

Land Farming: No excavation, remediation or closure activities will be authorized without prior approval, on any federal or Indian mineral estate, federal surface, or federal ROW. A Sundry Notice (DOI, BLM Form 3160-5) must be submitted with an explanation of the remediation or closure plan for on-lease actions.

Emission Control Standard: Compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NOx at 2 grams per horsepower hour or less to comply with the New Mexico Environmental Department, Air Quality Bureau's guidance.

Waste Disposal: All fluids (i.e., scrubber cleaners) used during washing of production equipment, including compressors, will be properly disposed of to avoid ground contamination, or hazard to livestock or wildlife.

Cultural Resources

Non-Permitted Disturbance: Construction, construction maintenance or any other activity outside the areas permitted by the APD will require additional approval and may require a new cultural survey and clearance.

Employee Education: All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles, and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

Discovery of Cultural Resources in the Absence of Monitoring: Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property,

or in accordance with an approved program alternative. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive **archaeological or alternative mitigation,** likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any **mitigations determined appropriate through the agency's Section 106 consultation are completed**. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, **the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws**.

Discovery of Cultural Resources during Monitoring: If monitoring confirms the presence of previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM Field Manager. BLM will then specify what action is to be taken. **If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, or in accordance with an approved program alternative. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive archaeological or alternative mitigation, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any mitigations determined appropriate through the agency's Section 106 consultation are completed.**

Damage to Sites: If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare a BLM approved damage assessment and/or data recovery plan. The operator/holder agrees at his/her expense to implement a **mitigation** that the agency finds appropriate given the significance of the site, which the agency determines in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property. **This mitigation may entail execution of the data recovery plan by a permitted cultural resources consultant and/or alternative mitigations.** Damage to cultural resources may result in **civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws.**

See below additional cultural stipulations.

BLM Report Number: 2024(I)015F
USGS Map: Bixler Ranch, NM
Activity Code: 1310
NMCRIS No: 154028

CULTURAL RESOURCE RECORD OF REVIEW

BUREAU OF LAND MANAGEMENT
FARMINGTON FIELD OFFICE

1. Description of Report/Project:
Project Name: La Jara Federal 1-2 Unit 001H Well Pad and Associated Facilities.
Project Sponsor: Bayless Energy Production Co.
Arch. Firm & Report No.: Adkins Consulting Inc; ACI Report No ACI(F)054.
Location: T29N R4W Section 1.
Well Footages: 1,647' FNL; 1,316' FEL
Split Estate: Yes
Project Dimensions: 550 ft x 300 ft – well pad (650 ft x 400 ft w/ 50 ft construction zone).
660 ft x 660 ft – water storage area.
430 ft x 40 ft – access road.
1,979 ft x 40 ft – pipeline.
1,495 ft – bore pipeline.
90 ft x 30 ft – bore pad.
623 ft x 473 ft – water storage area.
637 ft x 473 ft – water storage area.
Sites Located: LA115064/NM-210-49518 (NRHP: Eligible; Update; Avoided; No Further Work).
LA115065/NM-210-49519 (NRHP: Eligible; Update; Avoided).
LA115066/NM-210-49520 (NRHP: Not Determined; Update; Avoided; No Further Work).
LA115067/NM-210-49521 (NRHP: Eligible; Update; Avoided; No Further Work).
LA188367/NM-210-49522 – (NRHP: Eligible; Update; Avoided; No Further Work).
LA203588/NM-210-49523 (NRHP: Not Eligible; No Further Work).
LA203816/NM-210-49524 (NRHP: Not Determined; Avoided; No Further Work).
Determination: No Effect to Historic Properties.
2. Field Check: No.
3. Cultural ACEC: No.
4. Sensitive Cultural Area: No.
5. Recommendation: *PROCEED WITH ACTION:* X *STIPULATIONS ATTACHED*: _X_
6. Reviewer /Archaeologist: Kim Adams **Date**: 12/15/2023

Report Summary	BLM	Other	Total
Acres Inventoried	0.00	44.49	44.49
Sites Recorded	0	2	2
Prev. Recorded Sites	0	5	5
Sites Avoided	0	6	6
Sites Treated	0	0	0

Discovery of Cultural Resources in the Presence or Absence of Monitoring: If any previously unidentified historic or prehistoric cultural resources are discovered during construction or project operations, work in the vicinity of the discovery will be suspended and the discovery will promptly be reported to the BLM Field Manager.

Approval Date: 07/11/2024

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

CULTURAL RESOURCE STIPULATIONS
Farmington Field Office
BLM Report Number: 2024(I)015F

Project Name: La Jara Federal 1-2 Unit 001H Well Pad and Associated Facilities.
Project Sponsor: Bayless Energy Production Co.

1. SITE PROTECTION AND EMPLOYEE EDUCATION:
All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

2. ARCHAEOLOGICAL MONITORING IS REQUIRED:
A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Observe all surface disturbing activities within 100'of LA115065.
- Ensure that all disturbance associated with the boring under LA115065 remains at least 20 ft from any cultural deposits.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

For Official Use Only: Disclosure of site locations prohibited (43 CFR 7.18)
CULTURAL RESOURCE STIPULATIONS
Farmington Field Office
BLM Report Number: 2024(I)015F

Project Name: La Jara Federal 1-2 Unit 001H Well Pad and Associated Facilities.
Project Sponsor: Bayless Energy Production Co.

MONITOR ZONE =

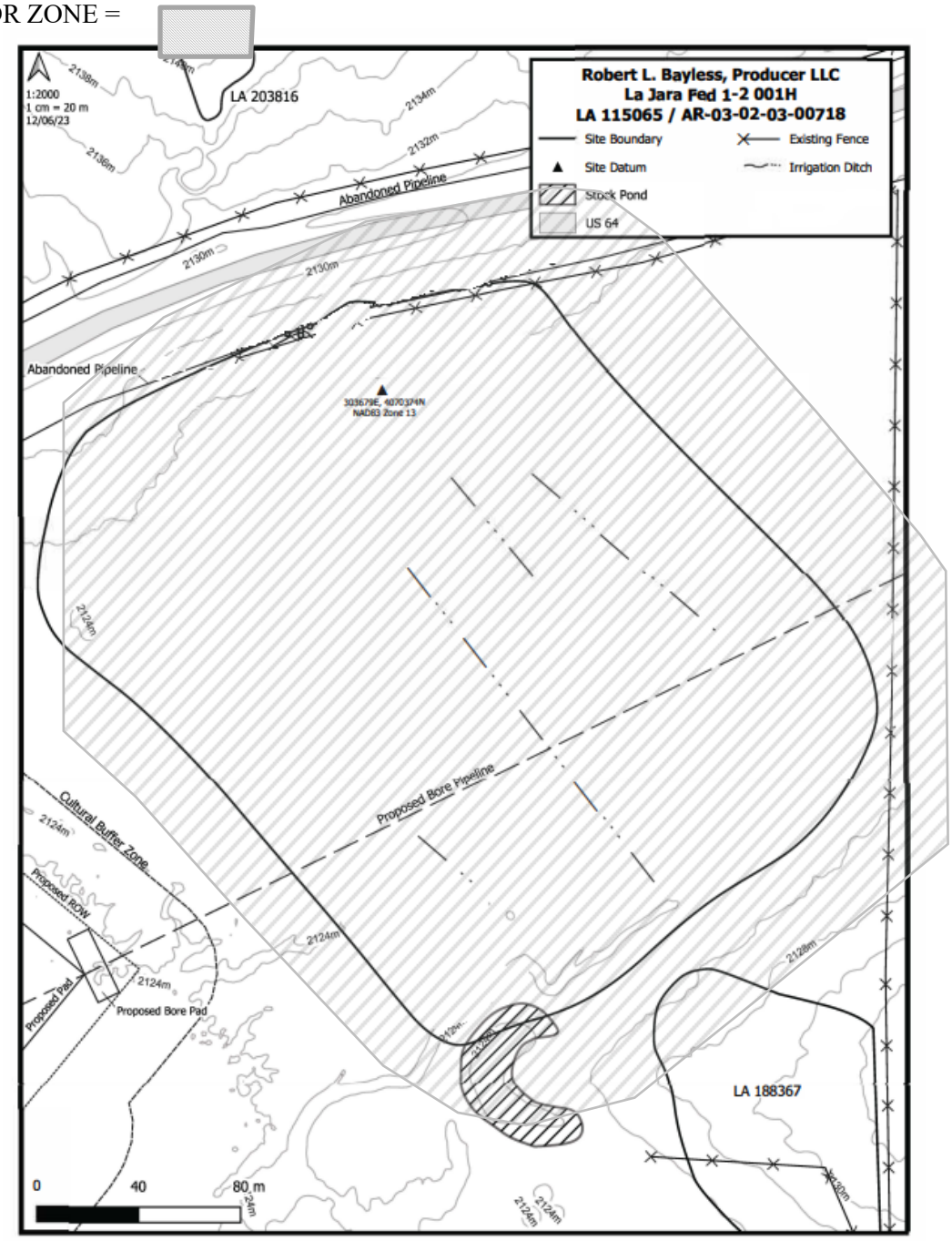


Figure 4. Site map, LA 115065/ AR-03-02-03-00718

Approval Date: 07/11/2024

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Blvd, Suite A
Farmington, New Mexico 87402

In Reply Refer To:
3162.3-1(NMF0110)

* Robert L Bayless LLC

#002H LA JARA FED 1-2

Lease: NMNM10431 Agreement: TBD
SH: H.E.S. 281 Section 1, T. 29N., R. 4W.
Rio Arriba County, New Mexico
BH: SWNW Section 2, T. 29N., R. 4W.
Rio Arriba County, New Mexico
***Above Data Required on Well Sign**

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

The following special requirements apply and are effective when **checked**:

A. ☒ Note all surface/drilling conditions of approval attached.

B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated

C. ☒ Test all casing strings below the conductor casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield (burst) for a minimum of 30 minutes. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.

D. ☒ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.

E. ☐ The use of co-flex hose is authorized contingent upon the following:
1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

I. GENERAL

A. Full compliance with all applicable laws and regulations, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.

B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).

C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.

D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.

E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).

F. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable. (See 43 CFR 3172.6(b)(9)(ii)).

G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation. (See 43 CFR 3172.8(a)).

H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare. (See 43 CFR 3172.8(b)(7)).

I. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a Notice of Intent sundry within three business days. **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to Virgil Lucero at 505-793-1836.**

J. The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.

K. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two-year extension may be granted if submitted prior to expiration.

L. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.

M. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

N. **Commingling**: No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office.

II. REPORTING REQUIREMENTS

A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.

B. The following reports shall be filed with the BLM-Authorized Officer online through AFMSS 2 within 30 days after the work is completed.

1. Provide complete information concerning.

   a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.

   b. Intervals tested, perforated (include size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.

   c. Subsequent Report of Abandonment, show the way the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.

2. Well Completion Report will be submitted with 30 days after well has been completed.

   a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.

3. Submit a cement evaluation log if cement is not circulated to surface.

C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed

by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

III. DRILLER'S LOG

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results, 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results, and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of * Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

*30 days, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the first gas to surface.

V. SAFETY

A. All rig heating stoves are to be of the explosion-proof type.

B. Rig safety lines are to be installed.

C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

A. Any changes of plans required to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.

B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.

C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

07/11/2024

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: ANGELA CALLAWAY **Signed on:** 09/25/2023

Title: Regulatory Analyst

Street Address: 7000 S YOSEMITE STREET SUITE 290B

City: ENGLEWOOD **State:** CO **Zip:** 80112

Phone: (303)942-0506

Email address: ACALLAWAY@UPSTREAMPM.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data
07/11/2024

APD ID: 10400094740
Submission Date: 09/28/2023
Operator Name: ROBERT L BAYLESS PRODUCER LLC
Well Name: LA JARA FED 1-2
Well Number: 002H
Well Type: CONVENTIONAL GAS WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400094740
Tie to previous NOS? Y
Submission Date: 09/28/2023
BLM Office: Farmington
User: ANGELA CALLAWAY
Title: Regulatory Analyst
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM10431
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? Y
Permitting Agent? YES
APD Operator: ROBERT L BAYLESS PRODUCER LLC
Operator letter of
NM_BLM_Designation_of_Agent_Upstream_20230412111737.pdf

Operator Info

Operator Organization Name: ROBERT L BAYLESS PRODUCER LLC
Operator Address: P. O. BOX 168
Zip: 87488
Operator PO Box:
Operator City: FARMINGTON
State: NM
Operator Phone: (505)326-2659
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: LA JARA FED 1-2
Well Number: 002H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: BASIN MANCOS GAS POOL
Pool Name: BASIN MANCOS GAS POOL

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** La Jara Fed **Number:** 1-2

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 51 Miles **Distance to nearest well:** 15 FT **Distance to lease line:** 325 FT

Reservoir well spacing assigned acres Measurement: 1278.14 Acres

Well plat: La_Jara_Fed_1_2_002H_Well_Location_Plat_041723_20230925124848.pdf

La_Jara_Fed_1_2_002H_Lease_Plat_20230925125323.pdf

Well work start Date: 11/29/2023 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** KELLY BUSHING

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	1659	FNL	1326	FEL	29N	4W	1	Tract H.E.S. 281	36.756314	-107.201616	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	FEE	6989	0	0	N
KOP Leg #1	1659	FNL	1326	FEL	29N	4W	1	Tract H.E.S. 281	36.756314	-107.201616	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	FEE	218	6947	6771	N

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	2532	FNL	660	FEL	29N	4W	1	Lot 8	36.753892	-107.199321	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	NMNM 10431	-466	7965	7455	Y
PPP Leg #1-2	2532	FNL	1080	FEL	29N	4W	1	Tract H.E.S. 281	36.753964	-107.200828	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	FEE	-466	8385	7455	Y
PPP Leg #1-3	2532	FNL	2399	FWL	29N	4W	1	Lot 10	36.754	-107.206586	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	NMNM 10431	-466	9704	7455	Y
PPP Leg #1-4	2532	FNL	0	FEL	29N	4W	2	Aliquot SENE	36.754058	-107.214717	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	NMNM 58137	-466	12103	7455	Y
EXIT Leg #1	2532	FNL	660	FWL	29N	4W	2	Aliquot SWNW	36.75419	-107.230057	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	NMNM 58137	-466	16970	7455	Y
BHL Leg #1	2532	FNL	660	FWL	29N	4W	2	Aliquot SWNW	36.75419	-107.230057	RIO ARRIBA	NEW MEXICO	NEW MEXICO	F	NMNM 58137	-466	16970	7455	Y

Robert L. Bayless, Producer LLC

Post Office Box 168
2700 N. Farmington Avenue, Bldg F, Suite 1
Farmington, New Mexico 87499
505-326-2659 office
505-326-6911 fax

621 Seventeenth Street, Suite 2300
Denver, Colorado 80293
303-296-9900 office
303-296-0753 fax

Mr. Richard Fields
Bureau of Land Management
Farmington Field Office
6251 College Boulevard, Suite a
Farmington, NM 87402

October 12, 2017

RE: Designation of Permit Agent
Robert L. Bayless, Producer
Notice of Stakings
Applications for Permit to Drill
Right-of-Ways
Sundry Notices
Authorized Agency – All BLM New Mexico Offices

Dear Mr. Fields:

Robert L. Bayless, Producer hereby designates Upstream Petroleum Management, Inc.: Kimberly J. Rodell, Andrea J. Gross, Mitchell R. Dix, and Angela Callaway as authorized agents for matters relative to Notice of Stakings, Applications for Permit to Drill, Rights-of-Ways, Sundry Notices, and regulatory matters associated with Robert L. Bayless, Producer's oil and gas drilling, completion, and production activities for the State of New Mexico.

All matters regarding drilling, completion, production and regulatory compliance will be handled through the Robert L. Bayless, Producer's office.

Should you have any questions relative to this authorization, please feel free to contact me by phone at 505-326-2659 or by e-mail at kmccord@rlbayless.com, at your convenience.

Sincerely,

Kevin McCord
Operations Manager

cc: Upstream Petroleum Management, Inc.

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-31468	97232	BASIN MANCOS

4 Property Code	5 Property Name	6 Well Number
336203	LA JARA FED 1-2	002H

7 OGRID No.	8 Operator Name	9 Elevation
150182	ROBERT L. BAYLESS, PRODUCER LLC	6967'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	1	29N	4W		1659	NORTH	1326	EAST	RIO ARRIBA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	2	29N	4W		2532	NORTH	660	WEST	RIO ARRIBA

12 Dedicated Acres		13 Joint or Infill	14 Consolidation Code	15 Order No.
1278.14	Entire Section 1 Entire Section 2			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LAST TAKE POINT
2532' FNL 660' FWL
SECTION 2, T29N, R4W
LAT 36.754190 °N
LONG -107.229458 °W
DATUM: NAD1927

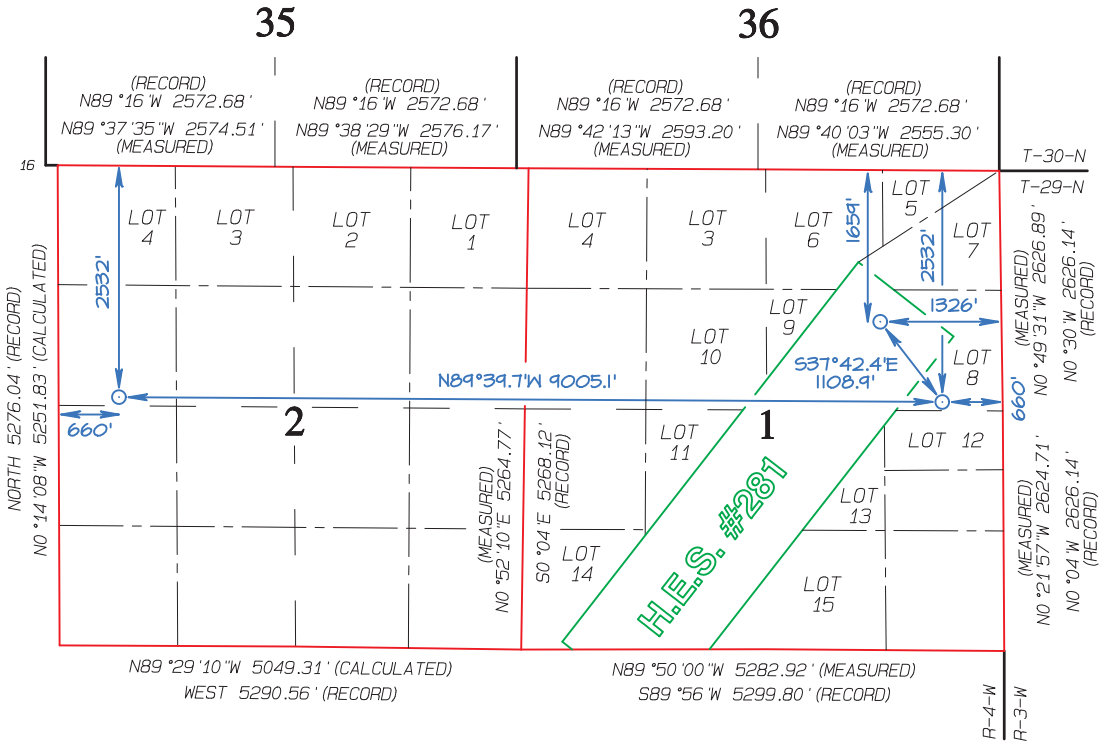
LAT 36.754198 °N
LONG -107.230057 °W
DATUM: NAD1983

SURFACE LOCATION
1659' FNL 1326' FEL
SECTION 1, T29N, R4W
LAT 36.756305 °N
LONG -107.201017 °W
DATUM: NAD1927

LAT 36.756314 °N
LONG -107.201616 °W
DATUM: NAD1983

FIRST TAKE POINT
2532' FNL 660' FEL
SECTION 1, T29N, R4W
LAT 36.753883 °N
LONG -107.198722 °W
DATUM: NAD1927

LAT 36.753892 °N
LONG -107.199321 °W
DATUM: NAD1983



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 04/17/2023

John D. Thomas
Printed Name

jthomas@rlbayless.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: MARCH 28, 2023
Date of Survey: JULY 27, 2022

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
	LA JARA FED 1-2	002H

[7] OGRID No.	[8] Operator Name	[9] Elevation
150182	ROBERT L. BAYLESS, PRODUCER LLC	6967'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	1	29N	4W		1659	NORTH	1326	EAST	RIO ARRIBA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	2	29N	4W		2532	NORTH	660	WEST	RIO ARRIBA

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
1278.14	Entire Section 1 Entire Section 2			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LAST TAKE POINT
2532' FNL 660' FWL
SECTION 2, T29N, R4W
LAT 36.754190 °N
LONG -107.229458 °W
DATUM: NAD1927

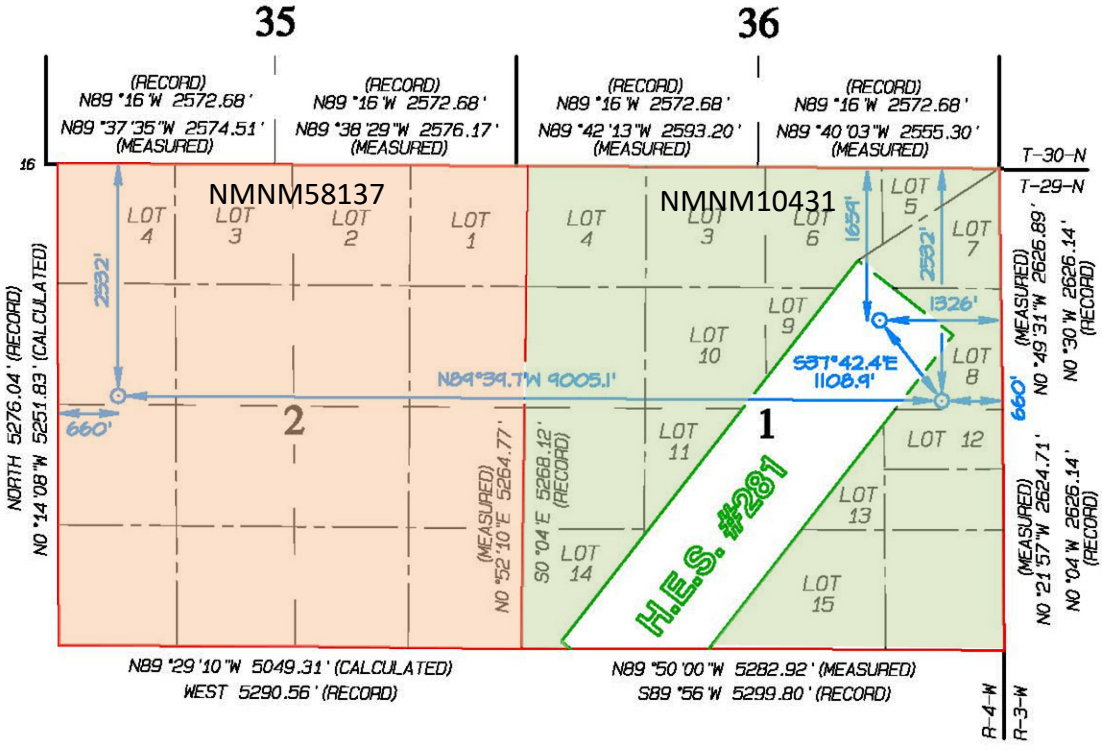
LAT 36.754198 °N
LONG -107.230057 °W
DATUM: NAD1983

SURFACE LOCATION
1659' FNL 1326' FEL
SECTION 1, T29N, R4W
LAT 36.756305 °N
LONG -107.201017 °W
DATUM: NAD1927

LAT 36.756314 °N
LONG -107.201616 °W
DATUM: NAD1983

FIRST TAKE POINT
2532' FNL 660' FEL
SECTION 1, T29N, R4W
LAT 36.753883 °N
LONG -107.198722 °W
DATUM: NAD1927

LAT 36.753892 °N
LONG -107.199321 °W
DATUM: NAD1983



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Signature — Date: 04/17/2023

John D. Thomas
Printed Name

jthomas@rlbayless.com
E-mail Address

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Date Revised: MARCH 28, 2023
Date of Survey: JULY 27, 2022

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
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REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
07/11/2024

APD ID: 10400094740 **Submission Date:** 09/28/2023

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13755124	SAN JOSE	6989	0	0	SANDSTONE, SHALE, SILTSTONE	NONE	N
13755125	NACIMIENTO	4423	2566	2615	SHALE, SILTSTONE	NONE	N
13755126	OJO ALAMAO	3772	3217	3285	SANDSTONE, SILTSTONE	NONE	N
13755127	KIRTLAND	3610	3379	3452	SANDSTONE, SHALE, SILTSTONE	NONE	N
13755128	FRUITLAND	3444	3545	3623	COAL, SANDSTONE, SHALE	COAL, NATURAL GAS, OIL	N
13755129	PICTURED CLIFFS	3318	3671	3753	SANDSTONE, SILTSTONE	NATURAL GAS	N
13755130	LEWIS	3007	3982	4074	SHALE, SILTSTONE	NATURAL GAS	N
13755131	CLIFFHOUSE	1260	5729	5874	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS	N
13755138	MENEFEE	1172	5817	5964	COAL, SANDSTONE, SHALE, SILTSTONE	COAL, NATURAL GAS	N
13755139	POINT LOOKOUT	1047	5942	6093	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS	N
13755140	MANCOS	619	6370	6534	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 7455

Equipment: Annular preventer, pipe ram, blind ram, and, if conditions warrant, as specified by the authorized officer, another pipe ram shall also be required, a second pipe ram preventer shall be used with a tapered drill string, drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 3-inch minimum diameter, kill side shall be at least 2-inch diameter), 3 inch diameter choke line, 2 choke line valves (3 inch minimum), kill line (2 inch minimum), 2 chokes with 1 remotely controlled from rig floor (refer to diagram in attachment 1), 2 kill line valves and a check valve (2 inch minimum), upper kelly cock valve with handle available, when the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed), lower kelly cock valve with handle available, safety valve(s) and subs to fit all drill string connections in use, inside BOP or float sub available, pressure gauge on choke manifold, all BOPE connections subjected to well

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

pressure shall be flanged, welded, or clamped, fill-up line above the uppermost preventer. The 13-5/8" 5M will be used for the surface and intermediate sections and 11" 5M will be used for the production section. Both BOP Diagrams are attached.

Requesting Variance? YES

Variance request: Pursuant to Onshore Order No. 2 Section III, Subsection B(i), Formation Integrity Tests (FIT) must be performed on either exploratory wells or any well permitted to utilize 5M BOPE. Bayless requests a variance to this rule, by not performing an FIT test at the surface casing shoe as it is common to encounter zones in formations below the shoe that fail at a lower Equivalent Mud Weight (EMW) than a typical FIT test. An FIT would be planned after drilling out the intermediate casing shoe, to be tested to 13 lb/gal.
Testing Procedure: THE BOPE will be tested to 250psi (Low) for 5 minutes and 5000psi (High) for 10 minutes prior to drilling out surface and intermediate casing. Annular preventer will be tested to 50% of rated working pressure and maintained for at least 10 minutes. A BOPE testing unit will be utilized with a chart recorder and appropriate test plug for testing. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per well. Pipe and blind rams shall be activated each trip but not more than once a day. The New Mexico Oil and Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE. All tests and inspection will be recorded and logged with time and results. A full BOP test will be conducted when initially installed for the first well on the pad or if seals subject to test pressure are broken, following related repairs and at a minimum 30 day intervals. A BOPE shell test only will be conducted for subsequent wells on the pad when seals that are subject to pressure have not been broken or repaired and fall within the 30 day interval of first full test. All casing strings will be pressure tested to 0.22 psi/ft or 1500 psi, whichever is greater, not to exceed 70% of internal yield of the casing. All testing procedures will be in accordance with all the requirements per the Onshore Order 2.

Choke Diagram Attachment:

5M_BOP_13_5_8_Inch_20230412125327.pdf

5M_BOP_11_Inch_20230412125327.pdf

BOP Diagram Attachment:

5M_BOP_11_Inch_20230412125340.pdf

5M_BOP_13_5_8_Inch_20230412125340.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	CONDUCTOR	30	20.0	NEW	API	N	0	120	0	120	6989	6869	120	OTHER	94	OTHER - Welded						
2	SURFACE	17.5	13.375	NEW	API	N	0	320	0	320	6989	6669	320	J-55	54.5	ST&C	7.5	1.8	BUOY	4.5	BUOY	4.5
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	6700	0	6531	6967	458	6700	N-80	43.5	LT&C	1.19	2	BUOY	2.4	BUOY	2.4
4	PRODUCTION	8.75	5.5	NEW	API	N	0	16970	0	7455	0	-466	16970	P-110	20	BUTT	2.2	3.2	BUOY	3	BUOY	3

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Casing Attachments

Casing ID: 1 **String** CONDUCTOR

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 2 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

La_Jara_Fed_1_2_002H_Casing_Safety_Calculations___Surface_20230928102225.pdf

Casing ID: 3 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

La_Jara_Fed_1_2_002H_Casing_Safety_Calculations___Intermediate_20230928102316.pdf

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

La_Jara_Fed_1_2_002H_Casing_Safety_Calculations___Production_20230928102245.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
CONDUCTOR	Lead		0	120	319	1.18	15.6	376	15	Class III	None
SURFACE	Lead		0	320	237	1.17	15.8	277	25	Type I-II (Neat G)	15.8 lb/gal Premium Class G, 2% P-401, 0.003gps P-713
INTERMEDIATE	Lead		0	3171	510	2.53	12	1291	30	Type III	10 bbls fresh water spacer followed by 20 bbls Chemwash spacer
INTERMEDIATE	Tail		3171	3671	102	1.99	12.8	204	30	Class G	Displaced with drilling mud or water
INTERMEDIATE	Lead	3671	3671	4600	164	2.3	12.3	378	30	Type III	10 bbls fresh water spacer followed by 20 bbls Chemwash spacer
INTERMEDIATE	Tail		4600	5100	136	1.5	13.5	204	30	Class G	Dispaced with drilling mud or water
INTERMEDIATE	Lead		5100	6200	195	2.3	12.3	448	30	Type III	10 bbls fresh water spacer followed by 30 bbls Chemwash spacer

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		6200	6700	177	1.15	15.8	204	30	Class G	Displaced with drilling mud or water
PRODUCTION	Lead		6200	16970	2557	1.33	13.3	3401	25	Class G	Spacer 1: 60 bbls tuned water spacer, HALCEM TM system or equivalent, Tail spacer: 40 bbls of micro matrix cement retarder. Displace with remaining drilling mud or water

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

Describe the mud monitoring system utilized: A PVT, Stroke Counter, and flow sensor will be installed to check for flow and monitor pit volume.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
6700	16970	OIL-BASED MUD	11	13			9				Mud Summary: MW: 11 - 13 ppg; pH: 9; Funnel Viscosity: 30 - 45; Filtration: 4 - 10
0	320	WATER-BASED MUD	8.35	9			9				Mud Summary: MW: 8.35 - 9 ppg; pH: 9; Funnel Viscosity: 20 - 80; Filtration: NC

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
320	6700	WATER-BASED MUD	8.35	9.4			9				Mud Summary: MW: 8.35 - 9 .4 ppg; pH: 9; Funnel Viscosity: 30 - 100; Filtration: 6 - NC

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None planned

List of open and cased hole logs run in the well:

CEMENT BOND LOG,GAMMA RAY LOG,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGICAL LITHOLOGY LOG,OTHER,

Other log type(s):

LWD GR: from surface casing to TD; CBL/CCL/GR: ~60deg to 500ft above TOC in production casing

Coring operation description for the well:

None Planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4846 **Anticipated Surface Pressure:** 3205

Anticipated Bottom Hole Temperature(F): 170

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

La_Jara_Fed_1_2_002H_Horizontal_and_Anticollision_Plan_20230925142358.pdf

Other proposed operations facets description:

Bayless is in the process of unitizing this area. The pending La Jara Unit is identified by Serial Register Number NMNM105770971 comprised of 8,638.58 acres.

Other proposed operations facets attachment:

La_Jara_Fed_1_2_002H_Drilling_Program_010924_20240109153823.pdf

Other Variance attachment:

MINIMUM
BOP Requirements

5000 PSI

FILL LINE ABOVE THE UPPERMOST PREVENTER

RAMS MAY BE REVERSED WITH BLIND RAM ABOVE PIPE RAM

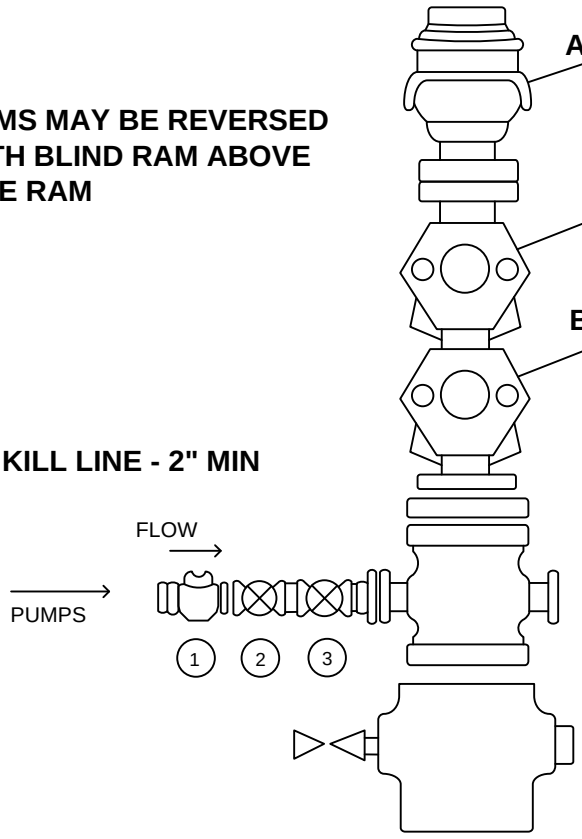
ANNULAR 13-5/8" 5000 psi W. P.

PIPE RAM 13-5/8" 5000 psi W. P.

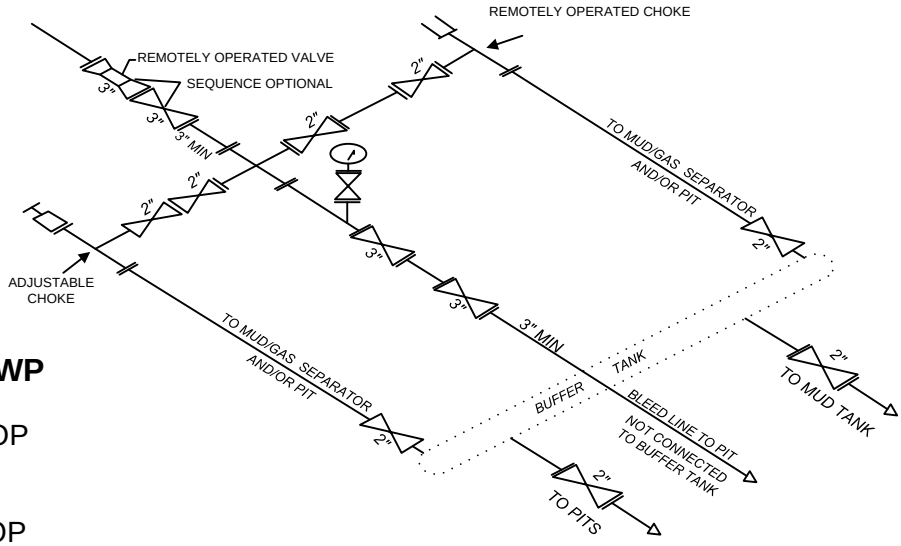
BLIND RAM 13-5/8" 5000 psi W. P.

CSG HEAD AND VALVES
5000 PSI W.P.

KILL LINE - 2" MIN



CASINGHEAD – 5000 PSI WP



5M CHOKE MANIFOLD EQUIPMENT – CONFIGURATION MAY VARY

KILL LINE

5,000 PSI - WP

Valve # 1 – Flanged check valve
Full working pressure of BOP

Valve # 2 & 3 – Flanged, minimum 2" bore
Full working pressure of BOP

GENERAL RULES AND RECOMMENDATIONS

All lines to manifold are to be at right angles (90 deg.). No 45 deg. Angles are to be used.
Blind flanges are to be used for blanking.
All studs and nuts are to be installed on all flanges.

MINIMUM
BOP Requirements

5000 PSI

FILL LINE ABOVE THE UPPERMOST PREVENTER

RAMS MAY BE REVERSED WITH BLIND RAM ABOVE PIPE RAM

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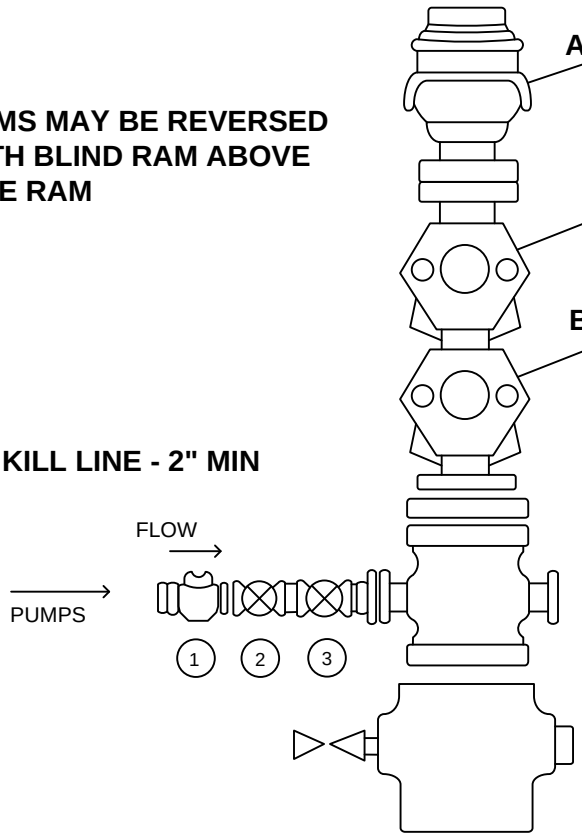
PIPE RAM 11" 5000 psi W. P.

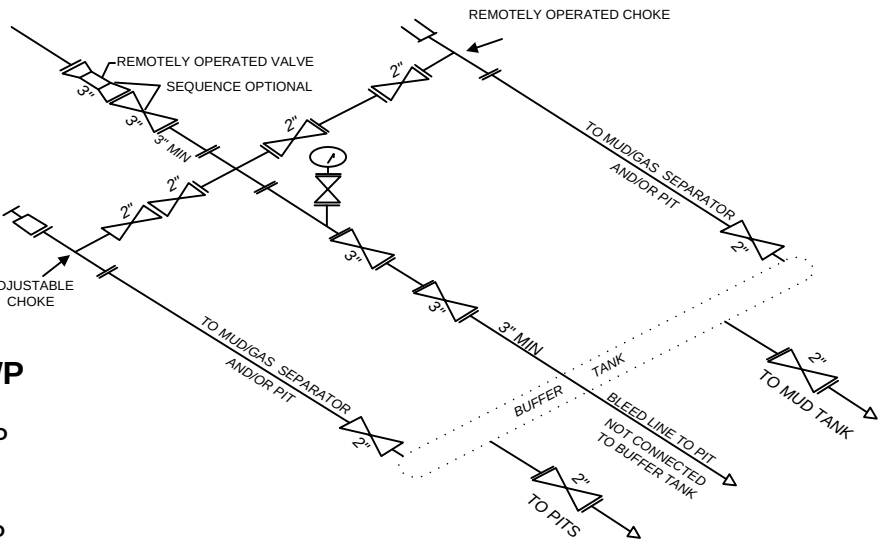
BLIND RAM 11" 5000 psi W. P.

CSG HEAD AND VALVES
5000 PSI W.P.

KILL LINE - 2" MIN



CASINGHEAD – 5000 PSI WP



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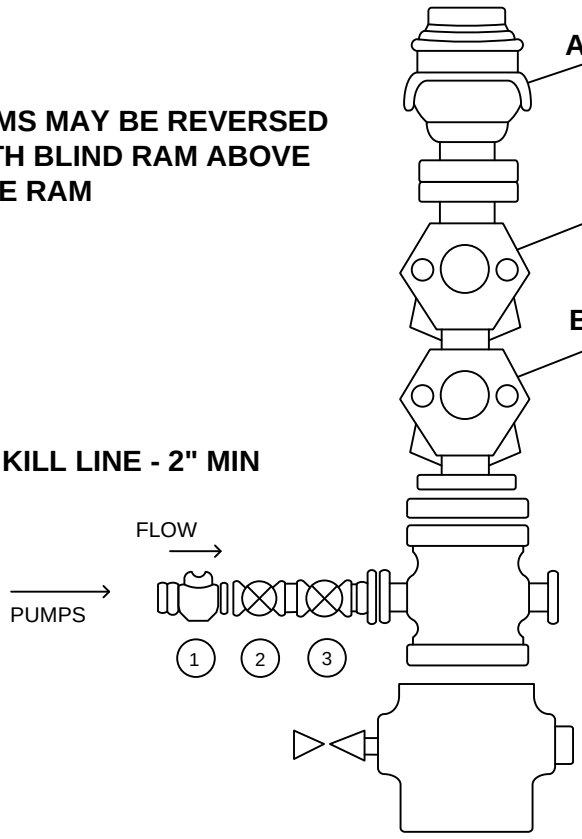
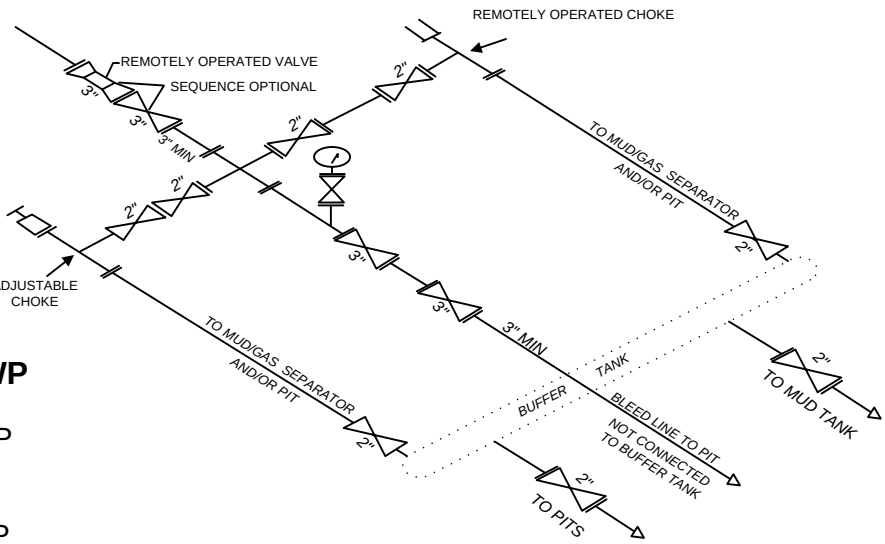


CASINGHEAD – 5000 PSI WP



5M CHOKE MANIFOLD EQUIPMENT – CONFIGURATION MAY VARY

KILL LINE **5,000 PSI - WP**

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Full working pressure of BOP

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MINIMUM
BOP Requirements

5000 PSI

FILL LINE ABOVE THE UPPERMOST PREVENTER

ANNULAR 13-5/8" 5000 psi W. P.

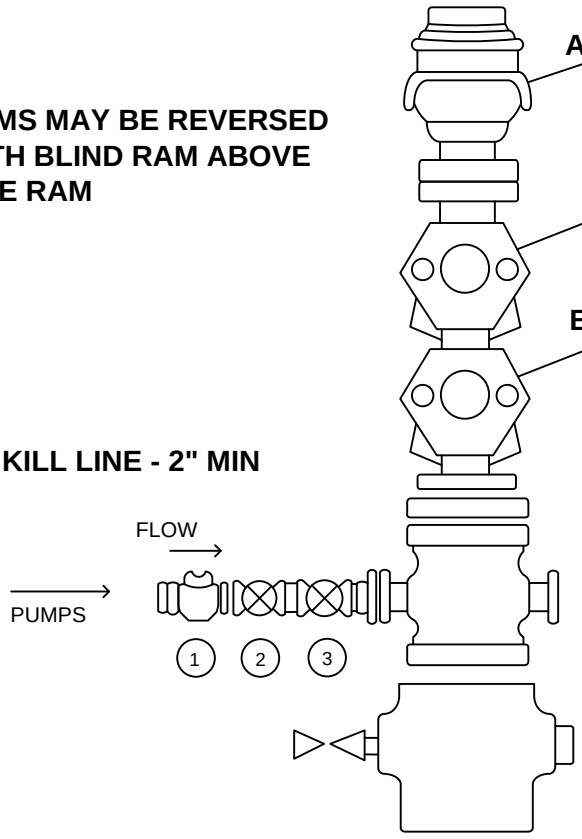
RAMS MAY BE REVERSED WITH BLIND RAM ABOVE PIPE RAM

PIPE RAM 13-5/8" 5000 psi W. P.

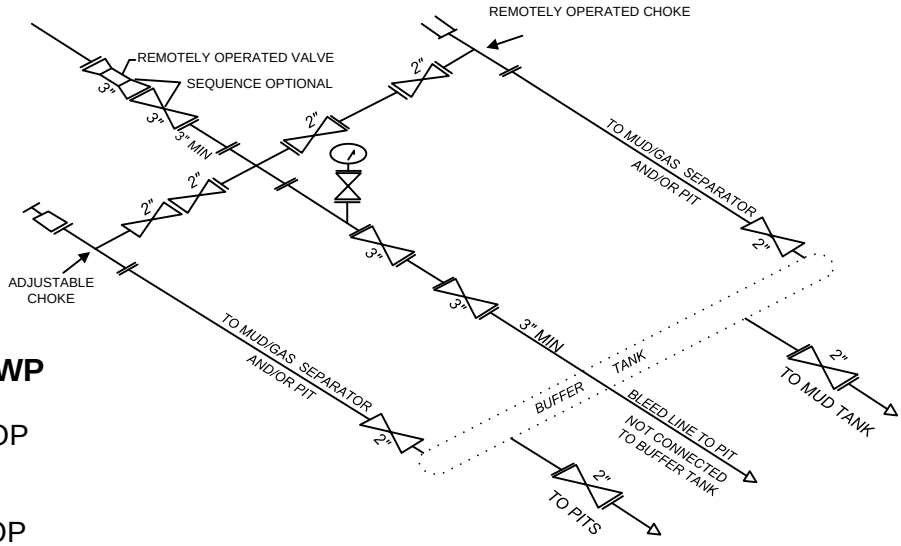
BLIND RAM 13-5/8" 5000 psi W. P.

CSG HEAD AND VALVES
5000 PSI W.P.

KILL LINE - 2" MIN



CASINGHEAD – 5000 PSI WP



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All studs and nuts are to be installed on all flanges.

Robert L. Bayless Producer LLC

La Jara Fed 1-2 002H

Casing and Safety Factor Calculations

Surface Casing Calculations:

Surface casing @ 320' MD; 13.375 54.5# J-55		
Purpose: Protect shallow fresh water and contain MASP to TD		
Maximum anticipated mud weight at surface casing depth:	9.0	ppg
Maximum anticipated mud weight at intermediate TD:	9.4	ppg
Maximum anticipated mud weight at production TD:	13.0	ppg
TVD at intermediate casing point:	6,527	ft
TVD at production casing point:	7,455	ft
Surface setting depth	320	ft
Intermediate max pore pressure	0.46	psi/ft
Production max pore pressure	0.65	psi/ft
Collapse Design:		
Evacuated 13.375in 54.5# J-55 casing with 9 ppg drilling fluid density:		
Load = 9 * 0.052 * 320'	150	psig
Rating	1,130	psig
S.F.	7.5	
Burst Design:		
Assume kick with partially evacuated hole and influx gradient of 0.22 psi/ft		
(Calculations assumes shoe will not break down)		
MASP (Load) = 6527ft * (0.46-0.22)	1,554	psig
Rating	2,730	psig
S.F.	1.8	
Tensile Design:		
13.375in 54.5# J-55: Designed on Air Weight * Buoyancy + overpull margin		
Load = 320'* 54.5# * .86 + 100,000 lbs (OPM)	115,033	lbs
Rating:	514,000	lbs
S.F.	4.5	
Overpull with S.F. = 514000 lbs / 1.3 - 15033 lbs	380,351	lbs

Surface casing - 13-3/8" notched regular pattern guide shoe. Run one (1) standard centralizer on each of the bottom three (3) joints of surface casing.

Robert L. Bayless Producer LLC

La Jara Fed 1-2 002H

Casing and Safety Factor Calculations

Production Casing Calculations:

Production Casing @ 16970.48' MD; 5.5in 20# P-110		
Maximum Anticipated Mud Weight at Total Depth	13.0 ppg	
Maximum Anticipated Equivalent Formation Pressure at Total Depth	12.5 ppg	
TVD	7,455	
Hanger Depth	N/A	
Maximum Surface Treating Pressure for Fracture Operations	11,491	
Assumed Gas Gradient for Production Operations	.115 psi/ft	
Collapse Design:		
Designed on evacuated casing properties with 13 ppg drilling fluid density with no internal back-up		
Load = 13ppg * 0.052 * 7455'	5,040	psig
Rating	11,080	psig
S.F.	2.2	
Burst Design:		
Design Consideration #1: Maximum Surface Shut-In Pressure		
MASSIP (Load) = 7455' * (0.65-0.115) psi/ft	3,982	psig
Rating	12,640	psig
S.F.	3.2	
Design Consideration #2: Maximum Surface Treating Pressure During Frac Operations		
MATP:	11,491	psig
Rating	12,640	psig
S.F.	1.1	
Tensile Design:		
Designed on Air Weight * Buoyancy		
Load = (7455ft * 20 lb/ft * 0.822) + 100,000 lbs (OPM)	222,560	lbs
Rating	667,000	lbs
S.F.	3.0	
Overpull with SF = 667000 lbs/1.3 - 122560 lbs	390,517	lbs

*Production casing - Run 5-1/2" casing with cement nose guide float shoe, 5-1/2" full or pup joint as necessary, landing collar, 5-1/2" full or pup joints as necessary, at least one (1) RSI (rapid stage initiator or sliding sleeve) positioned inside the applicable production area. Centralizer program will be determined by wellbore conditions. Production casing to be pressure tested during completion operations with frack stack installed.

Robert L. Bayless Producer LLC

La Jara Fed 1-2 002H

Casing and Safety Factor Calculations

Intermediate Casing Calculations:

Intermediate Casing @ 6700' MD; 9.625in 43.5# N-80		
Maximum Anticipated Mud Weight at Total Depth	9.40 ppg	
Maximum Anticipated Equivalent Fm Pressure at Production Total Depth	12.5 ppg	
Maximum Surface Treating Pressure for Fracture Operations	11,491	psi
Assumed Gas Gradient for Production Operations	.115 psi/ft	
Collapse Design:		
Designed on evacuated casing properties with 9.4 ppg drilling fluid density with no internal back-up		
Load = 9.4 * 0.052 * 6531'	3,192	psig
Rating	3,810	psig
S.F.	1.19	
Burst Design:		
Assume kick with partially evacuated hole and influx gradient of 0.22 psi/ft		
(Calculations assumes shoe will not break down)		
MASP (Load) = 7455ft * (0.65-0.22) psi/ft	3,199	psig
Rating	6,330	psig
S.F.	2.0	
Tensile Design:		
Designed on Air Weight * Buoyancy		
Load = (6700ft *43.5 lb/ft * 0.86) + 100,000 lbs (OPM)	350,647	lbs
Rating	825,000	lbs
S.F.	2.4	
Overpull with SF = 825000 lbs/1.3 - 250647 lbs	383,968	lbs

*Intermediate casing - 9-5/8" cement nose guide shoe with a self-fill insert float. Place float collar one (1) joint above the shoe. Install one (1) centralizer on each of the bottom three (3) joints and one standard centralizer every three (3) joints to 2500ft. Run one (1) centralizer at 2500ft, 2300ft, 2000ft, 1500ft, and 1000ft. Optional DV tools two (2) will be strategically placed above loss circulation zones anticipated in the Mesaverde and Fruitland Coal. Optional use of cancelation plugs for DV tools may be used if losses while cementing are not encountered.

Robert L Bayless, Producer LLC

Rio Arriba, NM (NAD83)
La Jara Fed 1-2
La Jara Fed 1-2 #2H

OH

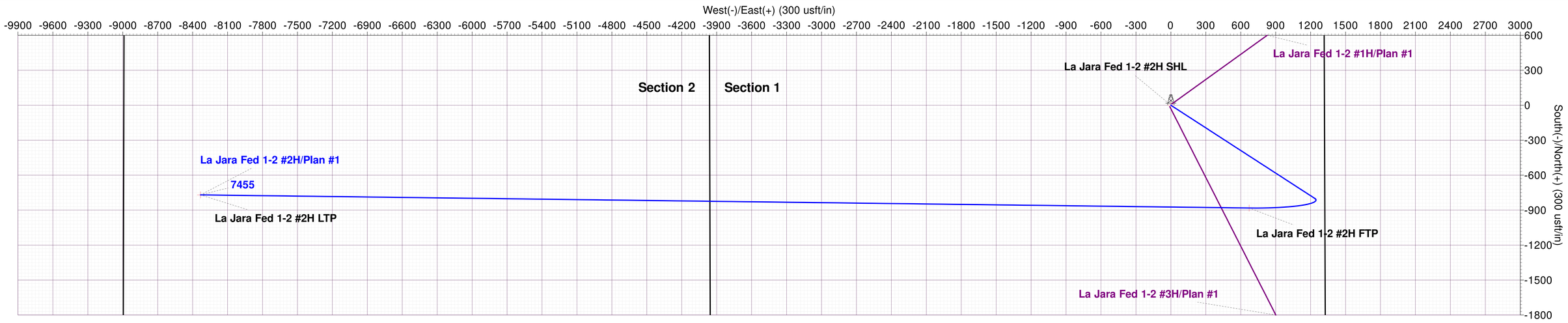
Plan: Plan #1

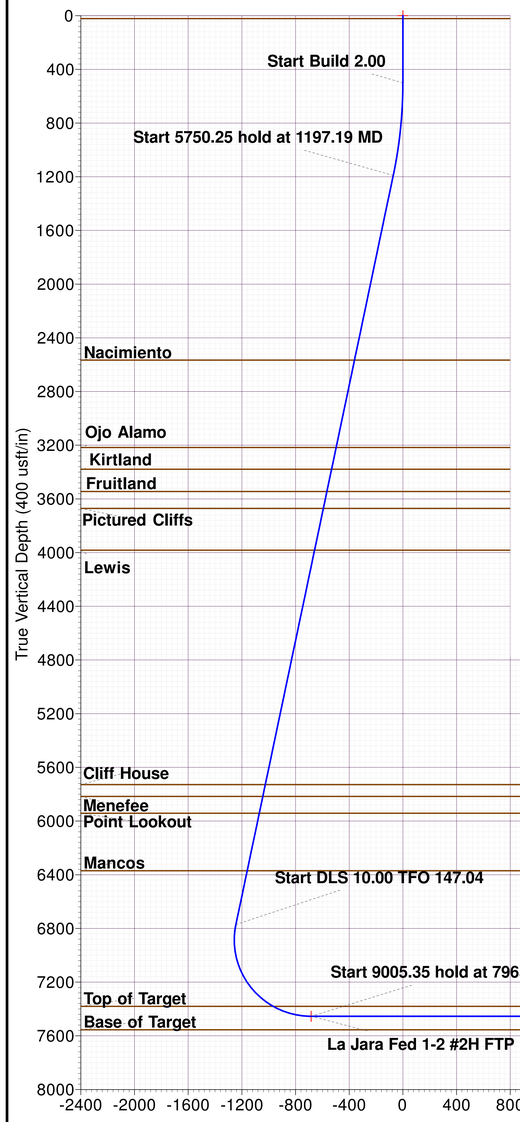
Standard Planning Report

04 April, 2023

Company: Robert L Bayless, Producer LLC
County: Rio Arriba, NM (NAD83)
Site: La Jara Fed 1-2
Well: La Jara Fed 1-2 #2H
Depth Reference: 6967+22 @ 6989.00usft (Prelim)
Rig: Prelim
Plan: Plan #1
Job #: Prelim

SCOUT DRILLING TECHNOLOGIES



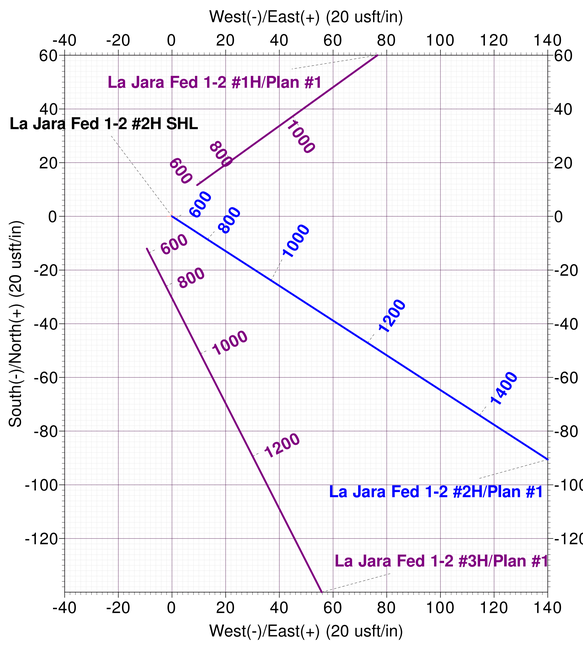


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
3	1197.19	13.94	122.89	1190.33	-45.85	70.88	2.00	122.89	-71.45	Start 5750.25 hold at 1197.19 MD
4	6947.44	13.94	122.89	6771.14	-798.39	1234.36	0.00	0.00	-1244.30	Start DLS 10.00 TFO 147.04
5	7965.13	90.00	270.72	7455.00	-881.79	672.36	10.00	147.04	-683.39	Start 9005.35 hold at 7965.13 MD
6	16970.48	90.00	270.72	7455.00	-769.17	-8332.28	0.00	0.00	8321.96	TD at 16970.48

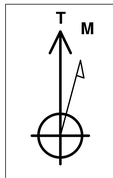
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
La Jara Fed 1-2 #2H SHL	0.00	0.00	0.00	2095966.69	1361653.78	36.756314	-107.201616
La Jara Fed 1-2 #2H FTP	7455.00	-881.79	672.36	2095078.25	1362317.34	36.753892	-107.199321
La Jara Fed 1-2 #2H LTP	7455.00	-769.17	-8332.28	2095280.38	1353314.26	36.754198	-107.230057



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
22.00	22.00	San Jose
2566.00	2614.63	Nacimiento
3217.00	3285.40	Ojo Alamo
3379.00	3452.31	Kirtland
3545.00	3623.35	Fruitland
3671.00	3753.18	Pictured Cliffs
3982.00	4073.62	Lewis
5729.00	5873.67	Cliff House
5817.00	5964.34	Menefee
5942.00	6093.13	Point Lookout
6370.00	6534.13	Mancos
7381.00	7669.39	Top of Target



Azimuths to True North
Magnetic North: 8.43°

Magnetic Field
Strength: 49492.3nT
Dip Angle: 63.37°
Date: 3/24/2023
Model: IGRF2015

TOTAL CORRECTION: 8.43°

Planning Report

Database:	EDM 5000 Multi User Db	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Company:	Robert L Bayless, Producer LLC	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Project:	Rio Arriba, NM (NAD83)	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site:	La Jara Fed 1-2	**North Reference:**	True
Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Rio Arriba, NM (NAD83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site La Jara Fed 1-2

Site Position:		**Northing:**	2,095,978.24 usft	**Latitude:**	36.756346
From:	Lat/Long	**Easting:**	1,361,663.27 usft	**Longitude:**	-107.201584
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well La Jara Fed 1-2 #2H

Well Position	**+N/-S**	0.00 usft	**Northing:**	2,095,966.68 usft	**Latitude:**	36.756314
	+E/-W	0.00 usft	**Easting:**	1,361,653.78 usft	**Longitude:**	-107.201616
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,967.00 usft
Grid Convergence:		-0.57 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/24/2023	8.43	63.37	49,492.29396395

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	270.72

Plan Survey Tool Program **Date** 4/4/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,970.48	Plan #1 (OH)	MWD+HRGM OWSG Rev5	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,197.19	13.94	122.89	1,190.33	-45.85	70.88	2.00	2.00	0.00	122.89	
6,947.44	13.94	122.89	6,771.14	-798.39	1,234.36	0.00	0.00	0.00	0.00	
7,965.13	90.00	270.72	7,455.00	-881.79	672.36	10.00	7.47	14.53	147.04	La Jara Fed 1-2 #2H I
16,970.48	90.00	270.72	7,455.00	-769.17	-8,332.28	0.00	0.00	0.00	0.00	La Jara Fed 1-2 #2H I

Planning Report

Database:	EDM 5000 Multi User Db	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Company:	Robert L Bayless, Producer LLC	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Project:	Rio Arriba, NM (NAD83)	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site:	La Jara Fed 1-2	**North Reference:**	True
Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.00	0.00	0.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00
San Jose									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
600.00	2.00	122.89	599.98	-0.95	1.47	-1.48	2.00	2.00	0.00
700.00	4.00	122.89	699.84	-3.79	5.86	-5.91	2.00	2.00	0.00
800.00	6.00	122.89	799.45	-8.52	13.18	-13.28	2.00	2.00	0.00
900.00	8.00	122.89	898.70	-15.14	23.41	-23.60	2.00	2.00	0.00
1,000.00	10.00	122.89	997.47	-23.64	36.54	-36.84	2.00	2.00	0.00
1,100.00	12.00	122.89	1,095.62	-34.00	52.57	-52.99	2.00	2.00	0.00
1,197.19	13.94	122.89	1,190.33	-45.85	70.88	-71.45	2.00	2.00	0.00
Start 5750.25 hold at 1197.19 MD									
1,200.00	13.94	122.89	1,193.06	-46.22	71.45	-72.03	0.00	0.00	0.00
1,300.00	13.94	122.89	1,290.11	-59.30	91.69	-92.42	0.00	0.00	0.00
1,400.00	13.94	122.89	1,387.16	-72.39	111.92	-112.82	0.00	0.00	0.00
1,500.00	13.94	122.89	1,484.22	-85.48	132.15	-133.22	0.00	0.00	0.00
1,600.00	13.94	122.89	1,581.27	-98.56	152.39	-153.61	0.00	0.00	0.00
1,700.00	13.94	122.89	1,678.32	-111.65	172.62	-174.01	0.00	0.00	0.00
1,800.00	13.94	122.89	1,775.37	-124.74	192.85	-194.41	0.00	0.00	0.00
1,900.00	13.94	122.89	1,872.43	-137.83	213.09	-214.80	0.00	0.00	0.00
2,000.00	13.94	122.89	1,969.48	-150.91	233.32	-235.20	0.00	0.00	0.00
2,100.00	13.94	122.89	2,066.53	-164.00	253.55	-255.59	0.00	0.00	0.00
2,200.00	13.94	122.89	2,163.59	-177.09	273.79	-275.99	0.00	0.00	0.00
2,300.00	13.94	122.89	2,260.64	-190.17	294.02	-296.39	0.00	0.00	0.00
2,400.00	13.94	122.89	2,357.69	-203.26	314.25	-316.78	0.00	0.00	0.00
2,500.00	13.94	122.89	2,454.75	-216.35	334.49	-337.18	0.00	0.00	0.00
2,600.00	13.94	122.89	2,551.80	-229.43	354.72	-357.58	0.00	0.00	0.00
2,614.63	13.94	122.89	2,566.00	-231.35	357.68	-360.56	0.00	0.00	0.00
Nacimiento									
2,700.00	13.94	122.89	2,648.85	-242.52	374.95	-377.97	0.00	0.00	0.00
2,800.00	13.94	122.89	2,745.91	-255.61	395.19	-398.37	0.00	0.00	0.00
2,900.00	13.94	122.89	2,842.96	-268.70	415.42	-418.77	0.00	0.00	0.00
3,000.00	13.94	122.89	2,940.01	-281.78	435.66	-439.16	0.00	0.00	0.00
3,100.00	13.94	122.89	3,037.07	-294.87	455.89	-459.56	0.00	0.00	0.00
3,200.00	13.94	122.89	3,134.12	-307.96	476.12	-479.95	0.00	0.00	0.00
3,285.40	13.94	122.89	3,217.00	-319.13	493.40	-497.37	0.00	0.00	0.00
Ojo Alamo									
3,300.00	13.94	122.89	3,231.17	-321.04	496.36	-500.35	0.00	0.00	0.00
3,400.00	13.94	122.89	3,328.23	-334.13	516.59	-520.75	0.00	0.00	0.00
3,452.31	13.94	122.89	3,379.00	-340.98	527.17	-531.42	0.00	0.00	0.00
Kirtland									
3,500.00	13.94	122.89	3,425.28	-347.22	536.82	-541.14	0.00	0.00	0.00
3,600.00	13.94	122.89	3,522.33	-360.31	557.06	-561.54	0.00	0.00	0.00
3,623.36	13.94	122.89	3,545.00	-363.36	561.78	-566.30	0.00	0.00	0.00
Fruitland									
3,700.00	13.94	122.89	3,619.39	-373.39	577.29	-581.94	0.00	0.00	0.00
3,753.18	13.94	122.89	3,671.00	-380.35	588.05	-592.78	0.00	0.00	0.00
Pictured Cliffs									

Planning Report

Database:	EDM 5000 Multi User Db	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Company:	Robert L Bayless, Producer LLC	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Project:	Rio Arriba, NM (NAD83)	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site:	La Jara Fed 1-2	**North Reference:**	True
Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,800.00	13.94	122.89	3,716.44	-386.48	597.52	-602.33	0.00	0.00	0.00
3,900.00	13.94	122.89	3,813.49	-399.57	617.76	-622.73	0.00	0.00	0.00
4,000.00	13.94	122.89	3,910.55	-412.65	637.99	-643.13	0.00	0.00	0.00
4,073.62	13.94	122.89	3,982.00	-422.29	652.89	-658.14	0.00	0.00	0.00
Lewis									
4,100.00	13.94	122.89	4,007.60	-425.74	658.22	-663.52	0.00	0.00	0.00
4,200.00	13.94	122.89	4,104.65	-438.83	678.46	-683.92	0.00	0.00	0.00
4,300.00	13.94	122.89	4,201.71	-451.92	698.69	-704.31	0.00	0.00	0.00
4,400.00	13.94	122.89	4,298.76	-465.00	718.92	-724.71	0.00	0.00	0.00
4,500.00	13.94	122.89	4,395.81	-478.09	739.16	-745.11	0.00	0.00	0.00
4,600.00	13.94	122.89	4,492.87	-491.18	759.39	-765.50	0.00	0.00	0.00
4,700.00	13.94	122.89	4,589.92	-504.26	779.63	-785.90	0.00	0.00	0.00
4,800.00	13.94	122.89	4,686.97	-517.35	799.86	-806.30	0.00	0.00	0.00
4,900.00	13.94	122.89	4,784.03	-530.44	820.09	-826.69	0.00	0.00	0.00
5,000.00	13.94	122.89	4,881.08	-543.53	840.33	-847.09	0.00	0.00	0.00
5,100.00	13.94	122.89	4,978.13	-556.61	860.56	-867.49	0.00	0.00	0.00
5,200.00	13.94	122.89	5,075.19	-569.70	880.79	-887.88	0.00	0.00	0.00
5,300.00	13.94	122.89	5,172.24	-582.79	901.03	-908.28	0.00	0.00	0.00
5,400.00	13.94	122.89	5,269.29	-595.87	921.26	-928.68	0.00	0.00	0.00
5,500.00	13.94	122.89	5,366.34	-608.96	941.49	-949.07	0.00	0.00	0.00
5,600.00	13.94	122.89	5,463.40	-622.05	961.73	-969.47	0.00	0.00	0.00
5,700.00	13.94	122.89	5,560.45	-635.14	981.96	-989.86	0.00	0.00	0.00
5,800.00	13.94	122.89	5,657.50	-648.22	1,002.19	-1,010.26	0.00	0.00	0.00
5,873.67	13.94	122.89	5,729.00	-657.86	1,017.10	-1,025.29	0.00	0.00	0.00
Cliff House									
5,900.00	13.94	122.89	5,754.56	-661.31	1,022.43	-1,030.66	0.00	0.00	0.00
5,964.34	13.94	122.89	5,817.00	-669.73	1,035.45	-1,043.78	0.00	0.00	0.00
Menefee									
6,000.00	13.94	122.89	5,851.61	-674.40	1,042.66	-1,051.05	0.00	0.00	0.00
6,093.13	13.94	122.89	5,942.00	-686.59	1,061.51	-1,070.05	0.00	0.00	0.00
Point Lookout									
6,100.00	13.94	122.89	5,948.66	-687.48	1,062.89	-1,071.45	0.00	0.00	0.00
6,200.00	13.94	122.89	6,045.72	-700.57	1,083.13	-1,091.85	0.00	0.00	0.00
6,300.00	13.94	122.89	6,142.77	-713.66	1,103.36	-1,112.24	0.00	0.00	0.00
6,400.00	13.94	122.89	6,239.82	-726.75	1,123.60	-1,132.64	0.00	0.00	0.00
6,500.00	13.94	122.89	6,336.88	-739.83	1,143.83	-1,153.04	0.00	0.00	0.00
6,534.13	13.94	122.89	6,370.00	-744.30	1,150.73	-1,160.00	0.00	0.00	0.00
Mancos									
6,600.00	13.94	122.89	6,433.93	-752.92	1,164.06	-1,173.43	0.00	0.00	0.00
6,700.00	13.94	122.89	6,530.98	-766.01	1,184.30	-1,193.83	0.00	0.00	0.00
6,800.00	13.94	122.89	6,628.04	-779.09	1,204.53	-1,214.22	0.00	0.00	0.00
6,900.00	13.94	122.89	6,725.09	-792.18	1,224.76	-1,234.62	0.00	0.00	0.00
6,947.44	13.94	122.89	6,771.14	-798.39	1,234.36	-1,244.30	0.00	0.00	0.00
Start DLS 10.00 TFO 147.04									
6,950.00	13.73	123.48	6,773.62	-798.72	1,234.87	-1,244.81	10.00	-8.36	22.92
7,000.00	9.95	139.66	6,822.56	-805.29	1,242.62	-1,252.64	10.00	-7.57	32.37
7,050.00	7.68	169.33	6,871.99	-811.87	1,246.04	-1,256.14	10.00	-4.53	59.32
7,100.00	8.30	205.65	6,921.54	-818.41	1,245.10	-1,255.28	10.00	1.23	72.65
7,150.00	11.33	229.42	6,970.82	-824.86	1,239.80	-1,250.07	10.00	6.07	47.54
7,200.00	15.41	242.06	7,019.46	-831.18	1,230.20	-1,240.54	10.00	8.17	25.28
7,250.00	19.91	249.31	7,067.10	-837.30	1,216.35	-1,226.78	10.00	9.00	14.50
7,300.00	24.60	253.93	7,113.36	-843.20	1,198.37	-1,208.87	10.00	9.37	9.24
7,350.00	29.39	257.14	7,157.91	-848.81	1,176.40	-1,186.97	10.00	9.57	6.41

Planning Report

Database:	EDM 5000 Multi User Db	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Company:	Robert L Bayless, Producer LLC	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Project:	Rio Arriba, NM (NAD83)	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site:	La Jara Fed 1-2	**North Reference:**	True
Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,400.00	34.23	259.51	7,200.39	-854.11	1,150.60	-1,161.24	10.00	9.68	4.74
7,450.00	39.10	261.35	7,240.48	-859.04	1,121.16	-1,131.87	10.00	9.76	3.69
7,500.00	44.01	262.85	7,277.89	-863.58	1,088.32	-1,099.08	10.00	9.80	2.99
7,550.00	48.92	264.10	7,312.32	-867.68	1,052.32	-1,063.14	10.00	9.83	2.50
7,600.00	53.85	265.17	7,343.51	-871.32	1,013.43	-1,024.30	10.00	9.86	2.15
7,650.00	58.79	266.12	7,371.23	-874.46	971.96	-982.87	10.00	9.87	1.90
7,669.39	60.71	266.46	7,381.00	-875.55	955.24	-966.17	10.00	9.88	1.76
Top of Target									
7,700.00	63.73	266.98	7,395.26	-877.09	928.21	-939.16	10.00	9.89	1.68
7,750.00	68.68	267.76	7,415.43	-879.19	882.52	-893.50	10.00	9.90	1.57
7,800.00	73.63	268.49	7,431.57	-880.73	835.24	-846.24	10.00	9.90	1.46
7,850.00	78.59	269.19	7,443.57	-881.71	786.73	-797.74	10.00	9.91	1.39
7,900.00	83.54	269.86	7,451.33	-882.12	737.35	-748.38	10.00	9.91	1.34
7,950.00	88.50	270.52	7,454.80	-881.96	687.49	-698.52	10.00	9.91	1.32
7,965.13	90.00	270.72	7,455.00	-881.79	672.36	-683.39	10.00	9.91	1.31
Start 9005.35 hold at 7965.13 MD									
8,000.00	90.00	270.72	7,455.00	-881.36	637.49	-648.52	0.00	0.00	0.00
8,100.00	90.00	270.72	7,455.00	-880.11	537.50	-548.52	0.00	0.00	0.00
8,200.00	90.00	270.72	7,455.00	-878.86	437.51	-448.52	0.00	0.00	0.00
8,300.00	90.00	270.72	7,455.00	-877.60	337.52	-348.52	0.00	0.00	0.00
8,400.00	90.00	270.72	7,455.00	-876.35	237.52	-248.52	0.00	0.00	0.00
8,500.00	90.00	270.72	7,455.00	-875.10	137.53	-148.52	0.00	0.00	0.00
8,600.00	90.00	270.72	7,455.00	-873.85	37.54	-48.52	0.00	0.00	0.00
8,700.00	90.00	270.72	7,455.00	-872.60	-62.45	51.48	0.00	0.00	0.00
8,800.00	90.00	270.72	7,455.00	-871.35	-162.44	151.48	0.00	0.00	0.00
8,900.00	90.00	270.72	7,455.00	-870.10	-262.44	251.48	0.00	0.00	0.00
9,000.00	90.00	270.72	7,455.00	-868.85	-362.43	351.48	0.00	0.00	0.00
9,100.00	90.00	270.72	7,455.00	-867.60	-462.42	451.48	0.00	0.00	0.00
9,200.00	90.00	270.72	7,455.00	-866.35	-562.41	551.48	0.00	0.00	0.00
9,300.00	90.00	270.72	7,455.00	-865.10	-662.41	651.48	0.00	0.00	0.00
9,400.00	90.00	270.72	7,455.00	-863.85	-762.40	751.48	0.00	0.00	0.00
9,500.00	90.00	270.72	7,455.00	-862.60	-862.39	851.48	0.00	0.00	0.00
9,600.00	90.00	270.72	7,455.00	-861.35	-962.38	951.48	0.00	0.00	0.00
9,700.00	90.00	270.72	7,455.00	-860.10	-1,062.37	1,051.48	0.00	0.00	0.00
9,800.00	90.00	270.72	7,455.00	-858.84	-1,162.37	1,151.48	0.00	0.00	0.00
9,900.00	90.00	270.72	7,455.00	-857.59	-1,262.36	1,251.48	0.00	0.00	0.00
10,000.00	90.00	270.72	7,455.00	-856.34	-1,362.35	1,351.48	0.00	0.00	0.00
10,100.00	90.00	270.72	7,455.00	-855.09	-1,462.34	1,451.48	0.00	0.00	0.00
10,200.00	90.00	270.72	7,455.00	-853.84	-1,562.34	1,551.48	0.00	0.00	0.00
10,300.00	90.00	270.72	7,455.00	-852.59	-1,662.33	1,651.48	0.00	0.00	0.00
10,400.00	90.00	270.72	7,455.00	-851.34	-1,762.32	1,751.48	0.00	0.00	0.00
10,500.00	90.00	270.72	7,455.00	-850.09	-1,862.31	1,851.48	0.00	0.00	0.00
10,600.00	90.00	270.72	7,455.00	-848.84	-1,962.30	1,951.48	0.00	0.00	0.00
10,700.00	90.00	270.72	7,455.00	-847.59	-2,062.30	2,051.48	0.00	0.00	0.00
10,800.00	90.00	270.72	7,455.00	-846.34	-2,162.29	2,151.48	0.00	0.00	0.00
10,900.00	90.00	270.72	7,455.00	-845.09	-2,262.28	2,251.48	0.00	0.00	0.00
11,000.00	90.00	270.72	7,455.00	-843.84	-2,362.27	2,351.48	0.00	0.00	0.00
11,100.00	90.00	270.72	7,455.00	-842.59	-2,462.26	2,451.48	0.00	0.00	0.00
11,200.00	90.00	270.72	7,455.00	-841.34	-2,562.26	2,551.48	0.00	0.00	0.00
11,300.00	90.00	270.72	7,455.00	-840.08	-2,662.25	2,651.48	0.00	0.00	0.00
11,400.00	90.00	270.72	7,455.00	-838.83	-2,762.24	2,751.48	0.00	0.00	0.00
11,500.00	90.00	270.72	7,455.00	-837.58	-2,862.23	2,851.48	0.00	0.00	0.00
11,600.00	90.00	270.72	7,455.00	-836.33	-2,962.23	2,951.48	0.00	0.00	0.00
11,700.00	90.00	270.72	7,455.00	-835.08	-3,062.22	3,051.48	0.00	0.00	0.00

Planning Report

Database:	EDM 5000 Multi User Db	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Company:	Robert L Bayless, Producer LLC	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Project:	Rio Arriba, NM (NAD83)	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site:	La Jara Fed 1-2	**North Reference:**	True
Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,800.00	90.00	270.72	7,455.00	-833.83	-3,162.21	3,151.48	0.00	0.00	0.00
11,900.00	90.00	270.72	7,455.00	-832.58	-3,262.20	3,251.48	0.00	0.00	0.00
12,000.00	90.00	270.72	7,455.00	-831.33	-3,362.19	3,351.48	0.00	0.00	0.00
12,100.00	90.00	270.72	7,455.00	-830.08	-3,462.19	3,451.48	0.00	0.00	0.00
12,200.00	90.00	270.72	7,455.00	-828.83	-3,562.18	3,551.48	0.00	0.00	0.00
12,300.00	90.00	270.72	7,455.00	-827.58	-3,662.17	3,651.48	0.00	0.00	0.00
12,400.00	90.00	270.72	7,455.00	-826.33	-3,762.16	3,751.48	0.00	0.00	0.00
12,500.00	90.00	270.72	7,455.00	-825.08	-3,862.16	3,851.48	0.00	0.00	0.00
12,600.00	90.00	270.72	7,455.00	-823.83	-3,962.15	3,951.48	0.00	0.00	0.00
12,700.00	90.00	270.72	7,455.00	-822.58	-4,062.14	4,051.48	0.00	0.00	0.00
12,800.00	90.00	270.72	7,455.00	-821.32	-4,162.13	4,151.48	0.00	0.00	0.00
12,900.00	90.00	270.72	7,455.00	-820.07	-4,262.12	4,251.48	0.00	0.00	0.00
13,000.00	90.00	270.72	7,455.00	-818.82	-4,362.12	4,351.48	0.00	0.00	0.00
13,100.00	90.00	270.72	7,455.00	-817.57	-4,462.11	4,451.48	0.00	0.00	0.00
13,200.00	90.00	270.72	7,455.00	-816.32	-4,562.10	4,551.48	0.00	0.00	0.00
13,300.00	90.00	270.72	7,455.00	-815.07	-4,662.09	4,651.48	0.00	0.00	0.00
13,400.00	90.00	270.72	7,455.00	-813.82	-4,762.09	4,751.48	0.00	0.00	0.00
13,500.00	90.00	270.72	7,455.00	-812.57	-4,862.08	4,851.48	0.00	0.00	0.00
13,600.00	90.00	270.72	7,455.00	-811.32	-4,962.07	4,951.48	0.00	0.00	0.00
13,700.00	90.00	270.72	7,455.00	-810.07	-5,062.06	5,051.48	0.00	0.00	0.00
13,800.00	90.00	270.72	7,455.00	-808.82	-5,162.05	5,151.48	0.00	0.00	0.00
13,900.00	90.00	270.72	7,455.00	-807.57	-5,262.05	5,251.48	0.00	0.00	0.00
14,000.00	90.00	270.72	7,455.00	-806.32	-5,362.04	5,351.48	0.00	0.00	0.00
14,100.00	90.00	270.72	7,455.00	-805.07	-5,462.03	5,451.48	0.00	0.00	0.00
14,200.00	90.00	270.72	7,455.00	-803.82	-5,562.02	5,551.48	0.00	0.00	0.00
14,300.00	90.00	270.72	7,455.00	-802.56	-5,662.01	5,651.48	0.00	0.00	0.00
14,400.00	90.00	270.72	7,455.00	-801.31	-5,762.01	5,751.48	0.00	0.00	0.00
14,500.00	90.00	270.72	7,455.00	-800.06	-5,862.00	5,851.48	0.00	0.00	0.00
14,600.00	90.00	270.72	7,455.00	-798.81	-5,961.99	5,951.48	0.00	0.00	0.00
14,700.00	90.00	270.72	7,455.00	-797.56	-6,061.98	6,051.48	0.00	0.00	0.00
14,800.00	90.00	270.72	7,455.00	-796.31	-6,161.98	6,151.48	0.00	0.00	0.00
14,900.00	90.00	270.72	7,455.00	-795.06	-6,261.97	6,251.48	0.00	0.00	0.00
15,000.00	90.00	270.72	7,455.00	-793.81	-6,361.96	6,351.48	0.00	0.00	0.00
15,100.00	90.00	270.72	7,455.00	-792.56	-6,461.95	6,451.48	0.00	0.00	0.00
15,200.00	90.00	270.72	7,455.00	-791.31	-6,561.94	6,551.48	0.00	0.00	0.00
15,300.00	90.00	270.72	7,455.00	-790.06	-6,661.94	6,651.48	0.00	0.00	0.00
15,400.00	90.00	270.72	7,455.00	-788.81	-6,761.93	6,751.48	0.00	0.00	0.00
15,500.00	90.00	270.72	7,455.00	-787.56	-6,861.92	6,851.48	0.00	0.00	0.00
15,600.00	90.00	270.72	7,455.00	-786.31	-6,961.91	6,951.48	0.00	0.00	0.00
15,700.00	90.00	270.72	7,455.00	-785.05	-7,061.91	7,051.48	0.00	0.00	0.00
15,800.00	90.00	270.72	7,455.00	-783.80	-7,161.90	7,151.48	0.00	0.00	0.00
15,900.00	90.00	270.72	7,455.00	-782.55	-7,261.89	7,251.48	0.00	0.00	0.00
16,000.00	90.00	270.72	7,455.00	-781.30	-7,361.88	7,351.48	0.00	0.00	0.00
16,100.00	90.00	270.72	7,455.00	-780.05	-7,461.87	7,451.48	0.00	0.00	0.00
16,200.00	90.00	270.72	7,455.00	-778.80	-7,561.87	7,551.48	0.00	0.00	0.00
16,300.00	90.00	270.72	7,455.00	-777.55	-7,661.86	7,651.48	0.00	0.00	0.00
16,400.00	90.00	270.72	7,455.00	-776.30	-7,761.85	7,751.48	0.00	0.00	0.00
16,500.00	90.00	270.72	7,455.00	-775.05	-7,861.84	7,851.48	0.00	0.00	0.00
16,600.00	90.00	270.72	7,455.00	-773.80	-7,961.83	7,951.48	0.00	0.00	0.00
16,700.00	90.00	270.72	7,455.00	-772.55	-8,061.83	8,051.48	0.00	0.00	0.00
16,800.00	90.00	270.72	7,455.00	-771.30	-8,161.82	8,151.48	0.00	0.00	0.00
16,900.00	90.00	270.72	7,455.00	-770.05	-8,261.81	8,251.48	0.00	0.00	0.00
16,970.48	90.00	270.72	7,455.00	-769.17	-8,332.28	8,321.96	0.00	0.00	0.00

Planning Report

Database:	EDM 5000 Multi User Db	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Company:	Robert L Bayless, Producer LLC	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Project:	Rio Arriba, NM (NAD83)	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site:	La Jara Fed 1-2	**North Reference:**	True
Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD at 16970.48									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
La Jara Fed 1-2 #2H SH - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	2,095,966.68	1,361,653.78	36.756314	-107.201616
La Jara Fed 1-2 #2H LTI - plan hits target center - Point	0.00	0.00	7,455.00	-769.17	-8,332.28	2,095,280.38	1,353,314.26	36.754198	-107.230057
La Jara Fed 1-2 #2H FTI - plan hits target center - Point	0.00	0.00	7,455.00	-881.79	672.36	2,095,078.25	1,362,317.34	36.753892	-107.199321

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
22.00	22.00	San Jose			
2,614.63	2,566.00	Nacimiento			
3,285.40	3,217.00	Ojo Alamo			
3,452.31	3,379.00	Kirtland			
3,623.36	3,545.00	Fruitland			
3,753.18	3,671.00	Pictured Cliffs			
4,073.62	3,982.00	Lewis			
5,873.67	5,729.00	Cliff House			
5,964.34	5,817.00	Menefee			
6,093.13	5,942.00	Point Lookout			
6,534.13	6,370.00	Mancos			
7,669.39	7,381.00	Top of Target			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Start Build 2.00
1,197.19	1,190.33	-45.85	70.88	Start 5750.25 hold at 1197.19 MD
6,947.44	6,771.14	-798.39	1,234.36	Start DLS 10.00 TFO 147.04
7,965.13	7,455.00	-881.79	672.36	Start 9005.35 hold at 7965.13 MD
16,970.48	7,455.00	-769.17	-8,332.28	TD at 16970.48

Robert L Bayless, Producer LLC

Rio Arriba, NM (NAD83)
La Jara Fed 1-2
La Jara Fed 1-2 #2H

OH
Plan #1

Anticollision Report

04 April, 2023

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 19,999.96usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 4/4/2023

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,970.48	Plan #1 (OH)	MWD+HRGM OWSG Rev5	OWSG MWD + HRGM

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
La Jara Fed 1-2						
La Jara Fed 1-2 #1H - OH - Plan #1	500.00	500.00	14.95	9.77	2.886	CC, ES
La Jara Fed 1-2 #1H - OH - Plan #1	600.00	599.46	16.50	10.57	2.785	SF
La Jara Fed 1-2 #3H - OH - Plan #1	500.00	500.00	15.24	10.06	2.942	CC, ES
La Jara Fed 1-2 #3H - OH - Plan #1	600.00	599.77	16.13	10.50	2.866	SF

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #1H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5 — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	38.82	11.65	9.37	14.95				
100.00	100.00	100.00	100.00	0.90	0.90	38.82	11.65	9.37	14.95	13.16	1.79	8.333	
200.00	200.00	200.00	200.00	1.48	1.48	38.82	11.65	9.37	14.95	11.98	2.97	5.035	
300.00	300.00	300.00	300.00	1.92	1.92	38.82	11.65	9.37	14.95	11.11	3.84	3.891	
400.00	400.00	400.00	400.00	2.28	2.28	38.82	11.65	9.37	14.95	10.40	4.56	3.280	
500.00	500.00	500.00	500.00	2.59	2.59	38.82	11.65	9.37	14.95	9.77	5.18	2.886	CC, ES
600.00	599.98	599.46	599.44	2.99	3.12	-88.45	12.66	10.78	16.50	10.57	5.92	2.785	SF
700.00	699.84	698.69	698.53	3.95	4.05	-97.57	15.67	14.96	21.53	14.59	6.94	3.104	
800.00	799.45	797.47	796.94	4.76	4.84	-105.70	20.66	21.90	30.57	22.80	7.77	3.933	
900.00	898.70	895.58	894.32	5.47	5.54	-111.22	27.58	31.51	43.70	35.14	8.56	5.106	
1,000.00	997.47	992.80	990.37	6.14	6.18	-114.69	36.35	43.69	60.83	51.50	9.33	6.521	
1,100.00	1,095.62	1,088.93	1,084.79	6.77	6.79	-116.86	46.89	58.33	81.82	71.73	10.09	8.112	
1,197.19	1,190.33	1,181.16	1,174.76	7.34	7.38	-118.18	58.73	74.79	105.81	94.97	10.83	9.767	
1,200.00	1,193.06	1,183.80	1,177.33	7.34	7.40	-118.23	59.10	75.30	106.55	95.70	10.85	9.819	
1,300.00	1,290.11	1,279.55	1,270.20	7.83	7.83	-119.22	72.70	94.19	133.51	121.78	11.74	11.376	
1,400.00	1,387.16	1,375.81	1,363.56	8.12	8.13	-119.85	86.41	113.24	160.55	148.27	12.29	13.067	
1,500.00	1,484.22	1,472.07	1,456.91	8.43	8.42	-120.30	100.13	132.30	187.61	174.75	12.86	14.594	
1,600.00	1,581.27	1,568.33	1,550.26	8.75	8.73	-120.64	113.85	151.36	214.67	201.22	13.45	15.961	
1,700.00	1,678.32	1,664.60	1,643.62	9.09	9.06	-120.90	127.57	170.42	241.73	227.67	14.06	17.188	
1,800.00	1,775.37	1,760.86	1,736.97	9.45	9.39	-121.11	141.29	189.48	268.80	254.11	14.70	18.288	
1,900.00	1,872.43	1,857.12	1,830.33	9.81	9.74	-121.29	155.01	208.54	295.88	280.53	15.35	19.278	
2,000.00	1,969.48	1,953.38	1,923.68	10.19	10.10	-121.43	168.72	227.60	322.95	306.94	16.01	20.170	
2,100.00	2,066.53	2,049.65	2,017.03	10.57	10.47	-121.55	182.44	246.66	350.03	333.34	16.69	20.974	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #1H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,200.00	2,163.59	2,145.91	2,110.39	10.96	10.84	-121.65	196.16	265.71	377.11	359.73	17.38	21.703	
2,300.00	2,260.64	2,242.17	2,203.74	11.37	11.23	-121.74	209.88	284.77	404.18	386.11	18.07	22.364	
2,400.00	2,357.69	2,338.43	2,297.10	11.77	11.62	-121.82	223.60	303.83	431.26	412.48	18.78	22.966	
2,500.00	2,454.75	2,434.69	2,390.45	12.19	12.01	-121.89	237.32	322.89	458.34	438.85	19.49	23.514	
2,600.00	2,551.80	2,530.96	2,483.80	12.61	12.41	-121.95	251.03	341.95	485.42	465.21	20.21	24.016	
2,700.00	2,648.85	2,627.22	2,577.16	13.03	12.82	-122.00	264.75	361.01	512.51	491.57	20.94	24.476	
2,800.00	2,745.91	2,723.48	2,670.51	13.46	13.23	-122.05	278.47	380.07	539.59	517.91	21.67	24.898	
2,900.00	2,842.96	2,819.74	2,763.87	13.89	13.64	-122.10	292.19	399.13	566.67	544.26	22.41	25.288	
3,000.00	2,940.01	2,916.00	2,857.22	14.33	14.06	-122.14	305.91	418.19	593.75	570.60	23.15	25.647	
3,100.00	3,037.07	3,012.27	2,950.57	14.77	14.48	-122.18	319.62	437.24	620.83	596.94	23.90	25.980	
3,200.00	3,134.12	3,108.53	3,043.93	15.21	14.91	-122.21	333.34	456.30	647.92	623.27	24.65	26.289	
3,300.00	3,231.17	3,204.79	3,137.28	15.66	15.34	-122.24	347.06	475.36	675.00	649.60	25.40	26.576	
3,400.00	3,328.23	3,301.05	3,230.64	16.11	15.77	-122.27	360.78	494.42	702.08	675.93	26.16	26.843	
3,500.00	3,425.28	3,397.32	3,323.99	16.56	16.20	-122.30	374.50	513.48	729.16	702.25	26.91	27.092	
3,600.00	3,522.33	3,493.58	3,417.34	17.01	16.63	-122.32	388.22	532.54	756.25	728.57	27.68	27.325	
3,700.00	3,619.39	3,589.84	3,510.70	17.46	17.07	-122.34	401.93	551.60	783.33	754.89	28.44	27.543	
3,800.00	3,716.44	3,686.10	3,604.05	17.92	17.51	-122.37	415.65	570.66	810.41	781.21	29.21	27.748	
3,900.00	3,813.49	3,782.36	3,697.41	18.38	17.95	-122.39	429.37	589.72	837.50	807.52	29.98	27.940	
4,000.00	3,910.55	3,878.63	3,790.76	18.84	18.39	-122.40	443.09	608.77	864.58	833.84	30.75	28.121	
4,100.00	4,007.60	3,974.89	3,884.11	19.30	18.84	-122.42	456.81	627.83	891.66	860.15	31.52	28.291	
4,200.00	4,104.65	4,071.15	3,977.47	19.77	19.28	-122.44	470.53	646.89	918.75	886.46	32.29	28.452	
4,300.00	4,201.71	4,167.41	4,070.82	20.23	19.73	-122.45	484.24	665.95	945.83	912.76	33.07	28.604	
4,400.00	4,298.76	4,263.68	4,164.18	20.70	20.18	-122.47	497.96	685.01	972.92	939.07	33.84	28.747	
4,500.00	4,395.81	4,359.94	4,257.53	21.16	20.63	-122.48	511.68	704.07	1,000.00	965.38	34.62	28.883	
4,600.00	4,492.87	4,456.20	4,350.88	21.63	21.08	-122.50	525.40	723.13	1,027.08	991.68	35.40	29.013	
4,700.00	4,589.92	4,552.46	4,444.24	22.10	21.53	-122.51	539.12	742.19	1,054.17	1,017.99	36.18	29.135	
4,800.00	4,686.97	4,648.72	4,537.59	22.57	21.98	-122.52	552.84	761.25	1,081.25	1,044.29	36.96	29.252	
4,900.00	4,784.03	4,744.99	4,630.95	23.04	22.43	-122.53	566.55	780.30	1,108.34	1,070.59	37.75	29.362	
5,000.00	4,881.08	4,841.25	4,724.30	23.51	22.89	-122.54	580.27	799.36	1,135.42	1,096.89	38.53	29.468	
5,100.00	4,978.13	4,937.51	4,817.65	23.99	23.34	-122.55	593.99	818.42	1,162.50	1,123.19	39.32	29.569	
5,200.00	5,075.19	5,033.77	4,911.01	24.46	23.80	-122.56	607.71	837.48	1,189.59	1,149.49	40.10	29.665	
5,300.00	5,172.24	5,130.04	5,004.36	24.93	24.25	-122.57	621.43	856.54	1,216.67	1,175.79	40.89	29.756	
5,400.00	5,269.29	5,226.30	5,097.72	25.41	24.71	-122.58	635.14	875.60	1,243.76	1,202.08	41.67	29.844	
5,500.00	5,366.34	5,322.56	5,191.07	25.88	25.17	-122.59	648.86	894.66	1,270.84	1,228.38	42.46	29.928	
5,600.00	5,463.40	5,418.82	5,284.42	26.36	25.63	-122.60	662.58	913.72	1,297.93	1,254.67	43.25	30.008	
5,700.00	5,560.45	5,515.08	5,377.78	26.84	26.09	-122.61	676.30	932.78	1,325.01	1,280.97	44.04	30.086	
5,800.00	5,657.50	5,611.35	5,471.13	27.31	26.54	-122.61	690.02	951.83	1,352.09	1,307.26	44.83	30.159	
5,900.00	5,754.56	5,707.61	5,564.49	27.79	27.00	-122.62	703.74	970.89	1,379.18	1,333.56	45.62	30.230	
6,000.00	5,851.61	5,803.87	5,657.84	28.27	27.47	-122.63	717.45	989.95	1,406.26	1,359.85	46.41	30.298	
6,100.00	5,948.66	5,900.13	5,751.20	28.75	27.93	-122.64	731.17	1,009.01	1,433.35	1,386.14	47.21	30.364	
6,200.00	6,045.72	5,996.39	5,844.55	29.23	28.39	-122.64	744.89	1,028.07	1,460.43	1,412.43	48.00	30.427	
6,300.00	6,142.77	6,092.66	5,937.90	29.71	28.85	-122.65	758.61	1,047.13	1,487.52	1,438.72	48.79	30.487	
6,400.00	6,239.82	6,188.92	6,031.26	30.19	29.31	-122.65	772.33	1,066.19	1,514.60	1,465.02	49.59	30.545	
6,500.00	6,336.88	6,285.18	6,124.61	30.67	29.78	-122.66	786.05	1,085.25	1,541.69	1,491.31	50.38	30.602	
6,600.00	6,433.93	6,381.44	6,217.97	31.15	30.24	-122.67	799.76	1,104.30	1,568.77	1,517.60	51.17	30.656	
6,700.00	6,530.98	6,477.71	6,311.32	31.63	30.70	-122.67	813.48	1,123.36	1,595.85	1,543.89	51.97	30.708	
6,800.00	6,628.04	6,573.97	6,404.67	32.11	31.17	-122.68	827.20	1,142.42	1,622.94	1,570.17	52.76	30.758	
6,900.00	6,725.09	6,670.23	6,498.03	32.59	31.63	-122.68	840.92	1,161.48	1,650.02	1,596.46	53.56	30.807	
6,947.44	6,771.14	6,715.90	6,542.32	32.82	31.85	-122.68	847.43	1,170.52	1,662.87	1,608.94	53.93	30.833	
6,950.00	6,773.62	6,718.36	6,544.70	32.83	31.86	-123.32	847.78	1,171.01	1,663.57	1,609.61	53.95	30.835	
7,000.00	6,822.56	6,766.42	6,591.31	33.08	32.09	-140.50	854.63	1,180.53	1,677.10	1,622.74	54.37	30.848	
7,050.00	6,871.99	6,814.10	6,637.55	33.31	32.32	-171.00	861.42	1,189.97	1,690.57	1,635.80	54.77	30.868	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #1H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5 **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.00	6,921.54	6,861.03	6,683.06	33.48	32.55	152.00	868.11	1,199.26	1,703.92	1,648.82	55.10	30.924	
7,150.00	6,970.82	6,906.85	6,727.50	33.58	32.77	127.68	874.64	1,208.33	1,717.12	1,661.70	55.42	30.981	
7,200.00	7,019.46	6,951.23	6,770.54	33.58	32.98	114.63	880.96	1,217.12	1,730.19	1,674.47	55.72	31.053	
7,250.00	7,067.10	6,992.99	6,811.23	33.51	33.18	107.01	886.96	1,224.34	1,743.16	1,687.22	55.94	31.161	
7,300.00	7,113.36	7,035.67	6,853.21	33.41	33.38	102.08	893.18	1,228.64	1,756.02	1,699.87	56.15	31.276	
7,350.00	7,157.91	7,079.88	6,896.91	33.31	33.56	98.61	899.70	1,229.76	1,768.69	1,712.37	56.32	31.407	
7,400.00	7,200.39	7,125.90	6,942.35	33.19	33.71	96.06	906.52	1,227.31	1,781.09	1,724.62	56.47	31.539	
7,450.00	7,240.48	7,174.05	6,989.51	33.08	33.81	94.11	913.66	1,220.80	1,793.14	1,736.50	56.64	31.659	
7,500.00	7,277.89	7,224.71	7,038.35	32.97	33.82	92.61	921.10	1,209.65	1,804.76	1,747.96	56.80	31.774	
7,550.00	7,312.32	7,278.31	7,088.73	32.88	33.78	91.45	928.84	1,193.17	1,815.85	1,758.92	56.93	31.898	
7,600.00	7,343.51	7,335.33	7,140.41	32.80	33.69	90.58	936.85	1,170.48	1,826.30	1,769.27	57.03	32.023	
7,650.00	7,371.23	7,396.32	7,192.90	32.74	33.59	89.95	945.07	1,140.60	1,836.01	1,778.89	57.13	32.140	
7,700.00	7,395.26	7,461.82	7,245.42	32.71	33.48	89.54	953.40	1,102.42	1,844.86	1,787.63	57.23	32.237	
7,750.00	7,415.43	7,532.39	7,296.77	32.70	33.38	89.32	961.68	1,054.79	1,852.71	1,795.35	57.36	32.300	
7,800.00	7,431.57	7,608.46	7,345.18	32.74	33.31	89.26	969.64	996.72	1,859.41	1,801.87	57.54	32.315	
7,850.00	7,443.57	7,690.25	7,388.22	32.81	33.30	89.35	976.94	927.65	1,864.81	1,806.98	57.83	32.248	
7,900.00	7,451.33	7,777.57	7,422.95	32.92	33.38	89.53	983.13	847.86	1,868.74	1,810.49	58.25	32.079	
7,950.00	7,454.80	7,869.71	7,446.13	33.08	33.58	89.78	987.71	758.90	1,871.05	1,812.19	58.86	31.787	
7,965.13	7,455.00	7,898.36	7,450.43	33.13	33.67	89.86	988.71	730.60	1,871.42	1,812.34	59.08	31.675	
8,000.00	7,455.00	7,965.42	7,454.97	33.27	33.93	90.00	990.23	663.75	1,871.77	1,812.10	59.67	31.371	
8,100.00	7,455.00	8,068.21	7,455.00	33.74	34.45	90.00	991.52	560.96	1,871.78	1,810.56	61.21	30.579	
8,200.00	7,455.00	8,168.21	7,455.00	34.35	35.07	90.00	992.78	460.97	1,871.78	1,808.71	63.07	29.678	
8,300.00	7,455.00	8,268.21	7,455.00	35.11	35.82	90.00	994.03	360.98	1,871.78	1,806.54	65.24	28.691	
8,400.00	7,455.00	8,368.21	7,455.00	36.02	36.70	90.00	995.28	260.99	1,871.78	1,804.09	67.69	27.651	
8,500.00	7,455.00	8,468.21	7,455.00	37.10	37.72	90.00	996.54	160.99	1,871.79	1,801.39	70.40	26.589	
8,600.00	7,455.00	8,568.21	7,455.00	38.33	38.87	90.00	997.79	61.00	1,871.79	1,798.47	73.32	25.528	
8,700.00	7,455.00	8,668.21	7,455.00	39.70	40.15	90.00	999.04	-38.99	1,871.79	1,795.34	76.45	24.484	
8,800.00	7,455.00	8,768.21	7,455.00	41.20	41.54	90.00	1,000.30	-138.98	1,871.79	1,792.04	79.75	23.470	
8,900.00	7,455.00	8,868.21	7,455.00	42.80	43.05	90.00	1,001.55	-238.98	1,871.80	1,788.59	83.21	22.495	
9,000.00	7,455.00	8,968.21	7,455.00	44.49	44.65	90.00	1,002.80	-338.97	1,871.80	1,785.00	86.80	21.565	
9,100.00	7,455.00	9,068.21	7,455.00	46.26	46.33	90.00	1,004.06	-438.96	1,871.80	1,781.29	90.51	20.680	
9,200.00	7,455.00	9,168.21	7,455.00	48.10	48.09	90.00	1,005.31	-538.95	1,871.81	1,777.48	94.33	19.844	
9,300.00	7,455.00	9,268.21	7,455.00	50.00	49.92	90.00	1,006.56	-638.94	1,871.81	1,773.57	98.24	19.054	
9,400.00	7,455.00	9,368.21	7,455.00	51.96	51.80	90.00	1,007.82	-738.94	1,871.81	1,769.58	102.23	18.310	
9,500.00	7,455.00	9,468.21	7,455.00	53.95	53.73	90.00	1,009.07	-838.93	1,871.81	1,765.52	106.30	17.609	
9,600.00	7,455.00	9,568.21	7,455.00	55.98	55.71	90.00	1,010.32	-938.92	1,871.82	1,761.39	110.43	16.950	
9,700.00	7,455.00	9,668.21	7,455.00	58.05	57.72	90.00	1,011.58	-1,038.91	1,871.82	1,757.20	114.62	16.331	
9,800.00	7,455.00	9,768.21	7,455.00	60.15	59.78	90.00	1,012.83	-1,138.90	1,871.82	1,752.96	118.86	15.748	
9,900.00	7,455.00	9,868.21	7,455.00	62.28	61.86	90.00	1,014.08	-1,238.90	1,871.82	1,748.68	123.15	15.200	
10,000.00	7,455.00	9,968.21	7,455.00	64.43	63.97	90.00	1,015.34	-1,338.89	1,871.83	1,744.35	127.48	14.684	
10,100.00	7,455.00	10,068.21	7,455.00	66.60	66.10	90.00	1,016.59	-1,438.88	1,871.83	1,739.99	131.85	14.197	
10,200.00	7,455.00	10,168.21	7,455.00	68.78	68.26	90.00	1,017.84	-1,538.87	1,871.83	1,735.59	136.25	13.739	
10,300.00	7,455.00	10,268.21	7,455.00	70.99	70.43	90.00	1,019.10	-1,638.87	1,871.84	1,731.16	140.68	13.306	
10,400.00	7,455.00	10,368.21	7,455.00	73.21	72.63	90.00	1,020.35	-1,738.86	1,871.84	1,726.70	145.14	12.897	
10,500.00	7,455.00	10,468.21	7,455.00	75.45	74.84	90.00	1,021.60	-1,838.85	1,871.84	1,722.21	149.63	12.510	
10,600.00	7,455.00	10,568.21	7,455.00	77.70	77.06	90.00	1,022.86	-1,938.84	1,871.84	1,717.71	154.14	12.144	
10,700.00	7,455.00	10,668.21	7,455.00	79.96	79.30	90.00	1,024.11	-2,038.83	1,871.85	1,713.18	158.67	11.797	
10,800.00	7,455.00	10,768.21	7,455.00	82.23	81.55	90.00	1,025.36	-2,138.83	1,871.85	1,708.63	163.22	11.468	
10,900.00	7,455.00	10,868.21	7,455.00	84.51	83.81	90.00	1,026.62	-2,238.82	1,871.85	1,704.06	167.79	11.156	
11,000.00	7,455.00	10,968.21	7,455.00	86.79	86.08	90.00	1,027.87	-2,338.81	1,871.86	1,699.48	172.37	10.859	
11,100.00	7,455.00	11,068.21	7,455.00	89.09	88.36	90.00	1,029.13	-2,438.80	1,871.86	1,694.88	176.97	10.577	
11,200.00	7,455.00	11,168.21	7,455.00	91.39	90.65	90.00	1,030.38	-2,538.79	1,871.86	1,690.27	181.59	10.308	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #1H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5 **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,300.00	7,455.00	11,268.21	7,455.00	93.71	92.95	90.00	1,031.63	-2,638.79	1,871.86	1,685.65	186.22	10.052	
11,400.00	7,455.00	11,368.21	7,455.00	96.02	95.25	90.00	1,032.89	-2,738.78	1,871.87	1,681.01	190.86	9.808	
11,500.00	7,455.00	11,468.21	7,455.00	98.35	97.56	90.00	1,034.14	-2,838.77	1,871.87	1,676.36	195.51	9.574	
11,600.00	7,455.00	11,568.21	7,455.00	100.67	99.88	90.00	1,035.39	-2,938.76	1,871.87	1,671.70	200.17	9.351	
11,700.00	7,455.00	11,668.21	7,455.00	103.01	102.20	90.00	1,036.65	-3,038.76	1,871.87	1,667.04	204.84	9.138	
11,800.00	7,455.00	11,768.21	7,455.00	105.35	104.53	90.00	1,037.90	-3,138.75	1,871.88	1,662.36	209.52	8.934	
11,900.00	7,455.00	11,868.21	7,455.00	107.69	106.86	90.00	1,039.15	-3,238.74	1,871.88	1,657.67	214.21	8.739	
12,000.00	7,455.00	11,968.21	7,455.00	110.04	109.20	90.00	1,040.41	-3,338.73	1,871.88	1,652.98	218.91	8.551	
12,100.00	7,455.00	12,068.21	7,455.00	112.39	111.54	90.00	1,041.66	-3,438.72	1,871.89	1,648.28	223.61	8.371	
12,200.00	7,455.00	12,168.21	7,455.00	114.74	113.88	90.00	1,042.91	-3,538.72	1,871.89	1,643.57	228.32	8.198	
12,300.00	7,455.00	12,268.21	7,455.00	117.10	116.23	90.00	1,044.17	-3,638.71	1,871.89	1,638.85	233.04	8.033	
12,400.00	7,455.00	12,368.21	7,455.00	119.46	118.59	90.00	1,045.42	-3,738.70	1,871.89	1,634.13	237.76	7.873	
12,500.00	7,455.00	12,468.21	7,455.00	121.83	120.94	90.00	1,046.67	-3,838.69	1,871.90	1,629.40	242.49	7.719	
12,600.00	7,455.00	12,568.21	7,455.00	124.19	123.30	90.00	1,047.93	-3,938.68	1,871.90	1,624.67	247.23	7.572	
12,700.00	7,455.00	12,668.21	7,455.00	126.56	125.67	90.00	1,049.18	-4,038.68	1,871.90	1,619.93	251.97	7.429	
12,800.00	7,455.00	12,768.21	7,455.00	128.93	128.03	90.00	1,050.43	-4,138.67	1,871.91	1,615.19	256.71	7.292	
12,900.00	7,455.00	12,868.21	7,455.00	131.31	130.40	90.00	1,051.69	-4,238.66	1,871.91	1,610.44	261.46	7.159	
13,000.00	7,455.00	12,968.21	7,455.00	133.69	132.77	90.00	1,052.94	-4,338.65	1,871.91	1,605.69	266.22	7.031	
13,100.00	7,455.00	13,068.21	7,455.00	136.06	135.14	90.00	1,054.19	-4,438.65	1,871.91	1,600.94	270.98	6.908	
13,200.00	7,455.00	13,168.21	7,455.00	138.45	137.52	90.00	1,055.45	-4,538.64	1,871.92	1,596.18	275.74	6.789	
13,300.00	7,455.00	13,268.21	7,455.00	140.83	139.90	90.00	1,056.70	-4,638.63	1,871.92	1,591.41	280.50	6.673	
13,400.00	7,455.00	13,368.21	7,455.00	143.21	142.27	90.00	1,057.95	-4,738.62	1,871.92	1,586.65	285.27	6.562	
13,500.00	7,455.00	13,468.21	7,455.00	145.60	144.66	90.00	1,059.21	-4,838.61	1,871.92	1,581.88	290.05	6.454	
13,600.00	7,455.00	13,568.21	7,455.00	147.99	147.04	90.00	1,060.46	-4,938.61	1,871.93	1,577.10	294.82	6.349	
13,700.00	7,455.00	13,668.21	7,455.00	150.38	149.42	90.00	1,061.71	-5,038.60	1,871.93	1,572.33	299.60	6.248	
13,800.00	7,455.00	13,768.21	7,455.00	152.77	151.81	90.00	1,062.97	-5,138.59	1,871.93	1,567.55	304.39	6.150	
13,900.00	7,455.00	13,868.21	7,455.00	155.16	154.20	90.00	1,064.22	-5,238.58	1,871.94	1,562.77	309.17	6.055	
14,000.00	7,455.00	13,968.21	7,455.00	157.55	156.59	90.00	1,065.47	-5,338.57	1,871.94	1,557.98	313.96	5.962	
14,100.00	7,455.00	14,068.21	7,455.00	159.95	158.98	90.00	1,066.73	-5,438.57	1,871.94	1,553.19	318.75	5.873	
14,200.00	7,455.00	14,168.21	7,455.00	162.34	161.37	90.00	1,067.98	-5,538.56	1,871.94	1,548.40	323.54	5.786	
14,300.00	7,455.00	14,268.21	7,455.00	164.74	163.77	90.00	1,069.24	-5,638.55	1,871.95	1,543.61	328.34	5.701	
14,400.00	7,455.00	14,368.21	7,455.00	167.14	166.16	90.00	1,070.49	-5,738.54	1,871.95	1,538.82	333.13	5.619	
14,500.00	7,455.00	14,468.21	7,455.00	169.54	168.56	90.00	1,071.74	-5,838.54	1,871.95	1,534.02	337.93	5.539	
14,600.00	7,455.00	14,568.21	7,455.00	171.94	170.95	90.00	1,073.00	-5,938.53	1,871.95	1,529.22	342.73	5.462	
14,700.00	7,455.00	14,668.21	7,455.00	174.34	173.35	90.00	1,074.25	-6,038.52	1,871.96	1,524.42	347.54	5.386	
14,800.00	7,455.00	14,768.21	7,455.00	176.74	175.75	90.00	1,075.50	-6,138.51	1,871.96	1,519.62	352.34	5.313	
14,900.00	7,455.00	14,868.21	7,455.00	179.15	178.15	90.00	1,076.76	-6,238.50	1,871.96	1,514.82	357.15	5.241	
15,000.00	7,455.00	14,968.21	7,455.00	181.55	180.55	90.00	1,078.01	-6,338.50	1,871.97	1,510.01	361.96	5.172	
15,100.00	7,455.00	15,068.21	7,455.00	183.96	182.95	90.00	1,079.26	-6,438.49	1,871.97	1,505.20	366.77	5.104	
15,200.00	7,455.00	15,168.21	7,455.00	186.36	185.36	90.00	1,080.52	-6,538.48	1,871.97	1,500.39	371.58	5.038	
15,300.00	7,455.00	15,268.21	7,455.00	188.77	187.76	90.00	1,081.77	-6,638.47	1,871.97	1,495.58	376.39	4.973	
15,400.00	7,455.00	15,368.21	7,455.00	191.18	190.17	90.00	1,083.02	-6,738.46	1,871.98	1,490.77	381.21	4.911	
15,500.00	7,455.00	15,468.21	7,455.00	193.59	192.57	90.00	1,084.28	-6,838.46	1,871.98	1,485.96	386.02	4.849	
15,600.00	7,455.00	15,568.21	7,455.00	195.99	194.98	90.00	1,085.53	-6,938.45	1,871.98	1,481.14	390.84	4.790	
15,700.00	7,455.00	15,668.21	7,455.00	198.40	197.39	90.00	1,086.78	-7,038.44	1,871.99	1,476.33	395.66	4.731	
15,800.00	7,455.00	15,768.21	7,455.00	200.81	199.79	90.00	1,088.04	-7,138.43	1,871.99	1,471.51	400.48	4.674	
15,900.00	7,455.00	15,868.21	7,455.00	203.22	202.20	90.00	1,089.29	-7,238.43	1,871.99	1,466.69	405.30	4.619	
16,000.00	7,455.00	15,968.21	7,455.00	205.64	204.61	90.00	1,090.54	-7,338.42	1,871.99	1,461.87	410.12	4.564	
16,100.00	7,455.00	16,068.21	7,455.00	208.05	207.02	90.00	1,091.80	-7,438.41	1,872.00	1,457.05	414.94	4.511	
16,200.00	7,455.00	16,168.21	7,455.00	210.46	209.43	90.00	1,093.05	-7,538.40	1,872.00	1,452.23	419.77	4.460	
16,300.00	7,455.00	16,268.21	7,455.00	212.87	211.84	90.00	1,094.30	-7,638.39	1,872.00	1,447.41	424.60	4.409	
16,400.00	7,455.00	16,368.21	7,455.00	215.29	214.25	90.00	1,095.56	-7,738.39	1,872.00	1,442.58	429.42	4.359	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #1H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,500.00	7,455.00	16,468.21	7,455.00	217.70	216.67	90.00	1,096.81	-7,838.38	1,872.01	1,437.76	434.25	4.311	
16,600.00	7,455.00	16,568.21	7,455.00	220.11	219.08	90.00	1,098.06	-7,938.37	1,872.01	1,432.93	439.08	4.263	
16,700.00	7,455.00	16,668.21	7,455.00	222.53	221.49	90.00	1,099.32	-8,038.36	1,872.01	1,428.11	443.91	4.217	
16,800.00	7,455.00	16,768.21	7,455.00	224.94	223.90	90.00	1,100.57	-8,138.35	1,872.02	1,423.28	448.74	4.172	
16,900.00	7,455.00	16,868.21	7,455.00	227.36	226.32	90.00	1,101.82	-8,238.35	1,872.02	1,418.45	453.57	4.127	
16,970.48	7,455.00	16,938.69	7,455.00	229.06	228.02	90.00	1,102.71	-8,308.82	1,872.02	1,415.05	456.97	4.097	

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #3H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5 — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-142.04	-12.01	-9.37	15.24				
100.00	100.00	100.00	100.00	0.90	0.90	-142.04	-12.01	-9.37	15.24	13.44	1.79	8.492	
200.00	200.00	200.00	200.00	1.48	1.48	-142.04	-12.01	-9.37	15.24	12.27	2.97	5.131	
300.00	300.00	300.00	300.00	1.92	1.92	-142.04	-12.01	-9.37	15.24	11.40	3.84	3.965	
400.00	400.00	400.00	400.00	2.28	2.28	-142.04	-12.01	-9.37	15.24	10.68	4.56	3.343	
500.00	500.00	500.00	500.00	2.59	2.59	-142.04	-12.01	-9.37	15.24	10.06	5.18	2.942	CC, ES
600.00	599.98	599.77	599.75	2.99	2.94	95.62	-13.56	-8.59	16.13	10.50	5.63	2.866	SF
700.00	699.84	699.49	699.32	3.95	3.91	96.96	-18.20	-6.22	18.81	12.56	6.26	3.007	
800.00	799.45	799.11	798.56	4.76	4.72	98.49	-25.92	-2.30	23.30	16.47	6.83	3.412	
900.00	898.70	898.58	897.30	5.47	5.43	99.82	-36.68	3.19	29.58	22.21	7.37	4.013	
1,000.00	997.47	997.87	995.37	6.14	6.10	100.85	-50.47	10.21	37.66	29.74	7.91	4.759	
1,100.00	1,095.62	1,096.92	1,092.61	6.77	6.72	101.60	-67.23	18.74	47.51	39.04	8.47	5.609	
1,197.19	1,190.33	1,192.92	1,186.18	7.34	7.30	102.10	-86.32	28.47	58.78	49.74	9.04	6.505	
1,200.00	1,193.06	1,195.69	1,188.87	7.34	7.32	102.12	-86.92	28.77	59.13	50.08	9.05	6.534	
1,300.00	1,290.11	1,294.16	1,284.03	7.83	7.90	101.30	-109.48	40.26	72.10	62.10	10.01	7.207	
1,400.00	1,387.16	1,392.19	1,377.84	8.12	8.46	98.58	-134.82	53.16	86.23	75.54	10.69	8.064	
1,500.00	1,484.22	1,489.55	1,469.99	8.43	9.01	94.89	-162.80	67.42	101.84	90.35	11.50	8.857	
1,600.00	1,581.27	1,586.03	1,560.21	8.75	9.54	90.79	-193.27	82.93	119.32	106.90	12.42	9.607	
1,700.00	1,678.32	1,681.43	1,648.22	9.09	10.06	86.60	-226.03	99.62	138.99	125.56	13.43	10.346	
1,800.00	1,775.37	1,775.55	1,733.82	9.45	10.55	82.56	-260.91	117.38	161.14	146.64	14.49	11.118	
1,900.00	1,872.43	1,871.35	1,820.04	9.81	10.94	78.91	-298.12	136.33	185.28	169.69	15.59	11.885	
2,000.00	1,969.48	1,967.77	1,906.79	10.19	11.29	76.06	-335.62	155.42	210.03	193.41	16.62	12.638	
2,100.00	2,066.53	2,064.19	1,993.54	10.57	11.65	73.82	-373.12	174.52	235.17	217.57	17.60	13.360	
2,200.00	2,163.59	2,160.60	2,080.29	10.96	12.01	72.01	-410.62	193.62	260.58	242.01	18.57	14.035	
2,300.00	2,260.64	2,257.02	2,167.04	11.37	12.39	70.51	-448.11	212.72	286.19	266.67	19.52	14.663	
2,400.00	2,357.69	2,353.44	2,253.79	11.77	12.78	69.27	-485.61	231.81	311.95	291.49	20.46	15.246	
2,500.00	2,454.75	2,449.86	2,340.54	12.19	13.17	68.21	-523.11	250.91	337.84	316.43	21.40	15.786	
2,600.00	2,551.80	2,546.28	2,427.29	12.61	13.58	67.31	-560.61	270.01	363.81	341.47	22.34	16.287	
2,700.00	2,648.85	2,642.70	2,514.05	13.03	13.99	66.52	-598.11	289.10	389.86	366.58	23.27	16.752	
2,800.00	2,745.91	2,739.12	2,600.80	13.46	14.41	65.83	-635.61	308.20	415.96	391.75	24.21	17.183	
2,900.00	2,842.96	2,835.54	2,687.55	13.89	14.83	65.23	-673.11	327.30	442.12	416.97	25.15	17.583	
3,000.00	2,940.01	2,931.96	2,774.30	14.33	15.26	64.69	-710.61	346.40	468.32	442.23	26.08	17.955	
3,100.00	3,037.07	3,028.38	2,861.05	14.77	15.70	64.21	-748.11	365.49	494.55	467.52	27.02	18.301	
3,200.00	3,134.12	3,124.79	2,947.80	15.21	16.14	63.77	-785.61	384.59	520.81	492.84	27.96	18.624	
3,300.00	3,231.17	3,221.21	3,034.55	15.66	16.59	63.38	-823.11	403.69	547.10	518.19	28.91	18.925	
3,400.00	3,328.23	3,317.63	3,121.30	16.11	17.04	63.03	-860.61	422.78	573.40	543.55	29.85	19.207	
3,500.00	3,425.28	3,414.05	3,208.05	16.56	17.50	62.70	-898.10	441.88	599.73	568.93	30.80	19.470	
3,600.00	3,522.33	3,510.47	3,294.80	17.01	17.96	62.40	-935.60	460.98	626.07	594.32	31.75	19.718	
3,700.00	3,619.39	3,606.89	3,381.56	17.46	18.44	62.13	-973.10	480.07	652.43	619.73	32.70	19.950	
3,800.00	3,716.44	3,703.31	3,468.31	17.92	18.97	61.88	-1,010.60	499.17	678.80	645.14	33.66	20.168	
3,900.00	3,813.49	3,799.73	3,555.06	18.38	19.59	61.65	-1,048.10	518.27	705.18	670.57	34.61	20.374	
4,000.00	3,910.55	3,896.15	3,641.81	18.84	20.23	61.43	-1,085.60	537.37	731.57	696.00	35.57	20.568	
4,100.00	4,007.60	3,992.57	3,728.56	19.30	20.88	61.23	-1,123.10	556.46	757.97	721.45	36.53	20.750	
4,200.00	4,104.65	4,088.98	3,815.31	19.77	21.53	61.04	-1,160.60	575.56	784.38	746.90	37.49	20.923	
4,300.00	4,201.71	4,185.40	3,902.06	20.23	22.18	60.86	-1,198.10	594.66	810.80	772.35	38.45	21.087	
4,400.00	4,298.76	4,281.82	3,988.81	20.70	22.83	60.70	-1,235.60	613.75	837.22	797.81	39.41	21.242	
4,500.00	4,395.81	4,378.24	4,075.56	21.16	23.49	60.55	-1,273.10	632.85	863.65	823.27	40.38	21.389	
4,600.00	4,492.87	4,474.66	4,162.32	21.63	24.14	60.40	-1,310.60	651.95	890.09	848.74	41.34	21.528	
4,700.00	4,589.92	4,571.08	4,249.07	22.10	24.79	60.26	-1,348.09	671.04	916.53	874.21	42.31	21.661	
4,800.00	4,686.97	4,667.50	4,335.82	22.57	25.45	60.13	-1,385.59	690.14	942.97	899.69	43.28	21.787	
4,900.00	4,784.03	4,763.92	4,422.57	23.04	26.10	60.01	-1,423.09	709.24	969.42	925.17	44.25	21.907	
5,000.00	4,881.08	4,860.34	4,509.32	23.51	26.76	59.90	-1,460.59	728.34	995.87	950.65	45.22	22.022	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #3H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,978.13	4,956.76	4,596.07	23.99	27.42	59.79	-1,498.09	747.43	1,022.33	976.13	46.19	22.131	
5,200.00	5,075.19	5,053.17	4,682.82	24.46	28.07	59.68	-1,535.59	766.53	1,048.78	1,001.62	47.17	22.236	
5,300.00	5,172.24	5,149.59	4,769.57	24.93	28.73	59.58	-1,573.09	785.63	1,075.25	1,027.11	48.14	22.336	
5,400.00	5,269.29	5,246.01	4,856.32	25.41	29.39	59.49	-1,610.59	804.72	1,101.71	1,052.60	49.11	22.431	
5,500.00	5,366.34	5,342.43	4,943.07	25.88	30.04	59.40	-1,648.09	823.82	1,128.18	1,078.09	50.09	22.523	
5,600.00	5,463.40	5,438.85	5,029.83	26.36	30.70	59.31	-1,685.59	842.92	1,154.65	1,103.58	51.07	22.611	
5,700.00	5,560.45	5,535.27	5,116.58	26.84	31.36	59.23	-1,723.09	862.02	1,181.12	1,129.08	52.04	22.695	
5,800.00	5,657.50	5,631.69	5,203.33	27.31	32.02	59.15	-1,760.58	881.11	1,207.60	1,154.57	53.02	22.776	
5,900.00	5,754.56	5,728.11	5,290.08	27.79	32.68	59.08	-1,798.08	900.21	1,234.07	1,180.07	54.00	22.853	
6,000.00	5,851.61	5,824.53	5,376.83	28.27	33.34	59.01	-1,835.58	919.31	1,260.55	1,205.57	54.98	22.928	
6,100.00	5,948.66	5,920.95	5,463.58	28.75	33.99	58.94	-1,873.08	938.40	1,287.03	1,231.07	55.96	22.999	
6,200.00	6,045.72	6,017.37	5,550.33	29.23	34.65	58.87	-1,910.58	957.50	1,313.51	1,256.57	56.94	23.068	
6,300.00	6,142.77	6,113.78	5,637.08	29.71	35.31	58.81	-1,948.08	976.60	1,340.00	1,282.07	57.92	23.135	
6,400.00	6,239.82	6,210.20	5,723.83	30.19	35.97	58.75	-1,985.58	995.69	1,366.48	1,307.58	58.90	23.199	
6,500.00	6,336.88	6,306.62	5,810.58	30.67	36.63	58.69	-2,023.08	1,014.79	1,392.97	1,333.08	59.89	23.260	
6,600.00	6,433.93	6,403.04	5,897.34	31.15	37.29	58.63	-2,060.58	1,033.89	1,419.45	1,358.59	60.87	23.320	
6,700.00	6,530.98	6,499.46	5,984.09	31.63	37.95	58.58	-2,098.08	1,052.99	1,445.94	1,384.09	61.85	23.377	
6,800.00	6,628.04	6,595.88	6,070.84	32.11	38.61	58.52	-2,135.58	1,072.08	1,472.43	1,409.60	62.84	23.433	
6,900.00	6,725.09	6,692.30	6,157.59	32.59	39.27	58.47	-2,173.08	1,091.18	1,498.92	1,435.10	63.82	23.486	
6,947.44	6,771.14	6,738.04	6,198.75	32.82	39.59	58.45	-2,190.87	1,100.24	1,511.49	1,447.21	64.28	23.514	
6,950.00	6,773.62	6,740.51	6,200.96	32.83	39.60	57.95	-2,191.83	1,100.73	1,512.17	1,447.86	64.31	23.515	
7,000.00	6,822.56	6,788.63	6,244.26	33.08	39.93	43.35	-2,210.54	1,110.26	1,525.34	1,460.52	64.82	23.532	
7,050.00	6,871.99	6,836.34	6,287.19	33.31	40.26	15.08	-2,229.10	1,119.71	1,538.34	1,473.00	65.34	23.544	
7,100.00	6,921.54	6,883.28	6,329.42	33.48	40.58	-20.03	-2,247.35	1,129.01	1,551.11	1,485.31	65.80	23.572	
7,150.00	6,970.82	6,929.08	6,370.63	33.58	40.89	-42.73	-2,265.16	1,138.08	1,563.66	1,497.39	66.27	23.594	
7,200.00	7,019.46	6,973.40	6,410.50	33.58	41.20	-54.45	-2,282.40	1,146.85	1,576.02	1,509.27	66.75	23.610	
7,250.00	7,067.10	7,015.90	6,448.74	33.51	41.49	-60.87	-2,298.93	1,155.27	1,588.22	1,521.03	67.19	23.637	
7,300.00	7,113.36	7,056.25	6,485.05	33.41	41.76	-64.74	-2,314.62	1,163.27	1,600.35	1,532.75	67.60	23.673	
7,350.00	7,157.91	7,094.16	6,519.16	33.31	42.02	-67.23	-2,329.37	1,170.77	1,612.48	1,544.48	67.99	23.715	
7,400.00	7,200.39	7,129.33	6,550.80	33.19	42.27	-68.88	-2,343.05	1,177.74	1,624.70	1,556.32	68.37	23.762	
7,450.00	7,240.48	7,161.50	6,579.74	33.08	42.49	-69.96	-2,355.56	1,184.11	1,637.10	1,568.35	68.75	23.812	
7,500.00	7,277.89	7,190.41	6,605.75	32.97	42.68	-70.62	-2,366.80	1,189.84	1,649.78	1,580.64	69.13	23.865	
7,550.00	7,312.32	7,215.85	6,628.65	32.88	42.86	-70.92	-2,376.70	1,194.88	1,662.79	1,593.27	69.52	23.919	
7,600.00	7,343.51	7,237.63	6,648.24	32.80	43.01	-70.91	-2,385.17	1,199.19	1,676.20	1,606.28	69.92	23.974	
7,650.00	7,371.23	7,255.58	6,664.39	32.74	43.13	-70.61	-2,392.15	1,202.74	1,690.04	1,619.71	70.33	24.029	
7,700.00	7,395.26	7,269.56	6,676.97	32.71	43.23	-70.03	-2,397.58	1,205.51	1,704.33	1,633.56	70.77	24.083	
7,750.00	7,415.43	7,279.47	6,685.88	32.70	43.29	-69.18	-2,401.44	1,207.48	1,719.03	1,647.81	71.22	24.136	
7,800.00	7,431.57	7,285.23	6,691.07	32.74	43.33	-68.08	-2,403.68	1,208.62	1,734.11	1,662.41	71.69	24.188	
7,850.00	7,443.57	7,286.80	6,692.48	32.81	43.34	-66.74	-2,404.29	1,208.93	1,749.47	1,677.29	72.18	24.238	
7,900.00	7,451.33	7,284.16	6,690.11	32.92	43.33	-65.19	-2,403.26	1,208.41	1,765.00	1,692.33	72.68	24.286	
7,950.00	7,454.80	7,277.34	6,683.97	33.08	43.28	-63.45	-2,400.61	1,207.06	1,780.57	1,707.39	73.18	24.332	
7,965.13	7,455.00	7,274.46	6,681.38	33.13	43.26	-62.89	-2,399.49	1,206.48	1,785.27	1,711.94	73.32	24.347	
8,000.00	7,455.00	7,267.39	6,675.01	33.27	43.21	-62.65	-2,396.74	1,205.08	1,796.36	1,722.70	73.66	24.386	
8,100.00	7,455.00	7,247.09	6,656.76	33.74	43.07	-61.98	-2,388.85	1,201.06	1,831.34	1,756.66	74.68	24.523	
8,200.00	7,455.00	8,705.98	7,455.00	34.35	45.77	-90.00	-2,721.91	414.55	1,843.20	1,768.11	75.09	24.548	
8,300.00	7,455.00	8,805.98	7,455.00	35.11	45.71	-90.00	-2,720.66	314.55	1,843.20	1,766.12	77.08	23.911	
8,400.00	7,455.00	8,905.98	7,455.00	36.02	45.74	-90.00	-2,719.42	214.56	1,843.21	1,763.87	79.34	23.233	
8,500.00	7,455.00	9,005.98	7,455.00	37.10	46.62	-90.00	-2,718.17	114.57	1,843.21	1,761.39	81.82	22.529	
8,600.00	7,455.00	9,105.98	7,455.00	38.33	47.84	-90.00	-2,716.93	14.58	1,843.22	1,758.71	84.50	21.812	
8,700.00	7,455.00	9,205.98	7,455.00	39.70	49.15	-90.00	-2,715.68	-85.42	1,843.22	1,755.84	87.38	21.094	
8,800.00	7,455.00	9,305.98	7,455.00	41.20	50.55	-90.00	-2,714.43	-185.41	1,843.23	1,752.80	90.43	20.384	
8,900.00	7,455.00	9,405.98	7,455.00	42.80	52.02	-90.00	-2,713.19	-285.40	1,843.23	1,749.60	93.63	19.687	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #3H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5 **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.00	7,455.00	9,505.98	7,455.00	44.49	53.56	-90.00	-2,711.94	-385.39	1,843.24	1,746.27	96.96	19.010	
9,100.00	7,455.00	9,605.98	7,455.00	46.26	55.17	-90.00	-2,710.70	-485.38	1,843.24	1,742.82	100.42	18.355	
9,200.00	7,455.00	9,705.98	7,455.00	48.10	56.83	-90.00	-2,709.45	-585.38	1,843.24	1,739.25	103.99	17.724	
9,300.00	7,455.00	9,805.98	7,455.00	50.00	58.54	-90.00	-2,708.20	-685.37	1,843.25	1,735.58	107.67	17.120	
9,400.00	7,455.00	9,905.98	7,455.00	51.96	60.30	-90.00	-2,706.96	-785.36	1,843.25	1,731.83	111.43	16.542	
9,500.00	7,455.00	10,005.98	7,455.00	53.95	62.11	-90.00	-2,705.71	-885.35	1,843.26	1,727.99	115.27	15.990	
9,600.00	7,455.00	10,105.98	7,455.00	55.98	63.95	-90.00	-2,704.47	-985.35	1,843.26	1,724.07	119.19	15.465	
9,700.00	7,455.00	10,205.98	7,455.00	58.05	65.83	-90.00	-2,703.22	-1,085.34	1,843.27	1,720.09	123.17	14.965	
9,800.00	7,455.00	10,305.98	7,455.00	60.15	67.75	-90.00	-2,701.98	-1,185.33	1,843.27	1,716.05	127.22	14.489	
9,900.00	7,455.00	10,405.98	7,455.00	62.28	69.70	-90.00	-2,700.73	-1,285.32	1,843.28	1,711.96	131.32	14.037	
10,000.00	7,455.00	10,505.98	7,455.00	64.43	71.68	-90.00	-2,699.48	-1,385.31	1,843.28	1,707.81	135.47	13.607	
10,100.00	7,455.00	10,605.98	7,455.00	66.60	73.68	-90.00	-2,698.24	-1,485.31	1,843.29	1,703.62	139.67	13.198	
10,200.00	7,455.00	10,705.98	7,455.00	68.78	75.71	-90.00	-2,696.99	-1,585.30	1,843.29	1,699.39	143.90	12.809	
10,300.00	7,455.00	10,805.98	7,455.00	70.99	77.76	-90.00	-2,695.75	-1,685.29	1,843.30	1,695.12	148.18	12.440	
10,400.00	7,455.00	10,905.98	7,455.00	73.21	79.84	-90.00	-2,694.50	-1,785.28	1,843.30	1,690.81	152.49	12.088	
10,500.00	7,455.00	11,005.98	7,455.00	75.45	81.93	-90.00	-2,693.26	-1,885.28	1,843.31	1,686.47	156.83	11.753	
10,600.00	7,455.00	11,105.98	7,455.00	77.70	84.04	-90.00	-2,692.01	-1,985.27	1,843.31	1,682.11	161.21	11.434	
10,700.00	7,455.00	11,205.98	7,455.00	79.96	86.17	-90.00	-2,690.76	-2,085.26	1,843.32	1,677.71	165.61	11.131	
10,800.00	7,455.00	11,305.98	7,455.00	82.23	88.31	-90.00	-2,689.52	-2,185.25	1,843.32	1,673.29	170.03	10.841	
10,900.00	7,455.00	11,405.98	7,455.00	84.51	90.47	-90.00	-2,688.27	-2,285.24	1,843.33	1,668.84	174.48	10.564	
11,000.00	7,455.00	11,505.98	7,455.00	86.79	92.64	-90.00	-2,687.03	-2,385.24	1,843.33	1,664.38	178.95	10.301	
11,100.00	7,455.00	11,605.98	7,455.00	89.09	94.82	-90.00	-2,685.78	-2,485.23	1,843.34	1,659.89	183.45	10.048	
11,200.00	7,455.00	11,705.98	7,455.00	91.39	97.02	-90.00	-2,684.53	-2,585.22	1,843.34	1,655.39	187.96	9.807	
11,300.00	7,455.00	11,805.98	7,455.00	93.71	99.22	-90.00	-2,683.29	-2,685.21	1,843.35	1,650.86	192.48	9.577	
11,400.00	7,455.00	11,905.98	7,455.00	96.02	101.44	-90.00	-2,682.04	-2,785.21	1,843.35	1,646.33	197.03	9.356	
11,500.00	7,455.00	12,005.98	7,455.00	98.35	103.67	-90.00	-2,680.80	-2,885.20	1,843.36	1,641.77	201.58	9.144	
11,600.00	7,455.00	12,105.98	7,455.00	100.67	105.90	-90.00	-2,679.55	-2,985.19	1,843.36	1,637.20	206.16	8.942	
11,700.00	7,455.00	12,205.98	7,455.00	103.01	108.15	-90.00	-2,678.31	-3,085.18	1,843.37	1,632.62	210.74	8.747	
11,800.00	7,455.00	12,305.98	7,455.00	105.35	110.40	-90.00	-2,677.06	-3,185.17	1,843.37	1,628.03	215.34	8.560	
11,900.00	7,455.00	12,405.98	7,455.00	107.69	112.66	-90.00	-2,675.81	-3,285.17	1,843.38	1,623.43	219.95	8.381	
12,000.00	7,455.00	12,505.98	7,455.00	110.04	114.92	-90.00	-2,674.57	-3,385.16	1,843.38	1,618.81	224.57	8.208	
12,100.00	7,455.00	12,605.98	7,455.00	112.39	117.20	-90.00	-2,673.32	-3,485.15	1,843.39	1,614.18	229.20	8.043	
12,200.00	7,455.00	12,705.98	7,455.00	114.74	119.48	-90.00	-2,672.08	-3,585.14	1,843.39	1,609.55	233.84	7.883	
12,300.00	7,455.00	12,805.98	7,455.00	117.10	121.76	-90.00	-2,670.83	-3,685.14	1,843.40	1,604.90	238.49	7.729	
12,400.00	7,455.00	12,905.98	7,455.00	119.46	124.05	-90.00	-2,669.59	-3,785.13	1,843.40	1,600.25	243.15	7.581	
12,500.00	7,455.00	13,005.98	7,455.00	121.83	126.35	-90.00	-2,668.34	-3,885.12	1,843.41	1,595.59	247.82	7.439	
12,600.00	7,455.00	13,105.98	7,455.00	124.19	128.65	-90.00	-2,667.09	-3,985.11	1,843.41	1,590.92	252.49	7.301	
12,700.00	7,455.00	13,205.98	7,455.00	126.56	130.96	-90.00	-2,665.85	-4,085.11	1,843.42	1,586.24	257.17	7.168	
12,800.00	7,455.00	13,305.98	7,455.00	128.93	133.27	-90.00	-2,664.60	-4,185.10	1,843.42	1,581.56	261.86	7.040	
12,900.00	7,455.00	13,405.98	7,455.00	131.31	135.58	-90.00	-2,663.36	-4,285.09	1,843.43	1,576.87	266.56	6.916	
13,000.00	7,455.00	13,505.98	7,455.00	133.69	137.90	-90.00	-2,662.11	-4,385.08	1,843.43	1,572.17	271.26	6.796	
13,100.00	7,455.00	13,605.98	7,455.00	136.06	140.22	-90.00	-2,660.86	-4,485.07	1,843.44	1,567.47	275.96	6.680	
13,200.00	7,455.00	13,705.98	7,455.00	138.45	142.55	-90.00	-2,659.62	-4,585.07	1,843.44	1,562.76	280.68	6.568	
13,300.00	7,455.00	13,805.98	7,455.00	140.83	144.88	-90.00	-2,658.37	-4,685.06	1,843.44	1,558.05	285.39	6.459	
13,400.00	7,455.00	13,905.98	7,455.00	143.21	147.21	-90.00	-2,657.13	-4,785.05	1,843.45	1,553.33	290.12	6.354	
13,500.00	7,455.00	14,005.98	7,455.00	145.60	149.55	-90.00	-2,655.88	-4,885.04	1,843.45	1,548.61	294.84	6.252	
13,600.00	7,455.00	14,105.98	7,455.00	147.99	151.89	-90.00	-2,654.64	-4,985.04	1,843.46	1,543.88	299.58	6.154	
13,700.00	7,455.00	14,205.98	7,455.00	150.38	154.23	-90.00	-2,653.39	-5,085.03	1,843.46	1,539.15	304.31	6.058	
13,800.00	7,455.00	14,305.98	7,455.00	152.77	156.58	-90.00	-2,652.14	-5,185.02	1,843.47	1,534.42	309.05	5.965	
13,900.00	7,455.00	14,405.98	7,455.00	155.16	158.93	-90.00	-2,650.90	-5,285.01	1,843.47	1,529.68	313.80	5.875	
14,000.00	7,455.00	14,505.98	7,455.00	157.55	161.28	-90.00	-2,649.65	-5,385.00	1,843.48	1,524.93	318.55	5.787	
14,100.00	7,455.00	14,605.98	7,455.00	159.95	163.63	-90.00	-2,648.41	-5,485.00	1,843.48	1,520.19	323.30	5.702	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design: La Jara Fed 1-2 - La Jara Fed 1-2 #3H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM OWSG Rev5

Offset Well Error: 0.00 usft

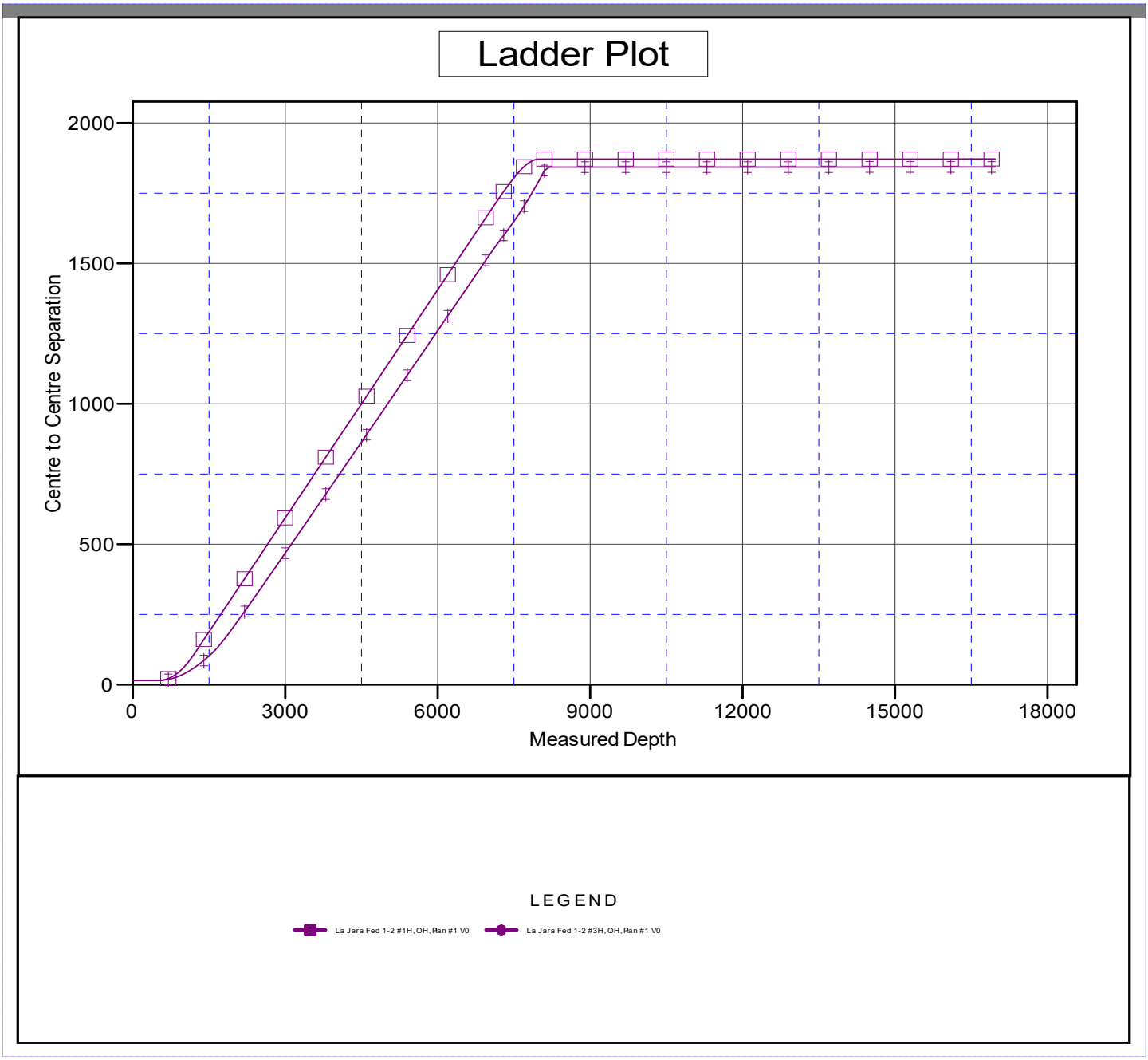
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.00	7,455.00	14,705.98	7,455.00	162.34	165.99	-90.00	-2,647.16	-5,584.99	1,843.49	1,515.44	328.05	5.619	
14,300.00	7,455.00	14,805.98	7,455.00	164.74	168.35	-90.00	-2,645.91	-5,684.98	1,843.49	1,510.68	332.81	5.539	
14,400.00	7,455.00	14,905.98	7,455.00	167.14	170.71	-90.00	-2,644.67	-5,784.97	1,843.50	1,505.92	337.57	5.461	
14,500.00	7,455.00	15,005.98	7,455.00	169.54	173.07	-90.00	-2,643.42	-5,884.97	1,843.50	1,501.16	342.34	5.385	
14,600.00	7,455.00	15,105.98	7,455.00	171.94	175.43	-90.00	-2,642.18	-5,984.96	1,843.51	1,496.40	347.11	5.311	
14,700.00	7,455.00	15,205.98	7,455.00	174.34	177.80	-90.00	-2,640.93	-6,084.95	1,843.51	1,491.64	351.88	5.239	
14,800.00	7,455.00	15,305.98	7,455.00	176.74	180.17	-90.00	-2,639.69	-6,184.94	1,843.52	1,486.87	356.65	5.169	
14,900.00	7,455.00	15,405.98	7,455.00	179.15	182.54	-90.00	-2,638.44	-6,284.93	1,843.52	1,482.10	361.43	5.101	
15,000.00	7,455.00	15,505.98	7,455.00	181.55	184.91	-90.00	-2,637.19	-6,384.93	1,843.53	1,477.32	366.21	5.034	
15,100.00	7,455.00	15,605.98	7,455.00	183.96	187.28	-90.00	-2,635.95	-6,484.92	1,843.53	1,472.55	370.99	4.969	
15,200.00	7,455.00	15,705.98	7,455.00	186.36	189.65	-90.00	-2,634.70	-6,584.91	1,843.54	1,467.77	375.77	4.906	
15,300.00	7,455.00	15,805.98	7,455.00	188.77	192.03	-90.00	-2,633.46	-6,684.90	1,843.54	1,462.99	380.55	4.844	
15,400.00	7,455.00	15,905.98	7,455.00	191.18	194.41	-90.00	-2,632.21	-6,784.90	1,843.55	1,458.20	385.34	4.784	
15,500.00	7,455.00	16,005.98	7,455.00	193.59	196.79	-90.00	-2,630.97	-6,884.89	1,843.55	1,453.42	390.13	4.725	
15,600.00	7,455.00	16,105.98	7,455.00	195.99	199.17	-90.00	-2,629.72	-6,984.88	1,843.56	1,448.63	394.92	4.668	
15,700.00	7,455.00	16,205.98	7,455.00	198.40	201.55	-90.00	-2,628.47	-7,084.87	1,843.56	1,443.84	399.72	4.612	
15,800.00	7,455.00	16,305.98	7,455.00	200.81	203.93	-90.00	-2,627.23	-7,184.86	1,843.57	1,439.05	404.51	4.558	
15,900.00	7,455.00	16,405.98	7,455.00	203.22	206.31	-90.00	-2,625.98	-7,284.86	1,843.57	1,434.26	409.31	4.504	
16,000.00	7,455.00	16,505.98	7,455.00	205.64	208.70	-90.00	-2,624.74	-7,384.85	1,843.58	1,429.47	414.11	4.452	
16,100.00	7,455.00	16,605.98	7,455.00	208.05	211.09	-90.00	-2,623.49	-7,484.84	1,843.58	1,424.67	418.91	4.401	
16,200.00	7,455.00	16,705.98	7,455.00	210.46	213.47	-90.00	-2,622.24	-7,584.83	1,843.59	1,419.88	423.71	4.351	
16,300.00	7,455.00	16,805.98	7,455.00	212.87	215.86	-90.00	-2,621.00	-7,684.83	1,843.59	1,415.08	428.51	4.302	
16,400.00	7,455.00	16,905.98	7,455.00	215.29	218.25	-90.00	-2,619.75	-7,784.82	1,843.60	1,410.28	433.32	4.255	
16,500.00	7,455.00	17,005.98	7,455.00	217.70	220.64	-90.00	-2,618.51	-7,884.81	1,843.60	1,405.48	438.13	4.208	
16,600.00	7,455.00	17,105.98	7,455.00	220.11	223.03	-90.00	-2,617.26	-7,984.80	1,843.61	1,400.67	442.93	4.162	
16,700.00	7,455.00	17,205.98	7,455.00	222.53	225.43	-90.00	-2,616.02	-8,084.79	1,843.61	1,395.87	447.74	4.118	
16,800.00	7,455.00	17,305.98	7,455.00	224.94	227.82	-90.00	-2,614.77	-8,184.79	1,843.62	1,391.06	452.55	4.074	
16,900.00	7,455.00	17,405.98	7,455.00	227.36	230.21	-90.00	-2,613.52	-8,284.78	1,843.62	1,386.26	457.37	4.031	
16,900.04	7,455.00	17,406.02	7,455.00	227.36	230.21	-90.00	-2,613.52	-8,284.81	1,843.62	1,386.25	457.37	4.031	
16,970.48	7,455.00	17,458.14	7,455.00	229.06	231.46	-90.00	-2,612.87	-8,336.93	1,843.71	1,383.29	460.42	4.004	

Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 6967+22 @ 6989.00usft (Prelim)
Offset Depths are relative to Offset Datum
Central Meridian is -106.250000

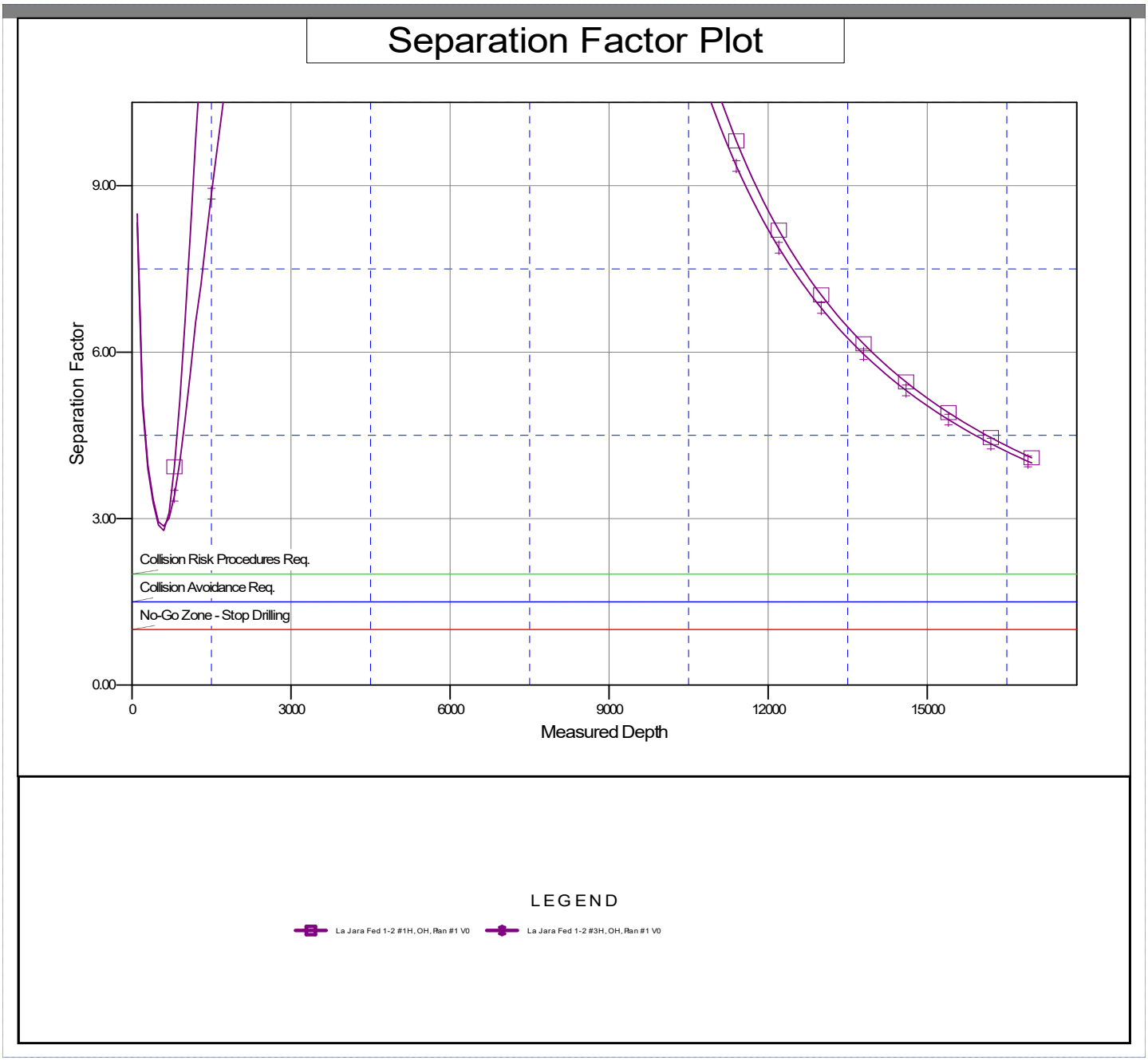
Coordinates are relative to: La Jara Fed 1-2 #2H
Coordinate System is US State Plane 1983, New Mexico Central Zone
Grid Convergence at Surface is: -0.57°



Anticollision Report

Company:	Robert L Bayless, Producer LLC	**Local Co-ordinate Reference:**	Well La Jara Fed 1-2 #2H
Project:	Rio Arriba, NM (NAD83)	**TVD Reference:**	6967+22 @ 6989.00usft (Prelim)
Reference Site:	La Jara Fed 1-2	**MD Reference:**	6967+22 @ 6989.00usft (Prelim)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	La Jara Fed 1-2 #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 6967+22 @ 6989.00usft (Prelim)	Coordinates are relative to: La Jara Fed 1-2 #2H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Central Zone
Central Meridian is -106.250000	Grid Convergence at Surface is: -0.57°



ROBERT L. BAYLESS, PRODUCER LLC

Drilling Program

Well Name - La Jara Fed 1-2 #002H Pad Name - La Jara Fed 1-2
Surface Location: SENE Sec 1 T29N R4W
Bottom Hole Location: SWNW Sec 2 T29N R4W
Surface County: Rio Arriba

1. Estimated Tops of Important Geologic Markers

FORMATION	ESTIMATED TOP – TVD	Fm TOP - MD	Oil/Gas/Water
San Jose	Surface	Surface	
Nacimiento	2566	2615	
Ojo Alamo	3217	3285	
Kirtland	3379	3452	
Fruitland	3545	3623	Gas
Pictured Cliffs	3671	3753	Gas
Lewis	3982	4074	
Cliff House	5729	5874	Gas
Menefee	5817	5964	
Point Lookout	5942	6093	Gas
Mancos	6370	6534	Gas
Top of Target	7381	7669	Gas
Permit TD	7455	16970.48	Estimated MD

The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use.

The surface casing shall be set at 320' and cemented back to surface. Cementing to surface will isolate all potential fresh water zones.

Intermediate casing shall be kept full while running in the hole in mitigate collapse potential. Intermediate casing will be cemented back into surface casing via primary single stage or two/three-stage cement job. Estimated placement of the stage collars will be at ~5100ft MD and 3671ft MD with 3-5 cement baskets run immediate below the collar to aid in cement lift in the second-third stages. If cement does not circulate to the DV tool(s) or to surface, a CBL will be run to determine the top of cement.

Production casing is designed to have cement lifted at least 100' above the intermediate casing shoe. A CBL, or alternatively, a temperature survey will be used to determine top of cement. A pressure actuated toe sleeve would be run above the float collar in the production section to aid in wireline pump down and stage 1 preparation of hydraulic stimulation.

2. Proposed Casing and Cementing Program

A. Casing Program: All New

Hole Size (in)	Casing Size (in)	Depth Set MD (ft)	Wt./Ft., Grade, & Joint	Cement
30	20	120	Line Pipe	To surface w/Class 3: 319 sx (15.6 ppg)
17.5	13.375	320	54.5 lb/ft, J-55, STC	Cemented to surface w/: Lead 237 sx Neat G (15.8 ppg)
12.25	9.625	6700	43.5 lb/ft, N-80, LTC	Cemented to surface using 3-stage cement design w/ Stage 1 Tail: 177 sx Class G (15.8 ppg) Stage 1 Lead: 195 sx Type III (12.3 ppg) Stage 2 Tail: 136 sx Class G (13.5 ppg) Stage 2 Lead: 164 sx Type III (12.3 ppg) Stage 3 Tail: 102 sx Class G (12.8 ppg) Stage 3 Lead: 510 sx Type III (12 ppg)
8.75	5.5	16970	20 lb/ft, P-110, BTC	Cemented 500' above Intermediate Casing Shoe w/ Lead: 2557 sx Class G (13.3 ppg)

Yields:	Neat G (Surface)	Yield = 1.174 ft3/sx (15.8 ppg)
	Stage 1 Type III Lead (Intermediate)	Yield = 2.3 ft3/sx (12.3 ppg)
	Stage 1 Class G Tail (Intermediate)	Yield = 1.15 ft3/sx (15.8 ppg)
	Stage 2 Type III Lead (Intermediate)	Yield = 2.3 ft3/sx (12.3 ppg)
	Stage 2 Class G Tail (Intermediate)	Yield = 1.5 ft3/sx (13.5 ppg)
	Stage 3 Type III Lead (Intermediate)	Yield = 2.53 ft3/sx (12 ppg)
	Stage 3 Class G Tail (Intermediate)	Yield = 1.99 ft3/sx (12.8 ppg)
	Class G Lead (Production)	Yield = 1.33 ft3/sx (13.3 ppg)

CEMENTING VOLUME DESIGN CLARIFICATIONS

Surface Casing @ 320'

*Slurry designed from surface TD to surface. Volume assumes 17-1/2" hole plus 25% excess.

Intermediate Casing

*Slurry designed from intermediate TD to surface. Volume assumes 12-1/4" hole plus 30% excess.

Production Casing

*Slurry designed to cover at least 100ft into the intermediate casing shoe. 8-3/4" hole size and 25% excess was used to volume calcuations.

CEMENT CALCULATIONS AND MINIMUM REQUIREMENTS

*Cement calculations are used to estimate the required volume of cement. However, the final cement job design will depend on the conditions at the well site.

*The actual volumes of cement needed will be calculated based on the on-site conditions. All cement slurries used will meet or exceed the minimum requirements set by the BLM and the New Mexico Oil Conservation Division.

*The specific cement slurries used will either be those listed above or equivalent slurries, depending on the service provider selected. Please note that the cement yields may vary depending on the type of slurries used.

*To ensure sufficient cement strength, all waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

FLOAT EQUIPMENT

*Surface casing - 13-3/8" notched regular pattern guide shoe. Run one (1) standard centralizer on each of the bottom three (3) joints of surface casing.

*Intermediate casing - 9-5/8" cement nose guide shoe with a self-fill insert float. Place float collar one (1) joint above the shoe. Install one (1) centralizer on each of the bottom three (3) joints and one standard centralizer every three (3) joints to 2500ft. Run one (1) centralizer at 2500ft, 2300ft, 2000ft, 1500ft, and 1000ft. Optional DV tools two (2) will be strategically placed above loss circulation zones anticipated in the Mesaverde and Fruitland Coal. Optional use of cancelation plugs for DV tools may be used if losses while cementing are not encountered.

*Production casing - Run 5-1/2" casing with cement nose guide float shoe, 5-1/2" full or pup joint as necessary, landing collar, 5-1/2" full or pup joints as necessary, at least one (1) RSI (rapid stage initiator or sliding sleeve) positioned inside the applicable production area. Centralizer program will be determined by wellbore conditions. Production casing to be pressure tested during completion operations with frack stack installed.

Casing String			
Size (in)	Weight (lb/ft)	Grade	Connection
13 3/8	54.5	J-55	STC
9 5/8	43.5	N-80	LTC
5 1/2	20	P-110	BTC

Casing Strength Properties			
Size	Collapse (psi)	Burst (psi)	Tensile (1000 lb)
13 3/8	1130	2730	514
9 5/8	3810	6330	825
5 1/2	11080	12640	667

Minimum Design Factors			
Size	Collapse	Burst	Tension
13 3/8	1.00	1.10	1.30
9 5/8	1.00	1.10	1.30

5 1/2	1.00	1.10	1.30

Casing Design Considerations/Safety Factors:

A. Surface casing @ 320' MD; 13.375 54.5# J-55

Purpose: Protect shallow fresh water and contain MASP to TD	
Maximum anticipated mud weight at surface casing depth:	9.0 ppg
Maximum anticipated mud weight at intermediate TD:	9.4 ppg
Maximum anticipated mud weight at production TD:	13.0 ppg
TVD at intermediate casing point:	6,531 ft
TVD at production casing point:	7,455 ft
Surface setting depth	320 ft
Intermediate max pore pressure	0.46 psi/ft
Production max pore pressure	0.65 psi/ft
Collapse Design:	
Evacuated 13.375in 54.5# J-55 casing with 9 ppg drilling fluid density:	
Load = 9 * 0.052 * 320'	150 psig
Rating	1,130 psig
S.F.	7.5
Burst Design:	
Assume kick with partially evacuated hole and influx gradient of 0.22 psi/ft	
(Calculations assumes shoe will not break down)	
MASP (Load) = 6531ft * (0.46-0.22)	1,556 psig
Rating	2,730 psig
S.F.	1.8
Tensile Design:	
13.375in 54.5# J-55: Designed on Air Weight * Buoyancy + overpull margin	
Load = 320'* 54.5# * .86 + 100,000 lbs (OPM)	115,033 lbs
Rating:	514,000 lbs
S.F.	4.5
Overpull with S.F. = 514000 lbs / 1.3 - 15033 lbs	380,351 lbs

B. Intermediate Casing @ 6700' MD; 9.625in 43.5# N-80

Maximum Anticipated Mud Weight at Total Depth	9.40 ppg
Maximum Anticipated Equivalent Fm Pressure at Production Total Depth	12.5 ppg
Maximum Surface Treating Pressure for Fracture Operations	11,491 psi
Assumed Gas Gradient for Production Operations	.115 psi/ft
Collapse Design:	
Designed on evacuated casing properties with 9.4 ppg drilling fluid density with no internal back-up	
Load = 9.4 * 0.052 * 6531'	3,192 psig
Rating	3,810 psig
S.F.	1.19
Burst Design:	
Assume kick with partially evacuated hole and influx gradient of 0.22 psi/ft	
(Calculations assumes shoe will not break down)	
MASP (Load) = 7455ft * (0.65-0.22) psi/ft	3,199 psig
Rating	6,330 psig
S.F.	2.0
Tensile Design:	
Designed on Air Weight * Buoyancy	
Load = (6700ft *43.5 lb/ft * 0.86) + 100,000 lbs (OPM)	350,647 lbs
Rating	825,000 lbs
S.F.	2.4
Overpull with SF = 825000 lbs/1.3 - 250647 lbs	383,968 lbs

C. Production Casing @ 16970.48' MD; 5.5in 20# P-110

Maximum Anticipated Mud Weight at Total Depth	13.0 ppg
Maximum Anticipated Equivalent Formation Pressure at Total Depth	12.5 ppg
TVD	7,455
Hanger Depth	N/A
Maximum Surface Treating Pressure for Fracture Operations	11,491
Assumed Gas Gradient for Production Operations	.115 psi/ft
Collapse Design:	

Designed on evacuated casing properties with 13 ppg drilling fluid density with no internal back-up	
Load = 13ppg * 0.052 * 7455'	5,040 psig
Rating	11,080 psig
S.F.	2.2

Burst Design:

Design Consideration #1: Maximum Surface Shut-In Pressure	
MASSIP (Load) = 7455' * (0.65-0.115) psi/ft	3,982 psig
Rating	12,640 psig
S.F.	3.2

Design Consideration #2: Maximum Surface Treating Pressure During Frac Operations	
MATP:	11,491 psig
Rating	12,640 psig
S.F.	1.1

Tensile Design:

Designed on Air Weight * Buoyancy	
Load = (7455ft * 20 lb/ft * 0.822) + 100,000 lbs (OPM)	222,560 lbs
Rating	667,000 lbs
S.F.	3.0
Overpull with SF = 667000 lbs/1.3 - 122560 lbs	390,517 lbs

3. Pressure Control Equipment (5,000 psi Schematic Attached)

THE BOPE will be tested to 250psi (Low) for 5 minutes and 5000psi (High) for 10 minutes prior to drilling out surface and intermediate casing. Annular preventer will be tested to 50% of rated working pressure and maintained for at least 10 minutes. A BOPE testing unit will be utilized with a chart recorder and appropriate test plug for testing. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per well. Pipe and blind rams shall be activated each trip but not more than once a day. The New Mexico Oil and Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE. All tests and inspeciton will be recorded and logged with time and results. A full BOP test will be condicted when initially installed for the first well on the pad or if seals subject to test pressure are broken, following related repairs and at a minimum 30 day intervals. A BOPE shell test only will be conducted for subsequent wells on the pad when seals that are subject to pressure have not been broken or repaired and fall within the 30 day interval of first full test.

All casing strings will be pressure tested to 0.22 psi/ft or 1500 psi, whichever is greater, not to exceed 70% of internal yield of the casing.

All other requirements from Onshore Orders #2 III.A.2.i.(i-xi) will be adhered to during well construction.

4. Mud Program

Interval	Mud Weight*	Fluid Loss	Viscosity	Mud Type
0' - 320'	8.35 - 9.0	NC	20 – 80	Water
320' - 6700'	6.0 - 9.4	6 - NC	30 – 100	Water
6700' - TD	11.0 - 13.0	4 - 10	30 – 45	Invert Emulsion (OBM)

LSND mud (WBM) will be used to drill the 17-1/2" surface hole as well as the 12-1/4" directional intermediate hole. Mud systems with designed and appropriately sized LCM will be considered in the intermediate section to reduce hydrostatic pressure on weaker coal and sandstone formations. Oil based mud (OBM) will be used to drill the 8-3/4" curve and lateral portion of the wellbore. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify operation engineer of any mud losses. Mud weights of up to 13.0 lb/gal will be used as necessary to maintain sufficient overbalance to reservior pressure.

Managed pressure drilling equipment for the production section will be utilized to minimize the equivalent circulating density in the production section.

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

*Mud weights reflect the true Equivalent Circulating Density (ECD) experienced in the wellbore.

5. Auxiliary Equipment

1. Upper Kelly cock (lower Kelly cock – to be available on rig floor)
2. Inside BOP or stab-in valve (available on rig floor)
3. Mud Monitoring will be visually observed.
4. Gas detectors will be used during surface and production hole drilling.

6. Evaluation Program

Logs:	LWD GR	from surface casing to TD
	CBL/CCL/GR:	~60deg to 500ft above TOC in production casing

Mudlogging	None	from KOP to production TD

The proposed Evaluation Program may change at the discretion of the well-site geologist.

Completion procedures will be determined after reviewing data. Whether the well is completed as a dry hole or as a producer, the Well Completion Report and Log will be submitted not later than thirty (30) days after the completion of the well or after completion of operations being performed.

7. Abnormal Conditions

1. Pressures: Mancos is abnormal at .65 psi/ft gradient
2. Temperatures: No abnormal temperatures are anticipated.
3. H_2S: No H_2S has been encountered in or known to exist in the general area.
4. Estimated bottom-hole pressure: 4846 psi

Formation Integrity Testing

Pursuant to Onshore Order No. 2 Section III, Subsection B(i), Formation Integrity Tests (FIT) must be performed on either exploratory wells or any well permitted to utilize 5M BOPE. Bayless requests a variance to this rule, by not performing an FIT test at the surface casing shoe as it is common to encounter zones in formations below the shoe that fail at a lower Equivalent Mud Weight (EMW) than a typical FIT test.
An FIT would be planned after drilling out the intermediate casing shoe, to be tested to 13 lb/gal.

8. Anticipated Starting Dates/ Bayless Contact

A. Anticipated Starting Dates:	September 1, 2023	
Anticipated Commencement Date:	30 days from start date	
Drilling Days:	Approximately 20 days	
Completion Days:	Approximately 15 days	
B. Please contact Nate Denzin at phone no:	303-382-0906	Cell Phone: 720-338-3639

With any questions or concerns regarding this drilling program.

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report
07/11/2024

APD ID: 10400094740
Submission Date: 09/28/2023
Operator Name: ROBERT L BAYLESS PRODUCER LLC
Well Name: LA JARA FED 1-2
Well Number: 002H
Well Type: CONVENTIONAL GAS WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

La_Jara_Fed_1_2_Access_Road_Map_040424_20240404140852.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Existing roads will be maintained in the same or better condition using best management practices and surface operating standard & guidelines for Oil & Gas (Gold Book).

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

La_Jara_Fed_1_2_Nearby_Wells_Map_and_Table_012924_20240411103936.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

La_Jara_Fed_1_2__Facilities_Layout_20230602110442.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Water for construction, drilling, dust suppression and completion operations will be utilized from the La Jara water pond which will be constructed on private surface.

Water source use type: DUST CONTROL
SURFACE CASING
INTERMEDIATE/PRODUCTION CASING
STIMULATION

Source latitude: 36.755092 **Source longitude:** -107.202803

Source datum: NAD83

Water source permit type: OTHER

Water source transport method: PIPELINE

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 600000 **Source volume (acre-feet):** 77.3358578

Source volume (gal): 25200000

Water source and transportation

La_Jara_Fed_1_2_Water_Source__Map__Revised_043024_20240502130114.pdf

Water source comments: Robert Bayless will be using the proposed La Jara Water Pond that is located to the west of the proposed wellpad. The water pond is located on private surface. Each well drilling and completion will use approximately 75 acre-ft of fresh water. Fresh water has been contracted from San Juan Water Haulers Association who has rights from the Jicarilla Nation (confirmation of volume for first wells

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

attached) at the Navajo Dam Reservoir. Water will be transferred and stored onsite in two freshwater storage ponds. Frac tanks may be used on well pad for buffer for Hydraulic Fracturing pumps. Water will be transferred from Navajo Dam Reservoir to location ponds using a combination of existing pipelines owned by Enterprise Products and Black Hawk Energy Corporation and by temporary lay flat-water lines. Deisel powered centrifugal pumps will be used to pump the water. Water will be pumped from the Rosa 181 take point. Using 12 inch lay flat water lines and pumps, the water will then travel south along the existing roads and pipeline to the La Jara CDP where it will enter the existing Black Hawk Energy Corporation Cabresto 12 inch pipeline. The water will then be transported using the existing and proposed pipelines for drilling and completions. (See attached Map). San Juan Water Haulers Association has agreed to provide 180 acre feet of water rights for industrial use in connection with oil and gas drilling.

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: A contractor/source has not been determined or contracted yet for this location. Robert Bayless will submit a sundry notice to BLM prior to construction to notify them of chosen contractor prior to construction.

Construction Materials source location

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drilling water

Amount of waste: 5000 barrels

Waste disposal frequency : One Time Only

Safe containment description: A closed loop system will be utilized. Drilling fluids will be disposed of at a commercial disposal facility. Total amount of drilling water will be ~5000 bbl. Drilling is anticipated to be take 10-15 days for a total of 330-500 bbl per day until the drilling has been completed.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE
Disposal type description:

Disposal location description: Trucked by 3rd party contractor.

Waste type: COMPLETIONS/STIMULATION

Waste content description: Completions fluids

Amount of waste: 8000 barrels

Waste disposal frequency : Daily

Safe containment description: Completion fluid amount is only calculated for the time the completion procedure occurs. Once the completion procedure is done, there will be no additional waste for completion/stimulation. Completion is anticipated to take four to six days. Completion fluids will be hauled to a commercial disposal facility.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** INDIAN (TRIBAL/ALLOTTED)
Disposal type description:

Disposal location description: Completion fluids will be hauled by a 3rd party contractor.

Waste type: FLOWBACK

Waste content description: Flowback water

Amount of waste: 400 barrels

Waste disposal frequency : Daily

Safe containment description: Flowback water will be contained in a holding tank and subsequently hauled to a commercial disposal facility.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE
Disposal type description:

Disposal location description: Hauled by 3rd party contractor.

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Well Name: LA JARA FED 1-2 **Well Number:** 002H

Waste type: SEWAGE

Waste content description: Sewage

Amount of waste: gallons

Waste disposal frequency : Weekly

Safe containment description: Port-a-potties

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Sewage will be maintained and hauled by 3rd party contractor.

Waste type: GARBAGE

Waste content description: Garbage and other solid waste.

Amount of waste: pounds

Waste disposal frequency : Weekly

Safe containment description: Garbage and other solid waste will be contained in a portable trash cage which will be totally enclosed with small mesh wire.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Trucked by 3rd party contractors.

Waste type: PRODUCED WATER

Waste content description: Produced water.

Amount of waste: 800 barrels

Waste disposal frequency : Daily

Safe containment description: Produced water will be contained in tanks during completion and testing. Once testing is completed the produced water will be hauled to a commercial disposal facility.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: All produced water will be hauled by 3rd party contractor.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location The steel cuttings pit and closed loop system will contain the drilling fluids including salts and chemicals. Cuttings will be treated in the drying cutting area before being hauled to Industrial Ecosystems Industries on Crouch Mesa.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

La_Jara_Fed_1_2_Wellsite_Layout_Drawings_092823_20230928102417.pdf

Comments:

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** La Jara Fed

Multiple Well Pad Number: 1-2

Recontouring

Drainage/Erosion control construction: Straw wattles are to be installed around areas of the wellpad. The cut slopes on the wellpad are not to be graded to a smooth surface, but are to be left in a roughened condition. Any other combination of the following Best Management Practices may also be installed for erosion control methods; Diversion Ditches, Water Bars, Road Surface Slope, Drainage Dips, Roadside Ditches, Turnouts, Wing Ditches, Road Crowning, Culverts, Berms, Silt Fence, Straw Bales, Straw Crimping, Surface Roughening, Catch Basins, Sediment Traps, Permanent Vegetation, Existing Vegetation and Mulching. The BMP selection will be determined on an individual basis and as site conditions dictate.

Drainage/Erosion control reclamation: Earthen berms are to be placed at the top of cut slopes. An earthen berm is to be placed on the perimeter of the wellpad to fill sections to divert run-off from fill slopes to minimize erosion. The graded slopes are to be left in a rough condition to minimize wind and water erosion. At the completion of the facilities installation, the stockpiled material for the production equipment dikes will no longer exist. Straw wattles are to be installed and maintained. Any other combination of the following Best Management Practices may be installed for erosion control methods; Diversion Ditches, Water Bars, Road Surface Slope, Drainage Dips, Roadside Ditches, Turnouts, Wing Ditches, Road Crowning, Culverts, Berms, Silt Fence, Straw Bales, Straw Crimping, Surface Roughening, Catch Basins, Sediment Traps, Permanent Vegetation, Existing Vegetation and Mulching. The BMP selection will be determined on an individual basis and as site conditions dictate.

Well pad proposed disturbance (acres): 5.97	**Well pad interim reclamation (acres):** 1.37	**Well pad long term disturbance (acres):** 4.6
Road proposed disturbance (acres): 0.5	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 7.41	**Pipeline interim reclamation (acres):** 0.43	**Pipeline long term disturbance (acres):** 6.98
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 13.879999999999999	**Total interim reclamation:** 1.8	**Total long term disturbance:** 11.58

Disturbance Comments:

Reconstruction method: Final reconstruction will include all disturbed areas, including roads, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Re-salvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut\fill slopes.

Topsoil redistribution: Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet. Distribute topsoil evenly over the location, and seed according to the seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

Soil treatment: Earthwork for interim and final reclamation will be completed within six (6) months of well completion or plugging (weather permitting).

Existing Vegetation at the well pad:

Existing Vegetation at the well pad

La_Jara_Fed_1_2_NRCS_Map_Unit_and_Plants_Wellpad_20230413113200.pdf

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Well Name: LA JARA FED 1-2 **Well Number:** 002H

Existing Vegetation Community at the road:

Existing Vegetation Community at the road

La_Jara_Fed_1_2_NRCS_Map_Unit_and_Plants_Access_Road_20230413121601.pdf

Existing Vegetation Community at the pipeline: All pipeline surface disturbance on USFS will be reclaimed completely. The 5.29 acres of pipeline disturbance on fee surface will remain unreclaimed. This is calculated with 5758.3' length X 40' width; however, the only "disturbance" are the actual pipelines being placed on the surface.

Existing Vegetation Community at the pipeline

La_Jara_Fed_1_2_NRCS_Map_Unit_and_Plants_Pipeline_040324_20240404141005.pdf

Existing Vegetation Community at other disturbances: No other disturbances are required.

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: John **Last Name:** Thomas

Phone: (303)296-9900 **Email:** jthomas@rlbayless.com

Seedbed prep: Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including all roads and cut/fill slopes.
Seed BMP: All disturbed areas, including roads, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Re-salvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut\fill slopes.

Seed method: Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including all roads and cut/fill slopes.
Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: Annual or noxious weeds shall be controlled on all disturbed areas. A weed monitoring and control program will be implemented beginning the first growing season and throughout the life of the well. Noxious weeds that have been identified during construction and monitoring will be promptly treated and controlled. A Pesticide Use Permit will be acquired from the BLM/USFS prior to the use of herbicides. All construction and reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species. The operator will coordinate all weed and insect control measures with the BLM/USFS, state and/or local management agencies. Reclamation equipment will be cleaned before moving the equipment onto the location and will be cleaned again before leaving the location.

Weed treatment plan

Monitoring plan description: Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical. Reclamation monitoring will be documented in a reclamation report and submitted to the Authorized Officer. The report will document compliance with all aspects of the reclamation objectives and standards, identify whether the reclamation objectives and standards are likely to be achieved in the near future without additional actions, and identify actions that have been or will be taken to meet the objectives and standards. The report will also include acreage figures for: Initial Disturbed Acres; Successful Interim Reclaimed Acres; and Successful Final Reclaimed Acres.

Monitoring plan

Success standards: Reclamation will be considered successful if the following criteria are met: 70 percent of pre-disturbance cover; 90 percent dominate species (the vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation); and erosion features are equal to or less than surrounding area.

Pit closure description: No pits are being used.

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: Bayless has a Surface Use Agreement in place.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: Bayless has a Surface Use Agreement in place.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: PIPELINE

Describe:

Surface Owner: U.S. FOREST SERVICE

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region: REGION 3

USFS Forest/Grassland: **USFS Ranger District:** JICARILLA

Disturbance type: PIPELINE

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: Bayless has a Surface Use Agreement in place.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW

SUPO Additional Information: The onsite was held on April 20, 2023 for this location. Attending was John Thomas, Billy Schneider - Robert L. Bayless, LLC; Emmanuel Adeloye - BLM; Ron Kellermueller - New Mexico Department of Game and Fish; JJ Miller - US Forest Service.
Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

La_Jara_Fed_1_2_Pad_Self_Cert_for_Access_and_Wellpad_Signed_20230417083316.pdf
R_22406_Case_22918_20230613134727.pdf
La_Jara_Fed_1_2_002H_APD_BLM_Payment_Receipt_20230927091200.pdf
La_Jara_Fed_1_2_APD_BLM_Letter_092723_20230928102602.pdf
La_Jara_Fed_1_2_APD_BLM_Letter_120623_20231206140416.pdf
La_Jara_Fed_1_2_APD_BLM_Letter_010924_20240109153852.pdf
La_Jara_Fed_1_2_APD_BLM_Letter_040424_20240404141729.pdf
La_Jara_Fed_1_2_APD_BLM_Letter_041624_20240416155945.pdf

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

La_Jara_Fed_1_2_Gas_and_Water_Pipelines_Plats_042524_20240502130234.pdf

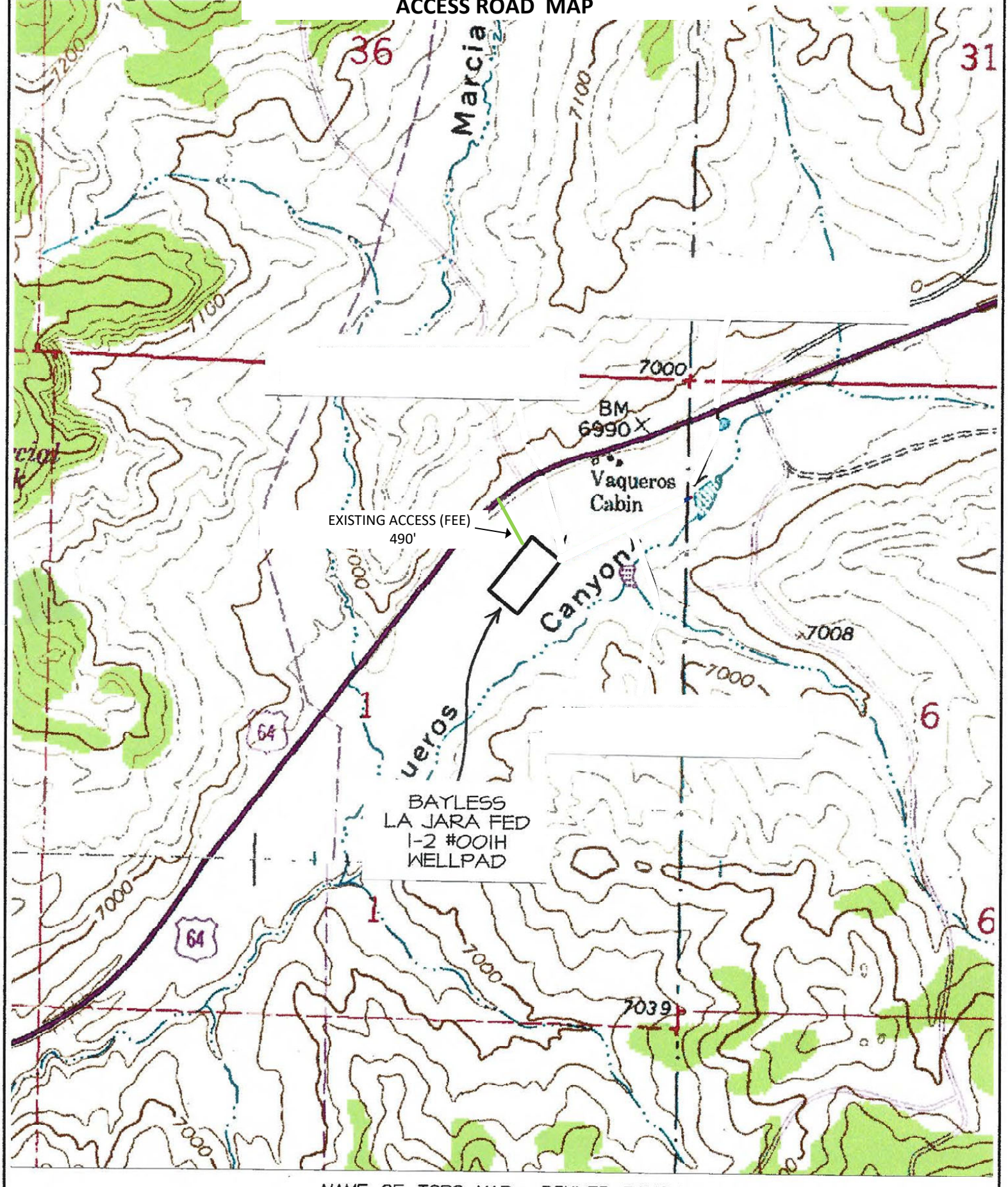
La_Jara_Fed_1_2_Surface_Use_Plan_Master_Revised_050224_20240502130247.pdf

La_Jara_Fed_1_2_APD_BLM_Letter_050224_20240502130258.pdf

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1-2 WELLPAD

LOCATED IN N/2 NW/4 SECTION 6, T29N, R3W
E/2 NE/4 & HOMESTEAD ENTRY SURVEY #281 OF SECTION 1, T29N, R4W
N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO

ACCESS ROAD MAP



NAME OF TOPO MAP : BIXLER RANCH

Robert Bayless Producer, LLC

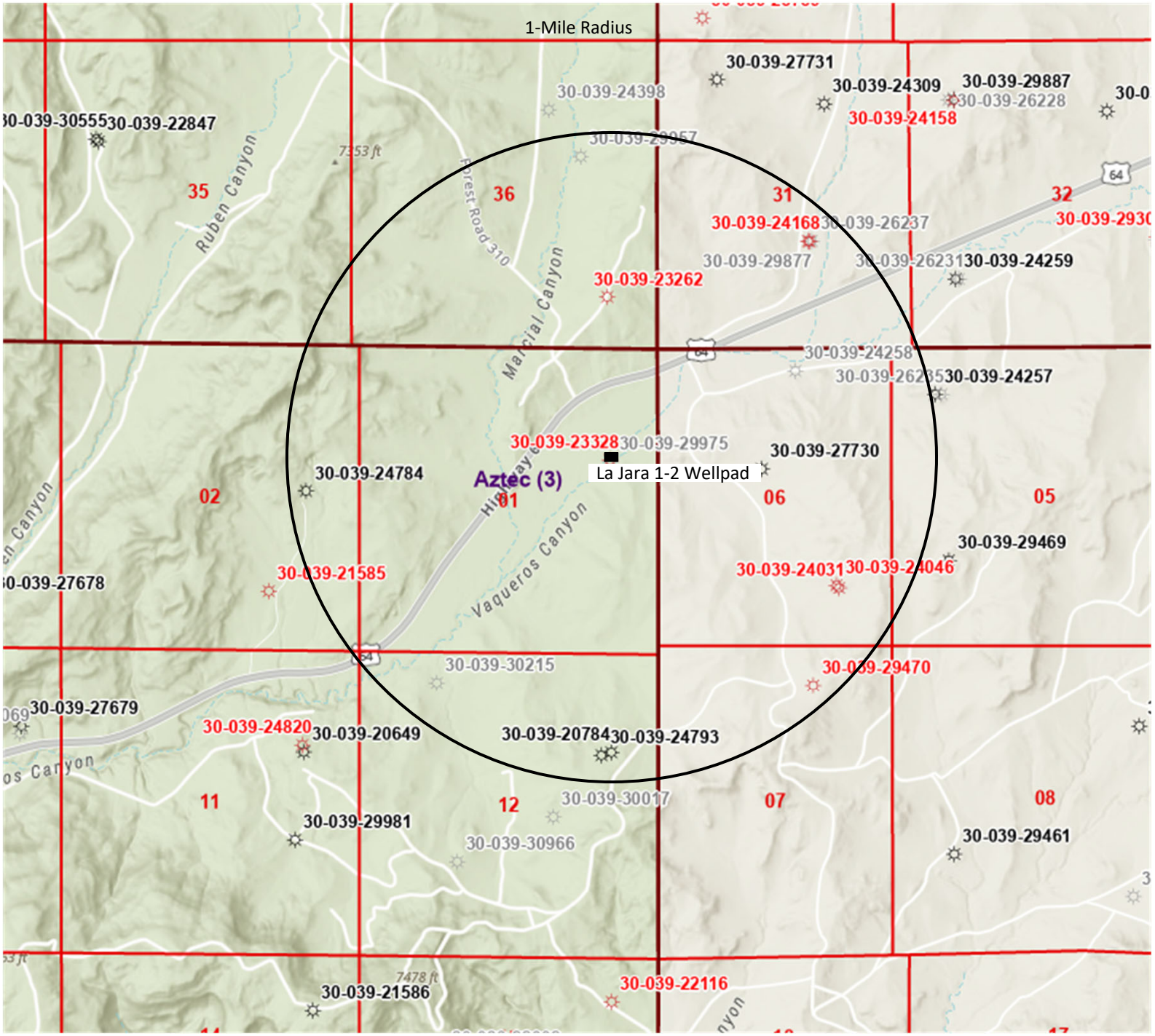
La Jara Fed 1-2 Wellpad

Sec. 1 T29N R4W (H.E.S. #281)

Rio Arriba County, NM

Surface: Fee

Nearby Wells Map

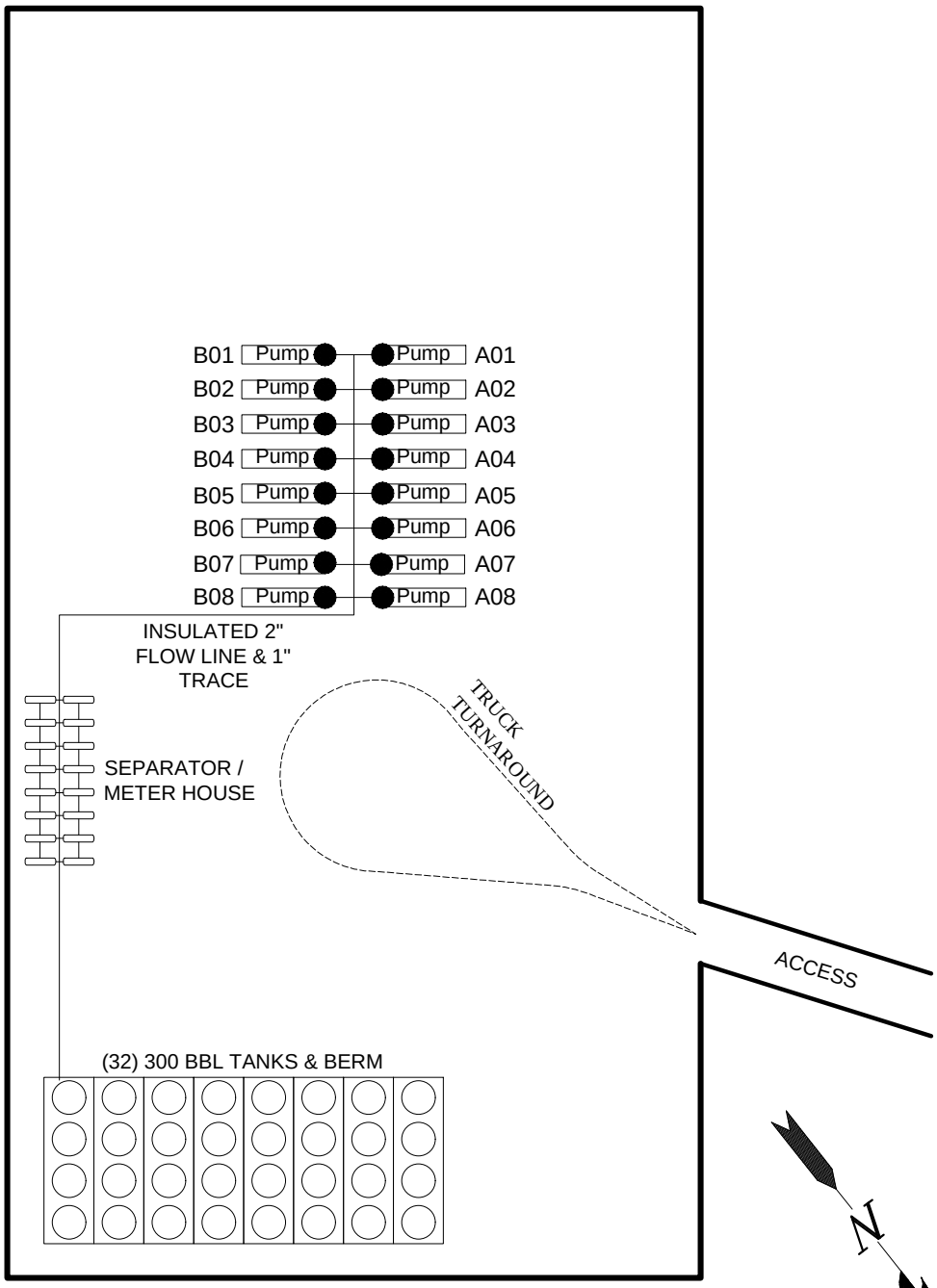


0.0 in. 1.0 in. 1.7 in. 3.3 in.

GRAPHIC SCALE 1" = 2,440'

API	Well Name	Well Type Code	Well Type	Well Status Code	Well Status	OGRID	OGRID Name	County	PLSS Location (ULSTR)	Latitude	Longitude	Datum	Well Bore Direction	SPUD Year	SPUD Date	Lease Type	Measured Depth	Vertical Depth	Associated Pools	Effective Date	Last Produced	Plug Date	OBJECTID	X	y
30-039-24784	BURNS RANCH #300	G	Gas	A	Active	330132	MorningStar Operating LLC	Rio Arriba	H-02-29N-04W	36.7542	-107.2178	NAD83	V	1990	5/30/1990	Federal	4,135	4,105	[71629] BASIN FRUITLAND COAL (GAS); [72400] BLANCO PICTURED CLIFFS, EAST (GAS)	8/20/2020	11/1/2023	12/31/9999	7711	-11935435.39	4404894.4593369365
30-039-30215	MANY CANYONS 29 04 12 #012H	G	Gas	C	Cancelled	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	C-12-29N-04W	36.7451	-107.2101	NAD83	No Data	9999	12/31/9999	Federal	0	0	[74960] CHOZA MESA PICTURED CLIFFS (GAS)	8/12/2010	12/31/9999	12/31/9999	8633	-11934579.1	4403638.016262642
30-039-29957	MANY CANYONS 30 04 36 #023H	G	Gas	C	Cancelled	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	H-36-30N-04W	36.7699	-107.2017	NAD83	H	9999	12/31/9999	Federal	0	0	[72400] BLANCO PICTURED CLIFFS, EAST (GAS)	4/16/2007	12/31/9999	12/31/9999	10802	-11933637.91	4407088.451358493
30-039-24793	29-4 CARSON 12 #001	G	Gas	A	Active	328537	NueVida Resources, LLC	Rio Arriba	H-12-29N-04W	36.7417	-107.2004	NAD83	V	1990	7/12/1990	Federal	3,752	3,752	[71629] BASIN FRUITLAND COAL (GAS)	2/26/2020	5/1/2023	12/31/9999	10917	-11933498.43	4403159.250533905
30-039-20784	CARSON 29 04 #005	G	Gas	A	Active	11859	JICARILLA ENERGY CO	Rio Arriba	H-12-29N-04W	36.7418	-107.1999	NAD83	V	1973	10/26/1973	Federal	8,572	8,572	[73720] CAMPO GALLUP (GAS)	9/7/2018	11/1/2023	12/31/9999	11056	-11933437.2	4403181.477210246
30-039-29975	MANY CANYONS 29 04 01 #024H	G	Gas	C	Cancelled	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	H-01-29N-04W	36.7555	-107.1999	NAD83	No Data	9999	12/31/9999	Federal	0	0	[72400] BLANCO PICTURED CLIFFS, EAST (GAS)	8/12/2010	12/31/9999	12/31/9999	11178	-11933439.06	4405086.861
30-039-23262	SIMMS FEDERAL #004	G	Gas	P	Plugged (site released)	162928	ENERGEN RESOURCES CORPORATION	Rio Arriba	P-36-30N-04W	36.7633	-107.2001	NAD83	V	1983	8/15/1983	Federal	4,115	4,115	[71629] BASIN FRUITLAND COAL (GAS)	8/1/1997	10/1/2003	8/3/2004	11190	-11933462.11	4406165.023
30-039-23328	PRE-ONGARD WELL #001	G	Gas	P	Plugged (site released)	214263	PRE-ONGARD WELL OPERATOR	Rio Arriba	H-01-29N-04W	36.7556	-107.2	NAD83	V	1984	1/20/1984	Private	0	3,975	[72400] BLANCO PICTURED CLIFFS, EAST (GAS)	10/27/1983	12/31/9999	1/28/1984	11191	-11933445.97	4405096.451163291
30-039-29877	JICARILLA 464 31 #041	G	Gas	C	Cancelled	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	N-31-30N-03W	36.7641	-107.195	NAD83	No Data	9999	12/31/9999	Jicarilla	0	0	[72400] BLANCO PICTURED CLIFFS, EAST (GAS)	12/20/2013	12/31/9999	12/31/9999	12531	-11932890.24	4406280.749914186
30-039-27730	JICARILLA 452 06 #023	G	Gas	A	Active	11859	JICARILLA ENERGY CO	Rio Arriba	G-06-29N-03W	36.7552	-107.191	NAD83	V	2004	6/5/2004	Jicarilla	3,800	3,800	[71629] BASIN FRUITLAND COAL (GAS); [72400] BLANCO PICTURED CLIFFS, EAST (GAS); [97037] CABRESTO CANYON TERTIARY	9/7/2018	6/1/2023	12/31/9999	13772	-11932448.05	4405038.679396282
30-039-24258	PRE-ONGARD WELL #3	G	Gas	C	Cancelled	214263	PRE-ONGARD WELL OPERATOR	Rio Arriba	B-06-29N-03W	36.7598	-107.189	NAD83	No Data	9999	12/31/9999	Jicarilla	0	0	No Data	7/7/1988	12/31/9999	12/31/9999	15050	-11932227.46	4405684.605341813
30-039-26237	JICARILLA 464 SJ #004	G	Gas	C	Cancelled	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	J-31-30N-03W	36.7659	-107.1881	NAD83	No Data	9999	12/31/9999	Jicarilla	0	0	No Data	12/7/2001	12/31/9999	12/31/9999	15182	-11932120.33	4406532.403116277
30-039-24046	JICARILLA 452 #001Y	G	Gas	P	Plugged (site released)	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	P-06-29N-03W	36.7497	-107.1866	NAD83	V	1986	6/23/1986	Jicarilla	3,935	3,935	[71629] BASIN FRUITLAND COAL (GAS)	1/1/1997	4/1/2003	5/14/2005	15193	-11931958	4404278.657325449
30-039-24168	JICARILLA 464 #004	G	Gas	P	Plugged (site released)	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	J-31-30N-03W	36.7659	-107.1883	NAD83	V	1988	2/27/1988	Jicarilla	4,075	4,075	[72400] BLANCO PICTURED CLIFFS, EAST (GAS)	1/1/1997	3/1/2008	1/18/2010	15233	-11932147.4	4406531.844492916
30-039-29470	JICARILLA 452 07 #013	G	Gas	P	Plugged (site released)	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	B-07-29N-03W	36.745	-107.188	NAD83	H	2006	11/4/2006	Federal	5,846	3,813	[72400] BLANCO PICTURED CLIFFS, EAST (GAS)	7/12/2006	12/1/2009	10/14/2015	15302	-11932110.87	4403622.561302523
30-039-24031	PRE-ONGARD WELL #001	G	Gas	P	Plugged (site released)	214263	PRE-ONGARD WELL OPERATOR	Rio Arriba	P-06-29N-03W	36.7496	-107.1865	NAD83	V	1986	5/12/1986	Jicarilla	0	1,700	[96928] WC D3, PICTURED CLIFFS	5/7/1986	12/31/9999	6/23/1986	15378	-11931944.41	4404263.291553489
30-039-30195	JICARILLA 464 31 #233	G	Gas	P	Plugged (site released)	13925	BLACK HILLS GAS RESOURCES, INC.	Rio Arriba	J-31-30N-03W	36.7659	-107.1882	NAD83	No Data	2008	4/8/2008	Jicarilla	9,642	3,606	[71629] BASIN FRUITLAND COAL (GAS); [72400] BLANCO PICTURED CLIFFS, EAST (GAS)	11/28/2007	10/1/2013	10/25/2013	15507	-11932136.35	4406528.134

NOTE:
PRODUCTION EQUIPMENT LOCATION
COULD VARY DUE TO SITE AND OPERATION
EFFECTIVENESS.



LEGEND

● = PROPOSED WELL LOCATION

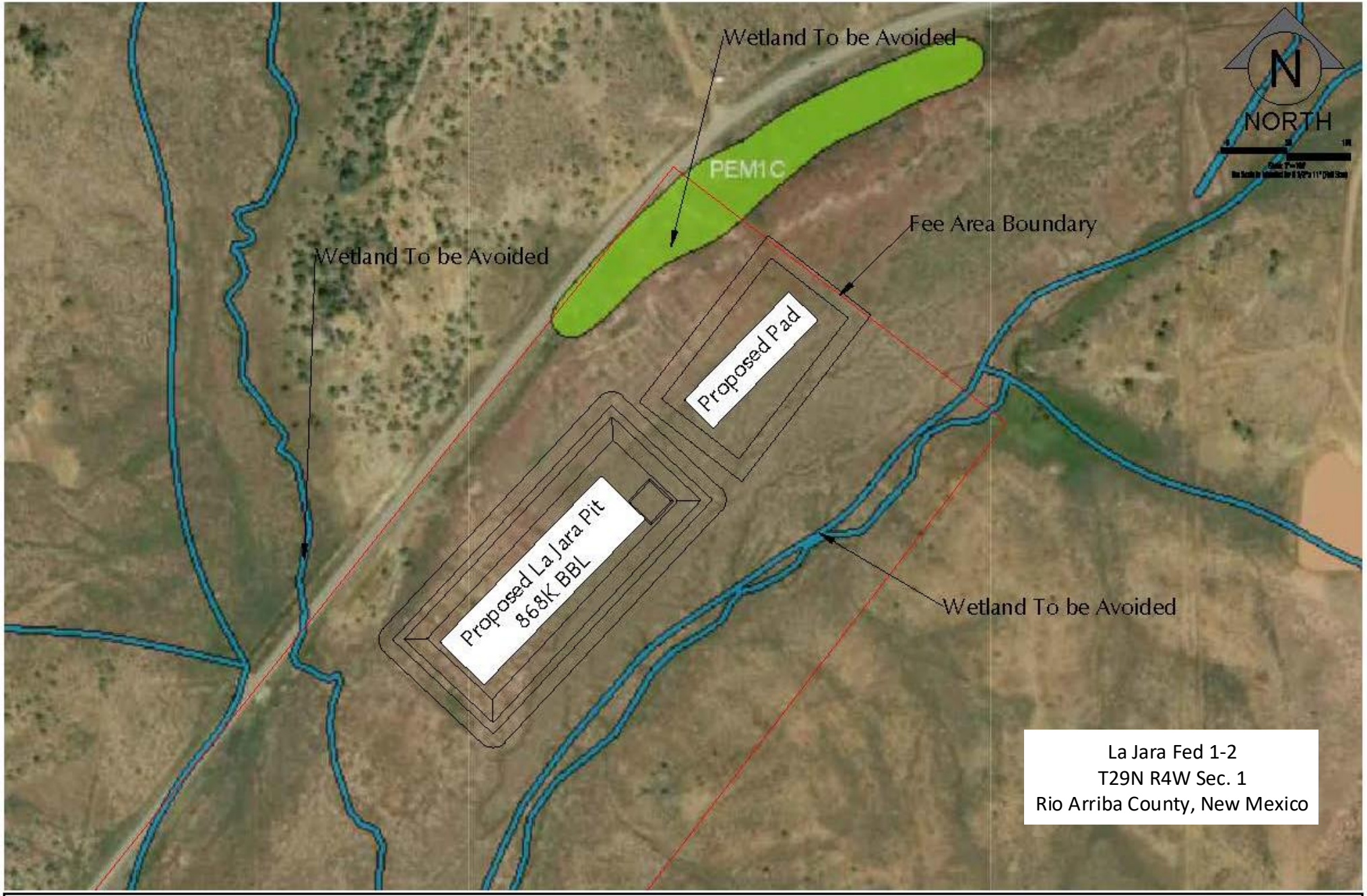
Robert L. Bayless, Producer LLC
621 Seventeenth Street, Suite 2300 - Denver CO. 80293

WELL PAD - FACILITY DIAGRAM

LA JARA FED 1-2
LOCATED IN SECTION 1, T29N,
R4W, N.M.P.M., RIO ARRIBA
COUNTY, NEW MEXICO

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED:	SURVEYED BY:
DATE DRAWN: 5-4-23	DRAWN BY: S.A.
SCALE: 1" = 80'	Date Last Revised:



ENVIROTECH
ENGINEERING
2500 N. Eleventh Street Enid, OK 73701 • 580.234.8730 • envirotechconsulting.com
CA #1968 - Expiration Date: 6-30-2024

Water Source
La Jara Fresh Water Pits
Robert L. Bayless Producer, LLC

Project No.
PRELIM
Figure 1

ROSA 181
TAKE-OUT POINT

SAN JUAN COUNTY
RIO ARRIBA COUNTY

TEMPORARY
WATER LINE
OPTION A

PROPOSED FUTURE
TAKE-OUT POINT

FRANCES CREEK
TAKE-OUT POINT

SIMS MESA CDP

TEMPORARY WATER
LINE OPTIONS B & C

FUTURE WATER LINE

BLACK HAWK ENERGY
LA JARA CDP

12" TO 16"
TRANSITION

EXISTING ENTERPRISE
LA JARA GATHERING
16" PIPELINE

EXISTING ENTERPRISE
LA JARA GATHERING
12" PIPELINE

**ENTERPRISE BLOCK
VALVE SITE**

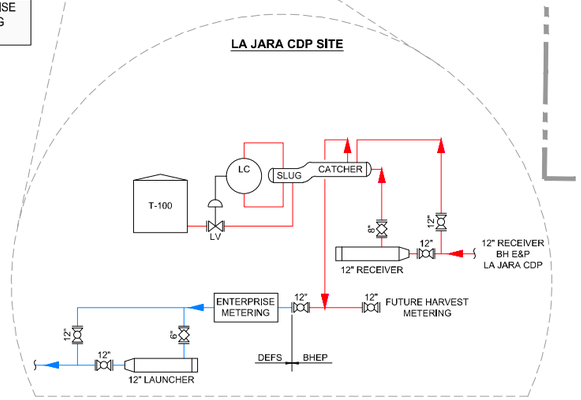
BUREAU OF LAND MANAGEMENT
CARSON NATIONAL FOREST

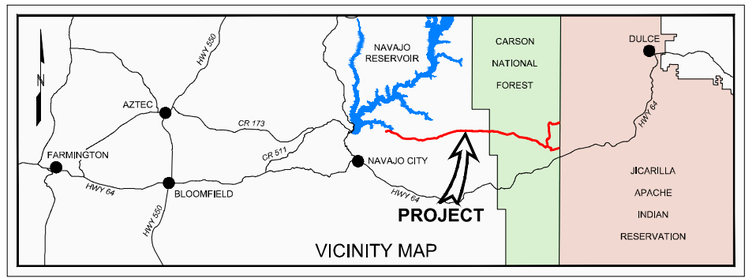
EXISTING HARVEST 6"
STEEL PIPELINE

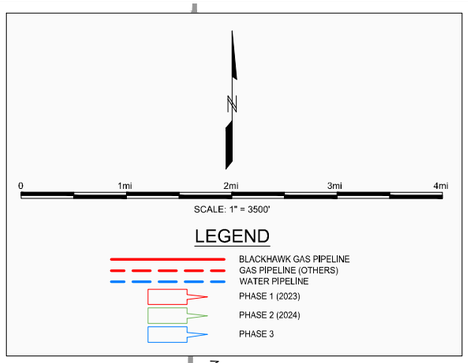
EXISTING BLACKHAWK
ENERGY CABRESTO
DISCHARGE 12" PIPELINE

PROPOSED CABRESTO
LOOP PIPELINE

LA JARA CDP SITE







CARSON NATIONAL FOREST
JICARILLA APACHE INDIAN RESERVATION

EXISTING
ENTERPRISE
12" L-50
PIPELINE

OFF-LEASE
MEASUREMENT

PROPOSED
MANCOS WELL

TEMPORARY WELL
PAD ACCESS

PROPOSED TEMPORARY
WATER LINE

ESPINOSA
PLANT

ENTERPRISE
L-50
CONNECT

J-10
ROAD
TURN-
OUTS

EXISTING BLACKHAWK
ENERGY LYNCH
RANCH 8" PIPELINE

FUTURE
L-50
LOOP

RELOCATE
12" PIG
LAUNCHER

ENTERPRISE
L-50
CONNECT

EXISTING
6" NMG CO.

MOVE 12" PIG
LAUNCHER

Cabrestor Tie-In

FUTURE
CABRESTO
JUNCTION

RELOCATE
NMG CO.
METER X-41

Proposed PL

PROPOSED
MANCOS WELL

OFF-LEASE
MEASUREMENT

64

NOTES:

1) FLOW SCHEMATIC IS FOR GRAPHICAL REPRESENTATION ONLY.
2) ALL GAS, WATER AND UTILITY LINES SHOULD BE LOCATED PRIOR TO ANY EXCAVATING, DIGGING, OR TRENCHING ANYWHERE ON OR NEAR THIS SITE.
3) ATWELL ASSUMES NO RESPONSIBILITY FOR THE SPECIFIC LOCATION OF ANY BURIED GAS, WATER, OR UTILITY LINES THAT MAY BE PRESENT ON OR NEAR THIS SITE, NOR IS ANY LIABILITY ASSUMED FOR ANY LEGAL ACTION WHICH RESULTS FROM A DISCOVERY OF A GAS, WATER, OR UTILITY LINE IN ADDITION TO OR IN A DIFFERENT LOCATION THAN SHOWN ON THIS PLAT.
4) COORDINATE SYSTEM BASED ON NAD 83 NEW MEXICO STATE PLANE, CENTRAL ZONE, US FOOT.
5) PIPELINE AND WELL DATA PROVIDED BY BLACKHAWK ENERGY.

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	DESCRIPTION	DATE	BY	CHK.	APPR.
6	RE-ISSUED FOR REVIEW	08/15/23	TMM	BH	
5	ISSUED FOR REVIEW	07/11/23	TMM	BH	

DRAWN BY: TMM 07/11/23
CHECKED BY: BH 07/11/23
REVIEWED BY:
APPROVED BY:
SCALE: SCALE: 1" = 3500'

PREPARED FOR: BlackHawk Energy

ATWELL
www.atwell-group.com
161 Burnett Drive, Unit #3
Durango, CO 81301
Office: 303-825-7100

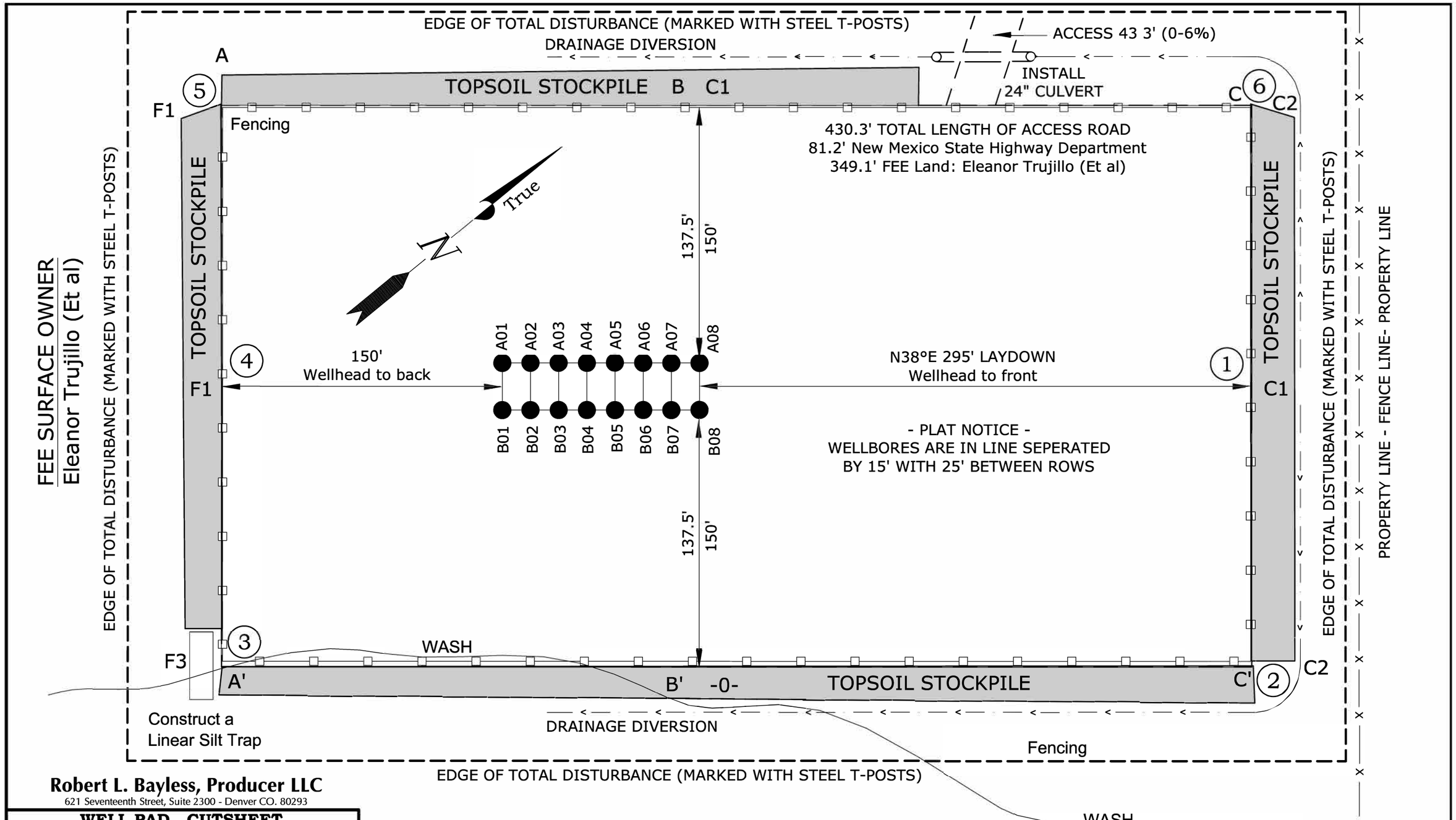
FLOW SCHEMATIC - PROJECT TRACKING

CABRESTO DISCHARGE & LA JARA GATHERING PIPELINES

BLACKHAWK SYSTEM — RIO ARRIBA COUNTY, NEW MEXICO

PROJECT NUMBER	DRAWING NUMBER	REV.
21-3396	21-3396-PL-96-013	B

Aug 15, 2023 - 3:21pm by tmalonev - Path = S:\21003396\03 DESIGN\07 PIPELINE\09 SCHEMATIC\S21-3396-96-013.dwg



Robert L. Bayless, Producer LLC
621 Seventeenth Street, Suite 2300 - Denver CO. 80293

WELL PAD - CUTSHEET

LA JARA FED 1-2 WELLPAD
LOCATED IN SECTION 1, T29N, R4W,
N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO.
ELEVATION: 6967', LAT: 36.756346°N,
LONG: 107.201584°W, DATUM: NAD1983

Steel T-Posts have been set to define the Edge of Disturbance limits which are 50' offset from the edge of the staked wellpad.

AREA OF TOTAL DISTURBANCE
650' X 400' = 5.97 ACRES

50' 25' 0' 50'
SCALE

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED:	SURVEYED BY:
DATE DRAWN: 5-4-23	DRAWN BY: S.A.
SCALE: 1" = 50'	Date Last Revised:

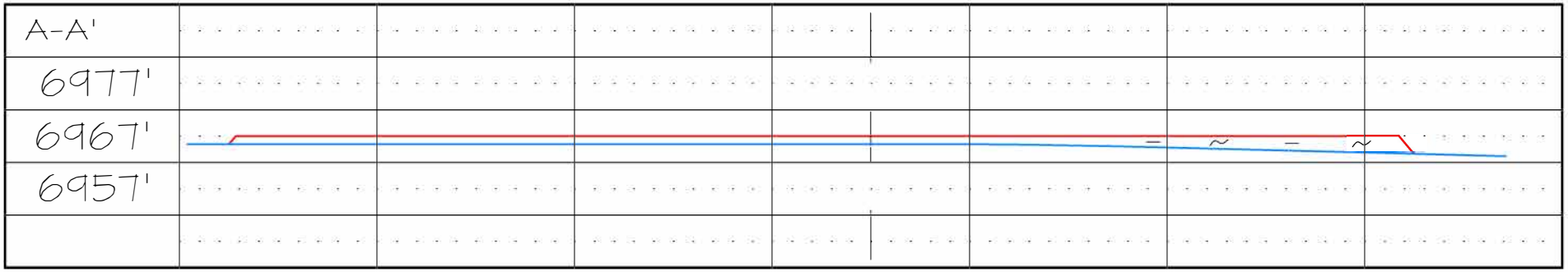
ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED WELLPAD

SECTION 1, T29N, R4W, NMPM RIO ARRIBA COUNTY, NEW MEXICO ELEVATION: 6967'

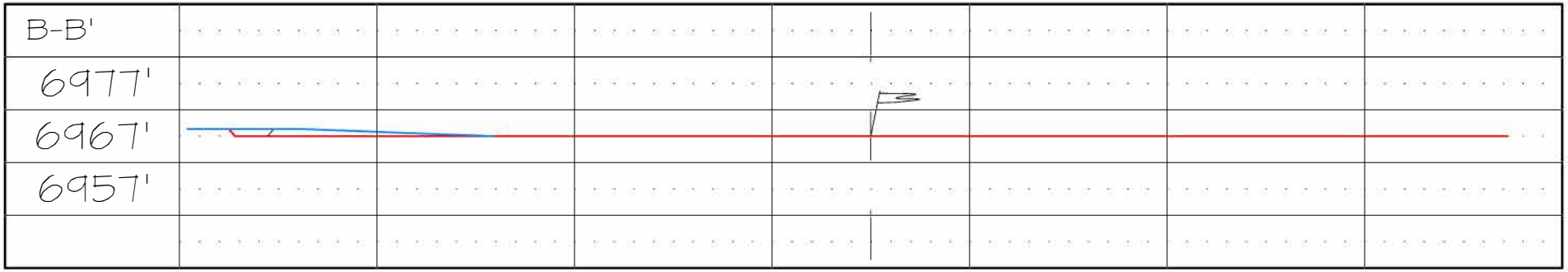
HORIZONTAL SCALE
1"=40'

VERTICAL SCALE
1"=30'

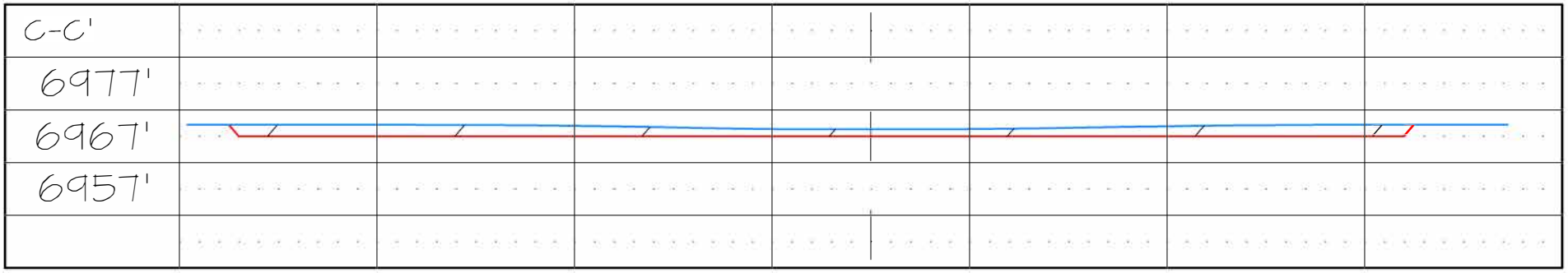
C/L



C/L

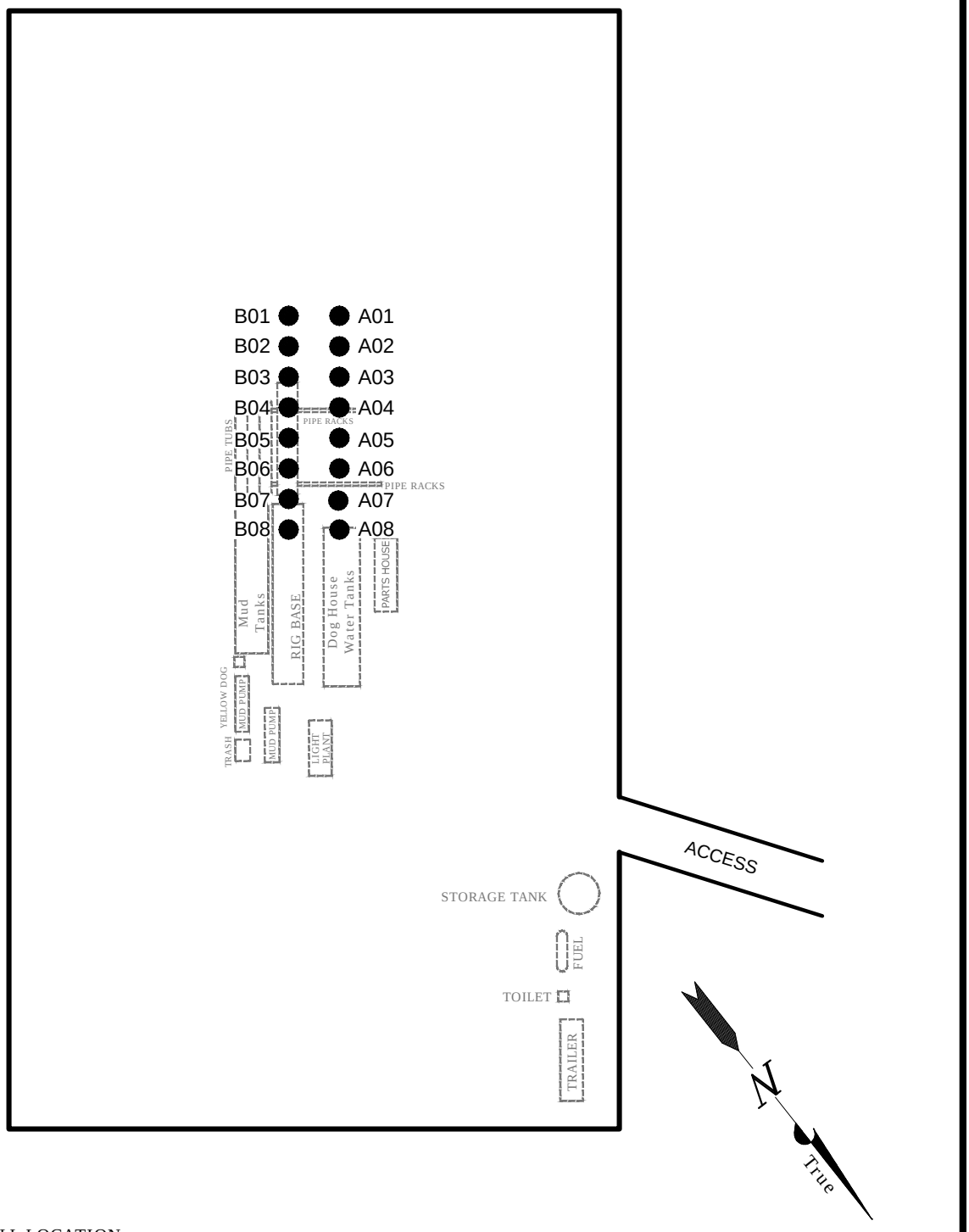


C/L



NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.



LEGEND

● = PROPOSED WELL LOCATION

Robert L. Bayless, Producer LLC
621 Seventeenth Street, Suite 2300 - Denver CO. 80293

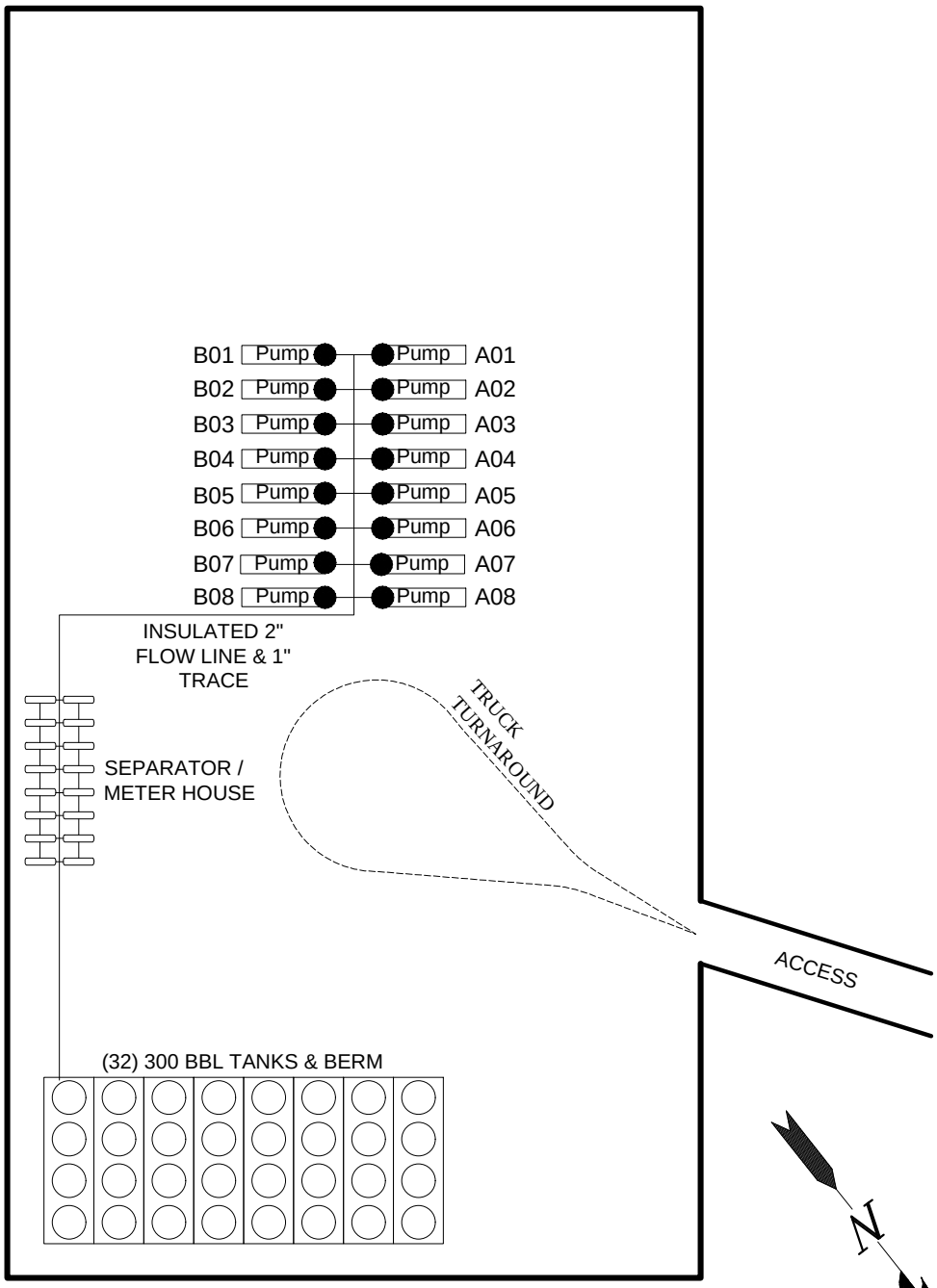
WELL PAD - RIG DIAGRAM

LA JARA FED 1-2
LOCATED IN SECTION 1, T29N,
R4W, N.M.P.M., RIO ARRIBA
COUNTY, NEW MEXICO

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED:	SURVEYED BY:
DATE DRAWN: 5-4-23	DRAWN BY: S.A.
SCALE: 1" = 80'	Date Last Revised:

NOTE:
PRODUCTION EQUIPMENT LOCATION
COULD VARY DUE TO SITE AND OPERATION
EFFECTIVENESS.



LEGEND

● = PROPOSED WELL LOCATION

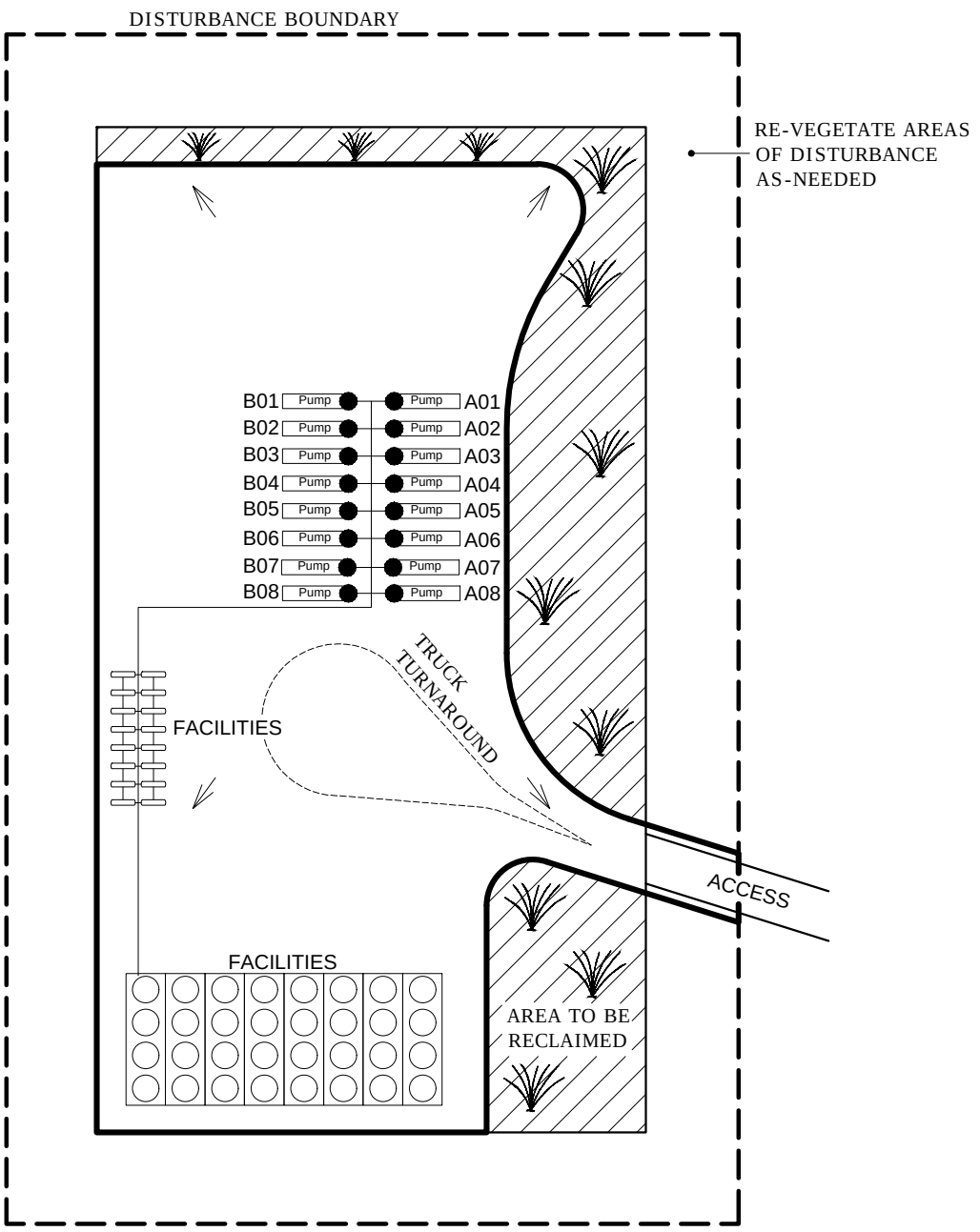
Robert L. Bayless, Producer LLC
621 Seventeenth Street, Suite 2300 - Denver CO. 80293

WELL PAD - FACILITY DIAGRAM

LA JARA FED 1-2
LOCATED IN SECTION 1, T29N,
R4W, N.M.P.M., RIO ARRIBA
COUNTY, NEW MEXICO

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED:	SURVEYED BY:
DATE DRAWN: 5-4-23	DRAWN BY: S.A.
SCALE: 1" = 80'	Date Last Revised:



LEGEND

= ANCHOR

= AREA TO BE RECLAIMED AND VEGETATED

N True

NOTE:

1. PRODUCTION EQUIPMENT LOCATION COULD VARY DUE TO SITE AND OPERATION EFFECTIVENESS.

2. AREA WITHIN SURFACE DISTURBANCE BOUNDARY: ±5.97 ACRES
   RECLAIMED AREA: ±3.09 ACRES
   UN-RECLAIMED AREA: ±2.88 ACRES

100' 50' 0' 100'
SCALE

Robert L. Bayless, Producer LLC
621 Seventeenth Street, Suite 2300 - Denver CO. 80293

INTERIM RECLAMATION DIAGRAM

LA JARA FED 1-2
LOCATED IN SECTION 1, T29N, R4W, N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED:	SURVEYED BY:
DATE DRAWN: 5-4-23	DRAWN BY: S.A.
SCALE: 1" = 100'	Date Last Revised:

Carson National Forest, New Mexico, Part of Rio Arriba County

SzB—Sparham clay loam, saline, sodic, bottomland, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tl8q
Elevation: 6,560 to 7,400 feet
Mean annual precipitation: 12 to 16 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 100 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Sparham, saline, sodic, bottomland, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sparham, Saline, Sodic, Bottomland

Setting

Landform: Flood plains, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: clay loam
C1 - 2 to 35 inches: clay
C2 - 35 to 80 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R036XB010NM - Salty Bottomland
Hydric soil rating: No

Minor Components

Lindrith

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Royosa

Percent of map unit: 4 percent
Landform: Dunes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB011NM - Sandy
Hydric soil rating: No

Teromote

Percent of map unit: 4 percent
Landform: Alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB017NM - Swale
Hydric soil rating: No

Nalivag

Percent of map unit: 1 percent
Landform: Fan remnants
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Gojiya, freq ponded

Percent of map unit: 1 percent
Landform: Valley floors
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave

Ecological site: R036XB009NM - Salt Meadow
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 9, Sep 8, 2022

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
SzB—Sparham clay loam, saline, sodic, bottomland, 0 to 3 percent slopes						
Sparham, saline, sodic, bottomland	R036XB010NM: Salty Bottomland	1,500	1,050	600	Alkali sacaton	30
					Western wheatgrass	20
					Galleta	10
					Thinleaf fourwing saltbush	7
					Miscellaneous annual forbs	5
					Winterfat	5
					Blue grama	5
					Greasewood	5
					Shadscale saltbush	4
					Goldenweed	2
					Groundsel	2
					Iodinebush	2
					Miscellaneous shrubs	2
					Cuman ragweed	1

Carson National Forest, New Mexico, Part of Rio Arriba County

VmC—Vosburg-Millpaw complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tl7l
Elevation: 5,500 to 7,460 feet
Mean annual precipitation: 8 to 20 inches
Mean annual air temperature: 42 to 52 degrees F
Frost-free period: 80 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Vosburg and similar soils: 55 percent
Millpaw and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vosburg

Setting

Landform: Valley sides
Landform position (three-dimensional): Rise
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: fine sandy loam
Bt - 3 to 25 inches: sandy clay loam
Btk1 - 25 to 35 inches: sandy clay loam
Btk2 - 35 to 80 inches: sandy clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Description of Millpaw

Setting

Landform: Valley floors
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: loam
Bt - 3 to 23 inches: clay loam
Btk - 23 to 80 inches: clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water supply, 0 to 60 inches: High (about 11.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R036XB002NM - Clayey
Hydric soil rating: No

Minor Components

Jaythree

Percent of map unit: 3 percent
Landform: Valley floors
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F035XG134NM - Gravelly - Woodland
Hydric soil rating: No

Parkelei

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F036XB133NM - Pinyon-Utah juniper/skunkbush sumac
Hydric soil rating: No

Orlie

Percent of map unit: 3 percent
Landform: Fan remnants, mesas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Gilco

Percent of map unit: 1 percent
Landform: Flood plains
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 9, Sep 8, 2022

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
VmC—Vosburg-Millpaw complex, 2 to 8 percent slopes						
Vosburg	R036XB006NM: Loamy	1,100	850	600	Western wheatgrass	25
					Blue grama	10
					Indian ricegrass	7
					Needle and thread	7
					Galleta	5
					Miscellaneous annual grasses	5
					Big sagebrush	5
					Prairie junegrass	4
					Spike muhly	4
					Alkali sacaton	4
					Fringed sagewort	4
					Thinleaf fourwing saltbush	3
					Miscellaneous shrubs	3
					Winterfat	3
					Muttongrass	3
					Buckwheat	3
					Miscellaneous perennial forbs	3
					Rabbitbrush	2
Millpaw	R036XB002NM: Clayey	1,200	900	600	Western wheatgrass	25
					Alkali sacaton	20
					Bottlebrush squirreltail	7
					Galleta	6
					Blue grama	5
					Miscellaneous perennial grasses	5
					Big sagebrush	5
					Prairie junegrass	4
					Muttongrass	4
					Spike muhly	3
					Fourwing saltbush	3
					Winterfat	2
					Prairie sagewort	2
					Miscellaneous annual forbs	2
					Miscellaneous shrubs	2
					Globemallow	2
					Buckwheat	2
					Rabbitbrush	1

Carson National Forest, New Mexico, Part of Rio Arriba County

SzB—Sparham clay loam, saline, sodic, bottomland, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tl8q
Elevation: 6,560 to 7,400 feet
Mean annual precipitation: 12 to 16 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 100 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Sparham, saline, sodic, bottomland, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sparham, Saline, Sodic, Bottomland

Setting

Landform: Flood plains, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: clay loam
C1 - 2 to 35 inches: clay
C2 - 35 to 80 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R036XB010NM - Salty Bottomland
Hydric soil rating: No

Minor Components

Lindrith

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Royosa

Percent of map unit: 4 percent
Landform: Dunes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB011NM - Sandy
Hydric soil rating: No

Teromote

Percent of map unit: 4 percent
Landform: Alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB017NM - Swale
Hydric soil rating: No

Nalivag

Percent of map unit: 1 percent
Landform: Fan remnants
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Gojiya, freq ponded

Percent of map unit: 1 percent
Landform: Valley floors
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave

Ecological site: R036XB009NM - Salt Meadow
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 9, Sep 8, 2022

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
SzB—Sparham clay loam, saline, sodic, bottomland, 0 to 3 percent slopes						
Sparham, saline, sodic, bottomland	R036XB010NM: Salty Bottomland	1,500	1,050	600	Alkali sacaton	30
					Western wheatgrass	20
					Galleta	10
					Thinleaf fourwing saltbush	7
					Miscellaneous annual forbs	5
					Winterfat	5
					Blue grama	5
					Greasewood	5
					Shadscale saltbush	4
					Goldenweed	2
					Groundsel	2
					Iodinebush	2
					Miscellaneous shrubs	2
					Cuman ragweed	1

Carson National Forest, New Mexico, Part of Rio Arriba County

VmC—Vosburg-Millpaw complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tl7l
Elevation: 5,500 to 7,460 feet
Mean annual precipitation: 8 to 20 inches
Mean annual air temperature: 42 to 52 degrees F
Frost-free period: 80 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Vosburg and similar soils: 55 percent
Millpaw and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vosburg

Setting

Landform: Valley sides
Landform position (three-dimensional): Rise
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: fine sandy loam
Bt - 3 to 25 inches: sandy clay loam
Btk1 - 25 to 35 inches: sandy clay loam
Btk2 - 35 to 80 inches: sandy clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Description of Millpaw

Setting

Landform: Valley floors
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: loam
Bt - 3 to 23 inches: clay loam
Btk - 23 to 80 inches: clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water supply, 0 to 60 inches: High (about 11.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R036XB002NM - Clayey
Hydric soil rating: No

Minor Components

Jaythree

Percent of map unit: 3 percent
Landform: Valley floors
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F035XG134NM - Gravelly - Woodland
Hydric soil rating: No

Parkelei

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F036XB133NM - Pinyon-Utah juniper/skunkbush sumac
Hydric soil rating: No

Orlie

Percent of map unit: 3 percent
Landform: Fan remnants, mesas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Gilco

Percent of map unit: 1 percent
Landform: Flood plains
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 9, Sep 8, 2022

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
VmC—Vosburg-Millpaw complex, 2 to 8 percent slopes						
Vosburg	R036XB006NM: Loamy	1,100	850	600	Western wheatgrass	25
					Blue grama	10
					Indian ricegrass	7
					Needle and thread	7
					Galleta	5
					Miscellaneous annual grasses	5
					Big sagebrush	5
					Prairie junegrass	4
					Spike muhly	4
					Alkali sacaton	4
					Fringed sagewort	4
					Thinleaf fourwing saltbush	3
					Miscellaneous shrubs	3
					Winterfat	3
					Muttongrass	3
					Buckwheat	3
					Miscellaneous perennial forbs	3
					Rabbitbrush	2
Millpaw	R036XB002NM: Clayey	1,200	900	600	Western wheatgrass	25
					Alkali sacaton	20
					Bottlebrush squirreltail	7
					Galleta	6
					Blue grama	5
					Miscellaneous perennial grasses	5
					Big sagebrush	5
					Prairie junegrass	4
					Muttongrass	4
					Spike muhly	3
					Fourwing saltbush	3
					Winterfat	2
					Prairie sagewort	2
					Miscellaneous annual forbs	2
					Miscellaneous shrubs	2
					Globemallow	2
					Buckwheat	2
					Rabbitbrush	1

Carson National Forest, New Mexico, Part of Rio Arriba County

SzB—Sparham clay loam, saline, sodic, bottomland, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tl8q
Elevation: 6,560 to 7,400 feet
Mean annual precipitation: 12 to 16 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 100 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Sparham, saline, sodic, bottomland, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sparham, Saline, Sodic, Bottomland

Setting

Landform: Flood plains, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: clay loam
C1 - 2 to 35 inches: clay
C2 - 35 to 80 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R036XB010NM - Salty Bottomland
Hydric soil rating: No

Minor Components

Lindrith

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Royosa

Percent of map unit: 4 percent
Landform: Dunes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB011NM - Sandy
Hydric soil rating: No

Teromote

Percent of map unit: 4 percent
Landform: Alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB017NM - Swale
Hydric soil rating: No

Nalivag

Percent of map unit: 1 percent
Landform: Fan remnants
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Gojiya, freq ponded

Percent of map unit: 1 percent
Landform: Valley floors
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave

Ecological site: R036XB009NM - Salt Meadow
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 9, Sep 8, 2022

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
SzB—Sparham clay loam, saline, sodic, bottomland, 0 to 3 percent slopes						
Sparham, saline, sodic, bottomland	R036XB010NM: Salty Bottomland	1,500	1,050	600	Alkali sacaton	30
					Western wheatgrass	20
					Galleta	10
					Thinleaf fourwing saltbush	7
					Miscellaneous annual forbs	5
					Winterfat	5
					Blue grama	5
					Greasewood	5
					Shadscale saltbush	4
					Goldenweed	2
					Groundsel	2
					Iodinebush	2
					Miscellaneous shrubs	2
					Cuman ragweed	1

Carson National Forest, New Mexico, Part of Rio Arriba County

VmC—Vosburg-Millpaw complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tl7l
Elevation: 5,500 to 7,460 feet
Mean annual precipitation: 8 to 20 inches
Mean annual air temperature: 42 to 52 degrees F
Frost-free period: 80 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Vosburg and similar soils: 55 percent
Millpaw and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vosburg

Setting

Landform: Valley sides
Landform position (three-dimensional): Rise
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: fine sandy loam
Bt - 3 to 25 inches: sandy clay loam
Btk1 - 25 to 35 inches: sandy clay loam
Btk2 - 35 to 80 inches: sandy clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Description of Millpaw

Setting

Landform: Valley floors
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: loam
Bt - 3 to 23 inches: clay loam
Btk - 23 to 80 inches: clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water supply, 0 to 60 inches: High (about 11.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R036XB002NM - Clayey
Hydric soil rating: No

Minor Components

Jaythree

Percent of map unit: 3 percent
Landform: Valley floors
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F035XG134NM - Gravelly - Woodland
Hydric soil rating: No

Parkelei

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F036XB133NM - Pinyon-Utah juniper/skunkbush sumac
Hydric soil rating: No

Orlie

Percent of map unit: 3 percent
Landform: Fan remnants, mesas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Gilco

Percent of map unit: 1 percent
Landform: Flood plains
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 9, Sep 8, 2022

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
VmC—Vosburg-Millpaw complex, 2 to 8 percent slopes						
Vosburg	R036XB006NM: Loamy	1,100	850	600	Western wheatgrass	25
					Blue grama	10
					Indian ricegrass	7
					Needle and thread	7
					Galleta	5
					Miscellaneous annual grasses	5
					Big sagebrush	5
					Prairie junegrass	4
					Spike muhly	4
					Alkali sacaton	4
					Fringed sagewort	4
					Thinleaf fourwing saltbush	3
					Miscellaneous shrubs	3
					Winterfat	3
					Muttongrass	3
					Buckwheat	3
					Miscellaneous perennial forbs	3
					Rabbitbrush	2
Millpaw	R036XB002NM: Clayey	1,200	900	600	Western wheatgrass	25
					Alkali sacaton	20
					Bottlebrush squirreltail	7
					Galleta	6
					Blue grama	5
					Miscellaneous perennial grasses	5
					Big sagebrush	5
					Prairie junegrass	4
					Muttongrass	4
					Spike muhly	3
					Fourwing saltbush	3
					Winterfat	2
					Prairie sagewort	2
					Miscellaneous annual forbs	2
					Miscellaneous shrubs	2
					Globemallow	2
					Buckwheat	2
					Rabbitbrush	1

Carson National Forest, New Mexico, Part of Rio Arriba County

PmF—Parkelei-Menefee-Vessilla complex, 2 to 20 percent slopes

Map Unit Setting

National map unit symbol: 2tdl8
Elevation: 6,560 to 7,750 feet
Mean annual precipitation: 12 to 17 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Parkelei and similar soils: 45 percent
Menefee and similar soils: 20 percent
Vessilla and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parkelei

Setting

Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: fine sandy loam
Bt - 2 to 38 inches: sandy clay loam
Bk - 38 to 80 inches: sandy loam

Properties and qualities

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Description of Menefee

Setting

Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from shale and/or slope alluvium derived from shale

Typical profile

A - 0 to 3 inches: clay loam
AC - 3 to 9 inches: clay loam
Cr - 9 to 60 inches: bedrock

Properties and qualities

Slope: 5 to 20 percent
Depth to restrictive feature: 8 to 20 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.00 to 0.28 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F036XA001NM - Pinyon Upland
Hydric soil rating: No

Description of Vessilla

Setting

Landform: Ridges
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex

Parent material: Alluvium derived from sandstone and/or eolian deposits derived from sandstone and/or residuum weathered from sandstone

Typical profile

A - 0 to 3 inches: sandy loam
C - 3 to 17 inches: sandy loam
R - 17 to 27 inches: bedrock

Properties and qualities

Slope: 5 to 20 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F035XF627AZ - Sandstone Upland (JUOS, PIED) 13-17" p.z. (Provisional)
Other vegetative classification: pinyon juniper woodland (null_5)
Hydric soil rating: No

Minor Components

Teequee

Percent of map unit: 4 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB015NM - Shallow Savanna
Hydric soil rating: No

Lindrith

Percent of map unit: 4 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB006NM - Loamy

Hydric soil rating: No

Nalivag

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Royosa

Percent of map unit: 2 percent
Landform: Dunes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R036XB011NM - Sandy
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 10, Sep 7, 2023

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
PmF—Parkelei-Menefee-Vessilla complex, 2 to 20 percent slopes						
Parkelei	R036XB006NM: Loamy	1,100	850	600	Miscellaneous annual forbs	—
					Gambel oak	—
					Wyoming big sagebrush	—
					Blue grama	—
					Lupine	—
					Arizona fescue	—
					Indian ricegrass	—
					Antelope bitterbrush	—
					Oneseed juniper	—
					Prairie junegrass	—
					Pingue hymenoxys	—
					Galleta	—
					Bottlebrush squirreltail	—
					Western wheatgrass	—
					Bluegrass	—
					Yucca	—
					Miscellaneous shrubs	—
					Miscellaneous annual grasses	—
					Pricklypear	—

Menefee	—	800	600	400	True mountain mahogany	—
					Blue grama	—
					Indian ricegrass	—
					Western wheatgrass	—
					Pricklypear	—
					Antelope bitterbrush	—
					Miscellaneous shrubs	—
					Big sagebrush	—
					Miscellaneous annual forbs	—
					Yucca	—
					Bottlebrush squirreltail	—
					Galleta	—
					Miscellaneous annual grasses	—
					Gambel oak	—
Vessilla	—	800	600	400	Miscellaneous annual forbs	—
					Yucca	—
					Miscellaneous shrubs	—
					Big sagebrush	—
					Pricklypear	—
					Antelope bitterbrush	—
					Pingue hymenoxys	—
					Prairie junegrass	—
					Mountain big sagebrush	—
					Blue grama	—
					Indian ricegrass	—
					Miscellaneous annual grasses	—
					Elk sedge	—
					Bottlebrush squirreltail	—

Carson National Forest, New Mexico, Part of Rio Arriba County

765—Vibo family, Lithic Ustorthents, mesic, and Rock outcrop soils, 0 to 40 percent slopes

Map Unit Setting

National map unit symbol: 2sw61
Elevation: 6,720 to 7,540 feet
Mean annual precipitation: 16 to 20 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Vibo family and similar soils: 40 percent
Lithic ustorthents, mesic, and similar soils: 35 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vibo Family

Setting

Landform: Hills
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from sandstone and shale

Typical profile

A - 0 to 2 inches: sandy loam
Bt - 2 to 24 inches: clay loam
BCk - 24 to 80 inches: cobbly loam
R - 80 to 87 inches: bedrock

Properties and qualities

Slope: 0 to 40 percent
Depth to restrictive feature: 40 to 80 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 17 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0

Available water supply, 0 to 60 inches: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Other vegetative classification: PIED/JUMO/QUGA/ARTR2 Two-needle pinyon/One-seed juniper/Gambel oak/Big sagebrush (31)
Hydric soil rating: No

Description of Lithic Ustorthents, Mesic

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone and shale

Typical profile

A - 0 to 2 inches: sandy loam
C - 2 to 9 inches: sandy loam
R - 9 to 60 inches: bedrock

Properties and qualities

Slope: 0 to 40 percent
Depth to restrictive feature: 0 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Other vegetative classification: PIED/JUMO/QUGA/ARTR2 Two-needle pinyon/One-seed juniper/Gambel oak/Big sagebrush (31)
Hydric soil rating: No

Description of Rock Outcrop

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

Hydric soil rating: Unranked

Minor Components

Haplustepts, mesic

Percent of map unit: 5 percent
Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Other vegetative classification: PIPO/PIED/QUGA/ARTR2 Ponderosa pine/Two-needle pinyon/Gambel oak/Big sagebrush (23)
Hydric soil rating: No

Typic ustorthents, mesic

Percent of map unit: 5 percent
Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Other vegetative classification: PIPO/PIED/QUGA/ARTR2 Ponderosa pine/Two-needle pinyon/Gambel oak/Big sagebrush (23)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 10, Sep 7, 2023

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
765—Vibo family, Lithic Ustorthents, mesic, and Rock outcrop soils, 0 to 40 percent slopes						
Vibo family	—	1,200	740	275	Pinyon	25
					Rocky mountain juniper	10
					Big sagebrush	5
					Gambel oak	5
					Oneseed juniper	5
					Blue grama	5
					True mountain mahogany	2
					Bitterbrush	2
					Indian ricegrass	1
Lithic ustorthents, mesic	—	1,475	775	75	Pinyon	25
					Rocky mountain juniper	10
					Blue grama	5
					Oneseed juniper	5
					Big sagebrush	5
					Gambel oak	5
					Bitterbrush	2
					True mountain mahogany	2
					Indian ricegrass	1
Rock outcrop	—	—	—	—	—	—

Carson National Forest, New Mexico, Part of Rio Arriba County

OiC—Orlie loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2vd1v
Elevation: 6,000 to 7,750 feet
Mean annual precipitation: 10 to 16 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 100 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Orlie and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Orlie

Setting

Landform: Valley sides
Landform position (three-dimensional): Rise
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: loam
Bt - 2 to 22 inches: clay loam
C - 22 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C
Ecological site: R036XB006NM - Loamy
Hydric soil rating: No

Minor Components

Millpaw
Percent of map unit: 5 percent
Landform: Fans
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: R036XB002NM - Clayey
Hydric soil rating: No

Cementlake
Percent of map unit: 4 percent
Landform: Valley sides, terraces
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R036XB010NM - Salty Bottomland
Hydric soil rating: No

Menefee
Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F036XA001NM - Pinyon Upland
Hydric soil rating: No

Vessilla
Percent of map unit: 2 percent
Landform: Hills, ridges, breaks, mesas, structural benches
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Lower third of mountainflank
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Ecological site: F036XB133NM - Pinyon-Utah juniper/skunkbush sumac
Hydric soil rating: No

San mateo
Percent of map unit: 1 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R036XB010NM - Salty Bottomland

Hydric soil rating: No

Data Source Information

Soil Survey Area: Carson National Forest, New Mexico, Part of Rio Arriba County
Survey Area Data: Version 10, Sep 7, 2023

Report — Rangeland Productivity and Plant Composition

Carson National Forest, New Mexico, Part of Rio Arriba County

Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
OiC—Orlie loam, 0 to 8 percent slopes						
Orlie	R036XB006NM: Loamy	1,100	850	600	Western wheatgrass	25
					Blue grama	10
					Needle and thread	7
					Indian ricegrass	7
					Big sagebrush	5
					Galleta	5
					Miscellaneous annual grasses	5
					Alkali sacaton	4
					Spike muhly	4
					Prairie junegrass	4
					Prairie sagewort	4
					Winterfat	3
					Miscellaneous perennial forbs	3
					Muttongrass	3
					Miscellaneous shrubs	3
					Buckwheat	3
					Thinleaf fourwing saltbush	3
					Rabbitbrush	2

SELF-CERTIFICATION STATEMENT
FROM LESSEE/OPERATOR

SURFACE OWNER IDENTIFICATION

Federal or Indian Lease No. NMNM010431, NMNM058137

Well(s) Number and Location La Jara Fed 1-2 001H, La Jara Fed 1-2 002H, La Jara Fed 1-2 003H
Section 1 T29N R4W (H.E.S 280)

I hereby certify the Authorized Officer of the Bureau of Land Management that I have reached one of the following agreements with the Surface Owner; or after failure of my good-faith effort to come to an agreement of any kind with the Surface Owner, I will provide a bond:

1) [X] I have a signed access agreement to enter the leased lands.

2) [ ] I have a signed waiver from the surface owner.

3) [ ] I have entered into an agreement regarding compensation to the surface owner for damages for loss of crops and tangible improvements.

4) [ ] Because I have been unable to reach either 1), 2), or 3) with the surface owner, I will obtain a bond to cover loss of crops and damages to tangible improvements.

Surface owner information: (if available after diligent effort)

Surface Owner Name: Manuel and Eleanor Ferran

Surface Owner Address: 2114 Mt. Daniels Drive, Ellensburg, WA 98926

Surface Owner Phone Number: 505-265-7899

Signed this 14th day of April, 2023.

Robert L. Bayless Producer, LLC
John D Thomas-COO

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES
DEPARTMENT

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION TO CONSIDER:

Case No. 22918
Order No. R-22406

APPLICATION OF ROBERT L. BAYLESS, PRODUCER LLC TO REVOKE ORDER NO. R-14686 AND APPROVE THE LA JARA (MANCOS) UNIT AS AMENDED, RIO ARRIBA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

The Director of the New Mexico Oil Conservation Division ("OCD"), having heard this matter through a Hearing Examiner on July 7, 2022, and after considering the testimony, evidence, and the recommendations of the Hearing Examiner,

FINDS THAT:

(1) Due public notice has been given, and the OCD has jurisdiction of this case and its subject matter.

(2) The La Jara Mancos Unit ("Initial Unit") was approved by the OCD on May 21, 2018, though Order No. R-14686 issued in Case No. 15946. Robert L. Bayless, Producer LLC ("Bayless" or "Applicant") was designated the unit operator for the Initial Unit. The Initial Unit consisted of the Mancos formation underlying 10,878.58 acres of the following lands situated in Rio Arriba County, New Mexico.

Township 29 North, Range 4 West, NMPM
Section 1: All
Section 2: All
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 20: All
Section 21: All
Section 22: All

Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: All
Section 29: All
Section 32: All

(3) Order No. R-14686 required the Unit Operator to provide inter-well communication data within the Initial Unit to the Aztec District office of the Division no later than 18 months after its effective date.

(4) Applicant did not develop the Initial Unit as it was initially approved. Applicant is now seeking approval from the U.S. Bureau of Land Management ("BLM") of a new La Jara Mancos Unit ("Unit") consisting of 4,160 acres of the following lands situated in Rio Arriba County, New Mexico ("Unit Area"):

Township 29 North, Range 4 West, NMPM
Section 22: All
Section 23: All
Section 24: All
Section 25: All
Section 26: All
Section 27: All
Section 28: E/2

(5) Applicant is seeking to have Order No. R-14686 revoked.

(6) Unitized Interval: The unitized interval for the Unit is the Mancos Shale Formation, which is defined as the stratigraphic equivalent of the base of the Point Lookout Sandstone of the Mesa Verde Group or top of the Mancos formation at a measured depth of 6,824 feet to the base of the Mancos formation or top of the Dakota Sandstone at a measured depth of 8,586 feet in the San Juan 29-4 Unit No. 24 well located in the NW/4 NE/4 of Section 8 of Township 29 North, Range 4 West, N.M.P.M. in Rio Arriba County, New Mexico (API No. 30-039-22844).

(7) Applicant presented testimony and exhibits as follows:

a. The Unit is a proposed federal exploratory unit and the entirety of the Mancos formation will be unitized.

b. The Unit is comprised of seven (7) tracts of which seven (7) are federal tracts, zero (0) are state tracts, and zero (0) are fee tracts.

c. The Unit obligation well is the La Jara 26-3 No. 1H well, a horizontal well with a surface location in the NW/4 NE/4 of Section 26 of Township 29 North, Range 4 West (API No. 30-039-31365) and a bottomhole location in the SE/4 SW/4 of Section 21, of Township 29 North, Range 4 West. The well will be completed in the Basin Mancos Pool (Pool Code 97232).

e. Applicant presented the proposed Unit Agreement ("Unit Agreement"). The Unit Agreement designates Applicant as the Unit Operator and has provisions for expansion or contraction of the Unit.

f. Applicant has received a logical designation letter from the BLM, indicating the land proposed for unitization is logically subject to exploration and development. The BLM assigned NMNM 105770971 as the case serial number to the Unit.

g. Notice was provided of this application to the record title owners, royalty owners and overriding royalty owners within the Unit Area.

h. The stipulation within Order No. R-14686 that required the Unit Operator to provide inter-well communication data within the Unit to the Aztec District Office of the Division no later than 18 months after its effective date is no longer necessary.

(8) No other party appeared at the hearing or otherwise opposed this application.

(9) All proposed unit acreage appears prospective for recovery of oil and gas from the target formations under the concept proposed by the Applicant. These acres should be unitized and should equally share in the benefits from future oil and gas recovery.

(10) The approval of the Unit will serve to prevent waste and protect correlative rights within the lands assigned to the Unit Area.

IT IS THEREFORE ORDERED THAT:

(1) OCD recommends approval of the Unit.

(2) Order No. R-14686 is hereby revoked.

(3) The Unit Area comprises 4,160 acres situated in Rio Arriba County, New Mexico and described above.

(4) This Order shall become effective upon the signature of all parties to the Unit Agreement.

(5) OCD recognizes that Robert L. Bayless, Producer LLC (OGRID No. 150182) is designated the Unit Operator under the Unit Agreement.

(6) Upon the approval of the Unit Agreement and filing of the Unit Agreement with the OCD, the Unit Area will be recognized by the OCD as a "unitized area" as provided in 19.15.16 NMAC.

(7) The Unit Operator will ensure that the names of the Unit wells are uniform and include the name of the Unit.

(8) The plan contained in the Unit Agreement for the development and operation of the above-described Unit Area is hereby approved in principle; provided, however, notwithstanding any of the provisions contained in the Unit Agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation that is now, or may hereafter be, vested in the OCD to supervise and control operations for the unit and production of oil and gas therefrom.

(9) The Unit Operator shall file with the OCD the fully executed Unit Agreement within 30 days of the effective date of the Unit Agreement. In the event of (a) subsequent joinder by any other party, (b) expansion or contraction of the Unit Area, (c) change of Unit Operator, or (d) termination of the Unit or Unit Agreement, the Unit Operator shall file with OCD, within 30 days after approval or notification of BLM, the amended Unit Agreement or other documentation reflecting the changes.

(10) All filings required by this Order shall be submitted to the OCD Engineering Bureau (OCD.Engineer@emnrd.nm.gov). OCD may notify the Unit Operator of any changes to the filing process without need to amend this Order.

(11) Jurisdiction of this case is retained for the entry of such further orders as the OCD may deem necessary.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

ADRIENNE SANDOVAL
DIRECTOR

Date: 11/23/2022

Kim Rodell

From: notification@pay.gov
Sent: Tuesday, September 26, 2023 12:23 PM
To: Kim Rodell
Subject: Pay.gov Payment Confirmation: BLM Oil and Gas Online Payment

An official email of the United States government

Pay.gov

Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact BLM OC CBS Customer Service at (303) 236-6795 or BLM_OC_CBS_Customer_Service@blm.gov.

Application Name: BLM Oil and Gas Online Payment
Pay.gov Tracking ID: 27819LQ2
Agency Tracking ID: 76505501141
Transaction Type: Sale
Transaction Date: 09/26/2023 02:23:09 PM EDT
Account Holder Name: Kimberly J. Rodell
Transaction Amount: $11,805.00
Card Type: Visa
Card Number: **********1932

Company: Robert L. Bayless Producer LLC
APD IDs: 10400094740
Lease Numbers: NMNM10431
Well Numbers: 002H
Note: You will need your Pay.gov Tracking ID to complete your APD transaction in AFMSS II. Please ensure you write this number down upon completion of payment.

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.

Pay.gov is a program of the U.S. Department of the Treasury, Bureau of the Fiscal Service

UPSTREAM
Petroleum Management, Inc.
7000 S. Yosemite St., Suite 290B
Englewood, CO 80112
phone 303.942.0506
www.upstreampm.com

VIA AFMSS II

Ms. Maureen Joe
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402

September 27, 2023

RE: Application for Permit to Drill – BLM
Robert L. Bayless, Producer LLC
La Jara Fed 1-2 Wellpad
La Jara 1-2 001H: APD ID 10400091600 – Previously Submitted
La Jara 1-2 002H: APD ID: 10400094740 –**Submitted**
La Jara 1-2 003H: APD ID: 10400094811 –**Submitted**
Sec. 1 T29N R4W (H.E.S. 281)
Rio Arriba County, New Mexico
Surface: Fee

Dear Ms. Joe:

The Application for Permit to Drills (APD) the above captioned wells are being filed via the AFMSS II electronic filing system on behalf of Robert L. Bayless Producer LLC (Bayless). One payment of Eleven Thousand Eight Hundred Five Dollars ($11,805.00) was paid directly to www.pay.gov via credit card for each filing fee. A copy of the payment receipt has been included in the filing for each well.

This APD BLM filing contains the following attachments: Designation of Permit Agent Letter, Well Location Plat, Lease Plat, two 5M BOP Diagrams, Casing Safety Calculations, Horizontal Plan, Access Road and Pipeline Map, Existing Wells Map and Table, Water Transportation Map, Wellsite Layout Drawings, Wellpad NRCS Map Unit Description and Plant Composition for Access Road, NRCS Map Unit Description and Plant Composition for Wellpad, NRCS Map Unit Description and Plant Composition for Pipeline, Pipeline Map (Option 2), Self-Certification for Wellpad and Access Road, BLM Payment Receipt, and Letter to BLM dated September 27, 2023.

The La Jara Fed 1-2 wellpad is located in Sec. 1 T29N R4W (H.E.S. 281) was surveyed on July 27, 2022, by Jason C. Edwars, surveyor.

All wells will be co-located on one common wellpad with enough room to accommodate 16 wells. All wells planned or existing are listed below including the applied for wells.

La Jara Fed 1-2 001H	La Jara Fed 1-2 002H	La Jara Fed 1-2 003H
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well		

Please send a copy of all correspondence to Upstream Petroleum Management, Inc. at 7000 S. Yosemite St. Suite 290B, Englewood, CO 80112. Please contact Angela Callaway at 214-364-3713 or Kim Rodell or at 303-942-0506, or acallaway@upstreampm.com or krodell@upstreampm.com, respectively, if you have any questions.

Your early attention to this application is greatly appreciated. Thank you for your assistance.

Sincerely,

Angela G. Callaway
Permit Agent for Robert L. Bayless, Producer LLC

Enclosures

cc: Robert L. Bayless, Producer LLC

UPSTREAM
Petroleum Management, Inc.
7000 S. Yosemite St., Suite 290B
Englewood, CO 80112
phone 303.942.0506
www.upstreampm.com

VIA AFMSS II

Ms. Maureen Joe
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402

December 6, 2023

RE: Application for Permit to Drill – BLM
Robert L. Bayless, Producer LLC
La Jara Fed 1-2 Wellpad
La Jara 1-2 001H: APD ID 10400091600 – **Response to Deficiency**
La Jara 1-2 002H: APD ID: 10400094740 – **Response to Deficiency**
La Jara 1-2 003H: APD ID: 10400094811 – **Response to Deficiency**
Sec. 1 T29N R4W (H.E.S. 281)
Rio Arriba County, New Mexico
Surface: Fee

Dear Ms. Joe:

The Applications for Permits to Drill (APD) the above captioned wells are being resubmitted via the AFMSS II electronic filing system on behalf of Robert L. Bayless Producer LLC (Bayless). This resubmission is in response to the deficiency letters dated November 29, 2023.

This APD BLM filing contains the following attachments: Designation of Permit Agent Letter, Well Location Plat, Lease Plat, two 5M BOP Diagrams, Revised Casing Safety Calculations, Horizontal Plan, Access Road and Pipeline Map 120523, Existing Wells Map and Table, Water Transportation Map, Revised Wellsite Layout Drawings, Wellpad NRCS Map Unit Description and Plant Composition for Access Road, NRCS Map Unit Description and Plant Composition for Wellpad, Self-Certification for Wellpad and Access Road, BLM Payment Receipt, Surface Use Plan Master document Revised 120623, letter to BLM dated September 27, 2023, Response to Deficiency letter to BLM dated October 2, 2023, and Response to Deficiency letter to BLM dated November 14, 2023, and Response to Deficiency letter to BLM dated December 6, 2023.

The La Jara Fed 1-2 wellpad is located in Sec. 1 T29N R4W (H.E.S. 281) was surveyed on July 27, 2022, by Jason C. Edwards, surveyor.

All wells will be co-located on one common wellpad with enough room to accommodate 16 wells. All wells planned or existing are listed below including the applied for wells.

La Jara Fed 1-2 001H	La Jara Fed 1-2 002H	La Jara Fed 1-2 003H
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	JIC 29-04-01 246H
JIC 29-04-01 Future well	JIC 29-04-01 Future well	JIC 29-04-01 Future well
JIC 29-04-01 Future well	JIC 29-04-01 Future well	
JIC 29-04-01 Future well	JIC 29-04-01 Future well	

The La Jara Fed 1-2 001H was originally submitted on July 3, 2023. The La Jara Fed 1-2 002H and 003H were submitted on September 28, 2023. The BLM APD Deficiency letters dated November 29, 2023 was received via email in our office. Below are the well deficiencies and the responses to them. All deficiency letters for all three La Jara wells are identical.

ADDENDUM – Incomplete/Deficient
ADDENDUM – Deficient
Surface Comments

SUPO Review: Other submitted information are inadequate and/or incomplete Onshore Order #1 Section III-4 SUPO attachment is missing. Attach SUPO pdf

The Surface Use Plan Master has been attached in Section 12 of the SUPO per BLM request.

The Certification of Private Surface Owner Access Agreement was attached in Section 12 of the SUPO. Additionally, a copy was provided to Abiodun Adeloye via email.

Please use the revised information. Everything else in the APD will remain the same.

Please send a copy of all correspondence to Upstream Petroleum Management, Inc. at 7000 S. Yosemite St. Suite 290B, Englewood, CO 80112. Please contact Angela Callaway at 214-364-3713 or Kim Rodell or at 303-942-0506, or acallaway@upstreampm.com or krodell@upstreampm.com, respectively, if you have any questions.

Your early attention to this application is greatly appreciated. Thank you for your assistance.

Sincerely,

Angela G. Callaway
Permit Agent for Robert L. Bayless, Producer LLC

Enclosures

cc: Robert L. Bayless, Producer LLC

UPSTREAM
Petroleum Management, Inc.
7000 S. Yosemite St., Suite 290B
Englewood, CO 80112
phone 303.942.0506
www.upstreampm.com

VIA AFMSS II

Ms. Maureen Joe
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402

January 9, 2024

RE: Application for Permit to Drill – BLM
Robert L. Bayless, Producer LLC
La Jara Fed 1-2 Wellpad
La Jara 1-2 001H: APD ID 10400091600 – **Response to Deficiency**
La Jara 1-2 002H: APD ID: 10400094740 – **Response to Deficiency**
La Jara 1-2 003H: APD ID: 10400094811 – **Response to Deficiency**
Sec. 1 T29N R4W (H.E.S. 281)
Rio Arriba County, New Mexico
Surface: Fee

Dear Ms. Joe:

The Applications for Permits to Drill (APD) the above captioned wells are being resubmitted via the AFMSS II electronic filing system on behalf of Robert L. Bayless Producer LLC (Bayless). This resubmission is in response to the deficiency letters dated January 9, 2024.

This APD BLM filing contains the following attachments: Designation of Permit Agent Letter, Well Location Plat, Lease Plat, two 5M BOP Diagrams, Revised Casing Safety Calculations, Horizontal Plan, Drilling Plan 010924, Access Road and Pipeline Map 120523, Existing Wells Map and Table, Water Transportation Map, Revised Wellsite Layout Drawings, Wellpad NRCS Map Unit Description and Plant Composition for Access Road, NRCS Map Unit Description and Plant Composition for Wellpad, Self-Certification for Wellpad and Access Road, BLM Payment Receipt, Surface Use Plan Master document Revised 120623, letter to BLM dated September 27, 2023, Response to Deficiency letter to BLM dated October 2, 2023, and Response to Deficiency letter to BLM dated November 14, 2023, Response to Deficiency letter to BLM dated December 6, 2023, and Letter to BLM dated January 9, 2024.

The La Jara Fed 1-2 wellpad is located in Sec. 1 T29N R4W (H.E.S. 281) was surveyed on July 27, 2022, by Jason C. Edwards, surveyor.

All wells will be co-located on one common wellpad with enough room to accommodate 16 wells. All wells planned or existing are listed below including the applied for wells.

La Jara Fed 1-2 001H	La Jara Fed 1-2 002H	La Jara Fed 1-2 003H
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	JIC 29-04-01 246H
JIC 29-04-01 Future well	JIC 29-04-01 Future well	JIC 29-04-01 Future well
JIC 29-04-01 Future well	JIC 29-04-01 Future well	
JIC 29-04-01 Future well	JIC 29-04-01 Future well	

The La Jara Fed 1-2 001H was originally submitted on July 3, 2023. The La Jara Fed 1-2 002H and 003H were submitted on September 28, 2023. The BLM APD Deficiency letters dated January 9, 2024, was received via email in our office. Below are the well deficiencies and the responses to them. All deficiency letters for all three La Jara wells are identical.

ADDENDUM – Incomplete/Deficient
ADDENDUM – Deficient
Geologic Comments

There is no Operator authored Drill Plan attached to the APD as required in Onshore Order 1.III.C.3.a-i.

The Drilling Plan has been attached to the APD in Section 8 – Other Information of the Drilling Plan Data as requested by BLM.

SUPO Review: Other submitted information are inadequate and/or incomplete Onshore Order #1 Section III-4 SUPO attachment is missing. Attach SUPO pdf

The Surface Use Plan Master has been attached in Section 12 of the SUPO per BLM request in prior submittals.

The Certification of Private Surface Owner Access Agreement was attached in Section 12 of the SUPO. Additionally, a copy was provided to Abiodun Adeloye via email.

Please use the revised information. Everything else in the APD will remain the same.

Please send a copy of all correspondence to Upstream Petroleum Management, Inc. at 7000 S. Yosemite St. Suite 290B, Englewood, CO 80112. Please contact Angela Callaway at 214-364-3713 or Kim Rodell or at 303-942-0506, or acallaway@upstreampm.com or krodell@upstreampm.com, respectively, if you have any questions.

Your early attention to this application is greatly appreciated. Thank you for your assistance.

Sincerely,

Angela G. Callaway
Permit Agent for Robert L. Bayless, Producer LLC

Enclosures

cc: Robert L. Bayless, Producer LLC

UPSTREAM
Petroleum Management, Inc.
7000 S. Yosemite St., Suite 290B
Englewood, CO 80112
phone 303.942.0506
www.upstreampm.com

VIA AFMSS II

Ms. Maureen Joe
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402

April 4, 2024

RE: Application for Permit to Drill – BLM
Robert L. Bayless, Producer LLC
La Jara Fed 1-2 Wellpad
La Jara 1-2 001H: APD ID 10400091600 – **Response to Deferral Letter**
La Jara 1-2 002H: APD ID: 10400094740 – **Response to Deferral Letter**
La Jara 1-2 003H: APD ID: 10400094811 – **Response to Deferral Letter**
Sec. 1 T29N R4W (H.E.S. 281)
Rio Arriba County, New Mexico
Surface: Fee

Dear Ms. Joe:

The Applications for Permits to Drill (APD) the above captioned wells are being resubmitted via the AFMSS II electronic filing system on behalf of Robert L. Bayless Producer LLC (Bayless). This resubmission is in response to the deferral letters dated March 20, 2024.

This APD BLM filing contains the following attachments: Designation of Permit Agent Letter, Well Location Plat, Lease Plat, two 5M BOP Diagrams, Revised Casing Safety Calculations, Horizontal Plan, Drilling Plan 010924, Access Road and Pipeline Map 120523, Existing Wells Map and Table, Water Transportation Map, Revised Wellsite Layout Drawings, Wellpad NRCS Map Unit Description and Plant Composition for Access Road, NRCS Map Unit Description and Plant Composition for Wellpad, Self-Certification for Wellpad and Access Road, BLM Payment Receipt, Surface Use Plan Master document Revised 040424, Pipeline Specifications and Pipeline Plats dated 032924, letter to BLM dated September 27, 2023, Response to Deficiency letter to BLM dated October 2, 2023, and Response to Deficiency letter to BLM dated November 14, 2023, Response to Deficiency letter to BLM dated December 6, 2023, Letter to BLM dated January 9, 2024, and letter to BLM dated April 4, 2024.

The La Jara Fed 1-2 wellpad is located in Sec. 1 T29N R4W (H.E.S. 281) was surveyed on July 27, 2022, by Jason C. Edwards, surveyor.

All wells will be co-located on one common wellpad with enough room to accommodate 16 wells. All wells planned or existing are listed below including the applied for wells.

La Jara Fed 1-2 001H	La Jara Fed 1-2 002H	La Jara Fed 1-2 003H
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	JIC 29-04-01 246H
JIC 29-04-01 Future well	JIC 29-04-01 Future well	JIC 29-04-01 Future well
JIC 29-04-01 Future well	JIC 29-04-01 Future well	
JIC 29-04-01 Future well	JIC 29-04-01 Future well	

The La Jara Fed 1-2 001H was originally submitted on July 3, 2023. The La Jara Fed 1-2 002H and 003H were submitted on September 28, 2023. The BLM APD Deferral letters dated March 20, 2024, was received via email in our office. The APD's were returned via Deferral to allow the Operator to revise Pipeline Routes as discussed in the BLM/Bayless meetings. All changes to the Pipeline Routes have been made to all three La Jara Fed APD's.

Please use the revised information. Everything else in the APD will remain the same.

Please send a copy of all correspondence to Upstream Petroleum Management, Inc. at 7000 S. Yosemite St. Suite 290B, Englewood, CO 80112. Please contact Angela Callaway at 214-364-3713 or Kim Rodell or at 303-942-0506, or acallaway@upstreampm.com or krodell@upstreampm.com, respectively, if you have any questions.

Your early attention to this application is greatly appreciated. Thank you for your assistance.

Sincerely,

Angela G. Callaway
Permit Agent for Robert L. Bayless, Producer LLC

Enclosures

cc: Robert L. Bayless, Producer LLC

UPSTREAM
Petroleum Management, Inc.
7000 S. Yosemite St., Suite 290B
Englewood, CO 80112
phone 303.942.0506
www.upstreampm.com

VIA AFMSS II

Ms. Maureen Joe
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402

April 16, 2024

RE: Application for Permit to Drill – BLM
Robert L. Bayless, Producer LLC
La Jara Fed 1-2 Wellpad
La Jara 1-2 001H: APD ID 10400091600 – **Response to Deferral Letter**
La Jara 1-2 002H: APD ID: 10400094740 – **Response to Deferral Letter**
La Jara 1-2 003H: APD ID: 10400094811 – **Response to Deferral Letter**
Sec. 1 T29N R4W (H.E.S. 281)
Rio Arriba County, New Mexico
Surface: Fee

Dear Ms. Joe:

The Applications for Permits to Drill (APD) the above captioned wells are being resubmitted via the AFMSS II electronic filing system on behalf of Robert L. Bayless Producer LLC (Bayless). This resubmission is in response to the deferral letters dated April 12, 2024.

This APD BLM filing contains the following attachments: Designation of Permit Agent Letter, Well Location Plat, Lease Plat, two 5M BOP Diagrams, Revised Casing Safety Calculations, Horizontal Plan, Drilling Plan 010924, Access Road and Pipeline Map 120523, Existing Wells Map and Table, Water Transportation Map Revised 041624, Revised Wellsite Layout Drawings, Wellpad NRCS Map Unit Description and Plant Composition for Access Road, NRCS Map Unit Description and Plant Composition for Wellpad, Self-Certification for Wellpad and Access Road, BLM Payment Receipt, Surface Use Plan Master document Revised 040424, Pipeline Specifications and Pipeline Plats dated 032924, letter to BLM dated September 27, 2023, Response to Deficiency letter to BLM dated October 2, 2023, and Response to Deficiency letter to BLM dated November 14, 2023, Response to Deficiency letter to BLM dated December 6, 2023, Letter to BLM dated January 9, 2024, letter to BLM dated April 4, 2024, and letter to BLM dated April 16, 2024.

The La Jara Fed 1-2 wellpad is located in Sec. 1 T29N R4W (H.E.S. 281) was surveyed on July 27, 2022, by Jason C. Edwards, surveyor.

All wells will be co-located on one common wellpad with enough room to accommodate 16 wells. All wells planned or existing are listed below including the applied for wells.

La Jara Fed 1-2 001H	La Jara Fed 1-2 002H	La Jara Fed 1-2 003H
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	JIC 29-04-01 246H
JIC 29-04-01 Future well	JIC 29-04-01 Future well	JIC 29-04-01 Future well
JIC 29-04-01 Future well	JIC 29-04-01 Future well	
JIC 29-04-01 Future well	JIC 29-04-01 Future well	

The La Jara Fed 1-2 001H was originally submitted on July 3, 2023. The La Jara Fed 1-2 002H and 003H were submitted on September 28, 2023. The BLM APD Deferral letters dated April 12, 2024, was received via email in our office. The APD's were returned via Deferral to allow the Operator to revise water transportation verbiage in the SUPO. All changes to the SUPO have been made to all three La Jara Fed APD's.

Please use the revised information. Everything else in the APD will remain the same.

Please send a copy of all correspondence to Upstream Petroleum Management, Inc. at 7000 S. Yosemite St. Suite 290B, Englewood, CO 80112. Please contact Angela Callaway at 214-364-3713 or Kim Rodell or at 303-942-0506, or acallaway@upstreampm.com or krodell@upstreampm.com, respectively, if you have any questions.

Your early attention to this application is greatly appreciated. Thank you for your assistance.

Sincerely,

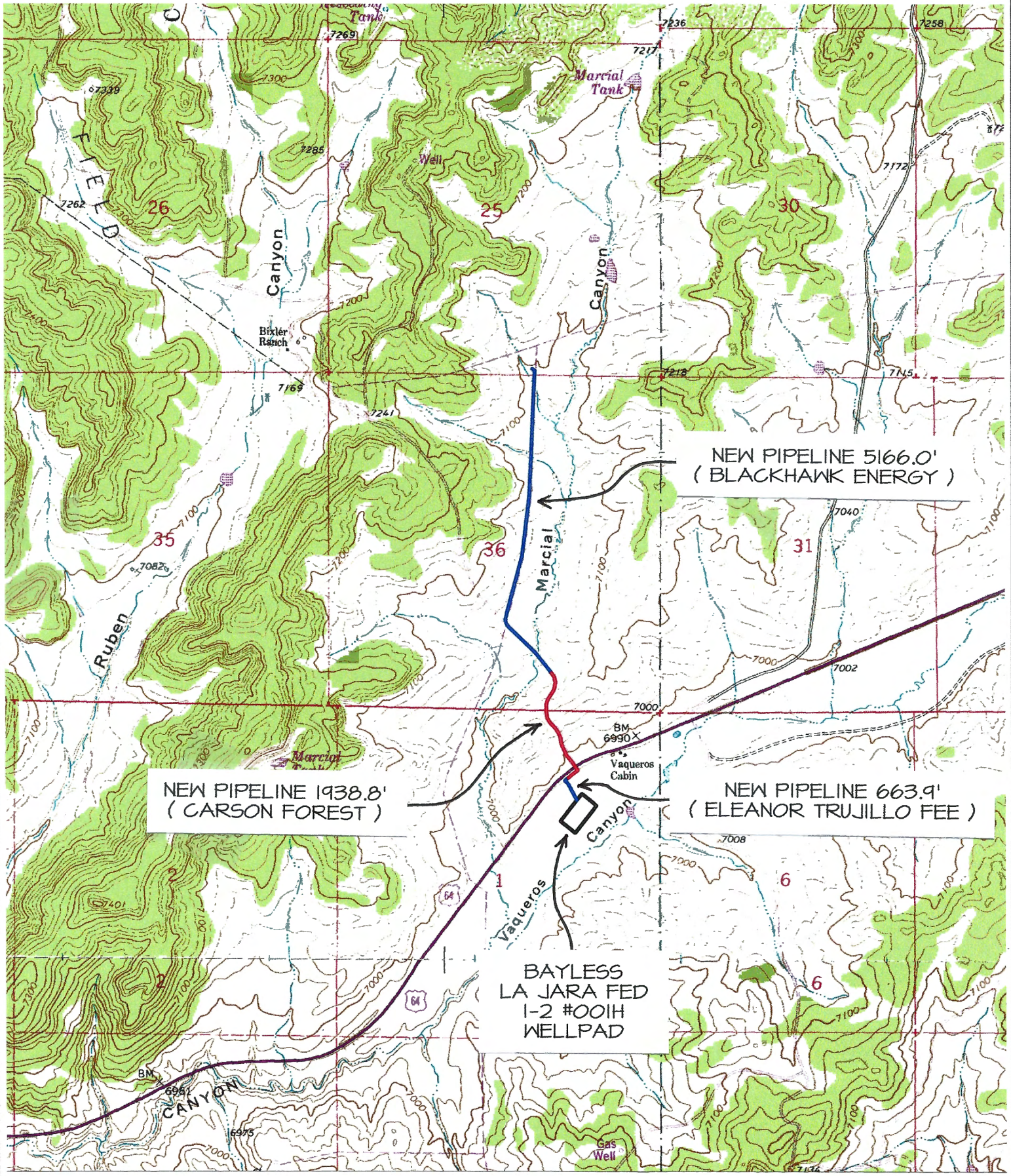
Angela G. Callaway
Permit Agent for Robert L. Bayless, Producer LLC

Enclosures

cc: Robert L. Bayless, Producer LLC

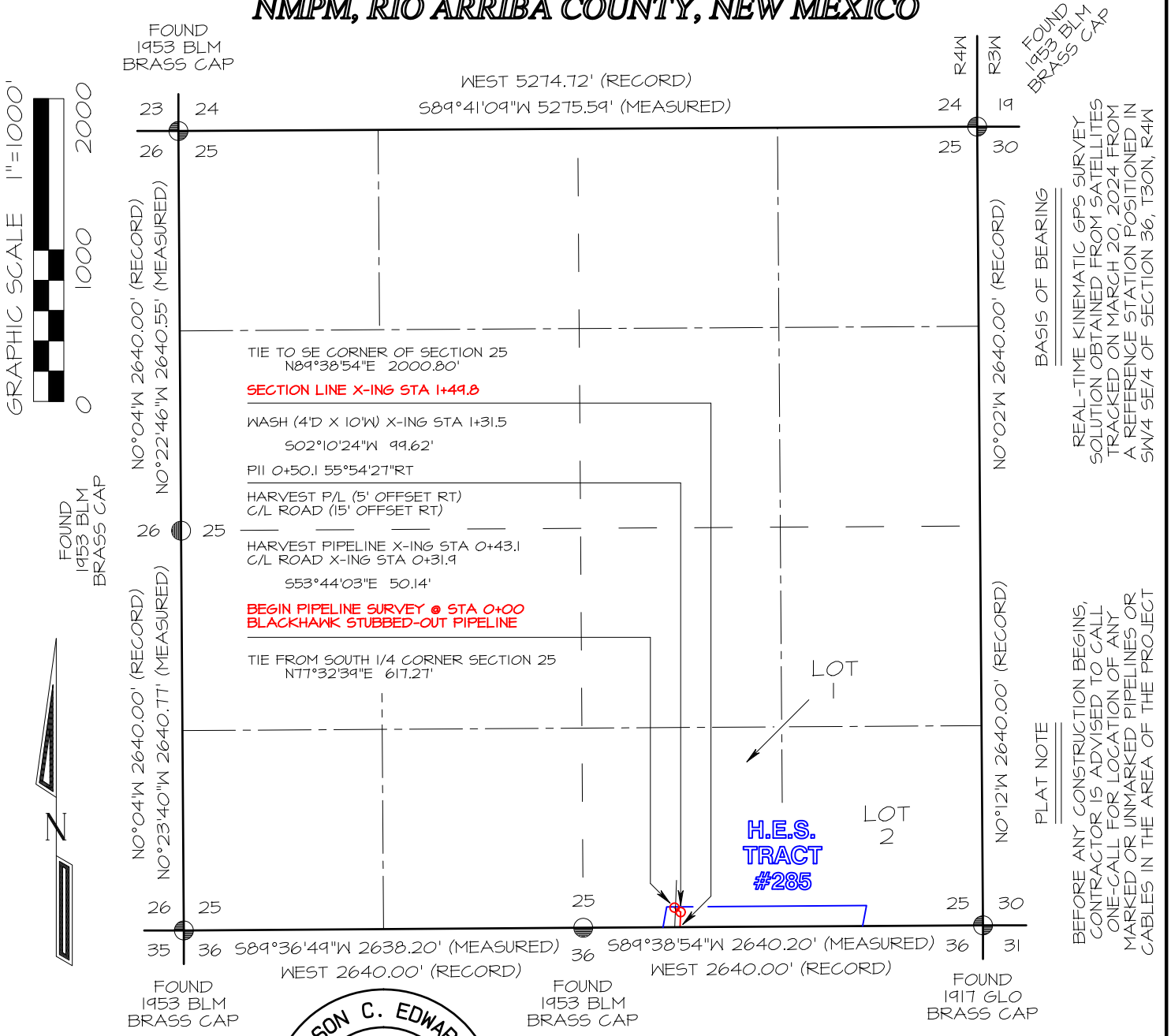
ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1-2 #001H PIPELINE

LOCATED IN HOMESTEAD ENTRY SURVEY #285 OF SECTION 25, T30N, R4W
SW/4 SE/4 & HOMESTEAD ENTRY SURVEY #285 OF SECTION 36, T30N, R4W
NW/4 NE/4 & HOMESTEAD ENTRY SURVEY #281 OF SECTION 1, T29N, R4W
N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO



NAME OF TOPO MAP : BIXLER RANCH

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1-2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN HOMESTEAD ENTRY SURVEY #285 OF SECTION 25, T30N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ BlackHawk Energy Corporation	
0+00 TO 1+49.8	149.8 FT / 9.1 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: April 25, 2024

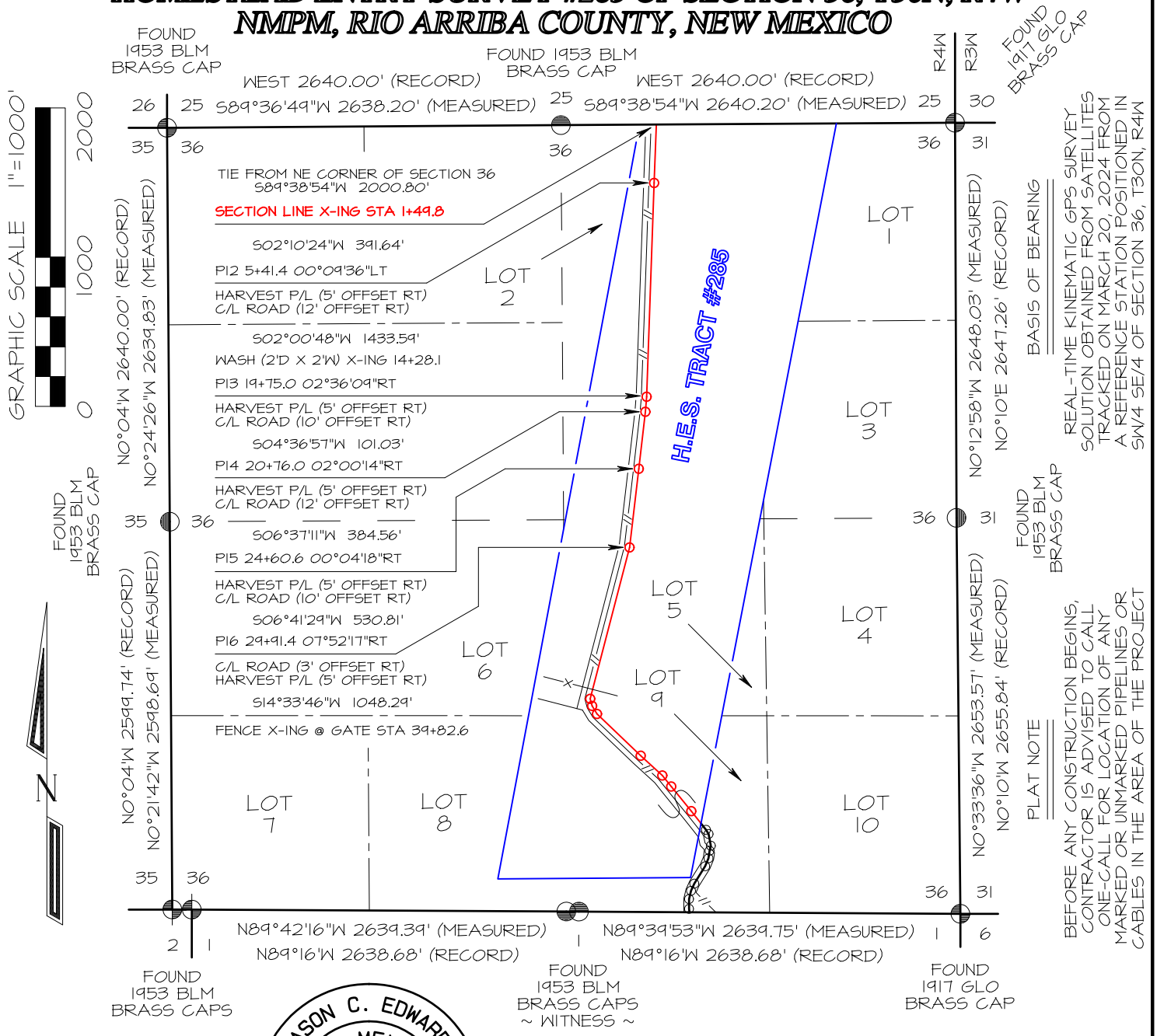
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
ROBERT L. BAYLESS
2700 FARMINGTON AVE
FARMINGTON, NM 87401

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 2 OF 15
FILENAME: 304256P1

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1-2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN HOMESTEAD ENTRY SURVEY #285 OF SECTION 36, T30N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ BlackHawk Energy Corporation	
1+49.8 TO 51+66.0	5016.2 FT / 304.0 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: April 25, 2024

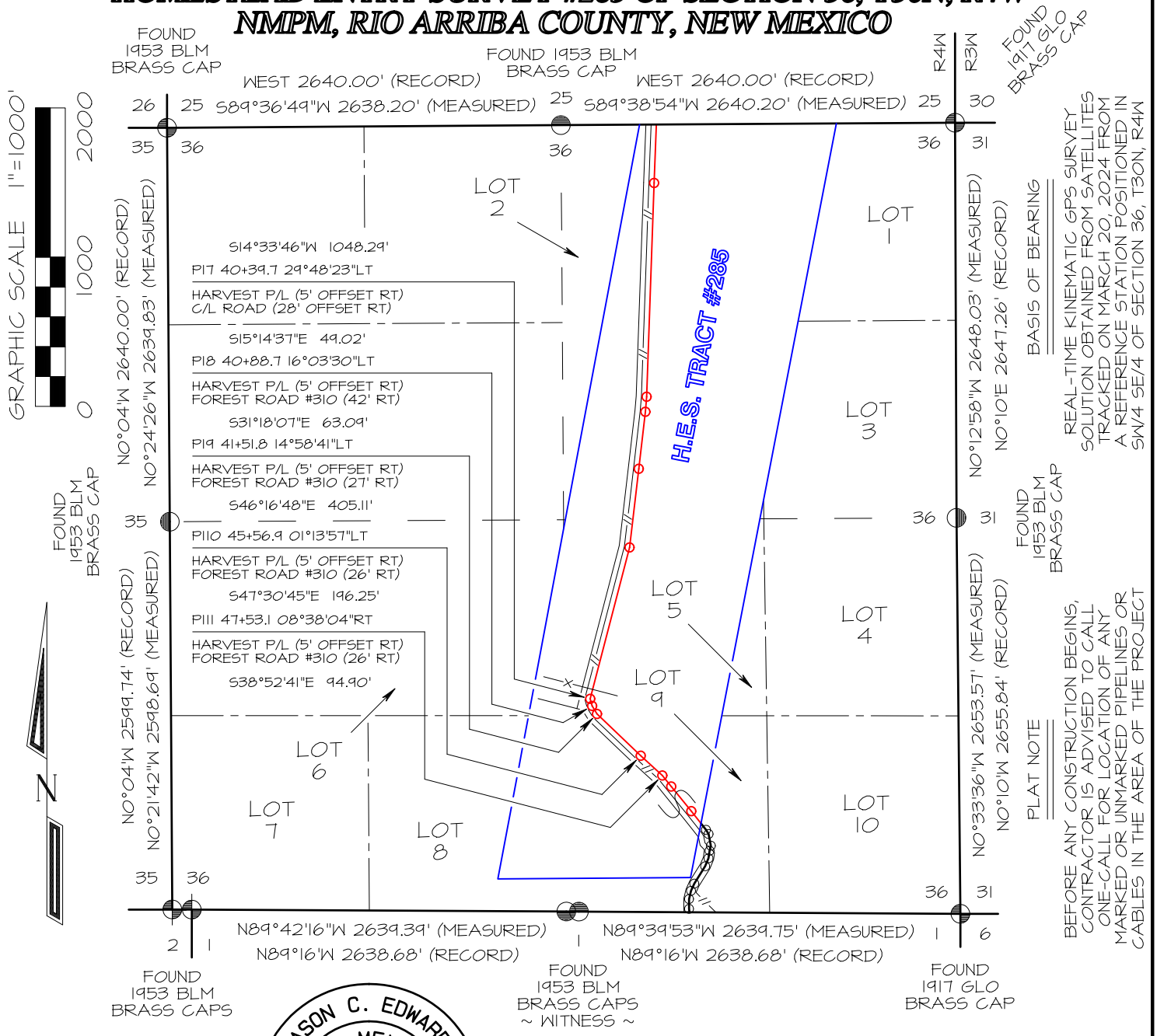
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
ROBERT L. BAYLESS
2700 FARMINGTON AVE
FARMINGTON, NM 87401

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 3 OF 15
FILENAME: 30436GP2

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN HOMESTEAD ENTRY SURVEY #285 OF SECTION 36, T30N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ BlackHawk Energy Corporation	
1+49.8 TO 51+66.0	5016.2 FT / 304.0 RODS

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS

Date: April 25, 2024

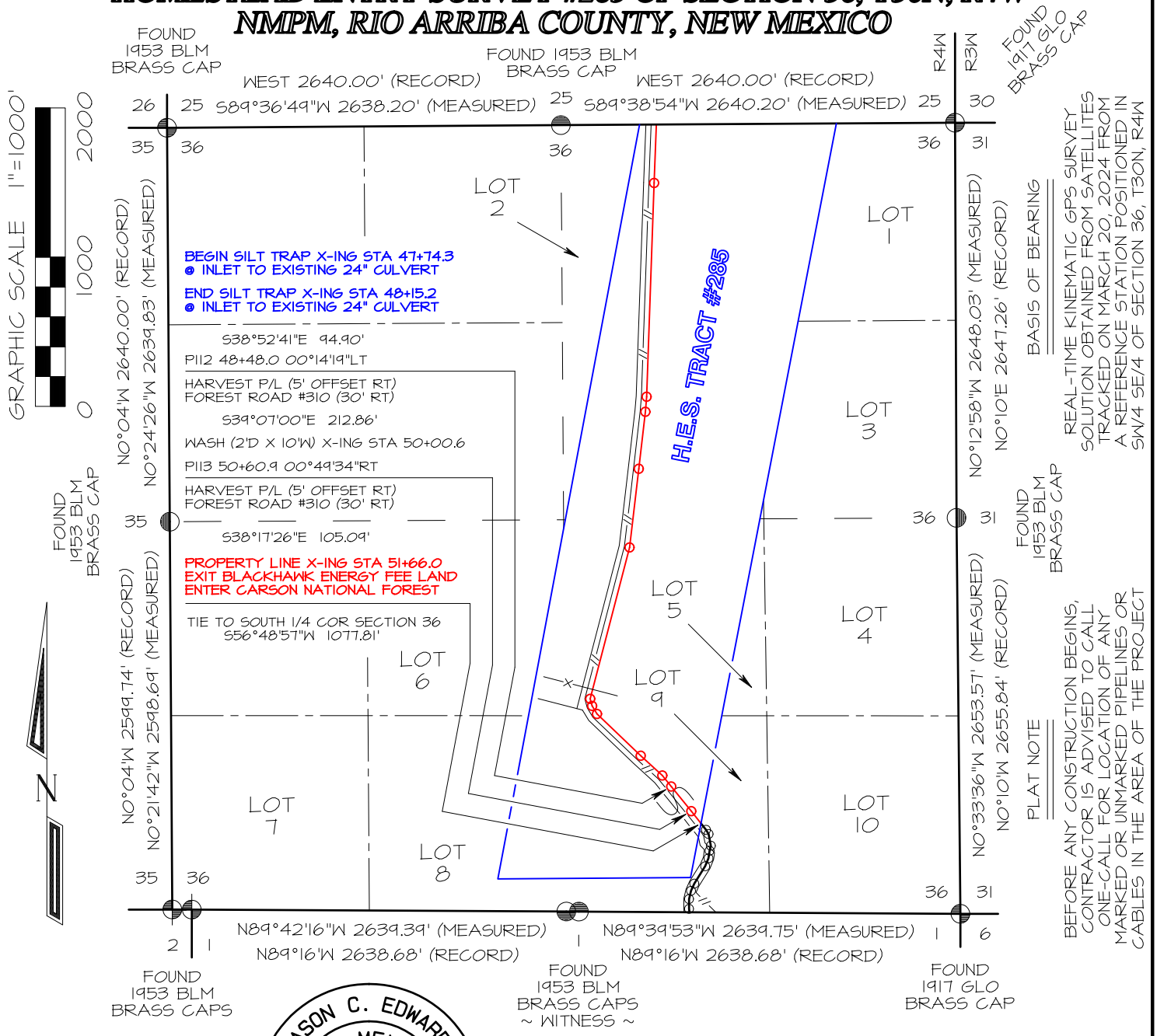
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
ROBERT L. BAYLESS
2700 FARMINGTON AVE
FARMINGTON, NM 87401

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486–1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 4 OF 15
FILENAME: 30436GP3

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN HOMESTEAD ENTRY SURVEY #285 OF SECTION 36, T30N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ BlackHawk Energy Corporation	
1+49.8 TO 51+66.0	5016.2 FT / 304.0 RODS

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Date: April 25, 2024

Prepared for:
ROBERT L. BAYLESS
2700 FARMINGTON AVE
FARMINGTON, NM 87401

NCE SURVEYS, INC.
Land Surveyor:
Jason C. Edwards
Mailing Address:
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Business Address:
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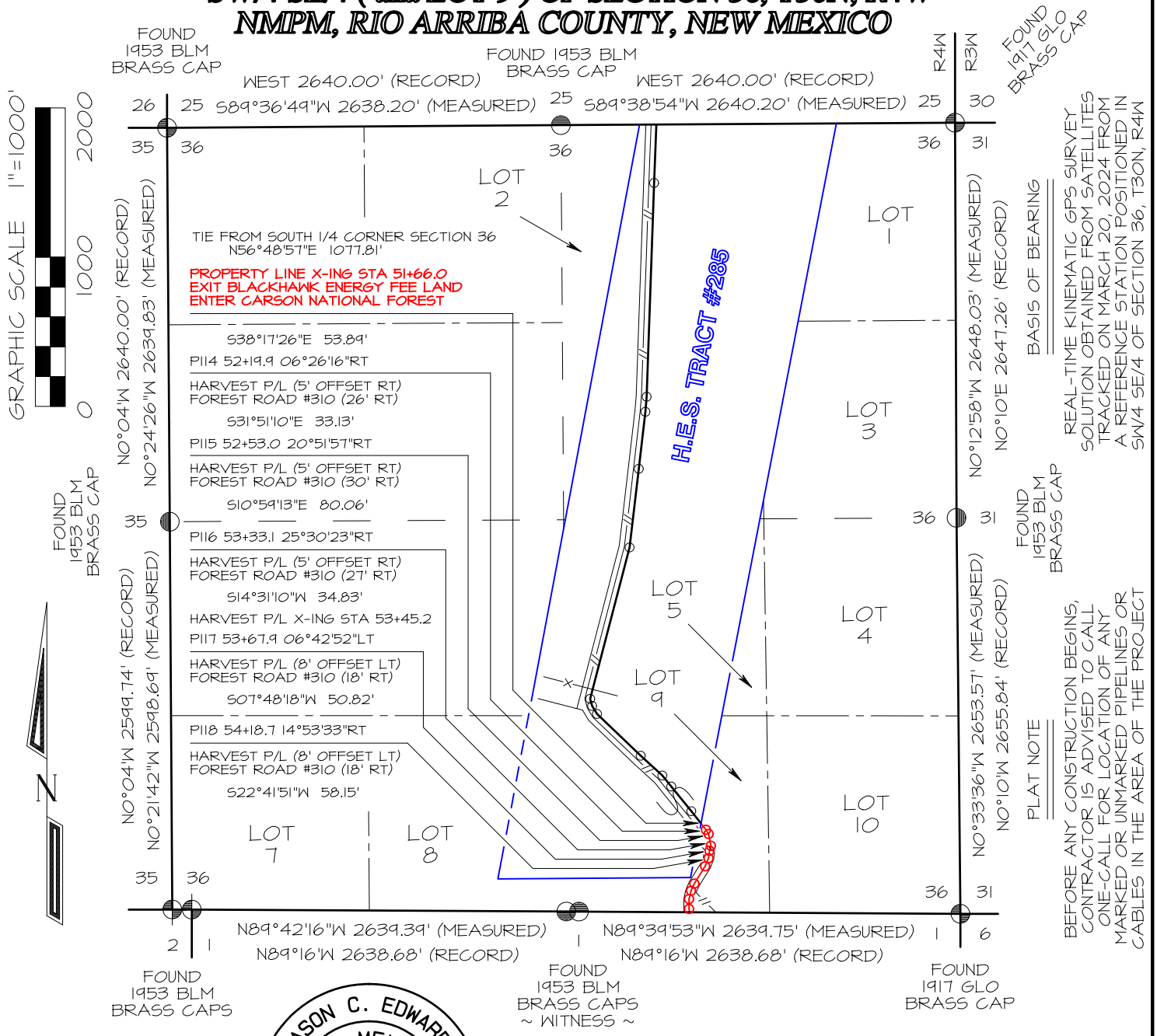
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 5 OF 15
FILENAME: 30436GP4

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN SW/4 SE/4 (aka LOT 9) OF SECTION 36, T30N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ Carson National Forest	
51+66.0 TO 58+12.4	646.4 FT / 39.2 RODS

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NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

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Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Date: April 25, 2024

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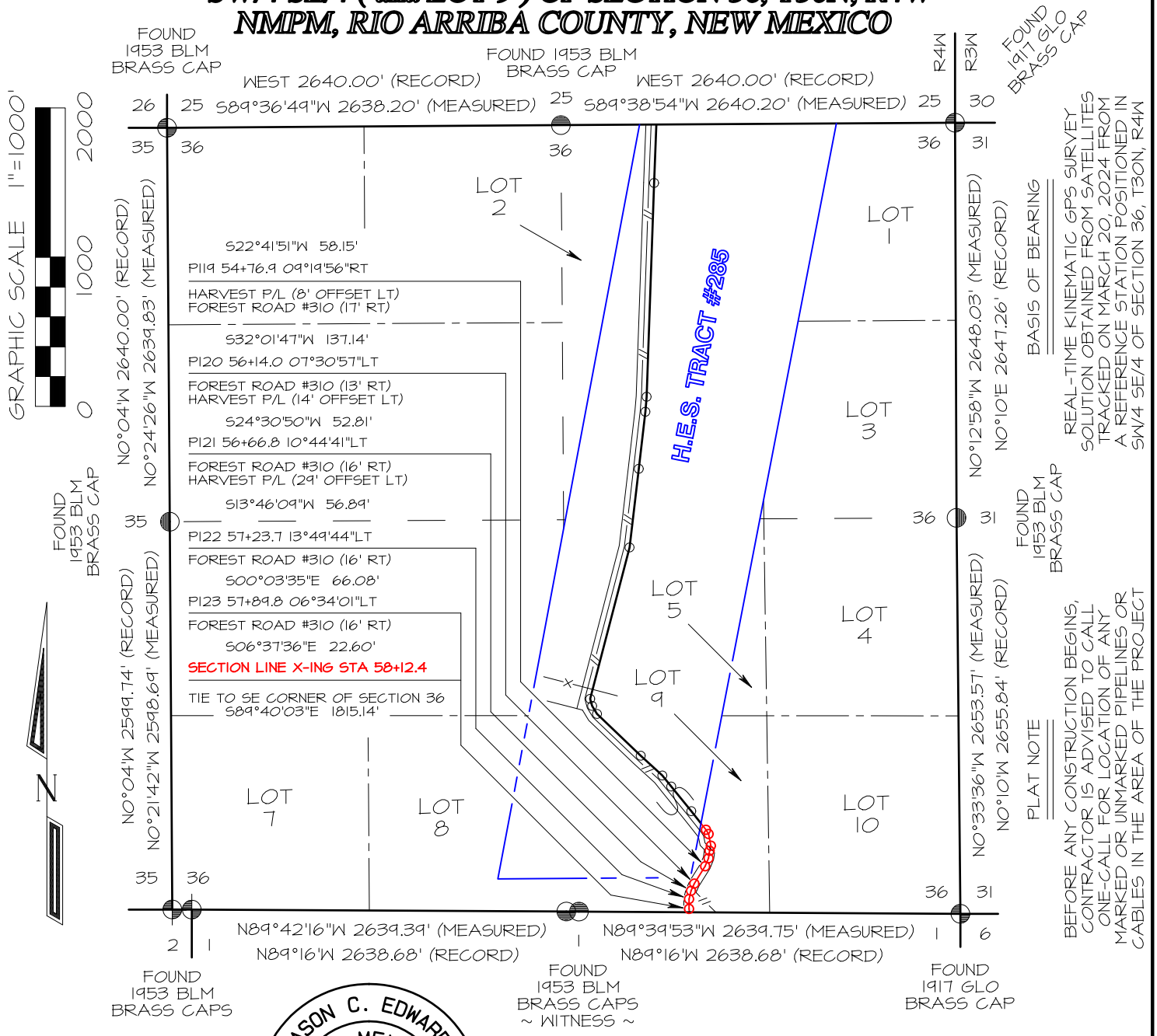
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 6 OF 15
FILENAME: 30436GP5

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1-2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN SW/4 SE/4 (aka LOT 9) OF SECTION 36, T30N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ Carson National Forest	
51+66.0 TO 58+12.4	646.4 FT / 39.2 RODS

JASON C. EDWARDS
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REGISTERED PROFESSIONAL SURVEYOR

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JASON C. EDWARDS

Date: April 25, 2024

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New Mexico L.S. #15269

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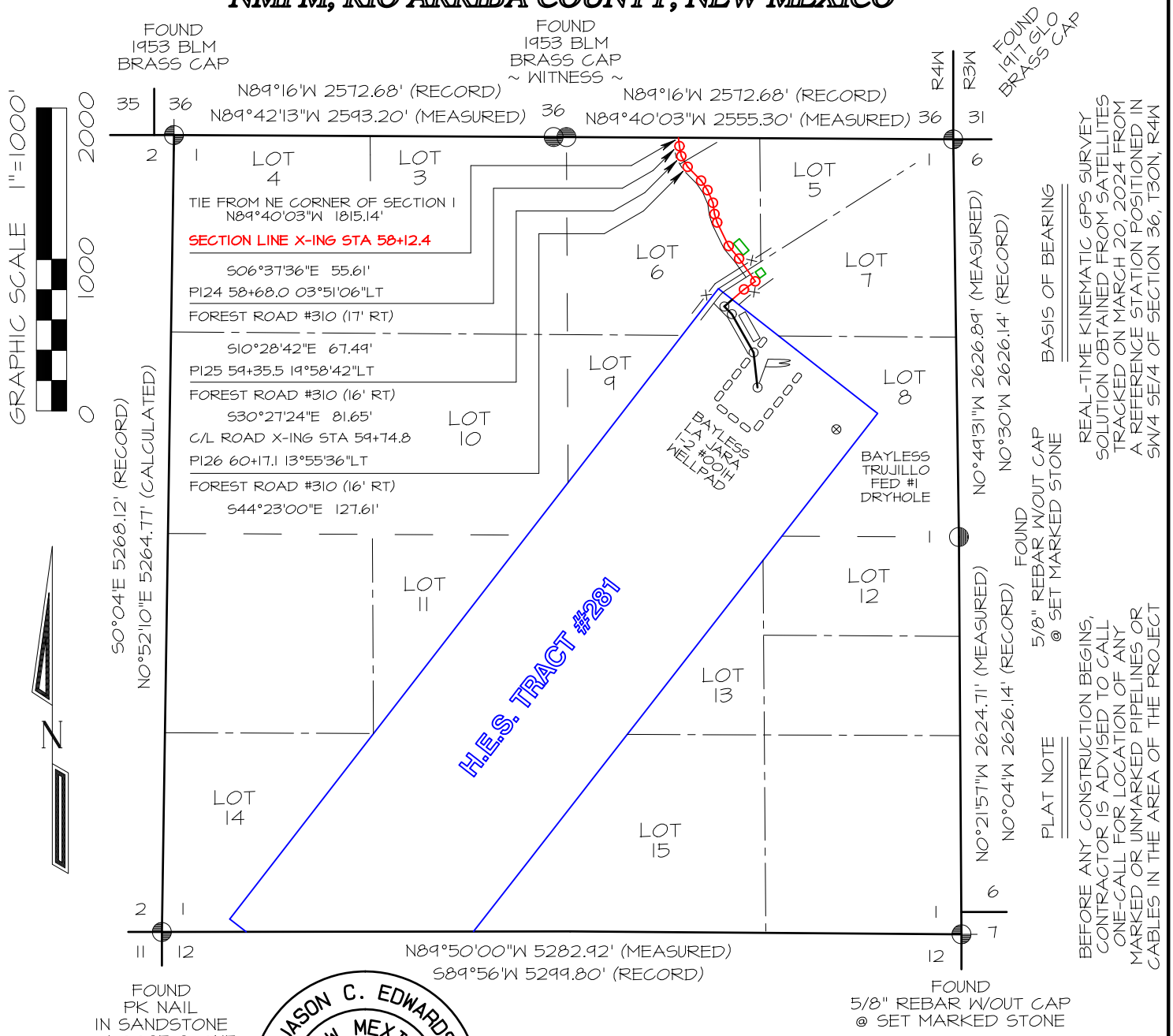
CHECKED BY: JCE
DRAWN BY: EDO
SHEET 7 OF 15
FILENAME: 30436GP6

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN NW/4 NE/4 (aka LOTS 6 & 7) OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Carson National Forest	
58+12.4 TO 71+04.8	1292.4 FT / 78.3 RODS

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JASON C. EDWARDS Date: April 25, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
ROBERT L. BAYLESS
2700 FARMINGTON AVE
FARMINGTON, NM 87401

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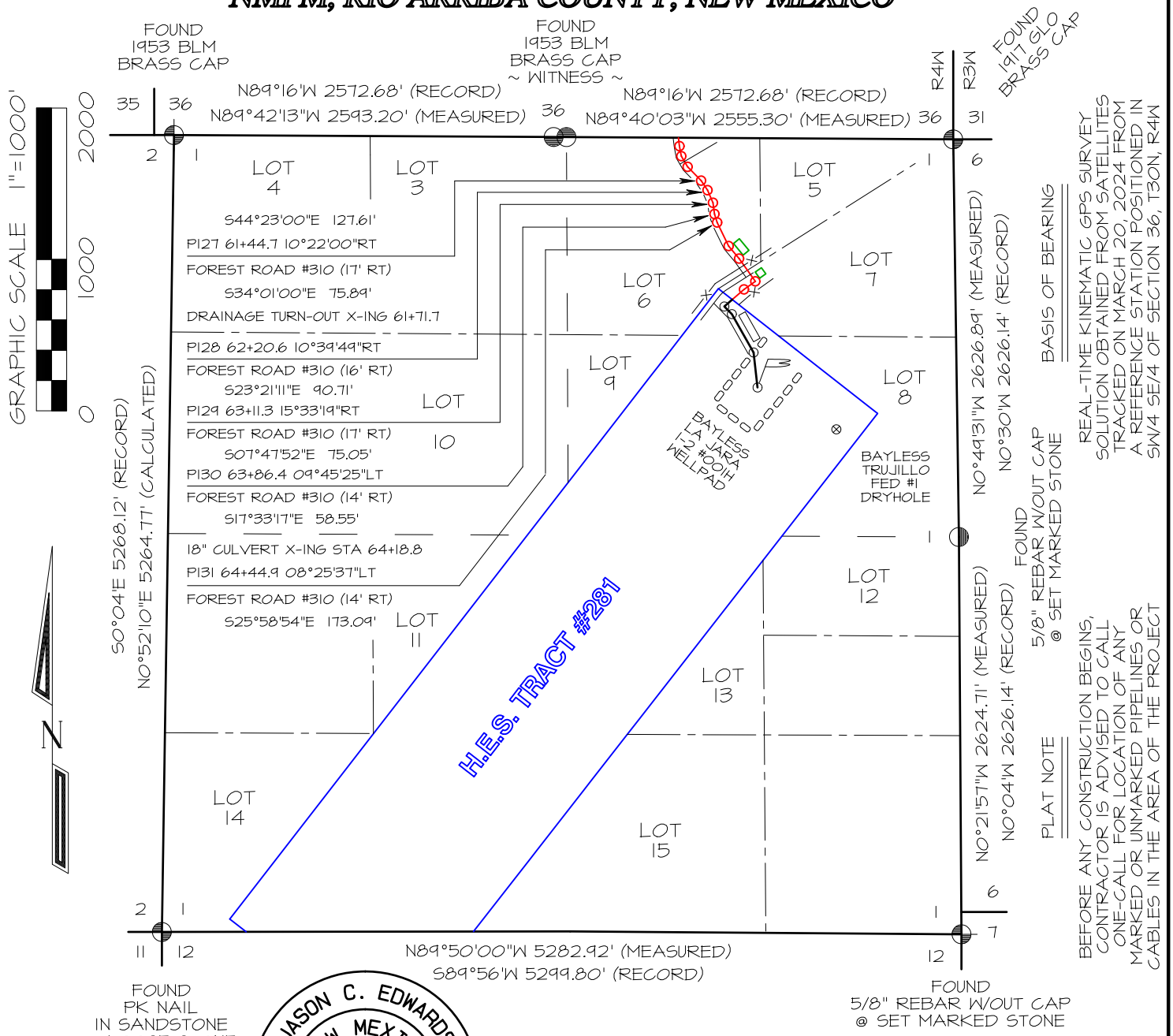
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 8 OF 15
FILENAME: 2941GP7

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN NW/4 NE/4 (aka LOTS 6 & 7) OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Carson National Forest	
58+12.4 TO 71+04.8	1292.4 FT / 78.3 RODS

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New Mexico L.S. #15269

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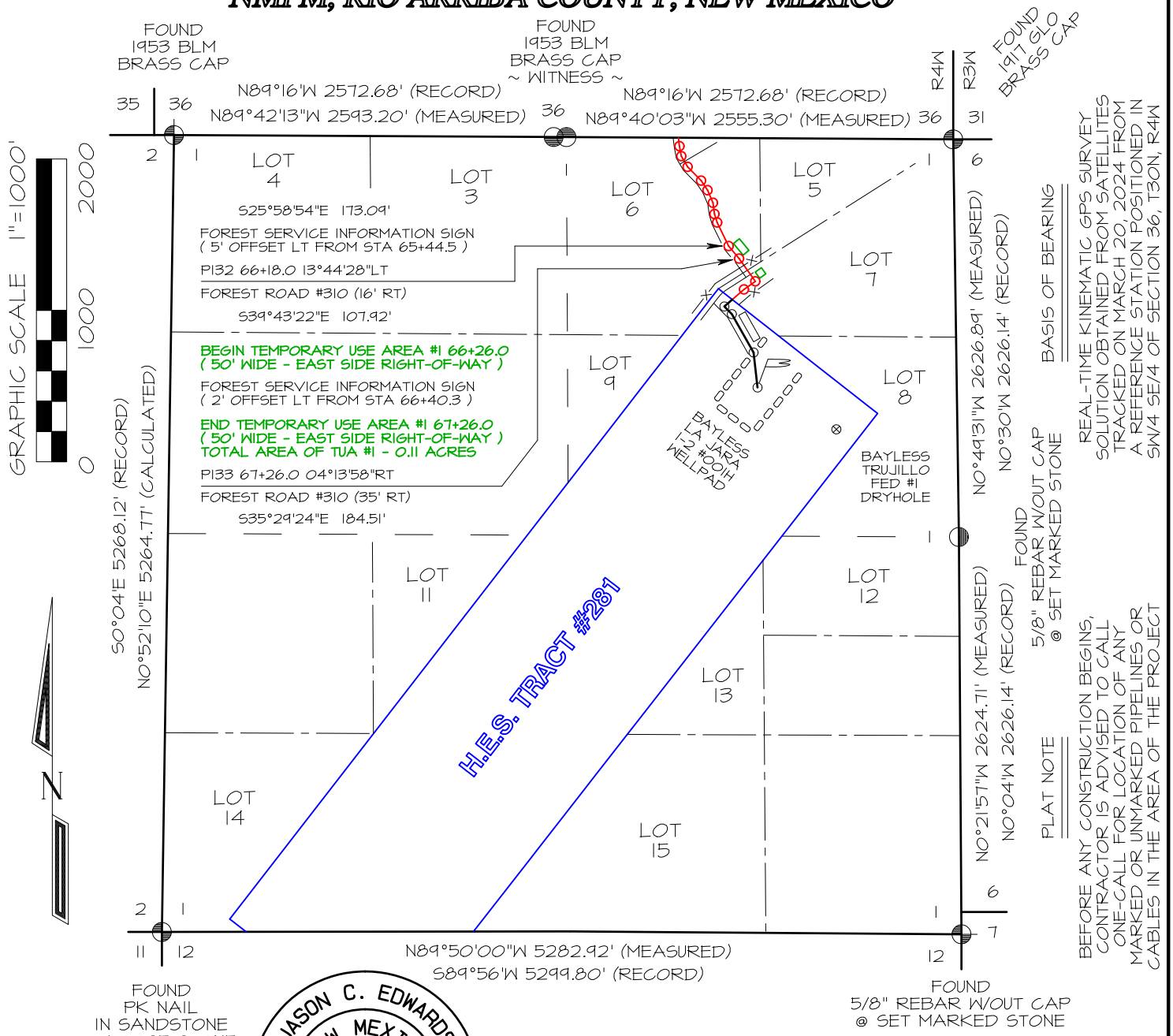
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 9 OF 15
FILENAME: 2441GPB

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN NW/4 NE/4 (aka LOTS 6 & 7) OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Carson National Forest	
58+12.4 TO 71+04.8	1292.4 FT / 78.3 RODS

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New Mexico L.S. #15269

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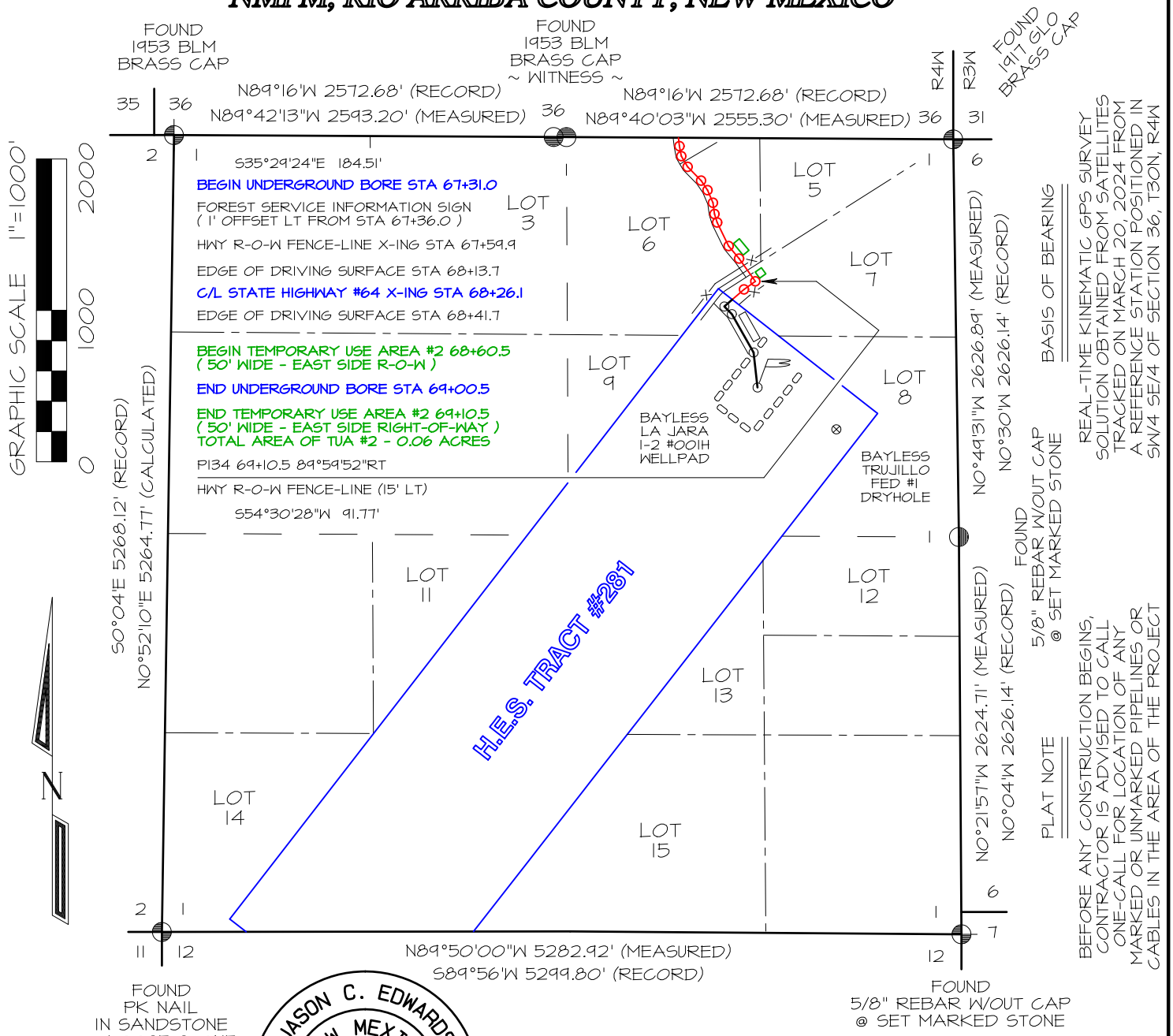
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 10 OF 15
FILENAME: 24416P4

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN NW/4 NE/4 (aka LOTS 6 & 7) OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Carson National Forest	
58+12.4 TO 71+04.8	1292.4 FT / 78.3 RODS

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JASON C. EDWARDS

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Date: April 25, 2024

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FARMINGTON, NM 87401

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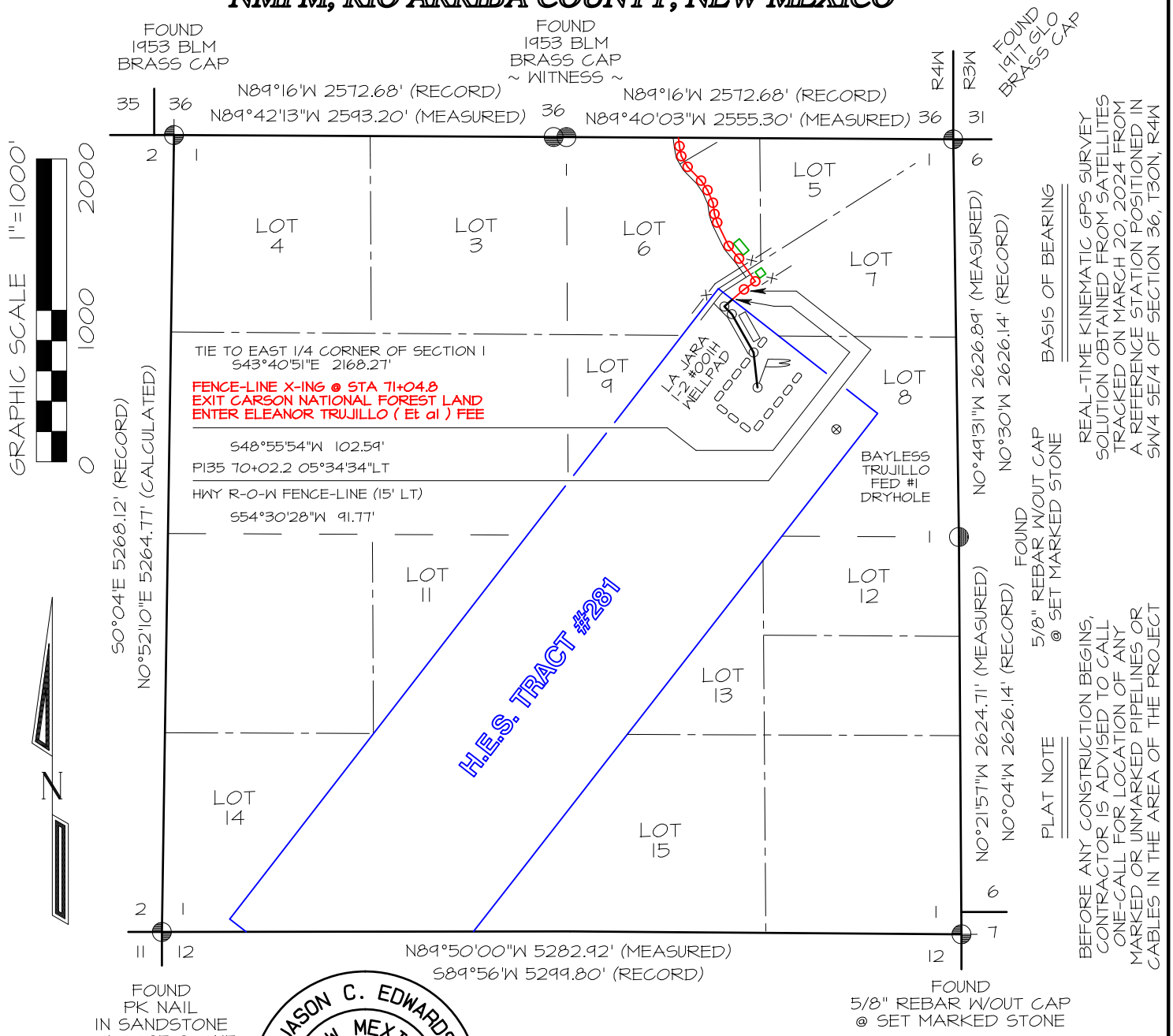
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 11 OF 15
FILENAME: 2441GPIO

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN NW/4 NE/4 (aka LOTS 6 & 7) OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MARCH 20, 2024 FROM A REFERENCE STATION POSITIONED IN SW/4 SE/4 OF SECTION 36, T30N, R4W

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

~ SURFACE OWNERSHIP ~ Carson National Forest	
58+12.4 TO 71+04.8	1292.4 FT / 78.3 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

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New Mexico L.S. #15269

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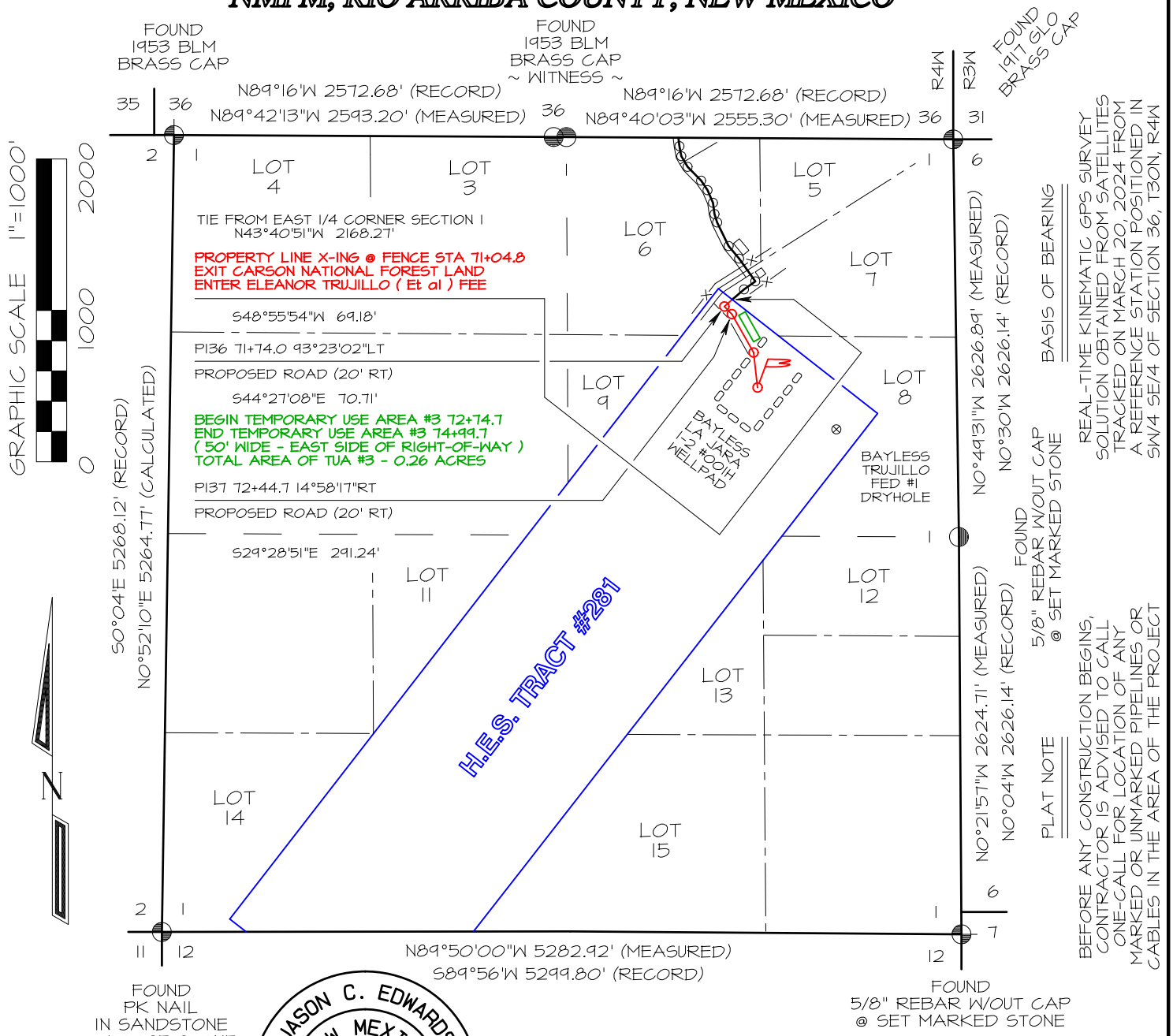
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 12 OF 15
FILENAME: 2441GP11

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN HOMESTEAD ENTRY SURVEY #281 OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ FEE - Eleanor Trujillo (Et al)	
71+04.8 TO 77+68.7	663.9 FT / 40.2 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

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JASON C. EDWARDS Date: April 25, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
ROBERT L. BAYLESS
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FARMINGTON, NM 87401

Land Surveyor:
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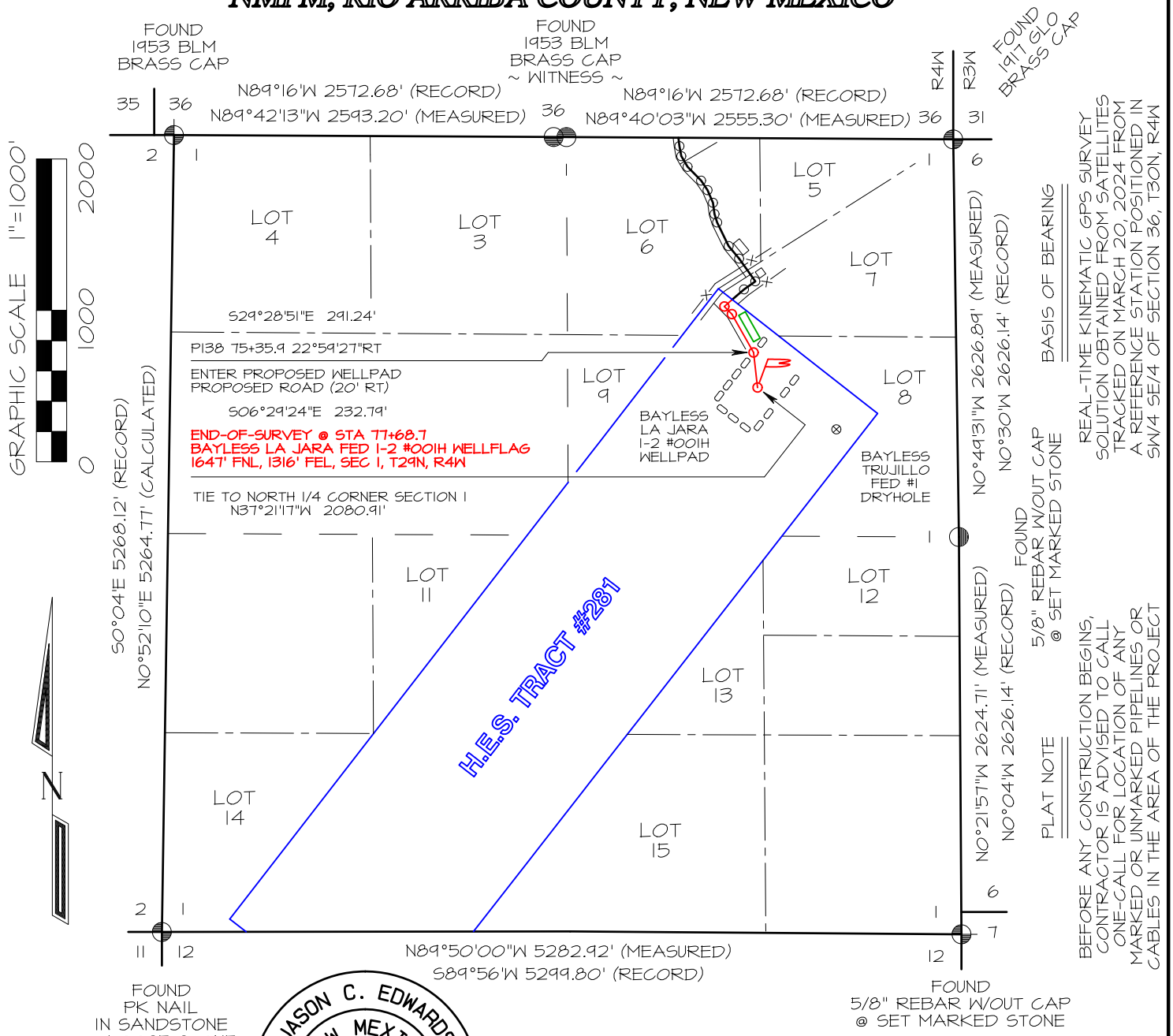
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 13 OF 15
FILENAME: 2441GP12

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1–2 #001H
SURVEY FOR PROPOSED GAS & WATER PIPELINES LOCATED IN HOMESTEAD ENTRY SURVEY #281 OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ FEE - Eleanor Trujillo (Et al)	
71+04.8 TO 77+68.7	663.9 FT / 40.2 RODS

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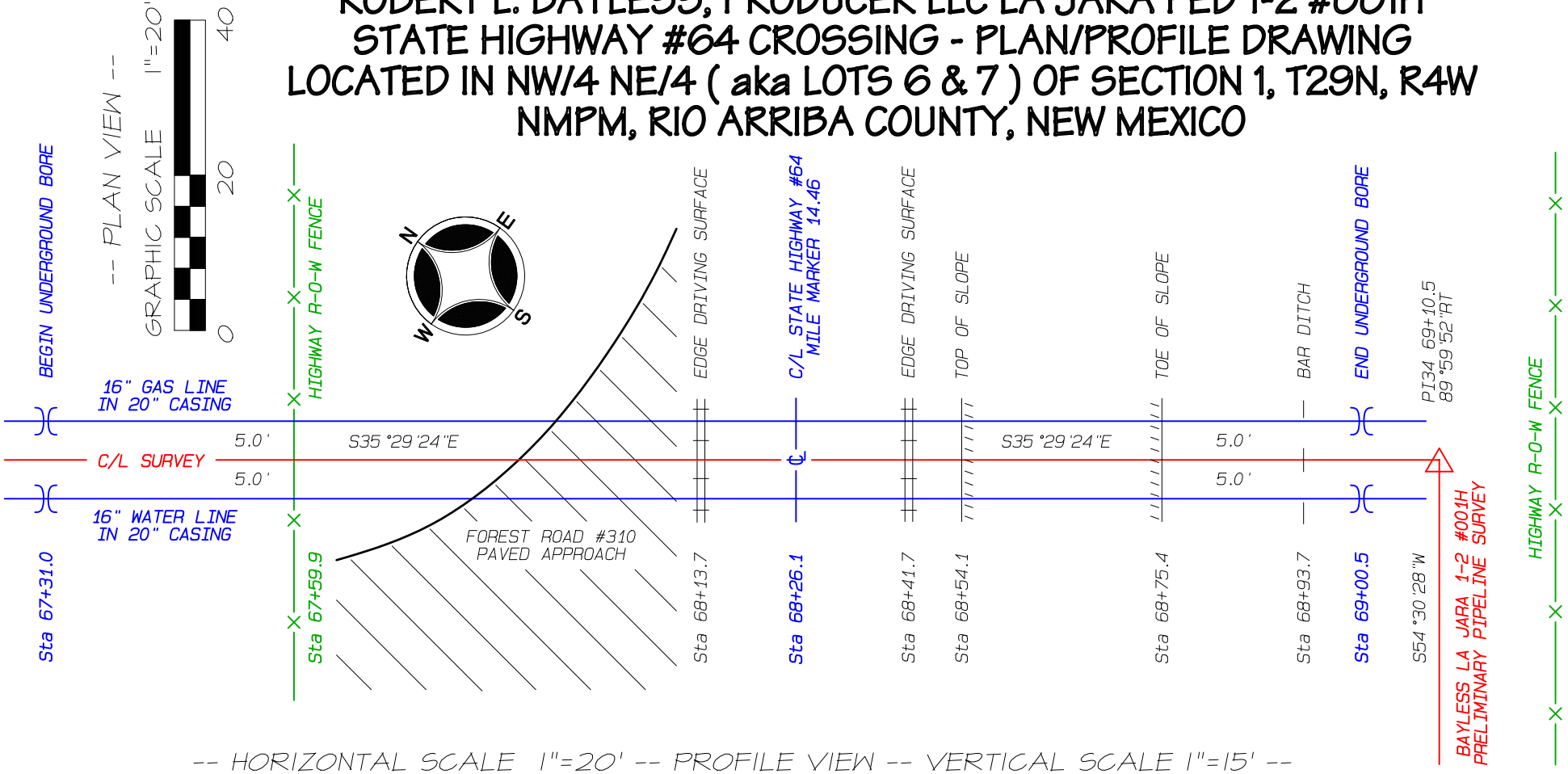
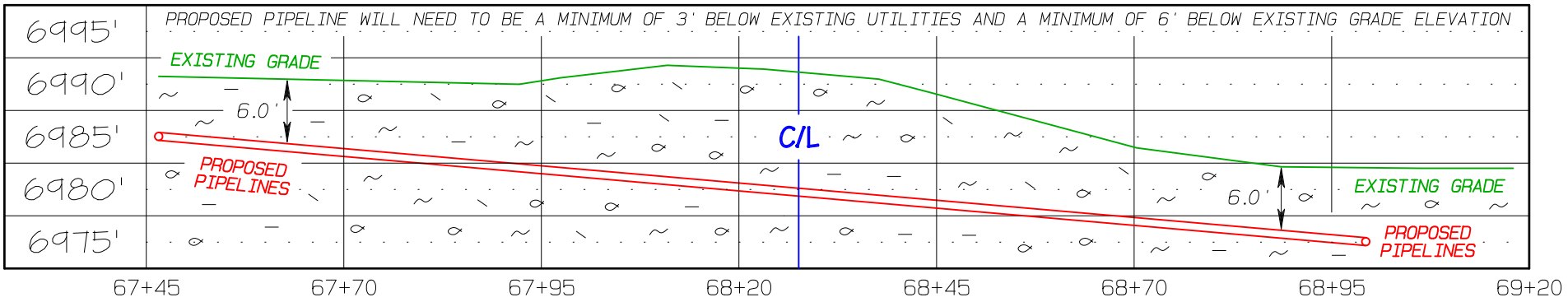
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 14 OF 15
FILENAME: 244GP13

ROBERT L. BAYLESS, PRODUCER LLC LA JARA FED 1-2 #001H
STATE HIGHWAY #64 CROSSING - PLAN/PROFILE DRAWING
LOCATED IN NW/4 NE/4 (aka LOTS 6 & 7) OF SECTION 1, T29N, R4W NMPM, RIO ARRIBA COUNTY, NEW MEXICO



-- HORIZONTAL SCALE 1"=20' -- PROFILE VIEW -- VERTICAL SCALE 1"=15' --



NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

La Jara Fed 1-2 Wellpad: Pipeline Specifications

12" Line

12" Gas transportation pipeline (Private Surface: Eleanor Trujillo and Blackhawk Energy):

Diameter:	12-1/2" O.D. (12" nominal)
Wall Thickness:	0.375"
Grade:	"B" FBE coated linepipe w/ welded or beveled connection
Design Pressure:	790 psi (test)
Actual Pressure:	630 psi
Pressure Test Fluid:	Natural gas from well
Field Test Pressure:	
Pipeline Depth:	Surface
Anticipated Operating Temperature:	100°

12" Line

12" Water transportation pipeline (Private Surface: Eleanor Trujillo and Blackhawk Energy):

Diameter:	12-3/4" O.D. (12" nominal)
Wall Thickness:	1.159"
Grade:	DR-11 High Density Polyethylene connection
Design Pressure:	200 psi (test)
Actual Pressure:	200 psi
Pressure Test Fluid:	Water for Drilling/Frac
Field Test Pressure:	
Pipeline Depth:	Surface
Anticipated Operating Temperature:	60°

16" Line

16" Gas transportation pipeline (Bore and Trenched Section on USFS):

Diameter:	16" O.D. (16" nominal)
Wall Thickness:	0.562"
Grade:	"B" FBE coated linepipe w/ welded or beveled connection
Design Pressure:	1,870 psi (test)
Actual Pressure:	1,500 psi
Pressure Test Fluid:	Hydrotest
Field Test Pressure:	
Pipeline Depth:	48" – 60"
Anticipated Operating Temperature:	100°

16" Line

16" Water transportation pipeline (Bore and Trenched Section on USFS):

Diameter:	16" O.D. (16" nominal)
Wall Thickness:	1.455"
Grade:	DR-11 High Density Polyethylene
Design Pressure:	200 psi (test)
Actual Pressure:	200 psi
Pressure Test Fluid:	Water for Drilling/Frac
Field Test Pressure:	
Pipeline Depth:	48" – 60"
Anticipated Operating Temperature:	60°

La Jara Fed 1-2 Wellpad
Sec. 1 T29N R4W H.E.S. 281
Rio Arriba County, New Mexico
Surface: Fee

MULTI-WELLPAD
SURFACE USE PLAN OF OPERATIONS

This multi-well pad will be utilized by both Robert L. Bayless Producer, LLC and Jicarilla Apache Energy Corporation for drilling all 16 wells on the wellpad.

Pursuant to Onshore Order No. 1 (43 CFR 3160), this Surface Use Plan of Operations (SUPO) has been prepared for the Bureau of Land Management (BLM) Farmington Field Office as part of the Applications for Permits to Drill (APDs) wells on the La Jara Fed 1-2 multi-well pad. The information provided to the BLM is to give an accurate account of the proposed action.

WELL LOCATION AND INTRODUCTION:
Three (3) wells, La Jara Fed 1-2 001H, La Jara Fed 002H, and La Jara Fed 003H, were initially staked on July 27, 2002, by Jason C. Edwards, surveyor, on a site that was geologically and topographically acceptable. A total of 16 wells will be drilled from this wellpad as indicated on the construction layout drawings.

A Notice of Staking was submitted to BLM in Farmington on March 22, 2023 for the initial locations. An onsite meeting was held on April 20, 2023. Present were Emmanuel Adeloye - BLM; Ron Kellermueller – New Mexico Department of Game and Fish, JJ Miller – United States Forest Service, Billy Schnieder and John D. Thomas –Bayless. Requirements were discussed at the onsite meeting. All associated facilities for all wells will also be contained on this multi-well pad.

1) EXISTING ROADS

A) This wellpad is located in Rio Arriba New Mexico. From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel easterly on US Hwy 64 for 50.1 miles to Mile Marker 114.4 to the existing access road on right-hand side which continues for 490’ to La Jara Fed 1-2 wellpad.

B) These wells are exploratory wells.

C) Existing roads within 1.0 miles consist of US Highway 64 which will provide access to the proposed location.

D) Existing roads will be maintained in the same or better condition using best management practices and surface operating standards and guidelines for oil and gas (Gold Book).

E) Private surface roads that are part of the access to reach this location will be maintained to BLM Manual section 9113 standards. Maintenance will be done prior to the commencement of operations and will continue until final abandonment and reclamation of the wellpad.

F) BLM Best Management Practices (BMPs) as outlined in the “Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development” (the Gold Book) will be utilized for all construction and operational activity related to this facility.

G) On April 20, 2023, an onsite inspection was conducted. The Surface Owner requested that the existing access road be re-routed around the southern edge of location, and across the large wash. The road will be improved on the southern edge of the wash heading to the southwest. A 24' cattle guard will be added at the entrance to the property with a double gate. New Mexico Department of Transportation (NMDOT) will administrate any improvements to the pull-off of Highway 64.

2) NEW OR RECONSTRUCTED ACCESS ROADS

A) There are no new roads needed for this location.

3) LOCATION OF EXISTING WELLS

Oil and Gas Wells: See AFMSS attachments.
Water Wells : None.

LOCATION OF EXISTING PRODUCING FACILITIES

There are currently no production facilities on this location. If the well is completed as a producer, production facilities will be engineered and implemented at that time. Operations will follow 43 CFR 3160 and a Sundry Notice on Form 3160-5 will be submitted with construction facilities prior to commencing any construction activities.

4) LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES

A) BLM will be contacted prior to construction of production facilities. A Sundry Notice (SN) will be filed if requested by BLM.

B) Please see AFMSS attachments.

C) The facilities will be constructed on the wellpad.

D) Traveled portion of wellpad will be gravel surfaced. If necessary, additional surfacing material will be obtained from commercial sources or an approved borrow area. Construction and maintenance will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.

E) Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons. All above ground permanent structures will be painted to blend with the surrounding landscape. The color specified at the BLM onsite will be Juniper Green.

F) Production facilities may vary according to the actual reservoir and will be engineered upon completion of well tests. Production facilities will be clustered and placed away from cut/fill slopes to allow the maximum recontouring of cut/fill slopes. To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (such as ridgelines and hilltops).

G) A berm will be constructed around the tanks. The berm materials will be constructed of suitable materials and impermeable to the fluid contained. The berms will have sufficient volume to contain a minimum of 110% of the total volume of the largest tank containing liquid hydrocarbons within the facility/battery and sufficient freeboard to contain precipitation, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

H) If the well is a producer all production facilities will be authorized by a SN.

I) There will be a total of 7,768.70' of new pipelines on both fee and United States Forest Service (USFS) – Carson National Forest. Of that 663.9' of new pipelines will be on fee surface (Eleanor Trujillo); 1,938.8' of new pipelines within the Carson Forest (USFS) ROW (1,565' of pipelines which will follow Forest Service Road 310 and 169.5' which will bore under Highway 64 and 204.3' alongside Hwy 64 in the ROW); and 5,166' of new pipelines on fee surface (Blackhawk Energy) to the existing Cabresto pipeline connection point. Please see AFMSS attachments for pipeline plats.

Pipeline Length (ft)	Location	Surface Owner
663.9'	T29N R4W Sec. 1: HES 281	Eleanor Trujillo - Fee
	Temporary Use Area #3	Eleanor Trujillo – Fee (Boring equipment only. 0.26 acres)
	Temporary Use Area #2	Eleanor Trujillo – Fee (Boring equipment only. 0.06 acres)
1,769.3'	T30N R4W Sec. 36: Lot 9 T29N R4W Sec.1 Lot 6	US Forest Service
169.5'	T29N R4W	US Forest Service Bore under Highway 64; **Not included in surface disturbance acreage**.
	Temporary Use Area #1	US Forest Service – Boring equipment only. 0.11 acres)
5,166.0'	T30N R4W Sec. 36: HES 285	Blackhawk Energy - Fee
7,768.7'		**Total Pipeline Construction**

5) LOCATION AND TYPES OF WATER SUPPLY

A) Operators will be using the proposed La Jara Water Pond that is located to the west of the proposed wellpad for construction, drilling, dust suppression and completion operations. The water pond is located on private surface.

B) Anticipated water use: Anticipated water use of approximately 600,000 barrels.

C) Each well drilling and completion will use approximately 75 acre-ft of fresh water. Fresh water has been contracted from San Juan Water Haulers Association who has rights from the Jicarilla Nation (confirmation of volume for first wells attached) at the Navajo Dam Reservoir. Water will be transferred and stored onsite in two freshwater storage ponds. Frac tanks may be used on well pad for buffer for Hydraulic Fracturing pumps.

Water will be transferred from Navajo Dam Reservoir to location ponds using a combination of existing pipelines owned by Enterprise Products and Black Hawk Energy Corporation and by temporary lay flat-water lines. Deisel powered centrifugal pumps will be used to pump the water.

Water will be pumped from the Rosa 181 take point. Using 12 inch lay flat water lines and pumps, the water will then travel south along the existing roads and pipeline to the "La Jara CDP" where it will enter the existing Black Hawk Energy Corporation Cabresto 12 inch pipeline. The water will then be transported using the existing and proposed pipelines for drilling and completions. (See attached Map).

D) See AFMSS attachments.

E) San Juan Water Haulers Association has agreed to provide 180-acre feet of water rights for industrial use in connection with oil and gas drilling.

6) SOURCE OF CONSTRUCTION MATERIALS

A) Construction materials will consist of native materials from borrow ditches and location areas.

B) Surfacing materials will be obtained from available permitted sources, if needed, and consist of pit gravel. A contractor/source has not been determined or contracted yet for this location.

7) METHODS FOR HANDLING WASTE DISPOSAL

A) Drilling

- A closed loop system will be utilized. Drilling fluids will be disposed of at a commercial disposal facility. Total amount of drilling water will be approximately 5,000 bbls. Drilling is anticipated to take 10-15 days for a total of 330-500 bbl per day until the drilling has been completed.

B) Completions/Stimulation

- Completion fluid amount is only calculated for the time the completion procedure occurs. Once the completion procedure is done, there will be no additional waste for completion/stimulation. Completion is anticipated to take four to six days. Completion fluids will be hauled to a commercial disposal facility.
- Amount of waste is anticipated to be 800 bbls and disposed of daily.

C) Flowback

- Flowback water will be contained in a holding tank and subsequently hauled to a commercial disposal facility.
- Amount of waste is anticipated to be 400 barrels and disposed of daily.

D) Sewage

- Portable toilets will be provided and maintained as needed.

E) Garbage

- Garbage and other solid waste will be contained in a portable trash cage which will be totally enclosed with small mesh wire.
- Waste will be disposed of weekly by 3rd party contractors.

F) Produced Water

- Produced water will be contained in tanks during completion and testing. Once testing is completed the produced water will be hauled to a commercial disposal facility.
- Anticipated amount of produced water is 800 bbls and will be disposed of daily.

G) Reserve Pit

- There is no reserve pit

H) Cutting Area

- The steel cuttings pit and closed loop system will contain the drilling fluids including salts and chemicals. Cuttings will be treated in the drying cutting area before being hauled to Industrial Ecosystems Industries on Crouch Mesa.

I) Upon release of the drilling rig, rathole and mousehole will be filled. Debris and equipment not required for production will be removed.

8) ANCILLARY FACILITIES

No ancillary facilities will be necessary.

9) WELLSITE LAYOUT

A) See AFMSS attachments.

10) PLANS FOR SURFACE RECLAMATION: New Surface Disturbance

A) Drainage/Erosion Control construction:

- Straw wattles are to be installed around areas of the wellpad. The cut slopes on the wellpad are not to be graded to a smooth surface but are to be left in a roughened condition. Any other combination of the following Best Management Practices may also be installed for erosion control methods; Diversion Ditches, Water Bars, Road Surface Slope, Drainage Dips, Roadside Ditches, Turnouts, Wing Ditches, Road Crowning, Culverts, Berms, Silt Fence, Straw Bales, Straw Crimping, Surface Roughening, Catch Basins, Sediment Traps, Permanent Vegetation, Existing Vegetation and Mulching. The BMP selection will be determined on an individual basis and as site conditions dictate.

B) Drainage/Erosion Control Reclamation

- Earthen berms are to be placed at the top of cut slopes. An earthen berm is to be placed on the perimeter of the wellpad to fill sections to divert run-off from fill slopes to minimize erosion. The graded slopes are to be left in a rough condition to minimize wind and water erosion. At the completion of the facilities installation, the stockpiled material for the production equipment dikes will no longer exist. Straw wattles are to be installed and maintained. Any other combination of the following Best Management Practices may be installed for erosion control methods; Diversion Ditches, Water Bars, Road Surface Slope, Drainage Dips, Roadside Ditches, Turnouts, Wing Ditches, Road Crowning, Culverts, Berms, Silt Fence, Straw Bales, Straw Crimping, Surface Roughening, Catch Basins, Sediment Traps, Permanent Vegetation, Existing Vegetation and Mulching. The BMP selection will be determined on an individual basis and as site conditions dictate.

C) Wellpad Proposed Disturbance/Interim Reclamation/Long Term Reclamation

D) Disturbance Comments: Reconstruction Method:

- Final reconstruction will include all disturbed areas, including roads, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Re-salvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut\fill slopes.
- Topsoil redistribution: Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet. Distribute topsoil evenly over the location, and seed according to the seed

mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

- Soil treatment: Earthwork for interim and final reclamation will be completed within six (6) months of well completion or plugging (weather permitting).

E) Please see AFMSS attachments.

F) Seeding

- Seedbed prep: Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including all roads and cut/fill slopes.
- Seed BMP: All disturbed areas, including roads, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Re-salvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut\fill slopes.
- Seed method: Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including all roads and cut/fill slopes.
- Weed treatment plan description: Annual or noxious weeds shall be controlled on all disturbed areas. A weed monitoring and control program will be implemented beginning the first growing season and throughout the life of the well. Noxious weeds that have been identified during construction and monitoring will be promptly treated and controlled. A Pesticide Use Permit will be acquired from the BLM/USFS prior to the use of herbicides. All construction and reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species.
- The operator will coordinate all weed and insect control measures with the BLM/USFS, state and/or local management agencies. Reclamation equipment will be cleaned before moving the equipment onto the location and will be cleaned again before leaving the location.
- Success standards: Reclamation will be considered successful if the following criteria are met: 70 percent of predisturbance cover; 90 percent dominate species (the vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation); and erosion features are equal to or less than surrounding area.

G) OPERATOR CONTACT/RESPONSIBLE OFFICIAL
Robert L. Bayless Producer, LLC

- John Thomas: Phone - 303-296-9900; E-mail - jthoas@rlbayless.com

Jicarilla Apache Energy Corporation

- Daniel Manus: Phone – 505-634-5100; E-mail - dmanus@blackhawkenergycorp.com

11) SURFACE OWNERSHIP

This wellpad is located on private surface.

The existing access road is located on private surface and U.S. Forest Service.

12) OTHER INFORMATION

None.

UPSTREAM
Petroleum Management, Inc.
7000 S. Yosemite St., Suite 290B
Englewood, CO 80112
phone 303.942.0506
www.upstreampm.com

VIA AFMSS II

Ms. Maureen Joe
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, NM 87402

May 2, 2024

RE: Application for Permit to Drill – BLM
Robert L. Bayless, Producer LLC
La Jara Fed 1-2 Wellpad
La Jara 1-2 001H: APD ID 10400091600 – **Response to Deferral Letter**
La Jara 1-2 002H: APD ID: 10400094740 – **Response to Deferral Letter**
La Jara 1-2 003H: APD ID: 10400094811 – **Response to Deferral Letter**
Sec. 1 T29N R4W (H.E.S. 281)
Rio Arriba County, New Mexico
Surface: Fee

Dear Ms. Joe:

The Applications for Permits to Drill (APD) the above captioned wells are being resubmitted via the AFMSS II electronic filing system on behalf of Robert L. Bayless Producer LLC (Bayless). This resubmission is in response to the deferral letters dated April 29, 2024.

This APD BLM filing contains the following attachments: Designation of Permit Agent Letter, Well Location Plat, Lease Plat, two 5M BOP Diagrams, Revised Casing Safety Calculations, Horizontal Plan, Drilling Plan 010924, Access Road and Pipeline Map 120523, Existing Wells Map and Table, Water Transportation Map Revised 043024, Revised Wellsite Layout Drawings, Wellpad NRCS Map Unit Description and Plant Composition for Access Road, NRCS Map Unit Description and Plant Composition for Wellpad, Self-Certification for Wellpad and Access Road, BLM Payment Receipt, Surface Use Plan Master document Revised 050224, Pipeline Specifications, Pipeline Plats dated 042524, letter to BLM dated September 27, 2023, Response to Deficiency letter to BLM dated October 2, 2023, and Response to Deficiency letter to BLM dated November 14, 2023, Response to Deficiency letter to BLM dated December 6, 2023, Letter to BLM dated January 9, 2024, letter to BLM dated April 4, 2024, letter to BLM dated April 16, 2024, and letter to BLM dated May 2, 2024.

The La Jara Fed 1-2 wellpad is located in Sec. 1 T29N R4W (H.E.S. 281) was surveyed on July 27, 2022, by Jason C. Edwards, surveyor.

All wells will be co-located on one common wellpad with enough room to accommodate 16 wells. All wells planned or existing are listed below including the applied for wells.

La Jara Fed 1-2 001H	La Jara Fed 1-2 002H	La Jara Fed 1-2 003H
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well
La Jara Fed 1-2 Future well	La Jara Fed 1-2 Future well	JIC 29-04-01 246H
JIC 29-04-01 Future well	JIC 29-04-01 Future well	JIC 29-04-01 Future well
JIC 29-04-01 Future well	JIC 29-04-01 Future well	
JIC 29-04-01 Future well	JIC 29-04-01 Future well	

The La Jara Fed 1-2 001H was originally submitted on July 3, 2023. The La Jara Fed 1-2 002H and 003H were submitted on September 28, 2023. The BLM APD Deferral letters dated April 29, 2024, were received via email in our office. The APD's were returned via Deferral to allow the Operator to revise the pipeline route plats and pipeline verbiage in the SUPO. All changes to the SUPO have been made to all three La Jara Fed APD's.

Please use the revised information. Everything else in the APD will remain the same.

Please send a copy of all correspondence to Upstream Petroleum Management, Inc. at 7000 S. Yosemite St. Suite 290B, Englewood, CO 80112. Please contact Angela Callaway at 214-364-3713 or Kim Rodell or at 303-942-0506, or acallaway@upstreampm.com or krodell@upstreampm.com, respectively, if you have any questions.

Your early attention to this application is greatly appreciated. Thank you for your assistance.

Sincerely,

Angela G. Callaway
Permit Agent for Robert L. Bayless, Producer LLC

Enclosures

cc: Robert L. Bayless, Producer LLC

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

07/11/2024

APD ID: 10400094740 **Submission Date:** 09/28/2023

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2 **Well Number:** 002H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data

07/11/2024

APD ID: 10400094740

Submission Date: 09/28/2023

Operator Name: ROBERT L BAYLESS PRODUCER LLC

Well Name: LA JARA FED 1-2

Well Number: 002H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: ROBERT L BAYLESS, PRODUCER LLC **OGRID:** 150182 **Date:** 06/17/2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

IV. Central Delivery Point Name: BLACK HAWK CORP GATHERING SYSTEM [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
LA JARA FED 1-2 #001H	30-039-	2024	PENDING	PENDING	PENDING	PENDING
LA JARA FED 1-2 #001H	30-039-	2024	PENDING	PENDING	PENDING	PENDING
LA JARA FED 1-2 #001H	30-039-	2024	PENDING	PENDING	PENDING	PENDING

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
LA JARA FED 1-2 #001H	30-039-	15080	
LA JARA FED 1-2 #002H	30-039-	15080	
LA JARA FED 1-2 #003H	30-039-	15080	

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
BlackHawk Corp	Cabresto-12 inch	O-25-30N-4W	NOVEMBER 2024	170 MMCFD
Enterprise	La Jara CDP	B-24-30N-6W	NOVEMBER 2024	90 MMCFD

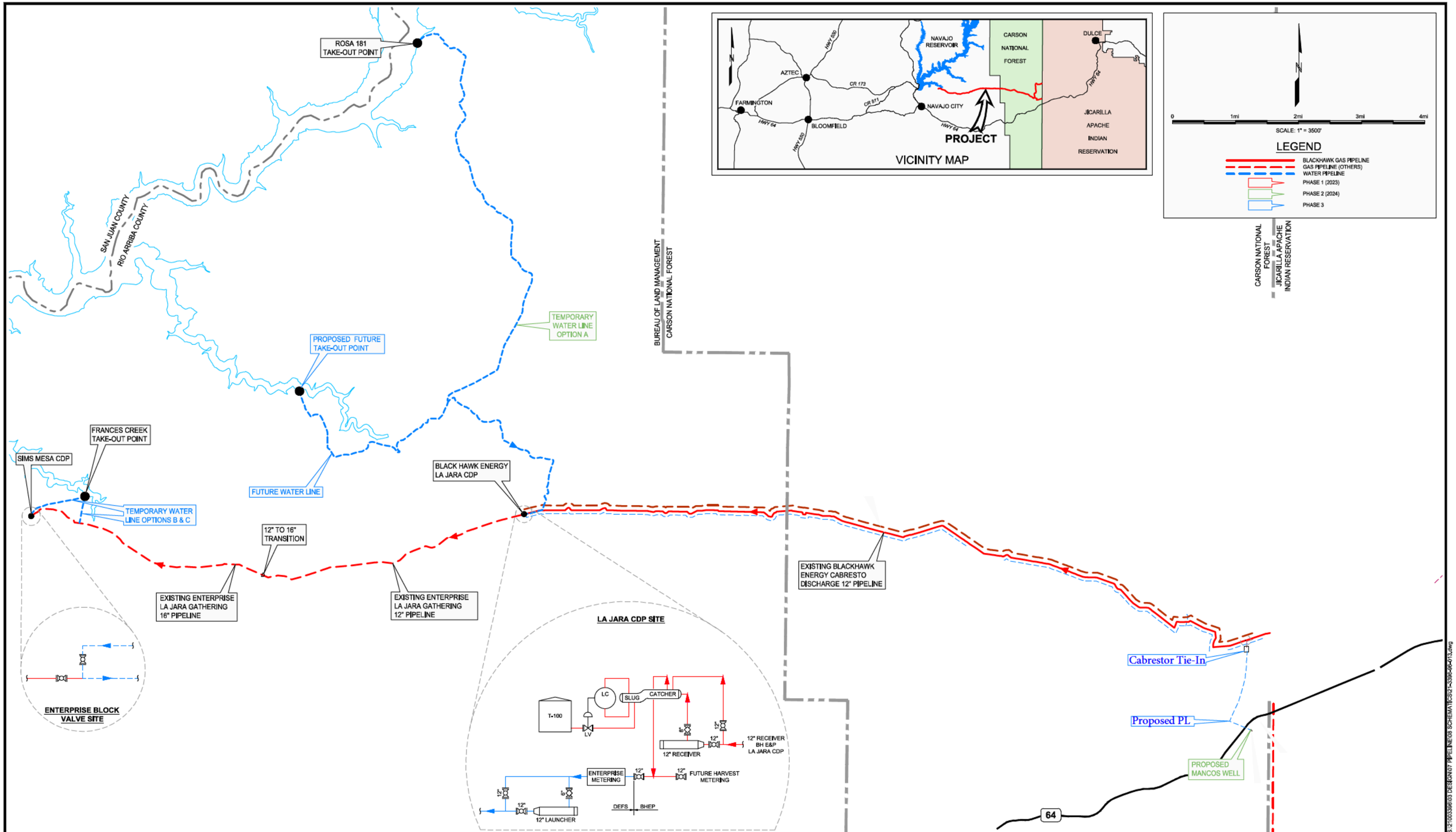
XI. Map. ☒ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☒ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☒ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☒ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.



NOTES:

1) FLOW SCHEMATIC IS FOR GRAPHICAL REPRESENTATION ONLY.
2) ALL GAS, WATER AND UTILITY LINES SHOULD BE LOCATED PRIOR TO ANY EXCAVATING, DIGGING, OR TRENCHING ANYWHERE ON OR NEAR THIS SITE.
3) ATWELL ASSUMES NO RESPONSIBILITY FOR THE SPECIFIC LOCATION OF ANY BURIED GAS, WATER, OR UTILITY LINES THAT MAY BE PRESENT ON OR NEAR THIS SITE, NOR IS ANY LIABILITY ASSUMED FOR ANY LEGAL ACTION WHICH RESULTS FROM A DISCOVERY OF A GAS, WATER, OR UTILITY LINE IN ADDITION TO OR IN A DIFFERENT LOCATION THAN SHOWN ON THIS PLAT.
4) COORDINATE SYSTEM BASED ON NAD 83 NEW MEXICO STATE PLANE, CENTRAL ZONE, US FOOT.
5) PIPELINE AND WELL DATA PROVIDED BY BLACKHAWK ENERGY.

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	DESCRIPTION	DATE	BY	CHK.	APPR.
B	REISSUED FOR REVIEW	08/15/23	TMM	BH	
A	ISSUED FOR REVIEW	07/11/23	TMM	BH	

DRAWN BY: TMM 07/11/23
CHECKED BY: BH 07/11/23
REVIEWED BY:
APPROVED BY:
SCALE: SCALE: 1" = 3500'

PREPARED FOR: BlackHawk

ATWELL
www.atwell-group.com
161 Burnett Drive, Unit #3
Durango, CO 81301
Office: 303-825-7100

FLOW SCHEMATIC - PROJECT TRACKING

CABRESTO DISCHARGE & LA JARA GATHERING PIPELINES

BLACKHAWK SYSTEM — RIO ARRIBA COUNTY, NEW MEXICO

PROJECT NUMBER	DRAWING NUMBER	REV.
21-3396	21-3396-PL-96-013	B

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
Printed Name: John D Thomas
Title: Chief Operating Officer
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OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

The operator will select separation equipment for the maximum anticipated throughput and pressure to optimize gas capture. Separation equipment is seized according to manufacturer's design specifications. Separation vessels are built following the A.S.M.E section VII division codes for pressure vessel design, fabrication, inspection, testing and certification. Anticipated well pressures and production rates are evaluated to select separation equipment according to the equipment's designed operating pressure and throughput.

After completion, the operator utilizes flowback equipment, including separators, to manage wellbore fluids and solids during the initial separation period. After the initial flowback period is complete the operator utilizes iterative facility separation equipment to ensure that optimal separation is achieved.

VII. Operational Practices 19.15.27.8 NMAC A through F

A. The operator will maximize the recovery of natural gas and minimize the amount of gas vented of flared when technically and safely feasible as further described and detailed within the following subsections (B-F of 19.15.27.8). In all cases where natural gas venting and flaring requires regulatory reporting, reporting will be submitted accurately and within the required time frames.
B. Venting and flaring during drilling operations:
    a. New Drill HZ Oil Wells: The operator drills wells in the area by utilizing a balanced mud to safely drill the wellbore. This technique prevents gas from coming to the surface during the drilling process. If there is an emergency or malfunction and natural gas does come to surface the natural gas will be captures or combusted, will an appropriately sized and located flare stack, if technically and safely feasible.
    b. New Drill HZ Oil Wells: The operator drills wells in the area by balancing the mud weight to safely drill the wellbore with as minimal flaring as possible. When gas kicks enter the wellbore, sometimes it is necessary to circulate it out of the wellbore to an appropriately sized and locate flare stack. The operator will estimate the volume flared and appropriately report.
C. Venting and flaring during completion or recompletion operations:
    a. New Drill HZ Oil Wells: The operator's facilities are designed to handle the maximum throughput and pressures from the newly drilled and completed wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible. During initial flowback and initial separation flowback the operator will utilize contracted flowback equipment, including separators, to manage wellbore fluids and solids. The initial flowback period will be minimized and flow will be sent to separation equipment as soon as possible to reduce the amount of gas that is vented to atmosphere. During the separation flowback period natural gas will be routed to a properly sized and located flare until the natural gas is of pipeline quality (less than 60 days). The natural gas will also be utilized on site as needed for fuel gas or injection gas.
    b. New Drill HZ Oil Wells: The operator's facilities are designed to handle the maximum throughput and pressures from the newly drilled and completed wellbore. The amount of gas vented and flared will be minimized when technically and safely feasible. During initial flowback and initial separation flowback the operator will utilize contracted flowback equipment, including separators, to manage wellbore fluids and solids. The initial flowback period will be minimized and flow will be sent to separation equipment as soon as possible to reduce the amount of gas that is vented to atmosphere. The natural gas will be utilized on site as needed for fuel gas and natural gas will be sold.

D. Venting and flaring during production operations:

a. New Drill HZ Oil Wells: The operator's facilities are designed to handle the maximum throughput and pressures from producing wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible. This facility will operate under a notice to intent (NOI) from the New Mexico Environment Department (NMED).

Operations will effectively manage the following scenarios to minimize the quantity of natural gas that is vented or flared:

(a) If there is an emergency or malfunction, vented or flared natural gas will be reported, if required, and the emergency or malfunction will be resolved as soon as technically and safely feasible.

(b) If the wellbore requires liquids to be unloaded to atmosphere, the operator will not vent the well after the week has achieved a stabilized rate and pressure. The operator will remain on site during unloading. Plunger lift systems will be optimized to reduce the amount of natural gas venting. Downhole maintenance, such as workovers, swabbing, ect. will only be conducted as needed and best management practices will be utilized to reduce venting of natural gas.

(c) The operator will minimize the amount of time that natural gas is vented to atmosphere from gauging and sampling a storage tank or low-pressure vessel, automatic tank gauges will be the primary means of gauging with minor exceptions.

(d) The operator will reduce the amount of time needed for loading out liquids from a storage tanks or other low-pressure vessels whenever feasible. Operation will utilize a LACT system when available to minimize gas vented during oil tank loading.

(e) Equipment will be repaired and maintained routinely to minimize the venting or flaring of natural gas. Repairs and maintenance will be conducted in a manner that minimizes the amount of natural gas vented to atmosphere through the isolation of the equipment the is being repaired or maintained.

(f) Electric controllers and pumps will be installed to replace pneumatic controllers whenever feasible. Pneumatic controllers and pumps will be inspected frequently to ensure that no excess gas is vented to atmosphere.

(g) Storage tanks and other low-pressure vessel normal operational venting will be minimized during the early life of the well with the installation of a vapor recovery unit to limit the flash and working and breathing emissions to atmosphere.

(h) No dehydration or amine units are anticipated to be set on location.

(i) Compressors, compressor engines, turbines, flanges, connectors, values, and flanges will be routinely inspected to ensure that no excess venting occurs outside of normal operation.

(j) Regulatory required testing, such as bradenhead and packer testing will be performed in a manner that minimizes the amount of natural gas vented to atmosphere.

(k) When natural gas does not meet gathering pipeline specifications, for example high nitrogen content after a nearby frac, gas samples will be collected twice per week to determine when pipeline specification gas content has achieved. During this time frame gas will be flared and not vented to atmosphere. Natural gas that meets pipeline specifications will be sold via pipeline and natural gas that can be utilized for fuel gas will be used during this time.

(l) If pipeline, equipment, or facilities need purged of impurities gas losses will be minimized as much as technically and safely feasible.

b. New Drill HZ Gas Wells: The operator's facilities are designed to handle the maximum throughput and pressures from producing wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible.

Operations will effectively manage the following scenarios to minimize the quantity of natural gas that is vented or flared:

(a) If there is an emergency or malfunction, vented or flared natural gas will be reported, if required, and the emergency or malfunction will be resolved as soon as technically and safely feasible.
(b) If the wellbore needs to be unloaded to the atmosphere the operator will remain on site during unloading. Plunger lift systems will be optimized to reduce the amount of natural gas venting. Downhole maintenance, such as workovers, swabbing, ect. will only be conducted as needed and best management practices will be utilized to reduce venting of natural gas.
(c) The operator will minimize the amount of time that natural gas is vented to atmosphere from gauging and sampling a storage tank or low-pressure vessel, automatic tank gauges will be the primary means of gauging. The formation is only anticipated to produce water and therefore tank emissions are anticipated to be negligible.
(d) The operator will reduce the amount of time needed for loading out liquids from a storage tanks or other low-pressure vessels whenever feasible. Operations will always utilize the water transfer systems when available. Water loading emissions are anticipated to be negligible.
(e) Equipment will be repaired and maintained routinely to minimize the venting or flaring of natural gas. Repairs and maintenance will be conducted in a manner that minimizes the amount of natural gas vented to atmosphere through the isolation of the equipment that is being repaired or maintained.
(f) Electric controllers and pumps, or instrument air, will be installed to replace pneumatic controller whenever feasible. Pneumatic controllers and pumps will be inspected frequently to ensure that no excess gas is vented to atmosphere.
(g) No dehydration or amine units are anticipated to be set on location.
(h) Compressors, compressor engines, turbines, flanges, connectors, valves, storage tanks, and other low-pressure vessels and flanges will be routinely inspected to ensure that no excess venting occurs outside of normal operations.
(i) Regulatory required testing, such as bradenhead and packer testing will be performed in a manner that minimizes the amount of natural gas vented to the atmosphere.
(j) If natural gas does not meet gathering pipeline specifications gas samples will be collected twice per week to determine when pipeline specification gas content has been achieved. During this time frame gas will be flared and not vented to atmosphere. Natural gas that meets pipeline specifications will be sold via pipeline and natural gas that can be utilized for fuel gas will be used during this time.
(k) If pipeline, equipment, or facilities need purges of impurities gas losses will be minimized as much as technically and safely feasible.

E. Performance Standards:
a. The production facilities are designed to handle the maximum throughput and pressure from producing wellbores and will be designed to minimize waste. The amount of gas vented and flared will be minimized when technically and safely feasible.
b. Al tanks that are routed to a control device that is installed after 5/25/2021 will have an automatic gauging system to minimize the amount of vented natural gas.

c. If a flare stack is installed or replaced after 5/25/2021 it will be equipped with an automatic ignitor or continuous pilot. The flare stack will be properly sized and designed to ensure proper combustion efficiency. The flare stack will be located 100 feet away from the nearest wellhead or storage tank.
d. AVO inspections will be conducted weekly for the year after completion and for all wells producing greater than 60,000 cubic feet of natural gas daily. The AVO inspection records will be maintained for 5 years which will be available at the department's request. Identified leaks will be repaired as soon as feasible to minimize the amount of vented natural gas.

F. Measurement or estimation of vented and flared natural gas.
a. The volume of natural gas that is vented, flared, or consumed for beneficial use will be measured when possible, or estimated, during drilling, completions, or production operations.
b. Equipment will be installed to measure the volume of natural gas flared for all APD's issued after 5/25/2021 on facilities that will have an average daily gas rate greater than 60,000 cubic feet of natural gas. Measurement equipment will conform to API MPMS Chapter 14.10 regulations. The measurement equipment will not have a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment. If metering is not practical, then the volume of gas will be estimated.

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

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

CONDITIONS

Action 363268

CONDITIONS

Operator: ROBERT L BAYLESS PRODUCER LLC 621 17th Street, Suite 2300 Denver, CO 80293	OGRID: 150182
	Action Number: 363268
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	8/9/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	8/9/2024
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	8/9/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	8/9/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	8/9/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	8/9/2024