



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

*Application for Permit to Drill*

**APD Package Report**

Date Printed:

APD ID:  
APD Received Date:  
Operator:

Well Status:  
Well Name:  
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: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
  - Blowout Prevention Choke Diagram Attachment: 1 file(s)
  - Blowout Prevention BOP Diagram Attachment: 1 file(s)
  - Casing Design Assumptions and Worksheet(s): 2 file(s)
  - Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
- SUPO Report
- SUPO Attachments
  - Existing Road Map: 1 file(s)
  - New Road Map: 1 file(s)
  - Attach Well map: 1 file(s)
  - Production Facilities map: 3 file(s)
  - Water source and transportation map: 1 file(s)
  - Construction Materials source location attachment: 1 file(s)
  - Well Site Layout Diagram: 2 file(s)
  - Other SUPO Attachment: 1 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, 2018UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address	3b. Phone No. (include area code)	9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 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). | 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.

(Continued on page 2)

\*(Instructions on page 2)



Approval Date: 04/15/2024

## 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 well, 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 directionally 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 well 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 will 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 connects this information to an 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.



### **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.

CONFIDENTIAL

## Conditions of Approval

Operator: San Juan Resources, Inc. (SJR)  
Well Names: Lindrith East (Deep) Unit 24 #1H (+ 5 futures)  
Legal Location: Sec 24, T24N, R02W, Rio Arriba County, NM  
NEPA Log Number: DOI-BLM-NM-F010-2023-0021-EA  
Inspection Date: October 22, 2021  
Lease Number: NMNM12837

The following conditions of approval will apply to Lindrith East (Deep) Unit 24 #1H Project, 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 an assessment or civil 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, BOR, Tribes, 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-F010-2023-0021-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 \(blm.gov\)](https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/the-gold-book).

**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 <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/the-gold-book>. 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 Surface, and Environmental Protection Staff at (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. SJR or their contractor will contact the Bureau of Land Management, Farmington Field Office Surface, and Environmental Protection Staff at (505) 564-7600 or by email 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 application. 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 more than 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 reserve pit, 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 or recycled 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.

### **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 ( <i>Centaurea repens</i> )	Musk Thistle ( <i>Carduus nutans</i> )
Bull Thistle ( <i>Cirsium vulgare</i> )	Canada Thistle ( <i>Cirsium arvense</i> )
Scotch Thistle ( <i>Onopordum acanthium</i> )	Hoary Cress ( <i>Cardaria draba</i> )
Perennial Pepperweed ( <i>Lepidium latifolium</i> )	Halogeton ( <i>Halogeton glomeratus</i> )
Spotted Knapweed ( <i>Centaurea maculosa</i> )	Dalmation Toadflax ( <i>Linaria genistifolia</i> )
Yellow Toadflax ( <i>Linaria vulgaris</i> )	Camelthorn ( <i>Alhagi pseudalhagi</i> )
African Rue ( <i>Peganum harmala</i> )	Salt Cedar ( <i>Tamarix spp.</i> )
Diffuse Knapweed ( <i>Centaurea diffusa</i> )	Leafy Spurge ( <i>Euphorbia esula</i> )

- 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. SJR'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. SJR'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**

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**

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

**Migratory Bird:** Any new disturbance over 4.0 acres within nesting season (5/15-7/31) will require a migratory bird nest survey to be conducted by BLM/FFO biologist. 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.

**Grazing Permittee Notification and Concerns:** The operator will notify the grazing lease operator(s) at least ten business days prior to beginning any construction activity to ensure there will be no conflicts between construction activities and livestock grazing operations. The operator is not obligated to cease or delay construction unless directed by the Authorized Officer (AO). Any range improvement (fences, pipelines, ponds, etc.) disturbed by construction activities will be repaired immediately following construction and will be repaired to the condition the improvement was in prior to disturbance. Cattle guards will be installed to replace any livestock fencing or gates removed for road 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: 2023(I)016F

USGS Map: Lindrith, NM

Activity Code: 1310

NMCRIS No: 149270

## CULTURAL RESOURCE RECORD OF REVIEW

BUREAU OF LAND MANAGEMENT  
FARMINGTON FIELD OFFICE

### 1. Description of Report/Project:

Project Name: Lindrith East Deep Unit 24 #1H Well Pad, Access Road, and Pipeline.

Project Sponsor: San Juan Resources, Inc.

Arch. Firm & Report No.: Adkins Consulting, Inc.; Adkins Report No. ACI(F)003.

Location: T24N R2W Section 24.

Well Footages: 2,191 ft FSL; 782 ft FWL

Split Estate: No

Project Dimensions: 400 ft x 500 ft –well pad (500 ft x 600 ft with a 50 ft construction zone).  
93 ft x 40 ft – pipeline.  
267 ft x 30 ft access road.

Sites Located: None.

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:*    

**6. Reviewer /Archaeologist:** Kim Adams **Date:** 1/26/2023

Report Summary	BLM	Other	Total
Acres Inventoried	14.02	0.00	14.02
Sites Recorded	0	0	0
Prev. Recorded Sites	0	0	0
Sites Avoided	0	0	0
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.

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



# 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)

\* SAN JUAN RESOURCES INCORPORATED

#001H LINDRITH EAST DEEP UNIT 24

Lease: NMNM0128374 Unit: NMNM143630X

SH: NW $\frac{1}{4}$ SW $\frac{1}{4}$  Section 24, T.24 N., R.2 W.

Rio Arriba County, New Mexico

BH: NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 23, T.24 N., R.2 W.

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.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING



## **I. GENERAL**

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, 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.
- 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.
- 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.
- 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 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 5<sup>th</sup> 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.



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

## Operator Certification Data Report

04/15/2024

### 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:** ARLEEN SMITH

**Signed on:** 04/14/2022

**Title:** Regulatory Specialist

**Street Address:** 332 RD 3100

**City:** AZTEC

**State:** NM

**Zip:** 87410

**Phone:** (505)327-4892

**Email address:** ARLEEN@WALSHENG.NET

### Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



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

## Application Data

04/15/2024

APD ID: 10400084439

Submission Date: 04/14/2022

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

### Section 1 - General

APD ID: 10400084439

Tie to previous NOS? Y

Submission Date: 04/14/2022

BLM Office: Farmington

User: ARLEEN SMITH

Title: Regulatory Specialist

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM01206A

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM143630X

Agreement name: LINDRITH EAST (DEEP) UNIT

Keep application confidential? Y

Permitting Agent? YES

APD Operator: SAN JUAN RESOURCES INCORPORATED

Operator letter of

Designation\_Letter\_\_East\_Lindrith\_\_Deep\_\_Unit\_20220127175802.pdf

### Operator Info

Operator Organization Name: SAN JUAN RESOURCES INCORPORATED

Operator Address: 1499 BLAKE STREET, SUITE 10C

Zip: 80202

Operator PO Box:

Operator City: DENVER

State: CO

Operator Phone: (303)573-6333

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: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: Gav Green Dk  
Mancos

Pool Name:

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Is the proposed well in an area containing other mineral resources? 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:  
LINDRITH EAST DEEP UNIT 24

Number: 001H

Well Class: DIRECTIONAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 2 Miles

Distance to nearest well: 1220 FT

Distance to lease line: 100 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: LINDRITH\_EAST\_DEEP\_UNIT\_24\_1H\_C102\_EXECUTED\_20220331142955.PDF

Well work start Date: 07/01/2022

Duration: 15 DAYS

## Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 15703

Reference Datum: CASING HEAD

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	2191	FSL	782	FWL	24N	2W	24	Aliquot NWS W	36.294978	-107.007625	RIO ARRI BA	NEW MEXI CO	FIR T PRIN	F	NMNM 0128374	7349	0	0	Y
KOP Leg #1	2191	FSL	782	FWL	24N	2W	24	Aliquot NWS W	36.294978	-107.007625	RIO ARRI BA	NEW MEXI CO	FIR T PRIN	F	NMNM 0128374	6849	500	500	Y
PPP Leg #1-1	2305	FSL	153	FEL	24N	2W	23	Aliquot NESE	36.295294	-107.010795	RIO ARRI BA	NEW MEXI CO	FIR T PRIN	F	NMNM 0128373	5073	7283	6842	Y

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

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
EXIT Leg #1	330	FNL	209 9	FW L	24N	2W	23	Aliquot NENW	36.30256 7	- 107.0210 55	RIO ARRI BA	NEW MEXI CO	FIRS T PRIN	F	NMNM 012837 3	507	116 46	684 2	Y
BHL Leg #1	330	FNL	209 9	FW L	24N	2W	23	Aliquot NENW	36.30256 7	- 107.0210 55	RIO ARRI BA	NEW MEXI CO	FIRS T PRIN	F	NMNM 012837 3	507	116 46	684 2	Y



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Wyoming State Office Reservoir Management Group  
2987 Prospector Drive  
Casper, WY 82604-2968



In Reply Refer To:

3181

(3181.1)

Lindrith East (Deep) Unit

NMNM143630X

SEP 21 2021

San Juan Resources, Inc.  
Attn: Jerome McHugh  
1499 Blake Street, Suite 10C  
Denver, CO 80202

Gentlemen:

Your application of September 10, 2021, filed with the Chief, Reservoir Management Group requests the designation of 8,800.00 acres, more or less, in Rio Arriba County, New Mexico, as logically subject to exploration and development under unitization provisions of the Mineral Leasing Act, as amended.

Pursuant to unit plan regulations 43 CFR 3180, the land requested, as outlined on your plat marked "Exhibit 'A', Lindrith East (Deep) Unit", is hereby designated as a logical unit area. The unit agreement submitted for the area designation should provide for the drilling of the following test well:

**Name:** Lindrith East (Deep) Unit 24 # 114 H

**Surface Location:** NW¼SW¼, Sec. 24, T. 24 N., R. 2 W., NM. P.M.

**Formation and Depth:** Horizontal lateral drilled to test the Mancos Formation with a lateral of at least 2,600 feet (the top of the Mancos Formation occurs at approximately 5,820 feet measured depth as indicated on the gamma ray and resistivity logs in the Amoco Federal Oso 1 (API No. 3003926672) well, located in the NE¼SW¼NW¼ of Section 24, T. 24 N., R. 2 W., NM. PM.) has tested said target.

The use of the Form of Agreement for Unproven Areas (43 CFR 3186.1, as revised April 1994), modified as shown in your application, will be accepted. If conditions are such that further modification of said standard form is deemed necessary, two copies of the proposed modifications with appropriate justification must be submitted for preliminary approval.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

In the absence of any other type of land requiring special provisions or of any objections not now apparent, a duly executed agreement identical with said form, modified as outlined above, will be approved if submitted in approvable status within a reasonable period of time. However, notice is hereby given that the right is reserved to deny approval of any executed agreement submitted which, in our opinion, does not have the full commitment of sufficient lands to afford effective control of operations in the unit area.

If a well is commenced and penetrates the geologic formation specified in Section 9 of the unit agreement prior to final unit approval, it cannot be considered as the unit obligation well. In such event the unit obligation well still must be drilled. If you elect to initiate drilling of the obligation well prior to final unit approval, please be advised that the agreement must be filed in time to permit it to be processed in the normal sequence of events without priority consideration because of a well drilling in the unit area.

To help prevent delay in the commencement of drilling the obligation well or subsequent wells, please review all Federal leases within the unit area as to restrictive stipulations which protect wildlife and other resources. Also, contact the Farmington Field Office for any additional Conditions of Approval that may be incorporated in the approval of the Application for Permit to Drill (APD) that may delay commencement of the unit wells.

To ensure the timely handling of units submitted for final approval, proponent must show 100 percent commitment of all lessees of record, basic royalty owners, and working interest owners, or evidence that every such owner of interest in the unit has been given an opportunity to join the unit agreement. If any owner fails or refuses to join, evidence of reasonable effort to obtain a joinder should be submitted, together with a copy of each refusal by an operator giving the reasons for nonjoinder. If a refusal letter cannot be obtained, unit proponent should provide, in writing, a record of the attempts made to obtain joinder.

When the executed agreement is transmitted to the Chief, Reservoir Management Group for approval, include the latest status of all acreage. In preparation of Exhibits "A" and "B", follow closely the format of the sample exhibits attached to the aforementioned form.

For land questions, please contact Sandy Blackburn, Land Law Examiner, at (307) 261-7632, for all other questions please contact Karl Osvald, Geologist, at (307) 261-7729.

Sincerely,



J. David Chase  
Chief, Reservoir Management Group

cc: NMSO, Sheila Mallory w/ application  
ONRR-RRM (email: leases.blm@onrr.gov)  
New Mexico State Land Office, Scott Dawson  
New Mexico Oil Conservation Division, Leonard Lowe



UnitSource, Inc.  
c/o Tim Woodroof  
2580 Pierson Street  
Lakewood CO 80215

**DISTRICT I**  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**DISTRICT II**  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**DISTRICT IV**  
1220 S. St. Francis Dr., 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 Dr.  
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

<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name GAVILAN MANCOS OIL
<sup>4</sup> Property Code	<sup>5</sup> Property Name LINDRITH EAST (DEEP) UNIT 24		<sup>6</sup> Well Number 1H
<sup>7</sup> GRID No. 20208	<sup>8</sup> Operator Name SAN JUAN RESOURCES, INC		<sup>9</sup> Elevation 7349

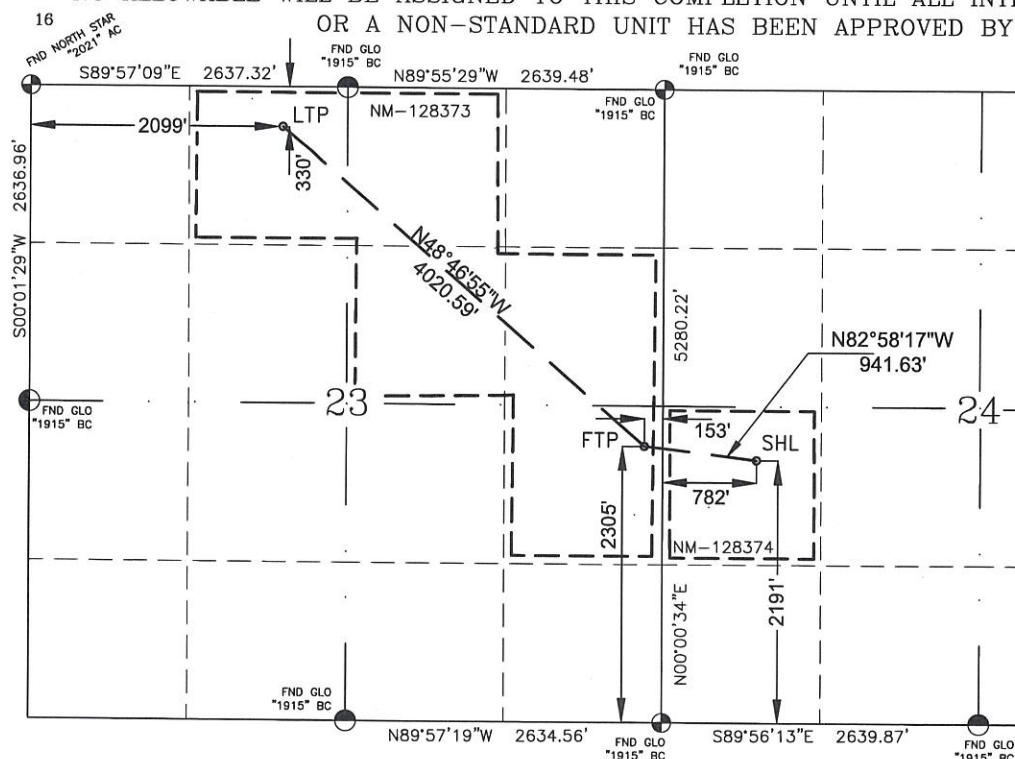
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	24-N	2-W		2191	SOUTH	782	WEST	RIO ARRIBA

<sup>11</sup> 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
C	23	24-N	2-W		330	NORTH	2099	WEST	RIO ARRIBA
<sup>12</sup> Dedicated Acres SEE DETAIL BELOW			<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No. R-22053		

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 (LTP)  
330' FNL, 2099' FWL SEC. 23  
LAT: 36.302567° N  
LONG: 107.021055° W NAD83

SURFACE (SHL)  
2191' FSL, 782' FWL SEC. 24  
LAT: 36.294978° N  
LONG: 107.007625° W NAD83

DETAIL: DEDICATED ACRES  
SEC. 24: NW/SW, (40 ACRES)  
SEC. 23: NE/SE, S2/NE, NW/NE  
 NE/NW, (200 ACRES)  
 TOTAL = 240 ACRES

FIRST TAKE POINT (FTP)  
2305' FSL, 153' FEL SEC. 23  
LAT: 36.295294° N  
LONG: 107.010795° W NAD83

## 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Jerome P McHugh, Jr. Date 3/18/22  
Printed Name Jerome P McHugh, Jr.  
E-mail Address jmchugh@sanjuanbasin.com

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.

MARCH 17, 2022

Date of Survey

Signature and Seal of Professional Surveyor

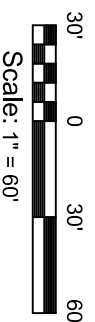
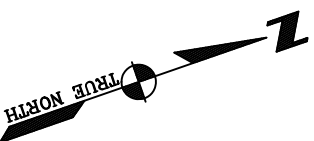
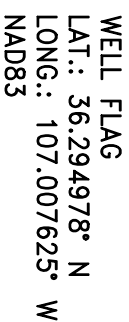


GLEN W. RUSSELL  
Certificate Number

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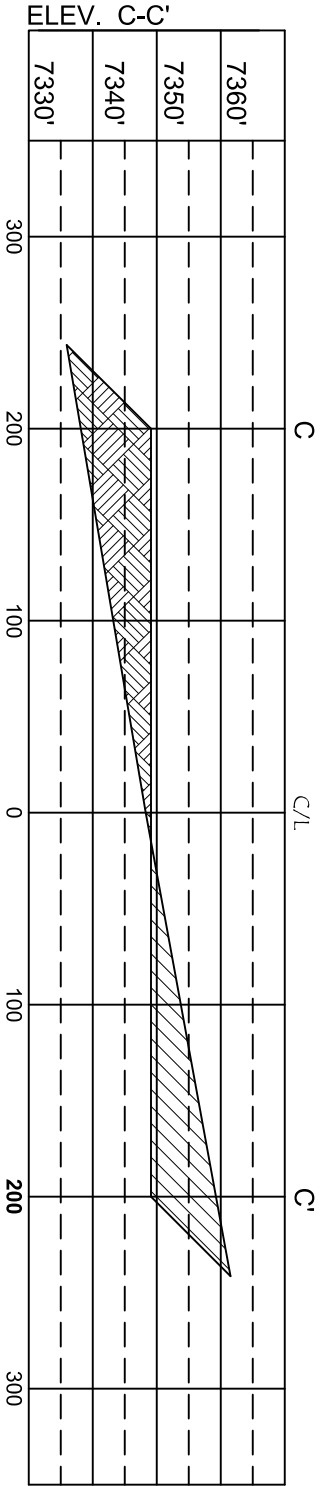
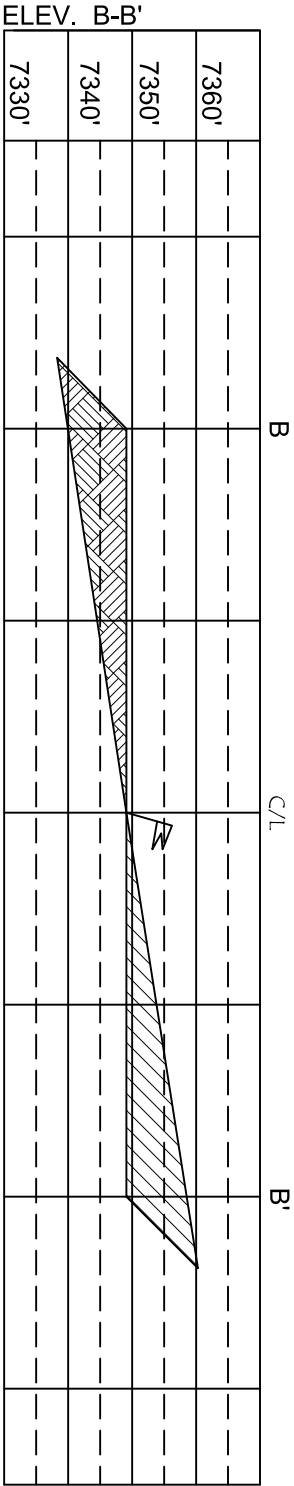
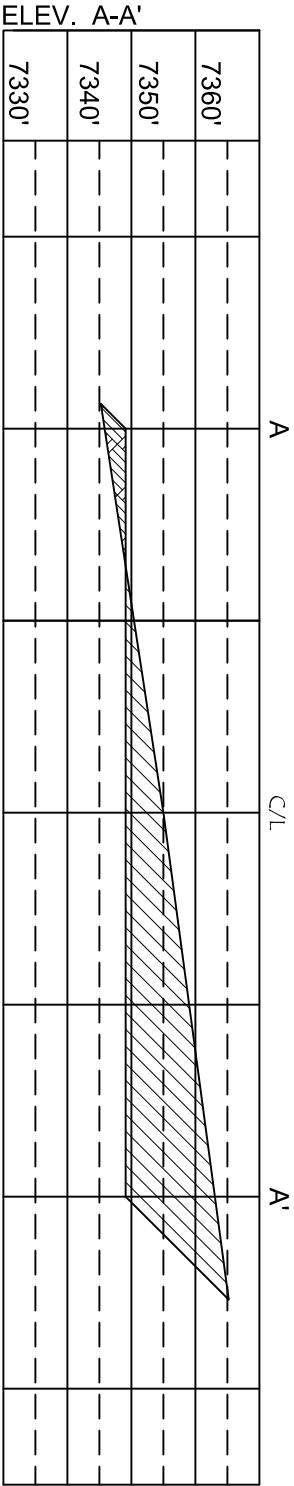
15703

LINDRITH EAST (DEEP) UNIT 24 #1H, 2191' FSL & 783' FWL  
SECTION 24, T-24-N, R-2-W, NMPM, RIO ARRIBA, NM  
GROUND ELEVATION: 7349', DATE: SEPTEMBER. 24, 2021



- Released to Imaging: 5/9/2024 12:51:16 PM

**SAN JUAN RESOURCES, INC.**  
LINDRITH EAST (DEEP) UNIT 24 #1H, 2191' FSL & 783' FWL  
SECTION 24, T-24-N, R-2-W, NMPM, RIO ARRIBA COUNTY, NM  
GROUND ELEVATION: 7349', DATE: SEPTEMBER 24, 2021



HORIZ. SCALE: 1" = 50'  
VERT. SCALE: 1" = 30'

NOTE:  
VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL  
FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT  
LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

Directions from the Intersection of  
Hwy 550 & Hwy 64 in Bloomfield, NM  
To:

SAN JUAN RESOURCES, INC.  
LINDRITH EAST (DEEP) UNIT 24 #1H  
2191' FSL & 783' FWL,  
Section 24, T24N, R2W, N.M.P.M.,  
Rio Arriba, New Mexico  
Latitude: 36° 17' 41.922" N  
Longitude: 107° 00' 27.448" W  
NAD 83

Go south on Hwy 550 for 83.65 miles to Hwy 96,  
Turn left (north) on Hwy 96 11.9 miles to Hwy 95,  
Turn left (west-northwesterly) on Hwy 95 for 10.1 miles,  
Turn right (easterly) on CR 394 for 0.9 miles,  
Stay left (northeasterly) for 1.4 miles,  
Turn left (northerly) for 0.1 miles,  
To the beginning of new access on the left (north) side of an  
existing field road, which continues (northerly) for 266.97' to  
the new well location.



SAN JUAN RESOURCES, INC.

LINDRITH EAST (DEEP) UNIT 24 #1H

2191' FSL 783' FWL

SEC. 24 T24N R2W N.M.P.M.

RIO ARRIBA, NM

APD MAP

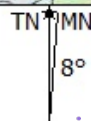
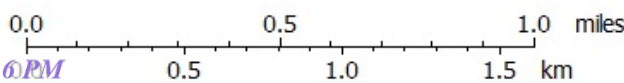
266.97' NEW BLM ACCESS

LINDRITH EAST (DEEP) UNIT 24 #1H

266.97' NEW BLM ACCESS

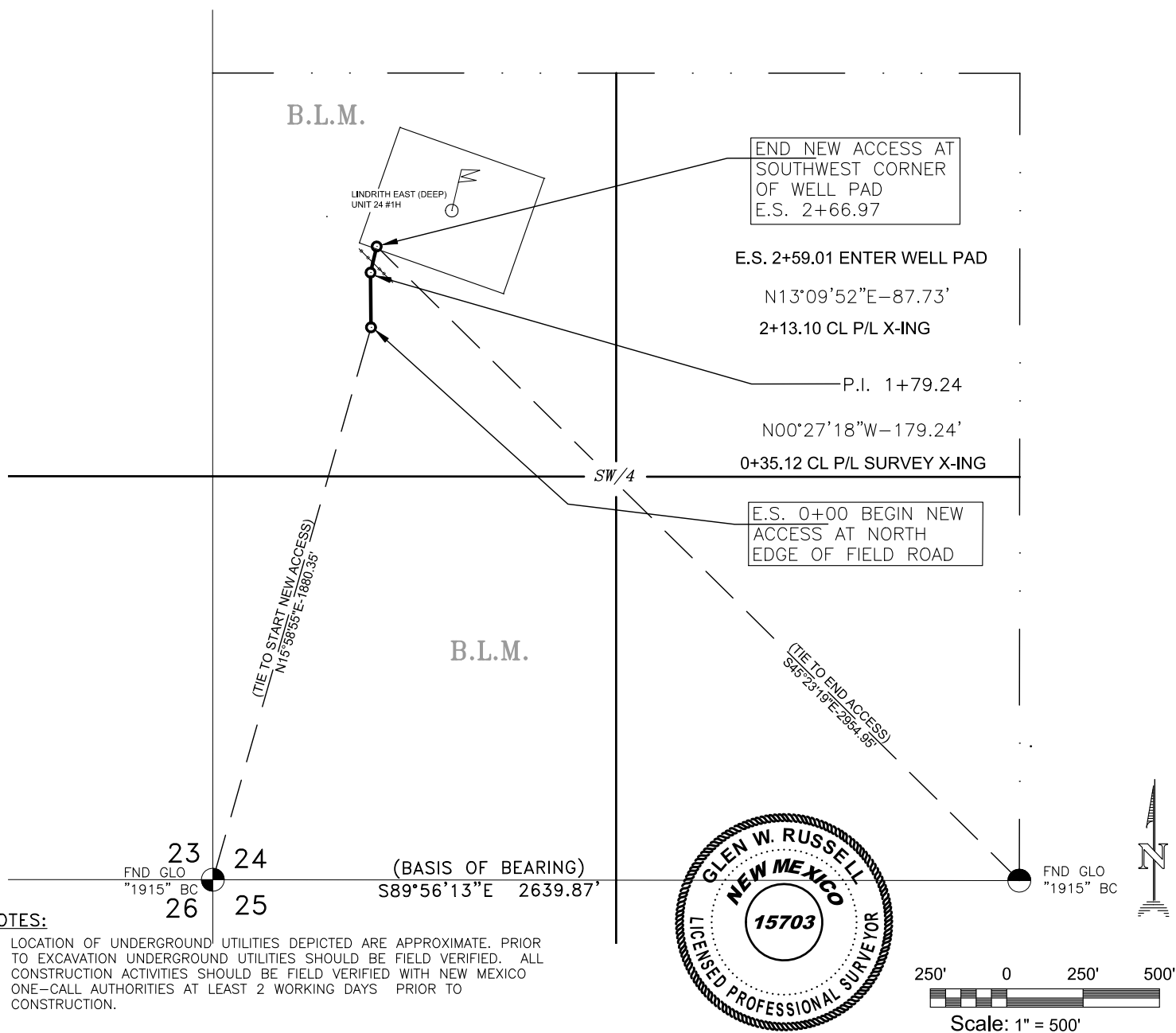
EXISTING ACCESS

Map created with TOPOIC ©2007 National Geographic





ACCESS ROAD SURVEY FOR  
**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**  
 LOCATED IN THE SW/4 OF SEC. 24, T-24-N, R-2-W, N.M.P.M.  
 RIO ARriba COUNTY, NEW MEXICO



250' 0 250' 500'  
 Scale: 1" = 500'

OWNERSHIP			
LOCATION	OWNER	STATION	FT./RODS
SW/4 S24, T24N, R2W	B.L.M.	E.S. 0+00 TO E.S. 2+66.97	266.97/16.18
TOTAL			266.97/16.18

I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

GLEN W. RUSSELL DATE JANUARY 21, 2022  
 GLEN W. RUSSELL, PLS  
 NEW MEXICO L.S. #15703

**BASIS OF BEARING:** AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 24 NORTH, RANGE 2 WEST, N.M.P.M. RIO ARriba COUNTY, NEW MEXICO. BEARS S89°56'13"E A DISTANCE OF 2639.87' AS MEASURED BY G.P.S. LOCAL GRID NAD83.

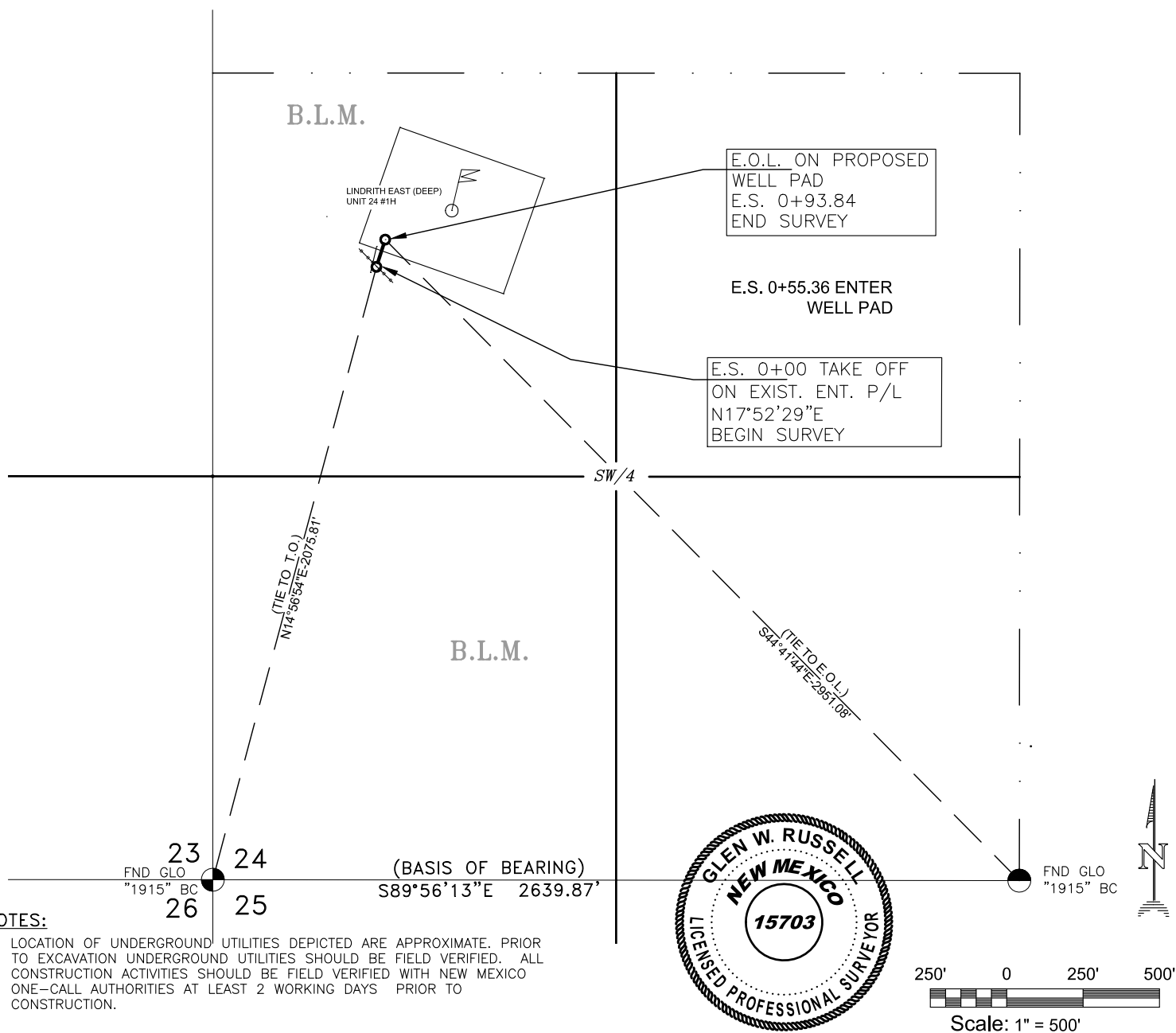
SURVEY CREW:		GWR	DRAWN BY:	GWR
DATE OF SURVEY:		9/24/21	DATE:	9/30/21
REV. 1	GWR 1/20/22 NAME CHANGE			
REV. 2				

**VECTOR SURVEYS, LLC**

Professional Land Surveys, Mapping,  
 GPS Surveys & Oil Field Services  
 122 N Wall Avenue, Farmington, NM 87401  
 Phone (505) 320-9595  
 E-Mail: vectorgr001@msn.com

WORK ORDER NO.:	SJR004	CAD FILE:	L 24_2_24_2_AR
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PIPELINE SURVEY FOR  
**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**  
 LOCATED IN THE SW/4 OF SEC. 24, T-24-N, R-2-W, N.M.P.M.  
 RIO ARriba COUNTY, NEW MEXICO

**NOTES:**

1.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.

2.) THIS IS NOT A BOUNDARY SURVEY.

OWNERSHIP			
LOCATION	OWNER	STATION	FT./RODS
SW/4 S24, T24N, R2W	B.L.M.	E.S. 0+00 TO E.S. 0+93.84	93.84/5.69
TOTAL			93.84/5.69

I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

GLEN W. RUSSELL DATE JANUARY 21, 2022  
 GLEN W. RUSSELL, PLS  
 NEW MEXICO L.S. #15703

**BASIS OF BEARING:** AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 24 NORTH, RANGE 2 WEST, N.M.P.M. RIO ARriba COUNTY, NEW MEXICO. BEARS S89°56'13"E A DISTANCE OF 2639.87' AS MEASURED BY G.P.S. LOCAL GRID NAD83.

SURVEY CREW:		GWR	DRAWN BY:	GWR
DATE OF SURVEY:		9/24/21	DATE:	10/4/21
REV.	1	GWR 1/20/22 NAME CHANGE		
	2			

## VECTOR SURVEYS, LLC

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 122 N Wall Avenue, Farmington, NM 87401  
 Phone (505) 320-9595  
 E-Mail: vectorg001@msn.com

WORK ORDER NO.:	SJR005	CAD FILE:	L 24_24_2_PL
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U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

04/15/2024

APD ID: 10400084439

Submission Date: 04/14/2022

Highlighted data  
reflects the most  
recent changes

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13249463	SAN JOSE	0	0	2712	SANDSTONE	NONE	N
13249464	OJO ALAMO	-2712	2712	2712	OTHER : water zone	NONE	N
13249465	FRUITLAND COAL	-3032	3032	3035	COAL	NATURAL GAS	N
13249466	PICTURED CLIFFS	-3242	3242	3246	COAL	NATURAL GAS	N
13249467	CLIFFHOUSE	-4977	4977	4995	COAL	NATURAL GAS	N
13249468	MENEFEE	-5060	5060	5078	COAL	NATURAL GAS	N
13249469	MANCOS	-5649	5649	7283	SHALE	OIL	Y
13249461		0					

## Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M

Rating Depth: 7283

**Equipment:** The BOP system shall have two (2) independent power sources (electric and air) available for powering the closing unit pumps. Sufficient nitrogen bottles are suitable as a backup power source only, and shall be recharged when the pressure falls below manufacturers specification. A valve shall be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative. All BOP equipment will be hydraulically operated with controls accessible both on the rig floor. The wellhead BOP equipment will be nipped-up on the 9-5/8 x 11 3,000 psi WP casing head prior to drilling out from under surface casing. All ram preventers and related equipment will be tested to 3,000 psi for 10 minutes. Annular preventers will be tested to 50% of rated working pressure for 10 minutes.

Requesting Variance? NO

Variance request:

**Testing Procedure:** Surface casing will be tested to 70% of internal yield pressure. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 14 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 week. Pipe rams will be activated daily and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Commission and the BLM will be notified 24 hours in advance of testing of BOPE and 9 5/8 slip-on / welded x 11 3,000 psi casing head.

Choke Diagram Attachment:

BOP\_20220123145928.pdf

BOP Diagram Attachment:

BOP\_20220123145936.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	16	16.0	NEW	API	N	0	60	0	7299	7349	50	60	OTHER	0	ST&C						
2	SURFACE	12	9.5	NEW	API	N	0	500	0	500	7349	6849	500	K-55	36	LT&C	1.25	1	DRY	1.6	DRY	1
3	INTERMEDIATE	8	7.0	NEW	API	N	0	7250	0	6842	7349	507	7250	J-55	26	LT&C	1.25	1	DRY	1.6	DRY	1.6
4	PRODUCTION	6	4.5	NEW	API	N	7100	11646	6819	6842	530	507	4546	P-110	11	LT&C	1.25	1	DRY	1.6	DRY	1.6

Casing Attachments

Casing ID: 1StringCONDUCTOR

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Casing Attachments

Casing ID: 2	String	SURFACE
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
Revised_BLM_drilling_plan____Lindrith_East_Deep_Unit_24_1H_20240411140147.pdf		
Casing ID: 3	String	INTERMEDIATE
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
Casing ID: 4	String	PRODUCTION
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
Revised_BLM_drilling_plan____Lindrith_East_Deep_Unit_24_1H_20240411140205.pdf		

Section 4 - Cement

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
CONDUCTOR	Lead	50	0	60	100	1.15	15.8	115		Type I Neat	2% Calcium Chloride

SURFACE	Lead		0	500	60	2.99	11.5	254		Halliburton Varicem Cement	0.125# Poly-E-Flake 0.25# Kwick Seal
SURFACE	Tail				100	1.83	13.5	183		Halliburton Varicem Cement	0.125# Poly-E-Flake 0.25# Kwick Seal
INTERMEDIATE	Lead	5060	0	5060	510	2.9	11.5	1524		Halliburton Varicem Cement	0.125# Poly-E-Flake 0.25# Kwick Seal
INTERMEDIATE	Tail		5060	7250	334	1.97	12	658		HALCEM	0.05% sa-1015 5 LBM Kol-Seal 0.125 Poly-E-Flake
PRODUCTION	Lead		7100	1164 6	250	2.63	11.5	658		Varicem Cement	0.125# Poly-E-Flake 0.25# Kwick Seal

### 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:** c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

**Describe the mud monitoring system utilized:** d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals, including fresh water and oil-based operations. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. All cutting would be placed in a roll-off bins and hauled to a commercial disposal facility or landfarm. Any waste water not utilized in the drilling process will be disposed of properly at Envirotech Environmental Disposal facility.

### Circulating Medium Table

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

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
500	7250	LOW SOLIDS NON- DISPERSED (LSND)	8.3	9.5							
7250	1164 6	LOW SOLIDS NON- DISPERSED (LSND)	8.3	9.5							
0	500	WATER-BASED MUD	8.3	9.4							

### Section 6 - Test, Logging, Coring

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

- a) Drill Stem Testing - None anticipated
- b) Coring - None anticipated.
- c) Mud Logging - Mud loggers will be on location from surface casing point to TD.
- d) Logging 8-3/4 section only

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

MUD LOG/GEOLOGICAL LITHOLOGY LOG,

**Coring operation description for the well:**

no coring anticipated

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 2449

**Anticipated Surface Pressure:** 943

**Anticipated Bottom Hole Temperature(F):** 165

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards**

**Hydrogen Sulfide drilling operations plan required?** NO

**Hydrogen sulfide drilling operations**

**Operator Name:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

LINDRITH\_EAST\_\_DEEP\_\_UNIT\_24\_1H\_Rev1\_Plan\_24Jan2022\_20220127185039.pdf

LINDRITH\_EAST\_\_DEEP\_\_UNIT\_24\_1H\_Rev1\_Plan\_24Jan2022\_20220127185103.pdf

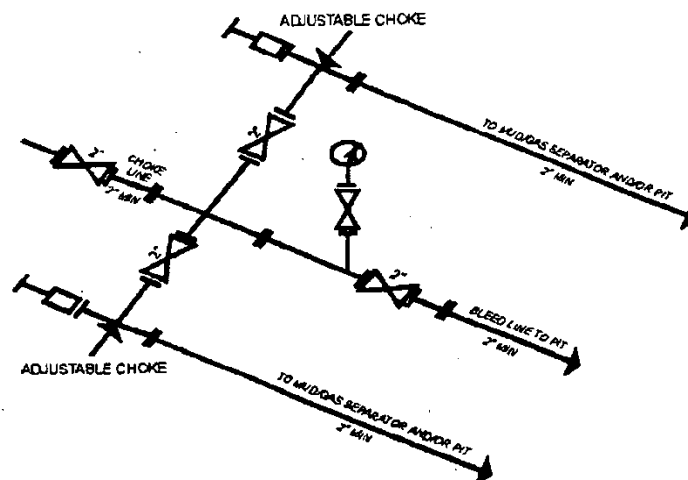
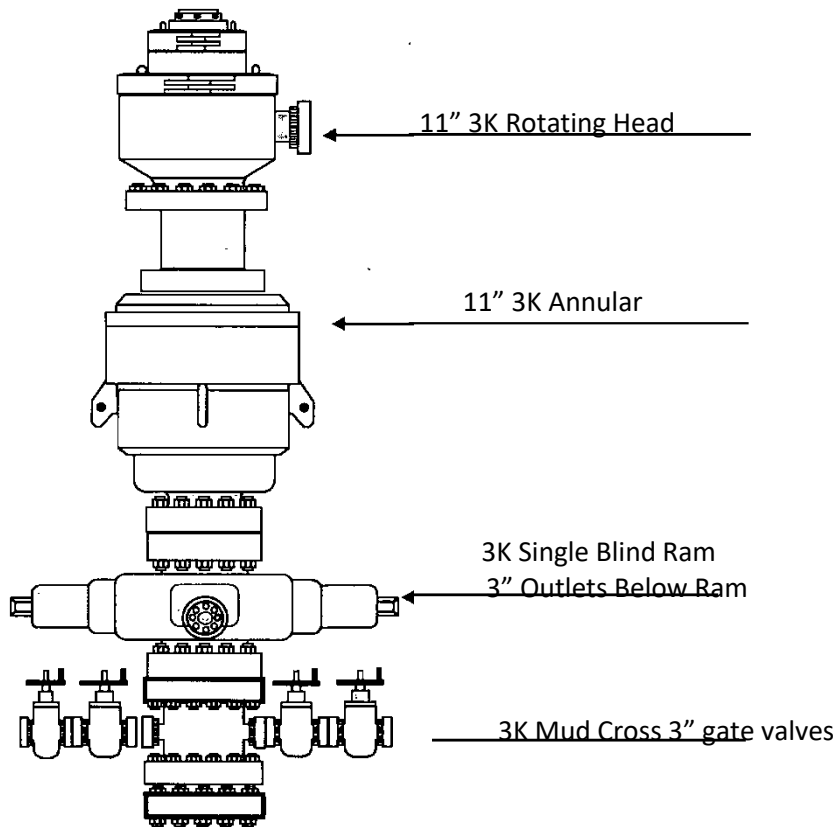
**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

**Other Variance attachment:**

# Exhibit A

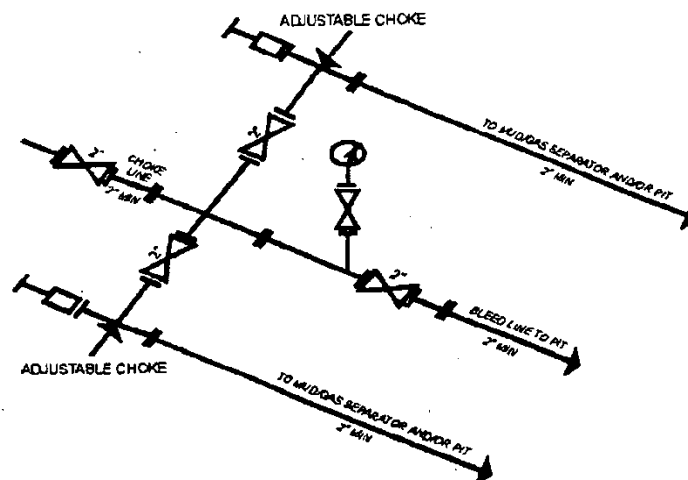
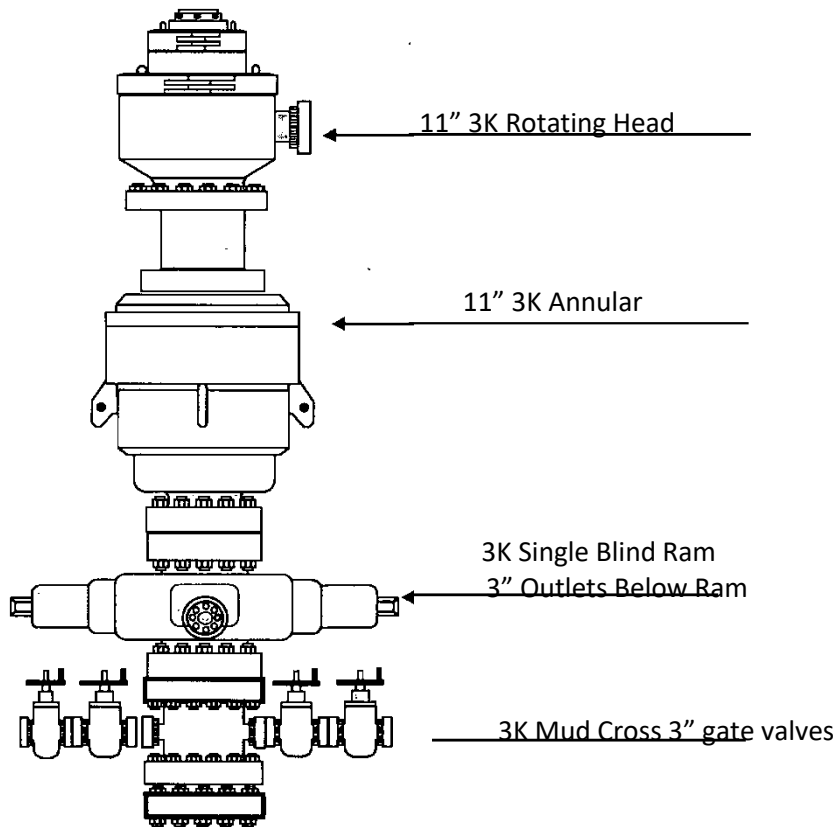
## WELLHEAD BLOWOUT CONTROL SYSTEM





# Exhibit A

## WELLHEAD BLOWOUT CONTROL SYSTEM



**Attachment To Application For Permit To Drill.  
Drilling program**

**San Juan Resources**

1499 Blake Street, Suite 10C  
Denver, Colorado 80202  
U.S.A

**LINDRITH East Deep Unit 24-1H**

Horizontal - Mancos Oil and Gas Well  
Surface Location: 2191' FSL – 783' FWL  
Section 24, T24N, R2W  
Ungraded GL Elev = 7307'  
Lat. = 36.294978 deg N  
Long. = -107.007625 deg W  
Bottom Hole Location: 100 FNL – 1835' FWL  
Section 23, T24N, R2W  
Lat. = 36.303191 deg N  
Long. = -107.021935 W  
NAD83  
Rio Arriba County, New Mexico

Drilling program written in compliance with onshore Oil and Gas Order No. 1  
(001 III.D.3, effective May 2007) and Onshore Order No. 2 Dated November 18, 1988

**Driving Directions to Location:**

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, at Farmer's Market travel Southerly on Hwy 550 for 83.65 miles to Hwy 96, Turn left (north) on Hwy 96 11.9 miles to Hwy 95, Turn left (west-northwesterly) on Hwy 95 for 10.1 miles, Turn right (easterly) on CR 394 for 0.9 miles, Stay left (northeasterly) for 1.4 miles, Turn left (northerly) for 0.1 miles, To the beginning of new access on the left (north) side of an existing field road, which continues (northerly) for 266.97' to the new well location.

**1. ESTIMATED TOPS FOR IMPORTANT GEOLOGICAL FORMATIONS**

<b><u>Formation Tops</u></b>	<b><u>Surface (TVD)</u></b>
San Jose	Surface
Ojo Alamo	2712
Fruitland Coal	3032
Pictured Cliffs	3242
Cliff House	4977
Menefee	5060
Mancos	5649
Niobrara A	6594
Niobrara B	6696
Niobrara C	6808
<b>Total Depth</b>	<b>6842</b>

**Drilling Plan**

Drill 12 1/4" hole to 500' then set 9 5/8" casing. Drill 8-3/4" vertical hole with fresh water mud system to KOP at ~ 6125'. Build 90' angle to 7250' MD/ 6842' TVD then set 7" casing. Drill 6-1/8" lateral hole to a TD of 11,646' MD/TVD 6842' and set 4-1/2" liner. Plan to cement all casing strings to surface and liner back to 7" casing.

**2. ANTICIPATED DEPTHS OF PROSPECTIVE OIL GAS AND OTHER HYDROCARBONS**

Primary objective is the Niobrara C formation encountered first at 6808' TVD.

<b><u>Substance</u></b>	<b><u>Formation</u></b>	<b><u>Top Surface (TVD)</u></b>
Water/Gas	Fruitland Coal	3032
Oil/Gas	Pictured Cliffs	3242
Oil/Gas	Cliffhouse	4977
Gas	Menefee	5060
Oil/Gas	Mancos	5649
Oil/Gas	Niobrara A	6594
Oil/Gas	Niobrara B	6696
Oil/Gas	Niobrara C	6808

All Shows of fresh water and minerals will be reported and protected.

### 3. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT

#### A. Wellhead Equipment 3000 PSI System (See Exhibit A)

1. 9 5/8" slip-on / welded x 11" 3,000 psi casing head.
2. One 11" 3,000 psi WP double-ram preventer with one (1) set of blind rams on top & one (1) set of pipe rams on bottom complete with hand wheels and extension arms.
3. The choke and kill lines will be connected to outlets between the bottom and top rams, utilizing either the ram body outlet or a drilling spool with side outlets for 2" kill line and minimum 3" choke line
4. One 11" x 3,000 psi WP Hydril GK (or equivalent) annular preventer.
5. Accumulator - Four Station Koomey (or equivalent) 120 gallon closing unit with remote, backup. The accumulator shall have sufficient capacity to open the hydraulically-controlled gate valve and close all rams plus the annular preventer, with a 50% safety factor and retain a minimum of 200 psi above the precharge on the closing manifold without the use of the closing unit pumps. The reservoir capacity shall be double the usable accumulator capacity, and the fluid level shall be maintained at the manufacturer's recommendations.
6. The BOP system shall have two (2) independent power sources (electric and air) available for powering the closing unit pumps. Sufficient nitrogen bottles are suitable as a backup power source only, and shall be recharged when the pressure falls below manufacturer's specification.
7. A valve shall be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.

All BOP equipment will be hydraulically operated with controls accessible both on the rig floor.

The wellhead BOP equipment will be nipped-up on the 9-5/8" x 11" 3,000 psi WP casing head prior to drilling out from under surface casing. All ram preventers and related equipment will be tested to 3,000 psi for 10 minutes. Annular preventers will be tested to 50% of rated working pressure for 10 minutes. Surface casing will be tested to 70% of internal yield pressure. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 14 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 week. Pipe rams will be activated daily and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE and 9 5/8" slip-on / welded x 11" 3,000 psi casing head.

### 4. PROPOSED BIT AND CASING PROGRAM

#### A. Bit Program

26" Conductor = surface to 60'  
 12-1/4" Surface Hole = Surface to 500'  
 8-3/4" Intermediate = 7250' MD  
 6-1/8" Production Liner = 11,646' MD

#### B. Casing Program – all casing strings are new casing

Casing & Hole Size	Weight	Grade	Coupling	Setting Depth (MD)	Comments
16" Conductor (26")	65 ppf	H-40	ST&C	0' - 60-ft BGL	New casing.
9-5/8" (12 1/4")	36 ppf	K-55	LT&C	0' - 500'	New casing. Cement to surface.
7" (8-3/4")	26 ppf	J55	LT&C	0' - 7250'	New Casing. Cement to surface.
4-1/2" (6-1/8")	11.6 ppf	P110	LT&C	7100' – 11,646'	New Casing Cement back to Intermediate

**Casing strings below the conductor casing will be tested to .22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield.**

Minimum casing design factors used:

Collapse -	1.125
Burst -	1.0
Jt. Strength -	1.60

### 5. PROPOSED CEMENTING PROGRAM

The proposed 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 casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported. Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed or equivalent slurries depending on service provider selected for cement operations. Actual cement yields may change depending on slurries selected. All waiting on cement times shall be a minimum of 8 hours or adequate to achieve minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

a) The proposed cementing program is as follows:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

**Conductor Casing Single Stage Job (0-60')**

100 sx of Type I Neat 16 ppg

**Surface Casing Single Stage Job – (0-500'):**

**Excess – 125% over gauge hole – 12-1/4" hole and 9-5/8" casing (0.3132 cf/ft)**

**Top of Cement - Surface**

**Lead – 60 sx (179 cf)–** 11.5 ppg, conventional cement containing:

Cement – Halliburton VARICEM CEMENT

0.125# Poly-E-Flake

0.25# Kwick Seal

Yield – 2.989 cuft/sx

**Tail - 100 sx (181 cf) –** 13.5 ppg, conventional cement containing:

Cement – Halliburton VARICEM CEMENT

0.125# Poly-E-Flake

0.25# Kwick Seal

Yield – 1.831 cuft/sx

Compressive strength: 24 hr – 1000+ psi

Total sacks of cement pumped = 160 sx (360 cf)

**Intermediate – Single Stage Job (0-7250'):**

**Excess – 100% over gauge hole – 8-3/4" hole and 7" casing (0.1503 ft3/ft)**

**Top of Cement – Surface.**

**1<sup>st</sup> Stage**

**Lead - (5060' – Surf'): 510 sx (1,524 cf) –** 11.5 ppg, conventional cement containing:

Cement – Halliburton VARICEM CEMENT

0.125# Poly-E-Flake

0.25# Kwick Seal

Yield – 2.989 cuft/sx

Compressive strength: 24 hr – 1000+ psi

**Tail - (7,250' – 5,060'): 334 sx (658 cf) –** 12.0 ppg, conventional cement containing:

Cement – Halliburton HALCEM

0.05% sa-1015

5 LBM Kol-Seal

0.125 Poly-E-Flake

Yield – 1.97 ft3/sx,

Compressive strength: 24 hr – 1500+ psi

Total sacks of cement pumped = 844 sx (2182 cf)

Cement volumes are minimums and may be adjusted based on caliper log results & hole conditions.

**Production Liner – Single Stage Job (7,100' - 11,646'):**

**Excess – 50% over gauge hole – 6-1/8" hole and 4-1/2" casing (0.0942 ft3/ft)**

**Top of Cement – Liner Hanger**

**250 sx (658 cf)** – 11.5 ppg, conventional cement containing:  
 Cement – Halliburton VARICEM CEMENT  
 0.125# Poly-E-Flake  
 0.25# Kwick Seal  
 Yield – 2.63 cuft/sx

Compressive strength: 24 hr – 1000+ psi

Total sacks of cement pumped = 250 sx (658 cf)

## 6. PROPOSED DRILLING FLUIDS PROGRAM

a) Surface through intermediate casing point

Hole Size (in)	TVD/MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
12 1/4"	0-500'	Fresh Water	8.3-9.4	28-42	NC
8-3/4"	500'-6842'/7250'	Fresh Water LSND	8.3-9.5	40 - 50	6-8.5

b) Intermediate casing point to TD.

Hole Size (in)	TVD/MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
6-18"	6842'/7250' – 6842'/11646'	Fresh Water LSND	8.3-9.5	15-25	6 – 8

c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 12 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Drill cuttings will be dried and stored onsite until they are hauled to an NMOC approved facility for disposal. Any waste water not utilized in the drilling process will be disposed of properly at TnT Environmental Disposal facility or another approved facility.

## 7. TESTING, CORING and LOGGING

- a) Drill Stem Testing - None anticipated
- b) Coring - None anticipated.
- c) Mud Logging – Mud loggers will be on location from surface casing point to TD.
- d) Logging Program: 8-3/4" section only. CBL/GR for Depth Control

## 8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The maximum anticipated bottom hole pressure is +/- 2449 psi based on a 9.0 ppg at 6842' (Total Depth - TVD). No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H<sub>2</sub>S is encountered, the guidelines in Onshore Order No. 6 will be followed.

## 9. COMPLETION AND PRODUCTION PLANS

**Frac:** Lateral will be hydraulically fractured in approximately 25 plug and perf stages with approximately 50,000 bbls of gelled water in 70 Quality Nitrogen Foam and 8,400,000 lbs of proppant (actual design will be modified once the lateral has been drilled, cased and cemented).

**Flowback:** Well will be flowed back through tubing and captured at the surface via sand separators, flowback manifolds, flowback tanks and related surface equipment, designed to minimize emissions and waste.

**Production:** Well will be produced up production tubing via gas lift into the permanent production and storage facilities.

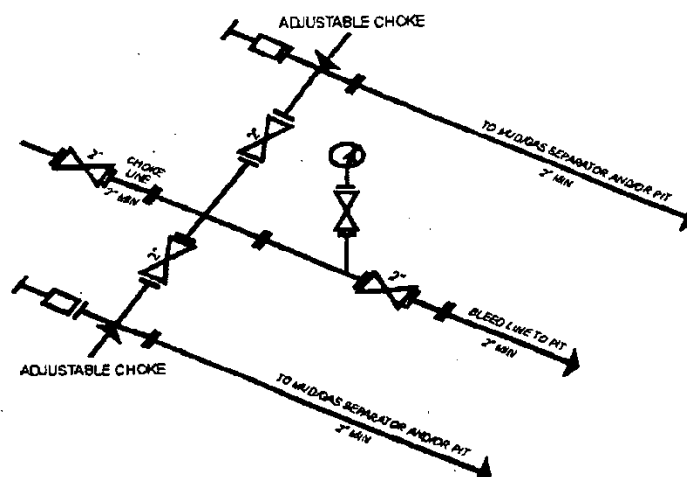
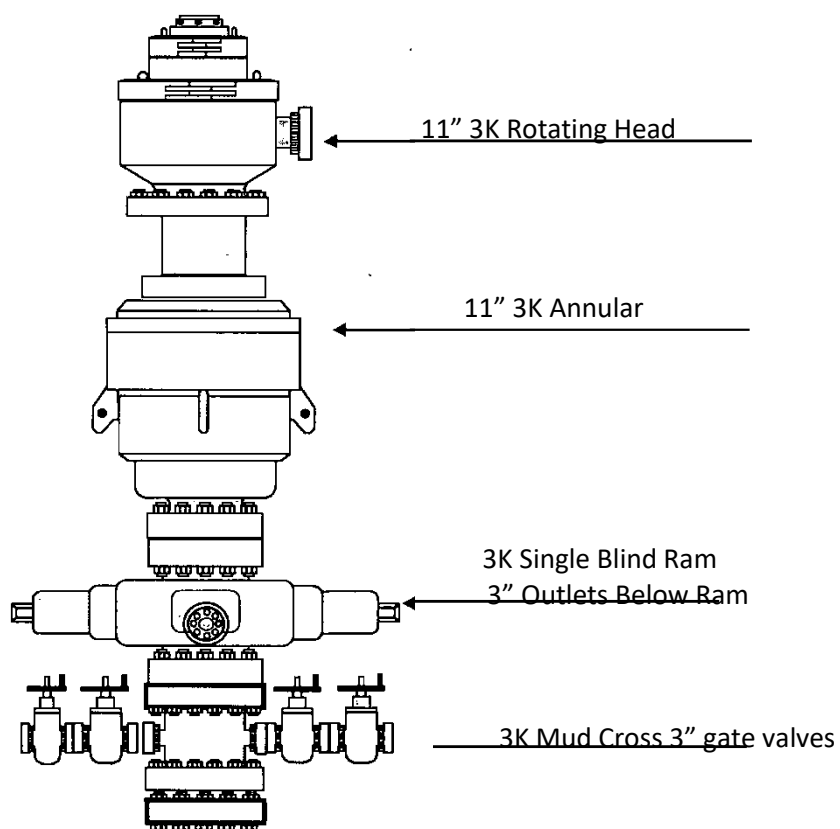
## 10. ANTICIPATED START DATE AND DURATION OF OPERATIONS

Drilling is estimated to commence on April 1, 2023. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 15 days.

## **Exhibit A**

## WELLHEAD BLOWOUT CONTROL SYSTEM





**Attachment To Application For Permit To Drill.  
Drilling program**

**San Juan Resources**

1499 Blake Street, Suite 10C  
Denver, Colorado 80202  
U.S.A

**LINDRITH East Deep Unit 24-1H**

Horizontal - Mancos Oil and Gas Well  
Surface Location: 2191' FSL – 783' FWL  
Section 24, T24N, R2W  
Ungraded GL Elev = 7307'  
Lat. = 36.294978 deg N  
Long. = -107.007625 deg W  
Bottom Hole Location: 100 FNL – 1835' FWL  
Section 23, T24N, R2W  
Lat. = 36.303191 deg N  
Long. = -107.021935 W  
NAD83  
Rio Arriba County, New Mexico

Drilling program written in compliance with onshore Oil and Gas Order No. 1  
(001 III.D.3, effective May 2007) and Onshore Order No. 2 Dated November 18, 1988

**Driving Directions to Location:**

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, at Farmer's Market travel Southerly on Hwy 550 for 83.65 miles to Hwy 96, Turn left (north) on Hwy 96 11.9 miles to Hwy 95, Turn left (west-northwesterly) on Hwy 95 for 10.1 miles, Turn right (easterly) on CR 394 for 0.9 miles, Stay left (northeasterly) for 1.4 miles, Turn left (northerly) for 0.1 miles, To the beginning of new access on the left (north) side of an existing field road, which continues (northerly) for 266.97' to the new well location.

**1. ESTIMATED TOPS FOR IMPORTANT GEOLOGICAL FORMATIONS**

<b><u>Formation Tops</u></b>	<b><u>Surface (TVD)</u></b>
San Jose	Surface
Ojo Alamo	2712
Fruitland Coal	3032
Pictured Cliffs	3242
Cliff House	4977
Menefee	5060
Mancos	5649
Niobrara A	6594
Niobrara B	6696
Niobrara C	6808
<b>Total Depth</b>	<b>6842</b>

**Drilling Plan**

Drill 12 1/4" hole to 500' then set 9 5/8" casing. Drill 8-3/4" vertical hole with fresh water mud system to KOP at ~ 6125'. Build 90' angle to 7250' MD/ 6842' TVD then set 7" casing. Drill 6-1/8" lateral hole to a TD of 11,646' MD/TVD 6842' and set 4-1/2" liner. Plan to cement all casing strings to surface and liner back to 7" casing.

**2. ANTICIPATED DEPTHS OF PROSPECTIVE OIL GAS AND OTHER HYDROCARBONS**

Primary objective is the Niobrara C formation encountered first at 6808' TVD.

<b><u>Substance</u></b>	<b><u>Formation</u></b>	<b><u>Top Surface (TVD)</u></b>
Water/Gas	Fruitland Coal	3032
Oil/Gas	Pictured Cliffs	3242
Oil/Gas	Cliffhouse	4977
Gas	Menefee	5060
Oil/Gas	Mancos	5649
Oil/Gas	Niobrara A	6594
Oil/Gas	Niobrara B	6696
Oil/Gas	Niobrara C	6808

All Shows of fresh water and minerals will be reported and protected.

### 3. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT

#### A. Wellhead Equipment 3000 PSI System (See Exhibit A)

1. 9 5/8" slip-on / welded x 11" 3,000 psi casing head.
2. One 11" 3,000 psi WP double-ram preventer with one (1) set of blind rams on top & one (1) set of pipe rams on bottom complete with hand wheels and extension arms.
3. The choke and kill lines will be connected to outlets between the bottom and top rams, utilizing either the ram body outlet or a drilling spool with side outlets for 2" kill line and minimum 3" choke line
4. One 11" x 3,000 psi WP Hydril GK (or equivalent) annular preventer.
5. Accumulator - Four Station Koomey (or equivalent) 120 gallon closing unit with remote, backup. The accumulator shall have sufficient capacity to open the hydraulically-controlled gate valve and close all rams plus the annular preventer, with a 50% safety factor and retain a minimum of 200 psi above the precharge on the closing manifold without the use of the closing unit pumps. The reservoir capacity shall be double the usable accumulator capacity, and the fluid level shall be maintained at the manufacturer's recommendations.
6. The BOP system shall have two (2) independent power sources (electric and air) available for powering the closing unit pumps. Sufficient nitrogen bottles are suitable as a backup power source only, and shall be recharged when the pressure falls below manufacturer's specification.
7. A valve shall be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.

All BOP equipment will be hydraulically operated with controls accessible both on the rig floor.

The wellhead BOP equipment will be nipped-up on the 9-5/8" x 11" 3,000 psi WP casing head prior to drilling out from under surface casing. All ram preventers and related equipment will be tested to 3,000 psi for 10 minutes. Annular preventers will be tested to 50% of rated working pressure for 10 minutes. Surface casing will be tested to 70% of internal yield pressure. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 14 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 week. Pipe rams will be activated daily and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE and 9 5/8" slip-on / welded x 11" 3,000 psi casing head.

### 4. PROPOSED BIT AND CASING PROGRAM

#### A. Bit Program

26" Conductor = surface to 60'  
 12-1/4" Surface Hole = Surface to 500'  
 8-3/4" Intermediate = 7250' MD  
 6-1/8" Production Liner = 11,646' MD

#### B. Casing Program – all casing strings are new casing

Casing & Hole Size	Weight	Grade	Coupling	Setting Depth (MD)	Comments
16" Conductor (26")	65 ppf	H-40	ST&C	0' - 60-ft BGL	New casing.
9-5/8" (12 1/4")	36 ppf	K-55	LT&C	0' - 500'	New casing. Cement to surface.
7" (8-3/4")	26 ppf	J55	LT&C	0' - 7250'	New Casing. Cement to surface.
4-1/2" (6-1/8")	11.6 ppf	P110	LT&C	7100' – 11,646'	New Casing Cement back to Intermediate

**Casing strings below the conductor casing will be tested to .22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield.**

Minimum casing design factors used:

Collapse -	1.125
Burst -	1.0
Jt. Strength -	1.60

### 5. PROPOSED CEMENTING PROGRAM

The proposed 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 casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported. Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed or equivalent slurries depending on service provider selected for cement operations. Actual cement yields may change depending on slurries selected. All waiting on cement times shall be a minimum of 8 hours or adequate to achieve minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

a) The proposed cementing program is as follows:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

**Conductor Casing Single Stage Job (0-60')**

100 sx of Type I Neat 16 ppg

**Surface Casing Single Stage Job – (0-500'):**

**Excess – 125% over gauge hole – 12-1/4" hole and 9-5/8" casing (0.3132 cf/ft)**

**Top of Cement - Surface**

**Lead – 60 sx (179 cf)–** 11.5 ppg, conventional cement containing:

Cement – Halliburton VARICEM CEMENT

0.125# Poly-E-Flake

0.25# Kwick Seal

Yield – 2.989 cuft/sx

**Tail - 100 sx (181 cf) –** 13.5 ppg, conventional cement containing:

Cement – Halliburton VARICEM CEMENT

0.125# Poly-E-Flake

0.25# Kwick Seal

Yield – 1.831 cuft/sx

Compressive strength: 24 hr – 1000+ psi

Total sacks of cement pumped = 160 sx (360 cf)

**Intermediate – Single Stage Job (0-7250'):**

**Excess – 100% over gauge hole – 8-3/4" hole and 7" casing (0.1503 ft3/ft)**

**Top of Cement – Surface.**

**1<sup>st</sup> Stage**

**Lead - (5060' – Surf'): 510 sx (1,524 cf) –** 11.5 ppg, conventional cement containing:

Cement – Halliburton VARICEM CEMENT

0.125# Poly-E-Flake

0.25# Kwick Seal

Yield – 2.989 cuft/sx

Compressive strength: 24 hr – 1000+ psi

**Tail - (7,250' – 5,060'): 334 sx (658 cf) –** 12.0 ppg, conventional cement containing:

Cement – Halliburton HALCEM

0.05% sa-1015

5 LBM Kol-Seal

0.125 Poly-E-Flake

Yield – 1.97 ft3/sx,

Compressive strength: 24 hr – 1500+ psi

Total sacks of cement pumped = 844 sx (2182 cf)

Cement volumes are minimums and may be adjusted based on caliper log results & hole conditions.

**Production Liner – Single Stage Job (7,100' - 11,646'):**

**Excess – 50% over gauge hole – 6-1/8" hole and 4-1/2" casing (0.0942 ft3/ft)**

**Top of Cement – Liner Hanger**

**250 sx (658 cf)** – 11.5 ppg, conventional cement containing:  
 Cement – Halliburton VARICEM CEMENT  
 0.125# Poly-E-Flake  
 0.25# Kwick Seal  
 Yield – 2.63 cuft/sx

Compressive strength: 24 hr – 1000+ psi

Total sacks of cement pumped = 250 sx (658 cf)

## 6. PROPOSED DRILLING FLUIDS PROGRAM

a) Surface through intermediate casing point

Hole Size (in)	TVD/MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
12 1/4"	0-500'	Fresh Water	8.3-9.4	28-42	NC
8-3/4"	500'-6842'/7250'	Fresh Water LSND	8.3-9.5	40 - 50	6-8.5

b) Intermediate casing point to TD.

Hole Size (in)	TVD/MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
6-18"	6842'/7250' – 6842'/11646'	Fresh Water LSND	8.3-9.5	15-25	6 – 8

c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 12 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Drill cuttings will be dried and stored onsite until they are hauled to an NMOCD approved facility for disposal. Any waste water not utilized in the drilling process will be disposed of properly at TnT Environmental Disposal facility or another approved facility.

## 7. TESTING, CORING and LOGGING

- a) Drill Stem Testing - None anticipated
- b) Coring - None anticipated.
- c) Mud Logging – Mud loggers will be on location from surface casing point to TD.
- d) Logging Program: 8-3/4" section only. CBL/GR for Depth Control

## 8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

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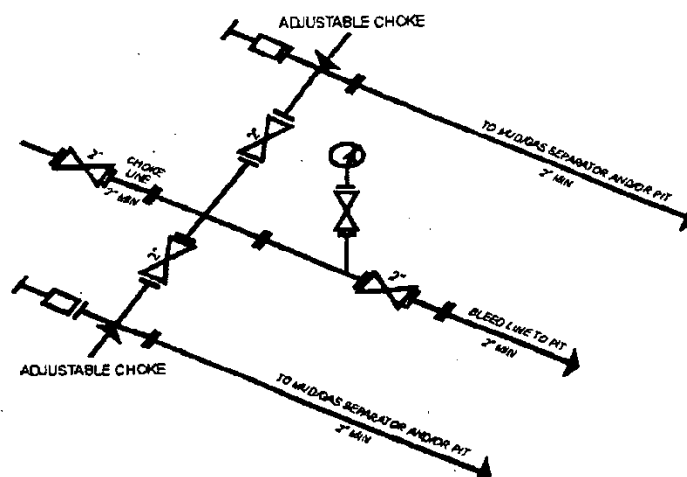
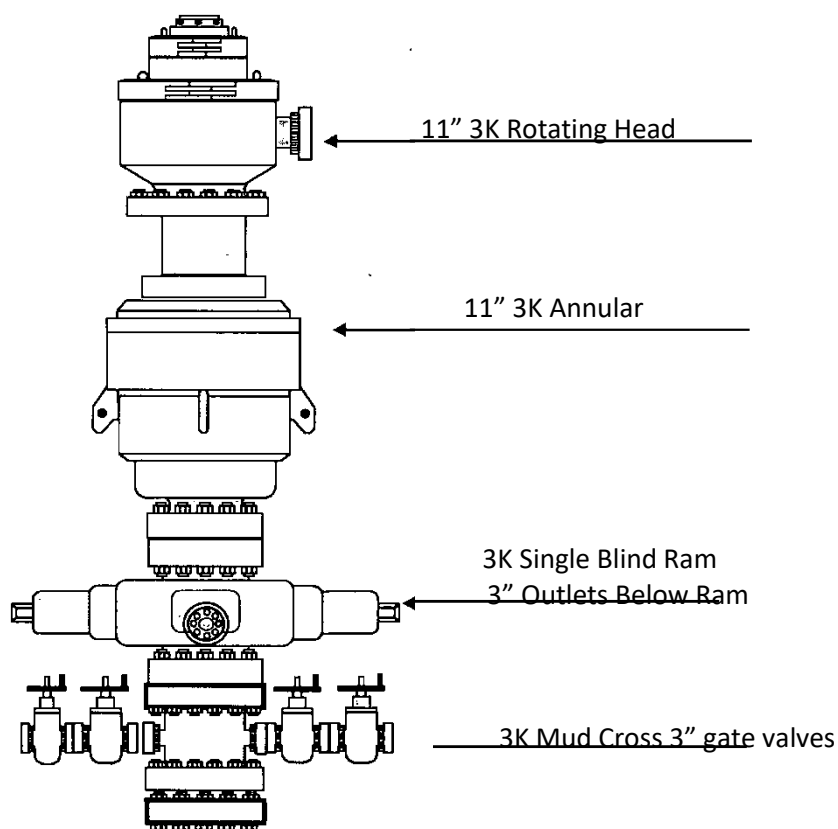
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Drilling is estimated to commence on April 1, 2023. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 15 days.

## **Exhibit A**

## WELLHEAD BLOWOUT CONTROL SYSTEM





# San Juan Resources

Rio Arriba County, NM

24N 02W SEC 24

LINDRITH EAST (DEEP) UNIT 24-1H

Original Hole

Plan: Rev 1

## Standard Planning Report

24 January, 2022









Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 1		

<b>Project</b>	Rio Arriba Counrty, NM		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Central Zone		Using geodetic scale factor

<b>Site</b>	24N 02W SEC 24			
<b>Site Position:</b>		<b>Northing:</b>	1,927,513.26 usft	<b>Latitude:</b> 36.294978
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,417,160.03 usft	<b>Longitude:</b> -107.007625
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> -0.45 °

<b>Well</b>	LINDRITH EAST (DEEP) UNIT 24-1H, 24N 02W SEC 24 NWSW			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,927,513.26 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	1,417,160.03 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	7,307.00 usft
			<b>Ground Level:</b>	7,307.00 usft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	12/08/21	8.43	63.03	49,394
	IGRF2020	01/24/23	8.32	62.89	49,270

<b>Design</b>	Rev 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	305.34

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,771.61	7.07	229.25	2,770.41	-18.98	-22.03	1.50	1.50	0.00	229.25	
6,170.46	7.07	229.25	6,143.39	-292.21	-339.14	0.00	0.00	0.00	0.00	
7,283.13	90.00	311.22	6,842.00	115.06	-934.36	8.00	7.45	7.37	82.03	LINDRITH E UNIT 24
11,646.79	90.00	311.22	6,842.00	2,990.31	-4,216.81	0.00	0.00	0.00	0.00	LINDRITH E UNIT 24



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 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
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
<b>9 5/8" Csg</b>									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Build 1.5°/100 DLS</b>									
2,400.00	1.50	229.25	2,399.98	-0.85	-0.99	0.31	1.50	1.50	0.00
2,500.00	3.00	229.25	2,499.90	-3.42	-3.97	1.26	1.50	1.50	0.00
2,599.99	4.50	229.25	2,599.69	-7.69	-8.92	2.83	1.50	1.50	0.00
2,699.99	6.00	229.25	2,699.26	-13.66	-15.85	5.03	1.50	1.50	0.00
2,712.80	6.19	229.25	2,712.00	-14.55	-16.88	5.36	1.50	1.50	0.00
<b>Ojo Alamo</b>									
2,771.61	7.07	229.25	2,770.41	-18.98	-22.03	6.99	1.50	1.50	0.00
<b>Hold INC</b>									
2,799.99	7.07	229.25	2,798.58	-21.26	-24.68	7.83	0.00	0.00	0.00
2,899.99	7.07	229.25	2,897.82	-29.30	-34.01	10.79	0.00	0.00	0.00
2,999.99	7.07	229.25	2,997.06	-37.34	-43.34	13.75	0.00	0.00	0.00
3,035.20	7.07	229.25	3,032.00	-40.17	-46.62	14.79	0.00	0.00	0.00
<b>Fruitland Coal</b>									
3,099.99	7.07	229.25	3,096.30	-45.38	-52.67	16.71	0.00	0.00	0.00
3,199.99	7.07	229.25	3,195.54	-53.42	-62.00	19.67	0.00	0.00	0.00
3,246.81	7.07	229.25	3,242.00	-57.18	-66.36	21.06	0.00	0.00	0.00
<b>Pictured Cliff Ss</b>									
3,299.99	7.07	229.25	3,294.77	-61.46	-71.33	22.63	0.00	0.00	0.00
3,399.99	7.07	229.25	3,394.01	-69.49	-80.66	25.59	0.00	0.00	0.00
3,499.99	7.07	229.25	3,493.25	-77.53	-89.99	28.55	0.00	0.00	0.00
3,599.99	7.07	229.25	3,592.49	-85.57	-99.32	31.51	0.00	0.00	0.00
3,699.99	7.07	229.25	3,691.73	-93.61	-108.65	34.47	0.00	0.00	0.00
3,799.99	7.07	229.25	3,790.97	-101.65	-117.98	37.43	0.00	0.00	0.00
3,899.99	7.07	229.25	3,890.21	-109.69	-127.31	40.40	0.00	0.00	0.00
3,999.99	7.07	229.25	3,989.44	-117.73	-136.64	43.36	0.00	0.00	0.00
4,099.99	7.07	229.25	4,088.68	-125.77	-145.97	46.32	0.00	0.00	0.00
4,199.99	7.07	229.25	4,187.92	-133.80	-155.30	49.28	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 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)
4,299.99	7.07	229.25	4,287.16	-141.84	-164.63	52.24	0.00	0.00	0.00
4,399.99	7.07	229.25	4,386.40	-149.88	-173.96	55.20	0.00	0.00	0.00
4,499.99	7.07	229.25	4,485.64	-157.92	-183.28	58.16	0.00	0.00	0.00
4,599.99	7.07	229.25	4,584.88	-165.96	-192.61	61.12	0.00	0.00	0.00
4,699.99	7.07	229.25	4,684.11	-174.00	-201.94	64.08	0.00	0.00	0.00
4,799.99	7.07	229.25	4,783.35	-182.04	-211.27	67.04	0.00	0.00	0.00
4,899.99	7.07	229.25	4,882.59	-190.08	-220.60	70.00	0.00	0.00	0.00
4,995.12	7.07	229.25	4,977.00	-197.72	-229.48	72.82	0.00	0.00	0.00
Cliff House									
4,999.99	7.07	229.25	4,981.83	-198.11	-229.93	72.96	0.00	0.00	0.00
5,078.76	7.07	229.25	5,060.00	-204.45	-237.28	75.29	0.00	0.00	0.00
Menefee									
5,099.99	7.07	229.25	5,081.07	-206.15	-239.26	75.92	0.00	0.00	0.00
5,199.99	7.07	229.25	5,180.31	-214.19	-248.59	78.88	0.00	0.00	0.00
5,299.99	7.07	229.25	5,279.55	-222.23	-257.92	81.84	0.00	0.00	0.00
5,399.99	7.07	229.25	5,378.78	-230.27	-267.25	84.80	0.00	0.00	0.00
5,499.99	7.07	229.25	5,478.02	-238.31	-276.58	87.76	0.00	0.00	0.00
5,599.99	7.07	229.25	5,577.26	-246.35	-285.91	90.72	0.00	0.00	0.00
5,672.28	7.07	229.25	5,649.00	-252.16	-292.66	92.86	0.00	0.00	0.00
Mancos									
5,699.99	7.07	229.25	5,676.50	-254.39	-295.24	93.68	0.00	0.00	0.00
5,799.99	7.07	229.25	5,775.74	-262.43	-304.57	96.64	0.00	0.00	0.00
5,899.99	7.07	229.25	5,874.98	-270.46	-313.90	99.60	0.00	0.00	0.00
5,999.99	7.07	229.25	5,974.21	-278.50	-323.23	102.56	0.00	0.00	0.00
6,099.99	7.07	229.25	6,073.45	-286.54	-332.56	105.53	0.00	0.00	0.00
6,170.46	7.07	229.25	6,143.39	-292.21	-339.14	107.61	0.00	0.00	0.00
KOP, Build 8°/100 DLS									
6,199.99	7.76	246.85	6,172.67	-294.18	-342.35	109.09	8.00	2.33	59.59
6,299.99	13.31	279.93	6,271.03	-294.85	-359.93	123.04	8.00	5.55	33.08
6,399.99	20.53	292.06	6,366.67	-286.26	-387.57	150.55	8.00	7.22	12.13
6,499.99	28.16	297.95	6,457.72	-268.58	-424.73	191.09	8.00	7.63	5.89
6,599.99	35.95	301.46	6,542.41	-242.16	-470.69	243.87	8.00	7.78	3.51
6,665.96	41.12	303.13	6,594.00	-220.19	-505.39	284.89	8.00	7.84	2.52
Mancos Niobrara A									
6,699.99	43.80	303.85	6,619.10	-207.51	-524.55	307.85	8.00	7.87	2.14
6,799.99	51.69	305.65	6,686.30	-165.30	-585.27	381.80	8.00	7.89	1.79
6,815.86	52.94	305.89	6,696.00	-157.95	-595.46	394.36	8.00	7.90	1.56
Mancos Niobrara B									
6,899.99	59.60	307.08	6,742.68	-116.35	-651.67	464.27	8.00	7.91	1.41
6,999.99	67.53	308.30	6,787.17	-61.62	-722.44	553.66	8.00	7.93	1.22
7,060.72	72.34	308.98	6,808.00	-26.00	-766.99	610.60	8.00	7.93	1.11
Mancos Niobrara C									
7,099.99	75.46	309.39	6,818.89	-2.17	-796.22	648.24	8.00	7.94	1.06
7,199.99	83.40	310.40	6,837.22	60.84	-871.58	746.15	8.00	7.94	1.01
7,283.13	90.00	311.22	6,842.00	115.06	-934.37	828.73	8.00	7.94	0.98
Landing Tgt / AP - Mancos Niobrara C Target - 7" Csg									
7,299.99	90.00	311.22	6,842.00	126.16	-947.04	845.50	0.00	0.00	0.00
7,399.99	90.00	311.22	6,842.00	192.05	-1,022.27	944.97	0.00	0.00	0.00
7,499.99	90.00	311.22	6,842.00	257.95	-1,097.49	1,044.45	0.00	0.00	0.00
7,599.98	90.00	311.22	6,842.00	323.84	-1,172.71	1,143.92	0.00	0.00	0.00
7,699.98	90.00	311.22	6,842.00	389.73	-1,247.93	1,243.40	0.00	0.00	0.00
7,799.98	90.00	311.22	6,842.00	455.62	-1,323.16	1,342.87	0.00	0.00	0.00
7,899.98	90.00	311.22	6,842.00	521.51	-1,398.38	1,442.35	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 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)
7,999.98	90.00	311.22	6,842.00	587.40	-1,473.60	1,541.82	0.00	0.00	0.00
8,099.98	90.00	311.22	6,842.00	653.29	-1,548.82	1,641.29	0.00	0.00	0.00
8,199.98	90.00	311.22	6,842.00	719.18	-1,624.04	1,740.77	0.00	0.00	0.00
8,299.98	90.00	311.22	6,842.00	785.07	-1,699.27	1,840.24	0.00	0.00	0.00
8,399.98	90.00	311.22	6,842.00	850.96	-1,774.49	1,939.72	0.00	0.00	0.00
8,499.98	90.00	311.22	6,842.00	916.85	-1,849.71	2,039.19	0.00	0.00	0.00
8,599.98	90.00	311.22	6,842.00	982.74	-1,924.93	2,138.67	0.00	0.00	0.00
8,699.98	90.00	311.22	6,842.00	1,048.63	-2,000.15	2,238.14	0.00	0.00	0.00
8,799.98	90.00	311.22	6,842.00	1,114.52	-2,075.38	2,337.62	0.00	0.00	0.00
8,899.98	90.00	311.22	6,842.00	1,180.42	-2,150.60	2,437.09	0.00	0.00	0.00
8,999.98	90.00	311.22	6,842.00	1,246.31	-2,225.82	2,536.57	0.00	0.00	0.00
9,099.98	90.00	311.22	6,842.00	1,312.20	-2,301.04	2,636.04	0.00	0.00	0.00
9,199.98	90.00	311.22	6,842.00	1,378.09	-2,376.27	2,735.52	0.00	0.00	0.00
9,299.98	90.00	311.22	6,842.00	1,443.98	-2,451.49	2,834.99	0.00	0.00	0.00
9,399.98	90.00	311.22	6,842.00	1,509.87	-2,526.71	2,934.46	0.00	0.00	0.00
9,499.98	90.00	311.22	6,842.00	1,575.76	-2,601.93	3,033.94	0.00	0.00	0.00
9,599.98	90.00	311.22	6,842.00	1,641.65	-2,677.15	3,133.41	0.00	0.00	0.00
9,699.98	90.00	311.22	6,842.00	1,707.54	-2,752.38	3,232.89	0.00	0.00	0.00
9,799.98	90.00	311.22	6,842.00	1,773.43	-2,827.60	3,332.36	0.00	0.00	0.00
9,899.98	90.00	311.22	6,842.00	1,839.32	-2,902.82	3,431.84	0.00	0.00	0.00
9,999.98	90.00	311.22	6,842.00	1,905.21	-2,978.04	3,531.31	0.00	0.00	0.00
10,099.98	90.00	311.22	6,842.00	1,971.10	-3,053.27	3,630.79	0.00	0.00	0.00
10,199.98	90.00	311.22	6,842.00	2,036.99	-3,128.49	3,730.26	0.00	0.00	0.00
10,299.98	90.00	311.22	6,842.00	2,102.89	-3,203.71	3,829.74	0.00	0.00	0.00
10,399.98	90.00	311.22	6,842.00	2,168.78	-3,278.93	3,929.21	0.00	0.00	0.00
10,499.98	90.00	311.22	6,842.00	2,234.67	-3,354.15	4,028.69	0.00	0.00	0.00
10,599.98	90.00	311.22	6,842.00	2,300.56	-3,429.38	4,128.16	0.00	0.00	0.00
10,699.98	90.00	311.22	6,842.00	2,366.45	-3,504.60	4,227.63	0.00	0.00	0.00
10,799.98	90.00	311.22	6,842.00	2,432.34	-3,579.82	4,327.11	0.00	0.00	0.00
10,899.98	90.00	311.22	6,842.00	2,498.23	-3,655.04	4,426.58	0.00	0.00	0.00
10,999.98	90.00	311.22	6,842.00	2,564.12	-3,730.26	4,526.06	0.00	0.00	0.00
11,099.98	90.00	311.22	6,842.00	2,630.01	-3,805.49	4,625.53	0.00	0.00	0.00
11,199.98	90.00	311.22	6,842.00	2,695.90	-3,880.71	4,725.01	0.00	0.00	0.00
11,299.98	90.00	311.22	6,842.00	2,761.79	-3,955.93	4,824.48	0.00	0.00	0.00
11,399.98	90.00	311.22	6,842.00	2,827.68	-4,031.15	4,923.96	0.00	0.00	0.00
11,499.98	90.00	311.22	6,842.00	2,893.57	-4,106.38	5,023.43	0.00	0.00	0.00
11,599.98	90.00	311.22	6,842.00	2,959.46	-4,181.60	5,122.91	0.00	0.00	0.00
11,645.79	90.00	311.22	6,842.00	2,989.65	-4,216.06	5,168.48	0.00	0.00	0.00
<b>PBHL/TD</b>									
11,646.79	90.00	311.22	6,842.00	2,990.31	-4,216.81	5,169.47	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
LINDRITH E UNIT 24-1H	0.00	359.54	6,842.00	2,990.31	-4,216.81	1,930,536.36	1,412,966.94	36.303191	-107.021935
- plan hits target center									
- Point									
LINDRITH E UNIT 24-1H	0.00	359.54	6,842.00	115.06	-934.36	1,927,635.62	1,416,226.64	36.295294	-107.010796
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
500.00	500.00	9 5/8" Csg	9-5/8	12-1/4	
7,283.13	6,842.00	7" Csg	7	8-3/4	
11,646.79	6,842.00	4 1/2" Liner	4-1/2	6-1/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,712.80	2,712.00	Ojo Alamo			
3,035.20	3,032.00	Fruitland Coal			
3,246.81	3,242.00	Pictured Cliff Ss			
4,995.12	4,977.00	Cliff House			
5,078.76	5,060.00	Menefee			
5,672.28	5,649.00	Mancos			
6,665.96	6,594.00	Mancos Niobrara A			
6,815.86	6,696.00	Mancos Niobrara B			
7,060.72	6,808.00	Mancos Niobrara C			
7,283.13	6,842.00	Mancos Niobrara C Target			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,300.00	2,300.00	0.00	0.00	Build 1.5°/100 DLS	
2,771.61	2,770.41	-18.98	-22.03	Hold INC	
6,170.46	6,143.39	-292.21	-339.14	KOP, Build 8°/100 DLS	
7,283.13	6,842.00	115.06	-934.37	Landing Tgt / AP	
11,645.79	6,842.00	2,989.65	-4,216.06	PBHL/TD	





# **San Juan Resources**

**Rio Arriba County, NM**

**24N 02W SEC 24**

**LINDRITH EAST (DEEP) UNIT 24-1H**

**Original Hole**

**Plan: Rev 1**

## **Standard Planning Report**

**24 January, 2022**







Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 1		

<b>Project</b>	Rio Arriba Counrty, NM		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Central Zone		Using geodetic scale factor

<b>Site</b>	24N 02W SEC 24			
<b>Site Position:</b>		<b>Northing:</b>	1,927,513.26 usft	<b>Latitude:</b> 36.294978
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,417,160.03 usft	<b>Longitude:</b> -107.007625
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> -0.45 °

<b>Well</b>	LINDRITH EAST (DEEP) UNIT 24-1H, 24N 02W SEC 24 NWSW			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,927,513.26 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	1,417,160.03 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	7,307.00 usft
			<b>Ground Level:</b>	7,307.00 usft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	12/08/21	8.43	63.03	49,394
	IGRF2020	01/24/23	8.32	62.89	49,270

<b>Design</b>	Rev 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	305.34

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,771.61	7.07	229.25	2,770.41	-18.98	-22.03	1.50	1.50	0.00	229.25	
6,170.46	7.07	229.25	6,143.39	-292.21	-339.14	0.00	0.00	0.00	0.00	
7,283.13	90.00	311.22	6,842.00	115.06	-934.36	8.00	7.45	7.37	82.03	LINDRITH E UNIT 24
11,646.79	90.00	311.22	6,842.00	2,990.31	-4,216.81	0.00	0.00	0.00	0.00	LINDRITH E UNIT 24



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 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
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
<b>9 5/8" Csg</b>									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Build 1.5°/100 DLS</b>									
2,400.00	1.50	229.25	2,399.98	-0.85	-0.99	0.31	1.50	1.50	0.00
2,500.00	3.00	229.25	2,499.90	-3.42	-3.97	1.26	1.50	1.50	0.00
2,599.99	4.50	229.25	2,599.69	-7.69	-8.92	2.83	1.50	1.50	0.00
2,699.99	6.00	229.25	2,699.26	-13.66	-15.85	5.03	1.50	1.50	0.00
2,712.80	6.19	229.25	2,712.00	-14.55	-16.88	5.36	1.50	1.50	0.00
<b>Ojo Alamo</b>									
2,771.61	7.07	229.25	2,770.41	-18.98	-22.03	6.99	1.50	1.50	0.00
<b>Hold INC</b>									
2,799.99	7.07	229.25	2,798.58	-21.26	-24.68	7.83	0.00	0.00	0.00
2,899.99	7.07	229.25	2,897.82	-29.30	-34.01	10.79	0.00	0.00	0.00
2,999.99	7.07	229.25	2,997.06	-37.34	-43.34	13.75	0.00	0.00	0.00
3,035.20	7.07	229.25	3,032.00	-40.17	-46.62	14.79	0.00	0.00	0.00
<b>Fruitland Coal</b>									
3,099.99	7.07	229.25	3,096.30	-45.38	-52.67	16.71	0.00	0.00	0.00
3,199.99	7.07	229.25	3,195.54	-53.42	-62.00	19.67	0.00	0.00	0.00
3,246.81	7.07	229.25	3,242.00	-57.18	-66.36	21.06	0.00	0.00	0.00
<b>Pictured Cliff Ss</b>									
3,299.99	7.07	229.25	3,294.77	-61.46	-71.33	22.63	0.00	0.00	0.00
3,399.99	7.07	229.25	3,394.01	-69.49	-80.66	25.59	0.00	0.00	0.00
3,499.99	7.07	229.25	3,493.25	-77.53	-89.99	28.55	0.00	0.00	0.00
3,599.99	7.07	229.25	3,592.49	-85.57	-99.32	31.51	0.00	0.00	0.00
3,699.99	7.07	229.25	3,691.73	-93.61	-108.65	34.47	0.00	0.00	0.00
3,799.99	7.07	229.25	3,790.97	-101.65	-117.98	37.43	0.00	0.00	0.00
3,899.99	7.07	229.25	3,890.21	-109.69	-127.31	40.40	0.00	0.00	0.00
3,999.99	7.07	229.25	3,989.44	-117.73	-136.64	43.36	0.00	0.00	0.00
4,099.99	7.07	229.25	4,088.68	-125.77	-145.97	46.32	0.00	0.00	0.00
4,199.99	7.07	229.25	4,187.92	-133.80	-155.30	49.28	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 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)
4,299.99	7.07	229.25	4,287.16	-141.84	-164.63	52.24	0.00	0.00	0.00
4,399.99	7.07	229.25	4,386.40	-149.88	-173.96	55.20	0.00	0.00	0.00
4,499.99	7.07	229.25	4,485.64	-157.92	-183.28	58.16	0.00	0.00	0.00
4,599.99	7.07	229.25	4,584.88	-165.96	-192.61	61.12	0.00	0.00	0.00
4,699.99	7.07	229.25	4,684.11	-174.00	-201.94	64.08	0.00	0.00	0.00
4,799.99	7.07	229.25	4,783.35	-182.04	-211.27	67.04	0.00	0.00	0.00
4,899.99	7.07	229.25	4,882.59	-190.08	-220.60	70.00	0.00	0.00	0.00
4,995.12	7.07	229.25	4,977.00	-197.72	-229.48	72.82	0.00	0.00	0.00
Cliff House									
4,999.99	7.07	229.25	4,981.83	-198.11	-229.93	72.96	0.00	0.00	0.00
5,078.76	7.07	229.25	5,060.00	-204.45	-237.28	75.29	0.00	0.00	0.00
Menefee									
5,099.99	7.07	229.25	5,081.07	-206.15	-239.26	75.92	0.00	0.00	0.00
5,199.99	7.07	229.25	5,180.31	-214.19	-248.59	78.88	0.00	0.00	0.00
5,299.99	7.07	229.25	5,279.55	-222.23	-257.92	81.84	0.00	0.00	0.00
5,399.99	7.07	229.25	5,378.78	-230.27	-267.25	84.80	0.00	0.00	0.00
5,499.99	7.07	229.25	5,478.02	-238.31	-276.58	87.76	0.00	0.00	0.00
5,599.99	7.07	229.25	5,577.26	-246.35	-285.91	90.72	0.00	0.00	0.00
5,672.28	7.07	229.25	5,649.00	-252.16	-292.66	92.86	0.00	0.00	0.00
Mancos									
5,699.99	7.07	229.25	5,676.50	-254.39	-295.24	93.68	0.00	0.00	0.00
5,799.99	7.07	229.25	5,775.74	-262.43	-304.57	96.64	0.00	0.00	0.00
5,899.99	7.07	229.25	5,874.98	-270.46	-313.90	99.60	0.00	0.00	0.00
5,999.99	7.07	229.25	5,974.21	-278.50	-323.23	102.56	0.00	0.00	0.00
6,099.99	7.07	229.25	6,073.45	-286.54	-332.56	105.53	0.00	0.00	0.00
6,170.46	7.07	229.25	6,143.39	-292.21	-339.14	107.61	0.00	0.00	0.00
KOP, Build 8°/100 DLS									
6,199.99	7.76	246.85	6,172.67	-294.18	-342.35	109.09	8.00	2.33	59.59
6,299.99	13.31	279.93	6,271.03	-294.85	-359.93	123.04	8.00	5.55	33.08
6,399.99	20.53	292.06	6,366.67	-286.26	-387.57	150.55	8.00	7.22	12.13
6,499.99	28.16	297.95	6,457.72	-268.58	-424.73	191.09	8.00	7.63	5.89
6,599.99	35.95	301.46	6,542.41	-242.16	-470.69	243.87	8.00	7.78	3.51
6,665.96	41.12	303.13	6,594.00	-220.19	-505.39	284.89	8.00	7.84	2.52
Mancos Niobrara A									
6,699.99	43.80	303.85	6,619.10	-207.51	-524.55	307.85	8.00	7.87	2.14
6,799.99	51.69	305.65	6,686.30	-165.30	-585.27	381.80	8.00	7.89	1.79
6,815.86	52.94	305.89	6,696.00	-157.95	-595.46	394.36	8.00	7.90	1.56
Mancos Niobrara B									
6,899.99	59.60	307.08	6,742.68	-116.35	-651.67	464.27	8.00	7.91	1.41
6,999.99	67.53	308.30	6,787.17	-61.62	-722.44	553.66	8.00	7.93	1.22
7,060.72	72.34	308.98	6,808.00	-26.00	-766.99	610.60	8.00	7.93	1.11
Mancos Niobrara C									
7,099.99	75.46	309.39	6,818.89	-2.17	-796.22	648.24	8.00	7.94	1.06
7,199.99	83.40	310.40	6,837.22	60.84	-871.58	746.15	8.00	7.94	1.01
7,283.13	90.00	311.22	6,842.00	115.06	-934.37	828.73	8.00	7.94	0.98
Landing Tgt / AP - Mancos Niobrara C Target - 7" Csg									
7,299.99	90.00	311.22	6,842.00	126.16	-947.04	845.50	0.00	0.00	0.00
7,399.99	90.00	311.22	6,842.00	192.05	-1,022.27	944.97	0.00	0.00	0.00
7,499.99	90.00	311.22	6,842.00	257.95	-1,097.49	1,044.45	0.00	0.00	0.00
7,599.98	90.00	311.22	6,842.00	323.84	-1,172.71	1,143.92	0.00	0.00	0.00
7,699.98	90.00	311.22	6,842.00	389.73	-1,247.93	1,243.40	0.00	0.00	0.00
7,799.98	90.00	311.22	6,842.00	455.62	-1,323.16	1,342.87	0.00	0.00	0.00
7,899.98	90.00	311.22	6,842.00	521.51	-1,398.38	1,442.35	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 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)
7,999.98	90.00	311.22	6,842.00	587.40	-1,473.60	1,541.82	0.00	0.00	0.00
8,099.98	90.00	311.22	6,842.00	653.29	-1,548.82	1,641.29	0.00	0.00	0.00
8,199.98	90.00	311.22	6,842.00	719.18	-1,624.04	1,740.77	0.00	0.00	0.00
8,299.98	90.00	311.22	6,842.00	785.07	-1,699.27	1,840.24	0.00	0.00	0.00
8,399.98	90.00	311.22	6,842.00	850.96	-1,774.49	1,939.72	0.00	0.00	0.00
8,499.98	90.00	311.22	6,842.00	916.85	-1,849.71	2,039.19	0.00	0.00	0.00
8,599.98	90.00	311.22	6,842.00	982.74	-1,924.93	2,138.67	0.00	0.00	0.00
8,699.98	90.00	311.22	6,842.00	1,048.63	-2,000.15	2,238.14	0.00	0.00	0.00
8,799.98	90.00	311.22	6,842.00	1,114.52	-2,075.38	2,337.62	0.00	0.00	0.00
8,899.98	90.00	311.22	6,842.00	1,180.42	-2,150.60	2,437.09	0.00	0.00	0.00
8,999.98	90.00	311.22	6,842.00	1,246.31	-2,225.82	2,536.57	0.00	0.00	0.00
9,099.98	90.00	311.22	6,842.00	1,312.20	-2,301.04	2,636.04	0.00	0.00	0.00
9,199.98	90.00	311.22	6,842.00	1,378.09	-2,376.27	2,735.52	0.00	0.00	0.00
9,299.98	90.00	311.22	6,842.00	1,443.98	-2,451.49	2,834.99	0.00	0.00	0.00
9,399.98	90.00	311.22	6,842.00	1,509.87	-2,526.71	2,934.46	0.00	0.00	0.00
9,499.98	90.00	311.22	6,842.00	1,575.76	-2,601.93	3,033.94	0.00	0.00	0.00
9,599.98	90.00	311.22	6,842.00	1,641.65	-2,677.15	3,133.41	0.00	0.00	0.00
9,699.98	90.00	311.22	6,842.00	1,707.54	-2,752.38	3,232.89	0.00	0.00	0.00
9,799.98	90.00	311.22	6,842.00	1,773.43	-2,827.60	3,332.36	0.00	0.00	0.00
9,899.98	90.00	311.22	6,842.00	1,839.32	-2,902.82	3,431.84	0.00	0.00	0.00
9,999.98	90.00	311.22	6,842.00	1,905.21	-2,978.04	3,531.31	0.00	0.00	0.00
10,099.98	90.00	311.22	6,842.00	1,971.10	-3,053.27	3,630.79	0.00	0.00	0.00
10,199.98	90.00	311.22	6,842.00	2,036.99	-3,128.49	3,730.26	0.00	0.00	0.00
10,299.98	90.00	311.22	6,842.00	2,102.89	-3,203.71	3,829.74	0.00	0.00	0.00
10,399.98	90.00	311.22	6,842.00	2,168.78	-3,278.93	3,929.21	0.00	0.00	0.00
10,499.98	90.00	311.22	6,842.00	2,234.67	-3,354.15	4,028.69	0.00	0.00	0.00
10,599.98	90.00	311.22	6,842.00	2,300.56	-3,429.38	4,128.16	0.00	0.00	0.00
10,699.98	90.00	311.22	6,842.00	2,366.45	-3,504.60	4,227.63	0.00	0.00	0.00
10,799.98	90.00	311.22	6,842.00	2,432.34	-3,579.82	4,327.11	0.00	0.00	0.00
10,899.98	90.00	311.22	6,842.00	2,498.23	-3,655.04	4,426.58	0.00	0.00	0.00
10,999.98	90.00	311.22	6,842.00	2,564.12	-3,730.26	4,526.06	0.00	0.00	0.00
11,099.98	90.00	311.22	6,842.00	2,630.01	-3,805.49	4,625.53	0.00	0.00	0.00
11,199.98	90.00	311.22	6,842.00	2,695.90	-3,880.71	4,725.01	0.00	0.00	0.00
11,299.98	90.00	311.22	6,842.00	2,761.79	-3,955.93	4,824.48	0.00	0.00	0.00
11,399.98	90.00	311.22	6,842.00	2,827.68	-4,031.15	4,923.96	0.00	0.00	0.00
11,499.98	90.00	311.22	6,842.00	2,893.57	-4,106.38	5,023.43	0.00	0.00	0.00
11,599.98	90.00	311.22	6,842.00	2,959.46	-4,181.60	5,122.91	0.00	0.00	0.00
11,645.79	90.00	311.22	6,842.00	2,989.65	-4,216.06	5,168.48	0.00	0.00	0.00
<b>PBHL/TD</b>									
11,646.79	90.00	311.22	6,842.00	2,990.31	-4,216.81	5,169.47	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Seideltech	<b>Local Co-ordinate Reference:</b>	Well LINDRITH EAST (DEEP) UNIT 24-1H
<b>Company:</b>	San Juan Resources	<b>TVD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Project:</b>	Rio Arriba Counrty, NM	<b>MD Reference:</b>	KB 25Ft @ 7332.00usft (TBD)
<b>Site:</b>	24N 02W SEC 24	<b>North Reference:</b>	True
<b>Well:</b>	LINDRITH EAST (DEEP) UNIT 24-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Rev 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
LINDRITH E UNIT 24-1H	0.00	359.54	6,842.00	2,990.31	-4,216.81	1,930,536.36	1,412,966.94	36.303191	-107.021935
- plan hits target center									
- Point									
LINDRITH E UNIT 24-1H	0.00	359.54	6,842.00	115.06	-934.36	1,927,635.62	1,416,226.64	36.295294	-107.010796
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
500.00	500.00	9 5/8" Csg	9-5/8	12-1/4	
7,283.13	6,842.00	7" Csg	7	8-3/4	
11,646.79	6,842.00	4 1/2" Liner	4-1/2	6-1/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,712.80	2,712.00	Ojo Alamo			
3,035.20	3,032.00	Fruitland Coal			
3,246.81	3,242.00	Pictured Cliff Ss			
4,995.12	4,977.00	Cliff House			
5,078.76	5,060.00	Menefee			
5,672.28	5,649.00	Mancos			
6,665.96	6,594.00	Mancos Niobrara A			
6,815.86	6,696.00	Mancos Niobrara B			
7,060.72	6,808.00	Mancos Niobrara C			
7,283.13	6,842.00	Mancos Niobrara C Target			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,300.00	2,300.00	0.00	0.00	Build 1.5°/100 DLS	
2,771.61	2,770.41	-18.98	-22.03	Hold INC	
6,170.46	6,143.39	-292.21	-339.14	KOP, Build 8°/100 DLS	
7,283.13	6,842.00	115.06	-934.37	Landing Tgt / AP	
11,645.79	6,842.00	2,989.65	-4,216.06	PBHL/TD	





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

## SUPO Data Report

04/15/2024

APD ID: 10400084439

Submission Date: 04/14/2022

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Well Type: OIL 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:

Lindrith\_Road\_map\_20230116123929.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

#### ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Lindrith\_Road\_map\_20230116124003.pdf

New road type: COLLECTOR

Length: 278

Feet

Width (ft.): 16

Max slope (%): 3

Max grade (%): 1

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

**New road access erosion control:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (4.3 Water Management/Erosion Control Features) The BLM representative and the San Juan Resources representative would work in collaboration to develop site-specific erosion control or water management features and to identify installation locations. Potential erosion control or water management features that may be used include (but are not limited to) water bars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, bellholes upstream of culverts, outlet protection for culverts, erosion control blankets, straw bales, and straw wattles. During interim reclamation, areas of the project that are not needed for long

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

term well operations and maintenance will be recontoured to re-establish disturbed terrain and blend into the surrounding landscape. The natural drainage network would be re-established as practicable with necessary diversions and silt traps around the long-term project footprint

**New road access plan or profile prepared?** N**New road access plan****Access road engineering design?** N**Access road engineering design****Turnout?** N**Access surfacing type:** OTHER**Access topsoil source:** ONSITE**Access surfacing type description:** Dirt**Access onsite topsoil source depth:** 6**Offsite topsoil source description:****Onsite topsoil removal process:** Dozer**Access other construction information:****Access miscellaneous information:****Number of access turnouts:****Access turnout map:**

### Drainage Control

**New road drainage crossing:** CULVERT

**Drainage Control comments:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (4.3 Water Management/Erosion Control Features) The BLM representative and the San Juan Resources representative would work in collaboration to develop site-specific erosion control or water management features and to identify installation locations. Potential erosion control or water management features that may be used include (but are not limited to) water bars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, bellholes upstream of culverts, outlet protection for culverts, erosion control blankets, straw bales, and straw wattles. During interim reclamation, areas of the project that are not needed for long term well operations and maintenance will be recontoured to re-establish disturbed terrain and blend into the surrounding landscape. The natural drainage network would be re-established as practicable with necessary diversions and silt traps around the long-term project footprint

**Road Drainage Control Structures (DCS) description:** San Juan Resources, LLC Surface Use Plan of Operations (Attachment B Road Maintenance Plan) The following Road Maintenance Plan will be implemented and followed by San Juan Resources, LLC for roads utilized in San Juan Basin Operations. All roads will be constructed and maintained to meet the Bureau of Land Management (BLM) Gold Book Standards and BLM Manuals 9113-1 Road Inspection: 1. A San Juan Resources, LLC representative or designated inspector would inspect all newly constructed or reconstructed roads that would be used to construct, operate, maintain and terminate San Juan Resources' oil and gas operations. 2. Road Inspections would be conducted monthly or within 72 hours of an extreme weather event (e.g. summer thunderstorms). The inspector would observe road conditions as they drive to and from locations. Maintenance Procedures: San Juan Resources, LLC maintenance plan contains provisions for maintaining the travelway of newly constructed or reconstructed roads. Identified items during inspection would be reviewed and corrected as necessary by San Juan Resources, LLC or designated contractors. 1. Road Crown - If the road crown surface becomes rutted, not adequately draining, or in roughened condition, San Juan Resources, LLC would utilize a maintainer to re-grade and/or resurface the road crown. 2. Culverts - If culverts or silt traps are plugged or are not functioning, San Juan Resources, LLC would excavate and remove debris or sediment impeding the function of the culvert. 3. Ditches - If road side ditches become blocked or not functioning properly, San

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

Juan Resources, LLC would use a maintainer or the necessary equipment to clean or blade the ditch. 4. Silt Traps or Water Control Structures - If silt trap or water control structures are found to be filled with sediment or are not functioning properly. San Juan Resources would use the appropriate equipment to clean out sediment or repair/modify the structure. 5. Dust Abatement - Dust emissions would be controlled on the road and location, as necessary, with the application of dust suppressants (e.g., , Magnesium Chloride) and/or water. Dust control would be implemented when dust plumes become larger than normal road use conditions or when directed by the administrative agency.

**Road Drainage Control Structures (DCS) attachment:**[Access Additional Attachments](#)

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES**Attach Well map:**

Radius\_Map\_20220125155748.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:**

LEDU\_24\_1\_Location\_Layout\_20220125154717.pdf

Completion\_Layout\_20230127100319.pdf

Drilling\_Layout\_20230127100327.pdf

### Section 5 - Location and Types of Water Supply

#### Water Source Table

**Water source type:** GW WELL

<b>Water source use type:</b>	SURFACE CASING
	INTERMEDIATE/PRODUCTION CASING
	STIMULATION

**Source latitude:****Source longitude:****Source datum:** NAD83

<b>Water source permit type:</b>	PRIVATE CONTRACT
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<b>Water source transport method:</b>	TRUCKING
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Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Source land ownership: PRIVATE

Source transportation land ownership: FEDERAL

Water source volume (barrels): 100000

Source volume (acre-feet): 12.88930963

Source volume (gal): 4200000

Water source and transportation

Water\_Source\_Map\_20230120135859.pdf

Water source comments:

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:** San Juan Resources, LLC Surface Use Plan Operations Section 6 (Construction Material) All surface infrastructure would be constructed utilizing native borrow within the permitted area to create a balanced working surface. Surfacing material of fill material, such as sandstone, gravel, pit run, or road base would be used if needed and economically viable and would be obtained from an approved location. SJR will maximize the use of native material within the proposed projet area to reduce or eliminate the need to haul in foreign materials. Material may be imported and used for any of the following reasons; low water crossings (pit run and road base), road surfacing (road base, gravel or sandstone), erosion control (riprap cobble stone), barricades (boulders), under and surrounding equipment (gravel), and filling soft or muddy areas (sandstone, pit run, road base or gravel)

**Operator Name:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

**Construction Materials source location**

Material\_Source\_Map\_20230127094511.jpg

**Section 7 - Methods for Handling**

**Waste type:** COMPLETIONS/STIMULATION

**Waste content description:** All waste will be transported to Envirotech Landfarm Closed loop

**Amount of waste:** 10000 barrels

**Waste disposal frequency :** Weekly

**Safe containment description:** All waste will be transported to Envirotech Landfarm

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** Envirotech Landfarm Rd 350 San Juan County Nm

**Waste type:** SEWAGE

**Waste content description:** San Juan Resources, LLC Surface Use Plan of Operations Section 7 (Methods for Handling Waste) Portable toiles would be provided and maintained as needed during construction, drilling and completion operations.

**Amount of waste:**

**Waste disposal frequency :** One Time Only

**Safe containment description:** Portable Toilets

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** Approved Disposal Facility Site

**Waste type:** GARBAGE

**Waste content description:** San Juan Resources, LLC Surface Use Plan of Operations Section 7 (Methods for Handling Waste) All garbage and trash would be placed in enclosed metal trash containers. The trash and garbage would be hauled off site and dumped in an approved landfill, as needed.

**Amount of waste:**

**Waste disposal frequency :** One Time Only

**Safe containment description:** Metal Trash Basket

**Safe containmant attachment:**

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

**Disposal type description:**

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Disposal location description: Approved Disposal Facility Site

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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 Drill cuttings will be dried and stored onsite until they are hauled of to an NMCOD approved facility for disposal.

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:

Drilling\_Layout\_20230127094727.pdf

Completion\_Layout\_20230127094732.pdf

Comments: Topsoil removal, storage, and protection is described in detail in the Surface Reclamation Plan (Appendix A). During construction, the proposed well pad would be leveled to provide adequate space and a

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

level working surface for vehicles and equipment. Excavated materials from cuts would be used on fill portions of the well pad to level the surface. The approximate cuts, fills, and well pad orientation is shown on the cut/fill worksheet and cross section diagrams in the survey plats (attached) Drilling of the proposed well would require an expansion of 400-foot by 400-foot well pad (4.85 acres). A 40-foot construction zone is proposed on the west, north and east sides of the proposed pad. This entire area would be utilized during construction, setting of production equipment, drilling and completion phases.

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** No New Surface Disturbance **Multiple Well Pad Name:** LINDRITH EAST DEEP UNIT 24**Multiple Well Pad Number:** 001H

### Recontouring

**Drainage/Erosion control construction:** Erosion-control and water management features, such as berms, culverts, diversion ditches, and waterbars, would be applied as needed by San Juan Resources, LLC and/or specified by the BLM-FFO Authorized Officer. Installation and maintenance of erosion-control features would be done in accordance to BLM Gold Book (BLM and USFS 2007) standards.

**Drainage/Erosion control reclamation:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.3 (Water Management/Erosion Control Features) The BLM representative and the San Juan Resources representative would work in collaboration to develop site-specific erosion control or water management features and to identify installation locations. Potential erosion control or water management features that may be used include (but are not limited to) water bars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, bellholes upstream of culverts, outlet protection for culverts, erosion control blankets, straw bales, and straw wattles.

<b>Well pad proposed disturbance (acres):</b>	<b>Well pad interim reclamation (acres):</b> 0	<b>Well pad long term disturbance (acres):</b> 0
<b>Road proposed disturbance (acres):</b>	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 0
<b>Powerline proposed disturbance (acres):</b>	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 0
<b>Pipeline proposed disturbance (acres):</b>	<b>Pipeline interim reclamation (acres):</b> 0	<b>Pipeline long term disturbance (acres):</b> 0
<b>Other proposed disturbance (acres):</b>	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 0
<b>Total proposed disturbance:</b> 0	<b>Total interim reclamation:</b> 0	<b>Total long term disturbance:</b> 0

### Disturbance Comments:

**Reconstruction method:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.4 (Seedbed Preparation) For cut and fill slopes, initial seedbed preparation will consist of pushing (dozer)/excavation (excavator)/hauling (belly scraper) the unneeded fill slope material and placing it within the cut slopes. Natural rolling contours would be implemented to break up the surface and aid in removing signs of the sharp well pad corners once vegetation established. Emphasis would be placed on restoration of the existing drainage patterns and landforms to preconstruction conditions, to the extent practicable. Within areas that would be reseeded, stockpiled topsoil would be evenly redistributed prior to final seedbed preparation. Seedbed preparation within compacted areas will be ripped to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping will be conducted in two passes at perpendicular directions. If large clumps/clods result from the ripping process, disking would be conducted perpendicular to slopes in order to provide terracing and minimize runoff and erosion. Final seedbed preparation would consist of raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting. Seedbed preparation may not be necessary for topsoil storage piles or other areas of temporary seeding.

**Topsoil redistribution:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.2 (Topsoil Replacement) The upper six inches of topsoil (if available) would be stripped following vegetation mulching. Topsoil would not be mixed with the underlying



**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

subsoil horizons and would be stockpiled as a berm/windrow along the interior perimeter of the construction buffer zone. Topsoil and sub-surface soils would be replaced in the proper order, prior to final seedbed preparation. Redistribution of topsoil shall not be done when the ground or topsoil is wet. Vehicle/equipment traffic would not be allowed to cross topsoil stockpiles. If topsoil is stored for a length of time such that nutrients are depleted from the topsoil, amendments would be added to the topsoil as advised by the Enduring environmental scientist or appropriate agent/contractor.

**Soil treatment:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.5 (Soil Amendments) Soil amendments would be added to the topsoil, if needed, as advised by the San Juan Resources, LLC. environmental scientist or appropriate surface management agency.

**Existing Vegetation at the well pad:** San Juan Resources, LLC Surface Reclamation Plan Section 2 (Project Description) 2.2 Well Pad The proposed Lindrith East Deep Unit 24 1H Well Project would be 300 ft. x 225 ft well pad. The proposed well expansion is located on private land (Federal Mineral) and abuts private land on the East and South sides. The expanded well will be accessed by existing roads and no new pipeline is being proposed. A 40-foot construction zone is proposed on the West, North and East sides of the proposed pad. (480ft x 440ft) No construction zone is proposed along the south edge of the pad that directly abuts a private land boundary.

#### **Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** San Juan Resources, LLC Surface Reclamation Plan Section 3 (Pre Disturbance Visit) 3.1 Vegetation Community Based on observations made during the pre-disturbance site visit, it has been determined that the vegetation community which best represents the proposed project area is classified as Pinon-Juniper Woodland community.

#### **Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** San Juan Resources, LLC Surface Reclamation Plan Section 3 (Pre Disturbance Visit) 3.1 Vegetation Community Based on observations made during the pre-disturbance site visit, it has been determined that the vegetation community which best represents the proposed project area is classified as Pinon-Juniper Woodland community.

#### **Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** The Lindrith East Deep Unit 241H well pad would result in a total of 12.10 acres of surface During interim reclamation, of the total 12.10 acres proposed surface disturbance, approximately 9.89 acres would be fully reclaimed, 0.87 acres would be reseeded only, and the remaining 2.35 acres would be stabilized and used as a working surface throughout the life of the project. The working surfaces and the areas that were reseeded only, would be fully reclaimed during final reclamation

#### **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:**

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24Well Number: 001H

Seed

Seed Table

Seed type: PERENNIAL GRASSSeed source: COMMERCIAL

Seed name: Western Wheatgrass

Source name:Source address:

Source phone:

Seed cultivar: Arriba

Seed use location: NEW ACCESS ROAD,OTHER,WELL PAD

PLS pounds per acre: 2Proposed seeding season: AUTUMN

Seed type: OTHERSeed source: COMMERCIAL

Seed name: Needleandthread

Source name:Source address:

Source phone:

Seed cultivar: VNS

Seed use location: NEW ACCESS ROAD,OTHER,WELL PAD

PLS pounds per acre: 3Proposed seeding season: AUTUMN

Seed type: ANNUAL GRASSSeed source: COMMERCIAL

Seed name: Indian Ricegrass

Source name:Source address:

Source phone:

Seed cultivar: Rimrock

Seed use location: NEW ACCESS ROAD,OTHER,WELL PAD

PLS pounds per acre: 3Proposed seeding season: SPRING

Seed type: FORBSeed source: COMMERCIAL

Seed name: Scarlet Glovermallow

Source name:Source address:

Source phone:

Seed cultivar: VNS

Seed use location: NEW ACCESS ROAD,OTHER,WELL PAD

PLS pounds per acre: 1Proposed seeding season: SPRING

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H**Seed type:** PERENNIAL GRASS**Seed source:** COMMERCIAL**Seed name:** Prairie Junegrass**Source name:****Source address:****Source phone:****Seed cultivar:** VNS**Seed use location:** NEW ACCESS ROAD,OTHER,WELL PAD**PLS pounds per acre:** 2**Proposed seeding season:** AUTUMN**Seed type:** SHRUB**Seed source:** COMMERCIAL**Seed name:** Mountain Mahogany**Source name:****Source address:****Source phone:****Seed cultivar:** VNS**Seed use location:** NEW ACCESS ROAD,OTHER,WELL PAD**PLS pounds per acre:** 2**Proposed seeding season:** SPRING**Seed type:** ANNUAL GRASS**Seed source:** COMMERCIAL**Seed name:** Muttongrass**Source name:****Source address:****Source phone:****Seed cultivar:** VNS**Seed use location:** NEW ACCESS ROAD,OTHER,WELL PAD**PLS pounds per acre:** 2**Proposed seeding season:** AUTUMN**Seed Summary****Total pounds/Acre:** 15

Seed Type	Pounds/Acre
SHRUB	2
ANNUAL GRASS	5
OTHER	3
FORB	1
PERENNIAL GRASS	4

**Seed reclamation****Operator Contact/Responsible Official****First Name:****Last Name:****Phone:****Email:**

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

**Seedbed prep:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.4 (Seedbed Preparation) For cut and fill slopes, initial seedbed preparation will consist of pushing (dozer)/excavation (excavator)/hauling (belly scraper) the unneeded fill slope material and placing it within the cut slopes. Natural rolling contours would be implemented to break up the surface and aid in removing signs of the sharp well pad corners once vegetation established. Emphasis would be placed on restoration of the existing drainage patterns and landforms to preconstruction conditions, to the extent practicable. Within areas that would be reseeded, stockpiled topsoil would be evenly redistributed prior to final seedbed preparation. Seedbed preparation within compacted areas will be ripped to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping will be conducted in two passes at perpendicular directions. If large clumps/clods result from the ripping process, disking would be conducted perpendicular to slopes in order to provide terracing and minimize runoff and erosion. Final seedbed preparation would consist of raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting. Seedbed preparation may not be necessary for topsoil storage piles or other areas of temporary seeding.

**Seed BMP:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.2 (Topsoil Replacement) The upper six inches of topsoil (if available) would be stripped following vegetation mulching. Topsoil would not be mixed with the underlying subsoil horizons and would be stockpiled as a berm/windrow along the interior perimeter of the construction buffer zone. Topsoil and sub-surface soils would be replaced in the proper order, prior to final seedbed preparation. Redistribution of topsoil shall not be done when the ground or topsoil is wet. Vehicle/equipment traffic would not be allowed to cross topsoil stockpiles. If topsoil is stored for a length of time such that nutrients are depleted from the topsoil, amendments would be added to the topsoil as advised by the Enduring environmental scientist or appropriate agent/contractor.

**Seed method:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.6 (Seeding) The seed mix chosen for this project is listed in Table 2. Seeding would occur at the time of interim and final reclamation. A disc-type seed drill or modified rangeland drill that allows for seeding species from different seed boxes at different planting depths will be used to seed the disturbed areas of the project area. San Juan Resources or its reclamation contractor will ensure that perennial grasses and shrubs are planted at the appropriate depth. Larger seeds (such as Indian ricegrass) would be planted at a depth of one to two inches, Intermediate size seeds (such as wheatgrasses and shrubs) will be planted at a depth of 0.5 inch and small seeds (such as alkali sacaton and sand drop seed) will be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable using available equipment, the entire seed mix will be planted no deeper than 0.25 inch. A drag, packer, or roller would follow the seeder to ensure uniform seed coverage and adequate compaction. Seed would be drilled perpendicular to slopes at practical in order to minimize runoff and erosion. Drill seeding may be used on well-packed and stable soils that occur on gentler slopes and where equipment and drills can safely operate. Where drill seeding is not practicable due to topography, the reclamation contractor will hand-broadcast seed using a cyclone hand seeder or similar broadcast seeder. Seeds like Galleta (with florets) and winter fat (with fine hairs) may also be broadcast as they do not flow well through a seeder. Broadcast application of seed requires a doubling of the drill-seeding rate. The seed will then be raked into the ground, so the seed is planted no deeper than 0.25 inch below the surface.

**Existing invasive species?** N

**Existing invasive species treatment description:**

**Existing invasive species treatment**

**Weed treatment plan description:** San Juan Resources, LLC Surface Reclamation Plan Section 4 (Reclamation Techniques for Successful Revegetation) Section 4.7 (Noxious and Invasive Weed Control) Should any noxious or invasive weeds be documented on any portion of the action area located on BLM-managed lands after earthwork and seeding activities, the BLM-FFO Coordinator will be notified and San Juan Resources, LLC will provide a Weed Management Plan and if necessary, a Pesticide Use Proposal. 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. San Juan Resources weed-control contractor would contact the BLM-FFO prior to using these chemicals.

**Weed treatment plan**

**Monitoring plan description:** San Juan Resources, LLC Surface Reclamation Plan Section 5 (Monitoring Requirements) Monitoring will be completed according to the Bureau Land Management Bare Soil

**Operator Name:** SAN JUAN RESOURCES INCORPORATED**Well Name:** LINDRITH EAST DEEP UNIT 24**Well Number:** 001H

Reclamation Procedure B (BLM 2013b) and Monitoring activities will be initiated after the project is completed, during the post-disturbance earthwork and seeding inspection process. 5.1 Post-Reclamation Monitoring Initiation After the well has been plugged and the reclamation work and seeding have been completed, a post-disturbance inspection at the project site will occur. The Bureau Land Management representative (in collaboration with Enduring Resources) will determine site-specific monitoring locations for photo point monitoring and vegetation line point intercept transects, (if necessary). Bureau Land Management will collect GPS data on the monitoring locations, take the initial monitoring photographs, and complete the initial monitoring report within 60 days of the post-disturbance earthwork and seeding inspection. The initial report will be available from the Bureau Land Management. 5.2 Post-Reclamation Monitoring Photographs The minimum photo points necessary to document post-disturbance monitoring (including annual monitoring and long-term monitoring) are described in Table 5. Photographs will be taken with a digital camera without zoom or wide-angle adjustments. GPS coordinates for each photo point will be provided by the Bureau Land Management in the initial monitoring report and subsequently included with each photograph in the annual monitoring report. 5.3 Annual Monitoring If needed, San Juan Resources, LLC will begin annual monitoring of the photo points and the vegetation line point intercept transects 2 calendar years after the completion and approval of the final earthwork and seeding. Monitoring may occur any time of the year. A completed monitoring report of the permanent photo points will be submitted by Enduring Resources to Bureau Land Management by December 31 of the year the site is monitored. Within 60 days after receipt, the Bureau Land Management will acknowledge that the report has been received and evaluated. Vegetation line point intercept transects will be monitored annually until attainment of vegetation reclamation cover standards have been met. Enduring Resources will keep a record of the monitoring for future submittal to the Bureau Land Management at reclamation attainment.

### Monitoring plan

**Success standards:** San Juan Resources, LLC Surface Reclamation Plan Section 3.3 (Vegetation Reclamation Standards) Requirements for determining reclamation and if it is successfully completed for the selected vegetation community are determined by the reclamation percent cover standards for the community, outline in Table 3. These standards must be met during post-disturbance monitoring procedures in order for the Bureau of Land Management to sign off on the attainment of vegetation reclamation standards.

**Pit closure description:** No reserve pit will be utilized

**Pit closure attachment:**

## Section 11 - Surface Ownership

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**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:**

**Operator Name:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

### Section 12 - Other

**Right of Way needed?** N

**Use APD as ROW?**

**ROW Type(s):**

**ROW**

**SUPO Additional Information:**

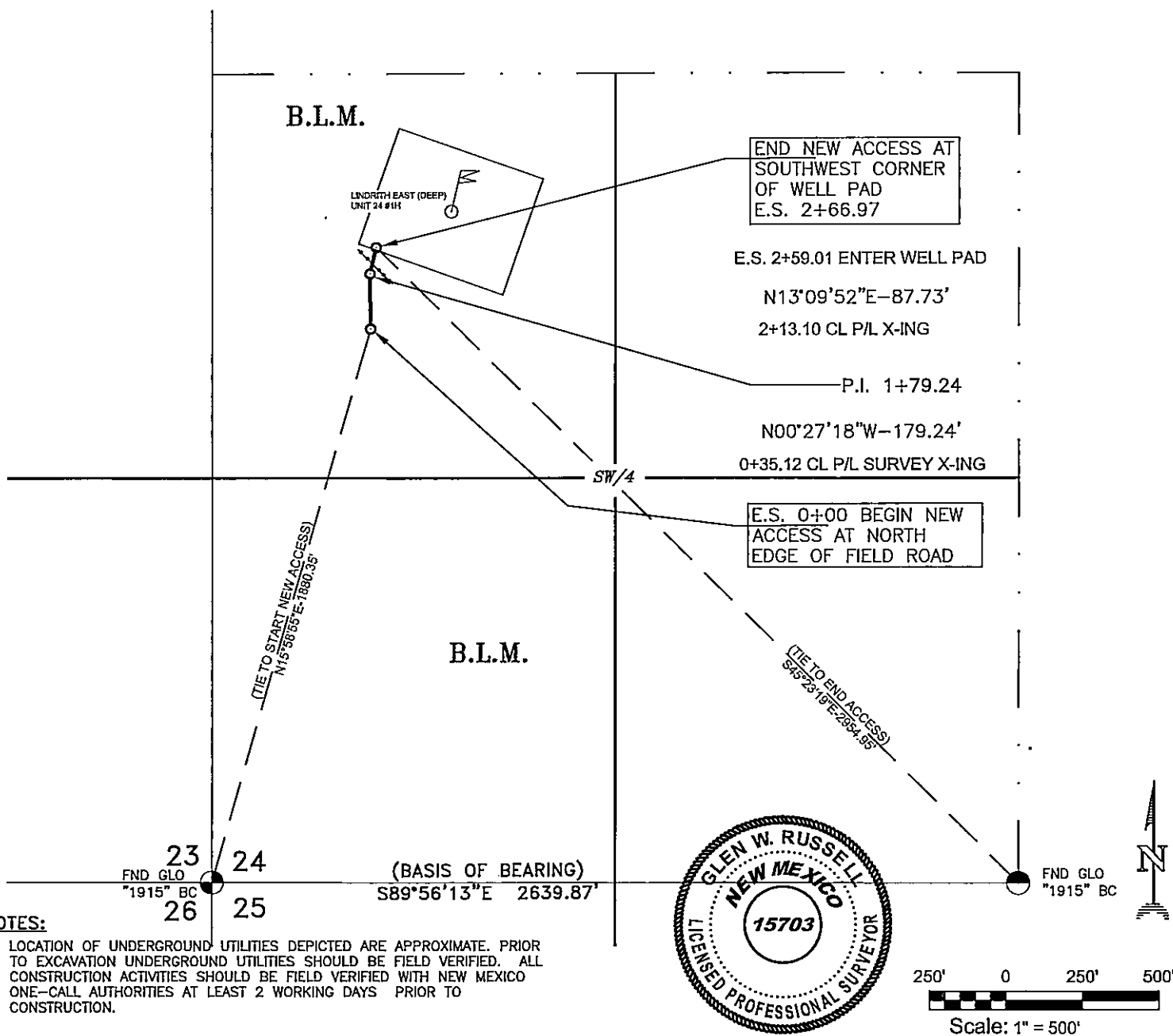
**Use a previously conducted onsite?** Y

**Previous Onsite information:** Onsite was conducted on 10/22/2021

**Other SUPO**

SUPO.4.8.24\_20240408120609.pdf

ACCESS ROAD SURVEY FOR  
**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**  
 LOCATED IN THE SW/4 OF SEC. 24, T-24-N, R-2-W, N.M.P.M.  
 RIO ARriba COUNTY, NEW MEXICO

**NOTES:**

1.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.

2.) THIS IS NOT A BOUNDARY SURVEY.

**OWNERSHIP**

LOCATION	OWNER	STATION	FT./RODS
SW/4 S24, T24N, R2W	B.L.M.	E.S. 0+00 TO E.S. 2+66.97	266.97/16.18
		TOTAL	266.97/16.18

**BASIS OF BEARING:** AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 24 NORTH, RANGE 2 WEST, N.M.P.M. RIO ARriba COUNTY, NEW MEXICO. BEARS S89°56'13"E A DISTANCE OF 2639.87' AS MEASURED BY G.P.S. LOCAL GRID NAD83.

SURVEY CREW:	GWR	DRAWN BY:	GWR
DATE OF SURVEY:	9/24/21	DATE:	9/30/21

REV. 1	GWR 1/20/22 NAME CHANGE
REV. 2	

I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

GLEN W. RUSSELL

DATE JANUARY 21, 2022

GLEN W. RUSSELL, PLS  
NEW MEXICO L.S. #15703

## VECTOR SURVEYS, LLC

Professional Land Surveys, Mapping,  
GPS Surveys & Oil Field Services  
122 N Wall Avenue, Farmington, NM 87401  
Phone (505) 320-9595  
E-Mail: vectorg001@msn.com

WORK ORDER NO.: SJR004 CAD FILE: L 24\_2\_24\_2\_AR



SAN JUAN RESOURCES, INC.

LINDRITH EAST (DEEP) UNIT 24 #1H

2191' FSL 783' FWL

SEC. 24 T24N R2W N.M.P.M.

RIO ARRIBA, NM

APD MAP

266.97' NEW BLM ACCESS

LINDRITH EAST (DEEP) UNIT 24 #1H

266.97' NEW BLM ACCESS

EXISTING ACCESS

Map created with TOPOLIO © 2007 National Geographic

Directions from the Intersection of  
Hwy 550 & Hwy 64 in Bloomfield, NM

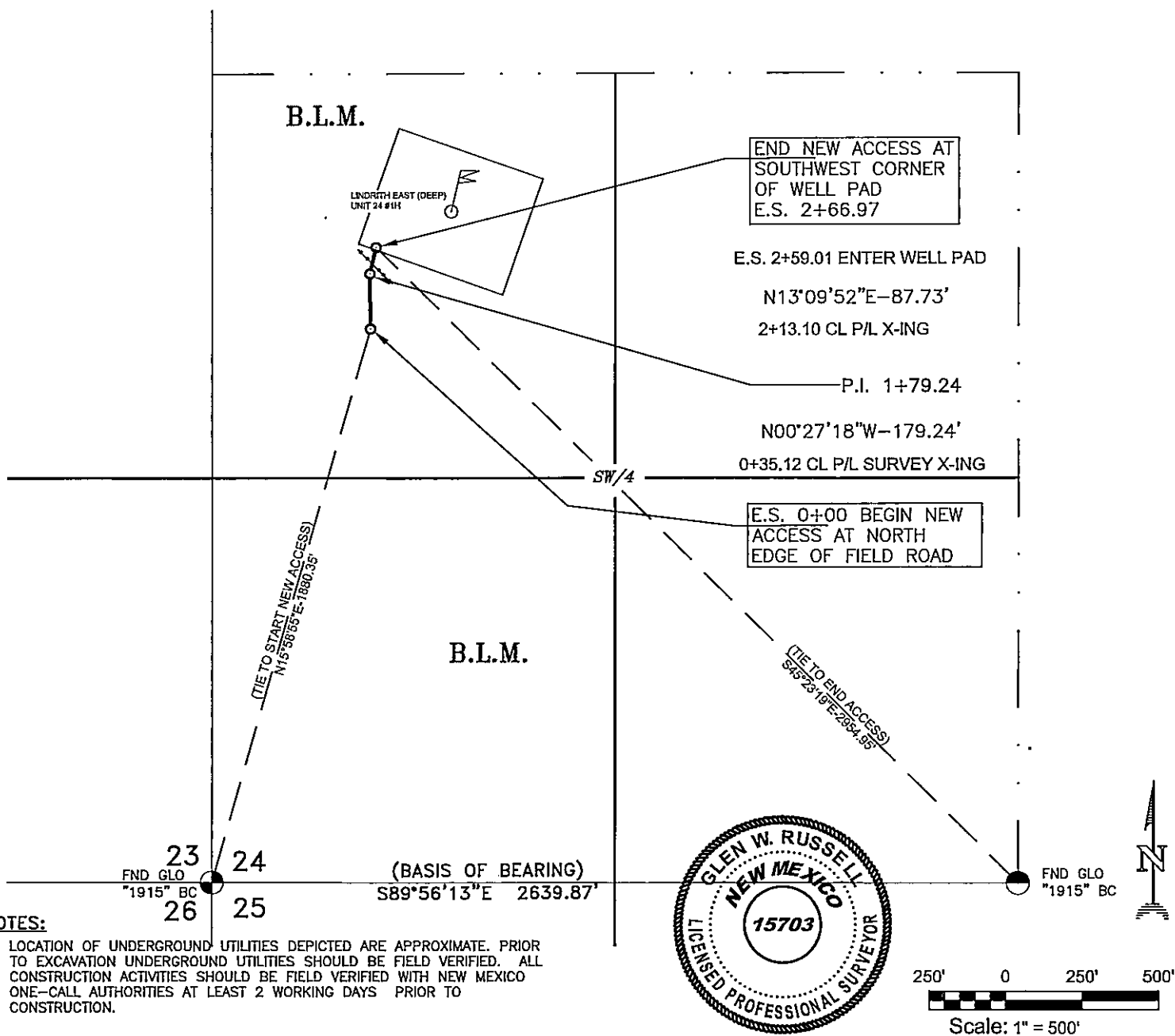
To:

SAN JUAN RESOURCES, INC.  
LINDRITH EAST (DEEP) UNIT 24 #1H  
2191' FSL & 783' FWL,  
Section 24, T24N, R2W, N.M.P.M.,  
Rio Arriba, New Mexico  
Latitude: 36° 17' 41.922" N  
Longitude: 107° 00' 27.448" W  
NAD 83

Go south on Hwy 550 for 83.65 miles to Hwy 96,  
Turn left (north) on Hwy 96 11.9 miles to Hwy 95,  
Turn left (west-northwesterly) on Hwy 95 for 10.1 miles,  
Turn right (easterly) on CR 394 for 0.9 miles,  
Stay left (northeasterly) for 1.4 miles,  
Turn left (northerly) for 0.1 miles,  
To the beginning of new access on the left (north) side of an  
existing field road, which continues (northerly) for 266.97' to  
the new well location.



ACCESS ROAD SURVEY FOR  
**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**  
 LOCATED IN THE SW/4 OF SEC. 24, T-24-N, R-2-W, N.M.P.M.  
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DATE OF SURVEY:	9/24/21	DATE:	9/30/21

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WORK ORDER NO.: SJR004 CAD FILE: L 24\_2\_24\_2\_AR

**SAN JUAN RESOURCES, INC.**

**LINDRITH EAST (DEEP) UNIT 24 #1H**

**2191' FSL 783' FWL**

**SEC. 24 T24N R2W N.M.P.M.**

**RIO ARRIBA, NM**

**APD MAP**

**266.97' NEW BLM ACCESS**

**LINDRITH EAST (DEEP) UNIT 24 #1H**

**266.97' NEW BLM ACCESS**

**EXISTING ACCESS**

Map created with TOPOLIC © 2007 National Geographic



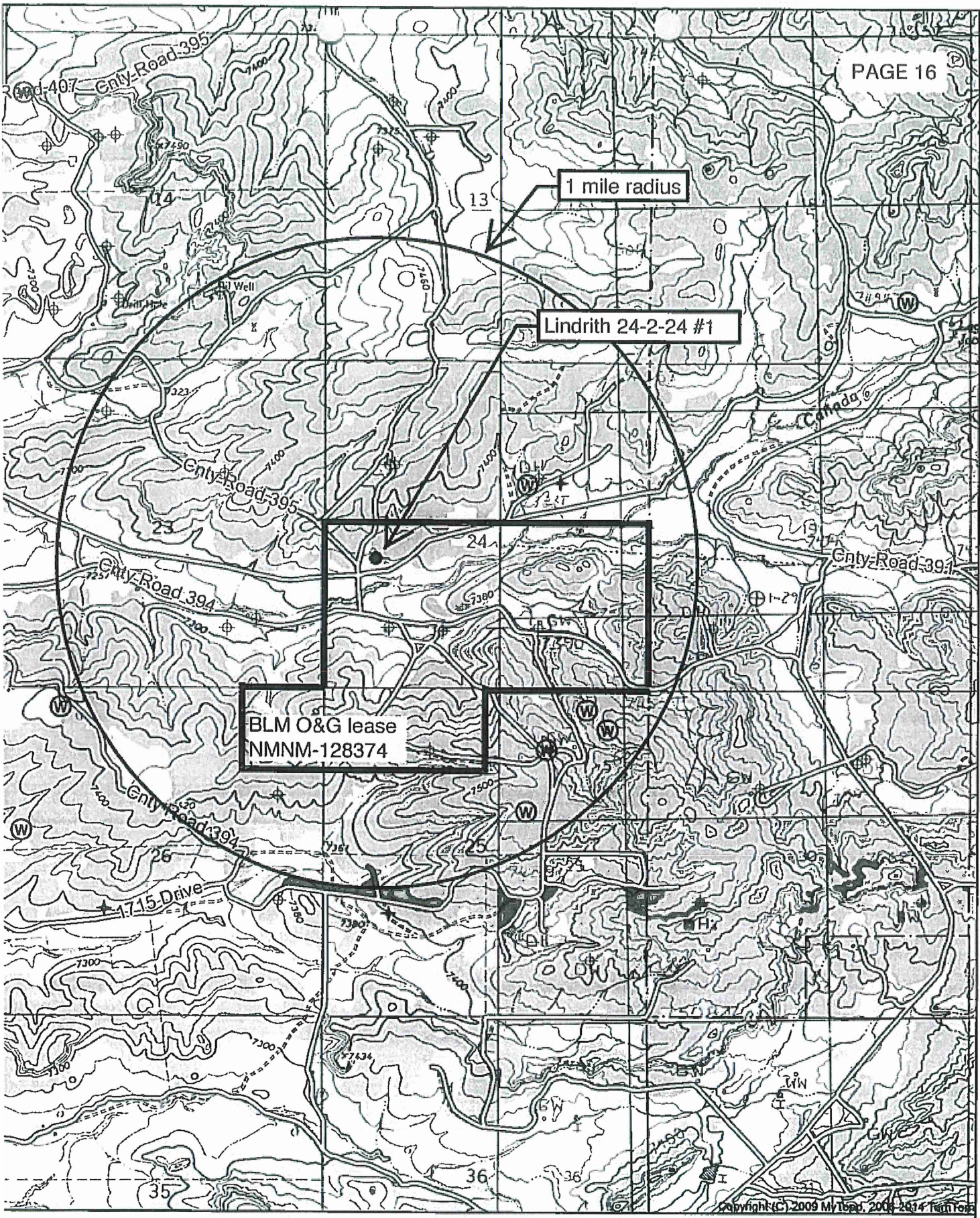
Directions from the Intersection of  
Hwy 550 & Hwy 64 in Bloomfield, NM

To:

SAN JUAN RESOURCES, INC.  
LINDRITH EAST (DEEP) UNIT 24 #1H  
2191' FSL & 783' FWL,  
Section 24, T24N, R2W, N.M.P.M.,  
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Latitude: 36° 17' 41.922" N  
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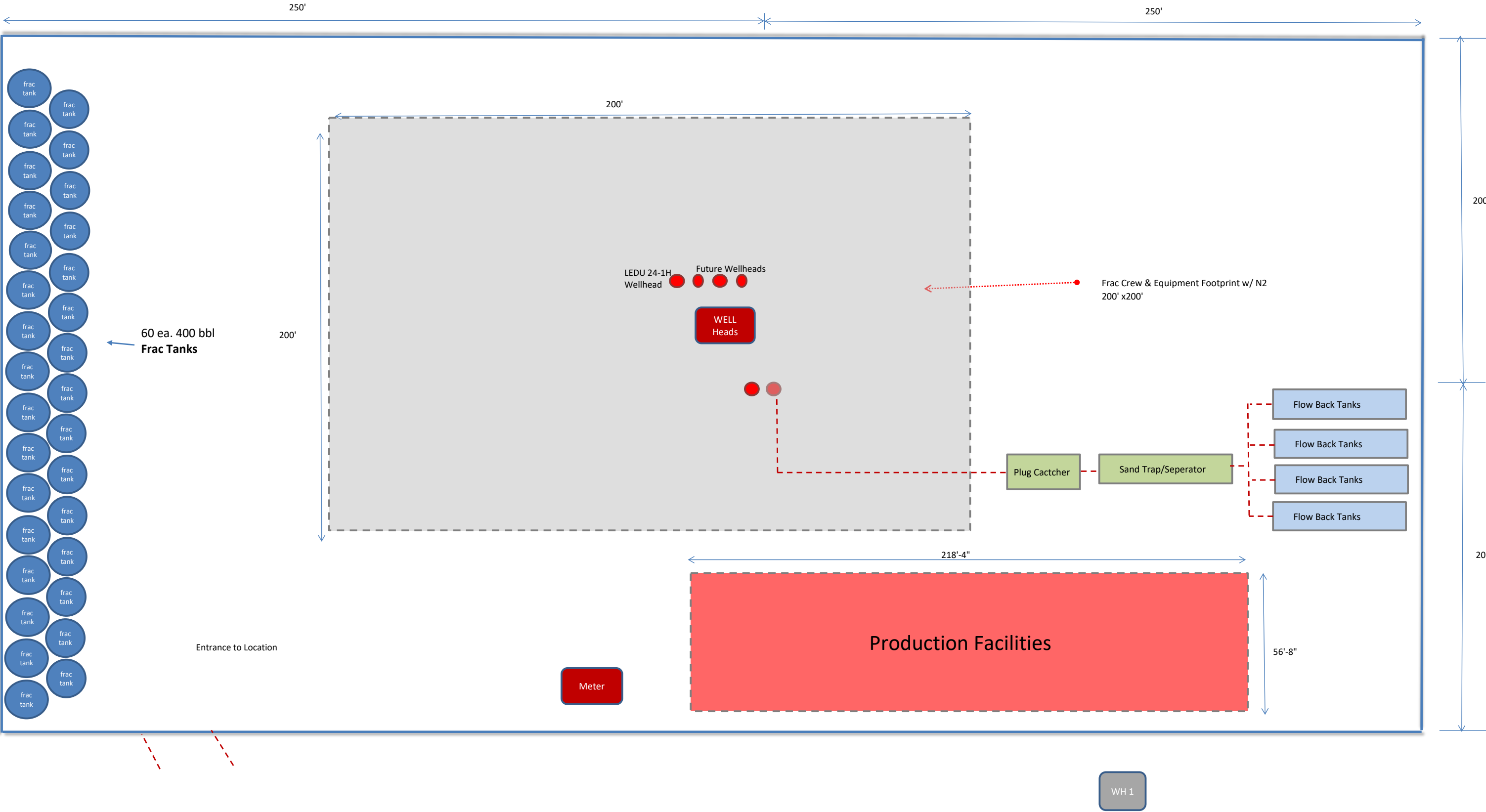
Go south on Hwy 550 for 83.65 miles to Hwy 96,  
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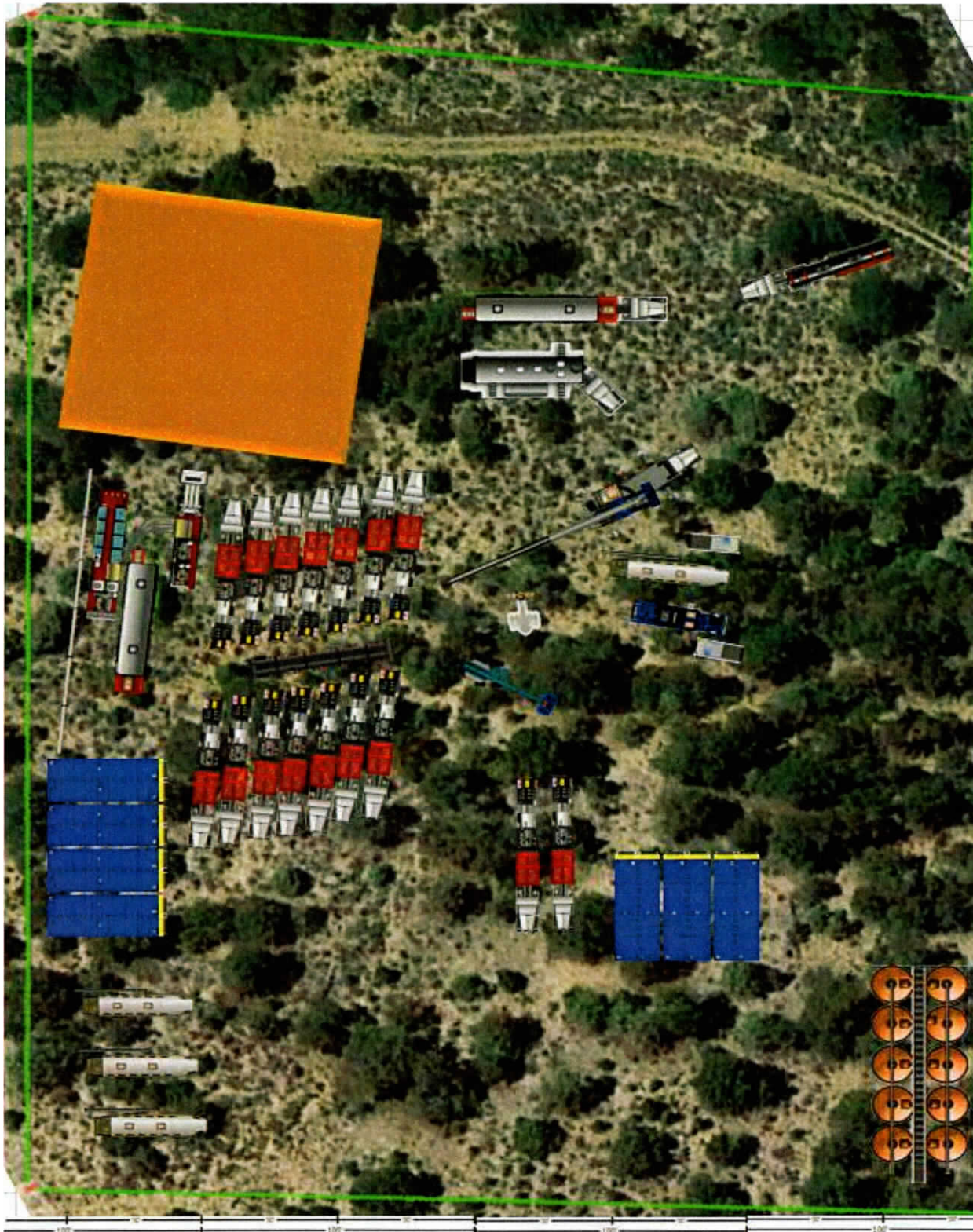
Quad: LINDRITH  
Scale: 1 inch = 2,000 ft.







Completion Layout\_Lindrith East Deep Unit 24 1H

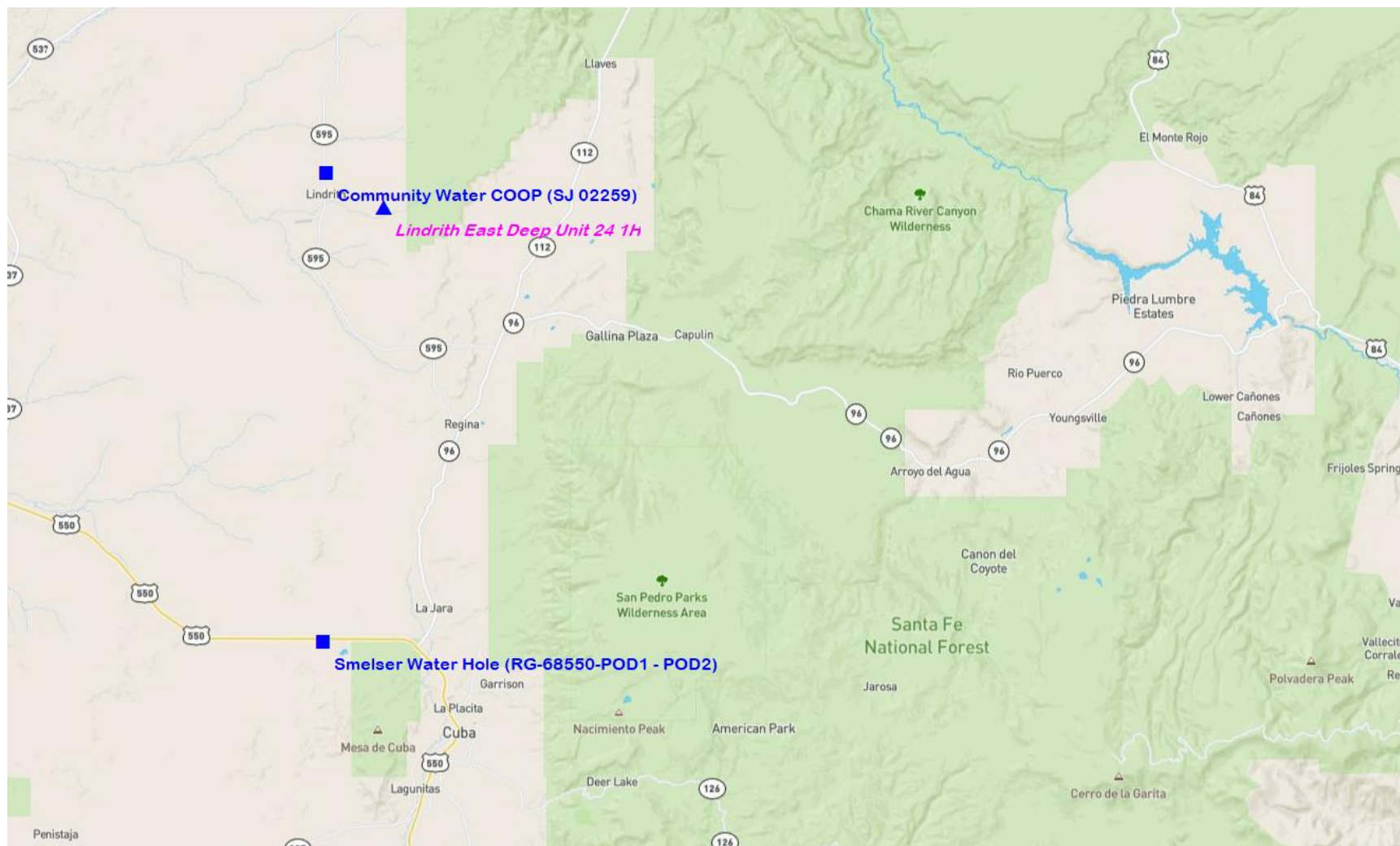




Drilling Layout \_Lindrith East Deep Unit 24 1H



Water Source Map  
Lindrith East Deep Unit 24 1H





Drilling Layout \_Lindrith East Deep Unit 24 1H





Completion Layout\_Lindrith East Deep Unit 24 1H



# **SURFACE USE PLAN OF OPERATION**

for

**LINDRITH EAST DEEP UNIT 24 #1H  
2191' FSL & 783' FWL  
Sec 24, T24N, R2W  
Rio Arriba County, New Mexico**

Prepared for

**San Juan Resources, Inc  
1499 Blake Street, Suite 10C  
Denver, CO 80202**



Created by



**332 Rd 3100  
Aztec, New Mexico 87410  
Phone: (505) 327-4892**

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6. METHODS FOR HANDLING WASTE
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Pursuant to Onshore Oil and Gas Order No. 1 (43 CFR 3160), this Surface Use Plan of Operations (SUPO) has been prepared for San Juan Resources, Inc (SJR) proposed Lindrith East Deep Unit 24 1H Application for Permit to Drill (APDs). This SUPO is in accordance with Onshore Oil and Gas Order No. 1, 43 Code of Federal Regulation (CFR) 2804.12 and 43 CFR 2884.11. The below information is provided to the surface management agency to give an accurate account of the proposed action for National Environmental Policy Act (NEPA) disclosure.

SJR will comply with all applicable laws, regulations, Onshore Orders, Conditions of Approvals (COA) attached to the approved APD's and this SUPO. No additional surface disturbance beyond that authorized by the approved APDs will be initiated without prior approval by the Authorized Officer (AO). SJR may utilize any of their existing well locations or water recycling facility locations as staging areas during project construction, drilling, and completion phases. Any drainage incurred to previously interim reclaimed surfaces, as a result of staging, would be promptly repaired and reclaimed following use.

#### **1. EXISTING ROAD**

- A. Please see the existing road map and written directions from the intersection of US Hwy 550 and US Hwy 64 in Bloomfield, NM in Appendix H.
- B. For existing County Roads or roads that are considered collector roads, SJR would defer to the county or to the Roads Committee, when formed, for maintenance determinations.
- C. Existing roadways utilized would be maintained to the same or better conditions as existed prior to the commencement of operations. Roadways would be maintained to accommodate anticipated traffic volumes with all-weather access. Maintenance would continue until wells accessed by existing roadway have been Plugged and Abandoned (P&A) and a Final Abandonment Notice (FAN) has been approved.
- D. Best Management practices (BMPs) for dust abatement would be utilized along the roads to reduce fugitive dust during construction, drilling, completion, and any other heavy traffic activities during the life of the project. Water application using a rear- spraying truck or other suitable means would be primary method of dust suppression along the roads. If it is necessary to apply commercial dust mitigation materials such as magnesium chloride, organic-based compounds, or polymer,

compounds to the roads. SJR would seek approval from the appropriate surface managing agency.

- E. No routine maintenance activities would be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than six inches, the soil would be deemed too wet for construction or maintenance.
- F. Existing water management and erosion control structures would be inspected and maintained to accommodate long term storm water control.
- G. Please see Appendix B for SJR's Road Maintenance Plan.
- H. During the October 22, 2021, onsite visit, it was determined by the operator and surface managing agency that SJR would upgrade and maintain the existing road from Hwy 95 to the proposed project area using Gold Book Standards.

## **2. LOCATION OF EXISTING WELLS**

Water wells and oil and gas wells (plugged and abandoned, active, proposed) within a one-mile radius of the Lindrith East Deep Unit 24 #1H Project are depicted in Appendix D. There are 0 water wells and 2 oil and gas wells (plugged and abandoned, active, proposed within a mile radius of the proposed well pad location.

## **3. LOCATION OF EXISTING OR PROPOSED PRODUCTION FACILITIES**

### **Production Facilities**

- A. Please see Appendix G (Layout Diagrams) for a diagram depicting the anticipated production facility layout.
- B. Production facilities for the Lindrith East Deep Unit 24 1H would be located on the southeast side of the proposed well pad. Facilities on location may include, but are not limited to (including facilities that may occur through the life of the well), vertical and/or horizontal separators of varying types, 500 bbl. oil and water tanks, flash tanks, below grade tanks of varying sizes, about grade steel pit tank, vapor recovery units, vapor recovery lower, LACT

building and equipment, fuel gas scrubber, chemical skids, gas lift skid, gas lift compressor, sales compressor, electric/automation buildings and equipment, capstone generators or other generator types, power poles, communication lower, combustors, cathodic protection equipment, various pumps, meter urns, pipeline risers and artificial lift equipment.

- B. Berms or containment would be constructed around all storage tanks sufficient in size to contain the volume of the single largest storage vessel plus 1-foot freeboard for precipitation: or, 110% of the volume of the largest vessel. Containment walls and floors will be impervious to fluids including hydrocarbons for 72 hours.
- C. Within 90 days of installation, all long-term production facilities associated with the Lindrith East Deep Unit 24 1H Well Project would be painted "Juniper Green". "Juniper Green" was chosen to blend with the natural background color of the landscape as seen from a viewing distance and location typically used by the public. Contrasting safety paint and/or reflective tape will be used to highlight and mitigate a potential hazard, such as tripping hazards, pinch points, or protruding or mechanical edges that could harm the operator or public.
- D. All open-vent exhaust stacks will be modified/equipped and maintained to prevent birds or bats from entering and to discourage perching, roosting and nesting.

### Pipeline

- A. Please see construction plans in Appendix C (Proposed Pipeline Plats) for the proposed new pipeline corridor center line survey plats identifying route, length and location, existing structures within the same corridor and/or crossed, TUAs, and any other site-specific design features.
- B. SJR proposes to construct 93.84-foot pipeline system to serve the Lindrith East Deep Unit 24 1HH Well Project. SJR would mark the exterior boundaries of the proposed pipeline corridor with stake and/or lath at 30-foot intervals prior to construction. The stakes and/or laths would be flagged in a distinctive color as determined by the holder. If applicable, the survey station numbers would be marked on the boundary stakes and /or laths at the entrance to and the exits from BLM



lands. The holder shall maintain all boundary stakes and/or laths in place until final cleanup and restoration is completed and approved the BLM-FFO and the private surface owner.

- C. The proposed pipeline would be constructed and installed within 40-foot-wide corridor. If applicable, where parallel and adjacent to the proposed access road, the pipeline would utilize 20 feet of the proposed access as working surface and extend only an additional 20 feet beyond the access road corridor. The resulting access and pipeline would encompass a consolidated 50-foot-wide total disturbed corridor.
- D. Within the permitted corridor, trees that measure less than three inches in diameter at ground level (if present) and slash/brush would be chipped or mulched and incorporated into the topsoil as additional organic matter. All sound woody material from trees three inches in diameter or greater at ground level (if present) would be cut as low as practical to avoid waste. The mean height of any stump will not exceed one half its diameter, and in no case exceeding six inches on the uphill side. Tree trunks (left whole) and cut limbs would be stacked and made available to the private surface owner. The subsurface portion of trees (tree stumps) would be disposed of appropriately.
- E. SJR would excavate up to three trenches within the pipeline corridor offset from one another by 5 ft. using a trencher, excavator, or backhoe. The upper six-inches of topsoil would be excavated and windrowed along the trench segregated from subsoil horizons or other excavated material. Subsoil and other excavated material would be windrowed on the opposing side of the trench as the topsoil or windrowed separately on the same side depending on site conditions. The bottom of the trenches would be dug to a depth of 4 feet with a minimum trench width of sixteen inches {16"}. After a pipe has been welded and coated, a side-boom tractor or excavator with pipe handling attachment would be used to place the pipe into the trenches. Each trench would consist of up to three (3) steel and/or poly gas/liquids pipelines not to exceed 12-inch in diameter. In addition, SJR may elect to place a 6-inch or less poly or steel water pipeline, fiber optic, and electric power line would be placed in one of the three trenches. Where applicable, the proposed pipeline would be setback five feet from existing SJR pipelines and minimum of 15 feet (unless otherwise agreed upon) from other operators existing pipelines. If existing lines are paralleled, disturbance from the existing pipe Right of

Way would be utilized within the proposed 40-foot corridor.

F. All below grade pipelines would be buried to a depth of 4 feet. However, when applicable, pipelines would be buried in excess of four feet at road crossings, wash crossing, or existing pipeline crossings. In areas where the pipeline crosses and existing road. SJR would utilize the following backfill method. The pipeline trench would be placed side-by-side along the length of the trench across the road. The sacks would be placed with approximately 3-to-4 inch spacing between each sack. The road base would then be backfilled and compacted to the surface. This method has been shown to provide the best road stabilization and to alleviate potholes and depressions that often occur over the trench after the backfill material settles over time. If county-maintained roads are crossed, the roadway would not be completely closed. Single land travel would be maintained via cross over ramps or cutting road for pipe installation one half at a time. Resources and other local roads crossed may be temporarily closed. Prior to cutting roadway, SJR would have the pipe welded, coated, inspected and ready to drop in upon excavation, minimizing closure time. When crossing foreign pipelines, crossing is generally under the existing line with a clearance between lines of 24-inches. Site specific circumstances such as bed rock or excessive depth of foreign line may result in crossing over or reduced clearance between lines. Where pipelines cross a drainage or wash, the pipe is deepened so top of pipe is 6 feet below the bottom of drainage or wash.

G. Backfilling operations would be performed within a reasonable amount of time to ensure that the trenches are not left open for more than 24 hours. Soft plugs will be placed every quarter of a mile within an open trench. No more than one mile of open trench, or the amount of trench that can be worked in a day, will be opened at a time. If trench is left open overnight, it will be temporarily fenced, or a night watchman **will** be utilized. The excavated soil would be returned to the trenches, atop the pipe, and compacted to prevent subsidence. The trenches would be compacted approximately 2 feet of fill is placed over the pipe and after the ground surface has been leveled. A crown would be constructed over the tops of the trench to allow for settling. Trenches will be maintained to correct settlement and prevent erosion.

H. Where appropriate and applicable, earthen berms would be constructed within the pipeline corridor where it intersects existing roadways. The berms would be a minimum of 4 feet high with a 1-foot cut at the base



facing towards the direction of potential traffic to discourage unauthorized cross-country travel on the cleared corridor.

- I. Approximately 10-20 pipeline construction personnel will be onsite during construction. Approximately 5 -10 standard size oilfield pickups will be used to transport construction personnel and 5 transport truck loads to deliver equipment to location. Workers will be on-site 10 hours a day, 7 days a week, for the duration of construction. The majority of the workers will commute to the job early in the morning (between 6:00 a.m. and 7:00 a.m.) and will leave in the evening (between 5:30 p.m. and 6:30 p.m.). Heavy equipment will be transported to the site and left within the permitted area until construction is complete, unless other arrangements are made with the surface owner.
- J. Following construction, carsonite pipeline markers would be installed along the pipeline corridor within the line of sight. These markers would not create safety hazards.
- K. Prior to the well-connected pipelines being placed in service, the lines would be hydrostatic tested. Water from testing would be purged from the lines directly to water trucks or vessels at an existing facility. Water would be disposed of at an approved saltwater disposal or reused by SJR during active drilling and completion operations.
- L. Prior to the steel lines being placed in service, cathodic protection would be installed. Cathodic protection is an integral part of maintaining the integrity of pipelines, wellbores, and other sub-grade metallic structures. It is accomplished through the use of sacrificial anode beds. Anode beds consist of a sacrificial metal (anode), a rectifier, and cabling. The sacrificial metal is a more easily corroded metal. The purpose of the sacrificial anode beds is to provide the necessary material for the anodic process of cathodic protection. The rectifier and cabling provide the electrical current required to effectively protect the sub-grade structure (cathodic). Cathodic protection facilities would remain in place for the life of the proposed pipelines. Upon final reclamation of the pipeline, the decommissioning of the anode bed would be completed in accordance with all State, Federal, local regulatory requirements and surface owner.
- M. Above ground appurtenances associated with the proposed pipelines may include, but are not limited to, pigging stations, future well tie-in risers, valve cans, Coriolis check meters/meter skids/meter house, automation

equipment, BGT(s), crossover valve set, and protective barricade structures if necessary.

- N. Within 90 days of installation, all above ground appurtenances associated with the permanent buried steel pipelines would be painted "Covert Green". Contrasting safety paint and or/reflective tape will be used to highlight and mitigate a potential hazard, such as a tripping hazards, pinch points, protruding or mechanical edges that could harm the operator or public, and pipe barricades to highlight visibility from roadway.
- O. In addition to buried pipelines, SJR may lay up to two (2) parallel 12-inch inside diameter or less lay flat hoses or high-density polyethylene (HDPE) pipelines within the proposed pipeline corridor and other existing road and pipeline corridors to serve drilling and completion operations. These surface pipelines would be temporary for the duration of active drilling and completions operation in the surrounding area and movement of water between recycling facilities as needed. These pipelines would transport fresh water, flowback water, and produced water. Where surface lines cross roadways, dual 18-inch or 24-inch culverts would be installed within the roadway and used as casing for the pipelines. Prior to breaking down and picking up surface lines they would be pigged multiple times with foam pigs and compressed air. Liquid would be recovered in a facility, recycling containment, or water hauler for reuse or disposal.
- P. Final reclamation of the proposed pipeline corridor is discussed in the Surface Use Plan (Appendix B)
- Q. To allow adequate space for safe pipeline construction, SJR requests three TUA's (specific to pipeline). The need for the three TUAs is discussed below.
  - a. TUA 1: TUA will be used for pipeline tie-in
  - b. TUA 2: TUA will be used for waterline crossing.
  - c. TUA 3: TUA will be used for road crossing.
- R. The proposed pipeline will not cross any existing fence lines.



#### **4. LOCATION AND TYPES OF WATER SUPPLY**

Please see Appendix E for the water transportation map for the below listed sources.

During construction, fresh water sources will be used to dampen the native soils as fill slopes are constructed in lifts. This will promote acceptable compaction for the access road and expanded well pad, as well as control fugitive dust. SJR anticipates use of approximately 1,500 bbls of fresh water to construct well site.

Additionally, fresh water is used on an as needed basis for dust suppression along dirt roadways during drilling, completion, and any other operations where heavy traffic would be anticipated. The total amount applied during these activities is all dependent upon, but not limited to , length of dirt road, weather conditions, relative humidity, density and duration of traffic. The estimates are general and assumed using average past volumes on similar activities.

During the initial drilling, and post completion drill out operations, SJR will use a consolidated 3,000 bbls per well. Hole conditions while drilling will dictate the actual volumes used.

Fresh water would be obtained from the following locations.

##### **Smelser Water Hole (RG-68550-POD1 - POD2)**

The Smelser Water hole is located in the northwest ¼ of the northwest ¼ in section 9, Township 21 North, Range 7 West. The documented POD is located at Latitude -107.046578, Longitude 36.070526. Transportation from source will be via temporary surface lay flat lines and or trucking.

##### **Community Water COOP (SJ 02259)**

SJ 02259 is located in Section 16, Township 24 North, Range 2 West, NMPM. The documented POD is located at Latitude 36.311670° North and Longitude - 107.047230°. This source is located on public lands managed by the BLM-FFO. Transportation from source will be via temporary surface lay flat lines and or trucking.

During completion SJR would use non-potable water from a non-potable water bearing formation. SJR may also utilize produced water gathered from existing wells in the immediate area. SJR may also utilize fresh water trucked from wells/pond listed above. Flowback water from completions operations would be recycled for re-use. The non-potable sources would be gathered, stored, treated, and filtered at on-site water facilities.

## **5. CONSTRUCTION MATERIALS**

All surface infrastructure would be constructed utilizing native borrow within the permitted area to create a balanced working surface. Surfacing material of fill material, such as sandstone, gravel, pit run, or road base would be used if needed and economically viable and would be obtained from an approved location. SJR will maximize the use of native material within the proposed project area to reduce or eliminate the need to haul in foreign materials.

Material may be imported and used for any of the following reasons; low water crossings (pit run and road base), road surfacing (road base, gravel or sandstone), erosion control (riprap cobble stone), barricades (boulders), under and surrounding equipment (gravel), and filling soft or muddy areas (sandstone, pit run, road base or gravel)

A map of borrow pit location where SJR may obtain material can be found in Appendix F. The borrow pits are labeled with operating company name if applicable and legal location to the quarter-quarter.

## **6. METHODS FOR HANDLING WASTE**

### **A. Cuttings**

- Drilling operations would utilize a closed-loop system. Drilling of the horizontal laterals would be accomplished with water-based mud. Oil based mud could be used contingent on formation properties encountered. All cuttings would be placed in roll-off bins and hauled to a commercial disposal facility or land farm. SJR would follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit would be used.
- Closed-loop tanks would be adequately sized for containment of all fluids.

### **B. Drilling Fluids**

- Drilling fluids would be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids would be recycled and transferred to other permitted closed-loop systems or disposed of at one of the locations specified below in part H.

### **C. Spills**

- Any spills of non-freshwater fluids would be immediately cleaned up and

removed to an approved disposal site.

#### D. Sewage

- Portable toilets would be provided and maintained as needed during construction, drilling and completions operations.

#### E. Garbage and other waste material

- All garbage and trash would be placed in enclosed metal trash containers. The trash and garbage would be hauled off site and dumped in an approved landfill, as needed.

#### F. Hazardous Waste

- No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completion of these wells.
- No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
- All fluids (i.e., scrubber cleaners) used during washing of production equipment would be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.

#### G. Flowback:

- Flowback transported off location will consist of approximately 2500 bbls of produced water per day for approximately 30 days.
- Flowback fluid would be gathered, recycled, and reused as described in Section 5. If there are no foreseen drilling and completion operations, flowback would be disposed of at one of the disposal wells listed below.

#### H. Produced Water:

SJR would dispose of produced water at the following facilities:

- Disposal 001, API 30-045-26862, operated by Basin Disposal Inc., located in the Southeast<sup>1</sup>/<sub>4</sub> of the Northwest<sup>1</sup>/<sub>4</sub>, Section 3, Township 29 North, Range 11 West.



- Sunco Disposal 001, API 30-045-28653, operated by Agua Moss, LLC, located in the Southwest<sup>1</sup>/<sub>4</sub> of the Northwest<sup>1</sup>/<sub>4</sub>, Section 2, Township 29 North, Range 12 West.
- TNT SWD, API 30-039-31257, operated by T-N-T Environmental, Inc. located in Section 8, Township 25N, Range 3 West.

2. Produced water would be hauled by truck and/or transported through below grade or surface pipeline infrastructure to any of SJR's potential water recycling facilities. Produced water may be gathered and used in future drilling and completion operations as an alternative disposal method.

## **7. WELL SITE LAYOUT**

Topsoil removal, storage, and protection is described in detail in the Surface Reclamation Plan (Appendix A). During construction, the proposed well pad would be leveled to provide adequate space and a level working surface for vehicles and equipment. Excavated materials from cuts would be used on fill portions of the well pad to level the surface. The approximate cuts, fills, and well pad orientation is shown on the cut/fill worksheet and cross section diagrams in the survey plats found in Appendix C. Additionally, please see Appendix G for the proposed Well Pad Facility Diagram showing long term well pad layout, reclamation areas, and disturbance acreage; Well Pad Drilling Diagrams showing the location and orientation of the drill rig; and the Well Pad Completion Diagram, showing the location and orientation of the completion equipment.

Drilling of the proposed well would require an expansion of 400-foot by 400-foot well pad (4.85 acres). A 40-foot construction zone is proposed on the west, north and east sides of the proposed pad. This entire area would be utilized during construction, setting of production equipment, drilling and completion phases.

## **8. PLANS FOR SURFACE RECLAMATION**

A Surface Reclamation Plan for the Lindrith East Deep Unit 24 1H Well Project is attached hereto as Appendix A. This Surface Reclamation Plan was prepared in accordance with Onshore Oil and Gas Order No, 1.

The Surface Reclamation plan addresses:

- Configuration of the reshaped topography;
- Drainage systems;

- Segregation of spoil material;
- Surface disturbances;
- Backfill requirements;
- Redistribution of topsoil;
- Soil treatments;
- Seeding or other steps to reestablish vegetation;
- Weed control;
- and practices necessary to reclaim all disturbed areas.

## **9. SURFACE OWNERSHIP**

The project is located  
on:

Bureau of Land Management  
6251 College Blvd Suite A  
Farmington, NM 87402  
(505) 564-7600

## **10. OTHER INFORMATION**

- SJR's appointed construction contractors would call New Mexico One-Call (or equivalent) to identify the location of any marked or unmarked pipelines or cables located in proximity to the proposed Lindrith East Deep Unit 24 1H Well Project or any other areas proposed to have ground disturbance at least two working days prior to ground disturbance.
- The construction phase of the project would commence upon receipt of an approved APD. The BLM-FFO would be notified via phone or email at least 48 hours prior to the start of construction activities associated with the project.
- All activities associated with the construction, use/operation, maintenance, and abandonment or termination of the Lindrith East Deep Unit 24 1H Well Project would be limited to areas approved in the APDs.
- The project area has been surveyed by the Division of Conservation Archaeology. The cultural survey report will be submitted directly to the surface managing agencies. Cultural mitigation, monitoring, and implementation of site protection barriers would occur if stipulated in the COAs attached to the approved APDs.

- Construction and maintenance activities would cease if soil or road surfaces become saturated to the extent that construction equipment is unable to stay within the project area and/or when activities cause irreparable harm to roads, soils, or streams.
- All BLM-FFO general COAs would apply to this action.

## APPENDIX A - SURFACE RECLAMATION PLAN



## RECLAMATION PLAN

for

LINDRITH EAST DEEP UNIT 24 #1H  
2191' FSL & 783' FWL  
Sec 24, T24N, R2W  
Rio Arriba County, New Mexico

Prepared for

San Juan Resources, Inc  
1499 Blake Street, Suite 10C  
Denver, CO 80202

August 2022



Created by



332 Rd 3100  
Aztec, New Mexico 87410  
Phone: (505) 327-4892

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Applicant	San Juan Resources, Inc
Project Type	Reclamation of a natural gas well site.
Well, Oil and Gas Lease, or Right-of-Way (ROW) Name	Lindrith East Deep Unit 24 1H
Legal Location	1775' FNL, 1077' FWL, Section 24, Township 24 North, Range 2 West Sandoval, New Mexico
Lease Number(s)	NMNM-128373

## **1. INTRODUCTION**

San Juan Resources, LLC is providing this Revegetation Plan to the Bureau of Land Management – Farmington Field Office (BLM-FFO) for the Lindrith East Deep Unit 24 1H. During interim and final reclamation, San Juan Resources, LLC will meet the reclamation standards provided in this plan to re-establish vegetation and control noxious weeds and erosion. This reclamation plan has been prepared to meet the requirements and guidelines of the Bureau of Land Management (BLM) Farmington Field Office (FFO) Bare Soil Reclamation Procedures (BLM 2013a) and Onshore Oil and Gas Order No. 1. San Juan Resources, LLC will be responsible for all surface disturbance authorized by the approved APDs until the permits are transferred or they obtain a Final Abandonment Notice (FAN) or relinquishment from the BLM-FFO.

San Juan Resources, LLC, may submit a request to the BLM/FFO to revise the Reclamation Plan at any time during the life of the project in accordance to page 44 of the Gold Book (USDI-USDA 2007). San Juan Resources, LLC will include justification for the revision request.

San Juan Resources, LLC contact person for this Reclamation Plan is:

Arleen Smith, Regulatory Manager  
Walsh Engineering  
332 Rd 3100  
Aztec, NM 87410  
Phone:(505) 327-4892

## **2. PROJECT DESCRIPTION**

Infrastructure proposed to be constructed, operated, subsequently interim reclaimed, and eventually fully reclaimed as part of the Lindrith East Deep Unit 24 1H includes one well pad with production facilities and construction buffer zone, one well pad access road, pipeline corridor including temporary drilling and completion surface lines, and three temporary use areas (TUAs). The proposed project is located on private land (Federal Minerals), ~ 109 miles South of Bloomfield, NM.

### **2.1 Estimated Total Area of Disturbance**

The Lindrith East Deep Unit 24 1H well pad would result in a total of 12.10 acres of surface. During interim reclamation, of the total 12.10 acres proposed surface disturbance,

approximately 9.89 acres would be fully reclaimed, 0.87 acres would be reseeded only, and the remaining 2.35 acres would be stabilized and used as a working surface throughout the life of the project. The working surfaces and the areas that were reseeded only, would be fully reclaimed during final reclamation

## 2.2 Well Pad

The proposed Lindrith East Deep Unit 24 1H Well Project would be 300 ft. x 225 ft well pad. The proposed well expansion is located on private land (Federal Mineral) and abuts private land on the East and South sides. The expanded well will be accessed by existing roads and no new pipeline is being proposed. A 40-foot construction zone is proposed on the West, North and East sides of the proposed pad. (480ft x 440ft) No construction zone is proposed along the south edge of the pad that directly abuts a private land boundary. The approximate cuts, fills and well pad orientation is shown on the construction plats in Appendix A.

## 2.3 Access Road

The proposed access road would be 266.97 feet long constructed withing a 30 foot wide corridor (1.04 acres). Due to the roadway length and topography. During interim reclamation, approximately 1.04 acres of the newly constructed roadway would be fully reclaimed. For the long-term operations, a 14-foot-wide running surface, and the bottoms of the bar ditched along either of the access road would remain for life of the project.

## 3. PRE-DISTURBANCE SITE VISIT

The pre-disturbance site visit occurred on October 22, 2021. The following people were present at the site visit (Table 1).

Table 1. Pre-Disturbance Onsite Visit Attendees

Name	Company	Contact
Vanessa Fields	Walsh Engineering	505-787-9100
Mike Veazey	Walsh Engineering	505-320-3195
Glenn Russell	Vector Survey	505-320-9595
James H	Envirotech	505-801-4034
Jaime DeMarco	BLM-FFO	505-564-7623
Ryan Joyner	BLM-FFO	505-564-7662
Ryan McBee	BLM-FFO	505-564-7672
Geoff Haynes	BLM-FFO	505-564-7600
Stan Allison	BLM-FFO	505-564-7600
Ron Kellermueller	NMDGF	505-582-6093
Eryn Bordes	ACI	802-881-8567
Ashley Taylor	ACI	330-635-3764



Sam Hunt	ACI	513-562-7460
Deb Gibson	ACI	505-486-2616

### 3.1 Vegetation Community

Based on observations made during the pre-disturbance site visit, it has been determined that the vegetation community which best represents the proposed project area is classified as Pinon-Juniper Woodland community.

### 3.2 Proposed Reclamation Seed Mix

Disturbance will be re-contoured, and topsoil will be redistributed and prepared for seeding by the construction contractor. Ripping, disking, and seeding of the site will be done by San Juan Resources' construction contractor using the BLM-approved seed mix shown which is shown in Table 2. The proposed reclamation seed mix takes into account the existing vegetation on the proposed project site.

Table 2. BLM Farmington Field Office Pinyon Juniper Community Seed Mix

#### **Pinyon-juniper community menu-based seed mix by habitat type for reclamation (minimum requirement) \*\***

Common Name	Scientific Names	Variety	Season	Form	PLS Lbs/acre*
Mountain Mahogany	<i>Cercocarpus montanus</i>	VNS	Warm	Shrub	2.0
Western wheatgrass	<i>Pascopyrum smithii</i>	Arriba	Cool	Sod	2.0
Needleandthread	<i>Hesperostipa comata</i>	VNS	Cool	Bunch	3.0
Indian ricegrass	<i>Achnatherum hymenoides</i>	Paloma or Rimrock	Warm	Bunch	3.5
Prairie Junegrass	<i>Koeleria macrantha</i>	VNS	Cool	Bunch	2.0
Muttongrass	<i>Poa fendleriana</i>	VNS	Cool	Bunch	2.0
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	VNS	Warm	Forb	0.25

\*\*Based on 60 pure live seeds (PLS) per square foot, drill seeded. Double this rate (120 PLS per square foot) if broadcast or hydroseeded.

### 3.3 Vegetation Reclamation Standards

Requirements for determining reclamation and if it is successfully completed for the selected vegetation community are determined by the reclamation percent cover standards for the community, as outline in Table 3. These standards must be met during post-disturbance monitoring procedures in order for the Bureau of Land Management to sign off on the attainment of vegetation reclamation standards.

Table 3. Reclamation Goal for Sagebrush Community

<i>Functional Group</i>	<i>Percent (%) Foliar Cover</i>	<i>Common Species</i>
Trees/Shrubs/Grasses/Forbs	$\geq 35$	Utah juniper, Pinyon pine; big sagebrush, four-wing saltbrush, Antelope bitterbrush, alkali sacaton, western wheatgrass, Indian ricegrass, galleta, sand dropseed, scarlet globmallow, wooly Indianwheat, fleabane, Penstemon spp., buckwheat, threadleaf groundsel
Invasive/undesirables 10% allowed toward meeting standard of 35%.	$\leq 10$	Plants that have the potential to become a dominant species on a site where its presence is a detriment to revegetation efforts or the native plant

### 3.4 Weed Survey

During the onsite visit, the proposed action area was surveyed for noxious weeds listed on the New Mexico Department of Agriculture's Class A and Class B list. During the survey, no noxious weeds were found. Russian thistle was observed in the project area and sporadically mixed in the surrounding habitat.

### 3.5 Soil Evaluation

The BLM-FFO representative and San Juan Resources representative collaboratively decided at the pre-disturbance site visit that no soil testing is necessary for the proposed project area.

### 3.6 Pre-Disturbance Site Photographs

Photographs were not taken of the pre-disturbance site. Each photograph in this Surface Reclamation Plan is annotated with the location of the photo point and the direction the photograph was taken. The photographs and locations are listed in Table 4 below.

Table 4. List of Pre-Disturbance Site Photographs

<b>Photographs</b>	<b>Location Description</b>
	Photo from each photo point
	Two photos of each ROW line point intercept transect (Looking from each stake at the opposite stake)
	Photo of each vegetation cage

#### **4. Reclamation Techniques for Successful Revegetation**

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All activities associated with the construction, use/operation, maintenance, and abandonment or termination of Lindrith East Deep Unit 24 1H Well Project would be limited to areas approved in the APD's.

##### **4.1 Vegetation and Site Clearing**

Vegetation removed during construction, including trees (if applicable) that measure less than three inches in diameter (at ground level) and slash/brush, would be chipped or mulched and incorporated into the topsoil as additional organic matter. If trees are present, all trees three inches in diameter or greater (at ground level) would be cut to ground level and delimbed. Tree trunks (left whole) and cut limbs would be stacked and made available to the public. The subsurface portion of trees (tree stumps) would be disposed of appropriately.

##### **4.2 Topsoil Replacement**

The upper six inches of topsoil (if available) would be stripped following vegetation mulching. Topsoil would not be mixed with the underlying subsoil horizons and would be stockpiled as a berm/windrow along the interior perimeter of the construction buffer zone. Topsoil and sub-surface soils would be replaced in the proper order, prior to final seedbed preparation. Redistribution of topsoil shall not be done when the ground or topsoil is wet. Vehicle/equipment traffic would not be allowed to cross topsoil stockpiles. If topsoil is stored for a length of time such that nutrients are depleted from the topsoil, amendments would be added to the topsoil as advised by the San Juan Resources, LLC environmental scientist or appropriate agent/contractor.

##### **4.3 Water Management/Erosion Control Features**

The BLM representative and the San Juan Resources representative would work in collaboration to develop site-specific erosion control or water management features and to identify installation locations. Potential erosion control or water management features that may be used include (but are not limited to) water bars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, bellholes upstream of culverts, outlet protection for culverts, erosion control blankets, straw bales, and straw wattles.

- A culvert would be installed at the intersection with the existing roadway to allow for sufficient drainage within the disturbance.
- A minimum of one (1) 24-inch culvert would be placed at the topographically low area that intersects the new access road. Additional culverts would be added every 200 feet or as needed.

During interim reclamation, areas of the project that are not needed for long term well operations and maintenance will be recontoured to re-establish disturbed terrain and blend into the surrounding landscape. The natural drainage network would be re-established as practicable with necessary diversions and silt traps around the long-term project footprint.



#### 4.4 Seedbed Preparation

For cut and fill slopes, initial seedbed preparation will consist of pushing (dozer)/excavation (excavator)/hauling (belly scraper) the unneeded fill slope material and placing it within the cut slopes. Natural rolling contours would be implemented to break up the surface and aid in removing signs of the sharp well pad corners once vegetation established. Emphasis would be placed on restoration of the existing drainage patterns and landforms to preconstruction conditions, to the extent practicable.

Within areas that would be reseeded, stockpiled topsoil would be evenly redistributed prior to final seedbed preparation. Seedbed preparation within compacted areas will be ripped to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping will be conducted in two passes at perpendicular directions. If large clumps/clods result from the ripping process, disking would be conducted perpendicular to slopes in order to provide terracing and minimize runoff and erosion. Final seedbed preparation would consist of raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting. Seedbed preparation may not be necessary for topsoil storage piles or other areas of temporary seeding.

#### 4.5 Soil Amendments

Soil amendments would be added to the topsoil, if needed, as advised by the San Juan Resources, LLC. environmental scientist or appropriate surface management agency.

#### 4.6 Seeding

The seed mix chosen for this project is listed in Table 2. Seeding would occur at the time of interim and final reclamation.

A disc-type seed drill or modified rangeland drill that allows for seeding species from different seed boxes at different planting depths will be used to seed the disturbed areas of the project area. San Juan Resources or its reclamation contractor will ensure that perennial grasses and shrubs are planted at the appropriate depth. Larger seeds (such as Indian ricegrass) would be planted at a depth of one to two inches, Intermediate size seeds (such as wheatgrasses and shrubs) will be planted at a depth of 0.5 inch and small seeds (such as alkali sacaton and sand drop seed) will be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable using available equipment, the entire seed mix will be planted no deeper than 0.25 inch. A drag, packer, or roller would follow the seeder to ensure uniform seed coverage and adequate compaction. Seed would be drilled perpendicular to slopes at practical in order to minimize runoff and erosion.

Drill seeding may be used on well-packed and stable soils that occur on gentler slopes and where equipment and drills can safely operate. Where drill seeding is not practicable due to topography, the reclamation contractor will hand-broadcast seed using a "cyclone" hand seeder or similar broadcast seeder. Seeds like Galleta (with florets) and winter fat (with fine hairs) may also be broadcast as they do not flow well through a seeder. Broadcast application of

seed requires a doubling of the drill-seeding rate. The seed will then be raked into the ground, so the seed is planted no deeper than 0.25 inch below the surface.

#### **4.7 Noxious and Invasive Weed Control**

Should any noxious or invasive weeds be documented on any portion of the action area located on BLM-managed lands after earthwork and seeding activities, the BLM-FFO Coordinator will be notified and San Juan Resources, LLC will provide a Weed Management Plan and if necessary, a Pesticide Use Proposal. 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. San Juan Resource's weed-control contractor would contact the BLM-FFO prior to using these chemicals.

#### **4.8 Revegetation Success for Final Abandonment**

In order to reach a final abandonment status for disturbance and reclamation on BLM-manages lands, reclamation efforts much reach a uniform vegetative cover of native plant species. Requirements for determining reclamation and its successful completion of the selected vegetation community on BLM lands is determined by the reclamation percent cover standards for the community, as outlined previously in Table 3. These standards must be met on BLM managed lands during post-disturbance monitoring procedures in order for the BLM-FFO to sign off on the attainment of vegetation reclamation standards.

Revegetation percent cover standards will be attained, documented, and submitted to the BLM-FFO by San Juan Resources, LLC or an exception granted before the BLM-FFO will approve a final abandonment notice (FAN) or relinquishment.

### **5. Monitoring Requirements**

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Monitoring will be completed according to the Bureau Land Management Bare Soil Reclamation Procedure B (BLM 2013b) and Monitoring activities will be initiated after the project is completed, during the post-disturbance earthwork and seeding inspection process.

#### **5.1 Post-Reclamation Monitoring Initiation**

After the well has been plugged and the reclamation work and seeding have been completed, a post-disturbance inspection at the project site will occur. The Bureau Land Management representative (in collaboration with San Juan Resources, LLC) will determine site-specific monitoring locations for photo point monitoring and vegetation line point intercept transects, (if necessary). Bureau Land Management will collect GPS data on the monitoring locations, take the initial monitoring photographs, and complete the initial monitoring report within 60 days of the post-disturbance earthwork and seeding inspection. The initial report will be available from the Bureau Land Management.



## 5.2 Post-Reclamation Monitoring Photographs

The minimum photo points necessary to document post-disturbance monitoring (including annual monitoring and long-term monitoring) are described in Table 5. Photographs will be taken with a digital camera without zoom or wide-angle adjustments. GPS coordinates for each photo point will be provided by the Bureau Land Management in the initial monitoring report and subsequently included with each photograph in the annual monitoring report.

Table 5. List of Minimum Required Post-Disturbance Monitoring Photographs

Photo Point	Photograph	Location

## 5.3 Annual Monitoring

If needed, San Juan Resources, LLC will begin annual monitoring of the photo points and the vegetation line point intercept transects 2 calendar years after the completion and approval of the final earthwork and seeding. Monitoring may occur any time of the year. A completed monitoring report of the permanent photo points will be submitted by San Juan Resources, LLC to Bureau Land Management by December 31 of the year the site is monitored. Within 60 days after receipt, the Bureau Land Management will acknowledge that the report has been received and evaluated.

Vegetation line point intercept transects will be monitored annually until attainment of vegetation reclamation cover standards have been met. San Juan Resources, LLC will keep a record of the monitoring for future submittal to the Bureau Land Management at reclamation attainment.

## 6. References

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43 CFR Part 3160, "Onshore Oil and Gas Order No. 1; Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Approval of Operations," 72 Federal Register 44 (March 2007), pp.10328- 10338.

U.S. Department of the Interior – U.S Department of Agriculture (USDI-USDA). 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST- 06/021+307/REV 07. Bureau of Land Management. Denver, Colorado. 84 pp.

## APPENDIX B - ROAD MAINTENANCE PLAN

# ROAD MAINTENANCE PLAN

for

LINDRITH EAST DEEP UNIT 24 #1H  
2191' FSL & 783' FWL  
Sec 24, T24N, R2W  
Rio Arriba County, New Mexico

Prepared for

San Juan Resources, Inc  
1499 Blake Street, Suite 10C  
Denver, CO 80202



Created by



332 Rd 3100  
Aztec, New Mexico 87410  
Phone: (505) 327-4892

## 1. INTRODUCTION

San Juan Resources, Inc is providing this Road Maintenance Plan (Plan) to the Bureau of Land Management Farmington Field Office (BLM-FFO) as part of the Surface Use Plan of Operation (SUPO) for the Lindrith East Deep Unit 24 #1H. The road addressed in the Plan was permitted under the Applications for Permit to Drill (APO) for the well. The coordinates (UTM NAD 83) for the access road is as follows:

- Start: -107.008521, 36.293929
- End: -107.008458, 36.294656

The road maintenance procedures provided in this Plan meet the standards established in the Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development and BLM Manual 9113. Per the Lindrith East Deep Unit 24 #1H Well Project APD, San Juan Resources, Inc will be responsible for road maintenance with well. The responsibility will continue until San Juan Resources, Inc transfers the permit or abandons the project and obtains a Final Abandonment Notice of relinquishment from the BLM-FFO. Refer to the SUPO or Conditions of Approval (COAs) attached to the approved APO for any upgrades to existing roads.

## 2. ROAD INSPECTIONS

San Juan Resources, Inc Representatives will formally inspect the road biannually, in the spring and fall, to assess the condition of the road. The formal road inspection will be recorded on a Road Inspection Form (blank form attached to this Plan). Completed Road Inspection Forms will be kept on file at San Juan Resources, Inc and can be provided to the BLM-FFO, if requested.

Additionally, outside of the formal inspection period, San Juan Resources, Inc Representatives driving to/from the project area **will** assess the condition of the road and notify the San Juan Resources, Inc Construction Supervisor if maintenance is needed.

Road maintenance activities will be documented at San Juan Resources and can be provided to the BLM-FFO, if requested.

## 3. ROAD MAINTENANCE

The following maintenance may be performed on an as needed basis:

- Water control structures (such as culverts, ditches, and silt traps) and/or cattle guards may be cleaned. If this occurs, the soil/sediment material will be spread on area roads or locations.
- Bar ditches may be pulled.
- Low water crossings and drainage dips may be cleared and/or repaired.
- Crowning may be repaired
- Litter may be collected
- Noxious weeds may be treated or controlled following the BLM-FFO noxious weed guidelines.
- The access road may be bladed.

ROAD INSPECTION FORM

Road Name:	County:
Date:	Time:
Weather:	
Inspector(s):	
Road Surface Type:	

Road Condition Inspection Items	Road Condition		
	Good	Poor	Comment
Water Control Structure(s)			
Low Water Crossing(s)			
Road Crowning/Ruts/Potholes			
Road Surfacing			
Cattle Guard(s)			
Litter			
Noxious Weeds Within/Adjacent to Roadway			
Vegetation Within Roadway			
Additional Site Specific Inspection Notes:			



## APPENDIX C - SURVEY PLATS

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6176 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., 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 Dr.  
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

<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name GAVILAN MANCOS OIL
<sup>4</sup> Property Code	<sup>5</sup> Property Name LINDRITH EAST (DEEP) UNIT 24		<sup>6</sup> Well Number 1H
<sup>7</sup> OGRID No. 20208	<sup>8</sup> Operator Name SAN JUAN RESOURCES, INC		<sup>9</sup> Elevation 7349

<sup>10</sup> Surface Location

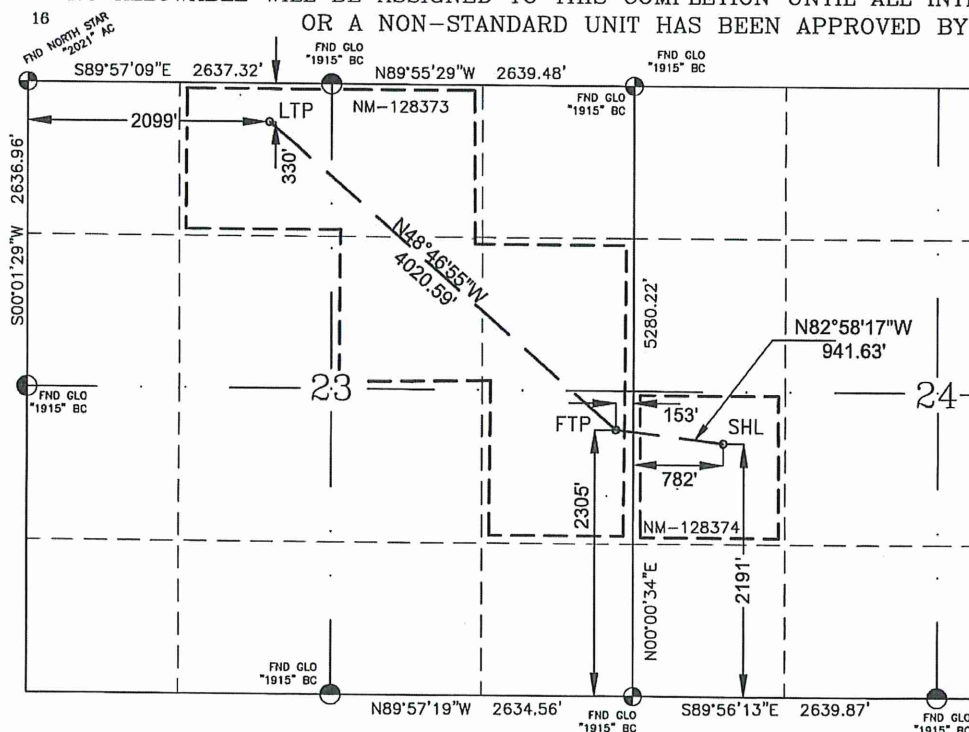
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	24-N	2-W		2191	SOUTH	782	WEST	RIO ARRIBA

<sup>11</sup> 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
C	23	24-N	2-W		330	NORTH	2099	WEST	RIO ARRIBA

<sup>12</sup> Dedicated Acres SEE DETAIL BELOW	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. R-22053
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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 (LTP)**  
330' FNL, 2099' FWL SEC. 23  
LAT: 36.302567° N  
LONG: 107.021055° W NAD83

**SURFACE (SHL)**  
2191' FSL, 782' FWL SEC. 24  
LAT: 36.294978° N  
LONG: 107.007625° W NAD83

**DETAIL: DEDICATED ACRES**  
SEC. 24: NW/SW, (40 ACRES)  
SEC. 23: NE/SE, S2/NE, NW/NE  
NE/NW, (200 ACRES)  
TOTAL = 240 ACRES

**FIRST TAKE POINT (FTP)**  
2305' FSL, 153' FEL SEC. 23  
LAT: 36.295294° N  
LONG: 107.010795° W NAD83

<sup>17</sup> 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *[Signature]* Date: 3/18/22  
Printed Name: Jerome P McHugh, Jr.  
E-mail Address: jmchugh@sanjuanbasin.com

<sup>18</sup> 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.

MARCH 17, 2022

Date of Survey

Signature and Seal of

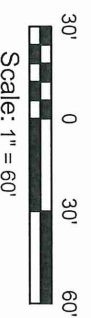
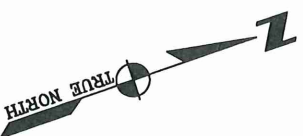


GLEN W. RUSSELL

Certificate Number

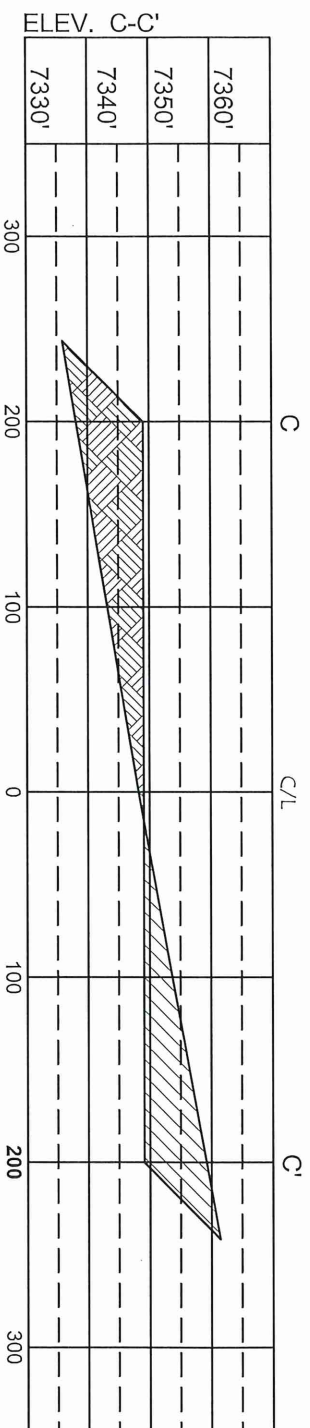
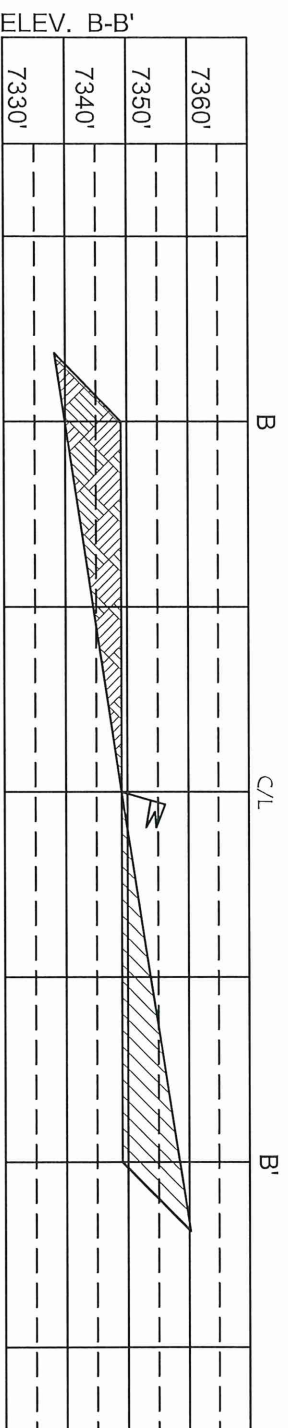
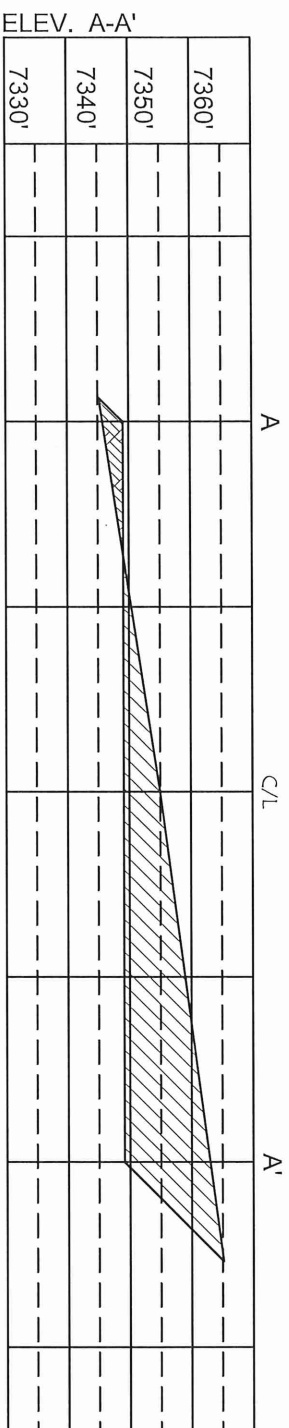
15703

LINDRITH EAST (DEEP) UNIT 24 #1H, 2191' FSL & 783' FWL  
SECTION 24, T-24-N, R-2-W, NMPM, RIO ARRIBA, NM  
GROUND ELEVATION: 7349', DATE: SEPTEMBER. 24, 2021



- NOTES: 15'
1. VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
  2. RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).

**SAN JUAN RESOURCES, INC.**  
LINDRITH EAST (DEEP) UNIT 24 #1H, 2191' FSL & 783' FWL  
SECTION 24, T-24-N, R-2-W, NMPM, RIO ARRIBA COUNTY, NM  
GROUND ELEVATION: 7349', DATE: SEPTEMBER 24, 2021



HORIZ. SCALE: 1" = 50'  
VERT. SCALE: 1" = 30'

NOTE:  
VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL  
FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT  
LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

Directions from the Intersection of  
Hwy 550 & Hwy 64 in Bloomfield, NM

To:

**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**

2191' FSL & 783' FWL,

Section 24, T24N, R2W, N.M.P.M.,

Rio Arriba, New Mexico

Latitude: 36° 17' 41.922" N

Longitude: 107° 00' 27.448" W

NAD 83

Go south on Hwy 550 for 83.65 miles to Hwy 96,  
Turn left (north) on Hwy 96 11.9 miles to Hwy 95,  
Turn left (west-northwesterly) on Hwy 95 for 10.1 miles,  
Turn right (easterly) on CR 394 for 0.9 miles,  
Stay left (northeasterly) for 1.4 miles,  
Turn left (northerly) for 0.1 miles,  
To the beginning of new access on the left (north) side of an  
existing field road, which continues (northerly) for 266.97' to  
the new well location.



Page 131 of 152  
Received by OGD: 4/17/2024 1:27:41 PM  
Released to Imaging: 5/9/2024 12:51:16 PM

SAN JUAN RESOURCES, INC.

LINDRITH EAST (DEEP) UNIT 24 #1H

2191' FSL 783' FWL

SEC. 24 T24N R2W N.M.P.M.

RIO ARRIBA, NM

APD MAP

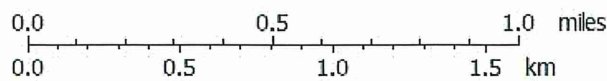
266.97' NEW BLM ACCESS

LINDRITH EAST (DEEP) UNIT 24 #1H

266.97' NEW BLM ACCESS

EXISTING ACCESS

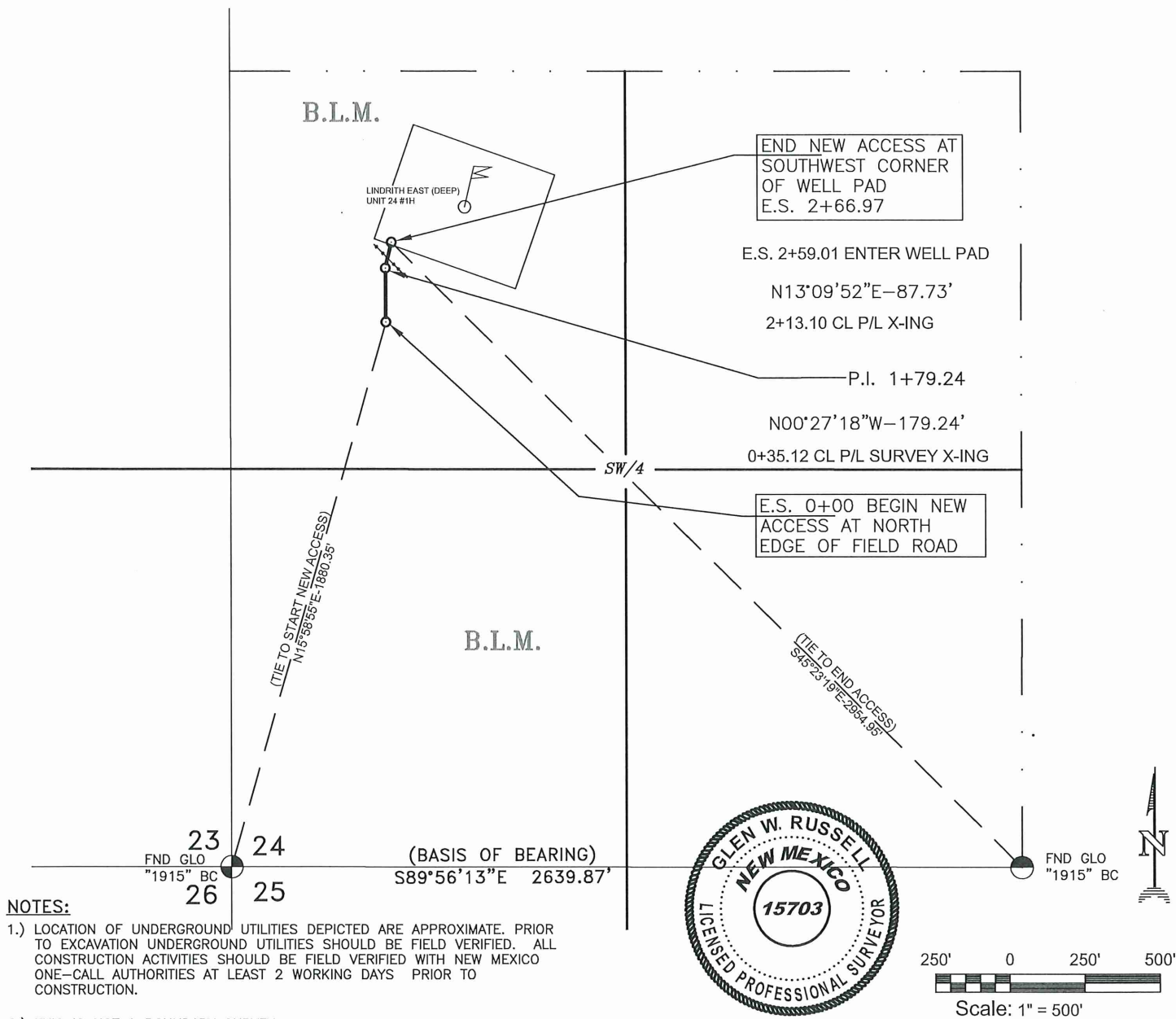
Map created with **TOPOID** ©2007 National Geographic



TN MN  
8°  
01/21/22



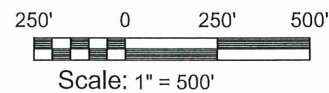
ACCESS ROAD SURVEY FOR  
**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**  
 LOCATED IN THE SW/4 OF SEC. 24, T-24-N, R-2-W, N.M.P.M.  
 RIO ARriba COUNTY, NEW MEXICO



**NOTES:**

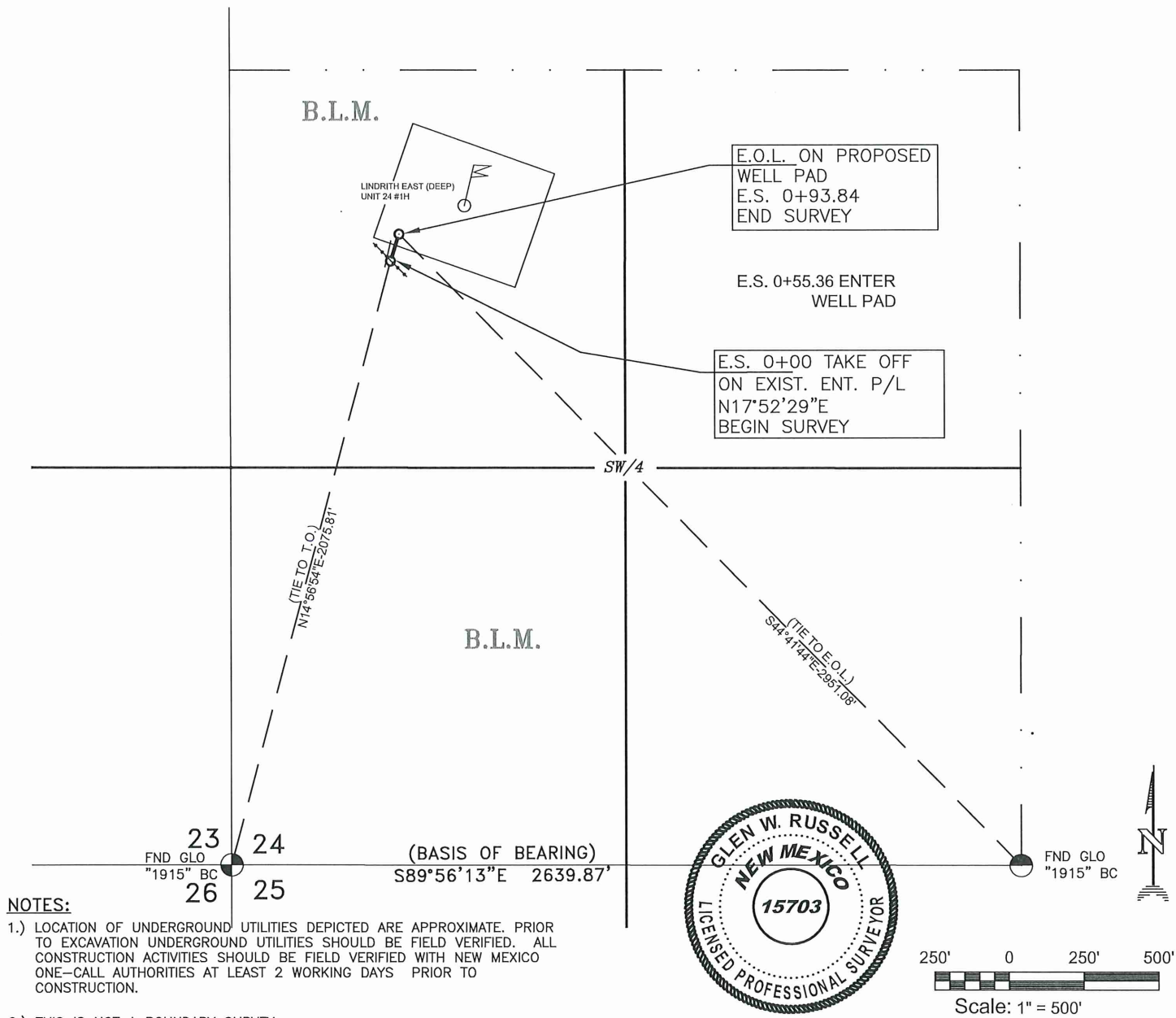
1.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.

2.) THIS IS NOT A BOUNDARY SURVEY.



OWNERSHIP				BASIS OF BEARING: AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 24 NORTH, RANGE 2 WEST, N.M.P.M. RIO ARriba COUNTY, NEW MEXICO. BEARS S89°56'13"E A DISTANCE OF 2639.87' AS MEASURED BY G.P.S. LOCAL GRID NAD83.				
LOCATION	OWNER	STATION	FT./RODS	SURVEY CREW:		GWR	DRAWN BY:	GWR
SW/4 S24, T24N, R2W	B.L.M.	E.S. 0+00 TO E.S. 2+66.97	266.97/16.18	DATE OF SURVEY:		9/24/21	DATE:	9/30/21
				REV. 1		GWR 1/20/22 NAME CHANGE		
				REV. 2				
I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.				VECTOR SURVEYS, LLC				
				Professional Land Surveys, Mapping,				
				GPS Surveys & Oil Field Services				
				122 N Wall Avenue, Farmington, NM 87401				
				Phone (505) 320-9595				
				E-Mail: vectorgr001@msn.com				
				TOTAL		266.97/16.18		
				WORK ORDER NO.:				
				SJR004				
				CAD FILE:		L 24 2 24 2 AR		

PIPELINE SURVEY FOR  
**SAN JUAN RESOURCES, INC.**  
**LINDRITH EAST (DEEP) UNIT 24 #1H**  
 LOCATED IN THE SW/4 OF SEC. 24, T-24-N, R-2-W, N.M.P.M.  
 RIO ARriba COUNTY, NEW MEXICO

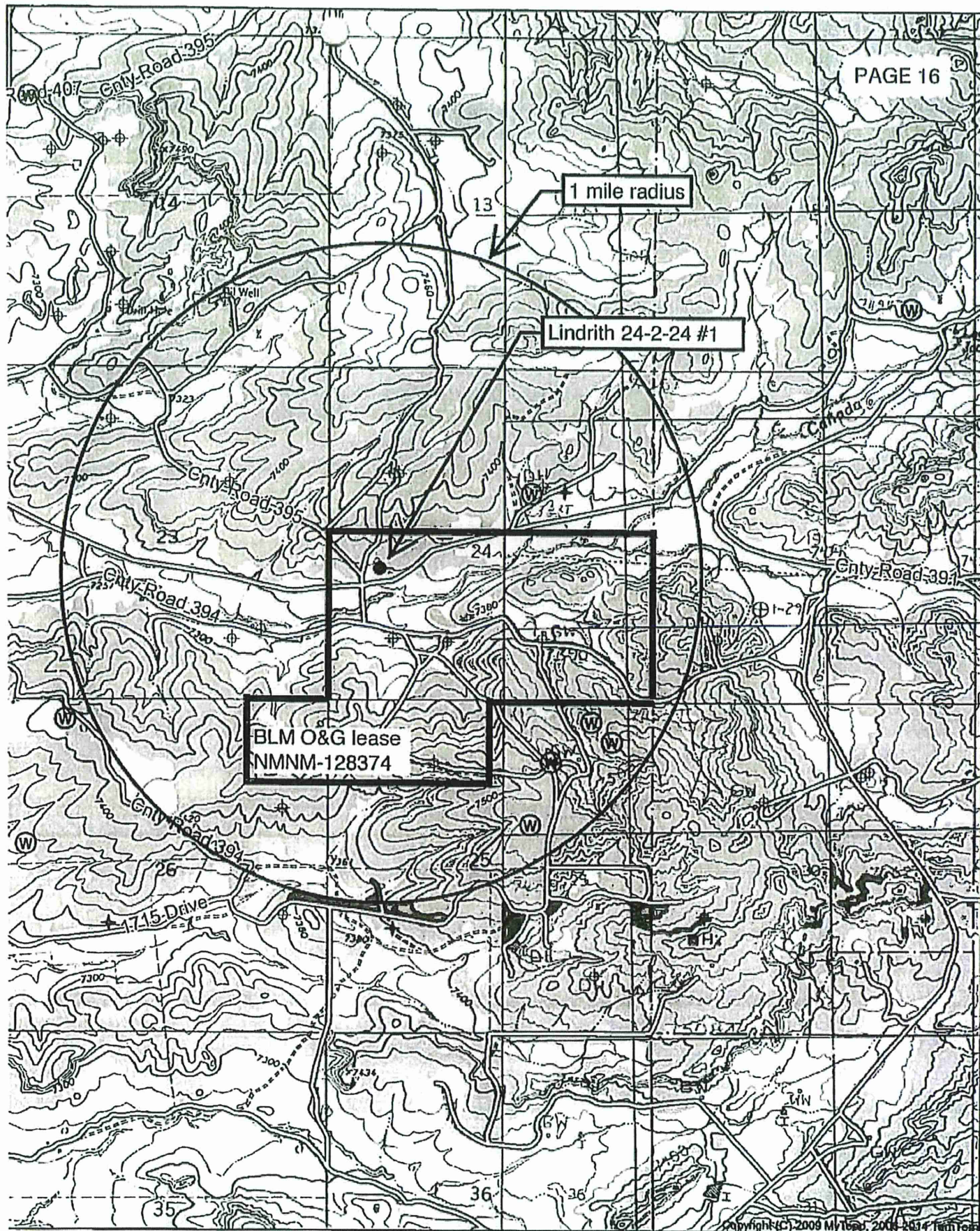


250' 0 250' 500'  
 Scale: 1" = 500'

OWNERSHIP				BASIS OF BEARING: AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 24 NORTH, RANGE 2 WEST, N.M.P.M. RIO ARriba COUNTY, NEW MEXICO. BEARS S89°56'13"E A DISTANCE OF 2639.87' AS MEASURED BY G.P.S. LOCAL GRID NAD83.				
LOCATION	OWNER	STATION	FT./RODS	SURVEY CREW:		GWR	DRAWN BY:	GWR
SW/4 S24, T24N, R2W	B.L.M.	E.S. 0+00 TO E.S. 0+93.84	93.84/5.69	DATE OF SURVEY:		9/24/21	DATE:	10/4/21
				REV. 1	GWR 1/20/22 NAME CHANGE			
				2				
I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.				VECTOR SURVEYS, LLC				
				Professional Land Surveys, Mapping,				
				GPS Surveys & Oil Field Services				
				122 N Wall Avenue, Farmington, NM 87401				
GLEN W. RUSSELL GLEN W. RUSSELL, PLS NEW MEXICO L.S. #15703				Phone (505) 320-9595				
				E-Mail: vectorgr001@msn.com				
DATE JANUARY 21, 2022				WORK ORDER NO.:		SJR005	CAD FILE:	L 24 2 24 2 PL

## APPENDIX D - EXISTING WELLS WITHIN 1-MILE



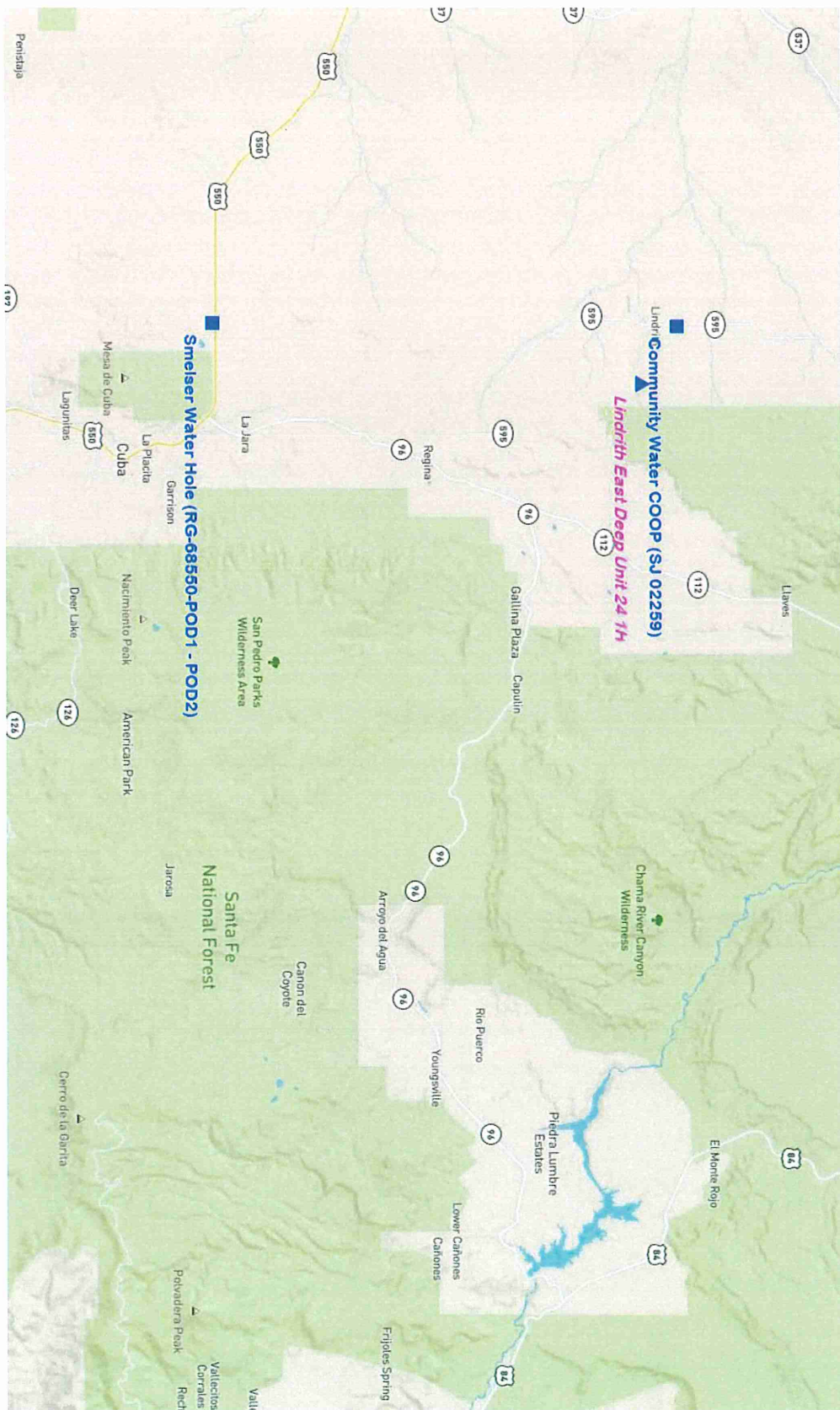


Quad: LINDRITH  
Scale: 1 inch = 2,000 ft.

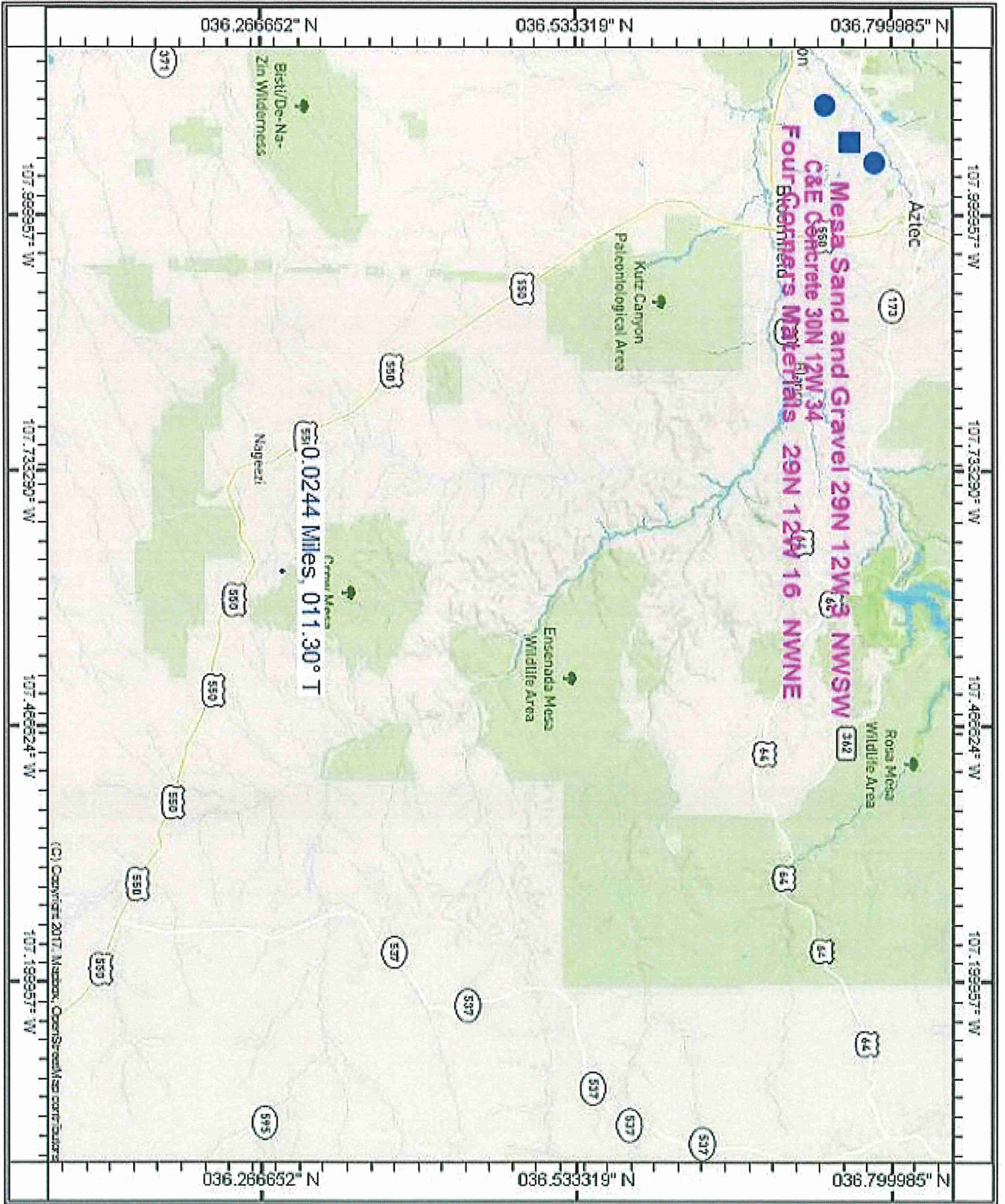


## APPENDIX E - WATER TRANSPORTATION MAP

Water Source Map  
Lindrith East Deep Unit 24.1H



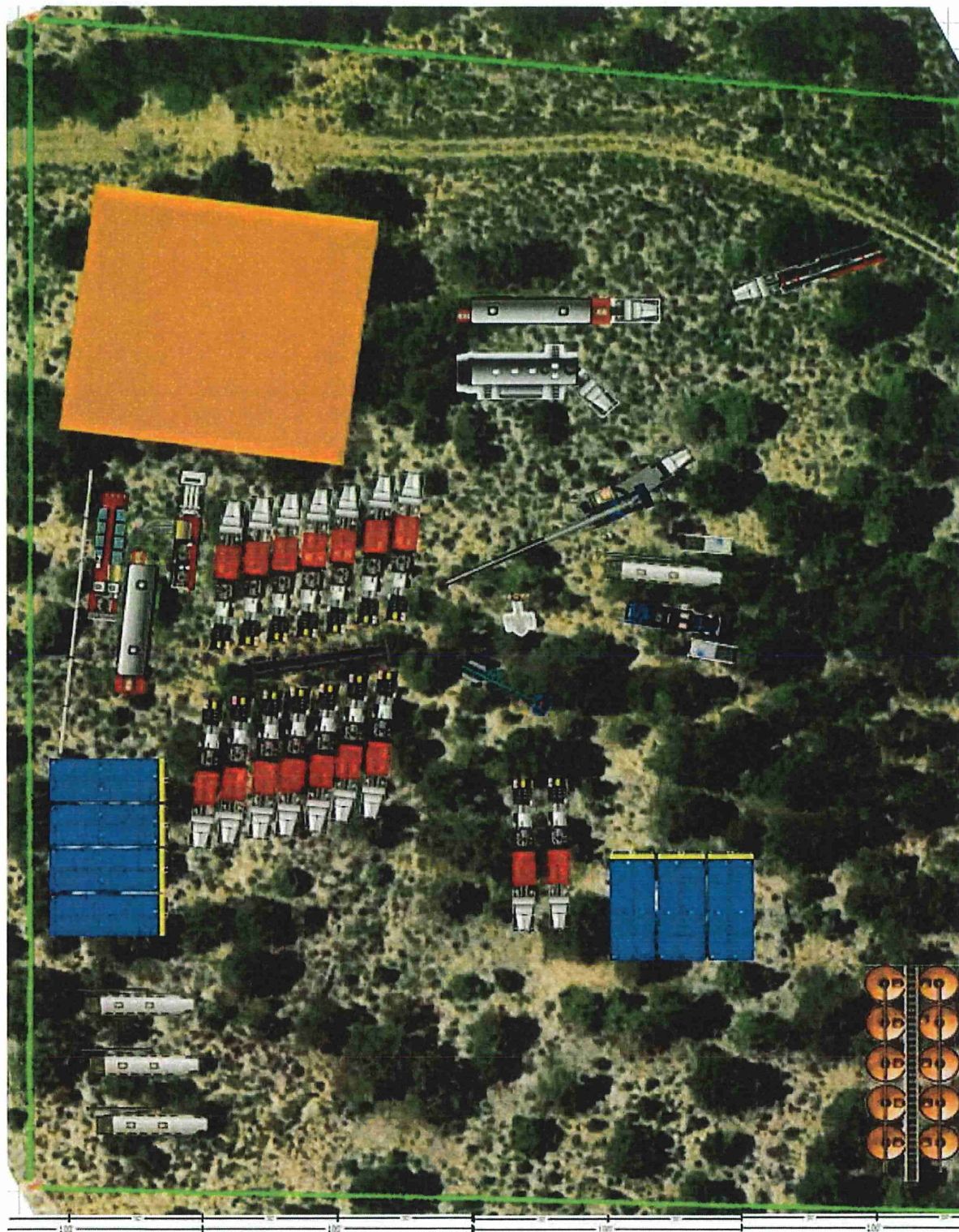
## APPENDIX F - CONSTRUCTION MATERIALS MAP



## APPENDIX G - WELL PAD LAYOUT DIAGRAMS

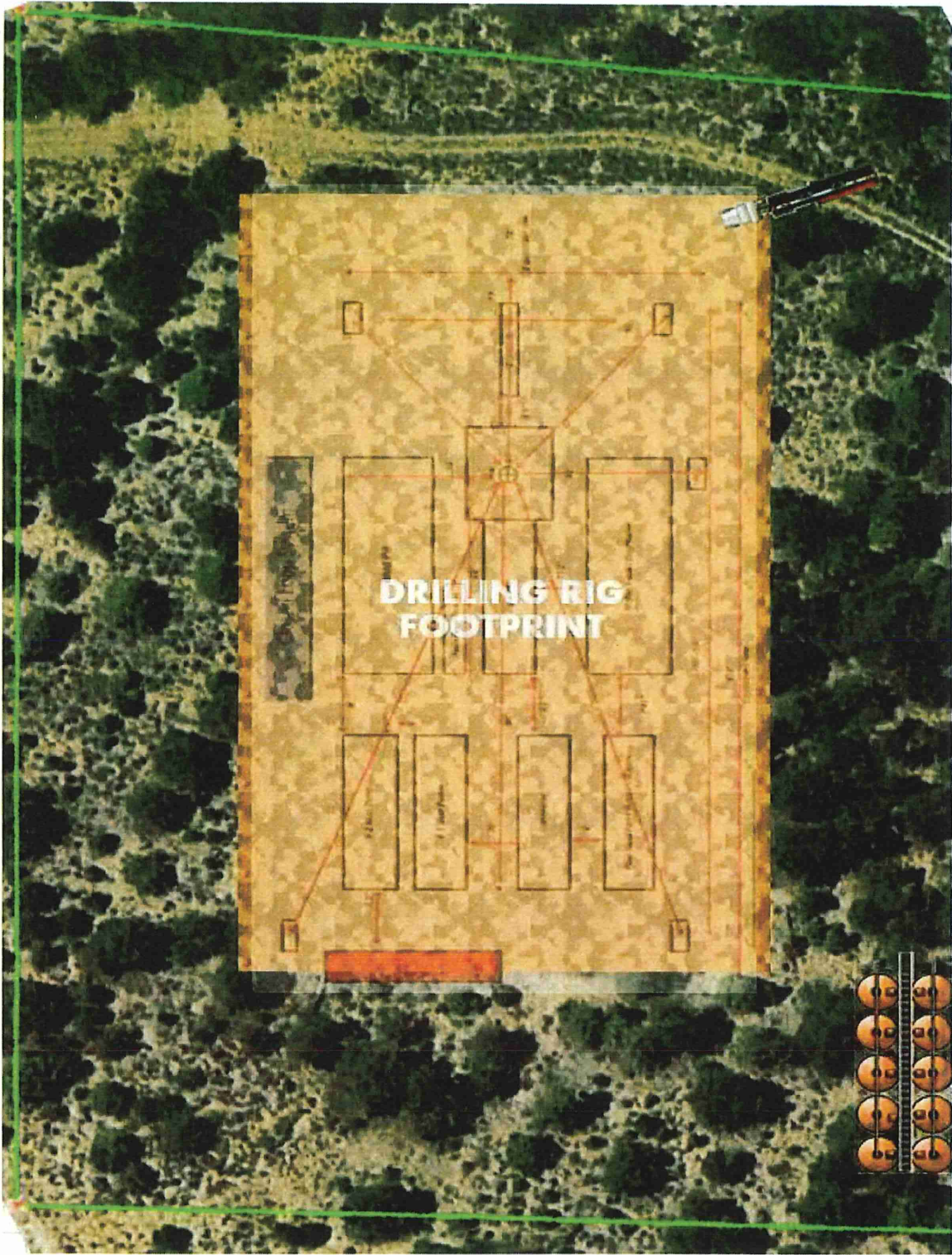


Completion Layout\_Lindrith East Deep Unit 24 1H



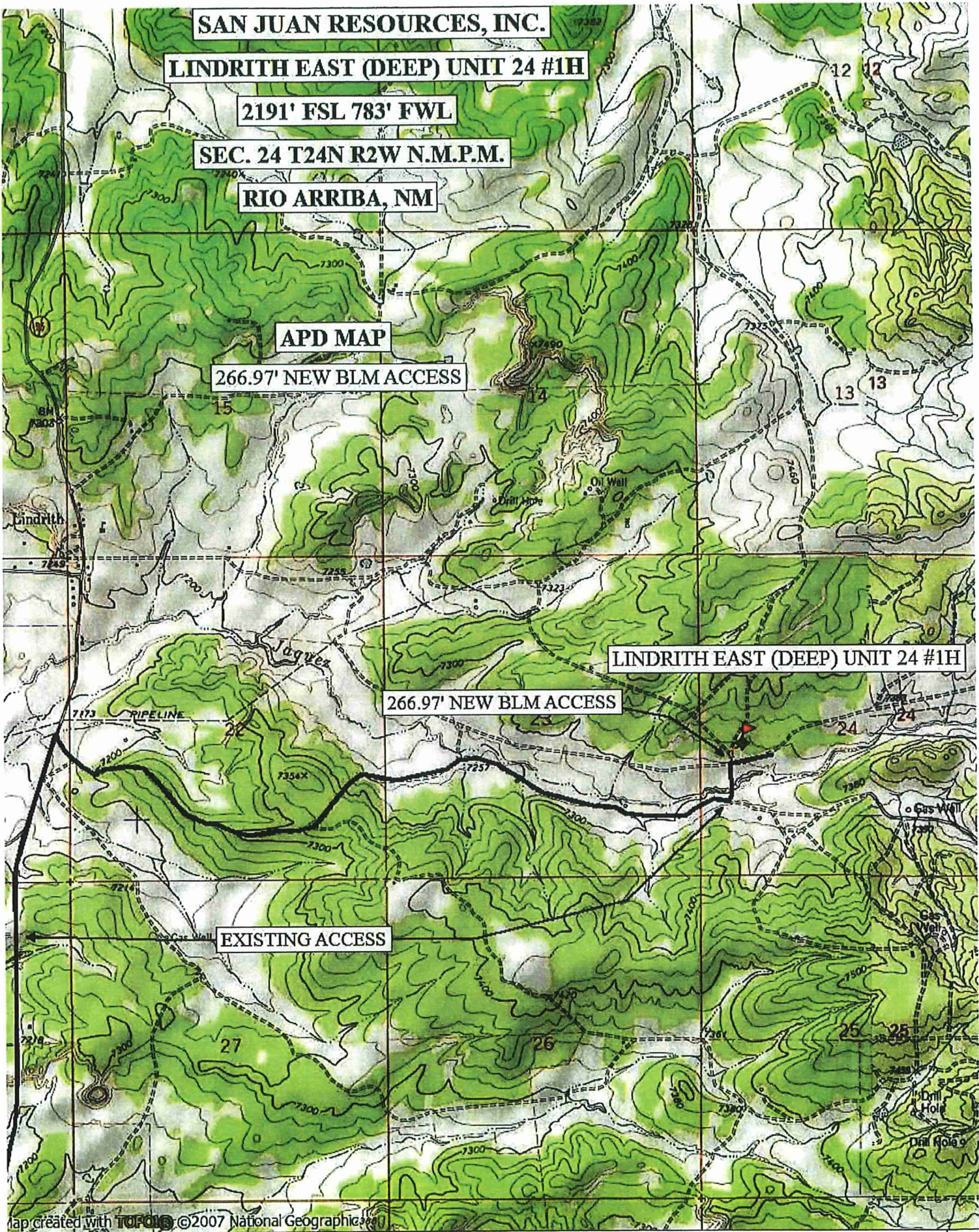


Drilling Layout \_Lindrith East Deep Unit 24 1H



## APPENDIX H – ACCESS ROAD MAP









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

## PWD Data Report

04/15/2024

APD ID: 10400084439

Submission Date: 04/14/2022

Operator Name: SAN JUAN RESOURCES INCORPORATED

Well Name: LINDRITH EAST DEEP UNIT 24

Well Number: 001H

Well Type: OIL 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:

Describe 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:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

**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:**

**Describe 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:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

**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:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

**Other PWD type description:**

**Other PWD type**

**Have other regulatory requirements been met?**

**Other regulatory requirements**





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

## Bond Info Data

04/15/2024

**APD ID:** 10400084439

**Submission Date:** 04/14/2022

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

**Operator Name:** SAN JUAN RESOURCES INCORPORATED

**Well Name:** LINDRITH EAST DEEP UNIT 24

**Well Number:** 001H

**Well Type:** OIL WELL

**Well Work Type:** Drill

### 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**

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. <b>30-039-314</b>
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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 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). | 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.

(Continued on page 2)

\*(Instructions on page 2)



Approval Date: 04/15/2024

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., 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 Dr.  
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

<sup>1</sup> API Number <b>30-039-31462</b>		<sup>2</sup> Pool Code <b>27194</b>	<sup>3</sup> Pool Name GAVILAN MANCOS OIL
<sup>4</sup> Property Code <b>335861</b>	<sup>5</sup> Property Name LINDRITH EAST (DEEP) UNIT 24		<sup>6</sup> Well Number 1H
<sup>7</sup> OGRID No. 20208	<sup>8</sup> Operator Name SAN JUAN RESOURCES, INC		<sup>9</sup> Elevation 7349

<sup>10</sup> Surface Location

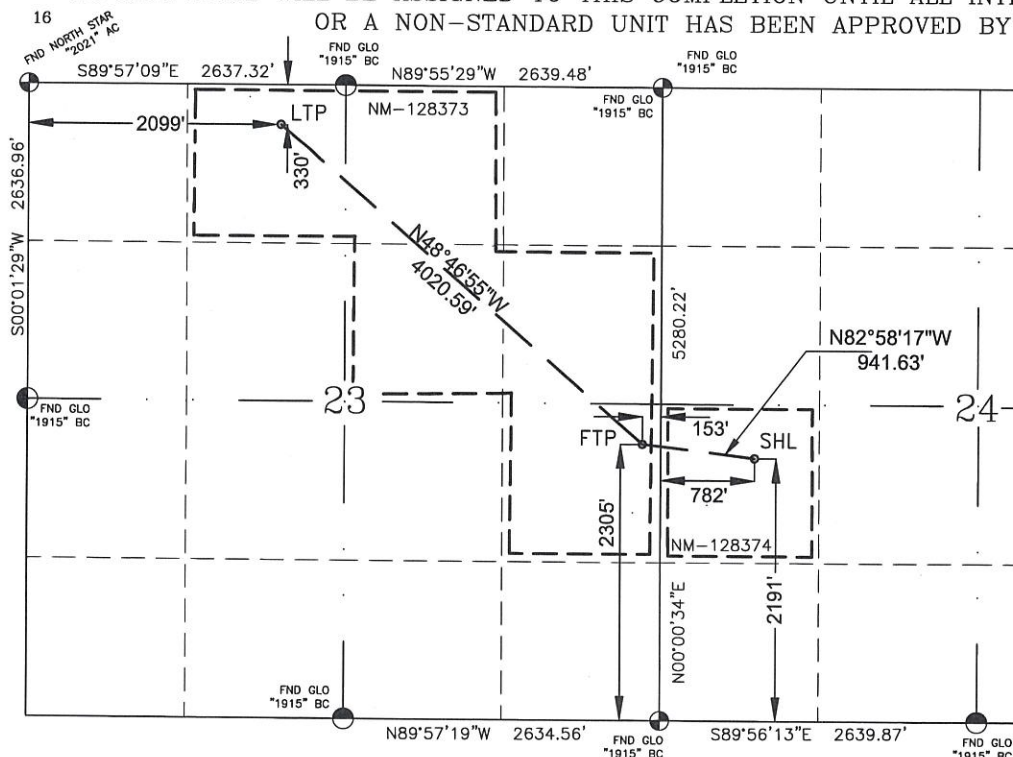
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	24-N	2-W		2191	SOUTH	782	WEST	RIO ARRIBA

<sup>11</sup> 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
C	23	24-N	2-W		330	NORTH	2099	WEST	RIO ARRIBA

<sup>12</sup> Dedicated Acres SEE DETAIL BELOW	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. R-22053
---	-------------------------------	----------------------------------	------------------------------------

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 (LTP)  
330' FNL, 2099' FWL SEC. 23  
LAT: 36.302567° N  
LONG: 107.021055° W NAD83

SURFACE (SHL)  
2191' FSL, 782' FWL SEC. 24  
LAT: 36.294978° N  
LONG: 107.007625° W NAD83

## DETAIL: DEDICATED ACRES

SEC. 24: NW/SW, (40 ACRES)  
SEC. 23: NE/SE, S2/NE, NW/NE  
NE/NW, (200 ACRES)  
TOTAL = 240 ACRES

FIRST TAKE POINT (FTP)  
2305' FSL, 153' FEL SEC. 23  
LAT: 36.295294° N  
LONG: 107.010795° W NAD83

## 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *[Signature]* Date: 3/18/22  
Printed Name: Jerome P McHugh, Jr.  
E-mail Address: jmchugh@sanjuanbasin.com

## 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.

MARCH 17, 2022

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL  
Certificate Number

15703

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
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**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 334536

CONDITIONS

Operator: SAN JUAN RESOURCES, INC. 1499 Blake St, #10C Denver, CO 80202	OGRID:
	20208
	Action Number: 334536
	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	5/9/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	5/9/2024
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	5/9/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	5/9/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	5/9/2024
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	5/9/2024