



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

Application for Permit to Drill

APD Package Report

Date Printed:

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

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
 - 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: 1 file(s)
- SUPO Report
- SUPO Attachments
 - Existing Road Map: 1 file(s)
 - Attach Well map: 1 file(s)
 - Production Facilities map: 1 file(s)
 - Water source and transportation map: 1 file(s)
 - Well Site Layout Diagram: 2 file(s)
 - Other SUPO Attachment: 6 file(s)
- PWD Report
- PWD Attachments
 - Water quality analysis: 1 file(s)
 - PWD Map: 3 file(s)
- Bond Report
- Bond Attachments
 - Additional reclamation bond information attachment: 2 file(s)

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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. 30-045-38305
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)

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.

Additional Operator Remarks

Location of Well

0. SHL: NWSE / 1978 FSL / 1983 FEL / TWSP: 26N / RANGE: 18W / SECTION: 21 / LAT: 36.471816 / LONG: -108.762004 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 778 FSL / 1972 FEL / TWSP: 26N / RANGE: 18W / SECTION: 21 / LAT: 36.46852 / LONG: -108.761965 (TVD: 6703 feet, MD: 6883 feet)

BHL: SWSE / 778 FSL / 1972 FEL / TWSP: 26N / RANGE: 18W / SECTION: 21 / LAT: 36.46852 / LONG: -108.761965 (TVD: 7034 feet, MD: 7214 feet)

BLM Point of Contact

Name: GARY W SMITH

Title: Natural Resource Specialist

Phone: (505) 564-7701

Email: G1SMITH@BLM.GOV

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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.

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Conditions of Approval

Operator: Tacitus, LLC

Well Name: Navajo Tribal N2A, U1A, and U7A

Legal Location: T26N R18W Sec 20 SWNE, Sec 21 NWSW, NWSE; NMPM; San Juan County, NM

NEPA Log Number: DOI-BLM-NM-F010-2021-0018-EA

Lease Number: 1420603505, 142603504

The following conditions of approval will apply to the Tacitus, LLC, Navajo Tribal N2A, U1A, and U7A well pads, access roads 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, Navajo Tribe, State, or other jurisdictional entities.

Copy of Plans: A complete copy of the APD package, including: Surface Use Plan of Operations, Plan of Development (if required), Conditions of Approval, NNDFW Biological Resources Compliance Form, and NN HHPD 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 Environmental Analysis DOI-BLM-NM-F010-2021-0018-EA.

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 http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices.html. Farmington Field Office BMP's are integrated into the Surface Use Plan of Operations, Bare Soil Reclamation Plan, and COAs.

Construction, Production, Facilities, Reclamation & Maintenance

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office, Environmental Protection Staff, Randy McKee (505) 564-7708 or by email, at least 48 hours prior to any construction or reclamation on this project. Although the Navajo Tribal N2A, U1A, and U7A wells will be drilled and completed on existing disturbance from prior activity, any further surface disturbance activity will conform to the surface plan of operations, reclamation plan, and the conditions of approval.

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. Tacitus or their contractor will contact the Bureau of Land Management, Farmington Field Office, Surface, and Environmental Protection Staff to schedule a facility layout onsite.

Paint Color: All permanent (onsite for 6 months or longer) above-ground equipment constructed or installed, including pumping units, will be painted the Carlsbad Canyon standard environmental color. All production facilities will be painted within 3 months of installation. Facilities that are required to comply with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.

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

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

Stockpile of Soil: The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks and roots. The stockpiled soil material will be spread on the reclaimed portions of the pad [including the 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 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.

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. This includes all personnel associated with construction, use, maintenance and abandonment of the well pad, well facilities, access and pipeline. 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 (16U.S.C. 470aa-mm).

Cultural Resources Conditions of Compliance: (from CRCF NNHPD NO: HPD-19-628)

Site NM-H-34-101:

1. Site is crossed by the current APE and the existing flowline #U16 well.
2. Features of the site can be avoided if all work is confined to the existing right of way and the existing road.
3. Fence the edges of the flowline ROW prior to ground disturbing work within the site.
4. An archaeologist will monitor all ground-disturbing activities & produce a monitoring report within 30-days of the monitoring activities.
5. Monitoring stipulations: NNHPD requests a monitoring report be submitted within 30-days of completed activity.

In-Use Sites (IUS): No further work is recommended.

TCP#673:

1. TCP is located outside of the APE but is visually affected by several of the wells in the area, particularly SED Well #002.
2. Tacitus, LLC, will ensure that contractors are **NOT** working on the wells or flowlines when ceremonies or offerings are being conducted near the TCP.

Please refer to CULTURAL RESOURCES COMPLIANCE FORM, NNHPD NO: HPD-19-628 for more information.

Discovery of Cultural Resources: IN THE EVENT OF A DISCOVERY [“DISCOVERY” MEANS ANY PREVIOUSLY UNIDENTIFIED OR INCORRECTLY IDENTIFIED CULTURAL RESOURCES INCLUDING BUT NOT LIMITED TO ARCHAEOLOGICAL DEPOSITS, HUMAN REMAINS, OR LOCATIONS REPORTEDLY ASSOCIATED WITH NATIVE AMERICAN RELIGIOUS /TRADITIONAL BELIEFS OR PRACTICES], ALL OPERATIONS IN THE IMMEDIATE VICINITY

OF THE DISCOVERY MUST CEASE, AND THE NAVAJO NATION HISTORIC PRESERVATION DEPARTMENT MUST BE NOTICIED AT 928-871-7198.

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 and have executed a Navajo Nation Historic Preservation Department approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

Noxious/Invasive Weeds: The contact for weed management information is the BIA Shiprock Weed Coordinator, Vince Tsoosie (505.368.3304; vince.tsoosie@bia.gov). Tacitus will 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 Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA 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*).

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

- a. Any identified weeds will be treated prior to new surface disturbance if determined by the BIA Shiprock Weed Coordinator.
- b. Vehicles and equipment should be inspected and cleaned prior to coming onto the 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 as a surfacing material. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the BIA Shiprock 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 Navajo Nation or BIA shall be notified with a Weed Management Plan and if necessary, a Pesticide Use Proposal (PUP).
- e. Only pesticides authorized for use on Navajo Nation lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with Navajo

Nation, federal and state laws and used only in accordance with their registered use and limitations.

Noxious/invasive weed treatments must be reported to the Navajo Nation or BIA. 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.

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).

- 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 Navajo Nation or BIA. Only pesticides authorized for use on Navajo Nation lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with Navajo Nation, federal, and state laws and used only in accordance with their registered use and limitations. Tacitus' weed-control contractor would contact the BIA Shiprock Weed Coordinator 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 as required from the Navajo Nation and/or BIA.

Paleontology

Any paleontological resource discovered by the Operator, or any person working on the Operator 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.

Threatened, Endangered or Sensitive Species: If the operator/holder discovers any Threatened, Endangered, or NN sensitive species or work in the vicinity of known habitat, activities will be suspended and the discovery promptly reported to the Navajo Nation Fish and Wildlife Service (NNFWS) . Failure to notify the NNFWS about a discovery may result in civil or criminal penalties in accordance with The Endangered Species Act (as amended).

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

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.

FORM 06/25/03
(Gen-APD)

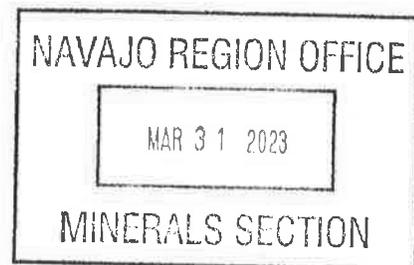


EXHIBIT "D"

TERMS AND CONDITIONS
 For APPLICATION for PERMIT to DRILL (APD)
 and SUNDRY NOTICE
 TO CONSTRUCT ASSOCIATED ANCILLARY FACILITIES

Tacitus E&P Tocito, LLC (Applicant)

"Navajo Tribal U 7A" Well, Road, Pipeline and Ancillary Facilities (Project)

1. The term of the Permit shall not exceed twenty (20) years, beginning on the final approval date of the APD or Sundry Notice.
2. The Drilling Pad shall be limited to an area not to exceed two acres.
3.
 - a. Consideration to the Navajo Nation for the grant of the Permit and associated rights-of-way shall be _____ and shall be paid in full to the Controller of the Navajo Nation, in lawful money of the United States, and a copy of the receipt for such payment provided to the Navajo Nation Minerals Department, or its successor, within 10 days of approval of and consents to the grant of the Permit by the Navajo Nation.
 - b. No consideration is assessed because the Applicant has a federal or state lease that was issued prior to March 30, 1990.
 - c. No consideration is assessed because the lease held by the Applicant was granted by the Navajo Nation, and the facilities are within the lease area.
4. The Applicant may use and occupy the area under the Permit for the purpose(s) of Construct, Operate and Maintain Pipeline and Ancillary Facilities. The Applicant may not develop, use or occupy the area under the Permit for any other purpose without the prior written approval of the Navajo Nation and the Secretary of the Interior in the case of trust land; the approval of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Applicant may not use or occupy the area under the Permit for any unlawful purpose.
5. The Applicant or its assigns/operator shall provide the Navajo Nation Minerals Department the following technical information for each well drilled as soon as it becomes available:
 - a. Suites of electric logs and drilling log and mud log.
 - b. Results of any drill stem and pressure tests conducted.
 - c. Well completion report.
 - d. Gas analysis report.
 - e. Core analysis.
 - f. Water analysis reports.
 - g. Copies of any other special tests run on the wells.
 - h. Other information that may be requested by the Minerals Department.
6. The Permit shall not cover any use of land off the permitted area.
7. If the Applicant fails to drill within one (1) year after final approval of the APD is given by U.S. Bureau of Land Management (BLM) for trust land and one (1) year after final approval of the APD by the Navajo Nation on fee land, the Permit shall be deemed to have expired unless extensions have been granted by BLM within the one (1) year time limit on trust land and by the Navajo Nation on fee land.
8. In all activities conducted by the Applicant within the Navajo Nation, the Applicant shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereinafter may come into force and effect, including but not limited to the following:
 - a. Title 25, Code of Federal Regulations, Part 169.

- a. Title 25, Code of Federal Regulations, Part 169.
 - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 ~~et seq.~~, and the Navajo Nation Business Preference Law, 5 N.N.C. §§ 201 ~~et seq.~~; and
 - d. The Navajo Nation Water Code, 22 N.N.C. §§ 1101 ~~et seq.~~. Applicant shall apply for and submit all applicable Permit and information to the Navajo Nation Water Development Department, or its successor.
9. The Applicant shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the Permit.
 10. The Applicant shall clear and keep clear the lands within the Permit area to the extent compatible with the purpose of the Permit, and shall dispose of all vegetation and other materials cut, uprooted, or otherwise accumulated during any surface disturbance activities.
 11. The Applicant shall reclaim all surface lands disturbed lands related to the Permit, as outlined in a restoration and revegetation plan, which shall be approved by the Navajo Nation Environmental Protection Agency (NNEPA) prior to any surface disturbance. The Applicant shall comply with all provisions of such restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.
 12. The Applicant shall at all times during the term of the Permit and at the Applicant's sole cost and expense, properly maintain the land subject to the Permit and all improvements located thereon and make all necessary and reasonable repairs.
 13. The Applicant shall obtain prior written permission to cross existing rights-of-way area, if any, from the appropriate parties.
 14. The Applicant shall be responsible for and promptly pay all damages when they are sustained.
 15. The Applicant shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior on trust land their respective authorized agent, employees, landusers and occupants, against any liability for loss of life, personal injury and property damages arising from the development, use or occupancy or use of the area under the Permit by the Applicant.
 16. The Applicant shall not assign, convey or transfer, in any manner whatsoever, the Permit or any interest therein, or in or to any of the improvements on the land subject to the Permit, without the prior written consent of the Navajo Nation and the Secretary of the Interior if applicable. Any such attempted assignment, conveyance or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation.
 17. The Navajo Nation may terminate the Permit for violation of any of the terms and conditions stated herein. In addition, the Permit shall be terminable in whole or part by the Navajo Nation for any of the following causes:
 - a. Failure to comply with any terms and conditions of the Permit or of applicable laws or regulations;
 - b. An abandonment of the Permit; and
 - c. The use of the land subject to the Permit for any purpose inconsistent with the purpose for which the Permit is granted.
 18. At the termination of the Permit, the Applicant shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. Upon the written request of the Navajo Nation, the Applicant shall provide the Navajo Nation, at the Applicant's sole cost and expense with an environmental audit assessment of the premises at least sixty (60) days prior to delivery of said premises.
 19. Holding over by the Applicant after the termination of the Permit shall not constitute a renewal or extension thereof or give the Applicant any rights hereunder or into the land subject to the Permit or to any improvements located thereon.
 20. The Navajo Nation and the Secretary (on trust land only) shall have the right, at any reasonable time during the term of the Permit, to enter upon the premises, or any part thereof, to inspect the same and any improvement located thereon.
 21. By acceptance of the grant of Permit, the Applicant consents to the full territorial legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction to levy fines and to enter judgements for compensatory and

punitive damages and injunctive relief, in connection with all activities conducted by the Applicant within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation.

22. By acceptance of the grant of the Permit, the Applicant covenants and agrees never to contest or challenge the legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government does not possess full police power, (i.e. the power to legislate and regulate for the general health and welfare) over all lands, persons and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the Permit or to the Navajo Nation.
23. Any action or proceeding brought by the Applicant against the Navajo Nation in connection with or arising out of the terms and conditions of the Permit shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Applicant against the Navajo Nation in any court of any state.
24. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
25. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.
26. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Applicant, and the term "Applicant," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.
27. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the area under the Permit and all lands burdened by the Permit, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the area under the Permit; and the area under the Permit and all lands burdened by the Permit shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
28. Permittee shall comply with NNEPA "Specific Terms and Conditions of Approval", attached and incorporated into these terms and conditions.
29. The applicant shall cover all settling, evaporation, and reserve pits to exclude waterfowl and other birds.
30. The applicant will record all water zones encountered during the drilling by depth, case and properly seal to prevent any cross contamination of aquifers or loss of water on the surface due to artesian flow. The applicant will provide all such information to the Navajo Nation Department of Water Resources.



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

Navajo Regional Office

P.O. Box 1060

Gallup, New Mexico 87305

April 25, 2023

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

7017 0530 0000 7775 9813

Bureau of Land Management
Farmington District Office
6251 College Boulevard, Suite A
Farmington, New Mexico 87402

To Whom it may concern:

An administrative review has been conducted on the following proposed Application for Permit to Drill (APD) submitted by **Tacitus, LLC**

WELL NAME: Navajo Tribal U 7A, Navajo Nation Oil and Gas lease No. 14-20-603-5034. The proposed helium well is described as 1978' FSL / 1983' FEL, located in Section 21, T. 26 N, R. 18 W, San Juan County, New Mexico. Included in the approved disturbance is a helium well which would be drilled on the existing well pad containing 0.690 acre and existing construction buffer containing 1.1 acres, existing access road 530' x 30' wide containing 0.4 acre and pipeline 372.48' x 40' containing 0.5 acre, for a combined total of 2.69 acres, more or less. This location is on the Navajo Nation Trust Lands designated boundaries.

Amended Resolution of the Resources Committee of the Navajo Nation Council No: **RDCJN-05-11** passed on June 14, 2011, authorized the Navajo Nation Minerals Department to issue consent letters for APD's and Construction of Associated Ancillary Facilities. Consent letter dated March 30, 2023, approves the enclosed **Tacitus, LLC'S APD**. Please note that the Resources Committee set certain terms and conditions which must be followed. Other required clearances from the Navajo Nation have been obtained and are on file.

We concur with approval of the above referenced application, provided enclosed Bureau of Indian Affairs and the Navajo Nation stipulations are adhered to and made a part of the drilling plan.

Any questions regarding this application may be directed to Ms. Bertha Spencer, Supervisory Realty Specialist, Branch of Leases/Permits Section (Minerals) at (505) 863-8336 or via email at bertha.spencer@bia.gov.

Sincerely,

**ANGELA
ARVISO**

Digitally signed by
ANGELA ARVISO
Date: 2023.04.25
15:10:58 -06'00'

Angela M. Arviso
Acting Regional Director

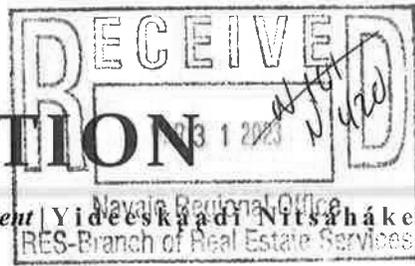
Enclosures

cc: Navajo Nation Minerals Department w/enclosure
Tacitus, LLC w/enclosure



THE NAVAJO NATION

Dr. Buu Nygren, President | Richelle Montoya, Vice President | Yideeskaadi Nitsahákees



March 30, 2023

VIA HAND-DELIVERY

Mr. Gregory Mehojah, Regional Director
Navajo Region, U.S. Bureau of Indian Affairs
Post Office Box 1060
Gallup, NM 87305



RE: APPROVAL OF TWO APPLICATIONS FOR PERMIT TO DRILL (APDs) FOR TACITUS E&P TOCITO, LLC ON NAVAJO NATION TRUST LAND

Dear Mr. Mehojah,

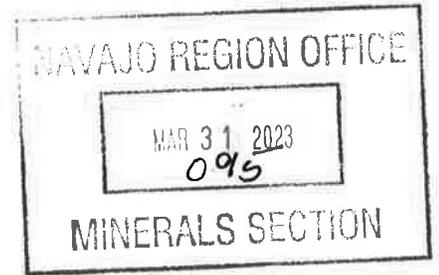
Pursuant to Resolution #RDCJN-05-11, approved by the Resources Committee of the Navajo Nation Council, the Navajo Minerals Department hereby approves two Applications for Permit to Drill (APDs) to drill, construct, operate, and maintain the Navajo Tribal N 2A well and the Navajo Tribal U7A well, all roads, pipelines, and associated ancillary facilities as submitted by Tacitus E&P Tocito, LLC on Lease No. 14-20-603-5034 on, over, and across Navajo Nation Trust Lands, San Juan County, Navajo Nation (New Mexico), attached hereto as Exhibit "D".

The Minerals Department's approval is subject to, but not limited to, the terms and conditions contained in Exhibit "D". Please be advised that the Navajo Nation's approval of these APDs is conditioned upon the Bureau of Indian Affairs ensuring that the oil and gas lessee or operator will properly plug and abandon all oil, gas, injection, disposal, and dry hole wells and that their associated ancillary equipment and facilities will be removed from the affected Navajo Nation land and that the land will be properly reclaimed when exploration and/or production ceases.

If you have any questions, please contact me at (928) 871-6588.

Sincerely,

Rowena Cheromiah, Minerals and Royalty Management Director
Minerals Department



SLP/slp

XC: Byron Bitsoie, Sr., Delegated Manager, Navajo Land Department, Division of Natural Resources
Ettie Anderson-Abasta, Director, General Land Development Department, Division of Natural Resources

MINERALS DEPARTMENT
POST OFFICE BOX 1910 – WINDOW ROCK, AZ 86515 – PHONE: (928) 871-6588 – FAX: (928) 871-7095

NAVAJO REGION OFFICE
 Form 3160-3
 (June 2015)
 MAR - 4 2022
MINERALS SECTION

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

- 1a. Type of work: DRILL REENTER
 1b. Type of Well: Oil Well Gas Well Other OTH
 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone

5. Lease Serial No.
 14206035034
 6. If Indian, Allottee or Tribe Name
 EASTERN NAVAJO

7. If Unit or CA Agreement, Name and No.
 8. Lease Name and Well No.
 NAVAJO TRIBAL U
7A

2. Name of Operator
 TACITUS, LLC
 3a. Address
 2100 Cortland Avenue, Farmington, NM 87401
 3b. Phone No. (include area code)
 (801) 980-7277

9. API Well No.
10. Field and Pool, or Exploratory
 Wildcat

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
 At surface NWSE / 1978 FSL / 1983 FEL / LAT 36.471816 / LONG -108.762004
 At proposed prod. zone SWSE / 778 FSL / 1972 FEL / LAT 36.46852 / LONG -108.761965

11. Sec., T. R. M. or Blk. and Survey or Area
 SEC 21/T26N/R18W/NMP

14. Distance in miles and direction from nearest town or post office*
 20 miles
 12. County or Parish
 SAN JUAN
 13. State
 NM

15. Distance from proposed* location to nearest property or lease line, ft.
 778 feet
 (Also to nearest drig. unit line, if any)
 16. No of acres in lease
 2560
 17. Spacing Unit dedicated to this well
 640.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
 15 feet
 19. Proposed Depth
 7034 feet / 7214 feet
 20. BLM/BIA Bond No. in file
 IND:

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
 5673 feet
 22. Approximate date work will start*
 04/01/2021
 23. Estimated duration
 15 days

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 (Electronic Submission)
 Name (Printed/Typed)
 PETER KONDRAT / Ph: (801) 980-7277
 Date
 12/18/2020

Title
 Helium Subsurface Manager
 Approved by (Signature)
 Title
 Acting Dept. Manager III
 Name (Printed/Typed)
 Byron Bitsoie Sr.
 Office
 Navajo Land Dept.
 Date
 02/01/2023

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:

NAVAJO REGION OFFICE
 MAR 31 2023
 MINERALS SECTION

(Continued on page 2)

*(Instructions on page 2)



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

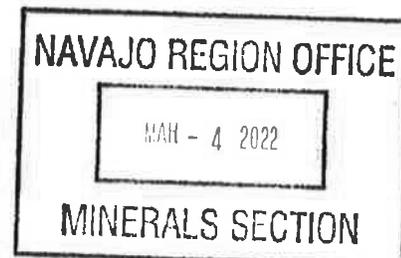
Farmington District Office
6251 College Blvd. - Suite A
Farmington, New Mexico 87402
www.blm.gov/nm

TRANSMITTAL OF APPLICATION FOR PERMIT TO DRILL TO BUREAU OF INDIAN AFFAIRS, Gallup, NM

DATE: March 4, 2022
OPERATOR: Tacitus, LLC
WELL NAME and NUMBERS: Navajo Tribal N 2A, U 1A, U 7A

LEASE NO: 14-20-603-5034, 14-20-603-5035
SURFACE: Section 20 and 21, T 26 N, R18 W
COUNTY: San Juan, NM
APDS RECEIVED: December 2020

ENVIRONMENTAL ASSESSMENT NUMBER: DOI-BLM-NM-F010-0018



Attached for your review are the APDs, SUPO, Reclamation Plan, BLM Environmental Assessment, Conditions of Approval (COA), NN Biological Report, NN Cultural Report, and an unsigned BLM FONSI and Decision Record. If the proposed action meets with your approval, please acknowledge in the space below and return a copy of this transmittal sheet to this office within 60 days from the date of this letter. If we do not receive your concurrence within the 60 days, final processing of the APD will be performed by BLM staff. However, the company is required to obtain all necessary approvals from your office prior to any surface disturbance.

BUREAU OF LAND MANAGEMENT: Gary Smith, Project Lead Date: March 4, 2022

Surface Owner: TRIBAL ALLOTTED _____ OTHER _____

I concur with the approval of the APD and/or the Surface Operation Plan, Reclamation Plan, EA, COA, Finding of No Significant Impact (FONSI), and Decision Record provided the following condition(s) are included in the approval.

APPROVED: _____
Pursuant to Secretarial Redlegation Order
209 DM 8, 230 DM 1 and 3 IAM 4
ANGELA
ARVISO
Digitally signed by ANGELA
ARVISO
Date: 2023.04.25 15:09:52
-06'00'
Regional Director, Navajo Region
Bureau of Indian Affairs



Operator Certification Data Report

05/11/2023

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

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:

Signed on: 12/18/2020

Title:

Street Address:

City:

State:

Zip:

Phone:

Email address:

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data

05/11/2023

APD ID: 10400066946	Submission Date: 12/18/2020	Highlighted data reflects the most recent changes Show Final Text
Operator Name: TACITUS, LLC		
Well Name: NAVAJO TRIBAL U	Well Number: 7A	
Well Type: OTHER	Well Work Type: Drill	

Section 1 - General

APD ID: 10400066946	Tie to previous NOS? Y	Submission Date: 12/18/2020
BLM Office: Farmington	User: PETER KONDRAT	Title: Helium Subsurface Manager
Federal/Indian APD: IND	Is the first lease penetrated for production Federal or Indian? IND	
Lease number: 14206035034	Lease Acres: 2560	
Surface access agreement in place? Y	Allotted? N	Reservation: EASTERN NAVAJO
Agreement in place? NO	Federal or Indian agreement:	
Agreement number:		
Agreement name:		
Keep application confidential? Y		
Permitting Agent? NO	APD Operator: TACITUS, LLC	
Operator letter of		

Operator Info

Operator Organization Name: TACITUS, LLC		
Operator Address: 4801 N BUTLER AVE	Zip: 87401	
Operator PO Box:		
Operator City: FARMINGTON	State: NM	
Operator Phone: (505)278-8630		
Operator Internet Address: VIVIE.MELENDZ@NAVENERGY.COM		

Section 2 - Well Information

Well in Master Development Plan? EXISTING	Master Development Plan name: TOCITO DOME MCCRACKEN	
Well in Master SUPO?	Master SUPO name:	
Well in Master Drilling Plan?	Master Drilling Plan name:	
Well Name: NAVAJO TRIBAL U	Well Number: 7A	Well API Number:
Field/Pool or Exploratory? Exploratory	Field Name:	Pool Name:

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Is the proposed well in an area containing other mineral resources? OTHER

Describe other minerals: helium

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

Type of Well Pad: SINGLE WELL **Multiple Well Pad Name:** **Number:**

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

Well Work Type: Drill

Well Type: OTHER

Describe Well Type: HELIUM

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 15 FT **Distance to lease line:** 778 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: U7A_C102_20201221144717.pdf

Well work start Date: 04/01/2021 **Duration:** 15 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

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	1978	FSL	1983	FEL	26N	18W	21	Aliquot NWSE	36.471816	-108.762004	SAN JUAN	NEW MEXICO	NEW MEXICO	I	14206035034	5673	0	0	N
KOP Leg #1	1978	FSL	1983	FEL	26N	18W	21	Aliquot NWSE	36.471816	-108.762004	SAN JUAN	NEW MEXICO	NEW MEXICO	I	14206035034	3973	1700	1700	N
PPP Leg #1-1	778	FSL	1972	FEL	26N	18W	21	Aliquot SWSE	36.46852	-108.761965	SAN JUAN	NEW MEXICO	NEW MEXICO	I	14206035034	-1030	6883	6703	Y

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

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	778	FSL	1972	FEL	26N	18W	21	Aliquot SWSE	36.46852	-108.761965	SAN JUAN	NEW MEXICO	NEW MEXICO	I	14206035034	-1114	6967	6787	Y
BHL Leg #1	778	FSL	1972	FEL	26N	18W	21	Aliquot SWSE	36.46852	-108.761965	SAN JUAN	NEW MEXICO	NEW MEXICO	I	14206035034	-1361	7214	7034	Y

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) 748-8720

DISTRICT III
1000 Rio Brazos Rd., Artec, 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

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-38305		² Pool Code 98342		³ Pool Name WILDCAT	
⁴ Property Code 321197		⁵ Property Name NAVAJO TRIBAL U			⁶ Well Number 7A
⁷ OGRID No. 372957		⁸ Operator Name TACITUS, LLC			⁹ Elevation 5673'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	21	26N	18W		1978'	SOUTH	1983'	EAST	SAN JUAN

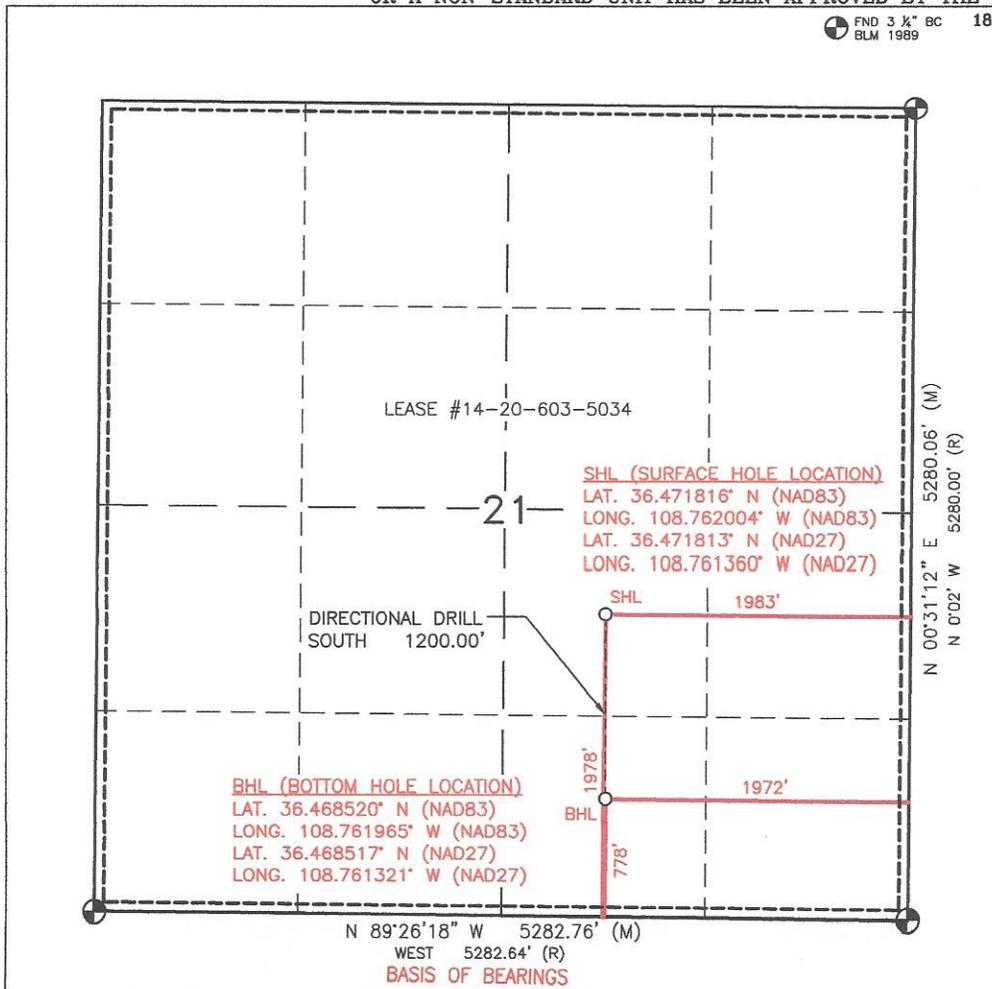
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	21	26N	18W		778'	SOUTH	1972'	EAST	SAN JUAN

¹² Dedicated Acres ALL SECTION 21 640.00 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
-----------------------------------------------------------------	-------------------------------	----------------------------------	-------------------------

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

16



FND 3 1/4" BC
BLM 1989

¹⁷ OPERATOR CERTIFICATION

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

Peter Kundra 12/9/2020
Signature Date

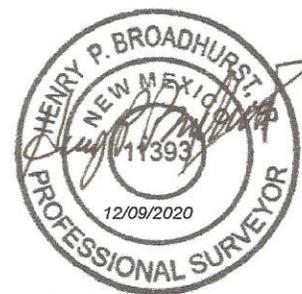
PETER KUNDRA
Printed Name
peter.kundra@tacitus-hel.com
E-mail Address

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.

DECEMBER 8, 2020

Date of Survey
Signature and Seal of Professional Surveyor:

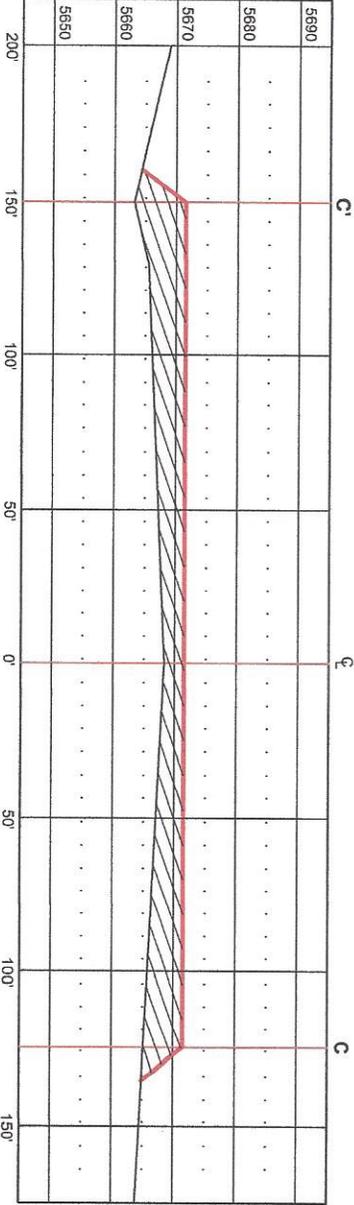
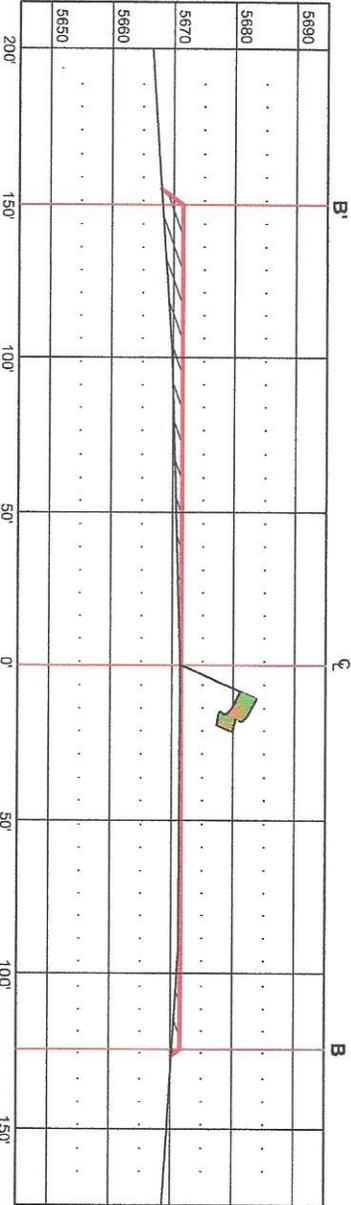
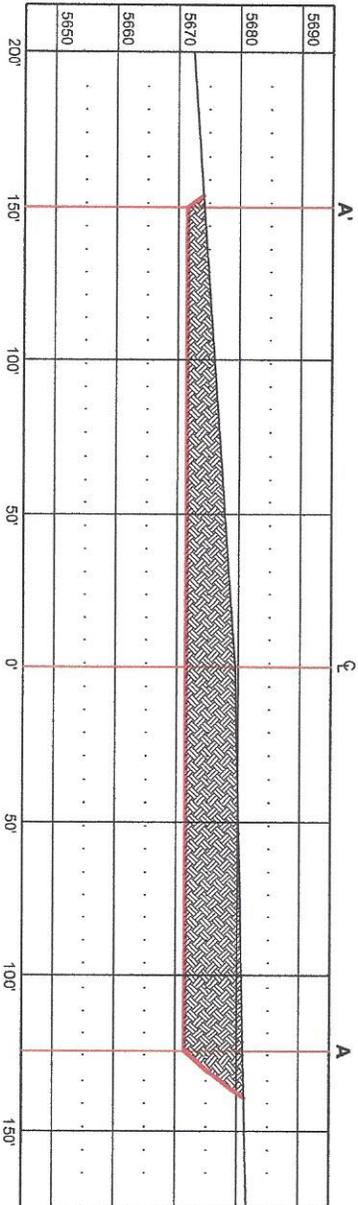


Certificate Number 11393

WELL FLAG
LATITUDE: 36.471816° N
LONGITUDE: 108.762004° W
DATUM: NAD83

TACITUS, LLC
NAVAJO TRIBAL U #7A
1978' FSL & 1983' FEL
LOCATED IN THE NW/4 SE/4 OF SECTION 21,
T26N, 18W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
FINISHED PAD ELEVATION: 5671.5', NAVD 88

THIS DIAGRAM IS AN ESTIMATE
OF DIRT BALANCE AND IS NOT
INTENDED TO BE AN EXACT
MEASURE OF VOLUME

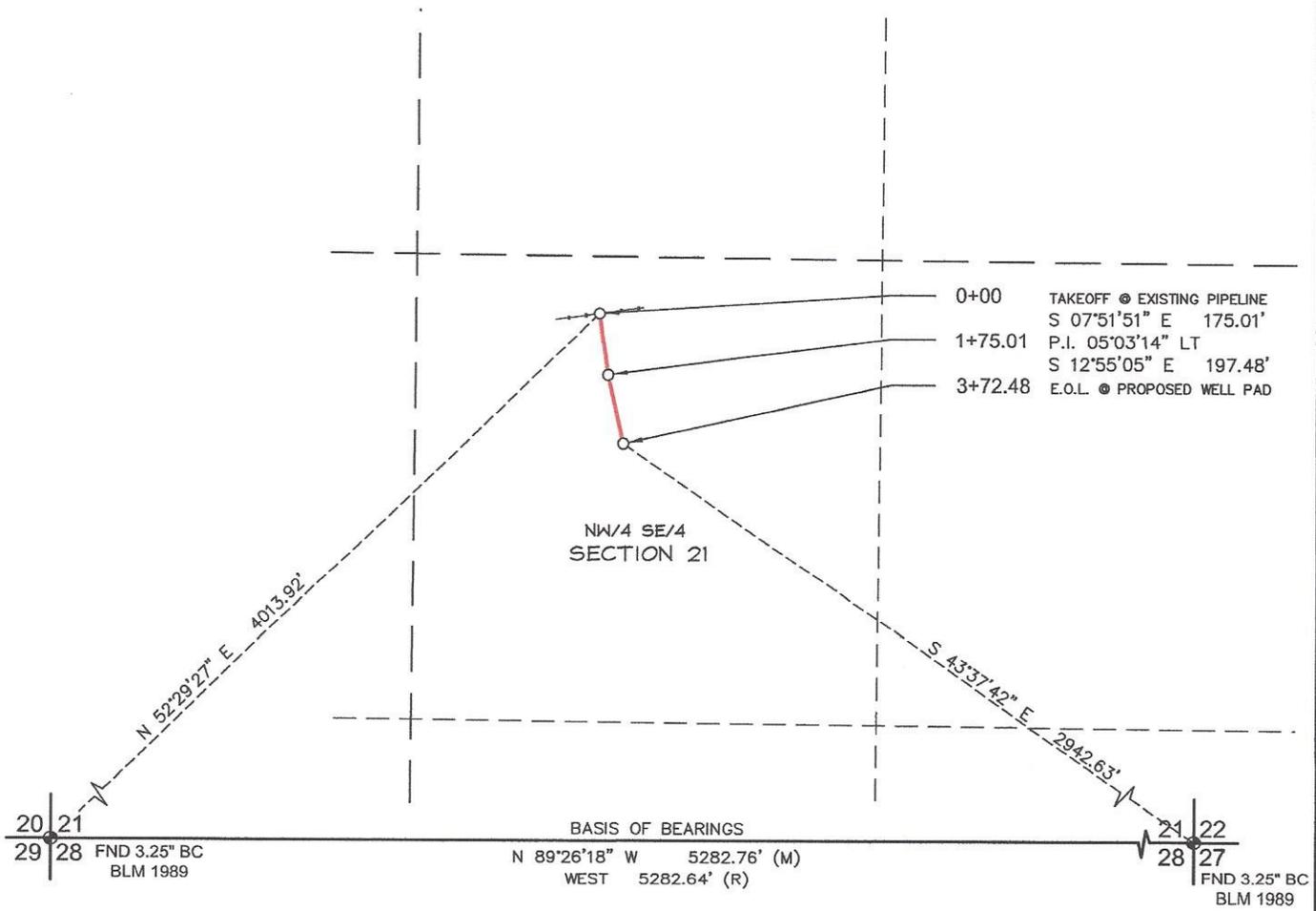
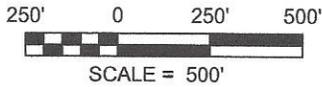


TACITUS
VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 60'
DATE: 06/19/20
DRAWN BY: GRR

 FILL
 CUT

CCI
CHEMALT CONSULTING INC.
4800 COLLEGE BLVD.
SUITE 201
FARMINGTON, NM 87402
(505) 325-7707

PROPOSED PIPELINES FOR
TACITUS, LLC
 NAVAJO TRIBAL U #7A
 LOCATED IN THE NW/4 SE/4 OF SECTION 21,
 T26N, R18W, N.M.P.M.,
 SAN JUAN COUNTY, NEW MEXICO



- NOTES**
- 1) BASIS OF BEARINGS FOR THIS SURVEY ARE BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTHWEST CORNER OF SECTION 21, TOWNSHIP 26 NORTH, RANGE 18 WEST, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO
 LINE BEARS: N 89°26'18" W 5282.76'
 - 2) DATE OF FIELD SURVEY: JUNE, 2020.
 - 3) THIS EXHIBIT IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED AS SUCH.
 - 4) THIS EXHIBIT MAY NOT SHOW ALL EXISTING EASEMENTS AND UTILITIES.
 - 5) CALL THE NEW MEXICO 811 SYSTEM FOR UTILITY LOCATIONS BEFORE EXCAVATING OR DIGGING.



~ SURFACE OWNERSHIP ~ NAVAJO TRIBAL	
SECTION 21, T26N, R18W 0+00 TO 3+72.48 372.48 FT / 22.57 RODS	
DATE OF SURVEY	06/15/20 GR/JC

PREPARED BY:

CCI
CHENAULT CONSULTING INC.
 4800 COLLEGE BLVD #105
 FARMINGTON, NM 87402
 (505) 325-7707

I, HENRY P. BROADHURST, JR., 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.

DRAWING: NAVAJO TRIBAL U #7A	
SCALE: 1" = 500'	REV. 0 06/19/2020
DRAFTED BY: GRR	
SHEET: 1 of 1	



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

Drilling Plan Data Report

05/11/2023

APD ID: 10400066946

Submission Date: 12/18/2020

Highlighted data
reflects the most
recent changes

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Well Type: OTHER

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
1240962	MANCOS	5673	0	0	SANDSTONE, SHALE, SILTSTONE	NONE	N
1240976	GREENHORN	5040	633	633	LIMESTONE	NATURAL GAS, OIL	N
1240966	DAKOTA	4953	720	720	SANDSTONE, SHALE	NATURAL GAS, OIL	N
1240967	MORRISON	4711	962	962	MUDSTONE	NATURAL GAS	N
1240968	TODILTO	3719	1954	1954	LIMESTONE	NATURAL GAS	N
1240965	ENTRADA	3700	1973	1974	SANDSTONE	NATURAL GAS	N
1240969	CHINLE	2955	2718	2746	MUDSTONE	OTHER : helium	N
1240971	SHINARUMP	2319	3354	3417	MUDSTONE	NATURAL GAS, OIL	N
1240985	DEHELLY	2032	3641	3720	SANDSTONE	NATURAL GAS	N
1240984	ORGAN ROCK	1435	4238	4350	SILTSTONE	OTHER : helium	N
1240983	ISMAY	144	5529	5705	LIMESTONE	NATURAL GAS, OIL	N
1240982	DESERT CREEK	16	5657	5835	LIMESTONE	NATURAL GAS, OIL	N
1240981	AKAH	-165	5838	6018	LIMESTONE	NATURAL GAS, OIL	N
1240980	BARKER CREEK	-332	6005	6185	LIMESTONE	NATURAL GAS, OIL	N
1240970	PENNSYLVANIAN	-489	6162	6342	LIMESTONE	NATURAL GAS, OIL	N
1240979	PINKERTON TRAIL	-576	6249	6429	LIMESTONE	NATURAL GAS, OIL	N
1240978	MOLAS	-687	6360	6540	SHALE	NATURAL GAS, OTHER : helium	N

Operator Name: TACITUS, LLC**Well Name:** NAVAJO TRIBAL U**Well Number:** 7A

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
1240977	LEADVILLE	-746	6419	6599	LIMESTONE	OIL, OTHER : helium	N
1240975	OURAY	-864	6537	6717	LIMESTONE	NATURAL GAS, OIL, OTHER : helium	N
1240974	ELBERT	-887	6560	6740	DOLOMITE, LIMESTONE, SHALE	NATURAL GAS, OTHER : helium	N
1240963	MCCRACKEN	-1030	6703	6883	DOLOMITE, SANDSTONE, SHALE	OTHER : HELIUM	Y
1240973	ANETH	-1114	6787	6967	LIMESTONE	OTHER : helium	Y
1240964	PRE-CAMBRIAN	-1183	6856	7036	GRANITE	OTHER : helium	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M**Rating Depth:** 10000**Equipment:** 5000 PSI DRILLING RIG BOP SYSTEM**Requesting Variance?** NO**Variance request:**

Testing Procedure: Maximum expected pressure is 3800 psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A diagram of a typical 11 inch 5,000 psi model BOP is attached BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 5000 psi system. A 5000 psi double ram hydraulic BOP with pipe rams containing pipe shears will be used. An annular preventer will be used in conjunction with the BOP. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above pre-charge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. Fill, kill, and choke manifold lines will be 2. Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well. Accessories will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, 5000 psi choke manifold with 2 adjustable and 2 positive chokes, and pressure gauge (diagrams attached). BOP rams will be cycled every 24 hours. Tests will be recorded on IADC log. BOP testing shall be conducted when initially installed, whenever any seal is broken or repaired and/or if the time since the previous test exceeds 30 days. Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams. Manual locking devices (hand wheels) shall be installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

Choke Diagram Attachment:

BOP_5000psi_20200818095925.pdf

BOP Diagram Attachment:

BOP_5000psi_20200818095934.pdf

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

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	17.5	13.375	NEW	API	N	0	150	0	150	5673	5523	150	H-40	48	ST&C							
2	SURFACE	12.25	9.625	NEW	API	N	0	1500	0	1500	5673	4173	1500	J-55	36	LT&C	2.7	3.5	BUOY	8.4	BUOY	10.4	
3	PRODUCTION	7.875	5.5	NEW	API	N	0	7214	0	7034	5666	-1361	7214	N-80	17	LT&C	1.7	1.7	BUOY	2.8	BUOY	3.2	

Casing Attachments

Casing ID: 1 **String** CONDUCTOR

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 2 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Tacitus_U7A_APD_casing_assumption_worksheet_I_20201218062455.pdf

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Casing Attachments

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Tacitus_U7A_APD_casing_assumption_worksheet_I_20201218062537.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MID	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead	151	0	150	300	2.01	12.5	600	53	premium lite high strength FM	Premium Lite High Strength FM w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52
SURFACE	Tail		150	1500	120	1.27	15.2	152	53	premium lite high strength FM	Premium Lite High Strength FM w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52
CONDUCTOR	Lead	150	0	150	170	1.18	15.6	200.6	56	Neat Cement	No

PRODUCTION	Lead	152	1500	7214	325	2.01	12.5	653	43	premium lite high strength fm	w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52
PRODUCTION	Tail		1500	7214	550	1.27	15.2	698	43	premium lite high strength fm	w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52

Operator Name: TACITUS, LLC**Well Name:** NAVAJO TRIBAL U**Well Number:** 7A

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: Fluid Measurements: Pumps will be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station. Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based. Fluid & Solids Disposal: Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). All garbage and trash materials will be contained on location in an industry approved trash container and will be removed from the site for proper disposal. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if it is generated. Industry approved chemical toilets will be provided and maintained during drilling operations. Water Source: The Navajo Nation and Tacitus LLC have entered multiple confidential water source agreements. Natural Artesian Water Well (Permit #18.0320) with 800,000 gallons declared.

Describe the mud monitoring system utilized: Fluid Measurements: Pumps will be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station. Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based. Fluid & Solids Disposal: Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). All garbage and trash materials will be contained on location in an industry approved trash container and will be removed from the site for proper disposal. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if it is generated. Industry approved chemical toilets will be provided and maintained during drilling operations. Water Source: The Navajo Nation and Tacitus LLC have entered multiple confidential water source agreements. Natural Artesian Water Well (Permit #18.0320) with 800,000 gallons declared.

Circulating Medium Table

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

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
0	150	LOW SOLIDS NON-DISPERSED (LSND)	8.4	10.3							
150	1500	LOW SOLIDS NON-DISPERSED (LSND)	8.4	10.3							
1500	3500	LOW SOLIDS NON-DISPERSED (LSND)	8.3	10.3							
3500	7214	LOW SOLIDS NON-DISPERSED (LSND)	8.3	10.3							

Section 6 - Test, Logging, Coring

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

Cased and Open Hole Logging:

Surface, Intermediate and Production Casing intervals may be logged with a Cement Bond Log (CBL) if cement returns are lost and/or cement is not brought to surface to determine the quality of the job prior to drilling ahead. Quad Combo, resistivity image and NMR (nuclear magnetic resonance) from 3500 MD/TVD to TD/~7034 MD/TVD.

Mud Logging:

Gas detecting equipment include Mass Spectrometer and Chromatograph shall will be installed in the mud return system for helium and other gases evaluation from ~3500 MD to TD/~7034 MD/TVD.

Pason Systems: Drilling parameters will be recorded and mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

DSTs: None planned

Coring: None planned

Testing: Flow tests possible.

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

MUD LOG/GEOLOGICAL LITHOLOGY LOG,DUAL INDUCTION/MICRO-RESISTIVITY,GAMMA RAY LOG,CALIPER,COMPENSATED NEUTRON LOG,COMPENSATED DENSILOG,SONIC LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,

Coring operation description for the well:

None Planned

Operator Name: TACITUS, LLC**Well Name:** NAVAJO TRIBAL U**Well Number:** 7A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3800**Anticipated Surface Pressure:** 2252**Anticipated Bottom Hole Temperature(F):** 160**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** YES**Describe:**

Pressure: Below and Normal pressure gradients are expected for all formations except for the Mississippian-Aged Leadville & Devonian-Aged Elbert, McCracken and Aneth Formations where an above normal pressure gradient is expected (>0.46 psi). Maximum expected 3800 psi BHP in the McCracken Formation. No Lost Circulation intervals are anticipated. If lost circulations are encountered measures will be taken including use of lost circulations material (LCM) to re-establish circulation.

Contingency Plans geohazards description:

Pressure Control & BOPE: Maximum expected pressure is 3800 psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A diagram of a typical 11 5,000 psi model BOP is attached BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 5000 psi system. A 5000 psi double ram hydraulic BOP with pipe rams containing pipe shears will be used. An annular preventer will be used in conjunction with the BOP. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above pre-charge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. Fill, kill, and choke manifold lines will be 2. Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well. Accessories will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, 5000 psi choke manifold with 2 adjustable and 2 positive chokes, and pressure gauge (diagrams attached). BOP rams will be cycled every 24 hours. Tests will be recorded on IADC log. BOP testing shall be conducted when initially installed, whenever any seal is broken or repaired and/or if the time since the previous test exceeds 30 days. Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams. Manual locking devices (hand wheels) shall be installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

Contingency Plans geohazards**Hydrogen Sulfide drilling operations plan required?** NO**Hydrogen sulfide drilling operations**

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Navajo_Tribal_U_7A_Plan_2_20210910114051.pdf

Other proposed operations facets description:

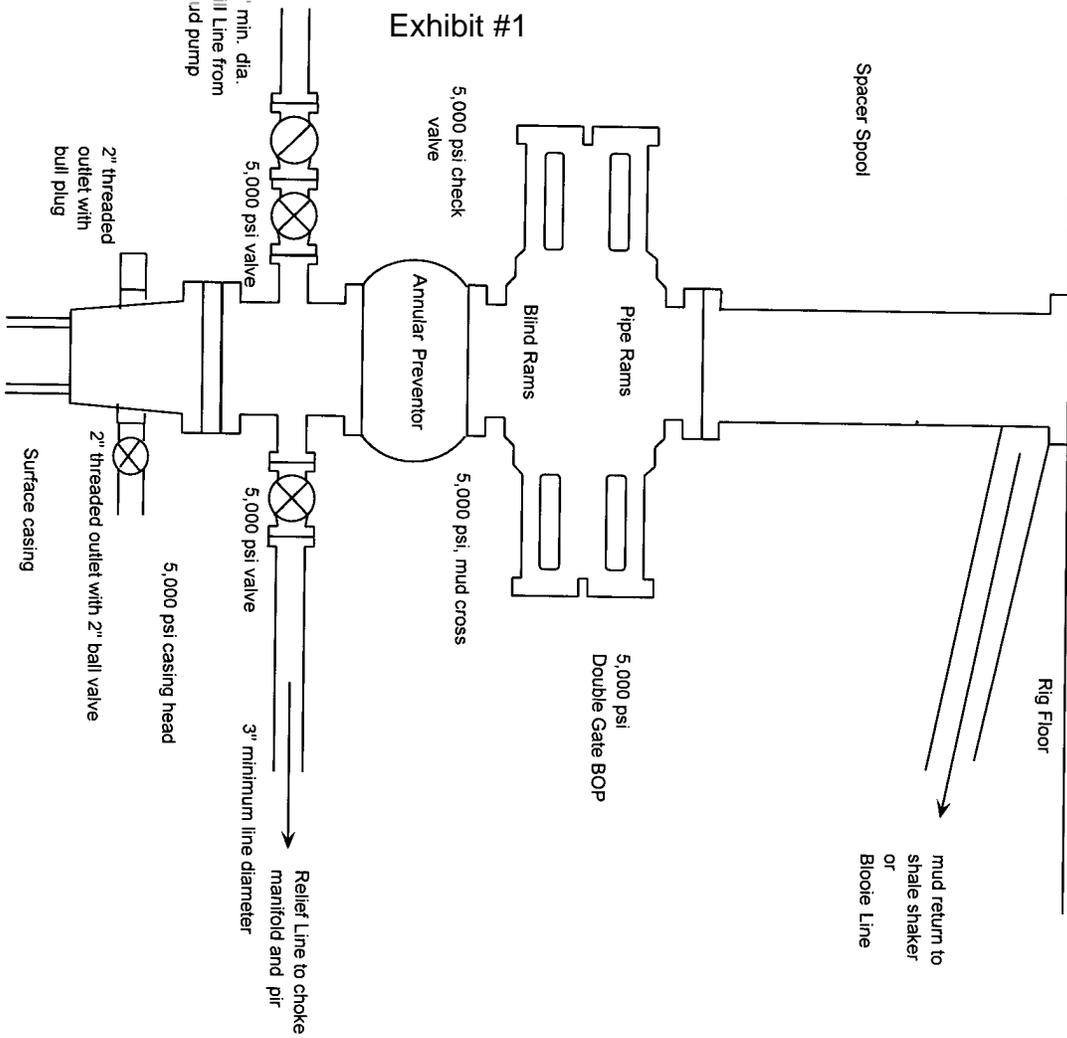
Completion will consist of select McCracken and Aneth formation perforations identified after open-hole logging and then these perforations will be stimulated with likely a 1 stage design with ~45,500 gallons 20# X-link 2% KCL water at 70Q with ~2900 mscf N2 and ~250,000 # 40/70 mesh Northern White sand proppant.

Other proposed operations facets attachment:

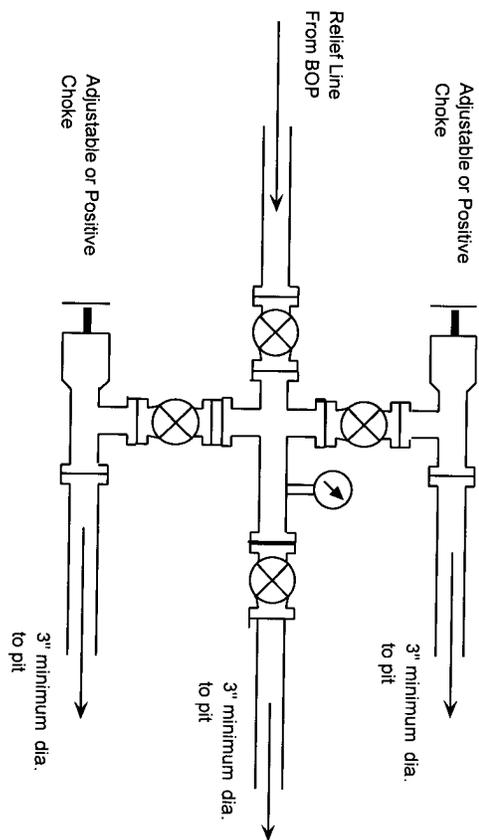
Other Variance attachment:

CONFIDENTIAL

5,000 psi Drilling Rig BOP System

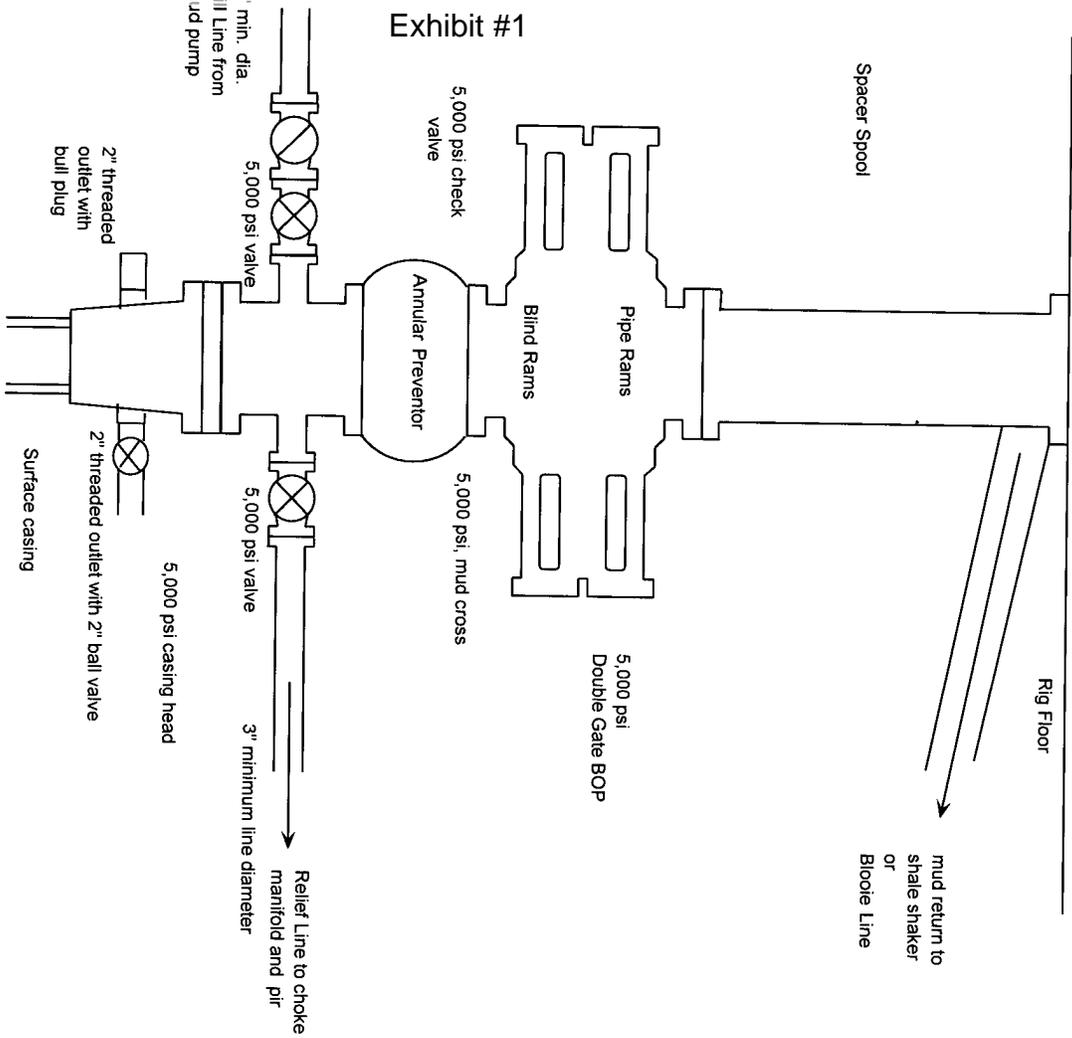


BOP Installation from Surface Casing to TD. 5,000 psi double gate BOP equipped with blind and pipe rams and rotating head. All equipment rated at 5,000 psi or greater working pressure.

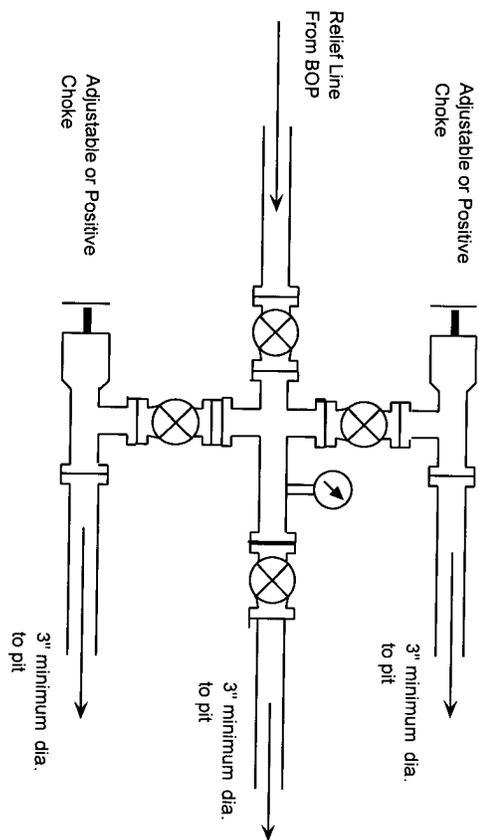


All equipment to be rated at 5,000 psi or greater.

5,000 psi Drilling Rig BOP System



BOP Installation from Surface Casing to TD. 5,000 psi double gate BOP equipped with blind and pipe rams and rotating head. All equipment rated at 5,000 psi or greater working pressure.



All equipment to be rated at 5,000 psi or greater.

Section	Depth	Hole Size	Size	Wt (lb/ft)	Grade	Thread	Collapse	Burst
Conductor	150'+/-	17 1/2"	13 3/8"	48#	H40	ST&C	770psi	1730psi
Surface	1500'+/-	12 1/4"	9 5/8"	36#	J55	LT&C	2020psi	3520psi
Production	7214'+/-	7 7/8"	5 1/2"	17#	N80	LT&C	6280psi	7740psi

Using Red Book-Halliburton Casing Table

Calculations for 9.625 Inch Casing

Collapse Design Safety Factor assumes 0.5 psi/ft & no fluid in casing
 $2020/750 = 2.7$

Burst Design Safety Factor assumes full column of cement at 1,021psi
 $3520/1021 = 3.5$

Joint Tensile Design Safety Factor
 Buoyant

36# x 1500 ft deep = 54000 # Wt of Casing
 LT&C 453000
 Safety Factor $453000/54000 = 8.4$

Body Tensile Design Safety Factor
 Buoyant

36# x 1500 ft deep = 54000 # Wt of Casing
 LT&C 564000
 Safety Factor $564000/54000 = 10.4$

Calculations for 5.5 Inch Casing

Collapse Design Safety Factor assumes 0.5 psi/ft & no fluid in casing
 $6280/3607 = 1.7$

Burst Design Safety Factor assumes 0.63 psi/ft formation fracture gradient for max anticipated internal pressure of 4,545 psi
 $7740/4545 = 1.7$

Joint Tensile Design Safety Factor
 Buoyant

17# x 7214 ft deep = 122638 # Wt of Casing
 LT&C 348000
 Safety Factor $348000/122638 = 2.8$

Body Tensile Design Safety Factor
 Buoyant

17# x 7214 ft deep = 122638 # Wt of Casing
LT&C 397000
Safety Factor 397000/122638 = 3.2

Section	Depth	Hole Size	Size	Wt (lb/ft)	Grade	Thread	Collapse	Burst
Conductor	150'+/-	17 1/2"	13 3/8"	48#	H40	ST&C	770psi	1730psi
Surface	1500'+/-	12 1/4"	9 5/8"	36#	J55	LT&C	2020psi	3520psi
Production	7214'+/-	7 7/8"	5 1/2"	17#	N80	LT&C	6280psi	7740psi

Using Red Book-Halliburton Casing Table

Calculations for 9.625 Inch Casing

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 $2020/750 = 2.7$

Burst Design Safety Factor assumes full column of cement at 1,021psi
 $3520/1021 = 3.5$

Joint Tensile Design Safety Factor
 Buoyant

36# x 1500 ft deep = 54000 # Wt of Casing
 LT&C 453000
 Safety Factor $453000/54000 = 8.4$

Body Tensile Design Safety Factor
 Buoyant

36# x 1500 ft deep = 54000 # Wt of Casing
 LT&C 564000
 Safety Factor $564000/54000 = 10.4$

Calculations for 5.5 Inch Casing

Collapse Design Safety Factor assumes 0.5 psi/ft & no fluid in casing
 $6280/3607 = 1.7$

Burst Design Safety Factor assumes 0.63 psi/ft formation fracture gradient for max anticipated internal pressure of 4,545 psi
 $7740/4545 = 1.7$

Joint Tensile Design Safety Factor
 Buoyant

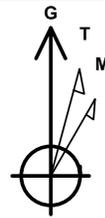
17# x 7214 ft deep = 122638 # Wt of Casing
 LT&C 348000
 Safety Factor $348000/122638 = 2.8$

Body Tensile Design Safety Factor
 Buoyant

17# x 7214 ft deep = 122638 # Wt of Casing
LT&C 397000
Safety Factor 397000/122638 = 3.2



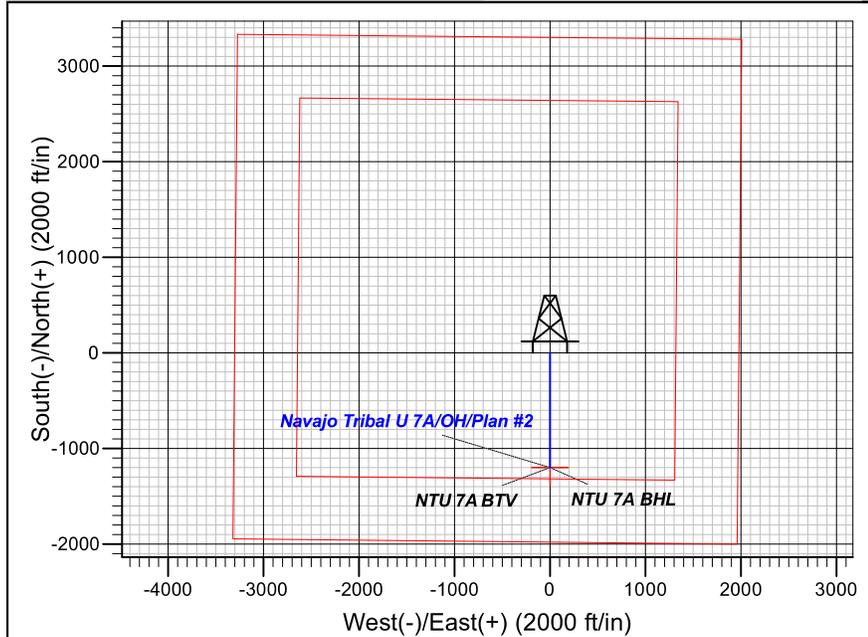
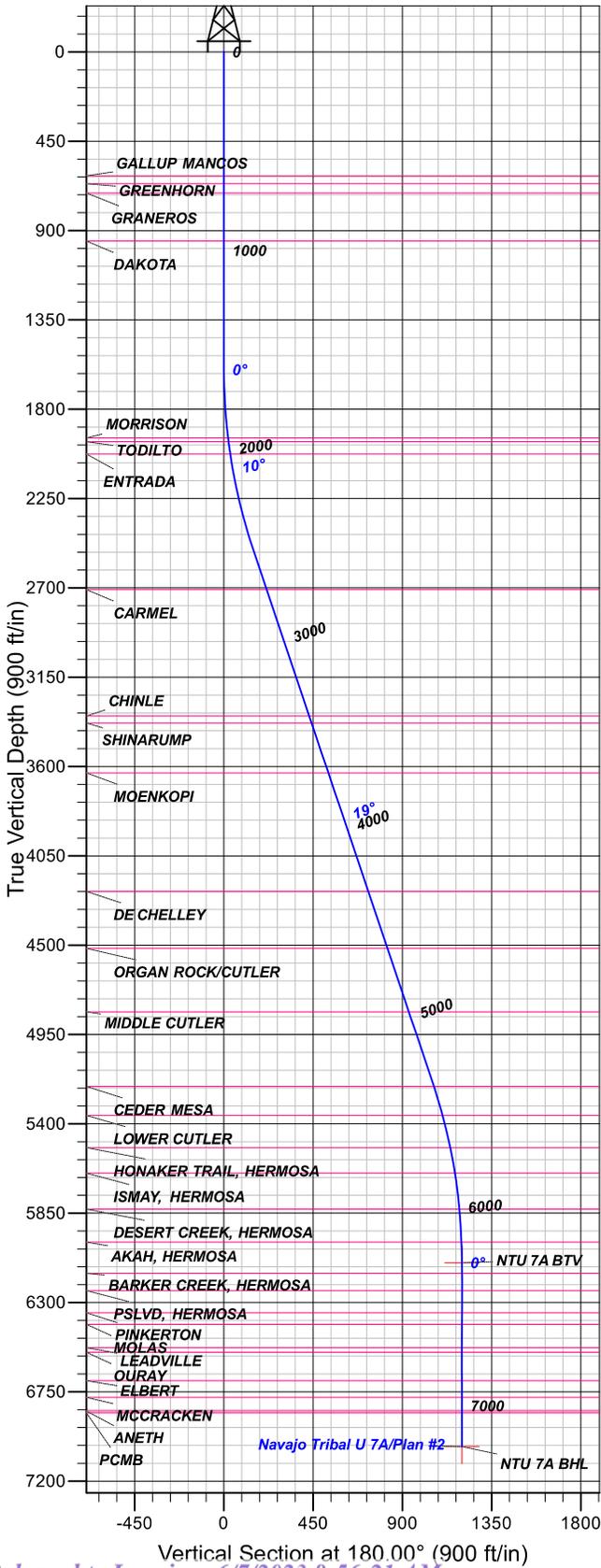
Well Details: Navajo Tribal U 7A



Azimuths to Grid North
 True North: 0.55°
 Magnetic North: 9.69°

Magnetic Field
 Strength: 49283.3nT
 Dip Angle: 62.75°
 Date: 9/10/2021
 Model: HDGM2021_FILE

GL 5673' @ 5673.00ft
 +N/-S 0.00 +E/-W 0.00 Northing 1992361.54 Easting 2450044.60 Latitude 36.4718160 Longitude -108.7620040 Slot



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
624.00	624.00	GALLUP MANCOS
663.00	663.00	GREENHORN
711.00	711.00	GRANEROS
953.00	953.00	DAKOTA
1945.00	1945.84	MORRISON
1964.00	1964.99	TODILTO
2026.00	2027.59	ENTRADA
2709.00	2736.04	CARMEL
3345.00	3407.19	CHINLE
3380.00	3444.13	SHINARUMP
3632.00	3710.05	MOENKOPI
4229.00	4340.05	DE CHELLEY
4516.00	4642.91	ORGAN ROCK/CUTLER
4836.00	4980.60	MIDDLE CUTLER
5212.00	5377.33	CEDER MESA
5358.00	5529.65	LOWER CUTLER
5520.00	5696.17	HONAKER TRAIL, HERMOSA
5648.00	5826.31	ISMAY, HERMOSA
5829.00	6008.80	DESERT CREEK, HERMOSA
5996.00	6176.18	AKAH, HERMOSA
6153.00	6333.21	BARKER CREEK, HERMOSA
6240.00	6420.21	PSLVD, HERMOSA
6351.00	6531.21	PINKERTON
6410.00	6590.21	MOLAS
6528.00	6708.21	LEADVILLE
6551.00	6731.21	OURAY
6694.00	6874.21	ELBERT
6778.00	6958.21	MCCRACKEN
6847.00	7027.21	ANETH
6856.00	7036.21	PCMB

Plan: Plan #2
11:45, September 10 2021 Created By: Janie Collins
PROJECT DETAILS: San Juan County, NM NAD83
Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: New Mexico Western Zone
CASING DETAILS
No casing data is available

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	
3	2531.29	18.63	180.00	2514.97	-150.04	0.00	2.00	180.00	150.04	
4	5348.92	18.63	180.00	5185.03	-1049.96	0.00	0.00	0.00	1049.96	
5	6280.21	0.00	0.00	6100.00	-1200.00	0.00	2.00	180.00	1200.00	NTU 7A BTV
6	7205.21	0.00	0.00	7025.00	-1200.00	0.00	0.00	0.00	1200.00	NTU 7A BHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
NTU 7A BTV	6100.00	-1200.00	0.00	1991161.54	2450044.60	36.4685201	-108.7619647
- plan hits target center							
NTU 7A BHL	7025.00	-1200.00	0.00	1991161.54	2450044.60	36.4685201	-108.7619647
- plan hits target center							



Tacitus Venture Corp.

**San Juan County, NM NAD83
Navajo Tribal U #7 Pad
Navajo Tribal U 7A**

OH

Plan: Plan #2

Standard Planning Report

10 September, 2021





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Navajo Tribal U 7A
Company:	Tacitus Venture Corp.	TVD Reference:	GL 5673' @ 5673.00ft
Project:	San Juan County, NM NAD83	MD Reference:	GL 5673' @ 5673.00ft
Site:	Navajo Tribal U #7 Pad	North Reference:	Grid
Well:	Navajo Tribal U 7A	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project	San Juan County, NM NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Navajo Tribal U #7 Pad				
Site Position:		Northing:	1,992,361.55 usft	Latitude:	36.4718160
From:	Lat/Long	Easting:	2,450,044.60 usft	Longitude:	-108.7620040
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.55 °

Well	Navajo Tribal U 7A					
Well Position	+N/-S	0.00 ft	Northing:	1,992,361.55 usft	Latitude:	36.4718160
	+E/-W	0.00 ft	Easting:	2,450,044.60 usft	Longitude:	-108.7620040
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,673.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021_FILE	9/10/2021	9.13	62.75	49,283.3000000

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	180.00

Plan Survey Tool Program	Date	9/10/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	7,205.21 Plan #2 (OH)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
2,531.29	18.63	180.00	2,514.97	-150.04	0.00	2.00	2.00	0.00	180.00	
5,348.92	18.63	180.00	5,185.03	-1,049.96	0.00	0.00	0.00	0.00	0.00	
6,280.21	0.00	0.00	6,100.00	-1,200.00	0.00	2.00	-2.00	0.00	180.00	NTU 7A BTV
7,205.21	0.00	0.00	7,025.00	-1,200.00	0.00	0.00	0.00	0.00	0.00	NTU 7A BHL



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Navajo Tribal U 7A
Company:	Tacitus Venture Corp.	TVD Reference:	GL 5673' @ 5673.00ft
Project:	San Juan County, NM NAD83	MD Reference:	GL 5673' @ 5673.00ft
Site:	Navajo Tribal U #7 Pad	North Reference:	Grid
Well:	Navajo Tribal U 7A	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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
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	2.00	180.00	1,699.98	-1.75	0.00	1.75	2.00	2.00	0.00
1,800.00	4.00	180.00	1,799.84	-6.98	0.00	6.98	2.00	2.00	0.00
1,900.00	6.00	180.00	1,899.45	-15.69	0.00	15.69	2.00	2.00	0.00
2,000.00	8.00	180.00	1,998.70	-27.88	0.00	27.88	2.00	2.00	0.00
2,100.00	10.00	180.00	2,097.47	-43.52	0.00	43.52	2.00	2.00	0.00
2,200.00	12.00	180.00	2,195.62	-62.60	0.00	62.60	2.00	2.00	0.00
2,300.00	14.00	180.00	2,293.06	-85.10	0.00	85.10	2.00	2.00	0.00
2,400.00	16.00	180.00	2,389.64	-110.98	0.00	110.98	2.00	2.00	0.00
2,500.00	18.00	180.00	2,485.27	-140.21	0.00	140.21	2.00	2.00	0.00
2,531.29	18.63	180.00	2,514.97	-150.04	0.00	150.04	2.00	2.00	0.00
2,600.00	18.63	180.00	2,580.08	-171.99	0.00	171.99	0.00	0.00	0.00
2,700.00	18.63	180.00	2,674.85	-203.93	0.00	203.93	0.00	0.00	0.00
2,800.00	18.63	180.00	2,769.61	-235.87	0.00	235.87	0.00	0.00	0.00
2,900.00	18.63	180.00	2,864.37	-267.81	0.00	267.81	0.00	0.00	0.00
3,000.00	18.63	180.00	2,959.13	-299.74	0.00	299.74	0.00	0.00	0.00
3,100.00	18.63	180.00	3,053.90	-331.68	0.00	331.68	0.00	0.00	0.00
3,200.00	18.63	180.00	3,148.66	-363.62	0.00	363.62	0.00	0.00	0.00
3,300.00	18.63	180.00	3,243.42	-395.56	0.00	395.56	0.00	0.00	0.00
3,400.00	18.63	180.00	3,338.18	-427.50	0.00	427.50	0.00	0.00	0.00
3,500.00	18.63	180.00	3,432.95	-459.44	0.00	459.44	0.00	0.00	0.00
3,600.00	18.63	180.00	3,527.71	-491.38	0.00	491.38	0.00	0.00	0.00
3,700.00	18.63	180.00	3,622.47	-523.31	0.00	523.31	0.00	0.00	0.00
3,800.00	18.63	180.00	3,717.23	-555.25	0.00	555.25	0.00	0.00	0.00
3,900.00	18.63	180.00	3,812.00	-587.19	0.00	587.19	0.00	0.00	0.00
4,000.00	18.63	180.00	3,906.76	-619.13	0.00	619.13	0.00	0.00	0.00
4,100.00	18.63	180.00	4,001.52	-651.07	0.00	651.07	0.00	0.00	0.00
4,200.00	18.63	180.00	4,096.28	-683.01	0.00	683.01	0.00	0.00	0.00
4,300.00	18.63	180.00	4,191.05	-714.95	0.00	714.95	0.00	0.00	0.00
4,400.00	18.63	180.00	4,285.81	-746.88	0.00	746.88	0.00	0.00	0.00
4,500.00	18.63	180.00	4,380.57	-778.82	0.00	778.82	0.00	0.00	0.00
4,600.00	18.63	180.00	4,475.33	-810.76	0.00	810.76	0.00	0.00	0.00
4,700.00	18.63	180.00	4,570.10	-842.70	0.00	842.70	0.00	0.00	0.00
4,800.00	18.63	180.00	4,664.86	-874.64	0.00	874.64	0.00	0.00	0.00
4,900.00	18.63	180.00	4,759.62	-906.58	0.00	906.58	0.00	0.00	0.00
5,000.00	18.63	180.00	4,854.38	-938.52	0.00	938.52	0.00	0.00	0.00
5,100.00	18.63	180.00	4,949.15	-970.46	0.00	970.46	0.00	0.00	0.00
5,200.00	18.63	180.00	5,043.91	-1,002.39	0.00	1,002.39	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Navajo Tribal U 7A
Company:	Tacitus Venture Corp.	TVD Reference:	GL 5673' @ 5673.00ft
Project:	San Juan County, NM NAD83	MD Reference:	GL 5673' @ 5673.00ft
Site:	Navajo Tribal U #7 Pad	North Reference:	Grid
Well:	Navajo Tribal U 7A	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,300.00	18.63	180.00	5,138.67	-1,034.33	0.00	1,034.33	0.00	0.00	0.00	
5,348.92	18.63	180.00	5,185.03	-1,049.96	0.00	1,049.96	0.00	0.00	0.00	
5,400.00	17.60	180.00	5,233.58	-1,065.84	0.00	1,065.84	2.00	-2.00	0.00	
5,500.00	15.60	180.00	5,329.40	-1,094.41	0.00	1,094.41	2.00	-2.00	0.00	
5,600.00	13.60	180.00	5,426.17	-1,119.63	0.00	1,119.63	2.00	-2.00	0.00	
5,700.00	11.60	180.00	5,523.75	-1,141.45	0.00	1,141.45	2.00	-2.00	0.00	
5,800.00	9.60	180.00	5,622.04	-1,159.85	0.00	1,159.85	2.00	-2.00	0.00	
5,900.00	7.60	180.00	5,720.91	-1,174.81	0.00	1,174.81	2.00	-2.00	0.00	
6,000.00	5.60	180.00	5,820.24	-1,186.31	0.00	1,186.31	2.00	-2.00	0.00	
6,100.00	3.60	180.00	5,919.91	-1,194.33	0.00	1,194.33	2.00	-2.00	0.00	
6,200.00	1.60	180.00	6,019.80	-1,198.88	0.00	1,198.88	2.00	-2.00	0.00	
6,280.21	0.00	0.00	6,100.00	-1,200.00	0.00	1,200.00	2.00	-2.00	0.00	
6,300.00	0.00	0.00	6,119.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,219.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,319.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,419.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,519.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,619.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,719.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,819.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,919.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,019.79	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	
7,205.21	0.00	0.00	7,025.00	-1,200.00	0.00	1,200.00	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
NTU 7A BTV - hit/miss target - Shape	0.00	0.55	6,100.00	-1,200.00	0.00	1,991,161.55	2,450,044.60	36.4685200	-108.7619647	
- plan hits target center - Point										
NTU 7A BHL - plan hits target center - Point	0.00	0.55	7,025.00	-1,200.00	0.00	1,991,161.55	2,450,044.60	36.4685200	-108.7619647	



Lonestar Consulting, LLC
 Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Navajo Tribal U 7A
Company:	Tacitus Venture Corp.	TVD Reference:	GL 5673' @ 5673.00ft
Project:	San Juan County, NM NAD83	MD Reference:	GL 5673' @ 5673.00ft
Site:	Navajo Tribal U #7 Pad	North Reference:	Grid
Well:	Navajo Tribal U 7A	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
624.00	624.00	GALLUP MANCOS		0.00	0.00	
663.00	663.00	GREENHORN		0.00	0.00	
711.00	711.00	GRANEROS		0.00	0.00	
953.00	953.00	DAKOTA		0.00	0.00	
1,945.84	1,945.00	MORRISON		0.00	0.00	
1,964.99	1,964.00	TODILTO		0.00	0.00	
2,027.59	2,026.00	ENTRADA		0.00	0.00	
2,736.04	2,709.00	CARMEL		0.00	0.00	
3,407.19	3,345.00	CHINLE		0.00	0.00	
3,444.13	3,380.00	SHINARUMP		0.00	0.00	
3,710.05	3,632.00	MOENKOPI		0.00	0.00	
4,340.05	4,229.00	DE CHELLEY		0.00	0.00	
4,642.91	4,516.00	ORGAN ROCK/CUTLER		0.00	0.00	
4,980.60	4,836.00	MIDDLE CUTLER		0.00	0.00	
5,377.33	5,212.00	CEDER MESA		0.00	0.00	
5,529.65	5,358.00	LOWER CUTLER		0.00	0.00	
5,696.17	5,520.00	HONAKER TRAIL, HERMOSA		0.00	0.00	
5,826.31	5,648.00	ISMAY, HERMOSA		0.00	0.00	
6,008.80	5,829.00	DESERT CREEK, HERMOSA		0.00	0.00	
6,176.18	5,996.00	AKAH, HERMOSA		0.00	0.00	
6,333.21	6,153.00	BARKER CREEK, HERMOSA		0.00	0.00	
6,420.21	6,240.00	PSLVD, HERMOSA		0.00	0.00	
6,531.21	6,351.00	PINKERTON		0.00	0.00	
6,590.21	6,410.00	MOLAS		0.00	0.00	
6,708.21	6,528.00	LEADVILLE		0.00	0.00	
6,731.21	6,551.00	OURAY		0.00	0.00	
6,874.21	6,694.00	ELBERT		0.00	0.00	
6,958.21	6,778.00	MCCRACKEN		0.00	0.00	
7,027.21	6,847.00	ANETH		0.00	0.00	
7,036.21	6,856.00	PCMB		0.00	0.00	



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

SUPO Data Report

05/11/2023

APD ID: 10400066946

Submission Date: 12/18/2020

Highlighted data reflects the most recent changes

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

[Show Final Text](#)

Well Type: OTHER

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

TACITIS_NAVAJO_U7_PAD_AND_U7A_APD_ROAD_MAP_20201217091646.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? YES

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? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Operator Name: TACITUS, LLC	Well Number: 7A
Well Name: NAVAJO TRIBAL U	

Tacitus_U7A_Existing_wells_Map_20201014_20201217091811.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Gathering System and Pipeline Notification The subject inert wells do not produce any pipeline quality gas and only the Helium will be recovered and sold. The wells are connected to the central process facility located at Township 26N Range 18W Section 20 in San Juan County, New Mexico. This location was the previous site for the central oil battery and gas compression facilities to allow for the sale of gas into the El Paso Natural gas system. The wells utilize the existing pipelines (or replacement pipelines segments as required) to flow the wells to the central processing facility. There is a total of ~ 5 miles of pipelines being used to gather the gas from the 6 wells currently producing. The Facility only removes the Helium from the stream. The helium is compressed into on site Helium trailers so it can be trucked to market. The Helium gas transporter is AirGas LLC. The wells were flowed back through test facilities at each well after completion or frac to clean up prior to flowing to the central facilities. The flowback operations are essentially complete, however because of potential water loading at the wells, they may need to be occasionally blown down at the wellsites. The Operator provides a schedule of anticipated Helium production rates to gas transporter so that they can provide the appropriate number of Helium trailers to collect all of the Helium produced from the central facilities. The Facility is currently designed to produce a maximum of 150 mcf/d of Helium. The Operators plans on new drilling or recompleting addition wells to maintain/increase this rate. The actual flow of the gas will be based the capabilities of the flowing gas wells.

Production Facilities map:

Tacitus_LLC_Helium_Plant_Exhibit_20200819083422.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Tacitus sources water from Basin Disposal Inc with Aztec municipal water permit # NM-01-005

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

Source latitude: **Source longitude:**

Source datum: NAD83

Water source permit type: TEMPORARY WATER USE PERMIT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 19047.619048

Source volume (acre-feet): 2.455112

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Source volume (gal): 800000

Water source and transportation

TACITUS_U7A_APD_WATER_SOURCE_AND_TRANSPORTTION_MAP_20201217092057.pdf

Water source comments: Tacitus sources water from Basin Disposal Inc with Aztec municipal water permit # NM-01-005

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: NO

Construction Materials description:

Construction Materials source location

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Fluids and Solids Control Program Fluid Measurements: Pumps will be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's workstation. Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based. Fluid & Solids Disposal: Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). All garbage and trash materials will be contained on location in an industry approved trash container and will be removed from the site for proper disposal. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if it is generated. Industry approved chemical toilets will be provided and maintained during drilling operations.

Amount of waste: 400 barrels

Waste disposal frequency : Daily

Safe containment description: Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc)

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

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based.

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:

AD777_Rig_Inventory_with_Foot_Print_20200819085338.pdf

Tacitus_Navajo_Tribal_U__20201217092401

Comments:

Section 10 - Plans for Surface

Type of disturbance: No New Surface Disturbance **Multiple Well Pad Name:**

Multiple Well Pad Number:

Recontouring

Drainage/Erosion control construction: Tacitus will use appropriate erosion control/water management design features within the proposed project area. Potential erosion control or water management features that may be used include (but are not limited to), waterbars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, outlet protection for culverts, erosion control blankets or geotextiles, and straw wattles. Tacitus (or its contractors) will use erosion control blankets, straw bales, or

Operator Name: TACITUS, LLC
Well Name: NAVAJO TRIBAL U **Well Number:** 7A

straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils.

Drainage/Erosion control reclamation: Tacitus will use appropriate erosion control/water management design features within the proposed project area. Potential erosion control or water management features that may be used include (but are not limited to), waterbars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, outlet protection for culverts, erosion control blankets or geotextiles, and straw wattles. Tacitus (or its contractors) will use erosion control blankets, straw bales, or straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils. If available, the upper 6 inches of topsoil will be stripped, following vegetation and site clearing during construction activities. Tacitus (or its contractor) will take care not to mix topsoil with the underlying subsoil horizons and will stockpile the topsoil separately from subsoil or other excavated material including during construction of pits. Topsoil and sub-surface soils will be replaced in the proper order, prior to final seedbed preparation. Stained topsoil will be stored separately to facilitate removal and reclamation.

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

Disturbance Comments: Tacitus proposes to utilize the existing Navajo Tribal U #7 well pad, access road, and pipeline for the construction and development of one new helium well. The dimensions for the existing well pad are unknown, however on-the-ground estimates are approximately 300 feet by 350 feet (2.4 acres). No new disturbance is anticipated. A 300-foot by 300-foot well pad with a 50-foot buffer zone surrounding the perimeter of the well pad and roughly 300-feet of subsurface well-tie pipelines (pre-disturbed) with a 30-foot ROW are included as part of the project. Tacitus would utilize the existing Navajo Tribal U #12 wellpad, access road, and pipeline and historically disturbed area to eliminate the need for any new disturbance. The access road will be improved in accordance to the BLM Gold Book standards. All surface disturbance associated with the well pad would be reclaimed to a BLM/BIA-approved working area. Production equipment will be placed on the location in such a manner to allow safe access to produce and service the well/facilities while minimizing long-term disturbance and maximizing interim reclamation. As practical, access will be provided by a tear-drop shaped road through the production area. A 14-foot-wide running surface on for the access road would remain disturbed for the lifetime of the project. The remainder of the disturbed access road corridor would be reclaimed during interim reclamation. Existing roads and pipeline corridors will be utilized to reduce the need for new disturbance

Reconstruction method: If available, the upper 6 inches of topsoil will be stripped, following vegetation and site clearing during construction activities. Tacitus (or its contractor) will take care not to mix topsoil with the underlying subsoil horizons and will stockpile the topsoil separately from subsoil or other excavated material including during construction of pits. Topsoil and sub-surface soils will be replaced in the proper order, prior to final seedbed preparation. Stained topsoil will be stored separately to facilitate removal and reclamation.

Topsoil redistribution: If available, the upper 6 inches of topsoil will be stripped, following vegetation and site clearing during construction activities. Tacitus (or its contractor) will take care not to mix topsoil with the underlying subsoil horizons and will stockpile the topsoil separately from subsoil or other excavated material including during construction of pits. Topsoil and sub-surface soils will be replaced in the proper order, prior to final seedbed preparation. Stained topsoil will be stored separately to facilitate removal and reclamation.

Soil treatment: For cut and fill slopes, initial seedbed preparation will consist of backfilling and re-contouring to achieve a configuration as close to pre-disturbance conditions as possible. Areas to be reclaimed will be re-contoured to blend with the surrounding landscape, emphasizing restoration of existing drainage patterns and landform to pre-construction condition, to the extent practicable. Seedbed preparation of compacted areas will be ripped to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Disking will be conducted if large clumps or clods remain after ripping. Any tilling or disking that occurs along the contour of the slope and seed drills will also be run along the contour to provide terracing and

Operator Name: TACITUS, LLC**Well Name:** NAVAJO TRIBAL U**Well Number:** 7A

prevent rapid run-off and erosion. If broadcast seeding is used, a dozer or other tracked equipment will track perpendicular to the slope prior to broadcast seeding. Following final contouring, the backfilled or ripped surfaces will be covered evenly with stockpiled topsoil. Final seedbed preparation will 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. Based on information gathered at the pre-disturbance onsite inspection BLM, BIA, and Tacitus representatives have decided that no soil amendments will be used during reclamation of the affected environment.

Existing Vegetation at the well pad: Based on observations made during site visits, it has been determined that the vegetation community which best represents the proposed project area is Grassland/Badland Community. This community is comprised primarily of widely scattered, mixed shrub of four winged saltbush (*Atriplex canescens*) with broom snakewood (*Gutierrezia sarothrae*), Bigelow's sagebrush (*Artemisia bigelovii*), and Bigelow's rabbitbrush (*Chrysothamnus nauseosus* var. *bigelovii*). Grass cover is represented by galleta (*Hilaria jamesii*), sand dropseed (*Sporobolus cryptandrus*), and Indian ricegrass (*Oryzopsis hymenoides*). Herbaceous forbs of woolly plantain (*Plantago patagonica*), sand puffs (*Triperocalyx carneus*), and common globemallow (*Sphaeralcea coccinea*). Vegetation also consists of shrubland grassland swales dominated by greasewood (*Sarcobatus vermiculatus*) with New Mexico saltbush (*Atriplex obovata*) and scattered alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*). Soil composition primarily consists of Shiprock-Farb Complex fine sandy loams, 1 to 5 percent slopes.

Existing Vegetation at the well pad

Existing Vegetation Community at the road: Based on observations made during site visits, it has been determined that the vegetation community which best represents the proposed project area is Grassland/Badland Community. This community is comprised primarily of widely scattered, mixed shrub of four winged saltbush (*Atriplex canescens*) with broom snakewood (*Gutierrezia sarothrae*), Bigelow's sagebrush (*Artemisia bigelovii*), and Bigelow's rabbitbrush (*Chrysothamnus nauseosus* var. *bigelovii*). Grass cover is represented by galleta (*Hilaria jamesii*), sand dropseed (*Sporobolus cryptandrus*), and Indian ricegrass (*Oryzopsis hymenoides*). Herbaceous forbs of woolly plantain (*Plantago patagonica*), sand puffs (*Triperocalyx carneus*), and common globemallow (*Sphaeralcea coccinea*). Vegetation also consists of shrubland grassland swales dominated by greasewood (*Sarcobatus vermiculatus*) with New Mexico saltbush (*Atriplex obovata*) and scattered alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*). Soil composition primarily consists of Shiprock-Farb Complex fine sandy loams, 1 to 5 percent slopes.

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: Based on observations made during site visits, it has been determined that the vegetation community which best represents the proposed project area is Grassland/Badland Community. This community is comprised primarily of widely scattered, mixed shrub of four winged saltbush (*Atriplex canescens*) with broom snakewood (*Gutierrezia sarothrae*), Bigelow's sagebrush (*Artemisia bigelovii*), and Bigelow's rabbitbrush (*Chrysothamnus nauseosus* var. *bigelovii*). Grass cover is represented by galleta (*Hilaria jamesii*), sand dropseed (*Sporobolus cryptandrus*), and Indian ricegrass (*Oryzopsis hymenoides*). Herbaceous forbs of woolly plantain (*Plantago patagonica*), sand puffs (*Triperocalyx carneus*), and common globemallow (*Sphaeralcea coccinea*). Vegetation also consists of shrubland grassland swales dominated by greasewood (*Sarcobatus vermiculatus*) with New Mexico saltbush (*Atriplex obovata*) and scattered alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*). Soil composition primarily consists of Shiprock-Farb Complex fine sandy loams, 1 to 5 percent slopes.

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: Based on observations made during site visits, it has been determined that the vegetation community which best represents the proposed project area is Grassland/Badland Community. This community is comprised primarily of widely scattered, mixed shrub of four winged saltbush (*Atriplex canescens*) with broom snakewood (*Gutierrezia sarothrae*), Bigelow's sagebrush (*Artemisia bigelovii*), and Bigelow's rabbitbrush (*Chrysothamnus nauseosus* var. *bigelovii*). Grass cover is represented by galleta (*Hilaria jamesii*), sand dropseed (*Sporobolus cryptandrus*), and Indian ricegrass (*Oryzopsis hymenoides*). Herbaceous forbs of woolly plantain (*Plantago patagonica*), sand puffs

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

(Triperocalyx carneus), and common globemallow (Sphaeralcea coccinea). Vegetation also consists of shrubland grassland swales dominated by greasewood (Sarcobatus vermiculatus) with New Mexico saltbush (Atriplex obovata) and scattered alkali sacaton (Sporobolus airoides), sand dropseed (Sporobolus cryptandrus). Soil composition primarily consists of Shiprock-Farb Complex fine sandy loams, 1 to 5 percent slopes.

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

[Seed](#)

[Seed Table](#)

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation

[Operator Contact/Responsible Official](#)

First Name: Peter

Last Name: Kondrat

Phone: (970)759-5370

Email: peter.kondrat@tacitushelium.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Weed treatment plan description: Inspection of the project area for noxious or invasive weeds listed by New Mexico Department of Agriculture as Class A or Class B will occur after earthwork and seeding activities. Tacitus will follow BIA and/or BLM requirements and instructions for weed treatments, including the period of treatment, approved herbicides that may be used, required documentation to be submitted to the BIA and/or BLM after treatment, and any other site-specific instructions that may be applicable. Tacitus will manage weeds at the proposed site with the following general practices: Any listed weeds will be treated prior to commencement of construction to prevent incorporation into the soil. o Equipment will be inspected and cleaned prior to entering the construction site, and earthmoving equipment will be cleaned prior to exiting the site. o Potential weed introduction will be minimized by using only weed-free seed mix, straw, mulch or other materials that may be brought to the site. o Ongoing weed inspection and appropriate treatment will continue until percentage cover standards have been attained and final abandonment has occurred.

Weed treatment plan

Monitoring plan description: Monitoring will be completed according to BIA and/or BLM requirements. Monitoring activities will be initiated after the project is completed, during the post-disturbance earthwork and seeding inspection process. Percentage cover will be monitored annually until attainment of the vegetation reclamation cover standard has been met. Tacitus will keep a record of the monitoring for future submittal to the BIA and/or BLM at reclamation attainment.

Monitoring plan

Success standards: Upon final abandonment, Tacitus will file for ROW Grant termination with the BIA and/or BLM. Tacitus would relinquish ROW Grants for the well pad and access roads. Surface disturbances within the ROW Grant areas will be returned to pre-disturbance conditions as practicable according to BIA and/or BLM procedure.

Pit closure description: no pit

Pit closure attachment:

Section 11 - Surface

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF INDIAN AFFAIRS,OTHER

Other surface owner description: NAVAJO NATION

BIA Local Office: WINDOW ROCK

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Section 12 - Other

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

ROW

SUPO Additional Information: NAVAJO NATION CULTURAL CLEARANCE AND BIOLOGICAL COMPLIANCE COMPLETED

Use a previously conducted onsite? Y

Previous Onsite information: ON SITE FOR U7A WAS COMPLETED IN SUMMER 2020 WITH THE NAVAJO NATION, BIA AND BLM

Other SUPO

NAVAJO_NATION_CULTURAL_CLEARANCE_20201214130620.pdf

Tacitus_LL_C_Tocito_Dome_Wells_and_Pipeline_System_Map_20200827132137.pdf

Tacitus_U71_Navajo_Nation_Biological_Compliance_Form_20201217092659.pdf

Tacitus_Navajo_Tribal_U__20201218061912

Tacitus_Navajo_Tribal_U7_Rec_Plan_20201014_20201218061948.pdf

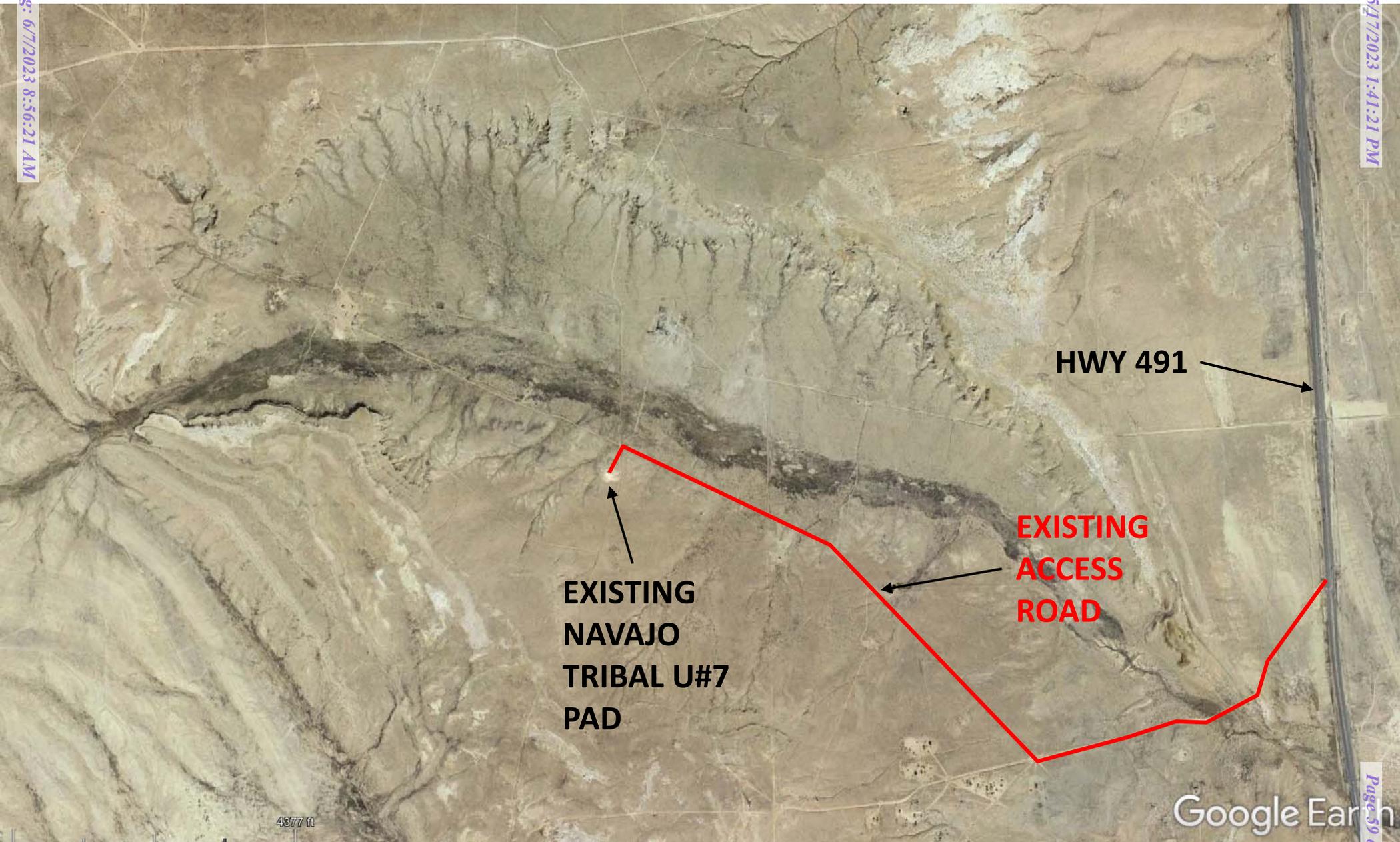
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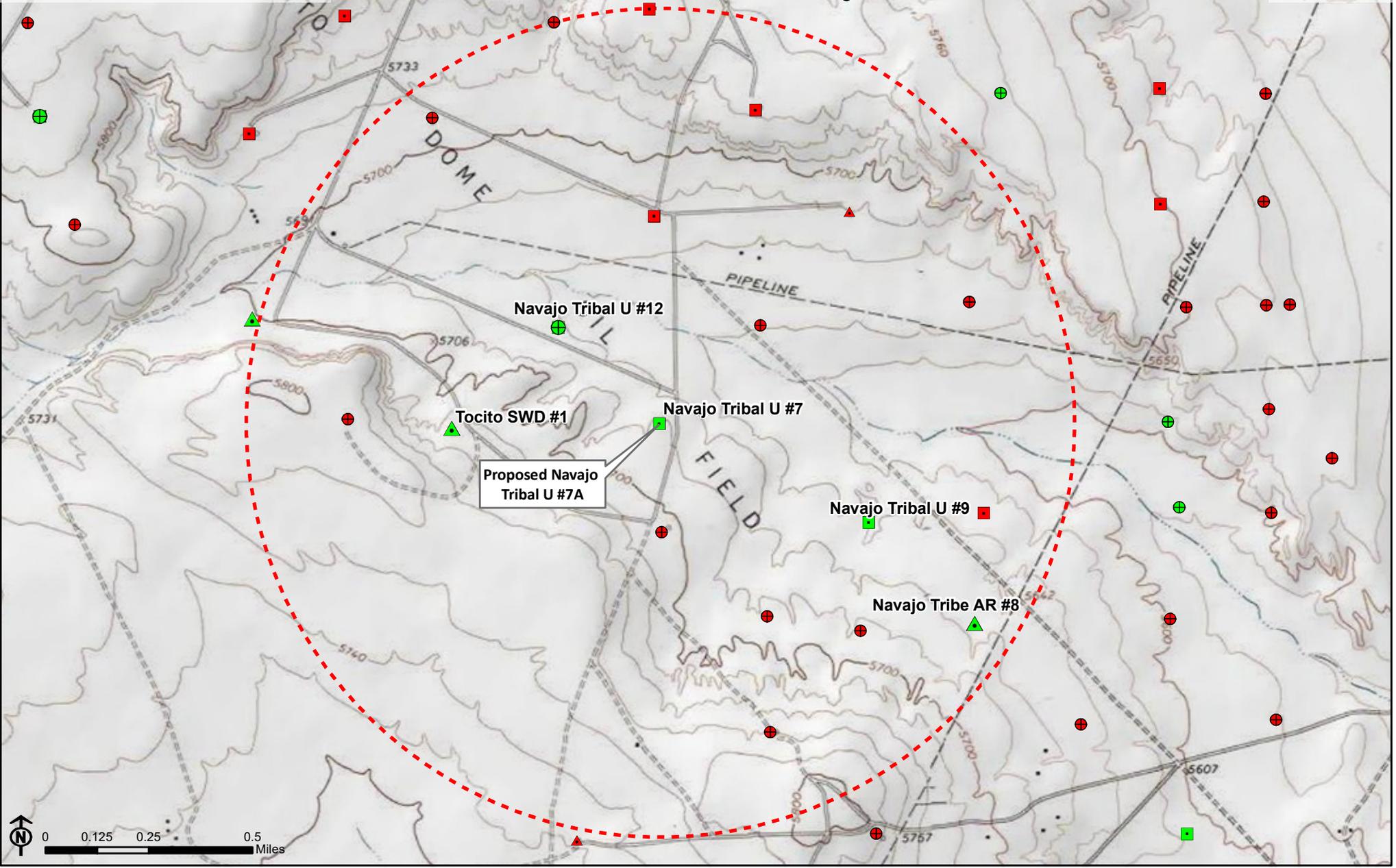
Navajo Tribal U#7 Pad & U #7A

Driving Directions from Farmington, NM: Go west on Hwy 64 toward to Shiprock, NM. Take Hwy 491 South (towards Gallup) for ~20 miles to Mile Marker 70.0 then ~0.4 miles past turn west on Tocito Dome access road (Indian Service Road 5016) and head west for 1.0 miles turn right at 4-Way. Then go northwest for 1.5 miles to location. Location is on the south side of the access road.

TACITUS TOCITO DOME, NAVAJO NATION

NAVAJO TRIBAL U #7 PAD & NAVAJO TRIBAL U#7A ROAD MAP





 Adkins Consulting Inc.
Durango, Colorado

Created: 10/06/2020
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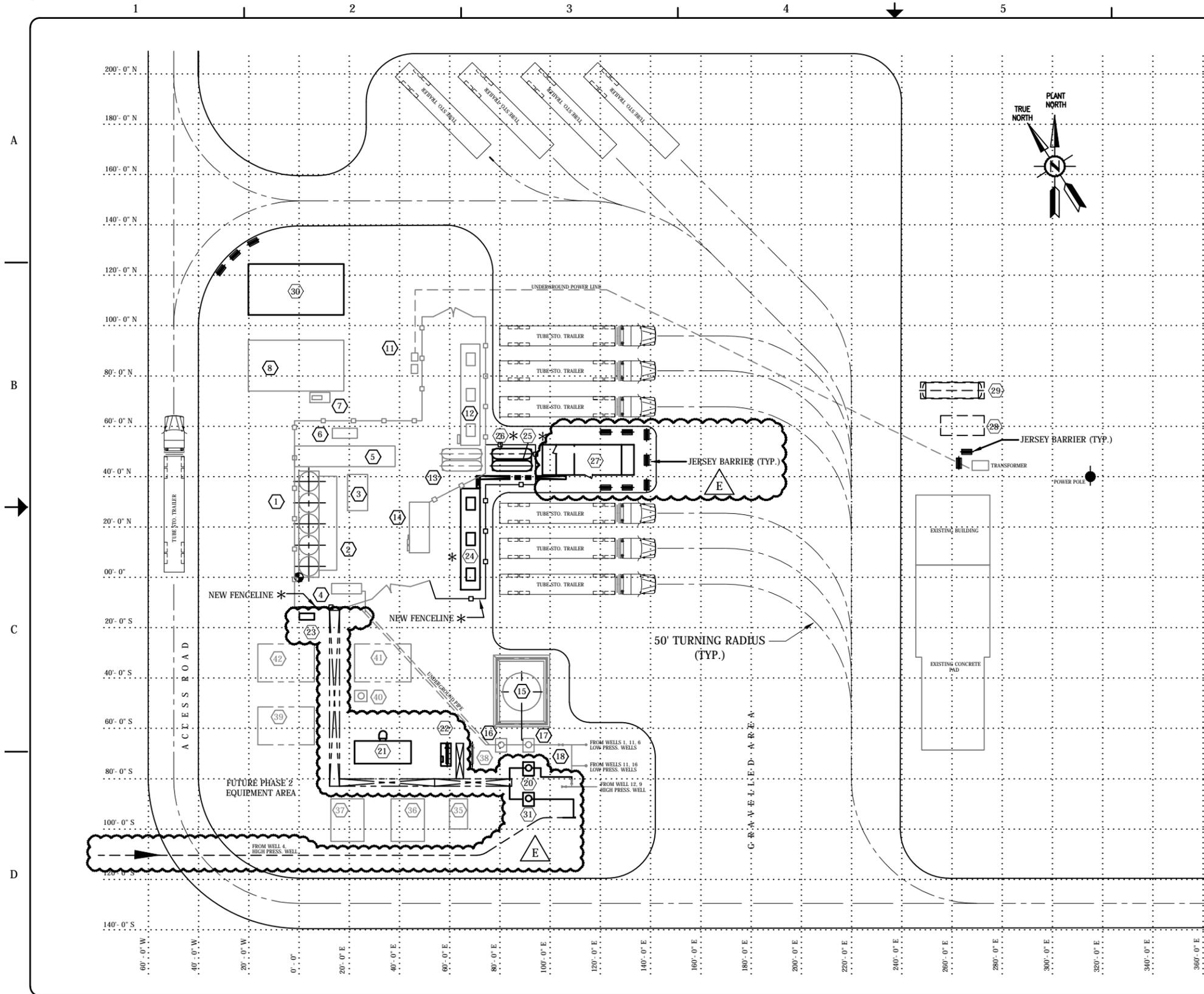
**Existing Navajo Tribal U #7 &
Proposed Navajo Tribal U #7A
Existing Wells Within One Mile**

Section 21, Township 26 North, Range 18 West

Legend

-  One Mile Buffer
-  Active Gas Well
-  Plugged Gas Well
-  Active Oil Well
-  Plugged Oil Well
-  Active Salt Water Disposal Well
-  Plugged Salt Water Disposal Well





EXISTING EQUIPMENT / BUILDING LIST			
NO.	TAG	EQUIPMENT DESCRIPTION	SIZE
1	-	PSA VESSEL	-
2	-	PSA VENT AREA	-
3	-	VACUUM PUMPS SKID	-
4	-	INLET AREA	-
5	-	NITROGEN BLADDER BLDG.	-
6	-	REJECT VENT SKID	-
7	-	500 AMP ELECTRICAL BOX	-
8	-	COMPRESSOR AREA	-
9	-	TEMPORARY GENSET	-
10	-	DIESEL TANK	-
11	-	1200 AMP DISTRIBUTION BOX	-
12	-	SALES / LOADING BUILDING	-
13	-	HELIUM STORAGE TANK	-
14	-	IACX CONTROL ROMM	-
15	-	DRAIN TANK	-
16	-	FILTER COALESCER	-
17	-	INLET SEPARATOR	-
18	-	ESDV VALVE AREA	-

NEW EQUIPMENT / BUILDING LIST			
NO.	TAG	EQUIPMENT DESCRIPTION	SIZE
20	V-200	VERTICAL INLET SEPARATOR	-
21	MU-200	MEMBRANE PACKAGE UNIT	-
22	E-200	ELECTRIC HEATER	-
23	XXX	NEW PANEL	-
24	K-210A/B/C	COMPRESSOR BLDG. PACKAGE *	-
25	ST-200	HELIUM STORAGE TANK *	-
26	ST-210	HELIUM STORAGE TANK *	-
27	XXX	GC / OFFICE BUILDING	-
28	XXX	GENSET (FUTURE)	-
29	ST-300	DIESEL STORAGE TANK (FUTURE)	-
30	K-350	RINSE COMPRESSOR	-
31	V-300	VERTICAL INLET SEPARATOR	-
32	-	-	-
33	-	-	-
34	-	-	-
35	DU-XXX	DEHYDRATION UNIT (FUTURE)	-
36	K-XXX	COMPRESSOR (FUTURE)	-
37	K-XXX	INJ. WELL COMPRESSOR (FUTURE)	-
38	HX-XXX	GAS/ GAS EXCHANGER (FUTURE)	-
39	K-310	COMPRESSOR (FUTURE)	-
40	F-300	COALESCING FILTER (FUTURE)	-
41	MU-300	3 BANKS MEMBRANE (FUTURE)	-
42	K-311	COMPRESSOR (FUTURE)	-
43	-	-	-
44	-	-	-
45	-	-	-
46	-	-	-
47	-	-	-
48	-	-	-

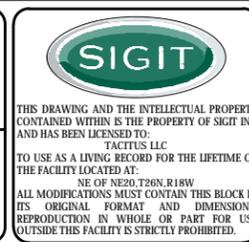
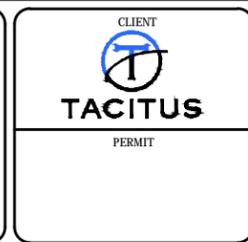
REFERENCE COORDINATE:
 ● CORNER OF PSA SKID - ASSUMED COORDINATE 0,0.

* - IACX ENERGY SCOPE OF WORK

REV	PROJ. NO.	DATE	DWN	CHKD	ENG.	DESCRIPTION
A	ECS000039	2019/06/26	E.D.	BR	HZ	ISSUED FOR APPROVAL
B	ECS000039	2019/07/03	E.D.	BR	HZ	REVISED AS PER CLIENT COMMENTS - ISSUED FOR REVIEW
C	ECS000039	2019/07/15	E.D.	BR	HZ	REVISED AS PER PHASE 1 SCOPE OF WORK
D	ECS000039	2019/07/26	E.D.	BR	HZ	ISSUED FOR DESIGN
0	ECS000039	2019/08/07	E.D.			ISSUED FOR REFERENCE (STRUCT. & CIVIL CONSTRUCTION)

GENERAL NOTES

ENGINEERING STAMP



TITLE	TACITUS LLC TACITUS TOCITO HE FACILITY NE OF N220, T26N, R18W TOCITO PLANT DEVELOPMENT PLOT PLAN	
CLIENT DWG. No.	ECS000039-400-0001	
SCALE	1: 3/16"	REVISION NO.
		0

TACITUS LLC TOCITO DOME, NAVAJO NATION



Water Source & Transportation Map

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Received by OGD: 5/17/2023 1:41:21 PM

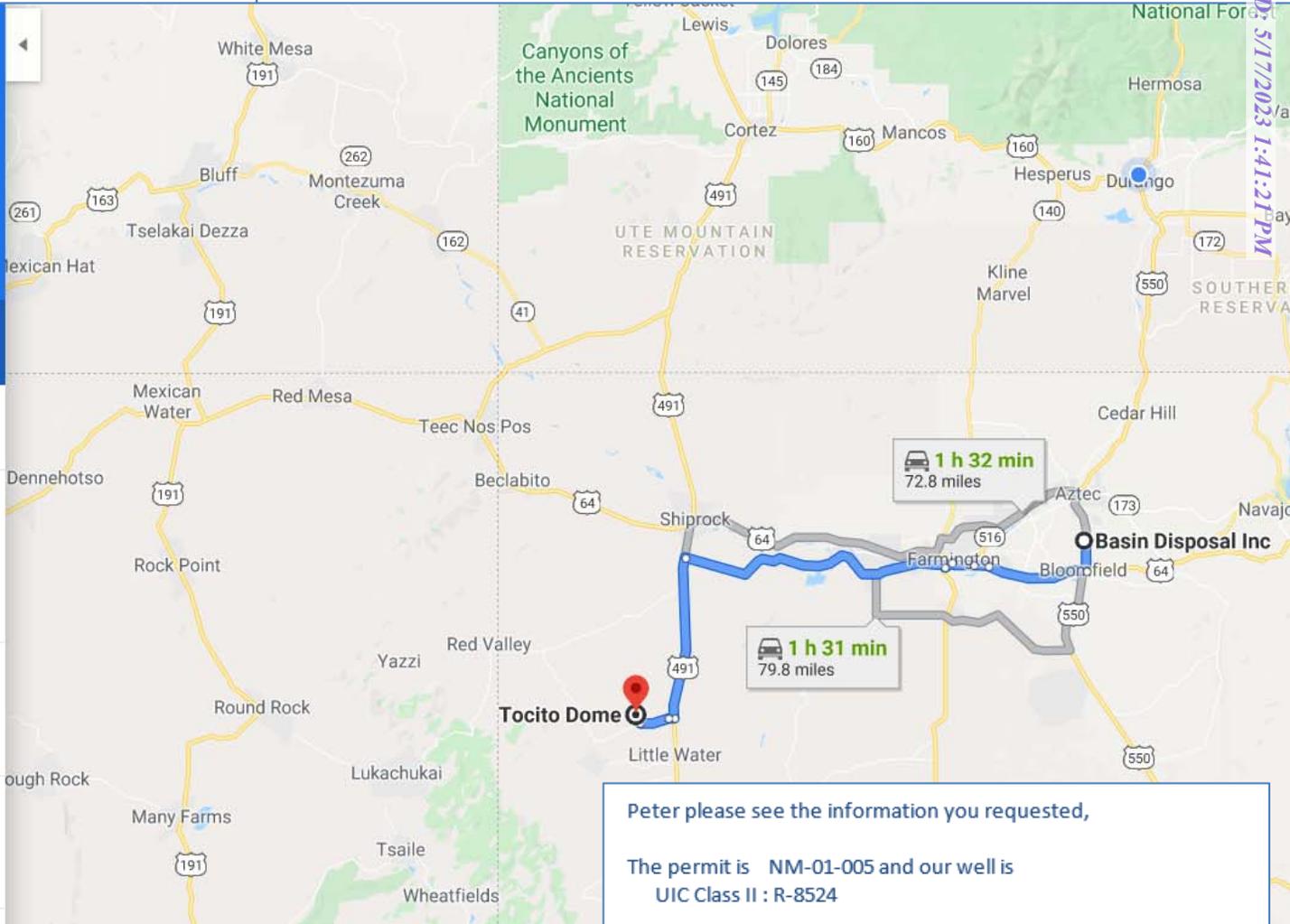
Basin Disposal Inc, 200 Montana, Bloor
Tocito Dome, New Mexico 87420

Add destination

Leave now OPTIONS

Send directions to your phone

via Indian Rte 36	1 h 24 min	67.5 miles
Fastest route, the usual traffic		
DETAILS		
via Indian Rte 36 and US-491 S	1 h 31 min	79.8 miles
via US-64 W and US-491 S	1 h 32 min	72.8 miles



Peter please see the information you requested,

The permit is NM-01-005 and our well is UIC Class II : R-8524

Thanks

Betty Coffman
BASIN DISPOSAL INC.
 Business Development
 505-801-0206 cell
bcoffman@basindisposalinc.com

EXCLUSIVE

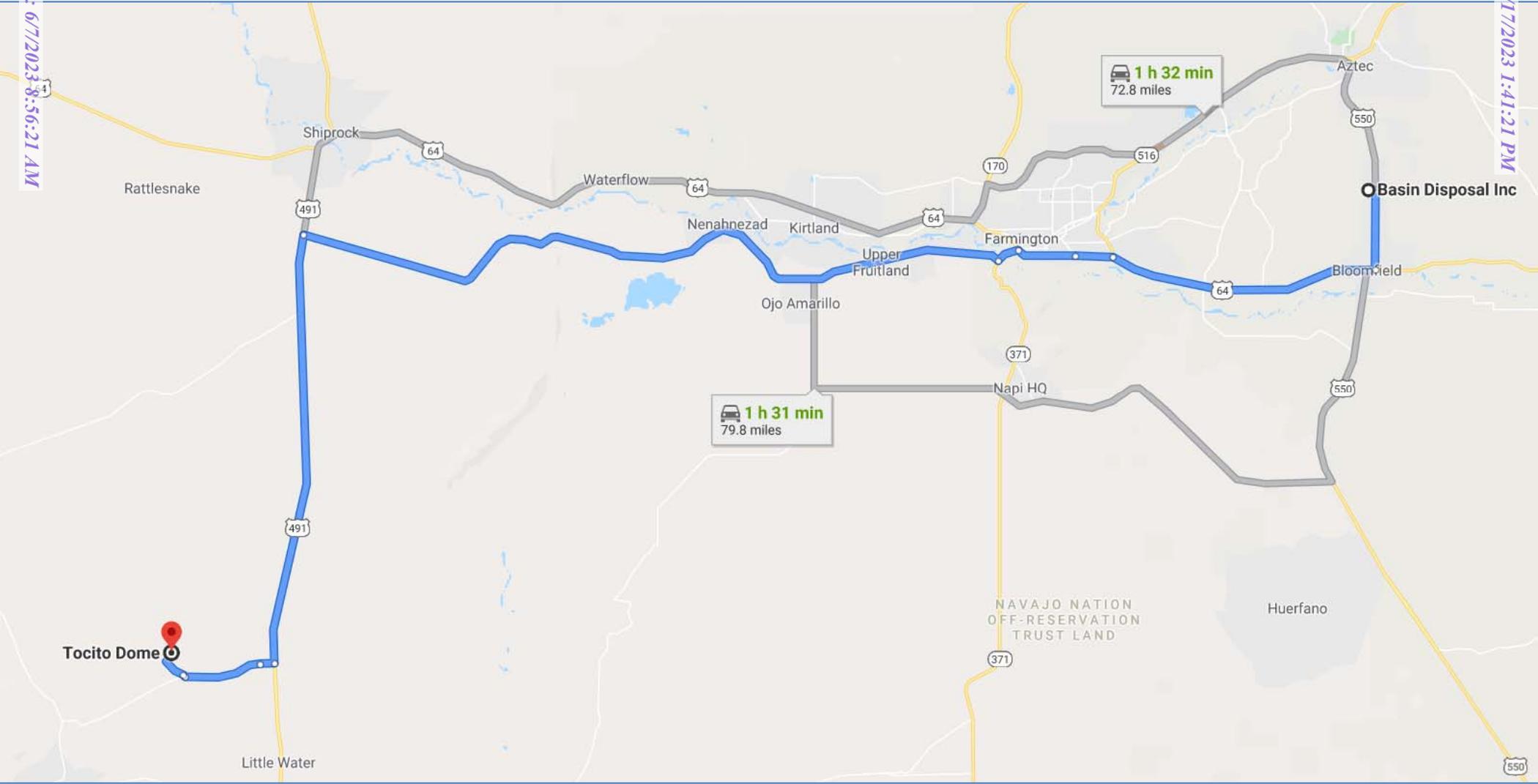
Page 62 of 151

TACITUS LLC TOCITO DOME, NAVAJO NATION



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Water Source & Transportation Map



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EXCLUSIVE

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TACITUS LLC TOCITO DOME, NAVAJO NATION

Water Source & Transportation Map



DRILLING RIG INVENTORY

Rig Number: 777
 Make & Model: Loadcraft HRI-1000
 Year Manufactured: 2009 Type: Mobile Drilling Rig Telescoping Double
 Maximum Depth Rating with 4-1/2" 16.6 ppf Drill pipe: 12,000'
 Rotary Drive: Type and Size, Speed Range (rpm): Hacker 22" 0-150 RPM
 Approximate number of loads to move rig: 20

Drawworks:
 Main Drum:
 Hydromatic Brake: 224DDR Cable Size: 1 1/8 Number of Clutches: 2
 Make & Model: Loadcraft Industries

Sand Drum: N/A Cable Size: N/A Cable Length: N/A

Engines: Make & Model: 2- Cat C-15 576hp Each

Derrick:
 Manufacturer: Loadcraft Height: 116' Weight Capacity: 410,000
 Maximum Number of Lines: 10 Last Inspection Date: 2/29/12

Top Drive:
 Manufacturer: TESCO Description: HMI-250
 Capacity: 250 Tons 475 hp Power Package

Iron Roughneck:
 Manufacturer: ST-80 Model: NOV ST-80 C

Substructure:
 Height and Capacity: 17' 6" KB Cap. 408,000 Set Back Cap 225,000
 Height above base of substructure to underside of rotary beams: 14' 6"
 Windbreak on substructure: X Yes No

Traveling Blocks:
 Make & Model: TFI YG 180 Weight Capacity: 190 Ton Number of Lines: 10

Elevators: Make & Model: AOT American Oil Tool 4 1/2

Catwalk: Length & Height: Tesco Hydraulic Pipe Wrangler

Pipe Racks: Length & Height: 2 x 29' 2" length 3' 8" tall, 2 x 20' length x 2' 10" tall, 1 x 27' 3" length x 3' 5" tall

Pipe Baskets: Quantity: 5 Type: Hydraulic Capacity: 60 joints of 4-1/2 pipe, 80 joints of 3 -1/2 pipe

Drill Pipe: Size, Amounts, Connections, Grade: 4" XT-39 14# S 135
 Last inspection date & footage since last inspected: current

Drill Collars: (Minimum quantity required for running manufactures maximum weight on bit for each hole size)
 Size (O.D. x I.D.): 4 3/4, 6 1/4, 6 1/2 x 2 1/4 Number: 20
 Last inspection date & footage since last inspected: current

Pumps: Make, Model, Input HP: HRS F-1000 Qty. 2 (TWO) 1,000hp
 Engine Make & Model: Detroit Series 2000
 Liner Size and Stroke Length: 6 1/2 x 10' stroke
 Max. Continuous Operating Pressure: 3,000 lbs
 Pump Speed (spm): 140

Steel Mud Pit: Tank - 47" length
 Dimensions: 6' 8" TALL X 10' WIDE X 56' LONG Capacity: 450 BBLs Number of Compartments: 5
 Shale Shaker Make & Model: 2 - Derrick Model 503
 Charge Pump Make & Model: Mission 1-7/8 pedestal 5x6

BOP's: Make & Model: Townsend LWS Double Hydraulic Size: 11"
 Pressure Rating: 3000 PSI Date of Last Inspection: current

Rotating Head: Make & Model: Washington Dual Outlet Head
 Estimated cost for stripping rubber: _____

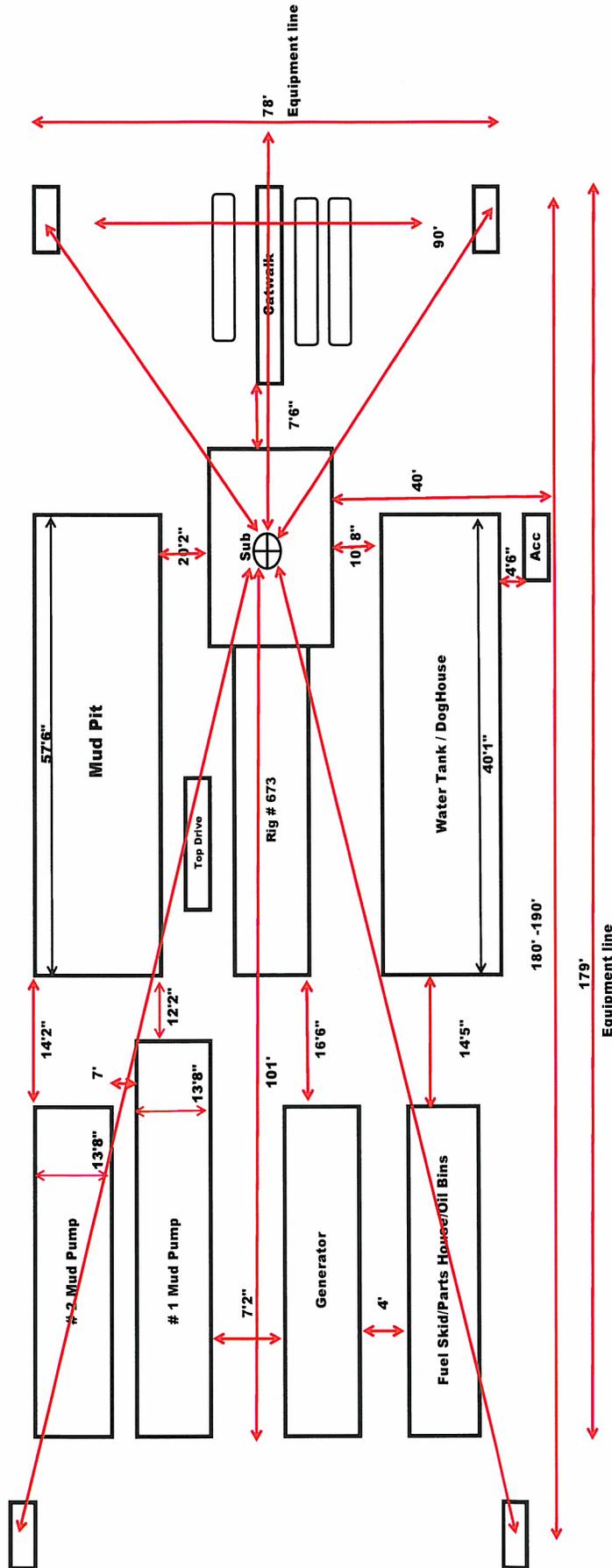
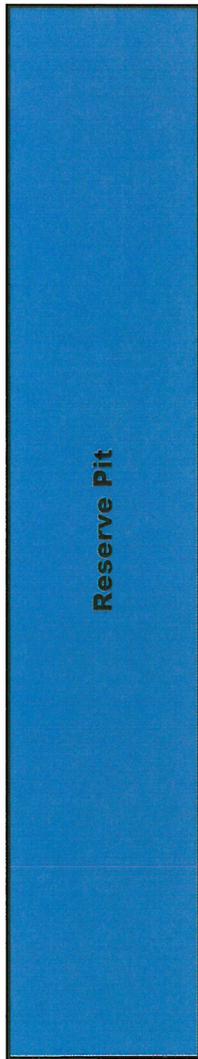
Accumulator:
 Make & Model: Burnsco-Bison
 Capacity of Hydraulic Fluid: 250
 Number of Stations: 5 Number of Pressure Bottles: 8
 Hydraulic Pressure Source: 650 Triplex Cat Pump
 Electric Motor: TEXP HE xplosion High efficiency
 Gas/Diesel Engine: _____
 Air/Hydraulic Pump: Air 88550
 Date of Last Inspection: Current

Choke Manifold:
 Valves:
 Make & Model: JMP 3"
 Pressure Rating & Size: 3000 PSI size 3 1/8
 Date of Last Inspection: Current

Chokes:
 Make & Model: PO8RS Seal gate 2" Type: Adj. & Positive
 Pressure Rating & Size: 5000 psi size 2 1/16
 Date of Last Inspection: Current

Light Plant:
 Voltage, Amperage, Watts: 240 volts, 480 volts 385kw
 Engine Make & Model: Caterpillar Model C-15

Drilling Recorder:
 Make & Model: Pason Electronic Drilling Recorder
 Chart Type: 12 Hour X 24 Hour



Rig 777 Foot Print



**THE NAVAJO NATION
HERITAGE & HISTORIC PRESERVATION DEPARTMENT**

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:		NNHPD NO.: HPD-19-628	
<input checked="" type="checkbox"/> WCAC		OTHER PROJECT NO.: TAC-2019-01	
PROJECT TITLE:			
Class III Inventory and Ethnographic Summary for 11 Helium Well Locations and Associated Flowlines in the Tocito Dome Area, Navajo Nation and San Juan County, New Mexico.			
LEAD AGENCY:		BIA/NR	
SPONSOR:		Kameron Jones, Tacitus, LLC, 2100 Cortland Drive, Farmington, New Mexico 87401	
PROJECT DESCRIPTION:			
Tacitus, LLC is developing helium resources in the Tocito Dome area in Sanostee, New Mexico. Eleven well locations (each measure 300'x300' or 2-acres) are all extant well pads that were formerly used for gas & oil extractions and are connected by 35,000-ft of existing flow lines. Several have abandoned pumpjacks and tanks that are being reclaimed. The flowlines were buffered by 50 feet on either side, and the well pads were buffered by 100 feet on all sides. The area of potential effect is 50.2-acres & the area surveyed is 165.37-acres.			
LAND STATUS:		Navajo Tribal Trust	
CHAPTER:		Sanostee	
LOCATION:		The project is located on the Sanostee East Quadrangle, San Juan County, New Mexico NMPM	
T.	<u>26</u>	N., R.	<u>18</u> W- Sec. <u>7, 15-18, 20-22</u>
UTM COORDINATES: Zone <u>12</u>, NAD <u>83</u>		See Report	
PROJECT ARCHAEOLOGIST:		Jason Chuipka	
NAVAJO ANTIQUITIES PERMIT NO.:		B19457	
DATE INSPECTED:		06/28/19 – 08/09/19	
DATE OF REPORT:		03/30/19	
TOTAL ACREAGE INSPECTED:		165.37 - ac	
METHOD OF INVESTIGATION:		Class III pedestrian inventory with transects spaced <u>10</u> m apart.	
LIST OF CULTURAL RESOURCES FOUND:		<p>(1) SITE NM-H-34-101</p> <p>(2) IN-USE SITES (IUS)</p> <p>(18) ISOLATED OCCURRENCES (IO)</p>	
LIST OF ELIGIBLE PROPERTIES:		<p>(1) SITE NM-H-34-101</p>	
LIST OF UNEVALUATED PROPERTIES:		NONE	

-DOCUMENT IS VOID IF ALTERED-

LIST OF NON-ELIGIBLE PROPERTIES:	<u>(2) IN-USE SITES (IUS)</u> <u>(18) ISOLATED OCCURRENCES (IO)</u>
LIST OF ARCHAEOLOGICAL RESOURCES:	<u>(1) SITE</u> NM-H-34-101

EFFECT/CONDITIONS OF COMPLIANCE: No Adverse Effect with the following conditions:

Site NM-H-34-101:

1. Site is crossed by the current APE and the existing flowline #U16 well.
2. Features of the site can be avoided if all work is confined to the existing right-of-way and the existing road.
3. Fence the edges of the flowline ROW prior to ground disturbing work within the site.
4. An archaeologist will monitor all ground-disturbing activities & produce a monitoring report within 30-days of the monitoring activities.
5. Monitoring stipulations: NNHHPD requests a monitoring report be submitted within 30-days of completed activity.

In-Use Sites (IUS):

No further work is recommended.

TCP# 673:

1. TCP is located outside of the APE, but is visually affected by several of the wells in the area, particularly SWD Well #002.
2. Tacitus, LLC, will ensure that contractors are **NOT** working on the wells or flowlines when ceremonies or offerings are being conducted near the TCP.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7198.

FORM PREPARED BY: **Tamara Billie**
FINALIZED: November 1, 2019

Notification to Proceed Recommended

Yes No

Conditions:

Yes No


 Richard M. Begay, Dept. Mgr. THPD
 The Navajo Nation
 Heritage & Historic Preservation Department

11/02/19
Date

Navajo Region Approval

Yes No


 BIA - Navajo Regional Office

11/13/19
Date



-DOCUMENT IS VOID IF ALTERED-

TACITUS LLC TOCITO DOME, NAVAJO NATION

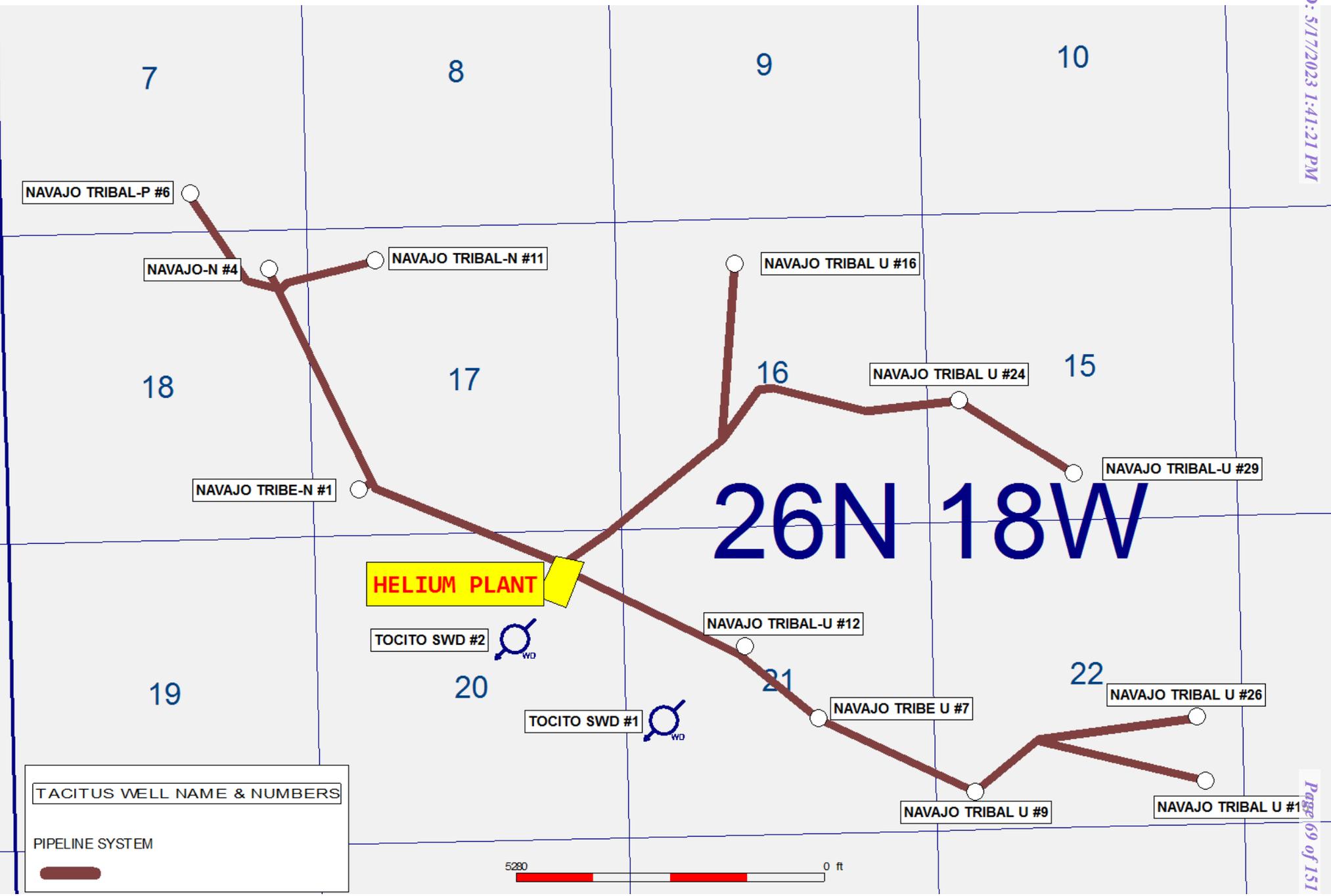


TACITUS

PIPELINE & WELLS MAP

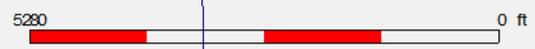
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Received by OGD: 5/17/2023 1:41:21 PM



TACITUS WELL NAME & NUMBERS

PIPELINE SYSTEM



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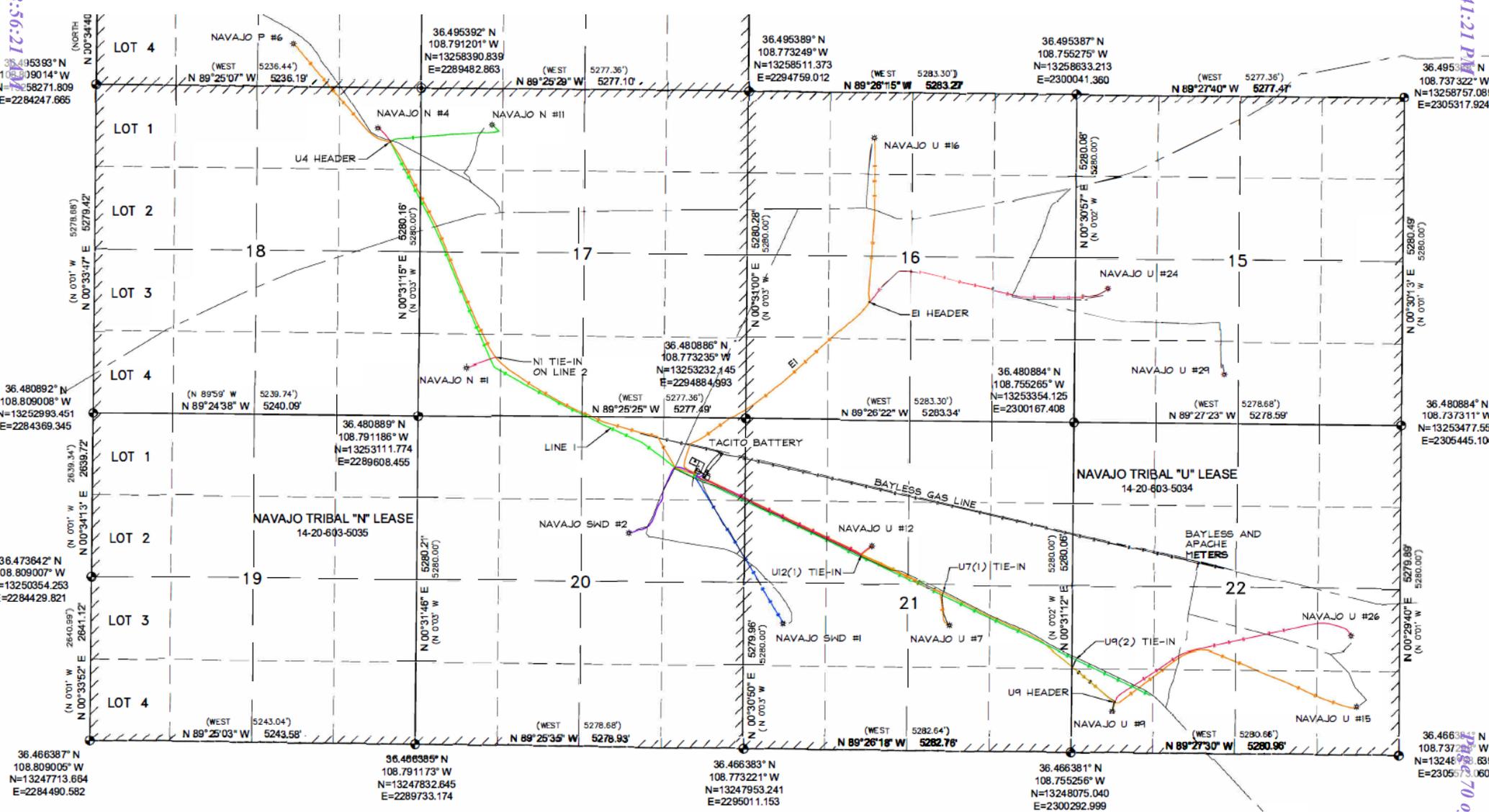
TACITUS LLC TOCITO DOME, NAVAJO NATION

PIPELINE & WELLS MAP



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EXCLUSIVE

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TACITUS LLC TOCITO DOME, NAVAJO NATION

PIPELINE & WELLS MAP

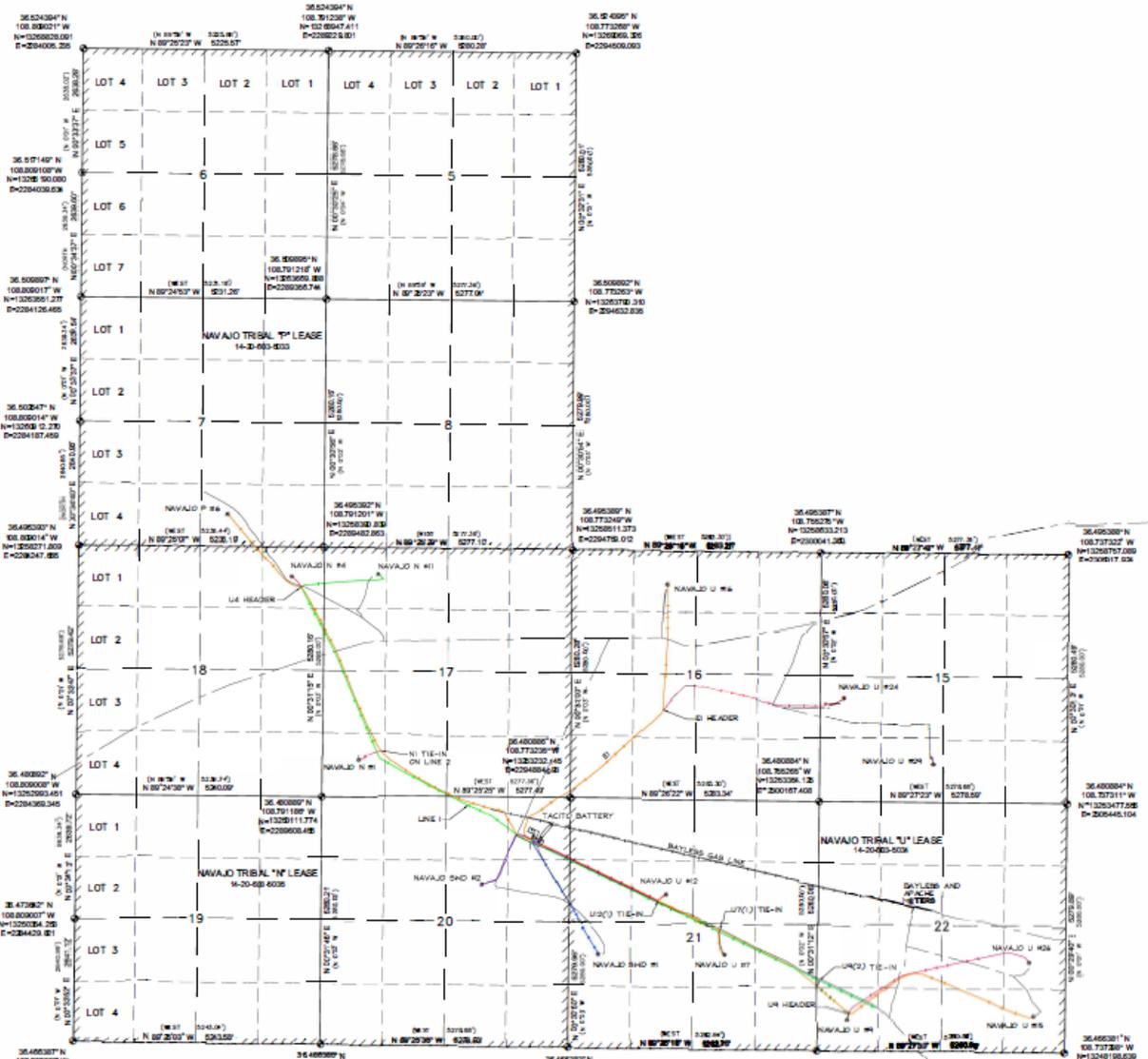


TACITUS



TOCITO DOME FIELD
NAVAJO TRIBAL 7th LEASE 14-20-003
SECTIONS 6, 7, AND 8
NAVAJO TRIBAL 1st LEASE 14-20-003
SECTIONS 9, 10, 11, AND 12
NAVAJO TRIBAL 1st LEASE 14-20-003
SECTIONS 15, 16, 21, AND 22
ALL WITHIN T-25-N, R-16-W, N.M.P.
SAN JUAN COUNTY, NEW MEXICO

LATITUDE AND LONGITUDE
COORDINATES SHOWN ARE NAD83
NORTHING AND EASTING COORDINATES
SHOWN ARE UTM ZONE 12



FEATURE	LAT EOC	LONG EOC	COMMENTS
NAVAJO P #1	36.427277° N N=3259026.877	108.768236° W E=2087344.571	865 FSL, 2067 FTL
P#1 TE-N	36.429278° N	108.762888° W	FIELD HEADER SHOWN AS "1A" HEADER
NAVAJO N #1	36.429267° N N=3259783.688	108.762877° W E=2086981.323	856 FSL, 687 FTL
N #1 TE-N	36.429265° N	108.762874° W	FIELD HEADER SHOWN AS "1A" HEADER
NAVAJO N #11	36.429232° N N=3259783.099	108.762732° W E=2086982.854	588 FSL, 1143 FTL
N11 TE-N	36.429247° N	108.762887° W	FIELD HEADER SHOWN AS "1A" HEADER
LINE 1 ORIGIN	36.429277° N	108.762872° W	FIELD HEADER SHOWN AS "1A" HEADER
LINE 1 TE-N	36.429267° N	108.762887° W	HEADER AT TACTO BATTERY
LINE 2 ORIGIN	36.429262° N	108.762882° W	FIELD HEADER SHOWN AS "1A" HEADER
LINE 2 TE-N	36.429249° N	108.775925° W	HEADER AT TACTO BATTERY
NAVAJO N #1	36.429254° N	108.762887° W	788 FSL, 772 FTL
N #1 TE-N	36.429252° N	108.762891° W	TES INTO LINE 2
NAVAJO U #10	36.429334° N N=3259781.476	108.762632° W E=2086981.557	737 FSL, 2040 FTL
U#10 TE-N	36.429354° N	108.762643° W	FIELD HEADER SHOWN AS "1" HEADER
NAVAJO U #24	36.429284° N N=3259594.528	108.753428° W E=2086982.858	2148 FSL, 547 FTL
U#24 TE-N	36.429281° N	108.756477° W	FIELD HEADER SHOWN AS "1" HEADER
NAVAJO U #29	36.429334° N N=3259594.528	108.748687° W E=2086981.557	783 FSL, 2432 FTL
U#29 TE-N	36.429334° N	108.748687° W	UNKNOWN LINE CUT NOT DOWNSTREAM
E1 ORIGIN	36.429340° N	108.766440° W	FIELD HEADER SHOWN AS "1" HEADER
E1 TE-N	36.429339° N	108.775947° W	HEADER AT TACTO BATTERY
NAVAJO U #8	36.429258° N N=3259593.804	108.752838° W E=2086981.557	1674 FSL, 774 FTL
U#8 TE-N	36.429257° N	108.752834° W	FIELD HEADER SHOWN AS "1A" HEADER
NAVAJO U #15	36.429340° N N=3259594.528	108.738540° W E=2086981.557	232 FSL, 675 FTL
U#15 TE-N	36.429337° N	108.752837° W	FIELD HEADER SHOWN AS "1A" HEADER
NAVAJO U #9	36.429313° N N=3259593.804	108.753234° W E=2086981.557	621 FSL, 487 FTL
U#9 ORIGIN	36.429313° N	108.752838° W	FIELD HEADER SHOWN AS "1A" HEADER
U#9 TE-N	36.429313° N	108.752838° W	FIELD HEADER SHOWN AS "1A" HEADER
U#9 ORIGIN	36.429313° N	108.752838° W	FIELD HEADER SHOWN AS "1A" HEADER
U#9 TE-N	36.429313° N	108.752838° W	TES IN TACTO GATHERING LINE
NAVAJO U #7	36.429332° N N=3259593.804	108.769533° W E=2086981.557	1548 FSL, 1988 FTL
U#7 TE-N	36.429324° N	108.762334° W	TES INTO TACTO GATHERING LINE
U#7 ORIGIN	36.429324° N	108.775933° W	HEADER AT TACTO BATTERY
NAVAJO U #12	36.429294° N N=3259465.001	108.766282° W E=2086981.557	2033 FSL, 2055 FTL
U#12 TE-N	36.429294° N	108.766282° W	TES INTO TACTO GATHERING LINE
U#12 ORIGIN	36.429294° N	108.766282° W	TES INTO TACTO GATHERING LINE
U#12 TE-N	36.429294° N	108.775947° W	HEADER AT TACTO BATTERY
TACTO GATHERING LINE	36.429294° N	108.775947° W	ORIGIN UNKNOWN
TE-N	36.429294° N	108.775947° W	J POLY RISER AT TACTO BATTERY
NAVAJO SMO #1	36.429272° N	108.777077° W	2052 FSL, 634 FTL
SMO1 TE-N	36.429272° N	108.775947° W	DISPOSED LINE END WITHIN TACTO BATTERY
NAVAJO SMO #2	36.429272° N	108.775947° W	1862 FSL, 686 FTL
SMO2 LOC LOCATE	36.429272° N	108.775947° W	DISPOSED LINE END LOCATED TO A POINT NEAR THE OLD COMPASS POINT
LOC LOCATE	36.429272° N	108.775947° W	UNABLE TO LOCATE RATHER

NOTES:
1. THIS MAP IS INTENDED FOR THE USE OF THE CLIENT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
2. THE CLIENT IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE DATA PROVIDED.
3. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
4. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY SURVEY DATA.
5. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY LEGAL OPINIONS.
6. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY INSURANCE.
7. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONTRACTS.
8. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY AGREEMENTS.
9. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSENTS.
10. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS.
11. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMISSIONS.
12. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY AUTHORIZATIONS.
13. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CERTIFICATIONS.
14. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ACCREDITATIONS.
15. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY REGISTRATIONS.

EXCLUSIVE

TACITUS LLC TOCITO DOME, NAVAJO NATION

PIPELINE & WELLS MAP



TACITUS



TACITUS

TOCITO DOME FIELD

NAVAJO TRIBAL "P" LEASE 14-20-603-503
SECTIONS 5, 6, 7, AND 8
NAVAJO TRIBAL "N" LEASE 14-20-603-503
SECTIONS 17, 18, 19, AND 20
NAVAJO TRIBAL "U" LEASE 14-20-603-503
SECTIONS 15, 16, 21, AND 22,
ALL WITHIN T-26-N, R-18-W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO

FEATURE	LATITUDE	LONGITUDE	COMMENTS
NAVAJO P #6	36.497277° N N=13259029.677	108.798236° W E=2287399.571	686 FSL, 2067 FEL
TIE-IN	36.492978° N	108.792886° W	FIELD HEADER SHOWN AS "U4 HEADER"
NAVAJO N #4	36.493590° N N=13257718.986	108.793571° W E=228801.323	656 FNL, 697 FEL
TIE-IN	36.492985° N	108.792874° W	FIELD HEADER SHOWN AS "U4 HEADER"
NAVAJO N #11	36.493782° N N=13257831.099	108.787310° W E=2290639.854	586 FNL, 1143 FWL
N11 TIE-IN	36.492991° N	108.792861° W	FIELD HEADER SHOWN AS "U4 HEADER"
LINE 1 ORIGIN	36.492977° N	108.792872° W	FIELD HEADER SHOWN AS "U4 HEADER"
LINE 1 TIE-IN	36.478482° N	108.775906° W	HEADER AT TACITO BATTERY
LINE 2 ORIGIN	36.492992° N	108.792859° W	FIELD HEADER SHOWN AS "U4 HEADER"
LINE 2 TIE-IN	36.478499° N	108.775905° W	HEADER AT TACITO BATTERY
NAVAJO N #1	36.483054° N N=13253917.637	108.788561° W E=2290361.853	788 FSL, 772 FWL
N1 TIE-IN	36.483502° N	108.786991° W	TIES INTO LINE 2
NAVAJO U #16	36.493364° N N=13257821.476	108.766306° W E=2296816.557	737 FNL, 2040 FWL
U6 TIE-IN	36.486154° N	108.766467° W	FIELD HEADER SHOWN AS "E1 HEADER"
NAVAJO U #24	36.486784° N N=13255514.509	108.753409° W E=2300662.958	2148 FSL, 547 FWL
U24 TIE-IN	36.486161° N	108.766477° W	FIELD HEADER SHOWN AS "E1 HEADER"
NAVAJO U #29	36.483034° N N=13254193.526	108.746996° W E=2302579.881	783 FSL, 2432 FWL
U29 TIE IN			UNKNOWN, LINE CUT 165' DOWNSTREAM
E1 ORIGIN	36.486140° N	108.766485° W	FIELD HEADER SHOWN AS "E1 HEADER"
E1 TIE-IN	36.478518° N	108.775941° W	HEADER AT TACITO BATTERY
NAVAJO U #26	36.471528° N N=13250053.904	108.739936° W E=2304753.417	1874 FSL, 774 FEL
U26 TIE-IN	36.468571° N	108.752874° W	FIELD HEADER SHOWN AS "U9 HEADER"
NAVAJO U #15	36.468446° N N=13248934.386	108.739596° W E=2304879.696	752 FSL, 675 FEL
U15 TIE-IN	36.468537° N	108.752873° W	FIELD HEADER SHOWN AS "U9 HEADER"
NAVAJO U #9	36.468115° N N=13248721.554	108.753024° W E=2300934.642	631 FSL, 657 FWL
U9 OIL TIE-IN	36.468541° N	108.752865° W	FIELD HEADER SHOWN AS "U9 HEADER"
U9 GAS TIE-IN	36.468549° N	108.752918° W	FIELD HEADER SHOWN AS "U9 HEADER"

LATITUDE AND LONGITUDE
COORDINATES SHOWN ARE NAD83
NORTHING AND EASTING COORDINATES
SHOWN ARE UTM ZONE 12

U9(1) LINE ORIGIN	36.468544° N	108.752873° W	FIELD HEADER SHOWN AS "U9 HEADER"
U9(1) TIE-IN	36.478526° N	108.775917° W	HEADER AT TACITO BATTERY
U9(2) LINE ORIGIN	36.468563° N	108.752858° W	FIELD HEADER SHOWN AS "U9 HEADER"
U9(2) TIE-IN	36.470403° N	108.755059° W	TIES IN TACITO GATHERING LINE
NAVAJO U #7	36.471832° N N=13250013.452	108.761953° W E=2298278.059	1984 FSL, 1968 FEL
U7(1) TIE-IN	36.473249° N	108.762334° W	TIES INTO TACITO GATHERING LINE
U7(2) TIE-IN	36.478481° N	108.775903° W	HEADER AT TACITO BATTERY
NAVAJO U #12	36.475299° N N=13251246.050	108.766262° W E=2296982.001	2033 FNL, 2055 FWL
U12(1) TIE-IN	36.474929° N	108.766804° W	TIES INTO TACITO GATHERING LINE
U12(2) TIE-IN	36.478496° N	108.775941° W	HEADER AT TACITO BATTERY
TACITO GATHERING LINE			ORIGIN UNKNOWN
TIE-IN	36.478556° N	108.775954° W	3" POLY RISER AT TACITO BATTERY
NAVAJO SWD #1	36.471881° N	108.771071° W	2002 FSL, 634 FWL
SWD1 TIE-IN	36.478454° N	108.775804° W	EXPOSED LINE END WITHIN TACITO BATTERY
NAVAJO SWD #2	36.475773° N	108.779585° W	1862 FNL, 1869 FEL
SWD2 LAST LOCATE	36.478372° N	108.775530° W	FIBERGLASS LINE LOCATED TO A POINT NEAR THE OLD COMPRESSOR UNABLE TO LOCATE FURTHER.

FND 3 1/2" BLM BRASS CAP
CALCULATED POINT
BY PROPORTIONED METHODS

SURVEYED: SEPTEMBER, 2018
DRAWN: 09/07/18

CCI
CHENAULT CONSULTING INC.

4800 COLLEGE BLVD.
SUITE 201
FARMINGTON, NM, 87402
(505) 325-7707

NNDFW Review No. 19adki101N#4

**BIOLOGICAL RESOURCES COMPLIANCE FORM
NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE
P.O. BOX 1480, WINDOW ROCK, ARIZONA 86515-1480**

It is the Department's opinion the project described below, with applicable conditions, is in compliance with Tribal and Federal laws protecting biological resources including the Navajo Endangered Species and Environmental Policy Codes, U.S. Endangered Species, Migratory Bird Treaty, Eagle Protection and National Environmental Policy Acts. This form does not preclude or replace consultation with the U.S. Fish and Wildlife Service if a Federally-listed species is affected.

PROJECT NAME & NO.: Navajo Tribal N #4

DESCRIPTION: Tacitus proposes to utilize the existing Navajo Tribal N #4 well bore and well pad to target federal helium deposit. Proposed surface disturbance would remain within existing well pad disturbance.

LOCATION: NE¼ NE¼ Section 18, T26N, R18W, Sanostee Chapter, San Juan County, New Mexico

REPRESENTATIVE: Heather Ireland, Environmental Manager at Adkins Consulting Inc. for Tacitus, LLC.

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: Biological Survey Summary for Navajo Tribal Helium Wells/JUL 2019/Adkins Consulting, Inc.

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES: NA

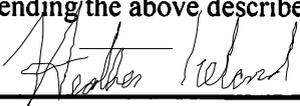
CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/09 JUL 2019; amended on 11 JUL 2019

COPIES TO: (add categories as necessary)

_____ _____

<u>2 NTC § 164 Recommendation:</u>	Signature	Date
<input checked="" type="checkbox"/> Approval		7/12/19
<input type="checkbox"/> Conditional Approval (with memo)		
<input type="checkbox"/> Disapproval (with memo)		
<input type="checkbox"/> Categorical Exclusion (with request letter)		
<input type="checkbox"/> None (with memo)		
Gloria M. Pom, Director, Navajo Nation Department of Fish and Wildlife		

*I understand and accept the conditions of compliance, and acknowledge that lack of signature may be grounds for the Department not recommending the above described project for approval to the Tribal Decision-maker.	
Representative's signature	Date
	10/01/2020

C:\old_pc2010\My Documents\NNHP\BRCF_2019\19adki101N#4.doc

NNDFW Review No. 19adki101U#7

**BIOLOGICAL RESOURCES COMPLIANCE FORM
NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE
P.O. BOX 1480, WINDOW ROCK, ARIZONA 86515-1480**

It is the Department's opinion the project described below, with applicable conditions, is in compliance with Tribal and Federal laws protecting biological resources including the Navajo Endangered Species and Environmental Policy Codes, U.S. Endangered Species, Migratory Bird Treaty, Eagle Protection and National Environmental Policy Acts. This form does not preclude or replace consultation with the U.S. Fish and Wildlife Service if a Federally-listed species is affected.

PROJECT NAME & NO.: Navajo Tribal U #7

DESCRIPTION: Tacitus proposes to utilize the existing Navajo Tribal U #7 well bore and well pad to target federal helium deposit. Proposed surface disturbance would remain within existing well pad disturbance.

LOCATION: NW¼ SE¼ Section 21, T26N R18W, Sanostee Chapter, San Juan County, New Mexico

REPRESENTATIVE: Heather Ireland, Environmental Manager at Adkins Consulting Inc. for Tacitus, LLC.

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: Biological Survey Summary for Navajo Tribal Helium Wells/JUL 2019/Adkins Consulting, Inc.

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES: NA

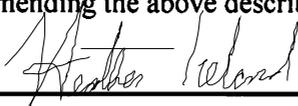
CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/09 JUL 2019; amended on 11 JUL 2019

COPIES TO: (add categories as necessary)

_____ _____

2 NTC § 164 Recommendation:	Signature	Date
<input checked="" type="checkbox"/> Approval		7/12/19
<input type="checkbox"/> Conditional Approval (with memo)		
<input type="checkbox"/> Disapproval (with memo)		
<input type="checkbox"/> Categorical Exclusion (with request letter)		
<input type="checkbox"/> None (with memo)		
Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife		

*I understand and accept the conditions of compliance, and acknowledge that lack of signature may be grounds for the Department not recommending the above described project for approval to the Tribal Decision-maker.	
Representative's signature 	Date 10/01/2020

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NNDFW-B.R.C.F.: FORM REVISED 12 NOV 2009

THE NAVAJO NATION

JONATHAN NEZ | PRESIDENT MYRON LIZER | VICE PRESIDENT



MEMORANDUM

TO : David Mikesic, Zoologist
Department of Fish and Wildlife
DIVISION OF NATURAL RESOURCES

FROM : 
Gloria M. Tom, Department Manager III
Department of Fish and Wildlife
DIVISION OF NATURAL RESOURCES

DATE : July 8, 2019

SUBJECT : DELEGATION OF AUTHORITY

I will be on annual leave starting Wednesday, July 10, 2019 through Friday, July 12, 2019. Therefore, I am delegating you to act in the capacity of the Director, Department of Fish and Wildlife, effective Wednesday, July 10, 2019 at 8:00am and ending at 5:00pm on Friday, July 12, 2019.

Your authority will cover the review and signing off of all routine documents pertaining to the Department of Fish and Wildlife, except for issues that you feel should have the attention of the Director.

ACKNOWLEDGEMENT:


David Mikesic, Zoologist
Department of Fish and Wildlife
DIVISION OF NATURAL RESOURCE

**United States Department of the Interior
Bureau of Land Management and/or
Bureau of Indian Affairs**

Surface Reclamation & Re-vegetation Plan

For the Proposed:

***Navajo Tribal U #7A
Well Pads, Access Roads and Pipelines***

Sponsored by:

Tacitus, LLC

Prepared by:

***Adkins Consulting, Inc.
693 CR 233, Ste A
Durango, Colorado
www.adkinsenvironmental.com***

October 2020

U.S. Department of the Interior
Bureau of Land Management
Farmington District
Farmington Field Office
6251 N. College Blvd., Ste. A
Farmington, NM 87402
Phone: (505) 564-7600
FAX: (505) 564-7608

U.S. Department of the Interior
Bureau of Indian Affairs
Gallup Regional Office
P. O. Box 1060
Gallup, NM 87305
Phone: (505) 863-8336



BLM

Contents

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Reclamation Plan (Procedure B)

Applicant	Tacitus, LLC (Tacitus)
Project Type	Helium Well
Well, Oil and Gas Lease, or Right-of-Way (ROW) Name	Tocito Dome
Legal Location	Navajo Tribal U #7A NW ¼ of SE ¼ of Sec 21, T26N, R18W; NMPM San Juan County, NM Lat: 36. 471816 Long: -108.762004

Introduction

This reclamation plan has been prepared based on requirements and guidelines of the Bureau of Land Management (BLM) Farmington Field Office (FFO) Bare Soil Reclamation Procedures (BLM 2013a), Navajo Division of Natural Resources, and Onshore Oil and Gas Order No. 1.

The Tacitus contact person for this Reclamation Plan is:

Peter Kondrat
970-759-5370
Peter.kondrat@tacitushelium.com

Vegetation Reclamation Procedure B

Completion of a Vegetation Reclamation Plan based on Procedure B of the BLM/FFO Bare Soil Reclamation Procedures is recommended given that the proposed action would result in bare mineral soil **across an area greater than or equal to 1 acre**, not including working areas routinely used to operate and maintain facilities or improvements.

Revision of the Reclamation Plan

Tacitus may submit a request to the BLM/BIA 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). Tacitus will include justification for the revision request.

Project Description

Tacitus proposes to construct one new helium well (Navajo Tribal U #7A) on the existing Navajo Tribal U #7 well pad located on Navajo lands subject to Bureau of Indian Affairs and Navajo Tribal oversight that would develop federal minerals. The proposed project would utilize the existing well pad and existing access roads to minimize the need for new disturbance. The proposed development would be located in the San Juan Basin of northwestern New Mexico (NM) approximately 21 miles southwest of Shiprock, New Mexico, in Section 21, Township 26 North, Range 18 West, San Juan County, New Mexico. Local terrain consists of gently rolling Sagebrush/Grassland vegetation community.

Estimated Total Area of Disturbance

Tacitus proposes to utilize the existing Navajo Tribal U #7 well pad, access road, and pipeline for the construction and development of one new helium well. The current well pad disturbed area (non-interim reclaimed) is 0.690 acre and the historically disturbed area is 4.521 acres. Tacitus will utilize the existing Navajo Tribal U #7 well pad and historically disturbed area for the proposed project to construct a 200-foot by 200-foot well pad with a 50-foot construction buffer surrounding it (2.04 acres). Approximately 530-feet of existing access roads with a 30-foot ROW and roughly 530-feet of subsurface well-tie pipelines (pre-disturbed) with a 40-foot ROW are included as part of the project. Tacitus would utilize the

existing Navajo Tribal U #7 well pad, access road, and pipeline to eliminate the need for any new disturbance. The access road will be improved in accordance to the BLM Gold Book standards.

All surface disturbance associated with the well pad would be reclaimed to a BLM/BIA-approved working area. Production equipment will be placed on the location in such a manner to allow safe access to produce and service the well/facilities while minimizing long-term disturbance and maximizing interim reclamation. As practical, access will be provided by a tear-drop shaped road through the production area. A 14-foot-wide running surface on for the access road would remain disturbed for the lifetime of the project. The remainder of the disturbed access road corridor would be reclaimed during interim reclamation. Existing roads and pipeline corridors will be utilized to reduce the need for new disturbance.

Pre-Disturbance Site Visit and Site Conditions

This plan is based on observations made during pre-disturbance site visits and compiled from information obtained from consultation with multiple agencies including BLM/FFO, Navajo Agricultural Products Industry (NAPI), Navajo Indian Irrigation Project (NIPP), Navajo Nation Dept. of Fish and Wildlife (NNDFW), Navajo Nation Environmental Protection Agency (NNEPA), Navajo Lands Department, and the BIA.

Vegetation Community

Based on observations made during pre-disturbance site visits, it has been determined that the vegetation community which best represents the proposed project area is Sagebrush/Grassland Community. This community is comprised primarily of mixed desert shrub consisting of widely scattered four winged saltbush (*Atriplex canescens*) with broom snakewood (*Gutierrezia sarothrae*), Bigelow's sagebrush (*Artemisia bigelovii*), and Bigelow's rabbitbrush (*Chrysothamnus nauseosus* var. *bigelovii*). Grass cover is represented by galleta (*Hilaria jamesii*), sand dropseed (*Sporobolus cryptandrus*), and Indian ricegrass (*Oryzopsis hymenoides*). Herbaceous forbs of woolly plantain (*Plantago patagonica*), sand puffs (*Triperocalyx carneus*), and common globemallow (*Sphaeralcea coccinea*). Vegetation also consists of shrubland grassland swales dominated by greasewood (*Sarcobatus vermiculatus*) with New Mexico saltbush (*Atriplex obovata*) and scattered alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*). Soil composition primarily consists of Shiprock-Farb Complex fine sandy loams, 1 to 5 percent slopes.

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 Tacitus or the reclamation contractor. Tacitus would use a BIA-approved seed mixture appropriate for reclamation within a Badlands Community (see Table 1 below).

Table 1. Reclamation Seed Mix*

Common Name	Scientific Name	Cultivar	Pounds/PLS/acre
Fourwing Saltbush	<i>Atriplex canescens</i>	Rincon	4.0
Shadscale	<i>Atriplex confertifolia</i>	-	2.0
Galleta	<i>Hilaria jamesii</i>	Viva	2.0
Indian Ricegrass	<i>Achnatherum hymenoides</i>	Paloma	2.0
Alkali Sacaton	<i>Sporobolus airoides</i>	Salado	0.25
Sand Dropseed	<i>Sporobolus cryptandrus</i>	-	0.5
Small flower Globemallow	<i>Sphaeralcea parvifolia</i>	-	0.25
TOTAL PLS/ACRE			12.5

* Smith, 2019, Bureau of Land Management, Natural Resource Specialist

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 outlined in Table 2. Meeting these standards during post-disturbance monitoring indicate the attainment of vegetation reclamation standards.

Table 2. Reclamation Goal for Badlands Community Cover

Functional Group	Percent (%) Foliar Cover	Common Species
Trees/Shrubs/Grasses/Forbs	≥20	Utah Juniper, piñon pine; big sagebrush, four-wing saltbush, antelope bitterbrush, alkali sacaton, Western wheatgrass, Indian ricegrass, galleta, sand dropseed, scarlet globemallow, woolly Indianwheat, fleabane, <i>Penstemon</i> sp., buckwheat, threadleaf groundsel
Invasive/undesirables 10% allowed toward meeting standard of 35%.	≤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 community. Examples of invasive species include cheatgrass, Russian thistle, and kochia.

Pre-Disturbance Weed Survey

During the pre-disturbance site 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, Halogeton (Class B) was documented within the proposed project area. Tacitus will follow BIA and/or BLM requirements and instructions for weed management and treatments.

Pre-Disturbance Soil Evaluation

BLM, BIA, and Tacitus representatives collaboratively decided at the pre-disturbance site visit that no soil testing is necessary for the proposed project area.

Pre-Disturbance Site Photographs

Photographs were taken of pre-disturbance conditions using a digital camera and each photograph in the Surface Reclamation Plan is notated with the direction the photograph was taken. The photograph locations are listed in Table 3.

Table 3. List of Pre-Disturbance Site Photographs

Photographs	Location Description
1, 2, 3, 4	From each well pad corner, looking toward the center stake
5, 6, 7, 8	Four cardinal directions from the center stake
9,10	Access road / pipeline from well pad towards the beginning of access



Location:	Navajo Tribal U #7A pad corner		
Photo Number	1	Photo Direction:	Southwest



Location:	Navajo Tribal U #7A pad corner		
Photo Number	2	Photo Direction:	Northwest



Location:	Navajo Tribal U #7A pad corner		
Photo Number	3	Photo Direction:	Northeast



Location:	Navajo Tribal U #7A pad corner		
Photo Number	4	Photo Direction:	Southeast



Location:	Navajo Tribal U #7A wellhead		
Photo Number	5	Photo Direction:	North



Location:	Navajo Tribal U #7A wellhead		
Photo Number	6	Photo Direction:	East



Location:	Navajo Tribal U #7A wellhead		
Photo Number	7	Photo Direction:	South



Location:	Navajo Tribal U #7A wellhead		
Photo Number	8	Photo Direction:	West



Location:	Navajo Tribal N U #7 Access Road		
Photo Number	9	Photo Direction:	Northeast



Location:	Navajo Tribal U #07 – Well tie-in		
Photo Number	10	Photo Direction:	North

Reclamation Techniques for Successful Revegetation

Vegetation and Site Clearing

Woody vegetation, such as large shrubs and trees, will be cleared from the staked project area and stockpiled for later use as soil mulch, visual mitigation, and/or wildlife shelter.

Surface rocks (where present and useful for reclamation) will be stockpiled adjacent to the topsoil stockpile. During reclamation activities, the surface rock will be placed within the area of reclamation for erosion control or in a manner that visually blends with the adjacent undisturbed area.

Topsoil Stripping, Storage, and Replacement

If available, the upper 6 inches of topsoil will be stripped, following vegetation and site clearing during construction activities. Tacitus (or its contractor) will take care not to mix topsoil with the underlying subsoil horizons and will stockpile the topsoil separately from subsoil or other excavated material including during construction of pits. Topsoil and sub-surface soils will be replaced in the proper order, prior to final seedbed preparation. Stained topsoil will be stored separately to facilitate removal and reclamation.

Water Management/Erosion Control Features

Tacitus will use appropriate erosion control/water management design features within the proposed project area. Potential erosion control or water management features that may be used include (but are not limited to), waterbars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, outlet protection for culverts, erosion control blankets or geotextiles, and straw wattles.

Tacitus (or its contractors) will use erosion control blankets, straw bales, or straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils.

Seedbed Preparation

For cut and fill slopes, initial seedbed preparation will consist of backfilling and re-contouring to achieve a configuration as close to pre-disturbance conditions as possible. Areas to be reclaimed will be re-contoured to blend with the surrounding landscape, emphasizing restoration of existing drainage patterns and landform to pre-construction condition, to the extent practicable.

Seedbed preparation of compacted areas will be ripped to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Disking will be conducted if large clumps or clods remain after ripping. Any tilling or disking that occurs along the contour of the slope and seed drills will also be run along the contour to provide terracing and prevent rapid run-off and erosion. If broadcast seeding is used, a dozer or other tracked equipment will track perpendicular to the slope prior to broadcast seeding.

Following final contouring, the backfilled or ripped surfaces will be covered evenly with stockpiled topsoil. Final seedbed preparation will 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.

Soil Amendments

Based on information gathered at the pre-disturbance onsite inspection BLM, BIA, Tacitus representatives have decided that no soil amendments will be used during reclamation of the affected environment.

Seeding

Seeding will occur within 90 days of well completion.

Since this is considered to be desert type area, it is recommended to complete a dormant seeding from November 1 to December 15. This is when this area receives most of its moisture. The seed will lay dormant during winter moisture and germinate in the spring. Seeding from June 15 to August 30 is optional (Willeto 2016).

A 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. Tacitus or its reclamation contractor will ensure that perennial grasses and shrubs are planted at the appropriate depth. Intermediate size seeds (such as wheatgrasses and shrubs) will be planted at a depth of 1 to 2 inches. Small seeds (such as alkali sacaton and sand dropseed) 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.

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. 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.

Mulching

Hand seeding with hydro-mulch, excelsior netting, and/or mulch with netting shall be required on slopes in excess of 1H:1V (1 horizontal to 1 vertical – equivalent to a 45 degree slope). Mulch should be grass or straw spread at 2,000 to 3,000 pounds per acre, or approximately 1 to 2 inches deep. Mulching will consist of crimping certified weed-free straw or certified weed-free native grass hay into the soil.

Straw or native grass hay mulch can be applied by hand broadcasting or blowing to a relatively uniform depth of 2 to 3 inches, equivalent to a rate of approximately 2 tons per acre (one 74-pound bale per 800 square feet). When applied properly, approximately 20 to 40 percent of the original ground surface will be visible.

Straw or native grass hay mulch will then be anchored using one of the following methods:

- Hand Punching – a spade or shovel is used to punch mulch into the topsoil at 1-foot intervals until all areas have mulch standing perpendicular to the slope and the mulch is embedded at least 4 inches into the soil.
- Roller Punching – a roller is used to spread mulch over an area; the roller is equipped with straight studs not less than 6 inches long, from 4 to 6 inches wide, and approximately 1 inch thick.
- Crimper Punching – similar to roller punching, a crimper is used over the soil. The crimper has serrated disk blades about 4 to 8 inches apart that force the mulch into the soil. Crimping should be done in two directions with the final pass across the slope.

Mulch applications in extremely clayey soils should be evaluated carefully to avoid developing an adobe mixture. In these cases, a soil amendment may be beneficial.

Noxious and Invasive Weed Control

Inspection of the project area for noxious or invasive weeds listed by New Mexico Department of Agriculture as Class A or Class B will occur after earthwork and seeding activities. Tacitus will follow BIA and/or BLM requirements and instructions for weed treatments, including the period of treatment, approved herbicides that may be used, required documentation to be submitted to the BIA and/or BLM after treatment, and any other site-specific instructions that may be applicable. Tacitus will manage weeds at the proposed site with the following general practices:

- Any “listed” weeds will be treated prior to commencement of construction to prevent incorporation into the soil.
- Equipment will be inspected and cleaned prior to entering the construction site, and earthmoving equipment will be cleaned prior to exiting the site.
- Potential weed introduction will be minimized by using only weed-free seed mix, straw, mulch or other materials that may be brought to the site.
- Ongoing weed inspection and appropriate treatment will continue until percentage cover standards have been attained and final abandonment has occurred.

Fencing

Fenced re-seeded area is encouraged and optional but, failure of seed germination and growth as a result of livestock and wildlife grazing is strictly the responsibility of the contractor, company completing project. Re-seeding shall be repeated until material materials are well established. A four or five fence will be installed which meet Navajo Nation fencing standards and specifications.

Monitoring Requirements

Monitoring will be completed according to BIA and/or BLM requirements. Monitoring activities will be initiated after the project is completed, during the post-disturbance earthwork and seeding inspection process.

Percentage cover will be monitored annually until attainment of the vegetation reclamation cover standard has been met. Tacitus will keep a record of the monitoring for future submittal to the BIA and/or BLM at reclamation attainment.

Final Abandonment

Upon final abandonment, Tacitus will file for ROW Grant termination with the BIA and/or BLM. Tacitus would relinquish ROW Grants for the well pad and access roads. Surface disturbances within the ROW Grant areas will be returned to pre-disturbance conditions as practicable according to BIA and/or BLM procedure.

Cessation of Monitoring

Monitoring requirements will remain in effect as long as the ROW Grants remain in effect and until all infrastructure or associated facilities are abandoned by established BIA and/or BLM procedure and a FAN or relinquishment is issued by the BIA. Tacitus will document that percent cover standards have been attained when submitting a request for a FAN or relinquishment.

References

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.

BLM. 2013a. Farmington Field Office Bare Soil Reclamation Procedures. Available at: http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of.html.

BLM. 2013b. Updated Reclamation Goals. Available at: http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of/updated_reclamation.html

Smith, Gary. 2019. Personal Communication Regarding Surface Reclamation and Seed Mix on the Tocito Dome Project. Bureau of Land Management, Natural Resource Specialist.

State of New Mexico Oil Conservation Division (NMOCD). 2010. Pit Rule Guidance Document (v 1.0) for compliance with (19.15.17 NMAC or Part 17). December 2010. Available online: <http://www.emnrd.state.nm.us/ocd/documents/201012-16DraftOCDPitRuleGuidanceDocument.pdf>.

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.



Tacitus, LLC
2100 Cortland Drive
Farmington, NM 87401

SUPPO: Surface Use Plan of Operations &
Drilling and Completion Plan

Tacitus, LLC
Navajo Tribal U #7A

For: Bureau of Indian Affairs
United States Department of the Interior
And Bureau of Land Management

Prepared by: Peter Kondrat

Tacitus LLC

December 2020

Updated August 2021



SUPO: Surface Use Plan of Operations

1) Project Plan: Tacitus LLC is providing the Surface Use Plan of Operations (SUPO) and drilling and completion plan for the Navajo Tribal U # 7A. Plan to drill a vertical well to the Precambrian basement then complete and equip the Devonian-aged McCracken & Aneth Formations for helium production. The project will use Tacitus existing Navajo Tribal U #7 well pad, access roads, and pipeline infrastructure for the construction of new well. All components associated with the project are located on lease and will be permitted under lease rights.

Well Information

Name: Navajo Tribal U # 7A

API Number: 30-045-

County & State: San Juan County, New Mexico

Lease #: 14-20-603-5034

Surface Elevation: 5673' ASL (GL); 5687' ASL (KB)

Surface Location: 1978' FSL & 1983' FEL Sec-21, T26N, R18W

Bottom Hole Location: 778' FSL & 1972' FEL Sec-21, T26N, R18W

Pool: WC 26N18W18 Devonian

2) Existing Access Roads & Driving Directions: Access to the wells will utilize the existing access roads to the existing Navajo Tribal U #7 well pad as depicted on the Existing Roads Map and on the construction plats provided in the APD package.

Driving Directions from Farmington, NM: Go west on Hwy 64 toward to Shiprock, NM. Take Hwy 491 South (towards Gallup) for ~20 miles to ~0.4 miles past Mile Marker 70.0 then turn west on Tocito Dome access road (Indian Service Road 5016) and head west for ~1.0 mile turn right at 4-Way. Then go northwest for 1.5 miles to location on the south side of road.

3) New or Reconstructed Access Roads: No new or reconstructed roads required.

The following road maintenance plan will be implemented and followed by Tacitus for roads utilized in its Tocito Dome operations. All roads will be constructed and maintained to meet the Bureau of Land Management (BLM) Gold Book Standards and BLM Manuals 9113-1 (Roads Design Handbook) and BLM Manuals 9113-2 (Roads National Inventory and Condition Assessment Guidance and Instructions Handbook).

For road inspection a Tacitus LLC representative or designated inspector will inspect all newly constructed or reconstructed roads that will be used to construct, operate, maintain and terminate Tacitus LLC helium operations. Road inspections will be conducted monthly or within 72 hours of major storm event. The inspector will observe road conditions as they drive to and from locations. Inspectors will examine the roadways, road crowns, culverts, ditches, silt traps and/or any other water control structures.

For maintenance procedures, maintenance will be completed by one of Tacitus LLC authorized contractors to correct any problems. For road crown, if the road crown surface becomes rutted, not adequately draining, or in a roughened condition, Tacitus LLC contractor will utilize a maintainer to re-grade and/or resurface the road crown. For culverts, if culverts or silt traps are plugged, Tacitus LLC contractor will use hand tools or backhoe to excavate and remove debris or sediment impeding the function of the culvert. If the culvert is damaged by having its inlet or outlet crushed, the culvert will be replaced. For ditches, if roadside ditches become blocked or not functioning properly, Tacitus LLC contractor will use a maintainer or the necessary equipment to clear or blade the ditch to allow it to



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function properly. For silt traps or water control structures. If silt traps or water control structures are found to be filled with sediment or not functioning properly, Tacitus LLC contractor will use the appropriate equipment to clean out sediment or repair/modify the structure to allow it to function properly. Sediment removed from silt traps or water control structures will be disposed of at an approved facility. For dust control and support road maintenance water will occasionally be used. Water use and volumes are Location and Types of Water Supply & Drilling and Completion Plan.

Muddy roads with ruts larger than 6 inches will not be used until they are repaired.

For disturbances from maintenance, if areas are disturbed from implementation of this plan, they will be mitigated and reseeded if the necessary following Plans for Surface Reclamation.

4) Location of Existing Wells: Within a one mile radius of the existing Navajo Tribal U #7A well pad there are currently nine plugged and abandoned gas wells, four plugged and abandoned oil wells, 3 active salt water disposal well, 2 shut in PSLVD oil well and 1 active helium producing gas wells. Location of Existing Wells is an attached map included with the APD AFMSS 2 electronic filing.

5) Existing and/or Proposed Production Facilities: Existing Helium production facilities are located within an existing facility area within northeast corner of Section 20, Township 26N, Range 18W, San Juan County, NM. The production equipment and facility layout can be found in the attached Helium Facilities Exhibit.

6) Location and Types of Water Supply: Tacitus LLC for drilling and completion operations uses water purchased from commercial sources including Basin Disposal LLC located in Bloomfield, NM. Basin Disposal municipal water use permit #NM-01-005 and well is UIC Class II: R-8524 with undeclared takeaway capacity. Water for drilling and completion operations will be hauled to locations via water trucks along existing roads. Water volumes for drilling and completion operations are detailed in the Drilling and Completion Plan. Furthermore during subject operations there is ~1600 bbls water used for well pad construction & maintenance, road maintenance & repair and dust control. Water source and transportation map included with APD AFMSS 2 electronic filing.

7) Construction Plan and Materials: The project will use existing well pads, access roads, and pipeline infrastructure for the construction of the proposed well. The Navajo Tribal N #2A will be constructed within the existing Tocito SWD #2 well pad. A 50-foot construction buffer surrounding the existing well pads will be utilized during the construction phase. Tacitus plan to utilize existing pipeline infrastructure and Right-of-Way (ROW) to update pipeline if needed.

8) Methods for Handling Waste:

Fluid Measurements: Pumps will be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station.

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of



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fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based.

Fluid & Solids Disposal: Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an EPA approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.). The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal. Drilling mud will consist of freshwater and will not be salt saturated or oil-based. Tacitus will follow New Mexico Oil Conservation Division Pit Rule and Onshore Orders No. 1 and No. 7 regarding placement, operation, and closure of the closed-loop system.

All garbage and trash materials will be contained on location in an industry approved trash container and will be removed from the site for proper disposal. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if it is generated.

Industry approved chemical toilets will be provided and maintained during drilling operations.

9) Ancillary Facilities: No additional ancillary facilities will be associated with the Navajo Tribal U #7A.

10) Well Site Layout: The cuts, fills, and orientation for the existing Navajo Tribal U #7 well pad in addition to the proposed placement of the Navajo Tribal U #7A are depicted on the construction plats included in the APD packages.

11) Plans for Surface Reclamation: An updated reclamation plan to cover both the existing disturbance associated with the initial Navajo Tribal U #7 and well development (the well pad, access road, and pipeline infrastructure constructed and maintained by Tacitus) as well as the proposed addition of the Navajo Tribal U #7A Surface Reclamation Plan submitted to BLM-FFO along with the APD packages.

12) Surface Ownership: The proposed project area is located on surface managed by the Navajo Nation – Bureau of Indian Affairs and facilitated through the BLM-FFO. The Navajo Nation, Bureau of Indian Affairs and BLM-FFO contact information is provided below:

Navajo Nation
Division of Natural Resources
Window Rock Office
Indian Rte 100
Window Rock, AZ 86515
(928) 871-6592

Bureau of Indian Affairs
Gallup Office
301 W Hill Ave
Gallup, NM 87301
Phone: (505) 863-8314



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2100 Cortland Drive
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13) Other Information: If present, any range improvements (e.g., fences, pipelines and/or ponds) disturbed by drilling activities will be repaired to the conditions prior to disturbance. Repairs, if needed, will take place immediately following construction.

Supporting Exhibits:

Blow Out Preventer (BOP) Diagram, 5000 psi
C102 Survey Well Location and Acreage Dedication Plat
Pipeline Tie-In Survey Plat
Cut & Fill Diagram with Rig Footprint
Rig Wellsite Layout-Aztec Drilling 777 Rig Example
Gas Capture Plan
Navajo Nation Cultural Clearance
Navajo Nation Biological Compliance
Interim & Final Abandonment and Reclamation Plan
Access Location Map
Existing Roads Map
Existing Wells Map
Helium Facilities Map
Water source and transportation map



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Drilling and Completion Plan

Geological Prognosis (Directional) and Reservoir Information:

Formation Tops	5673		TRUE VERTICAL DEPTH	THICKNESS	O/G/W	Pressure
	U7A	SUBSEA				
	Top MD/TVD (ft KB)	Subsea Top MD/TVD (ft ASL)	TVD Top MD	Thickness (ft)		
GALLUP MANCOS	0	5673	0	633	W	normal
GREENHORN	633	5040	633	39	O,G,W	normal
GRANEROS	672	5001	672	48	O,G,W	normal
DAKOTA	720	4953	720	242	O,G,W	normal
MORRISON	962	4711	962	992	G,W	normal
TODILTO	1954	3719	1954	19	G,W	normal
ENTRADA	1974	3700	1973	62	G,W	normal
CARMEL	2037	3638	2035	683	G,W	normal
CHINLE	2746	2955	2718	636	G,W	normal
SHINARUMP	3417	2319	3354	35	O,G,W	normal
MOENKOPI	3454	2284	3389	252	O,G,W	normal
DE CHELLEY	3720	2032	3641	597	G,W	normal
ORGAN ROCK/CUTLER	4350	1435	4238	287	G,W	normal
MIDDLE CUTLER	4652	1148	4525	320	G,W	normal
CEDER MESA	4990	828	4845	376	G,W	normal
LOWER CUTLER	5387	452	5221	146	G,W	normal
HONAKER TRAIL, HERMOSA	5539	306	5367	162	G,W	normal
ISMAI, HERMOSA	5705	144	5529	128	O,G,W	normal
DESERT CREEK, HERMOSA	5835	16	5657	181	O,G,W	normal
AKAH, HERMOSA	6018	-165	5838	167	O,G,W	normal
BARKER CREEK, HERMOSA	6185	-332	6005	157	O,G,W	normal
PSLVD, HERMOSA	6342	-489	6162	87	O,G,W	sub
PINKERTON	6429	-576	6249	111	O,G,W	normal
MOLAS	6540	-687	6360	59	G,W	normal
LEADVILLE	6599	-746	6419	118	O, G,W	over
OURAY	6717	-864	6537	23	O, G,W	over
ELBERT	6740	-887	6560	143	O, G,W	over
MCCRACKEN	6883	-1030	6703	84	O, G,W	over
ANETH	6967	-1114	6787	69	O, G,W	over
PCMB	7036	-1183	6856	178	O, G,W	normal
TOTAL DEPTH	7214	-1361	7034			

Possible Aquifers: Mancos Gallup Sands less than 100' deep. Water zones will be protected with weighted mud, cement, and casing. Fresh water found while drilling will be recorded.

Oil Shale: None Expected.

Oil: Pennsylvanian-Aged Paradox Formation including PLSVD, Barker Creek, Akah, Desert Creek. Ismay, Honaker Trail, Mississippian-Aged Leadville Formation & Devonian-Aged Elbert, McCracken and Aneth Formations

Gas: Helium & Nitrogen in Devonian-Aged Elbert, McCracken and Aneth Formations & Mississippian-Aged Leadville Formation and Karsted Deposits. Helium, associated gas with oil in Pennsylvanian-Aged Paradox Formation including PLSVD, Barker Creek, Desert Creek, Ismay, Honaker Trail. Helium in Permian-Aged Organ Rock of the Cutler Formation

Pressure: Below and Normal pressure gradients are expected for all formations except for the Mississippian-Aged Leadville & Devonian-Aged Elbert, McCracken and Aneth Formations where an above normal pressure gradient is expected (>0.46 psi). Maximum expected 3800 psi BHP in the McCracken Formation. No Lost Circulation intervals are anticipated. If lost circulations are encountered measures will be taken including use of lost circulations material (LCM) to re-establish circulation.

Temperature: Maximum anticipated BHT is 160° or less



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H2S Information:

H2S Zones: Encountering hydrogen-sulfide bearing zones is not anticipated.

Safety: Sensor and alarms will be placed in the substructure, on the rig floor, above the pits and at the shakers.

Logging, Coring & Testing:

Cased and Open Hole Logging:

Surface, Intermediate and Production Casing intervals may be logged with a Cement Bond Log (CBL) if cement returns are lost and/or cement is not brought to surface to determine the quality of the job prior to drilling ahead. Quad Combo, resistivity image and NMR (nuclear magnetic resonance) from 3500' MD/TVD to TD/~7214' MD/7034' TVD.

Mud Logging:

Gas detecting equipment include Mass Spectrometer and Chromatograph shall will be installed in the mud return system for helium and other gases evaluation from ~3500' MD to TD/~7214' MD/7034' TVD.

Pason Systems: Drilling parameters will be recorded and mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

DSTs: None planned

Coring: None planned

Testing: Flow tests possible.

Drilling Rig Information: The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A diagram of a typical 11" 5,000 psi model BOP is included as supporting exhibit with APD submittal.

Wellsite Layout: Location of drilling equipment, rig orientation, and access road approach and well tie location are shown on supporting exhibits. A 50-foot construction buffer surrounding the existing well pads will be utilized during the construction phase. Tacitus plan to utilize existing pipeline infrastructure. Should the pipelines need to be replaced, Tacitus would utilize the previous pipeline Right-of-Way (ROW) to update pipelines. Supporting Exhibits include Cut & Fill Diagram with Rig Footprint, Rig Wellsite Layout, Pipeline Tie-In Survey Plat.

Pressure Control & BOPE: Maximum expected pressure is 3800 psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A diagram of a typical 11" 5,000 psi model BOP is attached BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 5000 psi system. A 5000 psi double ram hydraulic BOP with pipe rams containing pipe shears will be used. An annular preventer will be used in conjunction with the BOP. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above pre-charge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. Fill, kill, and choke manifold lines will be 2". Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well. Accessories will include upper and lower Kelly cocks



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with handles, stabbing valve to fit drill pipe on floor at all times, 5000 psi choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge (diagrams attached). BOP rams will be cycled every 24 hours. Tests will be recorded on IADC log. BOP testing shall be conducted when initially installed, whenever any seal is broken or repaired and/or if the time since the previous test exceeds 30 days. Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams. Manual locking devices (hand wheels) shall be installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator. Supporting Exhibits include Blow Out Preventer (BOP) Diagram, 5000 psi

Mud Program:

<u>Depth</u>	<u>Type</u>	<u>Wt./ppg.</u>	<u>Vis.</u>	<u>Fluid Loss</u>	<u>PH</u>
0'-150'+/-	FW gel/lime spud mud	8.4-10.3	30-50	as needed	10
150'-1500'+/-	FW gel/lime spud mud	8.4-10.3	30-50	as needed	10
1500'-3500'+/-	FW gel/Polymer/LSND	8.3-10.3	30-55	as needed	9.5
3500'-7214'+/-	FW gel/Polymer/LSND	8.3-10.3	40-55	<10cc's	9.5

Drilling mud will consist of 2-5% KCL water and will not be salt saturated or oil-based. Lost circulation and absorption material will be on location. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and PH. Sized LCM material will be kept on location in order to mitigate lost circulation. Electronic PVT totalizers will be used to monitor drilling fluid volumes.

Drilling Fluid Requirements:

<u>Well Segment</u>	<u>Water to Drill</u>	<u>Cumulative Water</u>
Mother Bore to TD	6000 bbl	6000 bbl

Detailed Drilling Plan including Hole Taper, Casing and Cement:

Well location is a standard location and drilled entirely on-lease within the administrative setbacks thus not requiring an unorthodox location application. Operations will include notifications to Navajo Nation, BLM and NMOCD. Supporting Exhibits include C102 Survey Well Location and Acreage Dedication Plat

<u>Section</u>	<u>Depth</u>	<u>Hole Size</u>		<u>Size</u>	<u>Wt (lb/ft)</u>	<u>Grade</u>	<u>Thread</u>	<u>Collapse</u>	<u>Burst</u>
Conductor	150'+/-	17 1/2"	13 3/8"	48#	H40	ST&C	770psi	1730psi	
Surface	1500'+/-	12 1/4"	9 5/8"	36#	J55	LT&C	2020psi	3520psi	
Production	7214'+/-	7 7/8"	5 1/2"	17#	N80	LT&C	6280psi	7740psi	



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Cementing Program:

Conductor casing will be cemented to the surface with 170sx neat cement and assuming cement filled shoe joint excess is 56%. WOC = 12 hours.

Volume 1.18 x 170

Surface casing will be cemented to surface through a float shoe and float collar.

Lead cement: ~ 600 cu. ft. (300 sx) and **Tail cement:** ~ 150 cu.ft. (120 sx). Volumes are calculated at 53% excess. A wiper plug will be displaced to the float collar leaving the shoe joint full of cement. WOC = 12 hours. Casing will be pressure tested to 2000 psi for 30 minutes.

Cement recipe (**Lead**): Premium Lite High Strength FM w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52, or equal, mixed at 10.32 gps, 12.5 ppg for a yield of 2.01 cu. ft. per sx. Volume based on 53% excess.

Cement recipe (**Tail**): Type III cmt or equivalent (1.27 ft³/sx yield, 15.2 ppg, & 5.8 gps) with 2% CaCl₂ and ¼#/sx cellophane. Volume based on 53% excess.

Cementing equipment will include a float shoe, float collar and will be run with a centralized shoe joint and centralizers on each of the next five joints.

Production Casing will be cemented to ensure cement coverage inside the intermediate casing in two stages using cementing divertor installed near 4,100'.

Stage 1 Lead cement: ~ 653 cu. ft. (325 sx) and **Tail cement:** ~ 127 cu.ft. (100 sx). Volumes are calculated at 43% excess. A wiper plug will be displaced to the float collar leaving the shoe joint full of cement. A cement bond log will be run during completion operations to insure cement coverage. Casing will be pressure tested to 3000 psi for 30 minutes during completion operations.

Cement recipe (**Lead**): Premium Lite High Strength FM w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52, or equal, mixed at 10.32 gps, 12.5 ppg for a yield of 2.01 cu. ft. per sx. Volume based on 43% excess.

Cement recipe (**Tail**): Type III cmt or equivalent (1.27 ft³/sx yield, 15.2 ppg, & 5.8 gps) with 2% CaCl₂ and ¼#/sx cellophane. Volume based on 43% excess.

Cementing equipment will include a float shoe, float collar, cement divertor and will be run with a centralized shoe joint and next five joints and across the divertor. Centralizers will also be run across the producing zones.

Stage 2 Lead cement: ~ 1106 cu. ft. (550 sx) and **Tail cement:** ~ 127 cu.ft. (100 sx). Volumes are calculated at 44% excess. A wiper plug will be displaced to the float collar leaving the shoe joint full of cement.

Cement recipe (**Lead**): Premium Lite High Strength FM w/2% KCl, ¼#/sx Cello flake, 0.2% CD-32, 3#/sx LCM-1, 0.5% FL-52, or equal, mixed at 10.32 gps, 12.5 ppg for a yield of 2.01 cu. ft. per sx. Volume based on 44% excess.

Cement recipe (**Tail**): Type III cmt or equivalent (1.27 ft³/sx yield, 15.2 ppg, & 5.8 gps) with 2% CaCl₂ and ¼#/sx cellophane. Volume based on 44% excess.

Cement recipes may vary as well conditions dictate, but coverage volumes will be maintained. A cement bond log will be run during completion operations to insure cement coverage. Cement divertor and casing will be pressure tested to 3000 psi for 30 minutes during completion operations.



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Completion: Completion will consist of select McCracken and Aneth formation perforations identified after open-hole logging and then these perforations will be stimulated with a 1 stage design with ~45,500 gallons 20# X-link 2% KCL water at 70Q with ~2900 mscf N₂ and ~250,000 # 40/70 mesh Northern White sand proppant.

Flowback Operations: After completion well will be flowed back into temporary production tanks and inert gases will be vented until cleaned up and when it can safely be produced through permanent production facilities. No flaring is expected, the well will produce primarily inert gas and by definition is non-flammable.

Production: Well is expected to primarily produce nitrogen and helium with no appreciable hydrocarbons. Well will produce up production 2 3/8" tubing through surface separator then into inert gas field gathering system. The inert gas field gathering system is connected to central helium process facility located Township 26N Range 18W Section 20. The facility only removes the helium from the stream. The helium is compressed into on site helium trailers so it can be trucked to market. Gas sales (into the Helium Trailers) should start as soon as the wells start flowing through the production facilities.

Estimated Start Dates: The anticipated spud date 4/1/2020. It is expected it will take ~15 days to drill and ~15 days to complete and flowback the well.

Prepared By: Peter Kondrat Tacitus LLC 12/17/2020



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

PWD Data Report

05/11/2023

APD ID: 10400066946

Submission Date: 12/18/2020

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Well Type: OTHER

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? YES

Water quality analysis:

MCCRACKEN_N4_WATER_Envirotech2_v24_FINAL_04_27_20_1549_20200827131129.pdf

PWD Map:

TACITUS_LLC_PRODUCED_WATER_MANAGEMENT_PLAN_20200827131337.pdf

TACITUS_LLC_TOCITO_DOME_SURVEY_PLAT_061819_20200827131408.pdf

tacitus_pwd_support_map_20200827131345.pdf

Average monthly evaporation (in.):

Average monthly precipitation (in.): 0.6

Do you have a Produced Water Management Plan? EXISTING

New PWD Plan Name: TOCITO DOME PRODUCED WATER MANAGEMENT PLAN

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

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

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:

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

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:

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

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):

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



Analytical Report

Report Summary

Client: Tacitus, LLC

Samples Received: 4/20/2020

Job Number: 18051-0001

Work Order: P004112

Project Name/Location: N4

Report Reviewed By:

A handwritten signature in black ink that reads 'Walter Hinchman'.

Date: 4/27/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNi unless footnoted otherwise.
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 Envirotech, Inc, holds the Utah TNi certification NM009792018-1 for the data reported.
 Envirotech, Inc, holds the Texas TNi certification T104704557-19-2 for the data reported.



Tacitus, LLC	Project Name:	N4	
STE. 1770, 700 6th Ave S.W.	Project Number:	18051-0001	Reported:
Calgary, Alberta CANADA, T2P0T8	Project Manager:	Kameron Jones	04/27/20 15:49

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Navajo N4	P004112-01A	Aqueous	04/18/20	04/20/20	Beverage Container

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Tacitus, LLC STE. 1770, 700 6th Ave S.W. Calgary, Alberta CANADA, T2P0T8	Project Name: N4 Project Number: 18051-0001 Project Manager: Kameron Jones	Reported: 04/27/20 15:49
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**Navajo N4
P004112-01 (Water)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Wet Chem/Gravimetric

Total Dissolved Solids	137000	10.0	mg/L	1	2017034	04/22/20	04/25/20	SM2540C	
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Dissolved Metals by 6010

Sodium Absorption Ratio	58.5		N/A	1	2017042	04/23/20	04/23/20	[CALC]	
Calcium	14900	500	mg/L	500	2017009	04/22/20	04/23/20	EPA 6010C	
Iron	74.7	2.00	mg/L	1	2017009	04/22/20	04/22/20	EPA 6010C	
Magnesium	1210	500	mg/L	500	2017009	04/22/20	04/23/20	EPA 6010C	
Potassium	1810	500	mg/L	500	2017009	04/22/20	04/23/20	EPA 6010C	
Sodium	39700	1000	mg/L	500	2017009	04/22/20	04/23/20	EPA 6010C	

Anions by 300.0/9056A

Fluoride	ND	50.0	mg/L	200	2017008	04/20/20	04/20/20	EPA 300.0/9056A	
Chloride	89400	400	mg/L	200	2017008	04/20/20	04/20/20	EPA 300.0/9056A	
Nitrite-N	ND	50.0	mg/L	200	2017008	04/20/20 12:16	04/20/20 12:42	EPA 300.0/9056A	
Nitrate-N	ND	50.0	mg/L	200	2017008	04/20/20 12:16	04/20/20 12:42	EPA 300.0/9056A	
o-Phosphate-P	ND	50.0	mg/L	200	2017008	04/20/20 12:16	04/20/20 12:42	EPA 300.0/9056A	
Sulfate	579	400	mg/L	200	2017008	04/20/20	04/20/20	EPA 300.0/9056A	

Wet Chemistry

pH @25°C	5.76		pH Units	1	2017019	04/23/20 12:00	04/23/20 17:59	9040C/4500 H+B	H5
Specific Conductance (@ 25 C)	171000	10.0	uS/cm	1	2017018	04/21/20	04/21/20	9050A/2510 B	
Total Alkalinity (as CaCO3 at pH 4.5)	77.0	10.0	mg/L	1	2017046	04/24/20	04/24/20	SM2320B	

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Tacitus, LLC	Project Name: N4	Reported: 04/27/20 15:49
STE. 1770, 700 6th Ave S.W.	Project Number: 18051-0001	
Calgary, Alberta CANADA, T2P0T8	Project Manager: Kameron Jones	

Wet Chem/Gravimetric - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017034 - Wet Chemistry Preparation

Blank (2017034-BLK1)		Prepared: 04/22/20 1 Analyzed: 04/24/20 1								
Total Dissolved Solids	ND	10.0	mg/L							
LCS (2017034-BS1)		Prepared: 04/22/20 1 Analyzed: 04/24/20 1								
Total Dissolved Solids	101	10.0	mg/L	100		101	55-134			
LCS Dup (2017034-BSD1)		Prepared: 04/22/20 1 Analyzed: 04/24/20 1								
Total Dissolved Solids	98.0	10.0	mg/L	100		98.0	55-134	3.02	5	

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Tacitus, LLC STE. 1770, 700 6th Ave S.W. Calgary, Alberta CANADA, T2P0T8	Project Name: N4 Project Number: 18051-0001 Project Manager: Kameron Jones	Reported: 04/27/20 15:49
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Dissolved Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017009 - Metals Water Hotblock Digestion EPA 3010A/200.2

Blank (2017009-BLK1)

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Calcium	ND	1.00	mg/L							
Iron	ND	2.00	"							
Magnesium	ND	1.00	"							
Potassium	ND	1.00	"							
Sodium	ND	2.00	"							

LCS (2017009-BS1)

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Calcium	53.3	1.00	mg/L	50.0		107	80-120			
Iron	108	2.00	"	100		108	80-120			
Magnesium	57.9	1.00	"	50.0		116	80-120			
Potassium	5.56	1.00	"	5.00		111	80-120			
Sodium	21.7	2.00	"	20.0		109	80-120			

Matrix Spike (2017009-MS1)

Source: P004060-04

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Calcium	72.7	1.00	mg/L	50.0	19.4	107	75-125			
Iron	108	2.00	"	100	ND	108	75-125			
Magnesium	62.3	1.00	"	50.0	9.52	106	75-125			
Potassium	6.84	1.00	"	5.00	1.47	107	75-125			
Sodium	90.7	2.00	"	20.0	66.9	119	75-125			

Matrix Spike Dup (2017009-MSD1)

Source: P004060-04

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Calcium	72.5	1.00	mg/L	50.0	19.4	106	75-125	0.275	20	
Iron	107	2.00	"	100	ND	107	75-125	0.466	20	
Magnesium	61.7	1.00	"	50.0	9.52	104	75-125	0.903	20	
Potassium	6.87	1.00	"	5.00	1.47	108	75-125	0.467	20	
Sodium	91.1	2.00	"	20.0	66.9	121	75-125	0.440	20	

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Tacitus, LLC STE. 1770, 700 6th Ave S.W. Calgary, Alberta CANADA, T2P0T8	Project Name: N4 Project Number: 18051-0001 Project Manager: Kameron Jones	Reported: 04/27/20 15:49
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Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017008 - Anion Extraction EPA 300.0/9056A

Blank (2017008-BLK1)

Prepared & Analyzed: 04/20/20 1

Fluoride	ND	0.250	mg/L							
Chloride	ND	2.00	"							
Nitrite-N	ND	0.250	"							
Nitrate-N	ND	0.250	"							
o-Phosphate-P	ND	0.250	"							
Sulfate	ND	2.00	"							

LCS (2017008-BS1)

Prepared & Analyzed: 04/20/20 1

Fluoride	2.57	0.250	mg/L	2.50		103	90-110			
Chloride	25.2	2.00	"	25.0		101	90-110			
Nitrite-N	2.48	0.250	"	2.50		99.4	90-110			
Nitrate-N	2.60	0.250	"	2.50		104	90-110			
o-Phosphate-P	12.5	0.250	"	12.5		100	90-110			
Sulfate	25.1	2.00	"	25.0		100	90-110			

LCS Dup (2017008-BSD1)

Prepared & Analyzed: 04/20/20 1

Fluoride	2.58	0.250	mg/L	2.50		103	90-110	0.388	20	
Chloride	25.3	2.00	"	25.0		101	90-110	0.380	20	
Nitrite-N	2.49	0.250	"	2.50		99.4	90-110	0.0402	20	
Nitrate-N	2.61	0.250	"	2.50		104	90-110	0.345	20	
o-Phosphate-P	12.6	0.250	"	12.5		100	90-110	0.439	20	
Sulfate	25.1	2.00	"	25.0		101	90-110	0.279	20	

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.



Tacitus, LLC	Project Name: N4	Reported: 04/27/20 15:49
STE. 1770, 700 6th Ave S.W.	Project Number: 18051-0001	
Calgary, Alberta CANADA, T2P0T8	Project Manager: Kameron Jones	

Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017018 - Wet Chemistry Preparation

Blank (2017018-BLK1)				Prepared & Analyzed: 04/21/20 1						
Specific Conductance (@ 25 C)	ND	10.0	uS/cm							
LCS (2017018-BS1)				Prepared & Analyzed: 04/21/20 1						
Specific Conductance (@ 25 C)	1430	10.0	uS/cm	1410	102	98-102				
Duplicate (2017018-DUP1)				Prepared & Analyzed: 04/21/20 1						
Specific Conductance (@ 25 C)	173000	10.0	uS/cm	171000	0.931	20				

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Tacitus, LLC	Project Name: N4	Reported: 04/27/20 15:49
STE. 1770, 700 6th Ave S.W.	Project Number: 18051-0001	
Calgary, Alberta CANADA, T2P0T8	Project Manager: Kameron Jones	

Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017019 - Wet Chemistry Preparation

LCS (2017019-BS1)				Prepared & Analyzed: 04/23/20 1						
pH	7.96		pH Units	8.00		99.8	98.75-101.25			
Duplicate (2017019-DUP1)				Source: P004110-01 Prepared & Analyzed: 04/23/20 1						
pH	9.63		pH Units	9.60				0.312	20	

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Tacitus, LLC	Project Name:	N4	
STE. 1770, 700 6th Ave S.W.	Project Number:	18051-0001	Reported:
Calgary, Alberta CANADA, T2P0T8	Project Manager:	Kameron Jones	04/27/20 15:49

Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 2017046 - Wet Chemistry Preparation

LCS (2017046-BS1)

Prepared: 04/24/20 0 Analyzed: 04/24/20 1

Total Alkalinity (as CaCO3 at pH 4.5)	202	10.0	mg/L	250		80.8	70-130			
---------------------------------------	-----	------	------	-----	--	------	--------	--	--	--

Duplicate (2017046-DUP1)

Source: P004120-03

Prepared: 04/24/20 0 Analyzed: 04/24/20 1

Total Alkalinity (as CaCO3 at pH 4.5)	234	10.0	mg/L		233			0.428	20	
---------------------------------------	-----	------	------	--	-----	--	--	-------	----	--

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.



Tacitus, LLC	Project Name:	N4	
STE. 1770, 700 6th Ave S.W.	Project Number:	18051-0001	Reported:
Calgary, Alberta CANADA, T2P0T8	Project Manager:	Kameron Jones	04/27/20 15:49

Notes and Definitions

H5 pH is specified to be performed in the field within 15 minutes of sampling. The sample was performed as quickly as possible.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Client: <u>Tacitus</u>		Bill To		Lab Use Only		TAT		EPA Program					
Project: <u>NH</u>				Lab WO#	Job Number	1D	3D	RCRA	CWA	SDWA			
Project Manager: <u>Kam Jones</u>		Attention:		<u>P004112</u>	<u>18051-0001</u>								
Address: <u>Cortez</u>		Address:		Analysis and Method						State			
City, State, Zip: <u>Farmington, NM, 87401</u>		City, State, Zip:		DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	NM	CO	UT	AZ
Phone: <u>405-990-4969</u>		Phone:								TX	OK		
Email: <u>Kameron.jones@tacituscorporation.com</u>		Email:											
Report due by:													

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	1D	3D	RCRA	CWA	SDWA	Remarks	
2:00pm	4/18		1	Navajo NH	1													

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Chuck Richards

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>4/20/20</u>	Time: <u>7:40AM</u>	Received by: (Signature) <u>Walter Hunter</u>	Date: <u>4/20/20</u>	Time: <u>7:40</u>	Lab Use Only Received on ice: Y <input checked="" type="checkbox"/> N T1 <u>45.0F</u> T2 <u>48.7F</u> T3 <u>49.2F</u> AVG Temp °C <u>47.6F = 8.66°C</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



5795 US Highway 64, Farmington, NM 87401
24 Hour Emergency Response Phone: (800) 362-1879

Ph (505) 632-1881 Fx (505) 632-1865

envirotech-inc.com
labadmin@envirotech-inc.com

TACITUS LLC

TOCITO DOME PRODUCED WATER MANAGEMENT PLAN

6/1/2020

PREPARED BY: PETER KONDRAT, COO & GEOLOGIST AT TACITUS LLC

TACITUS LLC OPERATES IN TOCITO DOME FIELD, NAVAJO NATION, SAN JUAN COUNTY, NM. TOCITO DOME IS A HELIUM FIELD WHERE TACITUS LLC WELLS PRODUCING VARIABLE RATES OF RAW GAS (RICH IN HELIUM) AND SOME WATER. TACITUS LLC WELLS ARE PRODUCING GAS & WATER FROM 2 DIFFERENT FORMATIONS INCLUDING THE MISSISSIPPIAN-AGED LEADVILLE AND DEVONIAN-AGED MCCRACKEN & ANETH FORMATIONS. WATER SAMPLES FROM BOTH FORMATIONS PROVIDED.

AT THE WELLSITE PRODUCED WATER STORED IN ON-SITE TANKS. FROM THE TANKS WATER IS TRANSPORTED INTO WATER TRUCKS AND THEN HAULED TO DISPOSAL WELLS. AT DISPOSAL WELLS WATER IS TRANSPORTED VIA WATER TRUCK TO WATER TANKS ON-SITE AT DISPOSAL WELLS. THE WATER TANKS ON-SITE SET UP FOR GRAVITY FEED INTO DISPOSAL WELLS. BOTH DISPOSAL WELLS INJECT WATER INTO THE PENNYSLVANIAN D FORMATION WHICH IS THE HISTRORIC, NOW ABANDONED OIL PROUDUCING FORMATION AT TOCITO DOME.

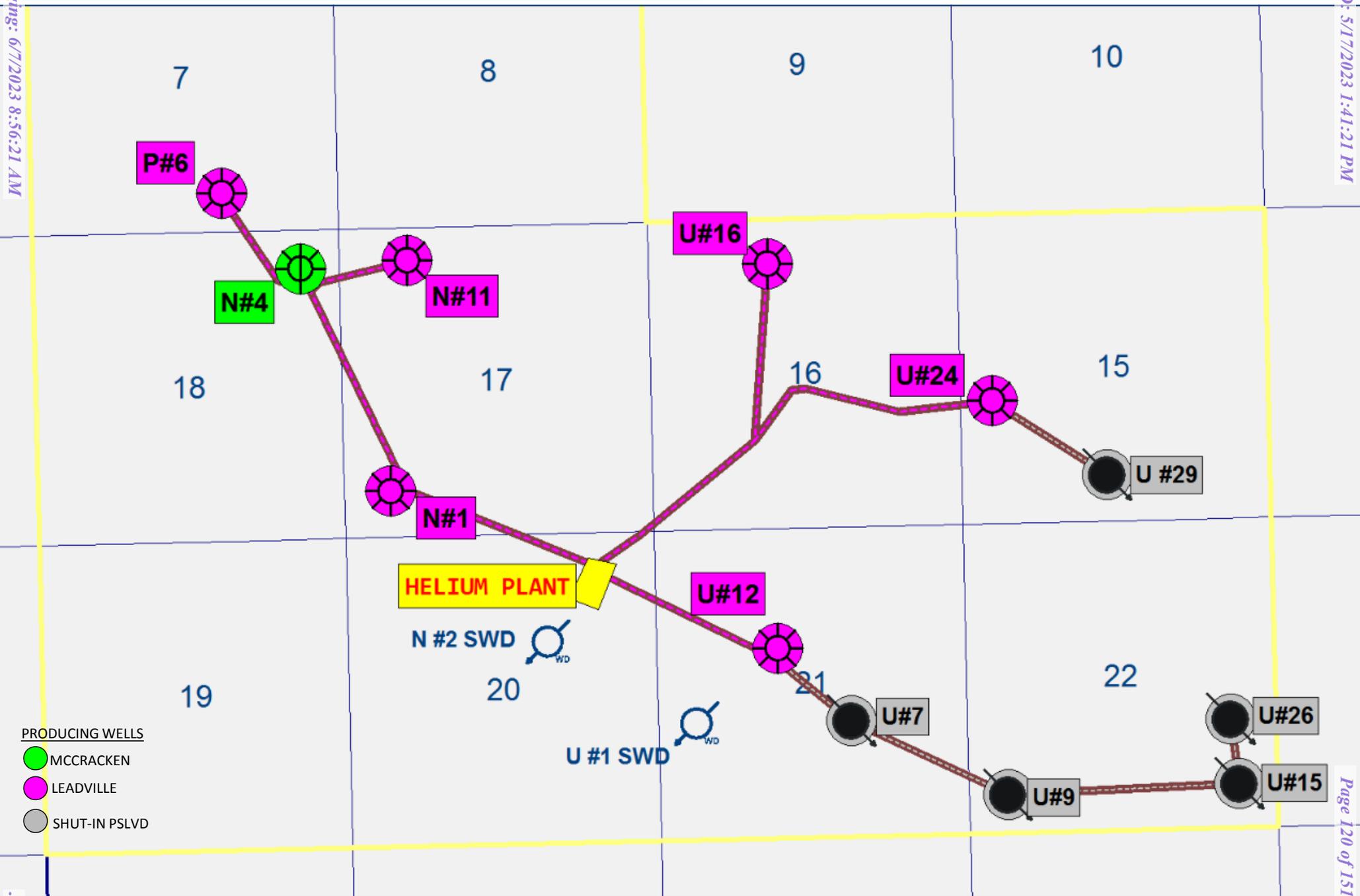
INCLUDED IN THE DECLARATION INCLUDE APPROVED APPLICIIONS TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION WITH MINIMUM & MAXIMUM INJECTION RATES AND PRESSURES, ORTHO-IMAGERY OF THE WATER INJECTION WELLS & WELLBORE DIAGRAMS OF THE WATER DISPOSAL WELLS.

	API	Well	Type	Mineral Owner	Surface Owner	Status	ULSTR
View	30-045-05738	TOCITO SWD #001	Salt Water Disposal	Navajo		Active	L-21-26N-18W
View	30-045-05756	TOCITO SWD #002	Salt Water Disposal	Federal		Active	G-20-26N-18W

OPERATIONS & INFRASTRUCTURE

Released to Imaging: 6/7/2023 8:56:21 AM

Received by OCD: 5/17/2023 1:41:21 PM





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

Bond Info Data

05/11/2023

APD ID: 10400066946

Submission Date: 12/18/2020

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

Operator Name: TACITUS, LLC

Well Name: NAVAJO TRIBAL U

Well Number: 7A

Well Type: OTHER

Well Work Type: Drill

Bond

Federal/Indian APD: IND

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? YES

Is the reclamation bond a rider under the BLM bond? YES

Is the reclamation bond BLM or Forest Service? BLM

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount: \$ 400,000

Additional reclamation bond information

Navajo_Bond_1_20201221144753.pdf

NavajoBond_2_20201221144800.pdf

382
MAR 16 2018
NAVAJO REGION OFFICE
MINERALS SECTION

JPMORGAN CHASE BANK, N.A.
GLOBAL TRADE SERVICES
131 SOUTH DEARBORN, 5th FLOOR
MAIL CODE: IL1-0236
CHICAGO, IL 60603-5506
SWIFT: CHASUS33

RECEIVED
MAR 16 2018
RES-DIVISION OF REAL ESTATE SERVICES

TO:
BUREAU OF INDIAN AFFAIRS
DEPARTMENT OF THE INTERIOR
1849 C STREET, N.W., MC 4004-MIB
WASHINGTON, DC 20240

DATE : 15 Mar 2018
SUBJECT : STANDBY LETTER OF CREDIT AMENDMENT
OUR REFERENCE : NUSCGS003039

DEAR SIR/MADAM,

AMENDMENT NUMBER : 1
ACCOUNT PARTY : TACITUS E AND P TOCITO, LLC, A
(REFER TO LC TEXT FOR FULL DETAILS)
1770, 700-6TH AVE., SW
CALGARY, ALBERTA T2P0T8 CANADA

WE HEREBY AMEND THE ABOVE REFERENCED STANDBY LETTER OF CREDIT AS FOLLOWS:

COMPLETE ACCOUNT PARTY NAME AND ADDRESS:

TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION, BY TACITUS CORPORATION, A WYOMING CORPORATION
1700, 700-6TH AVE. SW
CALGARY, ALBERTA T2P0T8 CANADA

THE BENEFICIARY ADDRESS IS AMENDED TO READ AS FOLLOWS:

BUREAU OF INDIAN AFFAIRS
NAVAJO REGION
DIVISION OF REAL ESTATE SERVICES
MINERALS DEPARTMENT
301 WEST HILL AVE., SUITE 310
GALLUP, NM 87301

ALL OTHER TERMS AND CONDITIONS OF THE STANDBY LETTER OF CREDIT REMAIN UNCHANGED.

ALL AMENDMENTS UNDER THIS STANDBY LETTER OF CREDIT AMENDMENT ARE SUBJECT TO BENEFICIARY'S AGREEMENT. THIS AMENDMENT SHALL NOT BE CONSIDERED OPERATIVE UNLESS THE BENEFICIARY COMMUNICATES THEIR AGREEMENT TO THE AMENDED TERMS. PLEASE INDICATE YOUR ACCEPTANCE /REJECTION BY SIGNING AND RETURNING A COPY OF THIS AMENDMENT VIA FAX TO 856-294-5267, EMAIL ADDRESS: GTS.CLIENT.SERVICES@JPMCHASE.COM.

CONTINUATION OF OUR REFERENCE

NUSCGS003039

WE ACCEPT THIS AMENDMENT

WE REJECT THIS AMENDMENT

BUREAU OF INDIAN AFFAIRS

BUREAU OF INDIAN AFFAIRS

SIGNATURE

SIGNATURE

PRINTED NAME & TITLE

PRINTED NAME & TITLE

DATE & TEL. NO.

DATE & TEL. NO.

YOURS FAITHFULLY,
JPMORGAN CHASE BANK, N.A.



AUTHORIZED SIGNATURE

APPROVED: **MAR 27 2018**
Pursuant to Secretarial Redlegation Order
209 DIM 3, 233 DIM 1 and 3 IAM 4.



Regional Director, Navajo Region
Bureau of Indian Affairs

NAVAJO REGION OFFICE
MINERALS SECTION

JPMORGAN CHASE BANK, N.A.
GLOBAL TRADE SERVICES
131 SOUTH DEARBORN, 5th FLOOR
MAIL CODE: IL1-0236
CHICAGO, IL 60603-5506
SWIFT: CHASUS33

IRREVOCABLE STANDBY LETTER OF CREDIT REFERENCE NO.: NUSCGS003039

DATE : 02 Mar 2018

TO: BUREAU OF INDIAN AFFAIRS
DEPARTMENT OF THE INTERIOR
1849 C STREET, N.W., MC 4004-MIB
WASHINGTON, DC 20240

DEAR SIR/MADAM,

WE HEREBY ISSUE OUR IRREVOCABLE STANDBY LETTER OF CREDIT IN YOUR FAVOR.

BENEFICIARY	BUREAU OF INDIAN AFFAIRS DEPARTMENT OF THE INTERIOR 1849 C STREET, N.W., MC 4004-MIB WASHINGTON, DC 20240
ACCOUNT PARTY	TACITUS E AND P TOCITO, LLC, A (REFER TO LC TEXT FOR FULL DETAILS) 1770, 700-6TH AVE., SW CALGARY, ALBERTA T2P0T8 CANADA
DATE OF EXPIRY	: 28-FEB-2019
PLACE OF EXPIRY	: OUR COUNTER
AMOUNT	: USD 400,000.00
APPLICABLE RULE	: ISP LATEST VERSION

COMPLETE ACCOUNT PARTY NAME AND ADDRESS:
TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION, BY TACITUS CORPORATION, A WYOMING CORPORATION
1700, 700-6TH AVE. SW
CALGARY, ALBERTA T2P0T8 CANADA

WE HEREBY ISSUE OUR STANDBY LETTER OF CREDIT ON BEHALF OF GOODARD INVESTMENT COMPANY, 8117 PRESTON ROAD, SUITE 610, DALLAS, TX 75225 AND FOR ACCOUNT OF TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION, BY TACITUS CORPORATION, A WYOMING CORPORATION (THE "ACCOUNT PARTY").

FUNDS UNDER THIS LETTER OF CREDIT ARE AVAILABLE AT SIGHT WITH JPMORGAN CHASE BANK, N.A. UPON PRESENTATION OF BENEFICIARY'S SIGNED AND DATED STATEMENT READING AS FOLLOWS:

1. "THE AMOUNT OF THIS DRAWING USD..... UNDER JPMORGAN CHASE BANK, N.A. LETTER OF CREDIT NO. NUSCGS003039 REPRESENTS FUNDS DUE TO US, AS TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION, BY TACITUS CORPORATION, A WYOMING CORPORATION ("LESSEE") HAS FAILED TO MEET ITS PERFORMANCE PROVISIONS AND CONDITIONS OF ANY OF THE LEASES IDENTIFIED ON EXHIBIT A (ATTACHED HERETO), RELATED TO THAT CERTAIN LEASE AGREEMENT, BETWEEN THE NAVAJO NATION, WITH APPROVAL OF THE BUREAU OF INDIAN AFFAIRS, AS LESSOR, AND TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION,

NAVAJO REGION OFFICE
MINERALS SECTION
RECEIVED
MAR 06 2018

Continuation of our Reference

NUSCGS003039

BY TACITUS CORPORATION, A WYOMING CORPORATION, LESSEE."

OR

2. "THE AMOUNT OF THIS DRAWING USD. UNDER JPMORGAN CHASE BANK, N.A. LETTER OF CREDIT NO. NUSCGS003039 REPRESENTS FUNDS DUE TO US FOR FAILURE TO RECEIVE A REPLACEMENT LETTER OF CREDIT IN ACCORDANCE WITH PARAGRAPH (D)(5)(V) OF THE REGULATION."

OR

3. THE AMOUNT OF THIS DRAWING USD. UNDER JPMORGAN CHASE BANK, N.A. LETTER OF CREDIT NO. NUSCGS003039 REPRESENTS FUNDS DUE TO US, AS FINAL APPROVAL FOR ABANDONMENT HAS NOT BEEN GIVEN, THE LEASES IDENTIFIED ON THE ATTACHED EXHIBIT A HAVE TERMINATED, AND A SUITABLE BOND OR LETTER OF CREDIT AT LEAST THIRTY (30) DAYS BEFORE THE CURRENT EXPIRATION DATE HAS NOT BEEN RECEIVED "

WE HAVE BEEN ADVISED BY THE APPLICANT THAT THIS LETTER OF CREDIT SHALL BE USED AS SECURITY FOR EACH OF THE LEASES IDENTIFIED ON EXHIBIT A, ATTACHED HERETO.

IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT SHALL BE AUTOMATICALLY EXTENDED WITHOUT AMENDMENT FOR ADDITIONAL TWELVE (12) MONTH PERIODS FROM THE PRESENT OR EACH FUTURE EXPIRATION DATE, UNLESS AT LEAST THIRTY (30) DAYS PRIOR TO THE CURRENT EXPIRY DATE WE SEND NOTICE IN WRITING TO YOU AT THE ABOVE ADDRESS, THAT WE ELECT NOT TO AUTOMATICALLY EXTEND THIS LETTER OF CREDIT FOR ANY ADDITIONAL PERIOD.

THE LETTER OF CREDIT SHALL BE IRREVOCABLE DURING ITS TERM.

PARTIAL AND MULTIPLE DRAWINGS ARE ALLOWED.

WE ENGAGE WITH YOU THAT DOCUMENTS PRESENTED UNDER AND IN CONFORMITY WITH THE TERMS AND CONDITIONS OF THIS CREDIT WILL BE DULY HONORED ON PRESENTATION IF PRESENTED ON OR BEFORE THE EXPIRATION AT OUR COUNTERS AT JPMORGAN CHASE BANK, N.A., C/O JPMORGAN TREASURY SERVICES, 10420 HIGHLAND MANOR DR., 4TH FL., TAMPA, FL 33610 ATTN: STANDBY LETTER OF CREDIT UNIT.

THIS LETTER OF CREDIT MAY BE CANCELLED PRIOR TO EXPIRATION PROVIDED THE ORIGINAL LETTER OF CREDIT (AND AMENDMENTS, IF ANY) ARE RETURNED TO JPMORGAN CHASE BANK, N.A., AT OUR ADDRESS AS INDICATED HEREIN, WITH A STATEMENT SIGNED BY THE BENEFICIARY STATING THAT THE ATTACHED LETTER OF CREDIT IS NO LONGER REQUIRED AND IS BEING RETURNED TO THE ISSUING BANK FOR CANCELLATION.

THIS LETTER OF CREDIT IS GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, AND, EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, THE INTERNATIONAL STANDBY PRACTICES, ICC PUBLICATION NO 590 (THE "ISP98"), AND, IN THE

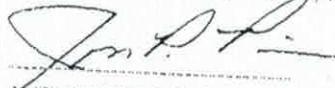
Continuation of our Reference

NUSCGS003039

EVENT OF ANY CONFLICT, THE LAWS OF THE STATE OF NEW YORK WILL CONTROL, WITHOUT REGARD TO PRINCIPLES OF CONFLICT OF LAWS.

ALL INQUIRIES REGARDING THIS TRANSACTION MAY BE DIRECTED TO OUR CLIENT SERVICE GROUP AT THE FOLLOWING TELEPHONE NUMBER OR EMAIL ADDRESS QUOTING OUR REFERENCE NUSCGS003039. TELEPHONE NUMBER 1-800-634-1969, EMAIL ADDRESS: GTS.CLIENT.SERVICES(AT)JPMCHASE.COM.

YOURS FAITHFULLY,
JPMORGAN CHASE BANK, N.A.



AUTHORIZED SIGNATURE

APPROVED: MAR 27 2018

Pursuant to Secretarial Redelelegation Order 209 DM 3, 230 DM 1 and 3 IAM 4.



Regional Director, Navajo Region
Bureau of Indian Affairs

Continuation of our Reference

NUSCGS003039

EXHIBIT A - LEASES AND LANDS
TO IRREVOCABLE STANDBY LETTER OF CREDIT NO. NUSCGS003039

LEASES

Serial Number	Navajo Lease	Township	Range	Section	Aliqout	Lease Date
BIA 14206035033	Navajo "P" Lease	26N	18W	5	All	2/6/1959
				6	All	
				7	All	
				8	All	
BIA 14206035034	Navajo "U" Lease	26N	18W	15	All	2/6/1959
				16	All	
				21	All	
				22	All	
BIA 14206035034	Navajo "N" Lease	26N	18W	17	All	2/6/1959
				18	All	
				19	All	
				20	All	

JPMORGAN CHASE BANK, N.A.
GLOBAL TRADE SERVICES
131 SOUTH DEARBORN, 5th FLOOR
MAIL CODE: IL1-0236
CHICAGO, IL 60603-6608
SWIFT: CHASUS33

DATE : 09 Nov 2018

IRREVOCABLE STANDBY LETTER OF CREDIT REFERENCE NO.: NUSCGS025006

TO: NAVAJO NATION ENVIRONMENTAL
(REFER TO LC TEXT FOR FULL DETAILS)
HIGHWAY 64, WEST SIDE
SHIPROCK, NM 8742

DEAR SIR/MADAM,

WE HEREBY ISSUE OUR IRREVOCABLE STANDBY LETTER OF CREDIT IN YOUR FAVOR.

BENEFICIARY : NAVAJO NATION ENVIRONMENTAL
(REFER TO LC TEXT FOR FULL DETAILS)
HIGHWAY 64, WEST SIDE
SHIPROCK, NM 8742

ACCOUNT PARTY : TACITUS E AND P TOCITO, LLC
(REFER TO LC TEXT FOR FULL DETAILS)
1770, 700-6TH AVENUE SW
CALGARY, ALBERTA T2P 0T8, CANADA

DATE OF EXPIRY : 05-NOV-2019
PLACE OF EXPIRY : OUR COUNTER
AMOUNT : USD 87,950.00
APPLICABLE RULE : ISP LATEST VERSION

BENEFICIARY'S COMPLETE NAME AND ADDRESS:
NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY
UNDERGROUND INJECTION CONTROL PROGRAM
P.O. BOX 1999
OLD NAPA AUTO PARTS BLDG., ACROSS 7-2-11
HIGHWAY 64, WEST SIDE
SHIPROCK, NM 87420
ATTN: JEAN BIA

ACCOUNT PARTY'S COMPLETE NAME AND ADDRESS:
TACITUS E AND P TOCITO, LLC,
A DELAWARE LIMITED LIABILITY CORPORATION
1770, 700 - 6TH AVENUE SW
CALGARY, ALBERTA T2P 0T8, CANADA

DEAR SIR/MADAM,

WE HEREBY ISSUE OUR STANDBY LETTER OF CREDIT ON
BEHALF OF GODDARD INVESTMENT COMPANY, 8117 PRESTON
ROAD, SUITE 610, DALLAS, TX 75225 AND FOR ACCOUNT OF
TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY
CORPORATION, (THE "ACCOUNT PARTY").



Continuation of our Reference

NUSCGS025006

FUNDS UNDER THIS LETTER OF CREDIT ARE AVAILABLE AT SIGHT WITH JPMORGAN CHASE BANK, N.A., UPON PRESENTATION OF BENEFICIARY'S SIGNED AND DATED STATEMENT READING AS FOLLOWS:

1. "THE AMOUNT OF THIS DRAWING USD..... UNDER JPMORGAN CHASE BANK, N.A., LETTER OF CREDIT NO. NUSCGS025006 REPRESENTS FUNDS DUE TO US, AS TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION, ("LESSEE") HAS FAILED TO MEET ITS PERFORMANCE PROVISIONS AND CONDITIONS OF ANY OF THE LEASES IDENTIFIED ON EXHIBIT A (ATTACHED HERETO), RELATED TO THAT CERTAIN LEASE AGREEMENT, BETWEEN THE NAVAJO NATION WITH APPROVAL OF THE BUREAU OF INDIAN AFFAIRS, AS LESSOR, AND TACITUS E AND P TOCITO, LLC, A DELAWARE LIMITED LIABILITY CORPORATION, LESSEE."

OR

2. "THE AMOUNT OF THIS DRAWING USD..... UNDER JPMORGAN CHASE BANK, N.A., LETTER OF CREDIT NO. NUSCGS025006 REPRESENTS FUNDS DUE TO US FOR FAILURE TO RECEIVE A REPLACEMENT LETTER OF CREDIT IN ACCORDANCE WITH PARAGRAPH (D)(5)(V) OF THE REGULATION."

OR

3. THE AMOUNT OF THIS DRAWING USD..... UNDER JPMORGAN CHASE BANK, N.A. LETTER OF CREDIT NO. NUSCGS025006 REPRESENTS FUNDS DUE TO US, AS FINAL APPROVAL FOR ABANDONMENT HAS NOT BEEN GIVEN, THE LEASES IDENTIFIED ON THE ATTACHED EXHIBIT A HAVE BEEN TERMINATED, AND SUITABLE BOND OR LETTER OF CREDIT AT LEAST THIRTY (30) DAYS BEFORE THE CURRENT EXPIRATION DATE HAS NOT BEEN RECEIVED."

WE HAVE BEEN ADVISED BY THE APPLICANT THAT THIS LETTER OF CREDIT SHALL BE USED AS SECURITY FOR EACH OF THE WELLS IDENTIFIED ON EXHIBIT A, ATTACHED HERETO.

IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT SHALL BE AUTOMATICALLY EXTENDED WITHOUT AMENDMENT FOR ADDITIONAL TWELVE (12) MONTH PERIODS FROM THE PRESENT OR EACH FUTURE EXPIRATION DATE, UNLESS AT LEAST THIRTY (30) DAYS PRIOR TO THE CURRENT EXPIRY DATE WE SEND NOTICE IN WRITING TO YOU AT THE ABOVE ADDRESS, THAT WE ELECT NOT TO AUTOMATICALLY EXTEND THIS LETTER OF CREDIT FOR ANY ADDITIONAL PERIOD.

THE LETTER OF CREDIT SHALL BE IRREVOCABLE DURING ITS TERM.

PARTIAL AND MULTIPLE DRAWINGS ARE ALLOWED.

WE ENGAGE WITH YOU THAT DOCUMENTS PRESENTED UNDER AND IN CONFORMITY WITH THE TERMS AND CONDITIONS OF THIS CREDIT WILL BE DULY HONOURED ON PRESENTATION IF PRESENTED ON OR BEFORE THE EXPIRATION AT OUR COUNTERS AT JPMORGAN CHASE BANK, N.A., C/O JPMORGAN TREASURY SERVICES, 10420 HIGHLAND MANOR DR.,

Continuation of our Reference

NUSCGS025006

4TH FL., TAMPA, FL 33610 ATTN: STANDBY LETTER OF CREDIT UNIT.

THIS LETTER OF CREDIT MAY BE CANCELLED PRIOR TO EXPIRATION PROVIDED THE ORIGINAL LETTER OF CREDIT (AND AMENDMENTS, IF ANY) ARE RETURNED TO JPMORGAN CHASE BANK, N.A., AT OUR ADDRESS AS INDICATED HEREIN, WITH A STATEMENT SIGNED BY THE BENEFICIARY STATING THAT THE ATTACHED LETTER OF CREDIT IS NO LONGER REQUIRED AND IS BEING RETURNED TO THE ISSUING BANK FOR CANCELLATION.

THIS LETTER OF CREDIT IS GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, AND EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, THE INTERNATIONAL STANDBY PRACTICES, ICC PUBLICATION NO. 590 (THE "ISP98"), AND, IN THE EVENT OF ANY CONFLICT, THE LAWS OF THE STATE OF NEW YORK WILL CONTROL, WITHOUT REGARD TO PRINCIPLES OF CONFLICT OF LAWS.

ALL INQUIRIES REGARDING THIS TRANSACTION MAY BE DIRECTED TO OUR CLIENT SERVICE GROUP AT THE FOLLOWING TELEPHONE NUMBER OR EMAIL ADDRESS QUOTING OUR REFERENCE NUSCGS025006 TELEPHONE NUMBER 1-800-634-1969, EMAIL ADDRESS: GTS.CLIENT.SERVICES(AT)JPMCHASE.COM.

Yours Faithfully,
JPMorgan Chase Bank, N.A.,


.....
Authorized Signature

Continuation of our Reference

NUSCGS025006

EXHIBIT A – LEASES AND LANDS
TO IRREVOCABLE STANDBY LETTER OF CREDIT NO. NUSCGS025006

WELLS:

API #	Township	Range	Section	Date	Navajo Lease	Serial Number
API 30-045-05738	26N	18W	21	2/6/1969	Tocito Dome SWD #001 U Lease	BIA 14206035034
API 30-045-05756	26N	18W	20	2/6/1969	Tocito Dome SWD #002 N Lease	BIA 14206035035

UPS CampusShip: View/Print Label

1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. Fold the printed label at the solid line below. Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
3. **GETTING YOUR SHIPMENT TO UPS**
Customers with a Daily Pickup
 Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

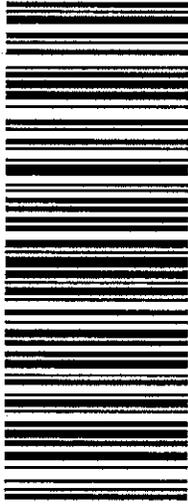
Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
 Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
 Hand the package to any UPS driver in your area.

UPS Access Point™
 THE UPS STORE
 235 W BRANDON BLVD
 BRANDON ,FL 33511

UPS Access Point™
 THE UPS STORE
 1971 W LUMSDEN RD
 BRANDON ,FL 33511

UPS Access Point™
 THE UPS STORE
 5470 E BUSCH BLVD
 TAMPA ,FL 33617

FOLD HERE

<p>MABELYN ROMERO 813-432-6331 JPMORGAN CHASE #15800 10420 HIGHLAND MANOR DR TAMPA FL 33610</p>	<p>0.0 LBS LTR 1 OF 1</p>	<p>SHIP TO: ATTN: JEAN BIA NAVAJO NATION ENV.PROTECTION P.O.BOX 1999 ACROSS 7-2-LL, HGWY 64 WEST SIDE OLD NAPA AUTO PARTS BLDG SHIPROCK NM 87420</p>	<p>NM 874 0-01</p> 	<p>UPS NEXT DAY AIR</p> <p>TRACKING #: 1Z W05 R46 01 9334 7048</p> <p>1</p>		<p>BILLING: P/P</p> <p>Reference # 1: NUSCGS025006</p> <p>CS 20-6-13 WNTNVS0 06.0A.10.2018</p> 
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Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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
		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)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | <ul style="list-style-type: none"> 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		Office

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

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



(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

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

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

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the 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 a new 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.

Additional Operator Remarks

Location of Well

0. SHL: NWSE / 1978 FSL / 1983 FEL / TWSP: 26N / RANGE: 18W / SECTION: 21 / LAT: 36.471816 / LONG: -108.762004 (TVD: 0 feet, MD: 0 feet)
PPP: SWSE / 778 FSL / 1972 FEL / TWSP: 26N / RANGE: 18W / SECTION: 21 / LAT: 36.46852 / LONG: -108.761965 (TVD: 6703 feet, MD: 6883 feet)
BHL: SWSE / 778 FSL / 1972 FEL / TWSP: 26N / RANGE: 18W / SECTION: 21 / LAT: 36.46852 / LONG: -108.761965 (TVD: 7034 feet, MD: 7214 feet)

BLM Point of Contact

Name: GARY W SMITH
Title: Natural Resource Specialist
Phone: (505) 564-7701
Email: G1SMITH@BLM.GOV

CONFIDENTIAL

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.

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Conditions of Approval

Operator: Tacitus, LLC

Well Name: Navajo Tribal N2A, U1A, and U7A

Legal Location: T26N R18W Sec 20 SWNE, Sec 21 NWSW, NWSE; NMPM; San Juan County, NM

NEPA Log Number: DOI-BLM-NM-F010-2021-0018-EA

Lease Number: 1420603505, 142603504

The following conditions of approval will apply to the Tacitus, LLC, Navajo Tribal N2A, U1A, and U7A well pads, access roads 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, Navajo Tribe, State, or other jurisdictional entities.

Copy of Plans: A complete copy of the APD package, including: Surface Use Plan of Operations, Plan of Development (if required), Conditions of Approval, NNDFW Biological Resources Compliance Form, and NN HHPD 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 Environmental Analysis DOI-BLM-NM-F010-2021-0018-EA.

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 http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices.html. Farmington Field Office BMP's are integrated into the Surface Use Plan of Operations, Bare Soil Reclamation Plan, and COAs.

Construction, Production, Facilities, Reclamation & Maintenance

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office, Environmental Protection Staff, Randy McKee (505) 564-7708 or by email, at least 48 hours prior to any construction or reclamation on this project. Although the Navajo Tribal N2A, U1A, and U7A wells will be drilled and completed on existing disturbance from prior activity, any further surface disturbance activity will conform to the surface plan of operations, reclamation plan, and the conditions of approval.

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. Tacitus or their contractor will contact the Bureau of Land Management, Farmington Field Office, Surface, and Environmental Protection Staff to schedule a facility layout onsite.

Paint Color: All permanent (onsite for 6 months or longer) above-ground equipment constructed or installed, including pumping units, will be painted the Carlsbad Canyon standard environmental color. All production facilities will be painted within 3 months of installation. Facilities that are required to comply with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.

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

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

Stockpile of Soil: The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks and roots. The stockpiled soil material will be spread on the reclaimed portions of the pad [including the 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 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.

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. This includes all personnel associated with construction, use, maintenance and abandonment of the well pad, well facilities, access and pipeline. 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 (16U.S.C. 470aa-mm).

Cultural Resources Conditions of Compliance: (from CRCF NNHPD NO: HPD-19-628)

Site NM-H-34-101:

1. Site is crossed by the current APE and the existing flowline #U16 well.
2. Features of the site can be avoided if all work is confined to the existing right of way and the existing road.
3. Fence the edges of the flowline ROW prior to ground disturbing work within the site.
4. An archaeologist will monitor all ground-disturbing activities & produce a monitoring report within 30-days of the monitoring activities.
5. Monitoring stipulations: NNHPD requests a monitoring report be submitted within 30-days of completed activity.

In-Use Sites (IUS): No further work is recommended.

TCP#673:

1. TCP is located outside of the APE but is visually affected by several of the wells in the area, particularly SED Well #002.
2. Tacitus, LLC, will ensure that contractors are **NOT** working on the wells or flowlines when ceremonies or offerings are being conducted near the TCP.

Please refer to CULTURAL RESOURCES COMPLIANCE FORM, NNHPD NO: HPD-19-628 for more information.

Discovery of Cultural Resources: IN THE EVENT OF A DISCOVERY [“DISCOVERY” MEANS ANY PREVIOUSLY UNIDENTIFIED OR INCORRECTLY IDENTIFIED CULTURAL RESOURCES INCLUDING BUT NOT LIMITED TO ARCHAEOLOGICAL DEPOSITS, HUMAN REMAINS, OR LOCATIONS REPORTEDLY ASSOCIATED WITH NATIVE AMERICAN RELIGIOUS /TRADITIONAL BELIEFS OR PRACTICES], ALL OPERATIONS IN THE IMMEDIATE VICINITY

OF THE DISCOVERY MUST CEASE, AND THE NAVAJO NATION HISTORIC PRESERVATION DEPARTMENT MUST BE NOTICIED AT 928-871-7198.

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 and have executed a Navajo Nation Historic Preservation Department approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

Noxious/Invasive Weeds: The contact for weed management information is the BIA Shiprock Weed Coordinator, Vince Tsosie (505.368.3304; vince.tsosie@bia.gov). Tacitus will 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 Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA 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*).

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

- a. Any identified weeds will be treated prior to new surface disturbance if determined by the BIA Shiprock Weed Coordinator.
- b. Vehicles and equipment should be inspected and cleaned prior to coming onto the 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 as a surfacing material. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the BIA Shiprock 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 Navajo Nation or BIA shall be notified with a Weed Management Plan and if necessary, a Pesticide Use Proposal (PUP).
- e. Only pesticides authorized for use on Navajo Nation lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with Navajo

Nation, federal and state laws and used only in accordance with their registered use and limitations.

Noxious/invasive weed treatments must be reported to the Navajo Nation or BIA. 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.

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).

- 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 Navajo Nation or BIA. Only pesticides authorized for use on Navajo Nation lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with Navajo Nation, federal, and state laws and used only in accordance with their registered use and limitations. Tacitus' weed-control contractor would contact the BIA Shiprock Weed Coordinator 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 as required from the Navajo Nation and/or BIA.

Paleontology

Any paleontological resource discovered by the Operator, or any person working on the Operator 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.

Threatened, Endangered or Sensitive Species: If the operator/holder discovers any Threatened, Endangered, or NN sensitive species or work in the vicinity of known habitat, activities will be suspended and the discovery promptly reported to the Navajo Nation Fish and Wildlife Service (NNFWS) . Failure to notify the NNFWS about a discovery may result in civil or criminal penalties in accordance with The Endangered Species Act (as amended).

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

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.

FORM 06/25/03
(Gen-APD)

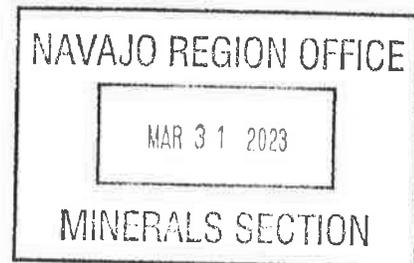


EXHIBIT "D"

TERMS AND CONDITIONS
 For APPLICATION for PERMIT to DRILL (APD)
 and SUNDRY NOTICE
 TO CONSTRUCT ASSOCIATED ANCILLARY FACILITIES

Tacitus E&P Tocito, LLC (Applicant)

"Navajo Tribal U 7A" Well, Road, Pipeline and Ancillary Facilities (Project)

1. The term of the Permit shall not exceed twenty (20) years, beginning on the final approval date of the APD or Sundry Notice.
2. The Drilling Pad shall be limited to an area not to exceed two acres.
3.
 - a. Consideration to the Navajo Nation for the grant of the Permit and associated rights-of-way shall be _____ and shall be paid in full to the Controller of the Navajo Nation, in lawful money of the United States, and a copy of the receipt for such payment provided to the Navajo Nation Minerals Department, or its successor, within 10 days of approval of and consents to the grant of the Permit by the Navajo Nation.
 - b. No consideration is assessed because the Applicant has a federal or state lease that was issued prior to March 30, 1990.
 - c. No consideration is assessed because the lease held by the Applicant was granted by the Navajo Nation, and the facilities are within the lease area.
4. The Applicant may use and occupy the area under the Permit for the purpose(s) of Construct, Operate and Maintain Pipeline and Ancillary Facilities. The Applicant may not develop, use or occupy the area under the Permit for any other purpose without the prior written approval of the Navajo Nation and the Secretary of the Interior in the case of trust land; the approval of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Applicant may not use or occupy the area under the Permit for any unlawful purpose.
5. The Applicant or its assigns/operator shall provide the Navajo Nation Minerals Department the following technical information for each well drilled as soon as it becomes available:
 - a. Suites of electric logs and drilling log and mud log.
 - b. Results of any drill stem and pressure tests conducted.
 - c. Well completion report.
 - d. Gas analysis report.
 - e. Core analysis.
 - f. Water analysis reports.
 - g. Copies of any other special tests run on the wells.
 - h. Other information that may be requested by the Minerals Department.
6. The Permit shall not cover any use of land off the permitted area.
7. If the Applicant fails to drill within one (1) year after final approval of the APD is given by U.S. Bureau of Land Management (BLM) for trust land and one (1) year after final approval of the APD by the Navajo Nation on fee land, the Permit shall be deemed to have expired unless extensions have been granted by BLM within the one (1) year time limit on trust land and by the Navajo Nation on fee land.
8. In all activities conducted by the Applicant within the Navajo Nation, the Applicant shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereinafter may come into force and effect, including but not limited to the following:
 - a. Title 25, Code of Federal Regulations, Part 169.

- a. Title 25, Code of Federal Regulations, Part 169.
 - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 ~~et seq.~~, and the Navajo Nation Business Preference Law, 5 N.N.C. §§ 201 ~~et seq.~~; and
 - d. The Navajo Nation Water Code, 22 N.N.C. §§ 1101 ~~et seq.~~. Applicant shall apply for and submit all applicable Permit and information to the Navajo Nation Water Development Department, or its successor.
9. The Applicant shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the Permit.
 10. The Applicant shall clear and keep clear the lands within the Permit area to the extent compatible with the purpose of the Permit, and shall dispose of all vegetation and other materials cut, uprooted, or otherwise accumulated during any surface disturbance activities.
 11. The Applicant shall reclaim all surface lands disturbed lands related to the Permit, as outlined in a restoration and revegetation plan, which shall be approved by the Navajo Nation Environmental Protection Agency (NNEPA) prior to any surface disturbance. The Applicant shall comply with all provisions of such restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.
 12. The Applicant shall at all times during the term of the Permit and at the Applicant's sole cost and expense, properly maintain the land subject to the Permit and all improvements located thereon and make all necessary and reasonable repairs.
 13. The Applicant shall obtain prior written permission to cross existing rights-of-way area, if any, from the appropriate parties.
 14. The Applicant shall be responsible for and promptly pay all damages when they are sustained.
 15. The Applicant shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior on trust land their respective authorized agent, employees, landusers and occupants, against any liability for loss of life, personal injury and property damages arising from the development, use or occupancy or use of the area under the Permit by the Applicant.
 16. The Applicant shall not assign, convey or transfer, in any manner whatsoever, the Permit or any interest therein, or in or to any of the improvements on the land subject to the Permit, without the prior written consent of the Navajo Nation and the Secretary of the Interior if applicable. Any such attempted assignment, conveyance or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation.
 17. The Navajo Nation may terminate the Permit for violation of any of the terms and conditions stated herein. In addition, the Permit shall be terminable in whole or part by the Navajo Nation for any of the following causes:
 - a. Failure to comply with any terms and conditions of the Permit or of applicable laws or regulations;
 - b. An abandonment of the Permit; and
 - c. The use of the land subject to the Permit for any purpose inconsistent with the purpose for which the Permit is granted.
 18. At the termination of the Permit, the Applicant shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. Upon the written request of the Navajo Nation, the Applicant shall provide the Navajo Nation, at the Applicant's sole cost and expense with an environmental audit assessment of the premises at least sixty (60) days prior to delivery of said premises.
 19. Holding over by the Applicant after the termination of the Permit shall not constitute a renewal or extension thereof or give the Applicant any rights hereunder or into the land subject to the Permit or to any improvements located thereon.
 20. The Navajo Nation and the Secretary (on trust land only) shall have the right, at any reasonable time during the term of the Permit, to enter upon the premises, or any part thereof, to inspect the same and any improvement located thereon.
 21. By acceptance of the grant of Permit, the Applicant consents to the full territorial legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction to levy fines and to enter judgements for compensatory and

punitive damages and injunctive relief, in connection with all activities conducted by the Applicant within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation.

22. By acceptance of the grant of the Permit, the Applicant covenants and agrees never to contest or challenge the legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government does not possess full police power, (i.e. the power to legislate and regulate for the general health and welfare) over all lands, persons and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the Permit or to the Navajo Nation.
23. Any action or proceeding brought by the Applicant against the Navajo Nation in connection with or arising out of the terms and conditions of the Permit shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Applicant against the Navajo Nation in any court of any state.
24. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
25. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.
26. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Applicant, and the term "Applicant," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.
27. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the area under the Permit and all lands burdened by the Permit, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the area under the Permit; and the area under the Permit and all lands burdened by the Permit shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
28. Permittee shall comply with NNEPA "Specific Terms and Conditions of Approval", attached and incorporated into these terms and conditions.
29. The applicant shall cover all settling, evaporation, and reserve pits to exclude waterfowl and other birds.
30. The applicant will record all water zones encountered during the drilling by depth, case and properly seal to prevent any cross contamination of aquifers or loss of water on the surface due to artesian flow. The applicant will provide all such information to the Navajo Nation Department of Water Resources.



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

Navajo Regional Office

P.O. Box 1060

Gallup, New Mexico 87305

April 25, 2023

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

7017 0530 0000 7775 9813

Bureau of Land Management
Farmington District Office
6251 College Boulevard, Suite A
Farmington, New Mexico 87402

To Whom it may concern:

An administrative review has been conducted on the following proposed Application for Permit to Drill (APD) submitted by **Tacitus, LLC**

WELL NAME: Navajo Tribal U 7A, Navajo Nation Oil and Gas lease No. 14-20-603-5034. The proposed helium well is described as 1978' FSL / 1983' FEL, located in Section 21, T. 26 N, R. 18 W, San Juan County, New Mexico. Included in the approved disturbance is a helium well which would be drilled on the existing well pad containing 0.690 acre and existing construction buffer containing 1.1 acres, existing access road 530' x 30' wide containing 0.4 acre and pipeline 372.48' x 40' containing 0.5 acre, for a combined total of 2.69 acres, more or less. This location is on the Navajo Nation Trust Lands designated boundaries.

Amended Resolution of the Resources Committee of the Navajo Nation Council No: **RDCJN-05-11** passed on June 14, 2011, authorized the Navajo Nation Minerals Department to issue consent letters for APD's and Construction of Associated Ancillary Facilities. Consent letter dated March 30, 2023, approves the enclosed **Tacitus, LLC'S APD**. Please note that the Resources Committee set certain terms and conditions which must be followed. Other required clearances from the Navajo Nation have been obtained and are on file.

We concur with approval of the above referenced application, provided enclosed Bureau of Indian Affairs and the Navajo Nation stipulations are adhered to and made a part of the drilling plan.

Any questions regarding this application may be directed to Ms. Bertha Spencer, Supervisory Realty Specialist, Branch of Leases/Permits Section (Minerals) at (505) 863-8336 or via email at bertha.spencer@bia.gov.

Sincerely,

**ANGELA
ARVISO**

Digitally signed by
ANGELA ARVISO
Date: 2023.04.25
15:10:58 -06'00'

Angela M. Arviso
Acting Regional Director

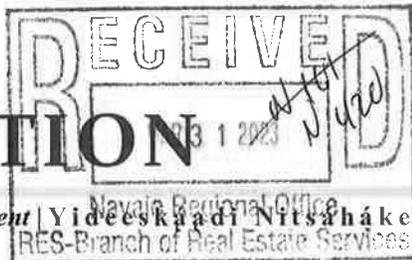
Enclosures

cc: Navajo Nation Minerals Department w/enclosure
Tacitus, LLC w/enclosure



THE NAVAJO NATION

Dr. Buu Nygren, President | Richelle Montoya, Vice President | Yideeskaadi Nitsahákees



March 30, 2023

VIA HAND-DELIVERY

Mr. Gregory Mehojah, Regional Director
Navajo Region, U.S. Bureau of Indian Affairs
Post Office Box 1060
Gallup, NM 87305



RE: APPROVAL OF TWO APPLICATIONS FOR PERMIT TO DRILL (APDs) FOR TACITUS E&P TOCITO, LLC ON NAVAJO NATION TRUST LAND

Dear Mr. Mehojah,

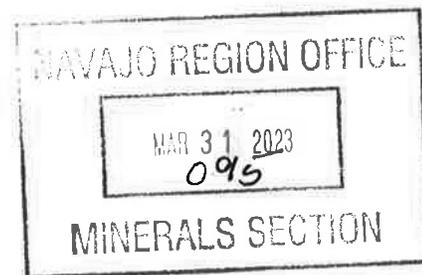
Pursuant to Resolution #RDCJN-05-11, approved by the Resources Committee of the Navajo Nation Council, the Navajo Minerals Department hereby approves two Applications for Permit to Drill (APDs) to drill, construct, operate, and maintain the Navajo Tribal N 2A well and the Navajo Tribal U7A well, all roads, pipelines, and associated ancillary facilities as submitted by Tacitus E&P Tocito, LLC on Lease No. 14-20-603-5034 on, over, and across Navajo Nation Trust Lands, San Juan County, Navajo Nation (New Mexico), attached hereto as Exhibit "D".

The Minerals Department's approval is subject to, but not limited to, the terms and conditions contained in Exhibit "D". Please be advised that the Navajo Nation's approval of these APDs is conditioned upon the Bureau of Indian Affairs ensuring that the oil and gas lessee or operator will properly plug and abandon all oil, gas, injection, disposal, and dry hole wells and that their associated ancillary equipment and facilities will be removed from the affected Navajo Nation land and that the land will be properly reclaimed when exploration and/or production ceases.

If you have any questions, please contact me at (928) 871-6588.

Sincerely,

Rowena Cheromiah, Minerals and Royalty Management Director
Minerals Department



SLP/slp

XC: Byron Bitsoie, Sr., Delegated Manager, Navajo Land Department, Division of Natural Resources
Ettie Anderson-Abasta, Director, General Land Development Department, Division of Natural Resources

MINERALS DEPARTMENT
POST OFFICE BOX 1910 – WINDOW ROCK, AZ 86515 – PHONE: (928) 871-6588 – FAX: (928) 871-7095

NAVAJO REGION OFFICE
 Form 3160-3
 (June 2015)
 MAR - 4 2022
MINERALS SECTION

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

- 1a. Type of work: DRILL REENTER
 1b. Type of Well: Oil Well Gas Well Other OTH
 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone

5. Lease Serial No.
 14206035034

6. If Indian, Allottee or Tribe Name
 EASTERN NAVAJO

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

8. Lease Name and Well No.
 NAVAJO TRIBAL U

9. API Well No.

2. Name of Operator
 TACITUS, LLC

3a. Address
 2100 Cortland Avenue, Farmington, NM 87401

3b. Phone No. (include area code)
 (801) 980-7277

10. Field and Pool, or Exploratory
 Wildcat

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
 At surface NWSE / 1978 FSL / 1983 FEL / LAT 36.471816 / LONG -108.762004
 At proposed prod. zone SWSE / 778 FSL / 1972 FEL / LAT 36.46852 / LONG -108.761965

11. Sec., T. R. M. or Blk. and Survey or Area
 SEC 21/T26N/R18W/NMP

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

12. County or Parish
 SAN JUAN

13. State
 NM

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

16. No of acres in lease
 2560

17. Spacing Unit dedicated to this well
 640.0

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

19. Proposed Depth
 7034 feet / 7214 feet

20. BLM/BIA Bond No. in file
 IND:

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
 5673 feet

22. Approximate date work will start*
 04/01/2021

23. Estimated duration
 15 days

24. Attachments

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

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

25. Signature
 (Electronic Submission)

Name (Printed/Typed)
 PETER KONDRAT / Ph: (801) 980-7277

Date
 12/18/2020

Title
 Helium Subsurface Manager

Approved by (Signature)

Name (Printed/Typed)
 Byron Bitsoie Sr.

Date
 02/01/2023

Title
 Acting Dept. Manager III

Office
 Navajo Land Dept.

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:

NAVAJO REGION OFFICE
 MAR 31 2023
 MINERALS SECTION

(Continued on page 2)

*(Instructions on page 2)



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

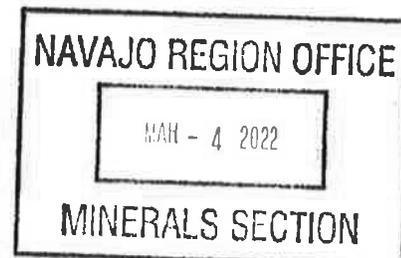
Farmington District Office
6251 College Blvd. - Suite A
Farmington, New Mexico 87402
www.blm.gov/nm

TRANSMITTAL OF APPLICATION FOR PERMIT TO DRILL TO BUREAU OF INDIAN AFFAIRS, Gallup, NM

DATE: March 4, 2022
OPERATOR: Tacitus, LLC
WELL NAME and NUMBERS: Navajo Tribal N 2A, U 1A, U 7A

LEASE NO: 14-20-603-5034, 14-20-603-5035
SURFACE: Section 20 and 21, T 26 N, R18 W
COUNTY: San Juan, NM
APDS RECEIVED: December 2020

ENVIRONMENTAL ASSESSMENT NUMBER: DOI-BLM-NM-F010-0018



Attached for your review are the APDs, SUPO, Reclamation Plan, BLM Environmental Assessment, Conditions of Approval (COA), NN Biological Report, NN Cultural Report, and an unsigned BLM FONSI and Decision Record. If the proposed action meets with your approval, please acknowledge in the space below and return a copy of this transmittal sheet to this office within 60 days from the date of this letter. If we do not receive your concurrence within the 60 days, final processing of the APD will be performed by BLM staff. However, the company is required to obtain all necessary approvals from your office prior to any surface disturbance.

BUREAU OF LAND MANAGEMENT: Gary Smith, Project Lead Date: March 4, 2022

Surface Owner: TRIBAL ALLOTTED OTHER

I concur with the approval of the APD and/or the Surface Operation Plan, Reclamation Plan, EA, COA, Finding of No Significant Impact (FONSI), and Decision Record provided the following condition(s) are included in the approval.

APPROVED: _____
Pursuant to Secretarial Redlegation Order
209 DM 8, 230 DM 1 and 3 IAM 4
ANGELA
ARVISO
Digitally signed by ANGELA
ARVISO
Date: 2023.04.25 15:09:52
-06'00'
Regional Director, Navajo Region
Bureau of Indian Affairs

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

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 217745

CONDITIONS

Operator: Tacitus, LLC 4801 North Butler Ave Farmington, NM 87401	OGRID: 372957
	Action Number: 217745
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Accepted for record only-NMOCD WR 6/7/2023. BLM approved APD on 5/11/2023.	6/7/2023