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

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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD

District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application				
Type of action:  Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  Modification to an existing permit  Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method				
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request				
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.				
Operator. Questar Exploration and Production Company OGRID #: 23846				
Address: 1050 17 <sup>th</sup> Street, Suite 500, Denver, Colorado 80265				
Facility or well name: Lindrith #110				
API Number:         30-039-06589         OCD Permit Number:				
U/L or Qtr/Qtr H Section 10 Township 26N Range 7W County: Rio Arriba				
Center of Proposed Design. Latitude 36.50336 North Longitude 107.55611 West NAD: ⊠1927 ☐ 1983				
Surface Owner:  Federal State Private Tribal Trust or Indian Allotment				
2.				
Pit: Subsection F or G of 19.15.17 11 NMAC				
Temporary:  Drilling  Workover				
Permanent Emergency Cavitation P&A				
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other				
☐ String-Reinforced				
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D				
3.  Closed-loop System: Subsection H of 19.15.17.11 NMAC				
Type of Operation: $\square$ P&A $\square$ Drilling a new well $\square$ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of				

g

Alternative Method:

Liner Seams: Welded Factory Other

☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other \_\_\_

☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_\_mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_

intent)

Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)		
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)		
Four foot height, four strands of barbed wire evenly spaced between one and four feet		
Alternate Please specify Four foot height, wire mesh with T-posts		
7.		
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)		
Screen □ Netting □ Other     Monthly inspections (If netting or screening is not physically feasible)		
Within the specifies (it lictuing to selecting is not physically reasible)		
s. Signs: Subsection C of 19.15.17.11 NMAC		
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers		
Signed in compliance with 19.15 3 103 NMAC		
9.		
Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required Please refer to 19.15.17 NMAC for guidance.		
Please check a box if one or more of the following is requested, if not leave blank:	- CC C- ··	
Administrative approval(s) Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval.	office for	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
10. Siting Criteria (regarding permitting): 19.15.17.10 NMAC		
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept	ptable source	
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro- office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a		
Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	ing pads or	
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank	☐ Yes ☐ No	
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).	Yes No	
- Topographic map; Visual inspection (certification) of the proposed site		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks)	☐ Yes ☐ No ☐ NA	
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No ☐ NA	
(Applies to permanent pits) - Visual inspection (certification) of the proposed site, Aerial photo; Satellite image		
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	☐ Yes ☐ No	
watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  - NM Office of the State Engineer - IWATERS database search; Visual inspection (certification) of the proposed site		
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No	
adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality		
Within 500 feet of a wetland.		
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No	
Within the area overlying a subsurface mine.	☐ Yes ☐ No	
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  Within an unstable area.		
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS, NM Geological	Yes No	
Society; Topographic map		
Within a 100-year floodplain FEMA map	☐ Yes ☐ No	
	ļ	

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19 15 17 13 NMAC
Previously Approved Design (attach copy of design) API Number.
Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC   Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.   Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Climatological Factors Assessment   Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC   Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality Control/Quality Assurance Construction and Installation Plan   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Preeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan   Emergency Response Plan   Oil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Maste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15.17.13 NMAC □ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16. Waste Removal Closure For Closed-loop Systems That Utilize Above Ground State Instructions: Please indentify the facility or facilities for the disposal of liquids, a facilities are required.		
•	Disposal Facility Permit Number:	
	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities oc  Yes (If yes, please provide the information below)  No	cur on or in areas that will not be used for future ser	vice and operations?
Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specifications based upon the appropriate  Re-vegetation Plan - based upon the appropriate requirements of Subsection  Site Reclamation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19.15.17.13 NMA 1 of 19.15.17 13 NMAC	С
17. Siting Criteria (regarding on-site closure methods only): 19 15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the c provided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC fo	e administrative approval from the appropriate dist Bureau office for consideration of approval. Justi	rict office or may be
Ground water is less than 50 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	Yes No
Ground water is more than 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	Yes No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sign lake (measured from the ordinary high-water mark).  - Topographic map, Visual inspection (certification) of the proposed site	nificant watercourse or lakebed, sinkhole, or playa	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or sp  - NM Office of the State Engineer - iWATERS database; Visual inspection (content of the state Engineer)	oring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approva	·	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual	l inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining.	and Mineral Division	☐ Yes ☐ No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology Society, Topographic map</li> </ul>	& Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
8.  On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the	following items must be attached to the closure plo	an. Please indicate,
by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Signature Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Signature Construction/Design Plan of Temporary Pit (for in-place burial of a drying particle Protocols and Procedures - based upon the appropriate requirements of 19.15.  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Signature Confirmation Sampling Plan - based upon the appropriate requirements of Signature Confirmation Signature Confirmation Signature Confirmation Signature Plan - based upon the appropriate requirements of Subsection High Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection Plan - based upon the appropriate requirements of Subsection I	Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC d) - based upon the appropriate requirements of 19.1 17.13 NMAC ircments of Subsection F of 19.15.17.13 NMAC subsection F of 19.15.17.13 NMAC ill cuttings or in case on-site closure standards cannot of 19.15.17.13 NMAC of 19.15.17.13 NMAC	

Operator Application Certification:  I hereby certify that the information submitted with this application is true.	e, accurate and complete to the best of my knowledge and belief.
Name (Print): Sarah Boxley	Title: Permit Agent
Signature: Such Boyley	Date: 17/11/08
e-mail address: Sarah.Boxley@questar.com	Telephone: (303) 672-6916
Carole as afternal	Approval Date: 4/05/2017
	OCD Permit Number:
	n prior to implementing any closure activities and submitting the closure report. lays of the completion of the closure activities. Please do not complete this
	Closure Completion Date:
22.  Closure Method:  Waste Excavation and Removal On-Site Closure Method  If different from approved plan, please explain.	Alternative Closure Method   Waste Removal (Closed-loop systems only)
	Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:  ids, drilling fluids and drill cuttings were disposed. Use attachment if more than  Disposal Facility Permit Number:
Disposal Facility Name:	Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performe  Yes (If yes, please demonstrate compliance to the items below)	ed on or in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and  Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	operations:
24. Closure Penert Attachment Checklist: Instructions: Fach of the following	wing items must be attached to the closure report. Please indicate, by a check
mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)  Proof of Deed Notice (required for on-site closure)  Plot Plan (for on-site closures and temporary pits)  Confirmation Sampling Analytical Results (if applicable)  Waste Material Sampling Analytical Results (required for on-site closures)  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)	
25. Operator Closure Certification:	
	losure report is true, accurate and complete to the best of my knowledge and equirements and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	
e-mail address:	Telephone

## **Questar Exploration and Production Company**

Lindrith #110 U/L: H, Section 10, T. 26 N., R. 7 W. Rio Arriba County, New Mexico

## BELOW-GRADE TANK CLOSURE PLAN

As stipulated in Rule 19.15.17.13 NMAC, the following information adheres to the requirements established in closing below-grade tanks (BGTs) on Questar Exploration and Production Company (QEP) well sites. This plan will address the standard protocols and procedures for closure of BGTs.

QEP proposes to close its existing BGTs that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or are not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC in accordance with this closure plan and the transitional provisions of Subsection E of 19.15.17.17 NMAC, or within five (5) years after the effective date (June 16, 2008) of 19.15.17 NMAC.

The following outline addresses all requirements for closure of QEP's BGTs:

- 1. Prior notification of QEP's intent to close the BGT will follow 19.15.17.13J (1) and (2).
  - a. QEP will notify the surface owner by certified mail, return receipt requested, of closure plans. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this requirement.
  - b. Notification will also be given to the division District III office verbally or by other means at least 72 hours, but not more than one (1) week, prior to any closure operation. The notice will include the operator's name and the well's name, number, and API number, in addition to the well's legal description, including the unit letter, section, township, and range.
- 2. QEP will remove liquids and sludge from the BGT prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. A list of QEP's approved disposal facilities are below:

Fluid disposal: Key Energy Services
Sunco well #1
U/L=E, SWNW, Section 2, T29N-R12W
San Juan, New Mexico
Permit #NM-01-0009

Basin Disposal Inc.
Basin Disposal well #1
U/L=F, SWNW, Section 3, T29N-R11W
San Juan, New Mexico
Permit #NM-01-0005

Solid disposal: Envirotech Land Farm
Disposal Facility
Section 6, T26N-R10W, County Road #7175
San Juan, New Mexico
Permit #NM-01-0011

- 3. QEP will remove the BGT from the pit and place it at ground level adjacent to the original BGT site.
- 4. QEP will hook up necessary equipment and piping for temporary tank use. At this time, any on-site equipment not necessary to the operation of the tank will be removed from the site.
- 5. QEP will test the soils beneath the original BGT location to determine whether a release has occurred. At a minimum, a five (5) point composite sample will be collected in addition to individual grab samples from areas that are wet, discolored, or showing other evidence of a release. The samples will be analyzed for BTEX, TPH, and chlorides to demonstrate that they do not exceed certain concentrations. The testing methods and closure standards for those constituents are as follows:

Constituents	Testing Method	Closure Standards (mg/Kg)
Benzene	US EPA SW-846 methods 8021B or 8260B	0.2
total BTEX	US EPA SW-846 methods 8021B or 8260B	50
TPH	US EPA method 418.1	100
Chlorides	US EPA method 300.1	250 or background

Notes: mg/Kg = milligram per kilogram; BTEX = benzene, toluene, ethylbenzene, and total xylenes; TPH = total petroleum hydrocarbons. Other EPA methods that the division approves may be applied to all constituents listed. The Chlorides closure standards will be determined by whichever concentration level is greatest.

6. QEP will notify the division District III office of the soil test results on Form C-141. It is understood that the NMOCD may require additional delineation upon review of the results.

- 7. If it is determined that a release has occurred, then QEP will comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.
- 8. If the confirmation sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then QEP will backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; re-contour the site; and move the fiberglass tank onto the newly-backfilled and compacted site. The division-prescribed soil cover, re-contouring, and revegetation requirements shall comply with Subsections G, H, and I of 19.15.17.13 NMAC.
- 9. Reclamation will follow 19.15.17.13G (1) and (2).
  - a. The BGT location and all areas associated with the BGT, including associated access roads, if applicable, will be reclaimed to a safe and stable condition that blends with the surrounding undisturbed area. It is understood that QEP shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC and re-contour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography.
  - b. Re-vegetation will not be completed at the time the BGT pit is reclaimed but will instead be applied for as part of the P&A process when the well is plugged and abandoned.
- 10. Soil cover will follow 19.15.17.13H (1) and (3).
  - a. The soil cover for closures where the BGT has been removed or contaminated soil has been remediated to the NMOCD's satisfaction will consist of the background thickness of topsoil or one (1) foot of suitable material to establish vegetation at the site, whichever is greater.
  - b. The soil cover will be constructed to the site's existing grade, and all possible efforts will be conducted to prevent ponding of water and erosion of the cover material.
- 11. Within 60 days of closure completion, QEP will submit a closure report on NMOCD's Form C-144, with necessary attachments to document all closure activities, including sampling results; information required by 19.15.17 NMAC; and details on backfilling, capping, and covering, where applicable. QEP will certify that all information in the report and attachments is correct and that QEP has complied with all applicable closure requirements and conditions specified in the approved closure plan.