



Linc Energy Operations, Inc.
3000 "C" Street, Suite #103
Anchorage, Alaska 99503

August 22, 2011

Alaska Oil and Gas Conservation Commission
333 West 7th Ave., Suite 100
Anchorage, Alaska 99501

RE: Application for Permit to Drill
Well: HEEX 01 (Underground Coal Gasification Stratigraphic Test Core)
TRS: SENW, T11S, R7W, Section 17, Fairbanks Meridian

Dear Chairman Seamount,

Linc Energy Operations Inc. hereby applies for a Permit to Drill an onshore Underground Coal Gasification stratigraphic test well on the western base of Walker Dome approximately 7 miles north of the town of Healy, and 2 miles to the east of Alaska Railroad mile 366. The well will be cored on Alaska Mental Health Trust Land under the authority of a current Underground Coal Gasification (UCG) Exploration License (Fairbanks License MHT# 9400434) held by Linc Energy Operations Inc. and governed by the Coal Regulatory Group at the Department of Natural Resources.

Linc plans to commence operations on approximately January 24th, 2012, employing the Tester Simco 4000 Drilling rig to drive conductor casing to approximately 300', and the Boart Longyear coring rig to core approximately 3500'. A diverter system will be installed on the Boart Longyear coring rig per Alaska Oil and Gas Conservation Commission ("AOGCC") well safety requirements.

Please find attached information as required by 20 AAC 25.005 (a) and (c) for your review. Pertinent information attached to this application includes the following:

- 1) Form 10-401 Application for Permit to Drill
- 2) A plat showing the surface location of the well
- 3) Geologic Discussion, Anticipated Formation Tops

- 4) Shallow Gas Hazard Evaluation
- 5) General Well Prognosis, Waste Management, Logging Program
- 6) Proposed Operations Summary
- 7) Drilling Time versus Depth Plot
- 8) Proposed Wellbore Diagram
- 9) Description of the Well Control Equipment to be Used
- 10) Description of Rig Layout & Pit System
- 11) Drilling Fluid Program

The following are Linc Energy designated contacts for reporting responsibilities to the Commission:

- | | |
|--|---|
| 1) Completion Report
(20 AAC 25.070) | Corri Feige, Alaska Project Manager
(907) 868-8660 |
| 2) Geologic Data and Logs
(20 AAC 25.071) | Corri Feige, Alaska Project Manager
(907) 868-8660 |

The AOGCC is requested to treat as confidential all information in the Application for Permit to Drill (except the Public Information Copy) as information in these documents is drawn from research and data proprietary to Linc.

If you have any questions or require further information, please contact either Corri Feige, General Manager – Alaska at (907.868.8660) or Nick Scales, Drilling Operations Manager at (907.868.8660).

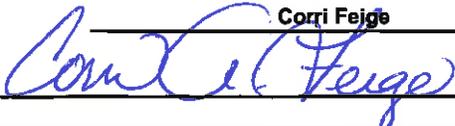
Sincerely,

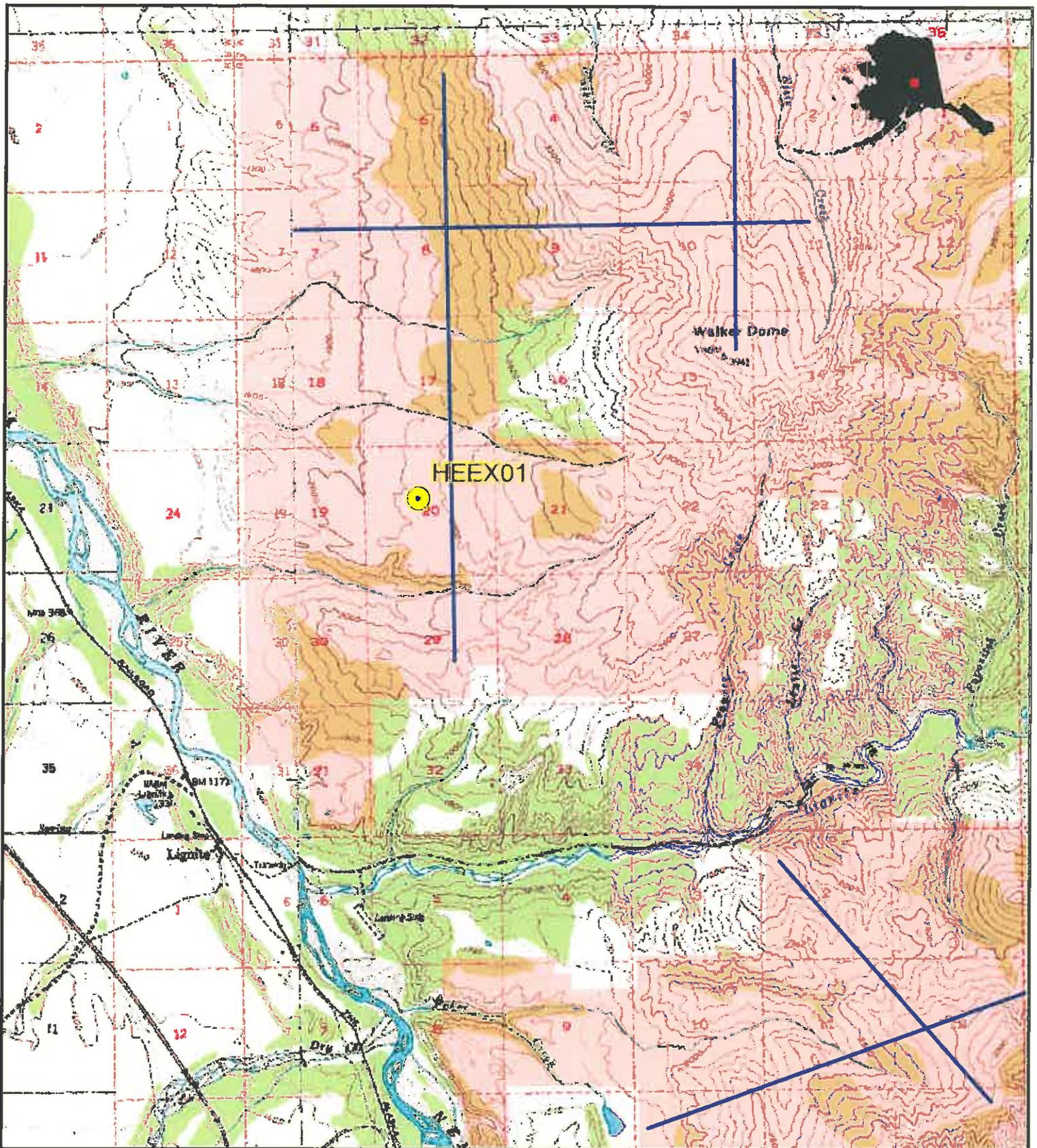


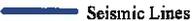
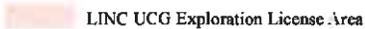
Corri A. Feige
Alaska General Manager

STATE OF ALASKA
ALASKA OIL AND GAS CONSERVATION COMMISSION
PERMIT TO DRILL

20 AAC 25.005

1a. Type of Work: Drill <input checked="" type="checkbox"/> Redrill <input type="checkbox"/> Re-entry <input type="checkbox"/>		1b. Current Well Class: Exploratory <input type="checkbox"/> Stratigraphic Test <input checked="" type="checkbox"/> Service <input type="checkbox"/> Multiple Zone <input type="checkbox"/>		Development Oil <input type="checkbox"/> Development Gas <input type="checkbox"/> Single Zone <input type="checkbox"/>		1c. Specify if well is proposed for: Coalbed Methane <input type="checkbox"/> Gas Hydrates <input type="checkbox"/> Shale Gas <input type="checkbox"/>				
2. Operator Name: Linc Energy Operations, Inc.			5. Bond: Blanket <input type="checkbox"/> Single Well <input checked="" type="checkbox"/> Bond No. number pending		11. Well Name and Number: HEEX 01					
3. Address: 3000 C Street, Suite 103, Anchorage, AK 99503			6. Proposed Depth: MD: 3500' TVD: 3500'		12. Field/Pool(s): Exploratory					
4a. Location of Well (Governmental Section): Surface: 2402' FNL, 1928' FWL, Sec 20-11S-7W, Fairbanks Meridian Top of Productive Horizon: Total Depth: 3500'			7. Property Designation: Alaska Mental Health Trust		13. Approximate Spud Date: 1/24/2012					
			8. Interior Region UGC Exploratory License: MHT#9400434		14. Distance to Nearest Property: 4120 ft					
			9. Acres in Property: 60,270.29 acres		15. Distance to Nearest Well Within Pool: 34.3 miles					
4b. Location of Well (State Base Plane Coordinates): Surface: AKSP Lat: 3636393.098 AKSP Long: 1805796.648 Zone 4			10. KB Elevation (Height above GL): 2140 feet							
16. Deviated wells: Kickoff depth: Maximum Hole Angle: 0 degrees			17. Maximum Anticipated Pressures in psig (see 20 AAC 25.035) Downhole: _____ Surface: _____							
18. Casing Program:		Specifications				Top - Setting Depth - Bottom		Cement Quantity, c.f. or sacks		
Hole	Casing	Weight	Grade	Coupling	Length	MD	TVD	MD	TVD	(including stage data)
driven	6"	18.97	A53	BW	300'	0'	0'	300'	300'	driven
3.77"	na				3500'	0'	0'	3500'	3500'	
19. PRESENT WELL CONDITION SUMMARY (To be completed for Redrill and Re-Entry Operations)										
Total Depth MD (ft):		Total Depth TVD (ft):		Plugs (measured):		Effect. Depth MD (ft):		Effect. Depth TVD (ft):		Junk (measured):
Casing		Length		Size		Cement Volume		MD		TVD
Conductor/Structural										
Surface										
Intermediate										
Production										
Liner										
Perforation Depth MD (ft):						Perforation Depth TVD (ft):				
20. Attachments:		Filing Fee <input type="checkbox"/>		BOP Sketch <input type="checkbox"/>		Drilling Program <input checked="" type="checkbox"/>		Time v. Depth Plot <input checked="" type="checkbox"/>		Shallow Hazard Analysis <input checked="" type="checkbox"/>
		Property Plat <input checked="" type="checkbox"/>		Diverter Sketch <input checked="" type="checkbox"/>		Seabed Report <input type="checkbox"/>		Drilling Fluid Program <input checked="" type="checkbox"/>		20 AAC 25.050 requirements <input type="checkbox"/>
21. Verbal Approval: Commission Representative: _____ Date _____										
22. I hereby certify that the foregoing is true and correct. _____ Contact Corri Feige 907.868.8660										
Printed Name		Corri Feige			Title		General Manager - Alaska			
Signature					Phone		(907) 868-8660		Date 8/25/11	
Commission Use Only										
Permit to Drill Number:		API Number: 50-			Permit Approval Date:			See cover letter for other requirements.		
Conditions of approval If box is checked, well may not be used to explore for, test, or produce coalbed methane, gas hydrates, or gas contained in shales: <input type="checkbox"/>										
Other: _____ Samples req'd: Yes <input type="checkbox"/> No <input type="checkbox"/> Mud log req'd: Yes <input type="checkbox"/> No <input type="checkbox"/>										
H ₂ S measures: Yes <input type="checkbox"/> No <input type="checkbox"/> Directional svy req'd: Yes <input type="checkbox"/> No <input type="checkbox"/>										
DATE: _____										APPROVED BY THE COMMISSION _____ COMMISSIONER



-  Exploration Drill Holes
-  Seismic Lines
-  LINC UCG Exploration License Area

Interior License Area Healy Exploration

0 0.25 0.5 1
Mile



Exploration Drill Hole HEEX01

Linc Energy Operations Inc.

Area Geologic Description

HEEX01 is located in the NW1/4 of Sec.20, T11S, R7W of the Fairbanks Principle Meridian. The Nenana Coal Basin includes a structurally similar series of disconnected sub-basins resulting in subfields. The approximately 3,000 foot thick Tertiary coal-bearing group rests directly on a highly irregular surface of Precambrian and Paleozoic aged metamorphic rocks and is overlain by Nenana Gravels and Quaternary surficial deposits. The belt of Tertiary coal-bearing rocks extends for about 140 miles along the north-central flank of the Alaska Range and is up to 30 miles wide. The Nenana trend continues approximately 150 miles to the southwest of the Nenana Basin proper and includes the coal-bearing rocks of the Farewell field.

Tertiary sedimentary rocks contain the coal seams of potential underground coal gasification (UCG) interest. These rocks range in age from the Oligocene to late Miocene and uncomfortably overlie the Precambrian-Paleozoic basement. These deposits of Tertiary sediment of potential UCG interest are subdivided into five formations and are informally known as the Usibelli Group. They are from youngest to oldest, Grubstake, Lignite Creek, Suntrana, Sanctuary and Healy Creek formations. The sedimentary rocks of the basin are weakly indurated terrestrial clastics interbedded with numerous coal beds ranging from 2 to 40 feet thick. Late Tertiary Nenana Gravels and Quaternary surficial deposits overlay the coal-bearing formations. Based on findings by others, the coal-bearing units are characterized by rapid lateral changes in lithologies and varying thicknesses in individual facies. HEEX01 is located within the Usibelli anticline north of the Healy fault.

Drill hole Stratigraphic Description

It is anticipated that HEEX01 will penetrate through Quaternary surficial deposits, the Nenana gravels, and partially penetrate the Usibelli Group. Total well depth is anticipated to be between 3000 and 4000 feet TVD.

Anticipated Coal Targets

The coal seams that are to be the primary targets for Linc Energy Operations Inc. are the Number 6, 4 and 3 seams in the Suntrana Formation part of the Usibelli Group. No deep exploratory drilling has taken place near HEEX01, however based on structural geologic analysis by Bemis and Wallace (GSA, Special Paper 431), the top of the Suntrana Formation appears to be 800 to 1200 feet below ground surface. The anticipated coal beds, in a shallower exposure due to folding and faulting, are also associated with present mining done at the Usibelli Mine near Healy, AK. Linc Energy is presently preparing to acquire new 2D seismic line data within the license area near HEEX01. The results of this survey will help to define the depth of the surficial gravels, thickness of the Nenana gravels, structural setting, and the depth of the thicker coals of interest to UCG.

Shallow Gas Hazard Analysis

No offset drilling exists in the vicinity of HEEX01. The structure setting on the side of Walker Dome (upward of Tertiary coal-bearing sediments) and the weakly indurated clastics at the proposed drilling site do not appear to be favorable to a structural or stratigraphic trap for gas. As mentioned previously, Linc Energy is preparing to acquire 2D seismic on the license area adjacent to HEEX01. This data, coupled with geologic data, will be used to analyze for the presence of any potential shallow gas anomaly.



HEEX 01 General Prognosis

Well Name: HEEX 01
Surface Location: Section 20, T11S, R07W, FM
Bottom hole Location: Same (vertical hole)
Planned TD: 3,500' MD / TVD

Well Summary

A 6" conductor will be driven to 300' prior to the coring rig moving in. The cellar will be grouted with concrete to stabilize the conductor casing. Rotary coring operations will cut approximately 3,500' of 2.50" core using a 10' wireline retrievable core barrel with a 3.77" OD core bit.

Drilling Fluid Management

A gel freshwater mud system provided by MISWACO will be used for the coring operations from 300' to TD. At the end of coring operations the settling pit will be reclaimed in accordance with the Alaska Surface Coal Mining Control and Reclamation Act AS 27.21.

Waste Management

All waste including drill cuttings will be handled in accordance with the Alaska Surface Coal Mining Control and Reclamation Act AS 27.21 as governed by the Coal Regulatory Group of the Alaska Department of Natural Resources.

Well Trajectory and Deviation Survey

The HEEX 01 is planned to be a vertical well.

Formation Tops and Casing Depths

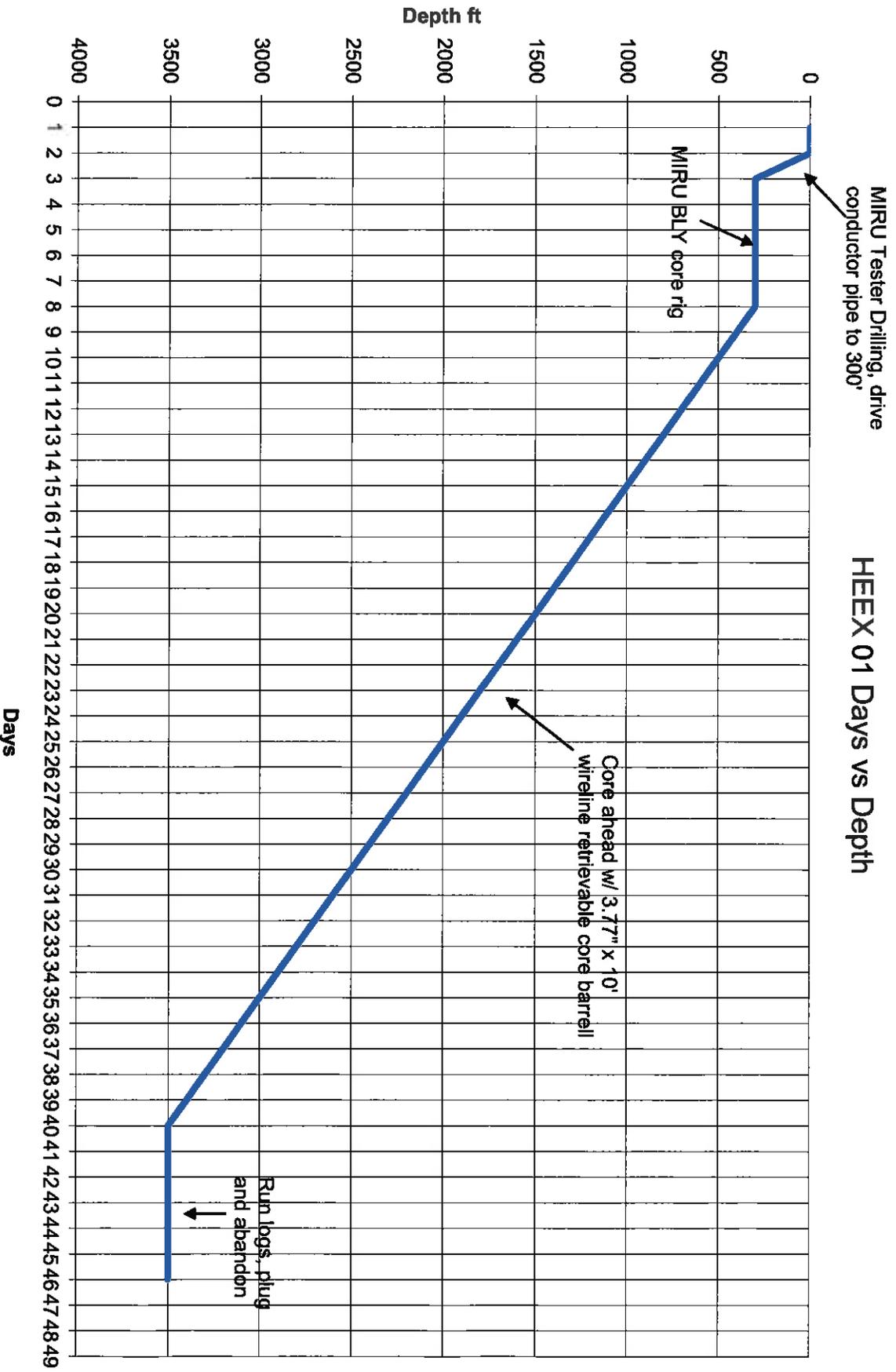
See attached geologic summary. No production casing is planned at this time.

Logging Program

0' – 300' No open-hole logs
300' – 3500' GR/Resistivity/Neutron Density/Sonic

Proposed Operations Summary

1. MIRU Tester Simco Drilling conductor rig
2. Drive 6" conductor pipe to +/-300'
3. Hand mix cement and grout conductor cellar to stabilize conductor pipe at surface
4. RDMO Tester Drilling conductor rig
5. MIRU Boart Longyear coring rig, dig settling pit
6. Notify AOGCC of start up, perform diverter drill
7. MU 3.77" core bit, 2.50" coring assembly
8. Core ahead using 10' wireline retrievable core barrel assembly from 300' to 3500'
9. RU wireline, run open hole logs including GR/Resistivity/Neutron Density/Sonic
10. Plug and abandon per AOGCC requirements, RDMO core rig



PROPOSED WELLBORE DIAGRAM

HEEX 01

Linc Energy Operations, Inc.

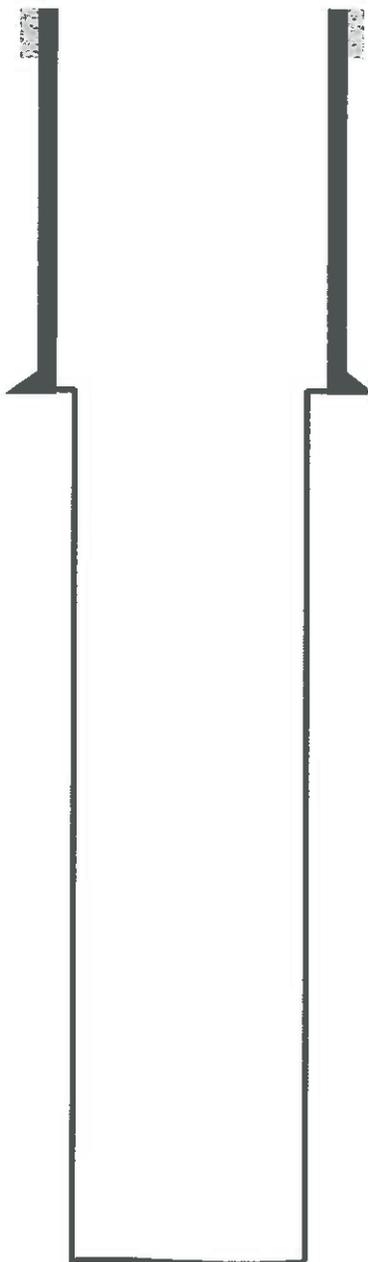
SENW, Section 20-11S-007W, FM

API #: _____

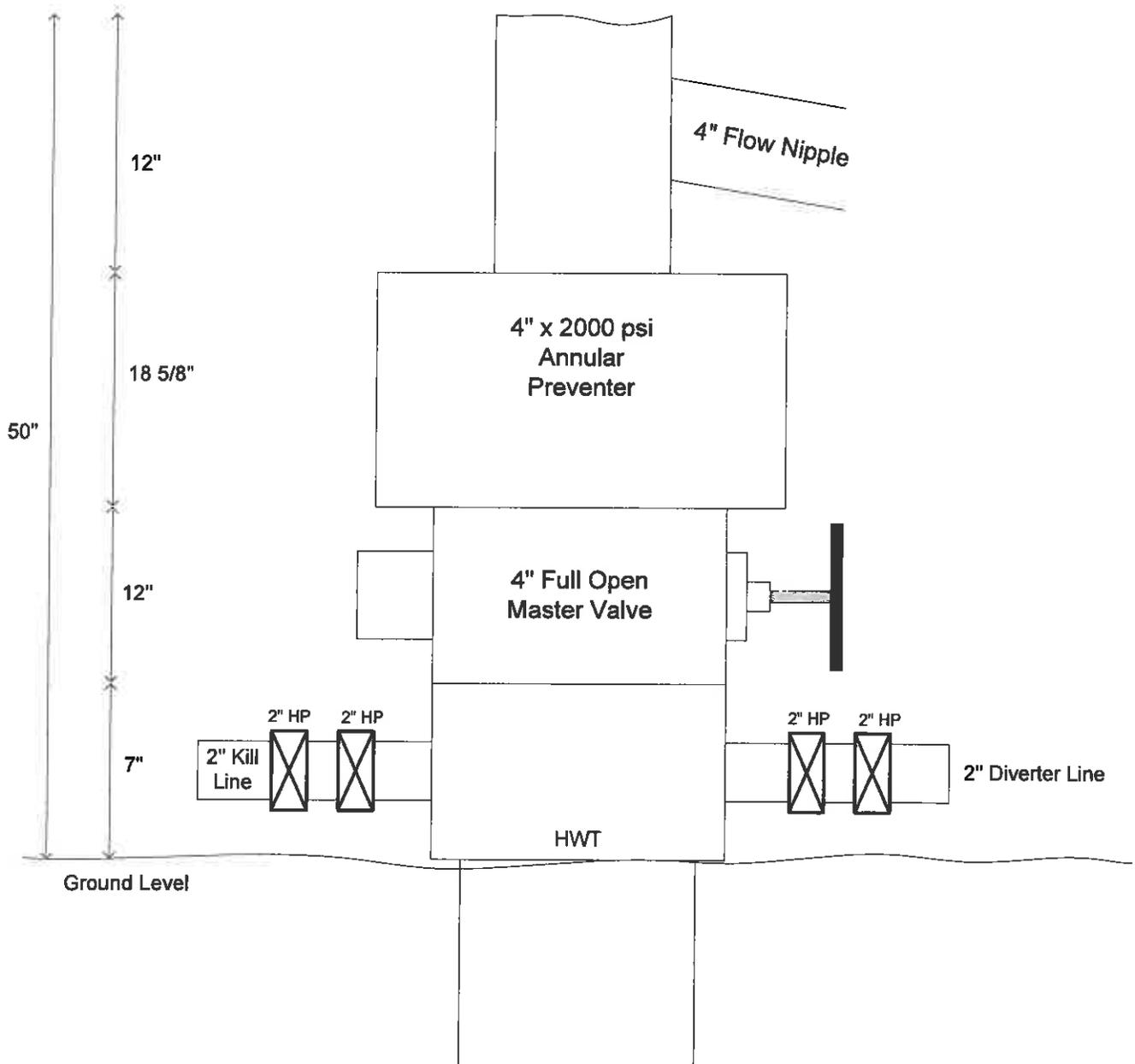
Cellar & conductor annulus grouted at surface to stabilize conductor pipe

6" conductor casing driven to refusal @ +/-300'

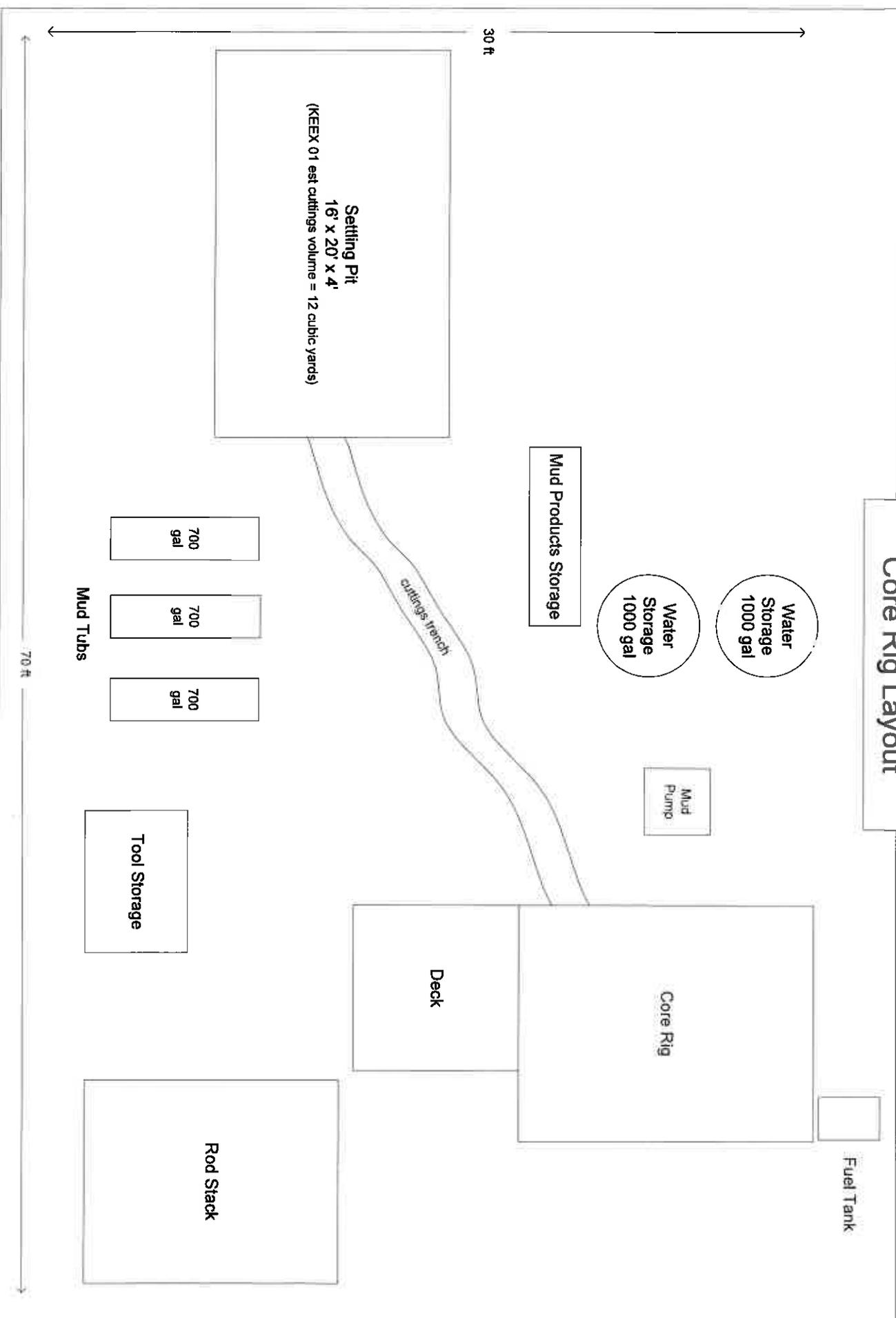
3.77" Core Hole to +/- 3500'
* 2.50" x 10' Core Barrel



Proposed Diverter Layout



Core Rig Layout



HEEX 01 Proposed Drilling Fluid Program

