

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2007 MAY 31 PM

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		15. Lease Serial No. NMNM-108021
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator U. S. ENERCCORP, LTD.		7. If Unit or CA Agreement, Name and No. N/A
3a. Address P. O. BOX 17098 SAN ANTONIO, TX 78217	3b. Phone No. (include area code) (210) 829-4888	8. Lease Name and Well No. LAGUNA COLORADO 2/3 #1
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 3250' FSL & 1220' FEL 3-23N-1W At proposed prod. zone 2180' FSL & 1870' FWL 2-23N-1W		9. API Well No. 30-039- 30272
14. Distance in miles and direction from nearest town or post office* 5 AIR MILES NORTHEAST OF REGINA		10. Field and Pool, or Exploratory West Puerto Chiquito Mancos
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 770'	16. No. of acres in lease 2,326.12	11. Sec., T. R. M. or Blk. and Survey or Area 3-23N-1W NMPM
18. Distance from proposed location* to nearest well, drilling, completed; applied for, on this lease, ft. N/A	19. Proposed Depth 9,832' (MD)	12. County or Parish RIO ARRIBA
21. Elevations (Show whether DF, KDB, RT, GL, etc.) cc 7,295' GL	22. Approximate date work will start* 07/15/2007	13. State NM
23. Estimated duration 8 WEEKS		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

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

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 05/30/2007
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Title
CONSULTANT

PHONE: (505) 466-8120

FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed) J. Markiewicz	Date 9/27/07
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Title AFM	Office FFO
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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.

*(Instructions on page 2)

HOLD 0104 FOR 1 NSP
2 Directional survey
3 As Drilled C-102 form

NOTIFY AZTEC OGD 24 HRS.
PRIOR TO CASING & CEMENT
BLM OGD DIV.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOC OCT 18 2007

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT
Show Both Sections
On 1 Page

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-30272	*Pool Code 50440	*Pool Name WEST PUERTO CHIQUITO MANCOS
*Property Code 36789	*Property Name LAGUNA COLORADO 2/3	*Well Number 1
*OGRID No. 240473	*Operator Name U.S. ENERCORP. LTD.	*Elevation 7295

¹⁰ Surface Location

UL or lot no. H	Section 3	Township 23 N	Range 1 W	Lot Idn	Feet from the 2068 3250	North/South line North SOUTH	Feet from the 1220	East/West line EAST	County RIO ARRIJA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. K	Section 2	Township 23 N	Range 1 W	Lot Idn	Feet from the 2180	North/South line SOUTH	Feet from the 1870	East/West line WEST	County RIO ARRIJA
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*Dedicated Acres 644.28	*Joint or Infill	*Consolidation Code C	*Order No. R-12805
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 N 89°19'17" E 2645.56'	2677.06'	N 89°19'18" E 2643.56'	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 is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Brian Wood</u> Date: <u>10-7-17</u> Printed Name: <u>BRIAN WOOD</u>
O = SURFACE LOCATION ⊙ = BOTTOM HOLE LOCATION NAD 83 LAT: 36.254457° N LONG: 106.925208° W 1220'	2068'	LOT 4	LOT 3
SECTION 3	SECTION 2	1870'	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey: <u>5/16/07</u> Signature and Seal of Professional Surveyor: <u>Robert L. Pound</u> Certificate Number: <u>6845</u>
3250'	2641.03'	NAD 83 LAT: 36.251520° N LONG: 106.914728° W	
S 89°30'18" W 2646.21'	S 0°36'40" E 2180'	S 89°24'48" W 2659.81'	

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Ave, Artesia, NM 88210
District III
1000 Rio Brazos Rd, Aztec, NM 87410
District IV
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

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

WELL API NO. 30-039- <u>30272</u>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NMNM-108021
7. Lease Name or Unit Agreement Name LAGUNA COLORADO 2/3
8. Well Number #1
9. OGRID Number 240473
10. Pool name or Wildcat WEST PUERTO CHIQUITO MANCOS

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

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

2. Name of Operator
U. S. ENERCORP, LTD.

3. Address of Operator
P. O. BOX 17098, SAN ANTONIO, TX 78217

4. Well Location
Unit Letter: H 3250' FSL & 1220' FEL
Section 3 Township 23 North Range 1 West NMPM RIO ARRIBA County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
7,295' GL

☒ Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type: DRILLING Depth to Groundwater: >100' Distance from nearest fresh water well: >1,000' Distance from nearest surface water: >200'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls; Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: DRILLING PIT <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

RCVD SEP 28 '07
OIL CONS. DIV.
DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Brian Wood TITLE: CONSULTANT DATE: MAY 30, 2007

Type or print name: BRIAN WOOD E-mail address: brian@permitswest.com Telephone No.: (505) 466-8120

For State Use Only

APPROVED BY: [Signature] TITLE: Deputy Oil & Gas Inspector, District #3 DATE: OCT 18 2007

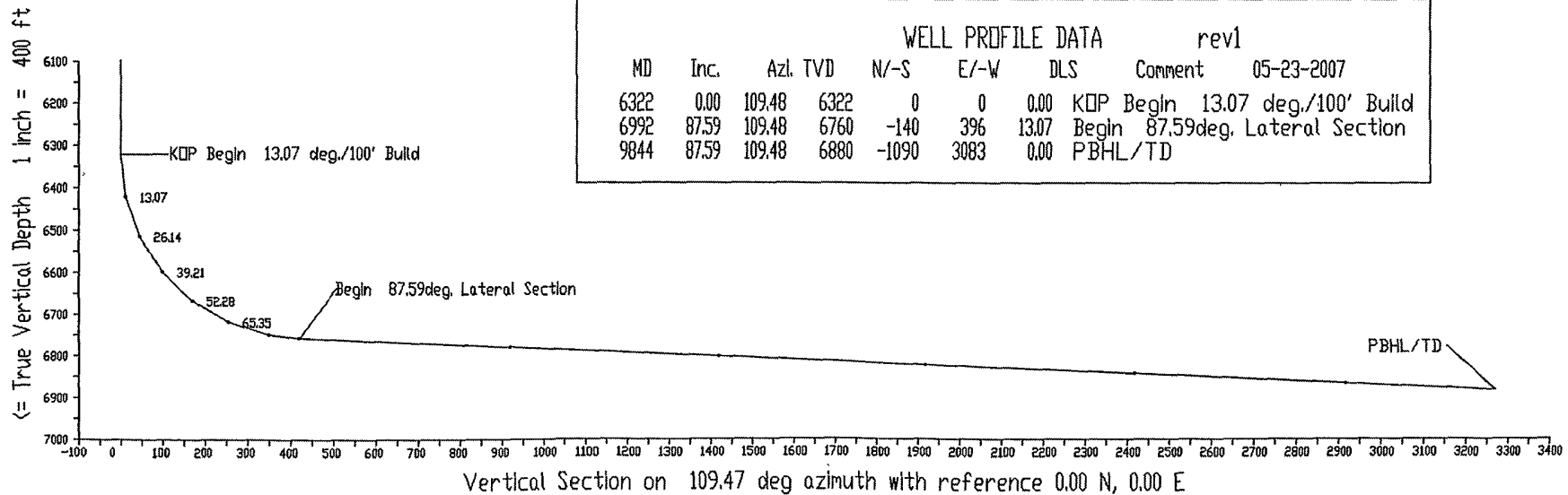
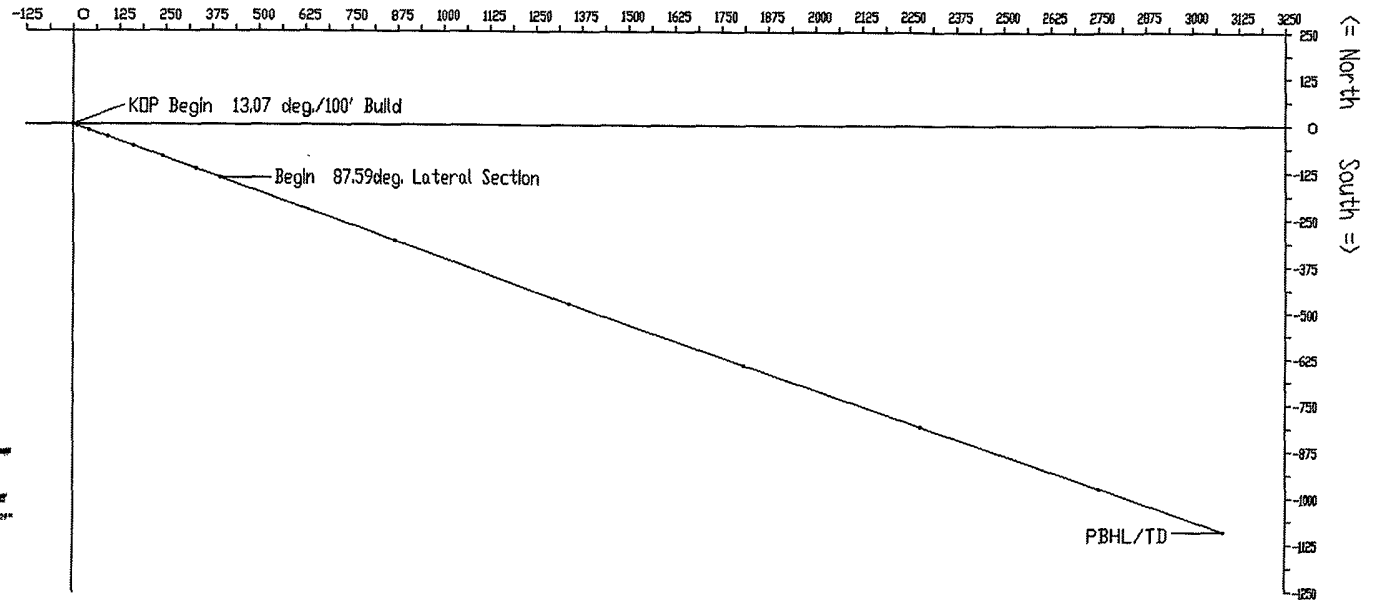
Conditions of Approval (if any):

U.S. Enercorp, L.L.C

Laguna Colorado 2/3 #1

Rio Arriba County, Colorado

<= West East => 1 Inch = 500 ft



Laguna Colorado 2/3 #1

SHL: 3250' FSL & 1220' FWL Sec. 3, T. 23 N., R. 1 W.

BHL: 2180' FSL & 1870' FEL Sec. 2, T. 23 N., R. 1 W.

Rio Arriba County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+7,295'
Ojo Alamo	2,650'	2,662'	+4,645'
Kirtland Shale	2,820'	2,832'	+4,475'
Lewis Shale	3,170'	3,182'	+4,125'
Mesa Verde Sandstones	4,960'	4,972'	+2,335'
Mancos Shale	5,620'	5,632'	+1,675'
Gallup Sandstone	6,750'	6,762'	+545'
Lateral Measured Total Depth	9,832'	9,844'	(TVD) +458'

2. NOTABLE ZONES

The Pictured Cliffs and Gallup are potential oil or gas zones. Water may be found in the Nacimiento, Pictured Cliffs, and Gallup. Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented.

3. PRESSURE CONTROL

Maximum expected bottom hole pressure will be $\approx 1,500$ psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 3,000 psi model is on PAGE 3. A 3,000 psi BOP and choke manifold system will be installed and tested for ≈ 10 minutes to a high of $\approx 2,000$ psi and a low of ≈ 250 psi before drilling out the surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in

CONFIDENTIAL - TIGHT HOLE !!!

Laguna Colorado 2/3 #1

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Rio Arriba County, New Mexico

use. Annular preventer will be tested to $\approx 50\%$ of its rated working pressure.

All inspections and BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place, anytime a seal is broken, or at least once every 14 days.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Depth Set</u>
14-3/4"	10-3/4"	40.5	H-40	S T & C	New	0' - 320'
9-7/8"	7-5/8"	26.4	N-80	L T & C	New	0' - 5,600'
6-3/4"	4-1/2"	11.6	J-55	L T & C	New	5,400' - 9,844'

Surface casing will be cemented to the surface with ≈ 356 cubic feet (≈ 300 sacks) Class G premium with 1/8 pound per sack poly-e-flake + 2% CaCl_2 . Yield = 1.2 cubic feet per sack. Weight = 15.6 pounds per gallon. Volume: $\geq 100\%$ excess. Three centralizers will be installed (on the float joint and every fourth joint thereafter).

Stage collar will be set at $\approx 3,600'$. Volume: $\geq 10\%$ excess.

Will cement from $\approx 5,600$ to $\approx 3,600'$ with ≈ 185 sacks of Halliburton light premium + 5 pounds per sack gilsonite + 1/8 pound per sack poly-e-flake (= 12.3 pounds per gallon & 1.94 cubic feet per sack). Follow with 166 sacks 50/50 poz + 5 pounds per sack gilsonite + 1/8 pound pr sack poly-e-flake (=13.5 pounds per gallon & 1.31 cubic feet per sack). Approximately 25 centralizers will be installed (2 centralizers on the float and one on every other joint for $\approx 1,000'$).

Laguna Colorado 2/3 #1

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BHL: 2180' FSL & 1870' FEL Sec. 2, T. 23 N., R. 1 W.

Rio Arriba County, New Mexico

Will cement from $\approx 3,600'$ to the surface with ≈ 665 sacks Halliburton light premium + 5 pounds per sack gilsonite + 1/8 pound per sack poly-e-flake (=12.3 pounds per gallon & 1.44 cubic feet per sack) and ≈ 150 sacks 50/50 poz premium + 5 pounds per sack gilsonite + 1/8 pound per sack poly-e-flake (=13.5 pounds per gallon & 1.31 cubic feet per sack). Approximately 22 centralizers will be installed (on every fourth joint).

Liner will not be cemented.

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0' - 320'	Gel/Lime	8.4 - 8.6	28-45	N/C
320' - 5,600'	Gel/Polymer	8.6 - 8.8	38-46	8-10
5,600' - TD	KCl/Foam*	8.4	29-32	N/C

*aerate with air in drill string

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site. A mud logger, gas detector, and flow sensor will be used. Pressure, volume, and temperature will be monitored.

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. Triple combination log will be run from $\approx 320'$ to $\approx 5,600'$. Gamma ray only will be run from $\approx 5,600'$ to TD.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected.

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U. S. Enercorp, Ltd.

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Laguna Colorado 2/3 #1

SHL: 3250' FSL & 1220' FWL Sec. 3, T. 23 N., R. 1 W.

BHL: 2180' FSL & 1870' FEL Sec. 2, T. 23 N., R. 1 W.

Rio Arriba County, New Mexico

Maximum bottom hole pressure will be $\leq 1,500$ psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take ≈ 2 months to drill and ≈ 2 weeks to complete the well.

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U. S. Enercorp, Ltd.

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Laguna Colorado 2/3 #1

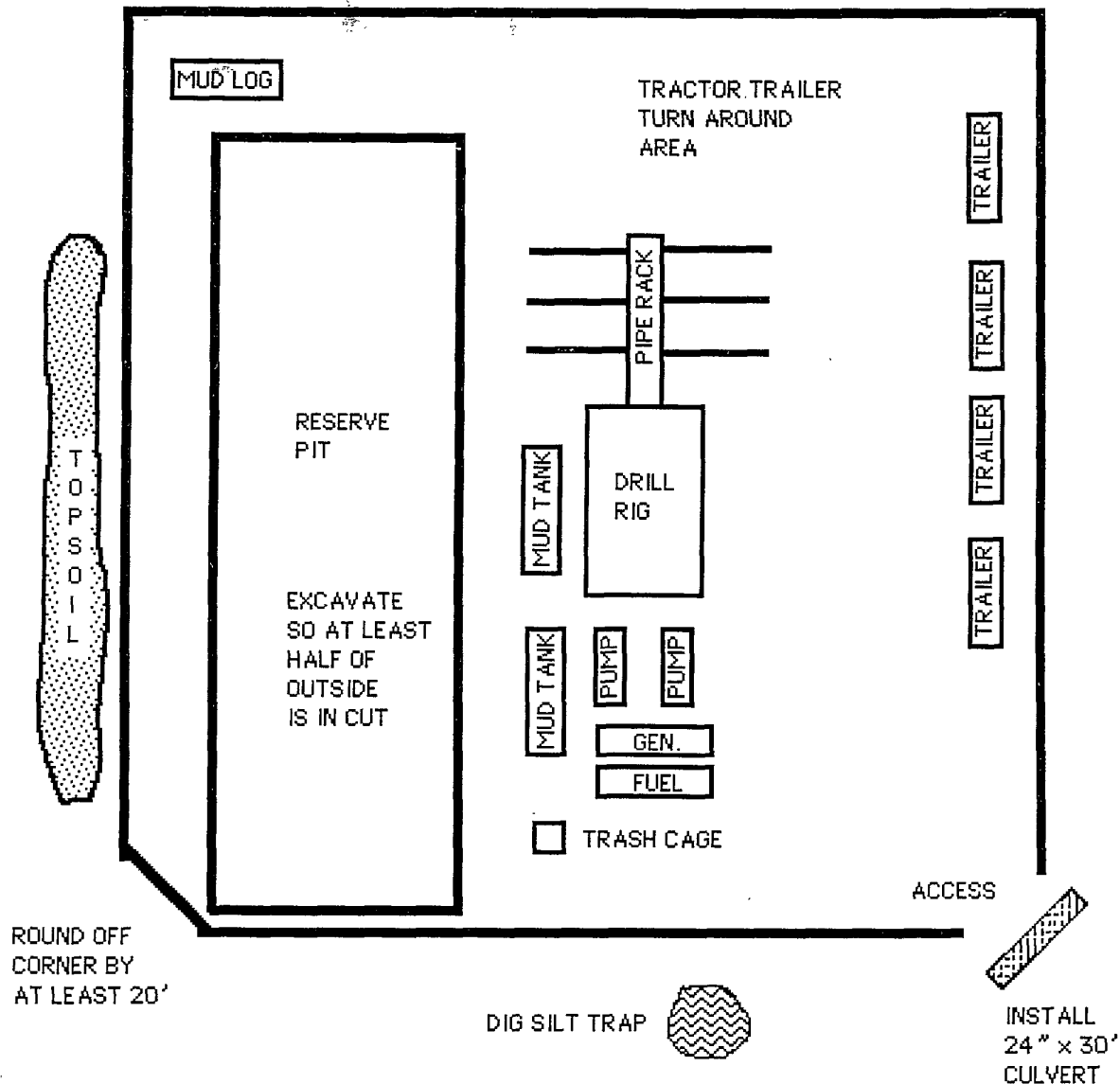
SHL: 3250' FSL & 1220' FWL Sec. 3, T. 23 N., R. 1 W.

BHL: 2180' FSL & 1870' FEL Sec. 2, T. 23 N., R. 1 W.

Rio Arriba County, New Mexico

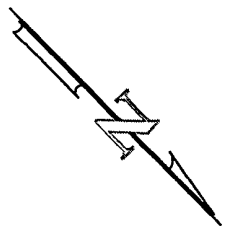
1" = 75'

NORTH

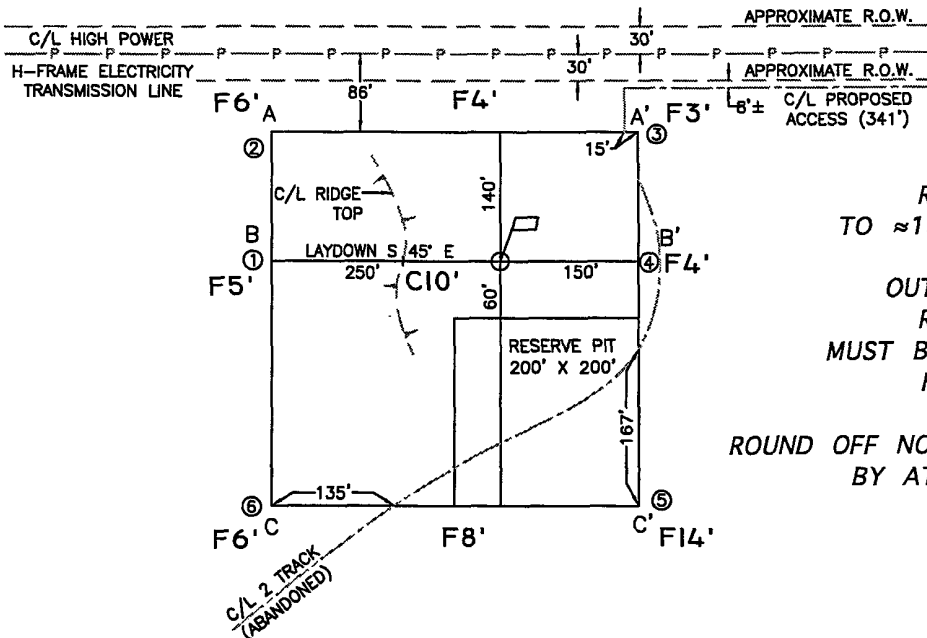


CONFIDENTIAL - TIGHT HOLE !!!

BEFORE DIGGING
CALL FOR UTILITY
LINE LOCATION!



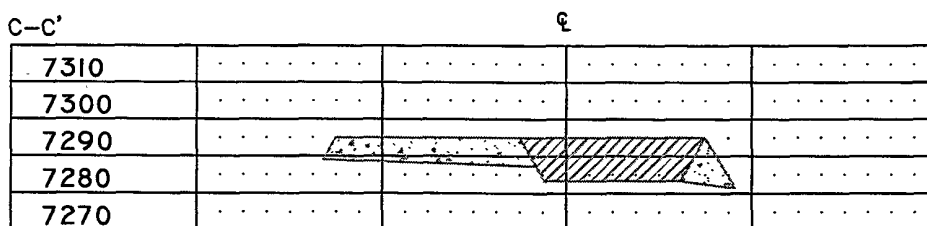
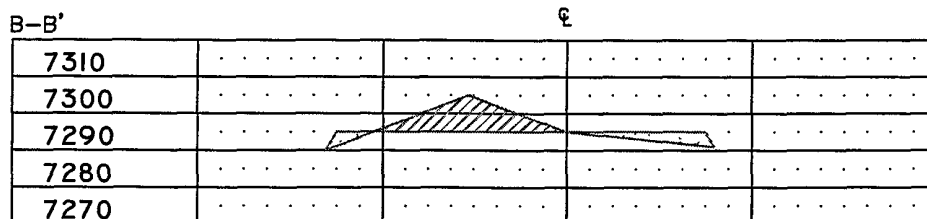
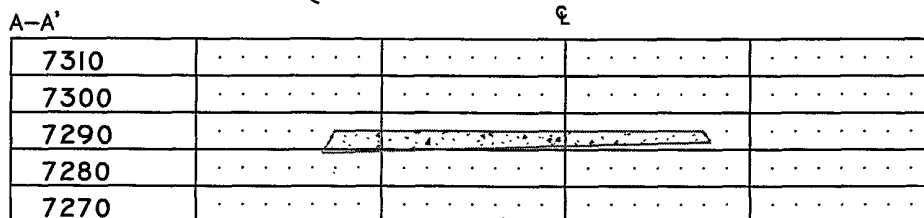
0 100 200
SCALE: 1"=200'



CHANGE
RESERVE PIT
TO $\approx 150' \times \approx 250'$

OUTER EDGE OF
RESERVE PIT
MUST BE AT LEAST
HALF IN CUT

ROUND OFF NORTH CORNER
BY AT LEAST 20'



CROSS SECTIONS
HORIZONTAL: 1"=200'
VERTICAL: 1"=50'

LEASE: LAGUNA COLORADO 2/3 #1

FOOTAGE: 3250' FSL, 1220' FEL

SEC. 3 TWN. 23 N RNG. 1 W N.M.P.M.

LATITUDE: 36.254457° N LONGITUDE: 106.925208° W

ELEVATION: 7295

U.S. ENERCCORP, LTD.
SAN ANTONIO, TEXAS

SURVEYED: 5/16/07

REV. DATE:

APP. BY R.L.P.

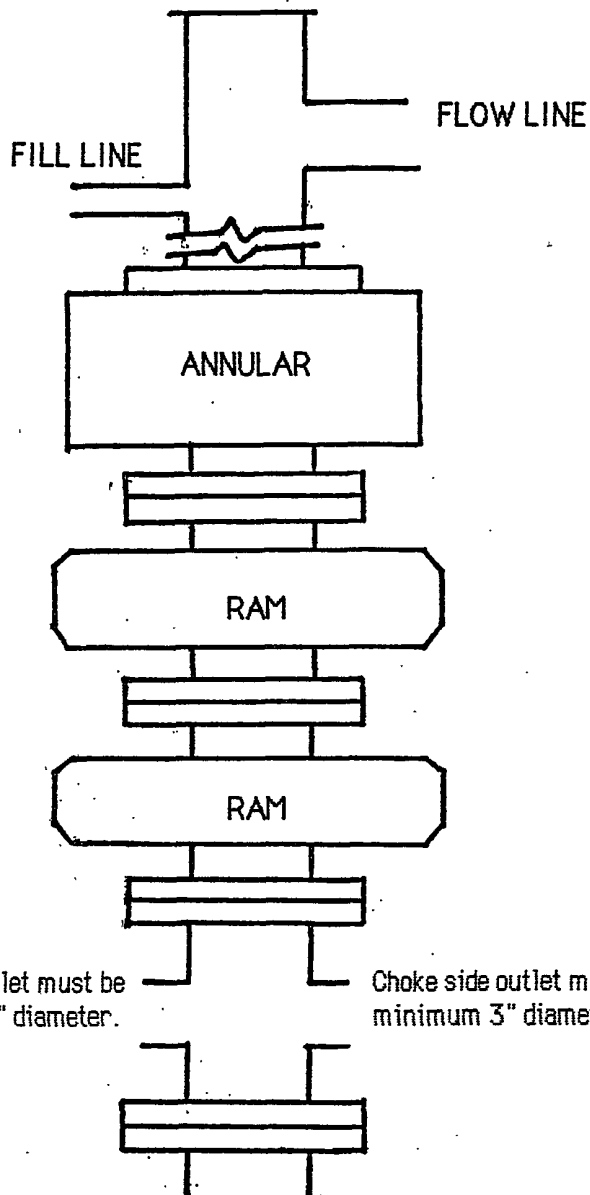
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DATE DRAWN: 5/18/07

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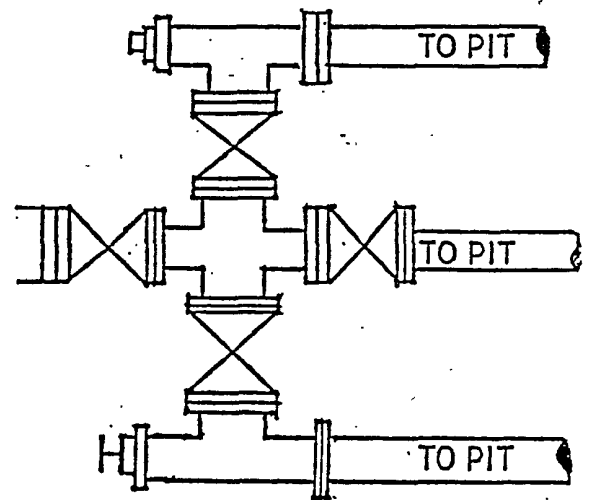


P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408



TYPICAL BOP STACK
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.
Safety valve and subs will fit all drill string connections in use.
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.