

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
NM OIL CONSERVATION

Form C-101
Revised July 18, 2013

Oil Conservation Division ARTESIA DISTRICT
1220 South St. Francis Dr. APR 29 2015
Santa Fe, NM 87505

AMENDED Report

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|--|--|---|
| ¹ Operator Name and Address Lime Rock Resources II-A, L.P. 1111 Bagby Street, Suite 4600 Houston, Texas 77002 | | ² OGRID Number 277558 |
| | | ³ APN Number 30-015-40976 |
| ⁴ Property Code 39634 | ⁵ Property Name Leavitt 13 B | ⁶ Well No. #3 |

7 Surface Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| B | 13 | 18S | 26E | | 330 | N | 1675 | E | Eddy |

8 Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| B | 13 | 18S | 26E | | 330 | N | 1675 | E | Eddy |

9 Pool Information

| | |
|-------------------------|-------|
| Red Lake; Glorieta-Yeso | 51120 |
|-------------------------|-------|

Additional Well Information

| | | | | |
|----------------------------------|--|---|---|--|
| ⁹ Work Type N | ¹⁰ Well Type O | ¹¹ Cable/Rotary R | ¹² Lease Type P | ¹³ Ground Level Elevation 3290 |
| ¹⁴ Multiple N | ¹⁵ Proposed Depth 4750' MD / 4750' TVD | ¹⁶ Formation Yeso | ¹⁷ Contractor United Drilling, Inc. | ¹⁸ Start Date After 6/1/2015 |
| Depth to Ground Water: 23 Ft. | | Distance from nearest fresh water well: 0.31 Miles | | Distance from nearest surface water: 0.96 Miles |

We will be using a closed-loop system in lieu of lined pits

19 Proposed Casing and Cement Program

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Conductor | 26" | 20" | 91.5 | 40 | 40 | Surface |
| Surface | 12-1/4" | 8-5/8" | 24 | 425 | 350 | Surface |
| Production | 7-7/8" | 5-1/2" | 17 | 4750 | 930 | Surface |

Casing/Cement Program: Additional Comments

| |
|--|
| |
|--|

Proposed Blowout Prevention Program

| Type | Working Pressure | Test Pressure | Manufacturer |
|---------|------------------|---------------|----------------|
| XLT 11" | 5000 | 2000 | National Varco |

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC and/or 19.15.14.9 (B) NMAC 0, if applicable.

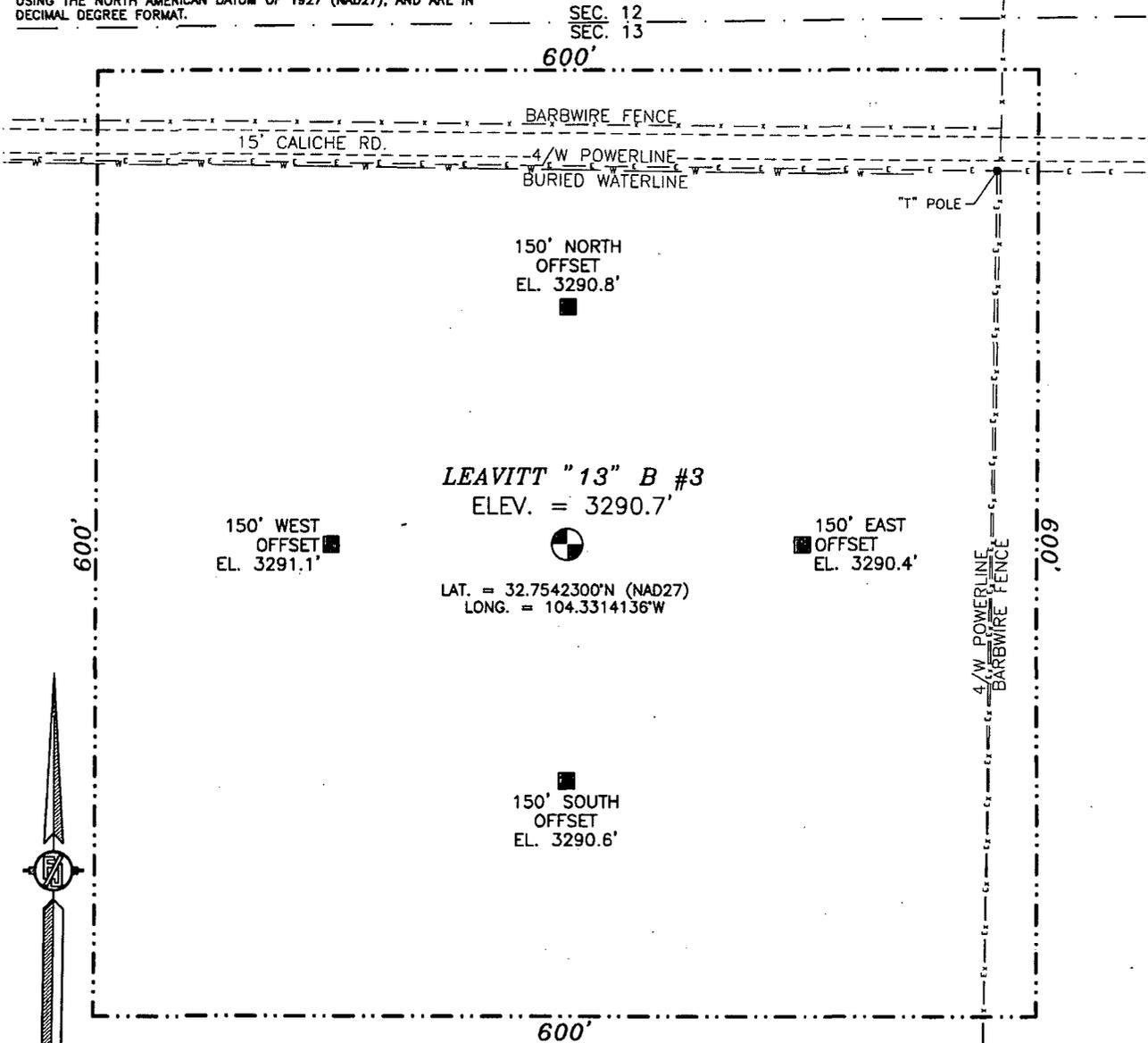
Signature: *Spencer Cox*
Printed Name: Spencer Cox
Title: Production Engineer
E-mail Address: scox@limerockresources.com
Date: 4/29/2015 Phone: 713-292-9528

OIL CONSERVATION DIVISION

Approved By: *[Signature]*
Title: *Asst. P. Supervisor*
Approved Date: _____ Expiration Date: 1-15-2016
1 year extension Approved
Conditions of Approval Attached

SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

NOTE: THE LATITUDE AND LONGITUDE COORDINATES ARE SHOWN
 USING THE NORTH AMERICAN DATUM OF 1927 (NAD27), AND ARE IN
 DECIMAL DEGREE FORMAT.



0 50 100 200

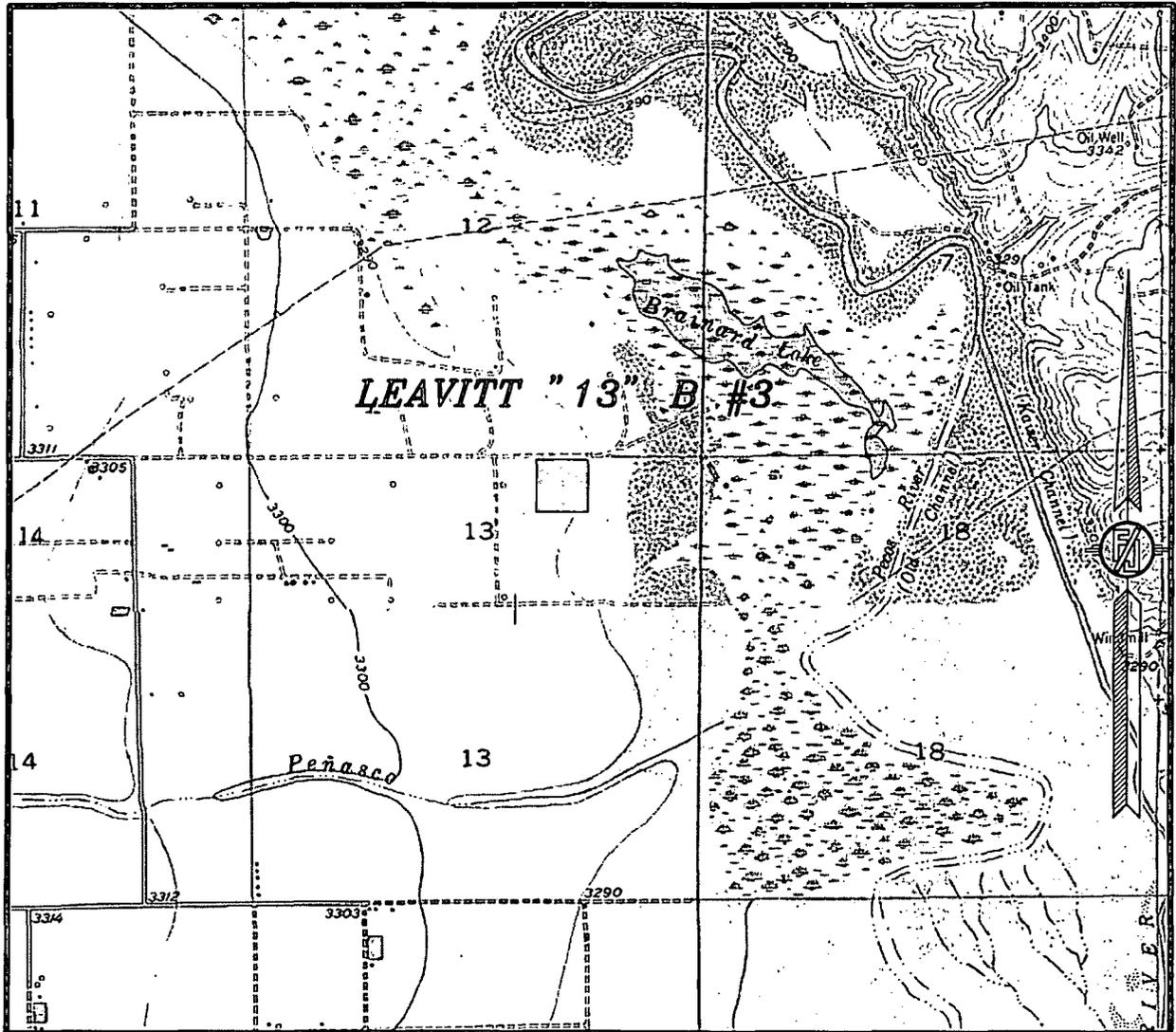
SCALE 1" = 100'
 DIRECTIONS TO LOCATION
 FROM PAVED CR. #44 (FANNING) AND PAVED CR. #39 (4-DINKUS)
 AND CALICHE LEASE ROAD, GO EAST ON CALICHE ROAD 1.0 MILES
 AND LOCATION IS ON THE RIGHT (SOUTH) 255'.

LIME ROCK RESOURCES II-A, L.P.
LEAVITT "13" B #3
 LOCATED 330 FT. FROM THE NORTH LINE
 AND 1675 FT. FROM THE EAST LINE OF
 SECTION 13, TOWNSHIP 18 SOUTH,
 RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

JULY 20, 2012

SURVEY NO. 1149A
 MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 SPRING LAKE
 LAKE McMILLAN NORTH

NOT TO SCALE

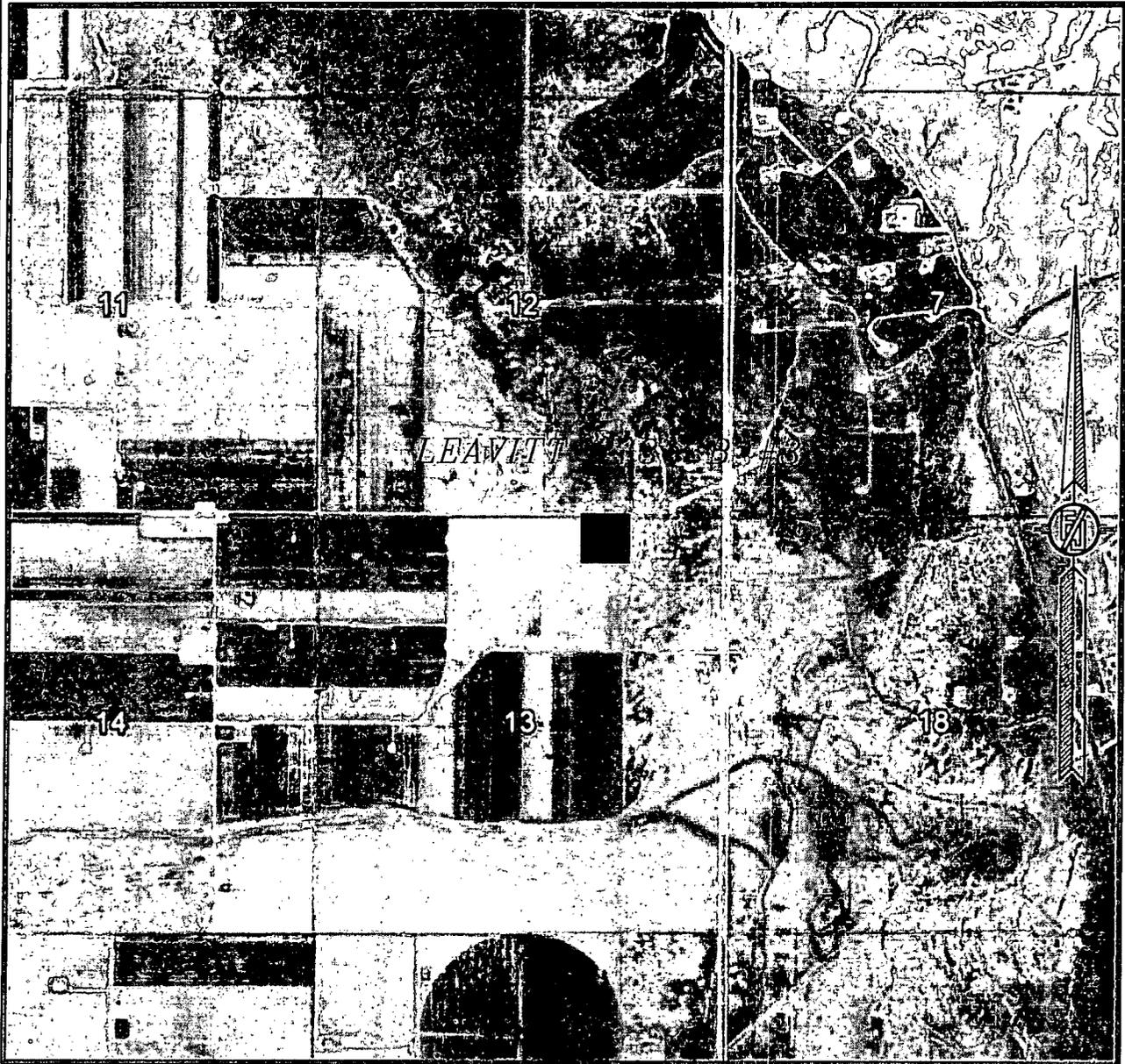
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SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
JUNE 2011

LIME ROCK RESOURCES II-A, L.P.
LEAVITT "13" B #3
LOCATED 330 FT. FROM THE NORTH LINE
AND 1675 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 18 SOUTH,
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EDDY COUNTY, STATE OF NEW MEXICO

JULY 20, 2012

SURVEY NO. 1149A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

**Lime Rock Resources II-A, L.P.
Drilling Plan**

**Leavitt 13 B #3
330' FNL 1675' FEL
(B) 13-18S-26E
Eddy County, NM**

1. The elevation of the unprepared ground is 3290 feet above sea level.
2. The geologic name of the surface formation is Quaternary – Alluvium.
3. A rotary rig will be utilized to drill the well to 4750' and run casing. This equipment will be rigged down and the well will be completed with a workover rig.
4. Well will be drilled to a total proposed depth of 4750' MD.

5. Estimated tops of geologic markers:

| | MD | TVD |
|-----------------------|---------|---------|
| Quaternary – Alluvium | Surface | Surface |
| Yates | NA | NA |
| 7 Rivers | NA | NA |
| Queen | 367 | 367 |
| Grayburg | 795 | 795 |
| Premier | NA | NA |
| San Andres | 1020 | 1020 |
| Glorieta | 2382 | 2382 |
| Yeso | 2609 | 2609 |
| Tubb | 3982 | 3982 |
| TD | 4750 | 4750 |

6. Estimated depths at which anticipated oil, gas, or other mineral bearing formations are expected to be encountered:

| | MD | TVD |
|------------|------|------|
| Yates | NA | NA |
| 7 Rivers | NA | NA |
| Queen | 367 | 367 |
| Grayburg | 795 | 795 |
| Premier | NA | NA |
| San Andres | 1020 | 1020 |
| Glorieta | 2382 | 2382 |
| Yeso | 2609 | 2609 |
| Tubb | 3982 | 3982 |
| TD | 4750 | 4750 |

7. Proposed Casing and Cement program is as follows:

| Type | Hole | Casing | Wt | Grade | Thread | Depth | Sx | Density | Yield | Components |
|--------------|---------|--------|------|-------|--------|-------|-----|---------|-------|---|
| Conductor | 26" | 20" | 91.5 | B | Welded | 40 | 40 | | | Ready Mix |
| Surface | 12-1/4" | 8-5/8" | 24 | J-55 | ST&C | 425 | 350 | 14.8 | 1.35 | Cl C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl ₂ |
| Intermediate | | | | | | | | | | |
| Production | 7-7/8" | 5-1/2" | 17 | J-55 | LT&C | 4750 | 200 | 12.8 | 1.903 | (35:65) Poz/Cl C Cmt + 5% NaCl + 0.25 lbs/sk Cello Flake + 5 lbs/sk LCM-1 + 0.2% R-3 + 6% Gel |
| | | | | | | | 730 | 14.8 | 1.33 | Cl H w/ 0.6% R-3, 0.125% Cello Flake, 2% Gel |

8. Proposed Mud Program is as follows

| Depth | 0-425 | 425-4600 | 4600-4750 |
|------------|-----------------|--|--|
| Mud Type | Fresh Water Mud | Brine | Brine, Salt Gel, & Starch |
| Properties | | | |
| MW | 8.4-9.2 | 9.8-10.1 | 9.9-10.1 |
| pH | 9.0-10.5 | 10.0-12.0 | 10.0-12.0 |
| WL | NC | NC | 20-30 |
| Vis | 28-34 | 28-29 | 32-34 |
| MC | NC | NC | <2 |
| Solids | NC | <2% | <3% |
| Pump Rate | 300-500 gpm | 375-425 gpm | 400-425 gpm |
| Special | | Use Poymers sticks and MF-55 Hi-Vis Sweeps as necessary | Hi Vis Sweeps, add acid and starch as req. Raise Vis to 35 for log. |

9. **Pressure Control Equipment: See Attached Description and diagram of Pressure Control Equipment.**

10. **Testing, Logging and Coring Program**

Testing Program: No drill stem tests are anticipated

Electric Logging Program: SGR-DLL-CDL-CNL Quad Combo from 4750 to surf. Csg. SGR-CNL to Surf.

Coring Program: No full or sidewall cores are anticipated.

11. **Potential Hazards:**

No abnormal temperatures or pressures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

Estimated BHP 2090 psi based on 0.44 x TD. The estimated BHT is 125 degrees F.

12. **Duration of Operations:**

Anticipated spud date will be soon after approval and as soon as a rig will be available. Move in operations and drilling is expected to take 10 days. An additional 14 days will be needed it complete the well and to construct surface facilities.

Hydrogen Sulfide Drilling Plan Summary

A. All personnel shall receive proper H₂S training in accordance with Onshore Order 6 III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

■ Well control equipment

- a. Flare line 150' from wellhead to be ignited by flare gun.
- b. Choke manifold with a remotely operated choke.
- c. Mud/gas separator

■ Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs —4 packs shall be stored on the rig floor and contain sufficiently long air hoses as to not to restrict work activity.
- c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

■ H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
(Gas sample tubes will be stored in the safety trailer)

■ Visual warning systems:

- a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
- c. Two wind socks will be placed in strategic locations, visible from all angles.

■ Mud program:

The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.

■ Metallurgy:

- a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- b. All elastomers used for packing and seals shall be H₂S trim.

■ Communication:

Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Company Offices - Lime Rock Houston Office
 Answering Service (After Hours)
 Artesia, NM Office
 Roswell, NM

713-292-9510
 713-292-9555
 575-748-9724
 575-623-8424

KEY PERSONNEL

| Name | Title | Location | Office # | Cell # | Home # |
|-----------------|---------------------------------|-----------------|--------------|--------------|--------------|
| Mike Loudermilk | Operations Manager | Houston | 713-292-9526 | 832-331-7367 | Same as Cell |
| Spencer Cox | Operations Engineer | Houston | 713-292-9528 | 432-254-5140 | Same as Cell |
| Eric McClusky | Operations Engineer | Houston | 713-360-5714 | 405-821-0534 | 832-491-3079 |
| Jerry Smith | Assistant Production Supervisor | Artesia | 575-748-9724 | 505-918-0556 | 575-746-2478 |
| Michael Barrett | Production Supervisor | Roswell | 575-623-8424 | 505-353-2644 | 575-623-4707 |
| Gary McClland | Well Site Supervisor | Rotates on Site | NA | 903-503-8997 | NA |
| Dave Williamson | Well Site Supervisor | Rotates on Site | NA | 575-308-9980 | NA |

| Agency Call List | | |
|------------------|--|--------------|
| City | Agency or Office | Telephone # |
| Artesia | Ambulance | 911 |
| Artesia | State Police | 575-746-2703 |
| Artesia | Sherriff's Office | 575-746-9888 |
| Artesia | City Police | 575-746-2703 |
| Artesia | Fire Department | 575-746-2701 |
| Artesia | Local Emergency Planning Committee | 575-746-2122 |
| Artesia | New Mexico OCD District II | 575-748-1283 |
| Carlsbad | Ambulance | 911 |
| Carlsbad | State Police | 575-885-3137 |
| Carlsbad | Sherriff's Office | 575-887-7551 |
| Carlsbad | City Police | 575-885-2111 |
| Carlsbad | Fire Department | 575-885-2111 |
| Carlsbad | Local Emergency Planning Committee | 575-887-3798 |
| Carlsbad | US DOI Bureau of Land Management | 575-887-6544 |
| State Wide | New Mexico Emergency Response Commission ("NMERC") | 505-476-9600 |
| State Wide | NMERC 24 Hour Number | 505-827-9126 |
| State Wide | New Mexico State Emergency Operations Center | 505-476-9635 |
| National | National Emergency Response Center (Washington D.C.) | 800-424-8802 |

Emergency Services

| Name | Service | Location | Telephone Number | Alternate Number |
|--|---------------------------------|-------------------------|------------------|-----------------------|
| Boots & Coots International Well Control | Well Control | Houston / Odessa | 1-800-256-9688 | 281-931-8884 |
| Cudd Pressure Control | Well Control/Pumping | Odessa | 915-699-0139 | 915-563-3356 |
| Baker Hughes Inc. | Pumping Services | Artesia, Hobbs & Odessa | 575-746-2757 | Same |
| Total Safety | Safety Equipment & Personnel | Artesia | 575-746-2847 | Same |
| Cutter Oilfield Services | Drilling Systems Equipment | Midland | 432-488-6707 | Same |
| Safety Dog | Safety Equipment & Personnel | Artesia | 575-748-5847 | 575-441-1370 |
| Fighting for Life | Emergency Helicopter Evacuation | Lubbock | 806-743-9911 | Same |
| Aerocare | Emergency Helicopter Evacuation | Lubbock | 806-747-8923 | Same |
| Med Flight Air Ambulance | Emergency Helicopter Evacuation | Albuquerque | 505-842-4433 | Same |
| Artesia General Hospital | Emergency Medical Care | Artesia | 575-748-3333 | 702 North 13th Street |

Pressure Control Equipment

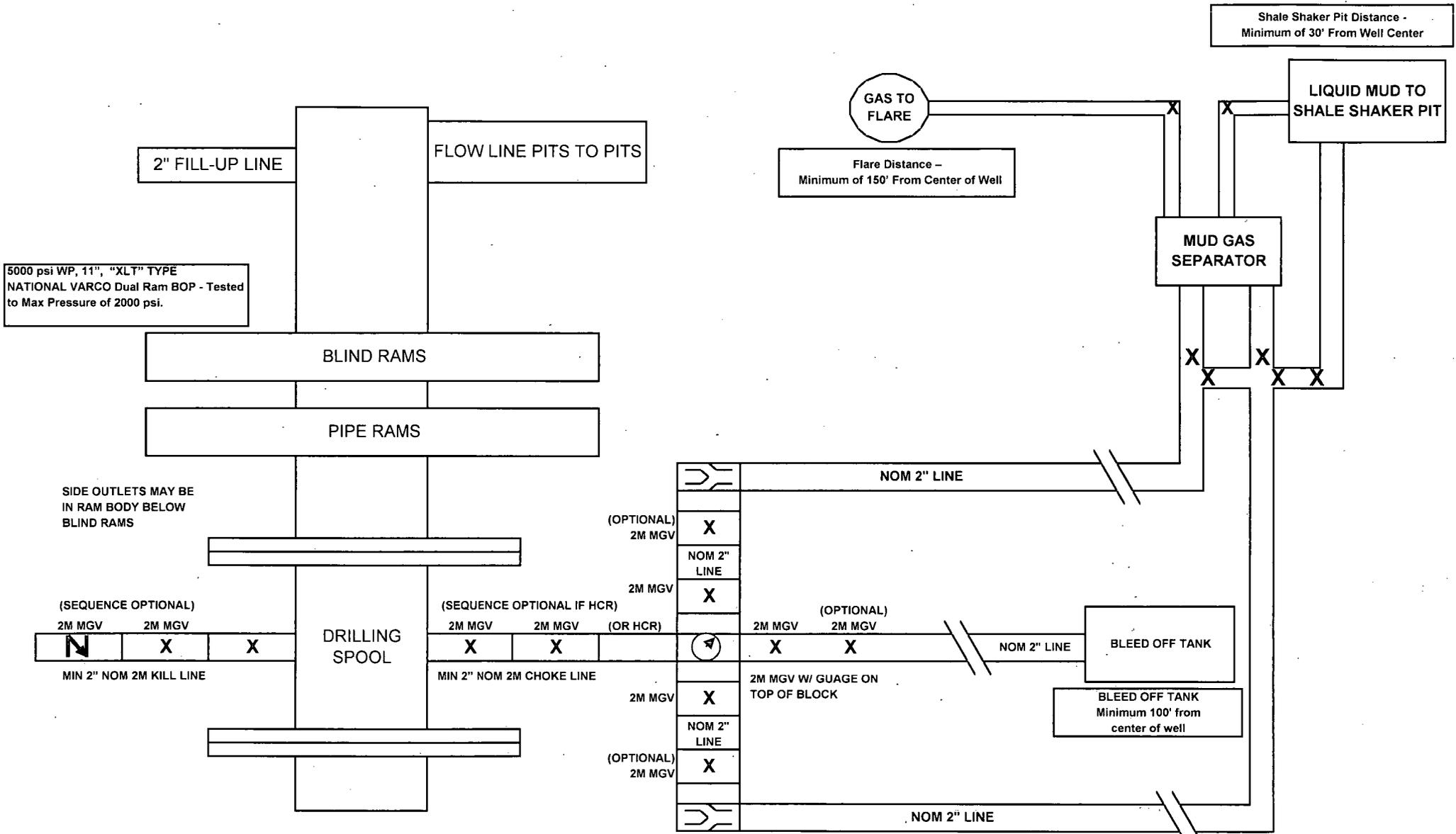
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. All casing strings will be tested as per Onshore Order #2. This also includes a thirty day (30) test, should the rig still be operating on the same well in thirty days.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

The BOP equipment will consist of the following:

- Double ram with blind rams (top) and pipe rams (bottom),
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 2" minimum diameter, kill side will be at least 2 inch diameter),
- Kill line (2 inch minimum),
- A minimum of 2 choke line valves (2 inch minimum),
- 2 inch diameter choke line,
- 2 kill valves, one of which will be a check valve (2 inch minimum),
- 2 chokes, one of which will be capable of remote operation,
- Pressure gauge on choke manifold,
- Upper Kelly cock valve with handle available,
- Safety valve and subs to fit all drill string connections in use,
- All BOPE connections subjected to well pressure will be flanged, welded, or clamped,
- A Fill-up line above the uppermost preventer.

2M BOP SCHEMATIC



2M ADJUSTABLE CHOKE (REMOTE OPERATED CHOKE OPTIONAL FOR ONE SIDE ONLY)

MGV = Manual Gate Valve
 CKV = Check Valve
 HCR = Hydraulically Controlled Remote Valve

NOTE: All lines, valves and chokes are shown at the minimum size allowed, but may be larger

Lime Rock Resources II-A, L.P.

Leavitt 13 B #3

Unit B, S13-T18S-R26E, Eddy County, NM

Design: Closed Loop System with roll-off steel bins (pits)

CRI/HOBBS will supply (2) bins (100 bbl) volume, rails and transportation relating to the Close Loop System. Specification of the Closed Loop System is attached.

Contacts: Gary Wallace (432) 638-4076 Cell (575) 393-1079 Office

Scomi Oil Tool: Supervisor – Armando Soto (432) 553-7979 Hobbs, NM

Monitoring 24 Hour service

Equipment:

Centrifuges – Derrick Brand

Rig Shakers – Brandt Brand

D-watering Unit

Air pumps on location for immediate remediation process

Layout of Close Loop System with bins, centrifuges and shakers attached.

Cuttings and associated liquids will be hauled to a State regulated third party disposal site (CRI or Controlled Recovery, Inc.). The disposal site permit is DFP = #R9166.

2- (250 bbl) tanks to hold fluid

2-CRI bins with track system

2-500 bbl frac tanks with fresh water

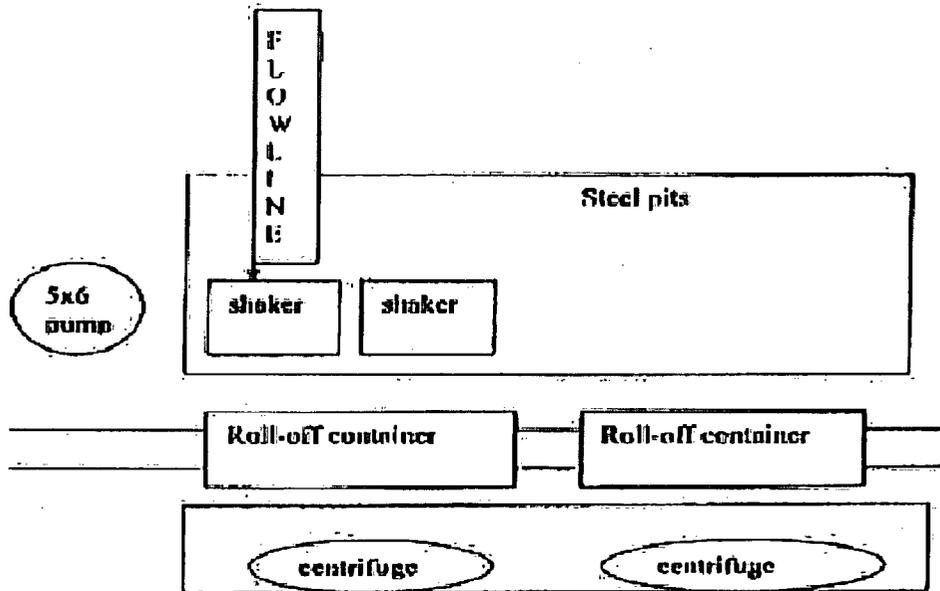
2-500 bbl frac tanks for brine water

Operations:

Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance performed. leak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of any spill. Remediation process will start immediately.

Closure:

During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI equipment to DFP #R9166.



This will be maintained by 24 hour solids control personnel that stay on location.

TOMMY WILSON



**CLOSED LOOP
SPECIALTY**

Office: 515.746.1689

Cell: 515.748.6367