OCD-ARTESIA

Form 3160-3
(August 2007)

DEC 4 2007
OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM 117545

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well. ☐ Oil Well ☑ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Stone 30 Federal, Well #1

2. Name of Operator
Rubicon Oil & Gas, LLC

9. API Well No.
30 015 - 35940

3a. Address
508 W. Wall, Suite 500, Midland, TX 79701

3b. Phone No. *(include area code)*
432 687-5100

10. Field and Pool, or Exploratory
Cemetery Morrow

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 660 FNL & 1300 FWL (D)
At proposed prod. zone same
Carlsbad Controlled Water Basin

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 30, T20S, R25E

14. Distance in miles and direction from nearest town or post office*
15 miles NW from Carlsbad

12. County or Parish
Eddy

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg. unit line, if any)
660'

16. No. of acres in lease
602 acres

17. Spacing Unit dedicated to this well
320 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft
1st well

19. Proposed Depth
9800'

20. BLM/BIA Bond No. on file
BLM Bond #2922, SW Bond # B32644643

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3561' GL

22. Approximate date work will start*
10/31/2007

23. Estimated duration
24-30 days

24. Attachments Amending TD filed 9-19-2007

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

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 required by the BLM.

25. Signature

Name *(Printed/Typed)*
Ann E. Ritchie

Date
10/17/2007

Title
Regulatory Agent 432 684-6381 ann.ritchie@wtor.net

Approved by *(Signature)* /s/ Don Peterson

Name *(Printed/Typed)* /s/ Don Peterson

Date NOV 29 2007

Title ACTING FIELD MANAGER

Office CARLSBAD FIELD 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.

APPROVAL FOR TWO YEARS

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

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)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W GRAND AVENUE, 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 Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-35940	74640	Cemetery; Morrow

Property Code	Property Name	Well Number
36872	STONE 30 FEDERAL	1

OGRID No.	Operator Name	Elevation
194266	RUBICON OIL AND GAS, LLC	3561'

Surface Location

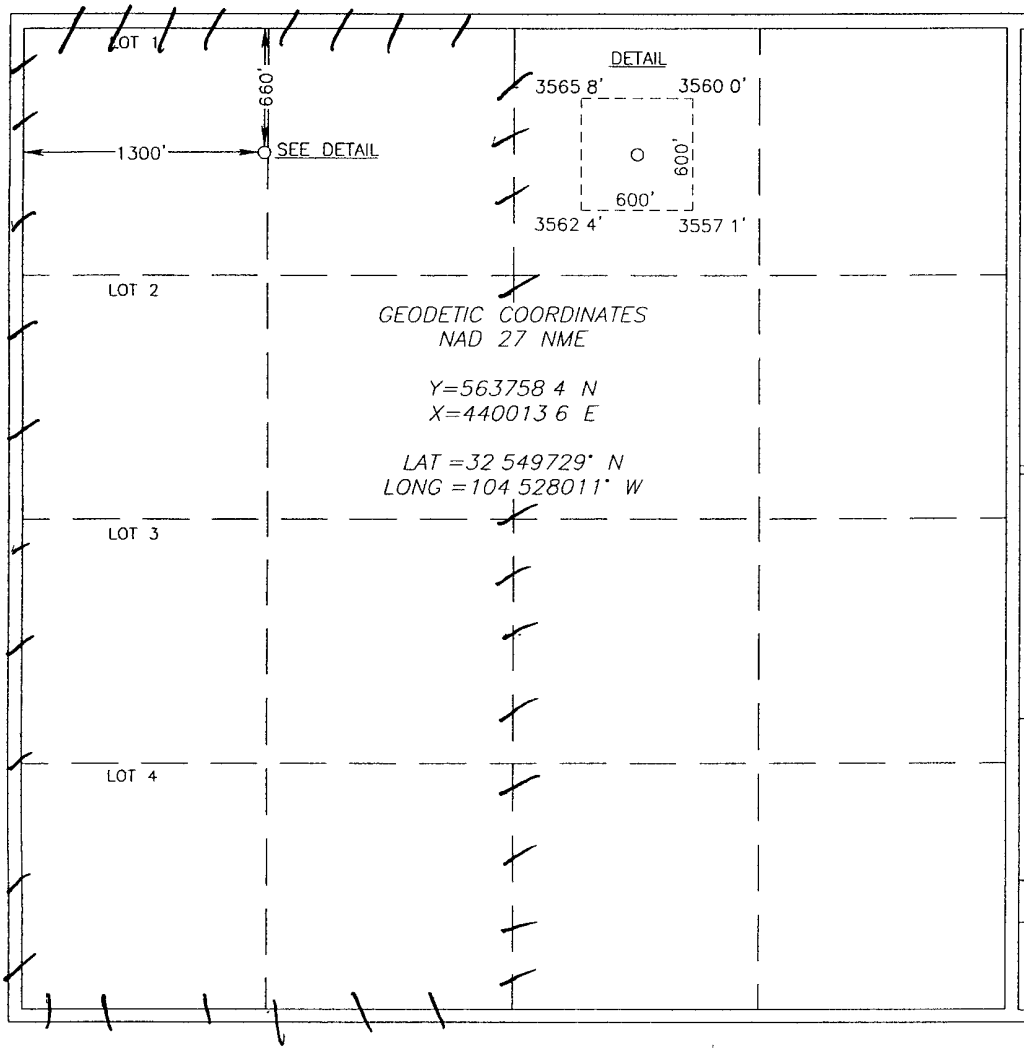
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	20-S	25-E		660	NORTH	1300	WEST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No
320			

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

Signature — Date: 9/17/2007

Printed Name: Hal Lee, Agent

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.

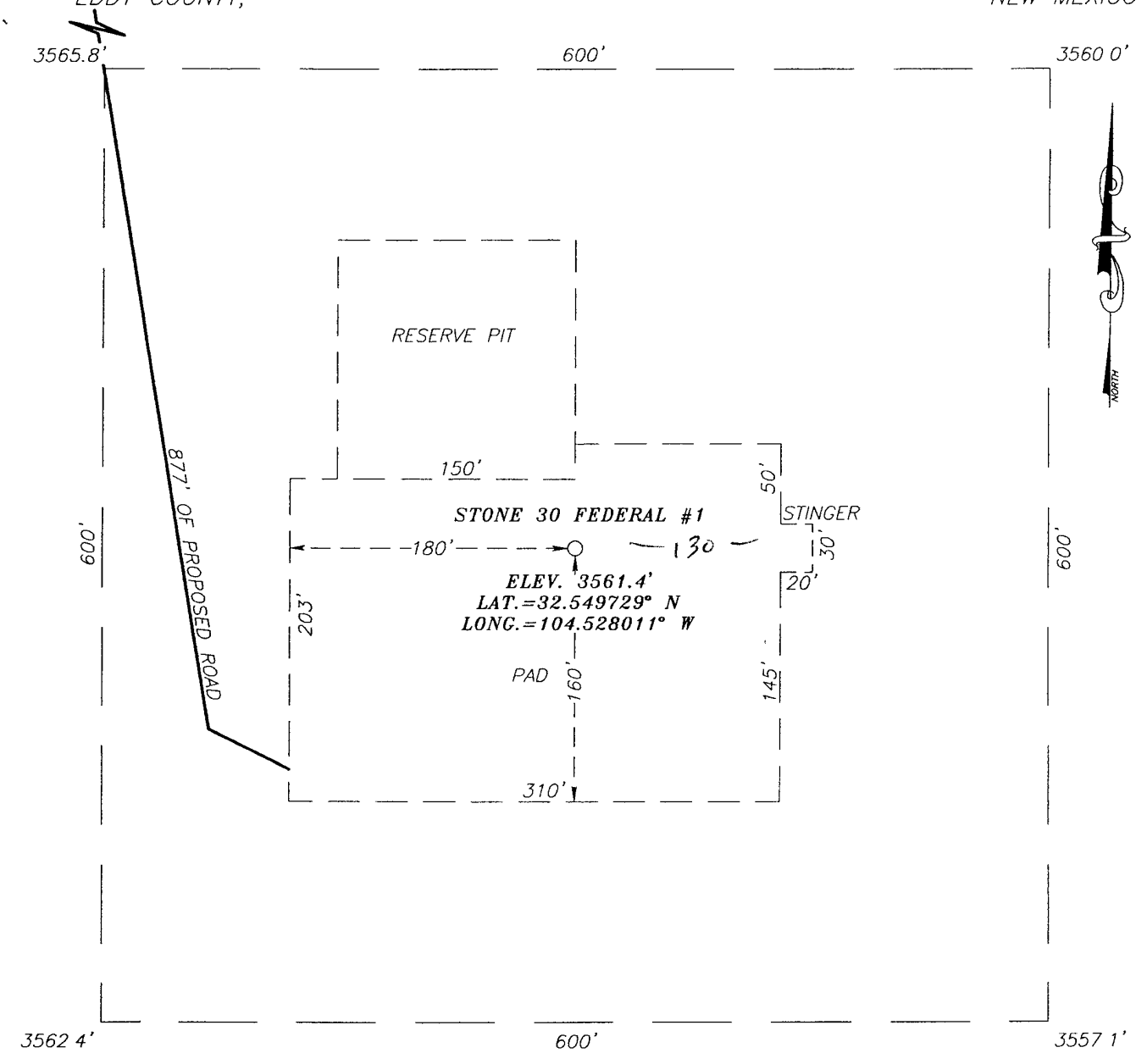
Date Surveyed: AUGUST 15, 2007

Signature & Seal of Professional Surveyor: Ronald J. Eidson, 3239, 08/28/07

Certificate No: GARY EIDSON 12641
RONALD J EIDSON 3239

SECTION 30, TOWNSHIP 20 SOUTH, RANGE 25 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM U S. HWY #285 (SEVEN RIVERS HWY.) AND CO RD. #28 (WHITE PINE), GO WEST APPROX 3 9 MILES TO THE INTERSECTION OF CO RD. #28 (WHITE PINE RD) AND CO. RD. #27 (PICKET RD), GO NORTH THEN BEND WEST ON CO RD #27 APPROX. 2 9 MILES TURN LEFT AND GO SOUTHEAST APPROX 0 6 MILES ON LEASE ROAD BEND LEFT AND GO SOUTHEAST APPROX 405 FEET BEND RIGHT AND GO SOUTH APPROX 0 4 MILES TO ROAD INTERSECTION TURN RIGHT AND GO SOUTHWEST ON TRAIL RD APPROX 0 3 MILES TO RD LATH FOLLOW RD LATH APPROX 800 FEET TO THIS LOCATION

100 0 100 200 Feet

Scale 1"=100'

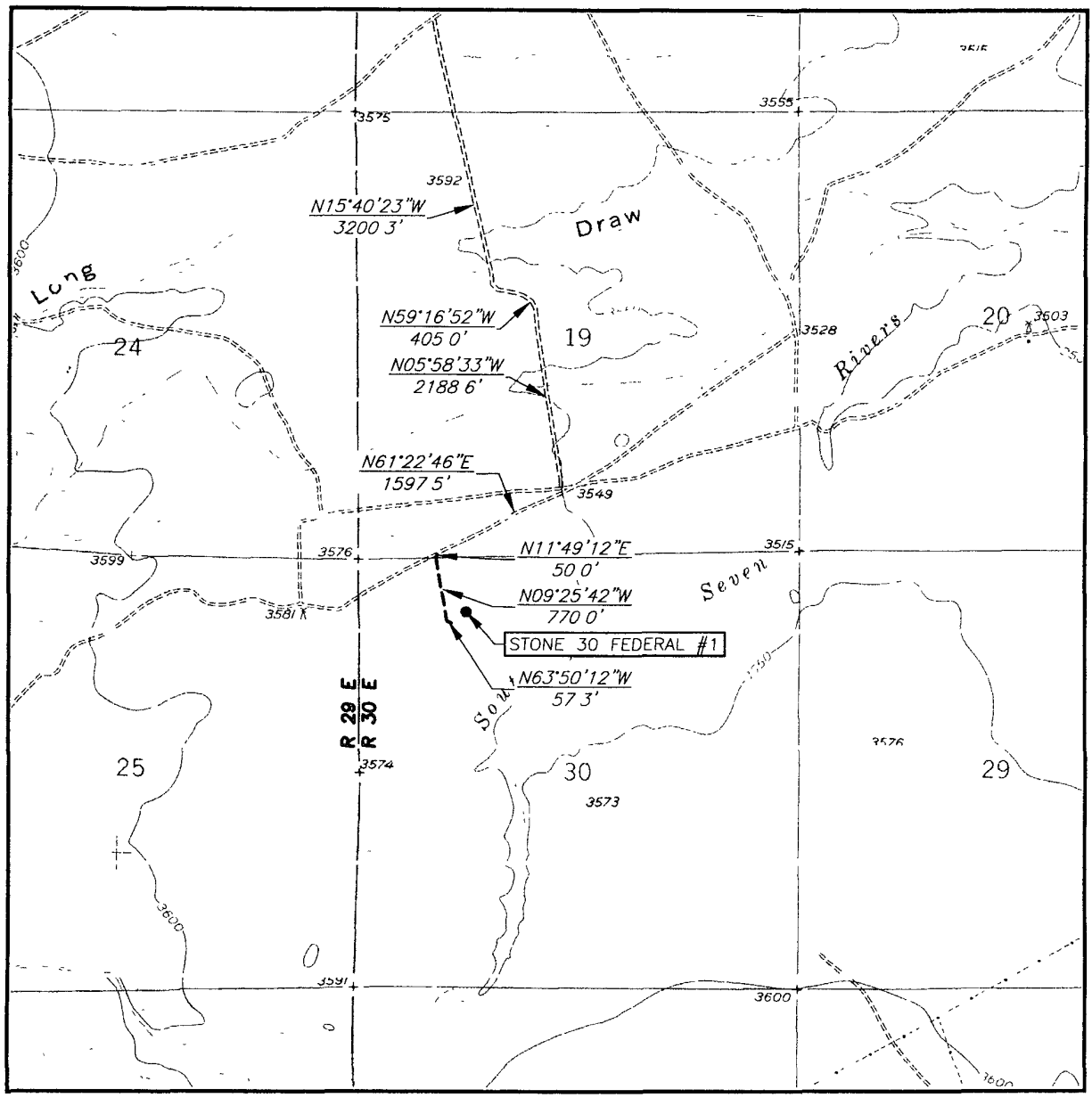
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

RUBICON OIL AND GAS, LLC

STONE 30 FEDERAL #1 WELL
LOCATED 660 FEET FROM THE NORTH LINE
AND 1300 FEET FROM THE WEST LINE OF SECTION 30,
TOWNSHIP 20 SOUTH, RANGE 25 EAST, N M P M,
EDDY COUNTY, NEW MEXICO

Survey Date: 8/15/07	Sheet 1 of 1 Sheets		
W O Number 07 11.1099	Dr By AR	Rev 1·N/A	
Date: 8/27/07	Disk:	07111099	Scale: 1"=100'

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL.
FOSTER ROAD, N M – 10'

SEC. 30 TWP 20-S RGE 25-E

SURVEY N M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FNL & 1300' FWL

ELEVATION 3561'

OPERATOR RUBICON OIL AND GAS, LLC

LEASE STONE 30 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
FOSTER ROAD, N.M

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Hydrogen Sulfide Drilling Operations Plan

Rubicon Oil & Gas, LLC

Stone 30 Federal #1
Sec 30, T20S, R25E
Eddy County, NM
(Standards Where H2S is Anticipated)

ONE - Hydrogen Sulfide Training:

All personnel, whether regularly assigned, contracted or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- The hazards and characteristics of hydrogen sulfide (H2S);
- The proper use and maintenance of personal protective equipment and life support systems;
- The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds; and,
- The proper techniques of first aid and rescue procedures.

In addition, the supervisory personnel will be trained in the following areas;

- The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements;
- Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- The contents and requirements of the H2S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500') and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

TWO - H2S Safety Equipment and Systems:

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or, three days prior to penetration of the first zone containing, or reasonably expected to contain, H2S.

1. **Well Control Equipment:**

- Flare line with flare igniter;
- Choke manifold with one remote hydraulic choke installed;
- Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit;
- Auxiliary equipment to include an Annular Preventer.

2. **Protective equipment for essential personnel:**

- The designated safety expert will provide 5-minute escape units located in the doghouse, and 30-minute air units at briefing areas.

3. **H2S detection and monitoring equipment:**

- Three portable H2S monitors will be positioned on location for the best coverage and response. These units have warning lights and audible sirens when triggered by H2S levels > 20 PPM.
- One portable SO2 monitor will be positioned near flare line during H2S flaring operations.

4. **Visual warning systems:**

- Wind direction indicators will be placed in accordance with the directives issued by the designated H2S expert.
- Caution/Danger signs shall be posted on roads providing direct access to the location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be legible from the immediate location.

5. **Mud Program:**

- The mud program will minimize the volume of H2S circulated to the surface. Proper mud weight safe drilling practices, and, if necessary, the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. **Metallurgy:**

- All drill strings, casing, tubing, wellhead, blowout preventers, drilling spools kill lines, choke manifold and line valves shall be suitable for H2S service.
- All elastomers used for packing and seals shall be H2S trimmed.

7. **Communications:**

- Radio and telephone communications will be available in company vehicles and rig doghouse.

8. **Well Testing:**

- Drill stem testing will be performed with a minimum number of personnel necessary to safely and adequately conduct the test. The drill stem testing of any known formation that contains H2S will be conducted during daylight hours.

October 17, 2007

Bureau of Land Management
Attn: Tessa Cisneros
620 E. Greene St.
Carlsbad, NM 88220

RE: Stone 30 Federal, Well #1, Lease NM 117545, Sec 30, T20S, R25E, Eddy County, NM
660 FNL and 1300 FWL; BLM Form 3160-3 Deficiencies

Please see attached the amended Form 3160-3 which reflects the corrected total depth to 9800' as submitted in the Drilling Plan and Wellbore Diagram on 9-19-07.

Also attached is the proposed Hydrogen Sulfide Drilling Operations Plan, as requested in the BLM deficiency letter of August 5, 2007.

The specific zone that may produce water and hydrocarbons is the Morrow formation which we anticipate to encounter at an approximate depth of 9200'. We do not anticipate encountering a productive interval in the Glorietta, Bone Springs , Cisco or Strawn (unless we get very surprised). The target producing formation is the Morrow.

Thank you,

Ann E. Ritchie, Regulatory Agent
Rubicon Oil & Gas, LLC
508 W. Wall, Suite 500
Midland, TX 79701

attachments

Nine Point Drilling Plan

(Supplement to BLM 3160-3)

Rubicon Oil & Gas, LLC

Stone 30 Federal #1

Section 30, T-20-S, R-25-E, 660' FNL & 1300' FWL

Field: Undesignated Morrow

Eddy Co., NM

1. Name and estimated tops of geologic horizons:

   Surface formation is of Permian Age.

   San Andres ~650', Glorietta~2300', Bone Springs~3700', 3rd Bone Springs Sand~6000', Cisco~6600', Strawn~8400', Morrow~9200', Morrow Clastics~9400'

2. Protection of possible useable water will be achieved by setting 13-3/8" surface casing @ 400'+/- and cementing it to surface. Isolation of any evaporate/ anahydrite section will be achieved by setting 9-5/8" casing @ 3000' +/- and cementing back to surface. Isolation of the productive horizons will be achieved by setting 4-1/2" casing @ 9800' and cementing back to a depth of 6000'.

3. The well control equipment to be employed during the drilling of this well is illustrated on attached EXHIBIT A. This equipment includes a 13-5/8"- 2 ram BOP, annular BOP and choke manifold of comparable pressure rating. Equipment will be rated for 3000 PSI and will be tested to 3000 psi (except Annular which will be tested to 70% of rated working pressure – 2100 psi) prior to drilling out of the 9-5/8" intermediate casing. Prior to drilling out of the 13-3/8" surface casing the same equipment and casing shall be tested to 1211 PSI or 70% of the burst rating of the casing utilizing the rig pumps. A hydraulic closing unit will be a part of this equipment and will be function tested daily.

4. The casing strings will consist of the following:

   Conductor 20" set @ 40'

   Surface 13-3/8" OD, 48 #/ft, H40, STC, new pipe @ 400'+/- in 17-1/2" hole.

   Intermediate: 9-5/8" OD, 36 #/ft, K55, STC, new pipe @ 3000+/- in 12-1/4" hole.

   Production: 4-1/2" OD, 11.6#/ft, P110HC, LTC, new pipe @ 9,800'+/- in 8-3/4" hole.

   Minimum Casing Design Factors: Collapse 1.1, Burst 1.2, and Tensile Strength 1.8

5. Cementing programs for the above casing strings are:

   Conductor @ 40' cemented to surface utilizing redi-mix cement

Surface @ 400': **Slurry**: 440 sks Class C with 2% Bentonite, 0.125% Cello Flake, yld ~ 1.35 cu ft/ sk, mixed @ 14.8 ppg

The above volume represents 100% excess over calculated hole volume, and will be adjusted to actual setting depth of casing. The slurries will be preceded by a fresh water spacer, and displaced with fresh water.

Intermediate 1 @ 3000': ← See COA

Lead Slurry: 680 sks Class C 50/50 Poz w/ additives, yld ~ 2.45 cu ft/sk

Tail Slurry: 200 sks Class C w/ 2% CaCl, yld ~ 1.34 cu ft/sk

The above volume represents 100% excess over calculated hole volume - actual volumes will be adjusted to a fluid caliper run at TD of this hole section with 20% excess added . The cement slurries will be preceded by 20 bbls cement wash for mud removal and displaced with fresh water.

Production 1: 9800 to~6000' ← SeeCOA

Slurry: 1120 sks Class C Poz with additives, yld ~ 1.57 cu ft/sk

Actual cement type and additives will be determined from hole conditions encountered and prospective zones determined from e-logs. Actual volumes pumped will be determined from an open hole caliper recorded over this interval.

6. It is anticipated that this well will be drilled to TD utilizing the fluids shown below:

0-400': Gel/Lime "spud mud" 8.4-9.4 PPG. Utilize native solids to maintain sufficient viscosity to clean hole. Mix paper as required to control seepage loss.

400-3000': Fresh Water 8.4 – 8.6 PPG. Circulate thru steel pits utilizing solids control. Add paper as required to control seepage loss while maintaining pH at 9.0 – 11.0 using Lime.

See COA

3000-8700': Fresh Water / Cut brine 8.4 – 9.4 Circulate thru steel pits utilizing solids control.; sweeps for hole cleaning and LCM as needed for seepage.

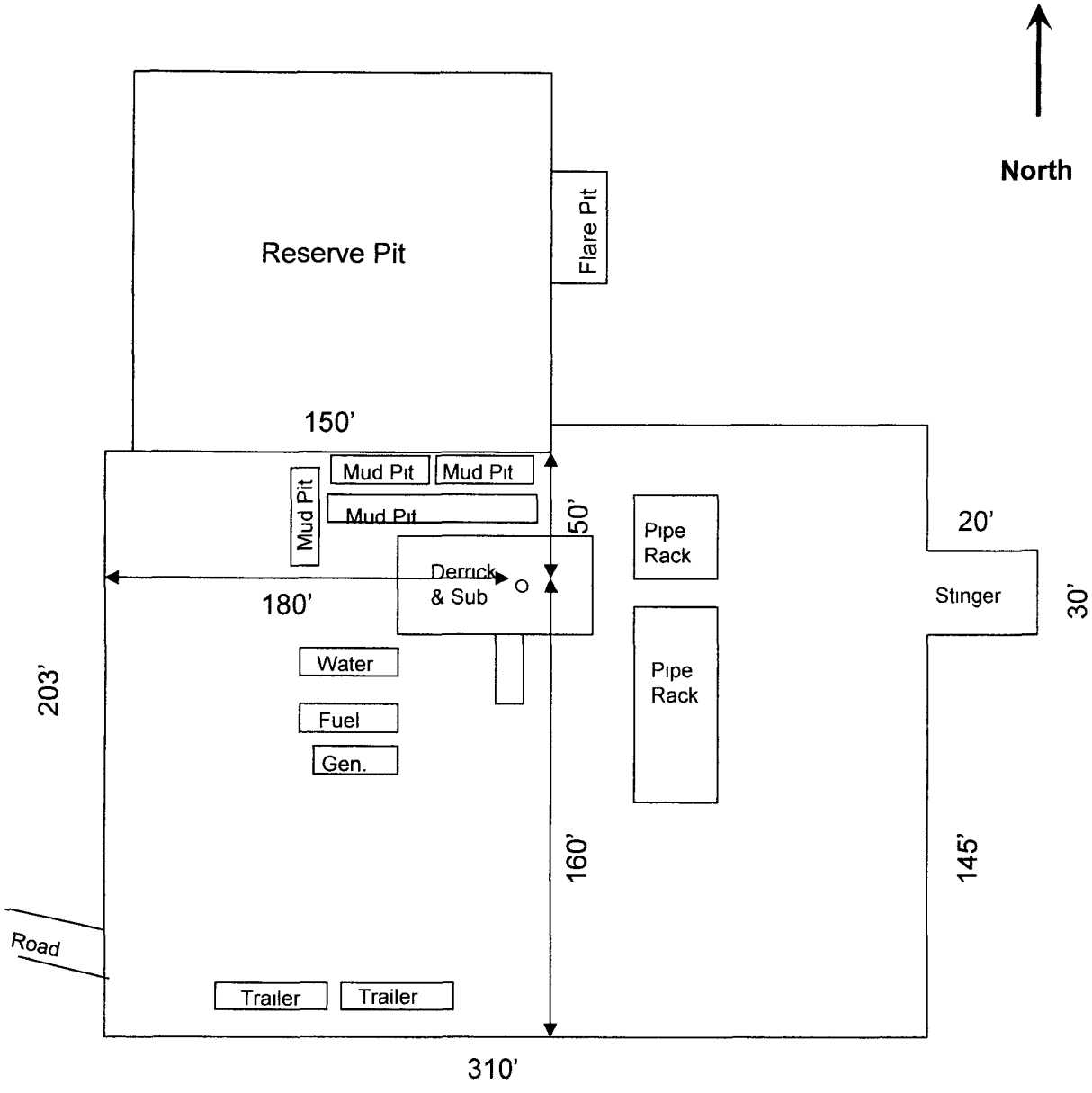
8700-9,800': Polymer/Brine 10.0 – 10.1 PPG Utilize polymers and starch to maintain fluid loss 15 to 8 cc range and sufficient mud weights to stabilize shales and minimize any hydrocarbon influx. Utilize sweeps for hole cleaning and LCM as needed for seepage.

7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges.

8. No drill stem testing or coring is planned for this wellbore. Mudlogging will commence at 6000' under the current plan. A Schlumberger Platform Express Triple Combo electric log suite or equivalent will be run at TD.

9. The estimated BHP at TD is not expected to exceed 4300 psi, and a BHT of 165 F is anticipated. There is no H2S present in the hydrocarbons being produced in this area. Should such unexpected circumstances be encountered the operator and drilling contractor are prepared to take necessary steps to ensure safety of all personnel, and environment. Lost circulation could occur but is not expected to be a serious problem in this area, and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

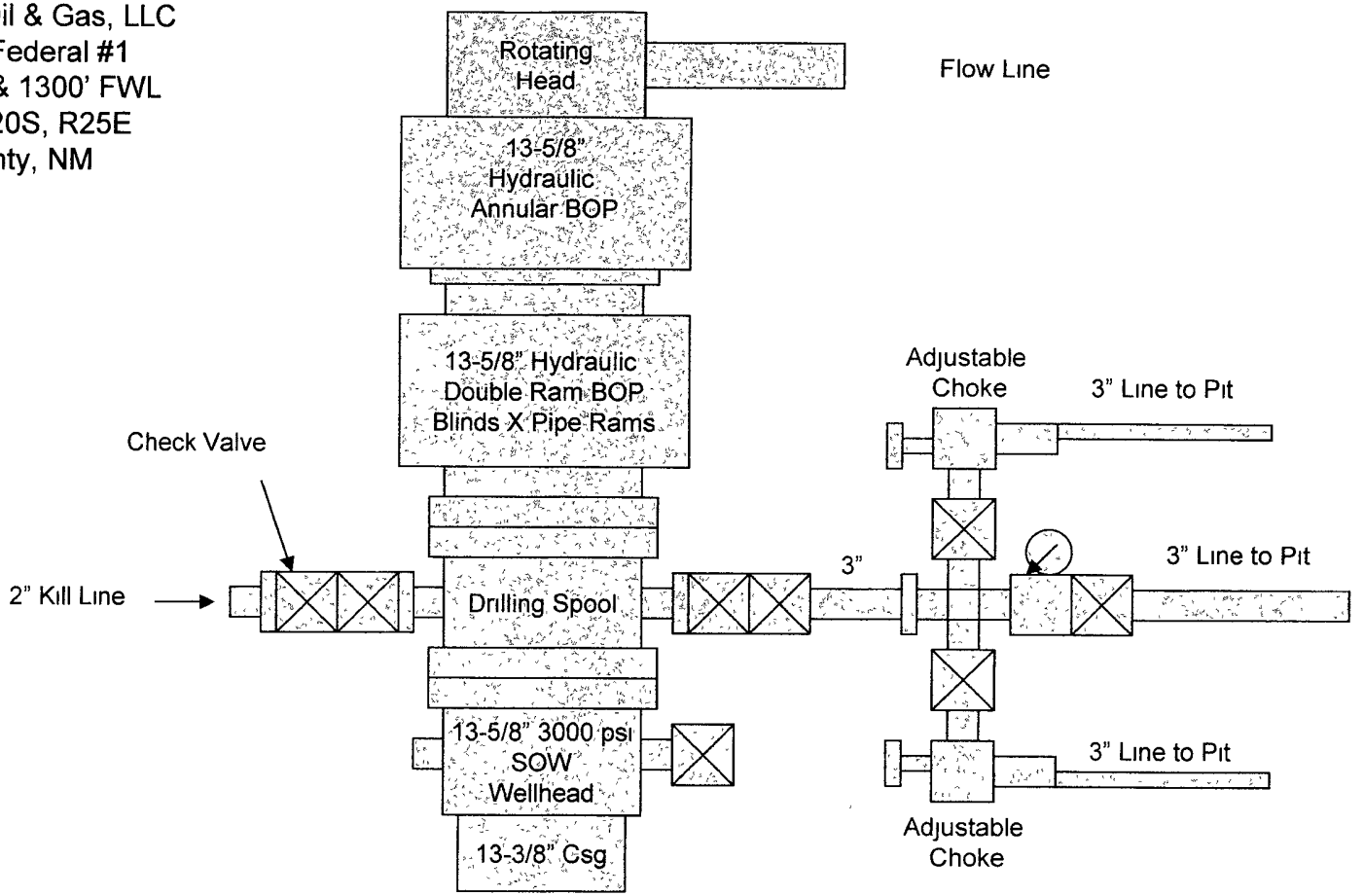
10. It is estimated that this well will be drilled and cased in 40 days. Drilling will commence as soon approval is received and services can be contracted.



See COA's
Pit North

Rig & Well Site Plat
Rubicon Oil & Gas, LLC
Stone 30 Federal #1
Section 30, T20S, R25E
Eddy County, NM

Rubicon Oil & Gas, LLC
Stone 30 Federal #1
660' FNL & 1300' FWL
Sec 30, T20S, R25E
Eddy County, NM



3000 psi Working Pressure
BOPE Configuration
And Choke Manifold

Exhibit "A"

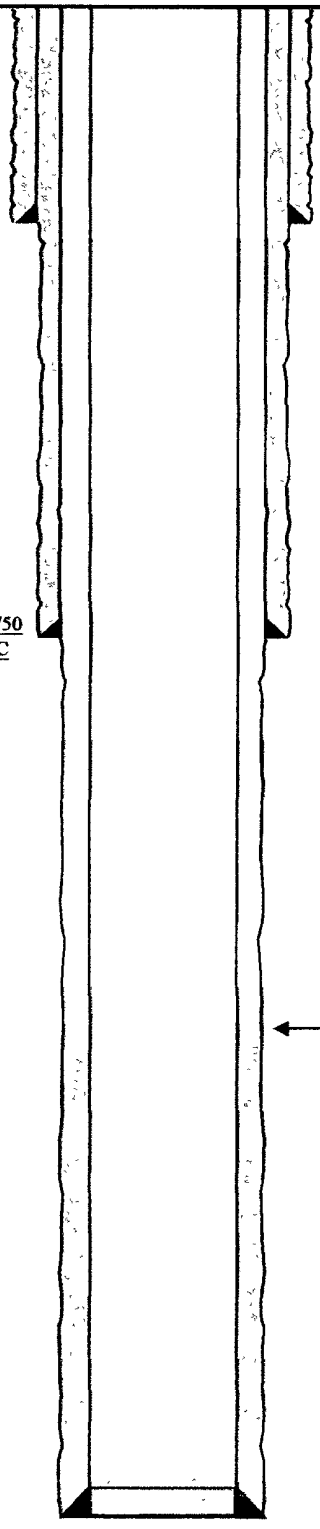
Rubicon Oil & Gas, LLC
Stone Orchard Prospect

KB:'
GL:3,561'

Stone 30 Federal #1
Eddy County, New Mexico
Planned Wellbore
API#

660' FNL & 1300' FWL
Sec. 30, T20S, R25E, UL D
Eddy County, NM

TD'd:
Spud:



Bit Size. 17-1/2"
Gel/Lime "spud mud" 8.4-9.4 PPG

13-3/8" 48# H40 STC @ 400' w/ 440 sks Class C + 2% Bentonite +0.125% CelloFlake, Yield 1.35 cu. Ft./sk.

San Andres ~650'

Bit Size. 12 1/4"
Fresh Water 8.4 – 8.6 PPG.

Glorietta ~2,300'

9-5/8" 36# K55 STC @ 3000' Lead Slurry: 680 sks Class C 50/50 Poz w/ additives, yld ~ 2.45 cu ft/sk Tail Slurry: 200 sks Class C w/ 2% CaCl, yld ~ 1.34 cu ft/sk

Bone Springs ~3,700'

Bit Size 8-3/4"
3000'-8700': Fresh Water / Cut brine 8.4 – 9.4
8700-9,800' Polymer/Brine 10.0 – 10.1 PPG

TOC ~6,000'

3rd Bone Springs ~ 6,000'
Cisco ~6,600'

Strawn ~ 8,400'
Morrow ~9,200'
Morrow Clastics ~9,400'

4-1/2" 11.6# HCP-110 LTC @ 9,800' w/ 1120 sks Class C Poz with additives, yld ~ 1.57 cu ft/sk

DWW 9/18/2007

Thirteen Point Plan for Surface Use

(Additional data for form 3160-3)

Rubicon Oil & Gas, LLC

Stone 30 Federal #1

Section 30, T-20-S, R-25-E

660 FNL & 1300 FWL, Unit Ltr D

Field: Undesignated Morrow

Eddy County, NM

1. EXISTING ROADS - A "VICINITY MAP" and a "LOCATION VERIFCATION MAP" by John West Surveying are attached which show the location of existing roads and the area topography.

   The road log to the location is as follows:

   a) From U.S. Hwy. 285 (Seven Rivers Hwy) and Co. Rd. 28 (White Pine Rd.), go west approx. 3.9 miles to the intersection of Co. Rd. 28 (White Pine Rd.) and Co. Rd. 27 (Picket Rd.).

   b) Go north then bend west on Co. Rd. 27 approx. 2.9 miles.

   c) Turn left and go southeast approx.,0.6 miles on lease road, bend left and go southeast approx. 405 feet.

   d) Bend right and go south approx. 0.4 miles to road intersection.

   e) Turn right and go southwest on Trail Rd. approx. 0.3 miles to Rd. Lath.

   f) Follow Rd. Lath approx. 800 feet to location.

2. PLANNED ACCESS ROAD —Build approximately 877' of new N-S access road to location as depicted on John West survey.

3. LOCATION OF EXISTING WELLS - EXHIBIT B shows the location of other wells within a mile radius of the proposed location.

4. LOCATION OF PROPOSED FACILITIES – This production well will be tied new facilities built on location.

5. LOCATION AND TYPE OF WATER SUPPLY - All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access road. No water source wells will be drilled, and no surface water will be utilized.

6. SOURCE OF CONSTRUCTION MATERIALS - Construction material (caliche) required for the preparation of the drill site is available from a local source. It is not anticipated that a significant amount of material will be required as the terrain is relatively flat. Transportation will be over the existing roads.

7. METHODS FOR HANDLING WASTE DISPOSAL –

   • Drill cuttings will be disposed into drilling pits after fluids have evaporated.

• The drilling pits will be lined with a biodegradable plastic liner, and buried as per regulatory requirements. The pits will be located on the drill site.

• Receptacles for solid wastes (paper, plastic, etc) will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site.

• Any other waste generated by the drilling, completion, testing of this well will be removed from the site within 30 days of the completion of drilling or testing operations.

• A Porta-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well.

8. ANCILLARY FACILITIES - The drilling, completion, and/or testing of this well will require no ancillary facilities.

9. WELLSITE LAYOUT - Attached, as EXHIBITS C & D are plats showing the anticipated orientation of the drilling rig and the pad.

10. PLANS FOR SURFACE RESTORATION - Reclamation of the surface location will be in accordance with the requirements set forth by the BLM. As stated earlier all waste generated by this operation will be disposed of in an approved manner, and the site restored as closely as possible to its pre-operation appearance. Due to the topography of the area no problems are anticipated in achieving this status and no erosion or other detrimental effects are expected as a result of this operation.

11. OTHER INFORMATION - The surface ownership of the drill site and the access routes are under the control/ownership of: NL (See surface agreement certification attached)

Bureau of Land Management

P. O. Box 1778

Carlsbad, New Mexico 88221-1778

505-234-5972

The BLM representative for this area is Barry Hunt who can be reached at the above number, or 505-361-4078.

The site was archaeologically surveyed in 2007. Danny Boone, the registered archeological surveyor, should forward a copy of that report to the BLM.

12. OPERATORS REPRESENTATIVE – Rubicon Oil & Gas, LLC is covered by Statewide Bond No. B32644643, BLM Bond # 2922, Oil & Gas State of New Mexico Blanket Plugging Bond B32644641.

Rubicon is represented by:

Brett Smith

Rubicon Oil & Gas, LLC

(432) 687-5100

Agent / Operations Manager:

David Wantuck

Cell (432) 528-2596

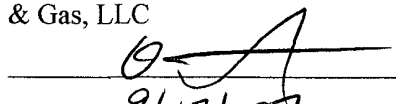
Office (432) 683-6565

13. OPERATORS CERTIFICATION

I hereby certify that I, David Wantuck -Operations Manager, have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist; that the statements made in the APD package are to the best of my knowledge true and correct; and that the work associated with operations herein will be performed by Rubicon Oil & Gas, LLC and it's contractors and subcontractors in conformity with the terms and conditions of this APD package. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application with bond coverage being provided under a BLM nationwide bond.

This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Name and title: David Wantuck, Acting Agent and Operations Manager for Rubicon Oil & Gas, LLC

Signature: 

Date: 9/17/07

VI. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Canyon** formation. **Hydrogen Sulfide has been reported in the area measuring 2000-10000 ppm in the gas stream and 2000 ppm in STVs.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The **13-3/8** inch surface casing shall be set at **approximately 400 feet within the Artesia Group using fresh water mud** and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

   b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

Medium cave/karst.
Possible lost circulation in the San Andres, Wolfcamp, and Strawn formations.
Possible high pressure gas bursts from the Wolfcamp formation and over pressured formations in the Pennsylvanian section.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a-d above.

   Casing to be set above the top of the Glorietta formation at approximately 2250 feet in the Lower San Andres formation and drilled with fresh water mud.

3. The minimum required fill of cement behind the **4-1/2** inch production casing is:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Additional cement will be required.**

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be

submitted to the appropriate BLM office.

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days**. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

f. A variance to test the surface casing and BOP/BOPE to the reduced pressure of **1000** psi with the rig pumps is approved.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

Engineer on call phone (after hours): **Carlsbad: (575) 706-2779**

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