ATS-07-542

SECRETARY'S POTASH

OCD-HOBBS

Form 3160-3
(February 2005)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No. NM~~X~~99048

6. If Indian, Allotee or Tribe Name

7 If Unit or CA Agreement, Name and No.

1a. Type of work. ☑ DRILL ☐ REENTER

8. Lease Name and Well No. (36578)
MUD SLIDE SLIM 15 FEDERAL 1

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

9. API Well No.
30-025-38469

2. Name of Operator
CAZA OPERATING, LLC (Ogrid No. 249099)

3a. Address **200 N. LORRAINE STE 1550**
MIDLAND, TX 79701

3b. Phone No. *(include area code)*
(432) 638-8475

10. Field and Pool, or Exploratory
LAGUNA VALLEY MORROW

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface ~~1990~~ **FNL & 1980 FWL UNT LTR F**
1980' Per Kay Maddox 7-5-07
At proposed prod zone

11. Sec., T R. M. or Blk. and Survey or Area
SECTION 15, T-20-S, R-34-E

14. Distance in miles and direction from nearest town or post office*
2 MILES NW ARTESIA

12. County or Parish
LEA

13. State
NM

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

16. No. of acres in lease
320

17 Spacing Unit dedicated to this well
320

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

19 Proposed Depth
13,500'

20 BLM/BIA Bond No. on file
NMB 000471

21 Elevations (Show whether DF, KDB, RT, GL, etc)
GR 3642'

22. Approximate date work will start*
08/01/2007

23. Estimated duration
30 DAYS

OCT 2007
Received
Hobbs
OCD

24. Attachments

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 Kay Maddox — Name *(Printed/Typed)* **KAY MADDOX (Kay.Maddox@yahoo.com)** — Date **06/27/2007**

Title **REGULATORY AGENT**

Approved by *(Signature)* Jesse J Juen — Name *(Printed/Typed)* **/s/ Jesse J. Juen** — Date 9-20-07

Title for **STATE DIRECTOR** — Office **NM STATE 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

Title 18 USC Section 1001 and Title 43 USC. 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)

Capitan Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

State of New Mexico

Energy, Minerals and Natural Resources Department

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

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
30-025-38469	79900	LAGUNA VALLEY MORROW

Property Code	Property Name	Well Number
36578	MUD SLIDE SLIM "15" FEDERAL COM	1

OGRID No.	Operator Name	Elevation
249099	CAZA OPERATING, LLC	3642'

Surface Location

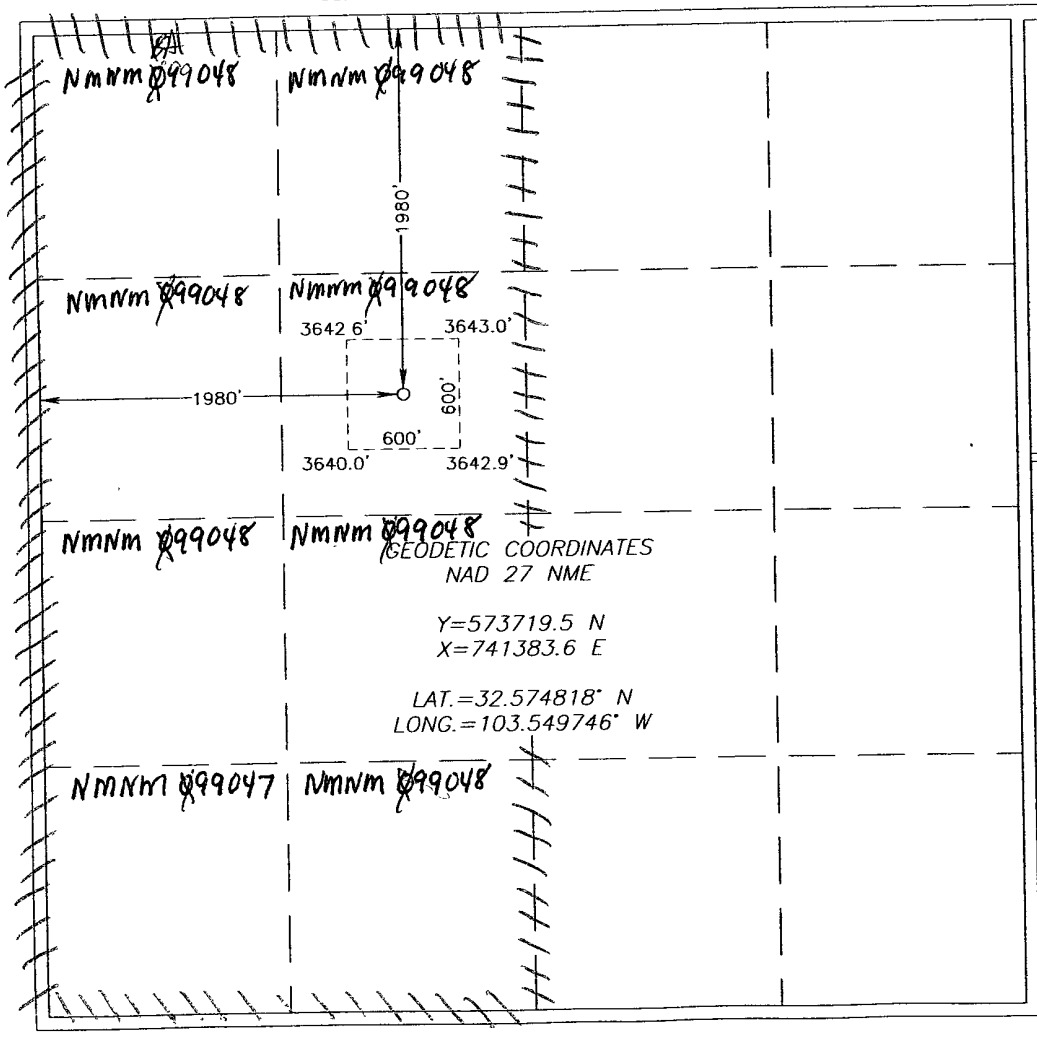
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	15	20-S	34-E		1980	NORTH	1980	WEST	LEA

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.

Kay Maddox
Signature Date

KAY MADDOX 6/26/2007
Printed Name

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.

RONALD J. EIDSON 3239 NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR

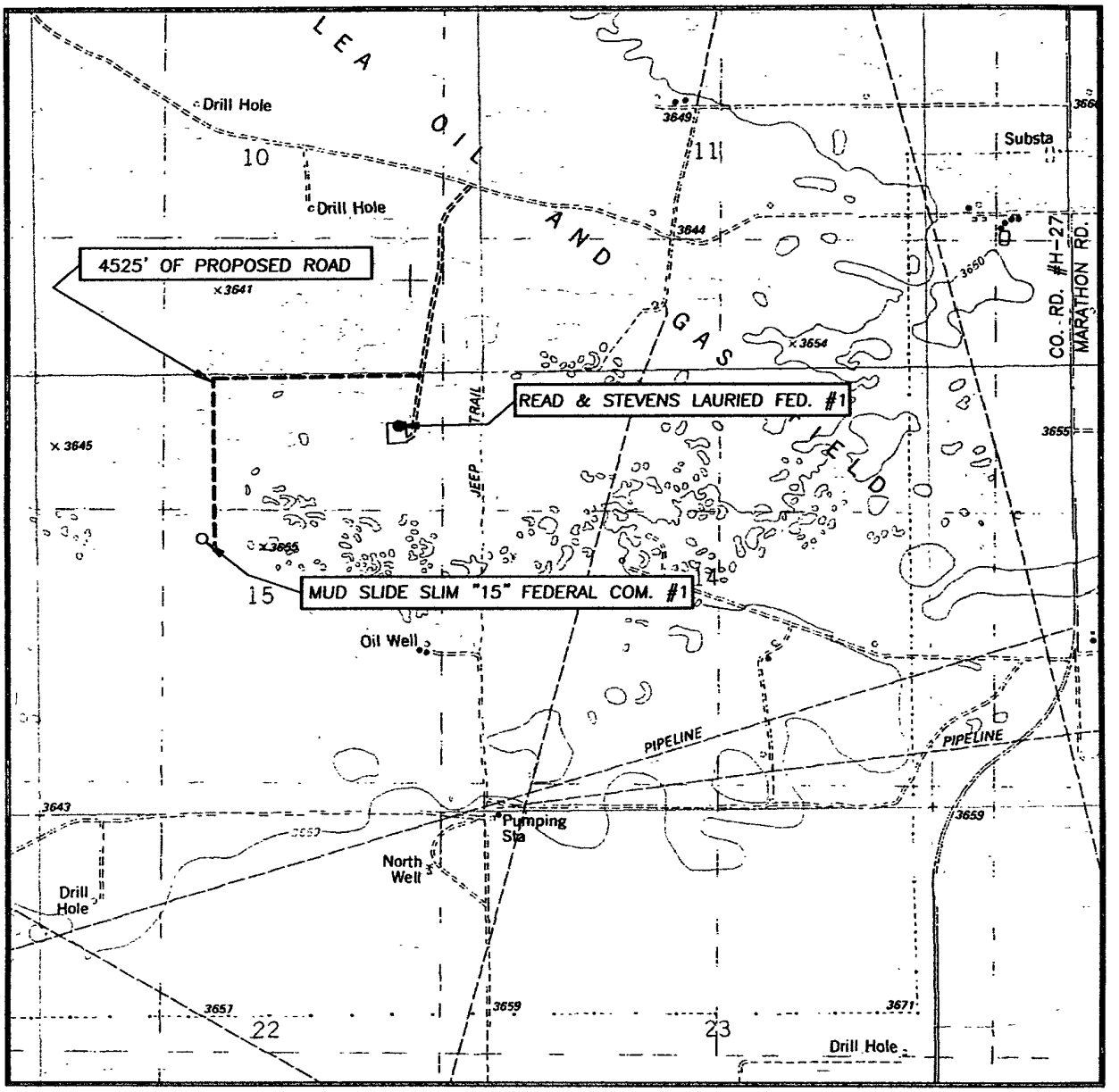
Date Surveyed: JUNE 15, 2007 AR

Signature & Seal of Professional Surveyor: 3239

6/19/07

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LEA, N.M. – 10'

SEC. 15 TWP. 20-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1980' FNL & 1980' FWL

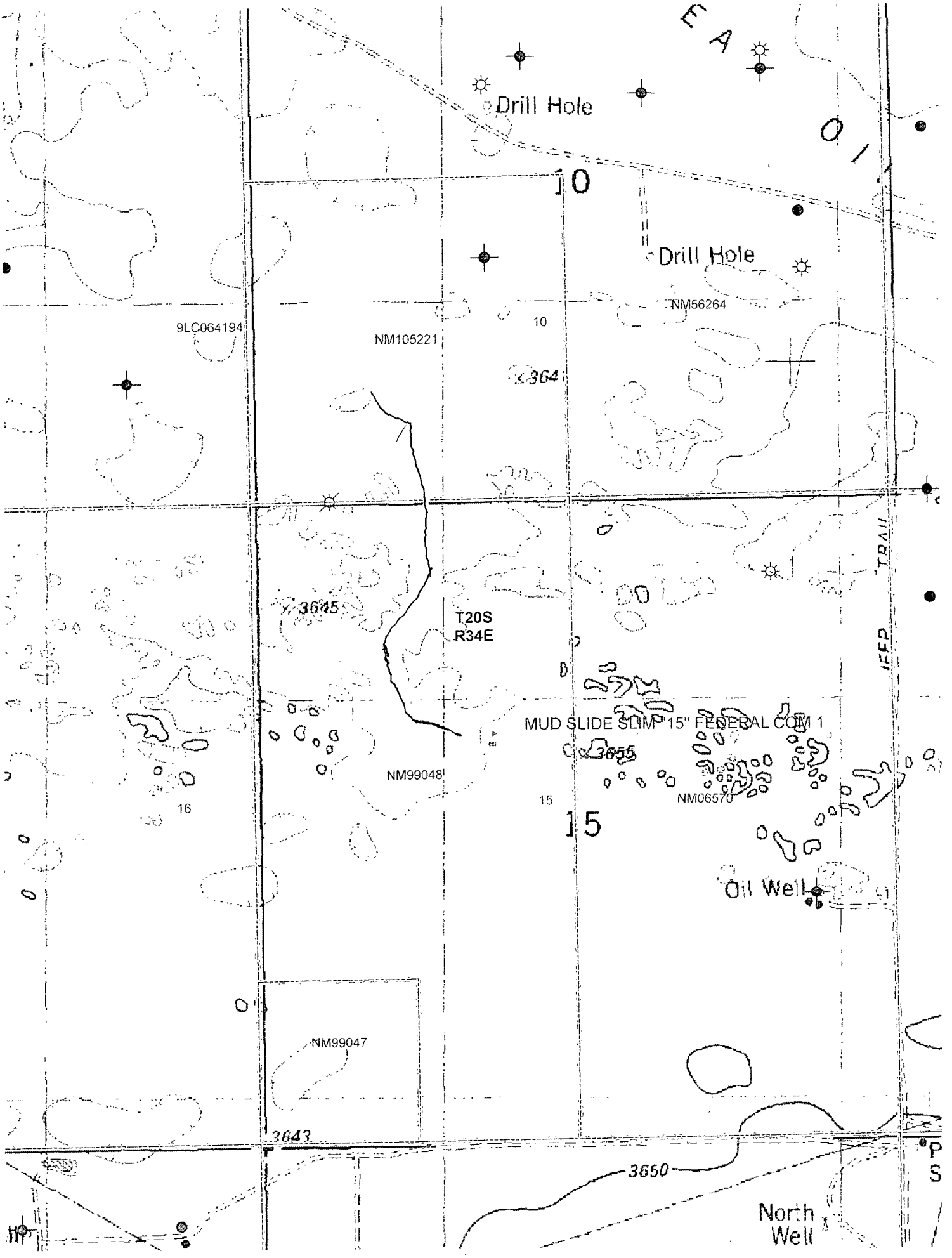
ELEVATION 3642'

OPERATOR CAZA OPERATING, LLC

LEASE MUD SLIDE SLIM "15" FEDERAL COM.

U.S.G.S. TOPOGRAPHIC MAP
LEA, N.M.

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


Drill Hole
Drill Hole
10
NM56264
9LC064194
NM105221
10
3644
3645
T20S
R34E
MUD SLIDE SLIM 15" FEDERAL COM 1
3655
NM99048
15
NM06570
16
15
Oil Well
NM99047
3643
3650
North
Well

Nine Point Drilling Plan

(Supplement to BLM 3160-3)

Caza Operating LLC

Mud Slide Slim 15 Federal #1

1980' FNL, 1980' FWL

Morrow Field

Lea County, NM

1. Name and estimated tops of geologic horizons

Tansill	1600'
Yates	3500'
Delaware	5500'
Bone Springs	8300'
First Bone Springs	9500'
Second Bone Springs	9900'
Third Bone Springs	10700'
Wolfcamp Shale	11000'
Strawn	12100'
Atoka Clastics	12400'
Morrow Lime	12600'
Middle Morrow	13000'
Lower Morrow	13150'
Barnett Shale	13250'

2. Protection of possible useable water will be achieved by setting 13 3/8" surface casing @1625' +/- (into the predicted top of the Rustler formation) and cementing it to surface. Isolation of the productive Delaware-Brushy Canyon will be achieved by setting 9 5/8" casing @ 5500' +/-, and cementing back to surface.

3. The well control equipment to be employed during the drilling of this well is illustrated on attached EXHIBIT A. This equipment includes a double ram BOP, annular BOP, and choke manifold of comparable pressure rating. Equipment will be rated for 5000 PSI and will be tested to 80% of that pressure prior to drilling out of the 13 3/8" surface casing. 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:

Safety factors from previous plan, Burst 1.2 Collapse 1.2 Tension 1.8 8-7-07 RMA

Surface: 13 3/8" OD, 54.50 #/ft, J-55, STC, new pipe @ ~~500'~~ 1625' +/- in 17 1/2" hole.

Intermediate 1: 9 5/8" OD, 43.50 #/ft, N-80, LTC, new pipe @ 5500'+/- in 12 1/4" hole.

Production: 5 1/2" OD, 20.0 #/ft, P-110, LTC, new pipe @ 13,500'+/- in 8 1/2" hole.

In the event available rig contractor utilizes 4 ½" Drill Pipe, a 7 7/8" hole will be drilled.

5. Cementing programs for the above casing strings are:

Surface: **Lead Slurry**: 870 sx of (35:65) Poz (Fly Ash) Class C base Cement plus additives at 12.5 ppg and 2.05 SY.

Tail Slurry: 185 sx of Class C base cement plus additive at 14.80 ppg and 1.34 SY.

From previous Top of cement will be at surface.

The above volume represents 80% 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 brine water.

Intermediate 1 @ 5500':

Lead Slurry: 1200 sx (50:50) Poz (Fly Ash) Class C base cement plus additives at 11.60 ppg and 2.61 SY.

Tail Slurry: 235 sx Class C base cement plus additives at 14.80 ppg and 1.34 SY.

Encountering lost circulation while drilling the intermediate hole section is possible in the area. In the event lost circulation is encountered, a DV tool will be utilized to accomplish the requirement to circulate cement to surface for the intermediate hole section. In the event a DV tool is required for a two stage job, operator representative will verbally contact the BLM prior to installation to obtain approval.

The above are BJ Services products with 100% excess open hole volume - actual volumes will be adjusted to the open hole caliper of this wellbore. The cement slurries will be preceded by 12 bbls cement wash for mud removal and displaced with fresh water. Equivalent products from another vendor may be substituted for BJ depending on price/availability.

Production:

Lead Slurry: 265 sx (50:50) Poz (Fly Ash) Class H base cement with additives at 11.80 ppg and 2.40 SY.

Tail Slurry: 1020 sx Class H base Cement with additives at 15.60 ppg and 1.10 SY.

From previous Top of cement will be at 5,500' (inside the 9 5/8" casing).

The above are B J Services products with 40% excess open hole volume - actual volumes will be adjusted to the open hole caliper of this wellbore. Equivalent products from another vendor may be substituted for BJ depending on price/availability.

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

0-1625: Gel/Lime "spud mud" 8.6-9.2 PPG. Utilize native solids to maintain sufficient viscosity to clean hole. Mix paper as required to control seepage loss.

1625'-5500': Brine 9.9 - 10.0 PPG. Circulate thru reserve pit for gravitational solids solids removal. Add paper as required to control seepage loss while maintaining pH at 10.0 – 10.5 using Lime. Brine water will minimize hole wash out in the salt.

5500-13300': Fresh Water 8.6 – 11.0 PPG Fresh water mud / cut brine to 10,850'.

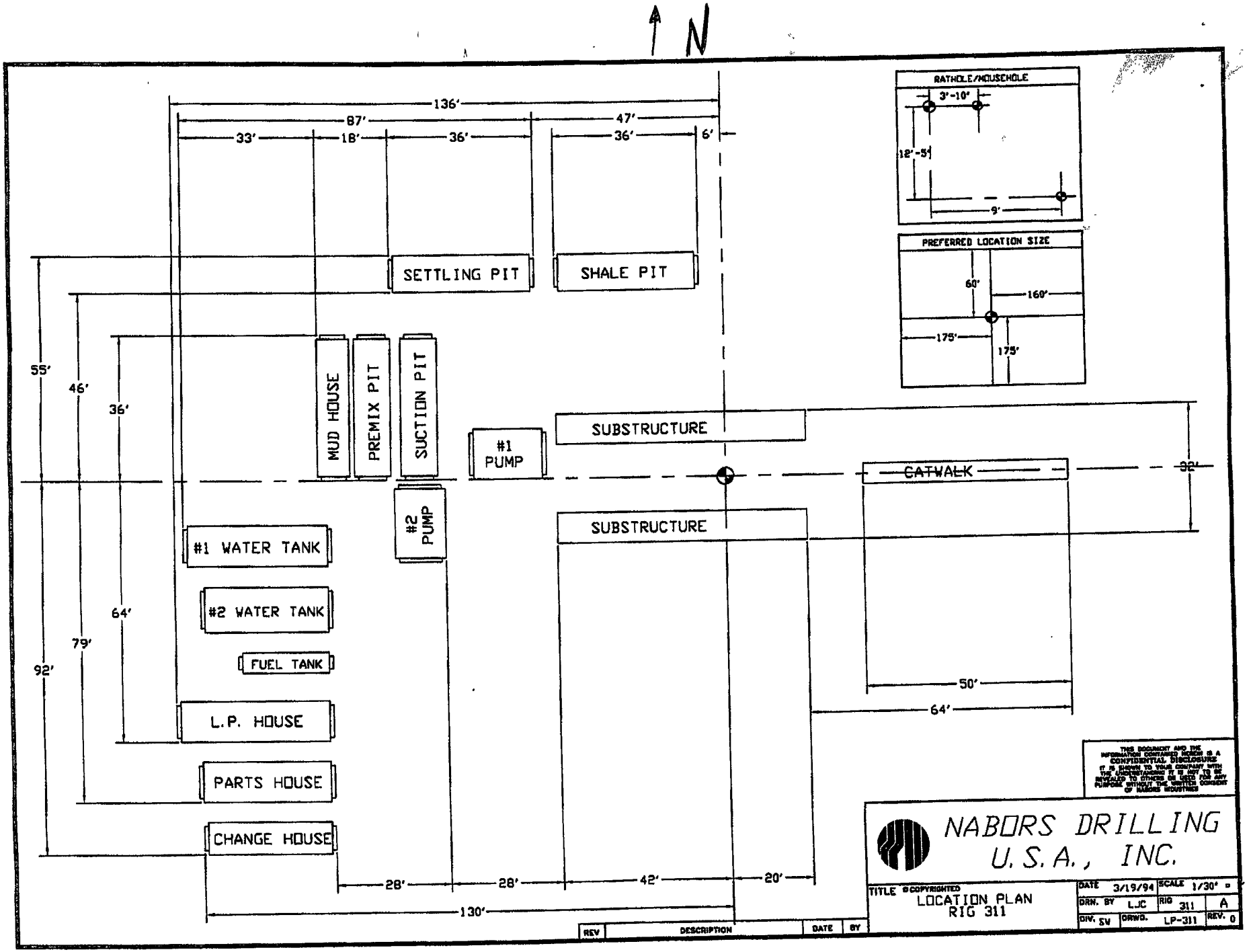
At 10,850' "Morrow Mud" will be mixed to lower water loss to prevent sloughing problems that may be encountered in the Wolfcamp, Strawn, & Atoka Clastic intervals.

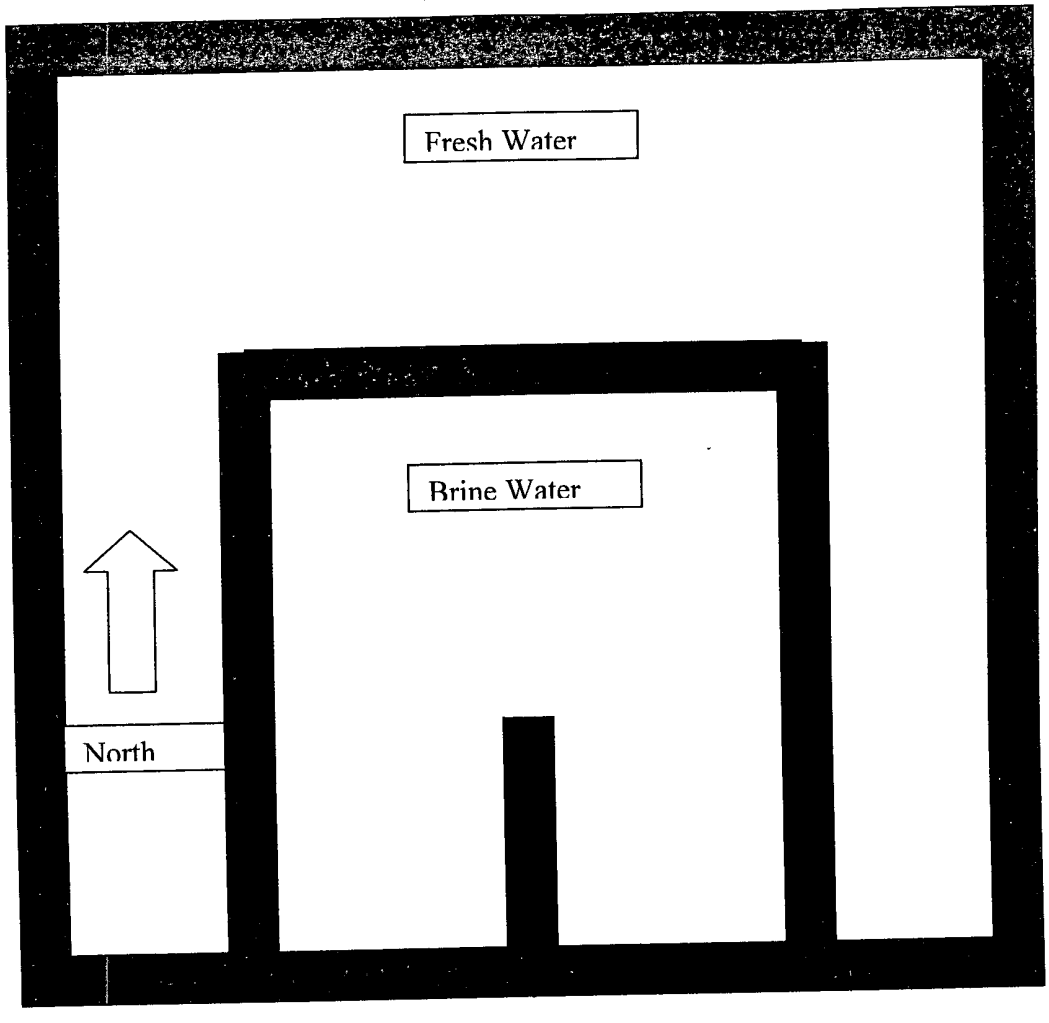
7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges.

8. There is the potential to perform Drill Stem Tests in the Bone spring Carbonate, Wolfcamp, Atoka, & Morrow formations. Wireline logs will be run from TD to 5500'. Logging run 1 will consist of DLL-GR, plus CNL-LDT-GR tools. Logging run 2 will consist of DLL-GR, CNL-LDT-GR, & FMI tools.

9. The estimated BHP at TD is not expected to exceed 4910 psi, and a BHT of 205 F is anticipated. There is 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.

It is estimated that this well will be drilled and cased in 55 days. Drilling will commence as soon after approval is received and services can be contracted.


N
RATHOLE/MOUSEHOLE
3'-10"
12'-5"
9'
PREFERRED LOCATION SIZE
60'
160'
175'
175'
136'
87'
47'
33'
18'
36'
36'
6'
SETTLING PIT
SHALE PIT
MUD HOUSE
PREMIX PIT
SUCTION PIT
#1 PUMP
#2 PUMP
SUBSTRUCTURE
SUBSTRUCTURE
CATWALK
32'
55'
46'
36'
64'
79'
92'
#1 WATER TANK
#2 WATER TANK
FUEL TANK
L.P. HOUSE
PARTS HOUSE
CHANGE HOUSE
50'
64'
28'
28'
42'
20'
130'
REV
DESCRIPTION
DATE
BY
THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS A CONFIDENTIAL DISCLOSURE
NABORS DRILLING U.S.A., INC.
TITLE ©COPYRIGHTED
LOCATION PLAN
RIG 311
DATE 3/19/94
SCALE 1/30"
DRN. BY LJC
RIG 311
A
DIV. SV
DRWG. LP-311
REV. 0



150' x 150' Double Horseshoe Reserve Pit

Caza Petroleum, Mud Slide Slim Federal 15-1