

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

5 Lease Serial No

LC-028731-B

6. If Indian, Allottee or Tribe Name

OCD-ARTESIA

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

Dodd Federal Unit #551

2. Name of Operator

Marbob Energy Corporation

9 API Well No.

30-015-35854

3a Address

P.O. Box 227, Artesia, NM 88211-0227

3b. Phone No (include area code)

505-748-3303

10 Field and Pool, or Exploratory

GRBG Jackson SR Q GRBG SA

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface 990' FNL & 990' FEL

At proposed prod zone

Roswell Controlled Water Basin

11 Sec, T, R, M, or Blk and Survey or Area

Sec 15, T17-S R29-E

14 Distance in miles and direction from nearest town or post office*

About 7 miles from Loco Hills, NM

12 County or Parish

Eddy County

13 State

NM

15 Distance from proposed*
location to nearest
property or lease line, ft
(Also to nearest drig unit line, if any) 1650'

16. No. of Acres in lease

1480

17 Spacing Unit dedicated to this well

40

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

19. Proposed Depth

5000'

20. BLM/BIA Bond No on file

NM B000412

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

GL 3616'

22 Approximate date work will start*

August 18, 2007

23. Estimated duration

21 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall 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 shall 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
authorized officer

25 Signature

Nancy T. Agnew

Name (Printed/Typed)

Nancy T. Agnew

Date

7/18/07

Title

Land Department

Approved by (Signature)

/s/ Don Peterson

Name (Printed/Typed)

/s/ Don Peterson

Date

OCT 2 2007

Title

FOR

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

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 reverse)

SEE ATTACHED FOR
CONDITIONS OF APPROVALIf earthen pits are used in
association with the drilling of this
well, an OCD pit permit must be
obtained prior to pit construction.APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BLM CARLSBAD FIELD OFFICE

FORM APPROVED
OMB No 1004-0135
Expires January 31, 2004**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No

NMNM 111789X

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No

Dodd Federal Unit

9. API Well No

Multiple

10. Field and Pool, or Exploratory Area

GRBG JACKSON SR Q GRBG SA

11. County or Parish, State

Eddy County, New Mexico

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Marbob Energy Corporation

3a. Address

P.O. Box 227, Artesia, NM 88211-0227

3b. Phone No (include area code)

505-748-3303

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

T-17S, R29E : E/2W/2 & E/2 of Section 10, ALL Section 11, ALL Section 14, E/2 Section 15,
SE/4, S/2NE/4, NE/4NE/4 & SE/4SW/4 of Section 22**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other safety factors &
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	yield to drlg plan & Desc.
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	on sec. 15

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Marbob Energy Corporation respectfully requests approval on the following safety factors and cement yields to be added to the above referenced master drilling program:

SAFETY FACTORS: Collapse - 1.125, Burst - 1.125, Tension - 1.6

CEMENT YIELD: "C" - 1.34, "H" - 1.67, "Light" - 1.92

Marbob Energy Corporation also requests that the following description be changed on the master drilling program:

FROM: W/2 of Section 15 - TO: E/2 of Section 15

Associated with/to Dodd Federal 522 ; case no. NMNM 111789X

**ENTERED
IN AFMSS**

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Nancy T. Agnew

Title Land Department

Signature

Nancy T. Agnew

Date 7/31/07

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

ACCEPTED FOR RECORD

Approved by (Signature)

Name

(Printed/Typed)

Office

Title

AUG 9 2007

Date

Conditions of approval, if any, are attached. Approval of this notice 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.

WESLEY M. INGRAM

PETROLEUM ENGINEER

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 any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on next page)

DISTRICT I
1626 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Ed., 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 28509	Pool Name GRBG JACKSON SR. & GRBG SA
Property Code	Property Name DODD FEDERAL UNIT	Well Number 551
OCRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3616'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	15	17-S	29-E		990	NORTH	990	EAST	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 40	Joint or Infill	Consolidation Code	Order No.						

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

<p>GEODETIC COORDINATES NAD 27 NME Y=669053.9' N X=584944.9' E LAT.=32.839009° N LONG.=104.056765° W</p>		<p>DETAIL</p> <p>3610.8' 3615.4' 3615.1' 3613.3'</p> <p>600' 600'</p>	<p>SEE DETAIL</p> <p>990'</p>	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p>Nancy T. Agnew 7/18/07 Signature Date Nancy T. Agnew Printed Name</p>
				<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>MARCH 16 2007 Date Surveyed AR Signature & Seal of Professional Surveyor RONALD J. EIDSON 3239 07.11.0309 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239</p>

**Master Drilling Plan
MARBOB ENERGY CORPORATION
DODD FEDERAL UNIT**

**Master Drilling Program for Dodd Federal Unit
Attached to Form 3160-3**

T-17S, R29E

E/2W/2	Section 10
E/2	Section 10
ALL	Section 11
ALL	Section 14
W/2	Section 15
SE/4	Section 22

T-17S, R29E

S/2NE/4	Section 22
NE/4NE/4	Section 22
SE/4SW/4	Section 22

Eddy County, New Mexico

1. Geological Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Yates	830`
Queen	1765`
Grayburg	2078`
San Andres	2418`
Glorieta	3888`
Yeso	3954`

3. Estimated Depths of Anticipated Fresh Water, Oil, or Gas:

Grayburg	2078`	Oil
San Andres	2418`	Oil
Yeso	3954`	Oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8-5/8" casing at 375' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons above 200'.

4.

Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg.</u>	<u>Weight, Grade, Jt. Cond. Type</u>	
12 1/4"	0 - 375'	8 5/8"	24#	J-55 ^{STC} LTC NEW R-3
7 7/8"	0 - 5000'	5 1/2"	17#	J-55 LTC NEW R-3

Cement Program:

8 5/8" Surface Casing: Cemented to surface with 300sx of Class C with 2%cc.

The 8 5/8 inch surface casing shall be set at 350-375 feet or 25' in the Rustler Anhydrite or in the case that salt occurs at a shallower depth above the top of the salt, below usable water and cement circulated to the surface. The surface casing shoe shall be set in the anhydrite to ensure adequate sealing. If cement does not circulate to the surface the operator may then use ready-mix cement to fill the remaining annulus. The operator is required to use an excess of 100% cement volume to fill the annulus.

5 1/2" Production Casing: Cemented with 1100sx Class C. The minimum required fill of cement behind the 5 1/2 inch production casing is cement shall extend upward a minimum of 200 feet into the surface casing.

5.

Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram (2000 psi wp) preventer. This unit will be hydraulically operated and the ram-type preventer will be quipped with blind rams on the top and 3 1/2" drill pipe rams on bottom. This BOP will be nipped up on the 8-5/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and a 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi wp rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with cut brine. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-375'	Fresh Water (Spud)	8.5	48	N.C.
375'-5000'	Brine	9.8-10.2	40-45	N.C.

7. Auxiliary Well Control and Monitoring Equipment:

- (A) A Kelly cock will be kept in the drill string at all time.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program:

- (A) No Drillstem tests are anticipated.
- (B) The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csng Log, and Depth Control Log. Selected SW cores may be taken in zones of interest.
- (C) No conventional coring is anticipated.
- (D) Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD based on drill shows, and log evaluation, and drill stem test results.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 104° and estimated bottom hole pressure (BHP) is 2250 psig.

This area has a potential H₂S hazard. An H₂S Drilling Plan is attached, including a diagram of the drilling rig layout with H₂S monitors and wind direction indicators shown.

DRILLING PROGRAM

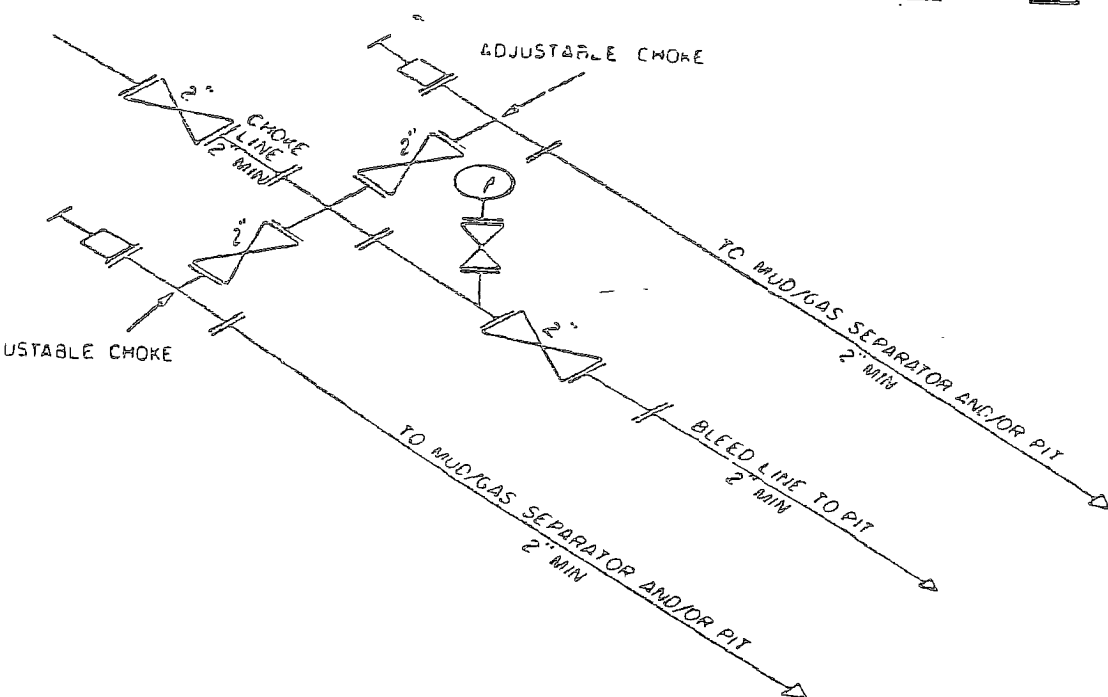
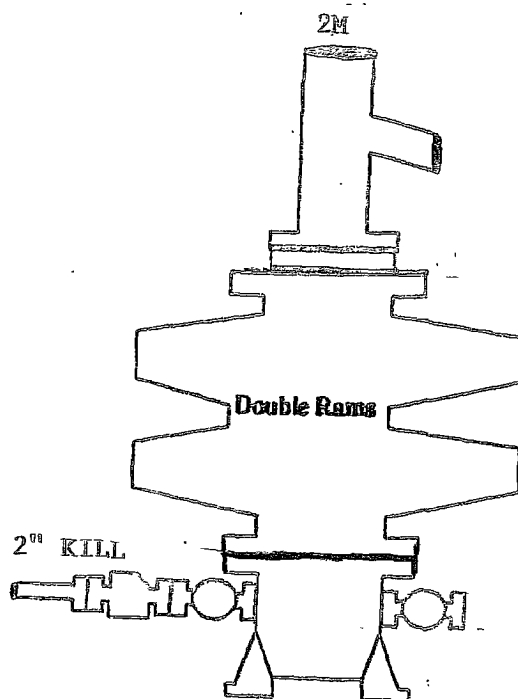
**Dodd Federal Unit #551
990' FNL & 990' FEL
Section 15-17S-29E
Eddy County, New Mexico**

10. Anticipated Starting Date and Duration of Operations

Starting date will be scheduled upon approval.

Duration of Operations: Once commenced, the drilling operations should be completed in approximately 21 days. If the well is productive, an additional 30 to 60 days will be required for completion and testing of the well.

BOPE SCHEMATIC



2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES

MAY VARY

SURFACE USE AND OPERATING PLAN

**Dodd Federal Unit #551
990' FNL & 990' FEL
Section 15-17S-29E
Eddy County, New Mexico**

- 1.(c) Directions to Locations: From the intersection of U.S. Hwy #83 and Co. Rd #215 (Kewanee Rd), go West on U.S. Highway #83 approx. 1.2 miles. Turn right and go North approx. 1.1 mile. Turn left and go West approx. 0.1 mile. Turn right on staked road and go North approx. 936 feet to the Southeast corner of this location.**
- 2. There will be 936' of proposed access road.**
- 4. (a) If productive, this well will use the North tank battery.**

**MARBOB ENERGY CORPORTATION
MASTER DRILLING PROGRAM
DODD FEDERAL UNIT**

Attached to Form 3160-3

T-17S, R29E

E/2W/2	Section 10
E/2	Section 10
ALL	Section 11
ALL	Section 14
W/2	Section 15
SE/4	Section 22

T-17S, R29E

S/2NE/4	Section 22
NE/4NE/4	Section 22
SE/4SW/4	Section 22

Eddy County, New Mexico

1. **Existing Roads:**

- (A) The well site and elevation plat for the proposed well is shown.
- (B) All roads to the location are shown on Exhibit #2 of each individual application. The existing roads are illustrated in red and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary determined during the onsite inspection.
- (C) Directions to location will be provided for each individual well application.
- (D) Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. **Proposed Access Road:**

Exhibit #2 of each application will show the new access road (if necessary) to be constructed and will be illustrated in red. The road will be constructed as follows:

- (A) The maximum width of the running surface will be 10'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be at 3:1 slope and 4' wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good

drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.

- (B) The average grade will be less than 1%.
- (C) No turnouts are planned.
- (D) No culverts, cattle guards, gates, low-water crossings, or fence cuts are necessary.
- (E) Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.

3. Location of Existing and/or Proposed Facilities:

- (A) Marbob Energy Corp. already has tank batteries set up for this lease. There are two tank batteries located on the lease. The tank batteries are located:

North Tank Battery	SESW	11-17S-29E
South Tank Battery	NWSE	22-17S-29E

Each new well will use either the North or South Tank facility corresponding to the side of highway it is located on.

- (B) If the well is productive, a 2" or 3" plastic flowline (grade SDR 7 @ 265 psi) will be laid on the surface following the existing lease road Right-of-Way to the Tank Battery. Anticipated pressures in the flowline should not exceed 75 psi. Proposed flowline route is indicated in blue on exhibit #2.
- (C) If the well is productive; power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
- (D) If the well is productive, rehabilitation plans are as follows:
 - (1) The reserve pit will be back-filled after the contents of the pit are dry (within 10 months after the well is completed).
 - (2) Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original

natural level, as nearly as possible, and reseeded as per BLM specifications.

4. Location and Type of Water Supply:

The well will be drilled with a combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck over the existing and proposed access roads. If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

5. Source of Construction Materials:

All caliche required for construction of the drill pad (approximately 1500 cubic yards) will be obtained from a BLM approved caliche pit. The pads will be constructed of 6`` rolled and compacted caliche.

6. Methods of Handling Water Disposal:

- A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.
- B. Drilling fluids will be contained in lined working pits. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit, approximately 100' X 150' X 6' deep. A dike will be built across the pit, dividing it in half. One-half of the reserve pit will be plastic-lined to minimize loss of drilling fluids and saturation of the ground with brine water. The other half of the reserve pit will be lined with plastic if we encounter a waterflow during drilling operations and find that we need additional space. This portioin of the pit is a precautionary measure only. The portion of the pit that will be lined with plastic should be more than adequate for normal drilling operations. If a water flow is encountered, we should have ample time to line the other half of the pit with plastic before the water encroaches.
- C. Water produced from the well during completion may be disposed into the reserve pit.
- D. Garbage and trash produced during drilling or completion operations will be hauled off. All waste material will be contained to prevent scattering by the wind. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operation.

- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 30 days. No adverse materials will be left on the location. The reserve pit is dry enough to breakout and fill, the reserve pit will be leveled and reseeded as per BLM specifications. In the event of a dry hole, the location will be ripped and seeded, as per BLM specifications, and a dry hole marker will remain.

7. Ancillary Facilities:

No airstrip, campsite, or other facilities will be built as a result of the operations on this well.

8. Well Site Layout:

- (A) The drill pad layout will be shown on Exhibit #3 for each individual well. Dimensions of the pad and pits will be shown. Top soil, if available, will be stockpiled per BLM specifications as determined as the on-site inspection.
- (B) The reserve pit will be lined with a high-quality plastic sheeting.

9. Plans for Restoration of the Surface:

- (A) Upon finishing drilling and/or completion operations, all equipment and other material not needed for operations will be removed.
- All trash, garbage, and pit lining will be hauled away in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 10 months after abandonment.
- (B) Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time that the rig is removed, the reserve pit will be fenced on the rig (fourth) side. The fencing will remain in place until the pit area is cleaned up and leveled. No oil will be left on the surface of the fluid in the pit.
- (C) Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drill site will be used to recontour the pit area to the original natural level and reseeded as per BLM specifications.

10. Surface Ownership:

The wellsite and lease is located on federal surface.

- (A) The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- (B) There is no permanent or live water in the immediate area.
- (C) A Cultural Resources Examination had been requested and will be forwarded to the BLM office for each location staked.

11. Lessee's and Operator's Representative:

The Marbob Energy Corp. representative responsible for assuring compliance with the surface use plan is as follows:

A. Through A.P.D. Approval:
Dean Chumbley, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5988

B. Through Drilling Operations
Sheryl Baker, Drilling Supervisor
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5489

Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 12-21-06

Signed:

W/M


Johnny C. Gray, President

I. 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,
(505) 361-2822

- 1. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the Yates formation. **Measurements in this section have recorded 1700 ppm in the gas stream and 1600 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.

B. CASING

- 1. The 8-5/8 inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 375 feet** 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. **Master Drilling Plan in effect. Ready-mix can be used if less than 100' of annulus is open.**
 - 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.

Possible lost circulation in the Grayburg and San Andres formations.

Possible water flows in the Salado and Artesia Groups.

2. The minimum required fill of cement behind the 5-1/2 inch production casing is:

☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

3. 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.

Engineer on call phone (after hours): Carlsbad: (505) 706-2779

WWI 092707