

HOBBS OCD

AUG 14 2012

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 301225-40720	Pool Code 516887	Pool Name Red Tank Bone Spring, EAST
Property Code 304902	Property Name NBR	
DGRD No. 16696	Operator Name OXY USA INC.	
		Well Number 3H
		Elevation 3677.1'

Surface Location

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
M	18	22 SOUTH	33 EAST, N.M.P.M.		340'	SOUTH	350'	WEST	LEA

Bottom Hole Location If Different From Surface

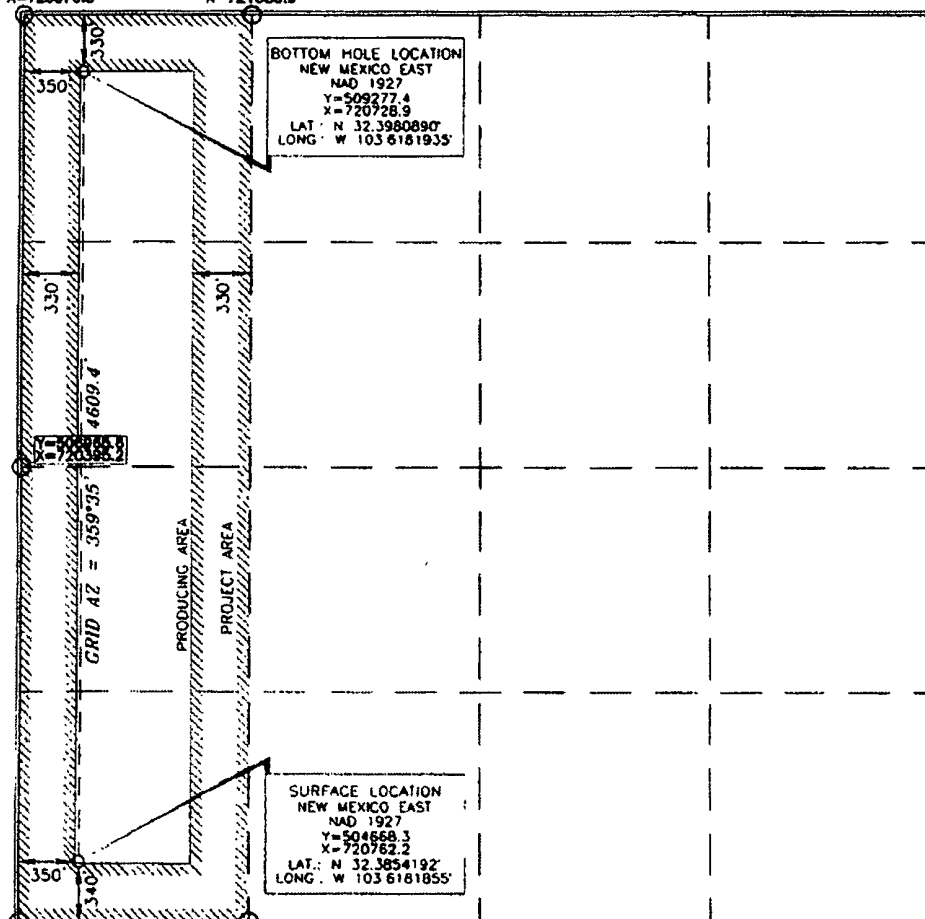
UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
D	18	22 SOUTH	33 EAST, N.M.P.M.		330'	NORTH	350'	WEST	LEA

Dedicated Acres	Joint or Initl	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.
Y=509877.8
X=720378.3

Y=509811.8
X=721880.3



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 to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

[Signature] 8/9/12
Signature Date
Jennifer Duarte
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was obtained from field notes or other reliable source made by me or under my supervision, and that the same are true and correct to the best of my belief.

15075
FEBRUARY 9, 2012
Date of Survey
Signature and Seal of Professional Surveyor
[Signature] 2/23/2012
Certificate Number 15075

WO# 120209WL-o-XY (KA)

AUG 15 2012

OXY USA Inc
NBR 18 State #3H
APD Data

OPERATOR NAME / NUMBER: OXY USA Inc

LEASE NAME / NUMBER: NBR: 3H

STATE: NM **COUNTY:** Eddy

SURFACE LOCATION: 340' FSL & 350' FWL, Sec 18, T22S, R33E

BOTTOM HOLE LOCATION: 330' FNL & 350' FWL, Sec. 18, T22S, R33E

C-102 PLAT APPROX GR ELEV: 3677.1' **EST KB ELEV:** 3701.1' (24' KB)

1. GEOLOGIC NAME OF SURFACE FORMATION

a. Permian

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS

Formation Tops	TV Depth Top
T. Rustler	951
T Salado	1392
T Lamar	4865
Bell Canyon	4983
Cherry Canyon	5134
Brushy Canyon	7105
Bone Spring	8743
Target TD (TVD)	9922

A. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

GREATEST PROJECTED TD 14224' MD/ 9922' TVD **OBJECTIVE:** 2nd Bone Spring

3. CASING PROGRAM

Surface Casing: 13.375" casing set at ± 1000' MD/ 1000' TVD in a 17.5" hole filled with 8.60 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-1000'	1000	48	H-40	ST&C	770	1730	322	12.715	12.559	2.22	4.98	6.71

Intermediate Casing: 9.625" casing set at ± 4965' MD / 4965' TVD in a 12.25" hole filled with 10.2 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-4965'	4965	40	L-80	LT&C	3090	5750	737	8.835	8.75	1.45	2.69	3.71

Production Casing: 5.5" casing set at ± 14224' MD / 9922' TVD in a 8.75" hole filled with 9.40 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-14224'	14224	20	L-80	BT&C	8830	9190	503	4.778	4.653	1.36	1.42	1.77

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

4. CEMENT PROGRAM:

Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Surface (TOC: 0' -1000')							
Tail: 0' -764' (150% Excess)	810	764	Premium Plus cement with 2% Calcium Chloride, 4% Bentonite, 0.125 lbm/sk Poly-E-Flake	9.18	13.5	1.75	1069 psi
Tail: 764' - 1000' (150% Excess)	350	236	Premium Plus cement with 2% Calcium Chloride	6.39	14.8	1.34	1827 psi

Intermediate Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Intermediate (TOC: 0' -4965')							
Lead: 0' -4267' (105% Excess)	1340	4267	Light Premium Plus Cement, with 5% Salt, 5lb-sk Kol Seal, 0.125 lb/sk Poly-E-Flake	9.59	12.90	1.88	1049 psi
Tail: 4267' -4965' (105% Excess)	350	698	Premium Plus cement with 0.5% WellLife 734	6.36	14.80	1.33	400 psi

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC: 4465' - 14224')							
Lead: 4465' - 9206' (10 % Excess)	1030	4741	Innerfill H Cement, 5 lbm/sk Kol-Seal, 0.5 % Halad(R)-322, 0.3% HR-601	13.87	11.90	2.49	390 psi
Tail: 9206' - 14224' (50% Excess)	1410	5017	Super H Cement, 5 lbm/sk Kol-Seal, 3 lbm/sk Salt, 0.4 % CFR-3, 0.3 % HR-601 & 0.5% Halad-344	8.26	13.2	1.63	1240 psi

5. DIRECTIONAL PLAN

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT

Surface: 0 - 1000' None.

Intermediate: 0 - 4965' Intermediate hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold..

Production: 0 - 14224' Production hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold.

- All BOP's and associated equipment will be tested in accordance with Onshore Order #2 (250/5000 psi on rams for 10 minutes each and 250/3500 for 10 minutes for annular preventer, equal to 70% of working pressure) with a third party BOP testing service before drilling out the 13-3/8" casing shoe. Wellhead pressure rating will support this test and 13-3/8" casing will be protected from high pressure. Since the wellhead system is a multibowl design, this initial test will cover the requirements prior to drilling out the 9-5/8" casing shoe.
- 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 driller's log. A 2" kill line and 3" choke line will be accommodated on the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly-cock, floor safety valve, choke lines, and choke manifold having a 5000 psi WP rating. Oxy requests that the system be tested at 5,000 psi WP rating.
- Oxy also requests a variance to connect the BOP choke outlet to the choke manifold using a co-flex hose made by Contitech Rubber Industrial KFT. It is a 3" ID x 35' flexible hose rated to 10,000 psi working

pressure. It has been tested to 15,000 psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps. Please see attached certifications.

- d. See attached BOP & Choke manifold diagrams.

7. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 - 1000'	8.4 - 8.9	32 - 34	NC	Fresh Water/Spud Mud
1000' - 4965'	9.8 - 10.0	28 - 29	NC	Brine Water
4965' - 5966'	8.6 - 8.8	28 - 29	NC	Fresh Water
5966' - TD'	9.0 - 9.2	30 - 40	8 - 15	LSND

Remarks: Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times.

8. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. **If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the NMOCD**

9. LOGGING / CORING AND TESTING PROGRAM:

- A. Mud Logger: Base of Surface Casing to TD.
- B. DST's: None.
- C. Open Hole Logs as follows: GR-NEU-DEN-RES from TD to Intermediate Casing; GR-NEU to surface. MWD-GR from kick-off point to TD.

10. POTENTIAL HAZARDS:

- A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- B. The bottomhole pressure is anticipated to be between 3000 psi and 3500 psi. Pressure gradient is estimated to be 0.47 psi/ft
- C. No abnormal temperatures or pressures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

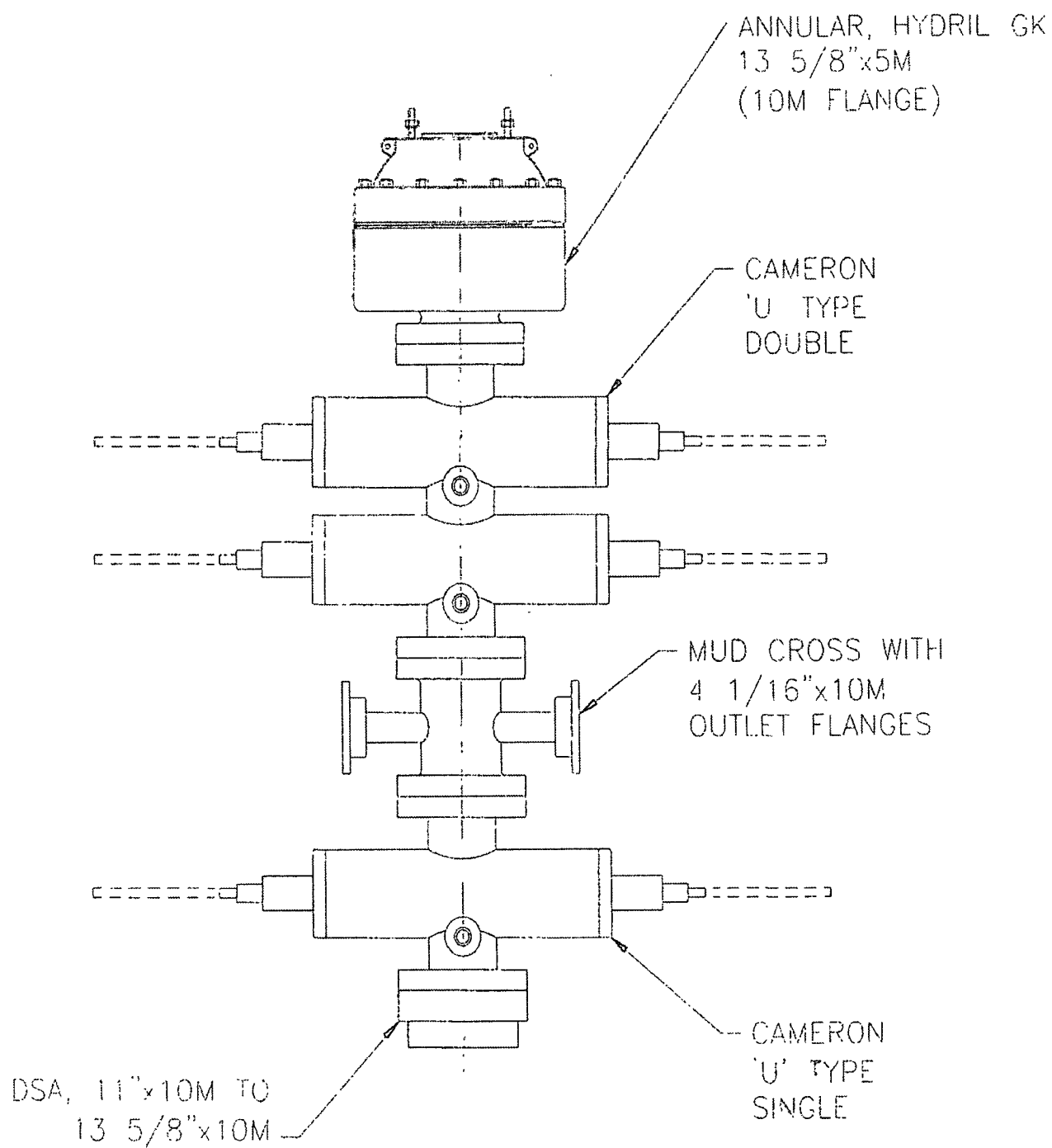
11. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the NMOCD has approved the APD. Anticipated spud date will be as soon as possible after NMOCD approval and as soon as a rig will be available. Move in operations and drilling is expected to take 35 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

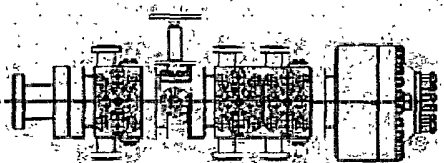
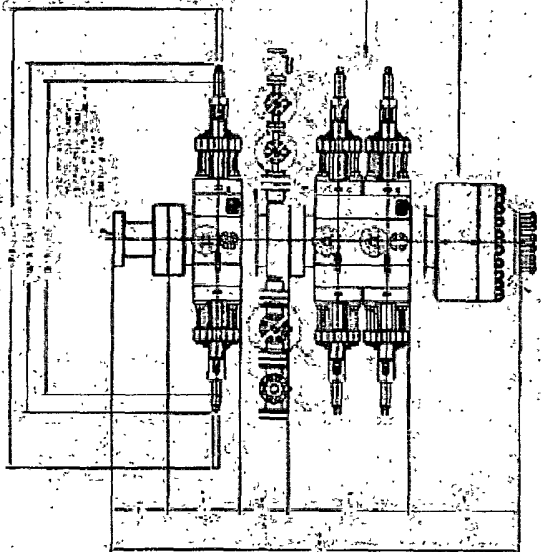
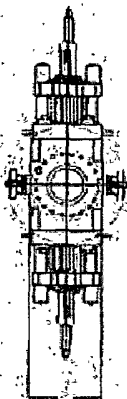
12. COMPANY PERSONNEL:

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Mobile Phone</u>
Carlos Mercado	Drilling Engineer	713-366-5418	281-455-3481
Sebastian Millan	Drilling Engineer Supervisor	713-350-4350	832-528-3268
Roger Allen	Drilling Superintendent	713-215-7617	281-682-3919
Douglas Chester	Drilling Manager	713-366-9124	713-918-9124

BOP Diagram



BOP STACK



ISSUED FOR
FABRICATION
DATE 10/1/64
BY 10/1/64

REV.	DATE	BY	CHKD.	APP'D.
1	10/1/64	10/1/64	10/1/64	10/1/64
2	10/1/64	10/1/64	10/1/64	10/1/64
3	10/1/64	10/1/64	10/1/64	10/1/64
4	10/1/64	10/1/64	10/1/64	10/1/64
5	10/1/64	10/1/64	10/1/64	10/1/64
6	10/1/64	10/1/64	10/1/64	10/1/64
7	10/1/64	10/1/64	10/1/64	10/1/64
8	10/1/64	10/1/64	10/1/64	10/1/64
9	10/1/64	10/1/64	10/1/64	10/1/64
10	10/1/64	10/1/64	10/1/64	10/1/64

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