

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 30-015-40858	Pool Code 3250	Pool Name ATOKA; GLORIETA-YESO
Property Code 304948	Property Name ROGERS "23" FEE	Well Number 4
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3314.4'

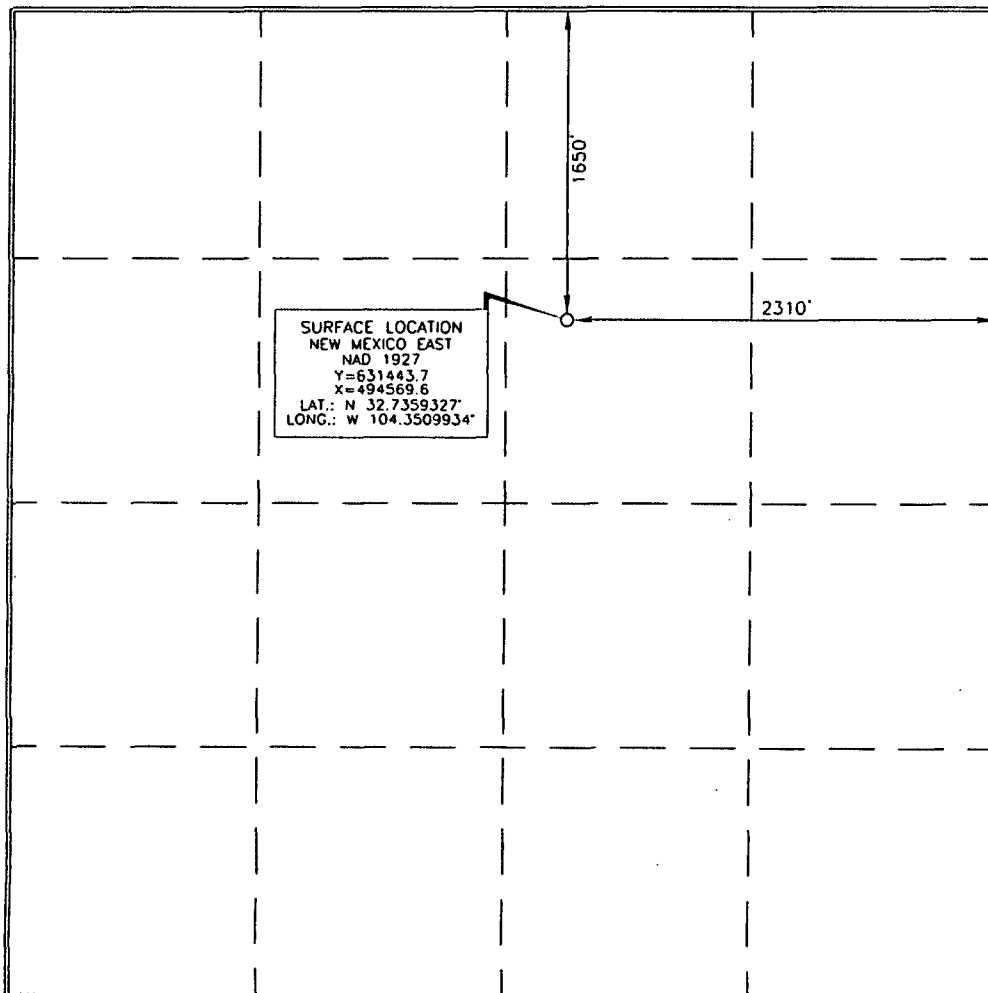
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	23	18 SOUTH	26 EAST, N.M.P.M.		1650'	NORTH	2310'	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.



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] **11/28/12**
Signature Date
Jennifer Duarte
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.

15079
OCTOBER 26 2011
Date of Survey
Signature and Seal of Professional Surveyor
[Signature] **11/14/2011**
Certificate Number **15079**

WO# 111026WL-d (KA)

APD DATA – DRILLING PLAN –

OPERATOR NAME / NUMBER: OXY USA Inc

16696

LEASE NAME / NUMBER: Rogers 23 Fee # 4

Federal Lease No:

STATE: NM

COUNTY: Eddy

SURFACE LOCATION: 1650' FNL & 2310' FEL, Sec 23, T18S, R26E

C-102 PLAT APPROX GR ELEV: 3314.4'

EST KB ELEV: 33283.4' (14' KB)

1. GEOLOGIC NAME OF SURFACE FORMATION

a. Permian

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

Formation Name	TVD	Expected Fluids
T. Seven Rivers	200	-
T. Queen	400	None
T. Grayburg	830	None
T. San Andres	1124	-
T. Glorieta	2700	Oil
T. Yeso	2860	Oil
TD	4500	TD

A. Fresh Water formation is outcropping and will be covered with the 16" conductor pipe, which will be set at 120' prior to spud.

GREATEST PROJECTED TD 4500 MD 4500' TVD **OBJECTIVE:** Yeso

3. CASING PROGRAM

Surface Casing: 8.625" casing set at \pm 400' MD/ 400' TVD in a 11" hole filled with 8.40 ppg mud

Interval	Length	Wt	Gr	Condition	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 400'	400'	24	J-55	New	ST&C	1370	2950	244	8.097	7.972	10.17	1.72	29.16

Production Casing: 5.5" casing set at \pm 4500' MD / 4500' TVD in a 7.875" hole filled with 9.6 ppg mud

Interval	Length	Wt	Gr	Condition	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 4500'	4500'	17	L-80	New	LT&C	6290	7740	338	4.892	4.767	2.80	4.31	5.18

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

4. CEMENT PROGRAM:

Surface Interval

Interval	Amount t/sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Surface (TOC: 0' – 400')							
Lead: 0' – 400' (165% Excess)	210	400'	Premium Plus Cement: 1 % Calcium Chloride - Flake	6.36	14.8	1.34	1608 psi

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC: 0' - 4500')							
Lead: 0' – 3000' (100 % Excess)	550	3000'	Halliburton Light Premium Plus: 5% Salt, 3 lbm/sk Kol-Seal, 0.125 lb/sx Poly-E-Flake, 0.35% HR-800	9.69	12.9	1.87	660 psi
Lead: 3000' - 4500' (100 % Excess)	340	1500'	Premium Plus Cement: 0.5% Halad @-344, 0.2% WellLife 734, 5 lbm/sk Microbond, 0.3% Econolite, 0.3% CFR-3	7.72	14.2	1.55	1914 psi

5. PRESSURE CONTROL EQUIPMENT

Surface: 0 – 400' None.

Production: 0 - 4500' the minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi. Operator will be using an 11" 3M two ram stack with 3M annular preventer, & 3M Choke Manifold.

- a. The 11" 3000 psi blowout prevention equipment will be installed and operational after setting the 8 5/8" surface casing and the 8 5/8" SOW x 11" 3K conventional wellhead; the rotating head body will be installed but the rubber will be installed when it becomes operationally necessary.
- b. The BOP and ancillary BOPE will be tested by a third party upon installation to the 8 5/8" 24# J-55 surface casing. All equipment will be tested to 250/3000 psi for 10 minutes and charted, except the annular, which will be tested to 70% of working pressure. This is to be in compliance with the Onshore Order # 2 which states the BOPE shall be tested to 70 % of the yield of the casing when the BOP and casing are not isolated.
- c. The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3" choke line having a 3000 psi WP rating. Oxy requests that the system be tested at 3,000 psi.
- d. Oxy requests a variance if Savanna 415 is used to drill this well to use a co-flex line between the BOP and choke manifold. See attached schematic.

Manufacturer: Hebei Ouya Ltd.

Serial Number: 1642343-04

Length: 39" Size: 3" Ends: flanges

WP rating: 3000 psi

Anchors required by manufacturer: No

- e. See attached BOP & Choke manifold diagrams.

MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 – 400'	8.4 – 8.8	27 - 38	NC	Fresh Water /Spud Mud
400' – TD	9.6 – 10.0	28 – 40	NC	Brine Water / Salt Gel

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.

- 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.

6. 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 BLM**

7. LOGGING / CORING AND TESTING PROGRAM:

- A. Mud Logger: From 2000' to TD
- B. DST's: None.
- C. Open Hole Logs as follows: Triple combo from 400' to TD.

8. 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 **2246 psi**.
- C. No abnormal temperatures or pressures are anticipated. **The highest anticipated pressure gradient is 0.50 psi/ft.** 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.

9. 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 15 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.

10. COMPANY PERSONNEL:

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>
Anthony Tschacher	Drilling Engineer	713-985-6949
Sebastian Millan	Drilling Engineer Supervisor	713-350-4950
Roger Allen	Drilling Superintendent	713-215-7617
Douglas Chester	Drilling Manager	713-366-5194