

Form 3160-5
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 02 2011

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**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.***SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other ☒

2. Name of Operator OXY USA Inc. 16696

3a. Address
 P.O. Box 50250 Midland, TX 79710

3b. Phone No. (include area code)
 432-685-5717

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
 SL-1980 FWL 330 FEL SENE (H) SEC 2 T20S R 32E
 PBHL-2031 FRI 335 FWL SWNW(E) " " "

5. Lease Serial No.
 NM105871

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
 Rum Runner 2 Federal #1H

9. API Well No.
 30-025-40095

10. Field and Pool, or Exploratory Area
 Under Red Tank Bone Spring

11. County or Parish, State
 Lea, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. 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.)

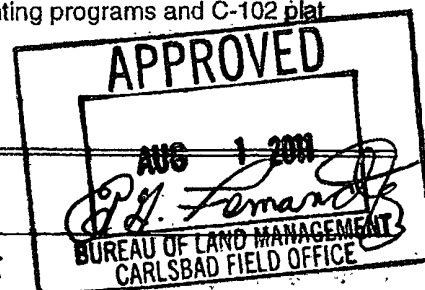
OXY USA Inc. respectfully requests to amend the drilling permit to provide for the Bone Spring Formation target. The pilot hole for the Oxy Rum Runner 2 Fed #1H has been drilled to a TD of 10,100' TVD. Logs indicate the most favorable target for a horizontal attempt is in the Bone Spring Formation at a depth of about 9472' TVD, 13795' TMD.

The original permit for this well provided for a horizontal target in the Delaware Formation (Lower Brushy Canyon).

See attached for a new proposed directional drilling plan, amended casing, cementing programs and C-102 plat

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct.
 Name (Printed/Typed) David Stewart Title Regulatory Advisor
 Signature *David Stewart* Date 8/1/11

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by _____ Title _____ 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. Office _____

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 page 2)

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

AUG 02 2011

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-402
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 30-025-40095	Pool Code 51683	Pool Name Undesignated Red Tank Bone Spring
Property Code 38552	Property Name RUM RUNNER "2" FED. COM	Well Number 1H
OCRD No. 16696	Operator Name OXY USA INC.	Elevation 3647.3'

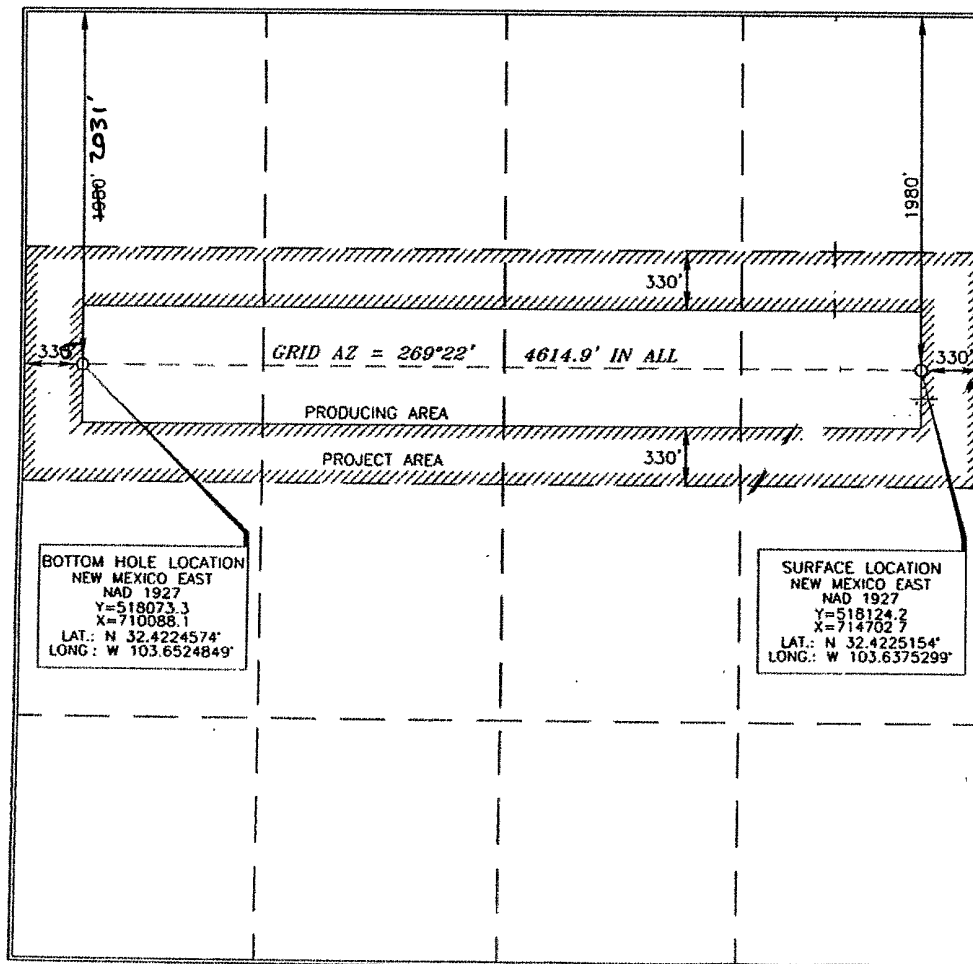
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	2	22 SOUTH	32 EAST, N.M.P.M.		1980'	NORTH	330'	EAST	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
E	2	22 SOUTH	32 EAST, N.M.P.M.		1980' 2031	NORTH	330' 335	WEST	LEA
Dedicated Acres 160		Joint or Infill N	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.

David Stewart
Signature Date
David Stewart
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
NOVEMBER 30, 2010
Date of Survey
Signature and Seal of Professional Surveyor
Terry J. Paul 12/10/2010
Certificate Number **15079**

WO# 101130WL-o (KA)

-Sundry Notice-

Well Name: Rum Runner 2 Federal Com 1H

STATE: NM

COUNTY: Lea

Changes from original APD:

Lateral section targeting Bone Spring formation at 9472' TVD with flat dip to 9472' TVD

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

Formation	TV Depth Top	Expected Fluids
Bone Spring Limestone	8684	Oil & Gas
Target Avalon Shale top	9456	Oil & Gas
Target Avalon Sand base	9492	Oil & Gas

GREATEST PROJECTED TD 13,795' MD/ 9472' TVD **OBJECTIVE:** Bone Spring

2. CASING PROGRAM

Production Casing: 5.5" casing set at $\pm$ 13,795' MD / 9472' TVD in a 8.75" hole filled with 9.4 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'-13,795'	13,795'	17	L80	BT&C	6290	7740	428	4.89	4.77	1.65	1.29	1.70

DV Tool @ 7000' & 4760'

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

3. Pilot Hole Plug Back Cement Information to Kick off at 8700' for lateral:

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Plug Back 10,100' – 8700'							
Bottom: 10,100' – 9200' 20% Excess	330	900'	Class H 50/50 Poz Premium Cement with 0.5% CFR-3 (dispersant)	5.77	14.4	1.25	1790
Top: 9200' – 8700' 20% Excess	280	500'	Class H Premium Cement with 3% Potassium Chloride (Clay Control), 0.75% CFR-3 (dispersant) and 0.2% HR-800 (retarder)	3.46	17.5	0.97	4594

Excess has been calculated based on caliper logs

4. Cement and directional plans attached for lateral section

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC:7000') 1st Stage							
Lead: 7000 – 13795' (130% Excess)	2260	6795'	Super H Cement w/ 0.125#/sx Poly-E- Flake, 3#/sx Gilsonite, 0.5% Halad R-344, 0.4 % CFR-3, 0.3 % HR-800 (Retarder)	7.92	13.20	1.59	1372 psi
<u>DV Tool @ 7000'</u>							
Production (TOC:4760') 2nd Stage							

Lead: 6805 – 4760' (200% Excess)	680	2095'	Light Premium Plus w/ 5#/sx Gilsonite, 0.125#/sx Pheno Seal Medium, 3#/sx Salt	11.19	12.40	2.09	511 psi
Tail: 7000–6805' (200% Excess)	100	195'	Premium Plus cement with 1% Calcium Chloride	6.36	14.80	1.34	1925 psi
<u>DV Tool @ 4760'</u>							
<u>Production (TOC: Surface) 3rd Stage</u>							
Lead: 0 – 4234' (35% Excess)	760	4234'	Light Premium Plus with 3#/sx Salt	11.0	12.4	1.98	511 psi
Tail: 4234 – 4760' 35 % Excess of Annular Volume)	100	526'	Premium Plus cement with 2% Calcium Chloride	6.39	14.80	1.35	2025 psi



Occidental Permian Ltd.
Rum Runner 2 Fed Com #1H
Lea Co, New Mexico

KB ELEV: 3671.3
 GL ELEV: 3647.3

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	8894.00	0.75	172.85	8886.24	-12.14	-53.67	0.00	0.00	53.80	
2	8905.36	0.77	168.36	8897.60	-12.29	-53.65	0.55	286.12	53.78	
3	9809.74	90.29	269.61	9472.00	-23.81	-629.42	10.00	101.25	629.64	
4	13795.16	90.29	269.61	9452.00	-50.90	-4614.70	0.00	0.00	4614.98	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#1H	0.00	0.00	518124.20	714702.70	32°25'21.056N	103°38'15.108W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	9452.00	-50.90	-4614.70	518073.30	710088.00	Rectangle (3989x0)

FIELD DETAILS

Lea Co, New Mexico (Nad 27)

Geodetic System: US State Plane Coordinate System 1927
 Ellipsoid: NAD27 (Clarke 1866)
 Zone: New Mexico, Eastern Zone
 Magnetic Model: IGRF2010

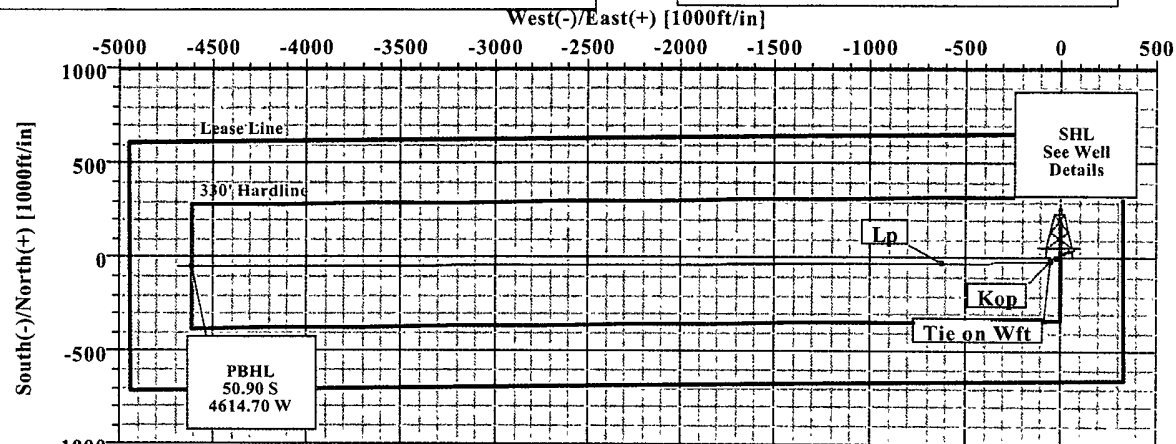
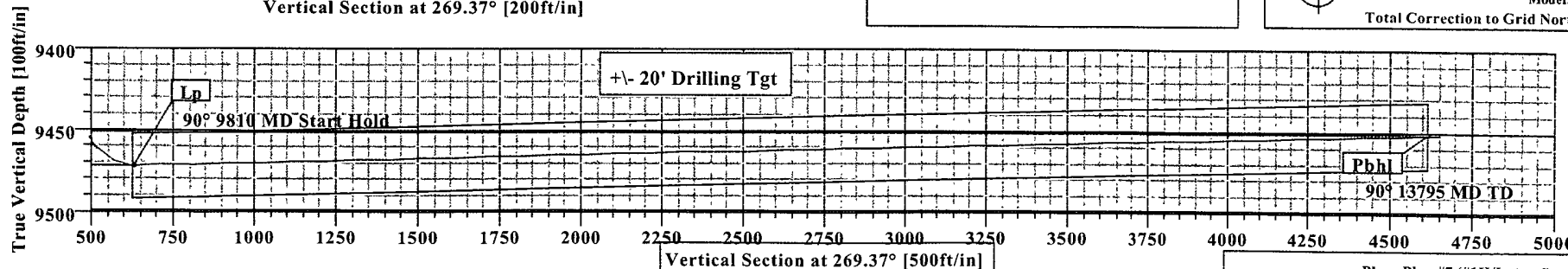
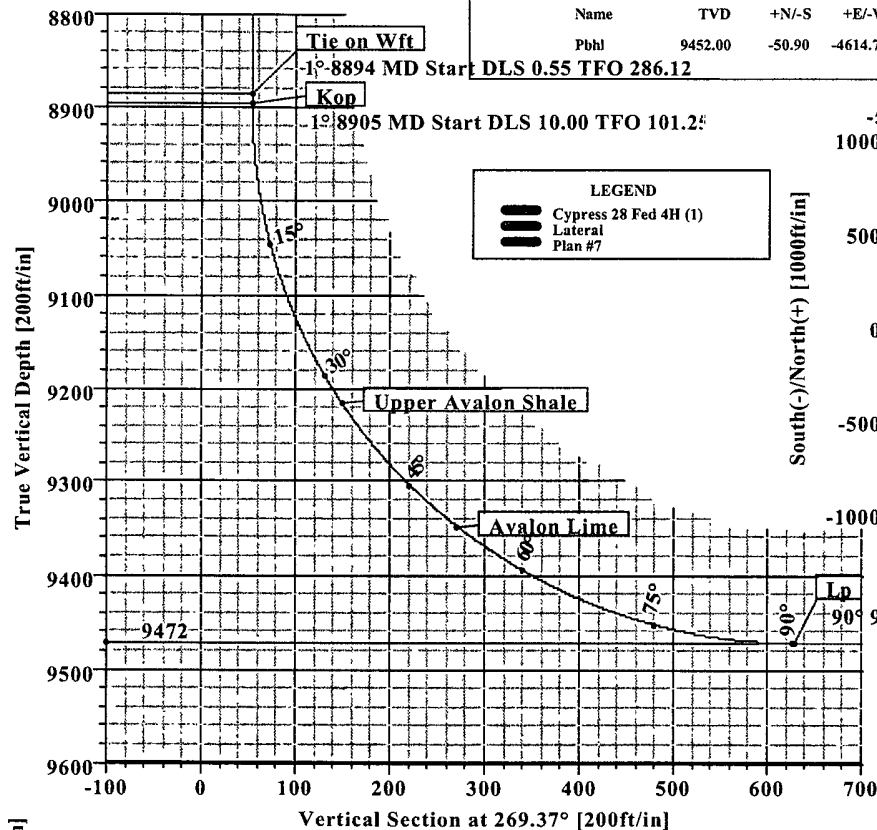
System Datum: Mean Sea Level
 Local North: Grid North

SITE DETAILS

Rum Runner 2 Fed Com #1H

Site Centre Northing: 518124.20
 Easting: 714702.70

Ground Level: 3647.30
 Positional Uncertainty: 0.00
 Convergence: 0.37



FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	9216.00	9242.69	Upper Avalon Shale
2	9348.00	9422.72	Avalon Lime

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Azimuths to Grid North
 True North: -0.37°
 Magnetic North: 7.25°

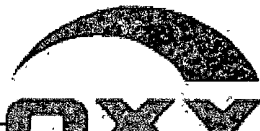
Magnetic Field
 Strength: 4874nT
 Dip Angle: 60.36°
 Date: 7/15/2011
 Model: IGRF2010

Total Correction to Grid North: 7.25°

Plan: Plan #7 (#1H/Lateral)

Created By: Keith Noack

Date: 7/31/2011



Weatherford International Ltd.

WFT Plan Report - X & Y's



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Company:	Occidental Permian Ltd.	Date:	7/31/2011	Time:	11:44:24	Page:	1
Field:	Lea Co. New Mexico (Nad 27)	Co-ordinate(NE) Reference:	Well: #1H; Grid-North				
Site:	Rum Runner 2 Fed Com #1H	Vertical (TVD) Reference:	SITE 3671.3				
Well:	#1H	Section (VS) Reference:	Well (0.00N;0.00E;269.37Azi)				
Wellpath:	Lateral	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Plan:	Plan #7	Date Composed:	7/22/2011
Principal:	Yes	Version:	1
		Tied-to:	From: Definitive Path

Field:	Lea Co, New Mexico (Nad 27)		
Map System:	US State Plane Coordinate System 1927	Map Zone:	New Mexico, Eastern Zone
Geo Datum:	NAD27 (Clarke 1866)	Coordinate System:	Well Centre
Sys Datum:	Mean Sea Level	Geomagnetic Model:	IGRF2010

Site:	Rum Runner 2 Fed Com #1H									
Site Position:			Northing:	518124.20	ft	Latitude:	32	25	21.056 N	
From: Map			Easting:	714702.70	ft	Longitude:	103	38	15.108 W	
Position Uncertainty:	0.00	ft				North Reference:	Grid			
Ground Level:	3647.30	ft				Grid Convergence:	0.37 deg			

Well: #1H		Slot Name:				
Well Position:	+N/-S	0.00 ft	Northing:	518124.20 ft	Latitude:	32 25 21.056 N
	+E/-W	0.00 ft	Easting :	714702.70 ft	Longitude:	103 38 15.108 W
Position Uncertainty:		0.00 ft				

Wellpath: Lateral		Drilled From: Pilot Hole	
Current Datum: SITE	Height 3671.30 ft	Tie-on Depth: 8894.00 ft	
Magnetic Data: 7/15/2011		Above System Datum: Mean Sea Level	
Field Strength: 48747 nT		Declination: 7.62 deg	
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 60.36 deg	
ft	ft	+E/-W	Direction
		ft	deg
0.00	0.00	0.00	269.37

Plan Section Information

MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
8894.00	0.75	172.85	8886.24	-12.14	-53.67	0.00	0.00	0.00	0.00	
8905.36	0.77	168.36	8897.60	-12.29	-53.65	0.55	0.17	-39.55	286.12	
9809.74	90.29	269.61	9472.00	-23.81	-629.42	10.00	9.90	11.20	101.25	
13795.16	90.29	269.61	9452.00	-50.90	-4614.70	0.00	0.00	0.00	0.00	Pbhl

Survey

MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
8894.00	0.75	172.85	8886.24	-12.14	-53.67	53.80	0.00	518112.06	714649.03	Tie on Wft
8900.00	0.76	170.45	8892.24	-12.22	-53.66	53.79	0.55	518111.98	714649.04	
8905.36	0.77	168.36	8897.60	-12.29	-53.65	53.78	0.55	518111.91	714649.05	Kop
9000.00	9.34	265.01	8991.82	-13.58	-61.19	61.34	10.00	518110.62	714641.51	
9100.00	19.33	267.45	9088.59	-15.02	-85.87	86.04	10.00	518109.18	714616.83	
9200.00	29.32	268.26	9179.59	-16.51	-126.99	127.16	10.00	518107.69	714575.71	
9242.69	33.59	268.47	9216.00	-17.14	-149.25	149.43	10.00	518107.06	714553.45	Upper Avalon Shale
9300.00	39.32	268.68	9262.08	-17.98	-183.28	183.47	10.00	518106.22	714519.42	
9400.00	49.32	268.96	9333.53	-19.40	-253.04	253.24	10.00	518104.80	714449.66	
9422.72	51.59	269.01	9348.00	-19.71	-270.56	270.76	10.00	518104.49	714432.14	Avalon Lime
9500.00	59.32	269.16	9391.79	-20.72	-334.15	334.36	10.00	518103.48	714368.55	
9600.00	69.32	269.32	9435.07	-21.91	-424.15	424.37	10.00	518102.29	714278.55	
9700.00	79.31	269.46	9462.08	-22.93	-520.30	520.52	10.00	518101.27	714182.40	
9800.00	89.31	269.60	9471.97	-23.74	-619.68	619.90	10.00	518100.46	714083.02	
9809.74	90.29	269.61	9472.00	-23.81	-629.42	629.64	10.00	518100.39	714073.28	Lp
9900.00	90.29	269.61	9471.55	-24.42	-719.67	719.90	0.00	518099.78	713983.03	
10000.00	90.29	269.61	9471.05	-25.10	-819.67	819.90	0.00	518099.10	713883.03	



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WFT Plan Report - X & Y's



Weatherford

Company: Occidental Permian Ltd.	Date: 7/31/2011	Time: 11:44:24	Page: 2
Field: Lea Co. New Mexico (Nad-27)	Co-ordinate(NE) Reference:	Well: #1H; Grid North	
Site: Rum Runner 2 Fed Com #1H	Vertical (TVD) Reference:	SITE 3671.3	
Well: #1H	Section (VS) Reference:	Well (0:00N,0.00E,269.37Azi)	
Wellpath: Lateral	Survey Calculation Method:	Minimum Curvature Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DL deg/100ft	MapN ft	MapE ft	Comment
10100.00	90.29	269.61	9470.55	-25.78	-919.67	919.90	0.00	518098.42	713783.03	
10200.00	90.29	269.61	9470.04	-26.46	-1019.66	1019.89	0.00	518097.74	713683.04	
10300.00	90.29	269.61	9469.54	-27.14	-1119.66	1119.89	0.00	518097.06	713583.04	
10400.00	90.29	269.61	9469.04	-27.82	-1219.66	1219.89	0.00	518096.38	713483.04	
10500.00	90.29	269.61	9468.54	-28.50	-1319.65	1319.89	0.00	518095.70	713383.05	
10600.00	90.29	269.61	9468.04	-29.18	-1419.65	1419.89	0.00	518095.02	713283.05	
10700.00	90.29	269.61	9467.54	-29.86	-1519.65	1519.88	0.00	518094.34	713183.05	
10800.00	90.29	269.61	9467.03	-30.54	-1619.64	1619.88	0.00	518093.66	713083.06	
10900.00	90.29	269.61	9466.53	-31.22	-1719.64	1719.88	0.00	518092.98	712983.06	
11000.00	90.29	269.61	9466.03	-31.90	-1819.64	1819.88	0.00	518092.30	712883.06	
11100.00	90.29	269.61	9465.53	-32.58	-1919.63	1919.87	0.00	518091.62	712783.07	
11200.00	90.29	269.61	9465.03	-33.26	-2019.63	2019.87	0.00	518090.94	712683.07	
11300.00	90.29	269.61	9464.52	-33.94	-2119.62	2119.87	0.00	518090.26	712583.08	
11400.00	90.29	269.61	9464.02	-34.62	-2219.62	2219.87	0.00	518089.58	712483.08	
11500.00	90.29	269.61	9463.52	-35.30	-2319.62	2319.87	0.00	518088.90	712383.08	
11600.00	90.29	269.61	9463.02	-35.98	-2419.61	2419.86	0.00	518088.22	712283.09	
11700.00	90.29	269.61	9462.52	-36.66	-2519.61	2519.86	0.00	518087.54	712183.09	
11800.00	90.29	269.61	9462.01	-37.34	-2619.61	2619.86	0.00	518086.86	712083.09	
11900.00	90.29	269.61	9461.51	-38.02	-2719.60	2719.86	0.00	518086.18	711983.10	
12000.00	90.29	269.61	9461.01	-38.70	-2819.60	2819.86	0.00	518085.50	711883.10	
12100.00	90.29	269.61	9460.51	-39.38	-2919.60	2919.85	0.00	518084.82	711783.10	
12200.00	90.29	269.61	9460.01	-40.06	-3019.59	3019.85	0.00	518084.14	711683.11	
12300.00	90.29	269.61	9459.50	-40.74	-3119.59	3119.85	0.00	518083.46	711583.11	
12400.00	90.29	269.61	9459.00	-41.42	-3219.59	3219.85	0.00	518082.78	711483.11	
12500.00	90.29	269.61	9458.50	-42.10	-3319.58	3319.84	0.00	518082.10	711383.12	
12600.00	90.29	269.61	9458.00	-42.78	-3419.58	3419.84	0.00	518081.42	711283.12	
12700.00	90.29	269.61	9457.50	-43.46	-3519.57	3519.84	0.00	518080.74	711183.13	
12800.00	90.29	269.61	9456.99	-44.14	-3619.57	3619.84	0.00	518080.06	711083.13	
12900.00	90.29	269.61	9456.49	-44.81	-3719.57	3719.84	0.00	518079.39	710983.13	
13000.00	90.29	269.61	9455.99	-45.49	-3819.56	3819.83	0.00	518078.71	710883.14	
13100.00	90.29	269.61	9455.49	-46.17	-3919.56	3919.83	0.00	518078.03	710783.14	
13200.00	90.29	269.61	9454.99	-46.85	-4019.56	4019.83	0.00	518077.35	710683.14	
13300.00	90.29	269.61	9454.49	-47.53	-4119.55	4119.83	0.00	518076.67	710583.15	
13400.00	90.29	269.61	9453.98	-48.21	-4219.55	4219.82	0.00	518075.99	710483.15	
13500.00	90.29	269.61	9453.48	-48.89	-4319.55	4319.82	0.00	518075.31	710383.15	
13600.00	90.29	269.61	9452.98	-49.57	-4419.54	4419.82	0.00	518074.63	710283.16	
13700.00	90.29	269.61	9452.48	-50.25	-4519.54	4519.82	0.00	518073.95	710183.16	
13795.16	90.29	269.61	9452.00	-50.90	-4614.70	4614.98	0.00	518073.30	710088.00	Pbhl

Targets

Name	Description	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg. Min. Sec	Longitude Deg. Min. Sec
Pbhl	-Rectangle (3989x0)	9452.00	-50.90	-4614.70	518073.30	710088.00	32 25 20.846 N	103 39 8.947 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

AUG 02 2011

SUNDRY CONDITIONS OF APPROVAL – 8/1/11**RECEIVED**

OPERATOR'S NAME:	OXY USA, INC.
LEASE NO.:	SHL: NM 105391, BHL: NM106696
WELL NAME & NO.:	RUM RUNNER 2 FEDERAL # 1H
SURFACE HOLE FOOTAGE:	1980' FNL & 0330' FEL
BOTTOM HOLE FOOTAGE:	2031' FNL & 0335' FWL
LOCATION:	Section 2, T. 22 S., R. 32 E., NMPM
COUNTY:	LEA County, New Mexico

I. DRILLING**A. DRILLING OPERATIONS REQUIREMENTS**

1. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**
2. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD/SUNDRY casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash

Pilot hole is approved as stated on Sundry

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

1. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
 - b. Second stage above DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
 - c. Third stage above DV tool, cement shall:
 - ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.
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. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

EGF 080111