

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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.
NMNM86024

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

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

8. Well Name and No.
CYPRESS 34 FEDERAL 8H

2. Name of Operator
OXY USA INCORPORATED

Contact: DAVID STEWART

9. API Well No.
30-015-39430-00-X1

3a. Address
5 GREENWAY PLAZA STE 110
HOUSTON, TX 77046-0521

3b. Phone No. (include area code)
Ph: 432.685.5717

10. Field and Pool, or Exploratory
NASH DRAW
UNDESIGNATED

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 34 T23S R29E SWSE Lot O 575FSL 1980FEL

11. County or Parish, and State
EDDY COUNTY, 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	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

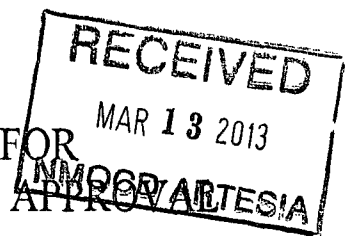
13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical 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 recompleation 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 approved APD and the Sundry Notice that was approved 2/13/13 with the following changes.

1. Amend the Proposed TD to 12985'M 8891'V
2. Eliminate the pilot hole
3. Change the surface casing hole to 16"
4. Change the production casing hole to 8-1/2"
5. Amend the production casing and cementing program.

See attached for additional information.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL



Accepted for record
NMOC D

tes 3/13/2013

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

Electronic Submission #201058 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 03/11/2013 (13KMS5399SE)

Name (Printed/Typed) DAVID STEWART

Title REGULATORY ADVISOR

Signature (Electronic Submission)

Date 03/07/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By WESLEY INGRAM

Title PETROLEUM ENGINEER

Date 03/11/2013

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 Carlsbad

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Surface Cement Plan

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Surface (TOC: 0' -400')							
Lead: 0' -400' (150% Excess)	350	400	Premium Plus cement with 2% Calcium Chloride	6.37	14.8	1.35	1346 psi

OXY USA Inc
Cypress 34 Federal #8H
API No. 30-015-39430

GREATEST PROJECTED WELL TD 12 ' MD 8 891' TVD NO PILOT HOLE

1. REVISED HOLE SIZE & CASING PROGRAM:

Surface Casing: 13.375" casing set at $\pm$ 400' MD/ 400' TVD in a 16" hole filled with 8.9 ppg mud

Production Casing: 5.5" casing set at $\pm$ 12985' MD / 8891' TVD in a 8.5" hole filled with 9.2 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'- 12985'	12985'	17	L-80	BT&C	6290	7740	397	4.892	4.767	2.04	2.51	1.58

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

2. REVISED CEMENT PROGRAM:

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC: 6000' - 12985') 1st Stage							
Lead: 3150' - 9300' (85 % Excess)	980	6150	Tuned Light cement with 3lb/sk Kol Seal, 0.125 lbm/sk Poly-E-Flake and 0.2% HR-800	12.04	10.5	2.68	978 psi
Tail: 9300' - 12985' (20% Excess)	620	3685	Super H Cement, 2 lbm/sk Kol-Seal, 0.125 lbm/sk Poly-E-Flake, 3 lbm/sk Salt, 0.4 % CFR-3, 0.1% HR-800 and 0.5% Halad-344	8.44	13.2	1.66	819 psi
POST @ 3150'							
Production (TOC: 3150' - 6000') 2nd Stage							
Lead: 0' - 2757' (10% Excess)	400	2757	Light Premium Plus Cement with 3lbm/sk Salt	11.00	12.40	1.98	450 psi (500psi in 26hrs)
Tail: 2757' - 3150' (10% Excess inside casing & 200% in OH))	100	393	Premium Plus cement	6.34	14.80	1.33	955 psi

There is a contingency 3 stage cement plan using a POST (@ 3150') and DV tool (@ 6000') if hole conditions dictate (severe losses, water flows, hole instability, etc) while drilling the production hole. A Sundry will be filed with the revised cement plan if a 3 stage design will be utilized.

**Cypress 34 Federal 8H
30-015-39430
OXY USA Inc
March 11, 2013
Conditions of Approval**

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

a. First stage to DV tool:

- ☒ 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 to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement may be needed on second stage of production casing as excess calculates to 13%.**

WWI 031113



OXY

Cypress

Cypress 34 Fed 8H

Cyp-34F 8H

Original Wellpath

Plan: Design #2

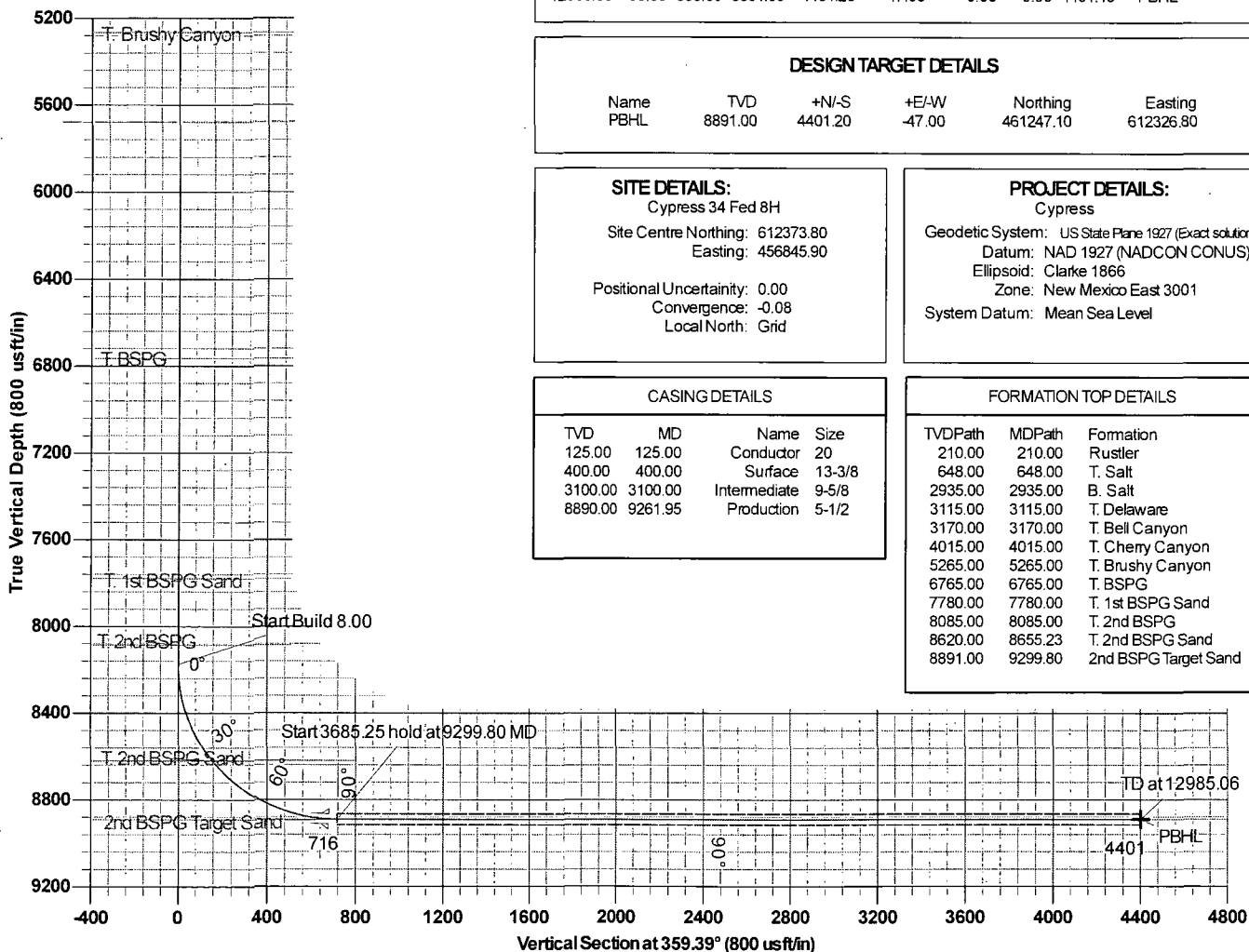
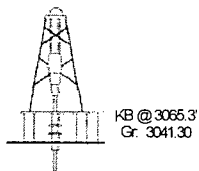
Standard Planning Report

09 March, 2013



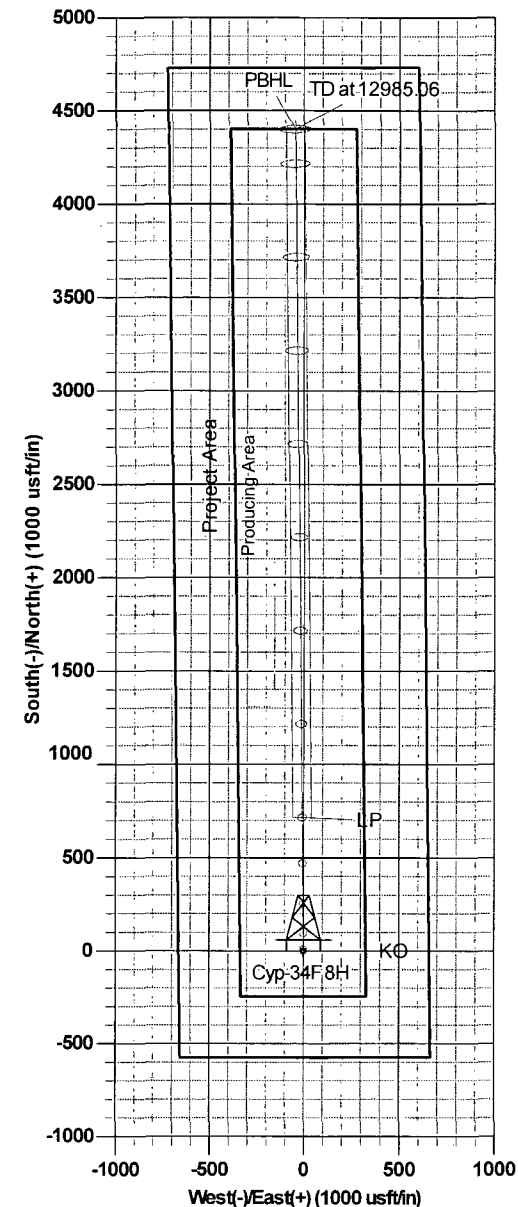


Cyp-34F 8H
Cypress
Northing: 456845.90
Easting: 612373.80
Design #2



To convert Magnetic North to Grid, Add 7.37°
 To convert True North to Grid, Subtract 0.19°

Azimuths to Grid North
 True North: -0.19°
 Magnetic North: 7.37°
 Magnetic Field
 Strength: 48421.7snT
 Dip Angle: 60.11°
 Date: 03/07/2013
 Model: IGRF2010



Jody Barclay
 13.54, March 08 2013
 Scientific Drilling
 2740 N. Highway 287
 Decatur, Texas 76234

Database:	EDM-JodyBarclay-Local	Local Co-ordinate Reference:	Well Cyp-34F-8H
Company:	OXY	TVD Reference:	KB @ 3065.30usft (H&P 474)
Project:	Cypress	MD Reference:	KB @ 3065.30usft (H&P 474)
Site:	Cypress 34 Fed 8H	North Reference:	Grid
Well:	Cyp-34F-8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Design #2		

Project: Cypress, New Mexico			
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Cypress 34 Fed 8H			
Site Position:		Northing:	612,373.80 usft	Latitude:	32.683
From:	Map	Easting:	456,845.90 usft	Longitude:	-104.474
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.08 °

Well	Cyp-34F18H					
Well Position	+N-S	-155,527.90 usft	Northing:	456,845.90 usft	Latitude:	32.255
	+E-W	155,527.90 usft	Easting:	612,373.80 usft	Longitude:	-103.970
Position Uncertainty	0.00 usft		Wellhead Elevation:	Ground Level: 3,041.30 usft		

Wellbore		Original Wellpath			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/07/13	7.56	60.11	48,422

Design	Design #2			
Audit Notes:				
Version:	Phase:	PROTOTYPE		Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/S	+E/W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	359.39

Plan Sections										
Measured			Vertical			Dogleg	Build	Turn		
Depth	Inclination	Azimuth	Depth	+N-S	+E-W	Rate	Rate	Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,174.80	0.00	0.00	8,174.80	0.00	0.00	0.00	0.00	0.00	0.00	
9,299.80	90.00	359.39	8,891.00	716.16	-7.65	8.00	8.00	0.00	359.39	
12,985.06	90.00	359.39	8,891.00	4,401.20	-47.00	0.00	0.00	0.00	0.00	PBHL

Database:	EDM-JodyBarclay-Local	Local Co-ordinate Reference:	Well Cyp-34F-8H
Company:	OXY	TVD Reference:	KB @ 3065' 30usft (H&P 474)
Project:	Cypress	MD Reference:	KB @ 3065' 30usft (H&P 474)
Site:	Cypress 34 Fed 8H	North Reference:	Grid
Well:	Cyp-34F-8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Design #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
125.00	0.00	0.00	125.00	0.00	0.00	0.00	0.00	0.00	0.00
Conductor									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
210.00	0.00	0.00	210.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
648.00	0.00	0.00	648.00	0.00	0.00	0.00	0.00	0.00	0.00
T Salt									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,935.00	0.00	0.00	2,935.00	0.00	0.00	0.00	0.00	0.00	0.00
B Salt									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Intermediate									
3,115.00	0.00	0.00	3,115.00	0.00	0.00	0.00	0.00	0.00	0.00
T Delaware									
3,170.00	0.00	0.00	3,170.00	0.00	0.00	0.00	0.00	0.00	0.00
T Bell Canyon									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM-JodyBarclay-Local	Local Co-ordinate Reference:	Well: Cyp-34F-8H
Company:	OXY	TVD Reference:	KB @ 3065.30usft (H&P.474)
Project:	Cypress	MD Reference:	KB @ 3065.30usft (H&P.474)
Site:	Cypress 34 Fed 8H	North Reference:	Grid
Well:	Cyp-34F-8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Design #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,015.00	0.00	0.00	4,015.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T: Cherry Canyon										
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,265.00	0.00	0.00	5,265.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T: Brushy Canyon										
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,765.00	0.00	0.00	6,765.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T: BSPG										
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,780.00	0.00	0.00	7,780.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T: 1st BSPG Sand										
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,085.00	0.00	0.00	8,085.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T: 2nd BSPG										
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,174.80	0.00	0.00	8,174.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM-JodyBarclay-Local	Local Co-ordinate Reference:	Well: Cyp-34F-8H
Company:	OXY	TVD Reference:	KB @ 3065' 30usft (H&P 474)
Project:	Cypress	MD Reference:	KB @ 3065' 30usft (H&P 474)
Site:	Cypress 34 Fed 8H	North Reference:	Grid
Well:	Cyp-34F-8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Design #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,200.00	2.02	359.39	8,199.99	0.44	0.00	0.44	8.00	8.00	0.00
8,250.00	6.02	359.39	8,249.86	3.94	-0.04	3.94	8.00	8.00	0.00
8,300.00	10.02	359.39	8,299.36	10.91	-0.12	10.91	8.00	8.00	0.00
8,350.00	14.02	359.39	8,348.26	21.32	-0.23	21.32	8.00	8.00	0.00
8,400.00	18.02	359.39	8,396.31	35.11	-0.37	35.11	8.00	8.00	0.00
8,450.00	22.02	359.39	8,443.28	52.22	-0.56	52.22	8.00	8.00	0.00
8,500.00	26.02	359.39	8,488.94	72.57	-0.77	72.57	8.00	8.00	0.00
8,550.00	30.02	359.39	8,533.07	96.05	-1.03	96.05	8.00	8.00	0.00
8,600.00	34.02	359.39	8,575.46	122.55	-1.31	122.55	8.00	8.00	0.00
8,650.00	38.02	359.39	8,615.89	151.94	-1.62	151.95	8.00	8.00	0.00
8,655.23	38.43	359.39	8,620.00	155.17	-1.66	155.18	8.00	8.00	0.00
2nd BSPG Sand									
8,700.00	42.02	359.39	8,654.18	184.08	-1.97	184.09	8.00	8.00	0.00
8,750.00	46.02	359.39	8,690.13	218.81	-2.34	218.83	8.00	8.00	0.00
8,800.00	50.02	359.39	8,723.57	255.97	-2.73	255.99	8.00	8.00	0.00
8,850.00	54.02	359.39	8,754.33	295.37	-3.15	295.39	8.00	8.00	0.00
8,900.00	58.02	359.39	8,782.28	336.82	-3.60	336.84	8.00	8.00	0.00
8,950.00	62.02	359.39	8,807.26	380.12	-4.06	380.14	8.00	8.00	0.00
9,000.00	66.02	359.39	8,829.16	425.05	-4.54	425.07	8.00	8.00	0.00
9,050.00	70.02	359.39	8,847.88	471.40	-5.03	471.43	8.00	8.00	0.00
9,100.00	74.02	359.39	8,863.31	518.95	-5.54	518.98	8.00	8.00	0.00
9,150.00	78.02	359.39	8,875.39	567.45	-6.06	567.48	8.00	8.00	0.00
9,200.00	82.02	359.39	8,884.06	616.68	-6.59	616.72	8.00	8.00	0.00
9,250.00	86.02	359.39	8,889.27	666.40	-7.12	666.43	8.00	8.00	0.00
9,261.95	86.97	359.39	8,890.00	678.32	-7.24	678.36	8.00	8.00	0.00
Production									
9,299.80	90.00	359.39	8,891.00	716.15	-7.65	716.19	8.00	8.00	0.00
2nd BSPG Target Sand									
9,299.80	90.00	359.39	8,891.00	716.16	-7.65	716.20	8.00	8.00	0.00
9,400.00	90.00	359.39	8,891.00	816.35	-8.72	816.39	0.00	0.00	0.00
9,500.00	90.00	359.39	8,891.00	916.34	-9.79	916.39	0.00	0.00	0.00
9,600.00	90.00	359.39	8,891.00	1,016.34	-10.85	1,016.39	0.00	0.00	0.00
9,700.00	90.00	359.39	8,891.00	1,116.33	-11.92	1,116.39	0.00	0.00	0.00
9,800.00	90.00	359.39	8,891.00	1,216.33	-12.99	1,216.39	0.00	0.00	0.00
9,900.00	90.00	359.39	8,891.00	1,316.32	-14.06	1,316.39	0.00	0.00	0.00
10,000.00	90.00	359.39	8,891.00	1,416.31	-15.12	1,416.39	0.00	0.00	0.00
10,100.00	90.00	359.39	8,891.00	1,516.31	-16.19	1,516.39	0.00	0.00	0.00
10,200.00	90.00	359.39	8,891.00	1,616.30	-17.26	1,616.39	0.00	0.00	0.00
10,300.00	90.00	359.39	8,891.00	1,716.30	-18.33	1,716.39	0.00	0.00	0.00
10,400.00	90.00	359.39	8,891.00	1,816.29	-19.40	1,816.39	0.00	0.00	0.00
10,500.00	90.00	359.39	8,891.00	1,916.29	-20.46	1,916.39	0.00	0.00	0.00
10,600.00	90.00	359.39	8,891.00	2,016.28	-21.53	2,016.39	0.00	0.00	0.00
10,700.00	90.00	359.39	8,891.00	2,116.27	-22.60	2,116.39	0.00	0.00	0.00
10,800.00	90.00	359.39	8,891.00	2,216.27	-23.67	2,216.39	0.00	0.00	0.00
10,900.00	90.00	359.39	8,891.00	2,316.26	-24.74	2,316.39	0.00	0.00	0.00
11,000.00	90.00	359.39	8,891.00	2,416.26	-25.80	2,416.39	0.00	0.00	0.00
11,100.00	90.00	359.39	8,891.00	2,516.25	-26.87	2,516.39	0.00	0.00	0.00
11,200.00	90.00	359.39	8,891.00	2,616.25	-27.94	2,616.39	0.00	0.00	0.00
11,300.00	90.00	359.39	8,891.00	2,716.24	-29.01	2,716.39	0.00	0.00	0.00
11,400.00	90.00	359.39	8,891.00	2,816.23	-30.07	2,816.39	0.00	0.00	0.00
11,500.00	90.00	359.39	8,891.00	2,916.23	-31.14	2,916.39	0.00	0.00	0.00
11,600.00	90.00	359.39	8,891.00	3,016.22	-32.21	3,016.39	0.00	0.00	0.00
11,700.00	90.00	359.39	8,891.00	3,116.22	-33.28	3,116.39	0.00	0.00	0.00

Database:	EDM-JodyBarclay-Local	Local Co-ordinate Reference:	Well Cyp-34F-8H
Company:	OXY	TVD Reference:	KB @ 3065.30usft (H&P 474)
Project:	Cypress	MD Reference:	KB @ 3065.30usft (H&P 474)
Site:	Cypress 34 Fed 8H	North Reference:	Grid
Well:	Cyp-34F-8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,800.00	90.00	359.39	8,891.00	3,216.21	-34.35	3,216.39	0.00	0.00	0.00
11,900.00	90.00	359.39	8,891.00	3,316.21	-35.41	3,316.39	0.00	0.00	0.00
12,000.00	90.00	359.39	8,891.00	3,416.20	-36.48	3,416.39	0.00	0.00	0.00
12,100.00	90.00	359.39	8,891.00	3,516.19	-37.55	3,516.39	0.00	0.00	0.00
12,200.00	90.00	359.39	8,891.00	3,616.19	-38.62	3,616.39	0.00	0.00	0.00
12,300.00	90.00	359.39	8,891.00	3,716.18	-39.68	3,716.39	0.00	0.00	0.00
12,400.00	90.00	359.39	8,891.00	3,816.18	-40.75	3,816.39	0.00	0.00	0.00
12,500.00	90.00	359.39	8,891.00	3,916.17	-41.82	3,916.39	0.00	0.00	0.00
12,600.00	90.00	359.39	8,891.00	4,016.17	-42.89	4,016.39	0.00	0.00	0.00
12,700.00	90.00	359.39	8,891.00	4,116.16	-43.96	4,116.39	0.00	0.00	0.00
12,800.00	90.00	359.39	8,891.00	4,216.15	-45.02	4,216.39	0.00	0.00	0.00
12,900.00	90.00	359.39	8,891.00	4,316.15	-46.09	4,316.39	0.00	0.00	0.00
12,985.06	90.00	359.39	8,891.00	4,401.20	-47.00	4,401.45	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL	0.00	0.00	8,891.00	4,401.20	-47.00	461,247.10	612,326.80	32.268	-103.970
- plan hits target center - Rectangle (sides W100.00 H3,685.25 D50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
125.00	125.00	Conductor	20	30	
400.00	400.00	Surface	13-3/8	16	
3,100.00	3,100.00	Intermediate	9-5/8	12-1/4	
9,261.95	8,890.00	Production	5-1/2	8-3/4	

Database:	EDM-Jody Barclay-Local	Local Co-ordinate Reference:	Well: Cyp-34F-8H
Company:	OXY	TVD Reference:	KB @ 3065.30usft (H&P-474)
Project:	Cypress	MD Reference:	KB @ 3065.30usft (H&P-474)
Site:	Cypress 34 Fed 8H	North Reference:	Grid
Well:	Cyp-34F-8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Design #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
210.00	210.00	Rustler		0.00		
648.00	648.00	T. Salt		0.00		
2,935.00	2,935.00	B. Salt		0.00		
3,115.00	3,115.00	T. Delaware		0.00		
3,170.00	3,170.00	T. Bell Canyon		0.00		
4,015.00	4,015.00	T. Cherry Canyon		0.00		
5,265.00	5,265.00	T. Brushy Canyon		0.00		
6,765.00	6,765.00	T. BSPG		0.00		
7,780.00	7,780.00	T. 1st BSPG Sand		0.00		
8,085.00	8,085.00	T. 2nd BSPG		0.00		
8,655.23	8,620.00	T. 2nd BSPG Sand		0.00		
9,299.80	8,891.00	2nd BSPG Target Sand		0.00		