

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM27276
2. Name of Operator YATES PETROLEUM CORPORATION Contact: NAOMI G SAIZ E-Mail: NSAIZ@YATESPETROLEUM.COM		6. If Indian, Allottee or Tribe Name
3a. Address 105 SOUTH FOURTH STREET ARTESIA, NM 88210	3b. Phone No. (include area code) Ph: 575-748-4211	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 33 T18S R30E SWSW 0380FSL 0560FWL		8. Well Name and No. BENSON DEEP BDX FEDERAL 2H
UNORTHODOX LOCATION		9. API Well No. 30-015-41966-00-X1
		10. Field and Pool, or Exploratory WILDCAT LBO, B.S., South
		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 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.)

Yates Petroleum Corporation respectfully requests permission to make the following changes our approved APD as per the following and attached:
We request to remove the pilot hole from our drilling plan and to change our BHL to 660' FSL and 230' FEL in 33-18S-30E. The bottom 100' will not be produced because it will consist of our float shoe and float collar. Our bottom perf will not go beyond the 330' hardline. Attached is the new, signed C-102, WM and suvey.

Accepted for record

NMOCD

105
6-3-2014

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 02 2014

RECEIVED

14. I hereby certify that the foregoing is true and correct. Electronic Submission #246934 verified by the BLM Well Information System For YATES PETROLEUM CORPORATION, sent to the Carlsbad Committed to AFMSS for processing by CATHY QUEEN on 05/28/2014 (14CQ0042SE)	
Name (Printed/Typed) NAOMI G SAIZ	Title WELL PLANNING TECH
Signature (Electronic Submission)	Date 05/27/2014

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 _____		

APPROVED

MAY 29 2014

1/9/Chris Walsh

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.

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 and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

Form C-102

Revised July 16, 2010

Submit ~~one copy to appropriate~~
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30015-41966	Pool Code 37920	Pool Name LBO B.S. SO
Property Code 39250	Property Name BENSON DEEP BDX FEDERAL	Well Number 2H
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3454

Surface Location .

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	33	18 S	30 E		380	SOUTH	560	WEST	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
P	33	18 S	30 E		660	SOUTH	230 ✓	EAST	EDDY

Dedicated Acres	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

N 622644.06 E 648307.40	N 622649.46 E 650947.11	N 622654.03 E 653585.94	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. <i>Cy Cowan</i> 5/16/14 Signature Date <u>Cy Cowan</u> Printed Name _____ Email Address
N 620006.05 E 648317.45		N 620016.40 E 653594.91	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. _____ Date Surveyed _____ Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 27919
SURFACE LOCATION Lat - N 32°41'51.88" Long - W 103°59'01.39" NMSPCE- N 617748.55 E 648884.60 (NAD-83)		PROPOSED BOTTOM HOLE LOCATION Lat - N 32°41'54.59" Long - W 103°58'08.87" NMSPCE- N 618036.8 E 653371.6 (NAD-83)	



Yates Petroleum Corp.

**Eddy County, NM(NAD83)
Benson Deep BDX Federal
#2H**

OH

Plan: Plan #3

Standard Planning Report

23 May, 2014



Wellplanning Planning Report

Database:	EDM:5000.1\Single>User.Db	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum Corp	TVD Reference:	Well1 @ 3472.5usft
Project:	Eddy County - NM(NAD83)	MD Reference:	Well1 @ 3472.5usft
Site:	Benson Deep BDX Federal	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Project: Eddy County - NM(NAD83)			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site: Benson Deep BDX Federal					
Site Position:		Northing:		617,748.55 usft	
From: Map		Easting:		648,884.60 usft	
Position Uncertainty:		0.0 usft		Slot Radius: 13-3/16 "	
				Latitude: 32° 41' 51.886 N	
				Longitude: 103° 59' 1.397 W	
				Grid Convergence: 0.19 °	

Well	#2H					
Well Position	+N/-S	0.0 usft	Northing:	617,748.55 usft	Latitude:	32° 41' 51.886 N
	+E/-W	0.0 usft	Easting:	648,884.60 usft	Longitude:	103° 59' 1.397 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,454.0 usft

Wellbore:	OH
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Magnetics:	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	5/19/2014	7.45	60.48	48,563

Design:	Plan #3
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	86.24

Plan Sections:									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.00	0.00	0.00	0.00
4,300.0	4.00	266.24	4,299.8	-0.5	-7.0	2.00	2.00	0.00	266.24
5,533.0	4.00	266.24	5,529.8	-6.1	-92.8	0.00	0.00	0.00	0.00
5,733.0	0.00	0.00	5,729.7	-6.6	-99.8	2.00	-2.00	0.00	180.00
7,906.0	0.00	0.00	7,902.7	-6.6	-99.8	0.00	0.00	0.00	0.00
8,648.3	89.09	86.24	8,380.0	24.3	369.0	12.00	12.00	0.00	86.24
12,675.5	89.09	86.24	8,444.0	288.3	4,387.1	0.00	0.00	0.00	0.00 PBHL(BD#2H)
12,775.6	89.09	86.24	8,445.5	294.9	4,486.9	0.00	0.00	0.00	0.00



Wellplanning Planning Report

Database:	EDM5000.1 (Single User Db)	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum Corp	TVD Reference:	Well 1 @ 3472.5usft
Project:	Eddy County NM(NAD83)	MD Reference:	Well 1 @ 3472.5usft
Site:	Benson Deep BDX Federal	North Reference:	Grid
Well:	#2H	Survey/Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,744.0	0.00	0.00	2,744.0	0.0	0.0	0.0	0.00	0.00	0.00	
Queen										
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,214.0	0.00	0.00	3,214.0	0.0	0.0	0.0	0.00	0.00	0.00	
Grayberg										
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,854.0	0.00	0.00	3,854.0	0.0	0.0	0.0	0.00	0.00	0.00	
Cherry Canyon										
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,069.0	0.00	0.00	4,069.0	0.0	0.0	0.0	0.00	0.00	0.00	
Brushy Canyon										
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,200.0	2.00	266.24	4,200.0	-0.1	-1.7	-1.7	2.00	2.00	0.00	
4,300.0	4.00	266.24	4,299.8	-0.5	-7.0	-7.0	2.00	2.00	0.00	
4,400.0	4.00	266.24	4,399.6	-0.9	-13.9	-14.0	0.00	0.00	0.00	
4,500.0	4.00	266.24	4,499.4	-1.4	-20.9	-20.9	0.00	0.00	0.00	



Wellplanning Planning Report

Database:	EDM15000.1 Single User Db	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum Corp	TVD Reference:	Well # @ 3472.5usft
Project:	Eddy County NM(NAD83)	MD Reference:	Well # @ 3472.5usft
Site:	Benson Deep BDx Federal	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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)	
4,600.0	4.00	266.24	4,599.1	-1.8	-27.8	-27.9	0.00	0.00	0.00	
4,700.0	4.00	266.24	4,698.9	-2.3	-34.8	-34.9	0.00	0.00	0.00	
4,800.0	4.00	266.24	4,798.6	-2.7	-41.8	-41.9	0.00	0.00	0.00	
4,900.0	4.00	266.24	4,898.4	-3.2	-48.7	-48.8	0.00	0.00	0.00	
5,000.0	4.00	266.24	4,998.1	-3.7	-55.7	-55.8	0.00	0.00	0.00	
5,100.0	4.00	266.24	5,097.9	-4.1	-62.6	-62.8	0.00	0.00	0.00	
5,200.0	4.00	266.24	5,197.6	-4.6	-69.6	-69.8	0.00	0.00	0.00	
5,300.0	4.00	266.24	5,297.4	-5.0	-76.6	-76.7	0.00	0.00	0.00	
5,400.0	4.00	266.24	5,397.2	-5.5	-83.5	-83.7	0.00	0.00	0.00	
5,500.0	4.00	266.24	5,496.9	-5.9	-90.5	-90.7	0.00	0.00	0.00	
5,533.0	4.00	266.24	5,529.8	-6.1	-92.8	-93.0	0.00	0.00	0.00	
5,600.0	2.66	266.24	5,596.7	-6.4	-96.7	-96.9	2.00	-2.00	0.00	
5,647.3	1.71	266.24	5,644.0	-6.5	-98.5	-98.7	2.00	-2.00	0.00	
Bone Springs LM										
5,700.0	0.66	266.24	5,696.7	-6.5	-99.6	-99.8	2.00	-2.00	0.00	
5,733.0	0.00	0.00	5,729.7	-6.6	-99.8	-100.0	2.00	-2.00	0.00	
5,800.0	0.00	0.00	5,796.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,896.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,996.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,096.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,196.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,296.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,396.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,496.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,596.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,696.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,796.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,896.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,996.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,096.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,196.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,296.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,396.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,407.3	0.00	0.00	7,404.0	-6.6	-99.8	-100.0	0.00	0.00	0.00	
1st BSFS										
7,500.0	0.00	0.00	7,496.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,596.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,696.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,796.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
7,906.0	0.00	0.00	7,902.7	-6.6	-99.8	-100.0	0.00	0.00	0.00	
KOP 7906.0 MD 0.00 INC 0.00 AZI										
7,925.0	2.28	86.24	7,921.7	-6.5	-99.4	-99.6	12.00	12.00	0.00	
7,950.0	5.28	86.24	7,946.6	-6.4	-97.7	-97.9	12.00	12.00	0.00	
7,975.0	8.28	86.24	7,971.4	-6.2	-94.8	-95.0	12.00	12.00	0.00	
8,000.0	11.28	86.24	7,996.1	-6.0	-90.5	-90.7	12.00	12.00	0.00	
8,025.0	14.28	86.24	8,020.4	-5.6	-85.0	-85.2	12.00	12.00	0.00	
8,050.0	17.28	86.24	8,044.5	-5.1	-78.2	-78.4	12.00	12.00	0.00	
8,075.0	20.28	86.24	8,068.2	-4.6	-70.2	-70.4	12.00	12.00	0.00	
8,100.0	23.28	86.24	8,091.4	-4.0	-61.0	-61.1	12.00	12.00	0.00	
8,125.0	26.28	86.24	8,114.1	-3.3	-50.5	-50.6	12.00	12.00	0.00	
8,150.0	29.28	86.24	8,136.2	-2.6	-38.9	-39.0	12.00	12.00	0.00	
8,175.0	32.29	86.24	8,157.7	-1.7	-26.1	-26.2	12.00	12.00	0.00	
8,200.0	35.29	86.24	8,178.4	-0.8	-12.2	-12.3	12.00	12.00	0.00	



Wellplanning Planning Report

Database:	EDM/5000.1 Single User Db	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum Corp.	TVD Reference:	Well1 @ 3472.5usft
Project:	Eddy County NM(NAD83)	MD Reference:	Well1 @ 3472.5usft
Site:	Benson Deep BDx Federal	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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)	
8,225.0	38.29	86.24	8,198.5	0.2	2.7	2.7	12.00	12.00	0.00	
8,250.0	41.29	86.24	8,217.7	1.2	18.7	18.7	12.00	12.00	0.00	
8,272.2	43.95	86.24	8,234.0	2.2	33.7	33.7	12.00	12.00	0.00	
2nd BSPTS										
8,275.0	44.29	86.24	8,236.0	2.3	35.6	35.7	12.00	12.00	0.00	
8,300.0	47.29	86.24	8,253.4	3.5	53.5	53.6	12.00	12.00	0.00	
8,325.0	50.29	86.24	8,269.9	4.7	72.2	72.4	12.00	12.00	0.00	
8,350.0	53.29	86.24	8,285.4	6.0	91.8	92.0	12.00	12.00	0.00	
8,375.0	56.29	86.24	8,299.8	7.4	112.2	112.5	12.00	12.00	0.00	
8,400.0	59.29	86.24	8,313.1	8.8	133.3	133.6	12.00	12.00	0.00	
8,425.0	62.29	86.24	8,325.3	10.2	155.1	155.4	12.00	12.00	0.00	
8,450.0	65.29	86.24	8,336.3	11.7	177.5	177.9	12.00	12.00	0.00	
8,475.0	68.29	86.24	8,346.2	13.2	200.4	200.8	12.00	12.00	0.00	
8,500.0	71.29	86.24	8,354.8	14.7	223.8	224.3	12.00	12.00	0.00	
8,525.0	74.29	86.24	8,362.2	16.3	247.6	248.2	12.00	12.00	0.00	
8,550.0	77.29	86.24	8,368.4	17.9	271.8	272.4	12.00	12.00	0.00	
8,575.0	80.29	86.24	8,373.2	19.5	296.3	296.9	12.00	12.00	0.00	
8,600.0	83.29	86.24	8,376.8	21.1	321.0	321.7	12.00	12.00	0.00	
8,625.0	86.29	86.24	8,379.1	22.7	345.8	346.6	12.00	12.00	0.00	
8,648.3	89.09	86.24	8,380.0	24.3	369.0	369.8	12.00	12.00	0.00	
EOC: 8648.3 MD: 89.09 INC: 86.24 AZI:										
8,700.0	89.09	86.24	8,380.8	27.6	420.6	421.5	0.00	0.00	0.00	
8,800.0	89.09	86.24	8,382.4	34.2	520.4	521.5	0.00	0.00	0.00	
8,900.0	89.09	86.24	8,384.0	40.8	620.2	621.5	0.00	0.00	0.00	
9,000.0	89.09	86.24	8,385.6	47.3	719.9	721.5	0.00	0.00	0.00	
9,100.0	89.09	86.24	8,387.2	53.9	819.7	821.5	0.00	0.00	0.00	
9,200.0	89.09	86.24	8,388.8	60.4	919.5	921.5	0.00	0.00	0.00	
9,300.0	89.09	86.24	8,390.4	67.0	1,019.3	1,021.5	0.00	0.00	0.00	
9,400.0	89.09	86.24	8,391.9	73.5	1,119.0	1,121.4	0.00	0.00	0.00	
9,500.0	89.09	86.24	8,393.5	80.1	1,218.8	1,221.4	0.00	0.00	0.00	
9,600.0	89.09	86.24	8,395.1	86.7	1,318.6	1,321.4	0.00	0.00	0.00	
9,700.0	89.09	86.24	8,396.7	93.2	1,418.3	1,421.4	0.00	0.00	0.00	
9,800.0	89.09	86.24	8,398.3	99.8	1,518.1	1,521.4	0.00	0.00	0.00	
9,900.0	89.09	86.24	8,399.9	106.3	1,617.9	1,621.4	0.00	0.00	0.00	
10,000.0	89.09	86.24	8,401.5	112.9	1,717.7	1,721.4	0.00	0.00	0.00	
10,100.0	89.09	86.24	8,403.1	119.4	1,817.4	1,821.4	0.00	0.00	0.00	
10,200.0	89.09	86.24	8,404.6	126.0	1,917.2	1,921.3	0.00	0.00	0.00	
10,300.0	89.09	86.24	8,406.2	132.6	2,017.0	2,021.3	0.00	0.00	0.00	
10,400.0	89.09	86.24	8,407.8	139.1	2,116.8	2,121.3	0.00	0.00	0.00	
10,500.0	89.09	86.24	8,409.4	145.7	2,216.5	2,221.3	0.00	0.00	0.00	
10,600.0	89.09	86.24	8,411.0	152.2	2,316.3	2,321.3	0.00	0.00	0.00	
10,700.0	89.09	86.24	8,412.6	158.8	2,416.1	2,421.3	0.00	0.00	0.00	
10,800.0	89.09	86.24	8,414.2	165.3	2,515.8	2,521.3	0.00	0.00	0.00	
10,900.0	89.09	86.24	8,415.8	171.9	2,615.6	2,621.3	0.00	0.00	0.00	
11,000.0	89.09	86.24	8,417.3	178.5	2,715.4	2,721.2	0.00	0.00	0.00	
11,100.0	89.09	86.24	8,418.9	185.0	2,815.2	2,821.2	0.00	0.00	0.00	
11,200.0	89.09	86.24	8,420.5	191.6	2,914.9	2,921.2	0.00	0.00	0.00	
11,300.0	89.09	86.24	8,422.1	198.1	3,014.7	3,021.2	0.00	0.00	0.00	
11,400.0	89.09	86.24	8,423.7	204.7	3,114.5	3,121.2	0.00	0.00	0.00	
11,418.8	89.09	86.24	8,424.0	205.9	3,133.2	3,140.0	0.00	0.00	0.00	
2nd BSPTS Base:										
11,500.0	89.09	86.24	8,425.3	211.2	3,214.2	3,221.2	0.00	0.00	0.00	
11,600.0	89.09	86.24	8,426.9	217.8	3,314.0	3,321.2	0.00	0.00	0.00	



Wellplanning Planning Report

Database:	EDM/5000.1 Single User Db	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum Corp.	TVD Reference:	Well1 @ 3472.5usft
Project:	Eddy County, NM(NAD83)	MD Reference:	Well1 @ 3472.5usft
Site:	Benson Deep BDX Federal	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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)	
11,700.0	89.09	86.24	8,428.5	224.4	3,413.8	3,421.2	0.00	0.00	0.00	
11,800.0	89.09	86.24	8,430.1	230.9	3,513.6	3,521.1	0.00	0.00	0.00	
11,900.0	89.09	86.24	8,431.6	237.5	3,613.3	3,621.1	0.00	0.00	0.00	
12,000.0	89.09	86.24	8,433.2	244.0	3,713.1	3,721.1	0.00	0.00	0.00	
12,100.0	89.09	86.24	8,434.8	250.6	3,812.9	3,821.1	0.00	0.00	0.00	
12,200.0	89.09	86.24	8,436.4	257.1	3,912.7	3,921.1	0.00	0.00	0.00	
12,300.0	89.09	86.24	8,438.0	263.7	4,012.4	4,021.1	0.00	0.00	0.00	
12,400.0	89.09	86.24	8,439.6	270.2	4,112.2	4,121.1	0.00	0.00	0.00	
12,500.0	89.09	86.24	8,441.2	276.8	4,212.0	4,221.1	0.00	0.00	0.00	
12,600.0	89.09	86.24	8,442.8	283.4	4,311.7	4,321.0	0.00	0.00	0.00	
12,675.5	89.09	86.24	8,444.0	288.3	4,387.1	4,396.6	0.00	0.00	0.00	
PBHL(BD#2H)										
12,700.0	89.09	86.24	8,444.3	289.9	4,411.5	4,421.0	0.00	0.00	0.00	
12,775.6	89.09	86.24	8,445.5	294.9	4,486.9	4,496.6	0.00	0.00	0.00	
TD at 12775.6										

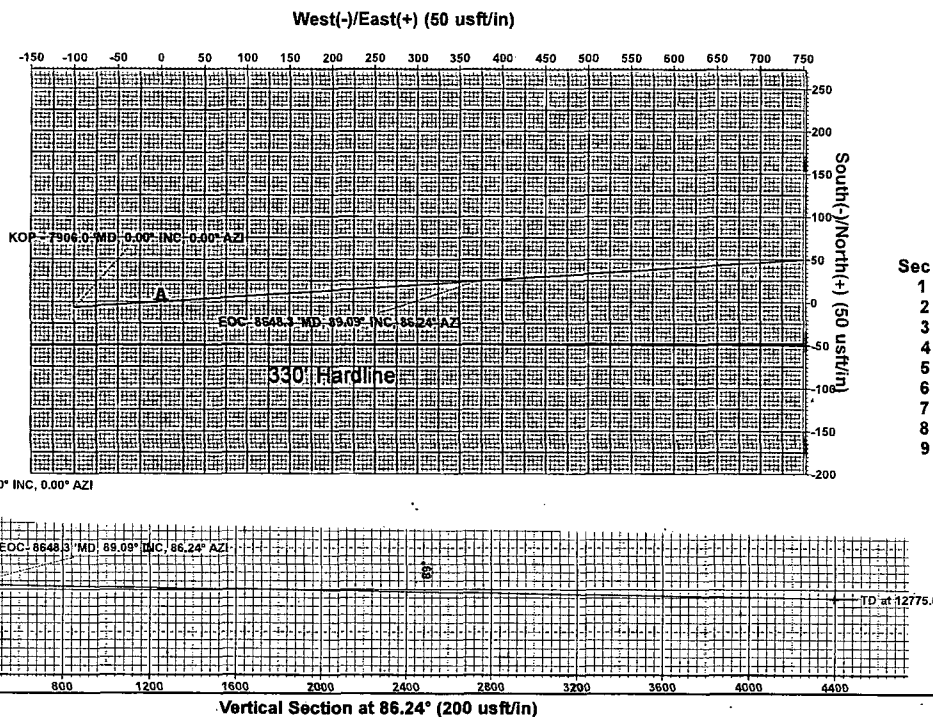
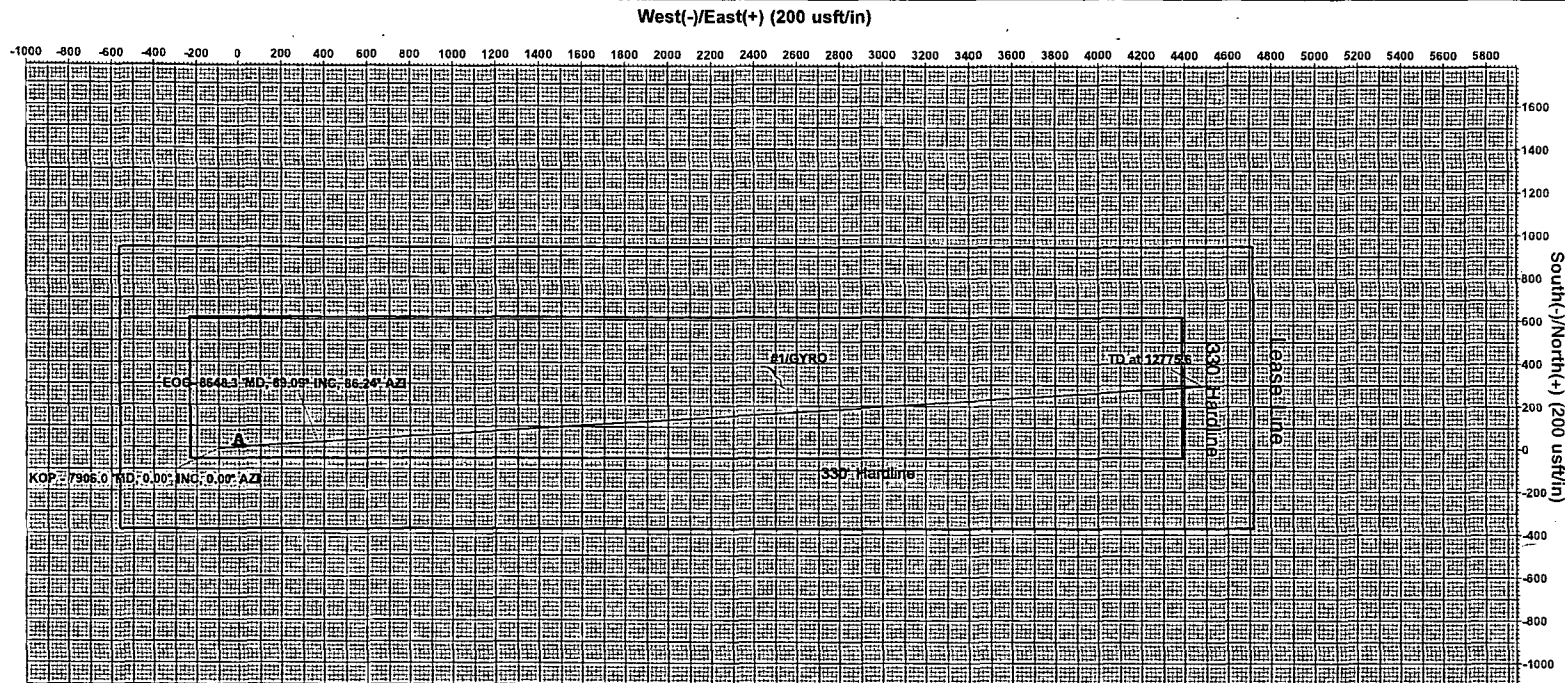
Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL(BD#2H)		0.00	0.00	8,444.0	287.9	4,387.1	618,036.50	653,271.73	32° 41' 54.589 N	103° 58' 10.044 W
- plan misses target center by 0.4usft at 12675.5usft MD (8444.0 TVD, 288.3 N, 4387.1 E)										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,744.0	2,744.0	Queen		0.00		
3,214.0	3,214.0	Grayberg		0.00		
3,854.0	3,854.0	Cherry Canyon		0.00		
4,069.0	4,069.0	Brushy Canyon		0.00		
5,647.3	5,644.0	Bone Springs LM		0.00		
7,407.3	7,404.0	1st BSPS		0.00		
8,272.2	8,234.0	2nd BSPS		0.00		
11,418.8	8,424.0	2nd BSPS Base		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N-S (usft)	+E-W (usft)	Comment	
7,906.0	7,902.7	0.0	0.0	KOP - 7906.0 'MD, 0.00° INC, 0.00° AZI	
8,648.3	8,380.0	-0.5	-7.0	EOC- 8648.3 'MD, 89.09° INC, 86.24° AZI	
12,775.6	8,445.5	-6.1	-92.8	TD at 12775.6	



Project: Eddy County, NM(NAD83)
Site: Benson Deep BDX Federal
Well: #2H
Wellbore: OH
Plan: Plan #3 (#2H/OH)



#2H

Ground Elevation:: 3454.0
RKB Elevation: Well1 @ 3472.5usft
Rig Name:

Longitude Northing Easting Latitude
617748.55 648884.60 32° 41' 51.886 N 103° 59' 1.397 W

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	4100.0	0.00	0.00	4100.0	0.0	0.0	0.00	0.00	0.0
3	4300.0	4.00	266.24	4299.8	-0.5	-7.0	2.00	266.24	-7.0
4	5533.0	4.00	266.24	5529.8	-6.1	-92.8	0.00	0.00	-93.0
5	5733.0	0.00	0.00	5729.7	-6.6	-99.8	2.00	180.00	-100.0
6	7906.0	0.00	0.00	7902.7	-6.6	-99.8	0.00	0.00	-100.0
7	8648.3	89.09	86.24	8380.0	24.3	369.0	12.00	86.24	369.8
8	12675.5	89.09	86.24	8444.0	288.3	4387.1	0.00	0.00	4396.6
9	12775.6	89.09	86.24	8445.5	294.9	4486.9	0.00	0.00	4496.6

PBHL(BD#2H)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
2744.0	2744.0	Queen	0.00	
3214.0	3214.0	Grayberg	0.00	
3854.0	3854.0	Cherry Canyon	0.00	
4069.0	4069.0	Brushy Canyon	0.00	
5644.0	5647.3	Bone Springs LM	0.00	
7404.0	7407.3	1st BSPP	0.00	
8234.0	8272.2	2nd BSPP	0.00	
8424.0	11418.8	2nd BSPP Base	0.00	



Azimuths to Grid North
True North: -0.19°
Magnetic North: 7.26°

Magnetic Field
Strength: 48563.2snT
Dip Angle: 60.48°
Date: 5/19/2014
Model: IGRF2010



Terra Directional Services LLC
322 Spring Hill Drive, Suite A300, Spring, Tx 77386
Phone: 432-425-7532

PROJECT DETAILS: Eddy County, NM(NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid