

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6179

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

HOBBS OCD

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

FEB 10 2014

CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-41650	Pool Code 5535	Pool Name Berry Undesignated Bone Spring
Property Code 40382	Property Name NERVOSA BTT STATE COM	Well Number 2H
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3691

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	24	21 S	33 E		2440'	NORTH	1880'	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
B	13	21 S	33 E		330'	NORTH	1700'	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
240			

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

PROPOSED BOTTOM HOLE LOCATION
Lat - N 32°29'06.59"
Long - W 103°31'23.03"
NMSPCE- N 541182.7
E 791183.0
(NAD-83)

Project Area

Producing Zone

Penetration Point
1959' FNL and
1863' FEL

SURFACE LOCATION
Lat - N 32°27'53.44"
Long - W 103°31'25.11"
NMSPCE- N 533788.6
E 791061.0
(NAD-83)

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.

Cy Cowan 7/4/14
Signature Date
Cy Cowan
Printed Name
cy@yatespetroleum.com
Email Address

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.

OCTOBER 08 2013
Date Surveyed
Signature & Seal of Professional Surveyor
7977
Certificate No. 7977
BASIC SURVEY

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
WO Num.: 28740

FEB 11 2014

HOBBS OCD

FEB 10 2014

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Yates Petroleum

Lea County, NM (NAD-83)

Nervosa BTT State Com

#2H

Wellbore #1

Plan: Plan #4

Standard Planning Report

22 January, 2014

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Well: #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County, NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa BTT State Com	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

Project	Lea County, NM (NAD-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Nervosa BTT State Com			
Site Position:		Northing:	533,788.60 usft	Latitude: 32° 27' 53.441 N
From:	Map	Easting:	791,061.00 usft	Longitude: 103° 31' 25.113 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.43 °

Well	#2H			
Well Position	+N/-S	0.0 usft	Northing:	533,788.60 usft
	+E/-W	0.0 usft	Easting:	791,061.00 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	0.0 usft
			Ground Level:	3,691.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/14/2014	7.26	60.35	48,506

Design	Plan #4			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	2.00

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 (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,415.6	0.00	0.00	10,415.6	0.0	0.0	0.00	0.00	0.00	0.00	
11,169.8	90.50	2.00	10,893.0	481.3	16.8	12.00	12.00	0.00	2.00	
15,370.8	90.50	2.00	10,856.4	4,679.6	163.4	0.00	0.00	0.00	0.00	
15,518.8	90.50	359.04	10,855.1	4,827.6	164.8	2.00	0.00	-2.00	-89.99	
18,085.8	90.50	359.04	10,832.7	7,394.1	121.8	0.00	0.00	0.00	0.00	PBHL(Nervosa BTT)

Planning Report

Database:	Houston;R5000;Database	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County, NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa;BTT State Com	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

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
1,823.0	0.00	0.00	1,823.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,958.0	0.00	0.00	1,958.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
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
2,800.0	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
3,300.0	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
3,408.0	0.00	0.00	3,408.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Salt - Top Tansill									
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
3,638.0	0.00	0.00	3,638.0	0.0	0.0	0.0	0.00	0.00	0.00
Yates									
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
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,923.0	0.00	0.00	3,923.0	0.0	0.0	0.0	0.00	0.00	0.00
Capitan									
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
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	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa BTT State Com	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

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)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,048.0	0.00	0.00	6,048.0	0.0	0.0	0.0	0.00	0.00	0.00
Cherry Canyon (Top Delaware)									
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,088.0	0.00	0.00	7,088.0	0.0	0.0	0.0	0.00	0.00	0.00
Brushy Canyon									
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,763.0	0.00	0.00	8,763.0	0.0	0.0	0.0	0.00	0.00	0.00
Bone Springs LM									
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,978.0	0.00	0.00	8,978.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Well: #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County, NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa B.T.T. State Com	North Reference:	Grid:
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

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)
Avalon Sand									
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,303.0	0.00	0.00	9,303.0	0.0	0.0	0.0	0.00	0.00	0.00
Middle Avalon									
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,433.0	0.00	0.00	9,433.0	0.0	0.0	0.0	0.00	0.00	0.00
Lower Avalon									
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,933.0	0.00	0.00	9,933.0	0.0	0.0	0.0	0.00	0.00	0.00
1st Bone Springs Sand									
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,415.6	0.00	0.00	10,415.6	0.0	0.0	0.0	0.00	0.00	0.00
10415.6' MD: Build at 12°/100ft to 90.5° INC @ 2° AZ - KOP: 10415.6' MD, 10415.6' TVD									
10,425.0	1.13	2.00	10,425.0	0.1	0.0	0.1	12.00	12.00	0.00
10,450.0	4.13	2.00	10,450.0	1.2	0.0	1.2	12.00	12.00	0.00
10,475.0	7.13	2.00	10,474.8	3.7	0.1	3.7	12.00	12.00	0.00
10,500.0	10.13	2.00	10,499.6	7.4	0.3	7.4	12.00	12.00	0.00
10,525.0	13.13	2.00	10,524.0	12.5	0.4	12.5	12.00	12.00	0.00
10,550.0	16.13	2.00	10,548.2	18.8	0.7	18.8	12.00	12.00	0.00
10,575.0	19.13	2.00	10,572.1	26.3	0.9	26.4	12.00	12.00	0.00
10,600.0	22.13	2.00	10,595.4	35.1	1.2	35.2	12.00	12.00	0.00
10,625.0	25.13	2.00	10,618.4	45.2	1.6	45.2	12.00	12.00	0.00
10,630.1	25.75	2.00	10,623.0	47.4	1.7	47.4	12.00	12.00	0.00
2nd Bone Springs Sand									
10,650.0	28.13	2.00	10,640.7	56.4	2.0	56.4	12.00	12.00	0.00
10,675.0	31.13	2.00	10,662.4	68.7	2.4	68.7	12.00	12.00	0.00
10,700.0	34.13	2.00	10,683.5	82.2	2.9	82.2	12.00	12.00	0.00
10,725.0	37.13	2.00	10,703.8	96.7	3.4	96.8	12.00	12.00	0.00
10,750.0	40.13	2.00	10,723.3	112.3	3.9	112.4	12.00	12.00	0.00
10,775.0	43.13	2.00	10,742.0	128.9	4.5	129.0	12.00	12.00	0.00
10,800.0	46.13	2.00	10,759.8	146.5	5.1	146.6	12.00	12.00	0.00
10,825.0	49.13	2.00	10,776.6	164.9	5.8	165.0	12.00	12.00	0.00
10,850.0	52.13	2.00	10,792.5	184.2	6.4	184.3	12.00	12.00	0.00
10,875.0	55.13	2.00	10,807.3	204.4	7.1	204.5	12.00	12.00	0.00
10,900.0	58.13	2.00	10,821.1	225.2	7.9	225.4	12.00	12.00	0.00
10,925.0	61.13	2.00	10,833.7	246.8	8.6	246.9	12.00	12.00	0.00
10,950.0	64.13	2.00	10,845.2	269.0	9.4	269.1	12.00	12.00	0.00
10,975.0	67.13	2.00	10,855.5	291.7	10.2	291.9	12.00	12.00	0.00
11,000.0	70.13	2.00	10,864.6	315.0	11.0	315.2	12.00	12.00	0.00
11,025.0	73.13	2.00	10,872.5	338.7	11.8	338.9	12.00	12.00	0.00
11,050.0	76.13	2.00	10,879.1	362.8	12.7	363.0	12.00	12.00	0.00
11,075.0	79.13	2.00	10,884.5	387.2	13.5	387.4	12.00	12.00	0.00

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County, NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa BTT State Com	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

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)	
11,100.0	82.13	2.00	10,888.6	411.8	14.4	412.1	12.00	12.00	0.00	
11,106.0	82.85	2.00	10,889.4	417.8	14.6	418.1	12.00	12.00	0.00	
Target Zone SBGS										
11,125.0	85.13	2.00	10,891.3	436.6	15.2	436.9	12.00	12.00	0.00	
11,150.0	88.13	2.00	10,892.8	461.6	16.1	461.9	12.00	12.00	0.00	
11,169.8	90.50	2.00	10,893.0	481.4	16.8	481.7	11.98	11.98	0.00	
EOC: 11169.8' MD, 10893.0' TVD, 90.50° INC, 2.8° AZ, 481.6' VS - 11169.8' MD, Hold @ 90.50° INC and 2.8 AZ										
11,200.0	90.50	2.00	10,892.8	511.6	17.9	511.9	0.00	0.00	0.00	
11,300.0	90.50	2.00	10,891.9	611.5	21.4	611.9	0.00	0.00	0.00	
11,400.0	90.50	2.00	10,891.0	711.4	24.8	711.9	0.00	0.00	0.00	
11,500.0	90.50	2.00	10,890.2	811.4	28.3	811.9	0.00	0.00	0.00	
11,600.0	90.50	2.00	10,889.3	911.3	31.8	911.8	0.00	0.00	0.00	
11,700.0	90.50	2.00	10,888.4	1,011.2	35.3	1,011.8	0.00	0.00	0.00	
11,800.0	90.50	2.00	10,887.5	1,111.2	38.8	1,111.8	0.00	0.00	0.00	
11,900.0	90.50	2.00	10,886.7	1,211.1	42.3	1,211.8	0.00	0.00	0.00	
12,000.0	90.50	2.00	10,885.8	1,311.0	45.8	1,311.8	0.00	0.00	0.00	
12,100.0	90.50	2.00	10,884.9	1,411.0	49.3	1,411.8	0.00	0.00	0.00	
12,200.0	90.50	2.00	10,884.1	1,510.9	52.8	1,511.8	0.00	0.00	0.00	
12,300.0	90.50	2.00	10,883.2	1,610.8	56.3	1,611.8	0.00	0.00	0.00	
12,400.0	90.50	2.00	10,882.3	1,710.8	59.7	1,711.8	0.00	0.00	0.00	
12,500.0	90.50	2.00	10,881.4	1,810.7	63.2	1,811.8	0.00	0.00	0.00	
12,600.0	90.50	2.00	10,880.6	1,910.6	66.7	1,911.8	0.00	0.00	0.00	
12,700.0	90.50	2.00	10,879.7	2,010.6	70.2	2,011.8	0.00	0.00	0.00	
12,800.0	90.50	2.00	10,878.8	2,110.5	73.7	2,111.8	0.00	0.00	0.00	
12,900.0	90.50	2.00	10,877.9	2,210.5	77.2	2,211.8	0.00	0.00	0.00	
13,000.0	90.50	2.00	10,877.1	2,310.4	80.7	2,311.8	0.00	0.00	0.00	
13,100.0	90.50	2.00	10,876.2	2,410.3	84.2	2,411.8	0.00	0.00	0.00	
13,200.0	90.50	2.00	10,875.3	2,510.3	87.7	2,511.8	0.00	0.00	0.00	
13,300.0	90.50	2.00	10,874.5	2,610.2	91.1	2,611.8	0.00	0.00	0.00	
13,400.0	90.50	2.00	10,873.6	2,710.1	94.6	2,711.8	0.00	0.00	0.00	
13,500.0	90.50	2.00	10,872.7	2,810.1	98.1	2,811.8	0.00	0.00	0.00	
13,600.0	90.50	2.00	10,871.8	2,910.0	101.6	2,911.8	0.00	0.00	0.00	
13,700.0	90.50	2.00	10,871.0	3,009.9	105.1	3,011.8	0.00	0.00	0.00	
13,800.0	90.50	2.00	10,870.1	3,109.9	108.6	3,111.8	0.00	0.00	0.00	
13,900.0	90.50	2.00	10,869.2	3,209.8	112.1	3,211.8	0.00	0.00	0.00	
14,000.0	90.50	2.00	10,868.3	3,309.7	115.6	3,311.8	0.00	0.00	0.00	
14,100.0	90.50	2.00	10,867.5	3,409.7	119.1	3,411.8	0.00	0.00	0.00	
14,200.0	90.50	2.00	10,866.6	3,509.6	122.6	3,511.7	0.00	0.00	0.00	
14,300.0	90.50	2.00	10,865.7	3,609.5	126.0	3,611.7	0.00	0.00	0.00	
14,400.0	90.50	2.00	10,864.9	3,709.5	129.5	3,711.7	0.00	0.00	0.00	
14,500.0	90.50	2.00	10,864.0	3,809.4	133.0	3,811.7	0.00	0.00	0.00	
14,600.0	90.50	2.00	10,863.1	3,909.4	136.5	3,911.7	0.00	0.00	0.00	
14,700.0	90.50	2.00	10,862.2	4,009.3	140.0	4,011.7	0.00	0.00	0.00	
14,800.0	90.50	2.00	10,861.4	4,109.2	143.5	4,111.7	0.00	0.00	0.00	
14,900.0	90.50	2.00	10,860.5	4,209.2	147.0	4,211.7	0.00	0.00	0.00	
15,000.0	90.50	2.00	10,859.6	4,309.1	150.5	4,311.7	0.00	0.00	0.00	
15,100.0	90.50	2.00	10,858.7	4,409.0	154.0	4,411.7	0.00	0.00	0.00	
15,200.0	90.50	2.00	10,857.9	4,509.0	157.5	4,511.7	0.00	0.00	0.00	
15,300.0	90.50	2.00	10,857.0	4,608.9	160.9	4,611.7	0.00	0.00	0.00	
15,370.8	90.50	2.00	10,856.4	4,679.7	163.4	4,682.5	0.00	0.00	0.00	
15370.8' MD, Turn at 2°/100ft to 359.04° AZ and Hold 90.5° INC										
15,400.0	90.50	1.42	10,856.1	4,708.8	164.3	4,711.7	2.00	0.00	-2.00	
15,500.0	90.50	359.42	10,855.3	4,808.8	165.0	4,811.7	2.00	0.00	-2.00	

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County, NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa BTT State Com	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

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)
15,518.8	90.50	359.04	10,855.1	4,827.6	164.8	4,830.4	2.00	0.00	-2.00
15,600.0	90.50	359.04	10,854.4	4,908.8	163.4	4,911.5	0.00	0.00	0.00
15,700.0	90.50	359.04	10,853.5	5,008.8	161.7	5,011.4	0.00	0.00	0.00
15,800.0	90.50	359.04	10,852.6	5,108.8	160.0	5,111.2	0.00	0.00	0.00
15,900.0	90.50	359.04	10,851.8	5,208.8	158.4	5,211.1	0.00	0.00	0.00
16,000.0	90.50	359.04	10,850.9	5,308.7	156.7	5,311.0	0.00	0.00	0.00
16,100.0	90.50	359.04	10,850.0	5,408.7	155.0	5,410.8	0.00	0.00	0.00
16,200.0	90.50	359.04	10,849.1	5,508.7	153.3	5,510.7	0.00	0.00	0.00
16,300.0	90.50	359.04	10,848.3	5,608.7	151.7	5,610.6	0.00	0.00	0.00
16,400.0	90.50	359.04	10,847.4	5,708.7	150.0	5,710.4	0.00	0.00	0.00
16,500.0	90.50	359.04	10,846.5	5,808.6	148.3	5,810.3	0.00	0.00	0.00
16,600.0	90.50	359.04	10,845.7	5,908.6	146.6	5,910.1	0.00	0.00	0.00
16,700.0	90.50	359.04	10,844.8	6,008.6	145.0	6,010.0	0.00	0.00	0.00
16,800.0	90.50	359.04	10,843.9	6,108.6	143.3	6,109.9	0.00	0.00	0.00
16,900.0	90.50	359.04	10,843.0	6,208.6	141.6	6,209.7	0.00	0.00	0.00
17,000.0	90.50	359.04	10,842.2	6,308.6	139.9	6,309.6	0.00	0.00	0.00
17,100.0	90.50	359.04	10,841.3	6,408.5	138.3	6,409.5	0.00	0.00	0.00
17,200.0	90.50	359.04	10,840.4	6,508.5	136.6	6,509.3	0.00	0.00	0.00
17,300.0	90.50	359.04	10,839.6	6,608.5	134.9	6,609.2	0.00	0.00	0.00
17,400.0	90.50	359.04	10,838.7	6,708.5	133.2	6,709.1	0.00	0.00	0.00
17,500.0	90.50	359.04	10,837.8	6,808.5	131.6	6,808.9	0.00	0.00	0.00
17,600.0	90.50	359.04	10,836.9	6,908.5	129.9	6,908.8	0.00	0.00	0.00
17,700.0	90.50	359.04	10,836.1	7,008.4	128.2	7,008.6	0.00	0.00	0.00
17,800.0	90.50	359.04	10,835.2	7,108.4	126.5	7,108.5	0.00	0.00	0.00
17,900.0	90.50	359.04	10,834.3	7,208.4	124.9	7,208.4	0.00	0.00	0.00
18,000.0	90.50	359.04	10,833.4	7,308.4	123.2	7,308.2	0.00	0.00	0.00
18,085.0	90.50	359.04	10,832.7	7,393.4	121.8	7,393.1	0.00	0.00	0.00
Northing: 541182.73 / Easting: 791182.99 - TD: 18085' MD, 10832.7' TVD									
18,085.8	90.50	359.04	10,832.7	7,394.1	121.8	7,393.9	0.00	0.00	0.00

Design Targets									
Target Name	hit/miss target Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
Berry State #1	- plan misses target center by 4420.0usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) - Circle (radius 275.0)	0.00	0.01	0.0	4,417.9	-136.3	538,206.47	790,924.74	32° 28' 37.164 N 103° 31' 26.312 W
New Mexico State #1	- plan misses target center by 3256.6usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) - Circle (radius 200.0)	0.00	0.00	0.0	3,091.0	-1,025.1	536,879.62	790,035.85	32° 28' 24.102 N 103° 31' 36.805 W
Ameroda State #1	- plan misses target center by 2904.4usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) - Circle (radius 175.0)	0.00	0.00	0.0	2,901.7	-123.7	536,690.34	790,937.33	32° 28' 22.162 N 103° 31' 26.299 W
PBHL(Nervosa BTT Sta	- plan misses target center by 0.4usft at 18085.8usft MD (10832.7 TVD, 7394.1 N, 121.8 E) - Point	0.00	0.00	10,833.0	7,394.1	122.0	541,182.73	791,182.99	32° 29' 6.594 N 103° 31' 23.034 W

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Well #2H
Company:	Yates Petroleum	TVD Reference:	RKB @ 3713.0usft (Nomac #22)
Project:	Lea County, NM (NAD-83)	MD Reference:	RKB @ 3713.0usft (Nomac #22)
Site:	Nervosa BTT State Com.	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,823.0	1,823.0	Rustler		0.00		
1,958.0	1,958.0	Top Salt		0.00		
3,408.0	3,408.0	Base Salt - Top Tansill		0.00	359.55	
3,638.0	3,638.0	Yates		0.00	359.55	
3,923.0	3,923.0	Capitan		0.00	359.55	
6,048.0	6,048.0	Cherry Canyon (Top Deleware)		0.00	359.55	
7,088.0	7,088.0	Brushy Canyon		0.00	359.55	
8,763.0	8,763.0	Bone Springs LM		0.00	359.55	
8,978.0	8,978.0	Avalon Sand		0.00	359.55	
9,303.0	9,303.0	Middle Avalon		0.00	359.55	
9,433.0	9,433.0	Lower Avalon		0.00	359.55	
9,933.0	9,933.0	1st Bone Springs Sand		0.00	359.55	
10,630.1	10,623.0	2nd Bone Springs Sand		0.00	359.55	
11,106.0	10,889.4	Target Zone SBSG		-0.50	359.55	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
10,415.6	10,415.6	0.0	0.0	10415.6' MD: Build at 12°/100ft to 90.5° INC @ 2° AZ	
10,415.6	10,415.6	0.0	0.0	KOP: 10415.6' MD, 10415.6' TVD	
11,169.8	10,893.0	481.4	16.8	EOC: 11169.8' MD, 10893.0' TVD, 90.50° INC, 2.8° AZ, 481.6' VS	
11,169.8	10,893.0	481.4	16.8	11169.8' MD: Hold @ 90.50° INC and 2.8 AZ	
15,370.8	10,856.4	4,679.7	163.4	15370.8' MD: Turn at 2°/100ft to 359.04° AZ and Hold 90.5° INC	
18,085.0	10,832.7	7,393.4	121.8	Northing: 541182.73 / Easting: 791182.99	
18,085.0	10,832.7	7,393.4	121.8	TD: 18085' MD, 10832.7' TVD	



Yates Petroleum
Project: Lea County, NM (NAD-83)
Site: Nervosa BTT State Com
Well: #2H
Wellbore: Wellbore #1
Plan: Plan #4 (#2H/Wellbore #1)

WELL DETAILS: #2H

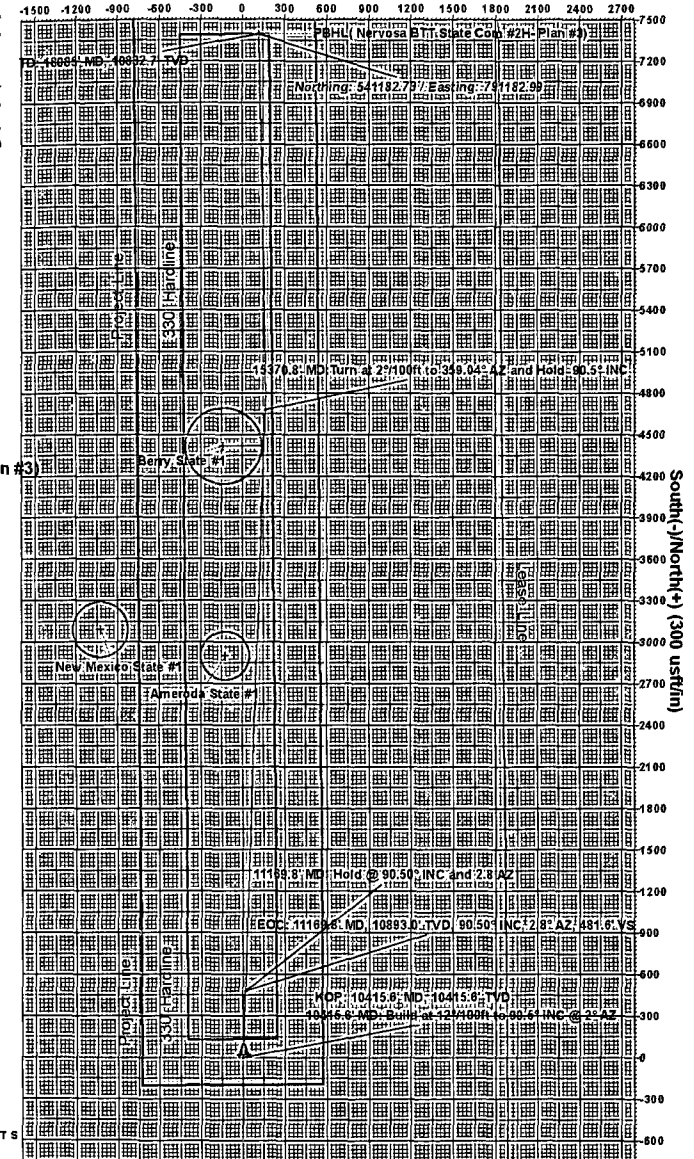
Ground Elevation:: 3691.0
RKB Elevation: RKB @ 3713.0usft (Nomac #22)
Rig Name: Nomac #22

Surface Hole Location
Northing Easting Latitude Longitude
533788.60 791061.00 32° 27' 53.441 N 103° 31' 25.113 W



Azimuths to Grid North
True North: -0.43°
Magnetic North: 6.83°
Magnetic Field
Strength: 48505.8snT
Dip Angle: 60.35°
Date: 1/14/2014
Model: IGRF2010

West(-)/East(+) (300 usft/in)

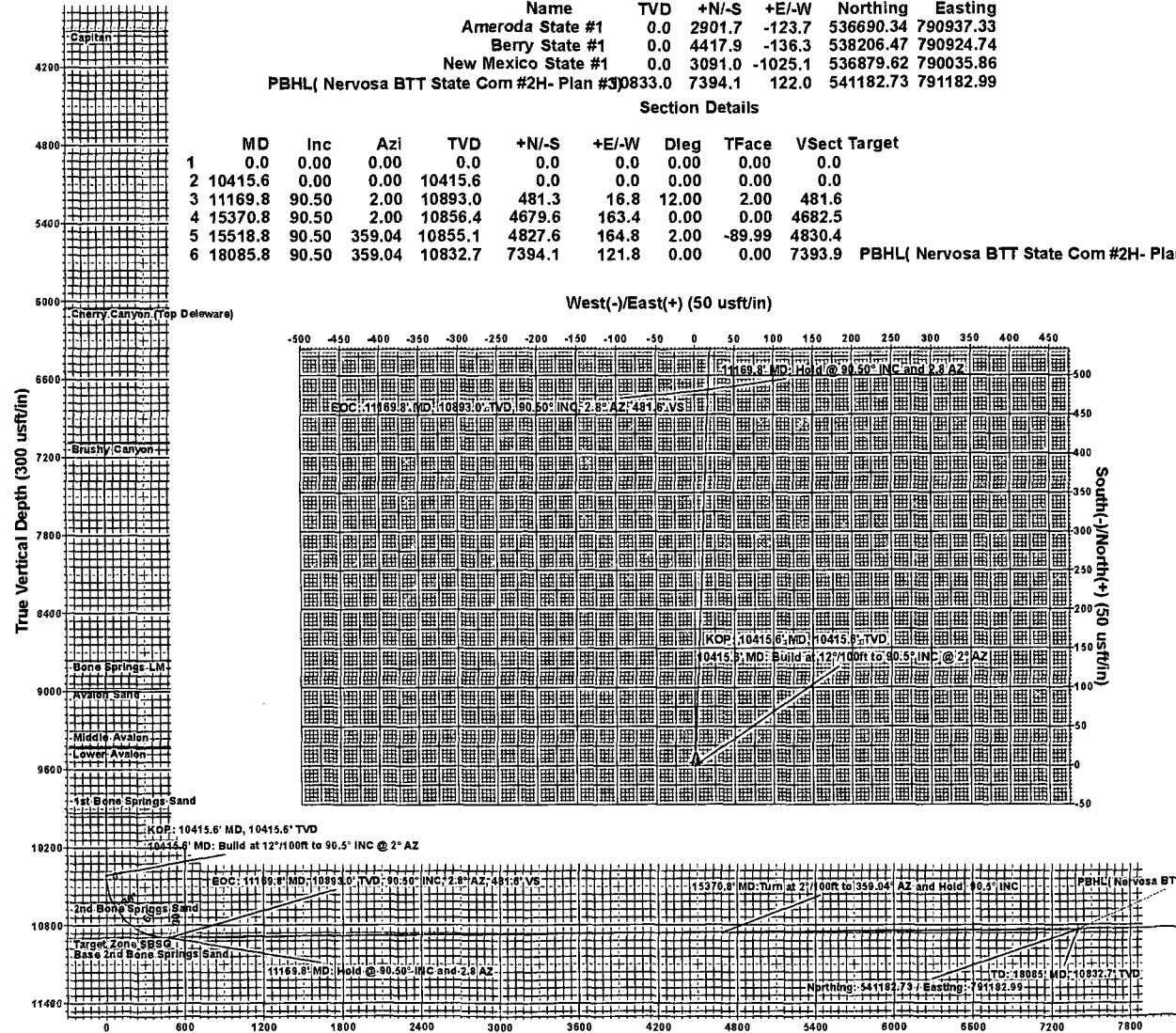


Name	TVD	+N/-S	+E/-W	Northing	Easting
Ameroda State #1	0.0	2901.7	-123.7	536690.34	790937.33
Berry State #1	0.0	4417.9	-136.3	538206.47	790924.74
New Mexico State #1	0.0	3091.0	-1025.1	536879.62	790035.86
PBHL(Nervosa BTT State Com #2H- Plan #3)	30833.0	7394.1	122.0	541182.73	791182.99

Section Details

	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	10415.6	0.00	0.00	10415.6	0.0	0.0	0.00	0.00	0.0	
3	11169.8	90.50	2.00	10893.0	481.3	16.8	12.00	2.00	481.6	
4	15370.8	90.50	2.00	10856.4	4679.6	163.4	0.00	0.00	4682.5	
5	15518.8	90.50	359.04	10855.1	4827.6	164.8	2.00	-89.99	4830.4	
6	18085.8	90.50	359.04	10832.7	7394.1	121.8	0.00	0.00	7393.9	PBHL(Nervosa BTT State Com #2H- Plan #3)

West(-)/East(+) (50 usft/in)



Vertical Section at 2.00° (300 usft/in)



Crescent Directional Drilling
7715 West Industrial Ave. Midland, Tx 79706
Phone: 432-618-1135

PROJECT DETAILS: Lea County, NM (NAD-83)
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

Plan: Plan #4 (#2H/Wellbore #1)
Created By: Jason Roe Date: 16:20, January 22 2014