

District I
1525 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
Revised July 18, 2013

Energy Minerals and Natural Resources HOBBS OCD

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr. AUG 24 2015

Santa Fe, NM 87505

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address ENDURANCE RESOURCES LLC 203 West Wall Suite 1000 Midland, TX 79701		2. OGRID Number 270329
4. Property Code 315120		5. API Number 30-025-42757
3. Property Name Yates 16 State		6. Well No. 1H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	16	25 S	35 E		230	N	330	W	LEA

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	16	25 S	35 E		230	S	660	W	LEA

9. Pool Information

Pool Name Doggie Draw Wolfcamp	Pool Code 17980
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Additional Well Information

11. Work Type New Well	12. Well Type Oil	13. Cable/Rotary R	14. Lease Type State	15. Ground Level Elevation 3296.5
16. Multiple N	17. Proposed Depth 16,952' MD	18. Formation Wolfcamp	19. Contractor H & P	20. Spud Date 12/01/15
Depth to Ground water: 0-400'		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	850	815	Surface
Int1	12.25	9.625	40 / 43.5	9137	1990	Surface
Prod	8.5	5.5	20	16952	1030	5000

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 850' with Fresh Water. Run 13-3/8", 54.5#, J-55 csg and cement to surface. Drill 12-1/4" hole to 9,137' with Brine, and run 9-5/8", 40.0# and 43.5#, L-80 csg and cement to surface. Drill 8-1/2" hole to Pilot Hole TD of 12,964 and plug back to KOP at ~11,791'. Drill a 10 3/4" 100' curve and a ~4,261' lateral to TD of ~17,310'. Run 5-1/2", 20#, P-110 csg and cement to 5000'.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature: *Tinlee Tilton*

Printed name: Ms. Tinlee Tilton

Title: Engineer

E-mail Address: tinlee@enduranceresourcesllc.com

Date: 8/20/2015

Phone: 432-242-4693

OIL CONSERVATION DIVISION

Approved By:

Title: Petroleum Engineer

Approved Date: 08/27/15

Expiration Date: 08/27/17

Seal Attached

Conditions of Approval Attached

Conditions of Approval

AUG 28 2015

CONDITIONS OF APPROVAL

API #	Operator	Well name & Number
30-025-42757	ENDURANCE RESOURCES LLC	Yates 16 State # 001H

Applicable conditions of approval marked with XXXXXX

Administrative Orders Required

--	--

Other wells

--	--

Drilling

XXXXXXX	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

Casing

XXXXXXX	SURFACE & INTERNEMIATE(1) CASING - Cement must circulate to surface --
XXXXXXX	PRODUCTION CASING - Cement must tie back into intermediate casing --
	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
XXXXXXX	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water

Lost Circulation

XXXXXXX	Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186

Stage Tool

XXXXXXX	Must notify OCD Hobbs Office prior to running Stage Tool at 575-370-3186
XXXXXXX	If using Stage Tool on Surface casing, Stage Tool must be greater than 350' and a minimum 200 feet above surface shoe.
XXXXXXX	When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

Pits

XXXXXXX	If using a pit for drilling and completions, must have an approved pit form prior to spudding the well

Completion & Production

XXXXXXX	Will require a directional survey with the C-104

Endurance Resources LLC

HALLIBURTON
Sperry Drilling Services



Project: Lea County, NM (NAD 83)
Site: Yates 16 State
Well: Yates 16 State 1H
Wellbore: Wellbore #1
Plan: Plan #1
Rig: H&P 490

SURFACE LOCATION

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3255.9' + KB 25' @ 3280.90usft (H&P 490)
Northing **Easting** **Latitude** **Longitude**
414884.73 836438.70 32° 8' 13.223 N 103° 22' 47.842 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

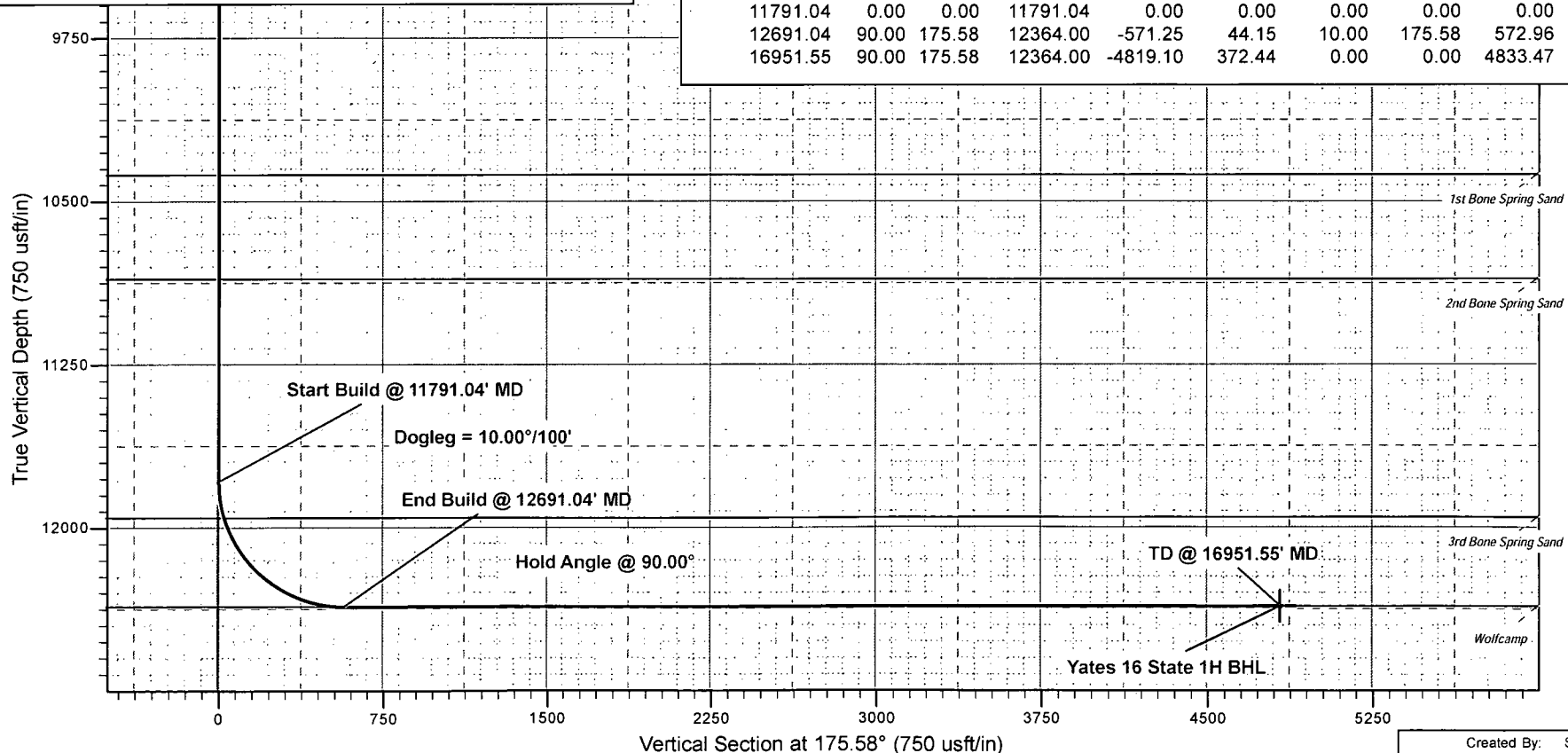
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Yates 16 State 1H BHL	12364.00	-4819.10	372.44	410065.63	836811.14	32° 7' 25.506 N	103° 22' 44.008 W

To convert a Magnetic Direction to a Grid Direction, Add 6.63°

Magnetic Model: BGGM2015 Date: 19-Aug-15
Azimuths to Grid North

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11791.04	0.00	0.00	11791.04	0.00	0.00	0.00	0.00	0.00	Start Build
12691.04	90.00	175.58	12364.00	-571.25	44.15	10.00	175.58	572.96	End Build
16951.55	90.00	175.58	12364.00	-4819.10	372.44	0.00	0.00	4833.47	TD



Created By: Scott Sinclair



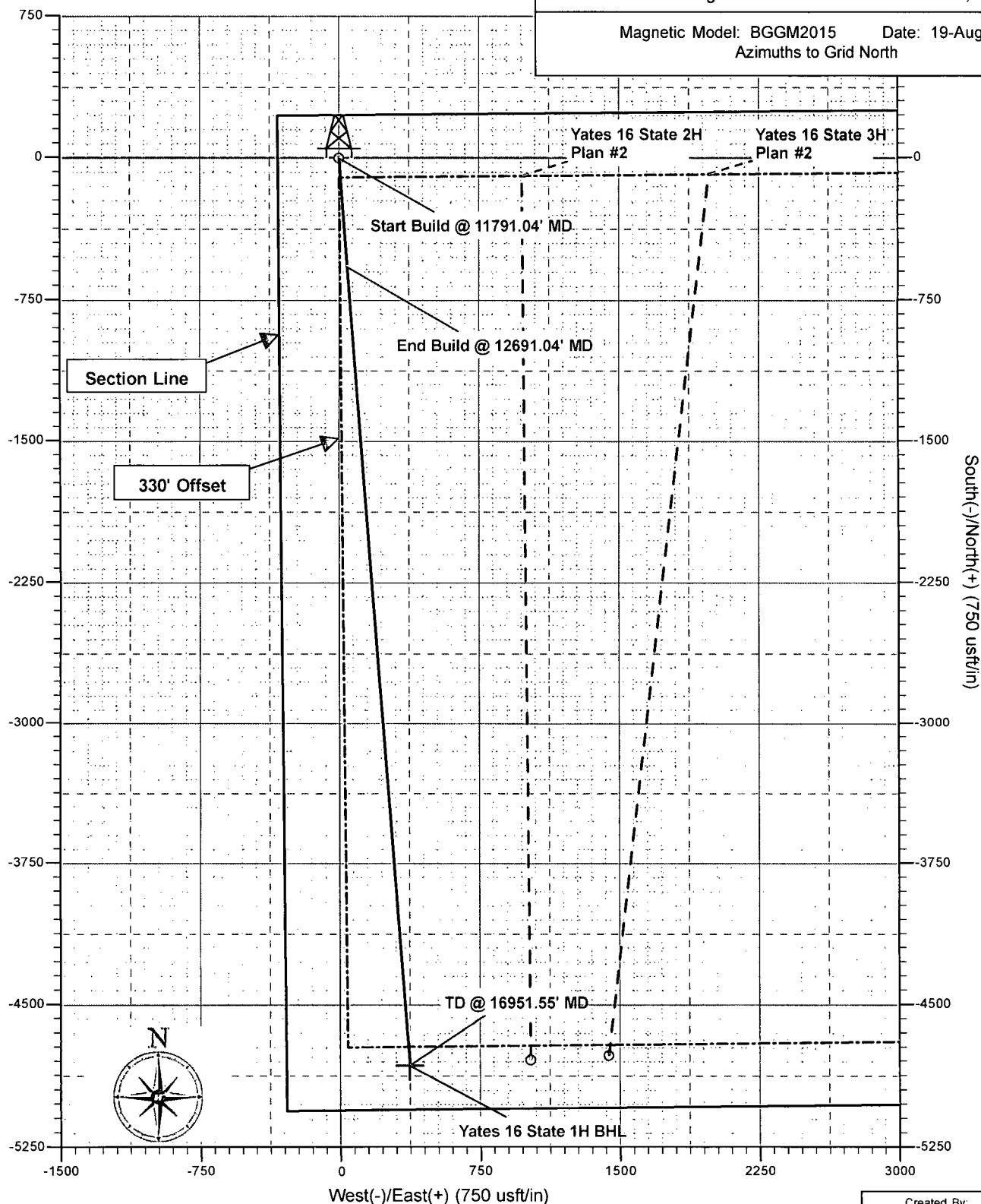
Project: Lea County, NM (NAD 83)
Site: Yates 16 State
Well: Yates 16 State 1H
Wellbore: Wellbore #1
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US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3255.9' + KB 25' @ 3280.90usft (H&P 490)
 Northing: 414884.73 Easting: 836438.70 Latitude: 32° 8' 13.223 N Longitude: 103° 22' 47.842 W

To convert a Magnetic Direction to a Grid Direction, Add 6.63°

Magnetic Model: BGGM2015 Date: 19-Aug-15
 Azimuths to Grid North



Endurance Resources LLC

Lea County, NM (NAD 83)

Yates 16 State

Yates 16 State 1H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services

Proposal Report

19 August, 2015

Well Coordinates: 414,884.73 N, 836,438.70 E (32° 08' 13.22" N, 103° 22' 47.84" W)

Ground Level: 3,255.90 usft

Local Coordinate Origin:

Centered on Well Yates 16 State 1H

Viewing Datum:

GL 3255.9' + KB 25' @ 3280.90usft (H&P 490)

TVDs to System:

N

North Reference:

Grid

Unit System:

API - US Survey Feet

Version: 5000.1 Build: 76

HALLIBURTON

Plan Report for Yates 16 State 1H - Plan #1

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)	Toolface Azimuth (°)
0.00	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	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
793.00	0.00	0.00	793.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler										
800.00	0.00	0.00	800.00	0.00	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	0.00
1,000.00	0.00	0.00	1,000.00	0.00	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	0.00
1,200.00	0.00	0.00	1,200.00	0.00	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	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,437.00	0.00	0.00	1,437.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt										
1,500.00	0.00	0.00	1,500.00	0.00	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	0.00
1,700.00	0.00	0.00	1,700.00	0.00	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	0.00
1,900.00	0.00	0.00	1,900.00	0.00	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	0.00
2,100.00	0.00	0.00	2,100.00	0.00	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	0.00
2,300.00	0.00	0.00	2,300.00	0.00	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	0.00
2,500.00	0.00	0.00	2,500.00	0.00	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	0.00
2,700.00	0.00	0.00	2,700.00	0.00	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	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	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	0.00
3,200.00	0.00	0.00	3,200.00	0.00	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	0.00
3,400.00	0.00	0.00	3,400.00	0.00	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	0.00
3,600.00	0.00	0.00	3,600.00	0.00	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	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
4,100.00	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
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

HALLIBURTON**Plan Report for Yates 16 State 1H - Plan #1**

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)	Toolface Azimuth (°)
5,302.00	0.00	0.00	5,302.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar										
5,321.00	0.00	0.00	5,321.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon										
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
6,372.00	0.00	0.00	6,372.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon										
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
6,800.00	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
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,838.00	0.00	0.00	7,838.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon										
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
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,037.00	0.00	0.00	9,037.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring										
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Plan Report for Yates 16 State 1H - Plan #1

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)	Toolface Azimuth (°)
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,377.00	0.00	0.00	10,377.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1st Bone Spring Sand										
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,855.00	0.00	0.00	10,855.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2nd Bone Spring Sand										
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,400.00	0.00	0.00	11,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,500.00	0.00	0.00	11,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,600.00	0.00	0.00	11,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,700.00	0.00	0.00	11,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,791.04	0.00	0.00	11,791.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 11791.04' MD - Dogleg = 10.00°/100'										
11,800.00	0.90	175.58	11,800.00	-0.07	0.01	0.07	10.00	10.00	0.00	175.58
11,850.00	5.90	175.58	11,849.90	-3.02	0.23	3.03	10.00	10.00	0.00	0.00
11,900.00	10.90	175.58	11,899.34	-10.30	0.80	10.33	10.00	10.00	0.00	0.00
11,950.00	15.90	175.58	11,947.97	-21.84	1.69	21.91	10.00	10.00	0.00	0.00
11,957.32	16.63	175.58	11,955.00	-23.89	1.85	23.96	10.00	10.00	0.00	0.00
3rd Bone Spring Sand										
12,000.00	20.90	175.58	11,995.40	-37.57	2.90	37.68	10.00	10.00	0.00	0.00
12,050.00	25.90	175.58	12,041.27	-57.36	4.43	57.53	10.00	10.00	0.00	0.00
12,100.00	30.90	175.58	12,085.24	-81.06	6.26	81.30	10.00	10.00	0.00	0.00
12,150.00	35.90	175.58	12,126.97	-108.49	8.38	108.81	10.00	10.00	0.00	0.00
12,200.00	40.90	175.58	12,166.15	-139.44	10.78	139.86	10.00	10.00	0.00	0.00
12,250.00	45.90	175.58	12,202.47	-173.68	13.42	174.20	10.00	10.00	0.00	0.00
12,300.00	50.90	175.58	12,235.66	-210.95	16.30	211.57	10.00	10.00	0.00	0.00
12,350.00	55.90	175.58	12,265.46	-250.95	19.39	251.70	10.00	10.00	0.00	0.00
12,400.00	60.90	175.58	12,291.66	-293.40	22.67	294.27	10.00	10.00	0.00	0.00
12,450.00	65.90	175.58	12,314.04	-337.96	26.12	338.96	10.00	10.00	0.00	0.00
12,500.00	70.90	175.58	12,332.44	-384.29	29.70	385.44	10.00	10.00	0.00	0.00
12,550.00	75.90	175.58	12,346.73	-432.05	33.39	433.34	10.00	10.00	0.00	0.00
12,600.00	80.90	175.58	12,356.78	-480.86	37.16	482.30	10.00	10.00	0.00	0.00
12,650.00	85.90	175.58	12,362.53	-530.37	40.99	531.95	10.00	10.00	0.00	0.00
12,691.04	90.00	175.58	12,364.00	-571.25	44.15	572.96	10.00	10.00	0.00	0.00
End Build @ 12691.04' MD - Hold Angle @ 90.00° - Wolfcamp										
12,700.00	90.00	175.58	12,364.00	-580.19	44.84	581.92	0.00	0.00	0.00	0.00
12,800.00	90.00	175.58	12,364.00	-679.89	52.54	681.92	0.00	0.00	0.00	0.00
12,900.00	90.00	175.58	12,364.00	-779.59	60.25	781.92	0.00	0.00	0.00	0.00
13,000.00	90.00	175.58	12,364.00	-879.29	67.96	881.92	0.00	0.00	0.00	0.00
13,100.00	90.00	175.58	12,364.00	-979.00	75.66	981.92	0.00	0.00	0.00	0.00
13,200.00	90.00	175.58	12,364.00	-1,078.70	83.37	1,081.92	0.00	0.00	0.00	0.00
13,300.00	90.00	175.58	12,364.00	-1,178.40	91.07	1,181.92	0.00	0.00	0.00	0.00
13,400.00	90.00	175.58	12,364.00	-1,278.10	98.78	1,281.92	0.00	0.00	0.00	0.00
13,500.00	90.00	175.58	12,364.00	-1,377.81	106.48	1,381.92	0.00	0.00	0.00	0.00
13,600.00	90.00	175.58	12,364.00	-1,477.51	114.19	1,481.92	0.00	0.00	0.00	0.00
13,700.00	90.00	175.58	12,364.00	-1,577.21	121.89	1,581.92	0.00	0.00	0.00	0.00
13,800.00	90.00	175.58	12,364.00	-1,676.92	129.60	1,681.92	0.00	0.00	0.00	0.00
13,900.00	90.00	175.58	12,364.00	-1,776.62	137.30	1,781.92	0.00	0.00	0.00	0.00
14,000.00	90.00	175.58	12,364.00	-1,876.32	145.01	1,881.92	0.00	0.00	0.00	0.00
14,100.00	90.00	175.58	12,364.00	-1,976.02	152.72	1,981.92	0.00	0.00	0.00	0.00
14,200.00	90.00	175.58	12,364.00	-2,075.73	160.42	2,081.92	0.00	0.00	0.00	0.00

Plan Report for Yates 16 State 1H - Plan #1

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)	Toolface Azimuth (°)
14,300.00	90.00	175.58	12,364.00	-2,175.43	168.13	2,181.92	0.00	0.00	0.00	0.00
14,400.00	90.00	175.58	12,364.00	-2,275.13	175.83	2,281.92	0.00	0.00	0.00	0.00
14,500.00	90.00	175.58	12,364.00	-2,374.83	183.54	2,381.92	0.00	0.00	0.00	0.00
14,600.00	90.00	175.58	12,364.00	-2,474.54	191.24	2,481.92	0.00	0.00	0.00	0.00
14,700.00	90.00	175.58	12,364.00	-2,574.24	198.95	2,581.92	0.00	0.00	0.00	0.00
14,800.00	90.00	175.58	12,364.00	-2,673.94	206.65	2,681.92	0.00	0.00	0.00	0.00
14,900.00	90.00	175.58	12,364.00	-2,773.64	214.36	2,781.92	0.00	0.00	0.00	0.00
15,000.00	90.00	175.58	12,364.00	-2,873.35	222.06	2,881.92	0.00	0.00	0.00	0.00
15,100.00	90.00	175.58	12,364.00	-2,973.05	229.77	2,981.92	0.00	0.00	0.00	0.00
15,200.00	90.00	175.58	12,364.00	-3,072.75	237.48	3,081.92	0.00	0.00	0.00	0.00
15,300.00	90.00	175.58	12,364.00	-3,172.46	245.18	3,181.92	0.00	0.00	0.00	0.00
15,400.00	90.00	175.58	12,364.00	-3,272.16	252.89	3,281.92	0.00	0.00	0.00	0.00
15,500.00	90.00	175.58	12,364.00	-3,371.86	260.59	3,381.92	0.00	0.00	0.00	0.00
15,600.00	90.00	175.58	12,364.00	-3,471.56	268.30	3,481.92	0.00	0.00	0.00	0.00
15,700.00	90.00	175.58	12,364.00	-3,571.27	276.00	3,581.92	0.00	0.00	0.00	0.00
15,800.00	90.00	175.58	12,364.00	-3,670.97	283.71	3,681.92	0.00	0.00	0.00	0.00
15,900.00	90.00	175.58	12,364.00	-3,770.67	291.41	3,781.92	0.00	0.00	0.00	0.00
16,000.00	90.00	175.58	12,364.00	-3,870.37	299.12	3,881.92	0.00	0.00	0.00	0.00
16,100.00	90.00	175.58	12,364.00	-3,970.08	306.82	3,981.92	0.00	0.00	0.00	0.00
16,200.00	90.00	175.58	12,364.00	-4,069.78	314.53	4,081.92	0.00	0.00	0.00	0.00
16,300.00	90.00	175.58	12,364.00	-4,169.48	322.23	4,181.92	0.00	0.00	0.00	0.00
16,400.00	90.00	175.58	12,364.00	-4,269.18	329.94	4,281.92	0.00	0.00	0.00	0.00
16,500.00	90.00	175.58	12,364.00	-4,368.89	337.65	4,381.92	0.00	0.00	0.00	0.00
16,600.00	90.00	175.58	12,364.00	-4,468.59	345.35	4,481.92	0.00	0.00	0.00	0.00
16,700.00	90.00	175.58	12,364.00	-4,568.29	353.06	4,581.92	0.00	0.00	0.00	0.00
16,800.00	90.00	175.58	12,364.00	-4,668.00	360.76	4,681.92	0.00	0.00	0.00	0.00
16,900.00	90.00	175.58	12,364.00	-4,767.70	368.47	4,781.92	0.00	0.00	0.00	0.00
16,951.55	90.00	175.58	12,364.00	-4,819.10	372.44	4,833.47	0.00	0.00	0.00	0.00
TD @ 16951.55' MD										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,791.04	11,791.04	0.00	0.00	Start Build @ 11791.04' MD
11,791.04	11,791.04	0.00	0.00	Dogleg = 10.00°/100'
12,691.04	12,364.00	-571.25	44.15	End Build @ 12691.04' MD
12,691.04	12,364.00	-571.25	44.15	Hold Angle @ 90.00°
16,951.55	12,364.00	-4,819.10	372.44	TD @ 16951.55' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
TD	No Target (Freehand)	175.58	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	16,951.55	Plan #1	MWD+SC

Plan Report for Yates 16 State 1H - Plan #1

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
793.00	793.00	Rustler		0.00	
1,437.00	1,437.00	Top of Salt		0.00	
5,302.00	5,302.00	Lamar		0.00	
5,321.00	5,321.00	Bell Canyon		0.00	
6,372.00	6,372.00	Cherry Canyon		0.00	
7,838.00	7,838.00	Brushy Canyon		0.00	
9,037.00	9,037.00	Bone Spring		0.00	
10,377.00	10,377.00	1st Bone Spring Sand		0.00	
10,855.00	10,855.00	2nd Bone Spring Sand		0.00	
11,957.32	11,955.00	3rd Bone Spring Sand		0.00	
12,691.04	12,364.00	Wolfcamp		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Yates 16 State 1H BHL	12,364.00	-4,819.10	372.44	Point

North Reference Sheet for Yates 16 State - Yates 16 State 1H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3255.9' + KB 25' @ 3280.90usft (H&P 490). Northing and Easting are relative to Yates 16 State 1H Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 1.00000883

Grid Coordinates of Well: 414,884.73 usft N, 836,438.70 usft E

Geographical Coordinates of Well: 32° 08' 13.22" N, 103° 22' 47.84" W

Grid Convergence at Surface is: 0.51°

Based upon Minimum Curvature type calculations, at a Measured Depth of 16,951.55usft the Bottom Hole Displacement is 4,833.47usft in the Direction of 175.58° (Grid).

Magnetic Convergence at surface is: -6.63° (19 August 2015, , BGGM2015)

