

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**1N-64W-19 ONION 1918 PAD**

**ONION 1918-02H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**21 May, 2019**

Project: WATTENBERG FIELD  
Site: 1N-64W-19 ONION 1918 PAD  
Well: ONION 1918-02H  
Wellbore: Wellbore #1  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

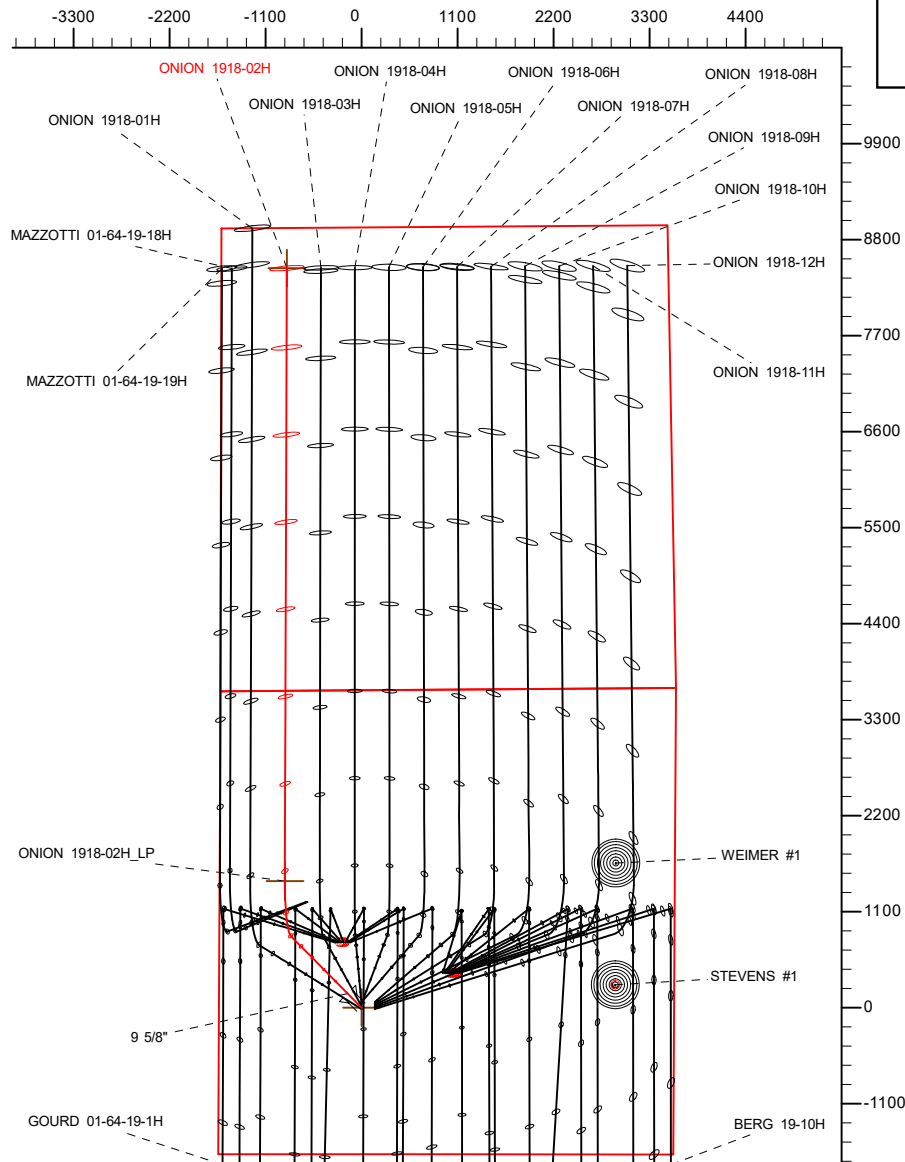
TVD	MD	Name	Size
1700.00	1719.71	9 5/8"	9-5/8

**SHL**  
**1681' FSL**  
**1635' FWL**

**LP**  
**2180' FNL**  
**750' FWL**

**BHL**  
**460' FNL**  
**750' FWL**

West(-)/East(+) (2200 usft/in)

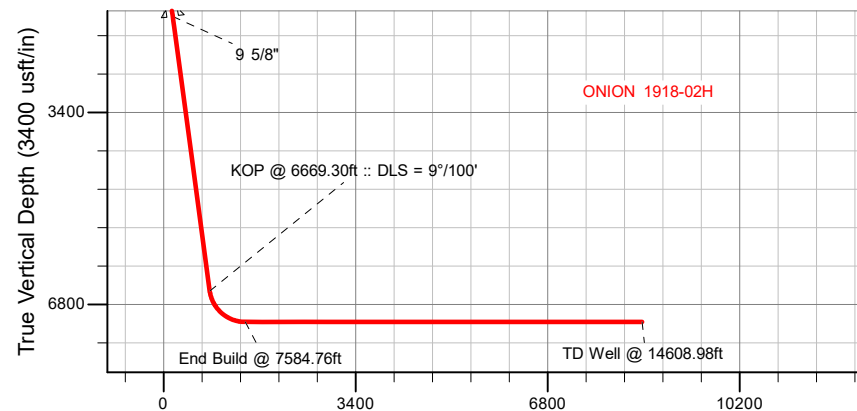


## SECTION DETAILS

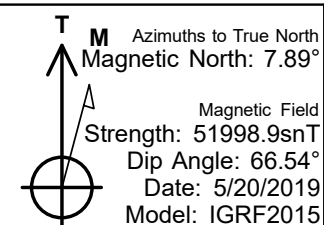
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
240.00	0.00	0.00	240.00	0.00	0.00	0.00	0.00	0.00	
778.00	10.76	315.36	774.84	35.84	-35.39	2.00	315.36	35.72	
6669.30	10.76	315.36	6562.56	818.44	-808.22	0.00	0.00	815.76	
7584.76	90.00	0.19	7110.00	1449.70	-879.46	9.00	45.34	1446.78	
14608.98	90.00	0.19	7110.00	8473.88	-855.96	0.00	0.00	8470.99	ONION 1918-02H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
ONION 1918-02H_SHL	0.00	0.00	0.00	40.034170	-104.596977
ONION 1918-02H_BHL	7110.00	8473.88	-855.96	40.057432	-104.600035



Vertical Section at 0.19° (3400 usft/in)



## WELL DETAILS: ONION 1918-02H

GL = 5013'

RKB = 24' @ 5037.00usft (RIG)

Plan: Design #1 (ONION 1918-02H/Wellbore #1)

Date: 5/21/2019

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ONION 1918-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Site:</b>	1N-64W-19 ONION 1918 PAD	<b>North Reference:</b>	True
<b>Well:</b>	ONION 1918-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	WATTENBERG FIELD		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	1N-64W-19 ONION 1918 PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,256,565.51 usft	<b>Latitude:</b> 40.034126
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,252,854.15 usft	<b>Longitude:</b> -104.596977
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.58 °

<b>Well</b>	ONION 1918-02H			
<b>Well Position</b>	<b>+N/-S</b>	15.98 usft	<b>Northing:</b>	1,256,581.49 usft
	<b>+E/-W</b>	0.08 usft	<b>Easting:</b>	3,252,854.07 usft
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 5,013.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	5/20/2019	7.89	66.54	51,998.90192566

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	0.19

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/20/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	1,700.00	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination
2	1,700.00	14,608.98	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
240.00	0.00	0.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	
778.00	10.76	315.36	774.84	35.84	-35.39	2.00	2.00	0.00	315.36	
6,669.30	10.76	315.36	6,562.56	818.44	-808.22	0.00	0.00	0.00	0.00	
7,584.76	90.00	0.19	7,110.00	1,449.70	-879.46	9.00	8.66	4.90	45.34	
14,608.98	90.00	0.19	7,110.00	8,473.88	-855.96	0.00	0.00	0.00	0.00	ONION 1918-02H_BF

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ONION 1918-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Site:</b>	1N-64W-19 ONION 1918 PAD	<b>North Reference:</b>	True
<b>Well:</b>	ONION 1918-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
240.00	0.00	0.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 240.00ft									
300.00	1.20	315.36	300.00	0.45	-0.44	0.45	2.00	2.00	0.00
400.00	3.20	315.36	399.92	3.18	-3.14	3.17	2.00	2.00	0.00
500.00	5.20	315.36	499.64	8.39	-8.28	8.36	2.00	2.00	0.00
600.00	7.20	315.36	599.05	16.07	-15.87	16.02	2.00	2.00	0.00
700.00	9.20	315.36	698.03	26.22	-25.89	26.14	2.00	2.00	0.00
778.00	10.76	315.36	774.84	35.84	-35.39	35.72	2.00	2.00	0.00
Hold Tangent @ 778.00ft									
800.00	10.76	315.36	796.46	38.76	-38.28	38.63	0.00	0.00	0.00
900.00	10.76	315.36	894.70	52.05	-51.40	51.88	0.00	0.00	0.00
1,000.00	10.76	315.36	992.94	65.33	-64.51	65.12	0.00	0.00	0.00
1,100.00	10.76	315.36	1,091.18	78.61	-77.63	78.36	0.00	0.00	0.00
1,200.00	10.76	315.36	1,189.42	91.90	-90.75	91.60	0.00	0.00	0.00
1,300.00	10.76	315.36	1,287.67	105.18	-103.87	104.84	0.00	0.00	0.00
1,400.00	10.76	315.36	1,385.91	118.47	-116.99	118.08	0.00	0.00	0.00
1,500.00	10.76	315.36	1,484.15	131.75	-130.11	131.32	0.00	0.00	0.00
1,600.00	10.76	315.36	1,582.39	145.03	-143.22	144.56	0.00	0.00	0.00
1,700.00	10.76	315.36	1,680.63	158.32	-156.34	157.80	0.00	0.00	0.00
1,719.71	10.76	315.36	1,700.00	160.94	-158.93	160.41	0.00	0.00	0.00
9 5/8"									
1,800.00	10.76	315.36	1,778.87	171.60	-169.46	171.04	0.00	0.00	0.00
1,900.00	10.76	315.36	1,877.12	184.89	-182.58	184.28	0.00	0.00	0.00
2,000.00	10.76	315.36	1,975.36	198.17	-195.70	197.52	0.00	0.00	0.00
2,100.00	10.76	315.36	2,073.60	211.45	-208.81	210.76	0.00	0.00	0.00
2,200.00	10.76	315.36	2,171.84	224.74	-221.93	224.00	0.00	0.00	0.00
2,300.00	10.76	315.36	2,270.08	238.02	-235.05	237.24	0.00	0.00	0.00
2,400.00	10.76	315.36	2,368.32	251.31	-248.17	250.48	0.00	0.00	0.00
2,500.00	10.76	315.36	2,466.57	264.59	-261.29	263.72	0.00	0.00	0.00
2,600.00	10.76	315.36	2,564.81	277.87	-274.40	276.96	0.00	0.00	0.00
2,700.00	10.76	315.36	2,663.05	291.16	-287.52	290.20	0.00	0.00	0.00
2,800.00	10.76	315.36	2,761.29	304.44	-300.64	303.44	0.00	0.00	0.00
2,900.00	10.76	315.36	2,859.53	317.73	-313.76	316.68	0.00	0.00	0.00
3,000.00	10.76	315.36	2,957.78	331.01	-326.88	329.93	0.00	0.00	0.00
3,100.00	10.76	315.36	3,056.02	344.30	-340.00	343.17	0.00	0.00	0.00
3,200.00	10.76	315.36	3,154.26	357.58	-353.11	356.41	0.00	0.00	0.00
3,300.00	10.76	315.36	3,252.50	370.86	-366.23	369.65	0.00	0.00	0.00
3,400.00	10.76	315.36	3,350.74	384.15	-379.35	382.89	0.00	0.00	0.00
3,500.00	10.76	315.36	3,448.98	397.43	-392.47	396.13	0.00	0.00	0.00
3,600.00	10.76	315.36	3,547.23	410.72	-405.59	409.37	0.00	0.00	0.00
3,700.00	10.76	315.36	3,645.47	424.00	-418.70	422.61	0.00	0.00	0.00
3,800.00	10.76	315.36	3,743.71	437.28	-431.82	435.85	0.00	0.00	0.00
3,900.00	10.76	315.36	3,841.95	450.57	-444.94	449.09	0.00	0.00	0.00
4,000.00	10.76	315.36	3,940.19	463.85	-458.06	462.33	0.00	0.00	0.00
4,100.00	10.76	315.36	4,038.44	477.14	-471.18	475.57	0.00	0.00	0.00
4,200.00	10.76	315.36	4,136.68	490.42	-484.30	488.81	0.00	0.00	0.00
4,300.00	10.76	315.36	4,234.92	503.70	-497.41	502.05	0.00	0.00	0.00
4,400.00	10.76	315.36	4,333.16	516.99	-510.53	515.29	0.00	0.00	0.00
4,500.00	10.76	315.36	4,431.40	530.27	-523.65	528.53	0.00	0.00	0.00
4,600.00	10.76	315.36	4,529.64	543.56	-536.77	541.77	0.00	0.00	0.00

# Hewlett-Packard

## Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Site:</b>	1N-64W-19 ONION 1918 PAD	<b>North Reference:</b>	True
<b>Well:</b>	ONION 1918-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
4,700.00	10.76	315.36	4,627.89	556.84	-549.89	555.01	0.00	0.00	0.00
4,800.00	10.76	315.36	4,726.13	570.12	-563.00	568.25	0.00	0.00	0.00
4,900.00	10.76	315.36	4,824.37	583.41	-576.12	581.49	0.00	0.00	0.00
5,000.00	10.76	315.36	4,922.61	596.69	-589.24	594.73	0.00	0.00	0.00
5,100.00	10.76	315.36	5,020.85	609.98	-602.36	607.98	0.00	0.00	0.00
5,200.00	10.76	315.36	5,119.09	623.26	-615.48	621.22	0.00	0.00	0.00
5,300.00	10.76	315.36	5,217.34	636.54	-628.60	634.46	0.00	0.00	0.00
5,400.00	10.76	315.36	5,315.58	649.83	-641.71	647.70	0.00	0.00	0.00
5,500.00	10.76	315.36	5,413.82	663.11	-654.83	660.94	0.00	0.00	0.00
5,600.00	10.76	315.36	5,512.06	676.40	-667.95	674.18	0.00	0.00	0.00
5,700.00	10.76	315.36	5,610.30	689.68	-681.07	687.42	0.00	0.00	0.00
5,800.00	10.76	315.36	5,708.55	702.96	-694.19	700.66	0.00	0.00	0.00
5,900.00	10.76	315.36	5,806.79	716.25	-707.30	713.90	0.00	0.00	0.00
6,000.00	10.76	315.36	5,905.03	729.53	-720.42	727.14	0.00	0.00	0.00
6,100.00	10.76	315.36	6,003.27	742.82	-733.54	740.38	0.00	0.00	0.00
6,200.00	10.76	315.36	6,101.51	756.10	-746.66	753.62	0.00	0.00	0.00
6,300.00	10.76	315.36	6,199.75	769.38	-759.78	766.86	0.00	0.00	0.00
6,400.00	10.76	315.36	6,298.00	782.67	-772.89	780.10	0.00	0.00	0.00
6,500.00	10.76	315.36	6,396.24	795.95	-786.01	793.34	0.00	0.00	0.00
6,600.00	10.76	315.36	6,494.48	809.24	-799.13	806.58	0.00	0.00	0.00
6,669.30	10.76	315.36	6,562.56	818.44	-808.22	815.76	0.00	0.00	0.00
<b>KOP @ 6669.30ft :: DLS = 9°/100'</b>									
6,700.00	12.85	324.23	6,592.61	823.25	-812.23	820.55	9.00	6.81	28.88
6,800.00	20.77	339.50	6,688.31	848.93	-824.97	846.19	9.00	7.91	15.27
6,900.00	29.30	346.38	6,778.85	889.40	-836.96	886.62	9.00	8.53	6.88
7,000.00	38.03	350.33	6,862.01	943.66	-847.92	940.84	9.00	8.73	3.95
7,100.00	46.85	352.98	6,935.74	1,010.37	-857.58	1,007.52	9.00	8.82	2.65
7,200.00	55.72	354.95	6,998.22	1,087.89	-865.69	1,085.01	9.00	8.87	1.97
7,300.00	64.61	356.55	7,047.92	1,174.31	-872.06	1,171.41	9.00	8.89	1.59
7,400.00	73.52	357.92	7,083.61	1,267.51	-876.53	1,264.60	9.00	8.91	1.37
7,500.00	82.44	359.17	7,104.42	1,365.19	-878.99	1,362.26	9.00	8.92	1.25
7,584.76	90.00	0.19	7,110.00	1,449.70	-879.46	1,446.78	9.00	8.92	1.20
<b>End Build @ 7584.76ft</b>									
7,600.00	90.00	0.19	7,110.00	1,464.94	-879.41	1,462.01	0.00	0.00	0.00
7,700.00	90.00	0.19	7,110.00	1,564.94	-879.07	1,562.01	0.00	0.00	0.00
7,800.00	90.00	0.19	7,110.00	1,664.94	-878.74	1,662.01	0.00	0.00	0.00
7,900.00	90.00	0.19	7,110.00	1,764.94	-878.40	1,762.01	0.00	0.00	0.00
8,000.00	90.00	0.19	7,110.00	1,864.93	-878.07	1,862.01	0.00	0.00	0.00
8,100.00	90.00	0.19	7,110.00	1,964.93	-877.73	1,962.01	0.00	0.00	0.00
8,200.00	90.00	0.19	7,110.00	2,064.93	-877.40	2,062.01	0.00	0.00	0.00
8,300.00	90.00	0.19	7,110.00	2,164.93	-877.06	2,162.01	0.00	0.00	0.00
8,400.00	90.00	0.19	7,110.00	2,264.93	-876.73	2,262.01	0.00	0.00	0.00
8,500.00	90.00	0.19	7,110.00	2,364.93	-876.40	2,362.01	0.00	0.00	0.00
8,600.00	90.00	0.19	7,110.00	2,464.93	-876.06	2,462.01	0.00	0.00	0.00
8,700.00	90.00	0.19	7,110.00	2,564.93	-875.73	2,562.01	0.00	0.00	0.00
8,800.00	90.00	0.19	7,110.00	2,664.93	-875.39	2,662.01	0.00	0.00	0.00
8,900.00	90.00	0.19	7,110.00	2,764.93	-875.06	2,762.01	0.00	0.00	0.00
9,000.00	90.00	0.19	7,110.00	2,864.93	-874.72	2,862.01	0.00	0.00	0.00
9,100.00	90.00	0.19	7,110.00	2,964.93	-874.39	2,962.01	0.00	0.00	0.00
9,200.00	90.00	0.19	7,110.00	3,064.93	-874.05	3,062.01	0.00	0.00	0.00
9,300.00	90.00	0.19	7,110.00	3,164.93	-873.72	3,162.01	0.00	0.00	0.00
9,400.00	90.00	0.19	7,110.00	3,264.93	-873.38	3,262.01	0.00	0.00	0.00
9,500.00	90.00	0.19	7,110.00	3,364.93	-873.05	3,362.01	0.00	0.00	0.00
9,600.00	90.00	0.19	7,110.00	3,464.93	-872.72	3,462.01	0.00	0.00	0.00

## Planning Report

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)
9,700.00	90.00	0.19	7,110.00	3,564.93	-872.38	3,562.01	0.00	0.00	0.00
9,800.00	90.00	0.19	7,110.00	3,664.92	-872.05	3,662.01	0.00	0.00	0.00
9,900.00	90.00	0.19	7,110.00	3,764.92	-871.71	3,762.01	0.00	0.00	0.00
10,000.00	90.00	0.19	7,110.00	3,864.92	-871.38	3,862.01	0.00	0.00	0.00
10,100.00	90.00	0.19	7,110.00	3,964.92	-871.04	3,962.01	0.00	0.00	0.00
10,200.00	90.00	0.19	7,110.00	4,064.92	-870.71	4,062.01	0.00	0.00	0.00
10,300.00	90.00	0.19	7,110.00	4,164.92	-870.37	4,162.01	0.00	0.00	0.00
10,400.00	90.00	0.19	7,110.00	4,264.92	-870.04	4,262.01	0.00	0.00	0.00
10,500.00	90.00	0.19	7,110.00	4,364.92	-869.71	4,362.01	0.00	0.00	0.00
10,600.00	90.00	0.19	7,110.00	4,464.92	-869.37	4,462.01	0.00	0.00	0.00
10,700.00	90.00	0.19	7,110.00	4,564.92	-869.04	4,562.01	0.00	0.00	0.00
10,800.00	90.00	0.19	7,110.00	4,664.92	-868.70	4,662.01	0.00	0.00	0.00
10,900.00	90.00	0.19	7,110.00	4,764.92	-868.37	4,762.01	0.00	0.00	0.00
11,000.00	90.00	0.19	7,110.00	4,864.92	-868.03	4,862.01	0.00	0.00	0.00
11,100.00	90.00	0.19	7,110.00	4,964.92	-867.70	4,962.01	0.00	0.00	0.00
11,200.00	90.00	0.19	7,110.00	5,064.92	-867.36	5,062.01	0.00	0.00	0.00
11,300.00	90.00	0.19	7,110.00	5,164.92	-867.03	5,162.01	0.00	0.00	0.00
11,400.00	90.00	0.19	7,110.00	5,264.92	-866.69	5,262.01	0.00	0.00	0.00
11,500.00	90.00	0.19	7,110.00	5,364.92	-866.36	5,362.01	0.00	0.00	0.00
11,600.00	90.00	0.19	7,110.00	5,464.91	-866.03	5,462.01	0.00	0.00	0.00
11,700.00	90.00	0.19	7,110.00	5,564.91	-865.69	5,562.01	0.00	0.00	0.00
11,800.00	90.00	0.19	7,110.00	5,664.91	-865.36	5,662.01	0.00	0.00	0.00
11,900.00	90.00	0.19	7,110.00	5,764.91	-865.02	5,762.01	0.00	0.00	0.00
12,000.00	90.00	0.19	7,110.00	5,864.91	-864.69	5,862.01	0.00	0.00	0.00
12,100.00	90.00	0.19	7,110.00	5,964.91	-864.35	5,962.01	0.00	0.00	0.00
12,200.00	90.00	0.19	7,110.00	6,064.91	-864.02	6,062.01	0.00	0.00	0.00
12,300.00	90.00	0.19	7,110.00	6,164.91	-863.68	6,162.01	0.00	0.00	0.00
12,400.00	90.00	0.19	7,110.00	6,264.91	-863.35	6,262.01	0.00	0.00	0.00
12,500.00	90.00	0.19	7,110.00	6,364.91	-863.02	6,362.01	0.00	0.00	0.00
12,600.00	90.00	0.19	7,110.00	6,464.91	-862.68	6,462.01	0.00	0.00	0.00
12,700.00	90.00	0.19	7,110.00	6,564.91	-862.35	6,562.01	0.00	0.00	0.00
12,800.00	90.00	0.19	7,110.00	6,664.91	-862.01	6,662.01	0.00	0.00	0.00
12,900.00	90.00	0.19	7,110.00	6,764.91	-861.68	6,762.01	0.00	0.00	0.00
13,000.00	90.00	0.19	7,110.00	6,864.91	-861.34	6,862.01	0.00	0.00	0.00
13,100.00	90.00	0.19	7,110.00	6,964.91	-861.01	6,962.01	0.00	0.00	0.00
13,200.00	90.00	0.19	7,110.00	7,064.91	-860.67	7,062.01	0.00	0.00	0.00
13,300.00	90.00	0.19	7,110.00	7,164.91	-860.34	7,162.01	0.00	0.00	0.00
13,400.00	90.00	0.19	7,110.00	7,264.90	-860.00	7,262.01	0.00	0.00	0.00
13,500.00	90.00	0.19	7,110.00	7,364.90	-859.67	7,362.01	0.00	0.00	0.00
13,600.00	90.00	0.19	7,110.00	7,464.90	-859.34	7,462.01	0.00	0.00	0.00
13,700.00	90.00	0.19	7,110.00	7,564.90	-859.00	7,562.01	0.00	0.00	0.00
13,800.00	90.00	0.19	7,110.00	7,664.90	-858.67	7,662.01	0.00	0.00	0.00
13,900.00	90.00	0.19	7,110.00	7,764.90	-858.33	7,762.01	0.00	0.00	0.00
14,000.00	90.00	0.19	7,110.00	7,864.90	-858.00	7,862.01	0.00	0.00	0.00
14,100.00	90.00	0.19	7,110.00	7,964.90	-857.66	7,962.01	0.00	0.00	0.00
14,200.00	90.00	0.19	7,110.00	8,064.90	-857.33	8,062.01	0.00	0.00	0.00
14,300.00	90.00	0.19	7,110.00	8,164.90	-856.99	8,162.01	0.00	0.00	0.00
14,400.00	90.00	0.19	7,110.00	8,264.90	-856.66	8,262.01	0.00	0.00	0.00
14,500.00	90.00	0.19	7,110.00	8,364.90	-856.32	8,362.01	0.00	0.00	0.00
14,600.00	90.00	0.19	7,110.00	8,464.90	-855.99	8,462.01	0.00	0.00	0.00
14,608.98	90.00	0.19	7,110.00	8,473.88	-855.96	8,470.99	0.00	0.00	0.00
TD Well @ 14608.98ft									

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ONION 1918-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5037.00usft (RIG)
<b>Site:</b>	1N-64W-19 ONION 1918 PAD	<b>North Reference:</b>	True
<b>Well:</b>	ONION 1918-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,719.71	1,700.00	9 5/8"		9-5/8	13-1/2

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
240.00	240.00	0.00	0.00	Begin Nudge @ 240.00ft	
778.00	774.84	35.84	-35.39	Hold Tangent @ 778.00ft	
6,669.30	6,562.56	818.44	-808.22	KOP @ 6669.30ft :: DLS = 9°/100'	
7,584.76	7,110.00	1,449.70	-879.46	End Build @ 7584.76ft	
14,608.98	7,110.00	8,473.88	-855.96	TD Well @ 14608.98ft	