



Company: Oasis Petroleum  
Lease/Well: UL Sugarloaf D 20-37-48/5104H

Rig Name: Nabors X50  
State/County: Texas/Winkler  
VS-Azi: 0.00 Degrees  
Latitude: 31.67737, Longitude: -103.26043  
Grid North = True North +1.51 degs (NAD 27)  
Grid Correction Applied = +1.51 degs



Depth Reference : RKB= 33Ft

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro\_run02-01-de\_01.ut

Minimum Curvature Method

Report Date/Time: 6/21/2018 / 10:04

VES Survey International

Fort Worth, Texas

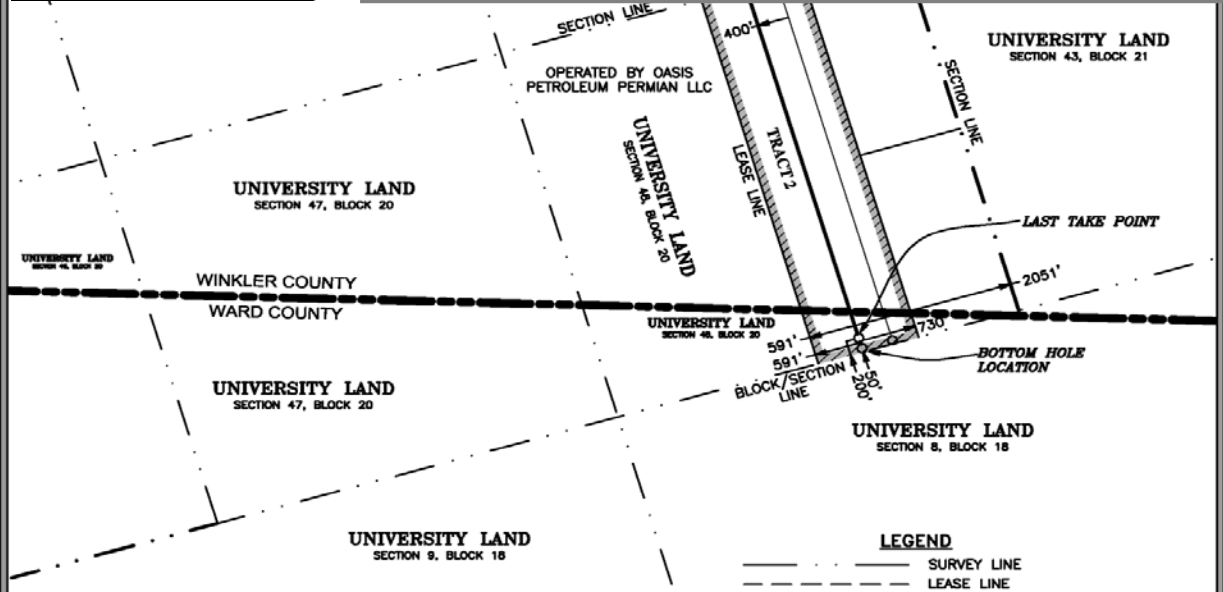
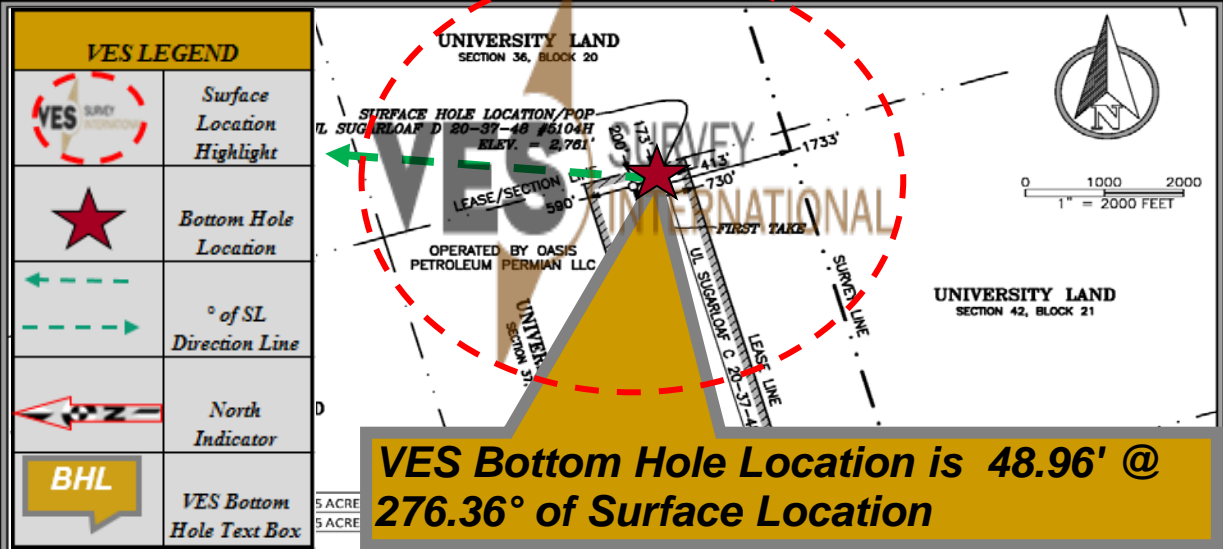
Office 817-741-3610

Surveyor: Gregg Wilson

UL Sugarloaf D 20-37-48 5104H / API 42-495-34113

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
139.43	0.13	35.10	139.43	0.13	0.09	0.13	0.16	35.10	0.09
234.15	0.23	32.47	234.15	0.38	0.26	0.38	0.46	34.01	0.11
328.87	0.36	35.73	328.87	0.78	0.53	0.78	0.95	34.24	0.14
423.59	0.44	8.31	423.59	1.38	0.76	1.38	1.58	28.77	0.21
518.31	0.53	0.25	518.30	2.18	0.81	2.18	2.33	20.46	0.12
613.03	0.48	359.29	613.02	3.02	0.81	3.02	3.12	15.04	0.05
644.60	0.47	0.08	644.59	3.28	0.81	3.28	3.38	13.86	0.04
739.32	0.41	351.97	739.30	4.00	0.76	4.00	4.07	10.79	0.09
834.04	0.42	2.05	834.02	4.69	0.73	4.69	4.74	8.83	0.08
928.76	0.47	8.01	928.74	5.42	0.79	5.42	5.47	8.34	0.07
1023.48	0.47	13.42	1023.46	6.17	0.94	6.17	6.24	8.63	0.05
1118.20	0.35	25.29	1118.17	6.81	1.15	6.81	6.91	9.59	0.15
1212.92	0.58	25.47	1212.89	7.51	1.48	7.51	7.65	11.16	0.24
1307.64	0.60	24.31	1307.61	8.39	1.89	8.39	8.60	12.70	0.03
1402.36	0.65	34.85	1402.32	9.29	2.40	9.29	9.59	14.51	0.13
1497.08	0.73	38.28	1497.03	10.20	3.08	10.20	10.65	16.81	0.09

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1591.80	0.98	37.51	1591.74	11.31	3.94	11.31	11.97	19.22	0.27
1686.52	1.07	54.15	1686.45	12.46	5.15	12.46	13.48	22.44	0.33
1781.24	1.30	57.26	1781.15	13.56	6.77	13.56	15.16	26.52	0.26
1875.96	1.52	56.43	1875.84	14.84	8.72	14.84	17.21	30.44	0.23
1970.68	1.14	43.31	1970.53	16.22	10.41	16.22	19.27	32.70	0.51
2065.40	1.07	42.30	2065.24	17.56	11.65	17.56	21.07	33.57	0.08
2160.12	1.16	26.51	2159.94	19.07	12.68	19.07	22.90	33.62	0.33
2254.84	1.16	22.09	2254.64	20.81	13.46	20.81	24.79	32.90	0.09
2349.56	0.75	337.15	2349.35	22.28	13.59	22.28	26.09	31.38	0.87
2444.28	1.13	294.41	2444.05	23.23	12.50	23.23	26.38	28.27	0.81
2539.00	0.89	292.64	2538.76	23.90	10.97	23.90	26.30	24.65	0.25
2633.72	0.76	287.82	2633.47	24.38	9.69	24.38	26.23	21.67	0.15
2728.44	0.81	243.52	2728.18	24.27	8.48	24.27	25.71	19.27	0.63
2823.16	1.27	212.65	2822.89	23.09	7.32	23.09	24.22	17.59	0.74
2917.88	1.53	199.48	2917.58	21.02	6.33	21.02	21.95	16.77	0.44
3012.60	1.41	184.37	3012.27	18.66	5.82	18.66	19.55	17.32	0.43
3107.32	1.29	180.35	3106.96	16.44	5.72	16.44	17.41	19.20	0.16
3202.04	1.24	173.34	3201.66	14.35	5.84	14.35	15.50	22.13	0.17
3296.76	1.28	168.62	3296.36	12.30	6.16	12.30	13.76	26.62	0.12
3391.48	1.28	167.68	3391.05	10.23	6.60	10.23	12.17	32.84	0.02
3486.20	1.26	168.75	3485.75	8.17	7.03	8.17	10.77	40.73	0.03
3580.92	1.20	175.56	3580.45	6.15	7.31	6.15	9.55	49.93	0.17
3675.64	1.37	180.95	3675.14	4.03	7.37	4.03	8.40	61.33	0.22
3770.36	1.74	182.75	3769.83	1.47	7.28	1.47	7.43	78.62	0.39
3865.08	1.82	193.40	3864.50	-1.43	6.86	-1.43	7.01	101.76	0.36
3959.80	2.11	214.38	3959.17	-4.33	5.53	-4.33	7.02	128.09	0.82
4054.52	2.22	224.41	4053.82	-7.09	3.26	-7.09	7.80	155.33	0.42
4149.24	2.20	241.54	4148.47	-9.27	0.37	-9.27	9.27	177.70	0.70
4243.96	3.39	273.49	4243.08	-9.96	-4.03	-9.96	10.75	202.00	2.03
4338.68	3.23	280.67	4337.64	-9.30	-9.44	-9.30	13.25	225.45	0.47
4433.40	3.81	284.65	4432.19	-8.01	-15.11	-8.01	17.10	242.08	0.67
4528.12	4.09	287.05	4526.68	-6.22	-21.39	-6.22	22.28	253.79	0.34
4622.84	4.01	297.29	4621.16	-3.71	-27.57	-3.71	27.82	262.33	0.77
4717.56	4.28	294.58	4715.64	-0.73	-33.72	-0.73	33.73	268.76	0.35
4812.28	5.07	291.34	4810.04	2.27	-40.83	2.27	40.89	273.18	0.89
4907.00	5.15	292.57	4904.38	5.42	-48.66	5.42	48.96	276.36	0.14



**DRIVING DIRECTIONS TO LOCATION:**  
FROM THE INTERSECTION OF FARM TO MARKET 1232 AND FM 201, HEAD SOUTHWEST ON FM 201 FOR 6.8 MILES THEN TURN LEFT (SOUTH) ONTO LEASE ROAD FOR 4.2 MILES AND THE LOCATION WILL BE ON THE WEST SIDE OF LEASE ROAD APPROX 550' IN FIELD.

**GENERAL NOTES**

- COORDINATES SHOWN ARE BASED ON TEXAS PLANE COORDINATE SYSTEM OF NAD 27, TEXAS CENTRAL ZONE 4203
- VERTICAL DATUM IS NAVD 88
- LATITUDE AND LONGITUDE ARE WGS 84 AS SHOWN
- AREA, DISTANCES, AND COORDINATES ARE "GRID".
- UNITS ARE UNITED STATES SURVEY FOOT.
- ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT SURFACE LOCATION AS STAKED ON THE GROUND.

**WELL LOCATION INFORMATION:**

<b>SURFACE HOLE LOCATION/PP:</b> NAD 83, TEXAS CENTRAL ZONE COORD'S Y = 10,585,795.38, X = 1,386,048.45 LAT: N 31.67739°, LONG: W 103.26067° SHL: 413' FEL & 173' FNLL SHL: 1733' FEL & 173' FNLL	<b>LAST TAKE POINT:</b> NAD 83, TEXAS CENTRAL ZONE COORD'S Y = 10,575,920.99, X = 1,388,603.98 LAT: N 31.65044°, LONG: W 103.25162° LTP: 591' FWLL & 200' FSLL
<b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b> Y = 743,219.44, X = 1,089,583.96 LAT: N 31.67726°, LONG: W 103.26022°	<b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b> Y = 733,345.18, X = 1,092,139.36 LAT: N 31.65031°, LONG: W 103.25118°
<b>FIRST TAKE LOCATION:</b> NAD 83, TEXAS CENTRAL ZONE COORD'S Y = 10,585,680.56, X = 1,385,752.11 LAT: N 31.67705°, LONG: W 103.26161° FT: 590' FWLL & 200' FNLL	<b>BOTTOM HOLE LOCATION:</b> NAD 83, TEXAS CENTRAL ZONE COORD'S Y = 10,575,777.00, X = 1,388,646.05 LAT: N 31.65004°, LONG: W 103.25148° BHL: 2051' FEL & 50' FSL BHL: 591' FWLL & 50' FSLL
<b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b> Y = 743,104.62, X = 1,089,287.62 LAT: N 31.67692°, LONG: W 103.26116°	<b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b> Y = 733,201.20, X = 1,092,181.43 LAT: N 31.64991°, LONG: W 103.25103°

**PLAT OF:**  
A PROPOSED WELL LOCATION FOR:  
**OASIS PETROLEUM PERMIAN LLC**  
UL SUGARLOAF D 20-37-48 #5104H  
SITUATED IN THE UNIVERSITY LAND, SECTION 48, BLOCK 20, THE UNIVERSITY LAND, SECTION 37, BLOCK 20, AND BEING APPROXIMATELY 7.7 MILES SOUTHWEST OF WINK IN WARD AND WINKLER COUNTIES, TEXAS.

**DATE:** 4-11-2018  
**DRAWN BY:** CH  
**CHECKED BY:** AP  
**FIELD CREW:** DL  
**PROJECT NO:** 2018040917  
**SCALE:** 1" = 2000'  
**SHEET:** 1  
**REVISION:** 1

**495-34113**

**VES Bottom Hole Location is 48.96' @ 276.36° of Surface Location**


<b>MD / FT</b>	<b>4,907.00</b>		<b>4,904.38</b>	<b>TVD / FT</b>
<b>North / FT</b>	<b>South / FT</b>		<b>East / FT</b>	<b>West / FT</b>
<b>5.42</b>				<b>48.66</b>

**VES SURVEY INTERNATIONAL**

**838919**



I Gregg Wilson certify that I am employed by VES Survey International. That I did on the day(s) of 06/19/18 through 06/19/18 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 4,907.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Oasis Petroleum for the UL Sugarloaf D20-37-48 Well # 5104H API # 42-495-34113 in Winkler County / Parish Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

  
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Gregg Wilson  
Service Technician  
VES Survey International