

Job# 900301426
HP 223(25')

Devon

Eddy County, NM (NAD 83) Peridot 12 State
API# 30-015-40778

Peridot 13 State 3H (1475' FNL, 1245 FEL)

Wellbore #1

Design: Wellbore #1

Sperry Drilling Services Combo Report

24 June, 2013

Well Coordinates: 32° 40' 41.54" N
104° 01' 25.53" W

North American Datum 1983
New Mexico Eastern Zone
610,601.17 N
636,588.84 E

Ground Level: 3,397.90 ft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Centered on Well Peridot 13 State 3H

WELL @ 3422.90ft (HP 223(25'))

N

Grid

API US Survey Feet

Version: 2003.21 Build: 43

Report Version: Midcon Combo v1.20



HALLIBURTON

30-015-40778

Design Report for Peridot 13 State 3H - Wellbore #1

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
0.00	0.00	0.00	-3,422.90	0.00	0.00 N	0.00 E	610,601.17	636,588.84	0.00	0.00	
136.92	0.47	266.09	-3,285.98	136.92	0.04 S	0.56 W	610,601.13	636,588.28	0.34	0.23	
231.28	0.26	295.21	-3,191.62	231.28	0.03 N	1.14 W	610,601.20	636,587.70	0.29	0.56	
325.64	0.21	303.73	-3,097.26	325.64	0.21 N	1.48 W	610,601.38	636,587.36	0.06	0.88	
420.00	0.02	300.50	-3,002.90	420.00	0.32 N	1.64 W	610,601.49	636,587.20	0.20	1.04	
514.36	0.31	284.18	-2,908.54	514.36	0.39 N	1.90 W	610,601.56	636,586.94	0.31	1.23	
608.72	0.29	292.04	-2,814.19	608.71	0.54 N	2.37 W	610,601.71	636,586.47	0.05	1.58	
703.08	0.29	338.28	-2,719.83	703.07	0.85 N	2.68 W	610,602.02	636,586.16	0.24	2.00	
797.44	0.50	359.27	-2,625.47	797.43	1.49 N	2.77 W	610,602.66	636,586.07	0.27	2.61	
891.80	0.65	22.09	-2,531.11	891.79	2.39 N	2.57 W	610,603.56	636,586.27	0.29	3.32	
986.16	0.65	24.08	-2,436.76	986.14	3.38 N	2.15 W	610,604.55	636,586.69	0.02	3.99	
1,080.52	0.96	37.37	-2,342.41	1,080.49	4.50 N	1.46 W	610,605.67	636,587.38	0.38	4.65	
1,174.88	1.49	43.11	-2,248.07	1,174.83	6.02 N	0.14 W	610,607.19	636,588.70	0.58	5.39	
1,269.24	1.88	69.70	-2,153.75	1,269.15	7.45 N	2.15 E	610,608.62	636,590.99	0.91	5.59	
1,363.60	2.08	70.77	-2,059.45	1,363.45	8.55 N	5.22 E	610,609.72	636,594.06	0.22	5.13	
1,457.96	1.64	68.79	-1,965.14	1,457.76	9.61 N	8.10 E	610,610.78	636,596.94	0.47	4.72	
1,552.32	0.62	67.73	-1,870.80	1,552.10	10.29 N	9.83 E	610,611.46	636,598.67	1.08	4.51	
1,646.68	0.61	36.49	-1,776.44	1,646.46	10.88 N	10.60 E	610,612.05	636,599.44	0.35	4.68	
1,741.04	1.20	16.08	-1,682.09	1,740.81	12.24 N	11.17 E	610,613.41	636,600.01	0.70	5.61	
1,835.40	1.22	12.16	-1,587.76	1,835.14	14.17 N	11.66 E	610,615.34	636,600.50	0.09	7.09	
1,929.76	1.27	9.73	-1,493.42	1,929.48	16.18 N	12.05 E	610,617.35	636,600.89	0.08	8.69	
2,024.12	1.16	7.08	-1,399.08	2,023.82	18.16 N	12.34 E	610,619.33	636,601.18	0.13	10.30	
2,118.48	1.18	341.58	-1,304.74	2,118.16	20.03 N	12.15 E	610,621.20	636,600.99	0.55	12.04	
2,212.84	1.34	309.26	-1,210.40	2,212.50	21.65 N	10.99 E	610,622.82	636,599.83	0.76	14.02	
2,307.20	1.11	294.13	-1,116.06	2,306.84	22.72 N	9.30 E	610,623.89	636,598.14	0.42	15.75	
2,401.56	1.10	279.65	-1,021.72	2,401.18	23.25 N	7.57 E	610,624.42	636,596.41	0.30	17.02	
2,495.92	0.93	310.83	-927.37	2,495.53	23.90 N	6.10 E	610,625.07	636,594.94	0.60	18.29	
2,590.28	0.69	358.04	-833.02	2,589.88	24.97 N	5.50 E	610,626.14	636,594.34	0.73	19.51	
2,684.64	0.66	351.93	-738.67	2,684.23	26.07 N	5.41 E	610,627.24	636,594.25	0.08	20.54	
2,779.00	0.51	328.13	-644.31	2,778.59	26.97 N	5.11 E	610,628.14	636,593.95	0.30	21.47	
2,873.36	0.55	324.39	-549.96	2,872.94	27.69 N	4.62 E	610,628.86	636,593.46	0.06	22.33	
2,967.72	0.56	320.09	-455.60	2,967.30	28.42 N	4.06 E	610,629.59	636,592.90	0.05	23.23	
3,062.08	0.60	289.44	-361.25	3,061.65	28.93 N	3.30 E	610,630.10	636,592.14	0.33	24.05	
3,156.44	0.61	292.98	-266.89	3,156.01	29.29 N	2.37 E	610,630.46	636,591.21	0.04	24.80	
3,250.80	0.59	309.70	-172.54	3,250.36	29.80 N	1.54 E	610,630.97	636,590.38	0.19	25.64	
3,345.16	0.42	350.94	-78.18	3,344.72	30.45 N	1.11 E	610,631.62	636,589.95	0.41	26.41	
3,439.52	0.54	359.01	16.18	3,439.08	31.24 N	1.05 E	610,632.41	636,589.89	0.15	27.14	
3,533.88	0.50	2.51	110.53	3,533.43	32.09 N	1.06 E	610,633.26	636,589.90	0.05	27.89	
3,628.24	0.54	3.48	204.89	3,627.79	32.95 N	1.10 E	610,634.12	636,589.94	0.04	28.63	

Design Report for Peridot 13 State 3H - Wellbore #1

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
3,722.60	0.59	6.03	299.25	3,722.15	33.88 N	1.18 E	610,635.05	636,590.02	0.06	29.41	
3,816.96	0.57	358.45	393.60	3,816.50	34.83 N	1.22 E	610,636.00	636,590.06	0.08	30.23	
3,911.32	0.70	350.17	487.95	3,910.85	35.87 N	1.11 E	610,637.04	636,589.95	0.17	31.20	
4,005.68	0.79	346.70	582.31	4,005.21	37.07 N	0.86 E	610,638.24	636,589.70	0.11	32.38	
4,100.04	1.01	335.52	676.66	4,099.56	38.46 N	0.37 E	610,639.63	636,589.21	0.30	33.84	
4,194.40	0.84	338.72	771.00	4,193.90	39.86 N	0.23 W	610,641.03	636,588.61	0.19	35.36	
4,288.76	0.91	349.68	865.35	4,288.25	41.24 N	0.62 W	610,642.41	636,588.22	0.19	36.76	
4,383.12	1.52	9.72	959.69	4,382.59	43.21 N	0.54 W	610,644.38	636,588.30	0.78	38.47	
4,477.48	2.03	16.09	1,054.01	4,476.91	46.05 N	0.14 E	610,647.22	636,588.98	0.58	40.66	
4,571.84	1.91	18.04	1,148.31	4,571.21	49.15 N	1.09 E	610,650.32	636,589.93	0.15	42.96	
4,666.20	1.81	32.84	1,242.62	4,665.52	51.90 N	2.38 E	610,653.07	636,591.22	0.52	44.79	
4,760.56	2.02	54.21	1,336.93	4,759.83	54.12 N	4.54 E	610,655.29	636,593.38	0.78	45.75	
4,854.92	2.18	29.27	1,431.23	4,854.13	56.66 N	6.76 E	610,657.83	636,595.60	0.98	46.95	
4,949.28	1.83	18.44	1,525.53	4,948.43	59.66 N	8.12 E	610,660.83	636,596.96	0.55	48.97	
5,043.64	1.71	356.24	1,619.85	5,042.75	62.49 N	8.50 E	610,663.66	636,597.34	0.73	51.30	
5,138.00	1.60	338.83	1,714.17	5,137.07	65.12 N	7.94 E	610,666.29	636,596.78	0.54	53.89	
5,232.36	1.51	337.44	1,808.49	5,231.39	67.50 N	6.98 E	610,668.67	636,595.82	0.10	56.44	
5,326.72	1.34	335.64	1,902.82	5,325.72	69.65 N	6.05 E	610,670.82	636,594.89	0.19	58.78	
5,421.08	0.97	330.38	1,997.16	5,420.06	71.35 N	5.20 E	610,672.52	636,594.04	0.41	60.68	
5,515.44	1.03	327.66	2,091.51	5,514.41	72.76 N	4.35 E	610,673.93	636,593.19	0.08	62.32	
5,609.80	1.09	324.57	2,185.85	5,608.75	74.21 N	3.38 E	610,675.38	636,592.22	0.09	64.05	
5,704.16	1.52	319.73	2,280.19	5,703.09	75.90 N	2.05 E	610,677.07	636,590.89	0.47	66.17	
5,798.52	2.18	317.50	2,374.50	5,797.40	78.18 N	0.03 E	610,679.35	636,588.87	0.70	69.12	
5,892.88	2.72	313.77	2,468.77	5,891.67	81.05 N	2.80 W	610,682.22	636,586.04	0.60	72.99	
5,987.24	2.99	304.22	2,563.02	5,985.92	83.98 N	6.45 W	610,685.15	636,582.39	0.58	77.28	
6,081.60	3.14	301.55	2,657.24	6,080.14	86.72 N	10.69 W	610,687.89	636,578.15	0.22	81.68	
6,175.96	3.14	296.48	2,751.46	6,174.36	89.22 N	15.21 W	610,690.39	636,573.63	0.29	86.00	
6,270.32	2.91	292.07	2,845.69	6,268.59	91.27 N	19.74 W	610,692.44	636,569.10	0.35	89.93	
6,364.68	2.74	281.22	2,939.93	6,362.83	92.61 N	24.17 W	610,693.78	636,564.67	0.59	93.19	
6,459.04	2.83	284.26	3,034.18	6,457.08	93.63 N	28.64 W	610,694.80	636,560.20	0.18	96.17	
6,553.40	2.93	286.97	3,128.42	6,551.32	94.90 N	33.21 W	610,696.07	636,555.63	0.18	99.43	
6,647.76	2.69	294.22	3,222.67	6,645.57	96.52 N	37.53 W	610,697.69	636,551.31	0.45	102.87	
6,742.12	2.36	289.48	3,316.94	6,739.84	98.07 N	41.38 W	610,699.24	636,547.46	0.41	106.05	
6,836.48	1.85	278.87	3,411.23	6,834.13	98.95 N	44.72 W	610,700.12	636,544.12	0.68	108.39	
6,930.84	1.04	268.04	3,505.56	6,928.46	99.16 N	47.08 W	610,700.33	636,541.76	0.90	109.67	
7,025.20	1.05	253.90	3,599.91	7,022.81	98.89 N	48.77 W	610,700.06	636,540.07	0.27	110.22	
7,119.56	1.02	238.29	3,694.25	7,117.15	98.21 N	50.31 W	610,699.38	636,538.53	0.30	110.34	
7,213.92	0.71	205.24	3,788.60	7,211.50	97.24 N	51.28 W	610,698.41	636,537.56	0.61	109.93	
7,308.28	0.71	189.74	3,882.96	7,305.86	96.13 N	51.62 W	610,697.30	636,537.22	0.20	109.12	

Design Report for Peridot 13 State 3H - Wellbore #1

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
7,402.64	0.42	137.90	3,977.31	7,400.21	95.30 N	51.49 W	610,696.47	636,537.35	0.59	108.32	
7,528.00	1.97	126.27	4,102.64	7,525.54	93.69 N	49.45 W	610,694.86	636,539.40	1.25	105.93	Final Gyro Survey
7,566.00	2.54	126.91	4,140.61	7,563.51	92.79 N	48.25 W	610,693.96	636,540.59	1.50	104.58	First Sperry MWD Survey
7,597.00	1.27	129.72	4,171.59	7,594.49	92.16 N	47.43 W	610,693.33	636,541.41	4.11	103.65	
7,628.00	4.25	147.15	4,202.55	7,625.45	90.98 N	46.54 W	610,692.15	636,542.30	9.88	102.18	
7,659.00	9.41	158.88	4,233.33	7,656.23	87.65 N	45.01 W	610,688.82	636,543.83	17.16	98.52	
7,691.00	13.37	159.79	4,264.69	7,687.59	81.73 N	42.79 W	610,682.90	636,546.05	12.39	92.25	
7,723.00	16.49	158.43	4,295.60	7,718.50	74.03 N	39.84 W	610,675.20	636,549.00	9.81	84.07	
7,754.00	18.99	159.94	4,325.13	7,748.03	65.20 N	36.49 W	610,666.37	636,552.35	8.20	74.70	
7,786.00	22.92	166.22	4,355.01	7,777.91	54.25 N	33.22 W	610,655.42	636,555.62	14.13	63.49	
7,817.00	25.36	175.40	4,383.31	7,806.21	41.77 N	31.25 W	610,642.94	636,557.59	14.42	51.52	
7,849.00	28.08	179.86	4,411.89	7,834.79	27.40 N	30.68 W	610,628.57	636,558.16	10.56	38.55	
7,880.00	30.82	184.31	4,438.89	7,861.79	12.18 N	31.26 W	610,613.35	636,557.58	11.31	25.36	
7,912.00	33.36	187.19	4,466.00	7,888.90	4.72 S	32.97 W	610,596.45	636,555.87	9.26	11.21	
7,944.00	36.14	188.12	4,492.29	7,915.19	22.80 S	35.41 W	610,578.37	636,553.43	8.84	-3.64	
7,975.00	39.21	188.04	4,516.82	7,939.72	41.56 S	38.07 W	610,559.61	636,550.77	9.90	-18.98	
8,007.00	41.95	186.41	4,541.12	7,964.02	62.20 S	40.68 W	610,538.97	636,548.16	9.18	-36.02	
8,038.00	44.26	183.51	4,563.76	7,986.66	83.30 S	42.50 W	610,517.87	636,546.34	9.82	-53.84	
8,070.00	47.43	184.29	4,586.04	8,008.94	106.21 S	44.07 W	610,494.97	636,544.77	10.06	-73.36	
8,101.00	50.06	185.40	4,606.48	8,029.38	129.42 S	46.04 W	610,471.75	636,542.80	8.90	-92.97	
8,133.00	53.21	187.14	4,626.34	8,049.24	154.36 S	48.79 W	610,446.81	636,540.05	10.73	-113.74	
8,164.00	56.45	189.14	4,644.20	8,067.10	179.44 S	52.38 W	610,421.73	636,536.46	11.71	-134.24	
8,196.00	60.31	188.80	4,660.97	8,083.87	206.35 S	56.63 W	610,394.82	636,532.21	12.10	-156.06	
8,227.00	63.26	191.11	4,675.63	8,098.53	233.25 S	61.36 W	610,367.92	636,527.48	11.56	-177.64	
8,259.00	64.75	192.29	4,689.65	8,112.55	261.41 S	67.19 W	610,339.76	636,521.65	5.72	-199.83	
8,290.00	66.76	192.28	4,702.38	8,125.28	289.03 S	73.21 W	610,312.14	636,515.63	6.48	-221.44	
8,322.00	69.75	190.21	4,714.24	8,137.14	318.18 S	78.99 W	610,283.00	636,509.85	11.11	-244.52	
8,353.00	72.34	188.07	4,724.31	8,147.21	347.12 S	83.65 W	610,254.05	636,505.19	10.60	-267.94	
8,385.00	73.97	186.03	4,733.58	8,156.48	377.51 S	87.40 W	610,223.66	636,501.44	7.95	-293.07	
8,417.00	74.46	186.74	4,742.29	8,165.19	408.11 S	90.83 W	610,193.06	636,498.01	2.63	-318.53	
8,448.00	76.88	187.86	4,749.96	8,172.86	437.90 S	94.65 W	610,163.27	636,494.19	8.56	-343.10	
8,480.00	80.50	187.28	4,756.23	8,179.13	469.00 S	98.78 W	610,132.17	636,490.06	11.45	-368.67	
8,511.00	83.61	186.26	4,760.52	8,183.42	499.49 S	102.40 W	610,101.68	636,486.44	10.55	-393.94	
8,543.00	85.79	186.65	4,763.47	8,186.37	531.15 S	105.98 W	610,070.03	636,482.86	6.92	-420.27	
8,575.00	88.00	187.01	4,765.21	8,188.11	562.87 S	109.78 W	610,038.30	636,479.06	7.00	-446.55	
8,606.00	89.17	187.20	4,765.97	8,188.87	593.62 S	113.61 W	610,007.55	636,475.23	3.82	-471.96	
8,638.00	88.86	186.96	4,766.52	8,189.42	625.37 S	117.55 W	609,975.80	636,471.29	1.23	-498.20	
8,669.00	88.52	187.43	4,767.23	8,190.13	656.12 S	121.44 W	609,945.05	636,467.40	1.87	-523.58	
8,701.00	88.21	187.29	4,768.14	8,191.04	687.84 S	125.53 W	609,913.33	636,463.31	1.06	-549.73	

Design Report for Peridot 13 State 3H - Wellbore #1

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
8,732.00	88.46	186.40	4,769.05	8,191.95	718.61 S	129.23 W	609,882.56	636,459.61	2.98	-575.21	
8,764.00	88.37	186.06	4,769.93	8,192.83	750.41 S	132.70 W	609,850.76	636,456.14	1.10	-601.71	
8,858.00	88.74	186.03	4,772.30	8,195.20	843.86 S	142.59 W	609,757.32	636,446.25	0.39	-679.74	
8,953.00	89.17	187.13	4,774.03	8,196.93	938.21 S	153.48 W	609,662.96	636,435.36	1.24	-758.10	
9,047.00	89.23	186.99	4,775.35	8,198.25	1,031.49 S	165.03 W	609,569.68	636,423.81	0.16	-835.21	
9,142.00	90.06	186.54	4,775.93	8,198.83	1,125.83 S	176.22 W	609,475.35	636,412.62	0.99	-913.41	
9,237.00	89.01	186.97	4,776.71	8,199.61	1,220.16 S	187.39 W	609,381.01	636,401.45	1.19	-991.63	
9,331.00	89.35	184.87	4,778.05	8,200.95	1,313.65 S	197.09 W	609,287.53	636,391.75	2.26	-1,069.78	
9,426.00	89.57	184.69	4,778.95	8,201.85	1,408.31 S	205.00 W	609,192.86	636,383.84	0.30	-1,149.80	
9,520.00	91.23	185.35	4,778.29	8,201.19	1,501.94 S	213.23 W	609,099.23	636,375.61	1.90	-1,228.77	
9,615.00	89.97	185.65	4,777.30	8,200.20	1,596.50 S	222.33 W	609,004.67	636,366.51	1.36	-1,308.15	
9,710.00	91.11	185.52	4,776.40	8,199.30	1,691.04 S	231.58 W	608,910.13	636,357.26	1.21	-1,387.44	
9,804.00	89.75	185.88	4,775.69	8,198.59	1,784.57 S	240.91 W	608,816.60	636,347.93	1.50	-1,465.80	
9,899.00	90.03	186.09	4,775.88	8,198.78	1,879.06 S	250.82 W	608,722.12	636,338.02	0.37	-1,544.74	
9,993.00	90.86	186.21	4,775.15	8,198.05	1,972.51 S	260.89 W	608,628.66	636,327.95	0.89	-1,622.69	
10,087.00	91.45	185.82	4,773.25	8,196.15	2,065.97 S	270.74 W	608,535.20	636,318.10	0.75	-1,700.75	
10,182.00	90.31	186.88	4,771.79	8,194.69	2,160.38 S	281.24 W	608,440.80	636,307.60	1.64	-1,779.33	
10,276.00	90.46	186.20	4,771.16	8,194.06	2,253.76 S	291.95 W	608,347.41	636,296.89	0.74	-1,856.93	
10,371.00	90.53	186.33	4,770.34	8,193.24	2,348.19 S	302.32 W	608,252.98	636,286.52	0.16	-1,935.60	
10,465.00	90.77	185.70	4,769.27	8,192.17	2,441.67 S	312.17 W	608,159.51	636,276.68	0.72	-2,013.67	
10,654.00	88.77	185.91	4,770.03	8,192.93	2,629.69 S	331.28 W	607,971.49	636,257.56	1.06	-2,171.03	
10,749.00	88.89	187.30	4,771.97	8,194.87	2,724.03 S	342.20 W	607,877.14	636,246.64	1.47	-2,249.37	
10,844.00	90.50	187.11	4,772.48	8,195.38	2,818.28 S	354.12 W	607,782.90	636,234.72	1.71	-2,327.16	
10,938.00	90.46	188.08	4,771.69	8,194.59	2,911.45 S	366.54 W	607,689.72	636,222.30	1.03	-2,403.76	
11,032.00	90.90	188.03	4,770.58	8,193.48	3,004.52 S	379.71 W	607,596.66	636,209.13	0.47	-2,479.92	
11,126.00	90.15	187.74	4,769.71	8,192.61	3,097.62 S	392.61 W	607,503.55	636,196.23	0.86	-2,556.24	
11,221.00	90.50	187.71	4,769.18	8,192.08	3,191.76 S	405.38 W	607,409.42	636,183.46	0.37	-2,633.53	
11,315.00	90.86	186.26	4,768.06	8,190.96	3,285.05 S	416.81 W	607,316.12	636,172.03	1.59	-2,710.71	
11,410.00	89.91	185.70	4,767.42	8,190.32	3,379.53 S	426.70 W	607,221.64	636,162.14	1.16	-2,789.64	
11,504.00	89.10	185.76	4,768.23	8,191.13	3,473.06 S	436.09 W	607,128.12	636,152.75	0.86	-2,867.97	
11,599.00	89.78	185.80	4,769.16	8,192.06	3,567.57 S	445.66 W	607,033.61	636,143.18	0.72	-2,947.09	
11,642.00	90.03	185.80	4,769.23	8,192.13	3,610.35 S	450.00 W	606,990.83	636,138.84	0.58	-2,982.90	
11,705.00	90.89	185.70	4,768.73	8,191.63	3,673.03 S	456.31 W	606,928.15	636,132.53	1.37	-3,035.39	
11,800.00	90.46	186.24	4,767.61	8,190.51	3,767.51 S	466.19 W	606,833.67	636,122.65	0.73	-3,114.33	
11,894.00	90.31	187.11	4,766.98	8,189.88	3,860.87 S	477.12 W	606,740.31	636,111.72	0.94	-3,191.80	
11,989.00	89.91	187.61	4,766.79	8,189.69	3,955.08 S	489.29 W	606,646.09	636,099.55	0.67	-3,269.44	
12,083.00	90.00	186.64	4,766.87	8,189.77	4,048.36 S	500.95 W	606,552.82	636,087.89	1.04	-3,346.49	
12,178.00	90.03	187.33	4,766.84	8,189.74	4,142.65 S	512.50 W	606,458.53	636,076.34	0.73	-3,424.49	
12,272.00	89.29	186.38	4,767.40	8,190.30	4,235.98 S	523.72 W	606,365.20	636,065.12	1.28	-3,501.79	

Design Report for Peridot 13 State 3H - Wellbore #1

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
12,367.00	89.72	185.05	4,768.22	8,191.12	4,330.50 S	533.18 W	606,270.68	636,055.66	1.47	-3,580.96	
12,461.00	89.82	185.73	4,768.60	8,191.50	4,424.08 S	542.01 W	606,177.10	636,046.83	0.73	-3,659.61	
12,556.00	89.54	186.82	4,769.13	8,192.03	4,518.51 S	552.39 W	606,082.67	636,036.45	1.18	-3,738.27	
12,651.00	89.48	185.95	4,769.94	8,192.84	4,612.92 S	562.96 W	605,988.26	636,025.88	0.92	-3,816.83	
12,745.00	89.82	186.19	4,770.52	8,193.42	4,706.39 S	572.90 W	605,894.79	636,015.94	0.44	-3,894.86	
12,839.00	89.72	185.70	4,770.89	8,193.79	4,799.88 S	582.63 W	605,801.30	636,006.21	0.53	-3,973.00	
12,934.00	91.73	185.52	4,769.69	8,192.59	4,894.41 S	591.92 W	605,706.77	635,996.92	2.12	-4,052.27	
13,029.00	91.55	185.93	4,766.97	8,189.87	4,988.90 S	601.39 W	605,612.28	635,987.45	0.47	-4,131.41	
13,123.00	90.80	186.24	4,765.05	8,187.95	5,082.35 S	611.35 W	605,518.83	635,977.49	0.86	-4,209.40	
13,218.00	91.41	186.39	4,763.21	8,186.11	5,176.76 S	621.80 W	605,424.43	635,967.04	0.66	-4,288.02	
13,312.00	91.63	187.04	4,760.72	8,183.62	5,270.08 S	632.79 W	605,331.10	635,956.05	0.73	-4,365.42	
13,407.00	90.92	187.08	4,758.61	8,181.51	5,364.33 S	644.46 W	605,236.85	635,944.38	0.75	-4,443.33	
13,501.00	89.32	186.12	4,758.41	8,181.31	5,457.71 S	655.26 W	605,143.48	635,933.58	1.98	-4,520.87	
13,596.00	89.78	186.11	4,759.16	8,182.06	5,552.16 S	665.38 W	605,049.02	635,923.46	0.48	-4,599.68	
13,690.00	90.58	187.15	4,758.86	8,181.76	5,645.53 S	676.24 W	604,955.65	635,912.60	1.40	-4,677.19	
13,785.00	88.43	187.55	4,759.68	8,182.58	5,739.74 S	688.39 W	604,861.44	635,900.45	2.30	-4,754.83	
13,879.00	88.46	188.01	4,762.23	8,185.13	5,832.84 S	701.11 W	604,768.34	635,887.73	0.49	-4,831.23	
13,974.00	89.41	187.65	4,764.00	8,186.90	5,926.94 S	714.05 W	604,674.24	635,874.79	1.07	-4,908.41	
14,069.00	90.09	187.65	4,764.41	8,187.31	6,021.09 S	726.70 W	604,580.09	635,862.15	0.72	-4,985.78	
14,163.00	89.29	187.05	4,764.92	8,187.82	6,114.32 S	738.72 W	604,486.87	635,850.12	1.06	-5,062.61	
14,258.00	89.29	187.24	4,766.10	8,189.00	6,208.57 S	750.54 W	604,392.61	635,838.31	0.20	-5,140.45	
14,352.00	88.58	186.19	4,767.84	8,190.74	6,301.91 S	761.53 W	604,299.27	635,827.32	1.35	-5,217.87	
14,447.00	89.54	184.79	4,769.40	8,192.30	6,396.46 S	770.61 W	604,204.73	635,818.23	1.79	-5,297.24	
14,541.00	90.09	183.94	4,769.71	8,192.61	6,490.18 S	777.77 W	604,111.00	635,811.08	1.08	-5,376.79	
14,636.00	90.83	185.62	4,768.94	8,191.84	6,584.84 S	785.68 W	604,016.34	635,803.16	1.93	-5,456.82	
14,730.00	91.26	185.54	4,767.23	8,190.13	6,678.38 S	794.82 W	603,922.80	635,794.02	0.47	-5,535.28	
14,825.00	91.63	185.87	4,764.83	8,187.73	6,772.88 S	804.26 W	603,828.30	635,784.58	0.52	-5,614.44	
14,919.00	90.99	186.25	4,762.68	8,185.58	6,866.33 S	814.18 W	603,734.85	635,774.66	0.79	-5,692.46	
15,014.00	90.34	186.72	4,761.58	8,184.48	6,960.72 S	824.91 W	603,640.47	635,763.93	0.84	-5,770.92	
15,109.00	89.88	186.89	4,761.40	8,184.30	7,055.05 S	836.17 W	603,546.14	635,752.67	0.52	-5,849.09	
15,203.00	89.69	186.25	4,761.75	8,184.65	7,148.43 S	846.92 W	603,452.76	635,741.92	0.71	-5,926.66	
15,298.00	90.65	185.68	4,761.47	8,184.37	7,242.91 S	856.79 W	603,358.27	635,732.05	1.18	-6,005.61	
15,393.00	90.74	186.08	4,760.32	8,183.22	7,337.41 S	866.53 W	603,263.78	635,722.32	0.43	-6,084.64	
15,487.00	90.59	185.83	4,759.23	8,182.13	7,430.89 S	876.28 W	603,170.29	635,712.56	0.31	-6,162.76	
15,582.00	91.36	186.02	4,757.61	8,180.51	7,525.37 S	886.08 W	603,075.82	635,702.76	0.83	-6,241.74	
15,676.00	91.20	185.37	4,755.51	8,178.41	7,618.88 S	895.41 W	602,982.30	635,693.43	0.71	-6,320.09	
15,771.00	91.33	185.77	4,753.41	8,176.31	7,713.41 S	904.63 W	602,887.78	635,684.21	0.44	-6,399.39	
15,865.00	91.24	186.16	4,751.31	8,174.21	7,806.88 S	914.39 W	602,794.31	635,674.45	0.43	-6,477.49	
15,960.00	91.23	188.52	4,749.26	8,172.16	7,901.07 S	926.53 W	602,700.12	635,662.32	2.48	-6,555.13	

Design Report for Peridot 13 State 3H - Wellbore #1

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
16,055.00	90.65	190.76	4,747.70	8,170.60	7,994.71 S	942.43 W	602,606.48	635,646.41	2.44	-6,630.52	
16,149.00	89.94	190.76	4,747.22	8,170.12	8,087.06 S	959.98 W	602,514.13	635,628.86	0.76	-6,704.00	
16,244.00	88.21	188.55	4,748.75	8,171.65	8,180.69 S	975.91 W	602,420.50	635,612.93	2.95	-6,779.37	
16,339.00	87.25	187.25	4,752.51	8,175.41	8,274.71 S	988.96 W	602,326.48	635,599.88	1.70	-6,856.43	
16,434.00	86.86	186.16	4,757.39	8,180.29	8,368.93 S	1,000.03 W	602,232.25	635,588.81	1.22	-6,934.59	
16,528.00	86.92	185.41	4,762.49	8,185.39	8,462.32 S	1,009.50 W	602,138.87	635,579.35	0.80	-7,012.76	
16,623.00	86.94	184.41	4,767.58	8,190.48	8,556.83 S	1,017.61 W	602,044.36	635,571.23	1.05	-7,092.56	
16,717.00	88.00	184.76	4,771.73	8,194.63	8,650.44 S	1,025.12 W	601,950.75	635,563.72	1.19	-7,171.84	
16,745.00	87.57	184.28	4,772.81	8,195.71	8,678.33 S	1,027.33 W	601,922.86	635,561.52	2.30	-7,195.48	Final Sperry MWD Survey
16,804.00	87.57	184.28	4,775.31	8,198.21	8,737.11 S	1,031.73 W	601,864.08	635,557.12	0.00	-7,245.41	Projection to TD

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,528.00	7,525.54	93.69	-49.45	Final Gyro Survey
7,566.00	7,563.51	92.79	-48.25	First Sperry MWD Survey
16,745.00	8,195.71	-8,678.33	-1,027.33	Final Sperry MWD Survey
16,804.00	8,198.21	-8,737.11	-1,031.73	Projection to TD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (ft)	Origin +E/-W (ft)	Start TVD (ft)
User	No Target (Freehand)	332.18	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
136.92	7,528.00	VES Gyros	NS-Gyro-MS
7,566.00	16,804.00	Sperry MWD Surveys	MWD

Design Report for Peridot 13 State 3H - Wellbore #1

Design Targets

Target Name	Dip	Dip							
- hit/miss target	Angle	Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	()	()	()	()	()	()	()		
()									

Directional Difficulty Index

Average Dogleg over Survey:	1.27 °/100ft	Maximum Dogleg over Survey:	17.16 °/100ft at 7,659.00 ft
Net Tortousity applicable to Plans:	0.57 °/100ft	Directional Difficulty Index:	6.598

Audit Info