

HOBBS OCD

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DESCRIPTION:



UINTAH
ENGINEERING & LAND SURVEYING



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MS Directional Survey Data Certification

MS Directional Job Number: DDMO-180536
Survey Type: MWD
Operating Company: ConocoPhillips Company
Well Name & Number: Peridot 8 Federal 2H
Location: Lea County, NM
API Number: 30-025-44588
Tie In Depth: Surface
Surveyed Depths: 176' – 13,012' MD
Projected TD Survey: 13,083' MD
Dates Performed: 06/05/2018 – 06/23/2018

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional.

Digitally signed by:

MWD Surveyor Name: Addison Bailey

Date: 08-13-2018

Email: abailey@msdir.com

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V09.04.02

Company:	ConocoPhillips Company
Well Name:	Peridot 8 Federal 2H
Location:	Lea County, NM
Rig:	Trinidad #417
Job Number:	DDMO-180536
API #:	30-025-44588

Magnetic Declination: 6.74 REFERENCED TO GRID NORTH

Vertical Section Azimuth: 269.80 Proposed Direction: 269.80

Survey Calculation Method: Minimum Curvature

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	13,083	92.4	268.5	5430.55	32.63	-7791.37	7791.21

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
TIE IN	0	0.00	0.00	0.00	0.00	0.00			0.00		
1	176	0.50	27.00	176.00	0.68	0.35	-0.35	0.77	27.00	0.28	0.28
2	300	0.60	38.10	299.99	1.68	0.99	-1.00	1.95	30.67	0.12	0.08
3	424	0.40	130.60	423.99	1.91	1.72	-1.73	2.57	42.12	0.59	-0.16
4	550	0.50	88.50	549.99	1.63	2.61	-2.61	3.08	57.92	0.27	0.08
5	672	0.30	286.00	671.98	1.74	2.83	-2.84	3.32	58.49	0.65	-0.16
6	832	0.40	338.30	831.98	2.37	2.22	-2.23	3.25	43.16	0.20	0.06
7	919	0.30	240.10	918.98	2.54	1.91	-1.92	3.18	37.00	0.61	-0.11
8	1,011	1.20	13.50	1010.97	3.36	1.93	-1.94	3.87	29.90	1.55	0.98
9	1,074	2.10	8.00	1073.95	5.14	2.24	-2.26	5.61	23.59	1.45	1.43
10	1,199	2.90	348.20	1198.83	10.50	1.92	-1.95	10.68	10.34	0.93	0.64
11	1,325	3.40	312.10	1324.65	16.13	-1.51	1.45	16.20	354.66	1.59	0.40
12	1,450	3.70	300.70	1449.41	20.67	-7.73	7.65	22.07	339.51	0.61	0.24
13	1,575	3.30	292.60	1574.18	24.12	-14.52	14.43	28.15	328.96	0.51	-0.32
14	1,701	3.10	290.60	1699.98	26.71	-21.05	20.96	34.01	321.75	0.18	-0.16
15	1,827	3.20	289.10	1825.79	29.06	-27.57	27.46	40.05	316.51	0.10	0.08
16	1,952	2.80	295.50	1950.62	31.51	-33.62	33.51	46.08	313.15	0.42	-0.32
17	2,078	2.70	290.90	2076.48	33.90	-39.17	39.05	51.80	310.87	0.19	-0.08
18	2,177	2.40	291.20	2175.38	35.48	-43.28	43.15	55.96	309.34	0.30	-0.30
19	2,331	2.20	294.50	2329.25	37.87	-48.97	48.84	61.91	307.71	0.16	-0.13
20	2,456	2.10	293.70	2454.17	39.79	-53.25	53.12	66.48	306.76	0.08	-0.08
21	2,582	2.00	293.40	2580.09	41.59	-57.39	57.24	70.87	305.93	0.08	-0.08
22	2,708	1.90	289.60	2706.01	43.16	-61.37	61.22	75.03	305.12	0.13	-0.08
23	2,833	1.90	285.20	2830.94	44.40	-65.32	65.17	78.98	304.20	0.12	0.00
24	2,959	1.70	278.00	2956.88	45.21	-69.19	69.03	82.65	303.16	0.24	-0.16
25	3,086	1.60	270.60	3083.83	45.49	-72.83	72.67	85.87	301.99	0.19	-0.08
26	3,212	2.80	318.00	3209.74	47.79	-76.65	76.48	90.33	301.95	1.65	0.95
27	3,338	1.50	321.80	3335.65	51.38	-79.73	79.55	94.85	302.80	1.04	-1.03
28	3,464	1.30	299.10	3461.62	53.37	-82.00	81.81	97.83	303.06	0.46	-0.16
29	3,590	1.30	288.40	3587.58	54.51	-84.60	84.41	100.64	302.80	0.19	0.00
30	3,716	1.40	283.90	3713.55	55.34	-87.45	87.26	103.49	302.32	0.12	0.08
31	3,842	1.40	279.60	3839.51	55.96	-90.46	90.27	106.37	301.74	0.08	0.00
32	3,968	1.50	274.60	3965.47	56.35	-93.62	93.43	109.27	301.04	0.13	0.08
33	4,094	1.70	265.50	4091.42	56.34	-97.13	96.93	112.29	300.11	0.26	0.16

VO9.04.02

Company:	ConocoPhillips Company			
Well Name:	Peridot 8 Federal 2H			
Location:	Lea County, NM			
Rig:	Trinidad #417	Magnetic Declination:	6.74	REFERENCED TO GRID NORTH ▼
Job Number:	DDMO-180536			
API #:	30-025-44588			

Vertical Section Azimuth:	269.80	Proposed Direction:	269.80
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Survey Calculation Method:	Minimum Curvature
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PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	13,083	92.4	268.5	5430.55	32.63	-7791.37	7791.21

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
34	4,220	1.80	260.20	4217.36	55.85	-100.94	100.75	115.37	298.96	0.15	0.08
35	4,347	1.60	301.50	4344.31	56.44	-104.42	104.22	118.70	298.39	0.96	-0.16
36	4,473	1.30	358.80	4470.28	58.79	-105.95	105.75	121.17	299.02	1.12	-0.24
37	4,599	2.30	34.60	4596.22	62.30	-104.55	104.33	121.70	300.79	1.16	0.79
38	4,725	1.60	56.40	4722.15	65.35	-101.65	101.42	120.84	302.74	0.80	-0.56
39	4,851	1.60	58.90	4848.10	67.23	-98.67	98.44	119.40	304.27	0.06	0.00
40	5,041	1.50	345.50	5038.04	71.01	-97.02	96.78	120.24	306.20	0.98	-0.05
41	5,104	4.50	292.90	5100.96	72.77	-99.51	99.25	123.28	306.18	6.00	4.76
42	5,167	8.90	274.50	5163.52	74.12	-106.65	106.39	129.87	304.80	7.68	6.98
43	5,230	14.30	269.10	5225.21	74.38	-119.30	119.04	140.58	301.94	8.73	8.57
44	5,293	20.10	262.20	5285.37	72.79	-137.82	137.56	155.86	297.84	9.74	9.21
45	5,356	28.10	256.30	5342.84	67.79	-163.00	162.77	176.54	292.58	13.25	12.70
46	5,419	37.00	266.30	5395.93	63.04	-196.43	196.21	206.30	287.79	16.47	14.13
47	5,482	45.50	257.30	5443.30	56.86	-237.37	237.17	244.09	283.47	16.43	13.49
48	5,546	54.00	257.80	5484.61	46.36	-285.03	284.87	288.78	279.24	13.29	13.28
49	5,609	62.00	262.50	5517.98	37.32	-337.62	337.49	339.68	276.31	14.18	12.70
50	5,672	68.10	263.80	5544.55	30.53	-394.31	394.20	395.49	274.43	9.86	9.68
51	5,735	73.90	264.60	5565.05	24.52	-453.54	453.46	454.21	273.09	9.28	9.21
52	5,798	79.70	266.40	5579.43	19.72	-514.66	514.59	515.04	272.19	9.62	9.21
53	5,858	86.50	266.40	5586.63	15.98	-574.08	574.02	574.30	271.59	11.33	11.33
54	5,930	90.70	272.70	5588.39	15.42	-646.00	645.94	646.18	271.37	10.51	5.83
55	6,119	93.20	273.50	5581.96	25.63	-834.60	834.50	834.99	271.76	1.39	1.32
56	6,307	91.30	275.30	5574.58	40.05	-1021.88	1021.74	1022.67	272.24	1.39	-1.01
57	6,497	89.30	273.80	5573.59	55.12	-1211.27	1211.07	1212.52	272.61	1.32	-1.05
58	6,685	90.30	273.60	5574.24	67.25	-1398.87	1398.63	1400.49	272.75	0.54	0.53
59	6,874	88.10	271.90	5576.88	76.32	-1587.62	1587.34	1589.45	272.75	1.47	-1.16
60	7,064	91.20	268.60	5578.04	77.14	-1777.56	1777.28	1779.23	272.49	2.38	1.63
61	7,253	90.00	268.20	5576.06	71.87	-1966.47	1966.21	1967.79	272.09	0.67	-0.63
62	7,443	91.90	268.40	5572.91	66.23	-2156.35	2156.11	2157.37	271.76	1.01	1.00
63	7,632	92.80	268.40	5565.17	60.96	-2345.12	2344.89	2345.91	271.49	0.48	0.48
64	7,821	93.70	268.50	5554.45	55.85	-2533.75	2533.53	2534.36	271.26	0.48	0.48
65	8,010	91.70	269.50	5545.55	52.56	-2722.49	2722.29	2723.00	271.11	1.18	-1.06
66	8,194	92.60	269.70	5538.64	51.28	-2906.36	2906.16	2906.81	271.01	0.50	0.49
67	8,378	90.20	270.10	5534.15	50.96	-3090.29	3090.09	3090.71	270.94	1.32	-1.30

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Job Number:	DDMO-180536			
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Vertical Section Azimuth:	269.80	Proposed Direction:	269.80
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Survey Calculation Method:	Minimum Curvature
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PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	13,083	92.4	268.5	5430.55	32.63	-7791.37	7791.21

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
68	8,562	91.90	270.70	5530.78	52.24	-3274.25	3274.04	3274.66	270.91	0.98	0.92
69	8,748	90.20	271.40	5527.37	55.65	-3460.18	3459.96	3460.62	270.92	0.99	-0.91
70	8,937	90.50	269.70	5526.21	57.46	-3649.16	3648.93	3649.61	270.90	0.91	0.16
71	9,126	92.50	269.70	5521.27	56.47	-3838.08	3837.86	3838.50	270.84	1.06	1.06
72	9,316	93.40	269.40	5511.49	54.98	-4027.82	4027.60	4028.20	270.78	0.50	0.47
73	9,505	91.00	268.90	5504.23	52.18	-4216.65	4216.44	4216.97	270.71	1.30	-1.27
74	9,694	89.20	268.90	5503.90	48.55	-4405.60	4405.41	4405.87	270.63	0.95	-0.95
75	9,883	90.60	269.50	5504.23	45.92	-4594.58	4594.39	4594.81	270.57	0.81	0.74
76	10,072	92.50	270.50	5499.12	45.91	-4783.50	4783.31	4783.72	270.55	1.14	1.01
77	10,261	91.50	269.20	5492.53	45.42	-4972.38	4972.19	4972.58	270.52	0.87	-0.53
78	10,450	91.50	269.10	5487.58	42.62	-5161.29	5161.11	5161.47	270.47	0.05	0.00
79	10,639	89.40	269.40	5486.09	40.14	-5350.26	5350.08	5350.41	270.43	1.12	-1.11
80	10,828	90.90	269.50	5485.60	38.33	-5539.24	5539.08	5539.38	270.40	0.80	0.79
81	11,016	88.50	268.00	5486.58	34.23	-5727.18	5727.02	5727.28	270.34	1.51	-1.28
82	11,206	89.40	267.70	5490.07	27.10	-5917.01	5916.88	5917.07	270.26	0.50	0.47
83	11,395	91.30	268.00	5488.91	20.01	-6105.86	6105.76	6105.90	270.19	1.02	1.01
84	11,581	90.90	269.70	5485.34	16.28	-6291.78	6291.69	6291.81	270.15	0.94	-0.22
85	11,770	93.80	271.60	5477.59	18.42	-6480.58	6480.48	6480.61	270.16	1.83	1.53
86	11,959	96.10	272.80	5461.28	25.64	-6668.72	6668.59	6668.77	270.22	1.37	1.22
87	12,148	92.80	273.30	5446.62	35.67	-6856.86	6856.69	6856.95	270.30	1.77	-1.75
88	12,337	90.40	269.40	5441.34	40.11	-7045.68	7045.50	7045.80	270.33	2.42	-1.27
89	12,527	89.30	269.10	5441.84	37.63	-7235.66	7235.49	7235.76	270.30	0.60	-0.58
90	12,716	90.00	270.00	5442.99	36.14	-7424.65	7424.48	7424.74	270.28	0.60	0.37
91	12,905	92.80	269.90	5438.38	35.98	-7613.58	7613.40	7613.66	270.27	1.48	1.48
92	13,012	92.40	268.50	5433.52	34.49	-7720.45	7720.29	7720.53	270.26	1.36	-0.37
PTB:	13,083	92.40	268.50	5430.55	32.63	-7791.37	7791.21	7791.44	270.24	0.00	0.00