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MERRION

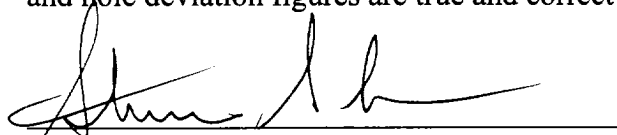
OIL & GAS

PWU H No. 4

Section 15, T19N, R5W
McKinley County, New Mexico

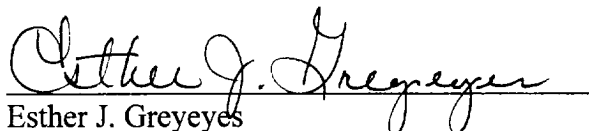
30-031-20503

I, Steven S. Dunn, being first duly sworn, depose and state that the attached and foregoing depth and hole deviation figures are true and correct to the best of my information and belief.


Steven S. Dunn

Subscribed and sworn before me this 10th day of September, 1996

State of New Mexico }
 } ss
County of San Juan }


Esther J. Greeyes
Notary Public

My Commission Expires: August 7, 1998

RECEIVED
SEP. 1 1 1996
OIL CON. DIV.
DIST. 3

Surveys

DIRECTIONAL SURVEY DATA

WELL NAME: PWU H #4				LOCATION: McKinley				RIG:			
TARGET AZIMUTH (0-360 DEG):				208.00				New Mexico			
								ELEV: 6,642 RKB			
NO.	MEAS DEPTH (FT.)	HOLE ANGLE (DEG)	HOLE AZIMUTH (0-360D)	TRUE VERTICAL DEPTH (FT.)	LAT +NORTH -SOUTH (FT.)	DEP +EAST -WEST (FT.)	CLOSURE (FT.)	TRUE VERTICAL SECTION (FT.)	DOGLEG SEVERITY (°/100')	+BUILD -DROP RATE (°/100')	WALK RATE +R/L (°/100')
1	-	-	-	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A
2	100	0.02	122.05	100.00	(0.01)	0.01	0.02	0.00	0.02	0.02	0.00
3	200	0.17	173.14	200.00	(0.17)	0.05	0.17	0.12	0.16	0.15	51.09
4	300	0.40	223.98	300.00	(0.56)	(0.18)	0.59	0.58	0.32	0.23	50.84
5	400	0.33	237.27	399.99	(0.97)	(0.66)	1.18	1.17	0.11	(0.07)	13.29
6	500	0.63	211.08	499.97	(1.60)	(1.19)	1.99	1.97	0.36	0.30	(26.19)
7	600	0.89	203.48	599.94	(2.78)	(1.78)	3.30	3.29	0.28	0.26	(7.60)
8	700	1.07	202.71	699.92	(4.35)	(2.45)	5.00	5.00	0.18	0.18	(0.77)
9	800	1.01	227.38	799.88	(5.81)	(3.46)	6.76	6.76	0.45	(0.06)	24.67
10	900	0.70	132.19	899.87	(6.82)	(3.66)	7.74	7.74	1.28	(0.31)	(95.20)
11	1,000	0.85	101.11	999.85	(7.37)	(2.48)	7.78	7.67	0.44	0.15	(31.08)
12	1,100	0.66	105.65	1,099.83	(7.67)	(1.19)	7.76	7.33	0.20	(0.19)	4.54
13	1,200	0.40	111.72	1,199.81	(7.95)	(0.31)	7.96	7.17	0.27	(0.26)	6.07
14	1,300	0.46	95.90	1,299.80	(8.13)	0.41	8.14	6.98	0.13	0.06	(15.82)
15	1,400	0.39	67.18	1,399.80	(8.03)	1.12	8.11	6.57	0.22	(0.07)	(28.72)
16	1,500	0.36	100.89	1,499.79	(7.96)	1.74	8.15	6.21	0.22	(0.03)	33.71
17	1,600	0.33	130.99	1,599.79	(8.21)	2.27	8.52	6.18	0.18	(0.03)	30.10
18	1,700	0.35	133.65	1,699.78	(8.61)	2.71	9.03	6.33	0.03	0.02	2.66
19	1,800	0.31	117.87	1,799.78	(8.95)	3.17	9.49	6.41	0.10	(0.04)	(15.78)
20	1,900	0.51	162.11	1,899.77	(9.50)	3.54	10.14	6.72	0.36	0.20	44.24
21	2,000	0.60	171.14	1,999.76	(10.44)	3.76	11.10	7.45	0.13	0.09	9.03
22	2,100	0.61	179.20	2,099.76	(11.49)	3.85	12.12	8.34	0.09	0.01	8.06
23	2,200	0.45	173.57	2,199.74	(12.41)	3.90	13.01	9.13	0.17	(0.16)	(5.63)
24	2,300	0.44	198.80	2,299.74	(13.16)	3.82	13.71	9.83	0.19	(0.01)	25.23
25	2,400	0.27	180.74	2,399.73	(13.76)	3.69	14.25	10.42	0.20	(0.17)	(18.06)
26	2,500	0.34	217.65	2,499.73	(14.23)	3.51	14.66	10.92	0.20	0.07	36.91
27	2,600	0.28	185.29	2,599.73	(14.71)	3.31	15.08	11.44	0.18	(0.06)	(32.36)
28	2,700	0.30	233.32	2,699.72	(15.11)	3.07	15.42	11.90	0.24	0.02	48.03
29	2,800	0.14	238.95	2,799.69	(15.33)	2.76	15.58	12.24	0.16	(0.16)	5.63
30	2,900	0.15	207.76	2,899.63	(15.51)	2.59	15.72	12.48	0.08	0.01	(31.21)
31	3,000	0.24	226.26	2,999.52	(15.77)	2.38	15.95	12.81	0.11	0.09	18.52
32	3,100	0.02	223.75	3,099.39	(15.93)	2.22	16.08	13.02	0.22	(0.22)	(2.51)
33	3,200	0.13	214.83	3,199.88	(16.03)	2.14	16.18	13.15	0.11	0.11	(8.88)
34	3,300	0.12	284.40	3,299.88	(16.10)	1.96	16.22	13.29	0.14	(0.01)	69.57
35	3,400	0.12	82.36	3,399.88	(16.06)	1.98	16.18	13.25	0.24	0.00	157.96
36	3,500	0.23	14.56	3,499.88	(15.85)	2.13	15.99	13.00	0.22	0.11	(67.80)
37	3,600	1.02	77.42	3,599.88	(15.46)	3.05	15.76	12.22	0.94	0.79	62.86
38	3,700	2.94	122.72	3,699.82	(16.66)	6.08	17.73	11.85	2.34	1.92	45.30
39	3,800	4.38	125.16	3,799.61	(20.24)	11.36	23.21	12.54	1.45	1.44	2.44
40	3,900	5.79	132.63	3,899.22	(25.86)	18.19	31.61	14.29	1.55	1.41	7.47
41	4,000	8.26	129.72	3,998.46	(33.86)	27.43	43.58	17.02	2.49	2.47	(2.91)
42	4,100	9.57	125.58	4,097.25	(43.29)	39.72	58.75	19.58	1.46	1.31	(4.14)
43	4,200	9.67	122.80	4,195.84	(52.68)	53.54	75.11	21.38	0.48	0.10	(2.78)

Surveys

DIRECTIONAL SURVEY DATA

WELL NAME: PWU H #4				LOCATION: McKinley				RIG:			
TARGET AZIMUTH (0-360 DEG):				208.00				ELEV: 6,642 RKB			
NO.	MEAS DEPTH (FT.)	HOLE ANGLE (DEG)	HOLE AZIMUTH (0-360D)	TRUE VERTICAL DEPTH (FT.)	LAT +NORTH -SOUTH (FT.)	DEP +EAST -WEST (FT.)	CLOSURE (FT.)	TRUE VERTICAL SECTION (FT.)	DOGLEG SEVERITY (°/100')	+BUILD -DROP RATE (°/100')	WALK RATE +R/-L (°/100')
44	4,300	7.52	113.84	4,294.72	(59.87)	66.58	89.54	21.61	2.53	(2.15)	(8.96)
45	4,400	6.41	112.91	4,393.98	(64.69)	77.71	101.11	20.64	1.12	(1.11)	(0.93)
46	4,500	5.05	112.35	4,493.48	(68.54)	86.92	110.69	19.71	1.36	(1.36)	(0.56)
47	4,600	4.01	113.87	4,593.16	(71.63)	94.19	118.33	19.02	1.05	(1.04)	1.52
48	4,700	2.92	115.35	4,692.98	(74.13)	99.69	124.23	18.65	1.09	(1.09)	1.48
49	4,750	2.91	118.31	4,742.91	(75.28)	101.96	126.74	18.60	0.30	(0.02)	5.92
50	4,841	2.90	173.10	4,833.81	(78.66)	104.27	130.61	20.50	2.94	(0.01)	60.21
51	4,857	4.80	200.30	4,849.78	(79.69)	104.09	131.09	21.50	16.16	11.88	170.00
52	4,889	9.80	215.00	4,881.51	(83.18)	102.06	131.66	25.53	16.56	15.63	45.94
53	4,906	12.90	219.50	4,898.18	(85.83)	100.02	131.80	28.83	18.95	18.24	26.47
54	4,921	15.30	218.10	4,912.72	(88.68)	97.73	131.97	32.42	16.16	16.00	(9.33)
55	4,952	20.50	217.40	4,942.21	(96.22)	91.91	133.06	41.81	16.79	16.77	(2.26)
56	4,983	25.30	213.70	4,970.76	(106.05)	84.93	135.87	53.76	16.16	15.48	(11.94)
57	4,999	27.50	213.30	4,985.09	(111.98)	81.01	138.21	60.84	13.79	13.75	(2.50)
58	5,016	30.13	214.20	4,999.99	(118.79)	76.45	141.27	68.99	15.68	15.47	5.29
59	5,044	34.60	218.10	5,023.63	(130.86)	67.59	147.29	83.81	17.61	15.96	13.93
60	5,072	37.90	222.80	5,046.22	(143.44)	56.84	154.29	99.96	15.40	11.79	16.79
61	5,103	42.60	222.30	5,069.87	(158.19)	43.30	164.01	119.35	15.20	15.16	(1.61)
62	5,134	47.90	222.90	5,091.69	(174.39)	28.40	176.68	140.64	17.15	17.10	1.94
63	5,165	53.40	221.90	5,111.34	(192.09)	12.25	192.48	163.85	17.92	17.74	(3.23)
64	5,195	58.50	220.80	5,128.13	(210.75)	(4.16)	210.79	188.03	17.27	17.00	(3.67)
65	5,225	62.30	219.60	5,142.94	(230.67)	(20.99)	231.62	213.52	13.14	12.67	(4.00)
66	5,245	62.30	215.40	5,152.24	(244.71)	(31.77)	246.77	230.98	18.59	0.00	(21.00)
67	5,256	62.40	213.70	5,157.35	(252.74)	(37.29)	255.47	240.66	13.72	0.91	(15.45)
68	5,270	63.60	211.50	5,163.71	(263.25)	(44.01)	266.90	253.09	16.42	8.57	(15.71)
69	5,286	65.60	210.30	5,170.57	(275.65)	(51.43)	280.40	267.53	14.22	12.50	(7.50)
70	5,303	68.50	209.40	5,177.20	(289.22)	(59.22)	295.22	283.17	17.74	17.06	(5.29)
71	5,316	71.10	208.80	5,181.68	(299.88)	(65.15)	306.88	295.37	20.46	20.00	(4.62)
72	5,327	72.90	208.30	5,185.08	(309.07)	(70.15)	316.93	305.83	16.92	16.36	(4.55)
73	5,334	73.90	208.10	5,187.08	(314.98)	(73.32)	323.41	312.54	14.55	14.29	(2.86)
74	5,344	75.90	208.00	5,189.69	(323.50)	(77.86)	332.74	322.19	20.02	20.00	(1.00)
75	5,361	78.80	208.50	5,193.41	(338.11)	(85.71)	348.81	338.78	17.30	17.06	2.94
76	5,392	78.60	209.80	5,199.49	(364.66)	(100.52)	378.26	369.17	4.16	(0.65)	4.19
77	5,420	79.60	211.00	5,204.78	(388.38)	(114.43)	404.88	396.64	5.52	3.57	4.29
78	5,448	80.30	211.90	5,209.67	(411.90)	(128.82)	431.57	424.16	4.03	2.50	3.21
79	5,464	80.60	212.00	5,212.32	(425.28)	(137.17)	446.86	439.90	1.97	1.87	0.62
80	5,480	79.80	210.50	5,215.04	(438.76)	(145.35)	462.21	455.64	10.50	(5.00)	(9.38)
81	5,511	79.80	211.40	5,220.53	(464.93)	(161.04)	492.03	486.11	2.86	0.00	2.90
82	5,544	80.00	211.10	5,226.32	(492.70)	(177.89)	523.83	518.55	1.08	0.61	(0.91)
83	5,573	79.80	210.20	5,231.41	(517.26)	(192.45)	551.90	547.07	3.13	(0.69)	(3.10)
84	5,603	79.30	210.20	5,236.85	(542.76)	(207.29)	581.00	576.55	1.67	(1.67)	0.00
85	5,615	79.40	210.40	5,239.07	(552.95)	(213.24)	592.64	588.33	1.84	0.83	1.67
86	5,632	80.80	209.70	5,241.99	(567.44)	(221.62)	609.18	605.07	9.18	8.24	(4.12)

Surveys

DIRECTIONAL SURVEY DATA

WELL NAME: PWU H #4				LOCATION: McKinley				RIG:			
TARGET AZIMUTH (0-360 DEG):				208.00				ELEV: 6,642 RKB			
NO.	MEAS DEPTH (FT.)	HOLE ANGLE (DEG)	HOLE AZIMUTH (0-360D)	TRUE VERTICAL DEPTH (FT.)	LAT +NORTH -SOUTH (FT.)	DEP +EAST -WEST (FT.)	CLOSURE (FT.)	TRUE VERTICAL SECTION (FT.)	DOGLEG SEVERITY (°/100')	+BUILD -DROP RATE (°/100')	WALK RATE +R/-L (°/100')
87	5.662	84.30	210.90	5,245.88	(593.12)	(236.63)	638.58	634.78	12.32	11.67	4.00
88	5.693	88.60	212.10	5,247.80	(619.49)	(252.79)	669.09	665.66	14.40	13.87	3.87
89	5.725	90.40	214.70	5,248.08	(646.20)	(270.41)	700.50	697.51	9.88	5.63	8.12
90	5.756	90.70	214.30	5,247.78	(671.75)	(287.96)	730.87	728.31	1.61	0.97	(1.29)
91	5.788	90.20	215.30	5,247.53	(698.03)	(306.22)	762.24	760.08	3.49	(1.56)	3.13
92	5.819	90.30	215.70	5,247.39	(723.26)	(324.23)	792.61	790.82	1.33	0.32	1.29
93	5.848	91.10	215.90	5,247.04	(746.78)	(341.19)	821.03	819.55	2.84	2.76	0.69
94	5.878	91.70	215.30	5,246.31	(771.17)	(358.65)	850.49	849.28	2.83	2.00	(2.00)
95	5.912	92.00	215.10	5,245.21	(798.94)	(378.24)	883.95	882.99	1.06	0.88	(0.59)
96	5.945	92.60	214.60	5,243.88	(826.00)	(397.08)	916.48	915.73	2.37	1.82	(1.52)
97	6.005	93.50	214.50	5,240.69	(875.34)	(431.06)	975.72	975.25	1.51	1.50	(0.17)
98	6.067	93.30	213.80	5,237.01	(926.56)	(465.80)	1,037.06	1,036.78	1.17	(0.32)	(1.13)
99	6.090	93.00	213.30	5,235.75	(945.70)	(478.49)	1,059.86	1,059.64	2.53	(1.30)	(2.17)
100	6.100	92.87	213.08	5,235.24	(954.06)	(483.96)	1,069.79	1,069.59	2.55	(1.30)	(2.20)
101	6.110	92.74	212.86	5,234.75	(962.44)	(489.39)	1,079.72	1,079.54	2.55	(1.30)	(2.20)