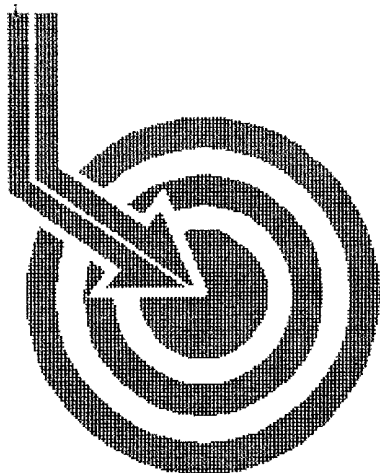


Survey - 2832

30 015 373 31



Scientific Drilling

OCCIDENTAL PERMIAN LTD.

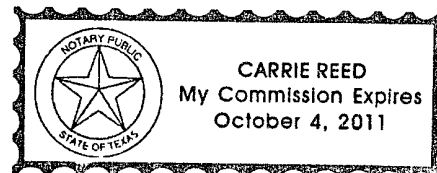
Field: Laguna Salado Bone Spring, S.
Site: Eddy County, NM
Well: Cypress 28 Federal #2H
Wellpath: VH - Job #32K0210123
Survey: 02/21/10

This survey is correct to the best of my knowledge and is supported by actual field data.

Company Representative

Notarized this date 11th of March, 2010.

Notary Signature
County of Midland
State of Texas





Scientific Drilling International, Inc.

Survey Report

Company: OCCIDENTAL PERMIAN LTD. **Date:** 2/28/2010 **Time:** 19:05:49 **Page:** 1
Field: Laguna Salado Bone Sprintg, S. **Co-ordinate(NE) Reference:** Site: Eddy County, NM, Grid North
Site: Eddy County, NM **Vertical (TVD) Reference:** SITE 0.0
Well: Cypress 28 Federal #2H **Section (VS) Reference:** Well (0.00N,0.00E,86.99Azi)
Wellpath: VH Job #32K0210123 **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

Survey: 02/21/10 **Start Date:** 2/21/2010
Company: Scientific Drilling Internatio **Engineer:** Melendez w/Renegade
Tool: Keeper, Keeper Surface Readout **Tied-to:** From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClSD ft	ClSA deg
0.0	0.00	359.82	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.26	35.38	100.0	0.1	0.2	0.1	0.26	0.2	35.38
200.0	0.08	104.26	200.0	0.3	0.4	0.3	0.24	0.5	43.12
300.0	0.51	159.79	300.0	0.5	-0.1	0.6	0.47	0.6	98.46
400.0	0.42	177.44	400.0	0.7	-0.9	0.7	0.17	1.1	140.18
500.0	0.64	183.33	500.0	0.6	-1.8	0.7	0.23	1.9	158.47
600.0	0.67	186.28	600.0	0.5	-2.9	0.6	0.05	3.0	168.24
700.0	0.84	190.88	700.0	0.2	-4.2	0.4	0.18	4.2	174.50
800.0	1.00	188.63	800.0	-0.2	-5.8	0.1	0.16	5.8	178.64
900.0	1.28	199.07	899.9	-0.8	-7.7	-0.4	0.35	7.7	182.65
1000.0	1.37	195.79	999.9	-1.6	-9.9	-1.0	0.12	10.0	186.02
1100.0	1.33	190.71	1099.9	-2.2	-12.2	-1.6	0.13	12.3	187.41
1200.0	1.32	179.45	1199.9	-2.6	-14.5	-1.8	0.26	14.6	187.04
1300.0	1.40	174.39	1299.8	-2.5	-16.9	-1.7	0.14	17.0	185.63
1400.0	1.15	188.12	1399.8	-2.7	-19.1	-1.7	0.39	19.2	185.04
1500.0	1.10	202.40	1499.8	-3.3	-21.0	-2.2	0.28	21.1	185.97
1600.0	1.12	202.38	1599.8	-4.1	-22.8	-2.9	0.02	23.0	187.34
1700.0	1.01	200.04	1699.8	-4.9	-24.5	-3.6	0.12	24.8	188.37
1800.0	1.08	200.33	1799.7	-5.6	-26.2	-4.2	0.07	26.6	189.18
1900.0	1.02	212.92	1899.7	-6.5	-27.8	-5.0	0.24	28.3	190.27
2000.0	1.19	209.16	1999.7	-7.6	-29.5	-6.0	0.18	30.1	191.56
2100.0	1.44	188.34	2099.7	-8.4	-31.6	-6.7	0.54	32.4	192.00
2200.0	1.83	165.97	2199.6	-8.3	-34.4	-6.5	0.74	35.0	190.72
2300.0	2.19	167.03	2299.6	-7.7	-37.8	-5.7	0.36	38.3	188.57
2400.0	2.45	161.26	2399.5	-6.8	-41.7	-4.6	0.35	42.0	186.27
2500.0	2.66	152.49	2499.4	-5.2	-45.8	-2.8	0.44	45.9	183.53
2600.0	2.86	146.65	2599.3	-3.0	-50.0	-0.4	0.34	50.0	180.44
2700.0	3.20	150.62	2699.1	-0.5	-54.5	2.4	0.40	54.5	177.52
2800.0	3.14	149.83	2799.0	2.0	-59.3	5.1	0.07	59.5	175.08
2832.0	2.80	151.81	2830.9	2.7	-60.7	5.9	1.11	61.0	174.44



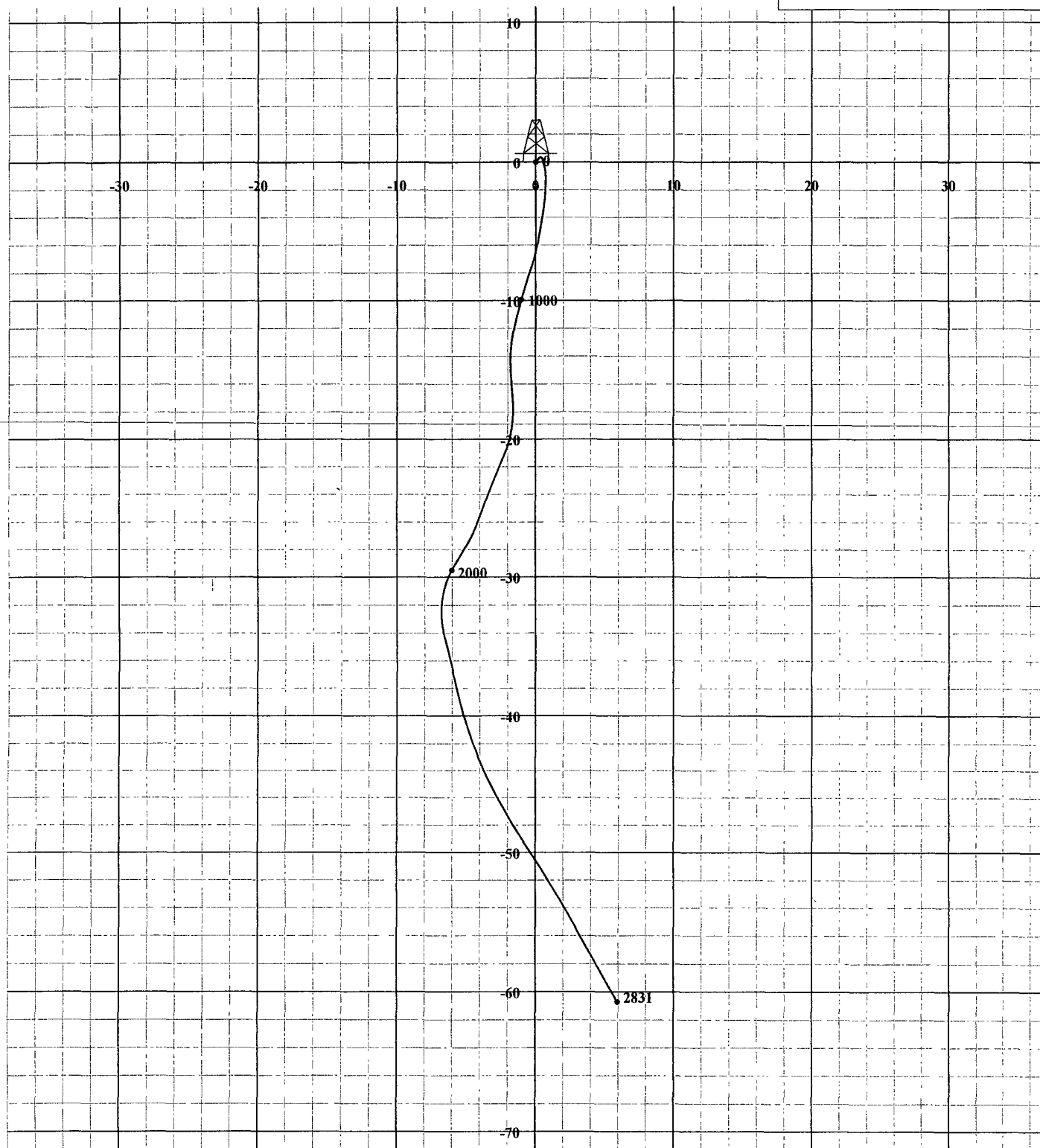
Scientific
Drilling

Field: Laguna Salado Bone Sprintg, S.
Site: Eddy County, NM
Well: Cypress 28 Federal #2H
Survey: 02/21/10



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°
Magnetic Field
Dip Angle: 0.00°
Date: 2/28/2010
Model: igrf2000

South(-)/North(+) [10ft/in]



West(-)/East(+) [10ft/in]



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

Page 1 of 8



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Lairgilg
Scale	0.999922	Report Generated	3/15/2010 at 10:25:19 AM
Convergence at slot	0.18° East	Database/Source file	WA_Houston/No. 2H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	604188.10	463378.60	32°16'24.581"N	103°59'46.440"W
Facility Reference Pt			604188.10	463378.60	32°16'24.581"N	103°59'46.440"W
Field Reference Pt			604188.10	463378.60	32°16'24.581"N	103°59'46.440"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2H SHL (RT) to GL	24.00ft
Horizontal Reference Pt	Slot	Rig on No. 2H SHL (RT) to Mean Sea Level	3053.00ft
Vertical Reference Pt	Rig on No. 2H SHL (RT)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 2H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	86.99°



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

Page 2 of 8



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

WELLPATH DATA (154 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
0.00	0.000	35.380	0.00	0.00	0.00	0.00	604188.10	463378.60	32°16'24.581"N	103°59'46.440"W	0.00	0.000	0.00
100.00	0.260	35.380	100.00	0.14	0.18	0.13	604188.23	463378.78	32°16'24.583"N	103°59'46.438"W	0.23	35.380	0.26
200.00	0.080	104.260	200.00	0.35	0.35	0.33	604188.43	463378.95	32°16'24.584"N	103°59'46.436"W	0.48	43.123	0.24
300.00	0.510	159.790	300.00	0.55	-0.08	0.55	604188.65	463378.52	32°16'24.580"N	103°59'46.434"W	0.56	98.459	0.47
400.00	0.420	177.440	399.99	0.68	-0.37	0.72	604188.82	463377.73	32°16'24.572"N	103°59'46.432"W	1.13	140.180	0.17
500.00	0.640	183.330	499.99	0.61	-1.79	0.71	604188.81	463376.81	32°16'24.563"N	103°59'46.432"W	1.92	158.474	0.23
600.00	0.670	186.280	599.98	0.45	-2.93	0.61	604188.71	463375.67	32°16'24.552"N	103°59'46.433"W	2.99	168.243	0.05
700.00	0.840	190.880	699.97	0.18	-4.23	0.41	604188.51	463374.37	32°16'24.539"N	103°59'46.435"W	4.25	174.501	0.18
800.00	1.000	188.630	799.96	-0.17	-5.81	0.14	604188.24	463372.79	32°16'24.523"N	103°59'46.439"W	5.81	178.641	0.16
900.00	1.280	199.070	899.94	-0.76	-7.73	-0.36	604187.74	463370.87	32°16'24.504"N	103°59'46.444"W	7.74	182.652	0.35
1000.00	1.370	195.790	999.92	-1.57	-9.94	-1.05	604187.05	463368.66	32°16'24.483"N	103°59'46.453"W	9.99	186.022	0.12
1100.00	1.330	190.710	1099.89	-2.23	-12.23	-1.59	604186.51	463366.37	32°16'24.460"N	103°59'46.459"W	12.33	187.406	0.13
1200.00	1.320	179.450	1199.86	-2.55	-14.52	-1.79	604186.31	463364.08	32°16'24.437"N	103°59'46.461"W	14.63	187.043	0.26
1300.00	1.400	174.390	1299.83	-2.55	-16.89	-1.66	604186.44	463361.71	32°16'24.414"N	103°59'46.460"W	16.97	185.626	0.14
1400.00	1.150	188.120	1399.81	-2.69	-19.10	-1.69	604186.41	463359.51	32°16'24.392"N	103°59'46.460"W	19.17	185.045	0.39
1500.00	1.100	202.400	1499.79	-3.29	-20.98	-2.19	604185.91	463357.63	32°16'24.373"N	103°59'46.466"W	21.09	185.969	0.28
1600.00	1.120	202.380	1599.77	-4.12	-22.77	-2.93	604185.17	463355.83	32°16'24.356"N	103°59'46.475"W	22.96	187.336	0.02
1700.00	1.010	200.040	1699.75	-4.89	-24.50	-3.61	604184.50	463354.10	32°16'24.339"N	103°59'46.483"W	24.76	188.371	0.12
1800.00	1.080	200.330	1799.74	-5.61	-26.21	-4.23	604183.87	463352.39	32°16'24.322"N	103°59'46.490"W	26.55	189.177	0.07
1900.00	1.020	212.920	1899.72	-6.50	-27.84	-5.05	604183.05	463350.76	32°16'24.306"N	103°59'46.500"W	28.30	190.272	0.24
2000.00	1.190	209.160	1999.70	-7.58	-29.50	-6.04	604182.07	463349.11	32°16'24.289"N	103°59'46.511"W	30.11	191.564	0.18
2100.00	1.440	188.340	2099.68	-8.38	-31.65	-6.72	604181.38	463346.96	32°16'24.268"N	103°59'46.519"W	32.35	191.995	0.54
2200.00	1.830	165.970	2199.64	-8.32	-34.44	-6.52	604181.58	463344.16	32°16'24.240"N	103°59'46.517"W	35.05	190.719	0.74
2300.00	2.190	167.030	2299.57	-7.68	-37.85	-5.70	604182.40	463340.75	32°16'24.207"N	103°59'46.508"W	38.28	188.569	0.36
2400.00	2.450	161.260	2399.49	-6.77	-41.74	-4.59	604183.51	463336.87	32°16'24.168"N	103°59'46.495"W	41.99	186.273	0.35
2500.00	2.660	152.490	2499.39	-5.23	-45.82	-2.83	604185.27	463332.79	32°16'24.128"N	103°59'46.475"W	45.90	183.533	0.44
2600.00	2.860	146.650	2599.28	-3.01	-49.96	-0.39	604187.71	463328.64	32°16'24.087"N	103°59'46.446"W	49.96	180.442	0.34
2700.00	3.200	150.620	2699.14	-0.51	-54.48	2.36	604190.46	463324.13	32°16'24.042"N	103°59'46.415"W	54.53	177.524	0.40
2800.00	3.140	149.830	2798.98	1.98	-59.28	5.10	604193.20	463319.33	32°16'23.994"N	103°59'46.383"W	59.49	175.081	0.07
2832.00	2.800	151.810	2830.94	2.71	-60.72	5.91	604194.01	463317.88	32°16'23.980"N	103°59'46.375"W	61.01	174.440	1.11



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

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REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

WELLPATH DATA (154 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
2963.00	2.500	159.500	2961.80	4.93	-66.22	8.42	604196.52	463312.39	32°16'23.925"N	103°59'46.344"W	66.75	172.751	0.35
3057.00	2.500	229.500	3055.73	3.92	-69.47	7.58	604195.68	463309.13	32°16'23.893"N	103°59'46.354"W	69.88	173.772	3.05
3156.00	2.500	148.000	3154.66	3.25	-72.70	7.08	604195.18	463305.90	32°16'23.861"N	103°59'46.360"W	73.05	174.435	3.30
3251.00	2.250	158.500	3249.58	4.85	-76.20	8.87	604196.96	463302.41	32°16'23.827"N	103°59'46.340"W	76.71	173.364	0.53
3344.00	2.250	154.500	3342.51	6.13	-79.54	10.32	604198.42	463299.06	32°16'23.793"N	103°59'46.323"W	80.21	172.607	0.17
3437.00	2.330	161.230	3435.44	7.34	-82.98	11.71	604199.81	463295.63	32°16'23.759"N	103°59'46.307"W	83.80	171.965	0.30
3531.00	2.790	157.020	3529.34	8.64	-86.90	13.22	604201.32	463291.71	32°16'23.721"N	103°59'46.289"W	87.90	171.348	0.53
3626.00	2.590	156.040	3624.24	10.20	-90.99	15.00	604203.10	463287.62	32°16'23.680"N	103°59'46.269"W	92.21	170.640	0.22
3720.00	2.760	157.050	3718.14	11.73	-95.01	16.74	604204.84	463283.60	32°16'23.640"N	103°59'46.249"W	96.48	170.007	0.19
3814.00	2.550	158.840	3812.04	13.15	-99.05	18.38	604206.48	463279.56	32°16'23.600"N	103°59'46.230"W	100.74	169.488	0.24
3908.00	2.400	156.820	3905.95	14.48	-102.80	19.91	604208.01	463275.80	32°16'23.563"N	103°59'46.212"W	104.71	169.040	0.18
4002.00	2.480	155.220	3999.86	15.91	-106.46	21.54	604209.63	463272.15	32°16'23.527"N	103°59'46.193"W	108.62	168.564	0.11
4096.00	2.700	156.860	4093.77	17.43	-110.34	23.26	604211.36	463268.27	32°16'23.488"N	103°59'46.173"W	112.77	168.097	0.25
4190.00	2.800	156.950	4187.66	18.98	-114.49	25.03	604213.13	463264.12	32°16'23.447"N	103°59'46.153"W	117.20	167.669	0.11
4284.00	2.710	157.850	4281.55	20.49	-118.66	26.76	604214.86	463259.95	32°16'23.406"N	103°59'46.133"W	121.64	167.290	0.11
4378.00	2.580	155.060	4375.45	22.01	-122.64	28.49	604216.59	463255.97	32°16'23.366"N	103°59'46.113"W	125.91	166.920	0.19
4472.00	2.730	153.260	4469.35	23.70	-126.56	30.39	604218.49	463252.05	32°16'23.328"N	103°59'46.091"W	130.16	166.496	0.18
4566.00	2.760	154.680	4563.24	25.46	-130.60	32.37	604220.47	463248.01	32°16'23.288"N	103°59'46.068"W	134.55	166.080	0.08
4660.00	2.920	158.060	4657.12	27.10	-134.87	34.23	604222.33	463243.74	32°16'23.245"N	103°59'46.046"W	139.14	165.758	0.25
4754.00	2.940	160.230	4751.00	28.57	-139.36	35.94	604224.04	463239.25	32°16'23.201"N	103°59'46.027"W	143.92	165.538	0.12
4848.00	2.840	162.250	4844.88	29.86	-143.84	37.47	604225.56	463234.77	32°16'23.156"N	103°59'46.009"W	148.64	165.401	0.15
4942.00	2.620	163.470	4938.78	30.95	-148.12	38.79	604226.88	463230.49	32°16'23.114"N	103°59'45.994"W	153.12	165.326	0.24
5037.00	2.550	159.970	5033.68	32.08	-152.19	40.13	604228.23	463226.42	32°16'23.074"N	103°59'45.978"W	157.39	165.228	0.18
5131.00	2.690	159.900	5127.58	33.34	-156.22	41.60	604229.70	463222.39	32°16'23.034"N	103°59'45.961"W	161.67	165.088	0.15
5225.00	2.940	162.220	5221.47	34.60	-160.59	43.10	604231.19	463218.02	32°16'22.990"N	103°59'45.944"W	166.27	164.978	0.29
5319.00	2.870	161.880	5315.35	35.83	-165.12	44.57	604232.66	463213.49	32°16'22.946"N	103°59'45.927"W	171.03	164.896	0.08
5413.00	2.860	166.640	5409.23	36.86	-169.64	45.84	604233.94	463208.97	32°16'22.901"N	103°59'45.912"W	175.73	164.879	0.25
5504.00	2.580	170.000	5500.13	37.52	-173.87	46.72	604234.82	463204.75	32°16'22.859"N	103°59'45.902"W	180.04	164.959	0.35
5601.00	3.220	237.630	5597.03	35.41	-177.48	44.80	604232.89	463201.14	32°16'22.823"N	103°59'45.925"W	183.04	165.834	3.37
5695.00	2.910	136.120	5690.94	32.26	-176.71	41.60	604229.70	463201.91	32°16'22.831"N	103°59'45.962"W	181.54	166.753	4.94



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
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WELLPATH DATA (154 stations)

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5789.00	4.330	30.810	5784.78	33.38	-171.48	42.45	604230.55	463207.14	32°16'22.883"N	103°59'45.952"W	176.65	166.095	3.78
5882.00	5.560	49.550	5877.44	38.91	-165.54	47.68	604235.77	463213.07	32°16'22.941"N	103°59'45.891"W	172.27	163.932	2.17
5976.00	5.320	52.400	5971.01	46.12	-159.93	54.60	604242.69	463218.69	32°16'22.997"N	103°59'45.810"W	168.99	161.151	0.38
6070.00	5.260	87.500	6064.64	54.02	-157.08	62.36	604250.45	463221.54	32°16'23.025"N	103°59'45.720"W	169.00	158.348	3.39
6164.00	5.230	58.290	6158.26	62.08	-154.64	70.31	604258.40	463229.98	32°16'23.048"N	103°59'45.627"W	169.87	155.551	2.81
6258.00	5.110	56.790	6251.88	69.46	-150.09	77.45	604265.55	463228.52	32°16'23.093"N	103°59'45.543"W	168.90	152.704	0.19
6352.00	5.360	54.870	6345.49	76.80	-145.27	84.55	604272.64	463233.34	32°16'23.141"N	103°59'45.461"W	168.08	149.801	0.32
6384.00	5.360	54.760	6377.35	79.33	-143.55	86.99	604275.08	463235.06	32°16'23.158"N	103°59'45.432"W	167.85	148.785	0.03
6415.00	6.430	56.010	6408.18	82.04	-141.74	89.61	604277.70	463236.87	32°16'23.175"N	103°59'45.402"W	167.70	147.699	3.48
6446.00	7.430	61.030	6438.96	85.33	-139.80	92.80	604280.90	463238.81	32°16'23.195"N	103°59'45.364"W	167.80	146.423	3.77
6478.00	8.580	62.770	6470.64	89.37	-137.71	96.74	604284.83	463240.90	32°16'23.215"N	103°59'45.318"W	168.29	144.913	3.67
6509.00	9.790	65.120	6501.25	93.92	-135.54	101.19	604289.28	463243.07	32°16'23.236"N	103°59'45.267"W	169.15	143.258	4.09
6540.00	10.680	64.150	6531.75	99.02	-133.18	106.16	604294.25	463245.43	32°16'23.260"N	103°59'45.208"W	170.32	141.441	2.92
6572.00	11.240	66.000	6563.17	104.66	-130.62	111.68	604299.77	463247.99	32°16'23.285"N	103°59'45.144"W	171.85	139.470	2.07
6603.00	11.520	65.250	6595.56	110.36	-128.09	117.25	604305.34	463250.52	32°16'23.310"N	103°59'45.079"W	173.65	137.531	1.02
6635.00	11.860	64.150	6624.89	116.36	-125.32	123.11	604311.20	463253.29	32°16'23.337"N	103°59'45.011"W	175.68	135.510	1.27
6666.00	11.870	65.060	6655.23	122.25	-122.59	128.87	604316.96	463256.02	32°16'23.364"N	103°59'44.944"W	177.86	133.570	0.60
6697.00	12.020	66.680	6685.56	128.23	-119.97	134.72	604322.81	463258.64	32°16'23.390"N	103°59'44.875"W	180.40	131.684	1.18
6729.00	12.680	67.160	6716.82	134.66	-117.29	141.02	604329.11	463261.32	32°16'23.416"N	103°59'44.802"W	183.42	129.750	2.09
6760.00	13.220	66.320	6747.03	141.18	-114.54	147.40	604335.49	463264.07	32°16'23.443"N	103°59'44.727"W	186.67	127.849	1.84
6791.00	13.970	67.240	6777.16	148.02	-111.67	154.10	604342.19	463266.94	32°16'23.471"N	103°59'44.649"W	190.31	125.929	2.52
6823.00	14.510	66.170	6808.18	155.40	-108.56	161.33	604349.42	463270.05	32°16'23.502"N	103°59'44.565"W	194.45	123.936	1.88
6862.00	14.810	65.250	6845.91	164.60	-104.49	170.32	604358.41	463274.11	32°16'23.542"N	103°59'44.460"W	199.82	121.529	0.97
6885.00	14.810	64.830	6868.15	170.05	-102.01	175.65	604363.74	463276.59	32°16'23.566"N	103°59'44.398"W	203.13	120.147	0.47
6917.00	14.740	64.720	6899.09	177.61	-98.54	183.04	604371.12	463280.07	32°16'23.600"N	103°59'44.312"W	207.87	118.295	0.24
6948.00	15.170	63.700	6929.04	184.98	-95.05	190.24	604378.32	463283.55	32°16'23.634"N	103°59'44.228"W	212.66	116.549	1.63
6979.00	15.850	63.210	6958.91	192.58	-91.35	197.65	604385.74	463287.26	32°16'23.671"N	103°59'44.141"W	217.74	114.805	2.23
7011.00	16.980	64.030	6989.60	200.88	-87.33	205.76	604393.84	463291.27	32°16'23.710"N	103°59'44.047"W	223.52	112.999	3.60
7042.00	17.380	66.070	7019.22	209.38	-83.47	214.06	604402.14	463295.13	32°16'23.748"N	103°59'43.950"W	229.76	111.304	2.33
7074.00	17.490	66.060	7049.75	218.53	-79.58	222.82	604410.90	463299.02	32°16'23.786"N	103°59'43.848"W	236.61	109.655	0.34



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

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REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

WELLPATH DATA (154 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
7105.00	17.730	67.910	7079.30	227.14	-75.92	231.45	604419.53	463302.69	32°16'23.822"N	103°59'43.747"W	243.59	108.160	1.96
7137.00	18.550	69.800	7109.71	236.61	-72.33	240.75	604428.83	463306.28	32°16'23.858"N	103°59'43.639"W	251.38	106.722	3.15
7168.00	19.600	71.910	7139.01	246.34	-69.01	250.32	604438.40	463309.59	32°16'23.890"N	103°59'43.527"W	259.65	105.413	4.05
7199.00	20.570	72.790	7168.12	256.64	-65.78	260.46	604448.54	463312.82	32°16'23.922"N	103°59'43.409"W	268.64	104.175	3.28
7231.00	21.870	73.500	7197.95	267.89	-62.43	271.55	604459.62	463316.18	32°16'23.955"N	103°59'43.280"W	278.63	102.947	4.14
7251.00	22.300	73.100	7216.48	275.20	-60.27	278.75	604466.83	463318.34	32°16'23.976"N	103°59'43.196"W	285.19	102.200	2.28
7281.00	23.590	73.220	7244.11	286.55	-56.88	289.94	604478.02	463321.72	32°16'24.009"N	103°59'43.065"W	295.47	101.099	4.30
7312.00	24.720	75.020	7272.39	298.92	-53.41	302.14	604490.22	463325.19	32°16'24.043"N	103°59'42.923"W	306.83	100.025	4.35
7344.00	26.500	76.240	7301.25	312.48	-49.99	315.54	604503.62	463328.62	32°16'24.076"N	103°59'42.767"W	319.48	99.002	5.80
7375.00	28.880	77.410	7328.70	326.66	-46.71	329.57	604517.64	463331.90	32°16'24.108"N	103°59'42.603"W	332.86	98.067	7.87
7408.00	30.110	78.990	7357.42	342.71	-43.39	345.47	604533.54	463335.21	32°16'24.141"N	103°59'42.418"W	348.19	97.159	4.41
7438.00	30.950	81.070	7383.26	357.84	-40.76	360.48	604548.55	463337.85	32°16'24.166"N	103°59'42.243"W	362.78	96.450	4.50
7469.00	32.020	82.390	7409.70	373.96	-38.43	376.50	604564.57	463340.17	32°16'24.189"N	103°59'42.056"W	378.46	95.828	4.11
7500.00	33.960	84.240	7435.70	390.80	-36.47	393.26	604581.33	463342.13	32°16'24.208"N	103°59'41.861"W	394.95	95.299	7.05
7531.00	36.050	85.450	7461.09	408.57	-34.88	410.97	604599.04	463343.72	32°16'24.223"N	103°59'41.655"W	412.45	94.851	7.10
7563.00	37.930	87.000	7486.65	427.82	-33.62	430.18	604618.25	463344.99	32°16'24.235"N	103°59'41.431"W	431.49	94.468	6.56
7594.00	39.740	86.270	7510.80	447.26	-32.47	449.59	604637.65	463346.13	32°16'24.246"N	103°59'41.205"W	450.76	94.131	6.02
7626.00	41.510	89.070	7535.08	468.09	-31.64	470.40	604658.46	463346.97	32°16'24.253"N	103°59'40.963"W	471.46	93.848	7.94
7657.00	43.880	89.160	7557.87	489.09	-31.31	491.42	604679.48	463347.29	32°16'24.256"N	103°59'40.718"W	492.41	93.646	7.65
7688.00	48.000	88.320	7579.42	511.36	-30.82	513.68	604701.74	463347.79	32°16'24.260"N	103°59'40.458"W	514.61	93.433	13.45
7720.00	52.850	87.800	7599.80	536.01	-29.98	538.33	604726.38	463348.62	32°16'24.267"N	103°59'40.171"W	539.16	93.187	15.21
7751.00	56.930	86.990	7617.63	561.36	-28.82	563.66	604751.71	463349.78	32°16'24.278"N	103°59'39.876"W	564.39	92.927	13.33
7782.00	60.890	85.610	7633.63	587.90	-27.10	590.14	604778.19	463351.50	32°16'24.294"N	103°59'39.568"W	590.76	92.629	13.33
7814.00	63.540	84.720	7648.55	616.19	-24.71	618.35	604806.40	463353.89	32°16'24.317"N	103°59'39.239"W	618.84	92.289	8.64
7845.00	66.270	84.400	7661.69	644.24	-22.05	646.29	604834.34	463356.53	32°16'24.343"N	103°59'38.914"W	646.67	91.954	8.86
7876.00	69.030	85.160	7673.48	672.89	-19.44	674.84	604862.89	463359.16	32°16'24.367"N	103°59'38.581"W	675.12	91.650	9.19
7908.00	72.200	85.950	7684.10	703.06	-17.11	704.93	604892.98	463361.49	32°16'24.390"N	103°59'38.231"W	705.14	91.390	10.18
7939.00	75.370	85.740	7692.76	732.82	-14.95	734.62	604922.66	463363.65	32°16'24.410"N	103°59'37.885"W	734.77	91.166	10.25
7971.00	77.770	83.950	7700.19	763.92	-12.15	765.61	604953.65	463366.45	32°16'24.437"N	103°59'37.524"W	765.71	90.909	9.27
8004.00	80.460	82.220	7706.42	796.24	-8.25	797.78	604985.81	463370.35	32°16'24.474"N	103°59'37.149"W	797.82	90.592	9.64



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

WELLPATH DATA (154 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
8035.00	81.790	82.030	7711.20	826.76	-4.05	828.12	605016.15	463374.55	32°16'24.515"N	103°59'36.795"W	828.13	90.280	4.33
8066.00	83.690	82.530	7715.12	857.41	0.08	858.59	605046.62	463378.68	32°16'24.555"N	103°59'36.440"W	858.59	89.995	6.33
8098.00	85.180	83.300	7718.22	889.17	4.01	890.19	605078.22	463382.61	32°16'24.593"N	103°59'36.072"W	890.20	89.742	5.24
8129.00	86.400	83.760	7720.50	920.03	7.49	920.91	605108.94	463386.09	32°16'24.626"N	103°59'35.714"W	920.94	89.534	4.20
8160.00	86.730	83.740	7722.36	950.93	10.86	951.67	605139.70	463389.46	32°16'24.659"N	103°59'35.356"W	951.73	89.346	1.07
8192.00	86.880	83.820	7724.14	982.83	14.32	983.43	605171.46	463392.92	32°16'24.692"N	103°59'34.986"W	983.54	89.166	0.53
8223.00	86.940	83.730	7725.81	1013.73	17.68	1014.21	605202.23	463396.28	32°16'24.724"N	103°59'34.627"W	1014.36	89.001	0.35
8254.00	87.140	83.590	7727.41	1044.64	21.10	1044.98	605232.99	463399.69	32°16'24.757"N	103°59'34.269"W	1045.19	88.843	0.79
8286.00	86.760	83.760	7729.12	1076.54	24.62	1076.74	605264.75	463403.21	32°16'24.791"N	103°59'33.899"W	1077.02	88.690	1.30
8317.00	86.460	83.670	7730.95	1107.44	28.00	1107.50	605295.51	463406.60	32°16'24.823"N	103°59'33.540"W	1107.85	88.552	1.01
8349.00	86.390	84.010	7732.94	1139.33	31.43	1139.25	605327.26	463410.03	32°16'24.856"N	103°59'33.170"W	1139.68	88.420	1.08
8380.00	86.670	83.940	7734.82	1170.23	34.68	1170.02	605358.03	463413.28	32°16'24.887"N	103°59'32.812"W	1170.54	88.302	0.93
8411.00	86.550	83.970	7736.65	1201.13	37.94	1200.80	605388.80	463416.53	32°16'24.919"N	103°59'32.453"W	1201.39	88.190	0.40
8443.00	86.390	84.170	7738.62	1233.03	41.24	1232.56	605420.56	463419.83	32°16'24.950"N	103°59'32.083"W	1233.25	88.084	0.80
8474.00	86.510	84.150	7740.54	1263.93	44.39	1263.34	605451.34	463422.98	32°16'24.981"N	103°59'31.725"W	1264.12	87.988	0.39
8505.00	86.360	83.920	7742.47	1294.83	47.60	1294.12	605482.11	463426.20	32°16'25.011"N	103°59'31.366"W	1294.99	87.893	0.88
8599.00	87.570	85.220	7747.45	1388.61	56.48	1387.56	605575.55	463435.08	32°16'25.096"N	103°59'30.277"W	1388.71	87.669	1.89
8694.00	87.720	85.180	7751.35	1483.48	64.43	1482.15	605670.13	463443.02	32°16'25.172"N	103°59'29.176"W	1483.55	87.511	0.16
8788.00	88.430	85.440	7754.51	1577.39	72.11	1575.78	605763.75	463450.70	32°16'25.245"N	103°59'28.085"W	1577.43	87.380	0.80
8882.00	88.460	85.560	7757.06	1671.32	79.48	1669.45	605857.42	463458.07	32°16'25.315"N	103°59'26.994"W	1671.34	87.274	0.13
8976.00	88.770	85.480	7759.33	1765.27	86.82	1763.14	605951.10	463465.41	32°16'25.385"N	103°59'25.902"W	1765.28	87.181	0.34
9070.00	89.010	85.470	7761.15	1859.21	94.23	1856.83	606044.78	463472.83	32°16'25.455"N	103°59'24.811"W	1859.22	87.095	0.26
9164.00	88.460	85.950	7763.23	1953.17	101.26	1950.54	606138.48	463479.86	32°16'25.522"N	103°59'23.719"W	1953.17	87.028	0.78
9258.00	88.340	86.750	7765.85	2047.12	107.25	2044.31	606232.25	463485.84	32°16'25.578"N	103°59'22.627"W	2047.12	86.997	0.86
9353.00	88.490	86.880	7768.48	2142.09	112.52	2139.13	606327.06	463491.11	32°16'25.627"N	103°59'21.522"W	2142.09	86.989	0.21
9447.00	88.640	86.710	7770.83	2236.06	117.78	2232.95	606420.87	463496.37	32°16'25.676"N	103°59'20.429"W	2236.06	86.981	0.24
9541.00	88.920	86.610	7772.84	2330.03	123.25	2326.77	606514.69	463501.84	32°16'25.727"N	103°59'19.336"W	2330.03	86.968	0.32
9635.00	88.800	87.130	7774.71	2424.02	128.38	2420.61	606608.52	463506.97	32°16'25.775"N	103°59'18.243"W	2424.02	86.964	0.57
9729.00	88.740	86.850	7776.72	2517.99	133.32	2514.46	606702.36	463511.91	32°16'25.821"N	103°59'17.150"W	2517.99	86.965	0.30
9823.00	88.180	87.450	7779.25	2611.96	137.99	2608.31	606796.20	463516.58	32°16'25.864"N	103°59'16.057"W	2611.96	86.972	0.87



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

WELLPATH DATA (154 stations)													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
9917.00	89.010	87.480	7781.55	2705.93	142.15	2702.19	606890.07	463520.73	32°16'25.902"N	103°59'14.963"W	2705.93	86.989	0.88
10011.00	89.380	87.470	7782.88	2799.91	146.29	2796.09	606983.96	463524.87	32°16'25.940"N	103°59'13.869"W	2799.91	87.005	0.39
10105.00	89.690	87.450	7783.64	2893.91	150.45	2889.99	607077.86	463529.04	32°16'25.979"N	103°59'12.776"W	2893.91	87.020	0.33
10272.00	89.690	87.450	7784.54	3060.90	157.88	3056.83	607244.68	463536.47	32°16'26.047"N	103°59'10.832"W	3060.90	87.043	0.00

HOLE & CASING SECTIONS Ref Wellbore: No. 2H AWB Ref Wellpath: Gyro/MWD Surveys 100'-10272'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing	0.00	2922.00	2922.00	0.00	2920.84	0.00	0.00	-64.53	7.75



Actual Wellpath Report

Gyro/MWD Surveys 100'-10272'

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	OXY USA INC.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Cypress) Sec 28, T23S, R29E	Wellbore	No. 2H AWB
Facility	Cypress 28 Fed No. 2H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1500		7756.00	78.82	1497.93	605685.91	463457.41	32°16'25.314"N	103°59'28.991"W	point
2000		7765.00	105.09	1997.24	606185.18	463483.68	32°16'25.558"N	103°59'23.175"W	point
2500		7773.00	133.99	2546.48	606734.37	463512.58	32°16'25.827"N	103°59'16.777"W	point
No. 2H PBHL (rev3)		7783.00	163.00	3097.75	607285.60	463541.58	32°16'26.096"N	103°59'10.355"W	point

WELLPATH COMPOSITION

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	2832.00	Generic gyro - northseeking (Standard)	Gyro Surveys 100'-2832'	No. 2H AWB
2832.00	3344.00	ISCWSA MWD, Rev. 0 (Standard)	Weatherford AMS 6.5" (2832') 2963'-3344'	No. 2H AWB
3344.00	10105.00	NaviTrak (Standard)	BHI MWD (ATK XP) 8-1/2" Hole (3344') 3437'-10105' Proj: 10272'	No. 2H AWB
10105.00	10272.00	Blind Drilling (std)	Projection to bit	No. 2H AWB