

Survey Report: Survey (0)

Operator	R360 Environmental Solutions			Northing	565676.200		Date	3-Dec-15		
Dir. Co.	M3P Directional			Easting	718199.160		System	2 - St. Plane		
Well Name	Survey (0)			Elevation	3560.00		Datum	1983 - NAD83		
Location	Lea Co. NM.			Latitude	32.553790		Zone	3001 - New Mexico East		
Rig	Precision #593			Longitude	103.759317		Scale Fac.			
Job	2015019			Units	Feet		Converg.			
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@0°	BR	TR	DLS	
1897.8	1.14	36.99	1897.73	-6.1	3.49	-6.1	0	0	0	
1897.8: Tie-in From Gyro										
1981	1.1	28.2	1980.91	-4.74	4.37	-4.74	-0.05	-10.57	0.21	
2002	0.5	29	2001.91	-4.48	4.51	-4.48	-2.86	3.81	2.86	
2037	0.2	265.6	2036.91	-4.35	4.52	-4.35	-0.86	676	1.81	
2082	0.4	146.9	2081.91	-4.49	4.53	-4.49	0.44	-263.78	1.17	
2171	0.6	92.1	2170.91	-4.76	5.16	-4.76	0.22	-61.57	0.55	
2260	0.9	68.5	2259.9	-4.52	6.28	-4.52	0.34	-26.52	0.48	
2350	1	78.6	2349.89	-4.11	7.7	-4.11	0.11	11.22	0.22	
2439	0.8	85.9	2438.88	-3.91	9.09	-3.91	-0.22	8.2	0.26	
2529	1	90	2528.87	-3.87	10.5	-3.87	0.22	4.56	0.23	
2618	1.1	81.8	2617.85	-3.75	12.12	-3.75	0.11	-9.21	0.2	
2708	0.9	77.5	2707.84	-3.47	13.67	-3.47	-0.22	-4.78	0.24	
2797	0.7	85.4	2796.83	-3.27	14.89	-3.27	-0.22	8.88	0.26	
2847	0.3	84.1	2846.83	-3.24	15.32	-3.24	-0.8	-2.6	0.8	
2963	0.1	78	2962.83	-3.18	15.73	-3.18	-0.17	-5.26	0.17	
3063	0.2	353.8	3062.83	-2.99	15.79	-2.99	0.1	-84.2	0.21	
3152	0.2	321.8	3151.83	-2.72	15.68	-2.72	0	-35.96	0.12	
3241	0.3	9.4	3240.82	-2.36	15.62	-2.36	0.11	53.48	0.25	
3331	0.3	16.7	3330.82	-1.91	15.73	-1.91	0	8.11	0.04	
3420	0.1	74.7	3419.82	-1.66	15.87	-1.66	-0.22	65.17	0.29	
3510	0.4	86.8	3509.82	-1.62	16.26	-1.62	0.33	13.44	0.34	
3599	0.4	123.4	3598.82	-1.78	16.83	-1.78	0	41.12	0.28	
3688	0.5	73.3	3687.82	-1.84	17.46	-1.84	0.11	-56.29	0.44	
3778	0.2	48.3	3777.82	-1.62	17.95	-1.62	-0.33	-27.78	0.37	
3868	0.3	46.7	3867.81	-1.35	18.24	-1.35	0.11	-1.78	0.11	
3957	0.1	92.1	3956.81	-1.2	18.49	-1.2	-0.22	51.01	0.27	
4046	0.1	134.1	4045.81	-1.25	18.62	-1.25	0	47.19	0.08	
4136	0	147.2	4135.81	-1.31	18.68	-1.31	-0.11	14.56	0.11	
4225	0.1	20.2	4224.81	-1.23	18.71	-1.23	0.11	-142.7	0.11	
4315	0.2	10.1	4314.81	-1.01	18.76	-1.01	0.11	-11.22	0.11	
4404	0.3	5.2	4403.81	-0.62	18.81	-0.62	0.11	-5.51	0.11	
4493	0.4	30.7	4492.81	-0.12	18.99	-0.12	0.11	28.65	0.21	
4583	0.3	39.2	4582.81	0.33	19.3	0.33	-0.11	9.44	0.13	
4672	0.2	330	4671.81	0.65	19.37	0.65	-0.11	-77.75	0.33	
4761	0.3	13.7	4760.81	1.01	19.35	1.01	0.11	49.1	0.23	
4851	0.1	332.4	4850.81	1.31	19.37	1.31	-0.22	-45.89	0.26	
4929	0.2	275	4928.81	1.38	19.2	1.38	0.13	-73.59	0.22	
5019	0.3	334.3	5018.81	1.6	18.94	1.6	0.11	65.89	0.29	
5108	0.4	314.2	5107.8	2.03	18.62	2.03	0.11	-22.58	0.18	
5198	0.4	291	5197.8	2.36	18.1	2.36	0	-25.78	0.18	
5288	0.5	349.7	5287.8	2.86	17.73	2.86	0.11	65.22	0.5	
5377	0.6	348.1	5376.8	3.7	17.57	3.7	0.11	-1.8	0.11	
5466	0.4	358	5465.79	4.47	17.46	4.47	-0.22	11.12	0.24	
5555	0.8	324.9	5554.79	5.28	17.09	5.28	0.45	-37.19	0.58	
5645	0.8	348.6	5644.78	6.41	16.61	6.41	0	26.33	0.37	
5734	0.8	315.4	5733.77	7.47	16.05	7.47	0	-37.3	0.51	
5823	0.3	346.8	5822.77	8.14	15.56	8.14	-0.56	35.28	0.64	
5913	0.4	307.9	5912.77	8.56	15.26	8.56	0.11	-43.22	0.28	
6002	0.8	318.5	6001.76	9.21	14.6	9.21	0.45	11.91	0.46	
6092	0.7	291.5	6091.75	9.89	13.67	9.89	-0.11	-30	0.4	
6181	0.7	285.6	6180.75	10.23	12.64	10.23	0	-6.63	0.08	
6271	0.4	315.2	6270.74	10.6	11.89	10.6	-0.33	32.89	0.45	

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Operator	R360 Environmental Solutions			Northing	565676.200		Date	3-Dec-15	
Dir. Co.	M3P Directional			Easting	718199.160		System	2 - St. Plane	
Well Name	Survey (0)			Elevation	3560.00		Datum	1983 - NAD83	
Location	Lea Co. NM.			Latitude	32.553790		Zone	3001 - New Mexico East	
Rig	Precision #593			Longitude	103.759317		Scale Fac.		
Job	2015019			Units	Feet		Converg.		
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@0°	BR	TR	DLS
6360	0.5	283.5	6359.74	10.91	11.3	10.91	0.11	-35.62	0.3
6450	0.9	284.1	6449.73	11.18	10.23	11.18	0.44	0.67	0.44
6539	1	284	6538.72	11.54	8.8	11.54	0.11	-0.11	0.11
6629	0.7	304.4	6628.71	12.04	7.58	12.04	-0.33	22.67	0.47
6718	1.2	310.4	6717.7	12.95	6.42	12.95	0.56	6.74	0.57
6807	0.2	215.1	6806.69	13.42	5.62	13.42	-1.12	-107.08	1.39
6897	1	187.1	6896.69	12.52	5.44	12.52	0.89	-31.11	0.92
6986	0.9	205.3	6985.67	11.11	5.04	11.11	-0.11	20.45	0.36
7076	0.6	193.7	7075.67	10.02	4.63	10.02	-0.33	-12.89	0.37
7165	0.6	236.1	7164.66	9.3	4.13	9.3	0	47.64	0.49
7255	0.7	190.8	7254.66	8.5	3.64	8.5	0.11	-50.33	0.57
7344	0.7	215.5	7343.65	7.53	3.22	7.53	0	27.75	0.34
7433	0.3	229.3	7432.65	6.93	2.73	6.93	-0.45	15.51	0.47
7523	0.3	274.3	7522.65	6.79	2.31	6.79	0	50	0.26
7612	0.5	145.1	7611.64	6.49	2.3	6.49	0.22	-145.17	0.82
7702	0.6	156.4	7701.64	5.74	2.72	5.74	0.11	12.56	0.16
7791	0.4	195.9	7790.64	5.01	2.82	5.01	-0.22	44.38	0.43
7878	0.7	165.4	7877.63	4.21	2.87	4.21	0.34	-35.06	0.47
7968	0.4	135.5	7967.63	3.45	3.23	3.45	-0.33	-33.22	0.45
8057	0.6	147.3	8056.63	2.84	3.7	2.84	0.22	13.26	0.25
8147	1	150.5	8146.62	1.76	4.34	1.76	0.44	3.56	0.45
8236	1.2	161.1	8235.6	0.2	5.02	0.2	0.22	11.91	0.32
8325	0.4	191.7	8324.59	-0.99	5.26	-0.99	-0.9	34.38	0.99
8415	0.4	253.3	8414.59	-1.38	4.9	-1.38	0	68.44	0.46
8504	0.9	253.2	8503.58	-1.68	3.93	-1.68	0.56	-0.11	0.56
8593	0.5	256.1	8592.58	-1.97	2.88	-1.97	-0.45	3.26	0.45
8683	0.3	336	8682.57	-1.85	2.41	-1.85	-0.22	88.78	0.6
8772	0.2	136.2	8771.57	-1.75	2.42	-1.75	-0.11	-224.49	0.55
8861	0.3	83.2	8860.57	-1.83	2.76	-1.83	0.11	-59.55	0.27
8951	0.2	357.7	8950.57	-1.65	2.99	-1.65	-0.11	-95	0.39
9040	0.4	7.3	9039.57	-1.19	3.02	-1.19	0.22	10.79	0.23
9130	0.3	35.5	9129.57	-0.68	3.2	-0.68	-0.11	31.33	0.22
9220	0.6	307.2	9219.57	-0.21	2.96	-0.21	0.33	-98.11	0.74
9309	0.6	327.1	9308.56	0.47	2.33	0.47	0	22.36	0.23
9399	0.5	329.2	9398.56	1.2	1.88	1.2	-0.11	2.33	0.11
9488	0.4	359.5	9487.56	1.85	1.67	1.85	-0.11	34.04	0.29
9577	0.4	358.5	9576.55	2.47	1.66	2.47	0	-1.12	0.01
9667	0.4	33.2	9666.55	3.04	1.83	3.04	0	38.56	0.27
9756	0.1	296.2	9755.55	3.34	1.93	3.34	-0.34	-108.99	0.48
9846	0.2	88.5	9845.55	3.38	2.01	3.38	0.11	169.22	0.32
9936	0.5	49.5	9935.55	3.64	2.47	3.64	0.33	-43.33	0.41
10025	0.4	40.8	10024.55	4.12	2.97	4.12	-0.11	-9.78	0.14
10114	0.7	320.7	10113.54	4.78	2.83	4.78	0.34	-90	0.84
10204	0.9	315.2	10203.54	5.71	1.98	5.71	0.22	-6.11	0.24
10293	0.6	299.6	10292.53	6.43	1.08	6.43	-0.34	-17.53	0.4
10383	0.6	292.7	10382.52	6.85	0.24	6.85	0	-7.67	0.08
10472	0.6	235.1	10471.52	6.76	-0.57	6.76	0	-64.72	0.65
10562	0.9	205.2	10561.51	5.85	-1.26	5.85	0.33	-33.22	0.54
10651	1	200.8	10650.5	4.49	-1.83	4.49	0.11	-4.94	0.14
10740	1.1	208.1	10739.48	3.01	-2.51	3.01	0.11	8.2	0.19
10829	1.2	215.2	10828.47	1.5	-3.45	1.5	0.11	7.98	0.2
10919	1.2	209	10918.45	-0.1	-4.45	-0.1	0	-6.89	0.14
11009	1.1	198.7	11008.43	-1.74	-5.19	-1.74	-0.11	-11.44	0.25

Survey Report: Survey (0)

Operator Dir. Co. Well Name Location Rig Job	R360 Environmental Solutions			Northing Easting Elevation Latitude Longitude Units	565676.200		Date System Datum Zone Scale Fac. Converg.	3-Dec-15	
	M3P Directional				718199.160			2 - St. Plane	
	Survey (0)				3560.00			1983 - NAD83	
	Lea Co. NM.				32.553790			3001 - New Mexico East	
	Precision #593				103.759317				
	2015019				Feet				
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@0°	BR	TR	DLS
11099	0.8	166.2	11098.42	-3.17	-5.31	-3.17	-0.33	-36.11	0.67
11190	0.7	170.6	11189.41	-4.33	-5.07	-4.33	-0.11	4.84	0.13
11279	0.7	209.2	11278.4	-5.34	-5.25	-5.34	0	43.37	0.52
11370	0.9	229.5	11369.39	-6.29	-6.06	-6.29	0.22	22.31	0.38
11460	0.1	182.3	11459.39	-6.83	-6.6	-6.83	-0.89	-52.44	0.93
11550	0.3	93.1	11549.39	-6.92	-6.37	-6.92	0.22	-99.11	0.35
11640	0.1	356.1	11639.39	-6.86	-6.14	-6.86	-0.22	292.22	0.36
11730	0.4	346.9	11729.39	-6.47	-6.22	-6.47	0.33	-10.22	0.34
11820	0.5	325.1	11819.39	-5.84	-6.51	-5.84	0.11	-24.22	0.22
11909	0.5	328.6	11908.38	-5.19	-6.94	-5.19	0	3.93	0.03
11999	0.4	321.6	11998.38	-4.61	-7.34	-4.61	-0.11	-7.78	0.13
12088	0.3	342	12087.38	-4.15	-7.6	-4.15	-0.11	22.92	0.18
12178	0	356.5	12177.38	-3.92	-7.68	-3.92	-0.33	16.11	0.33
12267	0.2	20.4	12266.38	-3.78	-7.62	-3.78	0.22	26.85	0.22
12357	0.5	300	12356.38	-3.43	-7.91	-3.43	0.33	-89.33	0.56
12447	0.6	309	12446.37	-2.94	-8.61	-2.94	0.11	10	0.15
12537	0.4	299.7	12536.37	-2.49	-9.25	-2.49	-0.22	-10.33	0.24
12627	0.5	322.7	12626.37	-2.02	-9.76	-2.02	0.11	25.56	0.23
12718	0.4	5.9	12717.36	-1.39	-9.97	-1.39	-0.11	47.47	0.38
12808	0.1	90.6	12807.36	-1.08	-9.86	-1.08	-0.33	94.11	0.45
12898	0.2	33.8	12897.36	-0.95	-9.69	-0.95	0.11	-63.11	0.19
12988	0.6	32.1	12987.36	-0.42	-9.36	-0.42	0.44	-1.89	0.44
13077	0.6	50.3	13076.35	0.27	-8.75	0.27	0	20.45	0.21
13167	0.7	30.8	13166.35	1.05	-8.11	1.05	0.11	-21.67	0.27
13257	0.3	44	13256.34	1.69	-7.66	1.69	-0.44	14.67	0.46
13347	0.7	32.1	13346.34	2.33	-7.2	2.33	0.44	-13.22	0.46
13437	0.7	333.9	13436.34	3.28	-7.15	3.28	0	-64.67	0.76
13527	1.4	344.9	13526.32	4.84	-7.68	4.84	0.78	12.22	0.81
13616	1.1	10.7	13615.3	6.73	-7.81	6.73	-0.34	28.99	0.71
13706	0.6	314.7	13705.29	7.91	-7.98	7.91	-0.56	-62.22	1.01
13796	1.5	292.4	13795.27	8.69	-9.41	8.69	1	-24.78	1.08
13885	1.5	323.9	13884.25	10.08	-11.17	10.08	0	35.39	0.91
13974	0.9	309.1	13973.23	11.46	-12.4	11.46	-0.67	-16.63	0.75
14064	0.5	304.8	14063.22	12.13	-13.27	12.13	-0.44	-4.78	0.45
14151	0.6	292.5	14150.22	12.52	-14	12.52	0.11	-14.14	0.18
14241	0.7	282.7	14240.21	12.82	-14.97	12.82	0.11	-10.89	0.17
14332	0.6	275.7	14331.2	12.99	-15.99	12.99	-0.11	-7.69	0.14
14423	0.8	292.2	14422.2	13.28	-17.05	13.28	0.22	18.13	0.31
14512	1.3	294.5	14511.18	13.93	-18.55	13.93	0.56	2.58	0.56
14692	1.1	156.6	14691.16	13.19	-19.72	13.19	-0.11	-76.61	1.25
14790	0.8	178.2	14789.15	11.64	-19.32	11.64	-0.31	22.04	0.47
14885	2.1	128.6	14884.12	9.89	-17.94	9.89	1.37	-52.21	1.78
14980	2.2	127.3	14979.06	7.7	-15.13	7.7	0.11	-1.37	0.12
15074	1.3	173.4	15073.01	5.55	-13.57	5.55	-0.96	49.04	1.7
15169	0.9	185	15168	3.74	-13.51	3.74	-0.42	12.21	0.48
15264	0.6	159.6	15262.99	2.53	-13.41	2.53	-0.32	-26.74	0.46
15359	0.7	161.1	15357.98	1.51	-13.04	1.51	0.11	1.58	0.11
15454	0.4	198.1	15452.98	0.65	-12.96	0.65	-0.32	38.95	0.47
15549	0.8	205.3	15547.97	-0.27	-13.35	-0.27	0.42	7.58	0.43
15643	0.1	243.6	15641.97	-0.9	-13.7	-0.9	-0.74	40.74	0.77
15738	0.4	46	15736.97	-0.7	-13.54	-0.7	0.32	-208	0.52
15833	2.5	30.6	15831.93	1.31	-12.24	1.31	2.21	-16.21	2.23
15927	2.8	32.2	15925.83	5.02	-9.98	5.02	0.32	1.7	0.33

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Rig	Precision #593			Longitude	103.759317	Scale Fac.			
Job	2015019			Units	Feet	Converg.			
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@0°	BR	TR	DLS
16009	2.8	32.2	16007.74	8.41	-7.84	8.41	0	0	0
16009: PTB									