

4656
30-045-08920 → Howell #5
30-045-22435 → Howell M #1A

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 31 Twp 30 Rng 8

Name of Well/Wells or Pipeline Serviced HOWELL #5, HOWELL M #1A

cps 63w

Elevation 6307 Completion Date 7/12/72 Total Depth 580' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

RECEIVED

MAY 31 1991

Depths gas encountered: N/A

OIL CON. DIV. I
DIST. 3

Type & amount of coke breeze used: 10500 lbs.

Depths anodes placed: 550', 540', 530', 520', 485', 465', 455', 445', 435', 425'

Depths vent pipes placed: N/A

Vent pipe perforations: 300'

Remarks: gb #2

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG
GND BED N 2

Completion Date **7-12-72**

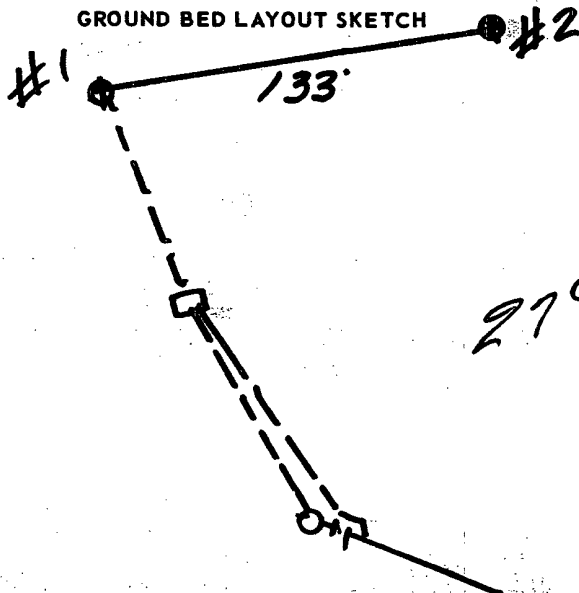
Drilling Log (Attach Hereto). ☐

Well Name Howell #5		Location SW 31-30-8		CPS No. 63W	
Type & Size Bit Used 6 3/4"				Work Order No. 1801-54237-50-20	
Anode Hole Depth 580	Total Drilling Rig Time	Total Lbs. Coke Used Est. 10,500	Lost Circulation Mat'l Used	No. Sacks Mud Used	
Anode Depth					
# 1 550	# 2 540	# 3 530	# 4 520	# 5 485	# 6 465
# 7 455	# 8 445	# 9 435	# 10 425		
Anode Output (Amps)					
# 1 2.6	# 2 2.8	# 3 4.4	# 4 3.3	# 5 4.2	# 6 4.2
# 7 4.1	# 8 3.8	# 9 3.7	# 10 3.3		
Anode Depth					
# 11	# 12	# 13	# 14	# 15	# 16
# 17	# 18	# 19	# 20		
Anode Output (Amps)					
# 11	# 12	# 13	# 14	# 15	# 16
# 17	# 18	# 19	# 20		
Total Circuit Resistance			No. 8 C.P. Cable Used		No. 2 C.P. Cable Used
Volts 11.3	Amps 14.0 A	Ohms 0.80			

Remarks: **Driller said Wet (Weak) at 425, Stop Drill at 9:00 A.M. Fill with Water to 425 & Log at 10:00 A.M. - Vent Perforated 300' Pump 320 shovels of Coke - Slurry 283**

All Construction Completed

Paul E. Daniels
(Signature)



This GND BED Condemned

Howell # 5

63 W

X = 4.0 A

SW 31 - 30N - 8 W

MW	gals/mol
16	6.4
30	9.35
44	10.42
58	12.38
72	11.93
86	13.85
100	15.30
114	16.57
128	17.2
142	17.44
156	18.38
170	19.34
184	20.4
198	21.46
212	22.52
226	23.58
240	24.64
254	25.7
268	26.76
282	27.82
296	28.88
310	29.94
324	31.0
338	32.06
352	33.12
366	34.18
380	35.24
394	36.3
408	37.36
422	38.42
436	39.48
450	40.54
464	41.6
478	42.66
492	43.72
506	44.78
520	45.84
534	46.9
548	47.96
562	49.02
576	50.08
590	51.14
604	52.2
618	53.26
632	54.32
646	55.38
660	56.44
674	57.5
688	58.56
702	59.62
716	60.68
730	61.74
744	62.8
758	63.86
772	64.92
786	65.98
800	67.04
814	68.1
828	69.16
842	70.22
856	71.28
870	72.34
884	73.4
898	74.46
912	75.52
926	76.58
940	77.64
954	78.7
968	79.76
982	80.82
996	81.88
1010	82.94
1024	84.0
1038	85.06
1052	86.12
1066	87.18
1080	88.24
1094	89.3
1108	90.36
1122	91.42
1136	92.48
1150	93.54
1164	94.6
1178	95.66
1192	96.72
1206	97.78
1220	98.84
1234	99.9
1248	100.96
1262	102.02
1276	103.08
1290	104.14
1304	105.2
1318	106.26
1332	107.32
1346	108.38
1360	109.44
1374	110.5
1388	111.56
1402	112.62
1416	113.68
1430	114.74
1444	115.8
1458	116.86
1472	117.92
1486	118.98
1500	120.04
1514	121.1
1528	122.16
1542	123.22
1556	124.28
1570	125.34
1584	126.4
1598	127.46
1612	128.52
1626	129.58
1640	130.64
1654	131.7
1668	132.76
1682	133.82
1696	134.88
1710	135.94
1724	137.0
1738	138.06
1752	139.12
1766	140.18
1780	141.24
1794	142.3
1808	143.36
1822	144.42
1836	145.48
1850	146.54
1864	147.6
1878	148.66
1892	149.72
1906	150.78
1920	151.84
1934	152.9
1948	153.96
1962	155.02
1976	156.08
1990	157.14
2004	158.2
2018	159.26
2032	160.32
2046	161.38
2060	162.44
2074	163.5
2088	164.56
2102	165.62
2116	166.68
2130	167.74
2144	168.8
2158	169.86
2172	170.92
2186	171.98
2200	173.04
2214	174.1
2228	175.16
2242	176.22
2256	177.28
2270	178.34
2284	179.4
2298	180.46
2312	181.52
2326	182.58
2340	183.64
2354	184.7
2368	185.76
2382	186.82
2396	187.88
2410	188.94
2424	190.0
2438	191.06
2452	192.12
2466	193.18
2480	194.24
2494	195.3
2508	196.36
2522	197.42
2536	198.48
2550	199.54
2564	200.6
2578	201.66
2592	202.72
2606	203.78
2620	204.84
2634	205.9
2648	206.96
2662	208.02
2676	209.08
2690	210.14
2704	211.2
2718	212.26
2732	213.32
2746	214.38
2760	215.44
2774	216.5
2788	217.56
2802	218.62
2816	219.68
2830	220.74
2844	221.8
2858	222.86
2872	223.92
2886	224.98
2900	226.04
2914	227.1
2928	228.16
2942	229.22
2956	230.28
2970	231.34
2984	232.4
2998	233.46
3012	234.52
3026	235.58
3040	236.64
3054	237.7
3068	238.76
3082	239.82
3096	240.88
3110	241.94
3124	243.0
3138	244.06
3152	245.12
3166	246.18
3180	247.24
3194	248.3
3208	249.36
3222	250.42
3236	251.48
3250	252.54
3264	253.6
3278	254.66
3292	255.72
3306	256.78
3320	257.84
3334	258.9
3348	259.96
3362	261.02
3376	262.08
3390	263.14
3404	264.2
3418	265.26
3432	266.32
3446	267.38
3460	268.44
3474	269.5
3488	270.56
3502	271.62
3516	272.68
3530	273.74
3544	274.8
3558	275.86
3572	276.92
3586	277.98
3600	279.04
3614	280.1
3628	281.16
3642	282.22
3656	283.28
3670	284.34
3684	285.4
3698	286.46
3712	287.52
3726	288.58
3740	289.64
3754	290.7
3768	291.76
3782	292.82
3796	293.88
3810	294.94
3824	296.0
3838	297.06
3852	298.12
3866	299.18
3880	300.24
3894	301.3
3908	302.36
3922	303.42
3936	304.48
3950	305.54
3964	306.6
3978	307.66
3992	308.72
4006	309.78
4020	310.84
4034	311.9
4048	312.96
4062	314.02
4076	315.08
4090	316.14
4104	317.2
4118	318.26
4132	319.32
4146	320.38
4160	321.44
4174	322.5
4188	323.56
4202	324.62
4216	325.68
4230	326.74
4244	327.8
4258	328.86
4272	329.92
4286	330.98
4300	332.04
4314	333.1
4328	334.16
4342	335.22
4356	336.28
4370	337.34
4384	338.4
4398	339.46
4412	340.52
4426	341.58
4440	342.64
4454	343.7
4468	344.76
4482	345.82
4496	346.88
4510	347.94
4524	349.0
4538	350.06
4552	351.12
4566	352.18
4580	353.24
4594	354.3
4608	355.36
4622	356.42
4636	357.48
4650	358.54
4664	359.6
4678	360.66
4692	361.72
4706	362.78
4720	363.84
4734	364.9
4748	365.96
4762	367.02
4776	368.08
4790	369.14
4804	370.2
4818	371.26
4832	372.32
4846	373.38
4860	374.44
4874	375.5
4888	376.56
4902	377.62
4916	378.68
4930	379.74
4944	380.8
4958	381.86
4972	382.92
4986	383.98
5000	385.04
5014	386.1
5028	387.16
5042	388.22
5056	389.28
5070	390.34
5084	391.4
5098	392.46
5112	393.52
5126	394.58
5140	395.64
5154	396.7
5168	397.76
5182	398.82
5196	399.88
5210	400.94
5224	402.0
5238	403.06
5252	404.12
5266	405.18
5280	406.24
5294	407.3
5308	408.36
5322	409.42
5336	410.48
5350	411.54
5364	412.6
5378	413.66
5392	414.72
5406	415.78
5420	416.84
5434	417.9
5448	418.96
5462	420.02
5476	421.08
5490	422.14
5504	423.2
5518	424.26
5532	425.32
5546	426.38
5560	427.44
5574	428.5
5588	429.56
5602	430.62
5616	431.68
5630	432.74
5644	433.8
5658	434.86
5672	435.92
5686	436.98
5700	438.04
5714	439.1
5728	440.16
5742	441.22
5756	442.28
5770	443.34
5784	444.4
5798	445.46
5812	446.52
5826	447.58
5840	448.64
5854	449.7
5868	450.76
5882	451.82
5896	452.88
5910	453.94
5924	455.0
5938	456.06
5952	457.12
5966	458.18
5980	459.24
5994	460.3
6008	461.36
6022	462.42
6036	463.48
6050	464.54
6064	465.6
6078	466.66
6092	467.72
6106	468.78
6120	469.84
6134	470.9
6148	471.96
6162	473.02
6176	474.08
6190	475.14
6204	476.2
6218	477.26
6232	478.32
6246	479.38
6260	480.44
6274	481.5
6288	482.56
6302	483.62
6316	484.68
6330	485.74
6344	486.8
6358	487.86
6372	488.92
6386	490.0
6400	491.06
6414	492.12
6428	493.18
6442	494.24
6456	495.3
6470	496.36
6484	497.42
6498	498.48
6512	499.54
6526	500.6
6540	501.66
6554	502.72
6568	503.78
6582	504.84
6596	505.9
6610	506.96
6624	508.02
6638	509.08
6652	510.14
6666	511.2
6680	512.26
6694	513.32
6708	514.38
6722	515.44
6736	516.5
6750	517.56
6764	518.62
6778	519.68
6792	520.74
6806	521.8
6820	522.86
6834	523.92
6848	524.98

EL PASO NATURAL GAS COMPANY
ENGINEERING DEPARTMENT

Sheet _____ of _____

Date: _____

BY _____

Howell #5 - 634 - 5021-52 8 2 4

Time	Depth	Temp	Pressure	Flow	Notes
4:25	2.0				Driller Fred 1401
30	1.9				Stop Drill at 9:00 AM
	2.2				Start log at 10:00
40	2.1				Full depth to 405
	2.0				Vent Port 300
50	2.0				Pump 320
	2.1				Barry 283
60	2.1				
	2.1				
70	1.9	1 550	2.0	1.7	2.6
	1.85	2 540	2.1	1.6	2.9
80	2.0	3 530	3.3	2.4	4.4
	2.2	4 520	2.0	1.6	3.3
90	1.9	5 485	2.2	1.7	4.2
	1.7	6 465	2.1	1.8	4.2
500	1.6	7 453	2.1	1.8	4.1
	1.3	8 445	2.0	1.3	3.8
10	.9	9 435	2.2	1.3	3.7
	1.15	10 425	2.0	1.3	3.3
20	2.0				
	2.7				
30	3.3				
	3.8				
40	2.1				
	2.8				
50	2.0				
	1.8				
60	1.4				
	1.6				
70	1.9				
72	2.4				
80					