

SAN JUAN 31-6 UNIT 220 POW - 30-039-24987 ^{bl}

* MIT expires on 9/24/19

NMOCD

MAY 31 2019

DISTRICT III

Pressure Test Report

COMPANY INFORMATION

Company Name
Representative
Phone
Fax
Address

HILCORP
PRISCILLA SHORTY

E-Mail Address
Service Company

EXPERT DOWNHOLE SERVICES, INC.

WELL INFORMATION

Well Name
Well Location
Field and Pool
Status (Oil, Gas, Water, Injection)
Perforated Intervals
Mid-point of Perforated Intervals (MPP)
Drilling Rig Number
Elevations
 Kelly Bushing (KB)
 Casing Flange (CF)
 KB-CF
 Ground Level
Plug Back Total Depth
Total Depth
Production Casing
Production Tubing

SAN JUAN 31-6 UNIT #220 POW
T31N, R6W, SEC 33
FRUITLAND COAL
OBSERVATION
2148-3280

5 1/2 TO 3282
2 3/8 TO 3198

TEST INFORMATION

Type of Test
Date(s) of Test
Dead-weight Gauge Tubing Pressure
Dead-weight Gauge Casing Pressure
Shut-in Date (Duration)
Date / Time on Bottom
Date / Time off Bottom

POOH STATIC GRADIENT
5/23/19
125
5/23/19 @1242
5/23/19 @1342

Probe Serial Number
Probe Offset from End of Tool String
Run Depth at Probe Pressure Port

W1032
0-6000
3214

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure
Maximum Recorded Probe Temperature
Final Buildup Pressure
Gradient Survey Information
 Extrapolated Pressure to MPP
 Final Gradient at Depth
Job Number

129.4 psig
111.2 deg F

Company Name HILCORP
Well Name SAN JUAN 31-6 UNIT #220 POW
Type of Test POOH STATIC GRADIENT
Date(s) of Test 5/23/19



PROBE INFORMATION

Probe Serial Number W1032
Model
Pressure
 Calibrated Pressure Range
 Accuracy
 Resolution
Temperature
 Calibrated Temperature Range
 Accuracy
 Resolution
Calibration File Used for Reports

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
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Program Start Time
Program End Time
Total Samples Taken
Usage for this Test
Generic Data File Name

Company Name	HILCORP
Well Name	SAN JUAN 31-6 UNIT #220 POW
Type of Test	POOH STATIC GRADIENT
Date(s) of Test	5/23/19



COMMENTS

Reported By

EXPERT DOWNHOLE SERVICES, INC.

RIH WITH 1.50 IMPRESSION BLOCK AND TAGGED FILL @3249 WLM. RIH WITH BHP GAUGE TO 3214 WLM FOR 1 HOUR, THEN POOH MAKING 5 MINUTE STOPS PER REQUEST.

Company Name HILCORP
 Well Name SAN JUAN 31-6 UNIT #220 POW
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Pressure vs. Depth

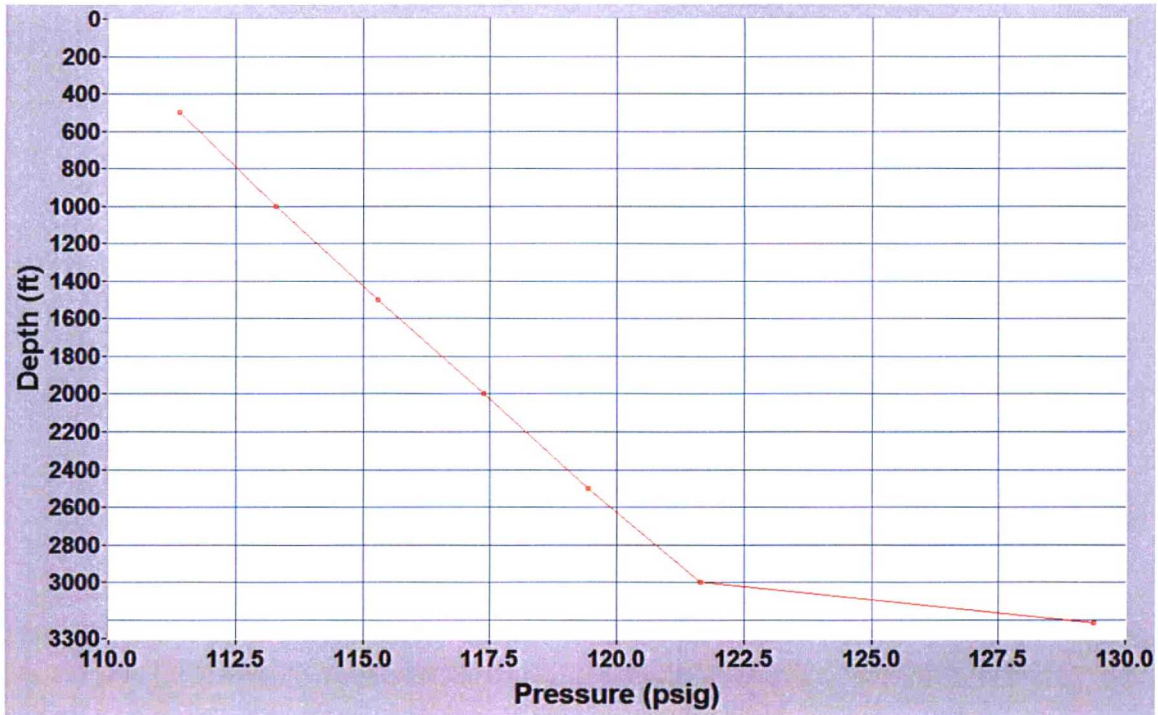
Probe Serial Number W1032

		(ft)	(psig)	(psi/ft)	(deg F)	(deg F/ft)
1242	1342	3214.000	129.378	-	95.054	-
1343	1348	3000.000	121.645	0.0361	110.372	-0.0716
1349	1354	2500.000	119.431	0.0044	106.970	0.0068
1355	1400	2000.000	117.386	0.0041	101.030	0.0119
1402	1407	1500.000	115.291	0.0042	93.848	0.0144
1408	1413	1000.000	113.298	0.0040	86.126	0.0154
1414	1419	500.000	111.401	0.0038	78.260	0.0157

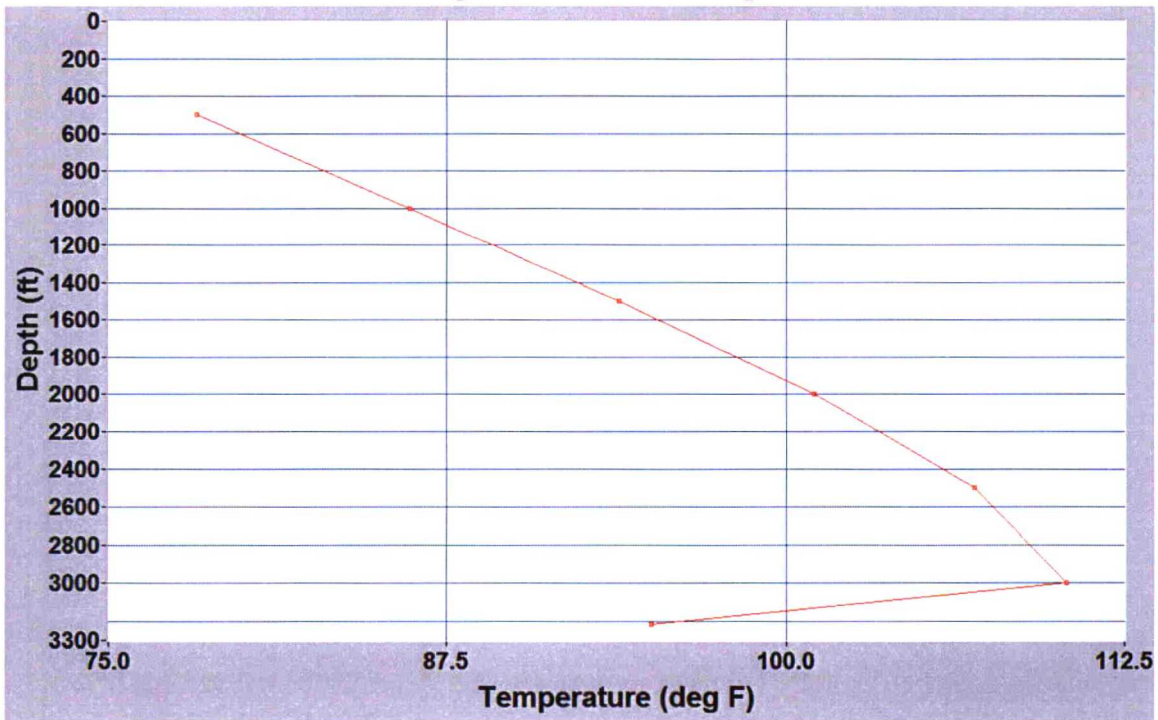
Extrapolated to MPP:

(ft)	(psig)	(deg F)
0.000		

W1032 Depth vs. Pressure



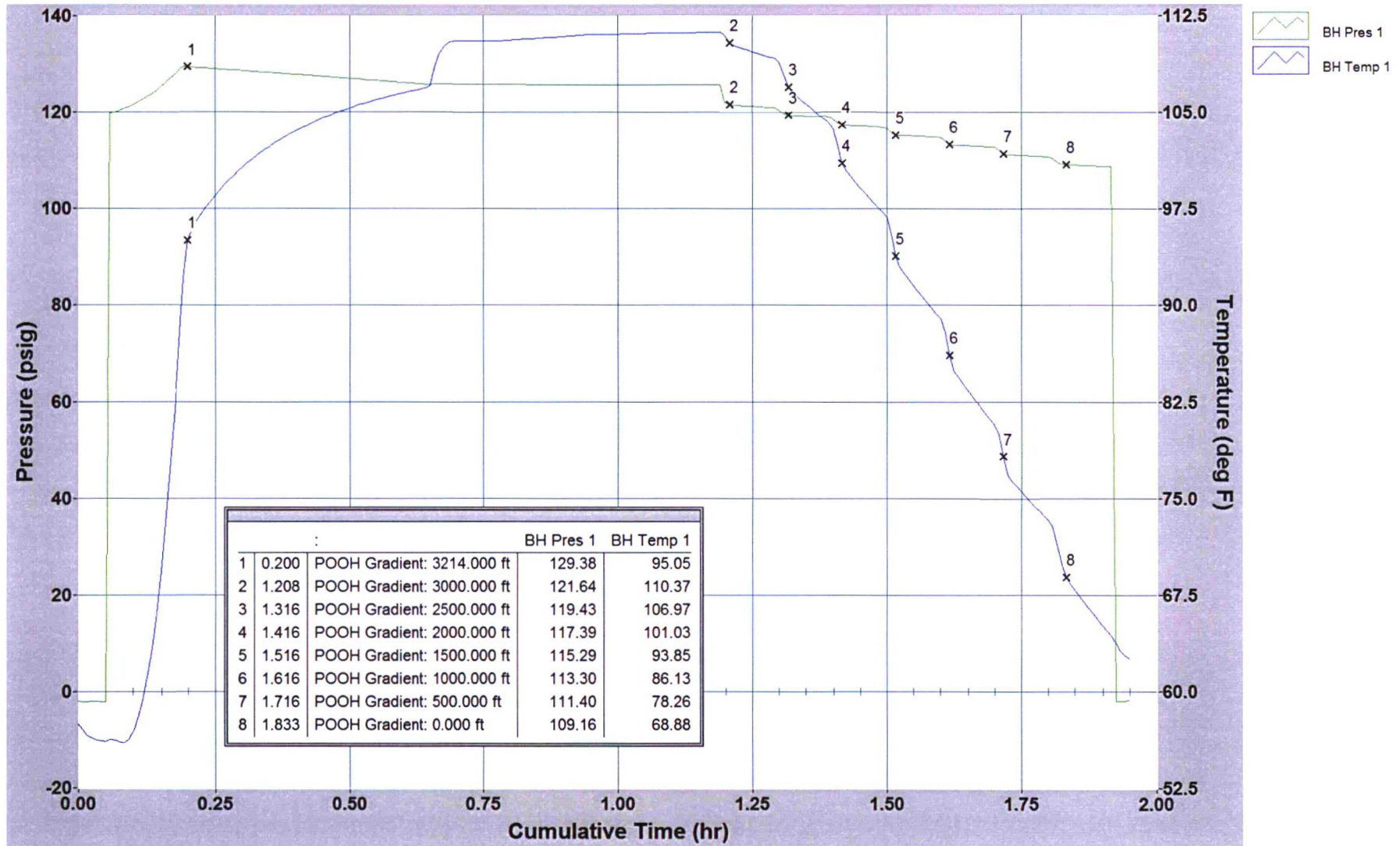
W1032 Depth vs. Temperature



Company Name HILCORP
 Well Name SAN JUAN 31-6 UNIT #220 POW
 Type of Test POOH STATIC GRADIENT
 Date(s) of Test 5/23/19



SAN JUAN 31-6 UNIT #220 POW



Company Name HILCORP
Well Name SAN JUAN 31-6 UNIT #220 POW
Type of Test POOH STATIC GRADIENT
Date(s) of Test 5/23/19



Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2019/05/23	12:30:55	0.0000	-2.026	57.470
2019/05/23	12:31:24	0.0081	-2.045	57.038
2019/05/23	12:32:24	0.0247	-2.023	56.390
2019/05/23	12:33:24	0.0414	-2.039	56.192
2019/05/23	12:34:24	0.0581	119.940	56.300
2019/05/23	12:34:54	0.0664	120.075	56.228
2019/05/23	12:35:54	0.0831	120.719	56.030
2019/05/23	12:36:54	0.0997	121.575	56.984
2019/05/23	12:37:54	0.1164	122.525	59.342
2019/05/23	12:38:24	0.1247	123.091	61.106
2019/05/23	12:39:24	0.1414	124.408	66.074
2019/05/23	12:40:24	0.1581	125.999	73.058
2019/05/23	12:41:24	0.1747	127.800	81.878
2019/05/23	12:42:24	0.1914	129.358	92.084
POOH Gradient: 3214.000 ft				
2019/05/23	12:42:54	0.1997	129.378	95.054
2019/05/23	12:43:24	0.2081	129.307	95.990
2019/05/23	12:44:24	0.2247	129.111	97.106
2019/05/23	12:45:24	0.2414	128.992	98.060
2019/05/23	12:45:54	0.2497	128.949	98.510
2019/05/23	12:46:54	0.2664	128.778	99.338
2019/05/23	12:47:54	0.2831	128.689	100.058
2019/05/23	12:48:54	0.2997	128.554	100.724
2019/05/23	12:49:54	0.3164	128.387	101.318
2019/05/23	12:50:54	0.3331	128.286	101.858
2019/05/23	12:51:54	0.3497	128.176	102.344
2019/05/23	12:52:54	0.3664	128.038	102.794
2019/05/23	12:53:24	0.3747	127.958	102.992
2019/05/23	12:54:24	0.3914	127.817	103.388
2019/05/23	12:55:24	0.4081	127.706	103.748
2019/05/23	12:56:24	0.4247	127.556	104.072
2019/05/23	12:57:24	0.4414	127.429	104.396
2019/05/23	12:58:24	0.4581	127.275	104.666
2019/05/23	12:59:24	0.4747	127.143	104.936
2019/05/23	13:00:24	0.4914	127.010	105.188
2019/05/23	13:00:54	0.4997	126.914	105.314
2019/05/23	13:01:54	0.5164	126.805	105.548
2019/05/23	13:02:54	0.5331	126.614	105.746
2019/05/23	13:03:54	0.5497	126.518	105.944
2019/05/23	13:04:24	0.5581	126.447	106.034
2019/05/23	13:05:24	0.5747	126.303	106.214
2019/05/23	13:06:24	0.5914	126.122	106.394
2019/05/23	13:07:24	0.6081	126.003	106.556
2019/05/23	13:07:54	0.6164	125.952	106.628
2019/05/23	13:08:54	0.6331	125.771	106.772
2019/05/23	13:09:54	0.6497	125.723	107.024
2019/05/23	13:10:54	0.6664	125.868	109.490
2019/05/23	13:11:54	0.6831	125.883	110.318
2019/05/23	13:12:54	0.6997	125.851	110.552
2019/05/23	13:13:54	0.7164	125.836	110.570
2019/05/23	13:14:54	0.7331	125.823	110.552
2019/05/23	13:15:24	0.7414	125.820	110.552
2019/05/23	13:16:24	0.7581	125.823	110.534
2019/05/23	13:17:24	0.7747	125.769	110.552

Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2019/05/23	13:18:24	0.7914	125.798	110.606
2019/05/23	13:19:24	0.8081	125.774	110.642
2019/05/23	13:20:24	0.8247	125.761	110.696
2019/05/23	13:21:24	0.8414	125.749	110.732
2019/05/23	13:22:24	0.8581	125.710	110.768
2019/05/23	13:22:54	0.8664	125.754	110.804
2019/05/23	13:23:54	0.8831	125.745	110.822
2019/05/23	13:24:54	0.8997	125.732	110.858
2019/05/23	13:25:54	0.9164	125.719	110.948
2019/05/23	13:26:54	0.9331	125.711	110.984
2019/05/23	13:27:54	0.9497	125.714	111.038
2019/05/23	13:28:54	0.9664	125.730	111.074
2019/05/23	13:29:54	0.9831	125.704	111.074
2019/05/23	13:30:24	0.9914	125.698	111.074
2019/05/23	13:31:24	1.0081	125.698	111.092
2019/05/23	13:32:24	1.0247	125.696	111.110
2019/05/23	13:33:24	1.0414	125.706	111.128
2019/05/23	13:33:54	1.0497	125.694	111.128
2019/05/23	13:34:54	1.0664	125.703	111.146
2019/05/23	13:35:54	1.0831	125.707	111.146
2019/05/23	13:36:54	1.0997	125.681	111.146
2019/05/23	13:37:24	1.1081	125.682	111.164
2019/05/23	13:38:24	1.1247	125.688	111.182
2019/05/23	13:39:24	1.1414	125.681	111.182
2019/05/23	13:40:24	1.1581	125.652	111.200
2019/05/23	13:41:24	1.1747	125.669	111.218
2019/05/23	13:42:24	1.1914	125.677	111.218
POOH Gradient: 3000.000 ft				
2019/05/23	13:43:24	1.2081	121.645	110.372
2019/05/23	13:44:24	1.2247	121.472	110.012
2019/05/23	13:44:54	1.2331	121.411	109.922
2019/05/23	13:45:54	1.2497	121.292	109.670
2019/05/23	13:46:54	1.2664	121.194	109.472
2019/05/23	13:47:54	1.2831	121.031	109.256
2019/05/23	13:48:54	1.2997	120.407	108.860
POOH Gradient: 2500.000 ft				
2019/05/23	13:49:54	1.3164	119.431	106.970
2019/05/23	13:50:54	1.3331	119.267	106.232
2019/05/23	13:51:54	1.3497	119.173	105.620
2019/05/23	13:52:24	1.3581	119.153	105.332
2019/05/23	13:53:24	1.3747	119.093	104.720
2019/05/23	13:54:24	1.3914	119.022	104.162
2019/05/23	13:55:24	1.4081	117.852	102.506
POOH Gradient: 2000.000 ft				
2019/05/23	13:55:54	1.4164	117.386	101.030
2019/05/23	13:56:24	1.4247	117.318	100.382
2019/05/23	13:57:24	1.4414	117.189	99.554
2019/05/23	13:58:24	1.4581	117.134	98.744
2019/05/23	13:59:24	1.4747	117.072	97.970
2019/05/23	13:59:54	1.4831	117.015	97.610
2019/05/23	14:00:54	1.4997	116.699	96.836
POOH Gradient: 1500.000 ft				
2019/05/23	14:01:54	1.5164	115.291	93.848
2019/05/23	14:02:54	1.5331	115.240	92.408

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Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2019/05/23	14:03:24	1.5414	115.188	91.976
2019/05/23	14:04:24	1.5581	115.089	91.058
2019/05/23	14:05:24	1.5747	114.995	90.194
2019/05/23	14:06:24	1.5914	114.886	89.366
2019/05/23	14:06:54	1.5997	114.767	88.970
POOH Gradient: 1000.000 ft				
2019/05/23	14:07:54	1.6164	113.298	86.126
2019/05/23	14:08:54	1.6331	113.174	84.362
2019/05/23	14:09:54	1.6497	113.096	83.426
2019/05/23	14:10:54	1.6664	112.986	82.508
2019/05/23	14:11:54	1.6831	112.925	81.644
2019/05/23	14:12:54	1.6997	112.819	80.798
POOH Gradient: 500.000 ft				
2019/05/23	14:13:54	1.7164	111.401	78.260
2019/05/23	14:14:24	1.7247	111.211	76.838
2019/05/23	14:15:24	1.7414	111.118	75.938
2019/05/23	14:16:24	1.7581	111.000	75.146
2019/05/23	14:17:24	1.7747	110.922	74.390
2019/05/23	14:18:24	1.7914	110.842	73.634
2019/05/23	14:19:24	1.8081	110.424	72.788
2019/05/23	14:20:24	1.8247	109.287	69.836
POOH Gradient: 0.000 ft				
2019/05/23	14:20:54	1.8331	109.160	68.882
2019/05/23	14:21:24	1.8414	109.106	68.306
2019/05/23	14:21:54	1.8497	109.086	67.838
2019/05/23	14:22:54	1.8664	109.007	66.902
2019/05/23	14:23:54	1.8831	108.936	66.020
2019/05/23	14:24:54	1.8997	108.865	65.156
2019/05/23	14:25:54	1.9164	108.800	64.364
2019/05/23	14:26:54	1.9331	-1.932	63.104