

SAN JUAN 31-6 UNIT 231
30-039-24945

MX
NMAIS TA expires 5-8-2020

Pressure Test Report

NMOCD

JUN 04 2018

DISTRICT III

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 #231
T31N, R6W, Sec 27
Fruitland Coal
Observation
3176-3326

6448
3327
3327
5 1/2 to 3327
2 3/8 to 3264

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
5/31/18
0
5/31/18 @1538
5/31/18 @1638

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

W1032
0-6000
3308

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

793.3 psig
117.8 deg F

Company Name Hilcorp
Well Name San Juan 31-6 #231
Type of Test POOH Static Gradient
Date(s) of Test 5/31/18



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 #231
Type of Test	POOH Static Gradient
Date(s) of Test	5/31/18



COMMENTS

Reported By

Expert Downhole Services, Inc.

RIH with 1.50 IB and tagged fill @3311 WLM. RIH with BHP gauge to 3308 for 1 hour, then POOH making 5 minute stops per request.

Company Name Hilcorp
Well Name San Juan 31-6 #231
Type of Test POOH Static Gradient
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Pressure vs. Depth

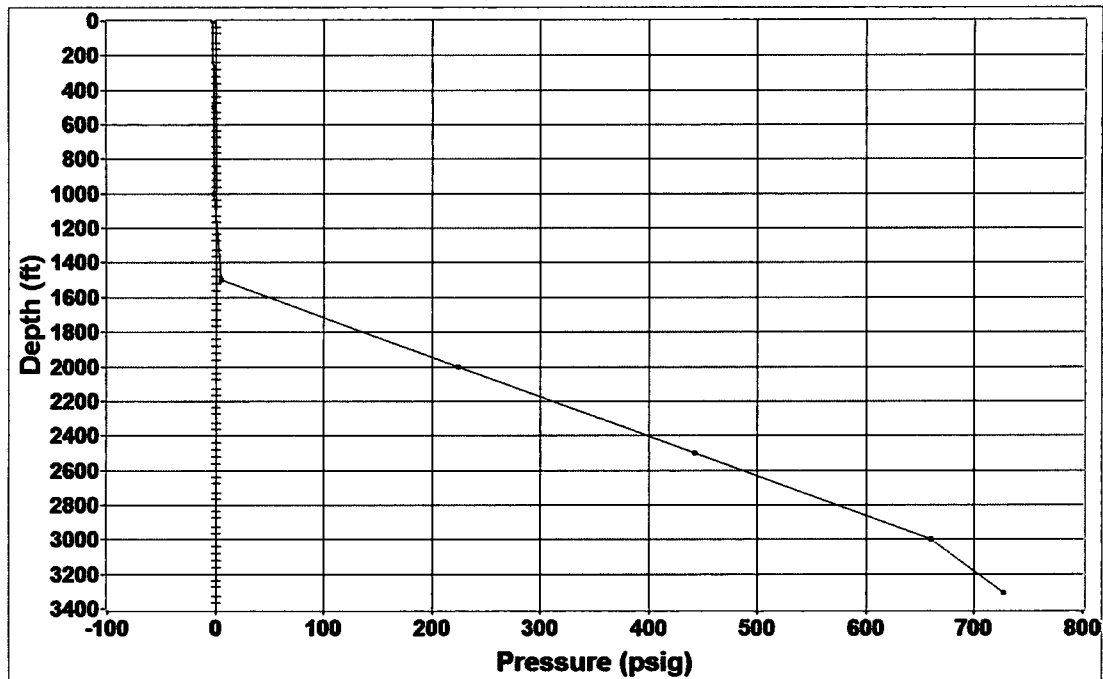
Probe Serial Number W1032

		(ft)	(psig)	(psi/ft)	(deg F)	(deg F/ft)
1538	1638	3308.000	727.045	-	102.434	-
1639	1644	3000.000	659.983	0.2177	109.598	-0.0233
1645	1650	2500.000	441.910	0.4361	97.790	0.0236
1651	1656	2000.000	224.634	0.4346	89.564	0.0165
1658	1703	1500.000	5.487	0.4383	79.052	0.0210
1704	1709	1000.000	-1.344	0.0137	76.478	0.0051
1710	1715	500.000	-1.463	0.0002	74.336	0.0043
1716	1721	0.000	-1.723	0.0005	71.330	0.0060

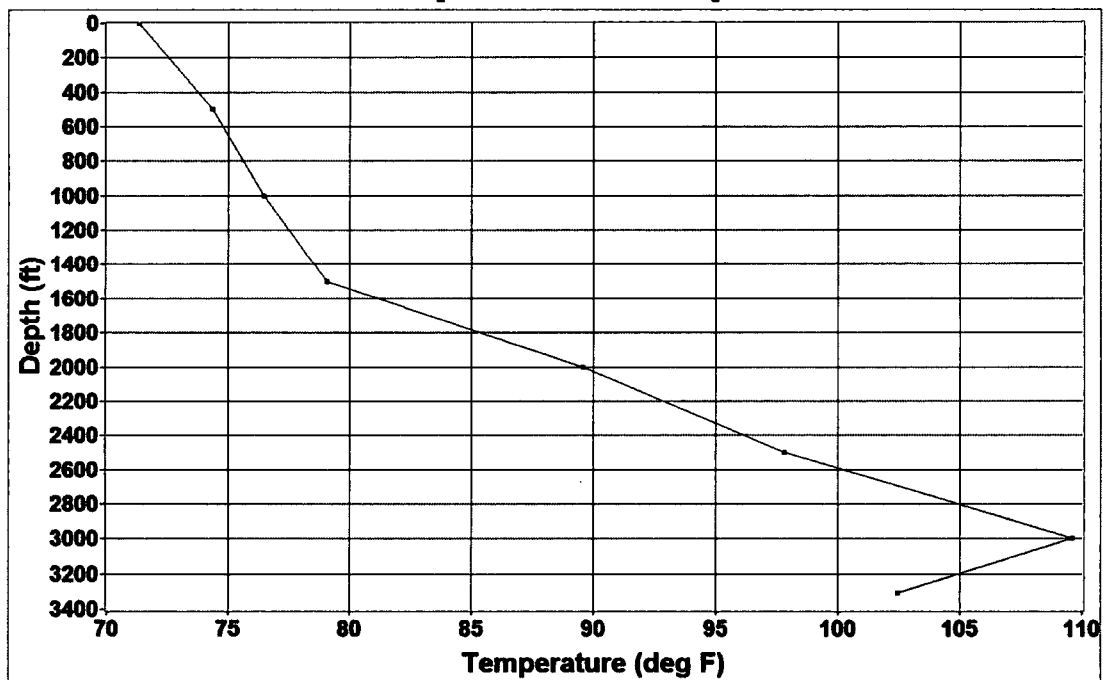
Extrapolated to MPP:

(ft)	(psig)	(deg F)
0.000		

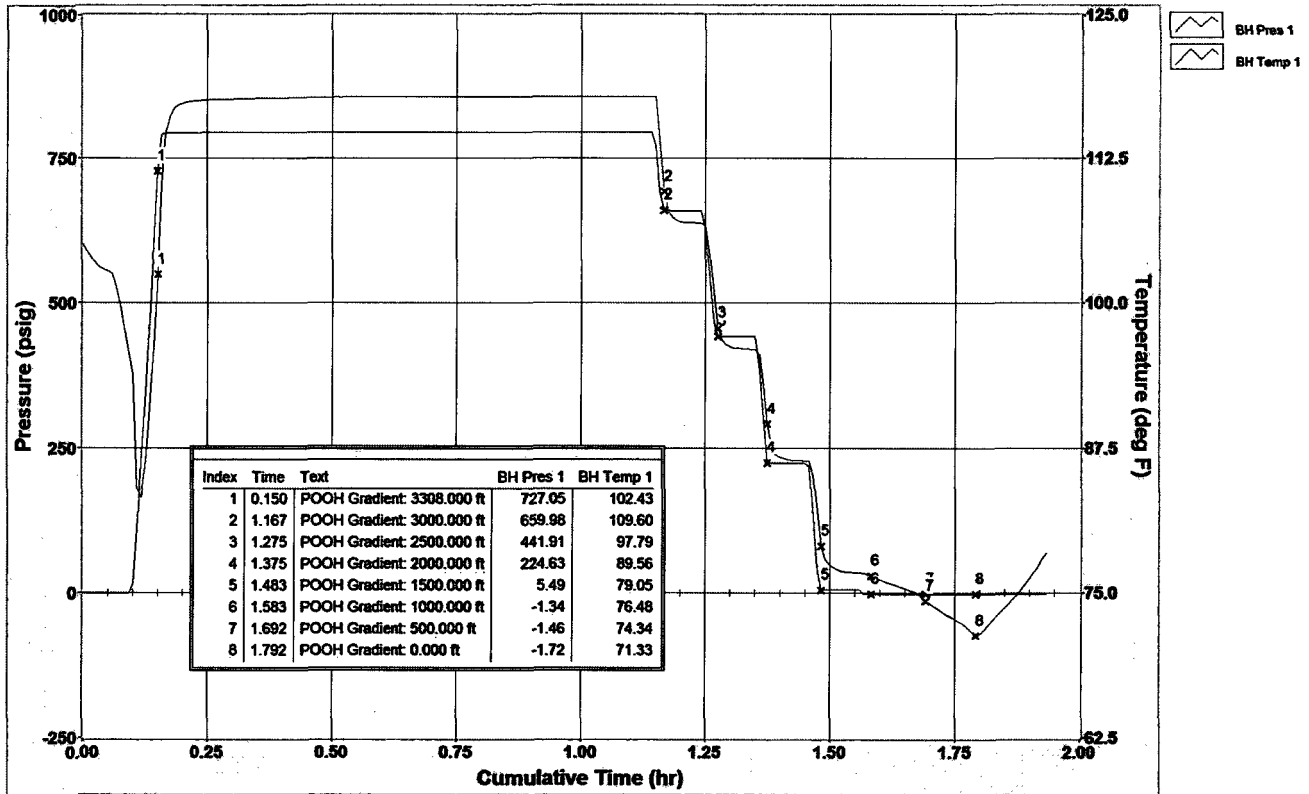
W1032 Depth vs. Pressure



W1032 Depth vs. Temperature



San Juan 31-6 Unit #231



Company Name Hilcorp
Well Name San Juan 31-6 #231
Type of Test POOH Static Gradient
Date(s) of Test 5/31/18



Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2018/05/31	15:29:10	0.0000	-0.853	105.098
2018/05/31	15:29:40	0.0083	-0.891	104.522
2018/05/31	15:30:10	0.0167	-0.927	103.964
2018/05/31	15:30:40	0.0250	-0.966	103.370
2018/05/31	15:31:10	0.0333	-0.988	103.064
2018/05/31	15:31:40	0.0417	-0.399	102.884
2018/05/31	15:32:10	0.0500	-0.421	102.740
2018/05/31	15:32:40	0.0583	-0.431	102.524
2018/05/31	15:33:10	0.0667	-0.410	101.354
2018/05/31	15:33:40	0.0750	-0.377	99.554
2018/05/31	15:34:10	0.0833	-0.383	97.592
2018/05/31	15:34:40	0.0917	-0.306	95.702
2018/05/31	15:35:10	0.1000	16.037	93.920
2018/05/31	15:35:40	0.1083	110.744	84.074
2018/05/31	15:36:10	0.1167	224.465	83.210
2018/05/31	15:36:40	0.1250	346.423	86.306
2018/05/31	15:37:10	0.1333	471.609	90.986
2018/05/31	15:37:40	0.1417	598.675	96.242
POOH Gradient: 3308.000 ft				
2018/05/31	15:38:10	0.1500	727.045	102.434
2018/05/31	15:38:40	0.1583	790.831	110.192
2018/05/31	15:39:10	0.1667	792.628	114.548
2018/05/31	15:39:40	0.1750	793.004	116.114
2018/05/31	15:40:10	0.1833	792.947	116.762
2018/05/31	15:40:40	0.1917	792.943	117.050
2018/05/31	15:41:10	0.2000	793.049	117.194
2018/05/31	15:41:40	0.2083	793.119	117.302
2018/05/31	15:42:10	0.2167	793.149	117.356
2018/05/31	15:42:40	0.2250	793.184	117.410
2018/05/31	15:43:10	0.2333	793.198	117.446
2018/05/31	15:43:40	0.2417	793.226	117.482
2018/05/31	15:44:10	0.2500	793.240	117.500
2018/05/31	15:44:40	0.2583	793.246	117.518
2018/05/31	15:45:10	0.2667	793.249	117.536
2018/05/31	15:45:40	0.2750	793.265	117.554
2018/05/31	15:46:10	0.2833	793.265	117.572
2018/05/31	15:46:40	0.2917	793.268	117.572
2018/05/31	15:47:10	0.3000	793.271	117.572
2018/05/31	15:47:40	0.3083	793.281	117.608
2018/05/31	15:48:10	0.3167	793.274	117.608
2018/05/31	15:48:40	0.3250	793.282	117.626
2018/05/31	15:49:10	0.3333	793.285	117.626
2018/05/31	15:49:40	0.3417	793.291	117.626
2018/05/31	15:50:10	0.3500	793.293	117.644
2018/05/31	15:50:40	0.3583	793.298	117.662
2018/05/31	15:51:10	0.3667	793.294	117.662
2018/05/31	15:51:40	0.3750	793.290	117.662
2018/05/31	15:52:10	0.3833	793.285	117.662
2018/05/31	15:52:40	0.3917	793.291	117.680
2018/05/31	15:53:10	0.4000	793.284	117.680
2018/05/31	15:53:40	0.4083	793.285	117.680
2018/05/31	15:54:10	0.4167	793.291	117.698
2018/05/31	15:54:40	0.4250	793.275	117.698
2018/05/31	15:55:10	0.4333	793.296	117.716

Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2018/05/31	15:55:40	0.4417	793.284	117.716
2018/05/31	15:56:10	0.4500	793.275	117.716
2018/05/31	15:56:40	0.4583	793.265	117.716
2018/05/31	15:57:10	0.4667	793.293	117.716
2018/05/31	15:57:40	0.4750	793.280	117.716
2018/05/31	15:58:10	0.4833	793.290	117.734
2018/05/31	15:58:40	0.4917	793.277	117.734
2018/05/31	15:59:10	0.5000	793.284	117.734
2018/05/31	15:59:40	0.5083	793.288	117.752
2018/05/31	16:00:10	0.5167	793.266	117.734
2018/05/31	16:00:40	0.5250	793.287	117.752
2018/05/31	16:01:10	0.5333	793.280	117.752
2018/05/31	16:01:40	0.5417	793.272	117.752
2018/05/31	16:02:10	0.5500	793.278	117.752
2018/05/31	16:02:40	0.5583	793.281	117.752
2018/05/31	16:03:10	0.5667	793.288	117.770
2018/05/31	16:03:40	0.5750	793.275	117.752
2018/05/31	16:04:10	0.5833	793.272	117.770
2018/05/31	16:04:40	0.5917	793.274	117.770
2018/05/31	16:05:10	0.6000	793.272	117.770
2018/05/31	16:05:40	0.6083	793.266	117.752
2018/05/31	16:06:10	0.6167	793.265	117.770
2018/05/31	16:06:40	0.6250	793.271	117.770
2018/05/31	16:07:10	0.6333	793.272	117.770
2018/05/31	16:07:40	0.6417	793.277	117.770
2018/05/31	16:08:10	0.6500	793.262	117.770
2018/05/31	16:08:40	0.6583	793.269	117.770
2018/05/31	16:09:10	0.6667	793.272	117.770
2018/05/31	16:09:40	0.6750	793.269	117.770
2018/05/31	16:10:10	0.6833	793.268	117.770
2018/05/31	16:10:40	0.6917	793.261	117.770
2018/05/31	16:11:10	0.7000	793.272	117.788
2018/05/31	16:11:40	0.7083	793.264	117.770
2018/05/31	16:12:10	0.7167	793.262	117.770
2018/05/31	16:12:40	0.7250	793.271	117.788
2018/05/31	16:13:10	0.7333	793.268	117.788
2018/05/31	16:13:40	0.7417	793.271	117.788
2018/05/31	16:14:10	0.7500	793.262	117.788
2018/05/31	16:14:40	0.7583	793.265	117.788
2018/05/31	16:15:10	0.7667	793.256	117.788
2018/05/31	16:15:40	0.7750	793.259	117.788
2018/05/31	16:16:10	0.7833	793.261	117.788
2018/05/31	16:16:40	0.7917	793.262	117.788
2018/05/31	16:17:10	0.8000	793.266	117.788
2018/05/31	16:17:40	0.8083	793.271	117.788
2018/05/31	16:18:10	0.8167	793.256	117.788
2018/05/31	16:18:40	0.8250	793.265	117.788
2018/05/31	16:19:10	0.8333	793.264	117.788
2018/05/31	16:19:40	0.8417	793.265	117.806
2018/05/31	16:20:10	0.8500	793.262	117.806
2018/05/31	16:20:40	0.8583	793.262	117.806
2018/05/31	16:21:10	0.8667	793.252	117.788
2018/05/31	16:21:40	0.8750	793.255	117.788
2018/05/31	16:22:10	0.8833	793.258	117.806

Company Name Hilcorp
Well Name San Juan 31-6 #231
Type of Test POOH Static Gradient
Date(s) of Test 5/31/18



Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2018/05/31	16:22:40	0.8917	793.262	117.806
2018/05/31	16:23:10	0.9000	793.256	117.806
2018/05/31	16:23:40	0.9083	793.264	117.806
2018/05/31	16:24:10	0.9167	793.258	117.806
2018/05/31	16:24:40	0.9250	793.251	117.806
2018/05/31	16:25:10	0.9333	793.255	117.806
2018/05/31	16:25:40	0.9417	793.255	117.806
2018/05/31	16:26:10	0.9500	793.262	117.806
2018/05/31	16:26:40	0.9583	793.261	117.806
2018/05/31	16:27:10	0.9667	793.259	117.806
2018/05/31	16:27:40	0.9750	793.256	117.806
2018/05/31	16:28:10	0.9833	793.253	117.806
2018/05/31	16:28:40	0.9917	793.258	117.806
2018/05/31	16:29:10	1.0000	793.248	117.806
2018/05/31	16:29:40	1.0083	793.251	117.806
2018/05/31	16:30:10	1.0167	793.253	117.806
2018/05/31	16:30:40	1.0250	793.258	117.806
2018/05/31	16:31:10	1.0333	793.258	117.806
2018/05/31	16:31:40	1.0417	793.259	117.806
2018/05/31	16:32:10	1.0500	793.251	117.806
2018/05/31	16:32:40	1.0583	793.248	117.806
2018/05/31	16:33:10	1.0667	793.249	117.806
2018/05/31	16:33:40	1.0750	793.255	117.806
2018/05/31	16:34:10	1.0833	793.258	117.806
2018/05/31	16:34:40	1.0917	793.252	117.806
2018/05/31	16:35:10	1.1000	793.245	117.806
2018/05/31	16:35:40	1.1083	793.246	117.806
2018/05/31	16:36:10	1.1167	793.246	117.806
2018/05/31	16:36:40	1.1250	793.249	117.806
2018/05/31	16:37:10	1.1333	793.249	117.806
2018/05/31	16:37:40	1.1417	793.252	117.806
2018/05/31	16:38:10	1.1500	771.038	117.770
2018/05/31	16:38:40	1.1583	691.834	113.972
POOH Gradient: 3000.000 ft				
2018/05/31	16:39:10	1.1667	659.983	109.598
2018/05/31	16:39:40	1.1750	659.455	107.960
2018/05/31	16:40:10	1.1833	659.169	107.384
2018/05/31	16:40:40	1.1917	659.201	107.150
2018/05/31	16:41:10	1.2000	659.224	107.024
2018/05/31	16:41:40	1.2083	659.186	106.952
2018/05/31	16:42:10	1.2167	659.182	106.916
2018/05/31	16:42:40	1.2250	659.181	106.916
2018/05/31	16:43:10	1.2333	659.170	106.898
2018/05/31	16:43:40	1.2417	659.169	106.862
2018/05/31	16:44:10	1.2500	629.190	106.718
2018/05/31	16:44:40	1.2583	548.337	104.486
2018/05/31	16:45:10	1.2667	466.338	100.868
POOH Gradient: 2500.000 ft				
2018/05/31	16:45:40	1.2750	441.910	97.790
2018/05/31	16:46:10	1.2833	441.828	96.800
2018/05/31	16:46:40	1.2917	441.705	96.404
2018/05/31	16:47:10	1.3000	441.657	96.242
2018/05/31	16:47:40	1.3083	441.638	96.134
2018/05/31	16:48:10	1.3167	441.618	96.080

Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2018/05/31	16:48:40	1.3250	441.601	96.044
2018/05/31	16:49:10	1.3333	441.583	96.026
2018/05/31	16:49:40	1.3417	441.578	95.990
2018/05/31	16:50:10	1.3500	441.569	95.972
2018/05/31	16:50:40	1.3583	384.903	95.558
2018/05/31	16:51:10	1.3667	300.218	92.930
POOH Gradient: 2000.000 ft				
2018/05/31	16:51:40	1.3750	224.634	89.564
2018/05/31	16:52:10	1.3833	224.704	87.620
2018/05/31	16:52:40	1.3917	224.194	86.972
2018/05/31	16:53:10	1.4000	224.127	86.720
2018/05/31	16:53:40	1.4083	224.160	86.594
2018/05/31	16:54:10	1.4167	224.146	86.504
2018/05/31	16:54:40	1.4250	224.125	86.468
2018/05/31	16:55:10	1.4333	224.115	86.432
2018/05/31	16:55:40	1.4417	224.104	86.414
2018/05/31	16:56:10	1.4500	224.098	86.396
2018/05/31	16:56:40	1.4583	218.238	86.378
2018/05/31	16:57:10	1.4667	130.772	85.172
2018/05/31	16:57:40	1.4750	42.560	82.148
POOH Gradient: 1500.000 ft				
2018/05/31	16:58:10	1.4833	5.487	79.052
2018/05/31	16:58:40	1.4917	6.421	77.882
2018/05/31	16:59:10	1.5000	6.662	77.414
2018/05/31	16:59:40	1.5083	6.647	77.162
2018/05/31	17:00:10	1.5167	6.559	77.018
2018/05/31	17:00:40	1.5250	6.585	76.910
2018/05/31	17:01:10	1.5333	6.521	76.838
2018/05/31	17:01:40	1.5417	6.437	76.820
2018/05/31	17:02:10	1.5500	6.505	76.784
2018/05/31	17:02:40	1.5583	6.450	76.766
2018/05/31	17:03:10	1.5667	-1.163	76.730
2018/05/31	17:03:40	1.5750	-1.260	76.640
POOH Gradient: 1000.000 ft				
2018/05/31	17:04:10	1.5833	-1.344	76.478
2018/05/31	17:04:40	1.5917	-1.353	76.316
2018/05/31	17:05:10	1.6000	-1.342	76.172
2018/05/31	17:05:40	1.6083	-1.291	76.028
2018/05/31	17:06:10	1.6167	-1.344	75.902
2018/05/31	17:06:40	1.6250	-1.336	75.758
2018/05/31	17:07:10	1.6333	-1.289	75.650
2018/05/31	17:07:40	1.6417	-1.297	75.524
2018/05/31	17:08:10	1.6500	-1.359	75.398
2018/05/31	17:08:40	1.6583	-1.336	75.254
2018/05/31	17:09:10	1.6667	-1.298	75.146
2018/05/31	17:09:40	1.6750	-1.417	74.966
2018/05/31	17:10:10	1.6833	-1.426	74.678
POOH Gradient: 500.000 ft				
2018/05/31	17:10:40	1.6917	-1.463	74.336
2018/05/31	17:11:10	1.7000	-1.501	74.084
2018/05/31	17:11:40	1.7083	-1.524	73.850
2018/05/31	17:12:10	1.7167	-1.523	73.634
2018/05/31	17:12:40	1.7250	-1.507	73.400
2018/05/31	17:13:10	1.7333	-1.527	73.184

Company Name Hilcorp
Well Name San Juan 31-6 #231
Type of Test POOH Static Gradient
Date(s) of Test 5/31/18



Date	Time	Cum.Time BH1	BH Pres 1	BH Temp 1
		hr	psig	deg F
2018/05/31	17:13:40	1.7417	-1.526	72.950
2018/05/31	17:14:10	1.7500	-1.481	72.734
2018/05/31	17:14:40	1.7583	-1.507	72.518
2018/05/31	17:15:10	1.7667	-1.539	72.320
2018/05/31	17:15:40	1.7750	-1.607	72.068
2018/05/31	17:16:10	1.7833	-1.672	71.708
POOH Gradient: 0.000 ft				
2018/05/31	17:16:40	1.7917	-1.723	71.330
2018/05/31	17:17:10	1.8000	-1.661	71.492
2018/05/31	17:17:40	1.8083	-1.645	71.834
2018/05/31	17:18:10	1.8167	-1.669	72.230
2018/05/31	17:18:40	1.8250	-1.651	72.608
2018/05/31	17:19:10	1.8333	-1.653	72.986
2018/05/31	17:19:40	1.8417	-1.648	73.364
2018/05/31	17:20:10	1.8500	-1.651	73.742
2018/05/31	17:20:40	1.8583	-1.626	74.120
2018/05/31	17:21:10	1.8667	-1.671	74.498
2018/05/31	17:21:40	1.8750	-1.655	74.876
2018/05/31	17:22:10	1.8833	-1.649	75.380
2018/05/31	17:22:40	1.8917	-1.639	75.848
2018/05/31	17:23:10	1.9000	-1.572	76.316
2018/05/31	17:23:40	1.9083	-1.593	76.820
2018/05/31	17:24:10	1.9167	-1.552	77.234
2018/05/31	17:24:40	1.9250	-1.504	77.936