UIC - I - ___5___

EPA FALL-OFF TEST

DATE:

2015

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, December 16, 2015 9:47 AM
To: pthompson@merrion.bz
Cc: Griswold, Jim, EMNRD; Smith, Cory, EMNRD
Subject: Sunco Disposal Well No. 12014 and 2015 Fall-Off Test (FOT) Results (UICI-005) International Reservoir Technologies, Inc. (IRTI)

Philana:

OCD has completed its review of the 2014 and 2015 Fall-off Pressure Test Analyses for the Sunco Disposal Well No.1 in San Juan County.

OCD concurs with the 2015 FOT findings (11/16/2015) of the operator's consultant, International Reservoir Technologies, Inc. (IRTI). The conclusion was that the FOT is affected by the wellbore storage and influence of an apparent highly conductive hydraulic fracture resulting in a linear flow regime, i.e., flow in a highly conductive hydraulic fracture. The pressure curve and semi-log derivative curve have the same slope and a half-slope is evident on both the pressure and derivative curves (~ 1/3 log cycle lower than pressure curve). Historical FOTs have indicated the presence of a fault boundary and even a dual fault boundary condition, but literature searches reveal no fault systems exist in the area. Estimated permeability is ~15.8 md with fracture half-length of ~467 ft. and extrapolated pressure of ~3,303 psig.

While similar conclusions were made for the 2014 FOT, the FOT permeability results were significantly lower or marginal and not reflective of actual permeability conditions in the injection zone based on other well data. OCD believes the 2014 FOT results are erroneous because the rate of injection and pressure did not adequately stress the injection zone. OCD updated its FOT records to validate the 2015 FOT results and rejected the 2014 FOT results.

OCD recommends in future FOTs that a pseudo-steady state injection rate be achieved, since IRTI noted this to be problematic.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd
Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, November 24, 2015 2:26 PM
To: 'Ryan Davis'
Cc: Philana Thompson; Jeff Davis; Griswold, Jim, EMNRD
Subject: RE: Agua Moss, LLC (UICI-005) 2015 Sunco FOT Analysis
Attachments: SuncoDisposalWell1_FOT_2014 (1).pdf; SuncoDisposalWell1_FOT_2015.pdf

Mr. Davis:

The New Mexico Oil Conservation Division is in receipt of you e-mail message below with attached Fall-Off Test documentation and will respond soon.

Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
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Website: www.emnrd.state.nm.us/ocd
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From: Ryan Davis [mailto:rdavis@merrion.bz]
Sent: Tuesday, November 24, 2015 12:28 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Philana Thompson <pthompson@merrion.bz>; Jeff Davis <jdaguamoss@hotmail.com>
Subject: 2015 Sunco FOT Analysis

Carl,

We had a firm out Denver analysis the 2015 FOT data and also the 2014 FOT data. I have attached the analysis and we believe this validates our analysis for the 2015 FOT analysis. My intention is address the issues stated in the letter from the NMOCD dated 08/18/2015 and submit the third party analysis with the changes requested on the FOT. Please let me know if you have any questions or concerns.

Thanks,

Ryan Davis
Operations Manager

O:505.324.5335
C:505.215.3292

2015 Fall-off Pressure Test Analysis
for the
Sunco Disposal Well #1
San Juan County, New Mexico

prepared for

Merrion Oil and Gas Corporation

16 November 2015

International Reservoir Technologies, Inc.
Lakewood, Colorado, USA

Tel. (303) 279-0877
Fax (303) 279-0936

Sunco Disposal Well #1 2015 Fall-off Test Results

Summary:

The Sunco Disposal Well #1 pressure data indicated that the length of the shut-in test did allow the transient to reach a stabilized flow period and that the well has a significant hydraulic fracture. The pressure transient effect of the frac plus the wellbore storage effects do obscure to some extent the reservoir property influences; however, a reasonable set of reservoir properties could be calculated. The conventional straight-line analysis for extrapolated pressure and the reservoir property calculations from the Horner and MDH type plots are acceptable.

- Estimated Kw (permeability) = 15.8 md (from MDH)
- Estimated skin = -5.97 (Horner) to -5.73 (MDH)
- Extrapolated pressure = 3230 to 3283 psig (Horner)
- Fracture half-length = 467 feet (from derivative half-slope line)
- Radius of investigation = 1580 feet (from MDH)

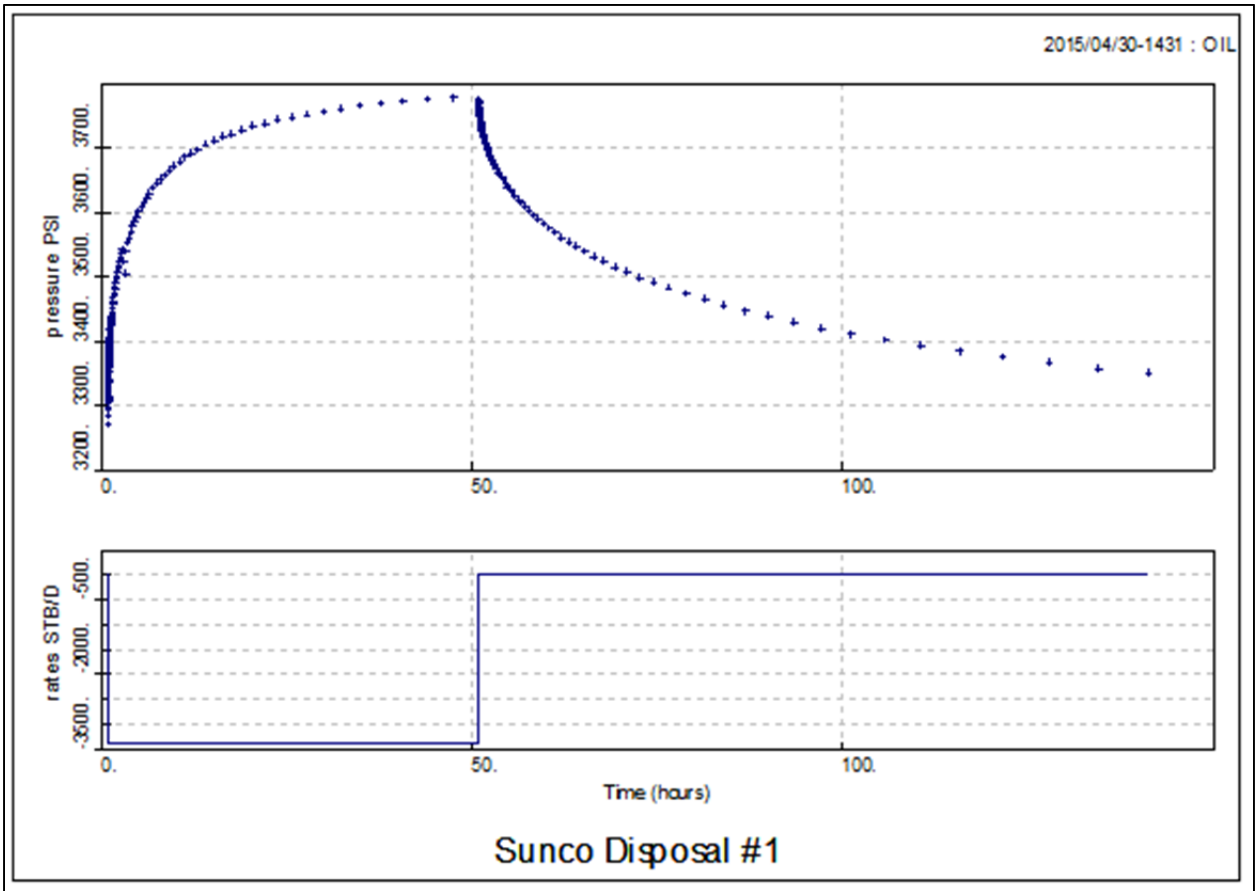
Larger versions of the plots appear at the end of this document.

Input data and assumptions:

Assumptions:

- Formation fluid properties equal injection water properties due to cumulative volume injected and miscibility of formation water and injection water
- Reservoir temperature = 89 deg F
- Porosity = 0.114 (fraction, estimated from density log)
- Net pay = 110 feet
- Rock compressibility = 4.50E-06 1/psi (correlation)
- Wellbore radius = 0.506 ft
- Wellbore volume total = 34.88 bbls (tubing = 24.79 bbls, casing = 10.09 bbls)
- Wellbore compressibility = injection water compressibility =2.63E-06 1/psi (from Osif correlation)
- Injected water specific gravity = 1.017 (pure water =1.0); density = 8.487 lb./gal, TDS = 30,900 mg/L
- Injected water FVF = 1.0016 rb/stb (McCain correlation)
- Injected water viscosity = 0.796 cp (McCain correlation)

DATA PLOT:

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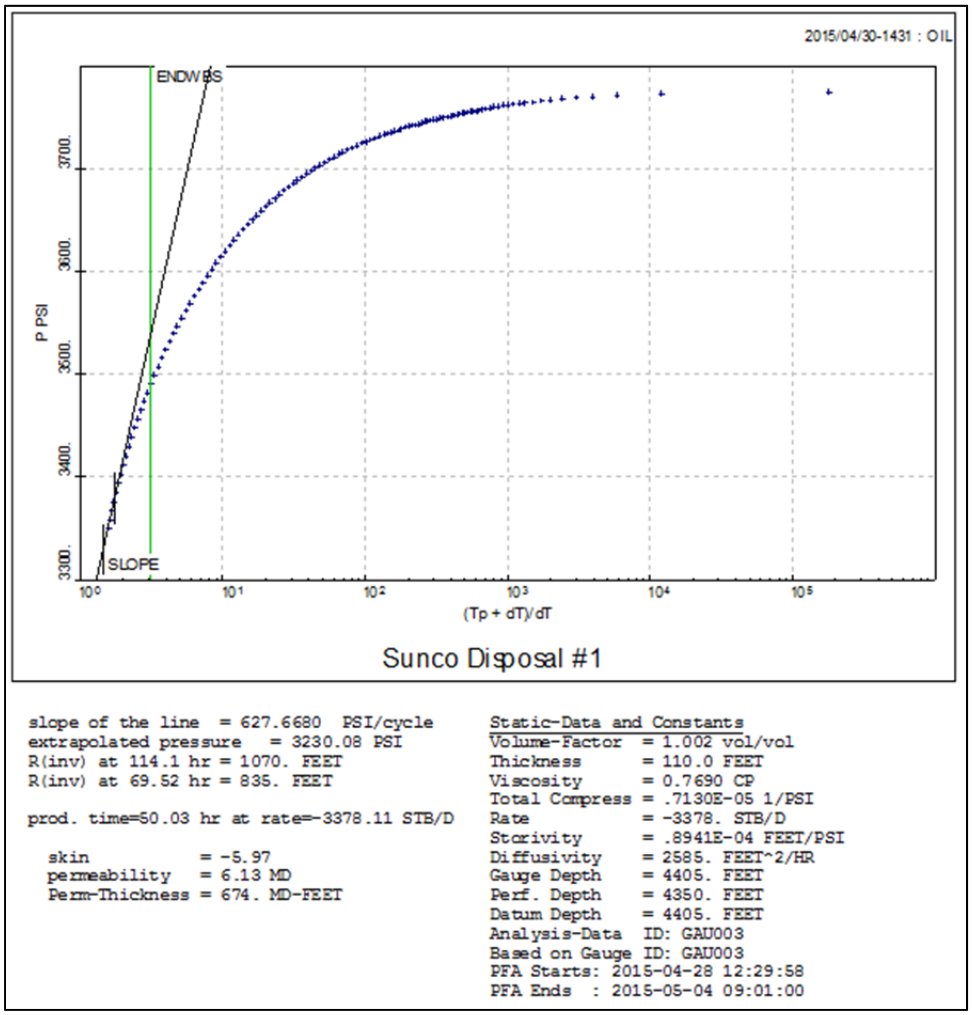
Analysis-Data ID: GAU003
Gauge-Data    ID: GAU003
Data starts at  2015-04-28 12:29:58
Data ends   at  2015-05-04 09:01:00
Number of rates = 2
Cum. Production = -7042. BBLS
```

```
Static-Data and Constants
Volume-Factor  = 1.002 vol/vol
Thickness      = 110.0 FEET
Viscosity      = 0.7690 CP
Total Compress = .7130E-05 1/PSI
Rate           = -3378. STB/D
Storivity      = .8941E-04 FEET/PSI
Diffusivity    = 6670. FEET^2/HR
Gauge Depth    = 4405. FEET
Perf. Depth    = 4350. FEET
Datum Depth    = 4405. FEET
Analysis-Data  ID: GAU003
Based on Gauge ID: GAU003
PFA Starts: 2015-04-28 12:29:58
PFA Ends  : 2015-05-04 09:01:00
```

HORNER PLOT:

Conclusions: As the stabilized flow period was reached relatively late in the conventional straight-line extrapolation for the extrapolated pressure and the reservoir property calculations are less certain.

- Estimated extrapolated pressure = 3230. psig
- Estimated Kw (permeability) = 6.13 md
- Estimated skin = -5.97
- Radius of investigation = 1070 feet



slope of the line = 627.6680 PSI/cycle
extrapolated pressure = 3230.08 PSI
R(inv) at 114.1 hr = 1070. FEET
R(inv) at 69.52 hr = 835. FEET

prod. time=50.03 hr at rate=-3378.11 STB/D

skin = -5.97
permeability = 6.13 MD
Perm-Thickness = 674. MD-FEET

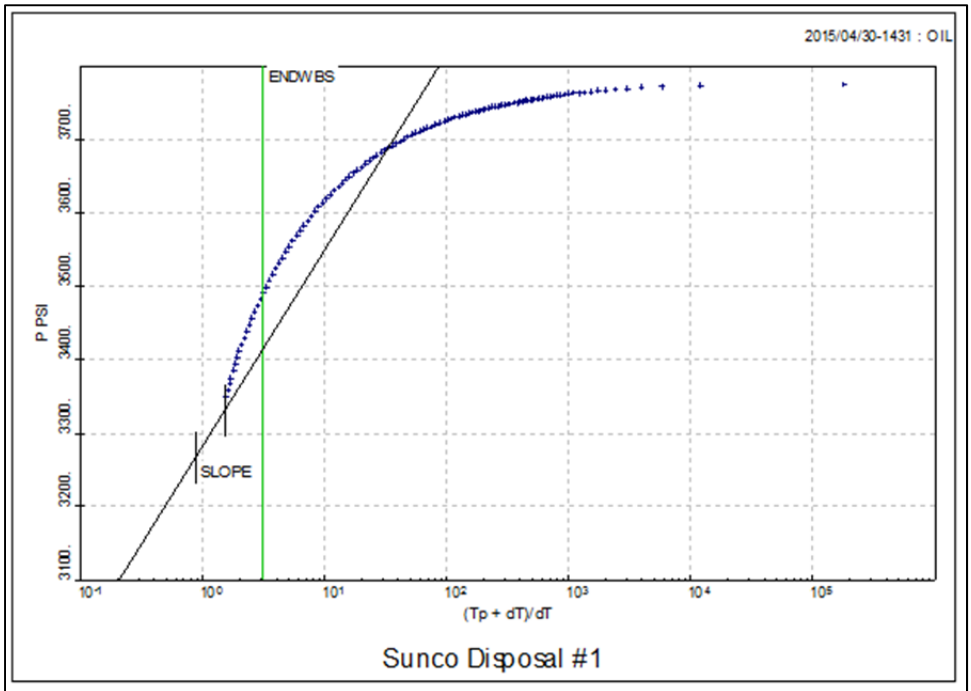
Static-Data and Constants
Volume-Factor = 1.002 vol/vol
Thickness = 110.0 FEET
Viscosity = 0.7690 CP
Total Compress = .7130E-05 1/PSI
Rate = -3378. STB/D
Storivity = .8941E-04 FEET/PSI
Diffusivity = 2585. FEET^2/HR
Gauge Depth = 4405. FEET
Perf. Depth = 4350. FEET
Datum Depth = 4405. FEET
Analysis-Data ID: GAU003
Based on Gauge ID: GAU003
PFA Starts: 2015-04-28 12:29:58
PFA Ends : 2015-05-04 09:01:00

HORNER PLOT – ESTIMATED EXTRAPOLATION :

This plot approximates the behavior if the data had reached the appropriate flow regime.

Conclusions: (Approximate.)

- Estimated extrapolated pressure = 3283 psig
- Estimated Kw (permeability) = 14.4 md
- Estimated skin = -5.27




```
slope of the line  = 266.7653  PSI/cycle
extrapolated pressure   = 3282.63 PSI
R(inv) at 98.00 hr = 1520. FEET

prod. time=50.03 hr at rate=-3378.11 STB/D

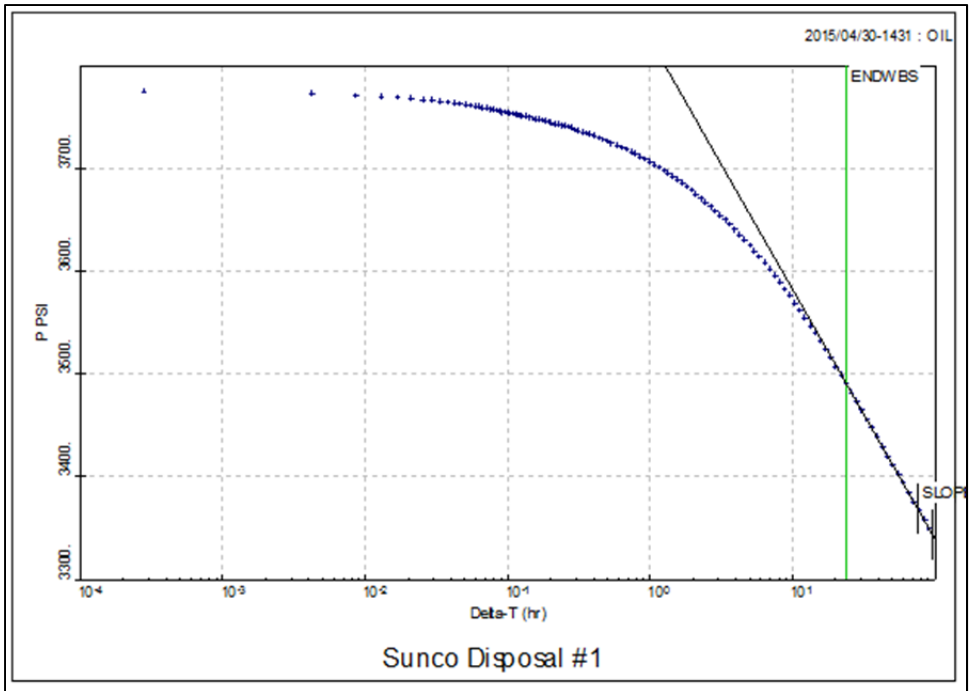
  skin           = -5.27
  permeability   = 14.4 MD
  Perm-Thickness = 1590. MD-FEET
```

```
Static-Data and Constants
Volume-Factor  = 1.002 vol/vol
Thickness      = 110.0 FEET
Viscosity      = 0.7690 CP
Total Compress = .7130E-05 1/PSI
Rate           = -3378. STB/D
Storivity      = .8941E-04 FEET/PSI
Diffusivity    = 6083. FEET^2/HR
Gauge Depth    = 4405. FEET
Perf. Depth    = 4350. FEET
Datum Depth    = 4405. FEET
Analysis-Data  ID: GAU003
Based on Gauge ID: GAU003
PFA Starts: 2015-04-28 12:29:58
PFA Ends  : 2015-05-04 09:01:00
```

MDH PLOT:

Conclusions: As the stabilized flow period was reached relatively late in the conventional straight-line extrapolation for the extrapolated pressure and the reservoir property calculations are less certain, however the MDH values do appear reasonable.

- Estimated Kw (permeability) = 15.8 md
- Estimated skin = -5.73
- Radius of investigation = 1580 feet



slope of the line = -243.269 PSI/cycle
extrapolated pressure = 3410.31 PSI
R(inv) at 96.03 hr = 1580. FEET
R(inv) at 75.69 hr = 1400. FEET

prod. time=50.03 hr at rate=-3378.11 STB/D

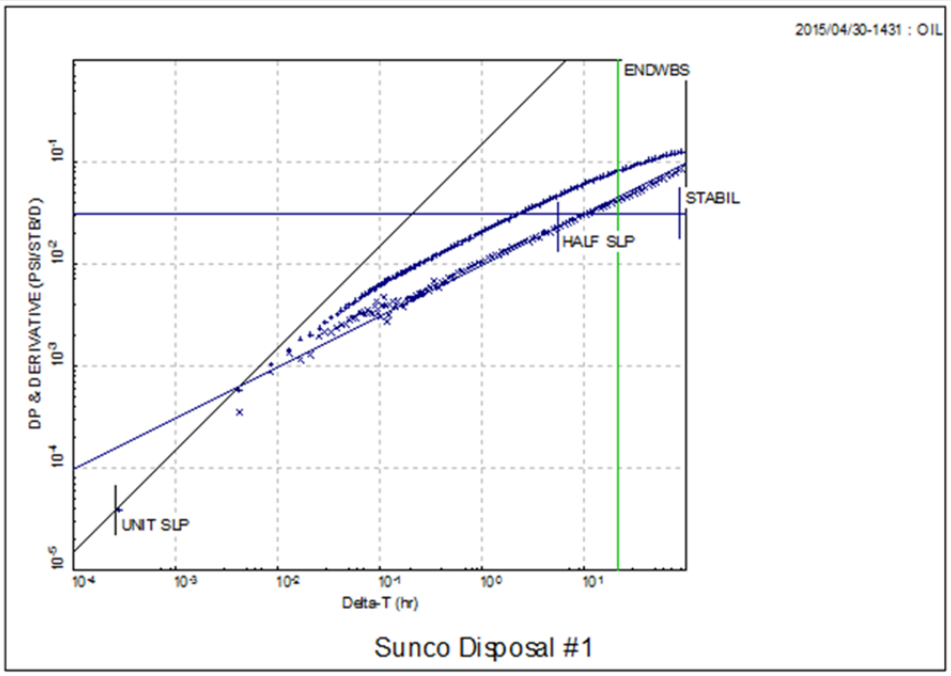
skin = -5.73
permeability = 15.8 MD
Perm-Thickness = 1740. MD-FEET

Static-Data and Constants
Volume-Factor = 1.002 vol/vol
Thickness = 110.0 FEET
Viscosity = 0.7690 CP
Total Compress = .7130E-05 1/PSI
Rate = -3378. STB/D
Storivity = .8941E-04 FEET/PSI
Diffusivity = 6670. FEET^2/HR
Gauge Depth = 4405. FEET
Perf. Depth = 4350. FEET
Datum Depth = 4405. FEET
Analysis-Data ID: GAU003
Based on Gauge ID: GAU003
PFA Starts: 2015-04-28 12:29:58
PFA Ends : 2015-05-04 09:01:00

DERIVATIVE PLOT:

Conclusions: The behavior of the derivative curve is affected by the wellbore storage and the influence of an apparent hydraulic fracture. The data does appear valid. Also the plot indicates that the length of the shut-in test was sufficient to reach a stabilized period. A half-slope is shown in the derivative curve which is characteristic of linear-flow due to a hydraulic-fracture. The calculated half-length for the fracture was 467 feet. There is no clear indication of a boundary or fault.

- Estimated Kw (permeability) = 15.8 md
- Fracture half-length = 467 feet
- Estimated extrapolated pressure = 3303 psig



well. storage = 0.282 BBLS/PSI
skin = -5.21
permeability = 15.8 MD
Perm-Thickness = 1740. MD-FEET
Half.Length = 467. FEET
P-extrap. = 3303.35 PSI
R(inv) at 86.28 hr = 1490. FEET
Smoothing Coef = 0.,0.

Static-Data and Constants
Volume-Factor = 1.002 vol/vol
Thickness = 110.0 FEET
Viscosity = 0.7690 CP
Total Compress = .7130E-05 1/PSI
Rate = -3378. STB/D
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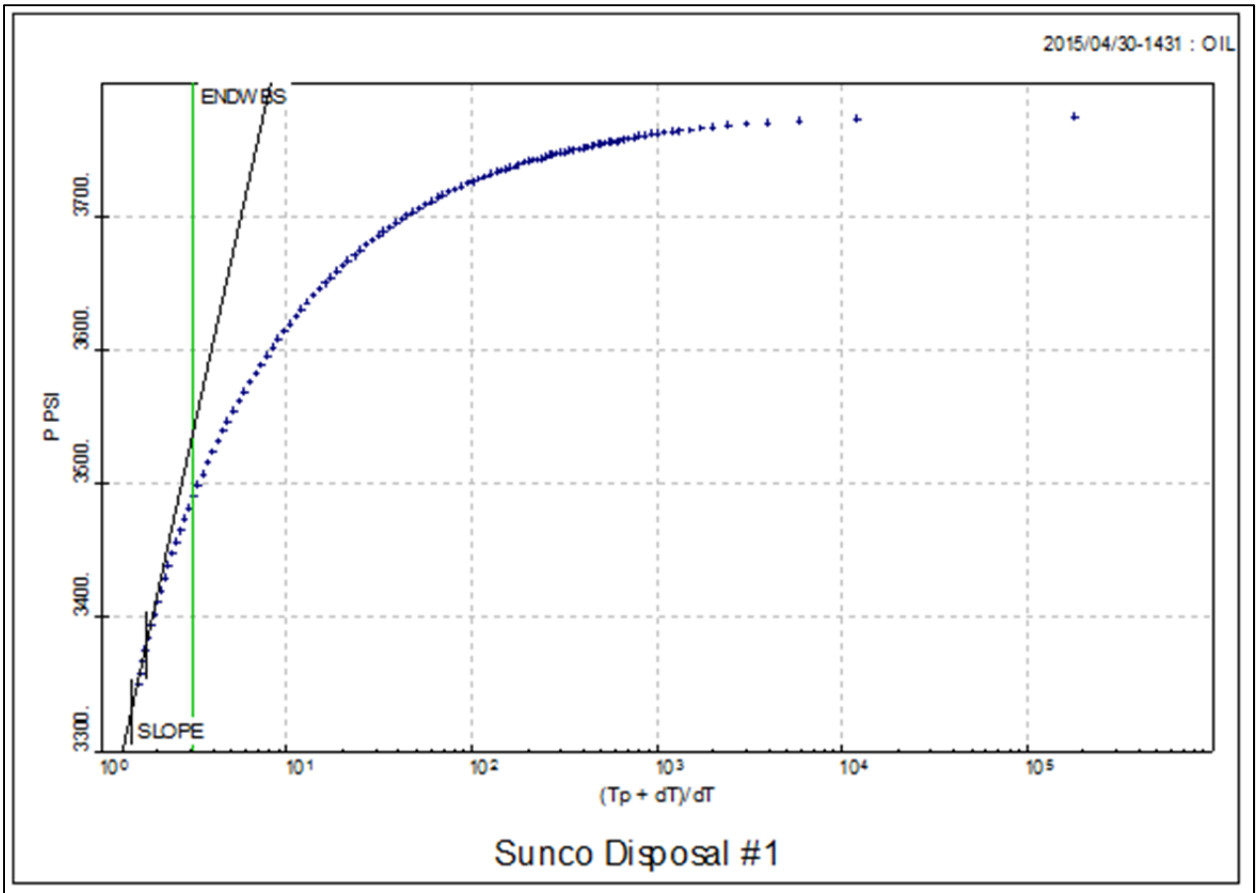
ENLARGED PLOTS:

HORNER PLOT:



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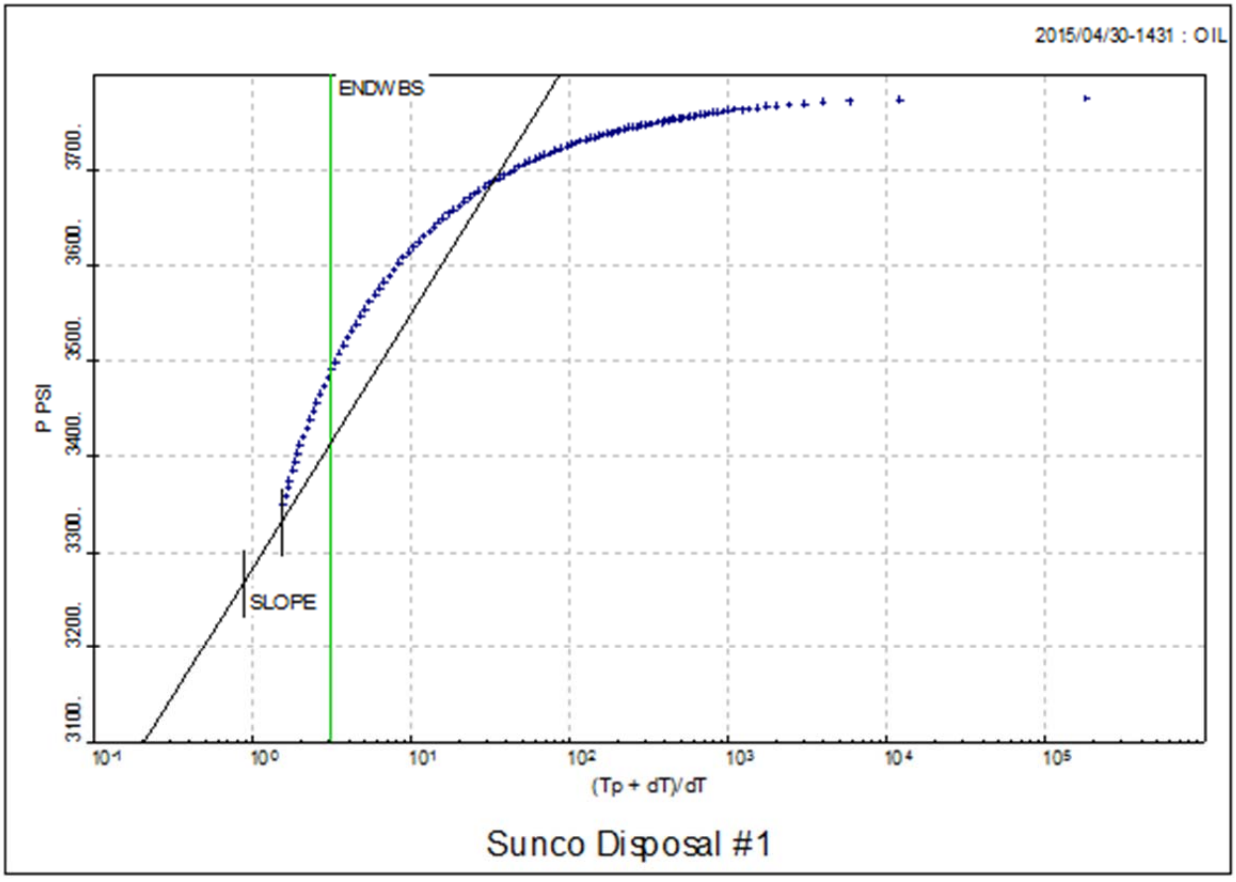
PFA Starts: 2015-04-28 12:29:58
PFA Ends : 2015-05-04 09:01:00

HORNER PLOT – ESTIMATED EXTRAPOLATION :



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skin = -5.27
permeability = 14.4 MD
Perm-Thickness = 1590. MD-FEET

Static-Data and Constants

Volume-Factor = 1.002 vol/vol
Thickness = 110.0 FEET
Viscosity = 0.7690 CP
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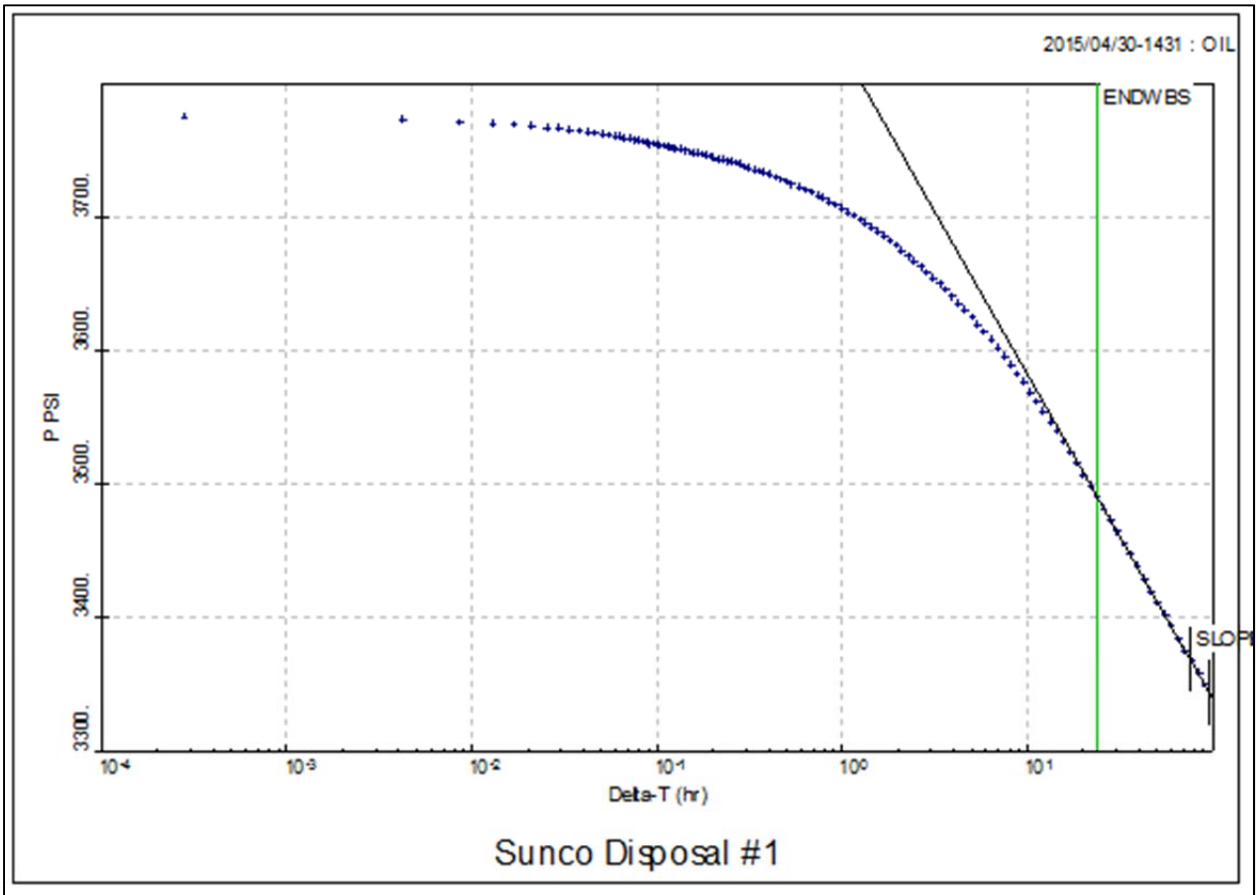
MDH PLOT:



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Thickness = 110.0 FEET
Viscosity = 0.7690 CP
Total Compress = .7130E-05 1/PSI
Rate = -3378. STB/D
Storivity = .8941E-04 FEET/PSI
Diffusivity = 6670. FEET^2/HR
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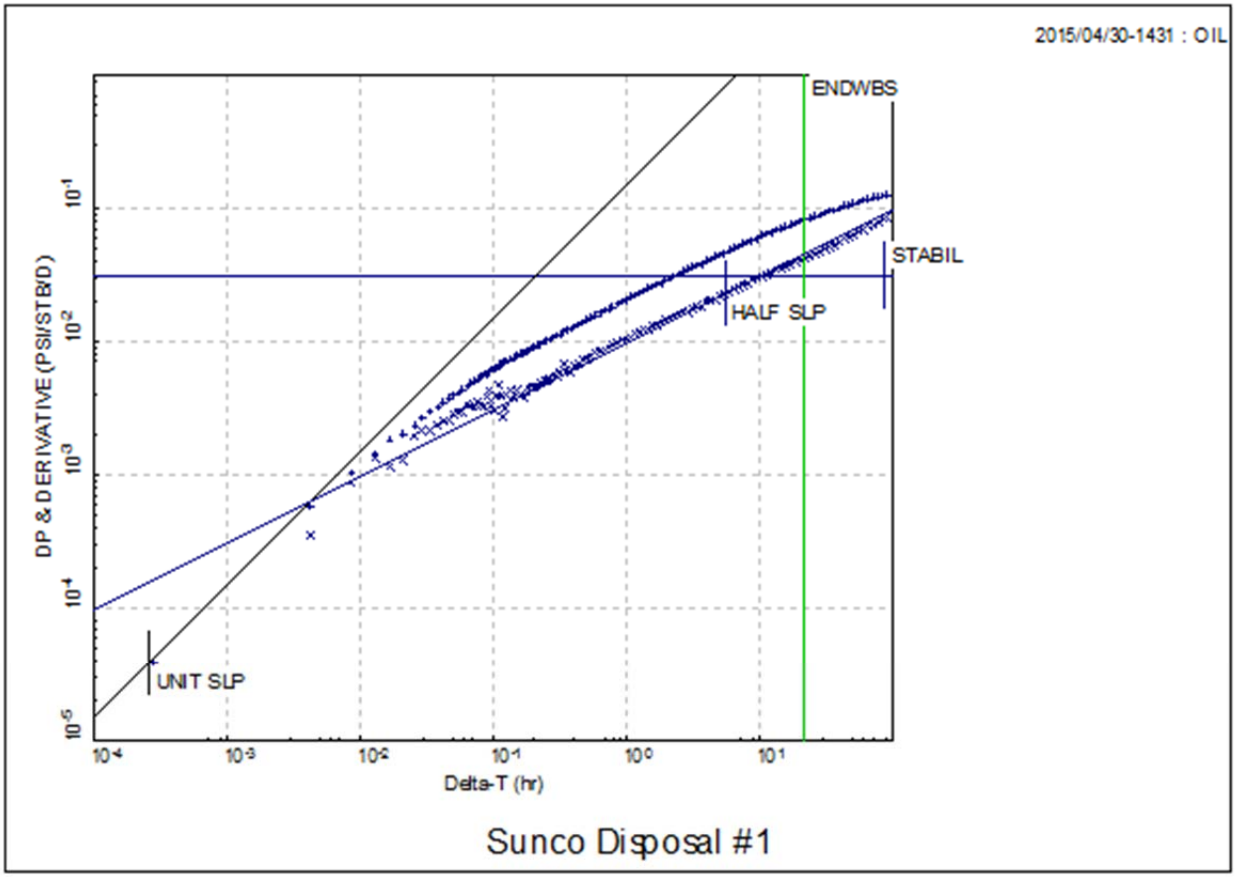
PFA Ends : 2015-05-04 09:01:00

DERIVATIVE PLOT:



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skin = -5.21
permeability = 15.8 MD
Perm-Thickness = 1740. MD-FEET
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Smoothing Coef = 0.,0.

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PFA Ends : 2015-05-04 09:01:00

Chavez, Carl J, EMNRD

From: Philana Thompson <pthompson@merrion.bz>
Sent: Friday, June 19, 2015 12:28 PM
To: Chavez, Carl J, EMNRD
Cc: Ryan Davis; Jeff Davis
Subject: FOT
Attachments: 2015-6-19 Sunco SWD FOT-Submitted.pdf

Carl,
Attached is the FOT report. Please let Ryan D or myself know if you have any questions or concerns.

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Sunco SWD #1

30-045-28653

Class I Disposal: UICI-5-0

2015 Falloff Test

Agua Moss, LLC

P.O Box 600

Farmington, NM 87499

ORGID 247130

Report Components:

1. Facility Operator Information
    a. Agua Moss, LLC
    b. PO Box 600 Farmington, NM 87499
    c. OGRID 247130
2. Well Information:
    a. UIC Permit # UICI-5-0
    b. Class I
    c. Sunco Disposal #1
    d. 30-045-28653
    e. UL E, Sec 2, T29N, R12W 1595 FNL & 1005 FWL San Juan County
3. Current Wellbore Diagram: **Attached** (page 4)
4. Copy of Electronic Log: **Previously submitted 1992** (page 5)
5. Copy of Porosity Log: **Previously submitted 1992** (page 6)
6. See attached Fall off Test analysis
    a. FOT Procedure (page 7)
    b. Analysis (page 7)
    c. Results (page 9)
    d. Summary (page 9)
7. Results Comparison attached (page 10)
8. The raw test data will be kept on file for a period of 3-year and will be made available to the NMOCD upon written request. (page 11)
9. Conclusions (page 11)
10. Any pressure or temperature anomaly: **None seen**
11. See Falloff Test Calculations (page 12)
12. Plots attached
    a. Pressure and Rate (fig 6) (page 13)
    b. Injection Rate vs Time (fig 7) (page 14)
    c. Pressure and Rate (fig 8) (page 15)
    d. Elapsed Time (fig 9) (page 16)
    e. Derivative Plot (fig 10) (page 17)
    f. Horner Plot (fig 11) (page 18)
    g. Elapsed Gauge Time (fig 12) (page 19)
    h. Injection Volumes and Surface Pressure (fig13) (page 20)
13. NO PVT data necessary, injected fluid is fresh-to-slightly saline water. No significant hydrocarbons present that would alter the density, compressibility and/or viscosity of the fluid.
14. The Agua Moss, LLC internal Daily Injection Reports were used to determine the appropriate injection history to use for the analysis. A summary of those reports (November 2013 through January 2014) are attached. (page 21- 26)
15. The Sunco Disposal #1 has injected approximately 13,547,086 bbls into the point lookout formation from 1994 through March 2015 (see attached). The offset well McGrath SWD #4 API 30-045-25923 was plugged 7/25/2013. Cumulative injection 1994-7/2013 27,746,479 bbls.

16. 1 Mile AOR:
    a. AOR 1 mile (page 27)
    b. AOR 1 mile well data (page 28)
    c. The McGrath #4 was the only offset well that was injecting into the Point Lookout formation within 1 mile. This well was plugged 7/25/2013.
17. Geological information was provided in the last Permit renewal submitted and approved in 2012.
18. Offset Wells: One offset well that was completed in the same injection interval was the McGrath #4. This well was plugged 7/2013 and therefore was not impacted.
19. Chronological listing of the daily, testing activities (operations log) attached (pages 30-45)
    a. Date of Test: **4/28/15 thru 5/4/2015**
    b. Time of the injection period: **50 hours**
    c. Type of injection fluid: **Produced water**
    d. Final injection pressure & temp prior to shutting in in the well: **3764.43 psi, 69.42 °F**
    e. Total shut-in time: **90.5 hours**
    f. Final static pressure & temp at the end of the fall-off portion of the test: **3349.84 psi, 88.14 °F**
20. Location of the shut in valve: **A wing valve located on the well's Christmas Tree was closed to begin the FOT**
21. Pressure Gauges: (see attached)
    a. SP-2000 Memory Pressure Gauge (page 46)
    b. Pressure range: **0-5000 psig** (page 47)
    c. Last Calibration: **2/4/14** (page 47)

Wellbore Schematic:

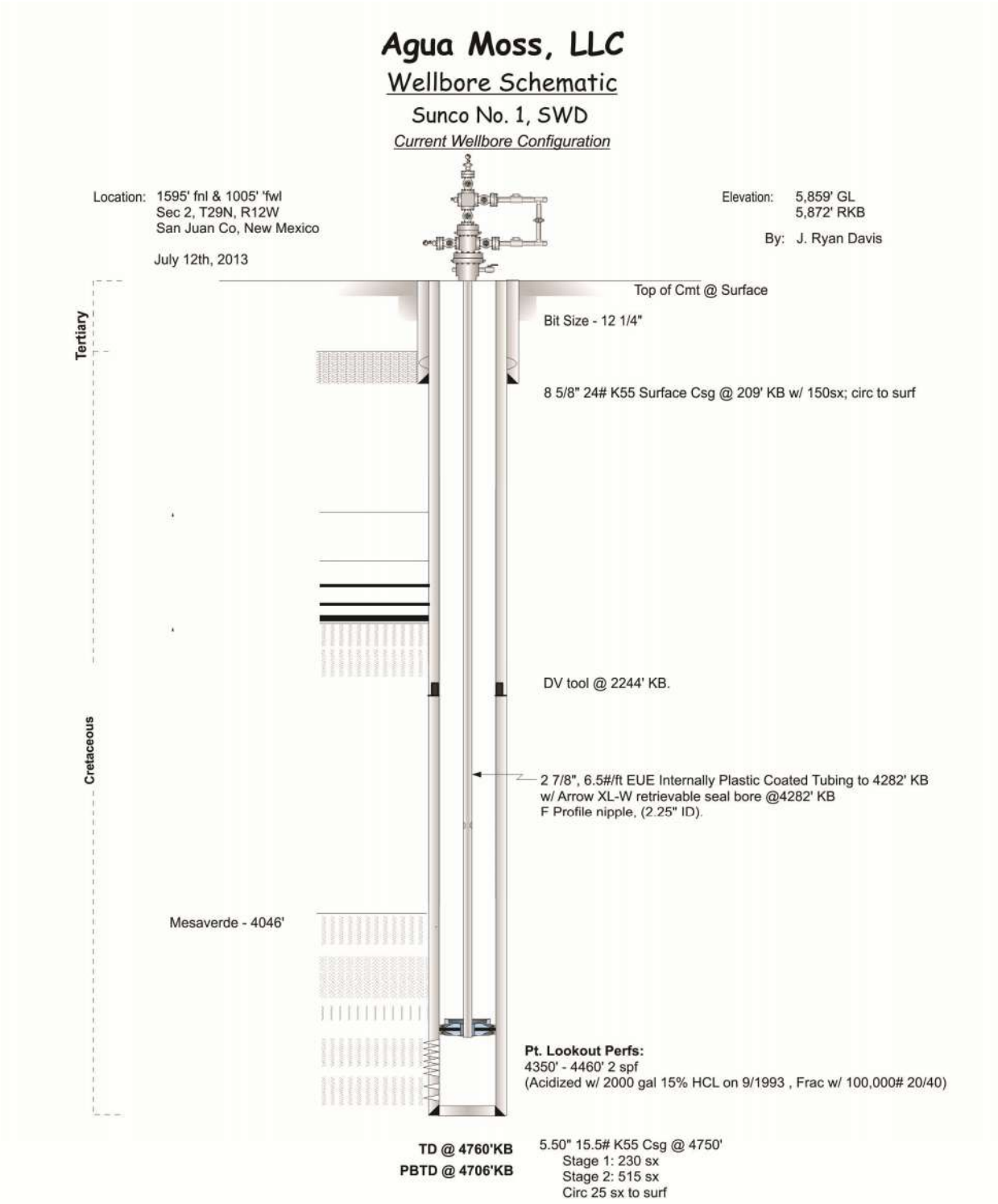
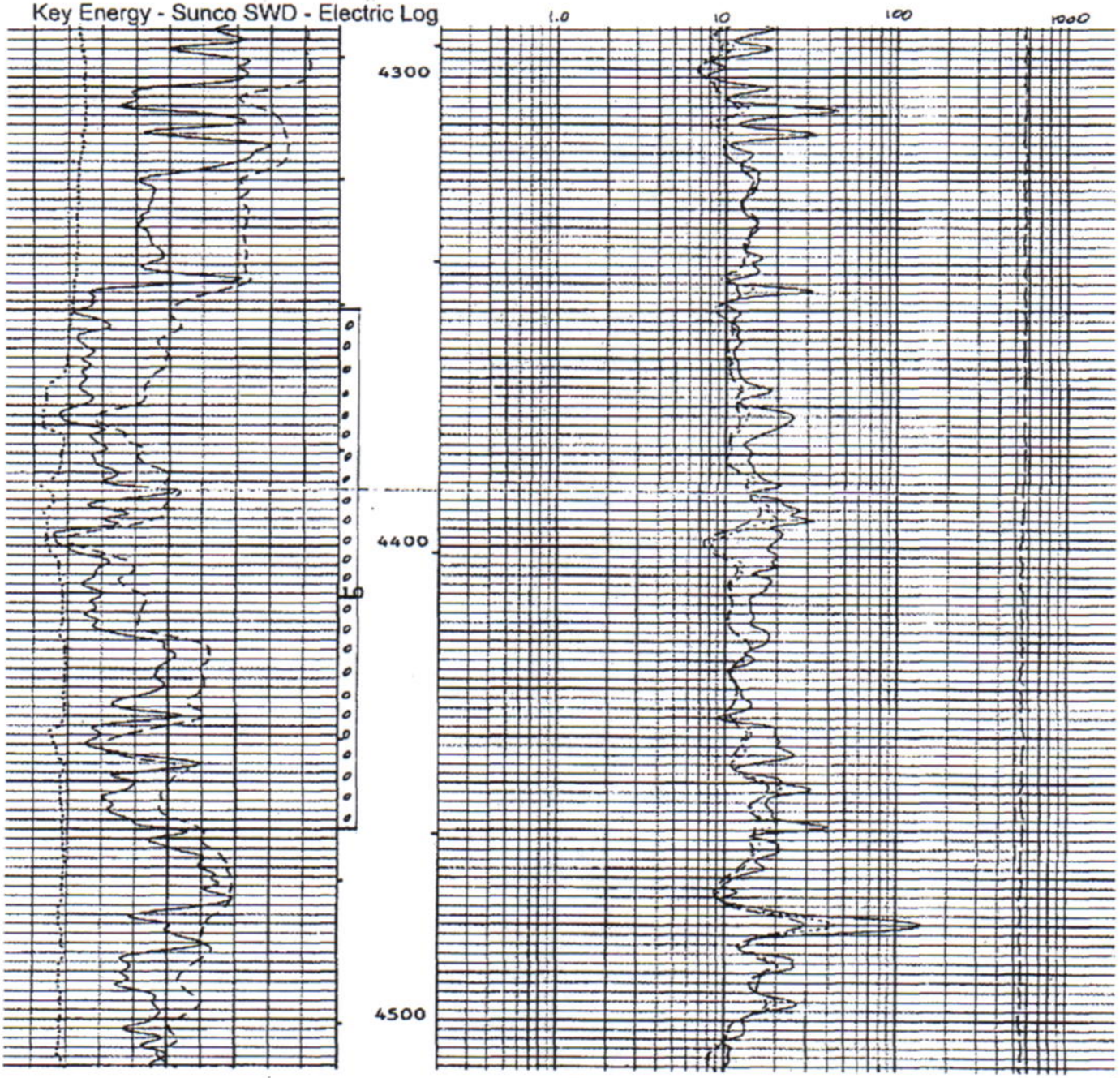


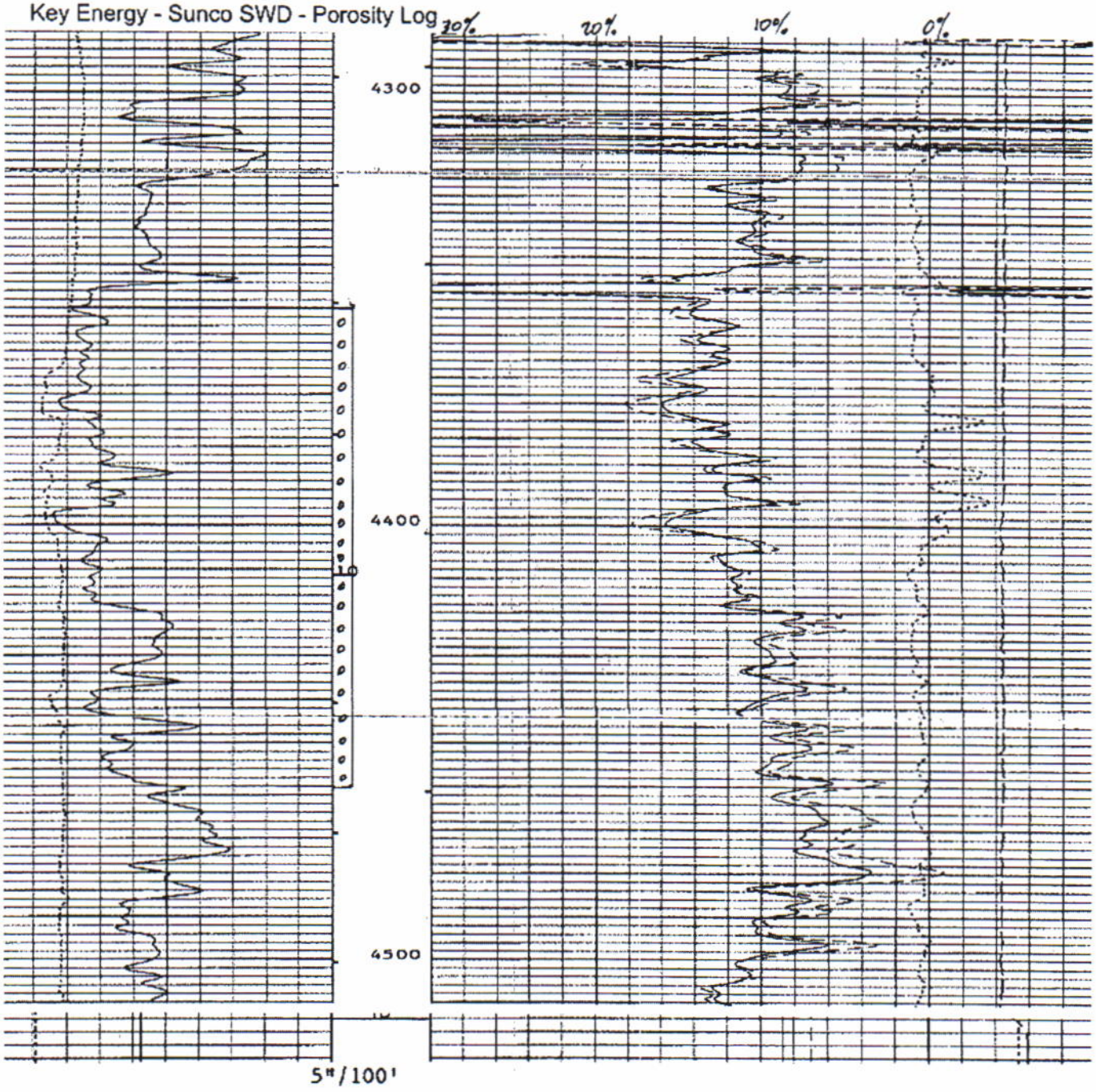
Figure 1: Wellbore Schematic

Key Energy - Sunco SWD - Electric Log



		TENS(LBF)	
		10000.	0.0
CALI(IN)		SFLU(OHMM)	
3.0000	16.000	.20000	2000.0
GR(GAPI)		ILD(OHMM)	
0.0	200.00	.20000	2000.0
SP(MV)		ILM(OHMM)	
80.00	20.000	.20000	2000.0

Key Energy - Sunco SWD - Porosity Log



CP 32.6 FILE 6 01-FEB-1992 20:21 (UP)

		DRHO(G/C3)	
		-.2500	.25000
		TENS(LBF)	
		10000.	0.0
CALI(IN)		RHOB(G/C3)	
6.0000	16.000	2.0000	3.0000
GR(GAPI)		DPHI(V/V)	
0.0	200.00	.30000	-.1000

At the request of the NMOCD, a Falloff Test (FOT) was performed on the Sunco SWD #1 Class I injection well (UICI-5-0) on **04/28/2015**. Below is the summary of findings from the 2015 FOT.

Procedure:

Tandem electronic gauges were run in the subject well. The initial BHP was 3243 psi at a depth of 4405'. The injection period started at 12:30 pm on 04/28/2015, with a total of 7002 bbls injected over 50 hours, and an average injection rate of 3361 bpd (98 gpm). The final bottom hole injection pressure was 3764 psi. Injection was shut down and the well was shut it at the wellhead. The bottom hole pressures were monitored for 90 hours of pressure falloff. The final BHP was 3350 psi.

Analysis:

The data was compiled in excel and analyzed. A Cartesian plot of pressure and temperature versus time was created see Figure 2 below..

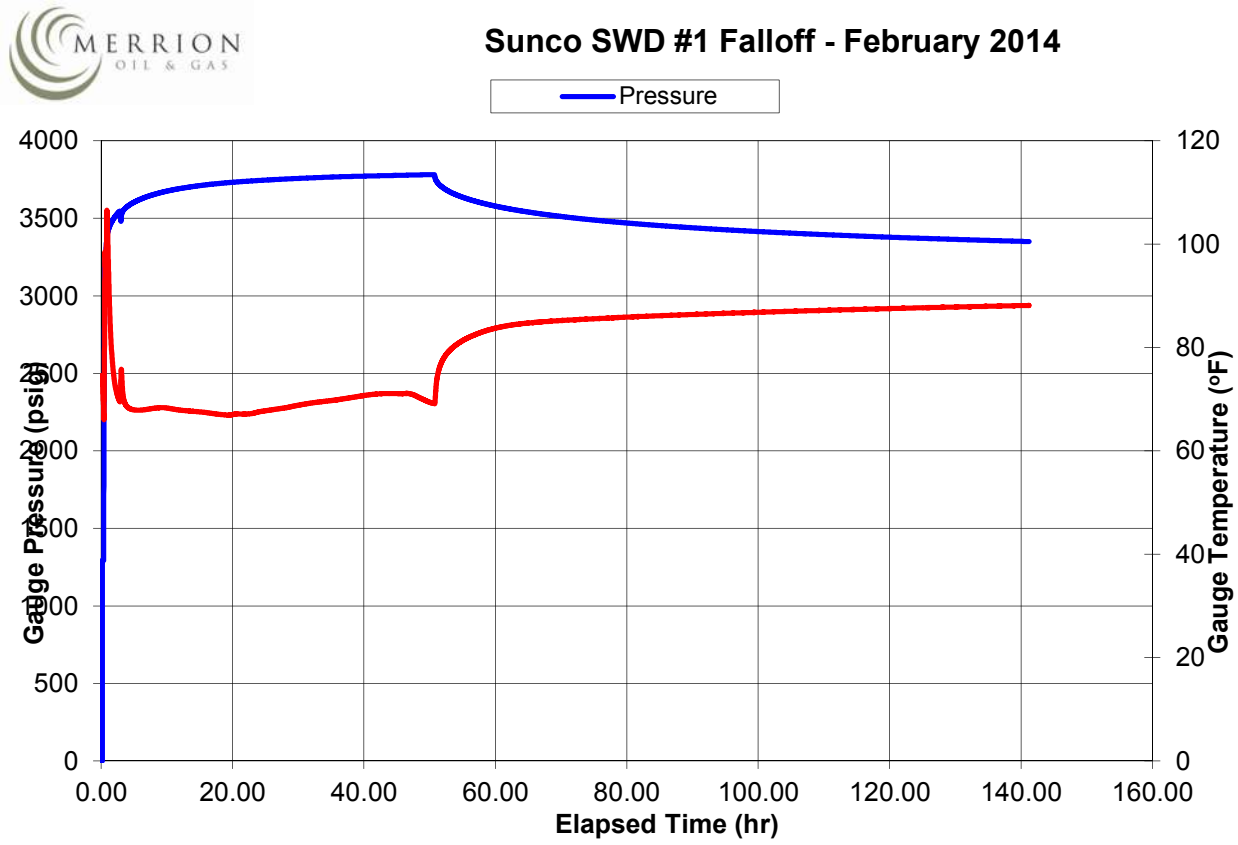


Figure 2: Cart Pressure/Temp vs. Time

The stabilization of pressure was confirmed prior to shut-in. The plot was reviewed for anomalous data, none found.

A log-log plot of pressure and the derivative was created to identify the radial flow period. Figure 3 below shows the log-log plot used for the analysis with the radial flow period identified.

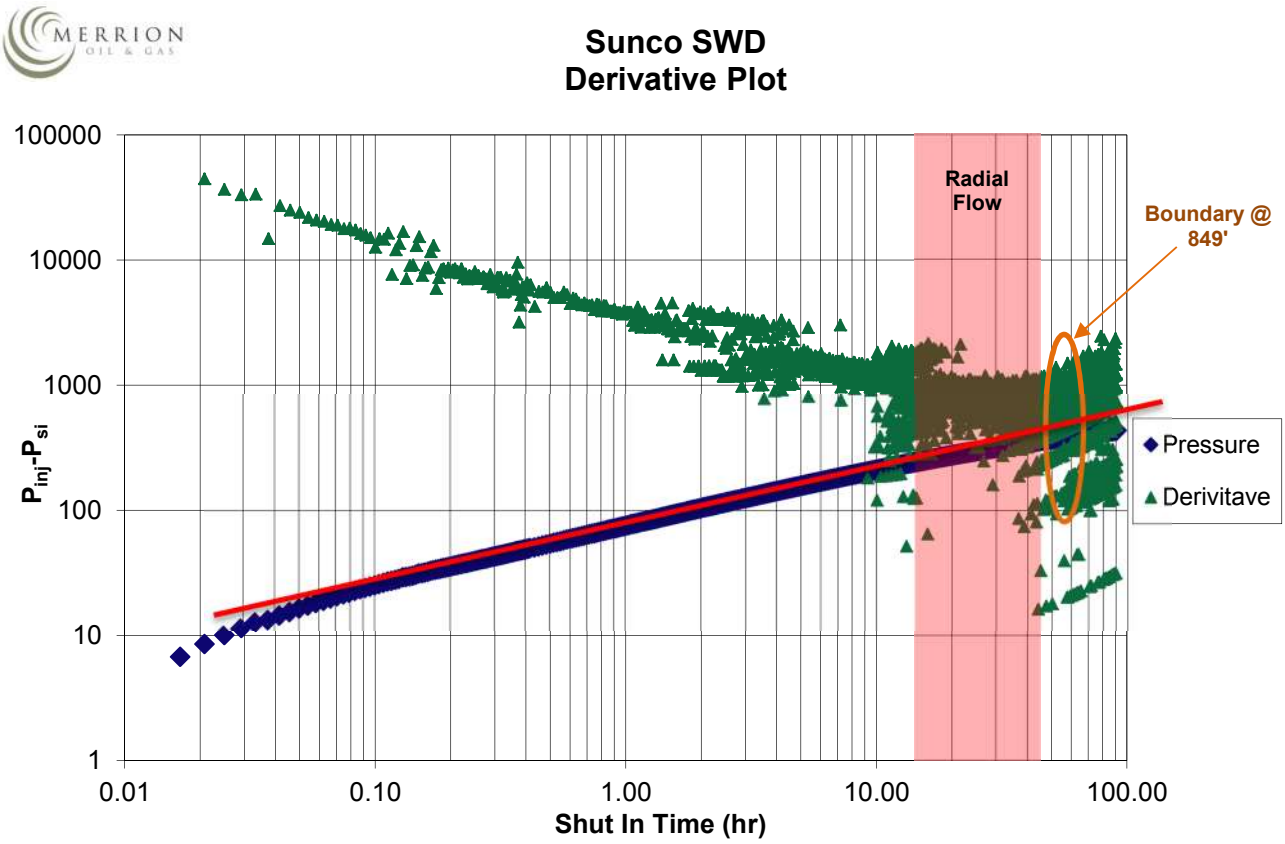


Figure 3: Derivative Plot

From Figure 3 above you can also see the change in the derivative at a shut-in time of approximately 55 hours, indicating a boundary at approximately 849 feet.

The radial flow interval was used to draw a straight line of best fit on the Horner Plot within the equivalent time interval. The slope m, P* and P_{1hr} were determined from the straight line on the Horner Plot, Figure 4 below.

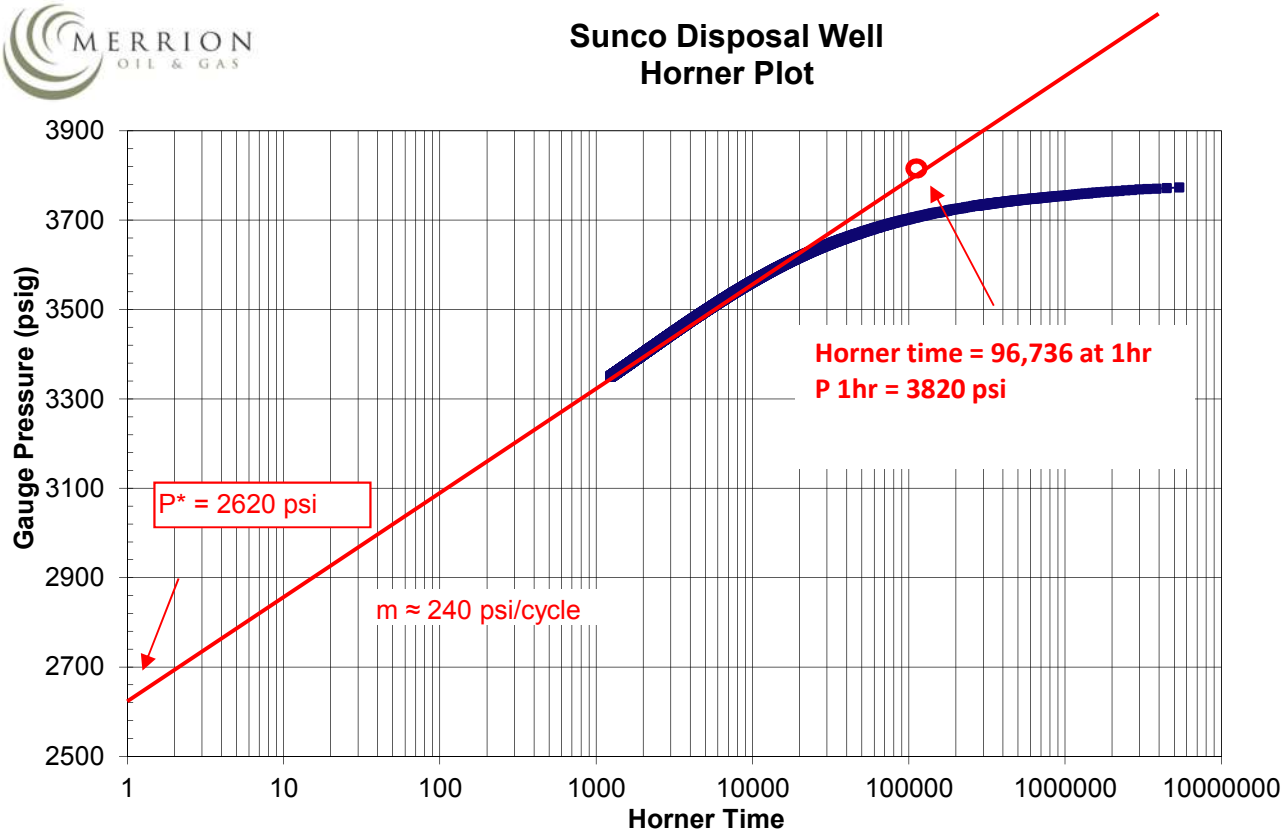


Figure 4: Horner Plot

Using the parameters identified, as described above, the reservoir and completion parameter were calculated. Calculations can be found in Figure 5 below.

Results:

1. P* = 2620 psi
2. K = 20.7 md
3. S = -5.5
4. Radius of Investigation = 1,089 feet
5. Boundary seen at approximately 849 feet

Summary:

The data from the FOT indicated a hydraulically fractured injection interval with a Fracture half-length of 383 feet. The P* value calculated from the data was 2620 psi, being somewhat lower than previous values. The injection volumes into the Mesa Verde interval in this area have been on a decline over the last eight years, can be seen in Figure 13. The reduced injection volumes are attributable to less water being received at the Sunco SWD Facility and the P&A of the offset McGrath SWD 4. The lower P* value

is an indication of pressure dissipation into the reservoir, which is good. Although there has been boundaries seen in the past FOT's and one seen on this analysis, the reservoir is not being constrained by the boundaries. You can also see in Figure 13 a decreasing trend with the surface pressures, which again is evidence of pressure dissipation in the reservoir. As long as the surface pressure limitations keep us below fracture pressure, injecting into the well at the current injection rates will not damage the reservoir or migrate into other zones. The injection interval overall looks healthy and suitable for waste water disposal.

Comparison with past Falloff Tests:

The results from the 2015 FOT were compiled with previous FOT results from the facility and are shown below in Table 1.

Table 1: Results Comparison

	2015	2014	2010	2009	2008	2007
Rate (bbl/day)	**3340**	739	4500			
P* (psi)	**2620**	3135	3231	3242	3176	3258
K (md)	**20.6**	3.4	13.6	10.2	20.7	
S	**-5.6**	-4.1	-7.18	-7.23	-6.79	
Radius of Inv (ft)	**1,085**	336	1450	1250	1750	1620
Frac ½ Length (ft)	**378**	336	893	926	596	688
Boundary	**846**	None	648, 1520	755	987	none

Agua Moss did not conduct the prior tests and is relying on the 2010 report submitted by Key Energy, the prior operator, for the prior results. In comparing the results, there are a number of observations to make:

1. Pressure transient analysis is not an exact science, and the results are non-unique. All the calculated parameters vary significantly from year to year. One interpretation sees a boundary, the next one sees TWO boundaries, and one sees no boundary. The bottom line is that two different interpreters may come up with different results looking at the same data set, and even the same interpreter will come up with different results as data sets vary from year to year. Therefore, to a great extent, one must make qualitative conclusions from the analysis, without putting too much weight into the absolute numbers.

2. The slightly lower P* suggests that there has been some pressure dissipation in the reservoir due to less injection activity in the injection interval. That is a good sign, indicating the disposal zone has a lot of capacity to accept fluids.

3. The injection rate in the 2010 test was 4500 BPD, while we were only able to inject 739 BPD during the 2014 test, because of facility constraints. Since the injection rate drives the calculations, the ***calculated*** permeability was less and the ***calculated*** skin factor was greater than in past tests. All ***calculated*** radius are driven by the permeability used in the equation. Because the permeability used in the 2014 analysis was significantly less than prior analysis, ***the calculated*** radius of investigation an***d fracture*** half-length both come up significantly lower.

4. The radius of investigation for 2015 was adequate enough to see out beyond all but one of the previously seem boundaries. In fact a boundary was identified at approximately 846 feet. **Note:** *On 2010 results seems peculiar to have a boundary beyond the Radius of Investigation.*

5. The parameters calculated compare well enough with previous FOT parameter to validate the 2015 FOT results. The only major variance is the P*which is easily justified by reduced injection and pressure dissipation.

Data:

The raw test data obtain during the 2015 falloff test and used for the analysis will be kept on file for a period of three (3) years and will be available upon request.

Conclusions:

Based on the above analysis and results comparison, Agua Moss believes the Sunco SWD #1 2015 FOT was successfully completed and doesn't show any indications of concern to continue the current waste injection operations. If the division is in agreement with the successful completion of the FOT, Agua Moss would like to propose conducting the next FOT on or before 04/2020.

	Falloff Test Calculations					BHP	3,782	
Lease Name	**Sunco SWD**							
Field Name	**Mesaverde**							1.6E+07
Test Date	**04/28/15**							
Cum Injection	**7,002**	BBlls						
Injection Period	**50**	hours						
Ave Inj Rate	**3,361**	BWD	Cum Inj	1.35E+07	Bbl			
Water specific gravity	**1.00**		Rate	3,361	Bbl/day			
			Inj Time	96,736	hrs	Average pres	3,201	psi
			Water vis	1.0000	cp	Drainage radius	2,980	ft
			Bw	1.00000	RB/ surf bbl			
Reservoir temp	**173**	°F						
Acres	**640**					Compressibility wate	3.00E-06	
I. Calculation of kh (md-ft) and k (md)						Compress formation	3.65E-06	
Slope (psi/cycle)	**240**	(1)				System Comp.	0.000007	
Pwf	**3,782**	psi	KH	2277.080	md-ft			
Pressure star	**2,620**	psi	**Kw**	**20.701**	**md**			
Net thickness	**110**	ft	KH/u	2,277				
II. Calculation of Skin Effect and Pressure Loss Due to Skin								
Porosity	**0.200**	frac						
Well bore radius	**0.33**	ft	**Skin**	**-5.49**	LN(rwa/rw)			
P one hour	**3,820**	(2)	Pseudo skin	(1,146)	psi			
Water saturation	**1.00**	frac	Flow Efficiency	199%	(Pwf-Dpskin - Pstatic)/(Pwf-Pstatic)			
Injection Time	50	hr						
Time to Reach Radial	0.000	hr	(200000+12000*S)*Ct/(kh/u)					
Radius of Investigation	809	ft	0.029*(kt/Por*u*Ct)^.5					
Shut In Time	90.5	hr				Time to Reach Boundary	55	hr
Time to Reach Radial	0.00023	hr	170000*Ct*exp^(.14*S)/(kh/u)			Time to Reach Radial	0.0002302	hr
adius of Investigation	**1,089**	ft	0.029*(kt/Por*u*Ct)^.5			**Distance**	**849**	ft
ime to end of Frac Flow	11.2	hr						
Frac Half Length	383		0.029*(kt/Por*u*Ct)^.5					
Horner straight line starts 11 hours								
Finite Conductivity Fracture of approximately 383' half length								

Figure 5: FOT Calculations

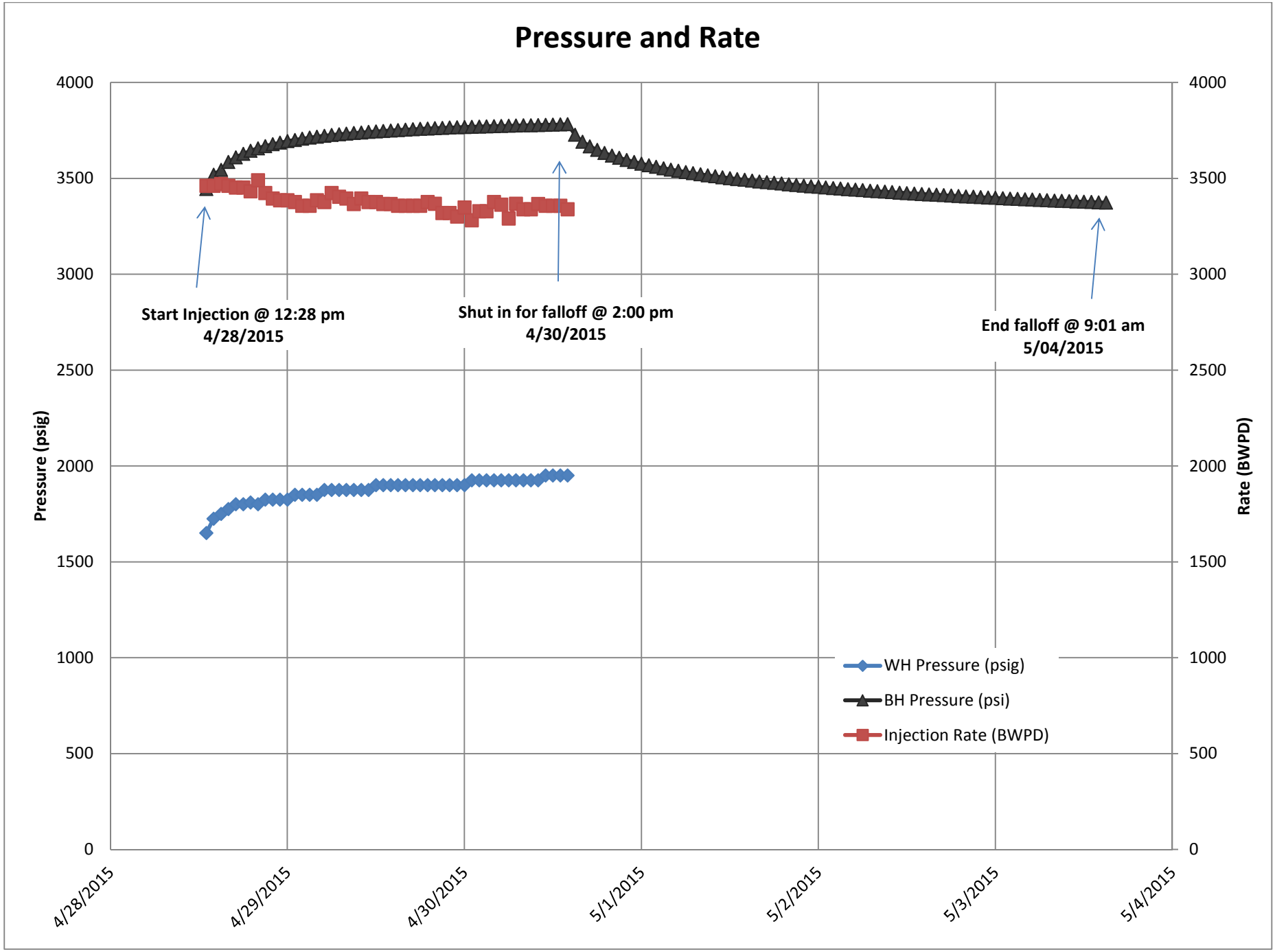

Pressure and Rate
Pressure (psig)
Rate (BWPD)
4000
3500
3000
2500
2000
1500
1000
500
0
4/28/2015
4/29/2015
4/30/2015
5/1/2015
5/2/2015
5/3/2015
5/4/2015
Start Injection @ 12:28 pm
4/28/2015
Shut in for falloff @ 2:00 pm
4/30/2015
End falloff @ 9:01 am
5/04/2015
WH Pressure (psig)
BH Pressure (psi)
Injection Rate (BWPD)

Figure 6

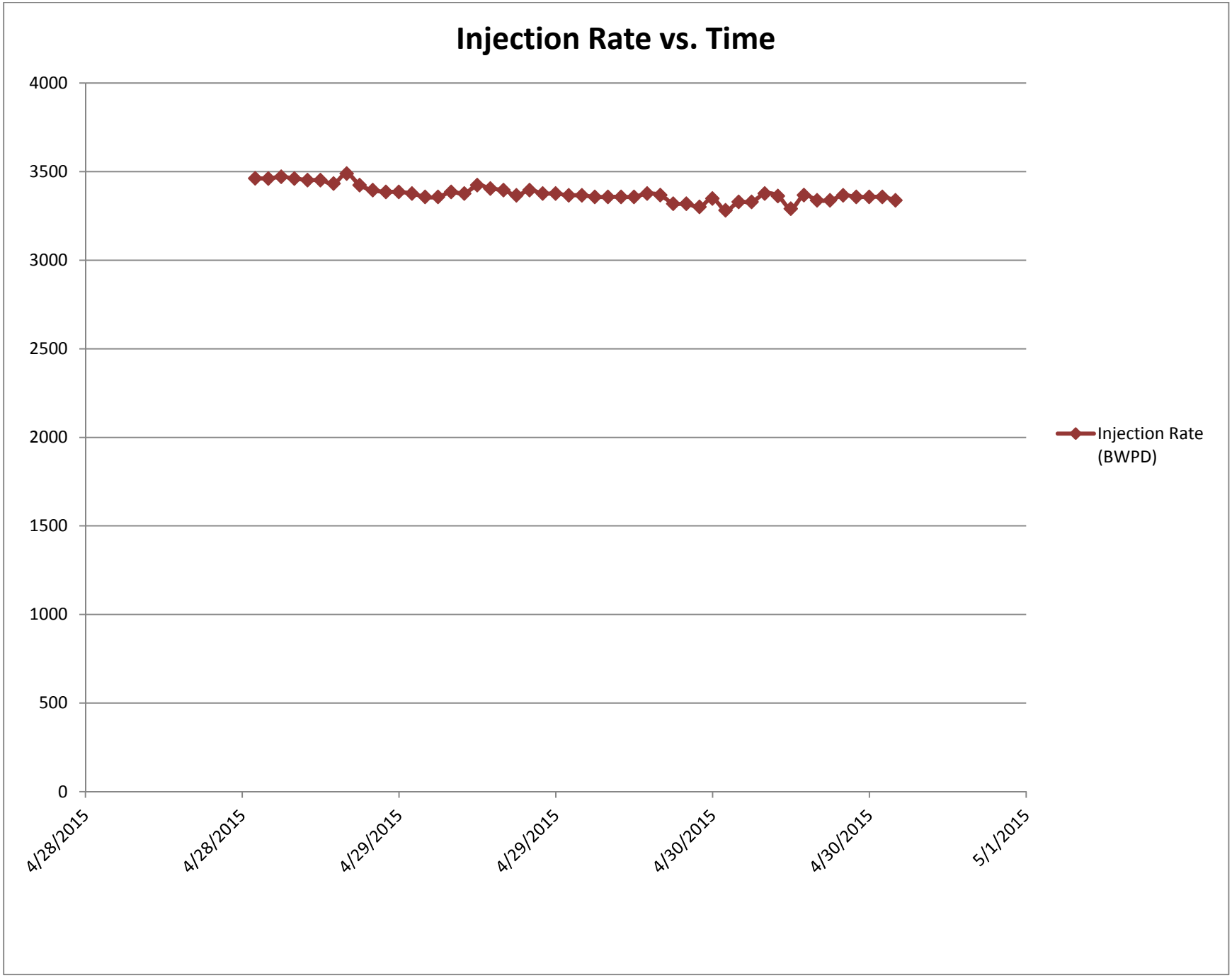

Injection Rate vs. Time
4000
3500
3000
2500
2000
1500
1000
500
0
4/28/2015
4/28/2015
4/29/2015
4/29/2015
4/30/2015
4/30/2015
5/1/2015
Injection Rate (BWPD)

Figure 7

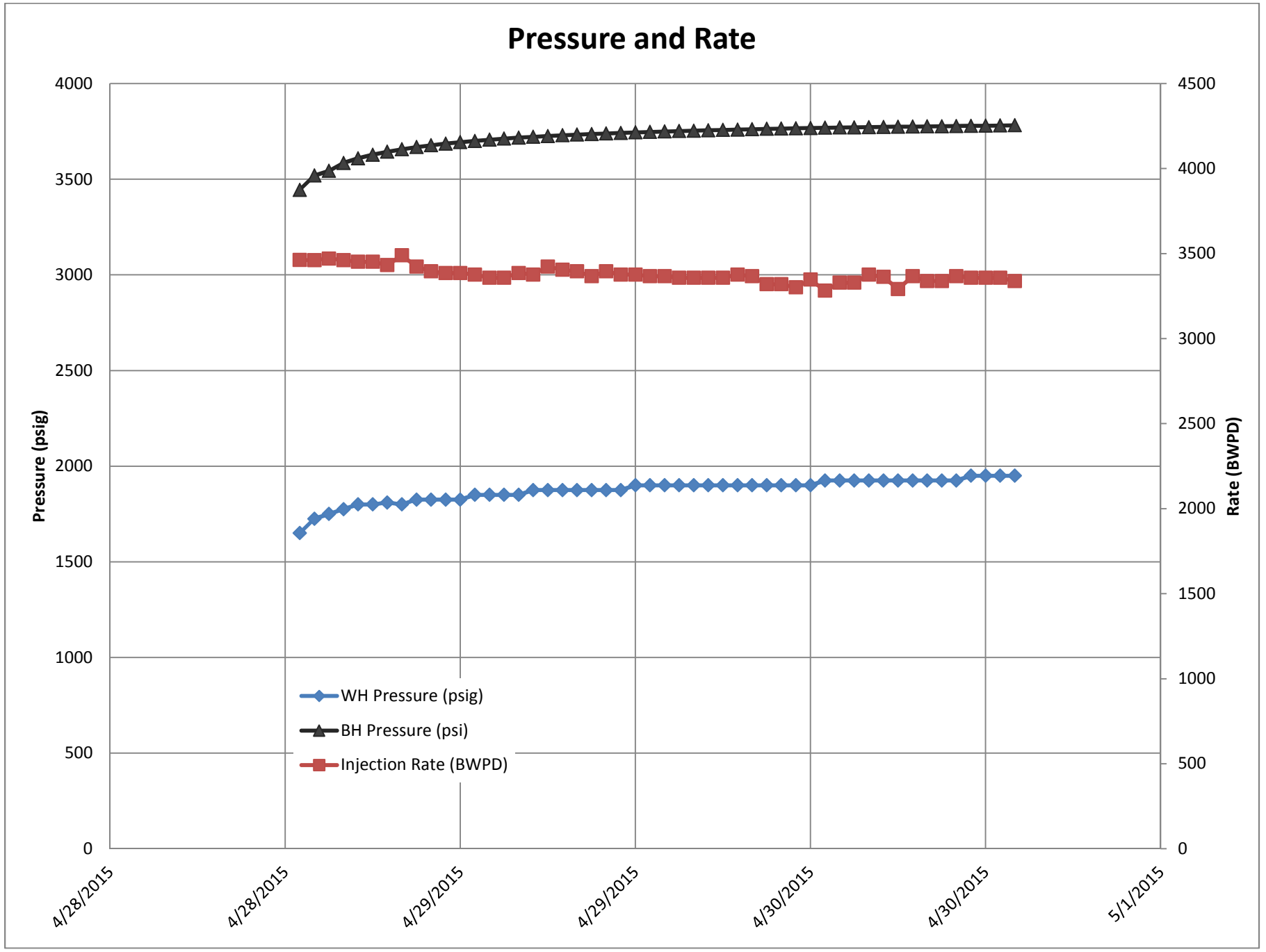

Pressure and Rate
Pressure (psig)
Rate (BWPD)
4000
3500
3000
2500
2000
1500
1000
500
0
4500
4000
3500
3000
2500
2000
1500
1000
500
0
4/28/2015
4/28/2015
4/29/2015
4/29/2015
4/30/2015
4/30/2015
5/1/2015
WH Pressure (psig)
BH Pressure (psi)
Injection Rate (BWPD)

Figure 8

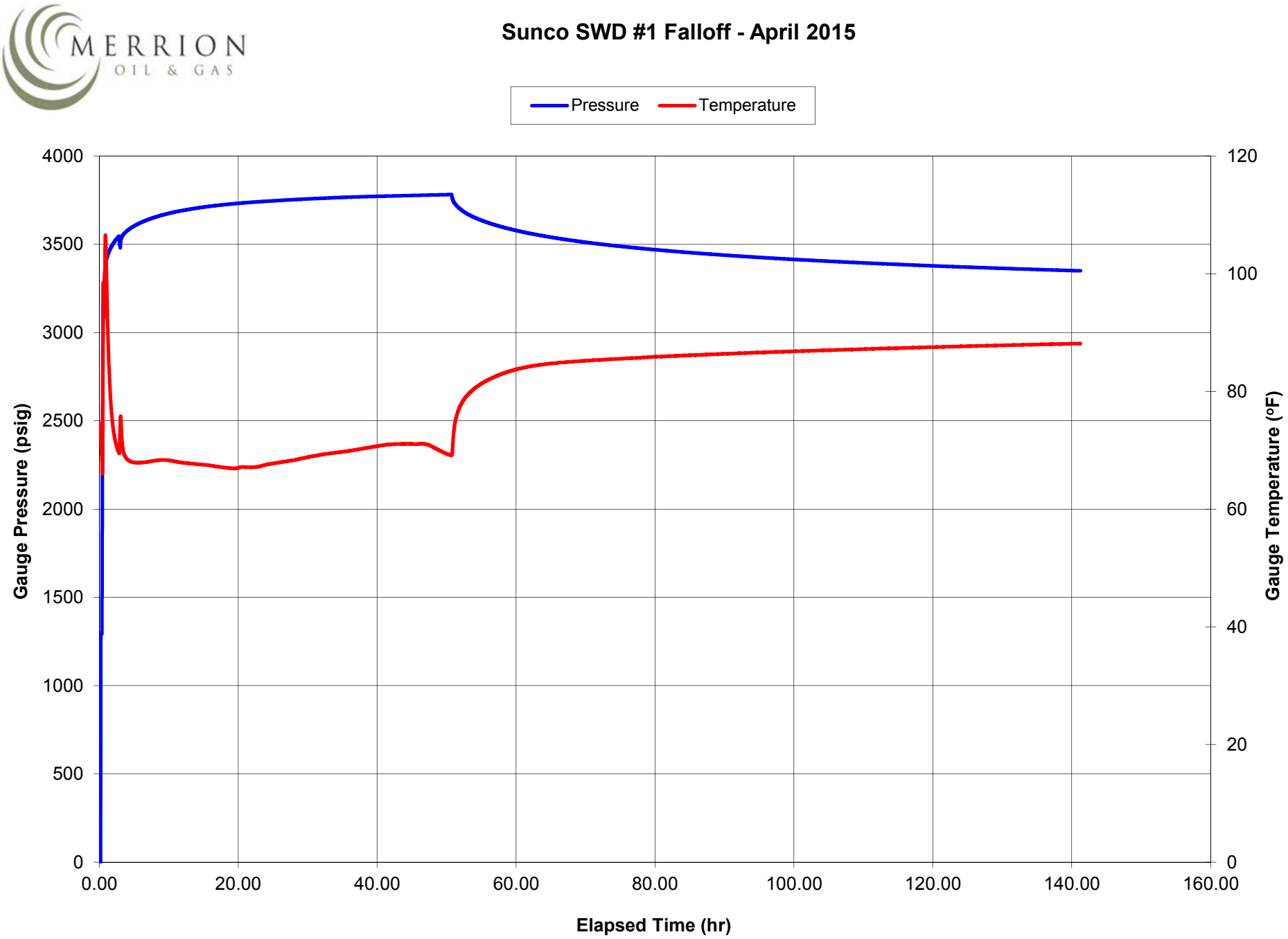

Sunco SWD #1 Falloff - April 2015
Pressure
Temperature
Gauge Pressure (psig)
Gauge Temperature (°F)
Elapsed Time (hr)
4000
3500
3000
2500
2000
1500
1000
500
0
120
100
80
60
40
20
0
0.00
20.00
40.00
60.00
80.00
100.00
120.00
140.00
160.00

Figure 9

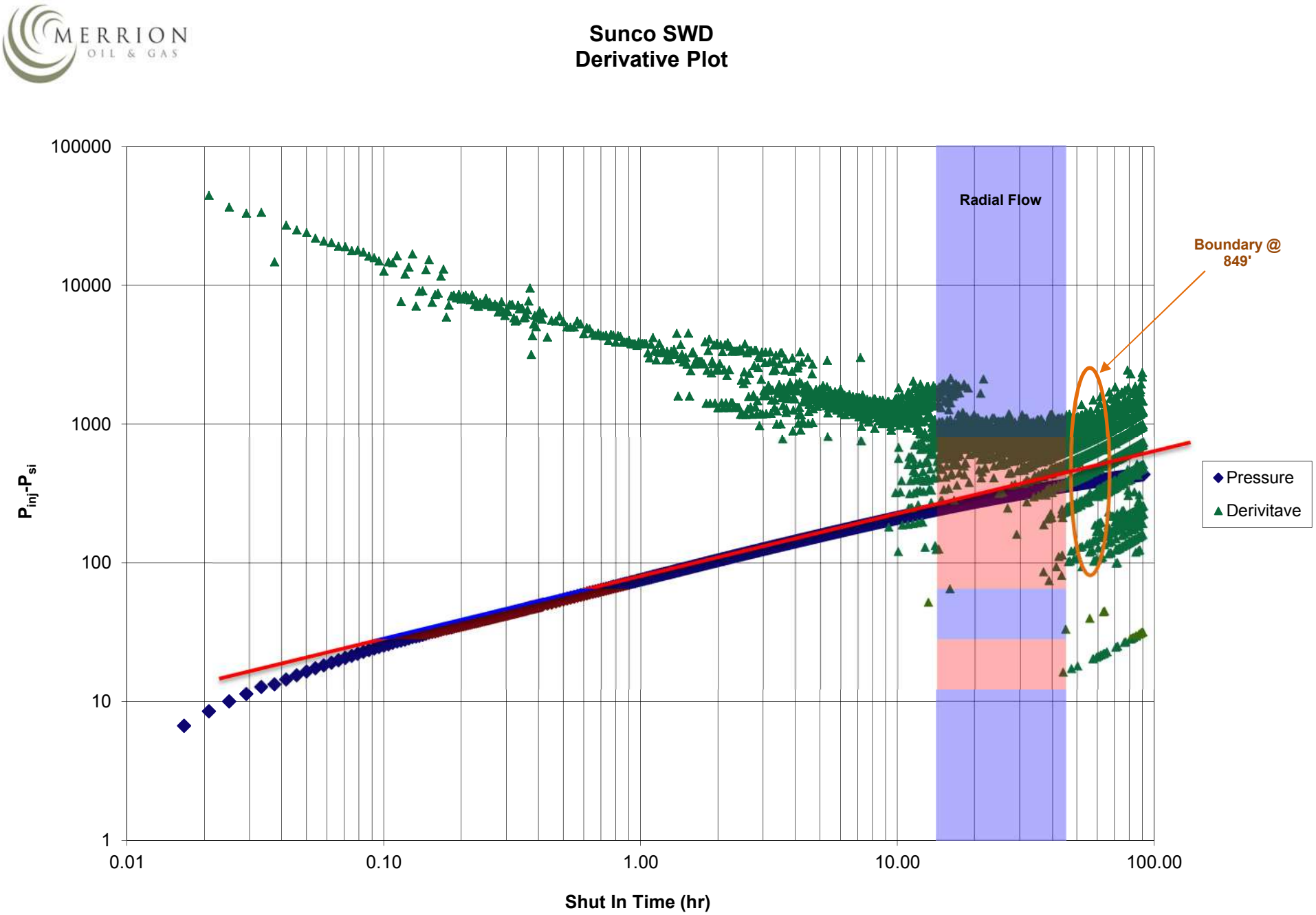

Sunco SWD
Derivative Plot
Radial Flow
Boundary @ 849'
Pressure
Derivitave
P_{inj}-P_{si}
Shut In Time (hr)
100000
10000
1000
100
10
1
0.01
0.10
1.00
10.00
100.00

Figure 10

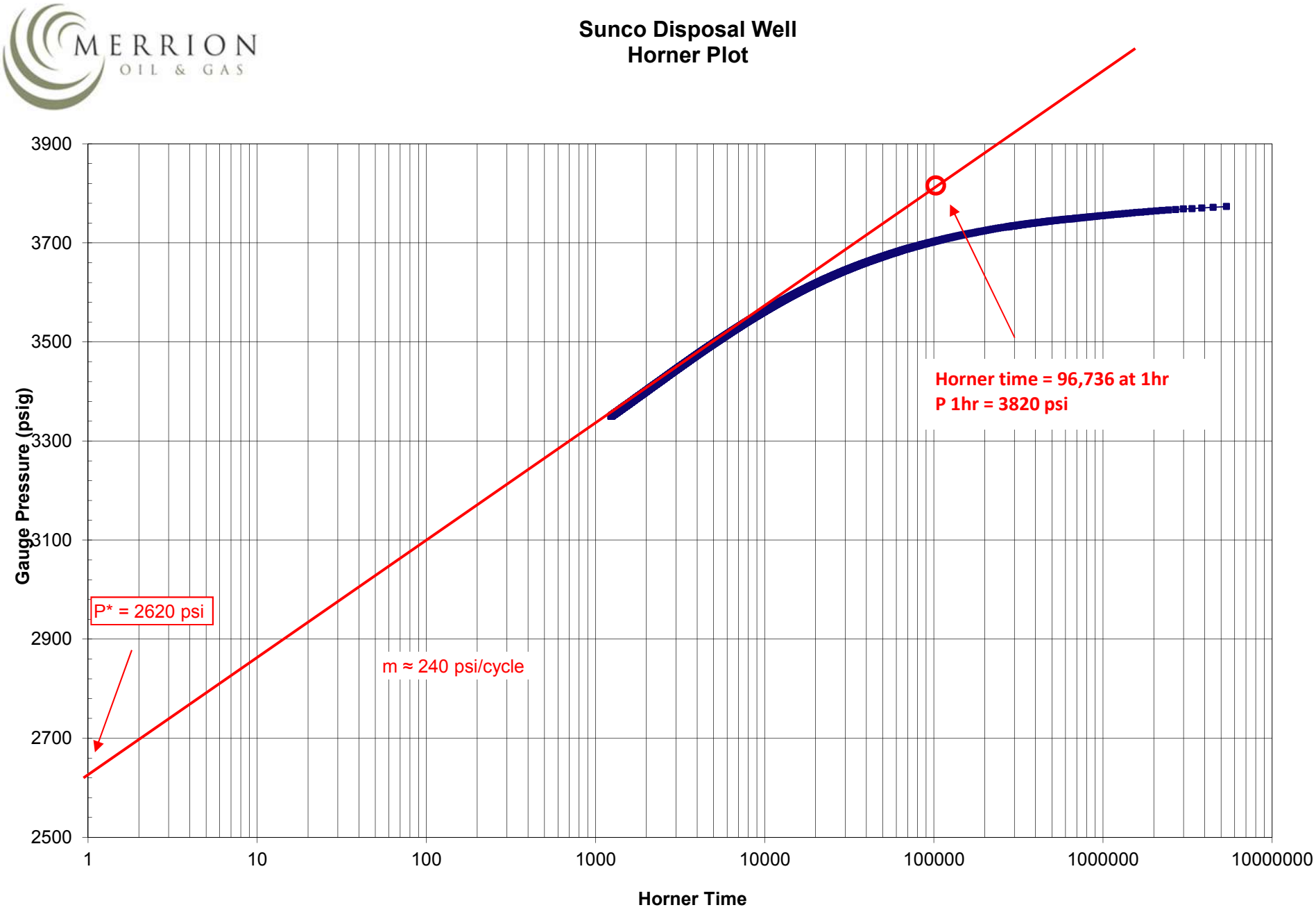

Sunco Disposal Well
Horner Plot
Gauge Pressure (psig)
3900
3700
3500
3300
3100
2900
2700
2500
1
10
100
1000
10000
100000
1000000
10000000
Horner Time
Horner time = 96,736 at 1hr
P 1hr = 3820 psi
P* = 2620 psi
m ≈ 240 psi/cycle

Figure 11

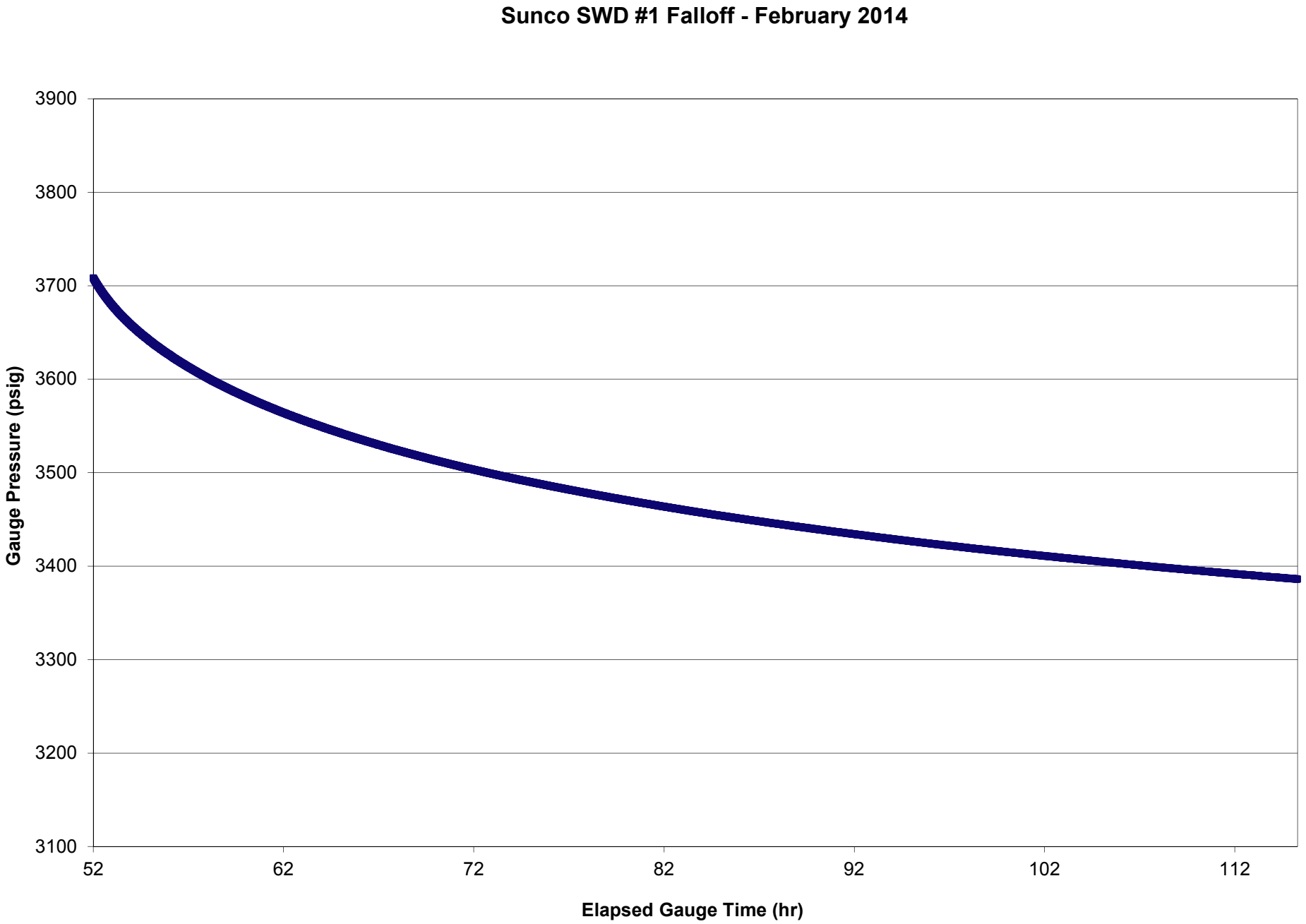

Sunco SWD #1 Falloff - February 2014
Gauge Pressure (psig)
3900
3800
3700
3600
3500
3400
3300
3200
3100
52
62
72
82
92
102
112
Elapsed Gauge Time (hr)

Figure 12

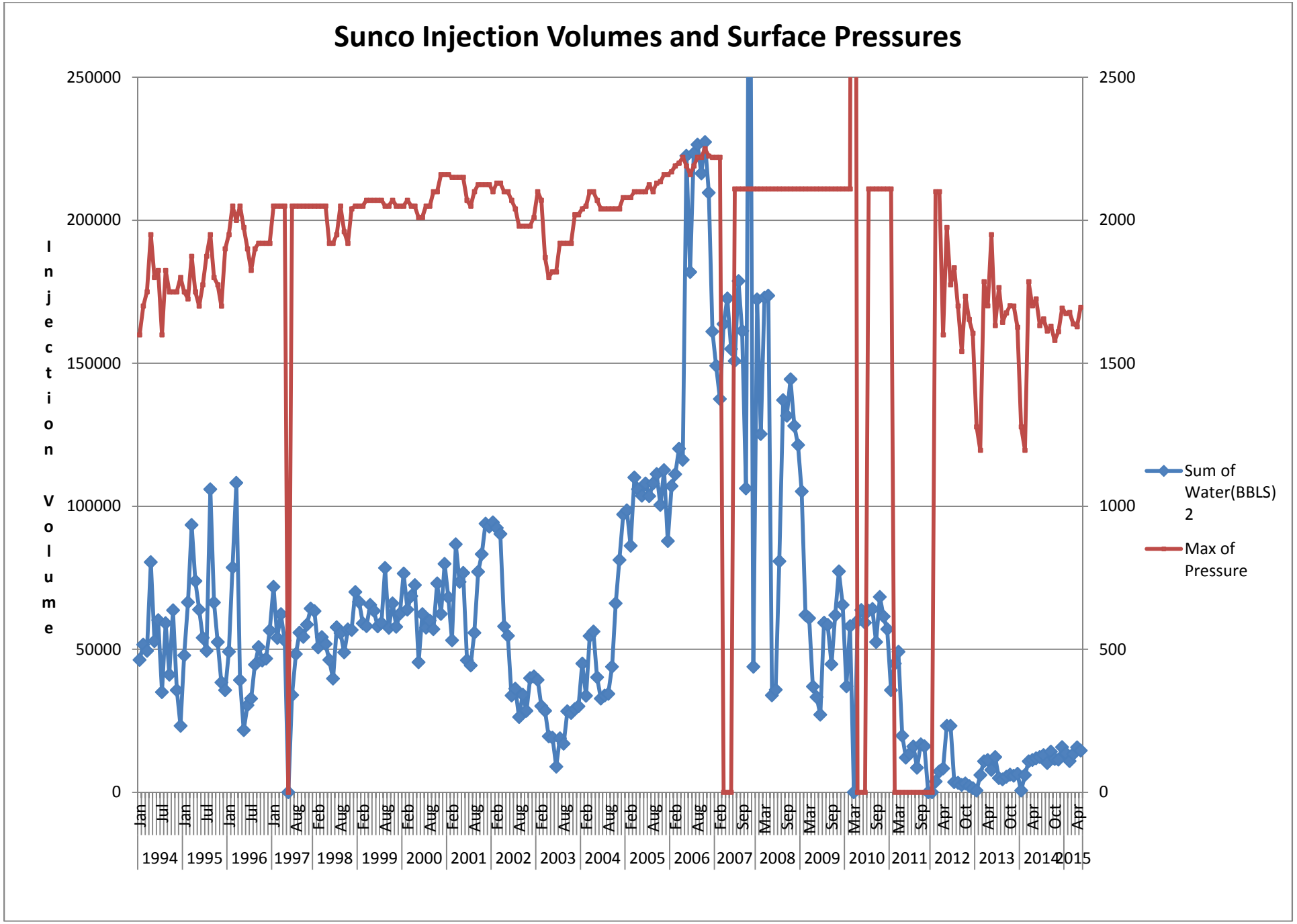


Figure 13: Injection and Pressure Plot

UICI-5-0
Agua Moss, LLC
Sunco Disposal #1 30-045-28653

2015
Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maxium Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	13471572	
Jan-2015	1674.545	1750	1600	18.70277778	32.2875	4.725	0	0	0	641.2381	1107	162	13466	13485038	
Feb-2015	1678.5	1750	1600	15.855	26.36666667	7.2041667	0	0	0	543.6	904	247	10872	13495910	
Mar-2015	1638.636	1750	1600	17.79034091	32.725	5.075	0	0	0	609.9545	1122	174	13419	13509329	
													Previous Quarter	13509329	
Apr-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
May-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
Jun-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
													Previous Quarter	13509329	
Jul-15	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
Aug-15	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
Sep-15	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
													Previous Quarter	13509329	
Oct-2015	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
Nov-2015	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
Dec-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
												Total for year	37757	13547086	Life Of well injected

	WH	AP	
1/1/15	1650		
1/2/15	1650		
1/3/15			
1/4/15			
1/5/15	1750		
1/6/15	1650		
1/7/15	1600		
1/8/15	1650		
1/9/15	1600		
1/10/15			
1/11/15			
1/12/15	1650		
1/13/15	1740		
1/14/15	1600		
1/15/15	1600		
1/16/15	1600		
1/17/15			
1/18/15			
1/19/15	1600		
1/20/15	1750		
1/21/15	1700		
1/22/15	1750		
1/23/15	1750		
1/24/15			
1/25/15			
1/26/15	1700		
1/27/15	1750		
1/28/15	1700		
1/29/15	1750		
1/30/15	1650		
1/31/15			
	1674.545	0	AVG
	1600	0	MIN
	1750	0	MAX

	WH	AP	
2/1/15			
2/2/15	1750		
2/3/15	1750		
2/4/15	1650		
2/5/15	1650		
2/6/15	1700		
2/7/15			
2/8/15			
2/9/15	1600		
2/10/15	1650		
2/11/15	1650		
2/12/15	1700		
2/13/15	1700		
2/14/15			
2/15/15			
2/16/15	1700		
2/17/15	1750		
2/18/15	1650		
2/19/15	1700		
2/20/15	1700		
2/21/15			
2/22/15			
2/23/15	1600		
2/24/15	1600		
2/25/15	1750		
2/26/15	1600		
2/27/15	1720		
2/28/15			
	1678.5	0	AVG
	1600	0	MIN
	1750	0	MAX

	WH	AP	
3/1/15			
3/2/15	1600		
3/3/15	1750		
3/4/15	1700		
3/5/15	1750		
3/6/15	1600		
3/7/15			
3/8/15			
3/9/15	1750		
3/10/15	1650		
3/11/15	1600		
3/12/15	1600		
3/13/15	1600		
3/14/15			
3/15/15			
3/16/15	1650		
3/17/15	1700		
3/18/15	1600		
3/19/15	1650		
3/20/15	1600		
3/21/15			
3/22/15			
3/23/15	1600		
3/24/15	1600		
3/25/15	1650		
3/26/15	1600		
3/27/15	1600		
3/28/15			
3/29/15			
3/30/15	1600		
3/31/15	1600		
	1638.636	0	AVG
	1600	0	MIN
	1750	0	MAX

Total Injected	Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow
1/1/2015	381	11.1125	2/1/2015			3/1/2015		
1/2/2015	275	8.020833333	2/2/2015	888	25.9	3/2/2015	238	6.941666667
1/3/2015			2/3/2015	400	11.66666667	3/3/2015	649	18.92916667
1/4/2015			2/4/2015	769	22.42916667	3/4/2015	879	25.6375
1/5/2015	713	20.79583333	2/5/2015	396	11.55	3/5/2015	1122	32.725
1/6/2015	400	11.66666667	2/6/2015	904	26.36666667	3/6/2015	609	17.7625
1/7/2015	270	7.875	2/7/2015			3/7/2015		
1/8/2015	404	11.78333333	2/8/2015			3/8/2015		
1/9/2015	162	4.725	2/9/2015	247	7.204166667	3/9/2015	1051	30.65416667
1/10/2015			2/10/2015	426	12.425	3/10/2015	737	21.49583333
1/11/2015			2/11/2015	564	16.45	3/11/2015	598	17.44166667
1/12/2015	937	27.32916667	2/12/2015	351	10.2375	3/12/2015	548	15.98333333
1/13/2015	1064	31.03333333	2/13/2015	574	16.74166667	3/13/2015	513	14.9625
1/14/2015	267	7.7875	2/14/2015			3/14/2015		
1/15/2015	412	12.01666667	2/15/2015			3/15/2015		
1/16/2015	675	19.6875	2/16/2015	454	13.24166667	3/16/2015	546	15.925
1/17/2015			2/17/2015	829	24.17916667	3/17/2015	608	17.73333333
1/18/2015			2/18/2015	263	7.670833333	3/18/2015	741	21.6125
1/19/2015	327	9.5375	2/19/2015	509	14.84583333	3/19/2015	237	6.9125
1/20/2015	1100	32.08333333	2/20/2015	609	17.7625	3/20/2015	407	11.87083333
1/21/2015	490	14.29166667	2/21/2015			3/21/2015		
1/22/2015	923	26.92083333	2/22/2015			3/22/2015		
1/23/2015	1091	31.82083333	2/23/2015	311	9.070833333	3/23/2015	567	16.5375
1/24/2015			2/24/2015	396	11.55	3/24/2015	174	5.075
1/25/2015			2/25/2015	785	22.89583333	3/25/2015	992	28.93333333
1/26/2015	1107	32.2875	2/26/2015	474	13.825	3/26/2015	576	16.8
1/27/2015	700	20.41666667	2/27/2015	723	21.0875	3/27/2015	551	16.07083333
1/28/2015	676	19.71666667	2/28/2015			3/28/2015		
1/29/2015	1092	31.85				3/29/2015		
1/30/2015						3/30/2015	399	11.6375
1/31/2015						3/31/2015	677	19.74583333
AVG	641.2381	18.70277778		543.6	15.855		609.9545	17.79034091
MAX	1107	32.2875		904	26.36666667		1122	32.725
MIN	162	4.725000		247	7.204167		174	5.075000
Total for month	13466			10872			13419	

UICI-5-0
Agua Moss, LLC
Sunco Disposal #1 30-045-28653

2014
Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maxium Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	13214274	
Jan-2014	1278.261	1400	550	0.91875	1.079167	0.7583333	250	250	250	31.5	37	26	63	13214337	
Feb-2014	1407.059	1850	420	18.31991	33.54167	2.5083333	33.33333	50	25	628.1111	1150	86	5653	13219990	
Mar-2014	1785.714	1950	1550	21.06222	32.375	1.1375	120	250	50	722.1333	1110	39	10832	13230822	
													Previous Quarter	13230822	
Apr-2014	1701.136	1875	1400	19.4473	35.81667	1.7791667	400	600	200	666.7647	1228	61	11335	13242157	
May-2014	1622.727	2150	1400	19.3213	31.00417	5.4833333	200	200	200	662.4444	1063	188	11924	13254081	
Jun-2014	1632.143	1800	1500	17.99	36.89583	2.7708333	300	300	300	616.8	1265	95	12336	13266417	
													Previous Quarter	13266417	
Jul-14	1632.143	1800	1550	17.29451	38.15	3.9375	300	300	300	592.9545	1308	135	13045	13279462	
Aug-14	1655.435	1750	1400	15.74079	32.9875	7.5833333	0	0	0	539.6842	1131	260	10254	13289716	
Sep-14	1613.095	1800	1400	20.7725	35.875	4.2	0	0	0	712.2	1230	144	14244	13303960	
													Previous Quarter	13303960	
Oct-2014	1630.682	1800	1400	17.97588	35.55417	8.6625	0	0	0	616.3158	1219	297	11710	13315670	
Nov-2014	1580.435	1750	1450	20.83047	46.1125	3.4416667	0	0	0	714.1875	1581	118	11427	13327097	
Dec-2014	1610.952	1800	1500	24.2943	38.7625	9.8291667	0	0	0	832.9474	1329	337	15826	13342923	
												Total for year	128649	13471572	Life Of well injected

Total Injected	Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow
1/1/2014			2/1/2014			3/1/2014			4/1/2014	624	18.2	5/1/2014	671	19.57083333	6/1/2014		
1/2/2014			2/2/2014			3/2/2014			4/2/2014	500	14.58333333	5/2/2014			6/2/2014	1025	29.89583333
1/3/2014			2/3/2014			3/3/2014	878	25.60833333	4/3/2014	785	22.89583333	5/3/2014			6/3/2014	447	13.0375
1/4/2014			2/4/2014			3/4/2014	696	20.3	4/4/2014			5/4/2014			6/4/2014	784	22.86666667
1/5/2014			2/5/2014			3/5/2014			4/5/2014			5/5/2014	584	17.03333333	6/5/2014	1265	36.89583333
1/6/2014			2/6/2014			3/6/2014	893	26.04583333	4/6/2014			5/6/2014	413	12.04583333	6/6/2014	388	11.31666667
1/7/2014			2/7/2014	86	2.508333333	3/7/2014	730	21.29166667	4/7/2014	417	12.1625	5/7/2014	512	14.93333333	6/7/2014		
1/8/2014			2/8/2014			3/8/2014			4/8/2014	699	20.3875	5/8/2014	593	17.29583333	6/8/2014		
1/9/2014			2/9/2014			3/9/2014			4/9/2014	848	24.73333333	5/9/2014	1050	30.625	6/9/2014	434	12.65833333
1/10/2014			2/10/2014	308	8.983333333	3/10/2014	644	18.78333333	4/10/2014			5/10/2014			6/10/2014	482	14.05833333
1/11/2014			2/11/2014	532	15.51666667	3/11/2014			4/11/2014	758	22.10833333	5/11/2014			6/11/2014	976	28.46666667
1/12/2014			2/12/2014	292	8.516666667	3/12/2014	640	18.66666667	4/12/2014			5/12/2014	957	27.9125	6/12/2014		
1/13/2014			2/13/2014			3/13/2014	1110	32.375	4/13/2014			5/13/2014	578	16.85833333	6/13/2014	435	12.6875
1/14/2014			2/14/2014			3/14/2014			4/14/2014	855	24.9375	5/14/2014	1004	29.28333333	6/14/2014		
1/15/2014			2/15/2014			3/15/2014			4/15/2014			5/15/2014	1007	29.37083333	6/15/2014		
1/16/2014			2/16/2014			3/16/2014			4/16/2014	643	18.75416667	5/16/2014			6/16/2014	563	16.42083333
1/17/2014			2/17/2014			3/17/2014	974	28.40833333	4/17/2014	750	21.875	5/17/2014			6/17/2014	500	14.58333333
1/18/2014			2/18/2014			3/18/2014	730	21.29166667	4/18/2014			5/18/2014			6/18/2014	431	12.57083333
1/19/2014			2/19/2014	918	26.775	3/19/2014			4/19/2014			5/19/2014			6/19/2014	751	21.90416667
1/20/2014			2/20/2014	1042	30.39166667	3/20/2014	821	23.94583333	4/20/2014			5/20/2014			6/20/2014	723	21.0875
1/21/2014	26	0.758333333	2/21/2014	1002	29.225	3/21/2014			4/21/2014	61	1.779166667	5/21/2014	188	5.483333333	6/21/2014		
1/22/2014	37	1.079166667	2/22/2014			3/22/2014			4/22/2014	864	25.2	5/22/2014	386	11.25833333	6/22/2014		
1/23/2014			2/23/2014			3/23/2014			4/23/2014	532	15.51666667	5/23/2014	399	11.6375	6/23/2014	876	25.55
1/24/2014			2/24/2014			3/24/2014	880	25.66666667	4/24/2014	1228	35.81666667	5/24/2014			6/24/2014	609	17.7625
1/25/2014			2/25/2014			3/25/2014	427	12.45416667	4/25/2014	654	19.075	5/25/2014			6/25/2014	495	14.4375
1/26/2014			2/26/2014	323	9.420833333	3/26/2014	640	18.66666667	4/26/2014			5/26/2014	580	16.91666667	6/26/2014	527	15.37083333
1/27/2014			2/27/2014	1150	33.54166667	3/27/2014	730	21.29166667	4/27/2014			5/27/2014	569	16.59583333	6/27/2014	95	2.770833333
1/28/2014			2/28/2014			3/28/2014			4/28/2014			5/28/2014	1063	31.00416667	6/28/2014		
1/29/2014						3/29/2014			4/29/2014	418	12.19166667	5/29/2014	795	23.1875	6/29/2014		
1/30/2014						3/30/2014			4/30/2014	699	20.3875	5/30/2014	575	16.77083333	6/30/2014	530	15.45833333
1/31/2014						3/31/2014	39	1.1375				5/31/2014					
AVG	31.5	0.91875		628.1111	18.31990741		722.1333	21.06222222		666.7647	19.44730392		662.4444	19.3212963		616.8	17.99
MAX	37	1.079166667		1150	33.54166667		1110	32.375		1228	35.81666667		1063	31.00416667		1265	36.89583333
Total for month	63			5653			10832			11335			11924			12336	

	Avg Vol	Avg Flow
7/1/2014	507	14.7875
7/2/2014	464	13.53333333
7/3/2014	498	14.525
7/4/2014		
7/5/2014		
7/6/2014		
7/7/2014	424	12.36666667
7/8/2014	537	15.6625
7/9/2014	760	22.16666667
7/10/2014	950	27.70833333
7/11/2014	135	3.9375
7/12/2014		
7/13/2014		
7/14/2014	1176	34.3
7/15/2014	1308	38.15
7/16/2014	562	16.39166667
7/17/2014	285	8.3125
7/18/2014	497	14.49583333
7/19/2014		
7/20/2014		
7/21/2014	532	15.51666667
7/22/2014	519	15.1375
7/23/2014	582	16.975
7/24/2014	160	4.666666667
7/25/2014	480	14
7/26/2014		
7/27/2014		
7/28/2014	530	15.45833333
7/29/2014	760	22.16666667
7/30/2014	1089	31.7625
7/31/2014	290	8.458333333
	592.9545	17.29450758
	1308	38.15
	13045	

8/1/2014	631	18.40416667
8/2/2014		
8/3/2014		
8/4/2014	521	15.19583333
8/5/2014	665	19.39583333
8/6/2014	391	11.40416667
8/7/2014		
8/8/2014	467	13.62083333
8/9/2014		
8/10/2014		
8/11/2014	451	13.15416667
8/12/2014		
8/13/2014	977	28.49583333
8/14/2014	346	10.09166667
8/15/2014	699	20.3875
8/16/2014		
8/17/2014		
8/18/2014	549	16.0125
8/19/2014	260	7.583333333
8/20/2014	297	8.6625
8/21/2014	641	18.69583333
8/22/2014	548	15.98333333
8/23/2014		
8/24/2014		
8/25/2014	277	8.079166667
8/26/2014	492	14.35
8/27/2014	1131	32.9875
8/28/2014	520	15.16666667
8/29/2014	391	11.40416667
8/30/2014		
8/31/2014		
	539.6842	15.74078947
	1131	32.9875
	10254	

9/1/2014	144	4.2
9/2/2014	848	24.73333333
9/3/2014	470	13.70833333
9/4/2014		
9/5/2014	250	7.291666667
9/6/2014		
9/7/2014		
9/8/2014	473	13.79583333
9/9/2014	566	16.50833333
9/10/2014	849	24.7625
9/11/2014	712	20.76666667
9/12/2014	990	28.875
9/13/2014		
9/14/2014		
9/15/2014	260	7.583333333
9/16/2014	966	28.175
9/17/2014	526	15.34166667
9/18/2014	1151	33.57083333
9/19/2014	1230	35.875
9/20/2014		
9/21/2014		
9/22/2014	380	11.08333333
9/23/2014	1228	35.81666667
9/24/2014	1143	33.3375
9/25/2014	495	14.4375
9/26/2014	840	24.5
9/27/2014		
9/28/2014		
9/29/2014	723	21.0875
9/30/2014		
	712.2	20.7725
	1230	35.875
	14244	

10/1/2014	414	12.075
10/2/2014	448	13.06666667
10/3/2014	461	13.44583333
10/4/2014		
10/5/2014		
10/6/2014		
10/7/2014	473	13.79583333
10/8/2014	1010	29.45833333
10/9/2014	566	16.50833333
10/10/2014		
10/11/2014		
10/12/2014		
10/13/2014	887	25.87083333
10/14/2014	608	17.73333333
10/15/2014	297	8.6625
10/16/2014	325	9.479166667
10/17/2014	672	19.6
10/18/2014		
10/19/2014		
10/20/2014	911	26.57083333
10/21/2014	572	16.68333333
10/22/2014	570	16.625
10/23/2014		
10/24/2014	345	10.0625
10/25/2014		
10/26/2014		
10/27/2014	401	11.69583333
10/28/2014	540	15.75
10/29/2014	1219	35.55416667
10/30/2014	991	28.90416667
10/31/2014		
	616.3158	17.97587719
	1219	35.55416667
	11710	

11/1/2014		
11/2/2014		
11/3/2014	243	7.0875
11/4/2014	656	19.13333333
11/5/2014	674	19.65833333
11/6/2014	193	5.629166667
11/7/2014	936	27.3
11/8/2014		
11/9/2014		
11/10/2014		
11/11/2014	776	22.63333333
11/12/2014	962	28.05833333
11/13/2014	440	12.83333333
11/14/2014	1287	37.5375
11/15/2014		
11/16/2014		
11/17/2014	1581	46.1125
11/18/2014	118	3.441666667
11/19/2014		
11/20/2014		
11/21/2014	684	19.95
11/22/2014		
11/23/2014		
11/24/2014	776	22.63333333
11/25/2014	980	28.58333333
11/26/2014	894	26.075
11/27/2014	227	6.620833333
11/28/2014		
11/29/2014		
11/30/2014		
	714.1875	20.83046875
	1581	46.1125
	11427	

12/1/2014	1216	35.46666667
12/2/2014	1015	29.60416667
12/3/2014	549	16.0125
12/4/2014	921	26.8625
12/5/2014	783	22.8375
12/6/2014		
12/7/2014		
12/8/2014	1040	30.33333333
12/9/2014	748	21.81666667
12/10/2014		
12/11/2014	498	14.525
12/12/2014	508	14.81666667
12/13/2014		
12/14/2014		
12/15/2014	1052	30.68333333
12/16/2014	1182	34.475
12/17/2014	849	24.7625
12/18/2014		
12/19/2014	924	26.95
12/20/2014		
12/21/2014		
12/22/2014	1329	38.7625
12/23/2014	766	22.34166667
12/24/2014	1154	33.65833333
12/25/2014		
12/26/2014		
12/27/2014		
12/28/2014		
12/29/2014	337	9.829166667
12/30/2014	481	14.02916667
12/31/2014	474	13.825
	832.9474	24.29429825
	1329	38.7625
	15826	

2014 AREA OF REVIEW
UNIT LETTERS ENCOMPASSED BY THE 1-MILE AOR

Sec	TWN	RNG	UL	
1	29N	12W	DELM	
2	29N	12W	ALL	
3	29N	12W	ABCFGHIJKOP	
10	29N	12W	AB	
11	29N	12W	ABCDEF	
34	30N	12W	AGHIJKNOP	
35	30N	12W	DEFGHIJKLMNOP	
36	30N	12W	LM	

All tracts within the AOR were reviewed for activity that had ensued since 2013 Annual Report.

													Surface Casing			INT Casing			Production Casing					
API	Well Name	Well #	Current Operator	Type	Lease	Status	Sec	TWN	RNG	UL	Spud Date	TD	size	depth	Sacks TOC	size	depth	Sacks TOC	size	depth	Sacks TOC	Perfs	Packer	PLUGGED
30-045-08851	ALLEN A	#001	BP America	Gas	Private	Active	1	29N	12W	D	3/12/1961	6785	8.265	264	200 surf				4.5	6785	300 surf	6518-6718		
30-045-26214	ALLEN A	#001E	BP America	Gas	Federal	Active	1	29N	12W	L	3/22/1985	5825	8.625	318	225 surf				5.5	6622	820 surf	6425-6602		
30-045-32346	CORNELL	#002R	Energen Resources	Gas	Federal	Active	1	29N	12W	M	7/22/2004	2152	7	137	90 surf				4.5	2151	310 surf	1702-1926		
30-045-32241	BECK	#001R	Burlington	Gas	Private	Active	2	29N	12W	G	12/1/2004	2225	7	135	34 surf				4.5	2221	262 surf	1774-2077		
30-045-33811	BECK	#001S	Burlington	Gas	Private	Active	2	29N	12W	D	8/17/2006	2200	7	162	85 surf				4.5	2195	255 surf	1730-1951		
30-045-31580	CORNELL COM	#500	Burlington	Gas	Federal	Active	2	29N	12W	N	7/14/2003	2136	7	139	44 surf	6.25	2126		4.5	2126	258 surf	1658-1878		
30-045-08714	CORNELL SRC	#007	Burlington	Gas	Federal	Active	2	29N	12W	L	7/29/1944	2107	16	42	10 surf	5.5	1978		3.5	2106	250 surf	1976-2010		
30-045-08704	MCGRATH B	#001	Burlington	Gas	Private	Active	2	29N	12W	J	11/19/1961	6720	8.625	318	225 surf				4.5	1865	1065 surf	6489-6596		
30-045-28653	SUNCO DISPOSAL	#001	Agua Moss	Salt Water Disposal	Private	Active	2	29N	12W	E	1/28/1992	4760	8.625	209	150 surf				5.5	4760	1010 surf	4350-4460	4282 10/15/07	4350-4460 TA'd
30-045-08839	YOUNG	#001	Burlington	Gas	Private	Active	2	29N	12W	D	8/1/1961	6740	8.625	307	275 surf				4.5	6739	700 surf	6446-6644		
30-045-33580	MCGRATH	#003S	Burlington	Gas	Private	Active	3	29N	12W	B	7/13/2007	2132	7	218	150 surf				4.5	2112	989 surf	1692-1904		
30-045-08712	MCGRATH A	#001	Burlington	Gas	Private	Active	3	29N	12W	I	3/14/1964	6689	8.625	307	250 surf				4.5	6688	500 surf	6432-6524		
30-045-32931	WALKER	#100S	Burlington	Gas	Private	Active	3	29N	12W	F	8/14/2005	2120	7	144	61 surf				4.5	2117	238 surf	1621-1885		NOI to PA 5/2014
30-045-23889	BECK A	#001E	Burlington	Gas	Federal	Active	10	29N	12W	B	1/5/1981	6514	8.625	240	150 surf				4.5	6514	765 surf	6277-6454		
30-045-30381	CORNELL	#100	Burlington	Gas	Federal	Active	10	29N	12W	B	1/7/2003	1968	7	147	55 surf				4.5	1959	229 surf	1543-1704 1744 1800		
30-045-08615	CORNELL	#006	Thompson Engr & Prod	Gas	Federal	Active	11	29N	12W	C	11/7/1955	1839	8.625	106	70 surf	5.5	1811		3.5	2022	181 surf	1811-1839		
30-045-31581	CORNELL	#101	Burlington	Gas	Federal	Active	11	29N	12W	D	10/7/2003	2008	7	140	35 surf				4.5	2000	270 surf	1726-1764		
30-045-13092	CORNELL C	#001	BP America	Gas	Federal	Active	11	29N	12W	D	12/6/1961	6604	8.625	250	150 surf				4.5	6604	300 surf	6298-6483		
30-045-26141	DUFF GAS COM	#001E	Burlington	Gas	Federal	TA'd	34	30N	12W	G	11/20/1984	6608	8.625	316	295 surf				4.5	6608	1000 surf	6396-6576 04"RC to FC 1492-1870		TA'd 3/5/14
30-045-08946	CARNAHAN COM	#001	Holcomb Oil & Gas	Gas	Private	Active	35	30N	12W	P	12/19/1960	6778	8.625	301	200 surf				4.5	6760	445 surf	6521-6708 94 RC to FC 1824-2037		
30-045-25844	CARNAHAN COM	#002	Merrion Oil & Gas	Gas	Private	Active	35	30N	12W	P	6/15/1984	6780	8.625	230	170 surf				4.5	6777	1425 surf	6529-6714		
30-045-11770	HUDSON J	#003	Burlington	Gas	Federal	Active	35	30N	12W	E	7/22/1966	6750	8.625	306	250 surf				4.5	6750	750 surf	6460-6680 01" RC to FC 1784-1994		
30-045-28177	FC STATE COM	#024	Burlington	Gas	State	Plugged	36	30N	12W	M	10/9/1990	6608	8.625	316	250 surf				4.5	6609	6000 surf	1492-1870		3/26/2013

30-045-08945	MCGRATH C	#001	Burlington	Gas	Federal	Plugged	34	30n	12W	P	2/7/1963	6632	8.625	323	225 surf				4.5	6637	925 surf	6367-6576		4/29/2009
30-045-08713	McGrath SRC	#001	Burlington	Gas	Private	Plugged	2	29n	12w	J	7/7/1973	2136	13 & 10.75	550 & 864	2 sx mud 4 sx mud	8.625	1526	5 sx mud	5.50 & 3.50	2020 2136	12 sx mud 140 surf	2020-2136 2012-2078		1998
30-045-08797	Pre-Ongard		Southland	Gas	Private	Plugged	2	29n	12w	g	4/14/1948	2125												2/23/1984
30-045-30486	MCGRATH SRC	#001R	Burlington	Gas	Private	Plugged, Not Released	2	29N	12W	J	3/23/2001	2235	8.625	53	12 surf				2.875	2228	425 surf	2010-2157		6/25/2010
30-045-08793	Pre-Ongard		Southern union	Gas	Private	Plugged	1	29N	12W	E	3/16/1948	2125												3/16/1948
30-045-08656	Cornell	2	Energen Resources	Gas	Federal	Plugged	1	29N	12W	M	10/2/1955	1996	8.625	97	75 surf				5.5	1950	100 surf	1711-1936		9/15/2005
30-045-08823	Walker SRC	1	Burlington	Gas	Private	Plugged	3	29N	12W	G	2/25/1943	2050	16	21	20 surf	5.5	1930		3.5	2050	175 surf	1938-1974		10/12/2009
30-045-08711	Pre-Ongard		Union Texas	Gas	Private	Plugged	3	29N	12W	K	6/25/1955	1940												11/10/1964
30-045-23758	Pre-Ongard		Southland	Gas	Federal	Plugged	10	29N	12W	A	12/19/1980	1870												2/10/1984
30-045-08950	HUDSON	2	Burlington	Gas	Federal	Plugged	34	30N	12W	P	7/17/1946	2137	15.5	38	20 surf	10 & 8.625	1219 1618	99 surf	5.5	1961	40 surf	1728-1938 1962-2008	2128	9/26/2008
30-045-08955	Pre-Ongard		Aztec O&G	Gas	Private	Plugged	34	30N	12W	N	11/1/1944	1965												10/29/1977
30-045-20140	Pre-Ongard		Southland	Gas	Federal	Plugged	35	30N	12W	L	9/7/1967	DH												6/9/1982
30-045-33573	CORNELL COM	#500S	Burlington	Gas	Private	Plugged	2	29N	12W	P	3/18/2006	2210	7	132	34 surf	6.25	2210		4.5	2198	279 surf	1754-1939 1743-1924		1/23/2013
30-045-08844	KATTLER	#001	Burlington	Gas	Private	Plugged	2	29N	12W	C	1/26/1945	2069	10	846	surf	5.5	1960		3.5	2050	205 surf	1961-2007		5/26/2012
30-045-08709	MCGRATH	#003	Burlington	Gas	Private	Plugged	3	29N	12W	J	3/4/1945	2040	13.375	675	2 surf	8.625 INT 1 5.5 INT 2	1460 1928	4 surf 58 surf	3.5	2011	110 surf	1872-1912 1922-1937	1871-1876	3/1/2013

BHP • BU • PI • DD • GWT • RFS • GOR • FL • TS

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AGUA MOSS, LLC

SUNCO SWD NO. 1

APRIL 28 – MAY 4, 2015

Serving the Rocky Mountains and the Western Slope

Customer	AGUA MOSS, LLC
Street	P.O. BOX 600
City/State	FARMINGTON, NNM 87499
Country	USA
Service Company	TEFTELLER, INC.
Well Name	SUNCO SWD NO. 1
Well Location	SAN JUAN COUNTY, NEW MEXICO
Field / Pool	
Status (Oil, Gas, Other)	INJECTING
Test Type	INJECTION & FALL-OFF TESTS
Date of Test	4-28-15
Producing Interval	4350' - 4460'
Recorder Depth	4405'
Recorder Position	4405'
Shut In Date Start:	4-28-2015
Stop:	5-4-2015
Duration:	144 HRS. TANDEM ELEC. MEMORY INST. TIME
Bottom Hole Temperature	

Gauge Identification

Gauge Manufacturer	MICRO-SMART SYSTEMS
Serial Number	162
Model Number	SP2000
Pressure Range	
Battery Type	
Calibration I.D.	
Last Calibration	2/ 4/14

Gauge Setup Parameters

Probe Set Up Time	4/28/15 11:46: 0
Time Delay to First Reading	
Test Type Selection	INJECTION & FALL-OFF TESTS
Test Duration Selection	144 HRS. TANDEM ELEC. MEMORY INST. TIME

COMPANY: AGUA MOSS, LLC

WELL NAME : SUNCO SWD NO. 1

DATE : 05/05/15

WELL LOCATION : SAN JUAN COUNTY, NEW MEXICO

FILE REF: F162504.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
04/28	11:46:00	.0000	.01	74.55		
04/28	11:57:45	11.7500	18.35	73.25	18.34	PRESSURED UP LUBRICATOR
04/28	11:58:00	12.0000	161.16	73.15	142.80	
04/28	11:58:15	12.2500	737.58	73.06	576.42	
04/28	11:58:30	12.5000	960.07	72.97	222.49	
04/28	11:58:45	12.7500	1296.91	72.88	336.84	
04/28	12:05:00	19.0000	1292.04	69.82	-4.87	
04/28	12:08:15	22.2500	1300.13	68.92	8.08	SURFACE STOP
04/28	12:08:30	22.5000	1322.87	68.86	22.74	R.I.H. W/TANDEM ELEC. MEMORY INST.
04/28	12:08:45	22.7500	1371.00	68.80	48.14	
04/28	12:09:00	23.0000	1398.16	68.74	27.15	
04/28	12:09:15	23.2500	1437.83	68.51	39.68	
04/28	12:09:30	23.5000	1475.58	68.28	37.74	
04/28	12:09:45	23.7500	1520.18	68.06	44.61	
04/28	12:10:00	24.0000	1570.52	67.83	50.33	
04/28	12:10:15	24.2500	1621.24	67.61	50.72	
04/28	12:10:30	24.5000	1670.42	67.38	49.19	
04/28	12:10:45	24.7500	1720.78	67.16	50.35	
04/28	12:11:00	25.0000	1772.83	66.94	52.05	
04/28	12:11:15	25.2500	1815.43	66.71	42.60	
04/28	12:11:30	25.5000	1858.16	66.49	42.73	
04/28	12:11:45	25.7500	1902.73	66.26	44.57	
04/28	12:12:00	26.0000	1947.70	66.03	44.97	
04/28	12:12:15	26.2500	1992.81	66.07	45.11	
04/28	12:12:30	26.5000	2037.91	66.58	45.09	
04/28	12:12:45	26.7500	2083.00	67.09	45.09	
04/28	12:13:00	27.0000	2129.11	67.61	46.11	
04/28	12:13:15	27.2500	2177.06	68.11	47.95	
04/28	12:13:30	27.5000	2226.92	68.63	49.86	
04/28	12:13:45	27.7500	2274.33	69.14	47.41	
04/28	12:14:00	28.0000	2324.46	69.65	50.13	
04/28	12:14:15	28.2500	2380.94	70.16	56.48	
04/28	12:14:30	28.5000	2435.60	70.67	54.66	
04/28	12:14:45	28.7500	2478.97	71.18	43.36	
04/28	12:15:00	29.0000	2523.09	71.70	44.12	
04/28	12:15:15	29.2500	2566.34	72.71	43.25	
04/28	12:15:30	29.5000	2608.81	73.98	42.46	
04/28	12:15:45	29.7500	2650.09	75.25	41.29	
04/28	12:16:00	30.0000	2692.40	76.52	42.31	
04/28	12:16:15	30.2500	2734.58	77.79	42.17	
04/28	12:16:30	30.5000	2778.43	79.06	43.85	
04/28	12:16:45	30.7500	2823.17	80.33	44.74	
04/28	12:17:00	31.0000	2867.13	81.60	43.96	
04/28	12:17:15	31.2500	2913.53	82.87	46.41	
04/28	12:17:30	31.5000	2958.61	84.15	45.08	
04/28	12:17:45	31.7500	3003.31	85.42	44.70	
04/28	12:18:00	32.0000	3036.97	86.70	33.66	
04/28	12:18:15	32.2500	3067.91	88.07	30.93	
04/28	12:18:30	32.5000	3093.53	89.01	25.62	
04/28	12:18:45	32.7500	3119.28	89.95	25.75	
04/28	12:19:00	33.0000	3147.74	90.89	28.46	
04/28	12:19:15	33.2500	3178.78	91.83	31.04	
04/28	12:19:30	33.5000	3204.38	92.77	25.60	
04/28	12:19:45	33.7500	3220.54	93.71	16.16	
04/28	12:20:00	34.0000	3232.43	94.65	11.89	
04/28	12:21:00	35.0000	3236.45	98.42	4.02	
04/28	12:25:45	39.7500	3243.96	95.35	7.51	TANDEM ELEC. MEMORY INST. @ 4405'
04/28	12:29:45	43.7500	3242.80	92.89	-1.16	
04/28	12:30:00	44.0000	3270.61	92.76	27.82	BEGAN INJECTING
04/28	12:30:15	44.2500	3284.35	92.66	13.73	
04/28	12:30:30	44.5000	3291.84	93.00	7.50	
04/28	12:31:30	45.5000	3310.25	94.32	18.40	
04/28	12:31:45	45.7500	3313.23	94.65	2.98	
04/28	12:33:15	47.2500	3329.93	97.08	16.71	
04/28	12:33:30	47.5000	3332.46	97.71	2.53	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
04/28	12:34:45	48.7500	3344.50	100.85	12.03	
04/28	12:36:00	50.0000	3355.03	103.98	10.53	
04/28	12:38:15	52.2500	3373.37	105.95	18.34	
04/28	12:38:30	52.5000	3374.76	106.14	1.39	
04/28	12:42:00	56.0000	3392.83	105.63	18.06	
04/28	12:42:15	56.2500	3393.92	105.46	1.10	
04/28	12:46:00	60.0000	3408.25	102.36	14.33	
04/28	12:49:15	63.2500	3417.95	99.33	9.70	
04/28	12:52:45	66.7500	3426.26	96.13	8.31	
04/28	12:56:30	70.5000	3434.25	92.95	7.99	
04/28	13:01:00	75.0000	3442.61	89.59	8.35	
04/28	13:06:00	80.0000	3451.80	86.42	9.19	
04/28	13:12:00	86.0000	3461.44	83.25	9.64	
04/28	13:20:00	94.0000	3473.25	79.96	11.81	
04/28	13:30:00	104.0000	3485.97	76.95	12.72	
04/28	13:45:00	119.0000	3502.48	73.91	16.50	
04/28	14:03:00	137.0000	3519.98	71.69	17.50	
04/28	14:21:00	155.0000	3534.80	70.36	14.82	
04/28	14:39:00	173.0000	3535.49	69.48	.69	
04/28	14:40:15	174.2500	3518.05	69.85	-17.44	
04/28	14:40:30	174.5000	3515.66	69.95	-2.39	
04/28	14:43:30	177.5000	3497.23	71.73	-18.43	
04/28	14:43:45	177.7500	3495.97	71.93	-1.26	
04/28	14:48:00	182.0000	3479.75	75.09	-16.23	
04/28	14:48:30	182.5000	3494.28	75.30	14.54	
04/28	14:48:45	182.7500	3498.75	75.35	4.46	
04/28	14:51:00	185.0000	3517.19	75.81	18.44	
04/28	14:51:15	185.2500	3518.43	75.77	1.24	
04/28	14:57:45	191.7500	3536.87	73.15	18.44	
04/28	14:58:00	192.0000	3537.43	73.05	.56	
04/28	15:11:30	205.5000	3553.41	70.05	15.98	
04/28	15:29:00	223.0000	3566.12	68.95	12.71	
04/28	15:47:00	241.0000	3576.81	68.47	10.69	
04/28	16:05:00	259.0000	3586.06	68.21	9.25	
04/28	16:23:00	277.0000	3594.36	68.04	8.30	
04/28	16:41:00	295.0000	3601.32	67.94	6.96	
04/28	16:59:00	313.0000	3607.83	67.90	6.51	
04/28	17:17:00	331.0000	3614.09	67.88	6.26	
04/28	17:35:00	349.0000	3619.82	67.88	5.73	
04/28	17:53:00	367.0000	3625.30	67.89	5.48	
04/28	18:11:00	385.0000	3630.61	67.94	5.31	
04/28	18:29:00	403.0000	3635.48	67.98	4.88	
04/28	18:47:00	421.0000	3639.96	68.04	4.48	
04/28	19:05:00	439.0000	3644.40	68.09	4.44	
04/28	19:23:00	457.0000	3648.20	68.16	3.80	
04/28	19:41:00	475.0000	3652.08	68.22	3.88	
04/28	19:59:00	493.0000	3656.06	68.27	3.98	
04/28	20:17:00	511.0000	3659.63	68.32	3.57	
04/28	20:35:00	529.0000	3662.92	68.34	3.29	
04/28	20:53:00	547.0000	3666.23	68.35	3.31	
04/28	21:11:00	565.0000	3669.45	68.36	3.22	
04/28	21:29:00	583.0000	3672.43	68.34	2.98	
04/28	21:47:00	601.0000	3675.25	68.29	2.82	
04/28	22:05:00	619.0000	3677.97	68.23	2.72	
04/28	22:23:00	637.0000	3680.68	68.16	2.71	
04/28	22:41:00	655.0000	3683.26	68.09	2.59	
04/28	22:59:00	673.0000	3685.68	68.04	2.42	
04/28	23:17:00	691.0000	3687.93	67.97	2.25	
04/28	23:35:00	709.0000	3690.33	67.92	2.40	
04/28	23:53:00	727.0000	3692.36	67.87	2.03	
04/29	00:11:00	745.0000	3694.43	67.83	2.06	
04/29	00:29:00	763.0000	3696.53	67.80	2.10	
04/29	00:47:00	781.0000	3698.51	67.76	1.98	
04/29	01:05:00	799.0000	3700.51	67.72	2.00	
04/29	01:23:00	817.0000	3702.46	67.70	1.94	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
04/29	01:41:00	835.0000	3704.39	67.66	1.94	
04/29	01:59:00	853.0000	3706.14	67.62	1.75	
04/29	02:17:00	871.0000	3707.90	67.59	1.75	
04/29	02:35:00	889.0000	3709.68	67.56	1.78	
04/29	02:53:00	907.0000	3711.24	67.53	1.56	
04/29	03:11:00	925.0000	3712.79	67.49	1.55	
04/29	03:29:00	943.0000	3714.44	67.45	1.65	
04/29	03:47:00	961.0000	3715.97	67.40	1.53	
04/29	04:05:00	979.0000	3717.38	67.35	1.41	
04/29	04:23:00	997.0000	3718.75	67.29	1.38	
04/29	04:41:00	1015.0000	3720.09	67.24	1.33	
04/29	04:59:00	1033.0000	3721.31	67.19	1.23	
04/29	05:17:00	1051.0000	3722.57	67.14	1.26	
04/29	05:35:00	1069.0000	3723.83	67.09	1.26	
04/29	05:53:00	1087.0000	3725.03	67.04	1.20	
04/29	06:11:00	1105.0000	3726.26	67.01	1.23	
04/29	06:29:00	1123.0000	3727.43	66.98	1.17	
04/29	06:47:00	1141.0000	3728.63	66.95	1.20	
04/29	07:05:00	1159.0000	3729.73	66.90	1.10	
04/29	07:23:00	1177.0000	3730.70	66.91	.97	
04/29	07:41:00	1195.0000	3731.66	66.99	.96	
04/29	07:59:00	1213.0000	3732.70	67.10	1.05	
04/29	08:17:00	1231.0000	3733.72	67.16	1.02	
04/29	08:35:00	1249.0000	3734.74	67.15	1.02	
04/29	08:53:00	1267.0000	3735.65	67.13	.92	
04/29	09:11:00	1285.0000	3736.55	67.11	.90	
04/29	09:29:00	1303.0000	3737.48	67.10	.93	
04/29	09:47:00	1321.0000	3738.38	67.10	.90	
04/29	10:05:00	1339.0000	3739.19	67.13	.81	
04/29	10:23:00	1357.0000	3740.02	67.17	.82	
04/29	10:41:00	1375.0000	3740.85	67.22	.84	
04/29	10:59:00	1393.0000	3741.64	67.30	.79	
04/29	11:17:00	1411.0000	3742.40	67.40	.76	
04/29	11:35:00	1429.0000	3743.18	67.49	.79	
04/29	11:53:00	1447.0000	3743.94	67.58	.75	
04/29	12:11:00	1465.0000	3744.73	67.65	.79	
04/29	12:29:00	1483.0000	3745.46	67.70	.73	
04/29	12:47:00	1501.0000	3746.15	67.76	.70	
04/29	13:05:00	1519.0000	3746.89	67.81	.74	
04/29	13:23:00	1537.0000	3747.61	67.87	.73	
04/29	13:41:00	1555.0000	3748.27	67.93	.66	
04/29	13:59:00	1573.0000	3748.94	68.00	.67	
04/29	14:17:00	1591.0000	3749.63	68.04	.69	
04/29	14:35:00	1609.0000	3750.38	68.09	.75	
04/29	14:53:00	1627.0000	3751.05	68.15	.67	
04/29	15:11:00	1645.0000	3751.71	68.21	.66	
04/29	15:29:00	1663.0000	3752.40	68.26	.69	
04/29	15:47:00	1681.0000	3753.10	68.32	.71	
04/29	16:05:00	1699.0000	3753.67	68.39	.57	
04/29	16:23:00	1717.0000	3754.31	68.47	.64	
04/29	16:41:00	1735.0000	3754.96	68.55	.66	
04/29	16:59:00	1753.0000	3755.54	68.64	.57	
04/29	17:17:00	1771.0000	3756.18	68.70	.64	
04/29	17:35:00	1789.0000	3756.71	68.78	.53	
04/29	17:53:00	1807.0000	3757.28	68.84	.56	
04/29	18:11:00	1825.0000	3757.83	68.92	.55	
04/29	18:29:00	1843.0000	3758.36	68.99	.53	
04/29	18:47:00	1861.0000	3758.93	69.05	.57	
04/29	19:05:00	1879.0000	3759.43	69.11	.50	
04/29	19:23:00	1897.0000	3759.97	69.18	.55	
04/29	19:41:00	1915.0000	3760.50	69.24	.53	
04/29	19:59:00	1933.0000	3760.96	69.29	.46	
04/29	20:17:00	1951.0000	3761.50	69.35	.54	
04/29	20:35:00	1969.0000	3762.05	69.41	.55	
04/29	20:53:00	1987.0000	3762.62	69.45	.57	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
04/29	21:11:00	2005.0000	3763.17	69.50	.54	
04/29	21:29:00	2023.0000	3763.71	69.55	.54	
04/29	21:47:00	2041.0000	3764.24	69.58	.53	
04/29	22:05:00	2059.0000	3764.70	69.63	.45	
04/29	22:23:00	2077.0000	3765.13	69.68	.43	
04/29	22:41:00	2095.0000	3765.57	69.71	.44	
04/29	22:59:00	2113.0000	3766.01	69.77	.44	
04/29	23:17:00	2131.0000	3766.43	69.82	.42	
04/29	23:35:00	2149.0000	3766.90	69.86	.47	
04/29	23:53:00	2167.0000	3767.29	69.92	.39	
04/30	00:11:00	2185.0000	3767.72	69.98	.43	
04/30	00:29:00	2203.0000	3768.08	70.04	.36	
04/30	00:47:00	2221.0000	3768.48	70.10	.40	
04/30	01:05:00	2239.0000	3768.85	70.15	.37	
04/30	01:23:00	2257.0000	3769.18	70.22	.32	
04/30	01:41:00	2275.0000	3769.53	70.28	.36	
04/30	01:59:00	2293.0000	3769.86	70.33	.32	
04/30	02:17:00	2311.0000	3770.21	70.39	.36	
04/30	02:35:00	2329.0000	3770.55	70.46	.34	
04/30	02:53:00	2347.0000	3770.92	70.52	.37	
04/30	03:11:00	2365.0000	3771.15	70.58	.23	
04/30	03:29:00	2383.0000	3771.40	70.65	.26	
04/30	03:47:00	2401.0000	3771.73	70.70	.32	
04/30	04:05:00	2419.0000	3771.99	70.77	.26	
04/30	04:23:00	2437.0000	3772.31	70.81	.32	
04/30	04:41:00	2455.0000	3772.63	70.86	.32	
04/30	04:59:00	2473.0000	3772.89	70.91	.25	
04/30	05:17:00	2491.0000	3773.16	70.95	.28	
04/30	05:35:00	2509.0000	3773.48	70.99	.31	
04/30	05:53:00	2527.0000	3773.76	71.02	.29	
04/30	06:11:00	2545.0000	3774.11	71.04	.35	
04/30	06:29:00	2563.0000	3774.30	71.06	.19	
04/30	06:47:00	2581.0000	3774.61	71.08	.32	
04/30	07:05:00	2599.0000	3774.91	71.08	.30	
04/30	07:23:00	2617.0000	3775.25	71.08	.34	
04/30	07:41:00	2635.0000	3775.53	71.08	.29	
04/30	07:59:00	2653.0000	3775.83	71.08	.30	
04/30	08:17:00	2671.0000	3776.08	71.08	.25	
04/30	08:35:00	2689.0000	3776.34	71.09	.25	
04/30	08:53:00	2707.0000	3776.68	71.06	.35	
04/30	09:11:00	2725.0000	3776.99	71.04	.31	
04/30	09:29:00	2743.0000	3777.26	71.05	.27	
04/30	09:47:00	2761.0000	3777.58	71.07	.32	
04/30	10:05:00	2779.0000	3777.81	71.11	.23	
04/30	10:23:00	2797.0000	3778.12	71.12	.31	
04/30	10:41:00	2815.0000	3778.41	71.06	.29	
04/30	10:59:00	2833.0000	3778.74	70.97	.33	
04/30	11:17:00	2851.0000	3778.98	70.86	.24	
04/30	11:35:00	2869.0000	3779.22	70.70	.24	
04/30	11:53:00	2887.0000	3779.57	70.49	.35	
04/30	12:11:00	2905.0000	3779.84	70.30	.27	
04/30	12:29:00	2923.0000	3780.09	70.13	.25	
04/30	12:47:00	2941.0000	3780.40	69.95	.30	
04/30	13:05:00	2959.0000	3780.76	69.78	.36	
04/30	13:23:00	2977.0000	3780.96	69.60	.20	
04/30	13:41:00	2995.0000	3781.28	69.45	.33	
04/30	13:59:00	3013.0000	3781.60	69.30	.31	
04/30	14:17:00	3031.0000	3781.67	69.20	.07	
04/30	14:34:15	3048.2500	3764.43	69.42	-17.24	END INJECTING
04/30	14:43:15	3057.2500	3745.84	72.12	-18.59	BEGAN FALL-OFF
04/30	14:43:30	3057.5000	3745.49	72.18	-.35	
04/30	15:01:00	3075.0000	3727.47	74.89	-18.02	
04/30	15:19:00	3093.0000	3714.04	76.28	-13.43	
04/30	15:37:00	3111.0000	3703.08	77.23	-10.96	
04/30	15:55:00	3129.0000	3693.70	77.96	-9.38	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
04/30	16:13:00	3147.0000	3685.34	78.54	-8.35	
04/30	16:31:00	3165.0000	3677.81	79.03	-7.53	
04/30	16:49:00	3183.0000	3670.76	79.45	-7.05	
04/30	17:07:00	3201.0000	3664.44	79.81	-6.32	
04/30	17:25:00	3219.0000	3658.71	80.13	-5.73	
04/30	17:43:00	3237.0000	3652.98	80.43	-5.74	
04/30	18:01:00	3255.0000	3647.72	80.71	-5.25	
04/30	18:19:00	3273.0000	3643.07	80.96	-4.65	
04/30	18:37:00	3291.0000	3638.06	81.20	-5.01	
04/30	18:55:00	3309.0000	3633.80	81.43	-4.26	
04/30	19:13:00	3327.0000	3629.37	81.64	-4.43	
04/30	19:31:00	3345.0000	3625.31	81.82	-4.06	
04/30	19:49:00	3363.0000	3621.23	82.01	-4.08	
04/30	20:07:00	3381.0000	3617.36	82.18	-3.86	
04/30	20:25:00	3399.0000	3613.58	82.34	-3.78	
04/30	20:43:00	3417.0000	3609.99	82.50	-3.59	
04/30	21:01:00	3435.0000	3606.42	82.66	-3.57	
04/30	21:19:00	3453.0000	3603.01	82.80	-3.40	
04/30	21:37:00	3471.0000	3599.70	82.94	-3.31	
04/30	21:55:00	3489.0000	3596.52	83.06	-3.19	
04/30	22:13:00	3507.0000	3593.39	83.19	-3.13	
04/30	22:31:00	3525.0000	3590.35	83.32	-3.03	
04/30	22:49:00	3543.0000	3587.34	83.43	-3.01	
04/30	23:07:00	3561.0000	3584.50	83.53	-2.84	
04/30	23:25:00	3579.0000	3581.67	83.63	-2.83	
04/30	23:43:00	3597.0000	3578.87	83.73	-2.80	
05/01	00:01:00	3615.0000	3576.19	83.81	-2.67	
05/01	00:19:00	3633.0000	3573.65	83.89	-2.55	
05/01	00:37:00	3651.0000	3571.08	83.97	-2.56	
05/01	00:55:00	3669.0000	3568.48	84.05	-2.61	
05/01	01:13:00	3687.0000	3565.99	84.13	-2.49	
05/01	01:31:00	3705.0000	3563.63	84.20	-2.35	
05/01	01:49:00	3723.0000	3561.34	84.26	-2.30	
05/01	02:07:00	3741.0000	3559.06	84.32	-2.27	
05/01	02:25:00	3759.0000	3556.69	84.38	-2.37	
05/01	02:43:00	3777.0000	3554.49	84.44	-2.20	
05/01	03:01:00	3795.0000	3552.33	84.49	-2.16	
05/01	03:19:00	3813.0000	3550.25	84.54	-2.07	
05/01	03:37:00	3831.0000	3548.05	84.57	-2.20	
05/01	03:55:00	3849.0000	3546.08	84.63	-1.98	
05/01	04:13:00	3867.0000	3543.93	84.67	-2.15	
05/01	04:31:00	3885.0000	3541.95	84.71	-1.98	
05/01	04:49:00	3903.0000	3540.04	84.75	-1.90	
05/01	05:07:00	3921.0000	3538.14	84.78	-1.90	
05/01	05:25:00	3939.0000	3536.18	84.79	-1.96	
05/01	05:43:00	3957.0000	3534.35	84.85	-1.82	
05/01	06:01:00	3975.0000	3532.43	84.90	-1.92	
05/01	06:19:00	3993.0000	3530.67	84.92	-1.76	
05/01	06:37:00	4011.0000	3528.89	84.92	-1.78	
05/01	06:55:00	4029.0000	3527.08	84.97	-1.81	
05/01	07:13:00	4047.0000	3525.33	85.02	-1.75	
05/01	07:31:00	4065.0000	3523.59	85.02	-1.74	
05/01	07:49:00	4083.0000	3522.02	85.04	-1.57	
05/01	08:07:00	4101.0000	3520.28	85.09	-1.74	
05/01	08:25:00	4119.0000	3518.67	85.11	-1.61	
05/01	08:43:00	4137.0000	3517.11	85.12	-1.57	
05/01	09:01:00	4155.0000	3515.47	85.14	-1.64	
05/01	09:19:00	4173.0000	3513.88	85.18	-1.59	
05/01	09:37:00	4191.0000	3512.32	85.20	-1.55	
05/01	09:55:00	4209.0000	3510.79	85.23	-1.53	
05/01	10:13:00	4227.0000	3509.31	85.25	-1.49	
05/01	10:31:00	4245.0000	3507.78	85.27	-1.53	
05/01	10:49:00	4263.0000	3506.31	85.30	-1.47	
05/01	11:07:00	4281.0000	3504.87	85.33	-1.44	
05/01	11:25:00	4299.0000	3503.48	85.34	-1.39	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
05/01	11:43:00	4317.0000	3502.06	85.35	-1.42	
05/01	12:01:00	4335.0000	3500.65	85.35	-1.42	
05/01	12:19:00	4353.0000	3499.25	85.39	-1.40	
05/01	12:37:00	4371.0000	3497.95	85.42	-1.30	
05/01	12:55:00	4389.0000	3496.59	85.44	-1.36	
05/01	13:13:00	4407.0000	3495.26	85.46	-1.33	
05/01	13:31:00	4425.0000	3493.94	85.49	-1.32	
05/01	13:49:00	4443.0000	3492.65	85.49	-1.28	
05/01	14:07:00	4461.0000	3491.36	85.51	-1.29	
05/01	14:25:00	4479.0000	3490.12	85.53	-1.25	
05/01	14:43:00	4497.0000	3488.86	85.55	-1.25	
05/01	15:01:00	4515.0000	3487.64	85.56	-1.22	
05/01	15:19:00	4533.0000	3486.42	85.59	-1.22	
05/01	15:37:00	4551.0000	3485.22	85.60	-1.21	
05/01	15:55:00	4569.0000	3483.99	85.63	-1.22	
05/01	16:13:00	4587.0000	3482.82	85.64	-1.17	
05/01	16:31:00	4605.0000	3481.63	85.67	-1.19	
05/01	16:49:00	4623.0000	3480.49	85.67	-1.14	
05/01	17:07:00	4641.0000	3479.31	85.69	-1.18	
05/01	17:25:00	4659.0000	3478.14	85.72	-1.17	
05/01	17:43:00	4677.0000	3477.04	85.73	-1.10	
05/01	18:01:00	4695.0000	3475.89	85.76	-1.15	
05/01	18:19:00	4713.0000	3474.80	85.79	-1.09	
05/01	18:37:00	4731.0000	3473.71	85.80	-1.09	
05/01	18:55:00	4749.0000	3472.61	85.82	-1.10	
05/01	19:13:00	4767.0000	3471.52	85.85	-1.09	
05/01	19:31:00	4785.0000	3470.39	85.88	-1.12	
05/01	19:49:00	4803.0000	3469.33	85.89	-1.06	
05/01	20:07:00	4821.0000	3468.29	85.89	-1.04	
05/01	20:25:00	4839.0000	3467.27	85.90	-1.02	
05/01	20:43:00	4857.0000	3466.21	85.92	-1.06	
05/01	21:01:00	4875.0000	3465.23	85.93	-.98	
05/01	21:19:00	4893.0000	3464.13	85.97	-1.09	
05/01	21:37:00	4911.0000	3463.10	85.99	-1.03	
05/01	21:55:00	4929.0000	3462.12	86.00	-.99	
05/01	22:13:00	4947.0000	3461.16	86.00	-.96	
05/01	22:31:00	4965.0000	3460.13	86.02	-1.02	
05/01	22:49:00	4983.0000	3459.12	86.05	-1.01	
05/01	23:07:00	5001.0000	3458.16	86.07	-.96	
05/01	23:25:00	5019.0000	3457.21	86.08	-.95	
05/01	23:43:00	5037.0000	3456.27	86.09	-.94	
05/02	00:01:00	5055.0000	3455.33	86.10	-.94	
05/02	00:19:00	5073.0000	3454.33	86.12	-.99	
05/02	00:37:00	5091.0000	3453.45	86.14	-.89	
05/02	00:55:00	5109.0000	3452.56	86.15	-.89	
05/02	01:13:00	5127.0000	3451.66	86.16	-.89	
05/02	01:31:00	5145.0000	3450.75	86.18	-.92	
05/02	01:49:00	5163.0000	3449.80	86.20	-.95	
05/02	02:07:00	5181.0000	3449.00	86.21	-.80	
05/02	02:25:00	5199.0000	3448.06	86.23	-.94	
05/02	02:43:00	5217.0000	3447.21	86.23	-.85	
05/02	03:01:00	5235.0000	3446.34	86.25	-.87	
05/02	03:19:00	5253.0000	3445.50	86.26	-.84	
05/02	03:37:00	5271.0000	3444.66	86.28	-.84	
05/02	03:55:00	5289.0000	3443.80	86.30	-.86	
05/02	04:13:00	5307.0000	3442.99	86.30	-.81	
05/02	04:31:00	5325.0000	3442.12	86.32	-.87	
05/02	04:49:00	5343.0000	3441.32	86.33	-.80	
05/02	05:07:00	5361.0000	3440.52	86.35	-.79	
05/02	05:25:00	5379.0000	3439.65	86.37	-.87	
05/02	05:43:00	5397.0000	3438.91	86.38	-.74	
05/02	06:01:00	5415.0000	3438.04	86.39	-.87	
05/02	06:19:00	5433.0000	3437.22	86.41	-.82	
05/02	06:37:00	5451.0000	3436.43	86.42	-.79	
05/02	06:55:00	5469.0000	3435.61	86.44	-.82	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
05/02	07:13:00	5487.0000	3434.86	86.46	-.76	
05/02	07:31:00	5505.0000	3434.04	86.47	-.82	
05/02	07:49:00	5523.0000	3433.27	86.49	-.77	
05/02	08:07:00	5541.0000	3432.52	86.49	-.75	
05/02	08:25:00	5559.0000	3431.70	86.51	-.82	
05/02	08:43:00	5577.0000	3430.92	86.51	-.79	
05/02	09:01:00	5595.0000	3430.21	86.53	-.71	
05/02	09:19:00	5613.0000	3429.40	86.55	-.81	
05/02	09:37:00	5631.0000	3428.63	86.56	-.77	
05/02	09:55:00	5649.0000	3427.91	86.57	-.72	
05/02	10:13:00	5667.0000	3427.18	86.58	-.73	
05/02	10:31:00	5685.0000	3426.41	86.60	-.77	
05/02	10:49:00	5703.0000	3425.69	86.62	-.72	
05/02	11:07:00	5721.0000	3424.96	86.63	-.73	
05/02	11:25:00	5739.0000	3424.24	86.63	-.72	
05/02	11:43:00	5757.0000	3423.56	86.65	-.68	
05/02	12:01:00	5775.0000	3422.79	86.67	-.77	
05/02	12:19:00	5793.0000	3422.10	86.68	-.69	
05/02	12:37:00	5811.0000	3421.44	86.68	-.66	
05/02	12:55:00	5829.0000	3420.71	86.70	-.73	
05/02	13:13:00	5847.0000	3420.07	86.72	-.64	
05/02	13:31:00	5865.0000	3419.38	86.72	-.69	
05/02	13:49:00	5883.0000	3418.67	86.72	-.70	
05/02	14:07:00	5901.0000	3418.02	86.75	-.66	
05/02	14:25:00	5919.0000	3417.41	86.75	-.60	
05/02	14:43:00	5937.0000	3416.72	86.77	-.70	
05/02	15:01:00	5955.0000	3416.08	86.77	-.64	
05/02	15:19:00	5973.0000	3415.43	86.79	-.65	
05/02	15:37:00	5991.0000	3414.75	86.81	-.68	
05/02	15:55:00	6009.0000	3414.13	86.82	-.62	
05/02	16:13:00	6027.0000	3413.52	86.83	-.61	
05/02	16:31:00	6045.0000	3412.89	86.84	-.63	
05/02	16:49:00	6063.0000	3412.24	86.84	-.65	
05/02	17:07:00	6081.0000	3411.60	86.86	-.64	
05/02	17:25:00	6099.0000	3410.96	86.88	-.64	
05/02	17:43:00	6117.0000	3410.38	86.89	-.58	
05/02	18:01:00	6135.0000	3409.77	86.89	-.61	
05/02	18:19:00	6153.0000	3409.10	86.91	-.67	
05/02	18:37:00	6171.0000	3408.48	86.91	-.62	
05/02	18:55:00	6189.0000	3407.91	86.93	-.57	
05/02	19:13:00	6207.0000	3407.25	86.95	-.66	
05/02	19:31:00	6225.0000	3406.66	86.96	-.60	
05/02	19:49:00	6243.0000	3406.06	86.96	-.59	
05/02	20:07:00	6261.0000	3405.44	86.98	-.62	
05/02	20:25:00	6279.0000	3404.84	87.00	-.60	
05/02	20:43:00	6297.0000	3404.24	87.00	-.60	
05/02	21:01:00	6315.0000	3403.65	87.00	-.59	
05/02	21:19:00	6333.0000	3403.05	87.03	-.60	
05/02	21:37:00	6351.0000	3402.41	87.04	-.63	
05/02	21:55:00	6369.0000	3401.84	87.05	-.57	
05/02	22:13:00	6387.0000	3401.26	87.05	-.58	
05/02	22:31:00	6405.0000	3400.71	87.07	-.55	
05/02	22:49:00	6423.0000	3400.14	87.08	-.57	
05/02	23:07:00	6441.0000	3399.53	87.10	-.61	
05/02	23:25:00	6459.0000	3398.97	87.11	-.56	
05/02	23:43:00	6477.0000	3398.45	87.12	-.52	
05/03	00:01:00	6495.0000	3397.90	87.12	-.56	
05/03	00:19:00	6513.0000	3397.32	87.13	-.58	
05/03	00:37:00	6531.0000	3396.74	87.14	-.57	
05/03	00:55:00	6549.0000	3396.17	87.15	-.57	
05/03	01:13:00	6567.0000	3395.66	87.17	-.51	
05/03	01:31:00	6585.0000	3395.13	87.18	-.53	
05/03	01:49:00	6603.0000	3394.58	87.19	-.54	
05/03	02:07:00	6621.0000	3394.06	87.20	-.52	
05/03	02:25:00	6639.0000	3393.54	87.21	-.52	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
05/03	02:43:00	6657.0000	3393.00	87.22	-.55	
05/03	03:01:00	6675.0000	3392.51	87.23	-.48	
05/03	03:19:00	6693.0000	3391.96	87.25	-.56	
05/03	03:37:00	6711.0000	3391.43	87.25	-.53	
05/03	03:55:00	6729.0000	3390.91	87.27	-.52	
05/03	04:13:00	6747.0000	3390.42	87.27	-.49	
05/03	04:31:00	6765.0000	3389.91	87.29	-.51	
05/03	04:49:00	6783.0000	3389.37	87.30	-.54	
05/03	05:07:00	6801.0000	3388.90	87.30	-.47	
05/03	05:25:00	6819.0000	3388.39	87.31	-.50	
05/03	05:43:00	6837.0000	3387.90	87.32	-.50	
05/03	06:01:00	6855.0000	3387.39	87.34	-.51	
05/03	06:19:00	6873.0000	3386.89	87.34	-.50	
05/03	06:37:00	6891.0000	3386.36	87.36	-.53	
05/03	06:55:00	6909.0000	3385.85	87.36	-.51	
05/03	07:13:00	6927.0000	3385.38	87.37	-.47	
05/03	07:31:00	6945.0000	3384.84	87.38	-.53	
05/03	07:49:00	6963.0000	3384.36	87.40	-.49	
05/03	08:07:00	6981.0000	3383.88	87.40	-.48	
05/03	08:25:00	6999.0000	3383.35	87.42	-.53	
05/03	08:43:00	7017.0000	3382.86	87.43	-.49	
05/03	09:01:00	7035.0000	3382.38	87.43	-.48	
05/03	09:19:00	7053.0000	3381.88	87.45	-.50	
05/03	09:37:00	7071.0000	3381.40	87.45	-.48	
05/03	09:55:00	7089.0000	3380.89	87.47	-.51	
05/03	10:13:00	7107.0000	3380.41	87.48	-.48	
05/03	10:31:00	7125.0000	3379.91	87.49	-.50	
05/03	10:49:00	7143.0000	3379.47	87.49	-.44	
05/03	11:07:00	7161.0000	3378.98	87.50	-.49	
05/03	11:25:00	7179.0000	3378.49	87.52	-.50	
05/03	11:43:00	7197.0000	3378.03	87.52	-.46	
05/03	12:01:00	7215.0000	3377.55	87.54	-.48	
05/03	12:19:00	7233.0000	3377.16	87.54	-.39	
05/03	12:37:00	7251.0000	3376.70	87.54	-.46	
05/03	12:55:00	7269.0000	3376.17	87.57	-.53	
05/03	13:13:00	7287.0000	3375.73	87.58	-.44	
05/03	13:31:00	7305.0000	3375.33	87.59	-.40	
05/03	13:49:00	7323.0000	3374.89	87.59	-.44	
05/03	14:07:00	7341.0000	3374.41	87.60	-.48	
05/03	14:25:00	7359.0000	3373.95	87.61	-.46	
05/03	14:43:00	7377.0000	3373.53	87.61	-.42	
05/03	15:01:00	7395.0000	3373.12	87.63	-.41	
05/03	15:19:00	7413.0000	3372.71	87.64	-.41	
05/03	15:37:00	7431.0000	3372.27	87.65	-.44	
05/03	15:55:00	7449.0000	3371.83	87.66	-.44	
05/03	16:13:00	7467.0000	3371.42	87.67	-.41	
05/03	16:31:00	7485.0000	3371.04	87.68	-.38	
05/03	16:49:00	7503.0000	3370.60	87.69	-.44	
05/03	17:07:00	7521.0000	3370.20	87.69	-.40	
05/03	17:25:00	7539.0000	3369.82	87.70	-.38	
05/03	17:43:00	7557.0000	3369.38	87.71	-.44	
05/03	18:01:00	7575.0000	3368.96	87.71	-.41	
05/03	18:19:00	7593.0000	3368.57	87.73	-.40	
05/03	18:37:00	7611.0000	3368.09	87.74	-.47	
05/03	18:55:00	7629.0000	3367.75	87.75	-.35	
05/03	19:13:00	7647.0000	3367.35	87.75	-.39	
05/03	19:31:00	7665.0000	3366.91	87.76	-.44	
05/03	19:49:00	7683.0000	3366.51	87.77	-.40	
05/03	20:07:00	7701.0000	3366.06	87.78	-.45	
05/03	20:25:00	7719.0000	3365.64	87.79	-.43	
05/03	20:43:00	7737.0000	3365.27	87.80	-.37	
05/03	21:01:00	7755.0000	3364.82	87.82	-.45	
05/03	21:19:00	7773.0000	3364.41	87.82	-.41	
05/03	21:37:00	7791.0000	3364.04	87.83	-.37	
05/03	21:55:00	7809.0000	3363.59	87.84	-.45	

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
05/03	22:13:00	7827.0000	3363.17	87.85	-.42	
05/03	22:31:00	7845.0000	3362.81	87.85	-.36	
05/03	22:49:00	7863.0000	3362.41	87.85	-.40	
05/03	23:07:00	7881.0000	3361.98	87.87	-.43	
05/03	23:25:00	7899.0000	3361.59	87.87	-.40	
05/03	23:43:00	7917.0000	3361.17	87.89	-.42	
05/04	00:01:00	7935.0000	3360.82	87.90	-.35	
05/04	00:19:00	7953.0000	3360.39	87.91	-.43	
05/04	00:37:00	7971.0000	3359.99	87.92	-.40	
05/04	00:55:00	7989.0000	3359.61	87.93	-.38	
05/04	01:13:00	8007.0000	3359.25	87.92	-.36	
05/04	01:31:00	8025.0000	3358.89	87.94	-.36	
05/04	01:49:00	8043.0000	3358.53	87.94	-.36	
05/04	02:07:00	8061.0000	3358.11	87.96	-.42	
05/04	02:25:00	8079.0000	3357.76	87.96	-.36	
05/04	02:43:00	8097.0000	3357.38	87.97	-.37	
05/04	03:01:00	8115.0000	3356.97	87.99	-.41	
05/04	03:19:00	8133.0000	3356.62	87.99	-.35	
05/04	03:37:00	8151.0000	3356.29	87.99	-.33	
05/04	03:55:00	8169.0000	3355.89	88.00	-.41	
05/04	04:13:00	8187.0000	3355.51	88.01	-.38	
05/04	04:31:00	8205.0000	3355.21	88.02	-.30	
05/04	04:49:00	8223.0000	3354.80	88.03	-.40	
05/04	05:07:00	8241.0000	3354.44	88.04	-.37	
05/04	05:25:00	8259.0000	3354.08	88.04	-.36	
05/04	05:43:00	8277.0000	3353.74	88.05	-.34	
05/04	06:01:00	8295.0000	3353.40	88.06	-.34	
05/04	06:19:00	8313.0000	3353.00	88.07	-.40	
05/04	06:37:00	8331.0000	3352.64	88.08	-.37	
05/04	06:55:00	8349.0000	3352.27	88.09	-.37	
05/04	07:13:00	8367.0000	3351.94	88.10	-.33	
05/04	07:31:00	8385.0000	3351.57	88.11	-.37	
05/04	07:49:00	8403.0000	3351.23	88.11	-.34	
05/04	08:07:00	8421.0000	3350.88	88.12	-.34	
05/04	08:25:00	8439.0000	3350.51	88.12	-.37	
05/04	08:43:00	8457.0000	3350.16	88.14	-.35	
05/04	09:01:00	8475.0000	3349.84	88.14	-.31	END FALL-OFF (90.5 HRS,)
05/04	09:02:00	8476.0000	3225.90	88.36	-123.94	TANDEM ELEC. MEMORY INST. OFF BOTTOM
05/04	09:02:15	8476.2500	3180.01	88.74	-45.90	
05/04	09:03:15	8477.2500	3165.05	92.23	-14.95	
05/04	09:04:15	8478.2500	3164.00	95.71	-1.05	ARRIVED @ 4000'
05/04	09:05:15	8479.2500	3164.63	99.22	.63	
05/04	09:06:30	8480.5000	3166.81	102.67	2.18	
05/04	09:07:45	8481.7500	3168.38	106.14	1.57	
05/04	09:09:30	8483.5000	3170.66	109.19	2.28	
05/04	09:10:30	8484.5000	3171.65	110.67	.98	STOP @ 4000'
05/04	09:10:45	8484.7500	3151.34	111.04	-20.30	
05/04	09:11:00	8485.0000	3107.32	111.41	-44.03	
05/04	09:11:15	8485.2500	3063.60	111.66	-43.72	
05/04	09:11:30	8485.5000	3019.38	111.63	-44.22	
05/04	09:11:45	8485.7500	2975.30	111.59	-44.08	
05/04	09:12:00	8486.0000	2930.33	111.55	-44.97	
05/04	09:12:15	8486.2500	2885.10	111.51	-45.23	
05/04	09:12:30	8486.5000	2839.61	111.48	-45.49	
05/04	09:12:45	8486.7500	2798.14	111.43	-41.48	
05/04	09:13:00	8487.0000	2783.00	111.40	-15.14	
05/04	09:13:15	8487.2500	2768.01	111.36	-14.99	
05/04	09:13:30	8487.5000	2750.44	111.32	-17.56	
05/04	09:13:45	8487.7500	2742.90	111.29	-7.55	
05/04	09:16:45	8490.7500	2743.48	108.15	.58	
05/04	09:20:30	8494.5000	2741.74	105.20	-1.74	STOP @ 3000'
05/04	09:20:45	8494.7500	2722.52	104.98	-19.21	
05/04	09:21:00	8495.0000	2683.78	104.77	-38.74	
05/04	09:21:15	8495.2500	2644.40	104.56	-39.39	
05/04	09:21:30	8495.5000	2604.62	104.35	-39.77	

WELL NAME : SUNCO SWD NO. 1 DATE : 05/05/15

WELL LOCATION : SAN JUAN COUNTY, NEW MEXICO FILE REF: F162504.RED

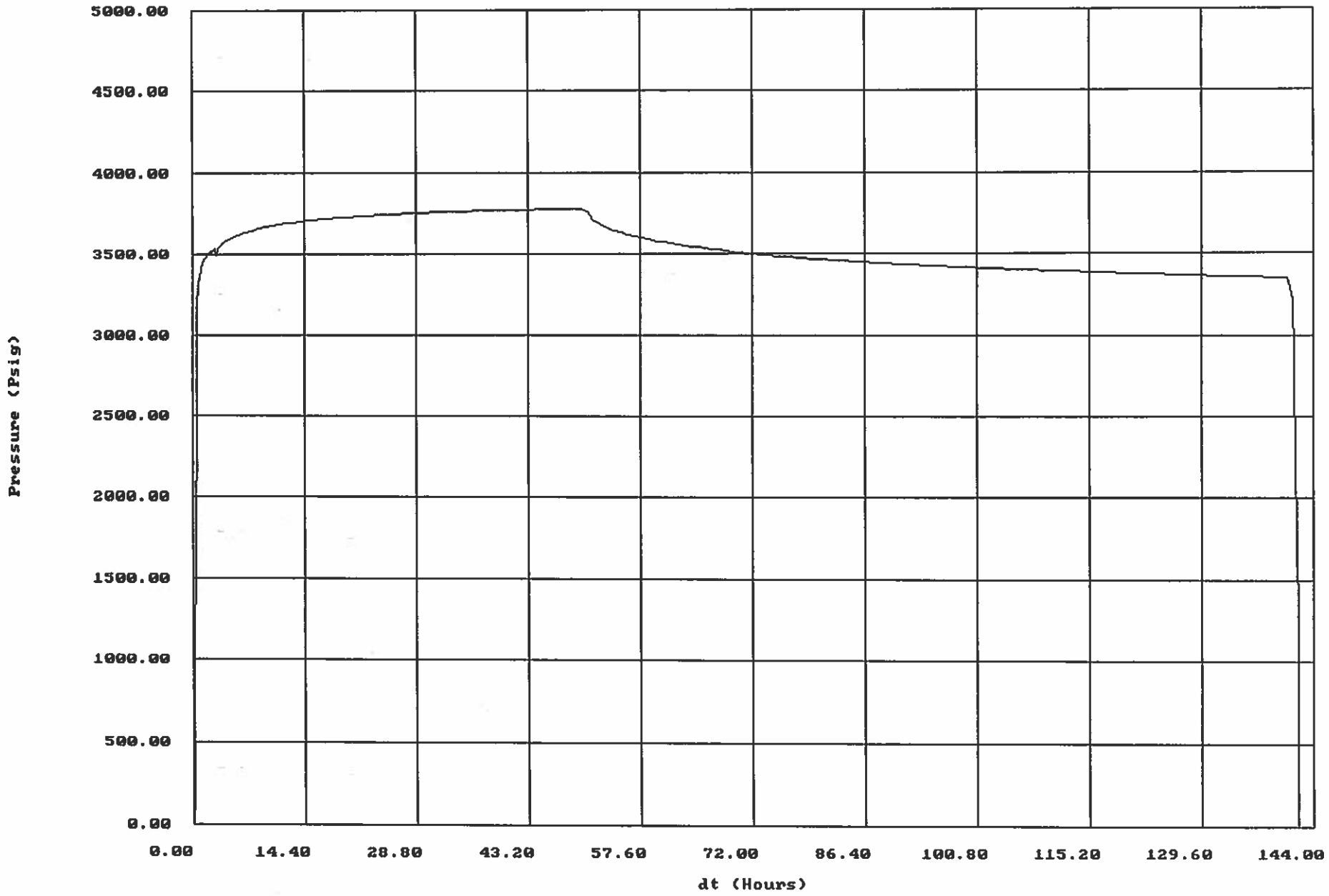
Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
05/04	09:21:45	8495.7500	2560.10	104.13	-44.53	
05/04	09:22:00	8496.0000	2512.99	103.92	-47.11	
05/04	09:22:15	8496.2500	2472.05	103.71	-40.93	
05/04	09:22:30	8496.5000	2431.89	103.50	-40.16	
05/04	09:22:45	8496.7500	2399.99	103.28	-31.91	
05/04	09:23:00	8497.0000	2361.76	103.07	-38.23	
05/04	09:23:15	8497.2500	2328.99	102.61	-32.77	
05/04	09:23:30	8497.5000	2309.97	102.06	-19.01	
05/04	09:25:00	8499.0000	2309.50	98.72	-.47	
05/04	09:26:30	8500.5000	2308.55	95.61	-.95	
05/04	09:28:30	8502.5000	2306.52	92.54	-2.04	
05/04	09:30:45	8504.7500	2296.84	90.03	-9.68	STOP @ 2000'
05/04	09:31:00	8505.0000	2269.89	89.79	-26.94	
05/04	09:31:15	8505.2500	2242.84	89.55	-27.05	
05/04	09:31:30	8505.5000	2213.45	89.31	-29.39	
05/04	09:31:45	8505.7500	2180.71	89.07	-32.75	
05/04	09:32:00	8506.0000	2147.44	88.83	-33.27	
05/04	09:32:15	8506.2500	2104.77	88.47	-42.67	
05/04	09:32:30	8506.5000	2061.63	87.87	-43.14	
05/04	09:32:45	8506.7500	2018.11	87.26	-43.52	
05/04	09:33:00	8507.0000	1974.31	86.66	-43.80	
05/04	09:33:15	8507.2500	1930.12	86.06	-44.19	
05/04	09:33:30	8507.5000	1885.40	85.46	-44.72	
05/04	09:34:45	8508.7500	1872.98	82.45	-12.42	
05/04	09:36:15	8510.2500	1872.10	78.92	-.89	
05/04	09:37:45	8511.7500	1871.08	75.56	-1.01	
05/04	09:40:00	8514.0000	1869.15	72.33	-1.94	STOP @ 1000'
05/04	09:40:45	8514.7500	1855.79	71.38	-13.36	
05/04	09:41:00	8515.0000	1822.78	71.06	-33.01	
05/04	09:41:15	8515.2500	1779.44	70.81	-43.34	
05/04	09:41:30	8515.5000	1734.53	70.47	-44.91	
05/04	09:41:45	8515.7500	1689.63	70.12	-44.90	
05/04	09:42:00	8516.0000	1652.88	69.78	-36.75	
05/04	09:42:15	8516.2500	1618.21	69.43	-34.67	
05/04	09:42:30	8516.5000	1583.53	69.09	-34.68	
05/04	09:42:45	8516.7500	1547.55	68.75	-35.98	
05/04	09:43:00	8517.0000	1515.85	68.40	-31.70	
05/04	09:43:15	8517.2500	1482.34	68.06	-33.51	
05/04	09:43:30	8517.5000	1459.05	67.72	-23.29	
05/04	09:43:45	8517.7500	1439.67	67.37	-19.39	
05/04	09:52:00	8526.0000	1421.79	68.45	-17.88	SURFACE STOP
05/04	09:53:00	8527.0000	.01	68.93	-1421.78	
05/04	10:03:15	8537.2500	.01	71.93	.00	
05/04	10:15:00	8549.0000	.01	74.95	.00	

AGUA MOSS, LLC

Pressure vs dt

SUNCO SWD NO. 1
SAN JUAN COUNTY, NEW MEXICO
F162504.RED

TEFTELLER, INC.
4-28-15
INJECTION & FALL-OFF TESTS



EVENT SUMMARY

COMPANY : AGUA MOSS, LLC

PAGE : B1

WELL NAME : SUNCO SWD NO. 1

DATE : 05/05/15

WELL LOCATION : SAN JUAN COUNTY, NEW MEXICO

FILE REF: F162504.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmm	Key Event	Pressure Psig	Temp Deg F
04/28	11:57:45	11.7500	PRESSURED UP LUBRICATOR	18.35	73.25
04/28	12:08:15	22.2500	SURFACE STOP	1300.13	68.92
04/28	12:08:30	22.5000	R.I.H. W/TANDEM ELEC. MEMORY INST.	1322.87	68.86
04/28	12:25:45	39.7500	TANDEM ELEC. MEMORY INST. @ 4405'	3243.96	95.35
04/28	12:30:00	44.0000	BEGAN INJECTING	3270.61	92.76
04/30	14:34:15	3048.2500	END INJECTING	3764.43	69.42
04/30	14:43:15	3057.2500	BEGAN FALL-OFF	3745.84	72.12
05/04	09:01:00	8475.0000	END FALL-OFF (90.5 HRS,)	3349.84	88.14
05/04	09:02:00	8476.0000	TANDEM ELEC. MEMORY INST. OFF BOTTOM	3225.90	88.36
05/04	09:04:15	8478.2500	ARRIVED @ 4000'	3164.00	95.71
05/04	09:10:30	8484.5000	STOP @ 4000'	3171.65	110.67
05/04	09:20:30	8494.5000	STOP @ 3000'	2741.74	105.20
05/04	09:30:45	8504.7500	STOP @ 2000'	2296.84	90.03
05/04	09:40:00	8514.0000	STOP @ 1000'	1869.15	72.33
05/04	09:52:00	8526.0000	SURFACE STOP	1421.79	68.45

Company: AGUA MOSS, LLC
Well: SUNCO SWD NO. 1
Field:
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000
Gauge Depth: 4405 ft
Serial No.: 162

County: SAN JUAN
State: NEW MEXICO
Date: 04/28/2015
Well Type: INJECTING
Test Type: GRADIENT
Status:
File Name: 66123

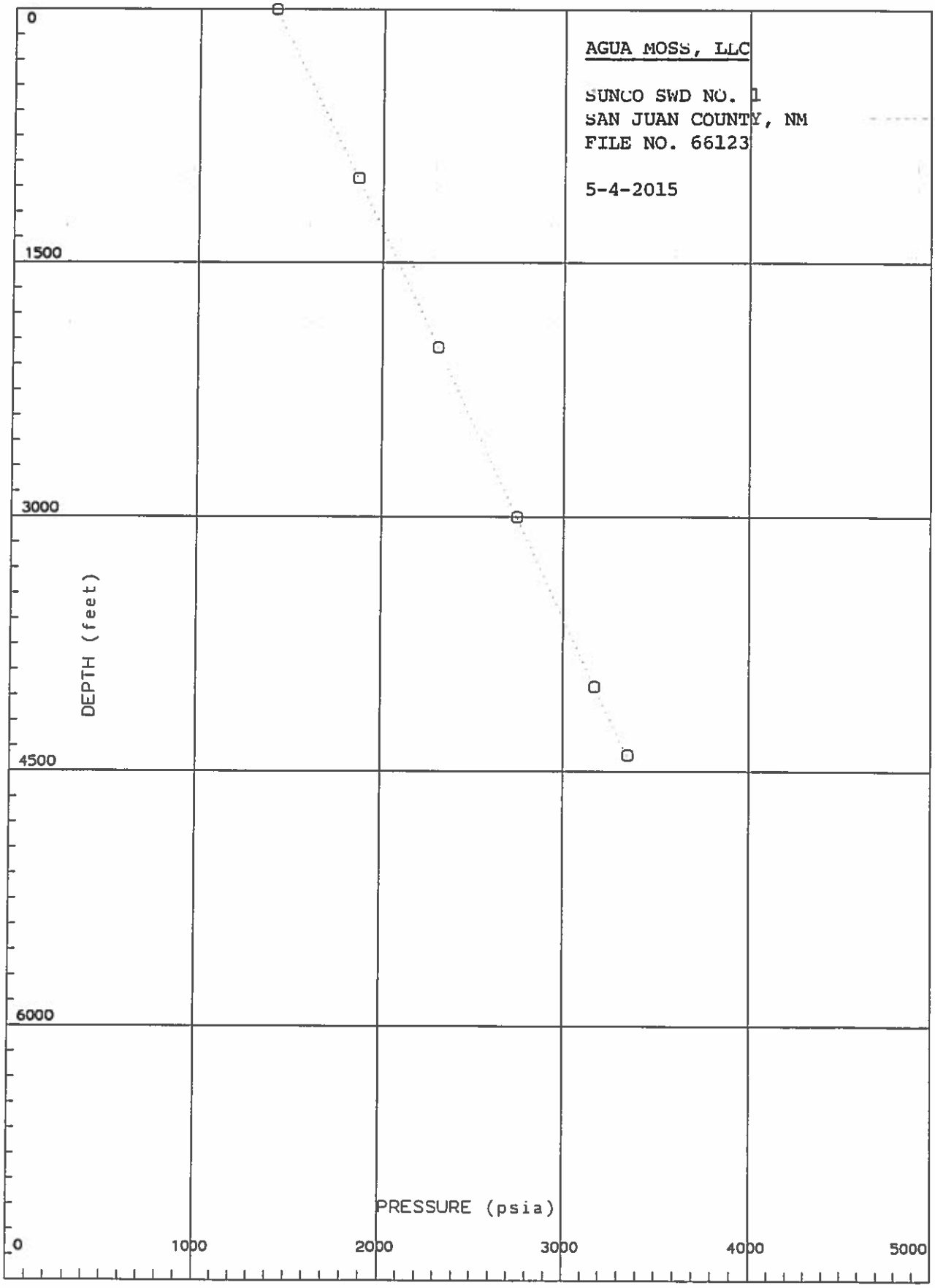
Tubing: 2-7/8" TO 4282'
Tubing: TO
Casing: TO
Perfs.: 4350' - 4460'

Packer Depth 4282 ft

Oil Level
H2O Level

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	4405	4405	3350.00	
2	4000	4000	3172.00	0.440
3	3000	3000	2742.00	0.430
4	2000	2000	2305.00	0.437
5	1000	1000	1869.00	0.436
6	0	0	1422.00	0.447


AGUA MOSS, LLC
SUNCO SWD NO. 1
SAN JUAN COUNTY, NM
FILE NO. 66123
5-4-2015
DEPTH (feet)
0
1500
3000
4500
6000
PRESSURE (psia)
0
1000
2000
3000
4000
5000

SP-2000

Downhole Memory Pressure Gauge

The SP-2000 downhole memory pressure gauge is controlled by an internal microprocessor and powerful software.

The SP-2000 can stay downhole and collect data for hours or days; depending on your application. It is slimline and operates fully from battery power.

The microprocessor is capable of detecting the correct pressure and temperature and adjust the sampling rate automatically (once programmed for the test application).

The SP-2000 is tough, dependable, simple, and intelligent. If your job requires gauges that are reliable yet rugged and simple to use, the SP-2000 memory gauge, with it's Hybrid-Quartz sensor is the one for you. It is so simple that a paper clip can be used to program it by changing the switch settings for the Type and Duration of test.

With the use of our simple, menu driven software, you can retrieve and report the gauge data (using a compatible computer and printer) from the tool once it is removed from the well.

Advanced reporting features are available such as data printouts, gradient reports, gradient plots and most of the standard time vs. pressure/temperature plot formats.

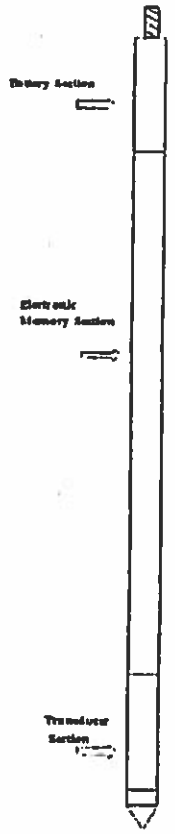
Micro-Smart Systems offers complete Well Test Interpretation, utilizing Fekete's "F.A.S.T. Well Test ™" software. This powerful state-of-the-art software includes data preparation, various analysis methods, analytical reservoir modeling and deliverability.

Micro-Smart Systems is the *SMART* choice for cutting-edge technology and superior customer support. We can save you time, money, and help you keep your customers satisfied.

SMART Features:

The technological features of the SP-2000 are:

- Dual EEPROM Memory
- Tool performs internal tests and delivers audible signal to confirm operation
- Multiple-run data storage capability
- User friendly software
- Convert from memory to SRO gauge with simple module change
- Compatible with Micro-Smart's production logging tools
- Standard ASCII data storage format
- Switch selectable programming without the use of a computer
- Selectable switches for duration in *DAYS* and *TYPE* of *TEST*
- Custom computer programming
  - up to 15 time periods
  - specify time interval, sampling rate, and Δ P switching.



"SMART AND SIMPLE"

SPECIFICATIONS:

Memory Capacity: 48,000 data sets (main memory)
2,000 data sets (backup memory)
(time, pressure, temp.)
Sampling Intervals: 1.875 seconds to 64 minutes
(in binary multiples)
Diameter: 1.25 inch (31.2 mm)
Resolution: Pressure .01 psi
Temp. .04° F
Accuracy: Pressure ± .05 % Full Scale
Temp. ± 1° F
Time ± .05%

Pressure Ranges: 2,500 psi (17,000 KPA)
5,000 psi (34,000 KPA)
10,000 psi (68,000 KPA)
15,000 psi (102,000 KPA)
20,000 psi (136,000 KPA)
Weight: 14 lbs (5.9 Kg)
Operating Temp.: 32° F to 325° F
(0° C to 160° C)
Power: 13.5v (9 "c" cell Alkaline)
14.4v (4 "c" cell Lithium)
Length: 53 in. (1.3 m) plus battery pack
24 in. (.6 m) for 9 cell pack
16 in. (.4 m) for 4 cell pack

#9

ACCURACY VERIFICATION

5-February-2014

Gauge Model	**SP-2000**	Pressure Range	**5 K**
Gauge S/N	**162**	Accuracy 0.05%	Full Scale

Applied Pressure psig	**Recorded Pressure psig**	**Difference psi**	**Percent (%)**
0.01	0.71	0.70	0.0139%
774.08	774.96	0.88	0.0177%
1498.24	1499.12	0.88	0.0176%
2222.36	2222.99	0.63	0.0126%
2946.53	2947.04	0.51	0.0102%
3670.66	3671.23	0.57	0.0113%
4394.87	4395.53	0.66	0.0133%
5119.00	5119.94	0.94	0.0187%
4394.87	4396.16	1.29	0.0258%
3670.66	3671.99	1.33	0.0265%
2946.53	2947.97	1.44	0.0287%
2222.36	2223.84	1.48	0.0296%
1498.24	1499.73	1.49	0.0299%
774.08	775.18	1.10	0.0220%
0.01	0.25	0.24	0.0049%

Oven Temperature: **144.7 °F** Probe Temperature: **144.7 °F**

Smart Gauge Calibration accuracy is confirmed.

Calibrated with RUSKA Pressure Standard, model # 2451-700-00
Serial #26618, Mass Set Serial #25608
Compensated to local acceleration due to gravity

Verified by: CM