



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1084168

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method: Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Commingled <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	BOP West, LLC
Well Name	Thiel 20-1
Doc ID	1084168

Tops

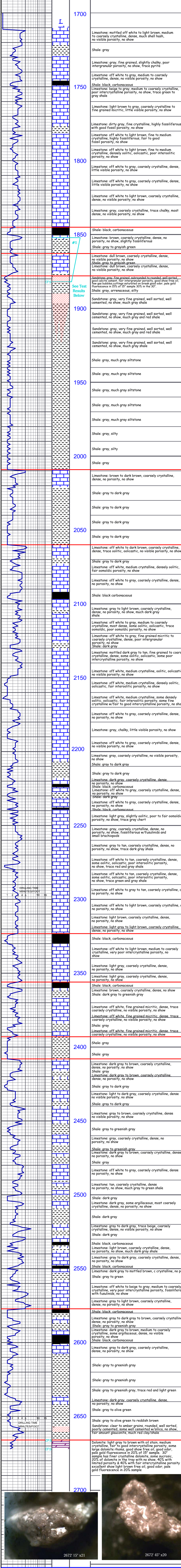
Name	Top	Datum
Heebner	1845	-508
Douglas ss	1878	-541
Brown lm	2009	-672
Lansing	2060	-723
Stark	2323	-986
Hushpuckney	2356	-1019
BKC	2393	-1056
Marmaton	2408	-1071
Cherokee	2577	-1240
Mississippian	2666	-1329
RTD	2672	-1335



REPORT PREPARED BY FRANK S. MAZUR (GEOLOGIST)
AP# 15-169-20-335



COMPANY	BOP West, LLC	ELEVATION	K.B. 1337
LEASE	Thiel #20-1	D.F.	1328
FIELD	Hunter	G.L.	1328
LOCATION	1.361 FSL & 404 FWL	DEPTH MEASURED FROM	14B
SEC.	20	TWSP	16S
COUNTY	Saline	STATE	Kansas
CONTRACTOR	C & G Drilling, Rig #2	LOG	Drilling
SPUD	5-23-12	COMP	5-27-12
SAMPLES SAVED FROM 1700 TO RTD			
FORMATION	SAMPLE	ELOG	DATE
Onset	1845	-508	-511
Douglas SS	1878	-508	-523
Brown	2009	-672	-669
Lansing	2060	-723	-720
Hushpuckney	2356	-1019	-1012
BKC	2393	-1056	-1051
Marmaton	2408	-1071	-1065
Cherokee	2577	-1240	-1233
Mississippian	2666	-1328	-1327
RTD	2672	-1381	-1381



Bit Trip @ 1711'

SHALE
SANDSTONE
LOLIMESTONE
LOLIMESTONE
HALITE
ANHYDRITE/GYPSUM

vis 34 wt 8.8 lcm 4#

Heebner 1845-508

Toronto 1863-526

Douglas SS 1878-541

vis 38 wt 9.0 lcm 2#

Brown Lime 2009-672

Lansing 2060-723

vis 37 wt 9.0 lcm 1#

Stark 2323-986

Hushpuckney 2356-1019

vis 35 wt 9.1 lcm 2#

BKC 2393-1056

Marmaton 2408-1071

vis 39 wt 9.1 lcm 2#

Cherokee 2577-1240

vis 40 wt 9.1 lcm 1.5#

Mississippian 2666-1329

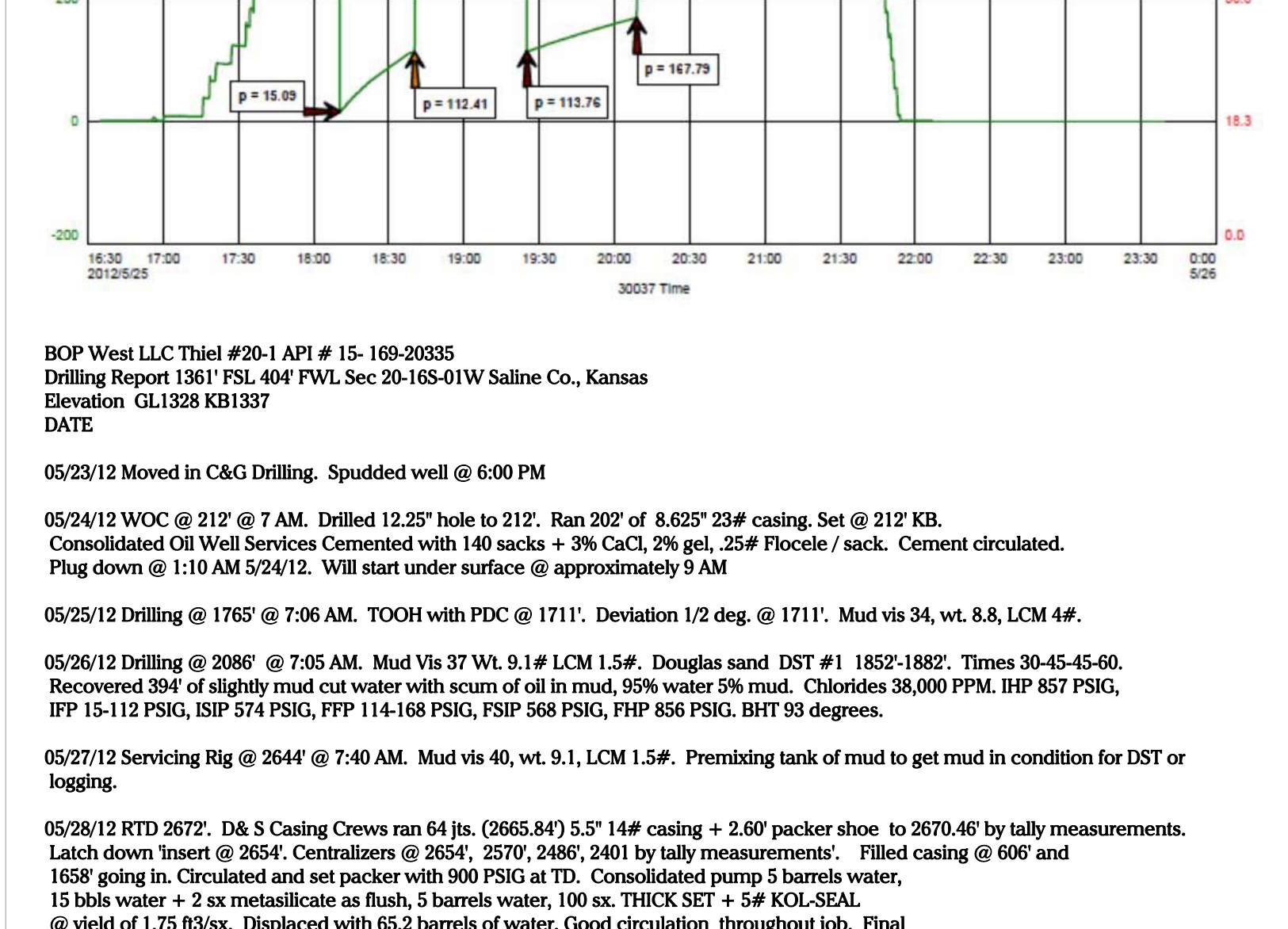
BOP West, LLC
Thiel #20-1
1.361 FSL & 404 FWL 20-16S-1W
Saline County, Kansas

Comments:

Blow: 1st Open: GSB, BOB 18 MIN (NO BB)	
2nd Open: A WSB AFTER 1 MIN THAT INC TO BOB 27 MIN (NO BB)	
Recovered 394 ft. of SOSMW 96% WTR, 5% MUD W/ A THIN SCUM OF OIL (182' DP, 212' DC)	
Recovered 394 ft. of TOTAL FLUID	
Recovered _____ ft. of _____	
Recovered _____ ft. of CHLOR. 38,000 PPM	Price Job
Recovered _____ ft. of PH: 7.0	Other Charges
Remarks: RW: .15 @ 85°	Insurance
TOOL SAMPLE: 1% OIL, 90% WTR, 9% MUD	Total

Time Set Packer(s)	6:15 P.M.	A.M. P.M.	Time Started Off Bottom	9:15 P.M.	A.M. P.M.	Maximum Temperature	93
Initial Hydrostatic Pressure						85 P.S.I.	
Initial Flow Period	Minutes	30	(B)	157 P.S.I. to (C)		112 P.S.I.	
Initial Closed In Period	Minutes	45	(D)	574 P.S.I.			
Final Flow Period	Minutes	45	(E)	114 P.S.I. to (F)		168 P.S.I.	
Final Closed In Period	Minutes	60	(G)	568 P.S.I.			
Final Hydrostatic Pressure						856 P.S.I.	

BOP WEST LLC
DST#1 1852-1882 DOUGLAS SS
Start Test Date: 2012/05/25
Final Test Date: 2012/05/25



BOP West LLC Thiel #20-1 API # 15-169-20335
Drilling Report 1361 FSL 404 FWL Sec 20-16S-01W Saline Co., Kansas
Elevation GL1328 KB1337

05/23/12 Moved in C&G Drilling. Spudded well @ 6:00 PM

05/24/12 WOC @ 212' @ 7 AM. Drilled 12.25' hole to 212'. Ran 202' of 8.625" 23# casing. Set @ 212' KB. Consolidated Oil Well Services Cemented with 140 sacks + 3% CaCl₂ 2% gel, .25# Flocele / sack. Cement circulated. Plug down @ 1:10 AM 5/24/12. Will start under surface @ approximately 9 AM

05/25/12 Drilling @ 1765' @ 7:06 AM. TOOH with PDC @ 1711'. Deviation 1/2 deg. @ 1711'. Mud vis 34, wt. 8.8, LCM 4#.

05/26/12 Drilling @ 2086' @ 7:05 AM. Mud Vis 37 Wt. 9.1# LCM 1.5#. Douglas sand DST #1 1852-1882. Times 30-45-45-60. Recovered 394' of slightly mud cut water with scum of oil in mud, 95% water 5% mud. Chlorides 38,000 PPM. IHP 857 PSIG, IFP 15-112 PSIG, ISIP 574 PSIG, FFP 114-168 PSIG, PSP 368 PSIG, PHP 856 PSIG. BHT 93 degrees.

05/27/12 Servicing Rig @ 2644' @ 7:40 AM. Mud vis 40, wt. 9.1, LCM 1.5#. Premixing tank of mud to get mud in condition for DST or logging.

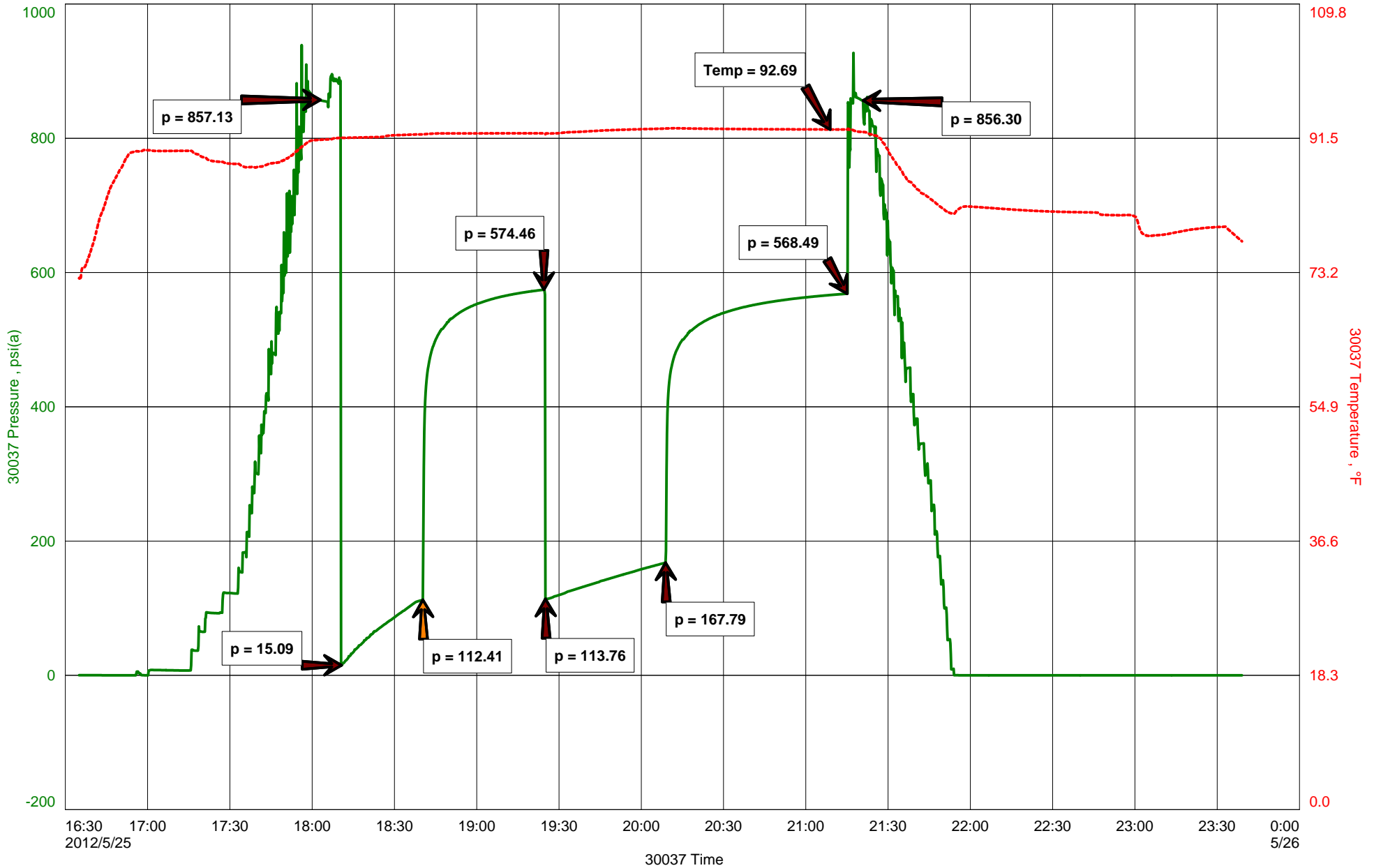
05/28/12 RTD 2672'. D&S Casing Crews ran 64 Jts. (2665.84') 5.5" 14# casing + 2.60' packer shoe to 2670.46' by tally measurements. Latch down insert @ 2654'. Centralizers @ 2654', 2670', 2485', 240' by tally measurements. Filled casing @ 606' and 1658' going in. Circulated and set packer with 100 PSIG TD. Consolidated pump 5 barrels water, 15 lbs water + 2 sx metasilicate as flush, 5 barrels water, 100 sx. THICK SET + 5# KOL-SEAL @ yield of 1.75 R3/sx. Displaced with 65.2 barrels of water. Good circulation throughout job. Final pumping pressure 700 PSIG. Bumped plug with 1200 PSIG. Plug down @ 7:54 PM 5/27/12.

NOTE: TD by the casing tally was 2744.66' or 2.66' deeper than the rotary TD of 2672'. Pipe is set 4.2' off bottom or 2667.8' rotary depths. ACO-1 and other slate red shale will show TD @ 2672' and casing @ 2668'. Casing could not be set higher to prevent a collar from being in the slips. To clear the slips with the collar would have possibly resulted in exposing the shale above the Mississippian.

BOP WEST LLC
DST#1 1852-1882 DOUGLAS SS
Start Test Date: 2012/05/25
Final Test Date: 2012/05/25

THIEL #20-1
Formation: DST#1 1852-1882 DOUGLAS SS
Pool: WILDCAT
Job Number: M329

THIEL #20-1



DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	BOP WEST LLC	Job Number	M329
Well Name	THIEL #20-1	Representative	MIKE COCHRAN
Unique Well ID	DST#1 1852-1882 DOUGLAS SS	Well Operator	BOP WEST LLC
Surface Location	SEC.20-16S-1W SALINE CO.KS.	Report Date	2012/05/25
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	FRANK MIZE
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL		
Formation	DST#1 1852-1882 DOUGLAS SS		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2012/05/25	Start Test Time	14:35:00
Final Test Date	2012/05/25	Final Test Time	23:40:00
		Well Fluid Type	01 Oil
Gauge Name	30037		
Gauge Serial Number			

Test Results

Remarks RECOVERED:
394' SOSMW 95% WTR, 5% MUD W/ A THIN SCUM OF OIL
394' TOTAL FLUID

CHLOR: 38,000PPM
PH:7.0
RW: .15 @ 85 DEG

TOOL SAMPLE: 1% OIL, 90% WTR, 9% MUD



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: _____

TIME ON: _____
TIME OFF: _____

Company _____ Lease & Well No. _____
Contractor _____ Charge to _____
Elevation _____ Formation _____ Effective Pay _____ Ft. Ticket No. _____
Date _____ Sec. _____ Twp. _____ S Range _____ W County _____ State **KANSAS**
Test Approved By _____ Diamond Representative _____

Formation Test No. _____ Interval Tested from _____ ft. to _____ ft. Total Depth _____ ft.
Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type _____ Viscosity _____ Drill Collar Length _____ ft. I.D. 2 1/4 in.
Weight _____ Water Loss _____ cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
Chlorides _____ P.P.M. Drill Pipe Length _____ ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number _____ Test Tool Length _____ ft. Tool Size 3 1/2-IF in.
Did Well Flow? _____ Reversed Out _____ Anchor Length _____ ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: _____
2nd Open: _____

Recovered _____ ft. of _____	Price Job Other Charges Insurance Total
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: _____	

Time Set Packer(s) _____ A.M. P.M. Time Started Off Bottom _____ A.M. P.M. Maximum Temperature _____
Initial Hydrostatic Pressure..... (A) _____ P.S.I.
Initial Flow Period..... Minutes _____ (B) _____ P.S.I. to (C) _____ P.S.I.
Initial Closed In Period..... Minutes _____ (D) _____ P.S.I.
Final Flow Period..... Minutes _____ (E) _____ P.S.I. to (F) _____ P.S.I.
Final Closed In Period..... Minutes _____ (G) _____ P.S.I.
Final Hydrostatic Pressure..... (H) _____ P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



CONSOLIDATED
Oil Well Services, LLC

TICKET NUMBER 34695
LOCATION Eureka, KS
FOREMAN Shannon Feck

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

CEMENT API # 15-169-20335

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-24-12	1754	Thiel 20-1	20	165	1W	Saline
CUSTOMER <u>BOP West LLC</u>			C+G			
MAILING ADDRESS <u>P.O. Box 129</u>			DRLG			
CITY <u>Wooster</u>		STATE <u>OH</u>	ZIP CODE <u>44691</u>			
TRUCK #		DRIVER		TRUCK #		DRIVER
<u>445</u>		<u>Dave G</u>				
<u>667</u>		<u>Chris B</u>				

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 212' CASING SIZE & WEIGHT 8 3/8"
 CASING DEPTH 203 G.L. DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.5-15 # SLURRY VOL. 30 Bbl WATER gal/sk 6.5 CEMENT LEFT in CASING 20'
 DISPLACEMENT 12 1/2 Bbl DISPLACEMENT PSI 100 MIX PSI 100 RATE 5 BPM

REMARKS: Safety Meeting, Rig up to 8 3/8" casing, Break Circulation with 10 Bbl water, mixed 140 SKS Class "A" cement with 3% calcium, 2% gel & 1/4# Flocc/sk @ 14.5-15 #/gal. Displace with 12 1/2 Bbl water + shut well in. Good circulation @ all times. 8 Bbl slurry to pit. Job Complete.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	825.00	825.00
5406	100	MILEAGE	4.00	400.00
11045	140 SKS	Class "A" cement	14.95	2093.00
1102	395 #	Calcium @ 3%	.74	292.30
1118 B	264 #	Gel @ 2%	.21	55.44
1107	35 #	Flocc @ 1/4#/sk	2.35	82.25
5407A	6.92 Tons	Ton mileage bulk Truck	1.34	927.28
			Sub Total	4675.27
			SALES TAX	184.18
			ESTIMATED TOTAL	4859.45

RAVIN 3737
 AUTHORIZATION [Signature] TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form



CONSOLIDATED
Oil Well Services, LLC

ENTERED

TICKET NUMBER 34685
LOCATION EUREKA
FOREMAN Kevin McCoy

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

CEMENT API # 15-169-20335

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY																
5-27-12	1754	THIEL #20-1	20	165	1W	SALINE																
CUSTOMER BOP West LLC			<table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>520</td> <td>SHANNON F.</td> <td></td> <td></td> </tr> <tr> <td>479</td> <td>Merle R.</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	520	SHANNON F.			479	Merle R.						
TRUCK #	DRIVER	TRUCK #					DRIVER															
520	SHANNON F.																					
479	Merle R.																					
MAILING ADDRESS P.O. Box 129																						
CITY Wooster	STATE OH	ZIP CODE 44691																				

JOB TYPE Longstring HOLE SIZE 7 7/8 HOLE DEPTH 2672 CASING SIZE & WEIGHT 5 1/2 14" NEW
 CASING DEPTH 2668 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 13.6* SLURRY VOL 31 BBL WATER gal/sk 9.0 CEMENT LEFT in CASING 13.93'
 DISPLACEMENT 65.2 BBL DISPLACEMENT PSI 700 ~~PSI~~ 1200 Bump Plug RATE 5 BPM

REMARKS: Safety Meeting: Rig up to 5 1/2 casing. Drop TRIP BALL. Set Packer Shoe @ 900 PSI. Pump 5 BBL water, 15 BBL metasilicate pre flush, 5 BBL water spacer. Mixed 100 sks Thick Set Cement w/ 5" Kol-Seal /sk @ 13.6*/gal, yield 1.75 = 31 BBL slurry. Shut down. wash out Pump & Lines, Release Latch down Plug. Displace Plug to seat w/ 65.2 BBL fresh water. FINAL Pumping Pressure 700 PSI. Bump Plug to 1200 PSI. wait 2 mins. Release Pressure. Float & Plug Held. Good Circulation @ ALL times while Cementing. Job Complete. Rig down.

Plugged rathole with 20 sx. Plugged mousehole with 10 sx.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1030.00	1030.00
5406	100	MILEAGE	4.00	400.00
1126 A	130 SKS	THICK SET CEMENT	19.20	2496.00
1110 A	650 *	KOL-SEAL 5"/SK	.46	299.00
1111 A	100 *	Metasilicate Pre Flush	2.00	200.00
5407 A	7.15 TONS	100 miles BULK DELV.	1.34	958.10
4454	1	5 1/2 LATCH DOWN PLUG	254.00	254.00
4253	1	5 1/2 TYPE A PACKER SHOE	1584.00	1584.00
4130	4	5 1/2 x 7 7/8 CENTRALIZERS	48.00	192.00
4306	1	THREAD LOCK KIT	30.00	30.00
			Sub Total	7443.10
			SALES TAX 7.3%	369.02
			ESTIMATED TOTAL	7812.12

Flavin 3737

AUTHORIZATION [Signature] TITLE X DATE _____
 THANK YOU 250198

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form