



KANSAS CORPORATION COMMISSION 1084168  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34439  
Name: BOP West, LLC  
Address 1: PO BOX 129  
Address 2: \_\_\_\_\_  
City: WOOSTER State: OH Zip: 44691 + \_\_\_\_\_  
Contact Person: Steve Sigler  
Phone: ( 330 ) 264-8847  
CONTRACTOR: License # 32701  
Name: C & G Drilling, Inc.  
Wellsite Geologist: Frank Mize  
Purchaser: NA

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 #: \_\_\_\_\_

5/23/2012	5/27/2012	7/5/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-169-20335-00-00  
Spot Description: \_\_\_\_\_  
SE SW NW SW Sec. 20 Twp. 16 S. R. 1  East  West  
1361 Feet from  North /  South Line of Section  
404 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Saline  
Lease Name: Thiel Well #: 20-1  
Field Name: Hunter  
Producing Formation: Mississippian  
Elevation: Ground: 1328 Kelly Bushing: 1337  
Total Depth: 2682 Plug Back Total Depth: 2682  
Amount of Surface Pipe Set and Cemented at: 212 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: 1500 ppm Fluid volume: 400 bbls  
Dewatering method used: Evaporated  
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: Deanna Gertner Date: 08/24/2012



1084168

Operator Name: BOP West, LLC Lease Name: Thiel Well #: 20-1  
 Sec. 20 Twp. 16 S. R. 1  East  West County: Saline

**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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> Sample  Name Top Datum Attached Attached Attached
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CASING RECORD <input checked="" 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
Surface	12.25	8.625	23	212	Class A	140	3% CaCl, 2% gcl, 25# Flocc
Production	7.875	5.5	14	2668	Thick Set	100	5# Kol-Seal

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 (Amount and Kind of Material Used)	Depth
0	Open Hole	1450 gal. 15% NEFE acid	2668-2679
0	Open Hole	0	2679-2682

TUBING RECORD:	Size: <u>2.875</u>	Set At: <u>2675</u>	Packer At: <u>None</u>	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. <u>8/22/2012</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____
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Estimated Production Per 24 Hours	Oil Bbls. <u>10</u>	Gas Mcf <u>0</u>	Water Bbls. <u>330</u>	Gas-Oil Ratio <u>0</u>	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 checked="" type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>2668</u> <u>2682</u>
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Form	ACO1 - Well Completion
Operator	BOP West, LLC
Well Name	Thiel 20-1
Doc ID	1084168

Tops

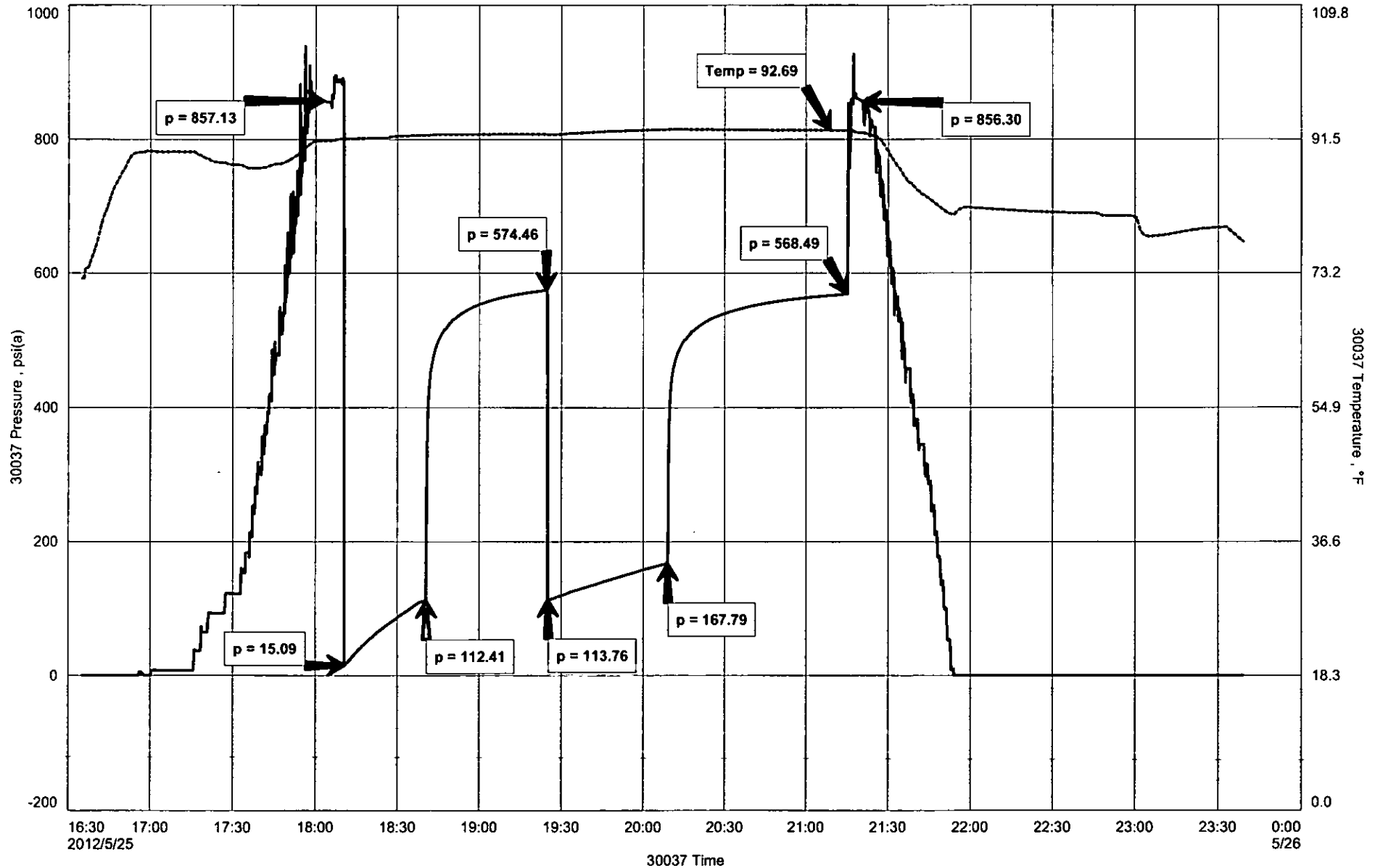
Heebner	1845	-508
Douglas ss	1878	-541
Brown lm	2009	-672
Lansing	2060	-723
Stark	2323	-986
Hushpuckney	2356	-1019
BKC	2393	-1056
Marmaton	2408	-1071
Cherokee	2577	-1240
Mississippian	2666	-1329
RTD	2672	-1335



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: THL20-1DST1

TIME ON: 1635  
TIME OFF: 2340

Company BOP WEST LLC Lease & Well No. THIEL #20-1  
Contractor C&G RIG 2 Charge to BOP WEST LLC  
Elevation 1337 KB Formation DOUGLAS SS Effective Pay \_\_\_\_\_ Ft. Ticket No. M329  
Date 5/25/2012 Sec. 20 Twp. \_\_\_\_\_ 16 S Range \_\_\_\_\_ 1 W County SALINE State KANSAS  
Test Approved By FRANK MIZE Diamond Representative MIKE COCHRAN

Formation Test No. 1 Interval Tested from 1852 ft. to 1882 ft. Total Depth 1882 ft.  
Packer Depth 1847 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 1852 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 1853 ft. Recorder Number 30037 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 1879 ft. Recorder Number 13386 Cap. 3,875 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 38 Drill Collar Length 212 ft. I.D. 2 1/4 in.  
Weight 9.0 Water Loss 10.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1,500 P.P.M. Drill Pipe Length 1613 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 1 Test Tool Length 27 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 30 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

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 95% 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 \_\_\_\_\_

Recovered _____ ft. of <u>CHLOR:38,000 PPM</u>	Price Job
Recovered _____ ft. of <u>PH:7.0</u>	Other Charges
Remarks: <u>RW: .15 @ 85°</u>	Insurance
<u>TOOL SAMPLE: 1% OIL, 90% WTR, 9% MUD</u>	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..... (A) 857 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 15 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..... (H) 856 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnet 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 BOP West LLC			C+G			
MAILING ADDRESS P.O. Box 129			DRLG			
CITY Wooster	STATE OH	ZIP CODE 44691	TRUCK # 445	DRIVER Dave G	TRUCK # 667	DRIVER Chris B

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 212' CASING SIZE & WEIGHT 8 3/8"  
 CASING DEPTH 203 6.2' 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 140SKS 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%	2.21	584.44
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

Revin 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	163	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>STANWON F.</td> <td></td> <td></td> </tr> <tr> <td>479</td> <td>MORLE R.</td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	520	STANWON F.			479	MORLE R.		
TRUCK #	DRIVER	TRUCK #					DRIVER											
520	STANWON F.																	
479	MORLE R.																	
MAILING ADDRESS P.O. Box 129																		
CITY Woodster	STATE OH	ZIP CODE 44691																

JOB TYPE Logging  HOLE SIZE 7 7/8 HOLE DEPTH 2672 CASING SIZE & WEIGHT 5 1/2 19" 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 MAX 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 MIKES BULK DELU.	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
		THANK YOU	SALES TAX 7.3%	369.02
			ESTIMATED TOTAL	7812.12

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AUTHORIZATION [Signature]

TITLE X

DATE \_\_\_\_\_

200198

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