

**OPERATOR**

Company: TDI, INC.  
 Address: 1310 BISON ROAD  
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING  
 Contact Phone Nbr: 785-259-3141  
 Well Name: GERSTNER # 1  
 Location: NE SW NW NW Sec.13-15S-19W      API: 15-051-26,312-00-00  
 Pool: WILDCAT      Field: DECHANT SOUTH  
 State: KANSAS      Country: USA



**TDI, Inc.**  
 1310 BISON ROAD  
 HAYS, KANSAS 67601  
 (785) 628-2593

Scale 1:240 Imperial

Well Name: GERSTNER # 1  
 Surface Location: NE SW NW NW Sec.13-15S-19W  
 Bottom Location:  
 API: 15-051-26,312-00-00  
 License Number: 4787  
 Spud Date: 6/18/2012      Time: 1:00 PM  
 Region: ELLIS COUNTY  
 Drilling Completed: 6/23/2012      Time: 8:39 PM  
 Surface Coordinates: 775' FNL & 615' FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2025.00ft  
 K.B. Elevation: 2035.00ft  
 Logged Interval: 2900.00ft      To: 3752.00ft  
 Total Depth: 3750.00ft  
 Formation: LANSING-KANSAS CITY  
 Drilling Fluid Type: GEL/CHEMICAL

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:      Latitude:  
 N/S Co-ord: 775' FNL  
 E/W Co-ord: 615' FWL

**LOGGED BY**

Company: SOLUTIONS CONSULTING  
 Address: 108 W 35TH  
 HAYS, KS 67601  
 Phone Nbr: (785) 639-1337  
 Logged By: Geologist      Name: HERB DEINES

**CONTRACTOR**

Contractor: SOUTHWIND DRILLING, INC.  
 Rig #: 1  
 Rig Type: MUD ROTARY  
 Spud Date: 6/18/2012      Time: 1:00 PM  
 TD Date: 6/23/2012      Time: 8:39 PM  
 Rig Release: 6/24/2012      Time: 5:00 PM

**ELEVATIONS**

K.B. Elevation: 2035.00ft      Ground Elevation: 2025.00ft  
 K.B. to Ground: 10.00ft

**NOTES**

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON RESULTS OF DST # 1 AND FAVORABLE STRUCTURE.


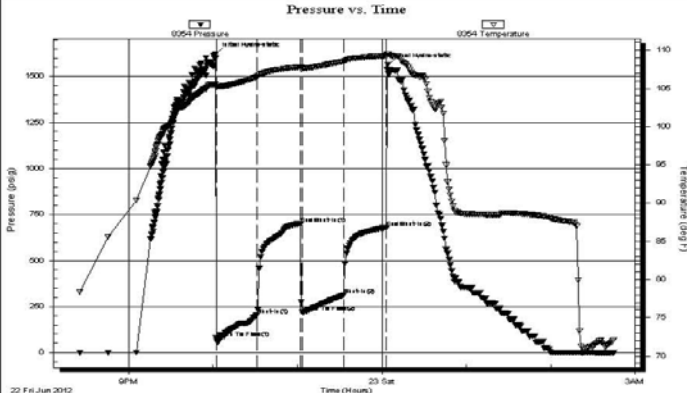
**FORMATION TOPS SUMMARY AND SUMMARY OF DAILY ACTIVITY AND DEPTH AT 7:00 AM**

**GERSTNER #1**  
**775' FNL & 615' FWL, NW/4**  
**Sec.13-15s-19w**  
**2025' GL 2035' KB**

FORMATION	SAMPLE TOPS	LOG TOPS
Anhydrite	1222+ 813	1226+ 812
B-Anhydrite	1262+ 773	1262+ 773
Topeka	2992- 957	2994- 959
Heebner Shale	3274-1239	3275-1240
Toronto	3295-1260	3293-1258
LKC	3319-1284	3318-1283
BKC		3566-1531
Arbuckle		3633-1598
RTD	3750-1715	
LTD		3752-1717

- 6-18-12 RU, Spud 1:00PM, set surface casing to 212.77' w/150 sxs. Common, 2%gel, 3%CC, Slope survey 3/4 degree, WOC 8 hrs. Plug down 5:15PM, Quality Cementing Ticket # 873
- 6-19-12 214', change brake pads on draw works, drilling
- 6-20-12 1680', drilling
- 6-21-12 2521', drilling
- 6-22-12 3210', drilling, DST # 1, slope survey 3/4 degree
- 6-23-12 3413', drilling, RTD 3750', mini short trip, CCH, out for logs
- 6-24-12 3750', logging completed, trip in with drill pipe, run casing, RD

**DST # 1 SUMMARY PAGE**

 <b>TRILOBITE TESTING, INC.</b>	<b>DRILL STEM TEST REPORT</b>																																										
	TDI, Inc. 1310 Bison Rd. Hays, KS 67601 ATTN: Herb Deines	<b>13/15S/19W-Ellis</b>  <b>Gerstner #1</b> Job Ticket: 47957 Test Start: 2012.06.22 @ 20:15:15	<b>DST#: 1</b>																																								
<b>GENERAL INFORMATION:</b>																																											
Formation: <b>LKC "A-D"</b> Deviated: No Whipstock: ft (KB) Time Tool Opened: 22:02:05 Time Test Ended: 02:45:15		Test Type: Conventional Bottom Hole (Initial) Tester: Dustin Rash Unit No: 38																																									
Interval: <b>3300.00 ft (KB) To 3380.00 ft (KB) (TVD)</b> Total Depth: 3380.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Poor		Reference Elevations: 2035.00 ft (KB) 2028.00 ft (CF) KB to GR/CF: 7.00 ft																																									
<b>Serial #: 8354 Inside</b> Press@RunDepth: 311.82 psig @ 3370.00 ft (KB) Capacity: 8000.00 psig Start Date: 2012.06.22 End Date: 2012.06.23 Last Calib.: 2012.06.23 Start Time: 20:25:15 End Time: 02:45:15 Time On Btm: 2012.06.22 @ 22:01:45 Time Off Btm: 2012.06.23 @ 00:04:15																																											
<b>TEST COMMENT:</b> IF-Strong building blow. BOB in 1 minute 45 seconds. ISI-Return @ 30 seconds. Built to 5 inches. FF-Strong building blow. BOB in 3 minutes. FSI-Return @ 1 minute. BOB in 27 minutes.																																											
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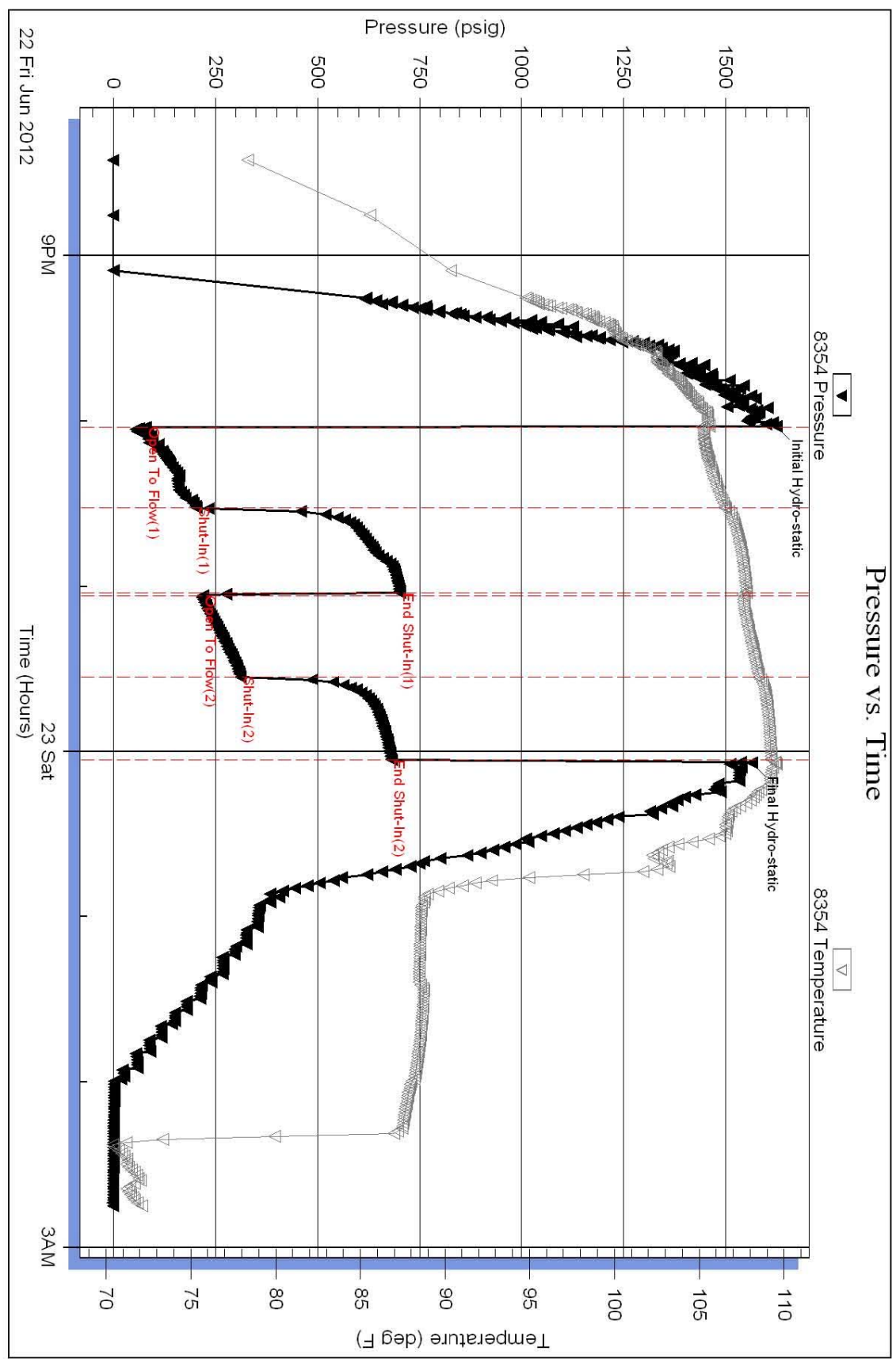
Trilobite Testing, Inc

Ref. No: 47957

Printed: 2012.06.25 @ 12:04:24

**DST # 1-EXPANDED CHART**

Serial #: 8354    Inside    TDI, Inc.    Gerstner #1    DST Test Number: 1



Trilobite Testing, Inc    Ref. No: 47957    Printed: 2012.06.25 @ 12:04:25

**ROCK TYPES**

Dolprim	Lmst fw<7	shale, grn	Shcol
Dolsec	Lmst fw7>	Carbon Sh	Shgy
Dol Lime	Lscongl	shale, red	

**ACCESSORIES**

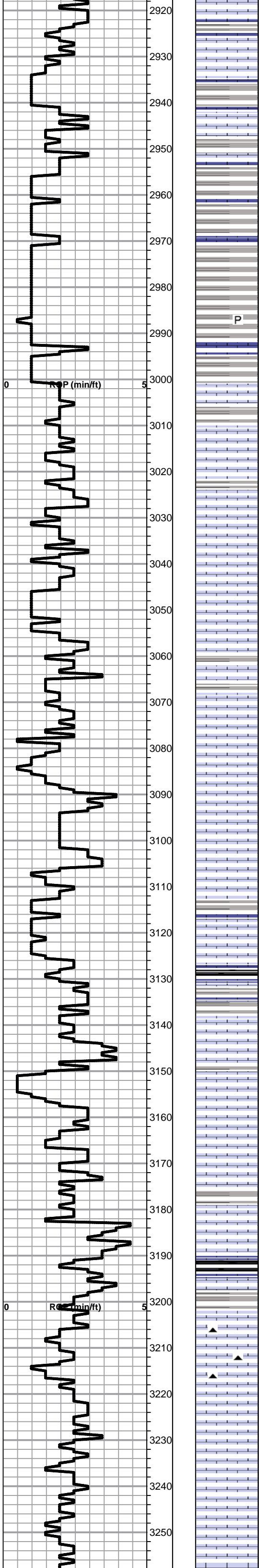
<b>MINERAL</b>	<b>FOSSIL</b>
■ Carbonaceous Flakes	○ Oolite
▲ Chert, dark	⊕ Oomoldic
P Pyrite	
• Sandy	
⋄ Varicolored chert	
△ Chert White	

**OTHER SYMBOLS**

<b>DST</b>
■ DST Int
■ DST alt

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

Curve Track #1 ROP (min/ft)	Depth   Intervals DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3
1:240 Imperial ROP (min/ft)	Cored Interval DST Interval				1:240 Imperial
				Begin 1' drill time from 2900' to RTD Begin 10' wet and dry samples from 3000' to RTD	
				<b>ANHYDRITE SPL TOP 1222+813 ELog 1226+809</b> <b>ANHYDRITE SPL BASE 1262+773 ELog 1262+773</b>	
					<b>8 5/8" set to 212.77' with 150 sxs. Common, 2%gel, 3%CC</b> <b>Slope @213' 3/4 degree</b>



Shale, lt-med gray, soft blocky

Shale, lt-med gray, soft blocky with pyrite clusters in part

**TOPEKA SPL 2992-957 ELog 2994-959**

Lime, dark brn, fnxln, fossiliferous

Lime, lt-med brn, fnxln, fossiliferous

Lime, lt-med brn, fnxln-granular, slight chalk, slightly fossiliferous

Lime, offwht-lt brn, fnxln

Lime, lt-med brn, fnxln-granular, slightly chalky, NS

Lime, lt brn-grayish brn, fnxln with gray mottling in part

Lime, med brn-grayish brn, fnxln-granular, slightly chalky

Lime, lt brn-grayish brn, fnxln-granular, slightly chalky

Lime, lt-med brn, fnxln, fossiliferous in part-fusulinids

Lime, med brn, fnxln-granular, slightly fossiliferous, slight chalk

Lime, med brn-grayish brn, granular, fossiliferous in part

Shale, gray-black carbonaceous

Lime, lt-med brn, fnxln-granular in part, NS

Lime, crm-lt brn, granular, slightly chalky, NS

Lime, crm-tan, fnxln, slightly chalky

Shale, gray, calcareous with fossil fragments in part

Lime, grn-grayish brn, fnxln, trashy in part

Shale, black carbonaceous

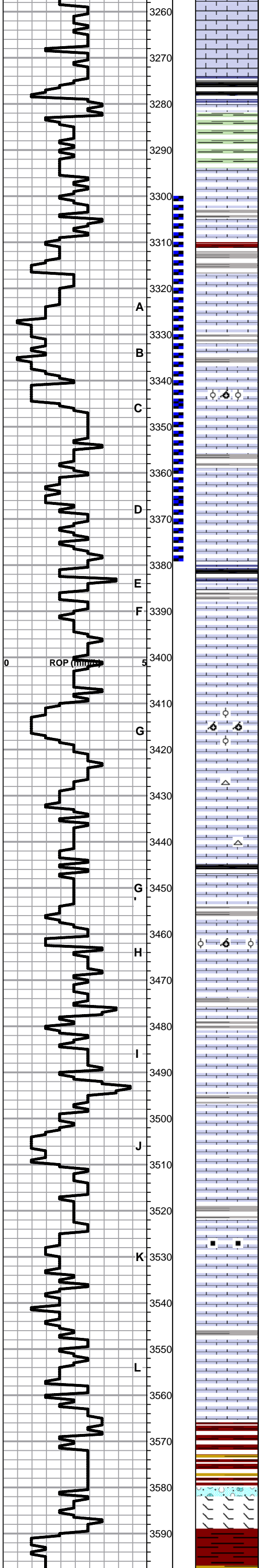
Lime, brn-brownish gray, fnxln

Lime, lt-med brn-grayish brn, fnxln, slight chalk in part, scattered fossiliferous, dark gray chert, NS

Lime, med brn-grayish brn, fnxln-granular in part, NS

Lime, med brn-grayish brn, fnxln

Lime, lt-med brn, fnxln, slightly fossiliferous in part, slight chalk



Lime, lt brn, fnxln, slightly fossiliferous in part

**HEEBNER SHALE SPL 3274-1239 ELog 3275-1240**

Shale, black carbonaceous  
Lime, med brn, fnxln  
Shale, dove gray-lime green, very soft

**TORONTO SPL 3295-1260 ELog 3293-1258**

Lime, crm, fn-vfxln, NS

Lime, crm, fn-vfxln, NS  
Shale, lt red wash to gray, soft

**LKC SPL 3319-1284 ELog 3318-1283**

A

● Lime, lt-med brn, fnxln with scattered fossiliferous in part with lt saturated staining, lt odor in a fine intercrystalline, interfossiliferous porosity

B

Lime, lt brn-gry, fnxln  
Shale, med gray, calcareous with fossil fragments

C

● Lime, crm, fnxln-granular with few pieces of oolitic-oolmodic material with scattered to saturated staining with light odor with interoolitic porosity

D

Lime, crm-tan, fnxln with chalky white wash

D

● Lime lt-med brn, fnxln with vuggy porosity in part with lt odor and scattered to saturated staining

E

Shale, black carbonaceous  
Lime, off wht-lt gray, fnxln

F

Lime, crm, fnxln and chalky, NS

G

Lime, crm, fnxln with bedded chalk in part

G

Lime, crm, granular, chalky, NS

G

Lime, crm-lt brn, fnxln with chalk

G

Lime, crm-tan, fnxln with chalk

G

Shale, black carbonaceous with soft gray mud balls in part

H

● Lime, crm-tan, mostly fnxln with few pieces oolitic-oolmoldic with lite odor and scattered to saturated staining with scattered vuggy channels

I

Lime, offwhite-lt crm, fnxln with slight chalk in part  
Shale, gray, blocky

I

Lime, ivory-crm, fn-vfxln with slight chalk, NS

J

● Lime, crm, micro oolitic, few pieces with very light, scattered stain and very lite odor

J

Lime, crm, fnxln, slight chalk in part

K

D Lime, crm-tan, fnxln, flakey stain, no odor, NFO

L

Lime, ivory-crm-lt brn, fnxln with chalk and specks of glauconite

L

Lime, crm-tan, fnxln with chalk in part

**BKC ELog 3566-1598**

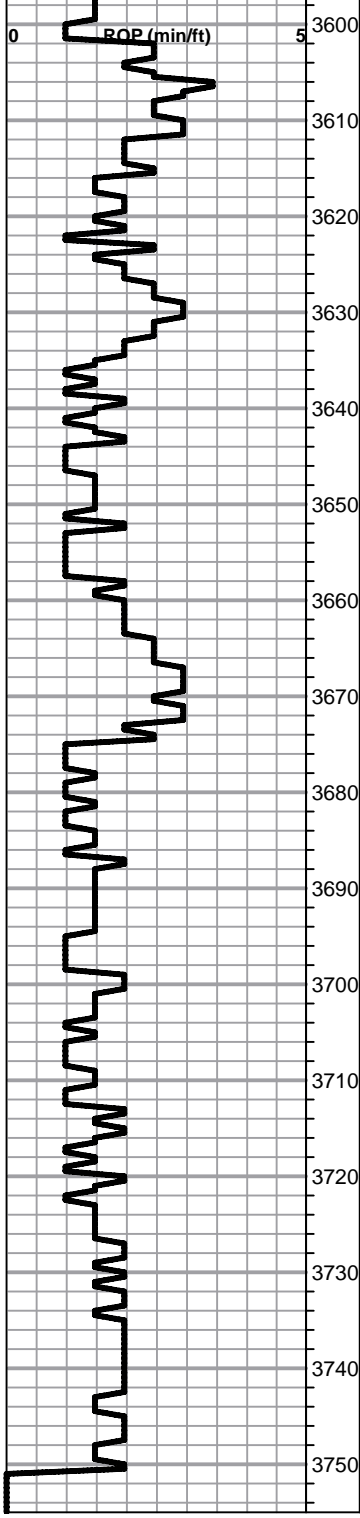
Shale, reddish brn grading into vari colored shales

Lime, crm, slightly dolomitic, fnxln

Shale, vari color with light red wash

DST #1 3300'-3380'  
SEE HEADER FOR TEST  
DETAIL

SLOPE 3/4 degree



**REMNENT MARMATON MARKER**

Lime, crm-lt brn, fnxln with orange chert fragments

Shale, red with scattered mix of sand/dolomite material with light staining and good wet cut, NFO, no odor

**ARBUCKLE ELog 3633-1598**

Dolomite, crm-lt brn, fn-cxln with mix of qtz grains near top of zone. saturated staining, SFO on crush, no odor

Dolomite, crm-lt brn, fn-cxln, intercrystalline porosity, sandy in part, scattered to saturated staining, VMSFO, no odor.

Dolomite, wht-lt brn, fn-cxln, qtz grains in part

Dolomite, ivory-crm, fn-cxln, sucrosic in part

Dolomite, ivory-crm, fn-cxln, sucrosic in part

Dolomite, ivory-crm, fn-cxln

Dolomite, ivory-crm, fn-cxln

Dolomite, ivory-crm, fn-cxln

**RTD 3750-1715 LTD 3752-1717**

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 873

Date	6-18-12	Sec.	13	Twp.	15	Range	19	County	ELLIS	State	KANSAS	On Location		Finish	5:00 pm
Lease	GERSTNER		Well No.	#1		Location	ANTONINO - 25 - E - INTO								
Contractor	SOUTHWIND #1				Owner	T.D.I									
Type Job	SURFACE				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.										
Hole Size	12 1/4"		T.D.	214'											
Csg.	8 5/8"		Depth	214'											
Tbg. Size			Depth												
Tool			Depth												
Cement Left in Csg.			Shoe Joint	15'											
Meas Line			Displace	13 BLS											
				The above was done to satisfaction and supervision of owner agent or contractor.											
				Cement Amount Ordered 150 com - 3% - 2% GEL											

**EQUIPMENT**

Pumptrk #15	No.	Cementer Helper	NECK	Common	150
Bulktrk #13	No.	Driver	LONNIE	Poz. Mix	
Bulktrk Du	No.	Driver	CESCO	Gel.	3
				Calcium	5

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling 158
	Mileage

**FLOAT EQUIPMENT**

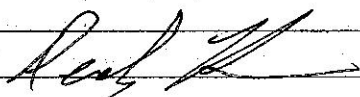
	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

CEMENT DID CIRCULATE!

THANK YOU!

Pumptrk Charge	Surface	Tax	
Mileage	11	Discount	
		Total Charge	

X Signature





**CONSOLIDATED**  
Oil Well Services, LLC

55

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

TICKET NUMBER 36963

LOCATION Oakley, KS

FOREMAN Kelly Gabel

Walt D. N. Ke

**FIELD TICKET & TREATMENT REPORT**

**CEMENT**

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-24-12	9999	Berstner #1	13	15	19	Ellis
CUSTOMER			TRUCK # DRIVER TRUCK # DRIVER			
MAILING ADDRESS			389	Damon M	466	Cody R
CITY			566	Jerry Y		Jordan L
STATE				Wes F		
ZIP CODE						
TVDI			Amining 1 1/2 S E into			
1310 Bison Rd						
Hays						
KS						
67601						

JOB TYPE 2-stage HOLE SIZE 7 7/8 HOLE DEPTH 3750' CASING SIZE & WEIGHT 5 1/2 14 1/2  
 CASING DEPTH 3749 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 3200 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 42.48  
 DISPLACEMENT 90/2 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting, rigged up on southwind rig #1, hooked up to circulate for approx 1hr, pumped 500gal mud plus, 20bbl KCL, mixed 150skcs com 100bsalt + 520 cal seal, released plug, displaced with 60 bbl water 30 bbl mud, 500# lift, Plug landed @ 1100', dropped DV bomb waited 30 min, opened tool, pumped 20bbl KCL, mixed 30 skcs 60/40 690gal 1/4" Flo-seal, in RH, 20 skcs Mt, mixed 225 skcs 60/40 690gal 1/4" Flo-seal down center, washed out pumps + lines, released plug, displaced with 30 bbl water, 500# lift + plug landed @ 1500', released pressure, float, hold, rigged down. Thank You  
Cement Did Cure Walt, Kelly & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401P	1	PUMP CHARGE	2700 <sup>00</sup>	2700 <sup>00</sup>
5410b	30	MILEAGE	5 <sup>00</sup>	150 <sup>00</sup>
11045	150 skcs	class A Cement (Bottom stage)	17 <sup>65</sup>	2647 <sup>50</sup>
1111	718	salt	.45	323 <sup>10</sup>
1101	205#	cal seal	.49	345 <sup>45</sup>
1131	275	60/40 Poz (Top stage)	15 <sup>10</sup>	4152 <sup>50</sup>
1188B	1419	Bentonite	.25	354 <sup>75</sup>
1107	68#	flp-seal	2 <sup>82</sup>	191 <sup>76</sup>
5407D	18.8	Ten Mileage delivery	167	942 <sup>00</sup>
41104	4	5 1/2 basket	276 <sup>00</sup>	1104 <sup>00</sup>
41130	7	5 1/2 centralizer (1-2, 6-6)	58 <sup>00</sup>	406 <sup>00</sup>
41159	1	5 1/2 AFU float shoe	413 <sup>00</sup>	413 <sup>00</sup>
41283	1	5 1/2 DV Tool/w latchdown	3850 <sup>00</sup>	3850 <sup>00</sup>
1142A	4 gal	KCL	39 <sup>10</sup>	156 <sup>40</sup>
				17736 <sup>46</sup>
		Less 10% disc		1773 <sup>45</sup>
				15,962 <sup>01</sup>
		SALES TAX		548.10
		ESTIMATED TOTAL		16510.91

Revin 3737

6:00 PM AUTHORIZATION

*[Signature]*

TITLE

250747

DATE 6-24-12

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