

**OPERATOR**

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

Contact Geologist: TOM DENNING  
 Contact Phone Nbr: 785-628-2593  
 Well Name: ZIMMERMAN UNIT # 1  
 Location: NW NE SW NE Sec 22-15s-18w  
 Pool:  
 State: KANSAS

API: 15-051-26,502-00-00  
 Field: SCHOENCHEN  
 Country: USA



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

Scale 1:240 Imperial

Well Name: ZIMMERMAN UNIT # 1  
 Surface Location: NW NE SW NE Sec 22-15s-18w  
 Bottom Location:  
 API: 15-051-26,502-00-00  
 License Number: 4787  
 Spud Date: 5/7/2013 Time: 11:30 AM  
 Region: ELLIS COUNTY  
 Drilling Completed: 5/12/2013 Time: 10:43 AM  
 Surface Coordinates: 1480' FNL & 1725' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2028.00ft  
 K.B. Elevation: 2038.00ft  
 Logged Interval: 2900.00ft To: 3750.00ft  
 Total Depth: 3750.00ft  
 Formation: ARBUCKLE  
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: Latitude:  
 N/S Co-ord: 1480' FNL  
 E/W Co-ord: 1725' FEL

**LOGGED BY**

Company: SOLUTIONS CONSULTING, INC  
 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

Rig Type: MUD ROTARY  
Spud Date: 5/7/2013  
TD Date: 5/12/2013  
Rig Release: 5/14/2013

Time: 11:30 AM  
Time: 10:43 AM  
Time: 11:00 AM

### ELEVATIONS

K.B. Elevation: 2038.00ft  
K.B. to Ground: 10.00ft

Ground Elevation: 2028.00ft

### NOTES

DECISION TO RUN PRODUCTION CASING TO FURTHER TEST AND DEVELOP ARBUCKLE AND LANSING-KANSAS CITY ZONES.

OPEN HOLE LOGGING BY PIONEER ENERGY SERVICES: DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG, MICRORESISTIVITY LOG

OPEN HOLE TESTING BY TRILOBITE TESTING INC: THREE (3) STRADDLE TESTS

### FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

	ZIMMERMAN UNIT # 1		WILLARD # 1
	1480' FNL & 1725' FWL, NE/4		480'FNL & 2190'FEL
	Sec. 22-15s-18w		Sec 22-15s-18w
	2028' GL 2038' KB		Reference Well
<b><u>FORMATION</u></b>	<b><u>SAMPLE TOPS</u></b>	<b><u>LOG TOPS</u></b>	<b><u>LOG TOPS</u></b>
Anhydrite	1191+ 847	1189+ 849	+ 843
B-Anhydrite	1226+ 812	1225+ 813	+ 808
Topeka	3007- 969	3002- 964	- 971
Heebner Shale	3269-1231	3268-1230	-1233
Toronto	3290-1252	3288-1250	-1253
LKC	3318-1280	3318-1280	-1283
BKC	3541-1503	3541-1503	-1506
Marmaton	3575-1537	3576-1538	-1542
Arbuckle		3620-1582	-1558
RTD	3750-1712		
LTD		3750-1712	

### SUMMARY OF DAILY ACTIVITY

5-07-13 RU, spud 11:30 AM, set 8 5/8" surface casing to 222.43' w/ 150 sxs common, 2% gel, 3%CC, plug down 4:15PM, slope ½ degree

5-08-13 850', drilling

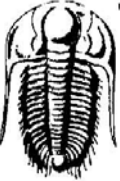
5-09-13 2050', drilling,

5-10-13 2680, drilling, displaced 2524' to 2630'

5-11-13 3247'. drilling

- 5-12-13 3659', work on mud pump, RTD 3750' @10:43AM, short trip 25 stds, TOWB, logs, DST # 1 straddle test over Arbuckle 3524'-3630'
- 5-13-13 3750', finish DST # 1, start DST # 2 straddle test over "G" to "K" 3415'-3520', TIWB to condition well bore, DST # 3 straddle test over "C" & "D" 3324'-3365', finish test 7:26PM, TIWB, LDDP
- 5-14-13 3750' , finish running casing, cementing, RD

**DST # 1 TEST SUMMARY STRADDLE TEST COVERING UPPER ARBUCKLE- BOTTOM PACKER HELD**

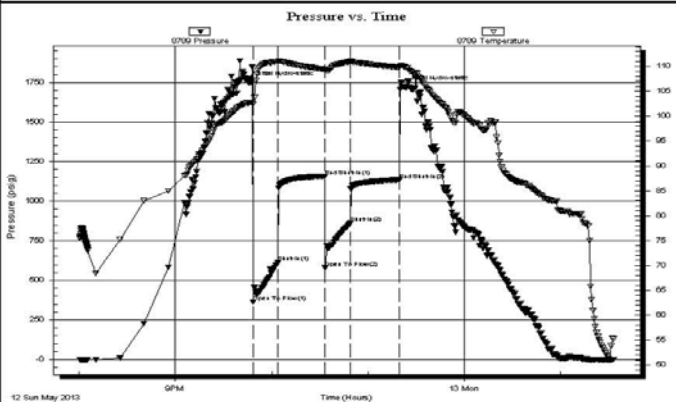
 <p><b>TRILOBITE TESTING, INC.</b></p>	<b>DRILL STEM TEST REPORT</b>	
	TDI Inc 1310 Bison Rd Hays Ks 67601-9696 ATTN: Tom Denning	<b>22-15s-18w Ellis</b> <b>Zimmerman Unit #1</b> Job Ticket: 52241 <b>DST#: 1</b> Test Start: 2013.05.12 @ 20:00:33

**GENERAL INFORMATION:**

Formation: <b>Arbuckle</b> Deviated: No Whipstock:                      ft (KB) Time Tool Opened: 21:48:31 Time Test Ended: 02:33:16 Interval: <b>3524.00 ft (KB) To 3630.00 ft (KB) (TVD)</b> Total Depth: 3630.00 ft (KB) (TVD) Hole Diameter: 7.85 inches Hole Condition: Fair	Test Type: Conventional Straddle (Initial) Tester: Ray Schwager Unit No: 54 Reference Elevations: 2034.00 ft (KB) 2024.00 ft (CF) KB to GR/CF: 10.00 ft
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<b>Serial #: 8789      Inside</b> Press@RunDepth: 860.38 psig @ 3526.00 ft (KB) Start Date: 2013.05.12      End Date: 2013.05.13 Start Time: 20:00:33      End Time: 01:33:16	Capacity: 8000.00 psig Last Calib.: 2013.05.13 Time On Btm: 2013.05.12 @ 21:45:46 Time Off Btm: 2013.05.12 @ 23:22:46
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**TEST COMMENT:** 15-IFP-strong bl in 90seconds  
 30-ISIP-no bl  
 15-FFP-strong bl in 90seconds  
 30-FSIP-no bl



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1747.25	102.65	Initial Hydro-static
3	362.14	102.38	Open To Flow (1)
18	613.49	110.98	Shut-In(1)
48	1154.98	109.39	End Shut-In(1)
48	580.74	109.17	Open To Flow (2)
64	860.38	110.93	Shut-In(2)
94	1132.89	109.80	End Shut-In(2)
97	1718.31	109.85	Final Hydro-static

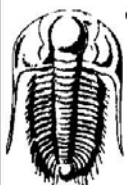
**Recovery**

Length (ft)	Description	Volume (bbl)
90.00	SOCM 4%O96%M	1.26
186.00	SOCVM 2%O45%W53%M	2.61
124.00	SOCMV 1%O20%M79%W	1.74
1240.00	SOCW 2%O98%W	17.39

**Gas Rates**

	Choke (inches)	Pressure (psig)	Gas Rate (MMcfd)

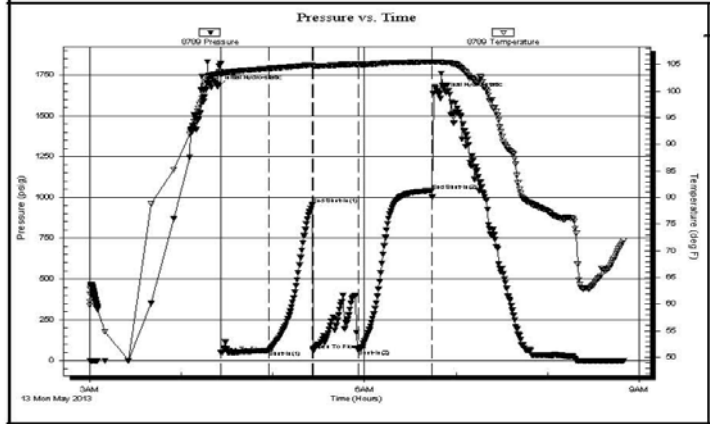
**DST # 2 STRADDLE TEST COVERING "H" TO "K" LKC - BOTTOM PACKER HELD**

 <b>TRILOBITE TESTING, INC.</b>	<b>DRILL STEM TEST REPORT</b>	
	TDI Inc 1310 Bison Rd Hays Ks 67601-9696 ATTN: Tom Denning	<b>22-15s-18w Ellis</b>  <b>Zimmerman Unit #1</b> Job Ticket: 52242 <b>DST#: 2</b> Test Start: 2013.05.13 @ 03:00:08

**GENERAL INFORMATION:**  
 Formation: **LKC**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 04:26:06  
 Time Test Ended: 08:49:36  
 Test Type: Conventional Straddle (Reset)  
 Tester: Ray Schwager  
 Unit No: 54  
 Interval: **3415.00 ft (KB) To 3520.00 ft (KB) (TVD)**  
 Reference Elevations: 2034.00 ft (KB)  
 Total Depth: 3750.00 ft (KB) (TVD)      2024.00 ft (CF)  
 Hole Diameter: 7.85 inches      Hole Condition: Fair      KB to GR/CF: 10.00 ft

<b>Serial #: 8789</b>	<b>Inside</b>					
Press@RunDepth:	69.18 psig @	3417.00 ft (KB)			Capacity:	8000.00 psig
Start Date:	2013.05.13	End Date:	2013.05.13	Last Calib.:		2013.05.13
Start Time:	03:00:08	End Time:	08:49:36	Time On Btm:		2013.05.13 @ 04:23:51
				Time Off Btm:		2013.05.13 @ 06:48:51

**TEST COMMENT:** 30-IFP-w k to strg in 12 min  
 30-ISIP-no bl bk  
 30-FFP-strl thru-out  
 45-FSP-no bl bk



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1680.27	103.22	Initial Hydro-static
3	47.51	102.99	Open To Flow (1)
34	61.52	104.22	Shut-In(1)
62	955.50	104.94	End Shut-In(1)
63	61.72	104.68	Open To Flow (2)
93	69.18	104.97	Shut-In(2)
141	1043.07	105.49	End Shut-In(2)
145	1634.72	105.50	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
0.00	1345'GIP	0.00
15.00	SOCM 5%O95%M	0.21
62.00	GMO 30%G25%M45%O	0.87

\* Recovery from multiple tests

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (MMcft/d)

**DST # 3 STRADDLE TEST SUMMARY "C" AND "D" LKC - BOTTOM PACKER HELD**

 <b>TRILOBITE TESTING, INC.</b>	<b>DRILL STEM TEST REPORT</b>	



TESTING, INC.

TDI Inc  
1310 Bison Rd  
Hays Ks 67601-9696  
ATTN: Tom Denning

22-15s-18w Ellis

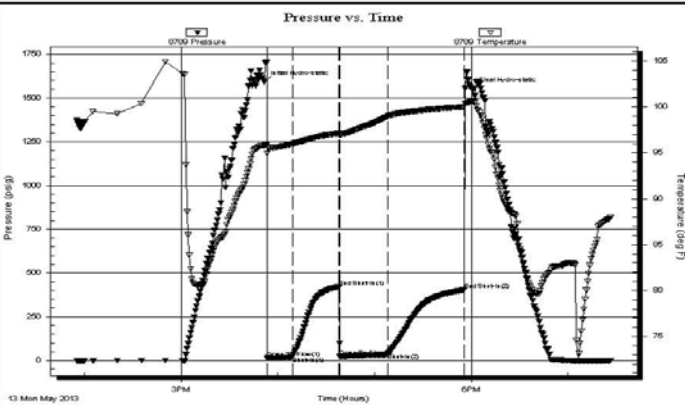
Zimmerman Unit #1  
Job Ticket: 52243 DST#: 3  
Test Start: 2013.05.13 @ 13:55:28

GENERAL INFORMATION:

Formation: LKC C-D  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 15:53:26  
Time Test Ended: 19:26:41  
Test Type: Conventional Straddle (Reset)  
Tester: Ray Schwager  
Unit No: 54  
Interval: 3324.00 ft (KB) To 3365.00 ft (KB) (TVD)  
Reference Elevations: 2034.00 ft (KB)  
Total Depth: 3750.00 ft (KB) (TVD) 2024.00 ft (CF)  
Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8789 Inside  
Press@RunDepth: 40.34 psig @ 3326.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2013.05.13 End Date: 2013.05.13 Last Calib.: 2013.05.13  
Start Time: 13:55:28 End Time: 19:26:41 Time On Btm: 2013.05.13 @ 15:51:41  
Time Off Btm: 2013.05.13 @ 18:00:41

TEST COMMENT: 15-IFP-w k to strg in 7min  
30-ISIP-no bl  
30-FFP-w k to strg in 4min  
45-FSP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1592.74	95.82	Initial Hydro-static
2	14.68	94.95	Open To Flow (1)
18	23.12	95.97	Shut-In(1)
47	421.69	97.14	End Shut-In(1)
47	21.87	97.00	Open To Flow (2)
77	40.34	99.02	Shut-In(2)
124	404.64	100.00	End Shut-In(2)
129	1550.60	100.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	GIP	7.01
55.00	SO&GCM 12%G1%O87%M	0.77

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
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\* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 52243

Printed: 2013.05.13 @ 20:54:44

ROCK TYPES

	Cht vari		Lmst fw<7		shale, gry		Dol Lime
	Clystgy		Lmst fw>7		Carbon Sh		Lscongl
	Dolprim		shale, grn		shale, red		

ACCESSORIES

MINERAL

- P Pyrite
- \* Sandy
- Varicolored chert
- △ Chert White

FOSSIL

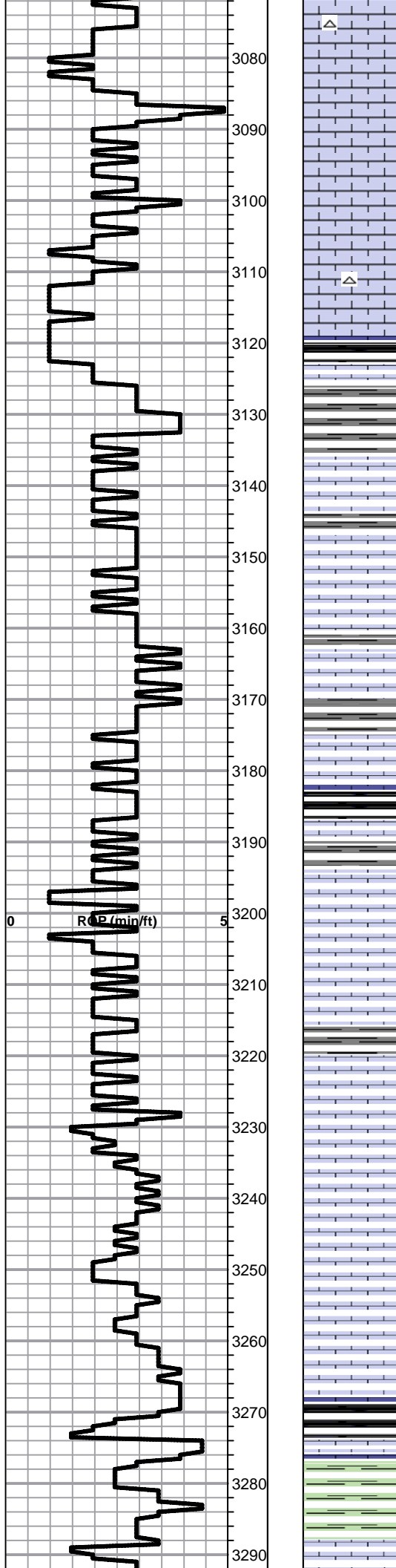
- Oolite
- ⊕ Oomoldic

OTHER SYMBOLS

DST

- DST Int
- DST alt

Curve Track #1 ROP (min/ft)	Depth   Intervals Cored Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	TG, C1 - C5
<p>1:240 Imperial ROP (min/ft)</p> <p>ROP (min/ft)</p>	<p>2900 2910 2920 2930 2940 2950 2960 2970 2980 2990 3000 3010 3020 3030 3040 3050 3060 3070</p>				<p>BEGIN 1' DRILL TIME FROM 2900' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 2950' TO RTD</p> <p><b>ANHYDRITE TOP 1189+849</b> <b>ANHYDRITE BASE 1225+813</b></p> <p>Lime, lt-med brn-grayish brn, fnxln, slightly fossiliferous</p> <p>Lime, med-dark brn, fnxln, fossiliferous</p> <p>Shale, lt-med gray, soft blocky</p> <p>Shale, lt gray, soft</p> <p>Lime, med brn-med gray, fnxln, slightly fossiliferous</p> <p>Shale, lt-med gray soft-soft mud</p> <p>Lime, lt brn, fnxln, slightly fossiliferous</p> <p>Shale, lt gray, soft, sticky clumps</p> <p><b><u>TOPEKA 3002-964</u></b></p> <p>Lime, crm-lt brn, fnxln, soft on crush</p> <p>Lime, lt brn-lt grayish brn, fnxln, slightly fossiliferous</p> <p>Lime, lt-med brn, fnxln, soft on crush, slight chalk in part</p> <p>Lime,lt brn-lt grayish brn, fnxln</p> <p>Lime, lt brn, granular, bedded chalk with sticky chalk in part, NS</p> <p>Lime, lt-med brn, fn-micro xln, hard on crush</p> <p>Lime, med brn-med gray, fnxln</p>	<p>1:240 Imperial</p> <p>8 5/8" SURFACE CASING SET TO 222.43' W/ 150 SXS COMMON 2%GEL 3%CC</p> <p>SLOPE @ 224' 1/2 DEGREE</p>



Lime, med brn-grayish brn, fnxln-granular in part, slight bedded chalk

Lime, lt-med brn, fnxln-granular in part, slightly fossiliferous

Lime, lt-med brn, fnxln, bedded chalk w/ sticky chalk clumps

Lime, lt-med brn, granular w/ chalky matrix, bedded chalk

Shale, med-dark gray, soft granular, black carbonaceous in part

Shale, lt-med gray, calcareous, soft-firm blocky

Lime, lt brn, fnxln, chalk w/ sticky clumps in part, slightly lithographic in part

Lime, tan-lt brn, fnxln

Lime, lt-med brn, fnxln

Shale, lt gray, soft sticky clumps

Lime, lt-med brn, fnxln

Shale, gray-black carbonaceous

Lime, lt-med brn, fnxln

Shale, med gray, soft-firm, calcareous

Lime, lt-med brn, fnxln-granular in part, slight bedded chalk

Lime, lt-med brn, fnxln, slight bedded chalk

Lime, lt brn-lt grayish brn, fnxln, slight chalk, few fusulinids

Lime, crm-lt brn, fnxln-granular in part, slight bedded chalk

Lime, lt brn-lt grayish brn, fnxln-granular in part, slight chalk

Lime, lt brn, fnxln-granular in part, slight chalk

Lime, lt-med brn, fnxln, slight chalk

**HEEBNER SHALE 3268-1230**

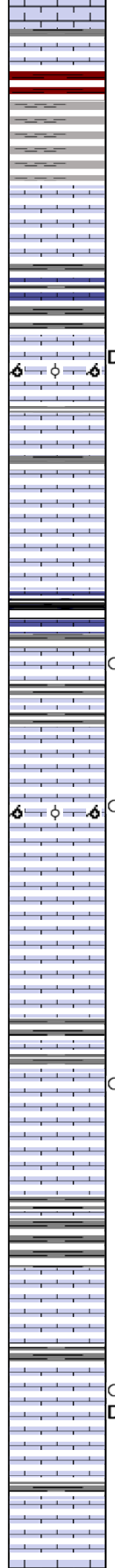
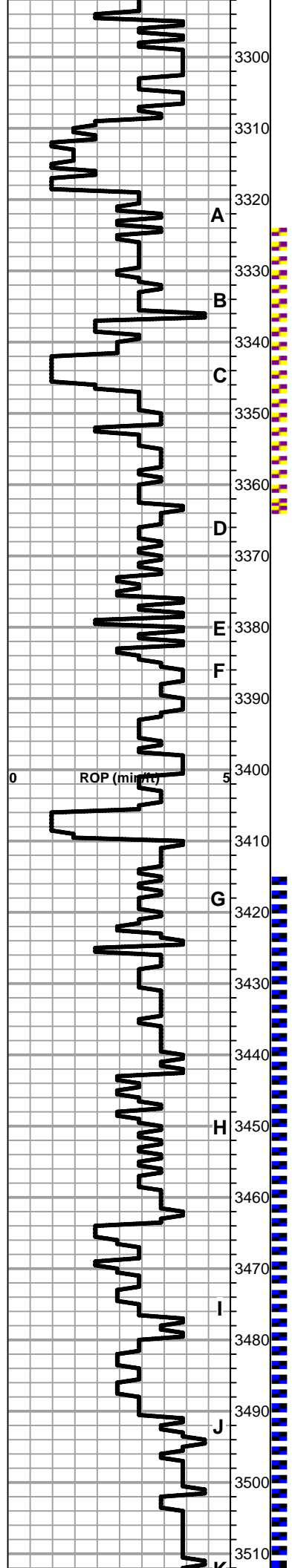
Shale, black carbonaceous, fissile, blocky

Lime, lt-med brn, fnxln, hard on crush

Shale, lime green-dove gray, soft-soft sticky clumps

**TORONTO 3288-1250**

Lime, crm-lt brn, fnxln, slight chalk, NS



Lime, crm-lt brn, fnxln, slight bed chalk, NS

Shale, reddish brn, soft-soft sticky clumps grading into lt gray, soft sticky clumps

**LKC 3318-1280**

Lime, lt-med brn, fnxln, slightly fossiliferous, NS

Lime, lt-med brn, mostly fnxln, 1 chip granular w/trace of staining, NFO, No Odor, source ?

Lime, crm-tan, fnxln grading into oolitic/oolimoldic, trace of spotty staining, flaky gilsonite in part, NFO, No Odor

Shale, med brn, soft sticky clumps  
Lime, crm-tan, fnxln, bedded chalk, NS

Lime, lt-med brn, fnxln, bedded chalk, NS

Shale, gray-black carbonaceous, soft blocky  
Lime, lt gray, fnxln  
Shale, dove gray, soft sticky clumps

Lime, crm-lt brn, fnxln, slightly fossiliferous, fine scattered pinpoint vuggy porosity, trace of staining, NFO, No Odor

Lime, crm-tan, fnxln, bedded chalk

Lime, crm-lt brn, fn-vfxln, slight bedded chalk

Lime, crm-lt brn, mix of fnxln and oolmoldic/oolitic, trace spotty staining, NFO, No Odor

Lime, crm-lt brn, fn-vfxln, bedded chalk in part

Lime, lt brn-lt gray, fnxln-micro xln, slight bedded chalk

Lime, lt-dark brn, fn-micro xln  
Shale, med gray, soft blocky

Lime, crm-lt brn,fn-vfxln, trace of staining in poorly developed, fn inter xln, NFO, No Odor

Lime, crm-lt brn, fn-vfxln

Lime, crm-lt brn, fn-vfxln

Shale, lt gray, calcareous in part, firm blocky

Lime, crm-lt brn, fnxln, bedded chalk, NS

Lime, lt-med brn, fn-micro xln,  
Shale, lt gray, soft blocky -soft sticky clumps in part

Lime, crm-tan, fnxln, bedded chalk, few chips w fine ppt vuggy porosity, spotty stain and gilsonitic around fossil remnants, NFO, No Odor

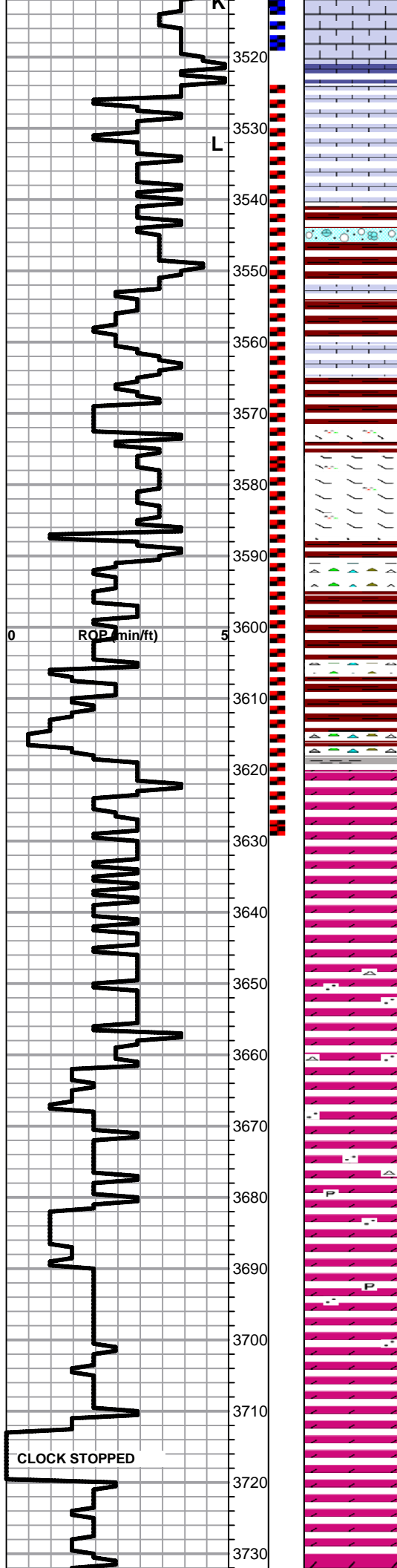
Lime, lt-med brn, fn-micro xln

DST #3 STRADDLE TEST 3324'-3365' SEE HEADER FOR TEST SUMMARY

MICROLOG SHOWS ZONE MAY HAVE LOW PERMEABILITY

DST # 2 STRADDLE TEST 3415'-3520' SEE HEADER FOR TEST SUMMARY





Lime, white-crm, fn-micro xln, bedded chalk, NS

Lime, crm-lt brn, fn-micro xln, hard on crush

Lime, crm-lt brn, fn-micro xln, slight bedded chalk, NS

**BKC 3541-1503**

Shale, reddish brn, lt red wash, clastic mix of lime, chert with red shale staining

Lime, crm, fnxln, hard on crush, slight chalk  
Shale, deep red w/red wash, soft blocky to soft mud

Lime, crm, fnxln, hard on crush

Shale, reddish brn-deep red, soft  
Lime, crm-lt brn, fnxln, hard, chert, tan-orange

**MARMATON 3576-1538**

Lime, crm-lt brn, fnxln, hard, cherty

D Chert, vari colored, gilsonitic in part, mixed with lime and dolomite rubble

Samples lost in this interval, log shows shale section

Reworked section of shale, cherts and lime rubble with thin bed of sticky white clay near boundary with dolomite

**ARBUCKLE 3620-1582**

Dolomite, crm, fn-cxln, lt odor with spotted to saturated stain

Dolomite, crm-ivory, fn-cxln, good odor, rhombic xln in part

Dolomite, crm-ivory, fn-med xln, granular, very lt odor

D Dolomite, ivory, cxln, gilsonitic, NFO, No Odor

Dolomite, ivory, fn-cxln, granular, oolitic chert and white chert, some fused and hard quartz sand clusters

Dolomite, ivory-lt brn, fnxln-granular, quartz grain inclusions

Dolomite, crm-lt brn, fn-cxln, quartz grain inclusions

Dolomite, lt brn, fnxln, quartz grain inclusions, xln te

Dolomite, ivory, fn-cxln

Dolomite, ivory-crm, fn-mdxln, granular and sucrosic in part quartz grain inclusions

Dolomite, crm, fn-cxln, harder on crush

Dolomite, tan-lt brn, fnxln, hard on crush

Dolomite, crm-tan, granular

**DST # 1 STRADDLE TEST  
3524'-3630' SEE HEADER FOR  
TEST SUMMARY**

**RAN 14# 5 1/2" PRODUCTION  
CASING SET TO 3743' W/ 150  
SXS ASC, TOP STAGE THRU  
DV TOOL IN ANHYDRITE - 155**



Dolomite, white-crm, granular, sucrosic in part

RTD 3750-1712 LTD 3750-1712

SXS AMD, 30 SXS RATHOLE, 15  
SXS MOUSEHOLE

SLOPE @3750' 1 DEGREE

# 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. 6792

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-7-13	22	15	18	DELS	KS		4:15pm

Location *Hays MAX IE 1/25 Winto*

Lease	Well No.	Owner
<i>Zimmerman Unit</i>	<i>1</i>	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.
Contractor		
<i>Southwind #1</i>		
Type Job		
<i>Surface</i>		
Hole Size	T.D.	Charge To
<i>12 1/4</i>	<i>224</i>	<i>T D J</i>
Csg.	Depth	Street
<i>8 5/8</i>	<i>223</i>	
Tbg. Size	Depth	City
		State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
<i>15</i>		<i>150 com 3%CLL 2%GEL</i>

Meas Line	Displace
	<i>13BC</i>

EQUIPMENT		Common
Pumptrk	No. Cementer/Helper	<i>150</i>
<i>16</i>	<i>Craig</i>	
Bulktrk	No. Driver	Poz. Mix
	<i>Carl</i>	
Bulktrk	No. Driver	Gel.
<i>1</i>	<i>Heath</i>	<i>3</i>
		Calcium
		<i>5</i>

**JOB SERVICES & REMARKS**

Remarks:	Hulls
	Salt
Rat Hole	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
<i>8 5/8 on bottom. Est. Circulation.</i>	Handling <i>158</i>
<i>Mix 150sk + Displace</i>	Mileage

**FLOAT EQUIPMENT**

Guide Shoe
Centralizer <i>8 5/8 swage</i>
Baskets
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge	<i>Surface</i>
Mileage	<i>13</i>

X Signature <i>Heb</i>	Tax
	Discount
	Total Charge

# ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. # 20-8651475

060174

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:

*Dolly Ky*

DATE <u>5/14/13</u>	SEC <u>22</u>	TWE <u>15</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION	JOB START <u>8:00</u>	JOB FINISH <u>10:00</u>
<u>Zimmerman</u> LEASE UNIT	WELL # <u>1</u>	LOCATION <u>Hays 183 - by Pass 8 1/2 AS 1E 1/2 S</u>			COUNTY <u>Ellis</u>	STATE <u>Ks</u>	
OLD OR <u>NEW</u> (Circle one)		<u>w - No Winto</u>					

CONTRACTOR Southwind #1  
 TYPE OF JOB Production 2 Stage  
 HOLE SIZE 7 1/2 T.D.  
 CASING SIZE 5 1/2 14 1/2 DEPTH 3743'  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DU DEPTH 1151'  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT 1/2  
 CEMENT LEFT IN CSG. 40'  
 PERFS.  
 DISPLACEMENT Both 90 BBL 1/2 @ 700 80 BBL 1/2 @  
 EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan  
 # 372 HELPER Wayne McElroy  
 BULK TRUCK  
 # 5106 DRIVER Barrin Hoch  
 BULK TRUCK  
 # DRIVER

REMARKS: MAX 1200 WFR II - 20 BBL HCL

Only Credit, Max 150 SK, ASC, Washup, Displace Plug w/ 90 AM H2O  
APR 15 1500 P.S. LET Land Plug @ 1600 P.S.  
Open Tool - 800 lb, Max 30 SK R.H. 15 SK MIT  
Max 155 SK, AMO 5 1/2, Washup  
Displace Plug w/ 20 BBL H2O w/ 1400 LFT  
Land Plug @ 1600. Tool Closed

Cement Did Circulate - 20 SK to P.T.  
T.M.K.W. May name  
British

CHARGE TO: TOF, inc  
 STREET  
 CITY STATE ZIP

Books on 3.15 ca. 77  
ax. 1-3-5-7-8-10-11-61  
DU 700 P.F. 22  
marker - 7-8

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME  
 SIGNATURE [Signature]

OWNER Same

CEMENT	AMOUNT ORDERED	150 ASC 1070502207gal
		5 <sup>th</sup> Gilonite 500 gal WFR II
		200 SK, AMO 14 Flossal 4 Gal Chopro
		COMMON AMO 200 SK @ 25 5180.00
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC	150 SK @ 20 30	2135.00
	@	
Sect	16 SK @ 26.35	421.60
Gilonite	250 16 @ .98	235.00
	@	
WFR II	12 BBL @ 58.00	696.00
	@	
Flossal	50 16 @ 2.92	146.00
Chopro	4 gal @ 24.40	97.60
HANDLING	40% of 2 1053.00	421.20
MILEAGE	2 <sup>nd</sup> to 18.247 ton	487.00
		TOTAL 11996.00

SERVICE

DEPTH OF JOB		
PUMP TRUCK CHARGE		2550.00
EXTRA FOOTAGE	@	
MILEAGE	40 @ 2.20	88.00
MANIFOLD	@	225.00
Lite Vehicle	10 @ 4.40	440.00
	@	
		TOTAL 2954.00

PLUG & FLOAT EQUIPMENT

DU Tool	1 @ 535.26	535.26
APV Float Shoe	1 @ 408.09	408.09
Latch Down Assembly	1 @ 324.37	324.37
Controlizers	9 @ 57.29	515.61
Gas Nits	4 @ 394.29	1577.16
		TOTAL 8160.81

SALES TAX (If Any)  
 TOTAL CHARGES 23,112.11  
 DISCOUNT 6,471.39 IF PAID IN 30 DAYS  
1,640.72 Net.