OPERATOR

Company: TDI, INC

Address: 1310 BISON ROAD HAYS, KANSAS 67601

Contact Geologist: TOM DENNING
Contact Phone Nbr: 785-628-2593
Well Name: HENRY # 1

Location: SW SE NE SW Sec.5-13s-20w API: 15-051-26,602-00-00 Field: ELLIS SOUTHEAST

State: KANSAS Country: USA



(785) 628-2593

Scale 1:240 Imperial

Well Name: HENRY # 1

Surface Location: SW SE NE SW Sec.5-13s-20w

Bottom Location: API:

15-051-26,602-00-00

License Number: 4787

Spud Date: 10/17/2013 Time: 5:00 PM

Region: ELLIS COUNTY
Drilling Completed: 10/22/2013 Time: 3:38 AM

Surface Coordinates: 1325' FSL & 2000' FWL

Bottom Hole Coordinates:

Ground Elevation: 2133.00ft K.B. Elevation: 2143.00ft

Logged Interval: 3100.00ft To: 3930.00ft

Total Depth: 3930.00ft
Formation: LANSING-KA

Formation: LANSING-KANSAS CITY
Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.5691344 Latitude: 38.946438

N/S Co-ord: 1325' FSL E/W Co-ord: 2000' FWL

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: M

ne: MUD ROTARY te: 10/17/2013

 Spud Date:
 10/17/2013
 Time:
 5:00 PM

 TD Date:
 10/22/2013
 Time:
 3:38 AM

 Rig Release:
 Time:

ELEVATIONS

K.B. Elevation: 2143.00ft Ground Elevation: 2133.00ft

K.B. to Ground: 10.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF DSTS AND LOG EVALUATION $\ensuremath{\mathsf{EVALUATION}}$

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

DRILL STEM TESTING BY TRILOBITE TESTING INC: ONE (1) CONVENTIONAL TEST, ONE (1) FAILED STRADDLE TEST, TWO (2) SUCCESSFUL STRADDLE TESTS FOR A TOTAL OF FOUR (4) TESTS

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

HENRY # 1 WIESNER UNIT #1

SW SE NE SW
Sec. 5-13s-20w
Sec. 5-13s-20w
Reference Well

ECOMMATION SAMPLE TODS LOG TODS LOG TODS

TORIVIATION	SAIVIPLE TOPS	<u> 100 1013</u>	LOG TOF3
Anhydrite	1488+ 655	1481+ 662	+ 664
B-Anhydrite	1545+ 598	1528+ 615	+ 616
Topeka	3168-1025	3169-1026	-1022
Heebner Shale	3397-1254	3399-1256	-1252
Toronto	3420-1277	3421-1278	<i>-127</i> 5
LKC	3438-1295	3438-1295	-1292
ВКС	3687-1544	3682-1539	<i>-1538</i>
Marmaton-Pawnee	3737-1594	3738-1595	-1589
Arbuckle	3828-1685	3821-1678	-1662
RTD	3930-1787		
LTD		3930-1787	-1787

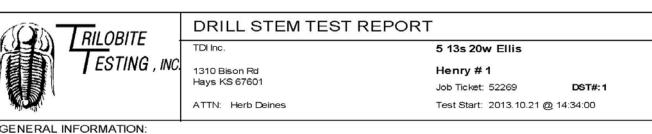
SUMMARY OF DAILY ACTIVITY

10-17-13	RU, spud 4:00PM, set 8 5/8" to 222' w/ 150 sxs Common 2%Gel
	3%CC, plug down 10:15PM, WOC 8 hrs, slope 3/4 degree
10-18-13	256', drill plug at 6:15 AM
10-19-13	2144', drilling
10-20-13	3035', drilling, displace 3092'-3113'
10-21-13	3585', CFS 3595', DST #1 3556'-3595' "H" LKC, slope ½ degree
10-22-13	3710', drilling, RTD 3930'@3:38PM, Mini ST, CCH, TOWB, logs, start
	DST #2 straddle test of Marmaton 3744'-3798'
10-23-13	3930', DST #2 misrun-pkr failure, straddle DST # 3 3744'-3823'
	Marmaton, TIWB, CCH, TOWB, start DST # 4 straddle test 3588'-

10-24-13 3930', finish DST # 4, P & A

3610' "I" LKC

DST # 1 TEST SUMMARY



GENERAL INFORMATION:

Formation: LKC "H"

No Whipstock: 2151.00 ft (KB) Deviated: Time Tool Opened: 17:10:15

Time Test Ended: 21:57:00

3556.00 ft (KB) To 3595.00 ft (KB) (TVD) Interval: Total Depth: 3595.00 ft (KB) (TVD)

Outside

Hole Diameter: 7.88 inchesHole Condition: Fair

Unit No: Reference Elevations:

Tester:

2151.00 ft (KB) 2141.00 ft (CF) KB to GR/CF: 10.00 ft

Test Type: Conventional Bottom Hole (Initial)

Jim Svaty

Serial #: 8289 Press@RunDepth:

124.22 psig @ 3557.00 ft (KB) Start Date: 2013.10.21 Start Time: 14:34:02

Capacity: 2013.10.21 Last Calib.: 21:57:00 Time On Btm:

8000.00 psig 2013.10.21 2013.10.21 @ 17:10:00 Time Off Btm: 2013.10.21 @ 19:57:45

TEST COMMENT: 45-IFP- Surface Blow Building to 10 in. 45-ISIP- No Blow

30-FFP- No Blow Flushed - No Blow 45-FSIP- No Blow

End Date:

End Time:

Γ			Pressure vs. T			
ı		S.20 Pressure		SEED Temperal	une	Time
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2	MonO	d 2013	Time (Hours)			
┺						

		PI	RESSUR	E SUMMARY	
	Time	Pressure	Temp	Annotation	
	(Min.)	(psig)	(deg F)		
110	0	1713.59	103.07	Initial Hydro-static	
100	1	15.14	102.02	Open To Flow (1)	
100	45	79.83	113.24	Shut-In(1)	
90 ±	90	884.60	110.66	End Shut-In(1)	
3	90	81.97	110.42	Open To Flow (2)	
}	121	124.22	116.13	Shut-In(2)	
Temperature (deg F) B &	167	882.05	113.98	End Shut-In(2)	
79 79	168	1699.51	114.07	Final Hydro-static	
60					
50					

Gas Rates

Recovery		
Length (ft)	Description	Volume (bbl)
240.00	MCW 5% m 95% w	3.37

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Trilobite Testing, Inc Ref. No: 52269 Printed: 2013.10.22 @ 00:25:16

DST # 2 STRADDLE TEST 3744' TO 3798' MARMATON BOTTOM PACKER FAILED



DRILL STEM TEST REPORT

5 13s 20w Ellis

Henry #1

Hays KS 67601 ATTN: Herb Deines

2151.00 ft (KB)

Job Ticket: 52270 Test Start: 2013.10.23 @ 00:03:00

GENERAL INFORMATION:

Formation: Marmaton

Deviated: No Whipstock: Time Tool Opened: 03:15:15

Test Type: Conventional Straddle (Reset)

Jim Svaty Tester:

Time Test Ended: 07:40:00

Unit No: Reference Bevations:

2151.00 ft (KB)

3744.00 ft (KB) To 3798.00 ft (KB) (TVD)

3595.00 ft (KB) (TVD) 7.88 inchesHole Condition: Fair 2141.00 ft (CF)

Serial #: 6668

Total Depth:

KB to GR/CF:

10.00 ft

Hole Diameter:

Below (Straddle)

Capacity:

Press@RunDepth: Start Date:

psig @ 2013.10.23

3803.00 ft (KB) 2013.10.23 End Date: End Time: 07:39:45

Last Calib .: Time On Btm:

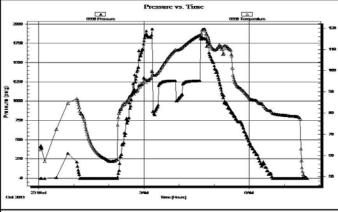
8000.00 psig 2013.10.23

Start Time: 00:03:02

Time Off Btm:

TEST COMMENT: 10-IFP- BOB in 40 sec. 30-ISIP- No Blow

10-FFP- BOB in 40 sec. 30-FSIP- No Blow



Tamasanina (dan 1)	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
П				

PRESSURE SUMMARY

D -			
$R\epsilon$	эc: с)VE	≥r∨

Length (ft)	Description	Volume (bbl)
434.00	MCW 15%m 85%w	6.09
1184.00	MCW 40%m 60%w	16.61
372.00	Mud 100%	5.22

Gas Rates Chake (inches) Pressure (psig)

Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 52270

Printed: 2013.10.23 @ 10:45:37

DST # 3 STRADDLE TEST 3744' TO 3823' MARMATON BOTTOM PACKER HELD



DRILL STEM TEST REPORT

TDI Inc.

5 13s 20w Ellis

Henry #1

1310 Bison Rd Hays KS 67601

ATTN: Herb Deines

Job Ticket: 52271

DST#: 3 Test Start: 2013.10.23 @ 08:53:00

GENERAL INFORMATION:

Formation: Marmaton Deviated: No

2151.00 ft (KB) Whipstock

Tester: Jim Svaty

Test Type: Conventional Straddle (Reset)

Time Test Ended: 14:20:00

Hole Diameter:

Time Tool Opened: 10:44:45

Unit No:

Reference Elevations: 2151.00 ft (KB)

8000.00 psia

3744.00 ft (KB) To 3823.00 ft (KB) (TVD) Interval: Total Depth:

3930.00 ft (KB) (TVD) 7.88 inchesHole Condition: Fair

2141.00 ft (OF) KB to GR/CF: 10.00 ft

Serial #: 8289 Outside

Press@RunDepth: 2013.10.23 Start Date: 08:53:02 Start Time:

57.34 psig @ 3751.00 ft (KB) End Date: End Time:

2013.10.23 14:19:45

Last Calib.: Time On Btm: Time Off Btm:

2013.10.23 2013.10.23 @ 10:44:30 2013.10.23 @ 12:47:15

TEST COMMENT: 30-IFP- Good Surge on Open No Blow

30-ISIP- No Blow

30-FFP- Surface Blow Building to 3 in.

30-FSIP- No Blow

Pressure vs. Time	PRESSURE SUMMARY
20 West Oct 2000	Time (Min.) (psig) (deg F) (deg F) (deg F) (deg F) (19.76 113.73 Initial Hydro-static Open To Flow (1) (19.76 115.93 Shut-In(1) (19.76 117.45 End Shut-In(1) (19.76 117.34

Recovery

Length (ft)	Description	Volume (bbl)
80.00	MCW 40%m 60%w Show of Oil	1.12
10.00	∞ 100%	0.14

Ous Ital	.03	
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Gas Rates

DST # 4 STRADDLE TEST 3588' TO 3610' "I" LKC BOTTOM PACKER HELD



DRILL STEM TEST REPORT

Inc.

1310 Bison Rd Henry #1

 Hays KS 67601
 Job Ticket: 52272
 DST#:4

 ATTN: Herb Deines
 Test Start: 2013.10.23 @ 21:04:00

5 13s 20w Ellis

Printed: 2013.10.24 @ 08:08:14

GENERAL INFORMATION:

Formation: LKC "I"

Deviated: No Whipstock: 2151.00 ft (KB) Test Type: Conventional Straddle (Reset)

 Time Tool Opened: 23:04:30
 Tester:
 Jim Svaty

 Time Test Ended:
 02:22:00
 Unit No:
 54

Interval: 3588 00 ft (KR) To 3610 00 ft (KR) (TVD)

 Interval:
 3588.00 ft (KB) To
 3610.00 ft (KB) (TVD)
 Reference Elevations:
 2151.00 ft (KB)
 ft (KB)

 Total Depth:
 3930.00 ft (KB) (TVD)
 2141.00 ft (CF)
 2141.00 ft
 10.00 ft

 Hole Diameter:
 7.88 inches Hole Condition:
 Fair
 KB to GR/CF:
 10.00 ft

Serial #: 8289 Outside

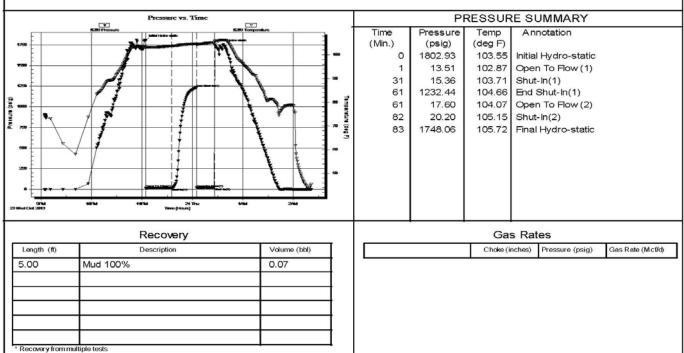
Press@RunDepth: 15.36 psig @ 3589.00 ft (KB) Capacity: 8000.00 psig Start Date: 2013.10.23 End Date: 2013.10.24 Last Calib.: 2013.10.24 2013.10.23 @ 23:04:15 Start Time: 21:04:02 End Time: 02:21:45 Time On Btm:

Time Off Btm: 2013.10.24 @ 00:26:30

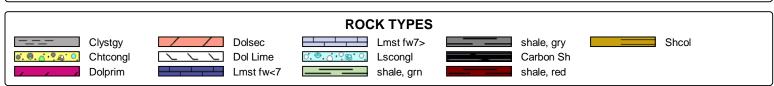
TEST COMMENT: 30-IFP- Surface Blow

30-ISIP- No Blow 20-FFP- No Blow Flushed at 15min. Good Surge No Blow

Pulled



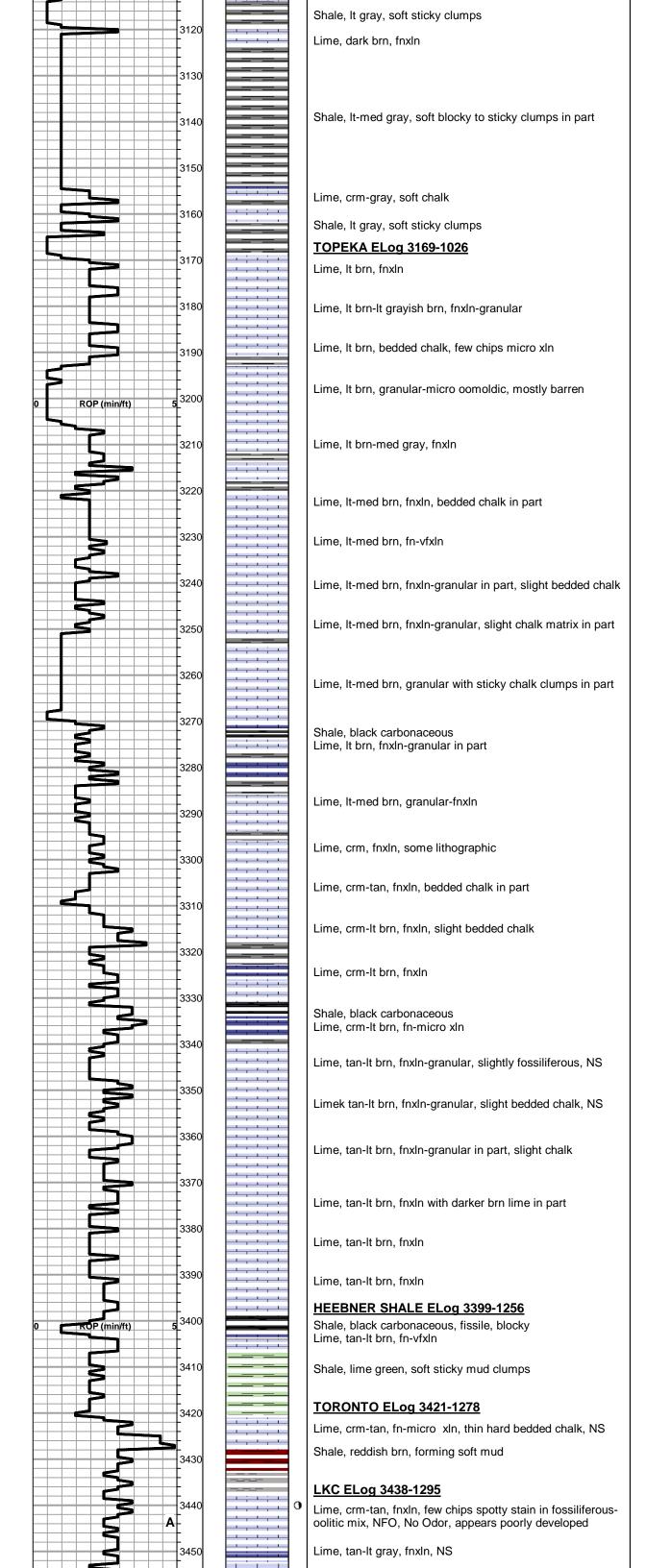
Trilobite Testing, Inc Ref. No: 52272

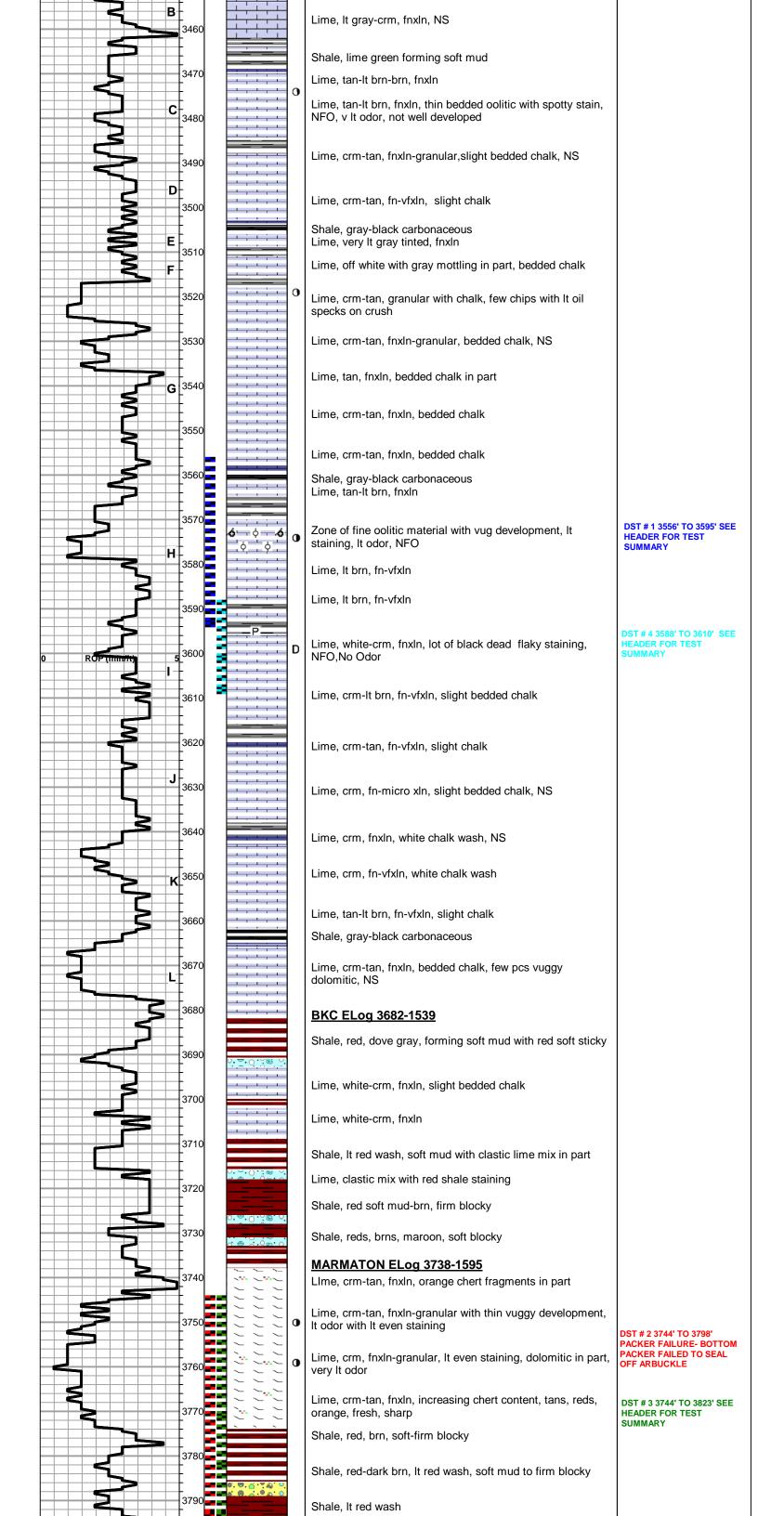


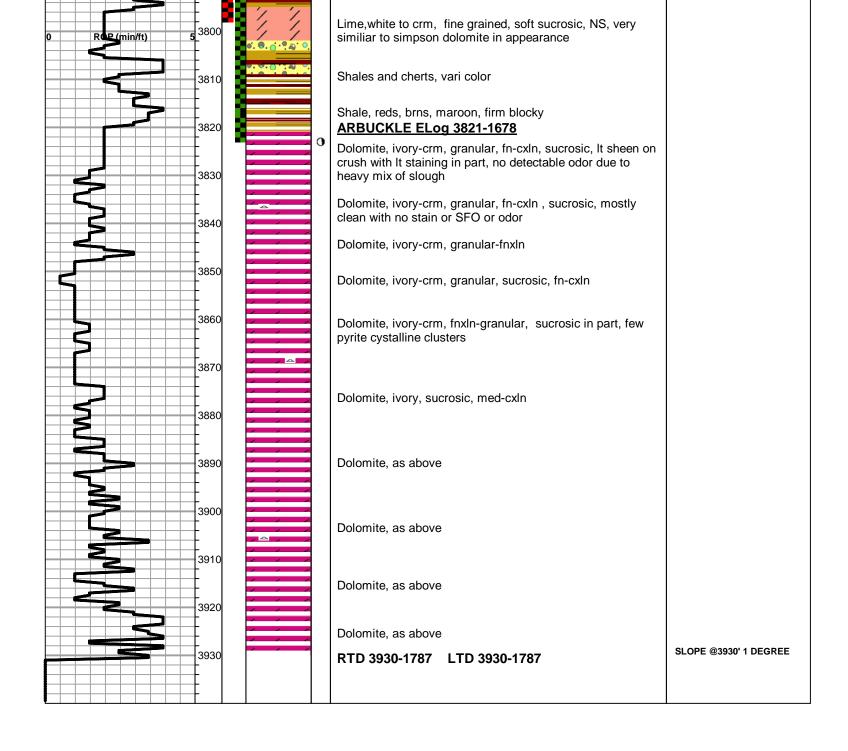
ACCESSORIES

△ Chert White

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca) Curve Track #1 Curve Track #3 ROP (min/ft) Depth | Intervals Oil Show DST **Geological Descriptions** ored Interval ST 1:240 Imperial ROP (min/ft) 1:240 Imperial 8 5/8" SET TO 222' W/ 150 BEGIN 1' DRILL TIME FROM 3060' TO RTD SXS COMMON 2%GEL 3%CC BEGIN 10' WET AND DRY SAMPLES FROM 3060' TO 3070 SLOPE @ 226' 3/4 DEGREE **ANHYDRITE TOP 1481+662 ANHYDRITE BASE 1528+615** 3080 3090 3100 Lime, grayish brn, fnxln, fossiliferous in part Shale, It gray, forming soft mud







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. 7454

Cell 765-324-1041							0-1	T
20 M	Sec.	Twp.	Range	(County	State	On Location	Finish
Date 10-17-73			W	PI	5	KS		10,10fm
111	بابند	j –		Location	on ASN'S	Wist to	ks	
Le Newry # Well No. /				Owner	St " Compating to			
Contractor Savinos in the				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish				
Type Job Surface				8	L	d helper to assist o	wner or contractor to	do work as listed.
Hole Size 12/4	1	D. 2	27_		Charge	101		
Csg. 85/8	[epth c	226		Street			
Tbg. Size	[epth	· · · · · · · · · · · · · · · · · · ·		City		State	
Tool		Depth					and supervision of own	er agent or contractor.
Cement Left in Csg. 15		Shoe Jo	int		Cement Am	ount Ordered /52	20m3/CC	210E2
Meas Line		Displace	13/2	32_		.		
	EQUIPME				Common	50		
Pumptrk 16 No. Cemer Helper	nter sai	3			Poz. Mix			
Bulktrk No. Driver	DITTY				Gel.			
Bulktrk 9 No. Driver	Comp.	Sas	on V.		Calcium_5			_
JOB SEF	RVICES &	REMAR	RKS		Hulls			
Remarks:					Salt		<u> </u>	
Rat Hole					Flowseal			
Mouse Hole					Kol-Seal			
Centralizers					Mud CLR 48	8		
Baskets		····			CFL-117 or	CD110 CAF 38		
D/V or Port Collar					Sand			
85/8 on botto	m Es	يمار كول	water.		Handling /	3 <i>8</i>		
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		7	/			FLOAT EQUIP	MENT	<u> </u>
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					Centralizer	25/2	/	
				1415.01 	Baskets	6/03	wage	***
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				Float Shoe				
		8.8			Latch Down			
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X Signature							Total Charg	je [

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 7543

Cell 785-324-1041		19190						-T	
	Sec.	Twp.	Range	1	County	State	On Location	Finish 1745 1	P
Date 10-24-13	5	/3	50		=1175	KS		11931	
				Location	on Ellis	3 blocks h	1 of Caseys		
Lease Well No. # /				Owner	it. II Carractina las				
Contractor Southwind #1					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.				
Type Job Plag						d helper to assist ov	vner or contractor to	do work as listed	
Hole Size 7 7/5		T.D.	3931		Charge T	DI			
Csg. Drill Pipe		Depth			Street			11000	
Tbg. Size		Depth			City		State		<u> </u>
Tool		Depth	8.4		· 		and supervision of own	er agent or contrac	Ar.
Cement Left in Csg.		Shoe J	oint		Cement Amo	ount Ordered 🎾 🏿	0 60/40 40	6 bel 14 t	100
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1 2	EQUIP	MENT			Common /	62			
Pumptrk / Helps	enter (7	dv			Poz. Mix	108		_	
Bulktrk 19 No. Drive	r Jav	id _			Gel.)			
Bulktrk Pu No. Drive	Bri	3 f F			Calcium				
JOB SE	RVICES	& REMA	ARKS		Hulls				
Remarks:					Salt				
Rat Hole > 30 sx				Flowseal 67#					
Mouse Hole - 15 5x				Kol-Seal					
Centralizers					Mud CLR 48				
Baskets					CFL-117 or CD110 CAF 38				
D/V or Port Collar					Sand				
	- 200				Handling 2	<i>8</i> 0		2	
					Mileage	200			
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3 cd Pine	. a	720	w/ 100 5	J 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Centralizer				
4th Place	$\tilde{\omega}$.	175'	u./ 40 51		Baskets				
5 th Plus	\hat{a}	40	~[10-x		AFU Inserts				
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Rat hale	30	258			Latch Down				
Mouse	10 m	15 55			Wood	Plug-1			
Figure	10 C	700	C. 7774						
		Coleman			Pumptrk Ch	arge 0/44			
	<u> </u>	180,7400			Mileage	17 1			
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X Signature ∠α−μ	Ben					8	Total Charg	је	
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