

OPERATOR

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

Contact Geologist:	TOM DENNING		
Contact Phone Nbr:	785-259-3141		
Well Name:	LINUS # 1		
Location:	NW SW SE SE Sec.14-15s-19w	API:	15-051-26,314-00-00
Pool:	WILDCAT	Field:	UNNAMED
State:	KANSAS	Country:	USA



Scale 1:240 Imperial

Well Name:	LINUS # 1		
Surface Location:	NW SW SE SE Sec.14-15s-19w		
Bottom Location:			
API:	15-051-26,314-00-00		
License Number:	4787		
Spud Date:	8/2/2012	Time:	8:30 AM
Region:	ELLIS COUNTY		
Drilling Completed:	8/8/2012	Time:	10:22 AM
Surface Coordinates:	595' FSL & 1040' FEL		
Bottom Hole Coordinates:			
Ground Elevation:	1987.00ft		
K.B. Elevation:	1997.00ft		
Logged Interval:	2800.00ft	To:	3700.00ft
Total Depth:	3700.00ft		
Formation:	CONGLOMERATE SAND		
Drilling Fluid Type:	FRESH WATER GEL/CHEMICAL		

SURFACE CO-ORDINATES

Well Type:	Vertical	
Longitude:		Latitude:
N/S Co-ord:	595' FSL	
E/W Co-ord:	1040' FEL	

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:	8/2/2012	Time:	8:30 AM
TD Date:	8/8/2012	Time:	10:22 AM
Rig Release:	8/8/2012	Time:	11:45 PM

ELEVATIONS

K.B. Elevation:	1997.00ft	Ground Elevation:	1987.00ft
K.B. to Ground:	10.00ft		

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF TWO DSTS AND LOW STRUCTURAL POSITION.

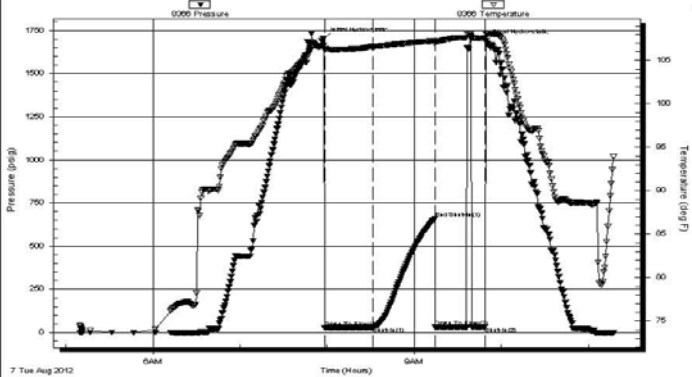
FORMATION TOPS SUMMARY AND DAILY ACTIVITY AND CHRONOLOGY

LINUS # 1
595' FSL & 1040' FEL, SE/4
Sec.14-15s-19w
1987' GL 1997' KB

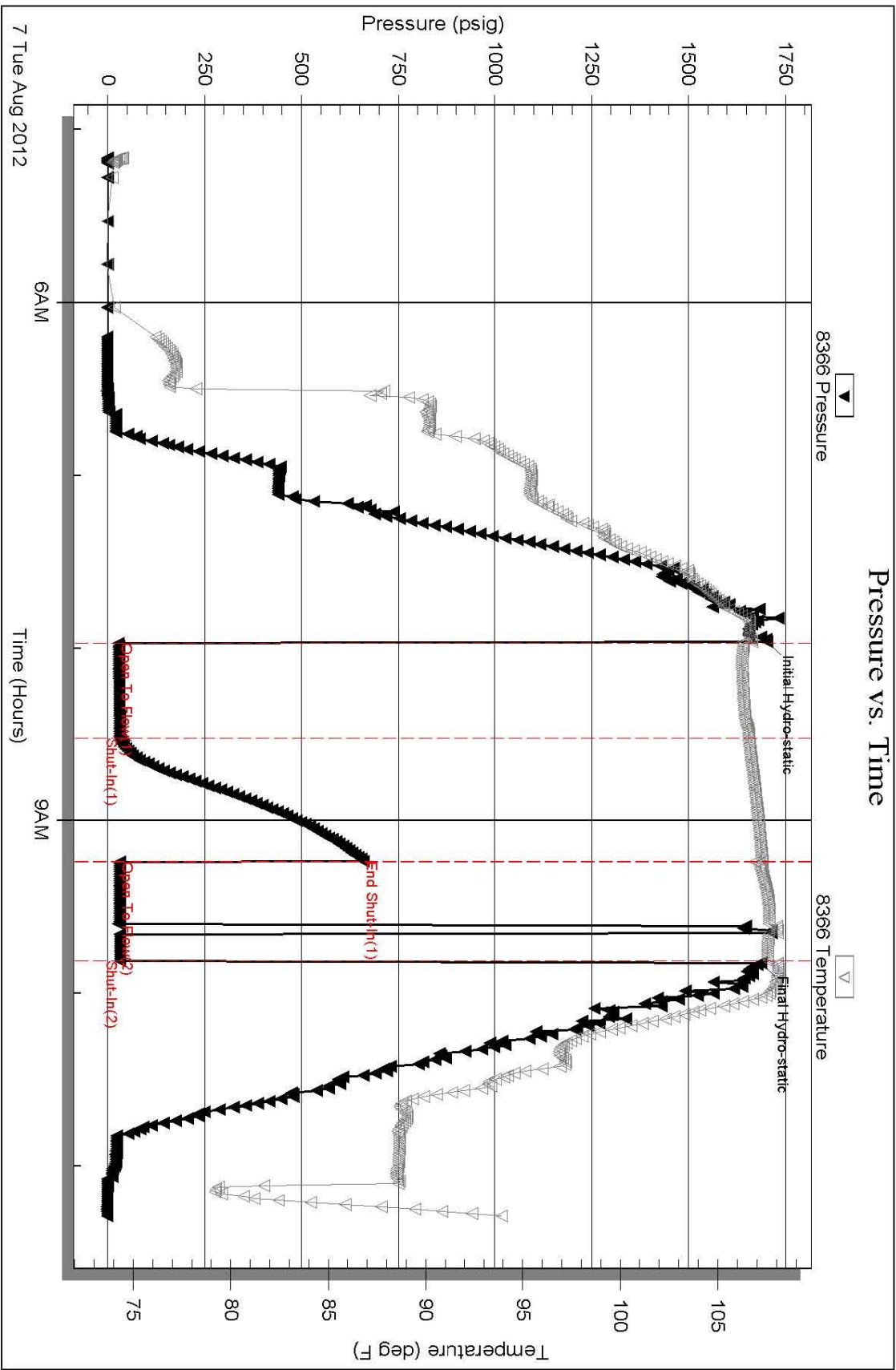
FORMATION	SAMPLE TOPS	LOG TOPS
Anhydrite	1187+ 810	1190+ 812
B-Anhydrite	1223+ 774	1224+ 773
Topeka	2974- 977	2974- 977
Heebner Shale	3257-1260	3257-1260
Toronto	3278-1281	3279-1282
LKC	3301-1304	3303-1306
BKC	3546-1549	3547-1550
Arbuckle	3626-1629	3626-1629
RTD	3700-1703	
LTD		3696-1699

8-02-12	RU, Spud
8-03-12	1193', set surface casing to 1196' w/375 sxs. SMD, Slope survey 0 degree, WOC 12 hrs. Plug down 4:15PM, Swift Cementing
8-04-12	1235', drilling
8-05-12	2370', drilling
8-06-12	3125', drilling,
8-07-12	3500', drilling, DST # 1, DST # 2
8-08-12	3620', drilling, RTD 3700', Logs, Plug and Abandon well.

DST # 1 TEST SUMMARY

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT TDI, Inc. 1310 Bison Road Hays, KS. 67601 ATTN: Herb Deines 14-15s-19w-Ellis Linus #1 Job Ticket: 47843 Test Start: 2012.08.07 @ 05:09:43																																		
GENERAL INFORMATION: Formation: I-J Deviated: No Time Tool Opened: 07:58:13 Time Test Ended: 11:17:13 Whipstock: 0.00 ft (KB) Interval: 3446.00 ft (KB) To 3500.00 ft (KB) (TVD) Total Depth: 3500.00 ft (KB) (TVD) Hole Diameter: 7.80 inchesHole Condition: Good Test Type: Conventional Bottom Hole (Initial) Tester: Jason McLemore Unit No: 54 Reference Elevations: 1991.00 ft (KB) 1981.00 ft (CF) KB to GR/CF: 10.00 ft																																			
Serial #: 8366 Press@RunDepth: 30.29 psig @ 3482.00 ft (KB) Start Date: 2012.08.07 Start Time: 05:09:45 Inside End Date: 2012.08.07 End Time: 11:17:13 Capacity: 8000.00 psig Last Calib.: 2012.08.07 Time On Btm: 2012.08.07 @ 07:57:43 Time Off Btm: 2012.08.07 @ 09:49:28 TEST COMMENT: IFP-Surge On Open, Then Dead ISI-Dead FFP-Dead,Flush Tool, Surge, Then Dead FSI-Dead																																			
Pressure vs. Time 	PRESSURE SUMMARY <table><tr><th>Time (Min.)</th><th>Pressure (psig)</th><th>Temp (deg F)</th><th>Annotation</th></tr><tr><td>0</td><td>1702.19</td><td>106.75</td><td>Initial Hydro-static</td></tr><tr><td>1</td><td>28.15</td><td>106.24</td><td>Open To Flow (1)</td></tr><tr><td>34</td><td>30.29</td><td>106.59</td><td>Shut-In(1)</td></tr><tr><td>77</td><td>660.47</td><td>107.27</td><td>End Shut-In(1)</td></tr><tr><td>77</td><td>30.34</td><td>106.90</td><td>Open To Flow (2)</td></tr><tr><td>111</td><td>32.09</td><td>107.57</td><td>Shut-In(2)</td></tr><tr><td>112</td><td>1687.64</td><td>108.07</td><td>Final Hydro-static</td></tr></table>			Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1702.19	106.75	Initial Hydro-static	1	28.15	106.24	Open To Flow (1)	34	30.29	106.59	Shut-In(1)	77	660.47	107.27	End Shut-In(1)	77	30.34	106.90	Open To Flow (2)	111	32.09	107.57	Shut-In(2)	112	1687.64	108.07	Final Hydro-static
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Recovery <table><tr><th>Length (ft)</th><th>Description</th><th>Volume (bbl)</th></tr><tr><td>5.00</td><td>Drilling Mud</td><td>0.07</td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>	Length (ft)	Description	Volume (bbl)	5.00	Drilling Mud	0.07																Gas Rates <table><tr><th></th><th>Choke (inches)</th><th>Pressure (psig)</th><th>Gas Rate (Mcfd)</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>				Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)							
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5.00	Drilling Mud	0.07																																	
	Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)																																

DST # 1 EXPANDED CHART



Serial #: 8366

Inside

TDI, Inc.

Linus #1

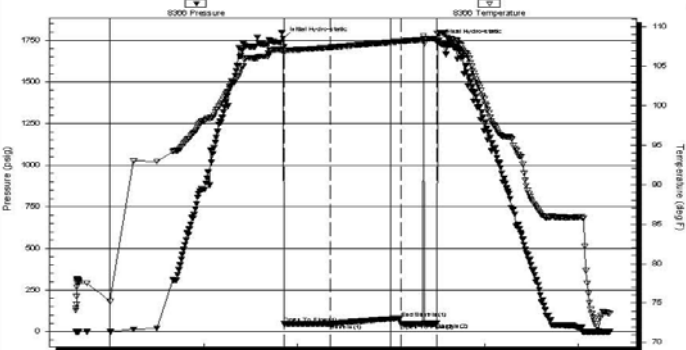
DST Test Number: 1

Trilobite Testing, Inc

Ref. No: 47843

Printed: 2012.08.07 @ 12:09:22

DST # 2 TEST SUMMARY

		DRILL STEM TEST REPORT	
TDI, Inc. 1310 Bison Road Hays, KS. 67601 ATTN: Herb Deines		14-15s-19w-Ellis Linus #1 Job Ticket: 49455 Test Start: 2012.08.07 @ 23:38:00	
GENERAL INFORMATION:			
Formation: Deviated: No Whipstock: 0.00 ft (KB) Time Tool Opened: 01:51:15 Time Test Ended: 05:20:00		Test Type: Conventional Bottom Hole (Reset) Tester: Cody Bloedorn Unit No: 54	
Interval: 3540.00 ft (KB) To 3620.00 ft (KB) (TVD) Total Depth: 3620.00 ft (KB) (TVD) Hole Diameter: 7.80 inchesHole Condition: Fair		Reference Elevations: 1991.00 ft (KB) 1981.00 ft (CF) KB to GR/CF: 10.00 ft	
Serial #: 8366 Press@RunDepth: 48.53 psig @ 3607.00 ft (KB) Start Date: 2012.08.07 Start Time: 23:38:02		Capacity: 8000.00 psig Last Calib.: 2012.08.08 Time On Btm: 2012.08.08 @ 01:51:00 Time Off Btm: 2012.08.08 @ 03:30:15	
TEST COMMENT: 30 - IF- 1/4" blow , died in 5 Min. 45 - IS- No blow back FF- No blow , waited 15 Min. Flushed tool, Surged & died. Waited 10 Min and pulled.			
		PRESSURE SUMMARY	
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1763.20	107.49	Initial Hydro-static
1	46.88	106.71	Open To Flow (1)
30	48.53	107.40	Shut-In(1)
75	80.98	108.15	End Shut-In(1)
76	48.97	108.14	Open To Flow (2)
99	50.89	108.51	Shut-In(2)
100	1746.98	109.17	Final Hydro-static

Aug 2012

0 Wed

Time (Hours) 3AM

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	Mud	0.14

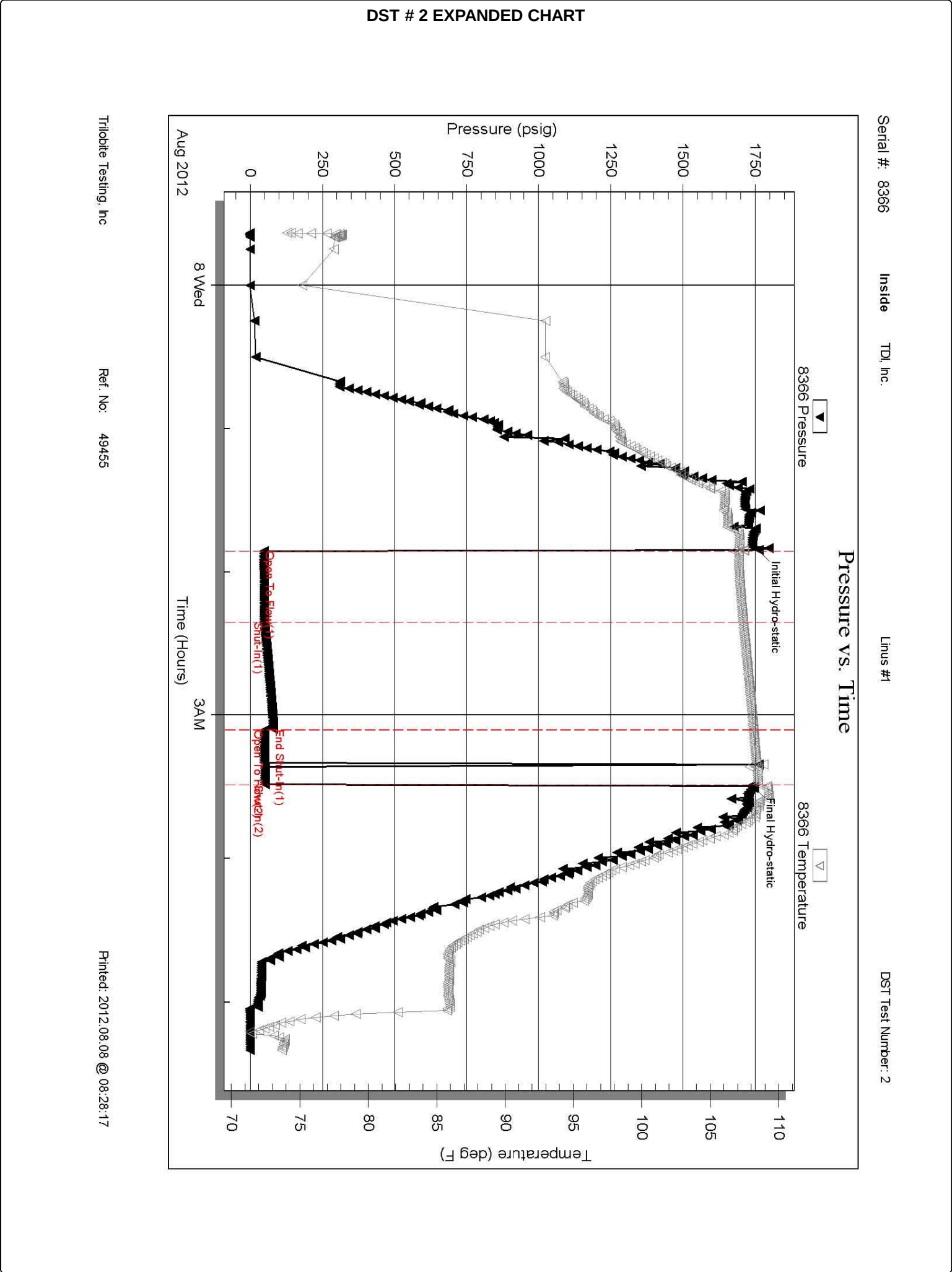
* Recovery from multiple tests

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

Trilobite Testing, Inc

Ref. No: 49455

Printed: 2012.08.08 @ 08:28:15



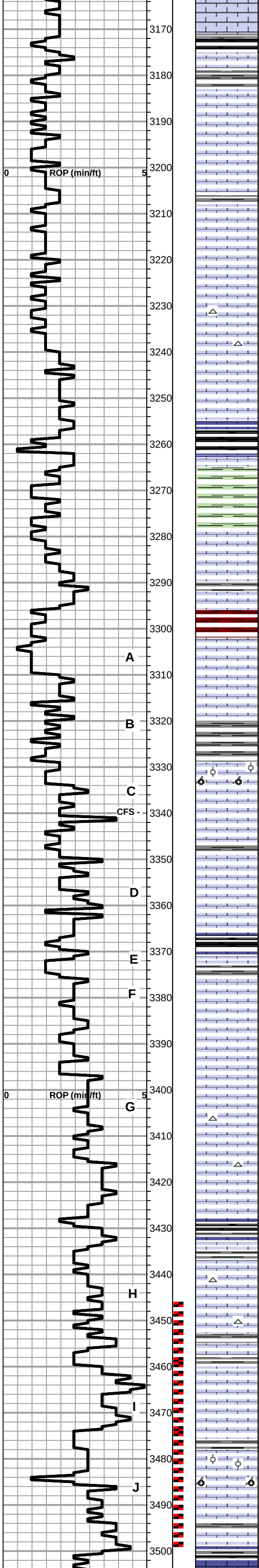
ROCK TYPES					
	Dolprim		Lmst fw>7		shale, gry
	Dol Lime		Lscongl		Carbon Sh
	Lmst fw<7		shale, grn		shale, red
					Ss

ACCESSORIES	
MINERAL	FOSSIL
P Pyrite	φ Oolite
• Sandy	◊ Oomoldic
△ Chert White	

OTHER SYMBOLS	
DST	
	DST Int
	DST alt

Curve Track #1				Curve Track #3			
ROP (min/ft)							
Intervals							

	Cored Interval DST interval	Depth DST	Litholog	Oil Sho	Geological Descriptions	
1:240 Imperial ROP (min/ft)						1:240 Imperial
		2850			Begin 1' drill time from 2850' to RTD Begin 10' wet and dry samples from 2900' to RTD	8 5/8" surface casing set to 1196' with 375 sacks SMD
		2860			ANHYDRITE TOP SPL 1187+810 ELog 1190+807 ANHYDRITE BASE SPL 1223+774 ELog 1224+773	Slope 0 degrees @1197'
		2870				
		2880				
		2890			Lime, grayish brn, fnxln, slightly fossiliferous	
		2900			Lime, grayish brn, fnxln	
		2910			Lime, med brn-gray, fnxln	
		2920			Lime, offwhite-brnish gray, fnxln	
		2930				
		2940			Lime, grayish brn-gray, fnxln-granular, slightly fossiliferous	
		2950			Shale, lt-med gray, soft blocky	
		2960			Shale, lt-med gray, soft grading into pyritic, calcareous shale near base of shale unit	
		2970	P		<u>TOPEKA SPL 2974-977 ELog 2974-977</u>	
		2980			Lime, crm-lt brn, fnxln, slightly fossiliferous	
		2990			Lime, crm-lt brn, fnxln, slightly chalky	
		3000			Lime, med brn-grayish brn, fnxln, slightly fossiliferous, fusulinids	
		3010			Lime, offwhite-grayish brn-gray, fnxln	
		3020			Lime, lt brn-grayish brn, fnxln, fossiliferous in part	
		3030	O		Lime, med brn, granular, mostly barren with one piece with show of light gassy oil on break. Fine-medium intercrystalline porosity	
		3040			Lime, med brn-grayish brn, granular-fnxln	
		3050			Lime, med brn-gray, fnxln-granular Shale, gray, calcareous with scattered fossil fragments	
		3060			Lime, lt-med brn, fnxln-granular	
		3070			Lime, lt-med brn, fnxln-granular	
		3080			Lime, lt brn-lt grayish brn, fnxln-granular	
		3090			Lime, lt brn-grayish brn, fnxln	
		3100			Lime, med brn-grayish brn, fnxln, fossiliferous in part	
		3110			Lime, lt-med brn-grayish brn, granular, fossiliferous Shale, black carbonaceous	
		3120			Lime, brn, fnxln	
		3130			Lime, crm-lt brn, fnxln-granular, chalk in part	
		3140			Lime, crm-lt brn, fnxln-granular, chalk in part	
		3150			Lime, crm-lt brn, fnxln-granular, chalk in part	
		3160			Lime, crm-lt brn, fnxln-granular	



Lime, crm-lt brn, fnxln-granular

Shale, black carbonaceous

Lime, med brn, granular, slightly fossiliferous

Lime, lt brn, fnxln-granular

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

Lime, crm-lt brn, fnxln-granular

Lime, lt brn, fnxln

Lime, crm-lt brn, fnxln-granular
Chert, white-lt gray, fresh, sharp

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

HEEBNER SHALE SPL 3257-1260 ELog 3257-1260

Shale, black carbonaceous, fissile
Lime,med brn, fnxln, slightly fossiliferous

Shale, lt green-grayish green, soft, sticky in part

TORONTO SPL 3278-1281 ELog 3279-1282

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

Lime, white-crm, fnxln, soft on break, NS

LKC SPL 3301-1304 ELog 3303-1306

Lime, lt brn, mostly fnxln, NS

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

Lime, crm-lt brn, fnxln with oolitic/oolmoldic in part, barren, NS

Lime, offwhite-crm, fnxln

Lime, offwhite-crm, fnxln

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

Shale, black carbonaceous
Lime, offwhite, fnxln

Lime, crm-lt brn, fnxln, chalk in part, NS

Lime, crm, fnxln, soft on break, chalk in part

Lime, white-crm, fnxln, very clean, chalk in part

Lime, crm, fnxln-cryptoxln, slight chalk in part

Lime, crm-tan, fnxln-cryptoxln

Lime, med brn, fnxln

Lime, offwhite-crm, fnxln with bedded chalk, NS

Lime, offwhite-crm, fnxln

Shale, gray-green, soft blocky

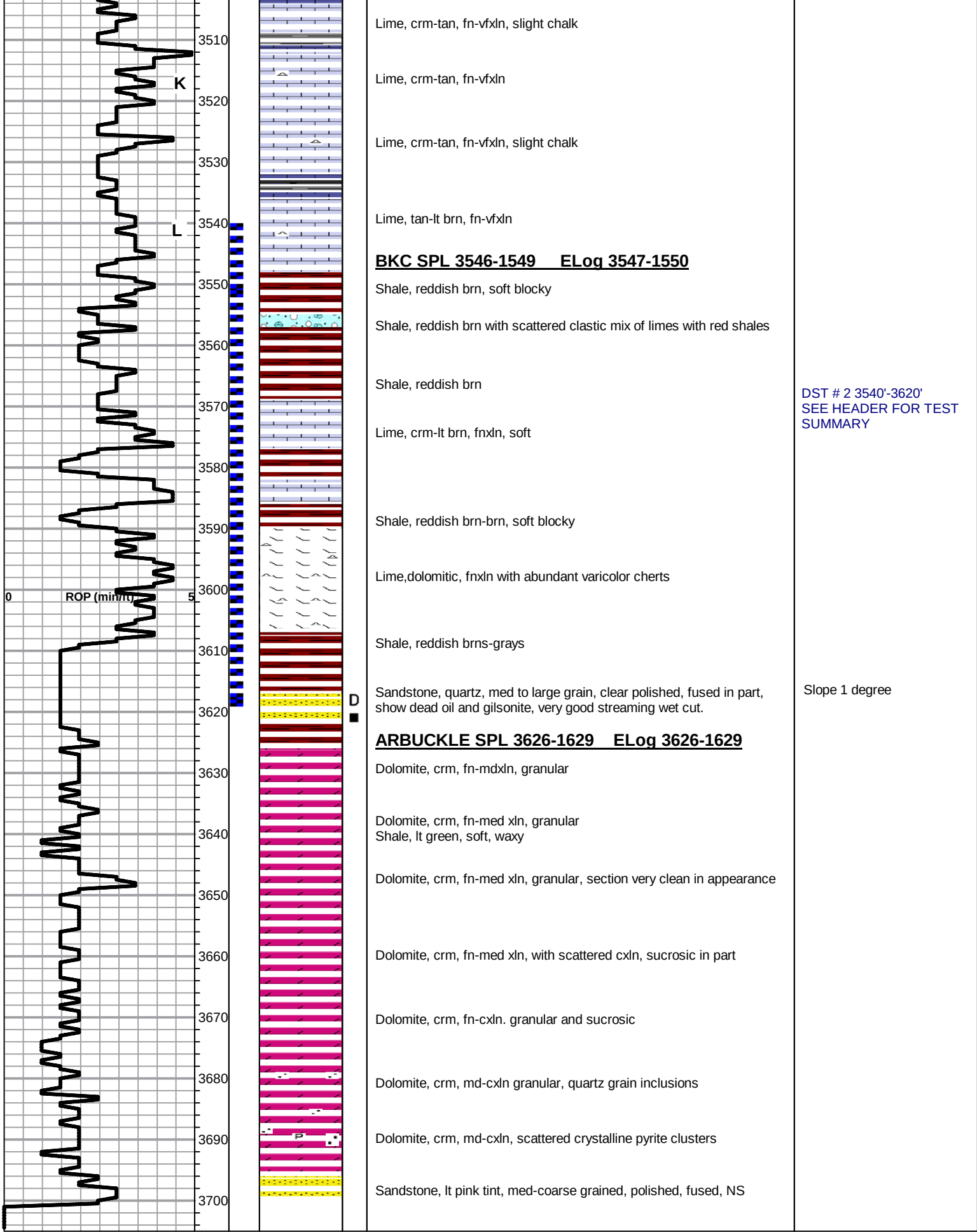
Lime, crm-lt brn, fnxln, chalky, NS

Lime, white-crm, mostly fnxln, scattered micro oolitic chips with scattered hvy dark oil. Few chips with brn fresh oil stain on flat surfaces, No Odor, good streaming wet cut

Lime, crm, fn-vfxln, chalk in part

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

DST # 1 3446'-3500'
SEE HEADER FOR TEST
SUMMARY



JOB LOG

SWIFT Services, Inc.

DATE 8-3-12 PAGE NO. 1

CUSTOMER TPI	WELL NO. #1	LEASE Linus	JOB TYPE Cement Surface	TICKET NO. 21852
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		TD-1197' DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	10:30					23#/ft	878	On location w/ F.E. Rig shot trip in
	12:45							Start 878" 23#/ft casing to 1186'
	13:00							Cent 1-3-14 Battle Plate 55-36'
	13:15							@ 1160 = 73.8 BBL
	13:45							Fin run casing
								Rig off casing / Minidown
								Fin CIR. - Hook up Swift
		6	12				250	Start 500 GAL Mudd Flush
		6	20				250	Start 20 BBL HCL Flush
		5					200	Start 375 SKS 5000 mud.
		5					200	100 SKS @ 11.8 = 2.66 = 47
		5	47				200	100 SKS @ 12.5 = 2.15 = 38 85
		5	85				200	100 SKS @ 13.5 = 1.74 = 31
		5	116				200	75 SKS @ 14.5 = 1.46 = 20
		4	136				200	Fin amt - Release Plug
		6 1/2					250	Start Displ
		4	40				250	@ 40 - slow rate
		5	60				350	@ 60 - slow rate
	14:45		74				400	Plug Drawn - Alord Psi to 500*
							500	Close in -
								Circulated 100 SKS to P1
								Wash up & Run up
								Jobs Complete
	17:30							Thanks Alan, Brian & Jeremy

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 934

Cell 785-324-1041

Date	8-8-12	Sec	14	Twp.	15	Range	19	County	Ellis	State	Ks	On Location		Finish	10:45 PM	
Lease	Linus			Well No.	#1			Location	Antonino, Ks - 2 3/4 S, w/s							
Contractor	Southwind #1								Owner	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	Plug								Charge To	TDI Inc.						
Hole Size	7 7/8"			T.D.	3700'			Depth								
Csg.				Depth	3606'			Street								
Tbg. Size	4 1/2" D.P.			Depth				City	State							
Tool				Shoe Joint				The above was done to satisfaction and supervision of owner agent or contractor.								
Cement Left in Csg.				Displace	H2O/mud			Cement Amount Ordered	20.5 sx 60/40 4% Gel							
Meas Line												Kyt Flr seal				
EQUIPMENT																
Pumptrk	16	No.		Cement	Travis			Common	123							
Bulktrk	14	No.		Driver	Cody			Poz. Mix	82							
Bulktrk	p.u.	No.		Driver	Rick			Gel.	7							
JOB SERVICES & REMARKS								Calcium								
Remarks:									Hulls							
Rat Hole									Salt							
Mouse Hole									Flowseal 50#							
Centralizers									Kol-Seal							
Baskets									Mud CLR 48							
D/V or Port Collar									CFL-117 or CD110 CAF 38							
3606' - 25 sx								Sand								
1250' - 25 sx								Handling 2/2								
490' - 100 sx								Mileage								
40' - 10 sx								FLOAT EQUIPMENT								
Rathole - 30 sx								Guide Shoe								
Mousehole - 15 sx								Centralizer								
Cement did Circulate								Baskets								
								AFU Inserts								
								Float Shoe								
								Latch Down								
								1 - Dry hole plug								
								Pumptrk Charge plug								
								Mileage 12								
								Tax								
								Discount								
								Total Charge								
Signature 