

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

ORIGINAL

Form ACO-1

June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 32448
Name: Titan Resources Limited
Address 1: P.O. Box 923
Address 2: _____
City: Jenks State: OK Zip: 74037 + 0923
Contact Person: Kevin D. Creedon
Phone: (918) 298-1811
CONTRACTOR: License # 33575
Name: WW Drilling, LLC
Wellsite Geologist: Peter Debenham
Purchaser: _____

Designate Type of Com, etc.:

- ☐ New Well ☐ Re-Entry ☐ Workover
☒ Oil ☐ WSW ☐ SWD ☐ SLOW
☐ 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: NA
Well Name: NA
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 #: _____

3-28-11 4-05-11
Spud Date or Date Reached TD Completion Date or Recompletion Date

API No. 15 - 171-20797 • 00 • 00
Spot Description: SE NW SW
_____ Sec. 31 Twp. 19 S. R. 32 ☐ East ☒ West
1650 Feet from ☐ North / ☒ South Line of Section
4640 Feet from ☐ East / ☒ West Line of Section
990 Feet from _____
Geo Rpt - KCC-116
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☒ SW
County: Scott
Lease Name: Dirks Well #: E-2
Field Name: SW
Producing Formation: _____
Elevation: Ground: 2931 Kelly Bushing: 2936
Total Depth: 4820 Plug Back Total Depth: 4810
Amount of Surface Pipe Set and Cemented at: 265 Feet
Multiple Stage Cementing Collar Used? ☒ Yes ☐ No
If yes, show depth set: 1746 Feet
If Alternate II completion, cement circulated from: 1746
feet depth to: surface w/ 150 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 15,000 ppm Fluid volume: 900 bbls
Dewatering method used: Evaporation and reclamation

Location of fluid disposal if hauled offsite:

Operator Name: _____
Lease Name: _____ License #: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West
County: _____ Permit #: _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: [Signature]
Title: President Date: 7/20/11

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: Dg Date: 7/29/11

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Operator Name: Titan Resources Limited Lease Name: Dirks Well #: E-2
 Sec. 31 Twp. 19 S. R. 32 ☐ East ☒ West County: Scott

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 (Attach Additional Sheets)	☒ Yes ☐ No	☒ Log	Formation (Top), Depth and Datum	☐ Sample
Samples Sent to Geological Survey	☐ Yes ☒ No	Name	Top	Datum
Cores Taken	☐ Yes ☒ No	Base Anydrite	2192'	+ 744'
Electric Log Run	☒ Yes ☐ No	Heebner	3871'	- 935'
Electric Log Submitted Electronically (If no, Submit Copy)	☒ Yes ☐ No	Lansing	3947'	- 1011'
		Cherokee	4472'	- 1537'
		Morrow	4610'	- 1674'
		Mississippian	4727'	- 1791'
List All E. Logs Run: Dual Induction Density Neutron Micro Resistivity				

CASING RECORD ☒ New ☐ 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 1/4"	8 5/8"	20	265'	Common	175	3% occ 2% gel
Production	7 7/8"	4 1/2"	10.5	4,810'	Common	240	

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	Surface 1746	Common	150	Common

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
4 spf	4,691' - 4,697'	400 gal - 5% HCL	
		1000 gal - 71/2% HCL	

TUBING RECORD:		Size:	Set At:	Packer At:	Liner Run: ☐ Yes ☐ No
Date of First, Resumed Production, SWD or ENHR.			Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain) _____		
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease (If vented, Submit ACO-18.)		METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled (Submit ACO-5) (Submit ACO-4) ☐ Other (Specify) _____		RECEIVED PRODUCTION INTERVAL: JUL 25 2011
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PO BOX 31 Russell, KS 67665

INVOICE

Invoice Number: 126707

Invoice Date: Mar 28, 2011

Page: 1

Voice: (785) 483-3887

Fax: (785) 483-5568

Bill To:
Titan Resources Limited P O Box 923 Jenks, OK 74037-0923

Customer ID	Well Name# or Customer P.O.	Payment Terms
TitRes	Dicks E #2	Net 30 Days
Job Location	Camp Location	Service Date
KS1-01	Oakley	Mar 28, 2011
		4/27/11

Quantity	Item	Description	Unit Price	Amount
175.00	MAT	Class A Common	18.25	2,843.75
3.00	MAT	Gel	21.25	63.75
6.00	MAT	Chloride	58.20	349.20
184.00	SER	Handling	2.25	414.00
55.00	SER	Mileage 184 sx @ .11 per sk per mi	20.24	1,113.20
1.00	SER	Surface	1,125.00	1,125.00
110.00	SER	Pump Truck Mileage	7.00	770.00
110.00	SER	Light Vehicle Mileage	4.00	440.00
1.00	CEMENTER	Danny Miler		
1.00	OPER ASSIST	Darren Racette		

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 1067.83

ONLY IF PAID ON OR BEFORE

Apr 22, 2011

Subtotal	7,118.90
Sales Tax	237.74
Total Invoice Amount	7,356.64
Payment/Credit Applied	
TOTAL	7,356.64

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ALLIED CEMENTING CO., LLC. 039797

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

Oakley

DATE 3-28-11	SEC. 31	TWP. 19	RANGE 32	CALLED OUT	ON LOCATION 5:30	JOB START 7:00	JOB FINISH 7:30
LEASE <u>Clicks E</u>		WELL # 2	LOCATION SE NW SW			COUNTY SCOTT	STATE KS
OLD OR NEW (circle one)							

CONTRACTOR	W.W. Drilling	Pg. 2
TYPE OF JOB	Sky Fare	
HOLE SIZE	12 1/4	T.D. 266
CASING SIZE	8 1/2	DEPTH 258
TUBING SIZE		DEPTH
DRILL PIPE		DEPTH
TOOL		DEPTH
PRES. MAX		MINIMUM
MEAS. LINE		SHOE JOINT
CEMENT LEFT IN CSG.	15'	
PERFS.		
DISPLACEMENT	15.479	
EQUIPMENT		

OWNER SGMC

CEMENT

AMOUNT ORDERED 175 Common

2 1/2 Gal 3 1/2 Gal/CUM

COMMON 175 @ 16²⁵ 2843²⁵

POZMIX @

GEL @ 21²⁵ 63²⁵

CHLORIDE 6 @ 58²⁵ 349²⁵

ASC @

PUMP TRUCK	CEMENTER	<i>William Fuller</i>
# <i>431</i>	HELPER	<i>Gannon</i>
BULK TRUCK		
# <i>404</i>	DRIVER	<i>Mike</i>
BULK TRUCK		
#	DRIVER	

HANDLING	184 YRS @ 2	914
MILEAGE	114 SR / mile	1113
Drayage		90
TOTAL		4783

REMARKS:

nud scaled CPM

SERVICE

DEPTH OF JOB		258
PUMP TRUCK CHARGE	0-300	1125
EXTRA FOOTAGE	@	
MILEAGE	55 110 HV	2 220
MANIFOLD	@	
M. 1000	110 LV	4 440

CHARGE TO: Titan Resources
STREET _____
CITY _____ STATE _____ ZIP _____

TOTAL 2335 00

PLUG & FLOAT EQUIPMENT

To Allied Cementing Co., 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: Walter Pearson

SIGNATURE: *Karen Benson*

SALES TAX (If Any) _____

TOTAL CHARGES 100.00

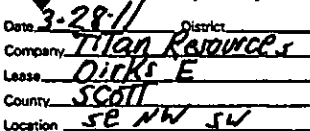
DISCOUNT _____ IF PAID IN 30 DAYS

TOTAL _____

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STAGE NO.

Date 3-28-11 District _____ Ticket No. 39797
 Company Titan Resources Rig WW 2
 Lease Dicks E Well No. 3
 County SCOTT State KS
 Location SE NW SW Field _____

CASING DATA: PTA ☐ Squeeze ☐
Surface ☒ Intermediate ☐ Production ☐ Liner ☐
Size _____ Type _____ Weight _____ Collar _____

Casing Depths: Top 8' 61" Bottom 258'

Drill Pipe: Size _____ Weight _____ Collars _____
Open Hole: Size _____ T.O. _____ ft. P.B. to _____ ft.

CAPACITY FACTORS:

Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:

Spacer Type: _____

Arms _____ Sks Yield _____ ft³/sk Density _____ PPG _____

LEAD: Pump Time _____ hrs. Type _____

Amt. _____ Sk. Yield 134 ft³/sk Density 15.2 PPG

TAIL: Pump Time _____ hrs. Type _____

_____ Excess _____
Amt. _____ Sk. Yield _____ ft³/sk Density _____ PPG

WATER: Lead 12-7 gals/sk Tail _____ gals/sk Total _____ Bbls.

507

Pump Trucks Used 58

Bulk Equip. _____

Age Group	Percentage
18-24	10%
25-34	20%
35-44	25%
45-54	20%
55-64	15%
65-74	10%
75-84	5%
85+	5%

Boat Engine Manufacturers

Shoe Type _____ Death _____

Float: Type _____ Depth _____

Centralizers: Quantity _____ Plugs Top _____ Btm. _____

Stage Collars _____

Special Equip. _____

Disp. Fluid Type _____ Armt. _____ Bbls. Weight _____ PPG _____

Model Type _____ Weight _____ Pkg _____

COMPANY REPRESENTATIVE Armen Karapoo

CEMENTER James Fuller

[illegible]

FINAL DISP. PRESS: 105 PSI BUMP PLUG TO 109 PSI BLEEDBACK 109 BBLS. THANK YOU

MILLER PRINTERS, INC. • Great Bend, KS

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Cement Report

Customer <i>Titan Resources</i>		Lease No.		Date <i>6/16/11</i>	
Lease <i>Dicks E</i>		Well # <i>2</i>		Service Receipt <i>01589</i>	
Casing <i>4 1/2 10.5</i>	Depth <i>4812</i>	County <i>Scott</i>		State <i>KS</i>	
Job Type <i>L.S. DV 242</i>		Formation		Legal Description <i>31-19-32</i>	
Pipe Data			Perforating Data		Cement Data
Casing size <i>4 1/2 10.5</i>	Tubing Size	Shots/Ft		Lead <i>60SK A Con</i>	
Depth <i>4820</i>	Depth	From	To	<i>1st 500</i>	
Volume <i>76.45</i>	Volume	From	To	<i>2nd 500 - 290SK A Con</i>	
Max Press <i>2500</i>	Max Press	From	To	Tail in <i>1st 500</i>	
Well Connection <i>4 1/2</i>	Annulus Vol.	From	To	<i>90SK AA2</i>	
Plug Depth <i>4770</i>	Packer Depth	From	To	<i>1.54FT SK 664666</i>	
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>1800</i>					<i>Arrive On Location</i>
<i>1810</i>					<i>Safety Meeting - Rig Up</i>
<i>1855</i>	<i>2800</i>		<i>1</i>	<i>.5</i>	<i>Pressure Test</i>
<i>1900</i>	<i>450</i>		<i>5</i>	<i>4.0</i>	<i>Pump Water Spacer</i>
<i>1905</i>	<i>400</i>		<i>12</i>	<i>4.0</i>	<i>Pump Super Flush</i>
<i>1910</i>	<i>400</i>		<i>5</i>	<i>4.0</i>	<i>Pump Water Spacer</i>
<i>1915</i>			<i>31</i>	<i>5.0</i>	<i>Pump Lead cement @ 11.4 #/s</i>
<i>1930</i>			<i>24</i>	<i>4.0</i>	<i>Pump Tail cement @ 14.8 #/s</i>
<i>1935</i>					<i>Wash Pump and Line - Prep Plug</i>
<i>1940</i>	<i>400</i>		<i>76</i>	<i>6.0</i>	<i>Displace 2755 mud</i>
<i>2000</i>	<i>1200</i>		<i>.5</i>	<i>2.5</i>	<i>Land Plug - Float Hold</i>
					<i>Drop MSC Opening Device</i>
<i>2015</i>	<i>600</i>		<i>1.0</i>	<i>1.0</i>	<i>Open Tool - Circulate 20/100</i>
<i>2230</i>	<i>0</i>		<i>1.0</i>	<i>2.0</i>	<i>Plug Rest and Mouse Hole</i>
<i>2300</i>	<i>200</i>		<i>131</i>	<i>5.5</i>	<i>Pump cement @ 11.4 #/s</i>
<i>2330</i>					<i>Drop Plug - Wash Up</i>
<i>2335</i>	<i>200</i>		<i>27</i>	<i>5.0</i>	<i>Displace</i>
<i>2350</i>	<i>2000</i>		<i>1.0</i>	<i>2.5</i>	<i>Land Plug - Close DV Tail</i>
<i>100</i>					<i>Job Complete</i>
Service Units <i>19820</i>		<i>204A-RRM</i>	<i>33021-19866</i>		
Driver Names <i>J. Chase</i>		<i>Robert M</i>	<i>Sean Ortiz</i>		

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Roger Pearson
Customer Representative

Sammy Bennett
Station Manager

Samuel Chase
Cementer

Taylor Printing, Inc.



BASIC
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
P.O. Box 129
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET

1717 01589 A

DATE _____ TICKET NO. _____

DATE OF JOB 4-6-11		DISTRICT 1717		NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:	
CUSTOMER Titan Resources		LEASE Dirks E'		2 WELL NO.	
ADDRESS		COUNTY Scott		STATE KS	
CITY		STATE		SERVICE CREW J. Chavez, R. Allen, J. Dean, S. Hagan	
AUTHORIZED BY Jimmy B. Smith		JRB		JOB TYPE: 4 1/2 L.S. D.U. 242	
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19820	7	30404	7	33021	7
		18919	2	19544	2
TRUCK CALLED 4-6-11 DATE AM PM - 300					
ARRIVED AT JOB 4-6-11 AM PM - 630					
START OPERATION 4-6-11 AM PM - 630					
FINISH OPERATION 4-6-11 AM PM - 1150					
RELEASED 4-7-11 AM PM - 100					
MILES FROM STATION TO WELL 75					

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: **Roger Pearson**
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CL101	A-Con Blend	✓ SK	350		6510 00
CL105	AA2 Cement	✓ SK	90		1638 00
CC113	Gypsum	✓ LB	425		318 75
CC111	Salt	✓ LB	501		250 50
CC103	C-15	✓ LB	51		637 50
CC107	C-42P	✓ LB	22		176 00
CC201	Gilsonite	✓ LB	450		301 50
CC109	Calcium Chloride	✓ LB	933		979 65
CC102	Cellulose	✓ LB	88		325 60
CC130	C-51	✓ LB	46		1650 00
CF1250	APII Road Shoe	✓ EA	1		330 00
CF600	Latch Down Plug	✓ EA	1		720 00
CF400	Tail Stage Cont. Callor	✓ EA	1		4500 00
CF500	4 1/2 Stan Ray	✓ EA	1		30 00
CF1770	Controlized	✓ EA	9		540 00
CF1900	4 1/2 Basket	✓ EA	2		540 00
CF3000	JR Thread Lock Kit	✓ Gal	1		34 00
CC155	Super Flush	✓ Gal	500		765 00
E101	Heavy Equipment Mileage	mi	225		1575 00
SUB TOTAL					22545 16

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE Jimmy Chavez	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Roger Pearson
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FIELD SERVICE ORDER NO.

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

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**FIELD SERVICE TICKET CONT.**

TICKET NO. 01589

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Titan Resources, Limited

Dirks "E" No. 2

Section 31, T19S, R32W

Scott County, Kansas

December, 2011

Well Summary

The Titan Resources, Limited, Dirks "E" No. 2 was drilled to a total depth of 4820' in the Mississippian Ste. Genevieve without any problems and in a total of 128 rotating hours. Appreciation to WW Drilling Rig No. 2 rig hands for there efficiency.

The closest offset was the Titan Resources, "Dirks" No. 1 – 40 acres to the South. Formation tops came in low relative to this offset. The Base of the Stone Corral Anhydrite came in 7' low. Formations tops from the Chase to the Wabaunsee ran 6' to 8' low. Thickening occurred and the Topeka, Heebner and Lansing ran 13' to 15' low. The Marmaton, Ft. Scott and Cherokee came in 22', 19' and 17' low respectively. The Morrow and Ste. Genevieve, 17' and 27' low. The Lower Morrow "Dirks" Sandstone ran 51' low although it either just tagged the very bottom of that sandstone or a different sand altogether.

The only quality show documented during the drilling of this test was in the Lower Morrow "Dirks" Sandstone(4691'-4697') and consists of a Sandstone in 40% of the samples: Speckled black, salt and pepper, dark brown to black with oil staining, firm, friable, fine lower to very fine upper, well sorted subround to subangular grains, siliceous cement, calcareous, clean, slightly glauconitic, good intergranular porosity, speckled gold brown hydrocarbon fluorescence in all the sandstone, excellent fast streaming to explosive cut, abundant black to dark brown heavy oil staining and live oil, slight oil odor, excellent show. An 8 unit gas increase occurred on the hotwire.

This interval was drill stem tested(4680'-4704') and recovered 40' of mud with oil spec and 2000 ml of mud with an oil scum in the sample chamber. Excellent virgin formation pressures of 1061 PSI were noted and indicate that this could be a separate interval not produced in the Dirks "E" No. 1.

Additional very minor shows occurred in the Lansing, Ft. Scott and Upper Morrow Sandstone(attached mudlog).

4 1/2" production casing was run to TD on the Titan Resources, Dirks "E" No. 2 on 4/6/11 for Lower Morrow "Dirks" Sandstone oil production.

Additional Sandstones were document in the very Upper Morrow(tested in DST No. 1) and very Lower Morrow and should be closely watched in future wells in the area.

Respectfully Submitted,

Peter Debenham

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WELL DATA

Operator: Titan Resources, Limited – Kevin Creedon, Box 923. Jenks, OK 74037

Geologist: Bill Hofer, 7012 S. Shawnee St., Aurora, CO 80016, 303/495-0267

Well: Dirks "E" No. 2

Location: 990'FWL & 1650'FSL, Sec. 31, T19S, R32W, Scott Co., KS – 9 miles South of Scott City

API No.: 15-171-20797

Elevation: Ground Level 2931', Kelly Bushing 2936'

Contractor: WW Drilling, LLC, Rig No. 2 – T.P. Lonnie Lang

Spud Date: 3/28/11

Total Depth: 4/6/11, Mississippian Ste. Genevieve, Driller 4819', Logger 4820'

Casing Program: 6 joints of J55, 8 5/8", 20 lbs/ft. set at 265'.

Mud Program: Service Mud/Mud-Co., Engineer Reid Atkins, Displaced 3400', type Chemical Gel.

Drillstem Testing: Trilobite Testing, Engineer Shane McBride, DST NO. 1:(4600'-4642'), Upper Morrow, "Johnson Zone", DST NO. 2: (4680'-4704'), Lower Morrow "Dirks" Sandstone.

Wellsite Consultant: Peter Debenham, P.O. Box 350, Drake, CO 80515, 720/220-4860, Petrolific@gmail.com

Samples: 20' to 3600', 10' to TD. Zones of interest saved.

Electric Logs: Weatherford, engineer Ron Hoffman, 1) Array Induction, 2) Neutron/Density, 3) Microlog, 4) High Resolution

Status: 4 ½" production casing run to TD on 4/6/11.

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WELL CHRONOLOGY

8 PM

<u>DATE</u>	<u>DEPTH</u>	<u>FOOTAGE</u>	<u>RIG ACTIVITY</u>
3/28	237'	266'	Move to location and rig up rotary tools. Mix spud mud. Drill rathole and mousehole. Spud in 12 1/4" surface hole to 266' and circulate and jet cellar. Drop survey(3/4 deg.). Run and cement 6 joints of 8 5/8", J55, 20 lbs/ft surface casing set at 265'. Wait on cement.
3/29	2120'	1854'	Wait on cement and water. Service mud pump. Drill plug and cement and 7 7/8" hole to 2120. Jet pits and add premix.
3/30	3060'	940'	Service rig and jet pits and work on pump. To 3060' and drilling.
3/31	3690'	630'	Jet and clean suction. Service rig and displace mud system at 3413' and work on pump.
4/1	3732'	42'	Trip out and wait on parts and work on rotary table.
4/2	4280'	548'	Circulate for samples at 4107', 4184' and 4194'. Service rig and jet pits.
4/3	4605'	325'	Jet and service rig. Add premix.
4/4	4704	99'	Circulate for samples 4632'. Short trip and circulate. Drop survey(1 1/2 deg.) and trip for DST No. 1(4600'-4642'), Upper Morrow Johnson Zone. Run test and pull same and lay down tool. Trip to bottom and circulate and drill to 4704' and circulate for samples.
4/5	4819'TD	115'	Short trip and circulate. Trip out for DST No. 2 and run test(4680'-4704'), Lower Morrow "Dirks" Sandstone. Trip out and lay down test tool and trip in and circulate and drill to 4819'TD and circulate.
4/6	TD		Circulate. Short trip and circulate and condition mud. Trip out for logs and run elogs. Trip to bottom and circulate. Trip out laying down and run and cement 4 1/2" production casing to TD.

<u>BIT RECORD</u>						
<u>NO.</u>	<u>MAKE</u>	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	<u>FOOTAGE</u>	<u>HOURS</u>
1	Smith		12 1/4"	266'	266'	1 3/4
2	sm	F-27	7 7/8"	4642'	4376'	114'
3	Sm-RR	F-27	7 7/8"	4819'	177'	12 3/4

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Total Rotating Hours: 128 1/2
Average: JUL 25 2011 37 1/2 Ft/Hr

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<u>DATE</u>	<u>DEPTH</u>	<u>MUD PROPERTIES</u>					<u>WL</u>	<u>CL</u>	<u>LCM-LBS/BBL</u>
		<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>pH</u>			
3/30	2688'	9.6	30	--	--	7.0	n/c	21K	tr
3/31	3383'	9.4	29	--	--	7.0	n/c	32K	tr
4/1	3732'	8.9	56	15	17	10.5	7.6	2.2K	1
4/2	4117'	9.1	57	17	18	10.5	7.2	3K	1
4/3	4440'	9.3	56	15	17	9.0	9.2	3.2K	1
4/4	4642'	9.3	54	14	16	10.5	7.2	2.4K	2
4/5	4704'	9.4	54	13	18	10.0	8.0	3K	2

DEVIATION RECORD - degree

266' $\frac{3}{4}$, 4642' $1\frac{1}{2}$

DRILL STEM DATA

DST NO. 1:(4600'-4642'), Upper Morrow, "Johnson Zone"

Type: Conventional Bottom Hole, Times: 15-30-15-120

Blows: IF – weak surface blow.

<u>PERIOD</u>	<u>PSI</u>
IH	2283
IF	16 - 18
ISI	586
FF	18 - 19
FSI	1028
FH	2218

BHT 118 deg. F.

RECOVERY: 1' of drilling mud. Sample Chamber: 2000 ml mud, 150 PSI.

DST NO. 2: (4680'-4704'), Lower Morrow "Dirks" Sandstone

Type: Conventional Bottom Hole, Times: 30-60-30-120

Blows: IF: Weak – gradually built to $1\frac{1}{4}$ ". FF: Weak surface to $1/8$ " in 9 minutes.

I & FSI – no blowback.

<u>PERIOD</u>	<u>PSI</u>
IH	2361
IF	14 - 28
ISI	1049
FF	29 - 41
FSI	1061
FH	2256

BHT 125 deg. F.

RECOVERY: 40' of mud with oil specs. Sample Chamber: 2000 ml mud and oil scum, 240 PSI.

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ELECTRIC LOG FORMATION TOPS- KB Elev. 2936'

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Dirks "E" No. 2</u>	
			<u>DATUM</u>	<u>POSITION</u>
Base Stone Corral	2192'	+744'	+751'	-7'
Wellington	2496'	+440	+441'	-1'
Krider(Chase)	2664'	+272'	+278'	-6'
Council Grove	2922'	+14'	+23'	-9'
Neva	3128'	-192'	-184'	-8'
Wabaunsee	3298'	-362'	-354'	-8'
Topeka	3603'	-667'	-654'	-13'
Heebner	3871'	-935'	-922'	-13'
Lansing	3947'	-1011'	-996'	-15'
BKC	4337'	-1401'	-1381'	-20'
Marmaton	4360'	-1424'	-1402'	-22'
Ft. Scott	4437'	-1501'	-1482'	-19'
Cherokee	4472'	-1537'	-1520'	-17'
Morrow	4610'	-1674'	-1657'	-17'
Morrow "Dirks" SS	4691'	-1755'	-1704'	-51'
Miss. Ste. Genevieve	4727'	-1791'	-1764'	-27'
TD	4820'	-1884'		

*Titan Resources, Dirks "E" No. 1, SW/SW, Sec. 31, T19S, R32W, Scott Co. – 40 acres to the South, KB Elev. 2946'.

LITHOLOGY DESCRIPTION

SAMPLES ARE LAGGED
CORRECTED E-LOG FORMATION TOPS
*INDICATES HYDROCARBON SHOW

4562-4572 SHALE: medium to dark gray gygn brown occasional black firm sbfis to blocky carbonaceous calcareous fossils in part

4572-4600 LIMESTONE: Med brown biomicr crpxln hard dense silica in part pcc pyrite clean to argillaceous poor vis porosity no fluorescence no stain or cut interbed with SHALE: Blk dark gray firm sbfis carbonaceous

4600-4614 LIMESTONE: Lt to medium brown fine crystalline hard dense fossils clean to argillaceous poor vis porosity no show occasional interbed with SHALE: Dk gygn to green dark brown black firm sbfis to blocky carbonaceous calcareous

Morrow 4610'

4614-3620 SANDSTONE(<2% sample): Clr translucent salt and pepper very friable vfu/fill well sorted sbrnd grains poor consl well/silica cement clean glauconitic slightly pyrite in part gd intgran porosity no fluorescence trace black solid gilsonite(1 piece) gd cut no live show with abt unconsl

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grains: fl/occasional ml moderately sorted sbrnd

3620-4636 LIMESTONE: Med to light brown buff to clear white salt and pepper speck green fine crystalline dense clean very sndy well/fine well sorted grains glauconitic clean pyrite in part poor vis porosity no show with SANDSTONE: Pred as above no show with Unconsl grains: as above with SANDSTONE: predominant as above occasional gd intgran porosity no show with SHALE: Gy gygn black firm sbfis to blocky waxy to silty mica

4636-4672 SHALE: Dk gray gygn brown hard sbfis to blocky waxy

4672-4691 SANDSTONE(60% sample): Med brngy salt and pepper hard dense fair well sorted grains very calcareous clean to argillaceous glauconitic pyrite carbonaceous incls tight no fluorescence no stain or cut with sndy LIMESTONE: tight no show SHALE: Dk gray gygn firm sbfis waxy carbonaceous

Morrow "Dirks" SS 4691'

4691-4698 *8 Units Gas, SANDSTONE(40% sample): Spec black salt and pepper dark brown to black with oil stain firm friable fill/vfu well sorted sbang/sbrnd grains silica cement calcareous gd intgran porosity speck goldbrn hydrocarbon fluorescence(all SANDSTONE) abt black and dark brown oil stain and live oil exc strmg/explosive cut exc show

4698-4723 SHALE: Dk gray black firm sbfis waxy occasional medium to light brown and sndy occasional gray to gygn

4723-4726 SANDSTONE(5% sample): Clr light brown friable fine well sorted sbang grains clean slightly pyrite slightly arkic gd intgran porosity no fluorescence no stain or cut with SANDSTONE: as above poor vis porosity silica cement tight pyrite slightly arkic no show grdng to very sndy LIMESTONE with SHALE and CHRT: as above

Mississippian Ste. Genevieve 4727'

4626-4750 Abt CHRT: Milky gray light to medium brown hard crystalline LIMESTONE: Lt to medium mottled brown fine crystalline hard dense silica sbchky in part poor vis porosity no fluorescence no stain or cut

4750- 4780 Abt CHRT: Milky gray light to medium brown hard crystalline LIMESTONE: Lt to medium mottled brown fine crystalline hard dense silica sbchky in part poor vis porosity no fluorescence no stain or cut

4780-4800 LIMESTONE: Med to light mottled brown crpxln hard dense fossils clean oolites poor vis porosity no fluorescence no stain or cut with CHRT

4800-4820 LIMESTONE: Med to light mottled brown crpxln hard dense fossils clean oolites poor vis porosity no fluorescence no stain or cut with CHRT

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Petrolific Consulting Services

Peter Debenham

P.O. Box 350
Drake, Colorado 80515

Wellsite Geology

720/220-4860
petrolific@earthlink.net

Scale 1:240 (5"=100') Imperial

Well Name: Titan Resources LLC, Dirks "E" No. 2
Location: 1650'FSL & 990'FWL, Sec. 31, T19S, R32W, Scott Co., KS
Licence Number: API # 15-171-20797
Spud Date: 3/28/11
Surface Coordinates: 1650'FSL & 990'FWL, Sec. 31, T19S, R32W, Scott Co., KS
Region: Las Animas
Drilling Completed: 4/6/11

Bottom Hole Coordinates: 1650'FSL & 990'FWL, Sec. 31, T19S, R32W, Scott Co., KS
Ground Elevation (ft): 2931' K.B. Elevation (ft): 2936'
Logged Interval (ft): 2500' To: TD Total Depth (ft): 4819'
Formation: Chase, Lansing, Marmaton, Morrow, Mississippi
Type of Drilling Fluid: LSND, Chemical Gel/LCM, Mud up 3400'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Titan Resources, Limited - Kevin Creedon, Geologist Bill Hofer
Address: P.O. Box 923
Jenks, OK 7403918/298-1811

GEOLOGIST

Name: Wellsite: Peter Debenham with mudlogging trailer
Company: Petrolific Consulting Services
Address: P.O. Box 350
Drake, CO 80515
720/220-4860, Petrolific@gmail.com

DSTs

Trilobite Testing, Engineer Shane McBride, DST NO. 1:(4600'-4642'), Upper Morrow, "Johnson Zone", DST NO. 2: (4680'-4704'), Lower Morrow Sandstone.

Comments

Prospect Geologist Bill Hofer, Aurora, CO, WW Drilling, LLC, Rig No. 2, TP Lonnie Lang, Drilling Engineer Roger Pierson, 8 5/8" set at 266', Service Mud/Mud-Co., Engineer Reid Atkins, Trilobite Testing - Shane McBride, Weatherford logs, 4 1/2" production casing run on 4/6/11 for Lower Morrow Dirks SS oil production.

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ROCK TYPES

Anhy
Bent
Brec
Cht

Clyst
Coal
Congl
Dol

Gyp
Igne
Lmst
Meta

Mrlst
Salt
Shale
Shcol

Shgy
Sltst
Ss
Till

Curve Track 1

ROP (min/ft)

Lithology

Geological Descriptions

TG, C1-C5

TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

ROP (min/ft) Wellington

Depth

Oil Shows

Poor spl qly - abt cvgs SH: Red to orng occ brn to gy rthy blkly wxy to sndy anhyic occ grdng to & intbd with SLTST/M SS: Red orng tan & bm frm frl vf wrtd grs ca & clay cnt anhyic p vis por abt clay infill no show intbd with LS: Tan brn to gy bf micr f xln dns sndy arg to mry ip anhyic tt no show

SH: Red to orng occ brn to gy rthy blkly wxy to sndy anhyic occ grdng to & intbd with SLTST/M SS: aa clay infill no show

LS: Tan brn to gy bf micr f xln dns sndy arg to mry ip anhyic tt no show

SH: Red to orng occ brn to gy rthy blkly wxy to sndy anhyic occ grdng to & intbd with SLTST/M SS: Red orng tan & bm frm frl vf wrtd grs ca & clay cnt anhyic p vis por abt clay infill no show intbd with LS: Tan brn to gy bf micr f xln dns sndy arg to mry ip anhyic tt no show

SH: Red to orng occ brn to gy rthy blkly wxy to sndy anhyic

TG, C1-C5

100

TG, C1-C5

100

Krider(Chase)

2700

2750

2800

2850

LS: Tan brn to gy bf micrf xln dns v sndy arg to mry lp anhyic tt no show grng to SS: Pred aa red orng tan to bf

SH: Red to orng occ brn to gy rthy blkly wxy to sndy anhyic occ grng to & intbd with SLTST/vf
SS: Red orng tan lt bm frm fri vf w srt d grs ca & clay cmt anhyic p vis por abt clay infill no show intbd with LS: Tan brn to gy bf micrf xln dns sndy arg to mry lp anhyic tt no show

SS: Red orng tan lt bm frm fri vf w srt d grs ca & clay cmt anhyic p vis por abt clay infill no show with SH & tr LS: aa

LS: Tan brn to gy bf micrf xln dns sndy arg to mry lp anhyic tt no show SS: Red orng tan lt bm frm fri vf w srt d grs ca & clay cmt anhyic p vis por abt clay infill no show with SH: Red to orng brick red rthy blkly slty to sndy anhyic

Poor spl qlty - abt cvgs

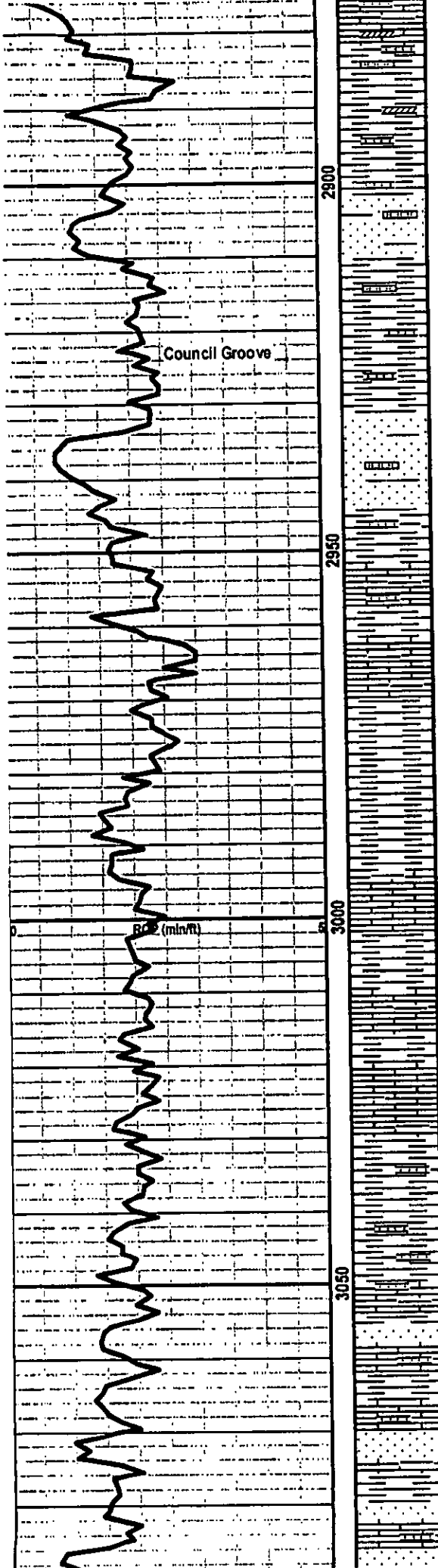
SH: Bri red/orng brick red brn gy to gygn occ med grn varic lp frm blkly wxy to sndy calc pyr lp occ grng to & intbd with SLTST/vf SS: Brn to gy frm fri vf w srt d grs calc & clay cmt arg/mry p vis por no flor no stn or cut

LS: Mot brn to gy redbrn micxln micsuc to suc lp brit cln sndy anhyic foss occ moldic & intpart por tr intxln por sm anhyic infill no flor no stn or cut

SH: Bri red to orng brick red frm blkly wxy to sndy

TG, C1-C8

100



SH: Bri red/orng brick red brn gy to gygn occ med grn varic lp frm blk wxy to sndy calc pyr lp occ grndg to & intbd with SLTST/VI SS" Brn to gy frm fri vf w srted grs calc & clay cmt arg/mrly p vis por no flor no stn or cut

SLTST/VI SS: Med brn to gy gygn lrm fri vf w srted sbmd grs clay & ca cmt cln to mrly lp p vis occ intgran por no flor no stn or cut Intbd with SH: Bri red/orng brick red brn gy to gygn occ med grn varic lp frm blk wxy to sndy calc pyr lp

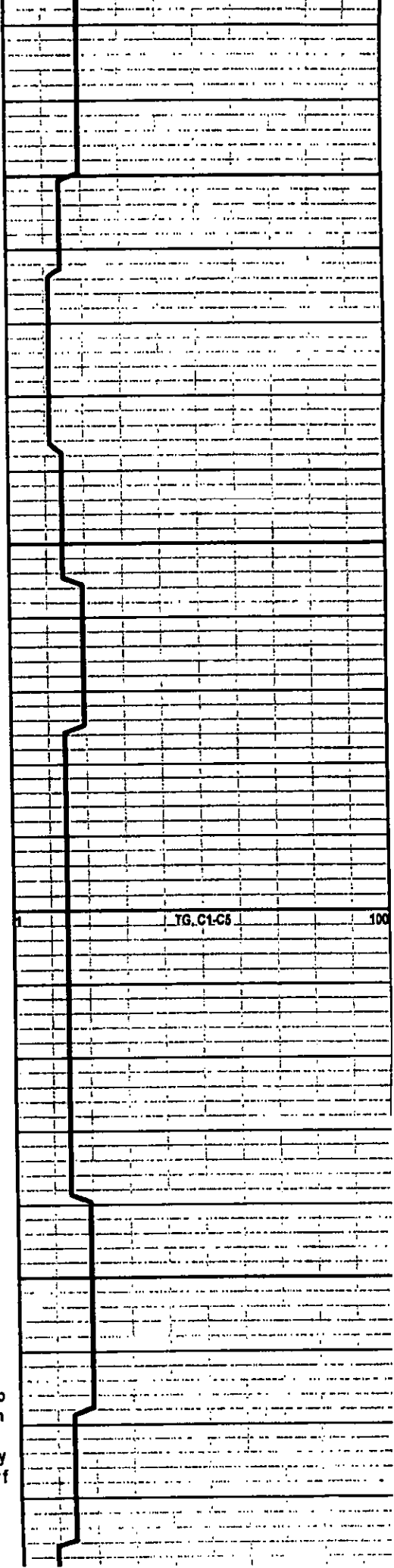
LS: Mot brn to gy redbrn micxn micsuc to suc lp brit cln sndy anhyic foss occ moldic & intpart por tr intxn por sm anhyic infill no flor no stn or cut

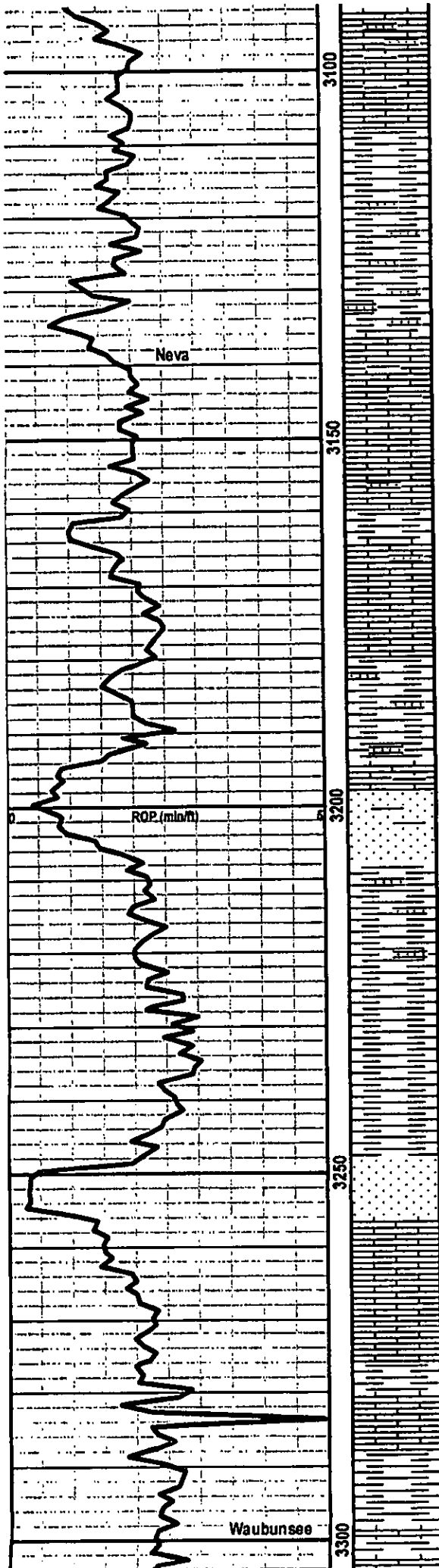
P apl qlty - abt cvgs SH: Red to orng gy to gygn brn blk occ gn frm sbfis to blk wxy to sndy lp carb lp pyr

LS: Lt to med mot brn gy micr f xln sndy arg to mrly occ intxn & vug por no flor no stn or cut Intbd with SH: Red to orng gy to gygn brn blk occ gn frm sbfis to blk wxy to sndy lp carb lp pyr

SH: Red to orng gy to gygn brn blk occ gn frm sbfis to blk wxy to sndy lp carb lp pyr

TR SS: Lt to dk mot brn gy red to orngbm varic lp frm fri vf w srted sbmd grs ca & clay cmt tr intgran por no show intbd with SH: Red to orng gy to gygn brn blk occ gn frm sbfis to blk wxy to sndy lp carb lp pyr with LS: Lt to med mot brn gy micr f xln sndy arg to mrly occ intxn & vug por no flor no stn or cut





SH: Dk to med brn to gy redbrn blk omg gn mar
varic frm sbfis to blk y wxy sndy lp & occ grndg to
mrly SS: Pred aa p vis por abt clay infil

Tr LS: Lt brn to bf micr f xln cln to arg sndy p vis
por no show intbd with SH: aa

Tr LS: Lt brn to bf micr f xln cln to arg sndy p vis
por no show intbd with SH: aa

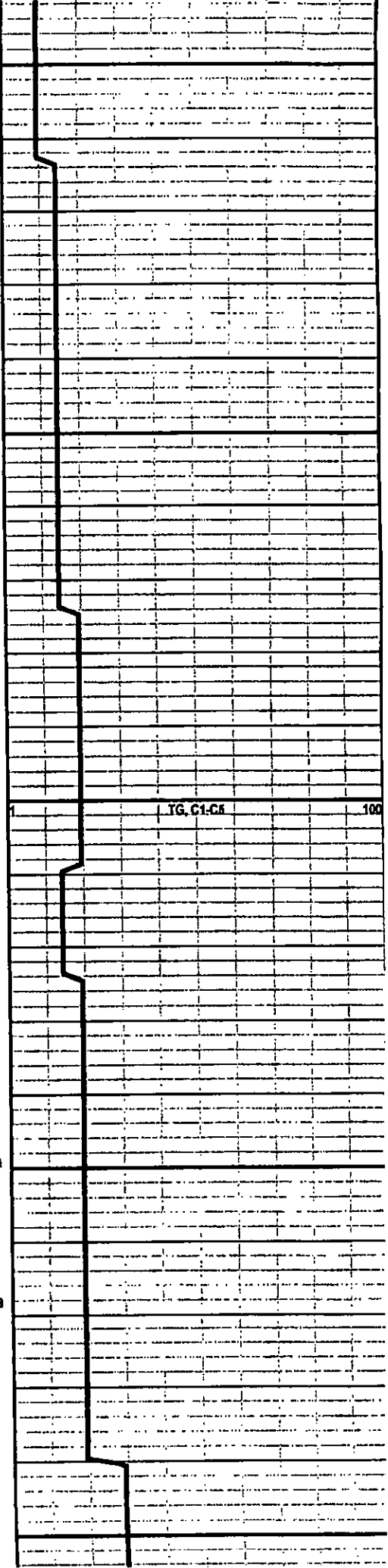
SS: Med to lt mot gy to brn s&p frm fri f w rtd grs
ca & clay cmt arg to mrly lp carb occ intgran por
no show with LS: aa

SH: Dk to med brn to gy redbrn blk omg gn mar
varic frm sbfis to blk y wxy sndy lp & occ grndg to
mrly SS

SS: S&P mot gy to bm frm fri f w rtd sbrnd grs ca
& clay cmt carb pyr lp tr intgran por no flr no str
or cut

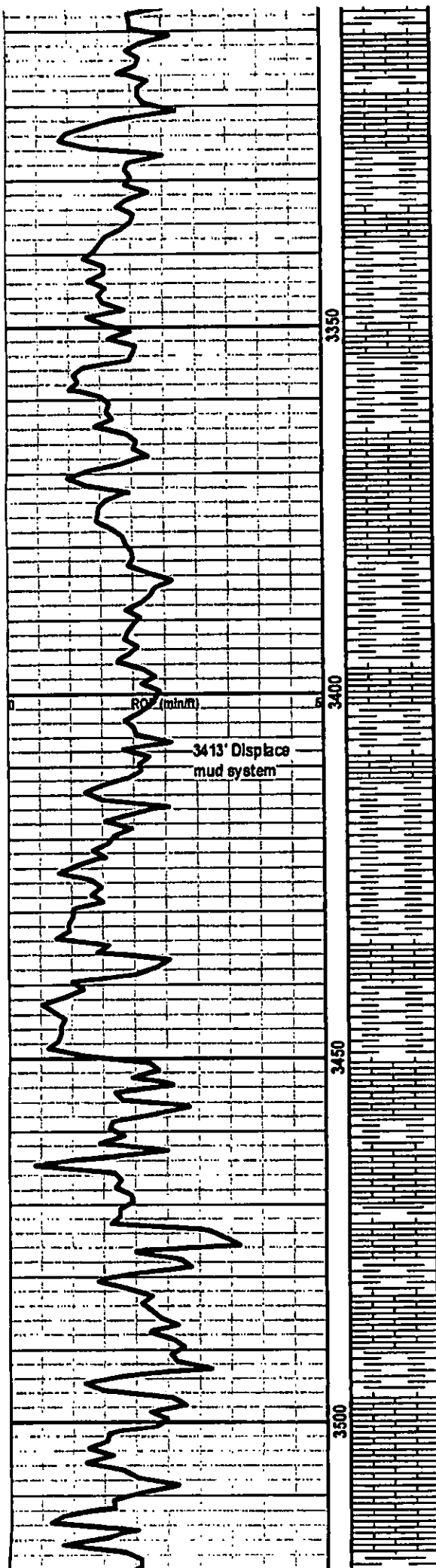
LS: Lt brn bf gy tan micxn micsuc lp sbchky frm
brit lp cln to arg foss v sndy & occ grndg to SS: aa
tr por no show intbd with SH: aa

LS: Lt brn bf gy tan micxn micsuc lp sbchky frm



TG, C1-C5

100



show with SH: aa

SH: Dk gy brn occ blk red brn orng rthy gygn to gn varic ip frm blk wxy to sndy intbd with LS: Lt brn to gy lt to med gy tan bf micr f xin hd dns sndy foss ool occ tr moldic por no show

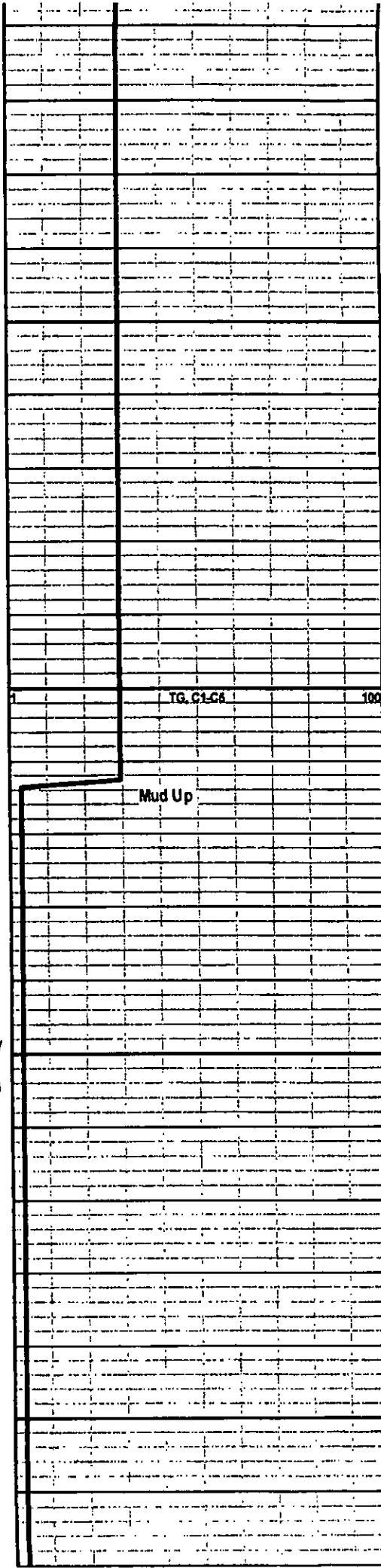
LS: Lt brn to gy lt to med gy tan bf micr f xin hd dns sndy foss ool occ tr moldic por no show

SH: Blk dk gy gygn to occ gn brn varic ip blk wxy to sndy occ grding to mrfy SS

SH: Brn gy occ blk frm sbfis to blk carb calc foss

Good spl qty LS: Mot brn to gy med to lt brn to gy blomicr micxn micsuc ip brit cin to mrfy ip foss ool carb occ moldic por tr intdn por no flor no stn or cut intbd with SH: Brn gy occ blk frm sbfis to blk carb calc foss

LS: Mot brn to gy med to lt brn to gy blomicr micxn micsuc ip brit cin to mrfy ip foss ool carb occ moldic por tr intdn por no flor no stn or cut with SH: aa



rotary table -
bearing out.

to mrly foss carb tt n show

LS: Med mot brn blomic f xln to micxn micsuc ip
chky ip cln to arg pyr foss with moldic por intxn &
vug por no flor no stn or cut

LS: Mot brn med to dk brn crpxln hd dns arg to
mrly foss carb p vis por no show intbd with SH:
Med to dk brn to gy occ blk frm sbfis to blk wxy
to slty carb

LS: Med brn mot micxn micsuc brit cln to arg
dolic ip foss carb gd intxn & f vug por no flor no
stn or cut intbd with LS: Brn crpxln hd dns arg
foss carb tt no show

LS: Med brn mot micxn micsuc brit cln to arg
dolic ip foss carb gd intxn & f vug por no flor no
stn or cut intbd with LS: Brn crpxln hd dns arg
foss carb tt no show

SH: Blk frm sbfis carb with LS: Med to dk mot brn
crpxln hd dns arg carb tt no show

LS: Lt brn bf micxn/crpxln hd dns cln foss occ
sndy p vis por no flor no stn or cut occ intbd with
SH: aa

LS: Lt brn bf micxn/crpxln hd dns cln foss occ
sndy p vis por no flor no stn or cut occ intbd with
SH: aa

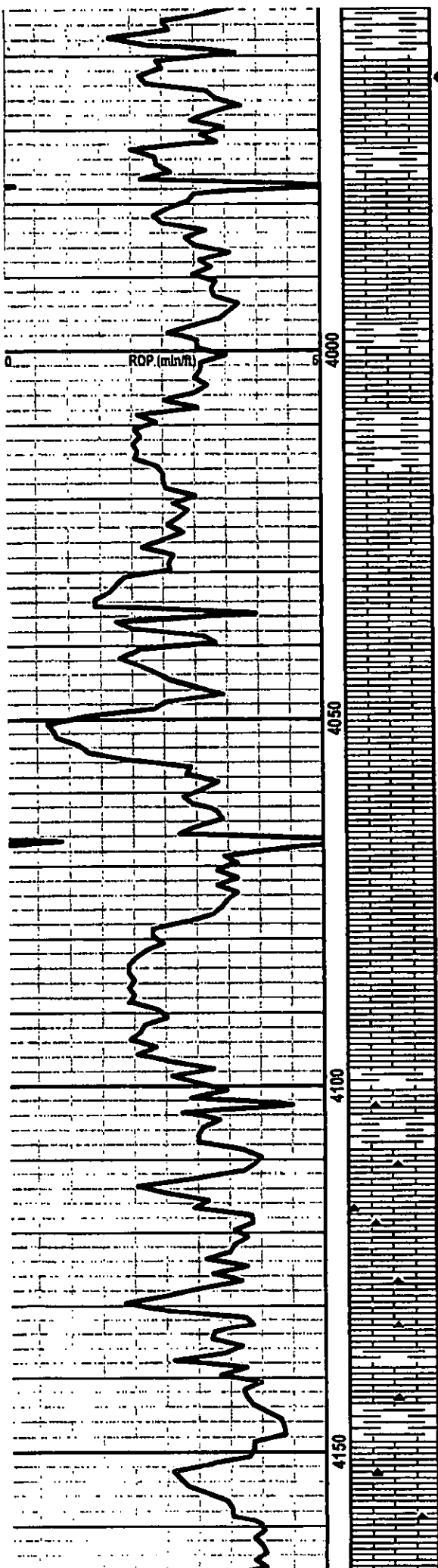
LS: Lt brn bf micxn micsuc ip frm sbchky ip cln to
arg foss carb ip tr intxn por no flor no stn or cut

TG, C1-C5

100

Heebner 3870'

Lansing 3948'



**SH: Brn to gy blk gygn frm sbfis to blk y wxy to
sndy carb calc**

LS: Lt brn tan oomlc r f xln brt dns ch sbchky lp v
ool lp w/intpart por tr f vug por lt spec bl hyd c
flor(<1% sp) exc strmg cut tr live o tt show in
much <than 1% spl

SH: Dk bm to gy hd blk y foss with LS: Lt brn bf
micxn micsuc brit to hd cln sbchky ip foss p vis
por no flor no stn or cut

SH: Med to dk gy frm biky slty foss calc with LS:
aa no show

LS: Lt brn mot biomcr f xln cln foss with tr moldic
por no flor no strj or cut

LS: Lt brn bf wh oomicrf xln brit cln v ool with exc oomoldic por no show

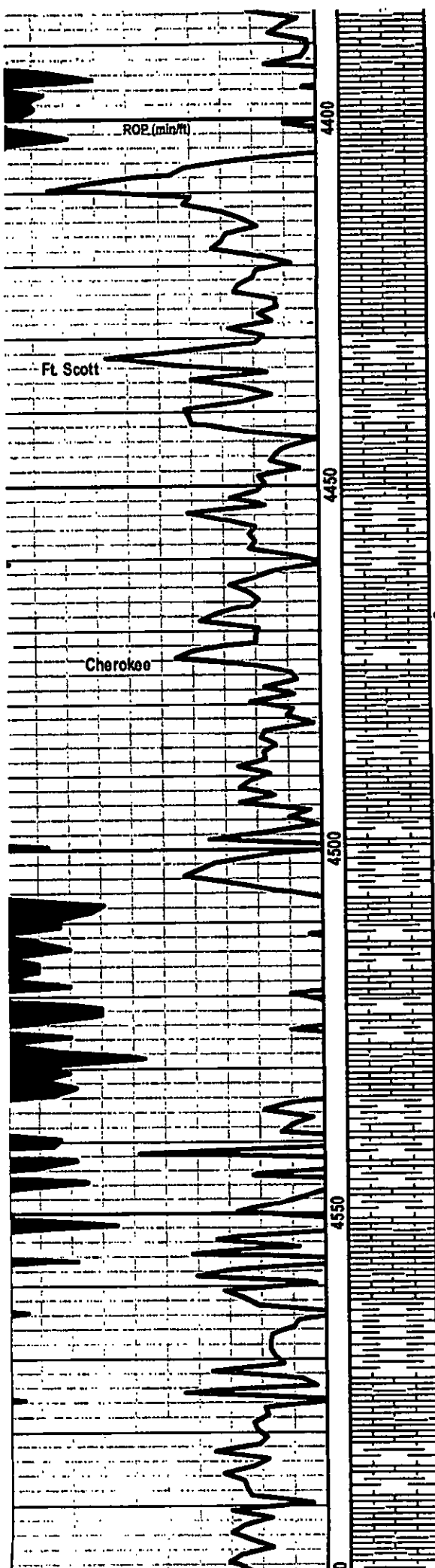
LS: Lt brn bf wh crpxln hd dns cln tt no show

LS: Pred aa sndy ip tr intdn & occ moldic por no flor no str or cut

Abt CHRT: Milky wh gy hd xln LS: Lt mot bm bf
med to dk brn biomicr f xln hd dns sll lp foss coral
foss cln tr fenstral & moldic por no flr no str or
cut intbd with SH: Dk bm gy gygn hd bily carb

LS: Med to lt mot brn pred aa f xln hd dns sil foss
p vis por no show with abt CHRT intbd with SH: aa

TG, C1-C5 100



LS: Lt to med brn occ dk brn to gy micr f xln hd
dns sil ip arg to mry ip foss pyr ip p vis por no flor
no stn or cut intbd with SH: Med to dk brn to gy
gygn frm blk tr CHRT

LS: Lt brn bf micxn micsuc brit cln foss ool tr
moldic & intxn por no show

LS: Med mot brn crpxln hd dns sil cln to arg foss tt
no flor no stn or cut

SH: Blk dk gy frm sbfis to blk wxy to stly ip carb
intbd with LS: Brn to gy f xln hd dns sil ip carb
foss arg to mry ip tt no show

LS: Lt to med brn bf micxn micsuc ip frm dns to tr
intxn por cln to arg tr lt mot pale bl hydc flor(<1%
sp) slow strmg cut no stn wk show

SH: Blk dk gy frm sbfis carb intbd with LS: Med
brn biomicr crpxln hd dns sil ip pcc pyr cln to arg
p vis por no flor no stn or cut

SH: Blk dk gy frm sbfis carb

LS: Med brn biomicr crpxln hd dns sil ip pcc pyr
cln to arg p vis por no flor no stn or cut intbd with
SH: Blk dk gy frm sbfis carb

LS: Med brn biomicr crpxln hd dns sil ip pcc pyr
cln to arg p vis por no flor no stn or cut intbd with
SH: Blk dk gy frm sbfis carb

SH: med to dk gy gygn brn occ blk frm sbfis to
blk carb calc foss ip

LS: Med brn biomicr crpxln hd dns sil ip pcc pyr
cln to arg p vis por no flor no stn or cut intbd with
SH: Blk dk gy frm sbfis carb

LS: Lt to med brn f xln hd dns foss cln to arg p vis
por no show occ intbd with SH: Dk gygn to gn dk
brn blk frm sbfis to blk carb calc

TG, C1-C5

100

DST No. 1)
(3600' - 3642')

Morrow

CO

CO

DST No. 2
(4680' - 4704')

Dirks SS

Miss. Sta. Gen.

ROP (min/ft)

4800

4750

4700

4650

SS(<2% sp): Cir trnsi s&p v fri vfu/fi w srted sbmd
grs p consl w/sil cmt cin glauc sl pyr ip gd intgran
por no flor tr blk solid gls onite(1 piece) gd cut no
live show with abt unconsl grs: fl/occ ml mod srted
sbmd

LS: Med to lt brn bf to clr wh s&p spec gn f xin dns
cin v sndy w/f w srted grs glauc cin pyr ip p vis por
no show

Unconsl grs: aa with SS: pred aa occ gd intgran
por no show with SH: Gy gygn blk fm sbfis to blk
wxy to slty mica

SH: Dk gy gygn brn hd sbfis to blk wxy

SS(60% sp): Med brngy s&p hd dns fr w srted grs v
calc cin to arg glauc pyr carb incls tt no flor no stn
or cut with sndy LS: tt no show SH: Dk gy gygn
fm sbfis wxy carb

SS(40% sp): Spec blk s&p dk bm to blk with o stn
fm fri fl/vfu w srted sbang/sbmd grs all cmt calc gd
intgran por spec goldbm hydc flor(all SS) abt blk &
dk bm o stn & live o exc stmg/explosive cut exc
show with SS: Pred aa v tt & sil no show

SH: Dk gy blk fm sbfis wxy occ med to lt brn &
sndy occ gy to gygn

SS(5% sp): Cir & brn fri f w srted sbang grs cin sl
pyr sl ardic gd intgran por no flor no stn or cut
with SS: aa p vis por sil cmt tt pyr sl ardic no show
grdng to v sndy LS with SH & CHRT: aa

Abt CHRT: Milky gy lt to med brn hd xin LS: Lt to
med mot bm f xin hd dns sil sbchky ip p vis por no
flor no stn or cut

Abt CHRT: Milky gy lt to med brn hd xin LS: Lt to
med mot bm f xin hd dns sil sbchky ip p vis por no
flor no stn or cut

LS: Med to lt mot brn crpxin hd dns foss cin ool p
vis por no flor no stn or cut with CHRT

LS: Med to lt mot brn crpxin hd dns foss cin ool p
vis por no flor no stn or cut with CHRT

TG, C1-C5

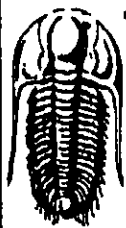
8 U.

TG

TG, C1-C5

4819 TD

80



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Titan Resources

p.o. box 923
Jenks, Ok
74037
ATTN:

Dirks E #2

31-19-32 Scott, Ks

Job Ticket: 042186

DST#: 1

Test Start: 2011.04.04 @ 08:30:42

GENERAL INFORMATION:

Formation: Morrow

Deviated: No Whipstock ft (KB)

Time Tool Opened: 10:29:57

Time Test Ended: 15:55:57

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 55

Interval: 4600.00 ft (KB) To 4842.00 ft (KB) (TVD)

Total Depth: 4842.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2936.00 ft (KB)

2831.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6667

Inside

Press@RunDepth: 19.74 psig @ 4601.00 ft (KB)

Start Date: 2011.04.04

End Date:

2011.04.04

Start Time: 08:30:42

End Time:

15:35:57

Capacity: 8000.00 psig

Last Calib.: 2011.04.04

Time On Btm: 2011.04.04 @ 10:29:27

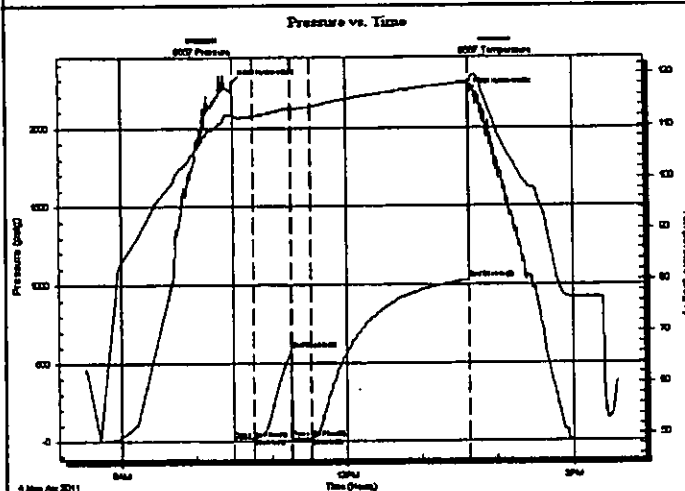
Time Off Btm: 2011.04.04 @ 13:37:57

TEST COMMENT: Very weak surface blow

No return

No blow

No return



PRESSURE SUMMARY

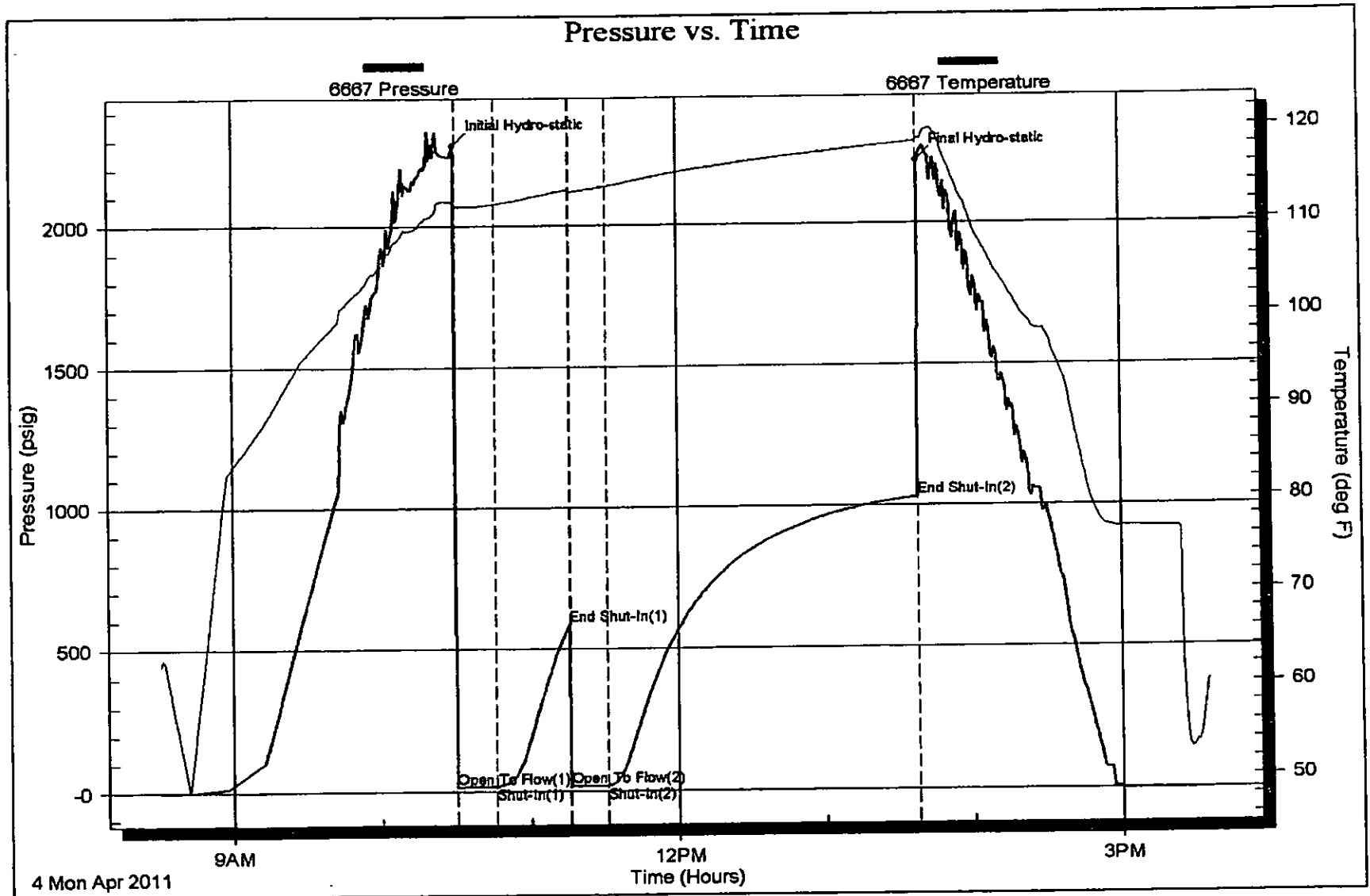
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2283.07	112.24	Initial Hydro-static
1	16.23	111.85	Open To Flow (1)
17	18.94	111.82	Shut-In(1)
47	586.48	113.45	End Shut-In(1)
47	18.76	113.23	Open To Flow (2)
62	19.74	113.76	Shut-In(2)
189	1028.57	118.36	End Shut-In(2)
189	2218.76	118.56	Final Hydro-static

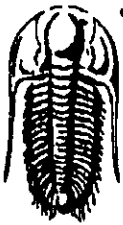
Recovery

Length (ft)	Description	Volume (bbl)
1.00	mud 100% m	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Titan Resources

p.o. box 923

Jenks, Ok

74037

ATTN: Roger Pearson

Dirks E #2

31-19-32 Scott, Ks

Job Ticket: 042187

DST#: 2

Test Start: 2011.04.05 @ 02:45:58

GENERAL INFORMATION:

Formation: Morrow

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:21:13

Time Test Ended: 11:45:13

Interval: 4680.00 ft (KB) To 4704.00 ft (KB) (TVD)

Total Depth: 4704.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 55

Reference Elevations: 2936.00 ft (KB)

2931.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6667 Inside

Press@RunDepth: 41.02 psig @ 4681.00 ft (KB)

Start Date: 2011.04.05

End Date:

2011.04.05

Capacity: 8000.00 psig

Last Calib.: 2011.04.05

Start Time: 02:45:58

End Time:

11:31:13

Time On Btm: 2011.04.05 @ 05:20:43

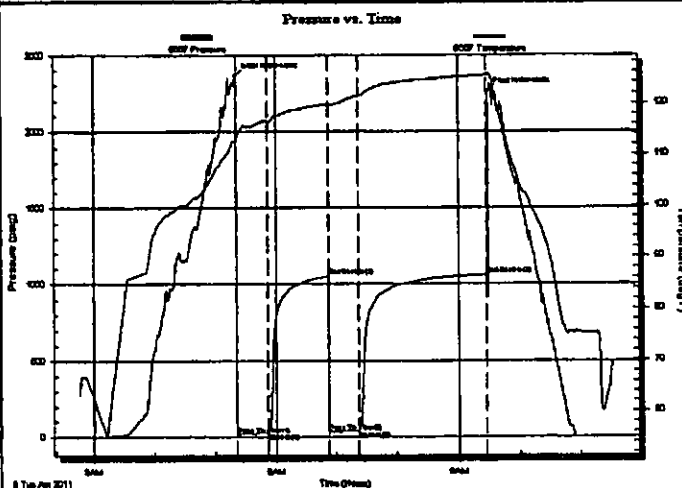
Time Off Btm: 2011.04.05 @ 09:28:58

TEST COMMENT: 1 1/4" in blow

No return

Surface blow in 9 min. 1/8" in blow

No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2361.41	113.22	Initial Hydro-static
1	14.49	112.86	Open To Flow (1)
32	28.94	116.36	Shut-In (1)
92	1049.24	119.83	End Shut-In (1)
92	29.90	119.50	Open To Flow (2)
122	41.02	121.36	Shut-In (2)
247	1061.45	125.24	End Shut-In (2)
249	2256.96	125.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud w/ oil specs	0.20

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (M cfd)
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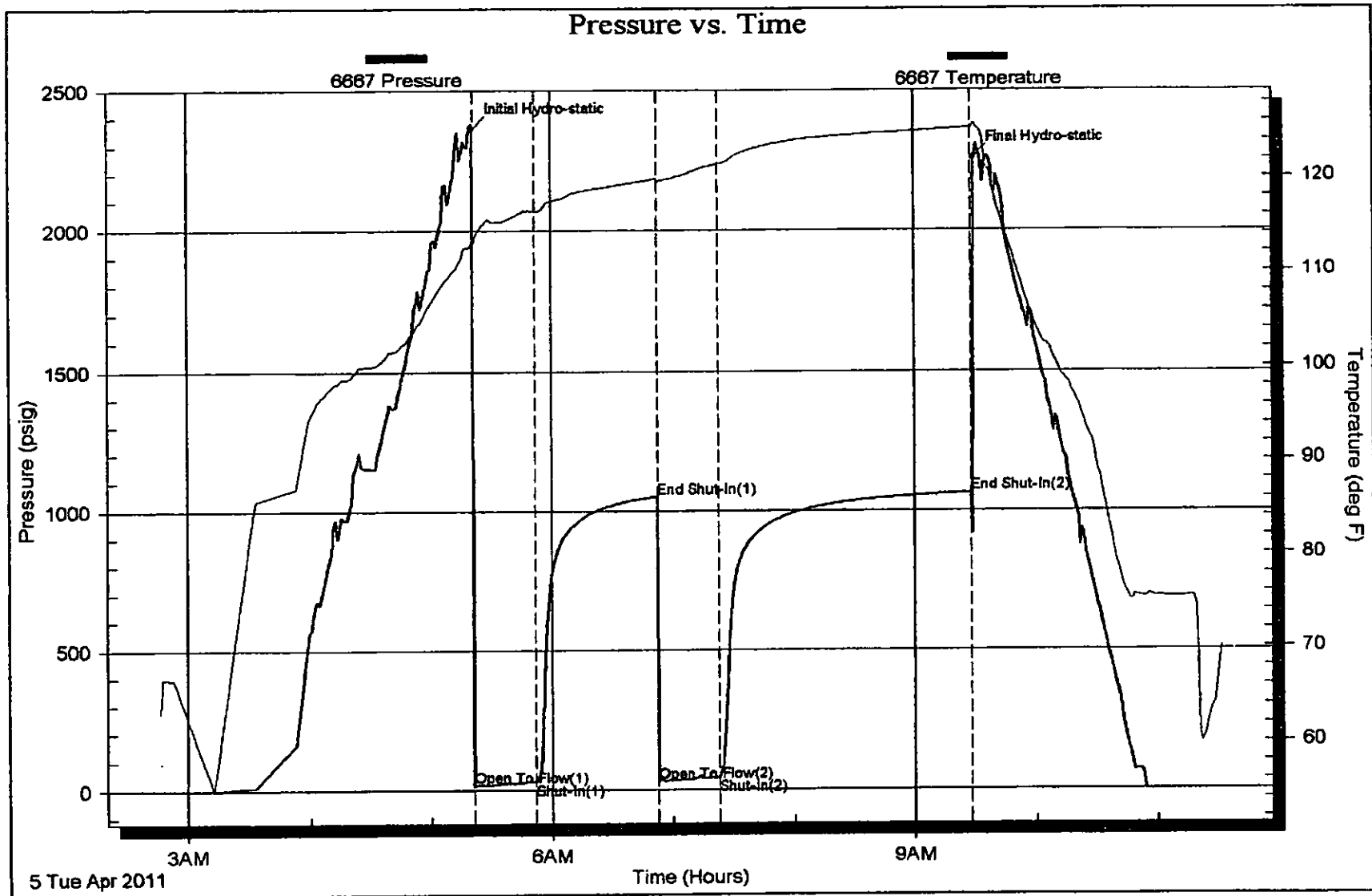
Serial #: 6667

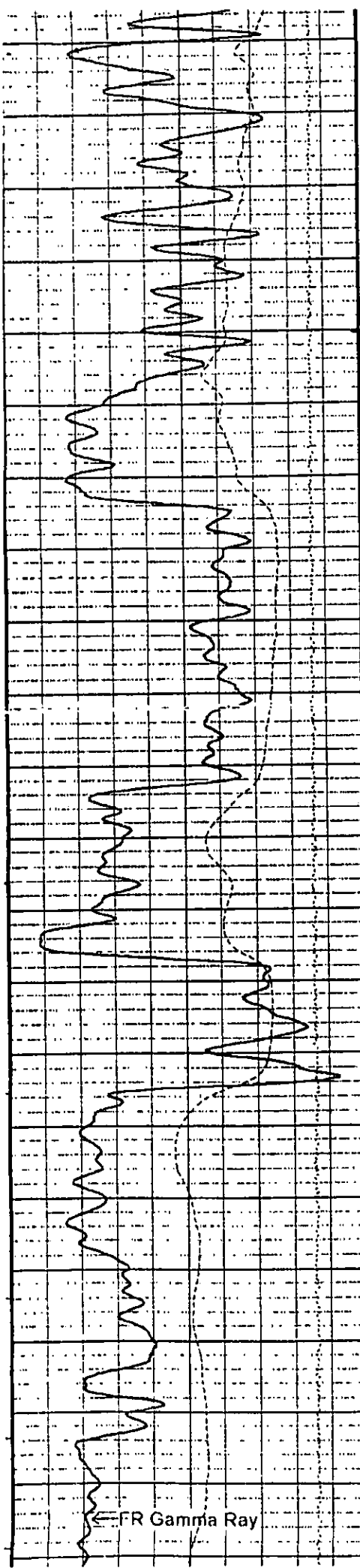
Inside

Titan Resources

31-19-32 Scott, Ks

DST Test Number: 2





[117°]

4600

Morrow

[117°]

4650

[118°]
DICKSS

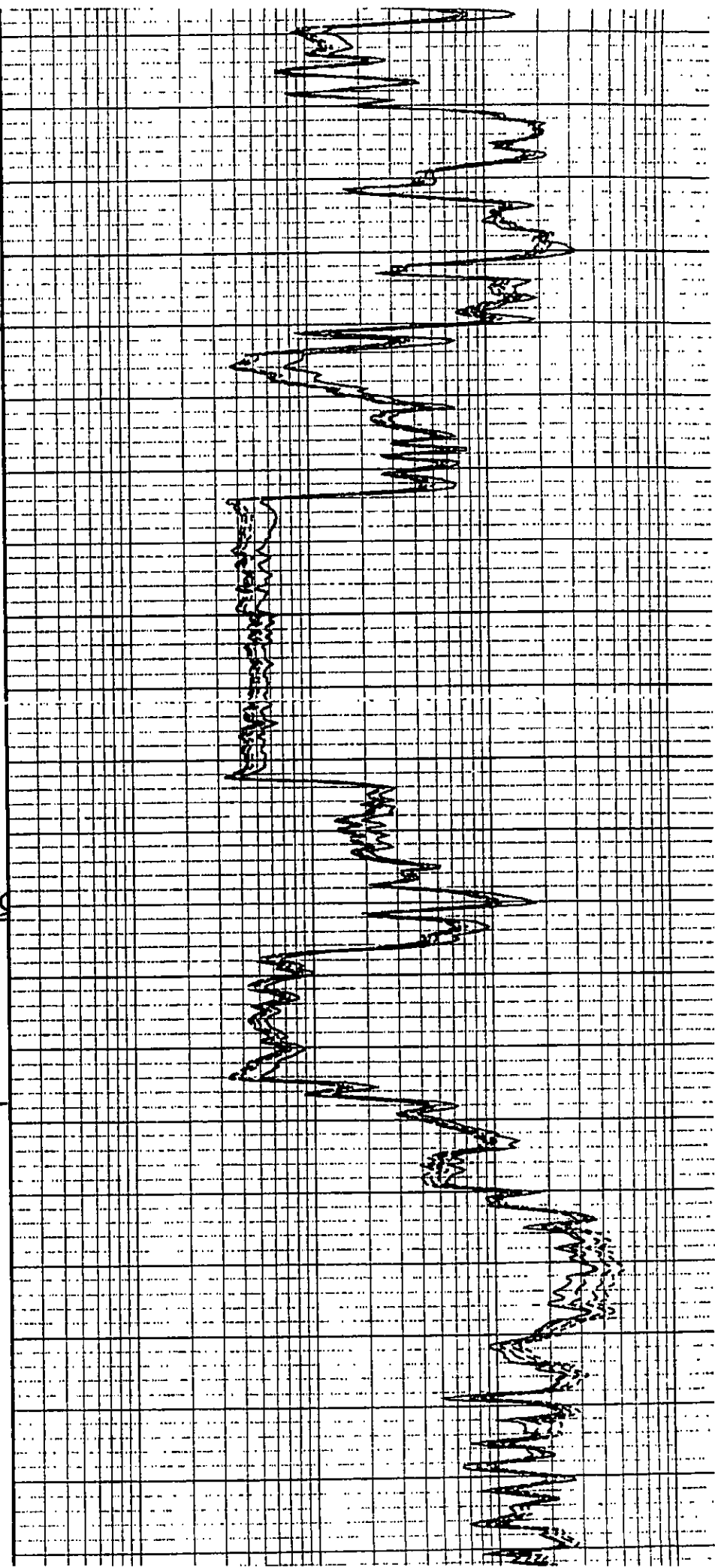
4700

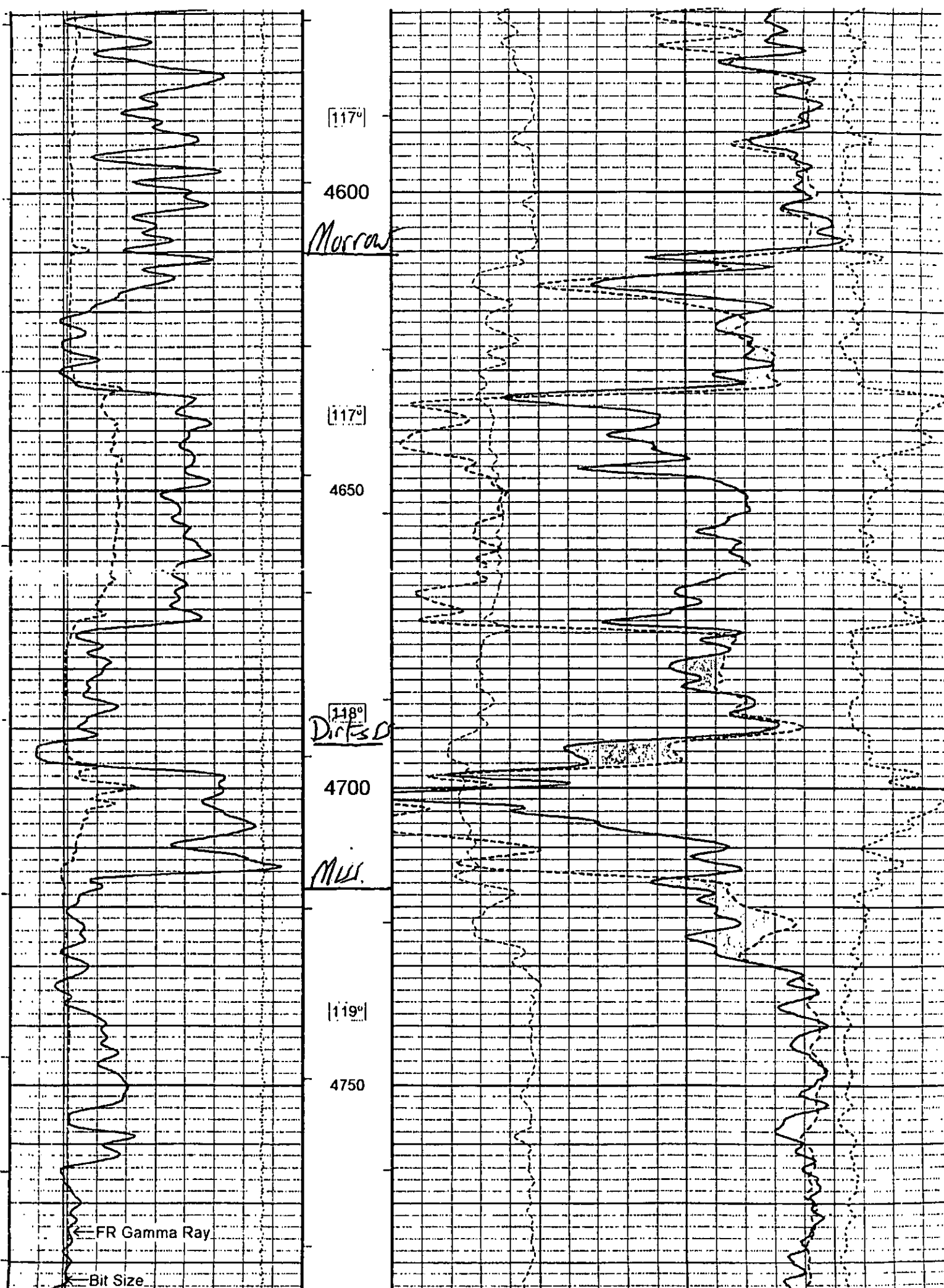
Miss.

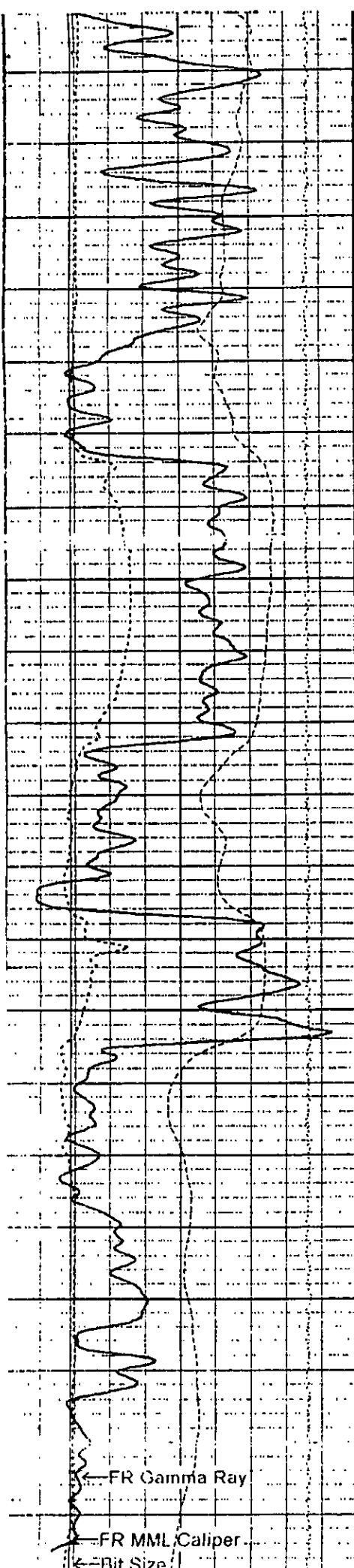
[119°]

4750

FR Gamma Ray





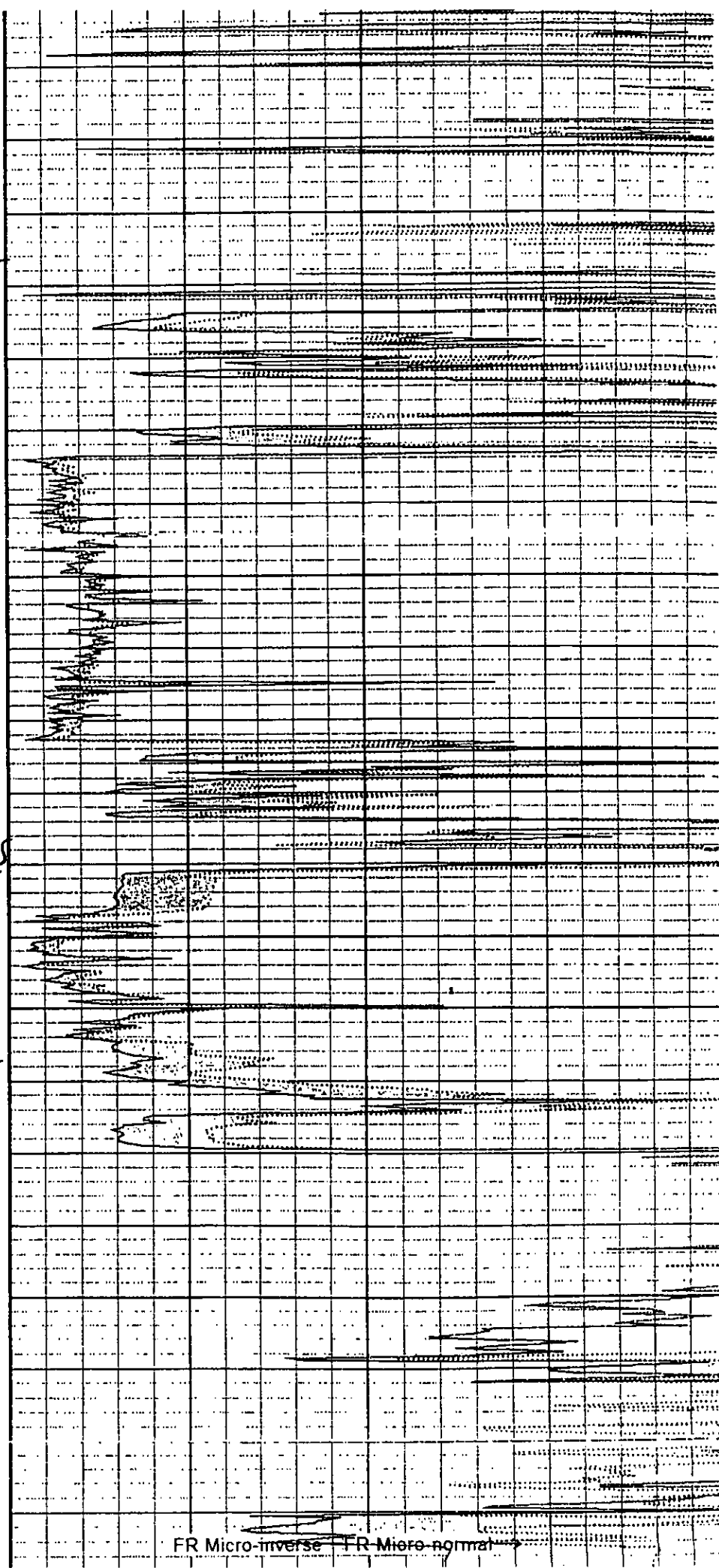


[117°]
4600
Morrow

[117°]
4650
MISS
[118°]
MISS

4700
MISS

[119°]
4750



FR Micro-inverse FR Micro-normal →