



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- 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: _____

Well Name: _____

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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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.

Submitted Electronically

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: _____ Date: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

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				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Chas-Mar 1-13
Doc ID	1102852

All Electric Logs Run

Mirco
Sonic
Dual Induction
Compensated Neutron/Density

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Chas-Mar 1-13
Doc ID	1102852

Tops

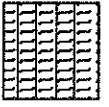
Name	Top	Datum
Top Anhydrite	1371'	+713
Base Anhydrite	1412'	+672
Topeka	3086'	-1002
Heeber	3323'	-1239
Toronto	3340'	-1256
LKC	3366'	-1282
BKC	3623'	-1539
Arbuckle	3673'	-1589

DRILL STEM TESTS

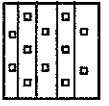
No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IHH-FHH	RECOVERY

REMARKS AND RECOMMENDATIONS _____


LEGEND



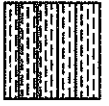
Anhydrite




Salt



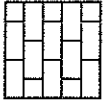
Sandstone



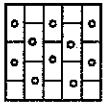
Shale



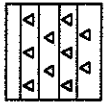
Carb sh



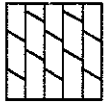
Limestone



Ool. Lime



Chert

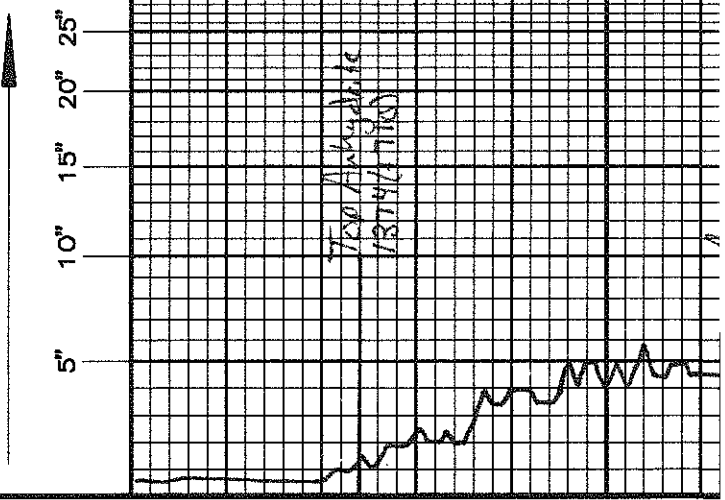


Dolomite

REMARKS					
OIL SHOWS					
SAMPLE DESCRIPTIONS					
LITHOLOGY					
DEPTH					
	1350				
	1400				

DRILLING TIME IN MINUTES PER FOOT

Rate of Penetration Decreases



NEL501-8



1450

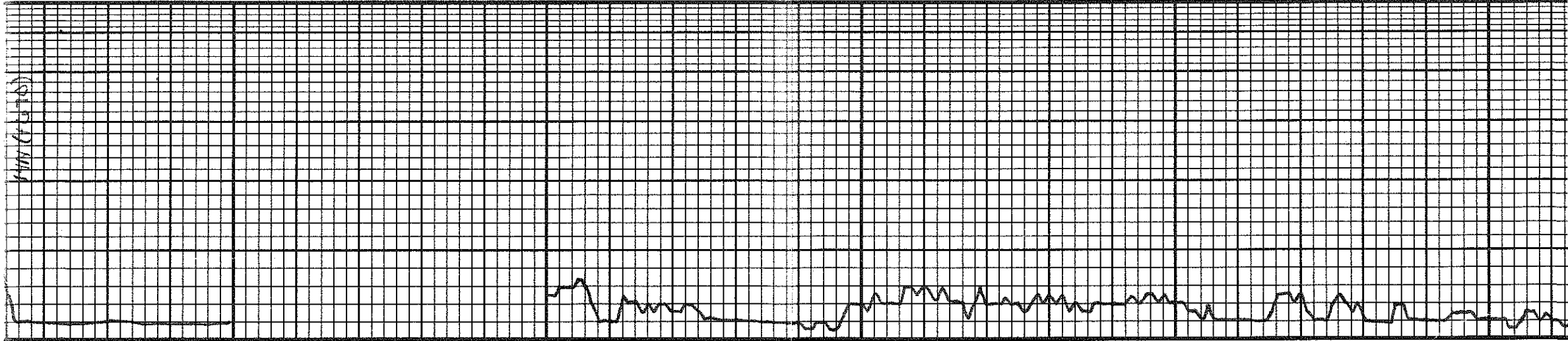
2900

50

3000

50

																		974 SA	DUST FANU LS, RS.	978 SA	Chry. FANU LS	about 974 deep 565	29	28
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COPEKA - 1002
LOG

3100

50

3200

50

3300

Chky tan ls fr of ss sm fr xylw light	DRGMS	DNS TAN - med dk gray pr ss	LS TAN - sm Chky in pt, sm brn - gray fr xylw dns pr - 1 clyp MS.	LS TAN - brn, hot sat brn sp. fr suc xylw, g st, fatty when broken. fr - like food	gray wh - tan to xylw med dns LS	gray sh	tan - wh xylw brn med - LS	gray sh	LS TAN - brn fr xylw to sm wh streaky med sm MS	LS fr - med xylw, tan - gray med dns pr - acc. MS. w/ sm chky frags	chky tan - wh LS med dns	sh gray	LS tan, sm loss, fr xylw fr - table MS. chky tan - LS	SH BLK CARB DNS GRAY XYLW MS.	SHV DR GRAY - 999.	DNS TAN - gray v tan xylw LS MS	SH GRAY BRN	med xylw v dns tan MS	LS tan v chky 5 ft fr table pr - xylw MS	tan v tan xylw v dns no apper MS.	SHV DR GRAY - gray BRN	LS tan - brn in pt sm fr sm DNS fr xylw MS	SH BLK CARB	sh gray brn	chky tan - gray LS sm gray med LS acc. MS.	LS tan, fr xylw to pr - xylw MS. tan v fr xylw - med xylw	DR GRAY SH	LS TAN - brn crs xylw, pebbly. gr - xylw, fr - table sm tot sat brn sm gray sh	chky tan MS	LS TAN - brn - sm gray streaked fr xylw in dns pr MS.
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OST #1
3107-3150'
30'-30"-30'-30"
wk surf blow both opens
IFEP 20-34
FFP 35-46
SIP 700-667
HP 1491-1461
REC 50 OSWM
40% W, 60% M

D
S
T

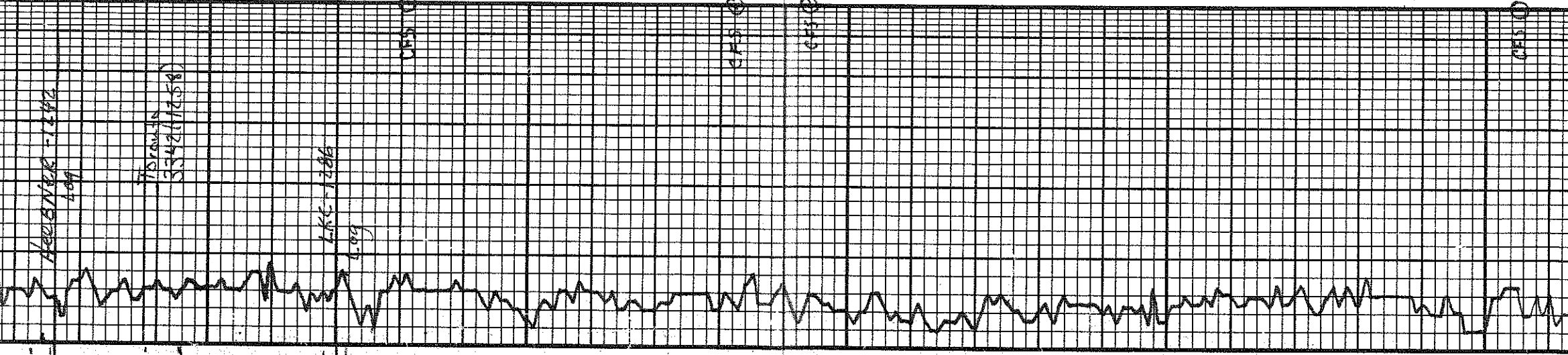
1

OST #2
3320-3381'
45'-45"-45'-45"
wk Blow BOTH OPENS

HERBIVORE - 1242
409

750000
3342 (1258)

LKC-1286
109



50

3400

50

3500

50

sm. light purple

Sh Bk care

DK grey SA

Ls tan-wh. fm sucrw/ln fr nylol
sm tot sat br str, sld, sfo, scaly
Rainbow str, showages when
Broken

Sh grey

Ls tan-ben noo cas pr 0.5

Sh DK grey

Dns tan L.S.W

grey SA

Ls wh-pen-fur-fur-fur-fur
to ss w/ trc str n.s. to no ad

MOO Dns BRN L.S. fr nylw

MS

SHU DK grey

Ls tan, sm tot sat br str, sld, sfo, scaly
more rainbow str, sld, sfo, scaly
sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

Ls tan sm tot sat br str, sld, sfo, scaly
more rainbow str, sld, sfo, scaly
sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

Ls tan sm tot sat br str, sld, sfo, scaly
more rainbow str, sld, sfo, scaly
sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

Ls tan-wh. sm tot sat br str, sld, sfo, scaly
brn str n.s. to no ad, sld, sfo, scaly
vnted, sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

Ls tan-wh. sm tot sat br str, sld, sfo, scaly
brn str n.s. to no ad, sld, sfo, scaly
vnted, sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

Ls tan-wh. sm tot sat br str, sld, sfo, scaly
brn str n.s. to no ad, sld, sfo, scaly
vnted, sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

Ls tan-wh. sm tot sat br str, sld, sfo, scaly
brn str n.s. to no ad, sld, sfo, scaly
vnted, sm pr. labls sm tot, sl br

fring dns barren, 1-2 dns w/ sld
shad & str

SH Bk care DK grey

DK grey SA

FFP 20-25
SIP 79-62
HP 1623-1569
REC 5' muo

DST #2

DST #3 30:30-30:30
1st op BOB 2"
NO SE blow

2nd op BOB 1mm ea.

BOB 18" on S.I.

IFFP 78-548

FFP 541-785

SIP 1065-999

HP 1060-1595

REC 440-9. i. p.

40' CGO

310' G.S.M.O.C.W (30g:200)

45 w: 5m

185 G.S.D.C.W

(40g:100w:50w)

245' G.S.O.C.W

(10g:50w:195w)

340 G.O.C.W

(0g:200w:70w)

430 wtr

BHT 1180 GRAN 38°

DST #3

DST #4

DST #4

3426-3444'

30' 45" 30" 45"

1st open BOB 2 1/2"

2nd open BOB 3 1/2"

1/2" S.I. Blow

IFFP 51-424

FFP 434-685

SIP 988-965

HP 1682-1610

REC 30' 945

1' Free oil

794V S.O.C.W

(290 oil 989aw)

435 wtr

Calorides 200,000 !!!

DST #5

DST #5

3536-3555'

30:30-30:30

IFF: 26-24

FF: 27-27

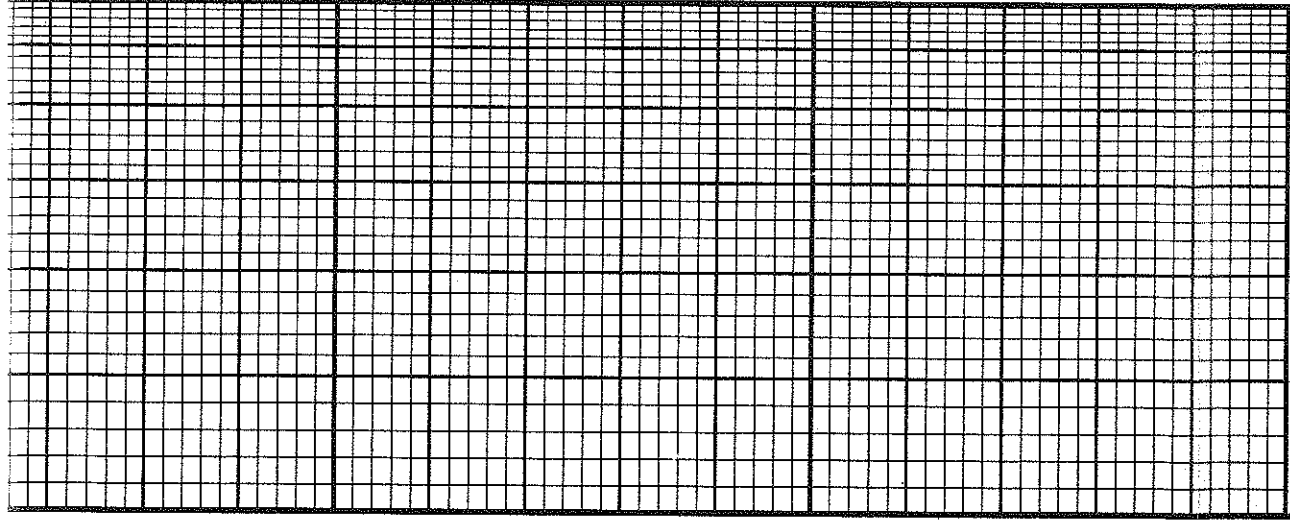
SIP: 43-35

HP: 1740-1674

1' Rec.

2' S.O.S.W

BHT: 105'



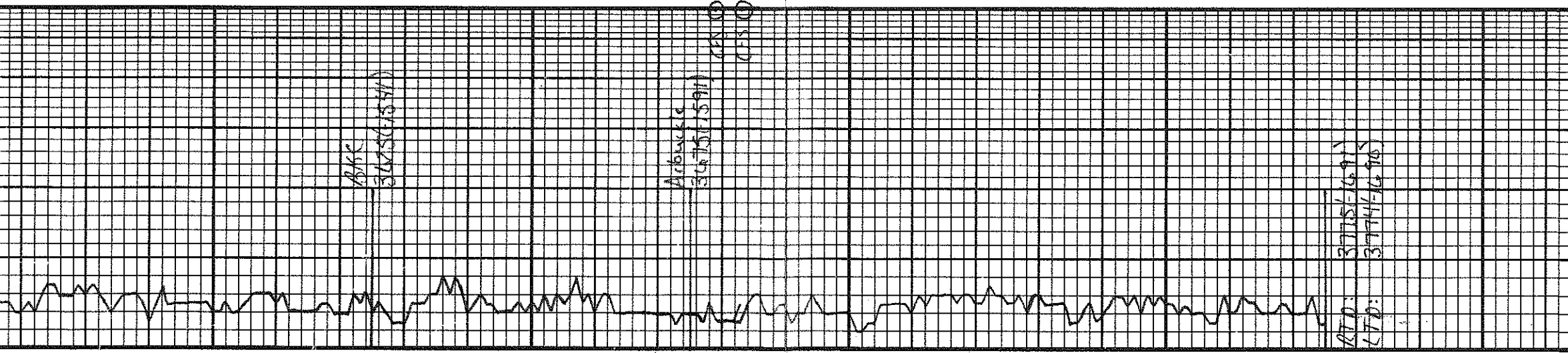
5" 10" 15" 20" 25"
 DRILLING TIME Minutes/Foot
 Rate of Penetration Decreases

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

OPERATOR D NOCI
 LEASE CHAS-MOR #1-13 IP _____
 ELEVATION 1084' KB RTD _____
 LOCATION 2120' ENL E 1265' FWL
 SEC 13 TWP 13S RNG 19W
 COUNTY ELLIS STATE KANSAS



ARK
3623(184)

Arkwick
3675(184)
3675(184)
3675(184)

RTD: 3775-1691
LTD: 3774-1695

LS: wht, ool, seat pr. ool, fite, oil filled, lt-fr. od.	LS: wht-tan, ool. No visor, white, als	LS: tan, ool. fr. ool, wh. smt wings, fr-gd sat str, fr sfo, fr od.	Sh: grey	LS: wht, fu. vfu xln, subsh- chkg. Seat pr str, NSFO, no od. Ting prx & chs.	Sh: grey wh. brn	LS: tan, fu. xln, prse	Sh: gg	LS: wht-tan, fu. wh. xln, prse & chs. fr. whk in prt, dirty wh. sh. string ess.	Sh: gg-brn	Dals: tan, fu. rhom xln, ool, in prt. fr. intake, some prse, slty fr-gd sat str, wh. gd sfo, fr od, frce oil on cap. Ting mostly steel chngd in xln & wh. seat prx & smt wings. wh. sat wh. gd sfo, fd od, frce oil on cap.	Dals: tan, fu. rhom xln, prse, AIA. Ting and rhom xln, prse, fite. fr. str, fr sfo, fr od.	Dals: tan-wht, wh. rhom xln, fr-gd intake, seat wings, fr-gd ool str, wh. gd sfo, gd od.	Dals: seat ex AIA, ting wh. crs rhom xln. pr intake, fite. fr. str, wh. gd sfo, fr od.	Sltly hng. fr-gd od. seat chkg. ex. tan ool chnta.	Dals: Mostly AIA, seat wings, subsh- chkg.	Dals: Md. crs rhom xln, wh. tan. Mostly barren, seat wing-fang str.	Some chkg. ex. fr od.	Dals: Mostly AIA, some pink wh. wht chnta.	Mostly barren, lt-fr od.			
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3600

50

3700

50

3800

DST # 6
3623-3684
45-45-45-45
I.F. - 1 1/4" blow
F.F. - 1 1/2" blow
IFF: 31-84
FFP: 34-45
SIP: 401-640
HP: 1802-1732
Rec:
15' 60 9570
55' 0CM 2810
BHT: 189 G=33

Arkwick



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Chas-Mar #1-13

13-13s-19w Ellis,KS

Start Date: 2012.11.14 @ 01:30:00

End Date: 2012.11.14 @ 07:33:30

Job Ticket #: 50796 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 09:05:05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50796

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 01:30:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:49:00

Time Test Ended: 07:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 4107.00 ft (KB) To 3150.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3150.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Inside

Press @ Run Depth: 45.51 psig @ 3108.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.14

End Date:

2012.11.14

Last Calib.: 2012.11.14

Start Time: 01:30:05

End Time:

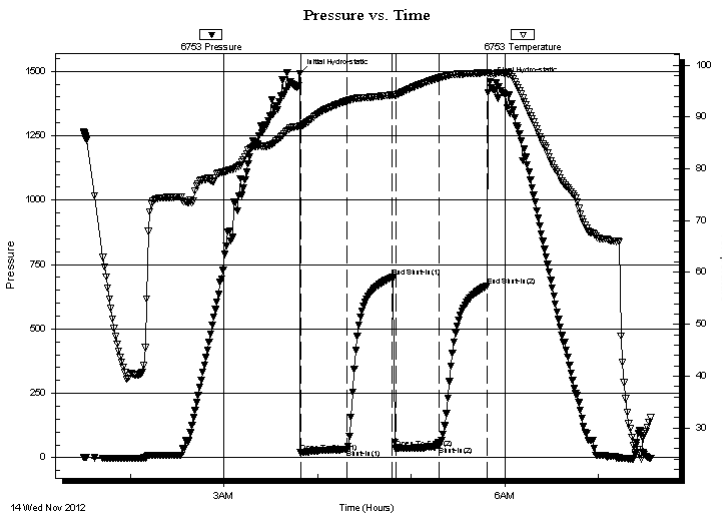
07:33:29

Time On Btm: 2012.11.14 @ 03:48:30

Time Off Btm: 2012.11.14 @ 05:50:30

TEST COMMENT: IF-Very weak surface blow
ISI-No blow
FF-Very weak surface blow died in 10 min
FSI-No blow

PRESSURE SUMMARY



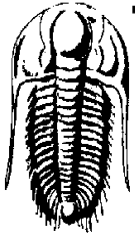
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1490.87	88.37	Initial Hydro-static
1	20.05	88.12	Open To Flow (1)
31	33.63	93.08	Shut-In(1)
60	700.16	94.23	End Shut-In(1)
62	35.43	94.20	Open To Flow (2)
90	45.51	97.55	Shut-In(2)
120	666.50	98.59	End Shut-In(2)
122	1460.67	98.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Oil spotted WCM 40%W 60%M	0.43

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50796

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 01:30:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:49:00

Time Test Ended: 07:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 4107.00 ft (KB) To 3150.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3150.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8166

Outside

Press @ RunDepth: psig @ 3108.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.14 End Date: 2012.11.14

Last Calib.: 2012.11.14

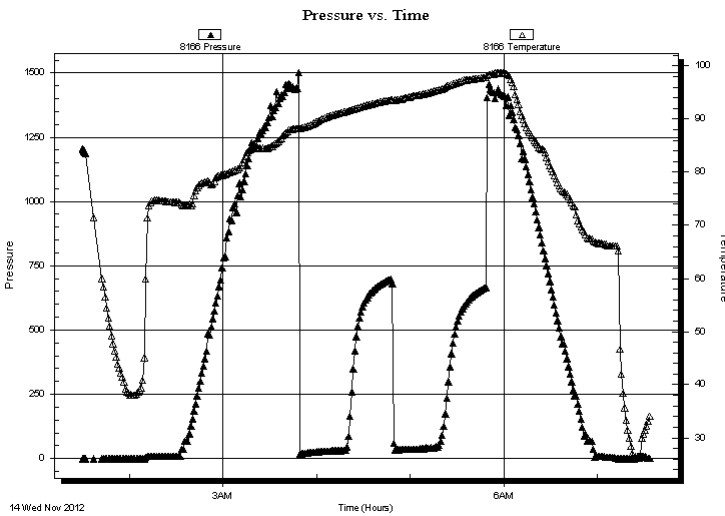
Start Time: 01:30:05 End Time: 07:33:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-Very weak surface blow
IS-No blow
FF-Very weak surface blow died in 10 min
FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Oil spotted WCM 40%W 60%M	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50796

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 01:30:00

Tool Information

Drill Pipe:	Length: 3074.00 ft	Diameter: 3.80 inches	Volume: 43.12 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3107.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3087.00	
Shut In Tool	5.00			3092.00	
Hydraulic tool	5.00			3097.00	
Packer	5.00			3102.00	21.00 Bottom Of Top Packer
Packer	5.00			3107.00	
Stubb	1.00			3108.00	
Recorder	0.00	6753	Inside	3108.00	
Recorder	0.00	8166	Outside	3108.00	
Perforations	5.00			3113.00	
Change Over Sub	1.00			3114.00	
Drill Pipe	32.00			3146.00	
Change Over Sub	1.00			3147.00	
Bullnose	3.00			3150.00	43.00 Bottom Packers & Anchor

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50796

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 01:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: sec/qt

Cushion Volume:

bbf

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
50.00	Oil spotted WCM 40%W 60%M	0.428

Total Length: 50.00 ft Total Volume: 0.428 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6753

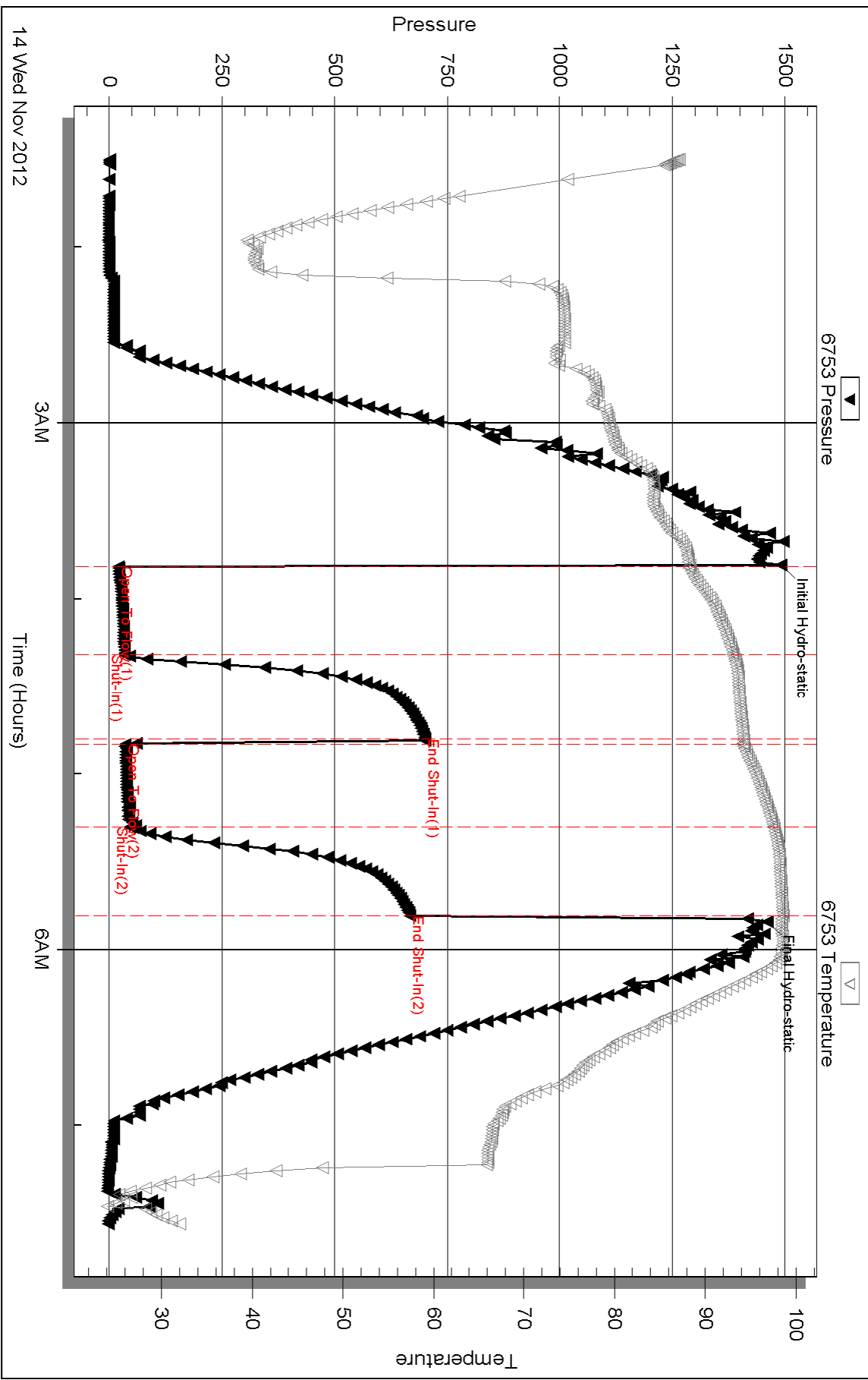
Inside

Dow nung-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50796

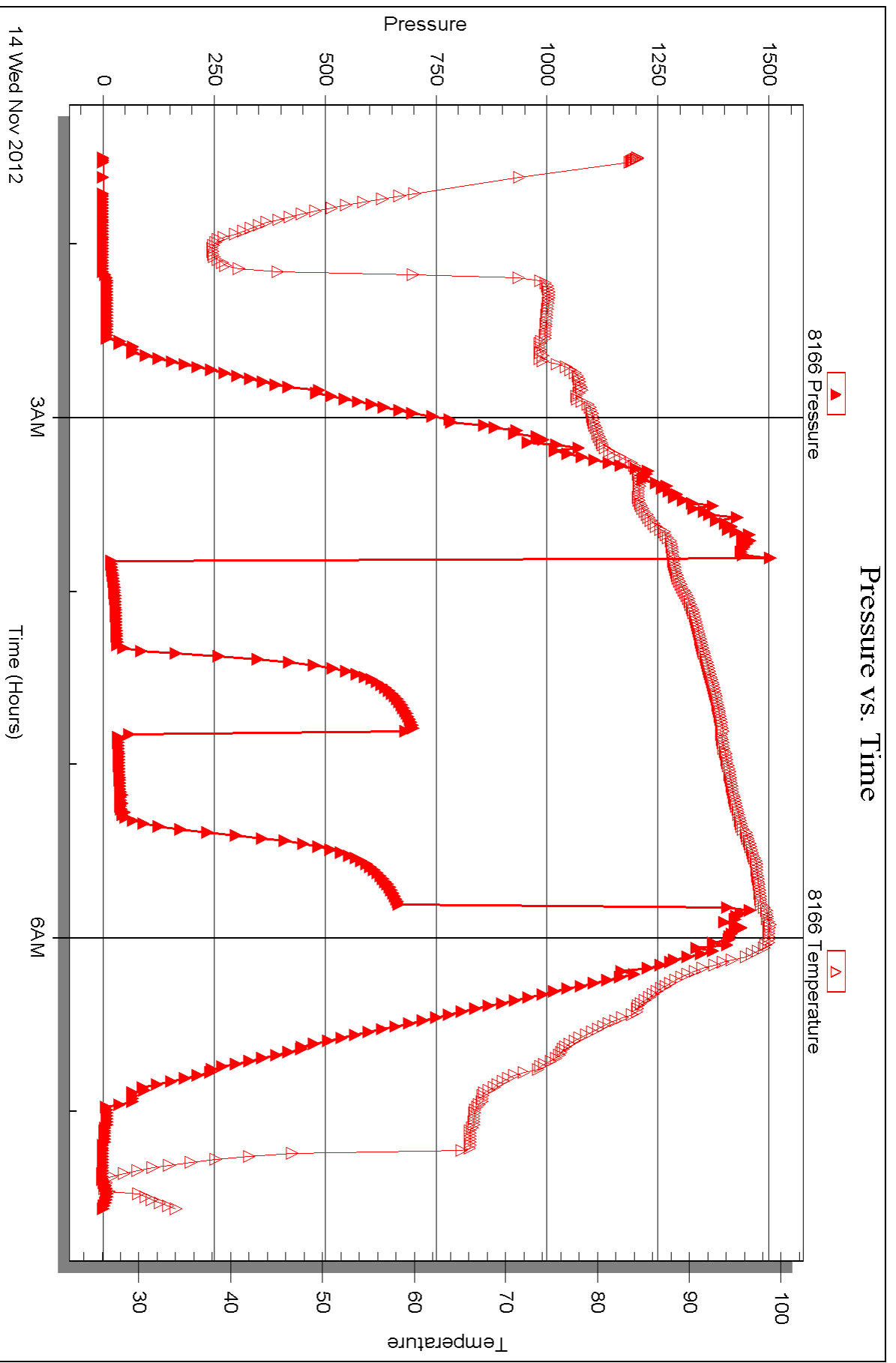
Printed: 2012.11.23 @ 09:05:09

Serial #: 8166

Outside Dow nmg-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Chas-Mar #1-13

13-13s-19w Ellis,KS

Start Date: 2012.11.14 @ 22:55:00

End Date: 2012.11.15 @ 05:39:00

Job Ticket #: 50797 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 09:04:15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50797

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 22:55:00

GENERAL INFORMATION:

Formation: **Toronto-KC"A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:57:30

Time Test Ended: 05:39:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3320.00 ft (KB) To 3381.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3381.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 24.51 psig @ 3321.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.14

End Date:

2012.11.15

Last Calib.: 2012.11.15

Start Time: 22:55:05

End Time:

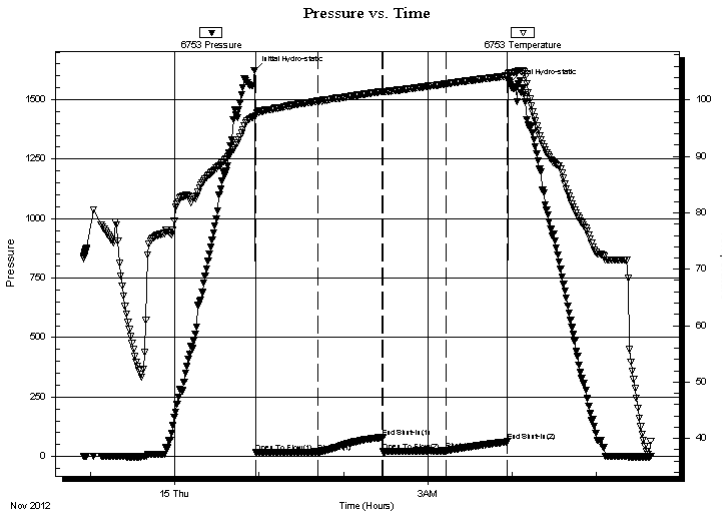
05:38:59

Time On Btm: 2012.11.15 @ 00:56:30

Time Off Btm: 2012.11.15 @ 03:58:00

TEST COMMENT: IF-1 1/4" blow
ISI-No blow
FF-Very weak surface blow
FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1622.81	97.06	Initial Hydro-static
1	16.36	97.23	Open To Flow (1)
46	19.04	99.71	Shut-In(1)
91	79.49	101.49	End Shut-In(1)
92	20.20	101.50	Open To Flow (2)
137	24.51	102.86	Shut-In(2)
180	61.74	104.24	End Shut-In(2)
182	1569.05	104.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50797

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 22:55:00

GENERAL INFORMATION:

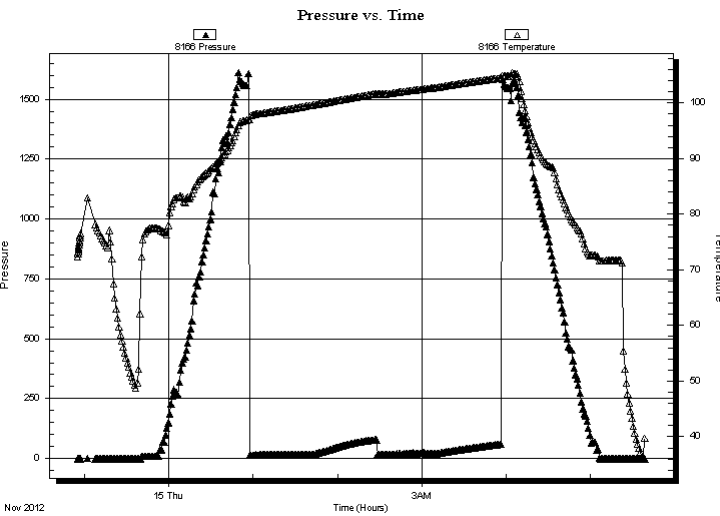
Formation: **Toronto-KC"A"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 00:57:30
 Tester: Brett Dickinson
 Time Test Ended: 05:39:00
 Unit No: 59
Interval: 3320.00 ft (KB) To 3381.00 ft (KB) (TVD)
 Reference Elevations: 2082.00 ft (KB)
 Total Depth: 3381.00 ft (KB) (TVD)
 2074.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 8166

Outside

Press @ RunDepth:	psig @	3321.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2012.11.14	End Date:	2012.11.15	Last Calib.:	2012.11.15
Start Time:	22:55:05	End Time:	05:38:59	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF-1 1/4" blow
 IS- No blow
 FF- Very weak surface blow
 FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50797

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 22:55:00

Tool Information

Drill Pipe:	Length: 3294.00 ft	Diameter: 3.80 inches	Volume: 46.21 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3320.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	61.00 ft				
Tool Length:	82.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3300.00	
Shut In Tool	5.00			3305.00	
Hydraulic tool	5.00			3310.00	
Packer	5.00			3315.00	21.00 Bottom Of Top Packer
Packer	5.00			3320.00	
Stubb	1.00			3321.00	
Recorder	0.00	6753	Inside	3321.00	
Recorder	0.00	8166	Outside	3321.00	
Perforations	23.00			3344.00	
Change Over Sub	1.00			3345.00	
Drill Pipe	32.00			3377.00	
Change Over Sub	1.00			3378.00	
Bullnose	3.00			3381.00	61.00 Bottom Packers & Anchor

Total Tool Length: 82.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50797

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.11.14 @ 22:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

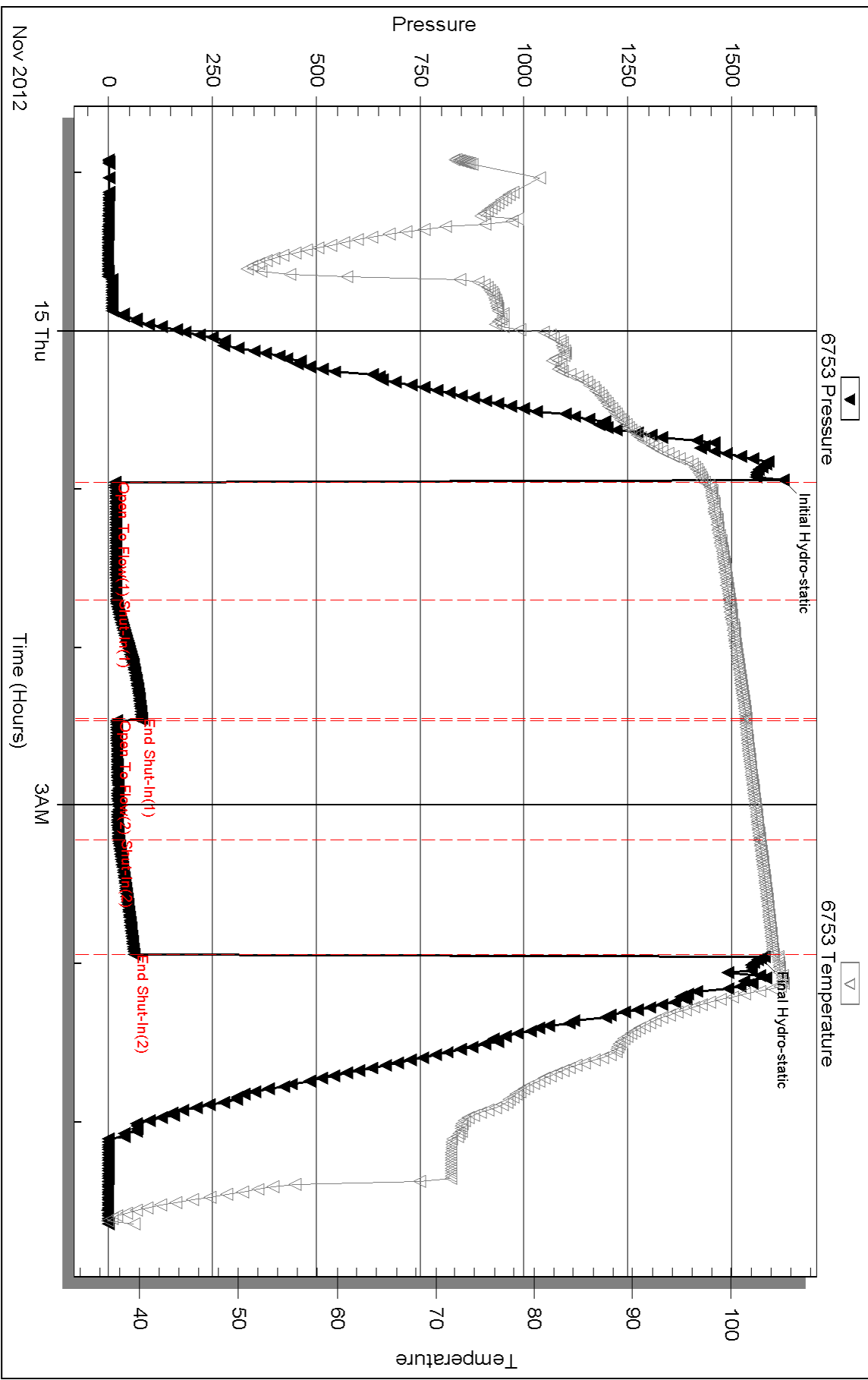
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

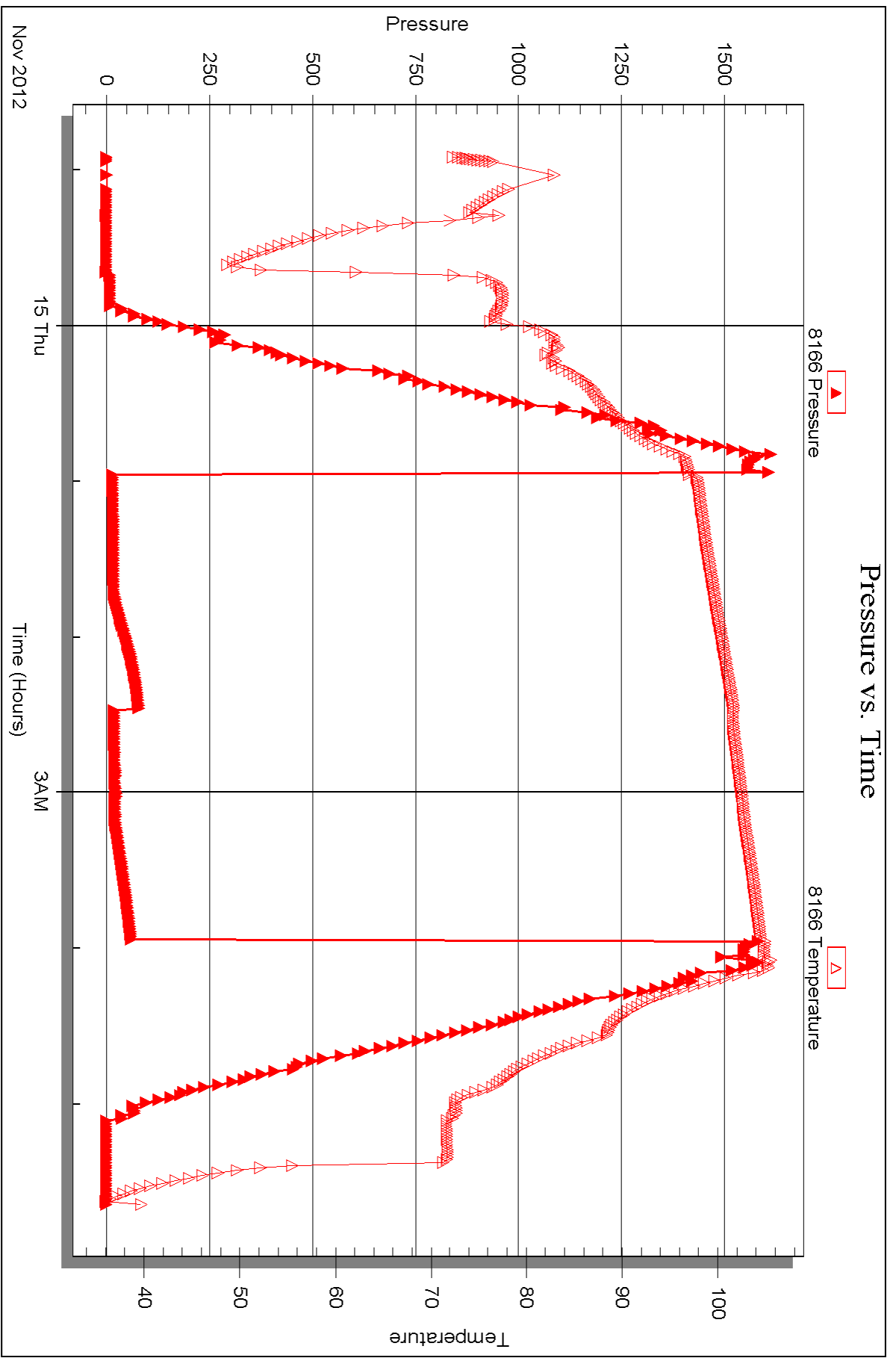


Serial #: 8166

Outside Dow nging-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 50797

Printed: 2012.11.23 @ 09:04:20



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Chas-Mar #1-13

13-13s-19w Ellis,KS

Start Date: 2012.11.15 @ 13:10:00

End Date: 2012.11.15 @ 20:27:00

Job Ticket #: 50798 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 09:03:32



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50798

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.11.15 @ 13:10:00

GENERAL INFORMATION:

Formation: **KC"C,D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:16:30

Time Test Ended: 20:27:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3386.00 ft (KB) To 3432.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3432.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 785.38 psig @ 3387.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.15

End Date: 2012.11.15

Last Calib.: 2012.11.15

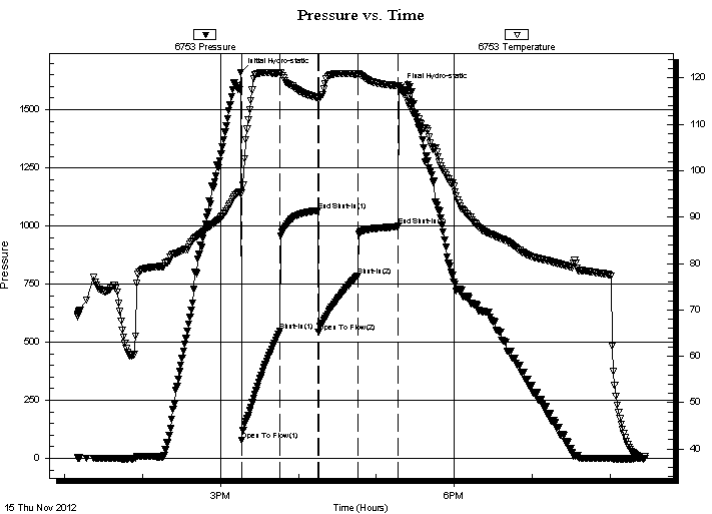
Start Time: 13:10:05

End Time: 20:26:59

Time On Btm: 2012.11.15 @ 15:15:30

Time Off Btm: 2012.11.15 @ 17:18:30

TEST COMMENT: IF-BOB in 2 min
ISI-No blow
FF-BOB Immediately
FSI-BOB in 18 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1660.75	95.51	Initial Hydro-static
1	78.42	95.17	Open To Flow (1)
30	547.84	121.16	Shut-In(1)
60	1065.20	115.74	End Shut-In(1)
60	544.29	115.49	Open To Flow (2)
90	785.38	120.87	Shut-In(2)
121	998.88	118.36	End Shut-In(2)
123	1595.47	117.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
430.00	water	5.76
340.00	GOCW 10%G 20%O 70%W	4.77
245.00	GSOCW 10%G 5%O 85%W	3.44
185.00	GSOCW 40%G 10%O 50%W	2.60
310.00	GSMOCW 30%G 5%M 20%O 45%W	4.35
40.00	GO 40%G 60%O	0.56

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.
 PO Box 1019
 Hays KS 67601
 ATTN: Ron Nelson

13-13s-19w Ellis, KS
Chas-Mar #1-13
 Job Ticket: 50798 **DST#: 3**
 Test Start: 2012.11.15 @ 13:10:00

GENERAL INFORMATION:

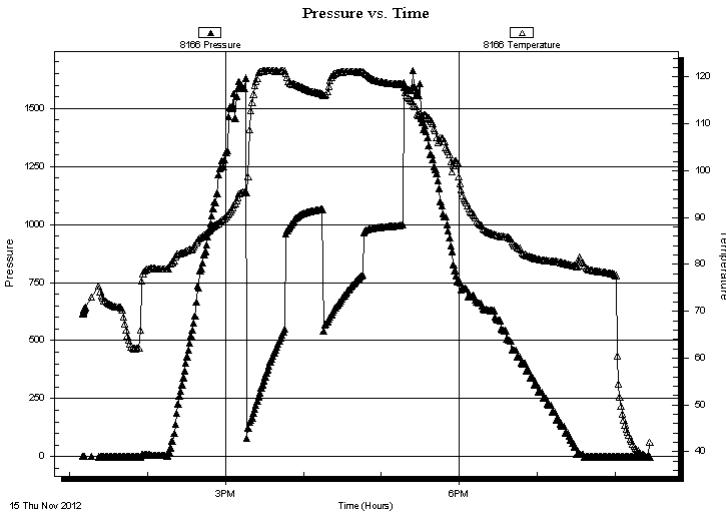
Formation: **KC"C,D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:16:30
 Time Test Ended: 20:27:00
Interval: 3386.00 ft (KB) To 3432.00 ft (KB) (TVD)
 Total Depth: 3432.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2082.00 ft (KB)
 2074.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ Run Depth: psig @ 3387.00 ft (KB)
 Start Date: 2012.11.15 End Date: 2012.11.15
 Start Time: 13:10:05 End Time: 20:26:59
 Capacity: 8000.00 psig
 Last Calib.: 2012.11.15
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-BOB in 2 min
 IS- No blow
 FF-BOB Immediately
 FS-BOB in 18 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
430.00	water	5.76
340.00	GOCW 10%G 20%O 70%W	4.77
245.00	GSOCW 10%G 5%O 85%W	3.44
185.00	GSOCW 40%G 10%O 50%W	2.60
310.00	GSMOCW 30%G 5%M 20%O 45%W	4.35
40.00	GO 40%G 60%O	0.56

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50798

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.11.15 @ 13:10:00

Tool Information

Drill Pipe:	Length: 3358.00 ft	Diameter: 3.80 inches	Volume: 47.10 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3386.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	46.00 ft				
Tool Length:	67.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3366.00	
Shut In Tool	5.00			3371.00	
Hydraulic tool	5.00			3376.00	
Packer	5.00			3381.00	21.00 Bottom Of Top Packer
Packer	5.00			3386.00	
Stubb	1.00			3387.00	
Recorder	0.00	6753	Inside	3387.00	
Recorder	0.00	8166	Outside	3387.00	
Perforations	5.00			3392.00	
Change Over Sub	1.00			3393.00	
Drill Pipe	32.00			3425.00	
Change Over Sub	1.00			3426.00	
Perforations	3.00			3429.00	
Bullnose	3.00			3432.00	46.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50798

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.11.15 @ 13:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: lb/gal

Cushion Length:

ft

Water Salinity:

130000 ppm

Viscosity: sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
430.00	water	5.758
340.00	GOCW 10%G 20%O 70%W	4.769
245.00	GSOCW 10%G 5%O 85%W	3.437
185.00	GSOCW 40%G 10%O 50%W	2.595
310.00	GSMOCW 30%G 5%M 20%O 45%W	4.348
40.00	GO 40%G 60%O	0.561
0.00	440ft GIP	0.000

Total Length: 1550.00 ft

Total Volume: 21.468 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

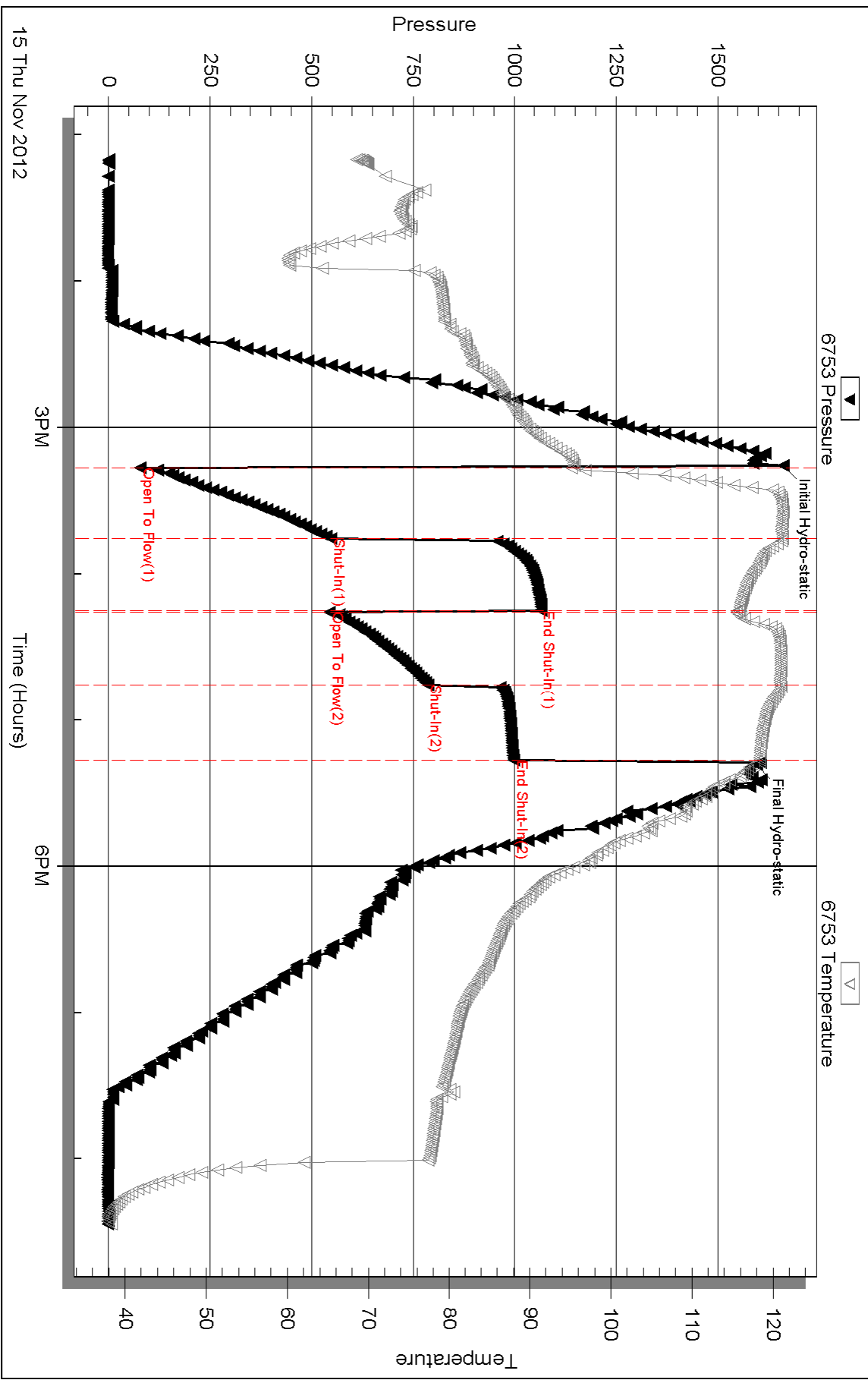
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

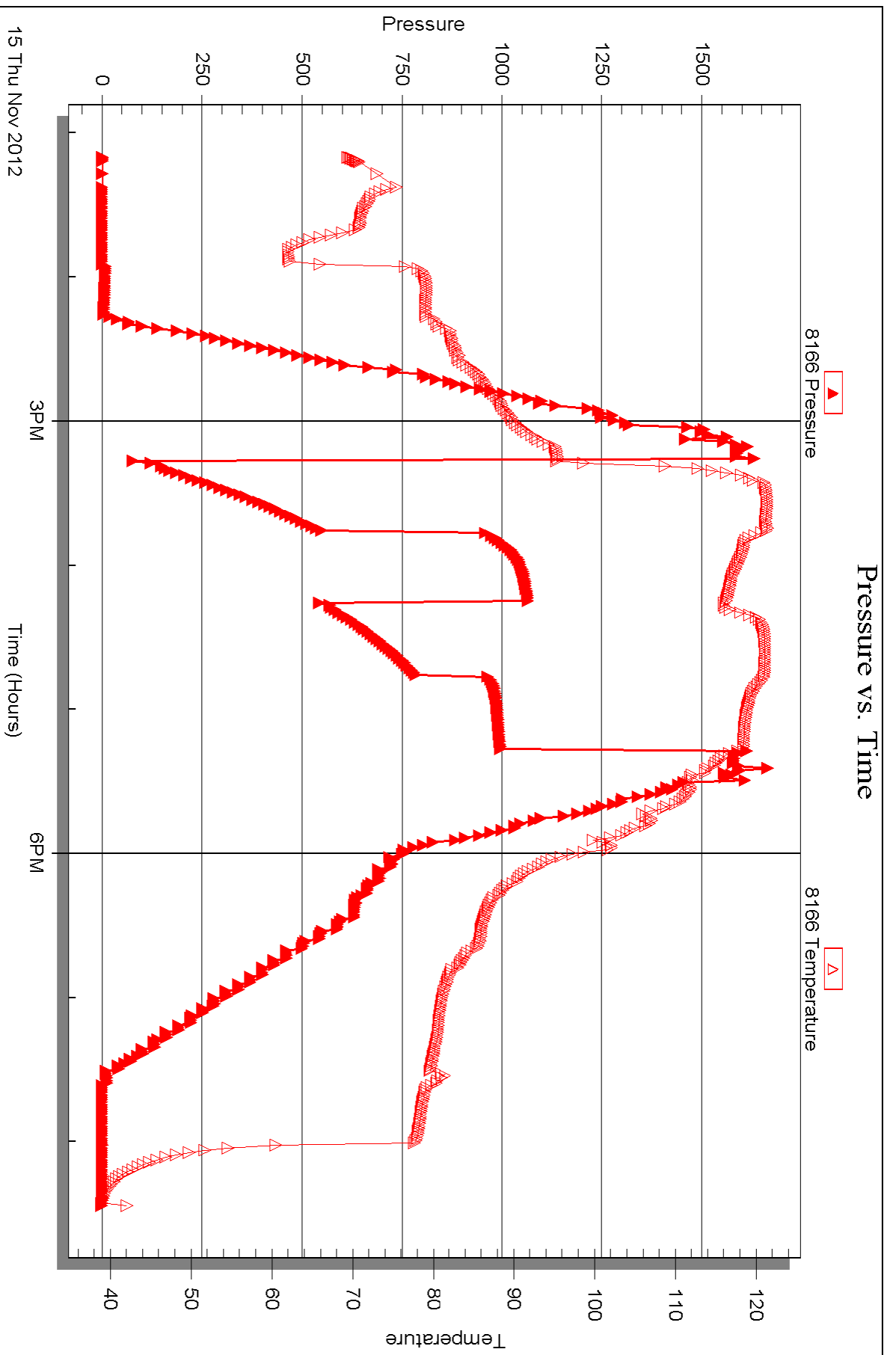


Serial #: 8166

Outside Dow n/g-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 50798

Printed: 2012.11.23 @ 09:03:37



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Chas-Mar #1-13

13-13s-19w Ellis,KS

Start Date: 2012.11.16 @ 02:20:00

End Date: 2012.11.16 @ 09:37:30

Job Ticket #: 50799 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 09:02:31



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50799

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 02:20:00

GENERAL INFORMATION:

Formation: **KC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:27:30
 Time Test Ended: 09:37:30
 Interval: **3426.00 ft (KB) To 3444.00 ft (KB) (TVD)**
 Total Depth: 3444.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2082.00 ft (KB)
 2074.00 ft (CF)
 KB to GR/CF: 8.00 ft

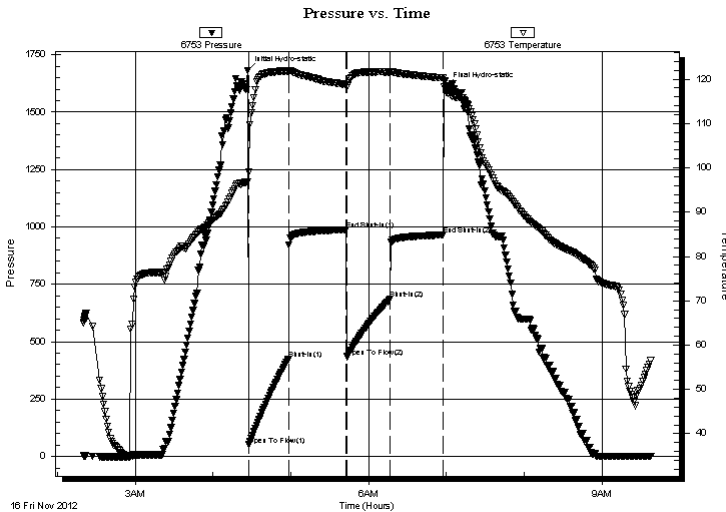
Serial #: 6753

Inside

Press @ Run Depth: 685.27 psig @ 3427.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.16 End Date: 2012.11.16 Last Calib.: 2012.11.16
 Start Time: 02:20:05 End Time: 09:37:29 Time On Btm: 2012.11.16 @ 04:26:30
 Time Off Btm: 2012.11.16 @ 07:00:00

TEST COMMENT: IF-BOB in 2 1/2 min
 IS- No blow
 FF-BOB in 3 1/2 min
 FS- 1/2" blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1681.77	96.82	Initial Hydro-static
1	50.65	98.98	Open To Flow (1)
32	424.40	121.82	Shut-In(1)
76	988.32	118.81	End Shut-In(1)
77	434.37	118.47	Open To Flow (2)
110	685.27	121.60	Shut-In(2)
151	965.16	120.26	End Shut-In(2)
154	1609.56	117.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
435.00	Water	5.83
794.00	VSOCW 2%O 98%W	11.14
1.00	Free Oil	0.01

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50799

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 02:20:00

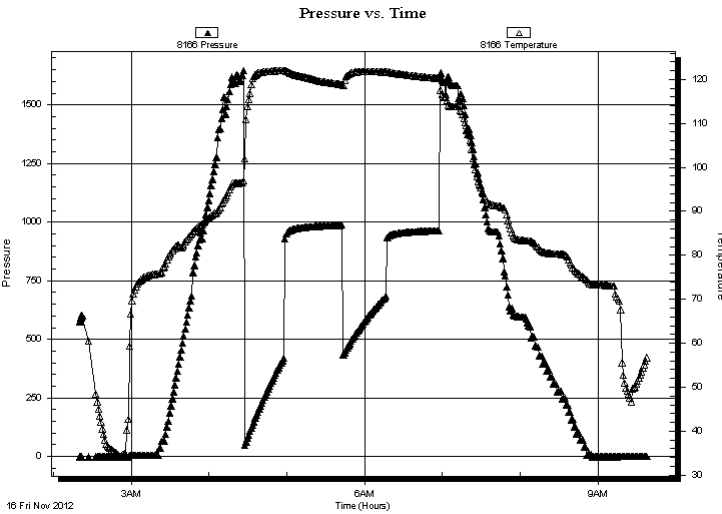
GENERAL INFORMATION:

Formation: **KC**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 04:27:30 Tester: Brett Dickinson
 Time Test Ended: 09:37:30 Unit No: 59
 Interval: **3426.00 ft (KB) To 3444.00 ft (KB) (TVD)** Reference Elevations: 2082.00 ft (KB)
 Total Depth: 3444.00 ft (KB) (TVD) 2074.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press@RunDepth: psig @ 3427.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.16 End Date: 2012.11.16 Last Calib.: 2012.11.16
 Start Time: 02:20:05 End Time: 09:37:29 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-BOB in 2 1/2 min
 IS- No blow
 FF-BOB in 3 1/2 min
 FS-1/2" blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
435.00	Water	5.83
794.00	VSOCW 2%O 98%W	11.14
1.00	Free Oil	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50799

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 02:20:00

Tool Information

Drill Pipe:	Length: 3391.00 ft	Diameter: 3.80 inches	Volume: 47.57 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	16.00 ft			Final	58000.00 lb
Depth to Top Packer:	3426.00 ft				
Depth to Bottom Packer:	ft				
Interval betw een Packers:	18.00 ft				
Tool Length:	39.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3406.00	
Shut In Tool	5.00			3411.00	
Hydraulic tool	5.00			3416.00	
Packer	5.00			3421.00	21.00 Bottom Of Top Packer
Packer	5.00			3426.00	
Stubb	1.00			3427.00	
Recorder	0.00	6753	Inside	3427.00	
Recorder	0.00	8166	Outside	3427.00	
Perforations	14.00			3441.00	
Bullnose	3.00			3444.00	18.00 Bottom Packers & Anchor
Total Tool Length:	39.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50799

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 02:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
435.00	Water	5.829
794.00	VSOCW 2%O 98%W	11.138
1.00	Free Oil	0.014

Total Length: 1230.00 ft Total Volume: 16.981 bbl

Num Fluid Samples: 0

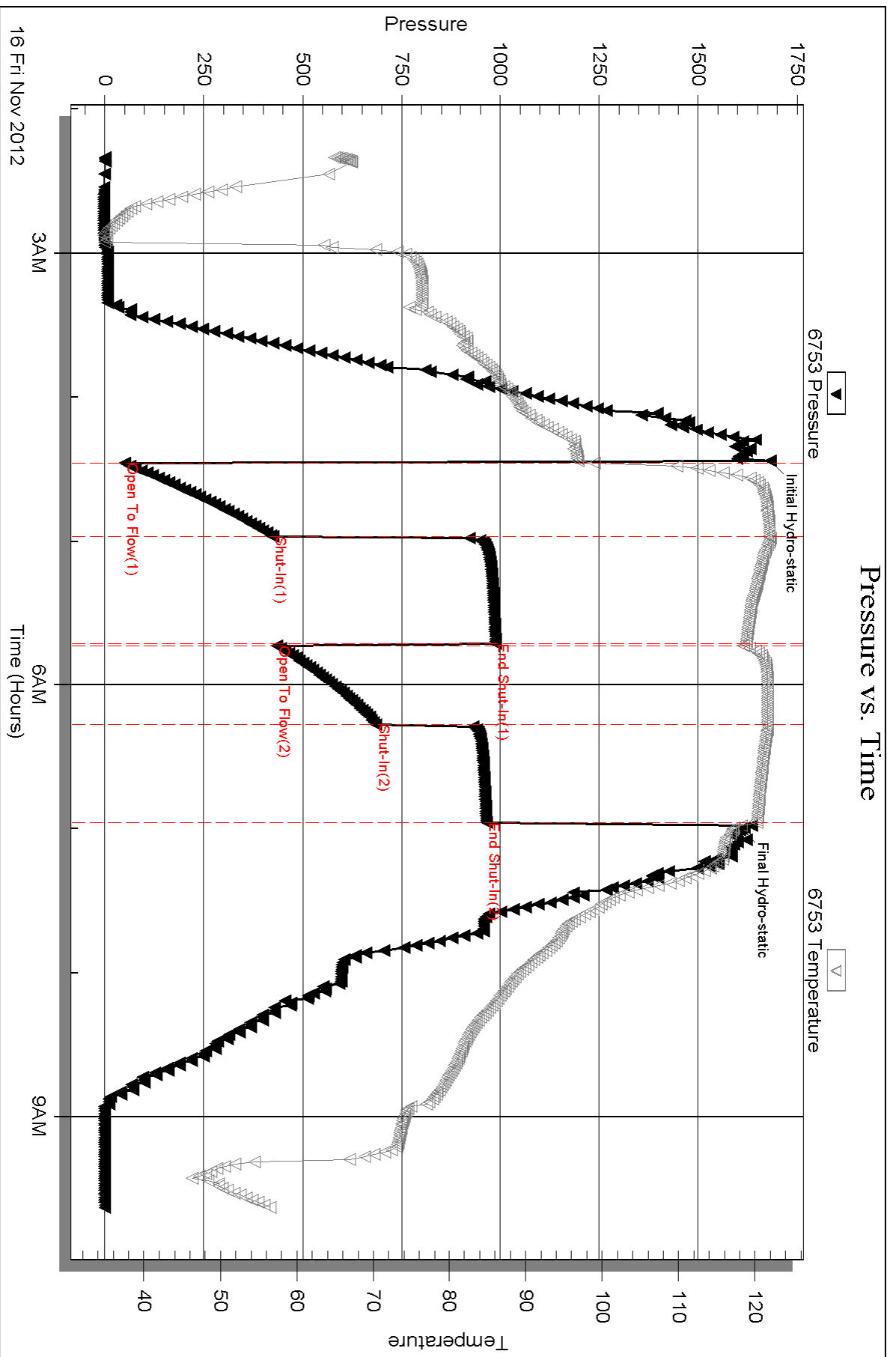
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



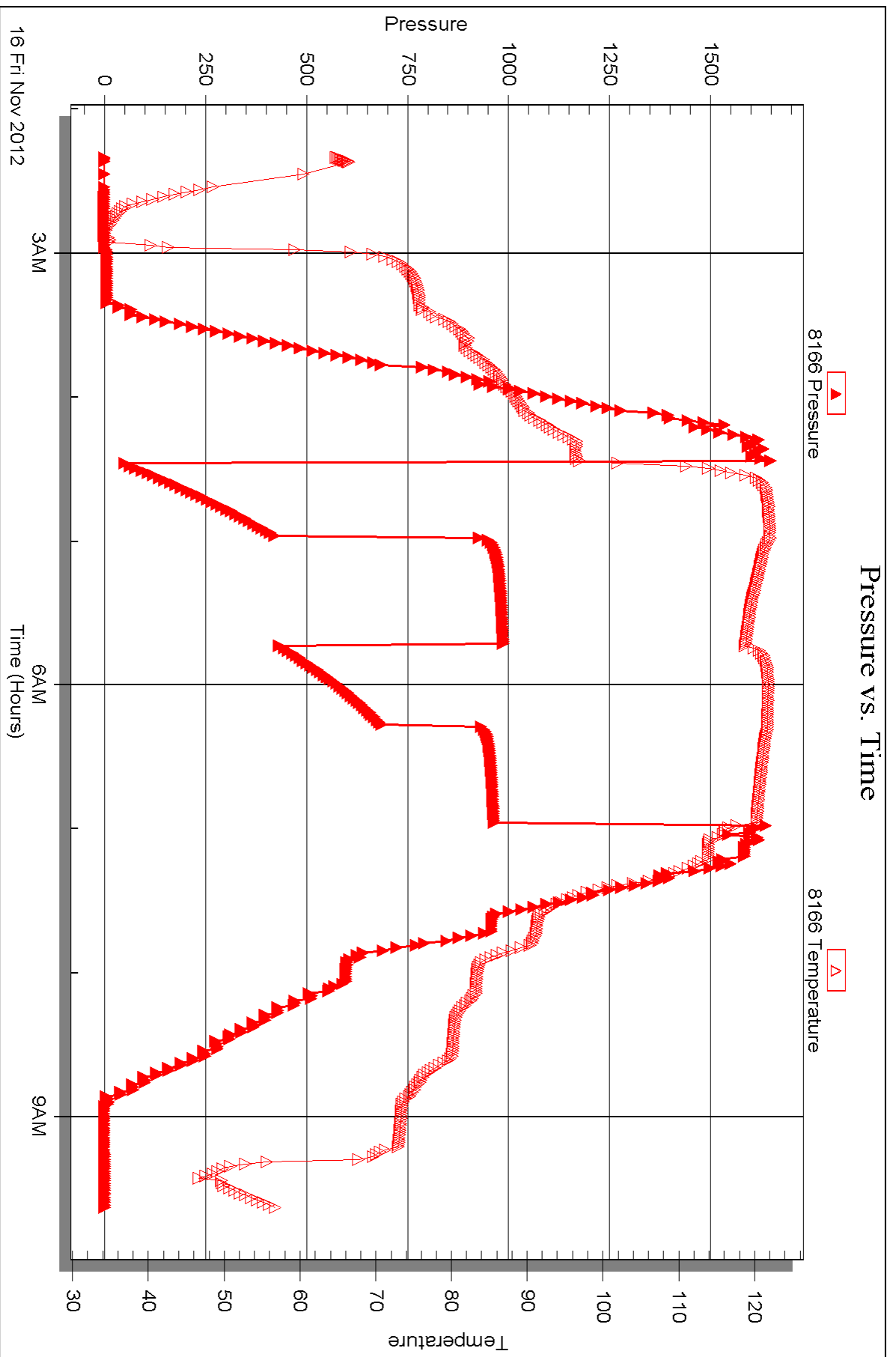
Serial #: 8166

Outside

Dow nting-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Chas-Mar #1-13

13-13s-19w Ellis,KS

Start Date: 2012.11.16 @ 19:40:00

End Date: 2012.11.17 @ 01:04:00

Job Ticket #: 50800 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 09:01:49

Downing-Nelson Oil Co. 13-13s-19w Ellis,KS Chas-Mar #1-13 DST # 5 KC"J" 2012.11.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50800

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 19:40:00

GENERAL INFORMATION:

Formation: **KC"J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:23:00

Time Test Ended: 01:04:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3536.00 ft (KB) To 3555.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3555.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ RunDepth: 26.99 psig @ 3537.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.16

End Date:

2012.11.17

Last Calib.: 2012.11.17

Start Time: 19:40:05

End Time:

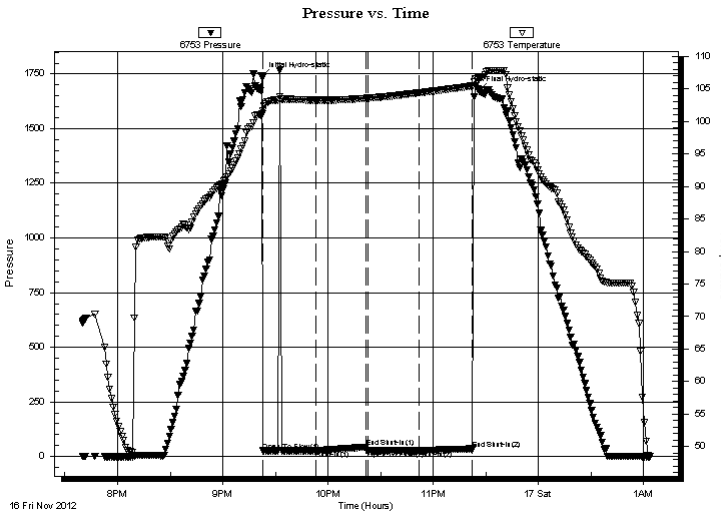
01:03:59

Time On Btm: 2012.11.16 @ 21:22:00

Time Off Btm: 2012.11.16 @ 23:26:00

TEST COMMENT: IF-1 1/2" blow
ISI-No Blow
FF-Very weak surface blow
FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1740.34	101.04	Initial Hydro-static
1	26.15	101.60	Open To Flow (1)
31	26.31	103.28	Shut-In(1)
60	43.37	103.57	End Shut-In(1)
61	27.30	103.59	Open To Flow (2)
90	26.99	104.40	Shut-In(2)
121	35.28	105.46	End Shut-In(2)
124	1676.29	106.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Oil spotted mud	0.10

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50800 **DST#: 5**

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 19:40:00

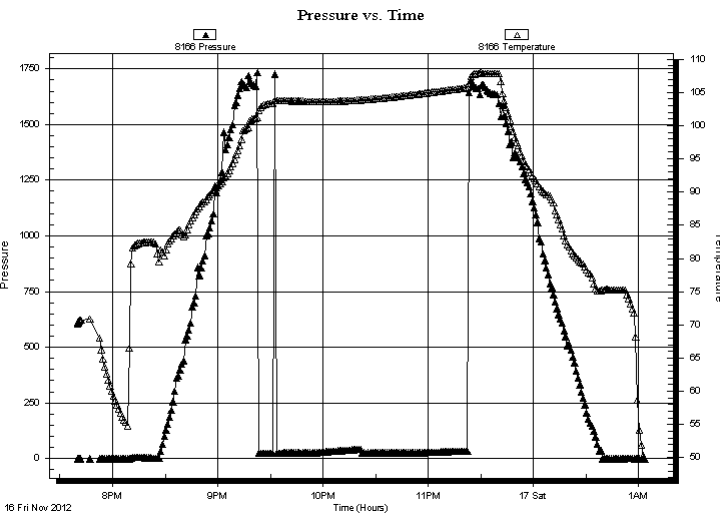
GENERAL INFORMATION:

Formation: **KC"J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:23:00
 Time Test Ended: 01:04:00
 Interval: **3536.00 ft (KB) To 3555.00 ft (KB) (TVD)**
 Total Depth: 3555.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2082.00 ft (KB)
 2074.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ RunDepth: psig @ 3537.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.16 End Date: 2012.11.17 Last Calib.: 2012.11.17
 Start Time: 19:40:05 End Time: 01:03:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-1 1/2" blow
 IS-No Blow
 FF-Very weak surface blow
 FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Oil spotted mud	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50800

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 19:40:00

Tool Information

Drill Pipe:	Length: 3515.00 ft	Diameter: 3.80 inches	Volume: 49.31 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	2.00 ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	30.00 ft			Final	50000.00 lb
Depth to Top Packer:	3536.00 ft				
Depth to Bottom Packer:	ft				
Interval betw een Packers:	19.00 ft				
Tool Length:	40.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3516.00	
Shut In Tool	5.00			3521.00	
Hydraulic tool	5.00			3526.00	
Packer	5.00			3531.00	21.00 Bottom Of Top Packer
Packer	5.00			3536.00	
Stubb	1.00			3537.00	
Recorder	0.00	6753	Inside	3537.00	
Recorder	0.00	8166	Outside	3537.00	
Perforations	15.00			3552.00	
Bullnose	3.00			3555.00	19.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 50800

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.11.16 @ 19:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 48.00 sec/qt

Cushion Volume: bbl

Water Loss: 10.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 11000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Oil spotted mud	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

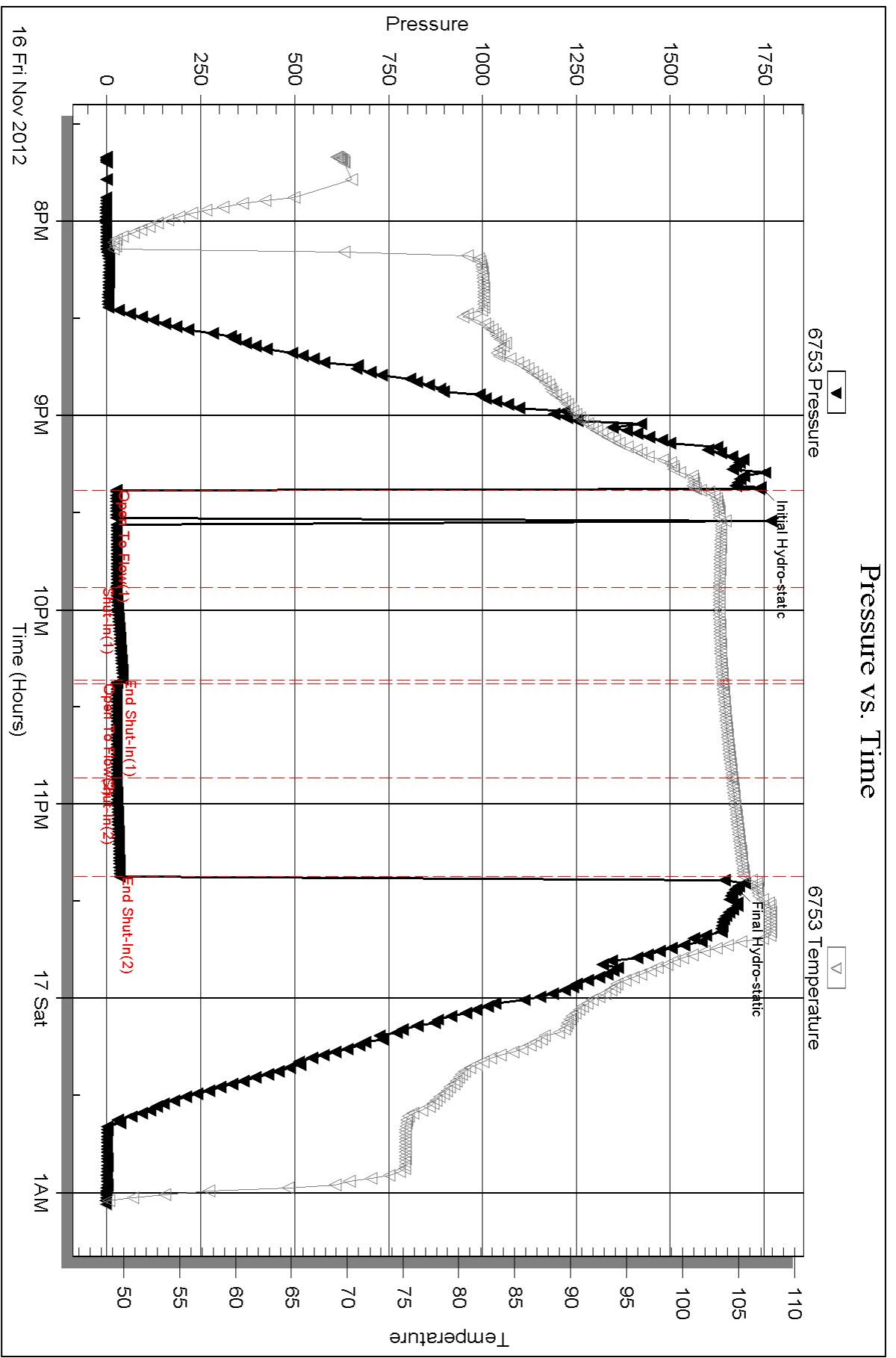
Serial #: 6753

Inside

Dow nung-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 5

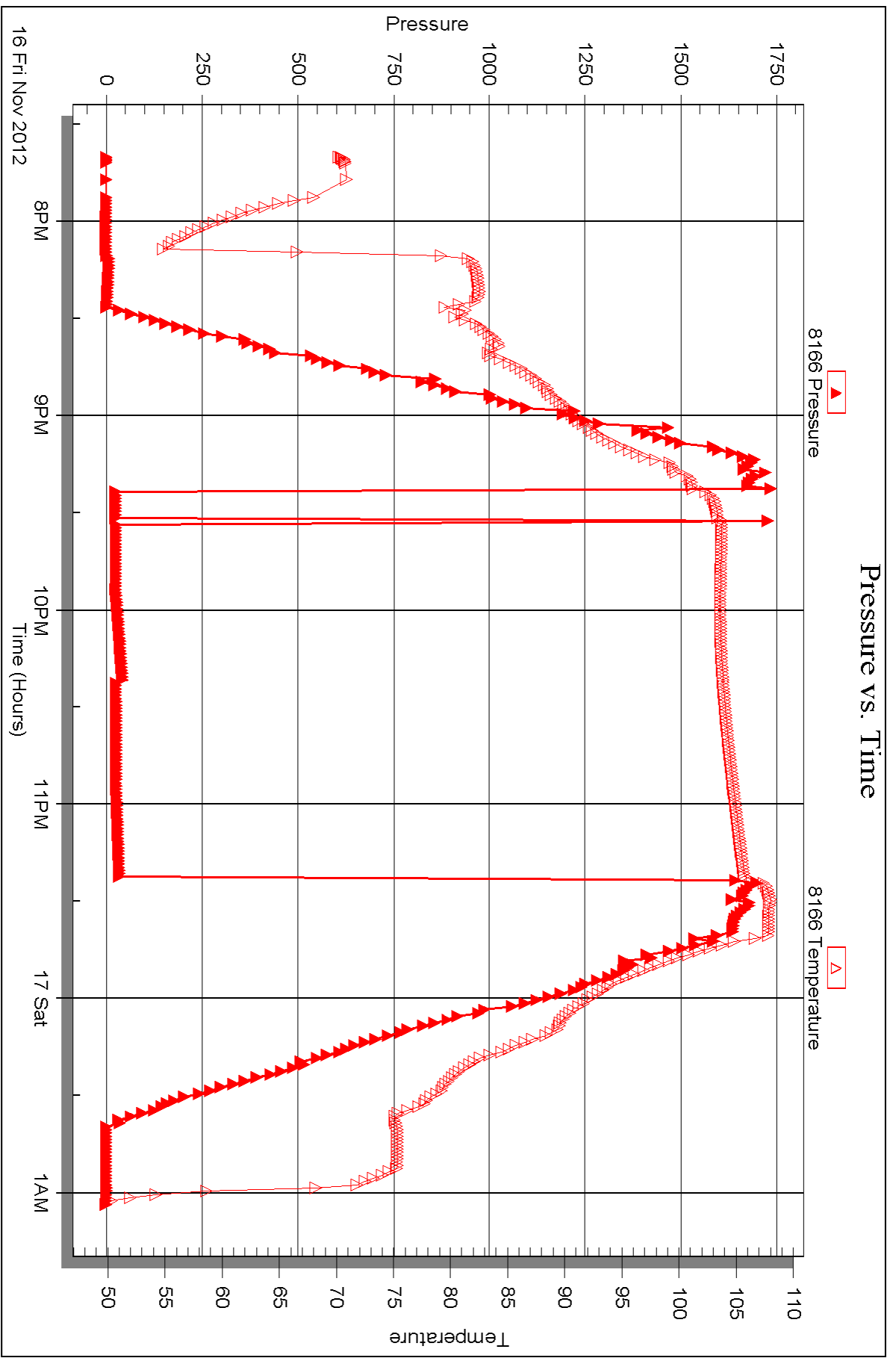


Serial #: 8166

Outside Dow n/ing-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Chas-Mar #1-13

13-13s-19w Ellis,KS

Start Date: 2012.11.17 @ 13:30:00

End Date: 2012.11.17 @ 20:23:00

Job Ticket #: 51227 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.23 @ 09:01:05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 51227

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.11.17 @ 13:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:29:30

Time Test Ended: 20:23:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3623.00 ft (KB) To 3684.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3684.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 45.22 psig @ 3624.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.17

End Date:

2012.11.17

Last Calib.: 2012.11.17

Start Time: 13:30:05

End Time:

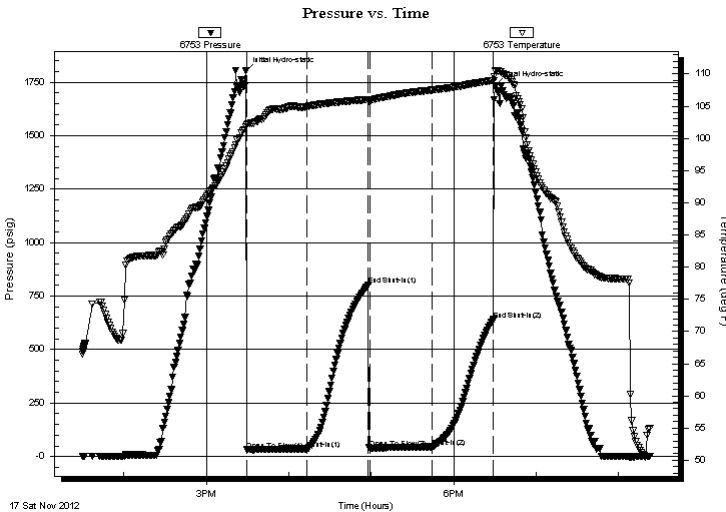
20:22:59

Time On Btm: 2012.11.17 @ 15:28:30

Time Off Btm: 2012.11.17 @ 18:30:30

TEST COMMENT: IF-1 1/4" blow
IS-No blow
FF-1 1/2" blow
FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1802.19	101.82	Initial Hydro-static
1	31.10	102.05	Open To Flow (1)
45	36.05	104.96	Shut-In(1)
90	800.58	106.02	End Shut-In(1)
91	38.50	105.82	Open To Flow (2)
136	45.22	107.50	Shut-In(2)
181	640.08	108.99	End Shut-In(2)
182	1732.30	110.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	SOCM 20%O 80%M	0.50
15.00	SGO 5%G 95%O	0.21

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 51227

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.11.17 @ 13:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:29:30

Time Test Ended: 20:23:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3623.00 ft (KB) To 3684.00 ft (KB) (TVD)

Reference Elevations: 2082.00 ft (KB)

Total Depth: 3684.00 ft (KB) (TVD)

2074.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8166 Outside

Press @ Run Depth: psig @ 3624.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.17

End Date: 2012.11.17

Last Calib.: 2012.11.17

Start Time: 13:30:05

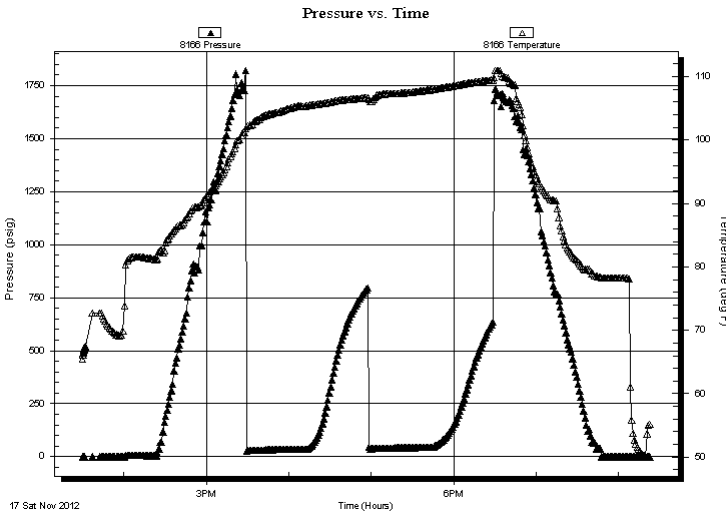
End Time: 20:22:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-1 1/4" blow
IS- No blow
FF-1 1/2" blow
FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
55.00	SOCM 20%O 80%M	0.50
15.00	SGO 5%G 95%O	0.21

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 51227

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.11.17 @ 13:30:00

Tool Information

Drill Pipe:	Length: 3582.00 ft	Diameter: 3.80 inches	Volume: 50.25 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3623.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3603.00	
Shut In Tool	5.00			3608.00	
Hydraulic tool	5.00			3613.00	
Packer	5.00			3618.00	21.00 Bottom Of Top Packer
Packer	5.00			3623.00	
Stubb	1.00			3624.00	
Recorder	0.00	6753	Inside	3624.00	
Recorder	0.00	8166	Outside	3624.00	
Perforations	23.00			3647.00	
Change Over Sub	1.00			3648.00	
Drill Pipe	32.00			3680.00	
Change Over Sub	1.00			3681.00	
Bullnose	3.00			3684.00	61.00 Bottom Packers & Anchor

Total Tool Length: 82.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.

13-13s-19w Ellis,KS

PO Box 1019
Hays KS 67601

Chas-Mar #1-13

Job Ticket: 51227

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.11.17 @ 13:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
55.00	SOCM 20%O 80%M	0.498
15.00	SGO 5%G 95%O	0.210

Total Length: 70.00 ft Total Volume: 0.708 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6753

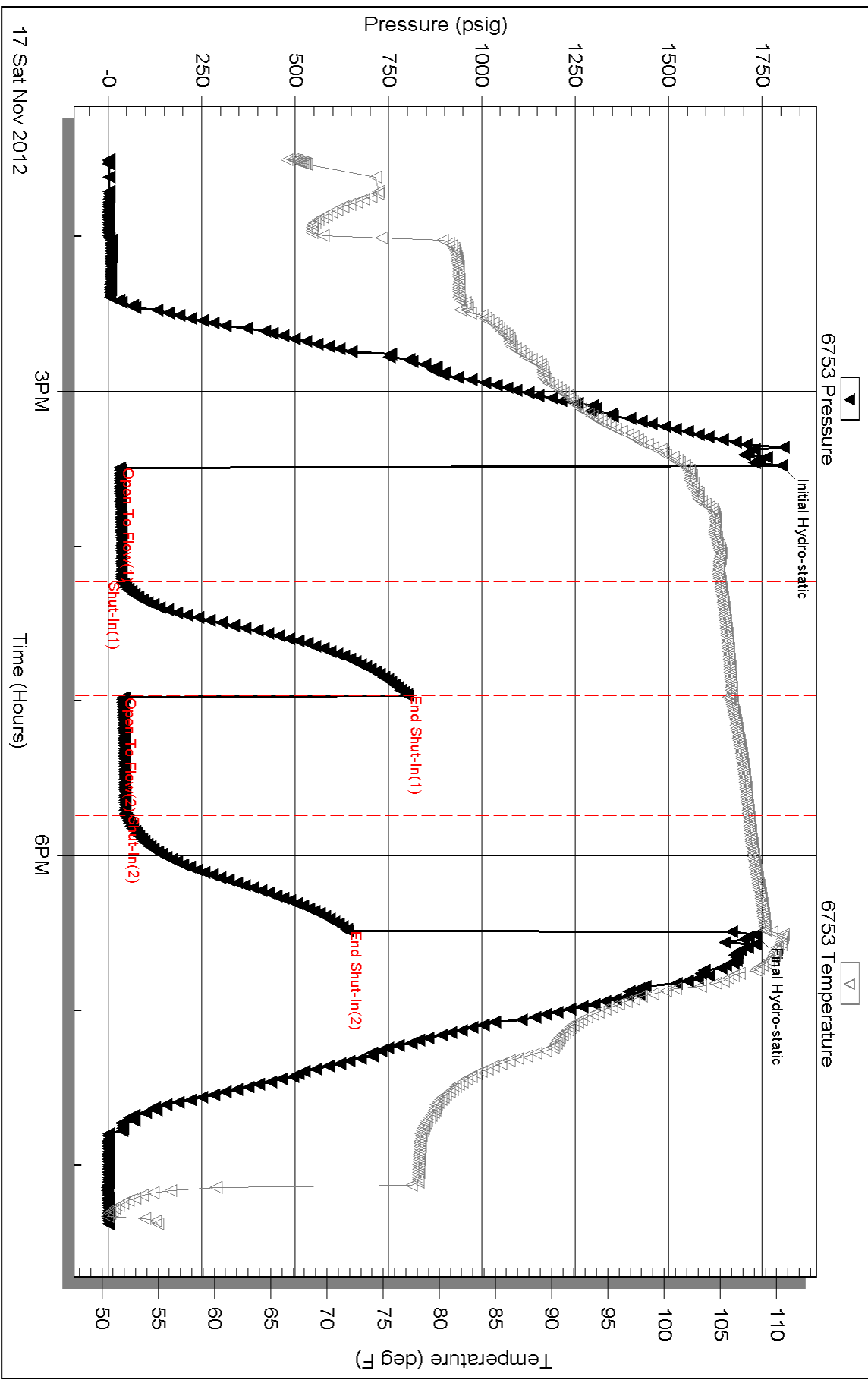
Inside

Downing-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 6

Pressure vs. Time

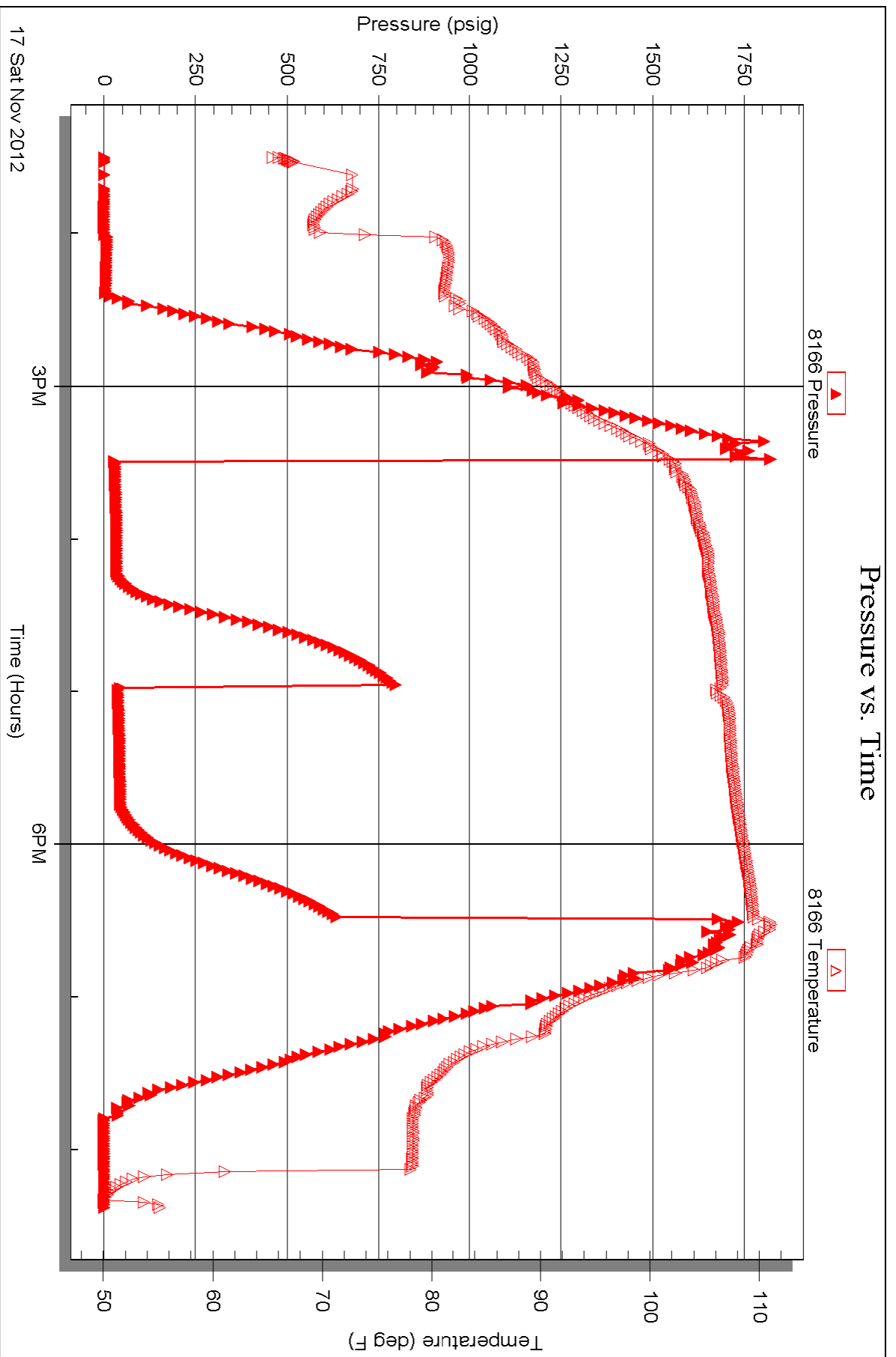


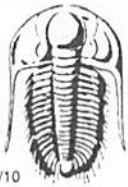
Serial #: 8166

Outside Dow n/ing-Nelson Oil Co.

Chas-Mar #1-13

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50796

Well Name & No. chas-Mar #1-13 Test No. 1 Date 11/14/12
 Company Downing-Nelson Oil CO Inc. Elevation 2082 KB 2074 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #3
 Location: Sec. 13 Twp. 13 Rge. 19 Co. Ellis State KS

Interval Tested 3107 - 3150 Zone Tested ~~Topack~~
 Anchor Length 43 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3102 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3107 Wt. Pipe Run _____ WL _____
 Total Depth 3150 Chlorides _____ ppm System LCM _____

Blow Description IF - very weak surface blow
IS2 - No blow
FF - very weak surface blow died in 10 min
FS2 - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>oil spotted w/cm</u>		<u>40</u>	<u>60</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 50 BHT 99 Gravity _____ API RW 155 @ 35 °F Chlorides 25,000 ppm

(A) Initial Hydrostatic <u>1,491</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1:05</u>
(B) First Initial Flow <u>20</u>	<input type="checkbox"/> Jars _____	T-Started <u>1:30</u>
(C) First Final Flow <u>34</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>3:48</u>
(D) Initial Shut-In <u>700</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>5:48</u>
(E) Second Initial Flow <u>35</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>7:35</u>
(F) Second Final Flow <u>46</u>	<input checked="" type="checkbox"/> Mileage <u>20.7</u> 31	Comments _____
(G) Final Shut-In <u>667</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1,461</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1181
 Total 1181
 MP/DST Disc't _____

Approved By _____ Our Representative Butt Dred

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50797

4/10

Well Name & No. chas-Mar # 1-13 Test No. 2 Date 11/14/12
 Company Rowning-Nelson Oil Co Inc. Elevation 2082 KB 2074 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #3
 Location: Sec. 13 Twp. 13 Rge. 19 Co. Ellis State KS

Interval Tested 3320 - 3381 Zone Tested Toronto - KC "A"
 Anchor Length 61 Drill Pipe Run _____ Mud Wt. 8.7
 Top Packer Depth 3315 Drill Collars Run 30 Vis 46
 Bottom Packer Depth 3320 Wt. Pipe Run — WL 8.0
 Total Depth 3381 Chlorides 1,000 ppm System LCM _____
 Blow Description IF - 1 1/4 in blow
ISL - No blow
FF - Very weak surface blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 104 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1623</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>22:10</u>
(B) First Initial Flow <u>16</u>	<input type="checkbox"/> Jars _____	T-Started <u>22:53</u>
(C) First Final Flow <u>19</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>00:35</u>
(D) Initial Shut-In <u>79</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>3:55</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>5:40</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>20 RT</u> 31	Comments _____
(G) Final Shut-In <u>62</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1569</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>1181</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1181</u>	

Approved By _____ Our Representative Bud [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **50798**

4/10

Well Name & No. chas-Mar # 1-13 Test No. 3 Date 11/15/12
 Company Downing-Nelson Oil Co Inc. Elevation 2082 KB 2074 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #3
 Location: Sec. 13 Twp. 13 Rge. 19 Co. Ellis State KS

Interval Tested 3386 - ~~3402~~ 3432 Zone Tested KC^uC, D^u
 Anchor Length 46 Drill Pipe Run 3358 Mud Wt. _____
 Top Packer Depth 3381 Drill Collars Run 30 Vis _____
 Bottom Packer Depth 3386 Wt. Pipe Run — WL _____
 Total Depth 3436 Chlorides _____ ppm System LCM _____
 Blow Description IF - BOB in 2min
IF - No blow
FF - BOB Immediately
FST - BOB 18min

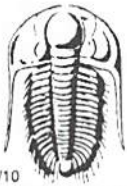
Rec	Feet of	%gas	%oil	%water	%mud
<u>310</u>	<u>40</u> Feet of <u>6500CW</u>	<u>30%</u>	<u>20%</u>	<u>45%</u>	<u>5%</u>
<u>185</u>	Feet of <u>6500CW</u>	<u>40%</u>	<u>10%</u>	<u>50%</u>	<u>%mud</u>
<u>243</u>	Feet of <u>6500CW</u>	<u>10%</u>	<u>5%</u>	<u>85%</u>	<u>%mud</u>
<u>390</u>	Feet of <u>600CW</u>	<u>10%</u>	<u>20%</u>	<u>70%</u>	<u>%mud</u>
<u>430</u>	Feet of <u>water</u>	<u>440-467P</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>

Rec Total 1550 BHT 118 Gravity 38 API RW .07 @ 65 °F Chlorides 130,000 ppm

(A) Initial Hydrostatic 1,660 Test 1150 T-On Location 12:50
 (B) First Initial Flow 78 Jars _____ T-Started 13:10
 (C) First Final Flow 548 Safety Joint _____ T-Open 15:15
 (D) Initial Shut-In 1,065 Circ Sub _____ T-Pulled 17:15
 (E) Second Initial Flow 544 Hourly Standby _____ T-Out 20:25
 (F) Second Final Flow 785 Mileage 20.1 31 Comments _____
 (G) Final Shut-In 999 Sampler _____
 (H) Final Hydrostatic 1,595 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1181

Initial Open 30
 Initial Shut-In 4530
 Final Flow 30
 Final Shut-In 4530
 Approved By _____ Our Representative Bruce D...

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50799

Well Name & No. Chas-Mar #1-13 Test No. 4 Date 11/16/12
 Company Downing - Nelson Oil Co Inc Elevation 2082 KB 2074 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #3
 Location: Sec. 13 Twp. 13 Rge. 19 Co. Ellis State KS

Interval Tested 3426 - 3444 Zone Tested KC"E"
 Anchor Length 18 Drill Pipe Run _____ Mud Wt. 8.7
 Top Packer Depth 3421 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3426 Wt. Pipe Run _____ WL 8.8
 Total Depth 3444 Chlorides 2000 ppm System LCM 1 1/2
 Blow Description IF - BOB in 2 1/2 min
ISI - No blow
FF - BOB in 3 1/2 min
FSI - 1/2 in blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free Oil</u>				
<u>794</u>	<u>VSO CW</u>		<u>2</u>	<u>98</u>	
<u>435</u>	<u>water</u>				
____	<u>304 GIP</u>				
____	____				

Rec Total 1230 BHT _____ Gravity _____ API RW .06 @ 55° F Chlorides 200,000 ppm

(A) Initial Hydrostatic <u>1,682</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2:05</u>
(B) First Initial Flow <u>51</u>	<input type="checkbox"/> Jars _____	T-Started <u>2:20</u>
(C) First Final Flow <u>424</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>4:28</u>
(D) Initial Shut-In <u>988</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>6:58</u>
(E) Second Initial Flow <u>434</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>9:39</u>
(F) Second Final Flow <u>685</u>	<input checked="" type="checkbox"/> Mileage <u>20 RT</u> 31	Comments _____
(G) Final Shut-In <u>965</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1,610</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>1181</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1181</u>	

Approved By _____ Our Representative Burdaw

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **50800**

4/10

Well Name & No. chas-Mar #1-13 Test No. 5 Date 11/16/12
 Company Downing-Nelson Oil Co Inc. Elevation 2082 KB 2074 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #3
 Location: Sec. 13 Twp. 13 Rge. 19 Co. Ellis State KS

Interval Tested 3536-3555 Zone Tested AC"J"
 Anchor Length 19 Drill Pipe Run 3515 Mud Wt. 8.9
 Top Packer Depth 3531 Drill Collars Run 30 Vis 48
 Bottom Packer Depth 3536 Wt. Pipe Run — WL 10.8
 Total Depth 3555 Chlorides 11,000 ppm System LCM 1 1/2

Blow Description IF - 1 1/2 in blow
ISI - No blow
FF - Very weak surface blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Oil Spilled Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

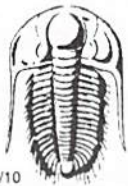
Rec Total 20 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1740 Test 1150 T-On Location 19:15
 (B) First Initial Flow 26 Jars _____ T-Started 19:40
 (C) First Final Flow 26 Safety Joint _____ T-Open 21:20
 (D) Initial Shut-In 43 Circ Sub _____ T-Pulled 23:20
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 1:00
 (F) Second Final Flow 27 Mileage 20 RT 31 Comments _____
 (G) Final Shut-In 35 Sampler _____
 (H) Final Hydrostatic 1,676 Straddle _____
 Shale Packer _____
 Ruined Shale Packer _____

Initial Open 30 Ruined Packer _____
 Initial Shut-In 30 Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 30 Day Standby _____ Total 1181
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1181

Approved By _____ Our Representative Burt Jani

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51227

4/10

Well Name & No. Chas-Mar #1-13 Test No. 6 Date 11/12/12
 Company Downing-Nelson Oil Co Inc. Elevation 2082 KB 2074 GL
 Address PO Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #3
 Location: Sec. 13 Twp. 13 Rge. 19 Co. Ellis State KS

Interval Tested 3623 - 3684 Zone Tested A-b
 Anchor Length 61 Drill Pipe Run 3582 Mud Wt. 9.1
 Top Packer Depth 3618 Drill Collars Run 30 Vis 51
 Bottom Packer Depth 3623 Wt. Pipe Run - WL 10.8
 Total Depth 3684 Chlorides 8,000 ppm System LCM #1

Blow Description IF - 1 1/4 in blow
FSI - No blow
FF - 1 1/2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>SGO</u>	<u>5</u>	<u>95</u>		
<u>55</u>	<u>SOCM</u>		<u>20</u>		<u>80</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 70 BHT _____ Gravity 33 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1802 Test 1150 T-On Location 13:00
 (B) First Initial Flow 31 Jars _____ T-Started 13:30
 (C) First Final Flow 36 Safety Joint _____ T-Open 15:30
 (D) Initial Shut-In 801 Circ Sub _____ T-Pulled 18:30
 (E) Second Initial Flow 38 Hourly Standby _____ T-Out 20:20
 (F) Second Final Flow 45 Mileage 20-T x 2 ⁶² Comments pick up tools
 (G) Final Shut-In 640 Sampler _____
 (H) Final Hydrostatic 1732 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 45 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 0
 Final Flow 45 Day Standby _____ Total 1212
 Final Shut-In 45 Accessibility _____ MP/DST Disc't _____
 Sub Total 1212

Approved By _____ Our Representative [Signature]

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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. 6187

Date	11-10-12	Sec.	13	Twp.	13	Range	19	County	Ellis	State	Ks	On Location		Finish	8:00 PM
------	----------	------	----	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	---------

Lease Chas-Mar Well No. 1-13 Location Hays, Ks - W on Hwy 40 to 210th
Owner 3/4 N, E Into

Contractor Discovery #3
Type Job Surface
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4" T.D. 221' Charge To Downing-Nelson
Csg. 8 1/8" Depth 220' Street

Tbg. Size Depth City State
Tool Depth

Cement Left in Csg. 15' Shoe Joint 15' The above was done to satisfaction and supervision of owner agent or contractor.
Cement Amount Ordered 150 Common 36CL 2% G

Meas Line Displace 13 BUS Common 150

EQUIPMENT			
Pumptrk	No.	Cementer/Helper	
<u>16</u>		<u>Travis</u>	
Bulktrk	No.	Driver	
<u>1</u>		<u>Lornie M.</u>	
Bulktrk	No.	Driver	
<u>pi.u.</u>		<u>Rick</u>	

POZ. Mix
Gel. 3
Calcium 5

Hulls
Salt

Flowseal
Kol-Seal

Mud CLR 48
CFL-117 or CD110 CAF 38

Sand
Handling 158
Mileage

Cement did Circulate

FLOAT EQUIPMENT

Guide Shoe
Centralizer
Baskets

AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge Surface
Mileage 5

Tax
Discount

Total Charge

X Signature [Signature]

JOB LOG

SWIFT Services, Inc.

DATE 1-18-12 PAGE NO. 1

CUSTOMER Downing + Nelson WELL NO. #1-13 LEASE Chas-Mar JOB TYPE Longstring TICKET NO. 21969

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1700							on loc w/ FE
								RTD 3775' LTD 3774'
								5 1/2" x 14# x 3772' x 21'
								Leat 1, 3, 5, 7, 9, 11, 57
								Base 58
								P.C. 58 @ 1351'
	1730							start FE
	1920							Break Circ
	1930	2.5	7/4					Plug RH + MH 30/15 sks EA-2
	1940	5	0			200		start Mud flush 500 gal
		5	12/0			200		start KCl flush 20 bbl
		5	20/0			200		start EA-2 Cement 155 sks
	1953		38					End Cement
								Wash P/L
								Drop L.D. Plug
	1957	6	0			200		start Displacement
	2007	5				250		catch Cement
	2013		91.5			200 / 1500		Land Plug
								Release Pressure
								Float Held

Thank you

Nick, Brian & Doug