KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1067057

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 30717
Name: Downing-Nelson Oil Co Inc
Address 1: PO BOX 1019
Address 2:
City: HAYS State: KS Zip: 67601 + __ __ __ __
Contact Person: Ron Nelson
Phone: (785) 621-2610
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Marc Downing
Purchaser: Coffeyville Resources

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 #:

10/28/2011	11/03/2011	11/04/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-195-22733-00-00
Spot Description:
W2 - NE - NW - NE Sec. 34 Twp. 12 S. R. 21 ☐ East ☑ West
330 Feet from ☑ North / ☐ South Line of Section
1700 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
County: Trego
Lease Name: Seitz-Barnhardt 'C' Well #: 1-34
Field Name: Ridgeway
Producing Formation: Arbuckle
Elevation: Ground: 2190 Kelly Bushing: 2198
Total Depth: 3940 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 2214 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1569 Feet
If Alternate II completion, cement circulated from: 1569
feet depth to: 0 w/ 130 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 16000 ppm Fluid volume: 320 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Blackhawk Petroleum Company
Lease Name: Brull #2 License #: 32540
Quarter NW Sec. 30 Twp. 14 S. R. 18 ☐ East ☑ West
County: Ellis Permit #: D26232

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: Deanna Garrison Date: 01/27/2012

Side Two

1067057

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Seitz-Barnhardt 'C' Well #: 1-34

Sec. 34 Twp. 12 S. R. 21 ☐ East ☑ West County: Trego

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No
Electric Log Run ☑ Yes ☐ No
Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

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	12.25	8.625	23	221.41	Common	150	2% Gel & 3%CC
Production String	7.875	5.5	14	3939.54	EA/2	150	

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 *(Amount and Kind of Material Used)*	Depth
4	3860' to 3862'		

TUBING RECORD: Size: 2.3750 Set At: 3890.94 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/02/2012

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	40	0	0		

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Seitz-Barnhardt 'C' 1-34
Doc ID	1067057

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Neutron Density

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Seitz-Barnhardt 'C' 1-34
Doc ID	1067057

Tops

Name	Top	Datum
Top Anhydrite	1572'	+627
Base Anhydrite	1614'	+585
Topeka	3219'	-1020
Heebner	3440'	-1241
Toronto	3463'	-1264
LKC	3475'	-1276
BKC	3712'	-1513
Marmaton	3770'	-1571
Arbuckle	3835'	-1636

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 105

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 10-28-11	34	12	21	Trego	Kansas		4:45pm

Lease Seitz-Burnhart Well No. 1-34 Location Ellis 1½ N 5½ W Site

Contractor Discovery Drilling Rig 1

Type Job Surface

Hole Size 12¼ T.D. 221

Csg. 8⅝ 23# Depth 221

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 10.15 Shoe Joint

Meas Line Displace 13⅓

EQUIPMENT

Pumptrk 9 No. Cementer Helper Steve

Bulktrk 13 No. Driver Driver Matt

Bulktrk No. Driver Driver Brent

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Cement did Circulate

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Downing & Nelson

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 150 Common 3%CC 2%Gel

Common	150
Poz. Mix	
Gel.	3
Calcium	5
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	158
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	22
Tax	
Discount	
Total Charge	

X Signature Michael D. Nelson

JOB LOG — **SWIFT Services, Inc.** — DATE 11-3-11 — PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Downing & Nelson	1-34	Seitz-Barnhardt "C"	Cement 2 stage Longstring	20401

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	TD-3940' DESCRIPTION OF OPERATION AND MATERIALS
	1930					14#/ft	5½"	On location w/ Float Equip (-Rig changing over)
	2010							Start 5½" 14#/ft casing to 3939'
								Insert float shoe w/ A-1 Fill
								LD Baffle 1st Collar - S5-17' @ 3922'
								Cent 2-4-7-9-11-13-15-59
								Baskets #60 - Jts out #6 @ 39
								D.V #60 @ 1569½'
	~~2145~~							Fin run casing
	2200							Start circ
	2230							Fin circ - Hook to Swift for 1st Stage
		6	12/20				300	Pump 500 gal Mud flush / 20 BBl KCl flush
								Start 150 SKS EA-2 cmt
								Fin cmt - Wash out pump & Lines - Plug
		9	60			400		Displ 60 BBl H2O
		6½	80			400/600		Displ 20 BBl Mud
	2330	6½	96.7			700/1200		Displ 16.7 KCl flush - Plug down
						1500/0		Held - Release - Held - Drop D.V. opening bomb
			8/60			~		Plug RH - MH 30/20 SKS cmt
	2340	6	4				300	Open D.V. - Fin flush
		6					300	Start 130 SKS SMD @ 11.2 #/gal
		5	75				Vac	Fin cmt - D.V. closing Plug
							300	Start Displ H2O 38 BBl
11-4-11							600/1300	Plug down - Held - Release - Held
0015	2415		38					Wash up & Rack up
								20 SKS SMD @ 11.2 #/gal to Pit
								Thanks Don, Brian & Dave

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

P O Box 1019
Hays Ks 67601

ATTN: Ron Nelson

34-12s-21w Trego

Seitz-BarnhardtC1-34

Job Ticket: 44764 **DST#: 1**

Test Start: 2011.11.01 @ 03:25:17

GENERAL INFORMATION:

Formation: **LKC C-D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:20:42
Time Test Ended: 08:45:11

Test Type: Conventional Bottom Hole (Initial)
Tester: Ray Schw ager
Unit No: 42

Interval: 3494.00 ft (KB) To 3544.00 ft (KB) (TVD)
Total Depth: 3544.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

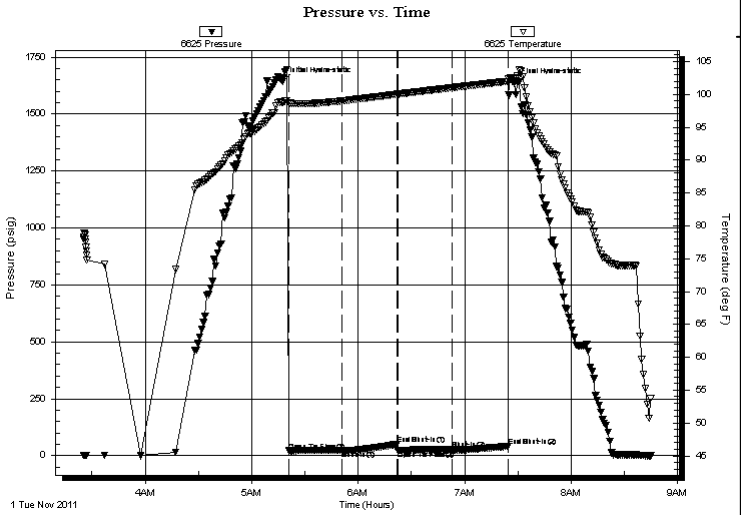
Reference Elevations: 2198.00 ft (KB)
2190.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Inside**

Press@RunDepth: 25.88 psig @ 3508.00 ft (KB)
Start Date: 2011.11.01 End Date: 2011.11.01
Start Time: 03:25:17 End Time: 08:45:11

Capacity: 8000.00 psig
Last Calib.: 2011.11.01
Time On Btm: 2011.11.01 @ 05:17:12
Time Off Btm: 2011.11.01 @ 07:27:42

TEST COMMENT: 30-IFP-surface bl thru-out
30-ISIP-no bl
30-FFP-no bl
30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.28	98.78	Initial Hydro-static
4	20.90	98.74	Open To Flow (1)
34	23.58	99.01	Shut-In(1)
65	50.81	100.01	End Shut-In(1)
65	23.47	100.02	Open To Flow (2)
96	25.88	101.02	Shut-In(2)
127	40.88	101.99	End Shut-In(2)
131	1636.52	102.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

P O Box 1019
Hays Ks 67601

ATTN: Ron Nelson

34-12s-21w Trego

Seitz-BarnhardtC1-34

Job Ticket: 44764 **DST#: 1**

Test Start: 2011.11.01 @ 03:25:17

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:	69.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.96 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud	0.005

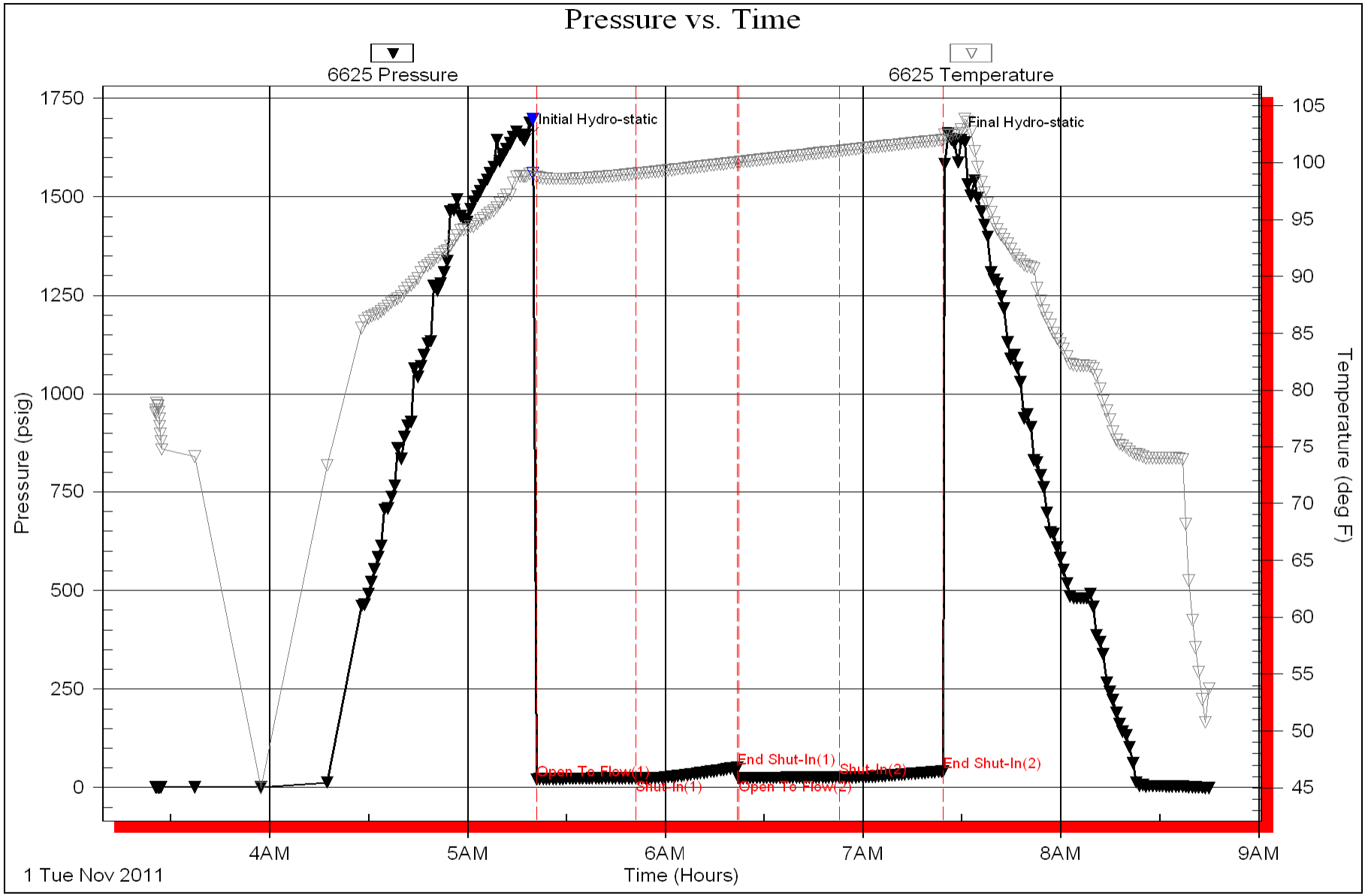
Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6625 **Inside** Downing-Nelson Oil Co Inc Seitz-BarnhardtC1-34 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 44764 Printed: 2011.11.01 @ 09:11:56

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

P O Box 1019
Hays Ks 67601

ATTN: Ron Nelson

34-12s-21w Trego

Seitz-BarnhardtC1-34

Job Ticket: 44765 **DST#: 2**

Test Start: 2011.11.01 @ 20:25:23

GENERAL INFORMATION:

Formation: **LKC H-J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:54:18
Time Test Ended: 01:27:47

Test Type: Conventional Bottom Hole (Reset)
Tester: Ray Schw ager
Unit No: 42

Interval: 3592.00 ft (KB) To 3666.00 ft (KB) (TVD)
Total Depth: 3666.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

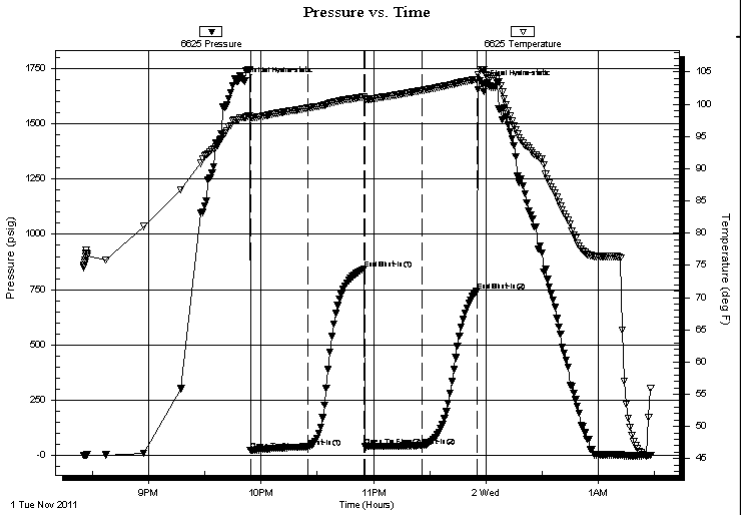
Reference Elevations: 2198.00 ft (KB)
2190.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Inside**

Press@RunDepth: 43.06 psig @ 3600.00 ft (KB)
Start Date: 2011.11.01 End Date: 2011.11.02
Start Time: 20:25:23 End Time: 01:27:47

Capacity: 8000.00 psig
Last Calib.: 2011.11.02
Time On Btm: 2011.11.01 @ 21:51:18
Time Off Btm: 2011.11.01 @ 23:58:18

TEST COMMENT: 30-IFP-w k bl 1/4"to 1"bl
30-ISIP-no bl
30-FFP-surface bl thru-out
30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1692.13	97.95	Initial Hydro-static
3	22.45	97.94	Open To Flow (1)
34	38.25	99.37	Shut-In(1)
64	842.20	101.11	End Shut-In(1)
64	40.23	100.90	Open To Flow (2)
95	43.06	102.12	Shut-In(2)
124	744.33	103.85	End Shut-In(2)
127	1678.49	105.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOCM 2%O98%M	0.15

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

P O Box 1019
Hays Ks 67601

ATTN: Ron Nelson

34-12s-21w Trego

Seitz-BarnhardtC1-34

Job Ticket: 44765 **DST#: 2**

Test Start: 2011.11.01 @ 20:25:23

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:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.94 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

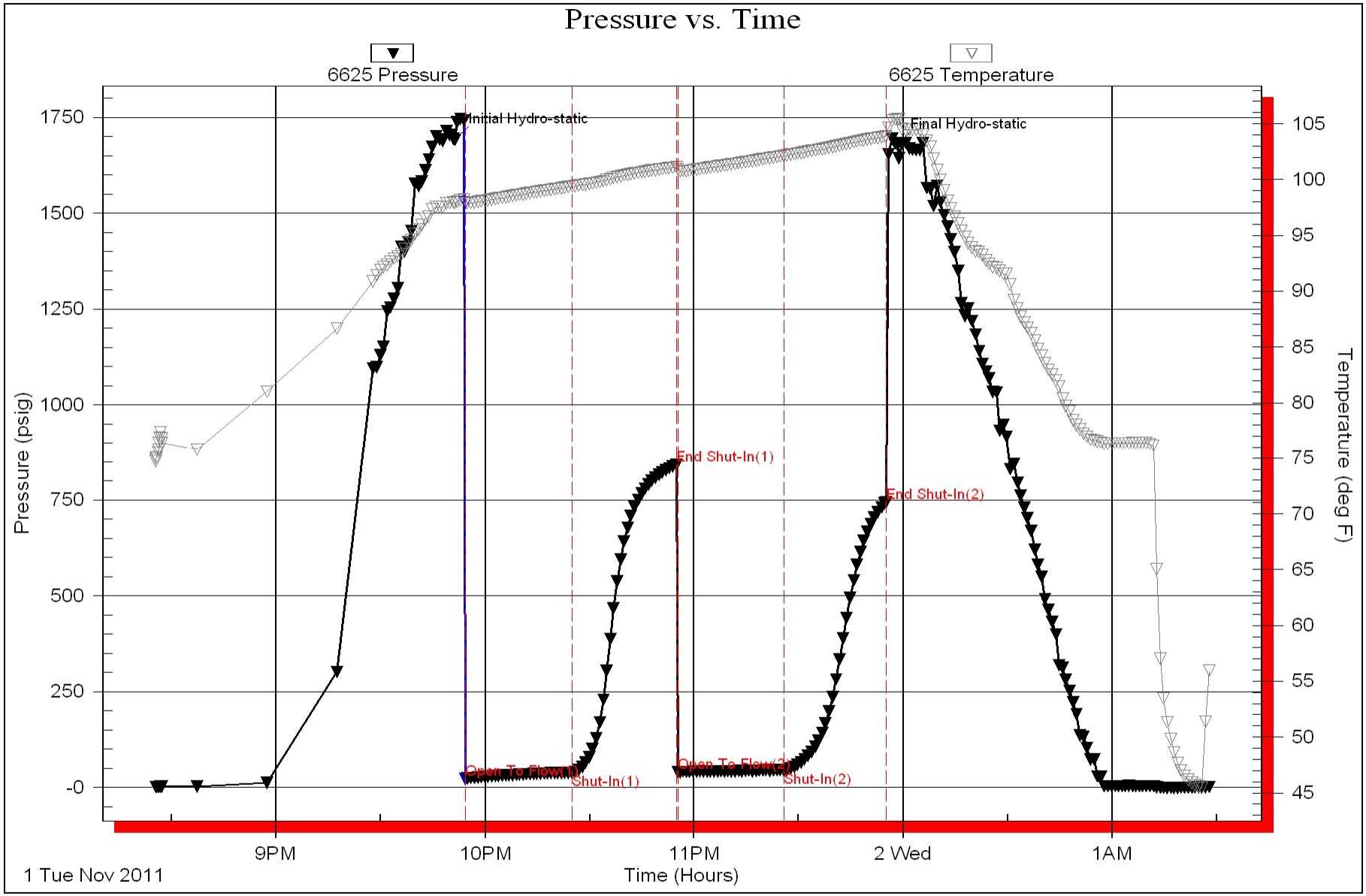
Recovery Table

Length ft	Description	Volume bbl
30.00	SOCM 2%O98%M	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6625 **Inside** Downing-Nelson Oil Co Inc Seitz-BarnhardtC1-34 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 44765 Printed: 2011.11.02 @ 08:41:51

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

P O Box 1019
Hays Ks 67601

ATTN: Ron Nelson

34-12s-21w Trego

Seitz-BarnhardtC1-34

Job Ticket: 44766 **DST#: 3**

Test Start: 2011.11.02 @ 16:15:34

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:05:29
Time Test Ended: 22:59:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Ray Schw ager
Unit No: 42

Interval: 3790.00 ft (KB) To 3862.00 ft (KB) (TVD)
Total Depth: 3862.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

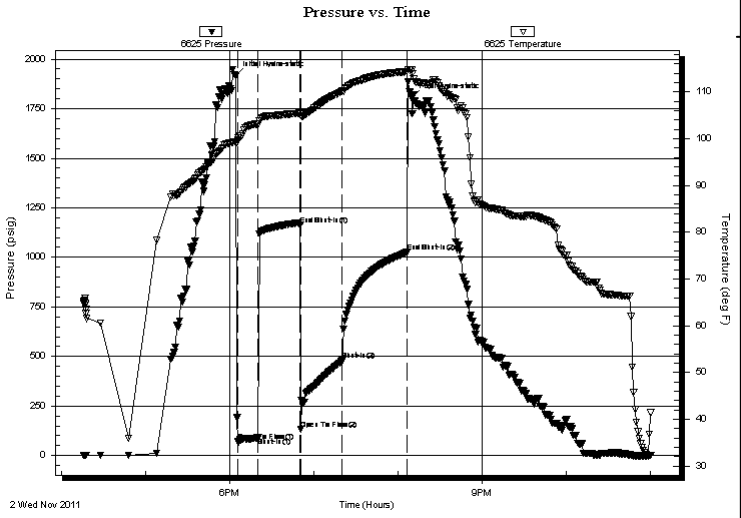
Reference Elevations: 2198.00 ft (KB)
2190.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Inside**

Press@RunDepth: 479.28 psig @ 3796.00 ft (KB)
Start Date: 2011.11.02 End Date: 2011.11.02
Start Time: 16:15:34 End Time: 22:59:58

Capacity: 8000.00 psig
Last Calib.: 2011.11.02
Time On Btm: 2011.11.02 @ 18:03:59
Time Off Btm: 2011.11.02 @ 20:09:29

TEST COMMENT: 15-IFP-strg bl in 2 min
30-ISIP-1/8"bl bk
30-FFP-strg bl in 1 min
45-FSIP-1"bl bk



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1914.50	99.34	Initial Hydro-static
2	73.18	99.82	Open To Flow (1)
16	91.83	103.09	Shut-In(1)
46	1163.71	105.47	End Shut-In(1)
47	132.74	104.96	Open To Flow (2)
76	479.28	110.17	Shut-In(2)
122	1025.64	114.30	End Shut-In(2)
126	1804.09	114.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	MGO 10%G5%M85%O	1.55
1055.00	CO	14.80
0.00	120' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

P O Box 1019
Hays Ks 67601

ATTN: Ron Nelson

34-12s-21w Trego

Seitz-BarnhardtC1-34

Job Ticket: 44766 **DST#: 3**

Test Start: 2011.11.02 @ 16:15:34

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	28 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.95 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	MGO 10%G5%M85%O	1.550
1055.00	CO	14.799
0.00	120' GIP	0.000

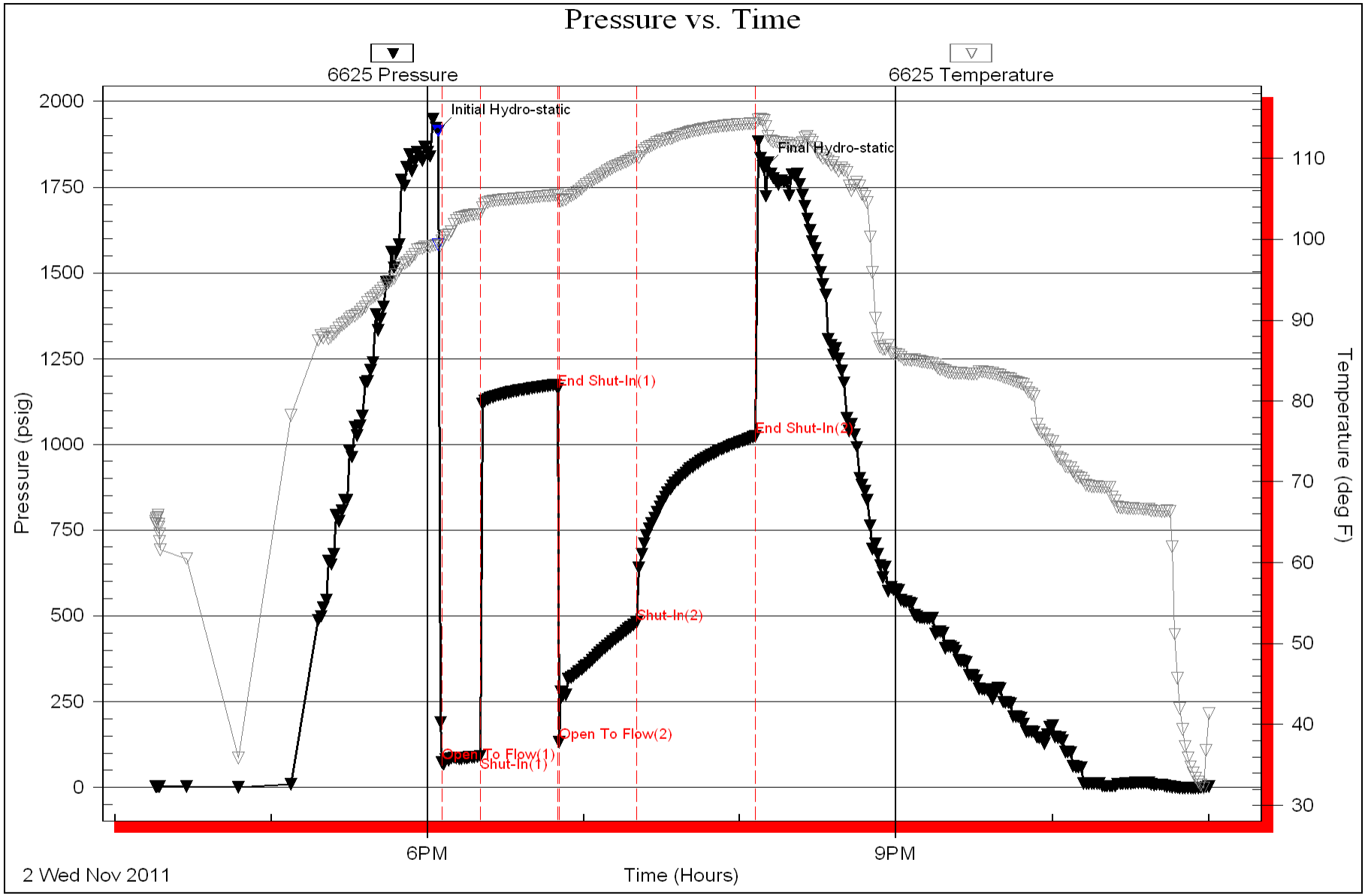
Total Length: 1185.00 ft Total Volume: 16.349 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6625 **Inside** Downing-Nelson Oil Co Inc Seitz-BarnhardtC1-34 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 44766 Printed: 2011.11.03 @ 08:43:05

Marc Downing

Consulting Petroleum Geologist
1411 Washington Circle
Hays, Ks 67601
Phone: 620-428-1356 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY Downing-Nelson Oil Co, Inc.

WELL Seitz-Barnhardt "C" #1

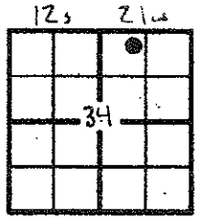
FIELD Ridgeway

LOCATION 335' FNL & 1700' FEL

SEC. 34 TWP. 12s RGE. 21w

COUNTY Trego

STATE Kansas



PRODUCTION Arbuckle

ELEVATION KB 2199
DF
GL 2191

Drilling Measured From: KB

Samples Saved From 3200 To: TD

Drilling Time From 3100 To: TD

Samples Examined From: 3200 To: TD

Geological Supervision From 3100 To Total Depth

Wellsite Geologist Marc Downing

Electrical Surveys Superior
CNL/CDL
DIL
MEL
Sonic

OPERATOR Discovery Drilling Rig #1

CONTRACTOR DNOCI

COMM: 10-28-11 COMP: 11-3-11

CASING RECORD

SURF: 8 5/8" @ 221' PROD: 5½" @ 3948'

TOTAL DEPTH DRILLERS: 3940'

TOTAL DEPTH LOG 3944'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
Top Anhydrite	1571	1572	+627	-5
Base Anhydrite	1615	1614	+585	-3
Topeka	3218	3219	-1020	+5
HEEBNER	3439	3440	-1241	+6
Toronto	3462	3463	-1264	+6
LKC	3474	3475	-1276	+7
BKC	3709	3712	-1513	+5
Marmaton	3768	3770	-1571	+8
Arbuckle	3833	3835	-1636	+31

REFERENCE WELL FOR STRUCTURE Herschberger Explorations, Inc
Merrill #1 NW-NW-NE Sec. 34-12s-21w

DAILY PENETRATION

DATE	DEPTH

BIT RECORD

NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS

FORMATION	INTERVAL	DESCRIPTION OF SHOW	LOG ANALYSIS B / S W

DRILL STEM TESTS

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	HH-RH	RECOVERY

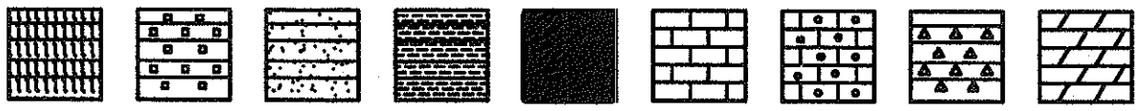
REMARKS AND RECOMMENDATIONS

Perf 30' zone at Topeka before abandonment.

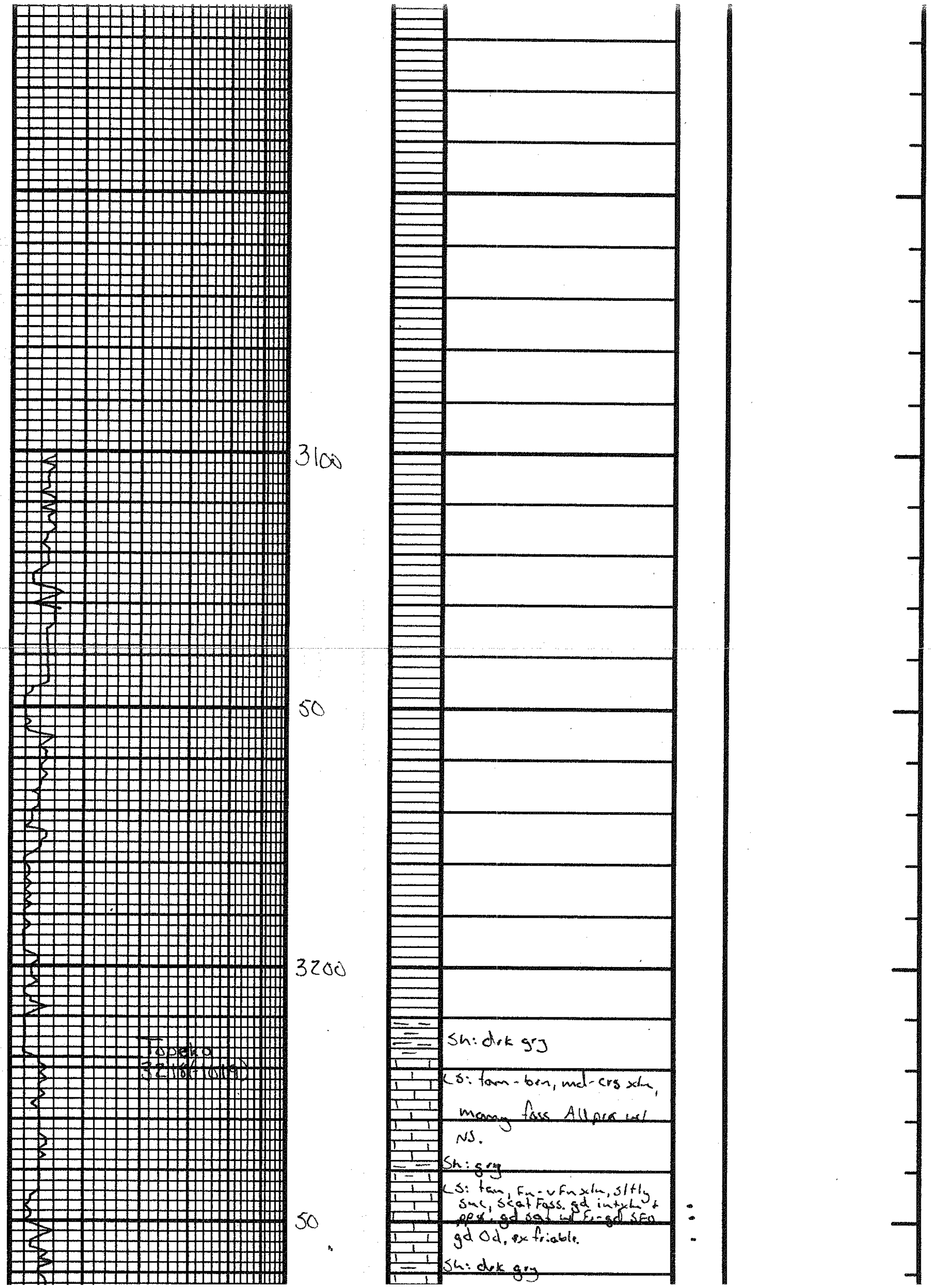
7515

LOG 7710

LEGEND



DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases 5" 10" 15" 20" 25"	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS


3100
50
3200
50
Topeka
Sh: dark gry
LS: tan-brn, md-crs xln,
many foss All pre w/
NS.
Sh: gry
LS: tan, Fn-vFn xln, sltly
snc, scat Foss. gd intxln &
ppt, gd sat w/ Fr-gd SFO
gd Od, ex friable.
Sh: dark gry

3300

50

3400

50

3500

Sh: grn

LS: tan, fn xln, scat foss.
Scat fr intxln ø wl lt brn stn.

Sh: grn

LS: wht-tan fn xln lt brn stn in gd intxln ø. Mostly subxln-chlky wl NS.

LS: Mostly AA wl mtld ox.

Sh: grn

LS: wht, fn xln, chlky trng dns.

LS: tan, ool, dolom in prt. Fr-gd intxln ø, ooc ø in prt. Fr-gd scat wl gd SFO, Fr Od.

LS: Trng dns wl pr ø, All NS

Sh: grn

LS: wht-tan, 3-4 rx w/gd scat + gd SFO in fr-gd vug + pp ø, fr-gd Od.

Sh: Black Carb

Sh: grn

LS: tan xtxln x foss, scat dolom ex. Scat brn stn wl spttd SFO, lt Od.

Sh: grn

LS: tan, md-crs xln, mod foss + mtld ox. Sub xln - chlky wl blk foss chts

mostly barren, 1-2 rx wl lt resid stn NSFO, No Od.

Sh: Black Carb

LS: tan, md xln, dns

Sh: lt grn

LS: wht, fn xln, Fews sub xln rx, mostly dns wl Pr ø NS

Sh: lt grn

LS: wht, fn-md xln, sub xln. All NS. Rx tang Fr intxln ø, sltly suc. lt-fr brn stn, NSFO, v fnt od.

LS: wht, fn-v fn xln, Pr ø wl Fr amt tan shp chts.

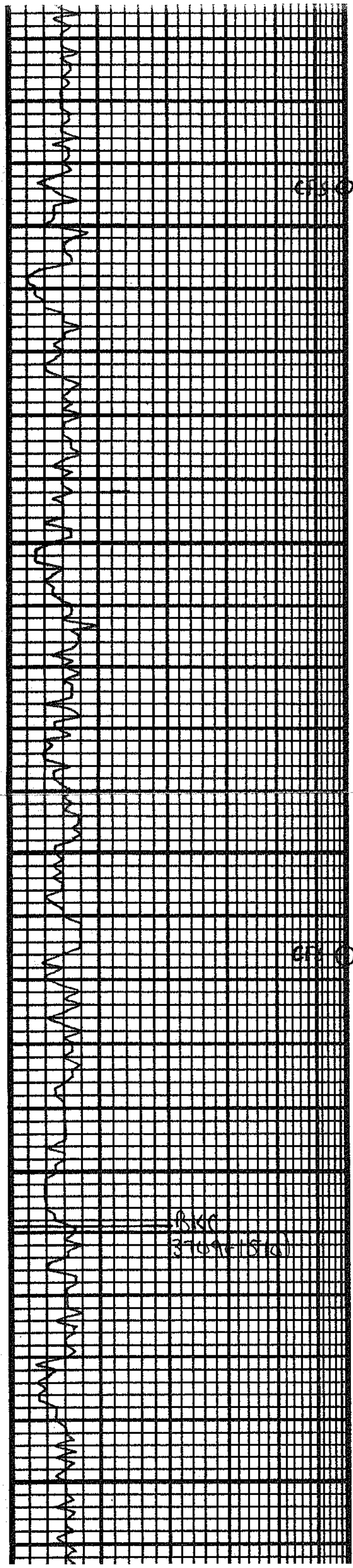
Sh: brn-red, washes red

LS: wht fn-md xln ... lt-?

DST

Vis: 69 WL: 8.8

DST #1
3494-3544
30-30-30-30
IFP: 20-23
FFP: 23-25
SIP: 50-40
HP: 1643-1636
Rec:
1' mud
BHT: 102°



DST #1

It-Fnt Od, NSFO.

Sh: gry

LS: tan-wht, fn-vfn xln, sltly sun, w/ scat Foss. Fr intxln w/ Fr-gd brn sat stn w/ spttd SFO. Foss Frag pkg, gd Od.

Sh: Black Carb.

Sh: gry

LS: tan, vfn xln, fr brn stn in tite rx, pr ø, Fnt Od.

Sh: gry

LS: tan-wht, md-crs xln, dolom w/ Foss. gd intxln + vug ø, gd sat stn w/ gd SFO, Fr-gd Od.

Sh: gry

LS: wht, fn-md xln, scat Foss rx w/ lt brn stn + spttd SFO. Mostly chlky, gd Od.

LS: Tan - wht, Fn-md xln w/ scat Foss. All pr ø + dns.

Sh: Black Carb

Vis: 60 Wt: 8.8

DST #2
3592 - 3666
30-30-30-30
IFP: 22-38
FFP: 40-43
SIP: 842-744
HP: 1692-1678
Rec:
30' socm 2%
BHT: 103°

Sh: gry

LS: tan-wht, fn-md xln, Foss scat Fr intxln + vug ø, Fr-gd sat w/ Fr SFO, Fr Od. Fr Amt rx w/ tite mtx. tan-wht chts

Sh: Black Carb

LS: wht-tan, fn-md xln, dolom w/ Foss. Fr-gd intxln + vug ø, gd brn spt stn w/ Fr-gd spttd SFO, Fr-gd Od.

LS: trng dns w/ pr ø, All tite

Sh: gry

LS: tan, md-crs xln, dolom w/ Foss. Scat Fr-gd intxln + vug ø, Fr sat w/ spttd SFO, Fr Od. Smples trng sml + fine.

Sh: brn-red w/ gry

LS: wht, fn xln, mostly dns + pr ø. chlky in prt, All NS.

Sh: gry

LS: wht, fn xln, few sml ool. Scat pr spttd stn dead in prt. pr intxln ø. Rx trng subxln-chlky, some spttd SFO. All No Od.

Sh: gry, trng brn-red, silty

LS: tan, md xln, ool, mtld

Sh: red, washes red.

LS: A/A

Sh: red

LS: tan, fn-md xln, pr ø.

LS: wht, Fn x/n, mostly dns wl prs, scat sub x/n - chlky ex Fem pss org chts.

Same LS AIA frng mostly tan shp chts. Scat edge stn wl pr rmbm SFO. 2-3 pcs LS wl Fr SFO in pr vugs, lt-Fnt Od.

Sh: drk grj - blk.

Sh: grj wl brn & lt grn

Sh: grj wl grn

DST #3

Dolo: tan, Fn-md suc x/n, Fr-gd intx/n ø, tite in prt. gd sat wl gd SFO, Fr-gd Od. Fr Amt tan shp chts. Free oil on sum.

Odo: Trng Fn rhom x/n, tan. gd intx/n ø wl gd sat, gd SFO, gd Od. Free oil on csp. DNS ers rhom ex in base wl scat gilsonite.

Same dolo AIA frng sndy. Fn-md grain wl lrg single grains. pr sort, Fr rnd. Fr IEø wl scat sat & SFO. Scat barren ex. Trng slty, earthy, Frost. xlng & ppw in prt. Fely friable wl Fr-gd SFO when broken. Fr-gd Od. All ex dolom. Trng titer wl less ø.

Dolo: wht-tan, md rhom x/n, sandy, lrg-md grains wl im dolo Fr-gd intx/n & IEø wl Fr-gd sat & fr spotted SFO. Fr-gd Od.

Much AIA, sandy dolo wl Fr-gd ø still carrying fr stn wl fr SFO. Scat barren ex Fr Od.

Vis: 56 Wt: 9

DST #3
3790-3862
15-30-30-45
I.F.- BOB 2 min / 1/8" SIB
F.F.- BOB 1 min / 1" SIB
IFP: 73-91
FFP: 132-479
SIP: 1163-1025
HP: 1914-1804
Rec:
120' GIP
130' MGO 10%g, 85%o
1055' CO
BHT: 114° G: 28

* Mud damage on ISIP.