KOLAR Document ID: 1489234

Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
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 + 1019
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
☐ Gas ☐ DH ☐ EOR
☐ OG ☐ GSW
☐ 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 EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ EOR Permit #:
☐ GSW Permit #:

01/09/2020 Spud Date or Recompletion Date
01/16/2020 Date Reached TD
02/07/2020 Completion Date or Recompletion Date

API No.: 15-195-23092-00-00
Spot Description:
NW - NE - SE - NE Sec. 23 Twp. 14 S. R. 21 ☐ East ☑ West
1390 Feet from ☑ North / ☐ South Line of Section
400 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Trego
Lease Name: ALRON Well #: 1-23
Field Name: Wildcat
Producing Formation: LKC
Elevation: Ground: 2202 Kelly Bushing: 2210
Total Vertical Depth: 4036 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 221 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1540 Feet
If Alternate II completion, cement circulated from: 1540
feet depth to: 0 w/ 165 sx cmt.

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

Chloride content: 41000 ppm Fluid volume: 320 bbls
Dewatering method used: Evaporated
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

☐ **Confidentiality Requested**
Date:
☐ **Confidential Release Date:**
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Karen Ritter **Date:** 03/11/2020

Page Two

Operator Name: Downing-Nelson Oil Co Inc Lease Name: ALRON Well #: 1-23

Sec. 23 Twp. 14 S. R. 21 ☐ East ☑ West County: Trego

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

Geologist Report / Mud Logs ☑ Yes ☐ No

List All E. Logs Run:

Micro
Dual Induction
Compensated Denisty Neutron

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

Name: Attached Top: Attached Datum: 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	Common	150	2% Gel & 3% CC
Production	7.875	5.5	14	4031	EA/2	155	-

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	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/ Injection: 02/21/2020

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	15		4		

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)*

PRODUCTION INTERVAL:

Top	Bottom
3686	3690

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4	3686	3690			250 gallons 20% Mud Acid
					1000 gallons 20% NE

TUBING RECORD: Size: 2.375 Set At: 3974 Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	ALRON 1-23
Doc ID	1489234

Tops

Name	Top	Datum
Top Anhydrite	1555'	+656
Base Anhydrite	1598'	+613
Topeka	3270'	-1059
Heebner	3514'	-1303
Tornoto	3532'	-1321
LKC	3551'	-1340
BKC	3798'	-1587
Marmaton	3882'	-1671
Cherokee Shale	3927'	-1716
Arbuckle	3958'	-1747

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	ALRON 1-23
Doc ID	1489234

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	221	Common	150	2% Gel & 3% CC
Production	7.875	5.5	14	4031	EA/2	155	-

LOG

SWIFT Services, Inc.

DATE 01/09/2020 | PAGE NO. 1

CUSTOMER: Downing + Nelson | WELL NO.: 1-23 | LEASE: ALRON | JOB TYPE: Surface | TICKET NO.: 032712

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	2030							On location, set up truck.
								221' of 8 5/8" x 23#
	2130							Start Casing
								Finish Running Casing
	2200							Break Circulation
	2215							Hook up to Swift
		4	5					Start Water ahead
								Start Cement, 150 sks std, 2% gel 3% C.C.
	2225	4	36					Finish Cement, Start Displacement
								Cmt Circulating to Surface
	2230	4	12 3/4					Finish Displacement, Shut Down
								Shut in, Release Truck
								Wash up
	2245							Rack up
	2300							Job Complete
								Thank You, Jon, Austin, Kirby

JOB LOG

SWIFT Services, Inc.

DATE 01/16/2020 | PAGE NO. 1

CUSTOMER: Downing & Nelson | WELL NO.: 1-23 | LEASE: ALRON | JOB TYPE: Long String | TICKET NO.: 032715

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0730							On location, Rig laying Down Collars.
								RTD - 4036'
								LTD - 4038'
								Total Pipe - 96 Jts of 5½" x 14#
								Set at 4031.28'
								Shoe Jt - 41.63, Baffle Plate - 3989.65'
								Port Collar - on top of #59 @ 1540'
								Centralizers - 1, 3, 5, 7, 9, 11, 58
								Basket - 58
	0920							Start Pipe w/ Float Equipment
	1100							Break Circulation on Bottom
	1200							Hook up to Swift
		2	7					Plug Rathole w/ 30 sks
		2	3½					Plug Mousehole w/ 15 sks
		5	12				400	Pump Mudflush
		5	20				400	Pump KCL Spacer
		4					300	Start EA2 Cement mixed at 15.5 ppg
		5	37					Finish Cmt, Shut Down
								Drop Plug, Wash out Pump + Lines
	1230	7						Start Displacement
		7	65				400	Catch Cmt
		6	95				1000	Lift PSI
	1245	6	97½				1600	Land PSI
								Release Truck, Dry
								Wash up
								Rack up
	1315							Job Complete
								Thanks
								Jon, Austin, Kirby

SWIFT Services, Inc.

PO Box 466
Ness City, KS 67560
Off: 785-798-2300

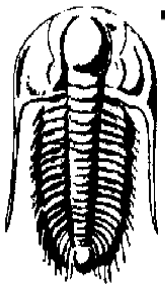
TICKET CONTINUATION

TICKET No. 032715

CUSTOMER: Downing & Nelson Oil Co | WELL: ALRON 1-23 | DATE: 01/16/2020 | PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	TIME	DESCRIPTION	QTY	U/M	QTY	U/M	UNIT PRICE	AMOUNT
325		2				Standard Cement	200	SKS			13 50	2700 00
284		2				Calseal	9	SKS			40 00	360 00
283		2				Salt	1100	lbs			0 25	275 00
292		2				Halad 322	100	lbs			8 50	850 00
276		2				Flocele	50	lbs			3 00	150 00
581		2				SERVICE CHARGE Cement	~~CUBIC FEET~~ 200 SKS				1 85	370 00
583						MILEAGE CHARGE / TOTAL WEIGHT 28950 / LOADED MILES 30	TON MILES 3/4.25				0 95	298 54

CONTINUATION TOTAL: 5003 54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

ALRON #1-23

23-14s-21w Trego,KS

Start Date: 2020.01.14 @ 10:35:00
End Date: 2020.01.14 @ 19:34:02
Job Ticket #: 66374 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.01.15 @ 17:02:07

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

23-14s-21w Trego,KS

ALRON #1-23

Job Ticket: 66374 **DST#: 1**

Test Start: 2020.01.14 @ 10:35:00

GENERAL INFORMATION:

Formation: **LKC H - J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:23:02
Time Test Ended: 19:34:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J Staab
Unit No: 84

Interval: 3672.00 ft (KB) To 3750.00 ft (KB) (TVD)
Total Depth: 3750.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

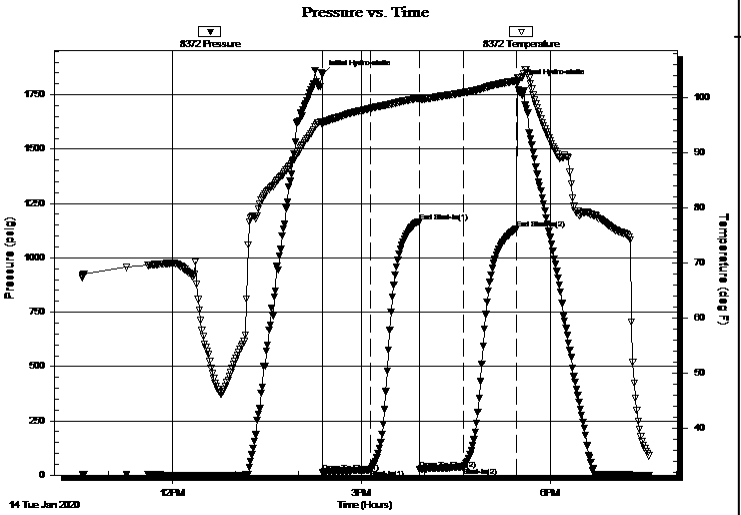
Reference Elevations: 2208.00 ft (KB)
2201.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8372 **Inside**

Press@RunDepth: 36.51 psig @ 3675.00 ft (KB)
Start Date: 2020.01.14 End Date: 2020.01.14
Start Time: 10:35:01 End Time: 19:34:02

Capacity: psig
Last Calib.: 2020.01.14
Time On Btm: 2020.01.14 @ 14:22:47
Time Off Btm: 2020.01.14 @ 17:28:32

TEST COMMENT: 45-IF-Weak; Built to 7"
45-ISI-Weak; Built to 1/4"; Died @ 30 min
45-FF-Fair; Built to 9"
45-FSI-Weak; Built to 1/2"; Died back to surface



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1844.71	95.67	Initial Hydro-static
1	12.58	95.01	Open To Flow (1)
47	24.99	97.99	Shut-In(1)
93	1166.21	99.83	End Shut-In(1)
93	26.43	99.64	Open To Flow (2)
135	36.51	100.84	Shut-In(2)
185	1133.63	103.00	End Shut-In(2)
186	1801.08	103.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	GOCM 5%G 15%O 80%M	0.22
65.00	GO 15%G 85%O	0.48
0.00	285' GIP 100%G	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

23-14s-21w Trego,KS

ALRON #1-23

Job Ticket: 66374 **DST#: 1**

Test Start: 2020.01.14 @ 10:35:00

GENERAL INFORMATION:

Formation: **LKC H - J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:23:02
Time Test Ended: 19:34:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J Staab
Unit No: 84

Interval: 3672.00 ft (KB) To 3750.00 ft (KB) (TVD)
Total Depth: 3750.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

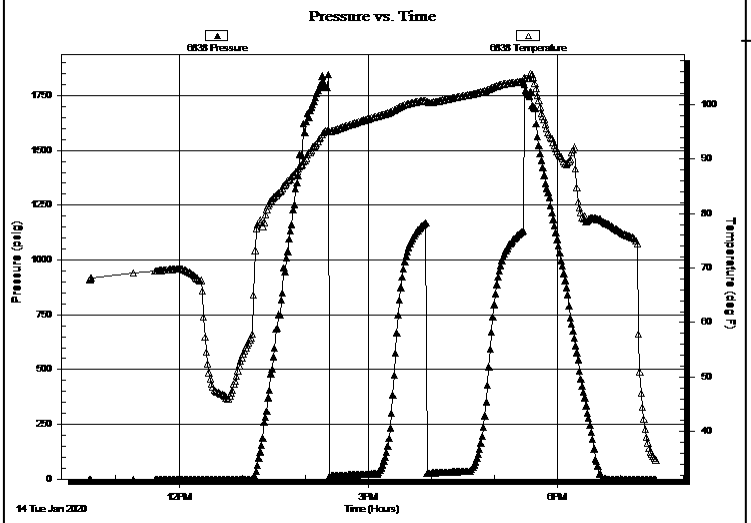
Reference Elevations: 2208.00 ft (KB)
2201.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 6838 **Inside**

Press@RunDepth: psig @ 3675.00 ft (KB)
Start Date: 2020.01.14 End Date: 2020.01.14
Start Time: 10:35:01 End Time: 19:34:02

Capacity: psig
Last Calib.: 2020.01.14
Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IF-Weak; Built to 7"
45-ISI-Weak; Built to 1/4"; Died @ 30 min
45-FF-Fair; Built to 9"
45-FSI-Weak; Built to 1/2"; Died back to surface



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	GOCM 5%G 15%O 80%M	0.22
65.00	GO 15%G 85%O	0.48
0.00	285' GIP 100%G	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

23-14s-21w Trego,KS

ALRON #1-23

Job Ticket: 66374 **DST#: 1**

Test Start: 2020.01.14 @ 10:35:00

Tool Information

Drill Pipe:	Length:	3442.00 ft	Diameter:	3.82	inches	Volume:	48.79	bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	242.00 ft	Diameter:	2.75	inches	Volume:	1.78	bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	Weight to Pull Loose:	52000.00 lb
						Total Volume:	50.57	bbl	Tool Chased	ft
Drill Pipe Above KB:		33.00 ft							String Weight: Initial	50000.00 lb
Depth to Top Packer:		3672.00 ft							Final	51000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		78.00 ft								
Tool Length:		99.00 ft								
Number of Packers:		1	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3652.00		
Change Over Sub	1.00			3653.00		
Shut In Tool	5.00			3658.00		
Hydraulic tool	5.00		Fluid	3663.00		
Packer	5.00			3668.00	21.00	Bottom Of Top Packer
Packer	4.00			3672.00		
Stubb	1.00			3673.00		
Perforations	1.00			3674.00		
Change Over Sub	1.00			3675.00		
Recorder	0.00	6838	Inside	3675.00		
Recorder	0.00	8372	Inside	3675.00		
Drill Pipe	63.00			3738.00		
Change Over Sub	1.00			3739.00		
Perforations	8.00			3747.00		
Bullnose	3.00			3750.00	78.00	Bottom Packers & Anchor
Total Tool Length:	**99.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

23-14s-21w Trego,KS

ALRON #1-23

Job Ticket: 66374 **DST#: 1**

Test Start: 2020.01.14 @ 10:35:00

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:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	inches				

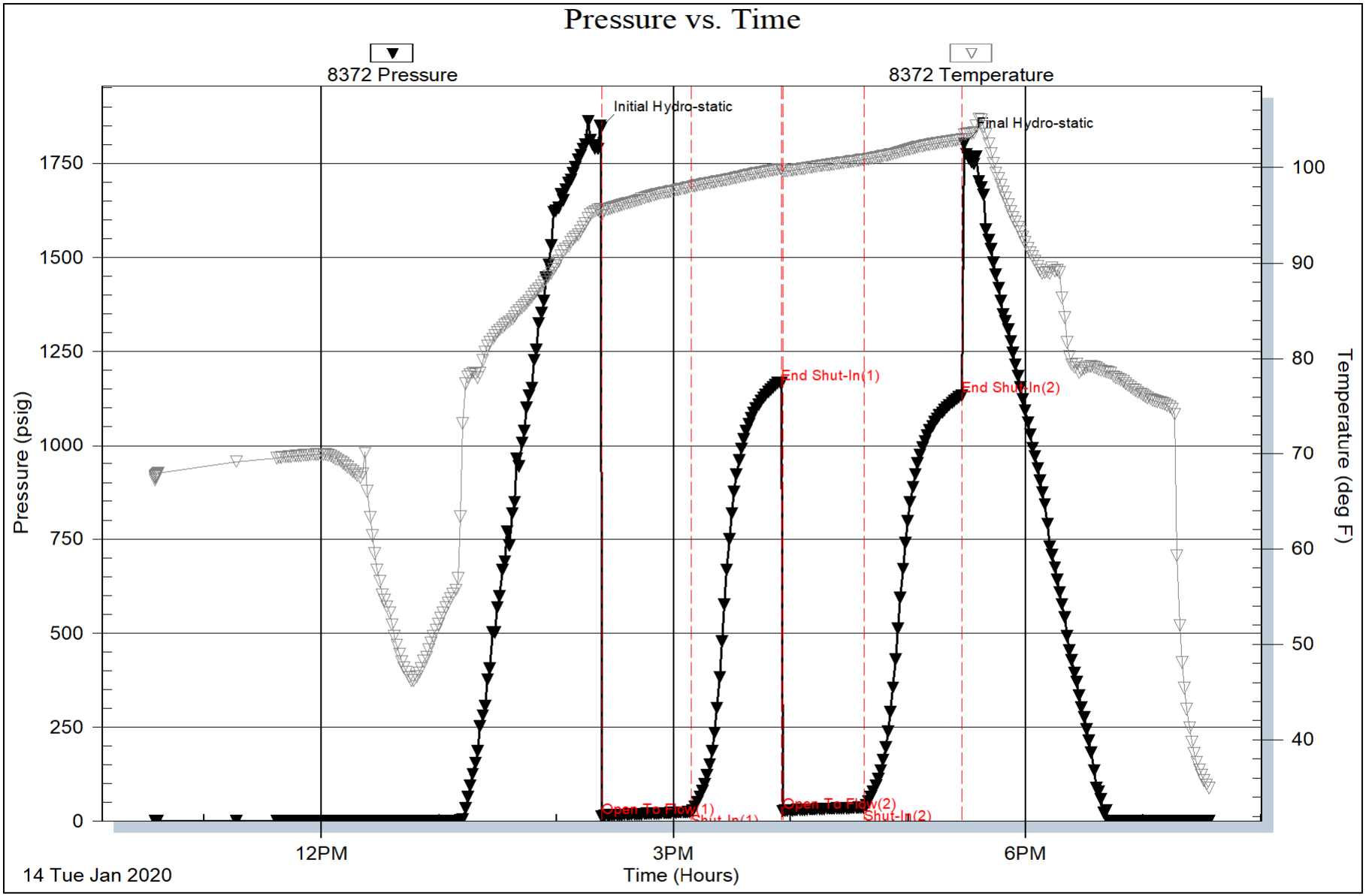
Recovery Information

Recovery Table

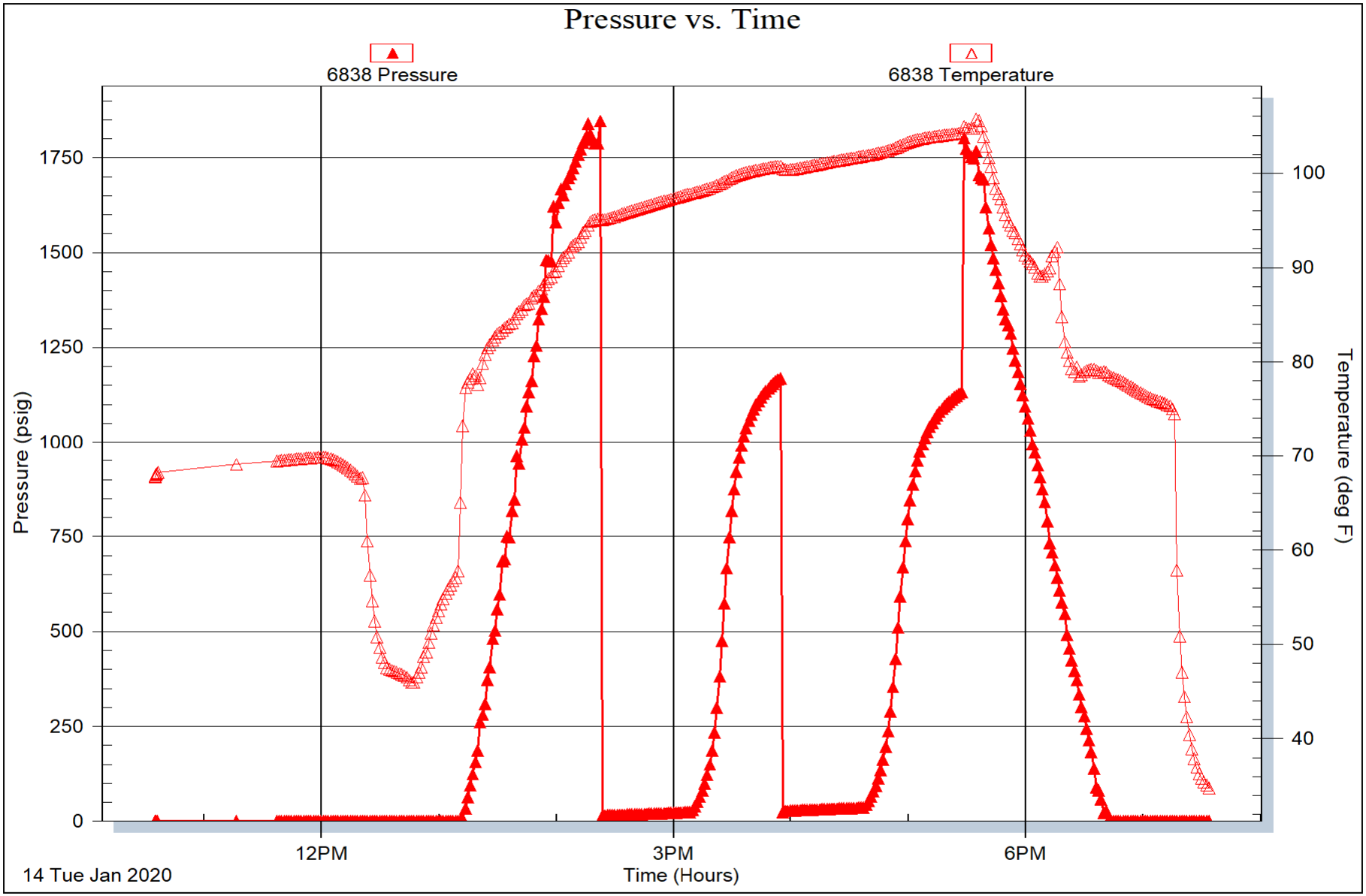
Length ft	Description	Volume bbl
30.00	GOCM 5%G 15%O 80%M	0.220
65.00	GO 15%G 85%O	0.478
0.00	285' GIP 100%G	0.000

Total Length: 95.00 ft Total Volume: 0.698 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM


Pressure vs. Time
8372 Pressure
8372 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
100
90
80
70
60
50
40
12PM
3PM
6PM
14 Tue Jan 2020
Time (Hours)

Serial #: 6838 **Inside** Dow ning Nelson Oil Co ALRON#1-23 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 66374 Printed: 2020.01.15 @ 17:02:09

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket NO. 66374

Well Name & No. Alton #1-23 Test No. 1 Date 01/14/2020

Company DNOCI Elevation 2208 KB 2201 GL

Address PO BOX 1019 Hays Ks 67601

Co. Rep / Geo. Marc Downing Rig Discovery #2

Location: Sec. 23 Twp 14s Rge. 21w Co. Trego State Ks

Interval Tested 3672' - 3750' Zone Tested Lans 'H-J'

Anchor Length 78' Drill Pipe Run _____ Mud Wt. 9.1

Top Packer Depth 3668' Drill Collars Run — Vis 54

Bottom Packer Depth 3672' Wt. Pipe Run 242 WL 8.8

Total Depth 3750' Chlorides 5000 ppm System LCM 2#

Blow Description J7-Weak; Built to 7"

JSI-Weak; Built to ½"; Died 30 min in

K7-Fair; Built to 9"

KSI-Weak; Built to ½"; Died back to surface

Rec 30'	Feet of GOCM	5 %gas	15 %oil	%water	80 %mud	
Rec 65'	Feet of GO	15 %gas	85 %oil	%water	%mud	
Rec	Feet of 285' GIP	100 %gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 95' BHT 103° Gravity 28° API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1844	☒ Test 1200	T-On Location 10:12	
(B) First Initial Flow 12	☐ Jars	T-Started 10:35	
(C) First Final Flow 24	☐ Safety Joint	T-Open 14:20	
(D) Initial Shut-In 1166	☐ Circ Sub	T-Pulled 17:20	
(E) Second Initial Flow 26	☒ Hourly Standby X1	T-Out 19:33	
(F) Second Final Flow 36	☒ Mileage 62R7 62+62	Comments Loaded @ 17:00	
(G) Final Shut-In 1133	☐ Sampler	1/15/2020	
(H) Final Hydrostatic 1801	☐ Straddle		
	☐ Shale Packer	☐ EM Tool	
Initial Open 45	☐ Extra Packer	☐ Ruined Shale Packer	
Initial Shut-In 45	☐ Extra Recorder	☐ Ruined Packer	
Final Flow 45	☐ Day Standby	☐ Extra Copies	
Final Shut-In 45	☐ Accessibility	Sub Total 0	
	Sub Total 1324	Total 1324	
		MP/DST Disc't	

Approved By _____ Our Representative Spencer Stark Thanks!

785-259-0056

Marc A. Downing Consulting Petroleum Geologist	Geologic Report Drilling Time and Sample Log

Operator **Downing-Nelson Oil Co., Inc.**			**Elevation** KB 2211 DF 2209 GL 2203
Lease **ALRON**		No. **1-23**	
API # **15-195-23092-0000**			**Casing Record** Surface 8 5/8" @ 220' Production 5 1/2" @ 4035'
Field **Wildcat**			
Location **1390' FNL & 400' FEL**			**Electrical Surveys**
Sec. **23**	Twp. **14s**	Rge. **21w**	**CNDL, DIL MEL**
County **Trego**	State **Kansas**		

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	1556	1555	+656	+5
Base Anhydrite	1599	1598	+613	+4
Topeka	3269	3270	-1059	+11
Heebner	3512	3514	-1303	+8
Tornoto	3532	3532	-1321	+11
LKC	3550	3551	-1340	+9
BKC	3795	3798	-1587	+8
Marmaton	3880	3882	-1671	+9
Cherokee Sh	3925	3927	-1716	+8
Arbuckle	3956	3958	-1747	+10
Total Depth	4036	4038	-1827	

Reference Well For Structural Comparison **R. W. Shields - Gabel #1**
NE NE NE, Sec. 23-14s-21w

Drilling Contractor		**Discovery Drilling, Rig #2**		
Commenced	1-9-20	Completed		1-15-20
Samples Saved From		3250	To	RTD
Drilling Time Kept From		3150	To	RTD
Samples Examined From		3250	To	RTD
Geological Supervision From		3250	To	RTD

Summary and Recommendations

Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.

Respectfully Submitted,

Marc A. Downing

ROCK TYPES
shale, red
shale, gry
Carbon Sh
Dolprim
Lmst fw7>

ACCESSORIES
STRINGER
Limestone
MINERAL
Chert, dark
Chert White

OTHER SYMBOLS
DST
DST Int
DST alt
Core
tail pipe
MISC
Daily Report
Digital Photo
Document
Folder
Link
Vertical Log File
Horizontal Log File
Core Log File
Drill Cuttings Rpt
OIL SHOWS
Even Stn
Spotted Stn 50 - 75 %
Spotted Stn 25 - 50 %
Spotted Stn 1 - 25 %
Questionable Stn
Dead Oil Stn
Fluorescence

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

Comment

NOTE: Gamma ray has been shifted to fit ROP

Poor samples, very shaly (90% shale)

Vis: 54 Wt: 8.7

Samples still very shaly

Samples still very shaly

Vis: 53 Wt: 8.7

Very poor samples

Still poor samples

Vis: 53 Wt: 8.8

Samples becoming better

Vis: 62 Wt: 9.2
DST #1
3672-3750
45-45-45-45
I.F. - 7" / 1/4" SIB
F.F. - 9" / 1/2" SIB
IFP: 12-24
FFP: 26-36
SIP: 1166-1133
HP: 1844-1801
Rec:
285' GIP
65' GO (85%o)
30' GOCM (5%g, 85% o) G = 28
BHT: 103

Geological Descriptions

Topeka 3269 (-1058)
LS: tan, fn xln, dns.
LS: mostly ala, some subxln
Sh: gry-drk gry
LS: wht, fn-md xln, scat sml foss. Scat intxln por, mostly subxln-chlky. Totally barren.
Sh: drk gry
Sh: gry
LS: tan-brn, fn xln, dns.
LS: some ala, very poor samples.
LS: wht, fn xln, chlky, foss in prt, some mtld.
Sh: Black Carb
Sh: gry w/ brn
LS: wht, vfn-mic xln, scat intxln por, chlky. All NS.
LS: trng dns w/ pr por.
Sh: gry
Sh: Black Carb
LS: wht, md xln, foss in prt. Fr int foss por w/ few sml vugs. Trng dns, all NS.
Sh: gry
LS: wht-tan, md xln, scat foss. Fr-gd vug and int foss por, fr amt chlky. Totally barren.
LS: tan, md xln, pr por and dns.
Heebner 3512 (-1301)
Sh: Black Carb
Sh: gry w/ brn
Toronto 3532 (-1321)
LS: wht, fn-vfn xln, pr por and dns. Scat shp wht cht, all NS.
LKC 3550 (-1339)
LS: wht-tan, some brn, vfn suc xln. Poss brn resid stn, NSFO. 1-2 pcs w/ lrg rhombs, fr int xln por, fr stn w/ sptd SFO when broken. No od.
Sh gry w/ brn
LS: wht, fn-md xln, few ool and foss. 1 pc w/ v pr sptd SFO, pr por, subxln in prt. No od.
Sh: gry
LS: wht, fn-md xln, few ool rx. 1-2 pcs w/ fr int ool por, fr sat w/ fr SFO, no od. Rest totally barren.
Sh: drk gry
LS: wht, fn xln, few suc rx. Rare hvy stn in pr intxln por, scat subxln rx, NSFO, no od.
LS: wht, fn-md xln, few foss. 2-3 rx w/ hvy SFO on edge, pr por, dns. Scat barren chlky rx, all no od.
Sh: gry
LS: wht, fn xln. Scat gd intxln por, mostly subxln-chlky. Totally barren, no od.
LS: wht, fn-md xln, Scat lrg ool and foss. Mostly pr por and dns, totally barren.
Sh: drk gry
Sh: gry
LS: wht, md xln, sml-md ool w/ scat frag foss. Fr-gd int ool and vug por, fr-gd sat stn w/ fr SFO, fr-gd od. Trng pr por and dns w/ depth.
LS: wht, mostly fn xln, scat subxln-chlky rx w/ NS. 3-4 rx tan-brn w/ md-lrg foss. Pr-fr int foss por, fairly tight, w/ fr-gd brn sat stn, fr SFO, lt-fr od.
LS: wht, trng fn-vfn xln, few sml ool. Mostly dns w/ no vis por, few subxln rx. Mostly barren w/ few pcs pr resid stn on edge. NSFO, no od.
Sh: drk gry
LS: wht, few ool rx w/ hvy blk stn and pr SFO in pr int ool por, no od. Rest v dns w/ NS.
LS: tan-wht, md xln. Mostly v dns w/ no vis por, totally barren.
Sh: gry
LS: wht, many ool, w/ scat int ool por, chlky in prt, totally barren, no od.
BKC 3795 (-1584)
Sh: gry w/ some v drk-blk
LS: wht, fn-md xln, ool in prt. Dns, no vis por.
Sh: gry
LS: wht, fn-md xln, v dns w/ no vis por.
Sh: brn-red w/ some gry. Arg in prt.
LS: much ala
Sh: brn-red, scat gry. Washes red.
LS: tan-wht, md xln, dns. Rare shp org cht.
Sh: gry w/ brn-red
Marmaton 3880 (-1669)
LS: tan-wht, md xln. Mostly pr por, w/ few pcs pr stn, rare sptd SFO. Increasing amt tan wht and org cht, shp. No od.
LS: wht w/ tan-brn, md xln. Mostly all v dns w/ no vis por, scat subxln rx. Scat cht, wht-tan, some org-yel. Totally barren, no od.
LS: much ala, NS.
Cherokee Sh 3925 (-1714)
Sh: drk gry w/ some blk
Sh: gry, scat cht
Arbuckle 3956 (-1745)
Dolo: Fr amt gry sh w/ scat multi-color cht, org tan wht, w/ scat vfn suc xln dolo.
Dolo: tan-wht, fn-md suc xln w/ fr amt md rhombs. Some fr intxln por, mostly barren. 1-2 rx w/ spttd SFO, no od.
Dolo: tan, md rhom xln, some sltly sndy. Fr-gd intxln/gran por, totally barren. Few chlky rx, all no od.
Dolo: tan, md rhom xln, some sndy in prt. Fr-gd intxln por, totally barren, no od.
Dolo: tan, md rhom xln. Scat intxln por, totally barren.
RTD: 4036 (-1825)

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

e 785-483-1071
1 785-324-1041

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

No. 1885

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-6-20	23	14	21	Trego	KS		1:15 PM

Location Ellis - 5 to Victoria Rd, 3W to 40th Ave, 3½S to well

Lease Alron	Well No. 1-23
Contractor B & C well Service	
Type Job Port Collar	
Hole Size	T.D.
Csg. 5½"	Depth
Tbg. Size 2 3/8"	Depth
Tool Port Collar	Depth 1536'
Cement Left in Csg.	Shoe Joint
Meas Line	Displace 5 Bbls

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 300 80/20 QMDC ¼# Flo-seal 6 gel on side used 165 sx

Common 165 80/20 QMDC

Poz. Mix

Gel. 6

Calcium

Hulls

Salt

Flowseal 75#

Kol-Seal

Mud CLR 48

CFL-117 or CD110 CAF 38

Sand

Handling 300

Mileage

EQUIPMENT

Pumptrk 17	No.	Cementer	Tim
		Helper	
Bulktrk 13	No.	Driver	Mike
		Driver	
~~Bulktrk~~ P.U	No.	Driver	Rick
		Driver	

JOB SERVICES & REMARKS

Remarks: ~~[illegible]~~

Rat Hole ~~[illegible]~~

Mouse Hole test tool to #. + held.

Centralizers Pump 5x gel down to

Baskets tool. open tool + pump 65x

D/V or Port Collar gel + 165 sx Cmt. Displaced

w/ 5 Bbls H2O. Closed tool + pressure to 700# + held. Run 53 jts tubing + wash clean. wash up + Rig down.

Cement did Circulate

Thanks

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge port collar 302

Mileage 31

Tax

Discount

Total Charge

X Signature Brent Kaylor