



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1212856
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

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
- Plug Back Conv. to GSW Conv. to Producer
- 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

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical 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

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1212856

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

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

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 <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 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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

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: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

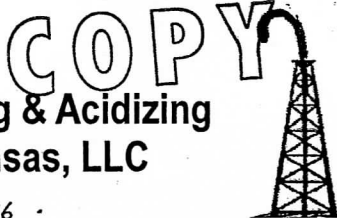
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <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> _____	PRODUCTION INTERVAL: _____ _____
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810 E 7TH
 PO Box 92
 EUREKA, KS 67045
 (620) 583-5561

Elite

**Cementing & Acidizing
 of Kansas, LLC**



Cement or Acid Field Report
 Ticket No. **1358**
 Foreman Kevin McCoy
 Camp Eureka

API 15-017-20916

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State	
5-29-14	1034	Madden UNIT # 1.	31	19S	6E	CHASE	KS	
Customer RANGE OIL COMPANY, INC.			Safety Meeting KM RM RM AB		Unit #	Driver	Unit #	Driver
Mailing Address P.O. Box 781775					102	Russ M.		
					112	Allen B.		
					141	Rudy M.		
City Wichita			State KS		Zip Code 67278			

Job Type SURFACE Hole Depth 210' KB Slurry Vol. 30 BBL Tubing _____
 Casing Depth 200' G.L. Hole Size 12 1/4" Slurry Wt. 15.2# Drill Pipe _____
 Casing Size & Wt. 8 5/8 23" Cement Left in Casing 15' Water Gal/SK 5.2 Other _____
 Displacement 12.4 BBL OF Displacement PSI _____ Bump Plug to _____ BPM _____

Remarks: Safety Meeting: While DRILLING 12 1/4" SURFACE hole C&G DRILLING HAD Fluid Loss from 60'-70' Below KB. BAN 200' 8 5/8 Casing w/ Cement Basket @ 42' Below G.L. Rig up to 8 5/8 Casing. BREAK Circulation w/ Fresh water. MIX 135 SKS CLASS "A" Cement w/ 3% CAcl2 1/4" Flo-Seal /SK @ 15.2#/GAL = 30 BBL Slurry. (MIX Cotton Seed Hulls in w/ Cement) Shut down. Release Plug. Displace w/ 12.4 BBL Fresh water. Shut casing in. Good Cement Returns to SURFACE = 9 BBL Slurry to Pit. Job Complete. Rig down.

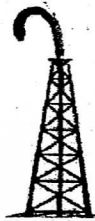
Code	Qty or Units	Description of Product or Services	Unit Price	Total
C 101	1	Pump Charge	840.00	840.00
C 107	50	Mileage	3.95	197.50
C 200	135 SKS	CLASS "A" Cement	15.00	2025.00
C 205	380 #	CAcl2 3%	.60	228.00
C 209	34 #	Flo-Seal 1/4" /SK	2.25	76.50
C 108 B	6.35 TONS	TON Mileage 50 miles	1.35	428.63
C 113	4 HRS	80 BBL VAC TRUCK	85.00	340.00
C 224	3300 gals	City water	10.00/1000	33.00
C 413	1	8 5/8 wooden Plug	80.00	80.00
C 606	1	8 5/8 Cement BASKET	308.00	308.00
C 506	2	8 5/8 Centralizers	65.00	65.00
			Sub TOTAL	4686.63
			6.15% Sales Tax	177.15

Authorization Witnessed By Duke Coulter Title C&G Toolpusher Total 4863.78

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

810 E 7TH
 PO Box 92
 EUREKA, KS 67045
 (620) 583-5561

Elite
COPY
Cementing & Acidizing
of Kansas, LLC



Cement or Acid Field Report
 Ticket No. **1359**
 Foreman Kevin McCoy
 Camp Eureka

API # 15-017-20916

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
6-3-14	1034	Madden Unit # 1	31	19S	6E	CHASE	Ks
Customer	Mailing Address	City	State	Zip Code	Safety Meeting	Unit #	Driver
RANGE OIL COMPANY, INC.	P.O. Box 781775	Wichita	Ks	67278	Km AM CM RM	104 111 141	ALAN M. CHRIS M. RUDY M.

Job Type Longstring Hole Depth 2262' KB Slurry Vol. 41 BBL Tubing _____
 Casing Depth 2253 Hole Size 7 7/8 Slurry Wt. 13.7 # Drill Pipe _____
 Casing Size & Wt. 5 1/2 14 # Cement Left in Casing 7.5' Water Gal/SK 9.0 Other _____
 Displacement 55 BBL Displacement PSI 500 Bump Plug to 1000 PSI BPM _____

Remarks: Safety Meeting: Rig up to 5 1/2 casing. Break circulation w/ 5 BBL fresh water. Pump 12 BBL Metasilicate Pre Flush, 5 BBL fresh water spacer. Mixed 125 sks THICK Set Cement w/ 5 # Kol-Seal /sk @ 13.7 #/gal, yield 1.85 = 41 BBL slurry. wash out pump & lines. Shut down. Release Latch down Plug. Displace Plug to seat w/ 55 BBL fresh water. Final pump pressure 500 PSI. Bump Plug to 1000 PSI. Wait 2 minutes. Release pressure. Float & Plug Held. Good circulation @ ALL times while cementing. Job Complete. Rig down.

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C 102	1	Pump Charge	1050.00	1050.00
C 107	50	Mileage	3.95	197.50
C 201	125 sks	THICK Set Cement	19.50	2437.50
C 207	625 #	Kol-Seal 5 #/sk	.45 #	281.25
C 216	100 "	Metasilicate Pre Flush	2.00 #	200.00
C 108	6.88 Tons	Ton Mileage 50 miles	1.35	464.40
C 113	5 HRS	80 BBL VAC TRUCK	85.00	425.00
C 224	3300 gals	City water	10.00/1000	33.00
C 421	1	5 1/2 LATCH down Plug	230.00	230.00
C 703	1	5 1/2 AFU INSERT	145.00	145.00
C 504	4	5 1/2 x 7 7/8 CENTRALIZERS	48.00	192.00
THANK YOU			Sub Total	5655.65
			Sales Tax 6.15%	216.40
Authorization <u>[Signature]</u> Title <u>X</u>			Total	5872.05

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
MADDENUNIT1DST1

Company Range Oil Company, Inc. Lease & Well No. Madden Unit No. 1
Elevation 1469 KB Formation Viola Effective Pay _____ Ft. Ticket No. F277
Date 5-31-14 Sec. 31 Twp. 19S Range 6E County Chase State Kansas
Test Approved By Ken Wallace Diamond Representative Jake Fahrenbruch

Formation Test No. 1 Interval Tested from 2,179 ft. to 2,188 ft. Total Depth 2,188 ft.
Packer Depth 2,174 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 2,179 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

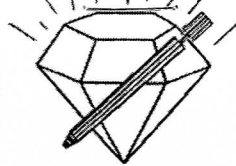
Top Recorder Depth (Inside) 2,162 ft. Recorder Number 5951 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 2,180 ft. Recorder Number 5584 Cap. 5,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor C & G Drilling Company - Rig 2 Drill Collar Length 300 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 52 Weight Pipe Length _____ ft I.D. _____ in.
Weight 8.9 Water Loss 7.8 cc. Drill Pipe Length 1,851 ft I.D. 3 1/2 in.
Chlorides 800 P.P.M. Test Tool Length 28 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 9 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Building blow increasing to 7 1/2 ins. No blow back during shut-in.
2nd Open: Building blow increasing to 9 1/2 ins. No blow back during shut-in.

Recovered 240 ft. of clean heavy oil = 1.180800 bbls. (Grind out: 100%-oil) Gravity: 29 @ 60°
Recovered 20 ft. of oil cut mud = .098400 bbls. (Grind out: 20%-oil; 80%-mud)
Recovered 260 ft. of TOTAL FLUID = 1.279200 bbls.
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Remarks Tool Sample Grind Out: 85%-oil; 15%-mud

Time Set Packer(s) 8:30 P.M. Time Started off Bottom 11:30 P.M. Maximum Temperature 97°
Initial Hydrostatic Pressure.....(A) 1019 P.S.I.
Initial Flow Period.....Minutes 30 (B) 8 P.S.I. to (C) 47 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 742 P.S.I.
Final Flow Period.....Minutes 60 (E) 48 P.S.I. to (F) 110 P.S.I.
Final Closed In Period.....Minutes 60 (G) 749 P.S.I.
Final Hydrostatic Pressure.....(H) 1018 P.S.I.



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
MADDENUNIT1DST2

Company Range Oil Company, Inc. Lease & Well No. Madden Unit No. 1
Elevation 1469 KB Formation Viola Effective Pay _____ Ft. Ticket No. F278
Date 6-1-14 Sec. 31 Twp. 19S Range 6E County Chase State Kansas
Test Approved By Ken Wallace Diamond Representative Jake Fahrenbruch

Formation Test No. 2 Interval Tested from 2,188 ft. to 2,208 ft. Total Depth 2,208 ft.
Packer Depth 2,183 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 2,188 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 2,171 ft. Recorder Number 5951 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 2,189 ft. Recorder Number 5584 Cap. 5,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor C & G Drilling Company - Rig 2 Drill Collar Length 300 ft. I.D. 2 1/4 in.
Mud Type Chemical Viscosity 52 Weight Pipe Length _____ ft. I.D. _____ in.
Weight 8.9 Water Loss 7.8 cc. Drill Pipe Length 1,860 ft. I.D. 3 1/2 in.
Chlorides 800 P.P.M. Test Tool Length 28 ft. Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 20 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Blow increasing. Off bottom of bucket in 15 mins. No blow back during shut-in.
2nd Open: Blow increasing. Off bottom of bucket in 25 mins. No blow back during shut-in.

Recovered 400 ft. of clean heavy oil = 3.457600 bbls. (Grind out: 100%-oil) Gravity: 29 @ 60°
Recovered 60 ft. of oil cut mud = .295200 bbls. (Grind out: 15%-oil; 85%-mud)
Recovered 460 ft. of TOTAL FLUID = 3.752800 bbls.
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____

Remarks Tool Sample Grind Out: 47%-oil; 53%-mud

Time Set Packer(s) 10:55 A.M. Time Started off Bottom 1:55 P.M. Maximum Temperature 94°
Initial Hydrostatic Pressure.....(A) 1041 P.S.I.
Initial Flow Period.....Minutes 30 (B) 11 P.S.I. to (C) 115 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 735 P.S.I.
Final Flow Period.....Minutes 60 (E) 118 P.S.I. to (F) 187 P.S.I.
Final Closed In Period.....Minutes 60 (G) 729 P.S.I.
Final Hydrostatic Pressure.....(H) 1041 P.S.I.



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
MADDENUNIT1DST3

Company Range Oil Company, Inc. Lease & Well No. Madden Unit No. 1
Elevation 1469 KB Formation Simpson Sand Effective Pay Ft. Ticket No. F279
Date 6-2-14 Sec. 31 Twp. 19S Range 6E County Chase State Kansas
Test Approved By Ken Wallace Diamond Representative Jake Fahrenbruch

Formation Test No. 3 Interval Tested from 2,233 ft. to 2,262 ft. Total Depth 2,262 ft.
Packer Depth 2,228 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 2,233 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 2,216 ft. Recorder Number 5951 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 2,234 ft. Recorder Number 5584 Cap. 5,000 psi.
Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor C & G Drilling Company - Rig 2 Drill Collar Length 300 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 49 Weight Pipe Length ft I.D. in.
Weight 9.0 Water Loss 7.6 cc. Drill Pipe Length 1,905 ft I.D. 3 1/2 in.
Chlorides 900 P.P.M. Test Tool Length 28 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 29 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Blow increasing. Off bottom of bucket in 10 mins. No blow back during shut-in.
2nd Open: Blow increasing. Off bottom of bucket in 11 mins. No blow back during shut-in.

Recovered 740 ft. of slightly mud cut water w/trace oil specks = 7.737200 bbls. (Grind out: 1%-oil; 93%-water; 6%-mud)
Recovered ft. of Chlorides: 10,000 Ppm PH: 7.5 RW: .55 @ 82°
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks Tool Sample Grind Out: 1%-oil; 60%-water; 39%-mud

Time Set Packer(s) 5:30 A.M. Time Started off Bottom 8:30 A.M. Maximum Temperature 92°
Initial Hydrostatic Pressure.....(A) 1071 P.S.I.
Initial Flow Period.....Minutes 30 (B) 10 P.S.I. to (C) 179 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 778 P.S.I.
Final Flow Period.....Minutes 60 (E) 181 P.S.I. to (F) 335 P.S.I.
Final Closed In Period.....Minutes 60 (G) 774 P.S.I.
Final Hydrostatic Pressure.....(H) 1070 P.S.I.

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Range Oil Company, Inc.

LEASE Madden Unit #1

FIELD W/C

LOCATION 1460' FWL + 1390' FWL, NW/4

SEC 31 TWP 19S RGE 6E

COUNTY Chase STATE KS

CONTRACTOR C + G Drilling, Rig #1

SPUD 5/29/14 COMP 6/3/14

RTD 2262' LTD 2260'

MUD UP 1500' TYPE MUD Chem

SAMPLES SAVED FROM 1560' TO RTD

DRILLING TIME KEPT FROM 1500' TO RTD

SAMPLES EXAMINED FROM 1500' TO RTD

GEOLOGICAL SUPERVISION FROM 1500' TO RTD

GEOLOGIST ON WELL Ken Wallace

ELEVATIONS

KB 1469'

DF _____

GL 1460'

Measurements Are All From KB

FASTING SURFACE 8 5/8" @ 210 w/ 135 SX
PRODUCTION 5 1/2" @ 2253'

ELECTRICAL SURVEYS
DI/GR - Anal ϕ
Mixer

FORMATION TOPS LOG SAMPLES

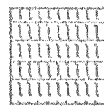
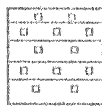
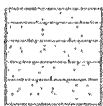

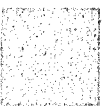

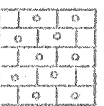


Lansing	1668 (-139)	1592 (-123)
B/KC	1943 (-474)	1930 (-461)
Cherokee sh	2106 (-637)	2095 (-626)
cong/ sd	2123 (-654)	2127 (-658)
Vt/a	2174 (-705)	2178 (-709)
Smp sd	2244 (-775)	2237 (-768)
RTD		
LTD	2260 (-791)	2262 (-793)

REMARKS Production pipe set to further evaluate Viola.

Ken Wallace

5/28/14 MIRT
5/29/14 8am Drlg
5/30/14 7am Drlg @ 915'; 1/4" @ 210'; 1/2" @ 875'
5/31/14 7:30am Drlg @ 2060'; 1/2" @ 1534'
6/1/14 8am PTD 2208' prep for DST #2; 1" @ 2188'
6/2/14 7am RTD 2262', Running DST #3
6/3/14 7am Ran Logs, LTD 2260', set 5 1/2" casing PD @ 5:45 am 6/4/14

LEGEND

								
Anhydrite	Salt	Sandstone	Shale	Carb sh	Limestone	Ool.Lime	Chert	Dolomite

SCALE " = 100'

DEPTH	Lithology	DST#	DRILLING TIME - Minutes Per Foot Rate of Penetration Decreases	SAMPLE DESCRIPTIONS	REMARKS
-------	-----------	------	---	---------------------	---------

1500

FUD MUD @ 210'

20

FUD MUD @ 1534'

V 30
wt. 8.7
LCM 0

40

Bit Trip

Ls, gy, sl foss, cky, & sh, gy

60

ss, gy, v fgl, mica, & sh, gy
NS, NF

80

Sh, gy-mgy, mica

LANSING
1592 (-123)

1600

Ls, brn, fxl, pug, NS
sh, gy, sm red

20

Ls, off wh - lt gy, fxl,
sl foss, ool mpt w/ gy
oolts, NS, NF

40

Ls, off wh, sl ool, foss, sl cky,
fxl - granlr, NUP, NS, NF

60

sh, grn, gy, grn/gy

Ls, gy-tan, sm brn, ool w/ gy
oolts, foss, NS, NF

80

Ls, gy-tan, ool, foss, cky
NS, NF

AA sm fxl, cky, NS

1700

sh, gy, red

20

Ls, off wh, ool, foss, sm
fxl, cky, NS, NF

Ls, tan, sm lt brn, ool, foss,

FIG 6, sl Δty, NS, NF

40

CFS ①

Ls, ltgy, granlr, sdy in pt,
ool, NS, NF

Ls, gy, fxln, cky, sl foss,
NS, NF

sh, gy - dkgy, calc
Ls, mgy, fxln-granlr, argl,
vΔty (gy/wh Δ), NS

Ls, tan, sl ool, foss, sl Δ,
NS, NF

Ls, dk tan, dse, fxln,
sl cky, NS, NF

sh, gy, grn

Ls, tan, fxln-dse, cky,
NS, NF

Ls, em-tan, fxln-dse, cky,
sm off wh, cky

Ls, tan, fxln-dse, NS

sh, dk gy

Ls, gy, dse, fxln, hard,
NS, NF

sh, dkgy w dkgy, argl,
Ls

Ls, tan, vool, foss, cky,
NS, NF

Ls, offwh, ool, cky, vΔty,
NS, NF

sh, bl

Ls, gy-tan, fxh-dse,
ool in pt, Δty, NS, NF

Ls, gy-mgy, ool, fxln,
foss, cky, NS

sh, gy

Ls, gy, ool, cky, NS

AA

B/KC
1930(-461)

1000

20

40

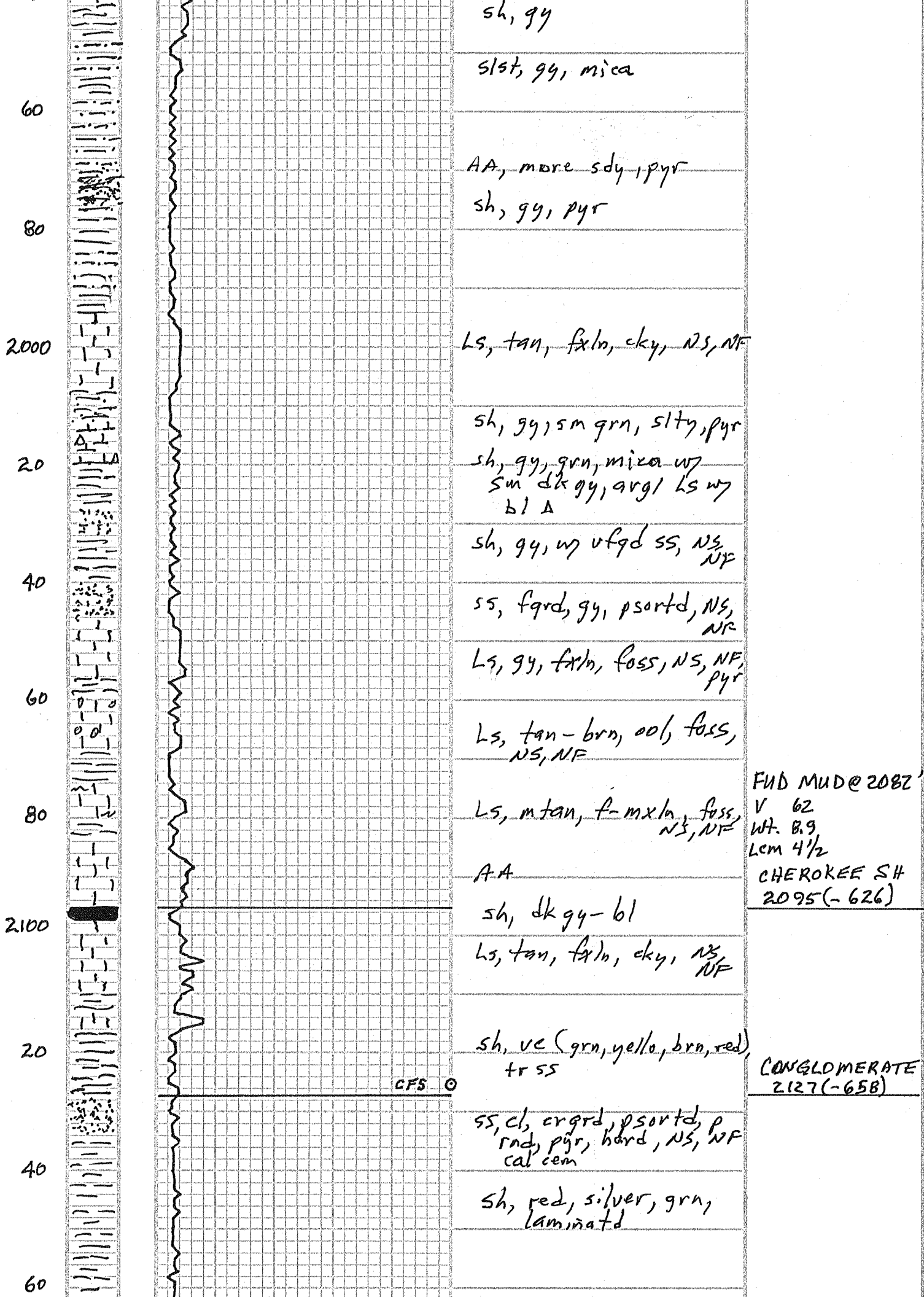
60

80

1900

20

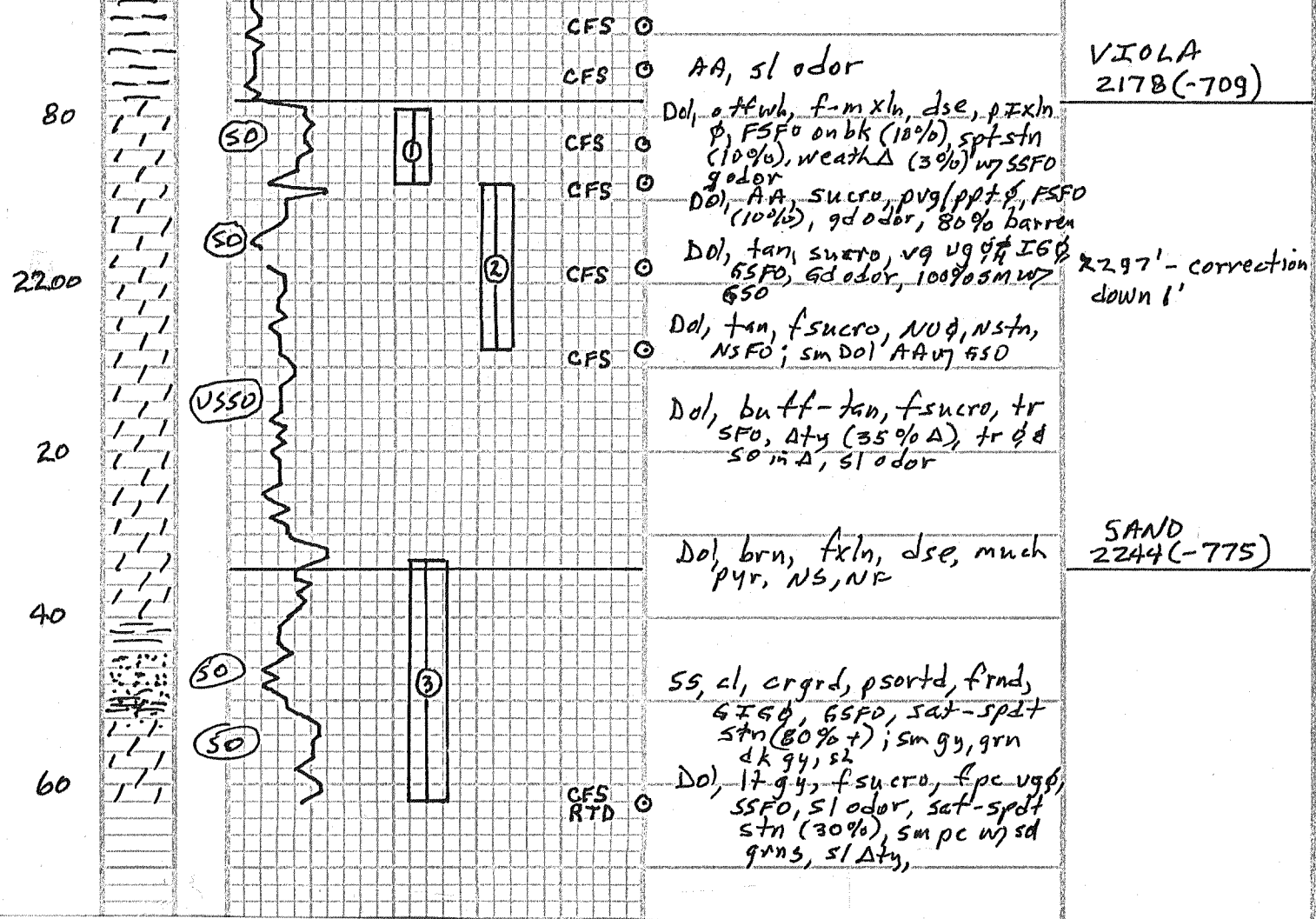
40



FUD MUD@2082'
 V 62
 WT. 8.9
 Lcm 4 1/2
 CHEROKEE SH
 2095(-626)

CONGLOMERATE
 2127(-658)

AA



Diamond Testing General Report

**JAKE
FAHRENBRUCH - TESTER**
Cell: (620) 282-8977

P.O. Box 157
Hoisington KS 67544
Office: (800) 542-7313

General Information

Company Name Range Oil Co., LLC
Well Operator Range Oil Co., LLC
Contact John Washburn
Site Contact Ken Wallace
Field Wildcat
Well Type Vertical
Prepared By Jake Fahrenbruch

Well Name Madden Unit #1
Unique Well ID DST #1 Viola (2179'-2188')
Surface Location Sec 31-19s-6e-Chase Co.-KS
Test Unit #5
Pool Wildcat
Job Number F277
Qualified By Ken Wallace

Test Information

Test Type BH w/S.J.
Formation Viola (2179'-2188')
Start Test Date 2014/05/31
Final Test Date 2014/06/01

Test Purpose Initial Test
Gauge Name Inside 5951
Start Test Time 18:49:00
Final Test Time 02:07:00

Test Results

30 min I.F.P. Building blow, increased to 7 1/2".
 30 min I.S.I.P. No blow-back.
 60 min F.F.P. Building blow, increased to 9 1/2".
 60 min F.S.I.P. No blow-back.

Total fluid recovery: 260'

240' Clean Heavy Oil 100% oil @ 29 gravity (corrected)
 20' Oil Cut Mud 20% oil, 80% mud
 — Tool Sample: MCO 85% oil, 15% mud
 — Bottom-Hole Temp: 97 Deg F

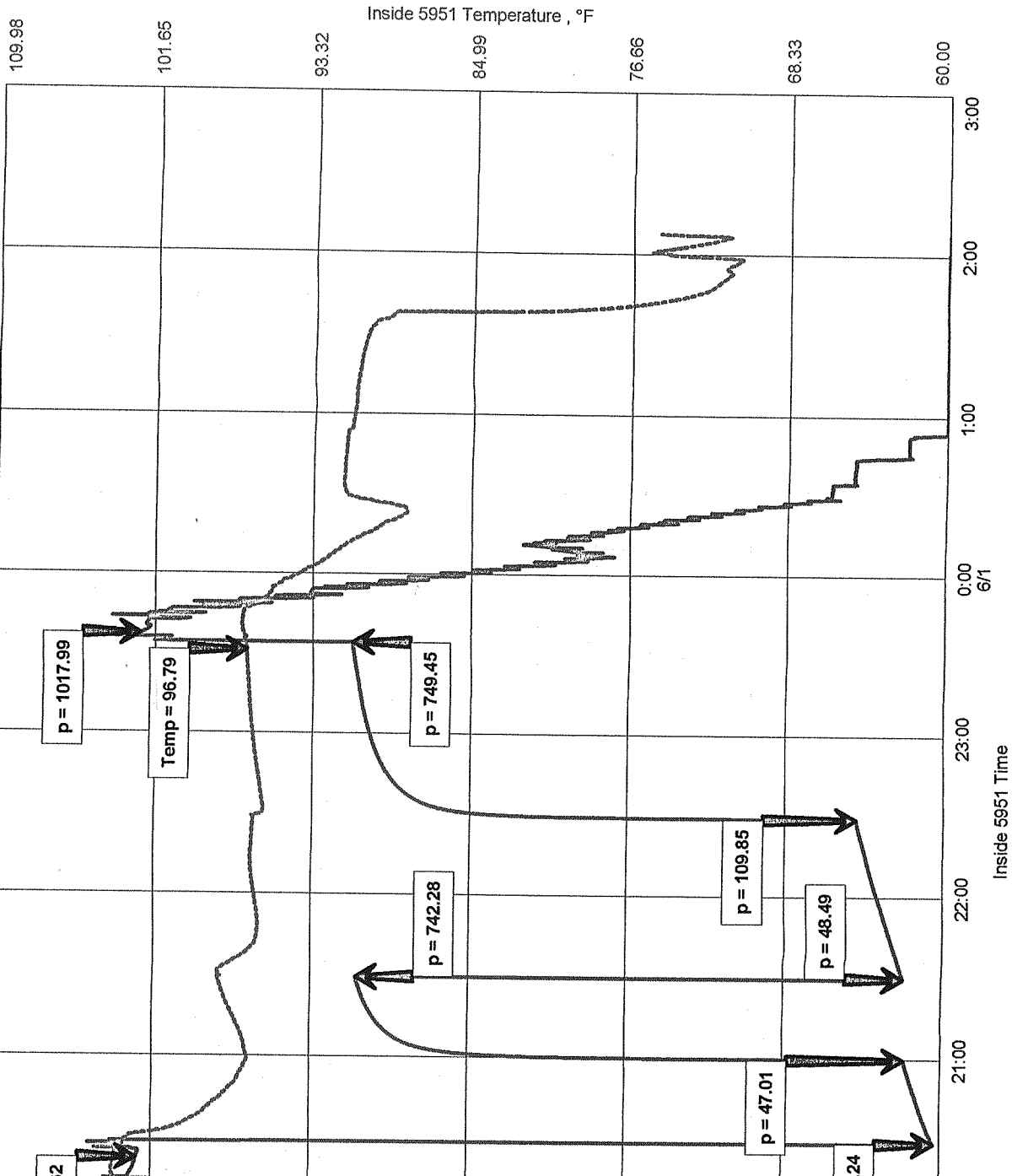
Pressures:

IHP: 1019
 IFP: 8-47
 ISIP: 742
 FFP: 48-110
 FSIP: 749
 FHP: 1018

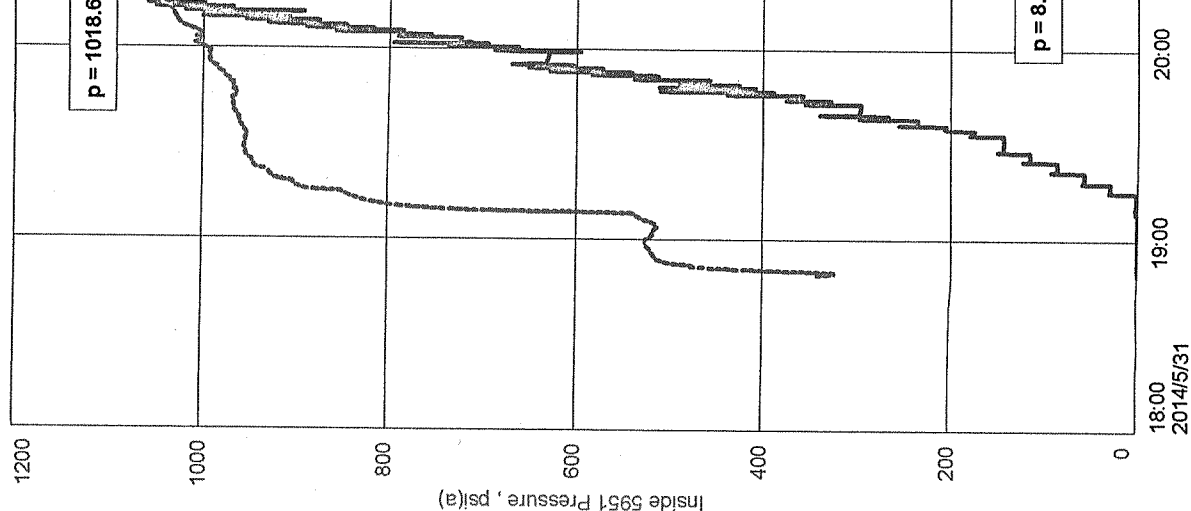
Thanks!

Madden Unit #1
 Formation: Viola (2179'-2188')
 Pool: Wildcat
 Job Number: F277

Madden Unit #1



Range Oil Co., LLC
 DST #1 Viola (2179'-2188')
 Start Test Date: 2014/05/31
 Final Test Date: 2014/06/01



Users\Diamond Testing 5\Desktop\Drill-stem Test\MADDEUNIT1.DST1.ft 01-J



Diamond Testing General Report

**JAKE
 FAHRENBRUCH - TESTER**
 Cell: (620) 282-8977

P.O. Box 157
 Hoisington KS 67544
 Office: (800) 542-7313

General Information

Company Name Range Oil Co., LLC
 Well Operator Range Oil Co., LLC
 Contact John Washburn
 Site Contact Ken Wallace
 Field Wildcat
 Well Type Vertical
 Prepared By Jake Fahrenbruch

Well Name Madden Unit #1
 Unique Well ID DST #2, Viola (2188'-2208')
 Surface Location Sec 31-19s-6e-Chase Co.-KS
 Test Unit #5
 Pool Wildcat
 Job Number F278
 Qualified By Ken Wallace

Test Information

Test Type BH w/S.J.
 Formation Viola (2188'-2208')
 Start Test Date 2014/06/01
 Final Test Date 2014/06/01

Test Purpose Initial Test
 Gauge Name Inside 5951
 Start Test Time 09:09:00
 Final Test Time 17:12:00

Test Results

FLOWS & SHUT-INS:

30 min I.F.P. Blow increased to B.O.B. in 15 minutes.....11-115
 30 min I.S.I.P. No blowback.....735
 60 min F.F.P. Blow increased to B.O.B. in 25 minutes.....118-187
 60 min F.S.I.P. No blowback.....729

PRESSURES:

IHP.....1041

FHP.....1041

Bottom-Hole Temp: 94 Deg F

RECOVERED 460' OF FLUID

400' Clean Heavy Oil 100% oil, 29 gravity (corrected)
 60' OCM 15% oil, 85% mud

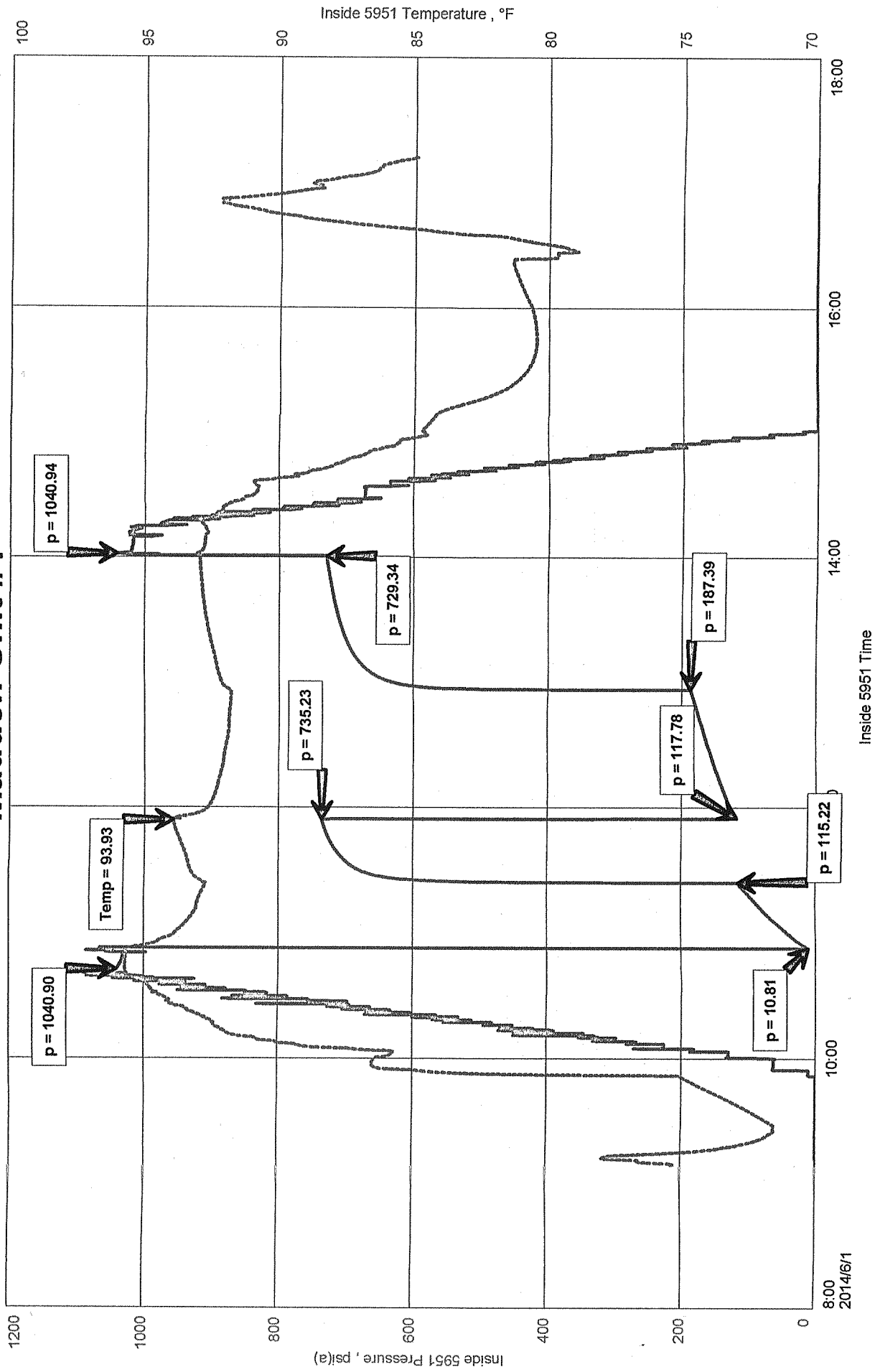
--- TOOL SAMPLE: OM 47% oil, 53% mud

Thanks

Range Oil Co., LLC
DST #2, Viola (2188'-2208')
Start Test Date: 2014/06/01
Final Test Date: 2014/06/01

Madden Unit #1
Formation: Viola (2188'-2208')
Pool: Wildcat
Job Number: F278

Madden Unit #1





**JAKE
FAHRENBRUCH - TESTER**
Cell: (620) 282-8977

P.O. Box 157
Hoisington KS 67544
Office: (800) 542-7313

General Information

Company Name Range Oil Co., LLC
Well Operator Range Oil Co., LLC
Contact John Washburn
Site Contact Ken Wallace
Field Wildcat
Well Type Vertical
Prepared By Jake Fahrenbruch

Well Name
Unique Well ID DST #3, Simpson Sand (2233'-2262')
Surface Location Sec 31-19s-6e-Chase Co.-KS
Test Unit #5
Pool Wildcat
Job Number F279
Qualified By Ken Wallace

Madden Unit #1

Test Information

Test Type BH w/safety joint
Formation Simpson Sand (2233'-2262')
Start Test Date 2014/06/02
Final Test Date 2014/06/02

Test Purpose Initial Test
Gauge Name Inside 5951
Start Test Time 03:28:00
Final Test Time 12:22:00

Test Results

FLOWS & SHUT-INS

PRESSURES

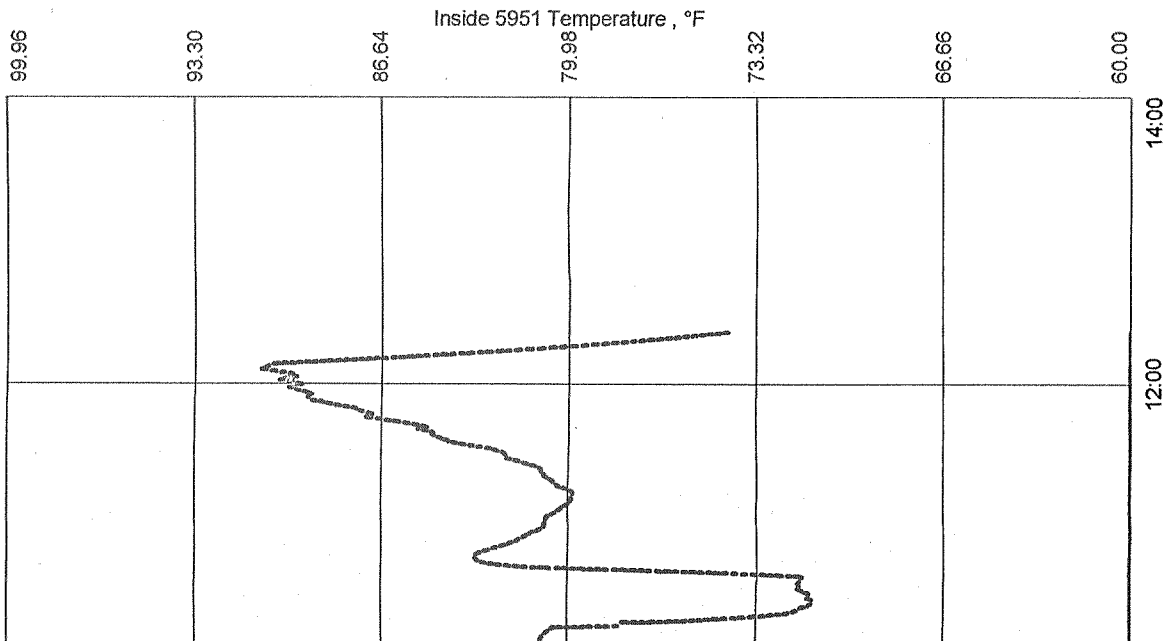
.....IHP: 1071
30 min I.F. — Blow increased to B.O.B. in 10 minutes..... IFP: 10-179
30 min I.S.I. — No blow-back..... ISIP: 778
60 min F.F. — Blow increased to B.O.B. in 11 minutes..... FFP: 181-335
60 min F.S.I. — No blow-back..... FSIP: 774
.....FHP: 1070
.....Bottom-Hole Temp: 92 Deg F

Recovered 740' of SMCW w/TR OIL SPECKS.....<1% oil, >93%wtr, 6% mud
(TOOL SAMPLE: OSMW.....1% oil, 60% wtr, 39% mud)
10,000 PPM CHLORIDES
RW: .55 ohm @ 82 Deg F
PH: 7.5

Thanks

Fast

Madden Unit #1
Formation: Simpson Sand (2233'-2262')
Pool: Wildcat
Job Number: F279



Range Oil Co., LLC
DST #3, Simpson Sand (2233'-2262')
Start Test Date: 2014/06/02
Final Test Date: 2014/06/02

Madden Unit #1

