



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1236299
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: _____

1236299

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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
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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. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
STC/Maddenaunit1dst1

Company Range Oil Company, Inc. Lease & Well No. Madden "A" Unit No. 1
Elevation 1458 KB Formation Viola Effective Pay _____ Ft. Ticket No. J3306
Date 10-12-14 Sec. 31 Twp. 19S Range 6E County Chase State Kansas
Test Approved By Kenneth C. Wallace Diamond Representative John C. Riedl

Formation Test No. 1 Interval Tested from 2,172 ft. to 2,180 ft. Total Depth 2,180 ft.
Packer Depth 2,167 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 2,172 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 2,175 ft. Recorder Number 30046 Cap. 6,000 psi.
Bottom Recorder Depth (Outside) 2,177 ft. Recorder Number 13498 Cap. 6,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor C & G Drilling Company - Rig 1 Drill Collar Length 180 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 40 Weight Pipe Length _____ ft I.D. _____ in.
Weight 9.1 Water Loss 8.2 cc. Drill Pipe Length 1,966 ft I.D. 3 in.
Chlorides 1,000 P.P.M. Test Tool Length 26 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number 1 Anchor Length 8 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-FH in.

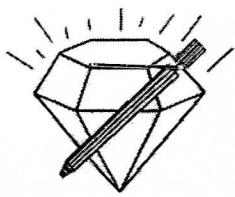
Blow: 1st Open: Weak blow. Died in 1 min. No blow back during shut-in.
2nd Open: No blow. Flushed tool but no help. No blow back during shut-in.

Recovered 2 ft. of mud cut oil = .009840 bbls. (Grind out: 90%-oil; 10%-mud)

Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____

Remarks Tool Sample Grind Out: 100%-oil

Time Set Packer(s) 12:40 A.M. Time Started off Bottom 2:40 A.M. Maximum Temperature 93°
Initial Hydrostatic Pressure.....(A) 1049 P.S.I.
Initial Flow Period.....Minutes 30 (B) 11 P.S.I. to (C) 13 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 61 P.S.I.
Final Flow Period.....Minutes 30 (E) 14 P.S.I. to (F) 12 P.S.I.
Final Closed In Period.....Minutes 30 (G) 342 P.S.I.
Final Hydrostatic Pressure.....(H) 1040 P.S.I.



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
STC/Maddenaunit1dst2

Company Range Oil Company, Inc. Lease & Well No. Madden "A" Unit No. 1
Elevation 1458 KB Formation Viola Effective Pay _____ Ft. Ticket No. J3307
Date 10-12-14 Sec. 31 Twp. 19S Range 6E County Chase State Kansas
Test Approved By Kenneth C. Wallace Diamond Representative John C. Riedl

Formation Test No. 2 Interval Tested from 2,180 ft. to 2,192 ft. Total Depth 2,192 ft.
Packer Depth 2,175 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 2,180 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 2,183 ft. Recorder Number 30046 Cap. 6,000 psi.
Bottom Recorder Depth (Outside) 2,189 ft. Recorder Number 13498 Cap. 6,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor C & G Drilling Company - Rig 1 Drill Collar Length 180 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 46 Weight Pipe Length _____ ft I.D. _____ in.
Weight 9.1 Water Loss 8.2 cc. Drill Pipe Length 1,974 ft I.D. 3 in.
Chlorides 1,000 P.P.M. Test Tool Length 26 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number 1 Anchor Length 12 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-FH in.

Blow: 1st Open: Weak, intermittent, surface blow throughout. No blow back during shut-in.
2nd Open: No blow. Flushed tool but no help. No blow back during shut-in.

Recovered 5 ft. of mud cut oil = .024600 bbls. (Grind out: 60%-oil; 40%-mud)
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____

Remarks Tool Sample Grind Out: 35%-oil; 65%-mud

Time Set Packer(s) 11:00 A.M. Time Started off Bottom 1:00 P.M. Maximum Temperature 91°
Initial Hydrostatic Pressure.....(A) 1045 P.S.I.
Initial Flow Period.....Minutes 30 (B) 14 P.S.I. to (C) 17 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 712 P.S.I.
Final Flow Period.....Minutes 30 (E) 17 P.S.I. to (F) 21 P.S.I.
Final Closed In Period.....Minutes 30 (G) 723 P.S.I.
Final Hydrostatic Pressure.....(H) 1033 P.S.I.

GEOLOGIST'S REPORT

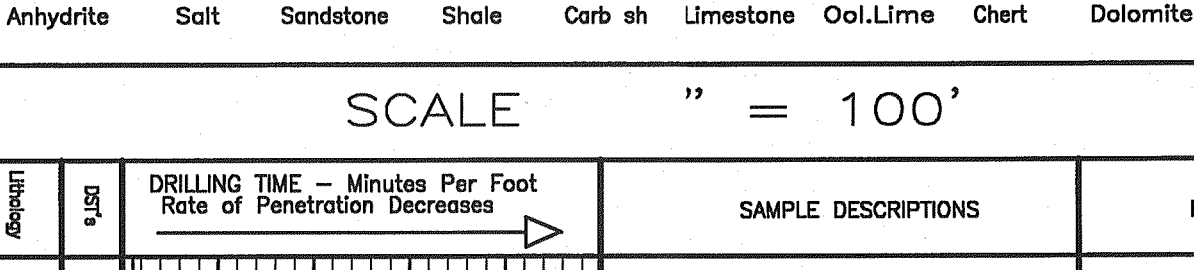
DRILLING TIME AND SAMPLE LOG

<p>COMPANY Range Oil Co., Inc.</p> <p>LEASE #1 Madden "A" Unit</p> <p>FIELD Panther Ranch SW</p> <p>LOCATION 330' EML + 2190' EML, NW/4</p> <p>SEC 31 TWP 19 S RCF 6 E</p> <p>COUNTY El Paso STATE KS</p> <p>CONTRACTOR E + G Drilling, Inc.</p> <p>SPUD 10-8-14 COMP 10-14-14</p> <p>RTD 2315' LTD 2313'</p> <p>MUD UP 1580' TYPE MUD Clem</p> <p>SAMPLES SAVED FROM 1570 TO RTD</p> <p>DRILLING TIME KEPT FROM 1500 TO RTD</p> <p>SAMPLES EXAMINED FROM 1500 TO RTD</p> <p>GEOLOGICAL SUPERVISION FROM 1580 TO RTD</p> <p>GEOLOGIST ON WELL Ken Wallace</p>	<p>ELEVATIONS</p> <p>KB 1458'</p> <p>DF 1452'</p> <p>GL 1452'</p> <p>Measurements Are All From KB</p> <p>PRODUCTION TEST @ 2313' w/ 2 1/2" casing</p> <p>PRODUCTION TEST @ 2313' w/ 2 1/2" casing</p> <p>ELECTRICAL SURVEYS DI/DI/Micro</p>
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REMARKS Production casing set to further evaluate Viola.

10-8-14 MIRT of spud
 10-9-14 7am, PTD 221' Making repairs, 1/4" @ 221'
 10-10-14 7:45am Drig. @ 1661' Bit Trip @ 1570'
 10-10-14 7:45 @ 716 @ 1570'
 10-11-14 7:30am Drig. @ 1998'
 10-12-14 8am PTD 2192', Prep for DST #2
 3/4" @ 2180'
 10-13-14 8:45am RTD 2315' Ran E Logs
 10-14-14 set 5 1/2" casing @ 2312' TD @ 1pm
 10/13/14

LEGEND

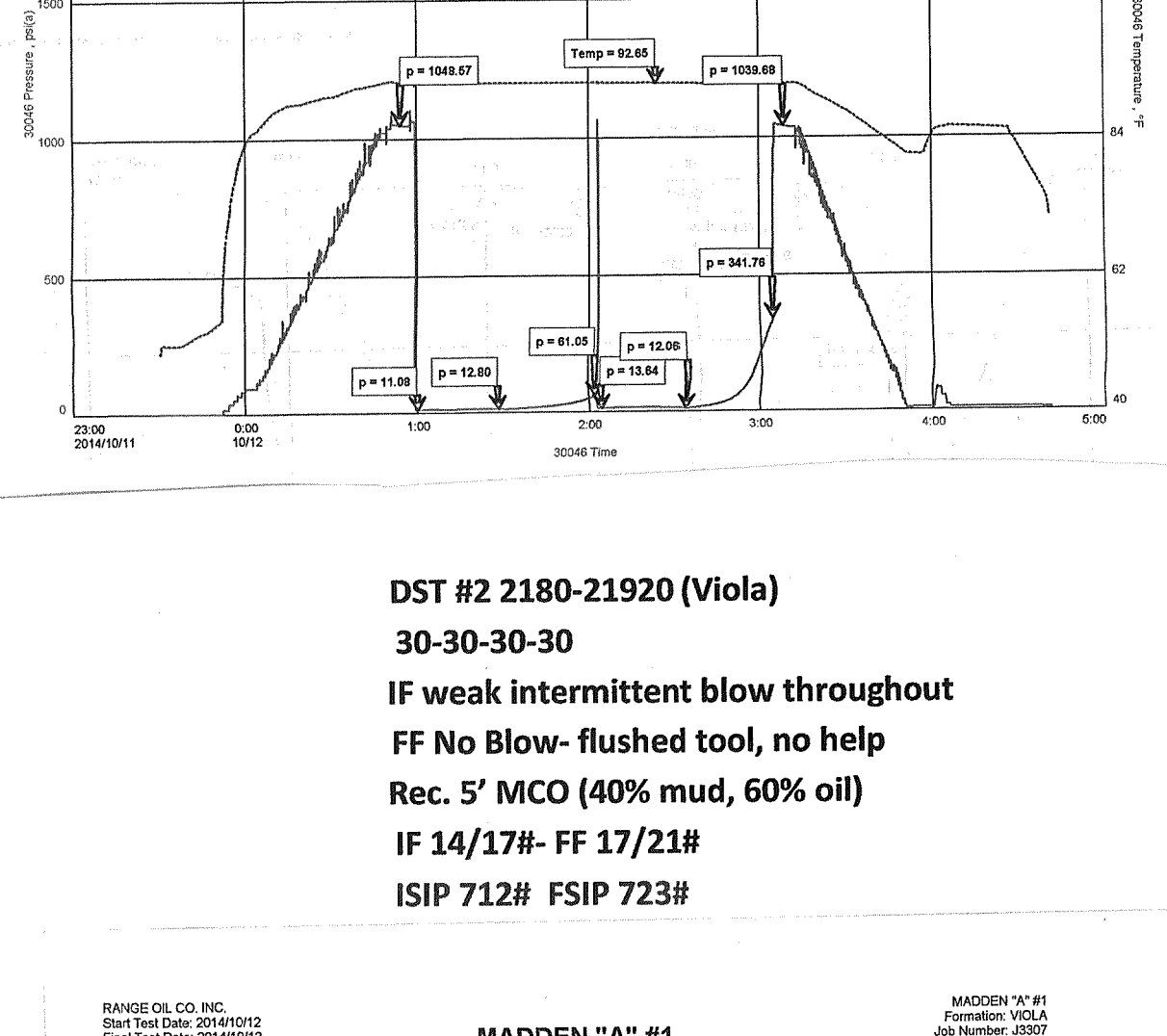


SCALE " = 100'

DEPTH	CORRECTION	DRILLING TIME - Minutes Per Foot Rate of Penetration Decreases	SAMPLE DESCRIPTIONS	REMARKS
1500'				
20				
40				
60				
80			sh, gy, slty	Bit Trip @ 1570'
1600'				Lansing 1604 (-146)
20			Ls, brn, fxl, dse, NS	
20			sh, gy, grn, red	
20			Ls, wh, slal, foss, NS	
40			AA, cky, NS	
40			Ls, lt gy, gy cots, cky, NS	
60			sh, gy	
60			Ls, tan-buff, vol, gy cots, foss, dty, NS	
80			Ls, tan, fxl, col, int, foss, NS	
80			sh, gy; ss, Hgy, vfg, NS	
20			Ls, tan, ool, foss, fxl in pt, NS	
20			Ls, tan-buff, sl ool, foss, dty, NS	
40			Ls, mg, col, foss, dty	
40			AA w/ dkgy, dse, ls; dty	
60			ls, dk gy, argl, NS	
60			sh, dk gy, smgrn, red	
80			Ls, tan, fxl, slal, foss, cky, NS	
80			Ls, tan, fxl, dse, cky, NS	
80			AA, sl dty	
80			sh, gy	
20			Ls, mg, fxl, cky, NS	
20			Ls, tan - lt brn, fxl, dty, NS	
40			sh, bl, grn	
40			Ls, tan, fxl, dse, dty, NS	
60			Ls, wh - lt gy, slal, foss, NS	
80			Ls, buff, fxl, cky, NS	
80			AA	
80			Ls, buff-wh, sl ool, foss, dty, sl dty	Stark Sh 1893 (-435)
1900'			sh, bl	
20			Ls, wh, fxl, ppt, dty, NS	
20			Ls, lt tan - lt gy, sl ool, fxl, foss, NS	
40			sh, bl	
40			Ls, Hgy - tan, foss, fxl, Xln, Δ, NS	R/KC 1947 (-489)
40			Ls, tan, fxl, cky, NS	
60			sh, gy, grn, sm red, sm grn/bl lamin	
80			ss, gy, fgd, hard, argl, NS	
80			sh, gy, grn, pyr	
2000'			Ls, dk gy, fxl, argl, cky, NS	
20			sh, gy	
20			Ls, buff ool, sl foss, cky, NS	
40			sh, gy, grn, red, brn	
40			ss, lt grn, vfg, soft, NS	
40			sh, gy, grn, brn	
60			Ls, buff, fxl, foss, sl ool, cky, NS	
60			sh, gy	
80			Ls, gy, granit, foss, NS	
80			sh, gy, smgrn	
80			Ls, dk brn, fxl, foss, NS	
80			sh, gy, red, brn	
80			Ls, brn, mxln, ool, foss, NS	
80			sh, bl	
2100'			Ls, tan, ool, foss, NS	Cherokee sh 2110 (-652)
20			sh, bl	Short Trip @ 2112'
20			sh, lt grn, gy, red	Congl Sd 2128 (-670)
40			ss, wh-cl, mgal, well red, p sorted, NS	
40			sh, vc (red, gy, grn, brn)	
60			AA	Viola 2171 (-713)
80			Dol, tan-ltgy, dty, set stn, (20%), SFO, gd odor, NFL	
80			2774 15" Dol, lt tan, ppt, 10% ss, 10% scatt stn, tr FL, odor, sl dty w/ tan fwpes Δ	
80			30" AA with ltgy m-c Xln Dol, SFO, scatt stn (10%), tr FL	
2200'			2180' 15" Dol, tan, sm lt gy, vfg, ppt, sprd stn (25%), SFO, odor, tr FL	
20			2192' 15" Dol, ltgy, smgrn, fgd, vfg, gd odor, SFO, 60% stn, sm sat ACS	
20			2202' 15" Dol, wh, sm tan, fxl, NS, SFO, odor, NFL, dty	
40			→ Dol, tan, ppt, tr sh (10%) on dol, SFO, tr FL, odor, dty w/ ppt, stn, SFO on tan fxl (10%) ool	Simpson Sd 2256 (-798)
60			→ Dol, buff, NFL, NS, tr odor, NFL, dty	
60			→ Dol, lt brn - tan, sm red, brn, dse, vfg, NFL, odor	
80			→ ss, milky, cgd, p sorted, rd, gd odor, NFL (198) 650, odor, NFL	Mid Smp Sd 2278 (-820)
80			2277' 15" AA, grn sh, grn, gy, sm fgd, grn glauc, ss, NS	
80			2288' 15" ss, Hgy, fgd, well sorted, rd, glance, NS, odor, NFL	
2300'			30" AA of much vc sh	Lower Smp Sd 2310 (-852)
20			sh, vc (gy, grn, red), pyr	
20			ss, clear, mostly loose grns, near sorted, well red, NS, NFL, odor	RTD @ 2315'

DST #1 2172-2180 (Viola)

30-30-30-30
 IF weak blow dead in 1 min.
 FF No Blow- flushed tool, no help
 Rec. 2 MCO (10% mud, 90% oil)
 IF 11/13#- FF 12/12#
 ISIP 61# FSIP 342#



DST #2 2180-21920 (Viola)

30-30-30-30
 IF weak intermittent blow throughout
 FF No Blow- flushed tool, no help
 Rec. 5' MCO (40% mud, 60% oil)
 IF 14/17#- FF 17/21#
 ISIP 712# FSIP 723#

