



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1317695  
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
-----------------------------------	-----------------	---

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: \_\_\_\_\_

1317695

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
--	---

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	--	---







**CONSOLIDATED**  
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

TICKET NUMBER 51535  
LOCATION Oakley #5  
FOREMAN Jerdy V

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-15-16	5666	Hunt Bros #2	23	175	34w	Scott
CUSTOMER			K5			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			753	Miles S		
STATE			772 T129	Keith C		
ZIP CODE						

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 245 CASING SIZE & WEIGHT 8 5/8 23.8  
 CASING DEPTH 245 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.8 SLURRY VOL 1.24 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 1484 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Justly met rig & rig up on W02 break circulation mix 165 sks  
surface blend III wash with displace with 14 1/4 bbl fresh water & shuffin circulated  
approx 4 bbl to pit

cement  
did circulate ☺

Thank you  
Jerdy crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0971	1	PUMP CHARGE	1150 <sup>00</sup>	1150 <sup>00</sup>
CE0002	30	MILEAGE	715	2145 <sup>00</sup>
CE0711	7.76	tan mileage delivery min	660 <sup>00</sup>	660 <sup>00</sup>
CC5871	165.5KS	surface blend III	23 <sup>00</sup>	3795 <sup>00</sup>
			Subtotal	5819 <sup>50</sup>
			-456	2618 <sup>78</sup>
			Subtotal	3200 <sup>72</sup>
			SALES TAX	
			ESTIMATED	
			TOTAL	

Ravin 3737

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form

PIPE



TALLY

DATE 8-15 20 16

PAGE 1 OF 1

CUSTOMER Northwest LEASE & WELL NO. Hunt Bros. #2

USED/NEW COND A SIZE 2 1/2 WT 53 GRD 3 THD 1 1/2 R- 3

MFG \_\_\_\_\_ ORDER BY Andy SHIP VIA W

#	FT.	IN.	#	FT.	IN.	#	FT.	IN.	#	FT.	IN.	#	FT.	IN.	#	FT.	IN.			
1	12	30	26			51			76			101			126			151		
2		50	27			52			77			102			127			152		
3		50	28			53			78			103			128			153		
4		50	29			54			79			104			129			154		
5		50	30			55			80			105			130			155		
6	27	90	31			56			81			106			131			156		
7			32			57			82			107			132			157		
8			33			58			83			108			133			158		
9			34			59			84			109			134			159		
10			35			60			85			110			135			160		
11			36			61			86			111			136			161		
12			37			62			87			112			137			162		
13			38			63			88			113			138			163		
14			39			64			89			114			139			164		
15			40			65			90			115			140			165		
16			41			66			91			116			141			166		
17			42			67			92			117			142			167		
18			43			68			93			118			143			168		
19			44			69			94			119			144			169		
20			45			70			95			120			145			170		
21			46			71			96			121			146			171		
22			47			72			97			122			147			172		
23			48			73			98			123			148			173		
24			49			74			99			124			149			174		
25			50			75			100			125			150			175		
T	27	90	T			T			T			T			T			T		

TALLIED BY \_\_\_\_\_ TOTAL JTS 6 TOTAL FOOTAGE 2790

SPECIAL INSTRUCTIONS \_\_\_\_\_

ORIGINAL TO REMAIN IN BOOK - DUPLICATE TO BE ATTACHED TO CUSTOMER'S INVOICE - TRIPLICATE TO BE GIVEN TO CUSTOMER'S REPRESENTATIVE AT TIME OF DELIVERY.



**DIAMOND TESTING, LLC**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (620) 653-7550 • (800) 542-7313  
 HuntBros2Dst1

Company Nor-West Kansas Oil, LLC Lease & Well No. Hunt Bros. No. 2  
 Elevation 3108 KB Formation Marmaton Effective Pay          Ft. Ticket No. RR231  
 Date 8-21-16 Sec. 23 Twp. 17S Range 34W County Scott State Kansas  
 Test Approved By Sean P. Deenihan Diamond Representative Ricky Ray

Formation Test No. 1 Interval Tested from 4,383 ft. to 4,512 ft. Total Depth 4,512 ft.  
 Packer Depth 4,378 ft. Size 6 3/4 in. Packer Depth          ft. Size          in.  
 Packer Depth 4,383 ft. Size 6 3/4 in. Packer Depth          ft. Size          in.  
 Depth of Selective Zone Set          ft.

Top Recorder Depth (Inside) 4,371 ft. Recorder Number 0062 Cap. 5,000 psi.  
 Bottom Recorder Depth (Outside) 4,484 ft. Recorder Number 8471 Cap. 5,000 psi.  
 Below Straddle Recorder Depth          ft. Recorder Number          Cap.          psi.

Drilling Contractor WW Drilling, LLC - Rig 2 Drill Collar Length 119 ft. I.D. 2 1/4 in.  
 Mud Type Chemical Viscosity 117 Weight Pipe Length          ft. I.D.          in.  
 Weight 9.2 Water Loss 9.2 cc. Drill Pipe Length 4,232 ft. I.D. 3 1/2 in.  
 Chlorides 10,000 P.P.M. Test Tool Length 32 ft. Tool Size 3 1/2-IF in.  
 Jars: Make Sterling Serial Number 12 Anchor Length 34' perf. w/95' drill pipe 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: 1/2 in. blow increasing. Off bottom of bucket in 18 3/4 mins. No blow back during shut-in.

2nd Open: 1/4 in. blow increasing. Off bottom of bucket in 22 mins. No blow back during shut-in.

Recovered 161 ft. of watery mud = 2.291030 bbls. (Grind out: 30%-water; 70%-mud)

Recovered 126 ft. of muddy water = 1.792980 bbls. (Grind out: 70%-water; 30%-mud)

Recovered 119 ft. of mud cut water = .585480 bbls. (Grind out: 90%-water; 10%-mud)

Recovered 406 ft. of TOTAL FLUID = 4.669490 bbls.

Recovered          ft. of         

Recovered          ft. of         

Remarks Tool Sample Grind Out: 97%-water; 3%-mud (Chlorides: 25,000 Ppm PH: 7.0 RW: .58 @ 80°)

Time Set Packer(s) 8:16 P.M. Time Started off Bottom 10:16 P.M. Maximum Temperature 120°

Initial Hydrostatic Pressure.....(A) 2118 P.S.I.

Initial Flow Period.....Minutes 30 (B) 26 P.S.I. to (C) 147 P.S.I.

Initial Closed In Period.....Minutes 30 (D) 1170 P.S.I.

Final Flow Period.....Minutes 30 (E) 153 P.S.I. to (F) 233 P.S.I.

Final Closed In Period.....Minutes 30 (G) 1146 P.S.I.

Final Hydrostatic Pressure.....(H) 2052 P.S.I.



**DIAMOND TESTING, LLC**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (620) 653-7550 • (800) 542-7313  
 HuntBros2Dst2

Company Nor-West Kansas Oil, LLC Lease & Well No. Hunt Bros. No. 2  
 Elevation 3108 KB Formation Altamont/Pawnee Effective Pay      Ft. Ticket No. RR232  
 Date 8-22-16 Sec. 23 Twp. 17S Range 34W County Scott State Kansas  
 Test Approved By Sean P. Deenihan Diamond Representative Ricky Ray

Formation Test No. 2 Interval Tested from 4,504 ft. to 4,576 ft. Total Depth 4,576 ft.  
 Packer Depth 4,499 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.  
 Packer Depth 4,504 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.  
 Depth of Selective Zone Set      ft.

Top Recorder Depth (Inside) 4,492 ft. Recorder Number 0062 Cap. 5,000 psi.  
 Bottom Recorder Depth (Outside) 4,542 ft. Recorder Number 8471 Cap. 5,000 psi.  
 Below Straddle Recorder Depth      ft. Recorder Number      Cap.      psi.

Drilling Contractor WW Drilling, LLC - Rig 2 Drill Collar Length 119 ft I.D. 2 1/4 in.  
 Mud Type Chemical Viscosity 60 Weight Pipe Length      ft I.D.      in.  
 Weight 8.9 Water Loss 10.5 cc. Drill Pipe Length 4,353 ft I.D. 3 1/2 in.  
 Chlorides 9,200 P.P.M. Test Tool Length 32 ft Tool Size 3 1/2-IF in.  
 Jars: Make Sterling Serial Number 12 Anchor Length 40' perf. w/32' drill pipe 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: Weak, surface blow increasing to 1/4 in. in 30 mins. No blow back during shut-in.

2nd Open: No blow increasing to a weak, surface blow in 15 mins. No blow back during shut-in.

Recovered 15 ft. of mud = .073800 bbls. (Grind out: 100%-mud)

Recovered      ft. of     

Recovered      ft. of     

Recovered      ft. of     

Recovered      ft. of     

Recovered      ft. of     

Remarks Tool Sample Grind Out: 100%-mud w/a few oil specks

Time Set Packer(s) 1:10 P.M. Time Started off Bottom 2:25 P.M. Maximum Temperature 110°  
 Initial Hydrostatic Pressure.....(A) 2154 P.S.I.  
 Initial Flow Period.....Minutes 30 (B) 15 P.S.I. to (C) 23 P.S.I.  
 Initial Closed In Period.....Minutes 15 (D) 303 P.S.I.  
 Final Flow Period.....Minutes 15 (E) 22 P.S.I. to (F) 24 P.S.I.  
 Final Closed In Period.....Minutes 15 (G) 270 P.S.I.  
 Final Hydrostatic Pressure.....(H) 2153 P.S.I.





**DIAMOND TESTING, LLC**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (620) 653-7550 • (800) 542-7313  
 HuntBros2Dst3

Company Nor-West Kansas Oil, LLC Lease & Well No. Hunt Bros. No. 2  
 Elevation 3108 KB Formation Atoka Effective Pay      Ft. Ticket No. RR233  
 Date 8-24-16 Sec. 23 Twp. 17S Range 34W County Scott State Kansas  
 Test Approved By Sean P. Deenihan Diamond Representative Ricky Ray

Formation Test No. 3 Interval Tested from 4,748 ft. to 4,772 ft. Total Depth 4,888 ft  
 Packer Depth 4,743 ft. Size 6 3/4 in. Packer Depth 4,772 ft. Size 6 3/4 in.  
 Packer Depth 4,748 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.  
 Depth of Selective Zone Set 4,772 ft.

Top Recorder Depth (Inside) 4,736 ft. Recorder Number 0062 Cap. 5,000 psi.  
 Bottom Recorder Depth (Outside)      ft. Recorder Number      Cap.      psi.  
 Below Straddle Recorder Depth 4,869 ft. Recorder Number 8471 Cap. 5,000 psi.

Drilling Contractor WW Drilling, LLC - Rig 2 Drill Collar Length 119 ft I.D. 2 1/4 in.  
 Mud Type Chemical Viscosity 60 Weight Pipe Length      ft I.D.      in.  
 Weight 9.1 Water Loss 10.5 cc. Drill Pipe Length 4,597 ft I.D. 3 1/2 in.  
 Chlorides 9,700 P.P.M. Test Tool Length 32 ft Tool Size 3 1/2-IF in.  
 Jars: Make Sterling Serial Number 12 Anchor Length 24' perf. w/116' tail pipe 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: No blow increasing to a very weak, surface blow. No blow back during shut-in.

2nd Open: Pulled tool.

Recovered 10 ft. of oil specked mud = .049200 bbls. (Grind out: 100%-mud w/oil specks)  
 Recovered      ft. of       
 Recovered      ft. of       
 Recovered      ft. of       
 Recovered      ft. of       
 Recovered      ft. of     

Remarks Tool Sample Grind Out: 100%-mud w/a few oil specks  
Below Straddle Recorder: 2381 PSI

Time Set Packer(s) 6:15 A.M. Time Started off Bottom 6:45 A.M. Maximum Temperature 122°  
 Initial Hydrostatic Pressure.....(A) 2350 P.S.I.  
 Initial Flow Period.....Minutes 15 (B) 13 P.S.I. to (C) 35 P.S.I.  
 Initial Closed In Period.....Minutes 15 (D) 1294 P.S.I.  
 Final Flow Period.....Minutes 0 (E)      P.S.I. to (F)      P.S.I.  
 Final Closed In Period.....Minutes 0 (G)      P.S.I.  
 Final Hydrostatic Pressure..... 2350

REMARKS

Respectfully Submitted,

Sean P. Deenihan

Nor-West Kansas Oil, LLC. KB: 3108'

Hunt Bros. #2

23-17S-34W

Scott Co., KS

RTD: 4890'

LTD: 4888'

The Hunt Bros.#2 was plugged and abandoned.

Curve Track 1

ROP (Min/Ft)

Gamma (API)

Geological Descriptions

0 ROP (Min/Ft) 5

1 Gamma (API) 150

0 ROP (Min/Ft) 5

1 Gamma (API) 150

0 ROP (Min/Ft) 5

1 Gamma (API) 150

0 ROP (Min/Ft) 5

1 Gamma (API) 150

0 ROP (Min/Ft) 5

1 Gamma (API) 150

0 ROP (Min/Ft) 5

1 Gamma (API) 150

3800

3850

3900

3950

4000

4050

4100

4150

4200

4250

4300

4350

4400

4450

4500

4550

4600

4650  
4700  
4750  
4800  
4850  
4900  
Ls., wh, gy, clayey, gummy  
Short trip 30 stds @ 3910'. Connection @ 3941' tight. Connection @ 3973' Stuck in hole. Circulated and got free. when TOH for DST #1 Stuck in same spot. Spot 40BBLS Oil. Work free.  
Ls., wh, gy, clayey, gummy, chlky  
Ls., wh, v chlky, soft, barren  
Sh., blk  
Sh., gy, silty  
Ls., wh, crm, vf gr, p-fr intgran Por, chlky, soft no show  
Ls., crm, Ool., p-fr intgran Por, barren, no odr  
Cht., wh, fresh, sharp  
Ls., wh, vf gr, p intgran Por, hd, no show  
Sh., blk, gy  
Ls., wh, crm, vf gr, p intgran Por, rr fos, dnse, no show  
Ls., wh, crm, vf-f gr, chlky, firm, p intgran Por, no show  
Ls., wh, crm, vf-f gr, chlky, firm, p intgran Por, no show  
Ls., wh, crm, f gr, sme chlky, firm, fos, p intgran Por, no show  
Inc. wh, gy, Cht., fresh, sharp, ang  
Ls., tn, gy, fos, dnse, no odr  
Ls., wh, crm, Ool., sme dolo, fri-firm, fr intgran Por, no show  
Sh., gy, dk gy, blk  
Ls., tn, gy, dnse, no show  
Ls., tn, gy, sme fos, p intfos Por, sli stn, NSFO, no odr  
Ls. crm, tn, fos, vf-f gr, rr p.p. vug Por, barren  
Ls., crm, Ool., gd Ooc Por, no show  
Ls., gy, vf gr, chlky, firm, no show  
ls., wh, gy, vf gr, p intgran Por, sme chlky, pred firm, no show  
Ls. a.a.  
Ls., wh, gy, vf gr, sli chlky, sme dnse, rr iso vug w/ O show, mod edge stn, SSFO upon crush, ft odr  
Ls., wh, gy, vf gr, p intgran Por, firm, no show  
Ls., wh, gy, dnse, rr vug, v sli brn O stn?, no odr  
Ls., gy, vf gr, p intgran Por, dnse, sli blk O stn, sme Tarry, no odr, NSFO  
Ls., wh, gy, shaly, sdy IP, fri-firm, no show  
Ss., gy, vf gr, dnse, no show, no odr  
Ls., gy, brn, fos, dnse, p intgran Por, iso vug Por, PSFO, ft odr  
Ls., gy, xf-vf gr, p intran Por. SSFO, ft odr  
Abd., Sh., varic  
Ls., gy, vf gr, Ool IP, dnse, vug, p intgran Por, SSFO, ft odr, wk fluor  
Ls., gy, Ool IP, vf gr, dnse, NVP no show  
Sh., blk  
Lw., wh, crm, chlky, p intgran Por, rr vug Por, tr brn O stn, NSFO, no odr, no fluor  
Ls., wh, gy, fos, sli chlky, SSFO upon crush, ft odr  
Ls., wh, dnse, scaly, hd  
Sh., blk, fis  
Ls., crm, tn, xf gr, p intgran Por, sli dol, firm, no show  
Sh., blk, gy  
Ls., wh, tn, f gr, rr fos, p intgran Por, no show

Ls., gy, brn, vf gr, p vis Por, tr p.p. vug Por w/ sli show, ft odr, no fluor  
    Ls., brn, gy, dnse, no show  
    Ls., gy, brn, fos, firm, no show  
    Sh., gy, dk gy  
    Ls., gy, brn, vf gr, dnse, occ chlky, sme sdy, tr lt brn O stn, NSFO, no odr  
    Sh., brn, gy, soft  
    Sh., gy-dk gy, gummy  
    Sh., gy, dk gy, brn  
    Sh., yel, grn, brn, gy, sme silty. tr SS., gy, vf gr, dnse, no show  
    SS., wh, dnse, vf gr, mod srtd, firm, barren, no fluor  
    Ls., wh, sdy, firm, vf-f gr, dnse, no show  
    Ls., wh, gy, vf gr, p intgran Por, firm, no show  
    Ls., gy, vf gr, dnse no odr  
    Heebner Sh. 4006 (-898)  
    Lansing 4051 (-943)  
    Muncie Creek 4240 (-1132)  
    Stark 4338 (-1230)  
    Hushpuckney Sh. 4386 (-1278)  
    1  
    Marmaton 4490 (-1382)  
    B  
    Altamont  
    2  
    D  
    Pawnee 4573 (-1465)  
    Ft. Scott 4628 (-1520)  
    3  
    Morrow Sh. 4784 (-1676)  
    Rec: 406' MCW  
    IFP: 26-147#  
    FFP: 153-233#  
    SIP: 1170-1146#  
    Rec: 130' SMCW  
    (10%M, 90%M),  
    420' W  
    IFP: 23-167#  
    FFP: 168-279#  
    SIP: 1244-1220#  
    Rec: 10' OSM  
    (10%M, 90%M),  
    420' W  
    IFP: 13-35#  
    FFP: 0#  
    SIP: 1294#  
    DST #1  
    4383' - 4512'  
    30-30-45-60"  
    DST #2  
    4125' - 4136'  
    30-30-45-60"  
    DST #3  
    Straddle  
    4748' - 4772'  
    15-15-0-0"

IF: BOB 24”  
No BB  
FF: BOB 26”  
No BB  
IF: BOB 24”  
No BB  
FF: BOB 26”  
No BB  
IF: BOB 24”  
No BB