



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1204301
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: _____

1204301

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

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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20
30
40

50 ANH 2350
+602

60
70 BASE 2370
+582

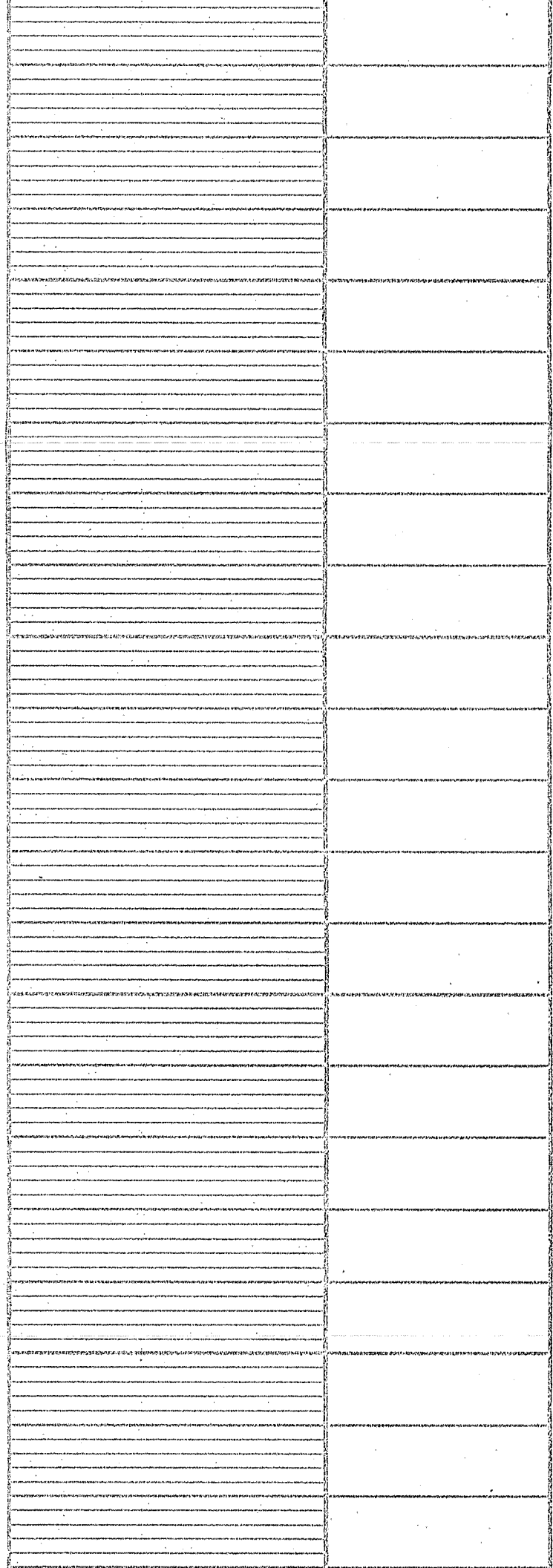
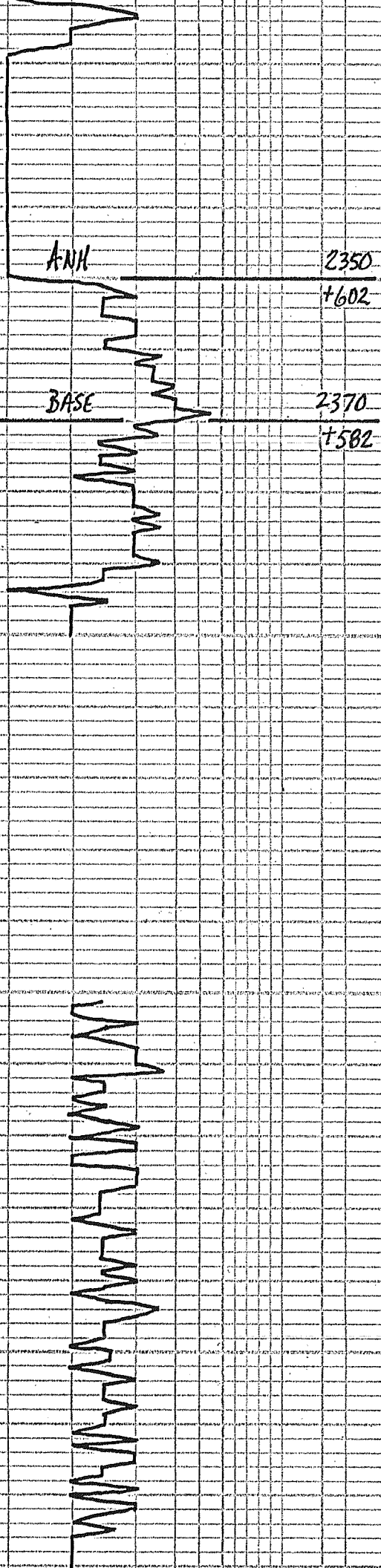
80
90
2400

3450

60
70
80
90

3500

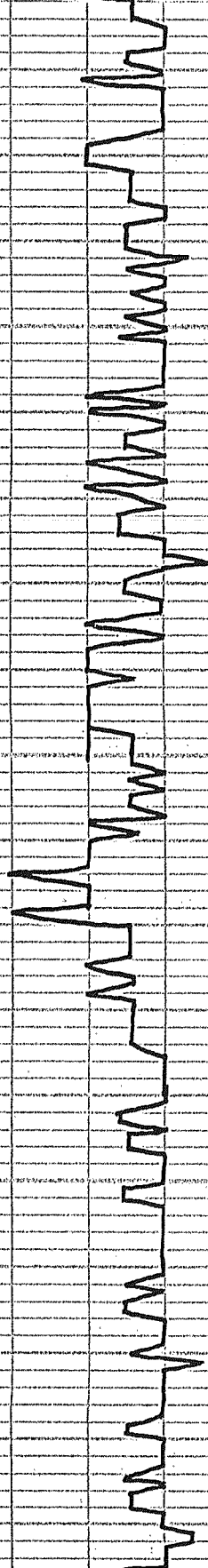
10
20
30



40
50
60
70
80
90
3600
10
20
30
40
50
60
70
80
90
3700
10
20
30
40
50

STOTLER 3561

-609



✓ MWD CO CK

VISC: 66 FILT: 6.4
WT: 8.7 CHL: 2,100

RED TAN FOSS LS FAIR ϕ - NS

60 WH-LT CRM CVY LS POOR ϕ - NS

WH-LT CRM CVY LS - NS

80 WH-CRM-BUFF SEMI-FOSS LS
P-F ϕ - NS NO ODR

GRY SEMI-FOSS LS MERVY-DUSE
P-F ϕ - NS

80 LT-MD GRV LS FN-XL DUSE
POOR ϕ - NS LOTS GRV SHS

GRV FUSSLND LS POOR ϕ - NS

20 GRV MERVY-DUSE LS POOR ϕ
NS NO ODR

CRM-BUFF SEMI-FOSS LS FAIR ϕ
NS NO ODR

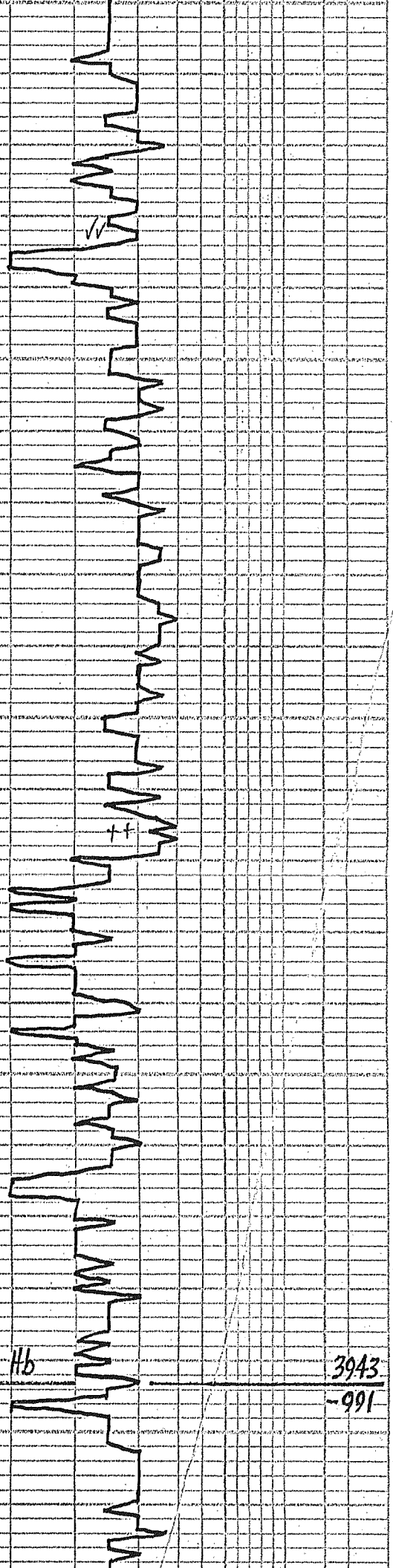
40 CRM-BUFF FOSS LS FAIR ϕ - NS

BUFF TAN SU-FOSS LS POOR ϕ
NS NO ODR

60 CRM-BUFF SEMI-FOSS LS - NS

WH-CRM BUFF FOSS LS - NS

50
60
70
80
90
3800
10
20
30
40
50
60
70
80
90
3900
10
20
30
40
50
60
70



3943
-991

80 CRM-BUFF SLI FOSS LS P-F φ
NS NO OOR

TAN GRN MESH - FOSS LS
P-F φ + NS NO OOR

80 WH - LT CRM LT TAN SEMI FOSS
LS P-F φ - NS CRM

CRM LT TAN FOSS LS FAIR φ
NS NO OOR

20 WH LT CRM FOSS LS PTN CRM
NS NO OOR

CRM-BUFF LS P-F φ - NS

40 CRM-BUFF FOSS LS P-F FOSS φ
SCAT LT STN NO FO NO OOR

LS AA - SCAT LT STN NO FO

60 LT CRM-BUFF SLI GRN LS POOR φ
NS NO OOR

TRACE BLK SHS PREN CRM-BUFF
SEMI-FOSS LS P-F φ - NS

80 CRM-BUFF SLI FOSS LS - NS

LT CRM-BUFF SLI FOSS LS P-F φ
NS NO OOR

80 WH - (CRM LT TAN) SEMI-FOSS LS
P-F φ - NS NO OOR

16 LT CRM DOLD LS SCAT VLG φ
NS NO OOR

20 LT CRM-BUFF DOLD LS POOR φ
NS NO OOR

70 LT CRM-BUFF FOSS LS FAIR φ
NS

← GEOL ON LOC. 4:00 PM
THURS. 2-27-14

40 LT TAN-BUFF FOSS LS FAIR φ
SCAT STN NO FO NO OOR

50 WH - LT CRM MESH CU FOSS
LS - POOR φ - NS NO OOR

900# PP

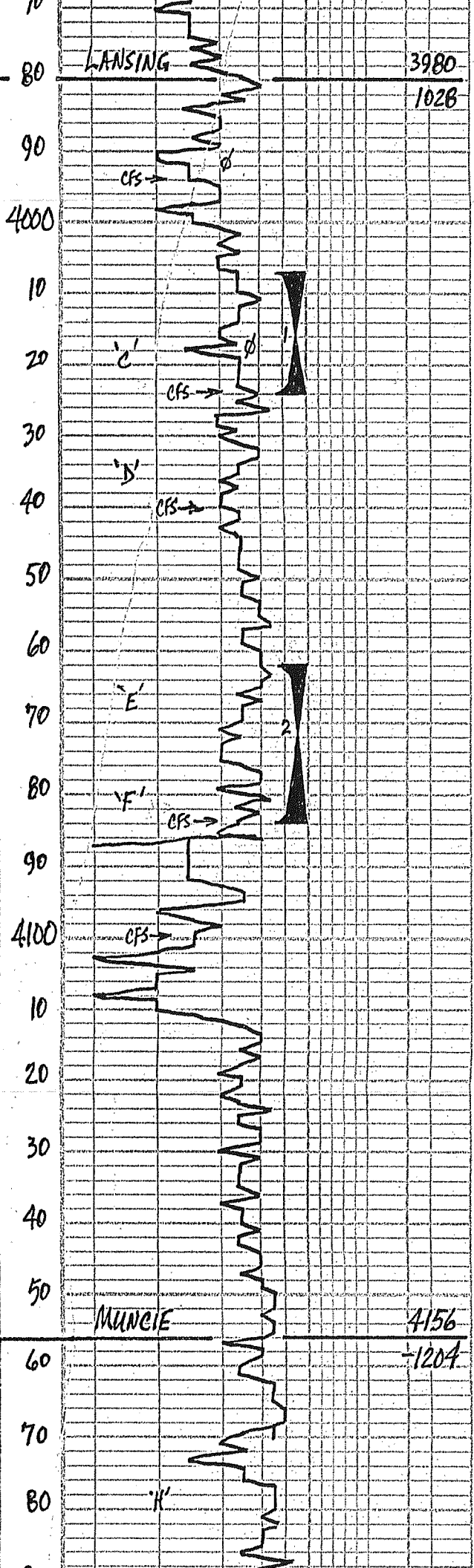
60 FLOOD BLK SHS!

VISC: 56
WT: 9.0
LCM: 2#

70 LT CRM LT TAN FA XLN LS
POOR φ - NS DISE-CRM

80 FLOOD WH - LT CRM FA XLN LS
POOR φ - NS NO OOR

90 LT CRM-BUFF SLI FOSS LS POOR



3980
1028

4156
1204

NS - NO ODOR

9A) WH - LT CRM SLI - FOSS LS CRY -
LT CRM POOR ϕ - NS NO ODOR

20 MIN: WH - LT CRM FOSS - OOL - LS
P - F ϕ - CRK NS NO ODOR

45 MIN: WH - CRM - LT BUFF - LS
P - F ϕ - NS NO ODOR

NH - LT CRM SUB OOL LS P-F ϕ
NS NO ODOR PTH OOL

10 FLOOD WH - LT CRM SLI OOL
LS PTH CRK - NS NO ODOR

20 LT CRM SLI - FOSS LS POOR ϕ - NS

2A) LT CRM OOL - TINY OOL - LS W/P-F
20M INTER - OOL ϕ W/S: FSET BRN GRN FO
FAIR ODOR, LOTS RS 30+ SU CRK

45 MIN: LT CRM SLI - SEMI - FOSS LS
W/P-F SCAT V.G. ϕ W/S: FSG FO
SLI INCKY, LT - FAIR ODOR

40) FLOOD WH - CRM SLI - FOSS LS
MOSTLY CRK POOR ϕ - NS NO ODOR

20 MIN: PRED WH - LT CRM FN - XLN
LS POOR ϕ V. CRK - NS NO ODOR

45 MIN: FLOOD WH CRM LS POOR ϕ
NS NO ODOR - V. CRK

50 WH - CRM SLI - FOSS CRK LS POOR ϕ
NS NO ODOR

60 PRED WH - LT CRM FN - XLN LS
LOTS CRK POOR ϕ - NS

70 LT CRM SLI - FOSS LS POOR V.G. ϕ
NS NO ODOR

80) LOTS LT CRM FOSS LS W/P - FAIR
V.G. - FOSS ϕ W/S: FSET CRK, GO ODOR
CLEAN CRAPS

8A) LT CRM - LT TAN FOSS & SUB OOL LS
LESS AMT W/S BRG FO, FAIR ODOR
INC IN CRK

20 MIN: LT CRM - LT TAN V. FOSS LS
W/FAIR FOSS ϕ FEW W/SSED FAIR
ODOR DECR IN CRK

45 MIN: LT CRM - FOSS LS POOR ϕ
NS NO ODOR

60 WH - LT CRM SLI - FOSS LS P-F ϕ
NS NO ODOR

20 MIN: FLOOD LT CRM SLI - FOSS
OOL LS P-F ϕ - NS NO ODOR

45 MIN: FLOOD LT CRM - LT TAN
OOL LS W/FAIR OOL ϕ NS,
NO ODOR, INC CRK

30 LT TAN OOL LS W/FAIR OOL ϕ
NS NO ODOR LOOSE WH CRK

30 CRM - LT TAN SEMI - OOL LS P-FAIR ϕ
NS NO ODOR

40 WH - LT CRM FN - XLN LS POOR ϕ
NS NO ODOR CRK - DUSE

50 WH - LT CRM - LT TAN FN - XLN LS
POOR ϕ - NS NO ODOR

60 WH - LT TAN FN - XLN LS MOSTLY
DUSE - FEW CRK POOR ϕ - NS

70 LOTS BLK SHS! 2 RS LT TAN SEMI - FOSS
LS - MEALY P-F ϕ ET STN, TRAK FO

80 LT CRM SLI - FOSS LS POOR ϕ FEW
PCS SCAT LT STN, NO FD, NO ODOR

90) PRED LT CRM SLI - FOSS LS POOR ϕ
NS NO ODOR, SLI - CRK

20 MIN: LT CRM SLI - FOSS LS POOR ϕ
NS NO ODOR PTH CRK

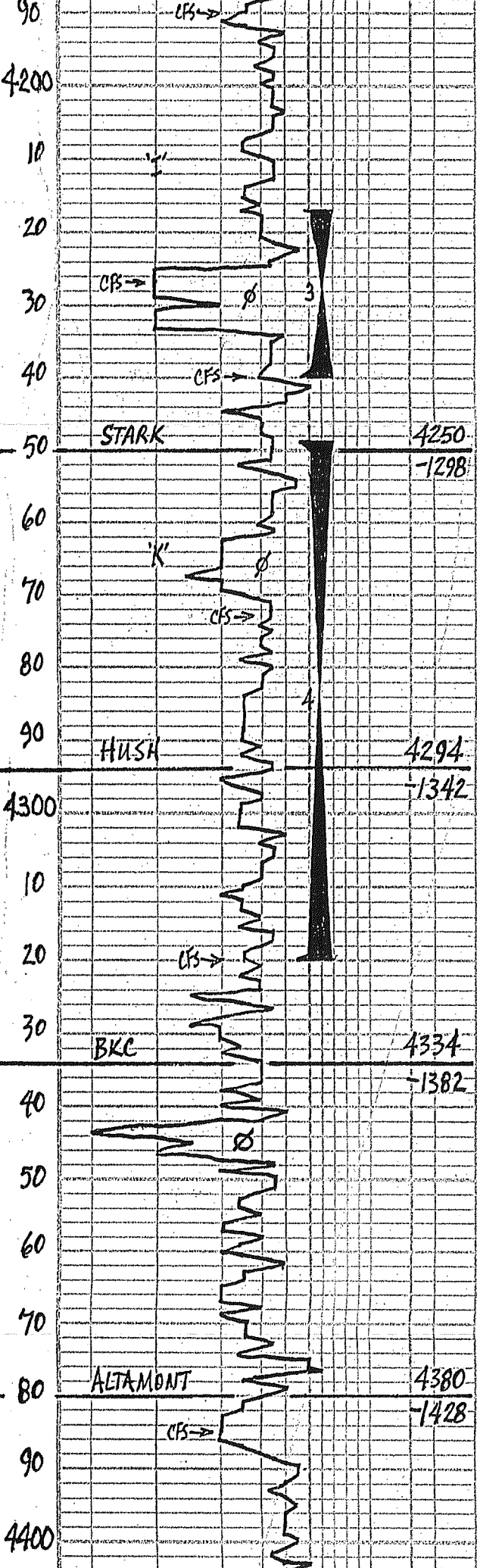
45 MIN: LT CRM - V. LT GRN FN - XLN

SHORT TRIP 30 STDS.
PIPE STRAP .22 SHORT
S.H.T. = $\frac{1}{2}$ "

DST #1 4007-4024'
30-45-30-45
IF: WK SURF BLOW
FF: NO BLOW - FLUSH - NO HELP
REC: 2' MUD + OS
SIP: 680-703
IEP: 13-17 FFP: 18-19
TEMP: 111°

DST #2 4062-4084
30-45-30-45
IF: WK 1/4" BLOW
FF: NO BLOW, FLUSH, NO HELP
REC: 5' MUD + OS
SIP: 578-297
IEP: 12-14 FFP: 15-16
TEMP: 108°

MUD CO CR
VISC: 48 FILT: 6.4
WT: 9.3 CHL: 2,400



LS. POOR ϕ - NS, NO ODOR

00 WH - CRM - LT TAN LS POOR ϕ - NS

10 LT CRM - BUFF FN - XLN LS. POOR ϕ
NS NO ODOR PTLY. CHY

20 LT CRM - SLI - FOSS LS. POOR ϕ
NS NO ODOR

20 MIN: LT TAN - LT BUFF SLI - FOSS
P-F ϕ - NS NO ODOR

45 MIN: LT CRM OCC LS. W/ FAIR ϕ
SS DK FO, SLI CHY, FAIR ODOR

40 FLOOD LT CRM OCC LS. W/ F-GD OCC
 ϕ W/ FSLT & DK BRN. GFD. OD ODOR
30 P.S. W/ SFO - 50% BAR
25 MIN: LOTS P.S. OCC LS. W/ SFGFO
FAIR - GD OCC. CLEAN ROCKS
45 MIN: STILL FEW P.S. W/ SFO. FAIR ODOR

50 WH - LT CRM - FN - XLN CHY LS - NS

60 BLK SHS, GRN & CRM - BUFF
SLI - FOSS LS. POOR ϕ - NS NO ODOR

70 TAN - BUFF. OOL LS. POOR ϕ - NS
NO ODOR

73 WH - LT CRM SLI. DEC. LS. FEW
3 P.S. W/ SS BRFO, FT. ODOR ON BRK
CHY

20 MIN: WH - CRM SHS OCC. CHY LS
P-F OCC. ϕ 4 P.S. W/ SS DK BRN FO
TRACE GAS. PUB. LOW ENERGY FT. ODOR

45 MIN: P.S. W/ WH - CRM CHY LS
P-F ϕ - NS NO ODOR

90 PRED. LT CRM - SLI - FOSS CHY LS
POOR ϕ - NS NO ODOR

00 CRM - BUFF. SLI - FOSS LS. POOR ϕ
NS NO ODOR - 1 - PTLY. CHY

10 FEW BLK SHS. PRED. LT CRM - SLI -
FOSS LS. POOR ϕ - NS NO ODOR
PTLY. CHY

20 LT CRM - BUFF. SLI - FOSS LS. FEW P.S.
W/ LT SCAT. TAN. INF. F. ϕ . NO ODOR

20 MIN: CRM - LT BUFF. SLI - BUFF
LS. W/ P-F ϕ SCAT. LT STR. NO FO
PTLY. CHY

45 MIN: CRM - LT BUFF. SLI - FOSS
LS. P-F ϕ - NS NO ODOR PTLY. CHY

40 LT CRM - LT TAN. FN - XLN LS. POOR
 ϕ - DNSE & LT GRN - NS NO ODOR

50 LT CRM - LT TAN. NDULE LS. POOR
 ϕ - NS NO ODOR

60 LT CRM - BUFF. MEALY - ATY. LS
SOFT - DNSE. POOR ϕ - NS NO ODOR

70 LT BUFF - LT TAN. FLESH V. FOSS LS
P-F ϕ - NS NO ODOR

80 WH - LT CRM - FN - XLN CHY LS. POOR
NS NO ODOR LOTS CHY

85 LT CRM - LT TAN. SLI - FOSS LS. POOR ϕ
NS NO ODOR

30 MIN: BUFF - TAN. SLI - FOSS LS - NS

60 MIN: CRM - TAN. BUFF. SLI - FOSS LS
POOR ϕ - NS NO ODOR

LT CRM - SLI - FOSS CHY LS. POOR ϕ - NS

00 LT GRN. SILTY - SILTSTONE - MEALY
DIRTY. POOR ϕ - NS NO ODOR

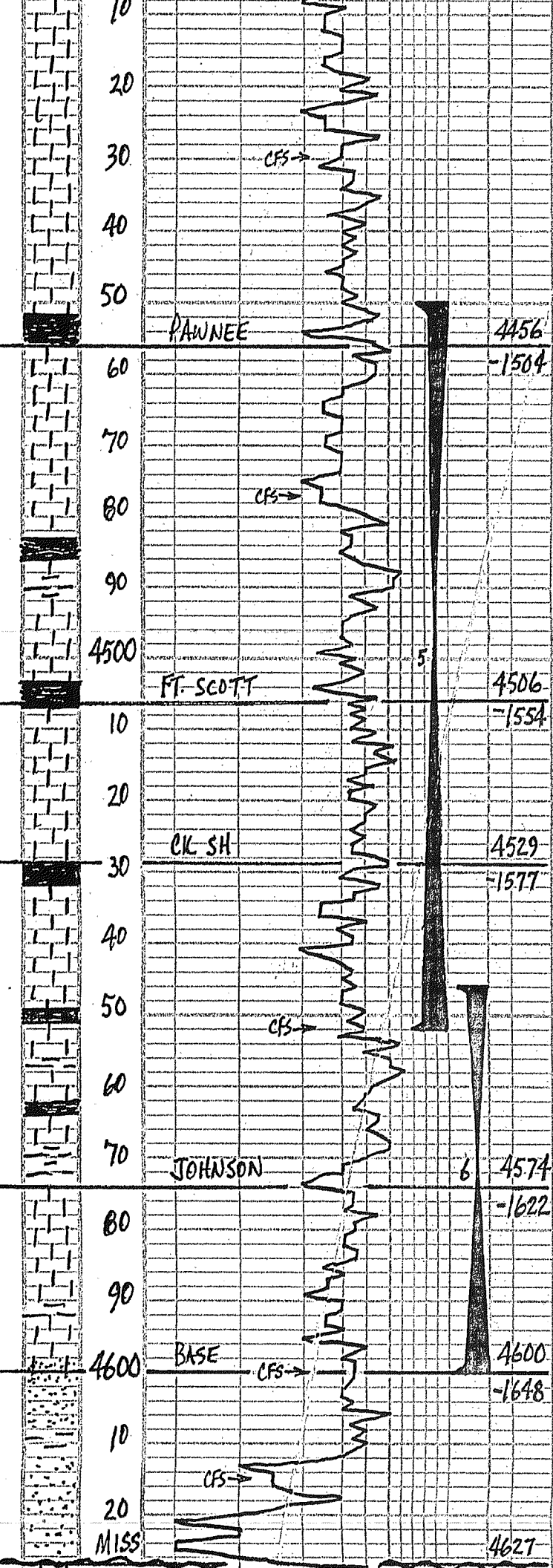
10 CRM - LT GRN. FN - XLN LS - NS & FEW
GRN. SILTSTONE - NS

20 L.S. AA - NS. POOR ϕ NO ODOR

DST #3 4217-4240
30-45-45-60
IF: WK BUILT TO 5"
FF: WK BUILT TO 6"
REC: 15' ϕ WCM=10%, 30% W
180' DICHTOS=20% M, 80% W
195' TOTAL CHL=50K
SIP: 1115-1107
IFP: 16-69 FFP: 71-101
TEMP: 121

DST #4 4249-4320
30-45-45-60
IF: BUILT TO BOB IN 7 1/2 MINS
FF: BUILT TO BOB IN 9 MINS
REC: 800' MCW = 20% M, 80% W
CHL = 65,000
SIP: 1084-1076
IFP: 26-214 FFP: 219-407
TEMP: 126°

MUD: CO. CK
VISC: 50 FILT: 7.2
WT: 9.3 CHL: 2,800



INC. GRAY-BLK SHS

30) LT CRM-LT TAN SLI-FOSS LS
DNSE-GRY POOR Ø-NS NO ODOR
30 MIN: LT CRM-LT TAN FN-XLN LS
DNSE-GRY POOR Ø-NS NO ODOR
60 MIN: LT TAN SUB COOL LS POOR
Ø-NS NO ODOR DNSE

40) FLOOD V-LT TAN FN-XLN LS
POOR Ø-NS NO ODOR

50) LT CRM-LT TAN NOD-OC LS
POOR Ø-NS NO ODOR

60) BUFF-LT TAN SLI-FOSS LS POOR Ø
RTY GRY-NS NO ODOR

70) LOTS BLK SHS TAN-BUFF-GRY
LS MENTY DNSE NS NO ODOR

71) LT CRM SLI-FOSS LS W/P-F TAN FOSS
PAT Ø FEW 6 PCS W/SSLTGFO LT
SWEET ODOR ON BRK SLI GRY
30 MIN: FEW CRM LS AH W/LT STN
VSSLTGFO LT ODOR TAN 21
60 MIN: WH CRM-V-LT TAN SLI-FOSS
LS 2 PCS W/SSLTGFO FT ODOR

90) LOTS BLK SH & CRM-TAN SH-FOSS
LS W/POOR Ø 3 PCS LT STN

100) LT BRN TAN LS W/POOR INTER-XLN
Ø W/SCAT STN 4 NO ODOR

10) LT TAN SLI-FOSS LS P-F FOSS Ø
6 PCS W/LT STN 2 PCS VSSLTGFO
FT ODOR ON BRK SLI GRY

20) LOTS LT TAN-BUFF COOL LS POOR
NS-LT CRM-TAN A TO NOD LS
W/LT FAIR Ø W/VSSLTGFO FT ODOR
& BLK SHS

30) FLOOD LT TAN-BUFF-LT BRN
FN-XLN DNSE LS POOR Ø-NS

40) FLOOD BLK SHS TAN-BUFF
SEMI-OC LS MOST POOR Ø
2 PCS W/SSLTG INTER-OC Ø

50) LT CRM-BUFF SLI-FOSS LS W/P-F Ø
4 PCS W/SSLTG FT ODOR ON BRK
SLI GRY
30 MIN: LT CRM-BUFF SLI-FOSS LS
W/P-F FOSS Ø 3 PCS FSGFO 4 PCS
SS BRN FO LT ODOR SLI GRY
60 MIN: FEW 5 PCS LT CRM FOSS
COOL LS W/P-F Ø VSSLTGFO FT ODOR

60) LT GRN-BUFF TAN FN-XLN LS
POOR Ø-NS NO ODOR

70) WH-LT TAN-BUFF FN-XLN LS
DNSE-GRY POOR Ø-NS NO ODOR
LOTS GRAY BLK SHS

80) LT BUFF-LT TAN SLI-FOSS LS
W/POOR FOSS Ø SCAT DK STN VSSLTGFO
FT ODOR

90) LT TAN FOSS LTY LS P-F VUG Ø
SMALL-LGE VUG MOST W/SSLTGFO
& LGFO 30 PCS TRAY-FAIR-GD ODOR

100) LT CRM-LT TAN FOSS LS SM-LGE VUG
Ø-SS-FSGFO FAIR ODOR FEW SAT,
SLI GRY-20 PCS TRAY
30 MIN: LT CRM-LT TAN SEMI-VUG LS
W/SSLTGFO FEW GASHT FEW SAT
FAIR ODOR SLI GRY
60 MIN: LT CRM-LT TAN FOSS VUG LS
P-F VUG Ø W/SSLTGFO DK BRN GFO
LT FAIR ODOR 30+ PCS SU GRY
FEW CL GREY SST POOR Ø-NS

15) LOTS LT GRN GRN SHS SOME SILTY-
SDY FEW SST POOR Ø-NS NO ODOR
30 MIN: LOTS WH-LT GRN FN-GR SST
NS NO ODOR STILL LOTS VUG
LS W/SSLTGFO FAIR ODOR
60 MIN: PRED LT GRN-GRY SHS &
LT GRN-WH FN-GR SST LNS NO ODOR

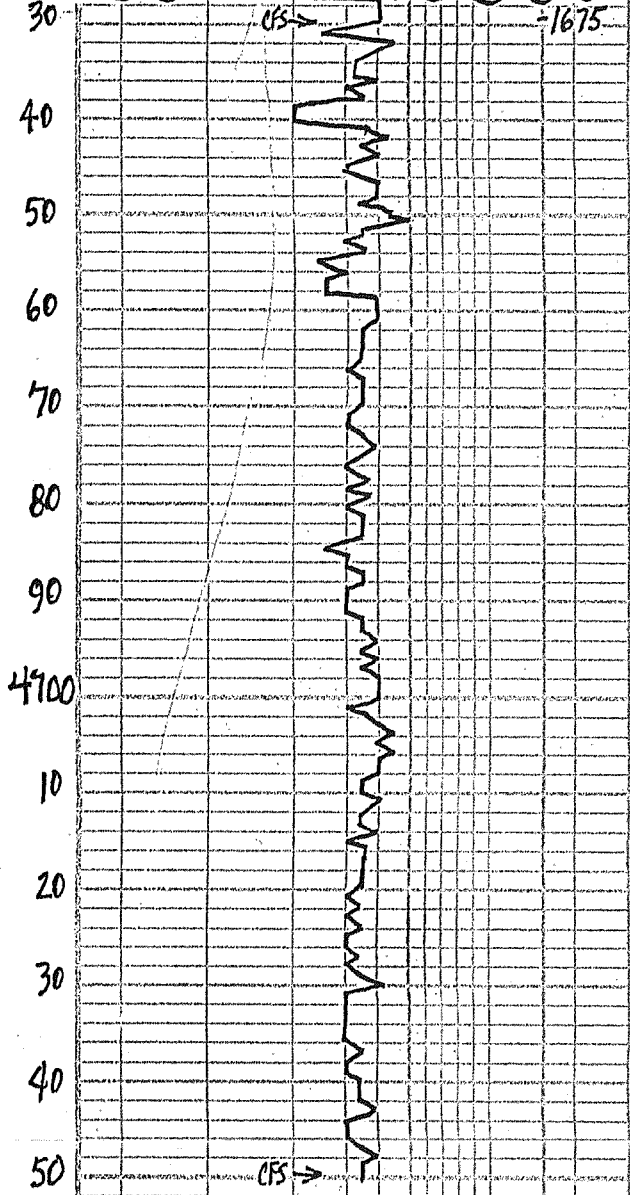
30) PRED LT GRN-GRY SILTY SHS FEW
LT GRN-WH SST-NS NO ODOR
30 MIN: LOTS WH-LT GRN FN-GR SST
POOR Ø GRY MENTY-NS FEW W/

PULLED TIGHT
PULLED 15 STD SHORT TRIP

DST #5 4450-4552
30-45-30-45
IF: WK BLOW V2"
FF: NO BLOW
REC: 5' MUD + OS
SIP: 428-268
IFP: 18-20 FFP: 20-21
TEMP: 112°

DST #6 4546-4600
30-45-30-45
IF: WK BUILT TO 1"
FF: NO BLOW-FLUSH-NO HELP
REC: 5' MUD + OS
SIP: 1034-925
IFP: 15-20 FFP: 23-26
TEMP: 114°

4627



RTD = 4750'

LTD = 4753'

CRY - LT BUFF LS POOR ϕ - NS
 60 MIN: WH - LT BUFF MICRO-DOL LS
 CRY P-F ϕ - NS NO ODOR
 FLOOD WH - CRY MICRO-DOL LS-NS
 50 WH CRY MICRO-DOL LS P-F ϕ
 NS NO ODOR
 60 LT CRM - LT BUFF FN MD - XLN LS
 P-F ϕ - NS NO ODOR SLY CRY
 70 WH - LT CRM FN MD - XLN LS P-F
 ϕ - NS NO ODOR, CRY PARTS
 80 WH - LT CRM FN MD - XLN LS P-F
 NS NO ODOR, SOME CRY
 90 PRED LT CRM FN XCN CRY LS NS
 00 WH - LT CRM - LT TAN FN XLN CRY
 LS POOR ϕ - NS NO ODOR FEW
 LT GRAY SHARP LS
 10 LS AA - NS, NO ODOR, CRY
 20 LT CRM - LT TAN MICRO-DOL CRY LS
 poor ϕ - NS NO ODOR
 30 LT CRM SMOOTH MICRO-XLN DABE
 LS V. POOR ϕ - NS NO ODOR
 40 CRM - LT TAN FN XLN LS POOR ϕ
 NS NO ODOR
 50 LT TAN - BUFF FN XLN LS POOR ϕ
 NS NO ODOR
 30 MIN: LT TAN MD XLN LS P-F ϕ
 NS NO ODOR SLY CRY

MUD: CO CK
 VISC: 56 FILT: 7.2
 WT: 9.4 CHE: 3,100

VISC: 55
 WT: 9.4 #
 LCM: 1 1/2

RTD @ 2:00 PM, WENS. 3-5-14
 CFS 30 MIN. SHORT TRIP 10 STDS
 COND 1 1/2 HRS. COME OUT FOR LOG
 STARTED LOGGING 7:00 PM.



#1 Huseman 19D

1635' FSL & 540' FEL

15° S & 120° E of S/2 NE SE Section 19-16S-31W

Scott County, Kansas

API# 15-171-21029-0000

Elevation: 2947' GL, 2952' KB

Sample Tops			Ref. Well
Anhydrite	2351'	+601	-3
B/Anhydrite	2370'	+582	-2
Stotler	3561'	-609	-5
Heebner	3943'	-991	-9
Lansing	3980'	-1028	-8
Muncie Shale	4159'	-1207	-5
Stark Shale	4250'	-1298	+1
Hush	4294'	-1342	-1
BKC	4334'	-1382	-1
Marmaton	4364'	-1412	+2
Altamont	4387'	-1435	-4
Pawnee	4462'	-1510	+2
Myrick	4492'	-1540	+2
Fort Scott	4506'	-1554	+4
Cherokee Shale	4530'	-1578	+4
Johnson	4567'	-1615	+7
B/Johnson	4598'	-1646	+5
Mississippian	4627'	-1675	+5
RTD	4750'	-1798	

ALLIED OIL & GAS SERVICES, LLC 061984

Federal Tax I.D. # 20-8651476

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Oakley, KS

DATE <u>3-6-14</u>	SEC. <u>19</u>	TWR. <u>16</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>4:00 AM</u>	JOB FINISH <u>4:30 AM</u>
LEASE <u>Huseman</u>		WELL # <u>190</u>	LOCATION <u>Healy W to Rader Rd. N</u>		COUNTY <u>Scott</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)			<u>to Rd 260 3/4 E N into</u>				

CONTRACTOR 104 W #2 OWNER Same

TYPE OF JOB PTA

HOLE SIZE 2 7/8 TD. 4750 CEMENT AMOUNT ORDERED 300 SKS 60/40 Poz

CASING SIZE DEPTH 490 gal Vu # 86-seal

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM COMMON 180 SKS @ 17.90 3222.00

MEAS. LINE SHOE JOINT POZMIX 120 SKS @ 9.35 1122.00

CEMENT LEFT IN CSG. GEL 10 SKS @ 23.70 237.00

PERFS. CHLORIDE @

DISPLACEMENT ASC @

EQUIPMENT Blaseal 75# @ 2.91 222.75

PUMP TRUCK CEMENTER Kelly Gabel

432 HELPER Wayne McLaughly

BULK TRUCK

8184287 DRIVER Juan T (TWS)

BULK TRUCK

DRIVER

HANDLING 322.20 dt @ 2.45 789.00

MILBAG 12.9 ton x 45 x 2.00 1509.00

REMARKS: TOTAL 7109.11

Rigged up

50 SKS @ 23.70

80 SKS @ 16.50

50 SKS @ 8.10

50 SKS @ 2.41

20 SKS @ 6.0

30 RH

20 MH Thank you Kelly & crew

CHARGE TO: Ritchie Exploration

STREET

CITY STATE ZIP

TOTAL 1794.50

PLUG & FLOAT EQUIPMENT

DEPTH OF JOB 2370

PUMP TRUCK CHARGE 1250.00

EXTRA FOOTAGE @

MILEAGE MH 45 @ 7.70 346.50

MANIFOLD @

MILV 45 @ 4.40 198.00

TOTAL

SALES TAX (If Any)

TOTAL CHARGES 8,903.61

DISCOUNT 1780.72 IF PAID IN 30 DAYS

SIGNATURE Lorrie Lang 7,122.88 Net.

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

ALLIED OIL & GAS SERVICES, LLC 062224

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Oakley, KS

DATE <u>2-24-14</u>	SEC. <u>19</u>	TWP. <u>16</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30PM</u>	JOB FINISH <u>8:00PM</u>
LEASE <u>Haskeman</u>	WELL # <u>19D</u>		LOCATION <u>1/2 Sec 260 3/4 E N 16D</u>	COUNTY <u>Scott</u>	STATE <u>KS</u>		
OLD OR (NEW) (Circle one)							

CONTRACTOR <u>W&W #2</u>	OWNER <u>Samuel</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u> T.D. <u>221</u>	CEMENT
CASING SIZE <u>8 5/8</u> DEPTH <u>221</u>	AMOUNT ORDERED <u>175 bags 18M 320cc</u>
TUBING SIZE DEPTH	<u>2 3/8 gal</u>
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	COMMON <u>175 bags @ 17.80 3132.50</u>
MEAS. LINE SHOE JOINT	POZMIX @
CEMENT LEFT IN CSG. <u>15'</u>	GEL <u>3 bags @ 23.70 70.20</u>
PERFS.	CHLORIDE <u>5 bags @ 64.00 320.00</u>
DISPLACEMENT <u>13 bbl</u>	ASC @

EQUIPMENT

PUMP TRUCK CEMENTER <u>Robly Gabel</u>
<u>4122</u> HELPER <u>Wayne McElghy</u>
BULK TRUCK
<u>8184287</u> DRIVER <u>Thomas Cross</u>
BULK TRUCK
DRIVER

HANDLING <u>189.23 cut</u>	@ <u>2.98</u>	<u>562.29</u>
MILEAGE <u>89.22222 x 4.5 x 2.00</u>	@ <u>2.00</u>	<u>176.32</u>
TOTAL		<u>498.61</u>

REMARKS:
repacked up
with cement
displaced with water
what is
Cement direct circulator
Thank you
Robly Gabel

CHARGE TO: Petroleum Exploration

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB	<u>221</u>	
PUMP TRUCK CHARGE	<u>1512.25</u>	
EXTRA FOOTAGE @		
MILEAGE <u>MILV 45 @ 4.40</u>	<u>198.00</u>	
MANIFOLD @		
<u>MILV 45 @ 7.20</u>	<u>346.50</u>	
TOTAL		<u>2,056.75</u>

PLUG & FLOAT EQUIPMENT

_____ @		
_____ @		
_____ @		
_____ @		
_____ @		
TOTAL		

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Donnie Lang

SIGNATURE [Signature]

SALES TAX (if Any) _____

TOTAL CHARGES 7,011.06

DISCOUNT 1,542.43 IF PAID IN 30 DAYS

5,468.62 Net.