



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1220731
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: _____

1220731

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
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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

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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CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 270190

Invoice Date: 08/17/2014 Terms: 10/10/10,n/30

Page 1

CATO EXPLORATION
15 EAST 5TH STREET, SUITE 2100
TULSA OK 74103
(918) 805-1690

SHAY #1
46828
22-16S-28W
8-1-14
KS

80003
CON0022
1501-000001

Description	Hours	Unit Price	Total
SINGLE PUMP	1.00	3175.00	3175.00
EQUIPMENT MILEAGE (ONE WAY)	65.00	5.25	341.25

Part Number	Description	Qty	Unit Price	Total
1126	OIL WELL CEMENT	190.00	23.7000	4503.00
1110A	KOL SEAL (50# BAG)	950.00	.5600	532.00
1142A	KCL SUB MB6875 CC3107 (1	10.00	41.1000	411.00
1144G	MUD FLUSH (SALE)	500.00	1.0000	500.00
4159	FLOAT SHOE AFU 5 1/2"	1.00	433.7500	433.75
4454	5 1/2" LATCH DOWN PLUG	1.00	318.2500	318.25
4130	CENTRALIZER 5 1/2"	8.00	61.0000	488.00

Sublet Performed	Description	Total
9995-130	CEMENT EQUIPMENT DISCOUNT	-454.00
9996-130	CEMENT MATERIAL DISCOUNT	-718.60

Description	Hours	Unit Price	Total
466 TON MILEAGE DELIVERY	1.00	1023.75	1023.75

548
2/22/14

Amount Due 12239.79 if paid after 08/27/2014

Parts:	7186.00	Freight:	.00	Tax:	462.41	AR	11015.81
Labor:	.00	Misc:	.00	Total:	11015.81		
Sublt:	-1172.60	Supplies:	.00	Change:	.00		

Signed _____

Date _____



270190

TICKET NUMBER 46828
 LOCATION Oakley KS
 FOREMAN Jerry Y
Dan

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

FIELD TICKET & TREATMENT REPORT

CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-1-14	2612	Shay #1	22	165	28W	Lane
CUSTOMER			KS			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			731	Cory D		
STATE			466	Doc	Jeff Kasselmann	
ZIP CODE			9557	Bill S		

JOB TYPE long string HOLE SIZE 7 7/8 HOLE DEPTH 4580 CASING SIZE & WEIGHT 5 1/2 15.5#
 CASING DEPTH 4360 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.2 SLURRY VOL 1.42 WATER gal/sk _____ CEMENT LEFT in CASING 85.36
 DISPLACEMENT 101 3/4 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting + rig upon Maurice 102 run float equip! centralizers on 1, 3, 5, 7, 9, 11, 13, 15 run casing to bottom & circulate the pump 5661 160 mix mud flush 5661 spacer mix 100 sks OWC 5# Kol seal/prsk shut down release plug wash pump line & displace with 101 3/4 1 KCL Water Float Held

Land @ 1700* Lift 900*

mix 30sks Rh

Thanks Dan + Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401c	1	PUMP CHARGE	3175 ⁰⁰	3175 ⁰⁰
5406	65	MILEAGE	5 ²⁵	341 ²⁵
5407A	9.0	ton mileage delivery	12 ²⁵	1023 ²⁵
1126	190sks	OWC	23 ⁷⁰	4503 ⁰⁰
1110A	950#	Kol seal	56	532 ⁰⁰
1142A	10 gal	KCL	41 ⁰⁰	411 ⁰⁰
1144G	500 gal	mud flush	1 ⁰⁰	500 ⁰⁰
4159	1	5 1/2 float shoe W	433 ²⁵	433 ²⁵
4454	1	5 1/2 latch down assy I	318 ²⁵	318 ²⁵
4130	8	5 1/2 centralizers	61 ⁰⁰	488 ⁰⁰
			subtotal	11726 ⁰⁰
			less 10% disc	1172 ⁶⁰
			subtotal	10,553 ⁴⁰
			SALES TAX	462.41
			ESTIMATED TOTAL	11,015.81

Completed

Ravin 3737

AUTHORIZATION Jerry Y TITLE _____ DATE 5-1-2014

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.

ALLIED OIL & GAS SERVICES, LLC 063545

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:

Grant Blvd

DATE <i>7-22-14</i>	SEC <i>22</i>	TWP. <i>16</i>	RANGE <i>28</i>	CALLED OUT	ON LOCATION <i>7pm</i>	JOB START <i>9:30 AM</i>	JOB FINISH <i>10:30 AM</i>
LEASE <i>Shay</i>	WELL # <i>1</i>	LOCATION <i>East Shields to Corado rd,</i>			COUNTY <i>Core</i>	STATE <i>Ks</i>	
OLD OR NEW (Circle one) <i>NEW</i>		<i>1.7 N, 2 1/2 E into</i>					

CONTRACTOR *Maurick 102*
 TYPE OF JOB *Surface*
 HOLE SIZE *12 1/4* T.D.
 CASING SIZE *8 3/4* DEPTH *1432*
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT *92.24*
 CEMENT LEFT IN CSG. *42.24 ft*
 PERFS.
 DISPLACEMENT *88.5 bbl fresh water*

OWNER _____
 CEMENT
 AMOUNT ORDERED *450 65/35 6 1/2 gal. 3 1/2 cc 1/4 ft*
200 5x class A 3 1/2 cc 2 1/2 gal 1/4 ft
 COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL *376* @ *.50* *188.00*
 CHLORIDE *1806* @ *1.10* *1,986.60*
 ASC _____ @ _____
450 5x 65/35 + 690 @ *19.88* *8,946.00*
200 5x class A 3 1/2 cc 2 1/2 gal @ *17.95* *3,580.00*
Flow seal 162 @ *2.97* *481.14*
Materials Total @ _____ *15,181.74*
Disc @ *28%* *4,250.89*
 _____ Service _____ @ _____
 HANDLING *740.51* @ *2.48* *1,836.46*
 MILEAGE *32.51 x 35 x* *2.75* *3,129.98*

EQUIPMENT

PUMP TRUCK CEMENTER *Josh Isaac*
 # *366* HELPER *Ben Maxwell*
 BULK TRUCK
 # *871-112* DRIVER *Zeb Schwilke/Brian Long*
 BULK TRUCK
 # *544-198* DRIVER *Dan Casper*

REMARKS:

*on location - dig up - had safety meeting
 run 8 3/4 - Break circulation
 pump 5 bbl fresh water
 mix 450 5x 65/35 6 1/2 gal 3 1/2 cc 1/4 ft
 mix 200 5x class A 3 1/2 cc 2 1/2 gal 1/4 ft
 Drop plug
 Displace 88.5 bbl fresh water
 Land plug 1000 psi - cement did circulate
 Rig down*

DEPTH OF JOB _____
 PUMP TRUCK CHARGE *2213.75*
 EXTRA FOOTAGE _____ @ _____
 MILEAGE *Hum 35* @ *7.70* *269.50*
 MANIFOLD _____ @ _____ *275.00*
Lum 35 @ *4.40* *154.00*

CHARGE TO: *Cato Exploration*
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL *7,877.79*
Disc. 28% *2,205.78*

PLUG & FLOAT EQUIPMENT

Rubber plug @ *131.00* *131.00*
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 TOTAL *131.00*
Disc. 28% *36.68*

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.

SALES TAX (If Any) _____
 TOTAL CHARGES *23,190.53*
 DISCOUNT *6,493.35* (28/28/28)
16,697.18 IF PAID IN 30 DAYS

PRINTED NAME *X JACK HACKLEY*
 SIGNATURE *X Jack Hackley*

Thank you!!



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	SHAY #1	CATO EXPLORATION, LLC
Location:	Sec. 22-16S-28W	LANE Co., KS
License Number:	15-101-22527	Region: WILDCAT
Spud Date:	07/21/2014	Drilling Completed: 07/31/2014
Surface Coordinates:	SHL: 1250' FWL & 1670' FNL OF Sec. 22-16S-28W LANE CO., KS	
Bottom Hole Coordinates:	REPORT FOR: MR. MACK BLACKFORD LOGGER: MR. LEVI CAMPBELL	
Ground Elevation (ft):	2653'	K.B. Elevation (ft): 2660'
Logged Interval (ft):	1430' To: 4579'	Total Depth (ft): 4579'
Formation:	LANSING/ KANSAS CITY	
Type of Drilling Fluid:	FRESH WATER/NATIVE MUD	

CORE

Contractor: DB
Core #: 1
Formation: LANSING
Core Interval: From: 3960' Cut: 70'
 To: 4030' Recovered: 70'
Bit type: DB: SERIAL# 3893
Size: 7 7/8"
Coring Time: 7.3 HRS

OPERATOR

Company: CATO EXPLORATION, LLC
Address: 15 EAST 5TH ST. , STE 2100
TULSA, OK 74103

GEOLOGIST

Name: MR. MACK BLACKFORD
Company: CATO EXPLORATION, LLC
Address: 15 EAST 5TH ST. , STE 2100
TULSA, OK 74103

Cores

CONTRACTOR: DB
CORE #: 2
FORMATION: KANSAS CITY "B" & "C"
FROM: 4118' CUT: 61'
TO: 4179' RECOVERED:61'
BIT TYPE: DB: SERIAL# 3893
SIZE: 7 7/8" TIME: 5.5 HRS

Well Information

DRILLING CONTRACTOR: MAVERICK RIG 102
MUD CO.: MUD-CO / SERVICE MUD, INC.
ENGINEER- TYLER LANG
MUD LOGGING: XGP
LOGGER: LEVI CAMPBELL (405) 397-5932
levi.campbell@xgpmudlogging.com

BH: 5035/5032 TRAILER: H5 HASP: 4 MAC:6

ROCK TYPES

	Calc cmtd dolo
	Chrt_gnrlr
	Lmyslst
	Bent
	Brec
	Clyst
	Coal
	Congl
	Dol

	Igne
	Lmst
	Mrlst
	Shale
	Shale
	Shcol
	Sitysh
	Shgy
	Ss

	Till
	Sandylms
	Hotsh
	Sltst
	Dolc ss
	Lmysnd
	Calc dolo
	Dolomtc Im
	Dolo cmtd Im

	Trip chrt
	Spic chrt
	Dolc chrt
	Dk chrt
	Chrt
	Calc chrt

ACCESSORIES

FOSSIL

	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite
	Ostra
	Pelec
	Pellet

	Pisolite
	Plant
	Strom
	Crin

MINERAL

	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Carb
	Chtdk
	Chtlt
	Feldspar
	Qrtz
	Hvymin
	Kaol

	Marl
	Minxl
	Phos
	Pyr
	Silt
	Sil
	Calc
	Sand
	Dol
	Sidrtte
	Glauc

STRINGER

	Arg
	Bent
	Coal
	Dol
	Ls

	Mrst
	Ssstrg
	Sltstrg

TEXTURE

	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackest

OTHER SYMBOLS

POROSITY

	Earthy
	Fenest
	Fracture
	Inter
	Moldic

	Organic
	Pinpoint
	Vuggy

OIL SHOW

	Even
--	------

	Spotted
	Ques
	Dead

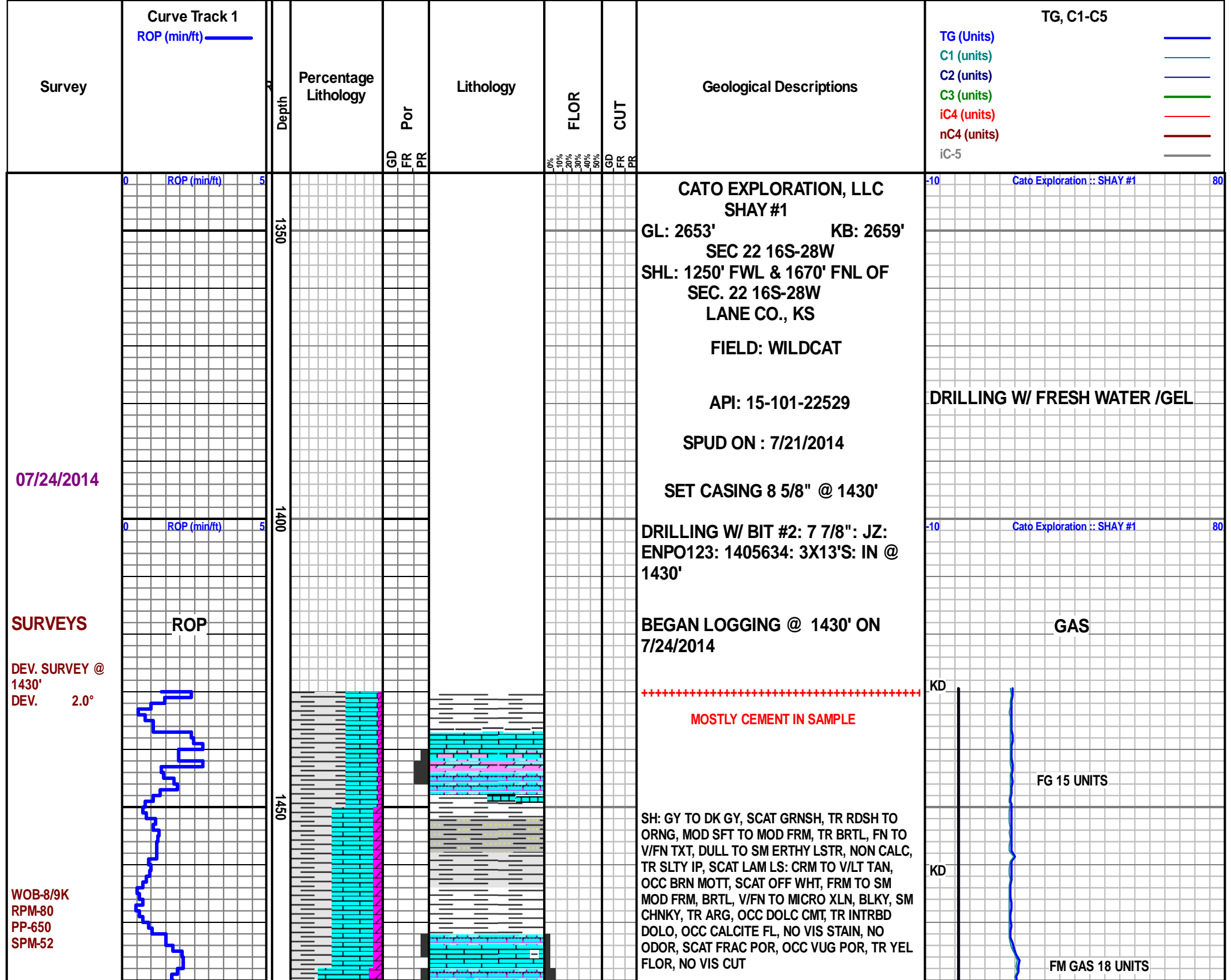
INTERVAL

	Core
--	------

	Dst
--	-----

EVENT

	Rft
	Sidewall



Curve Track 1
ROP (min/ft)

TG, C1-C5
 TG (Units)
 C1 (units)
 C2 (units)
 C3 (units)
 iC4 (units)
 nC4 (units)
 iC-5

Survey

Percentage Lithology

Lithology

FLOR

CUT

Geological Descriptions

Depth

Por
GD
FR
PR

FLOR
GD
FR
PR

-10 Cato Exploration :: SHAY #1 80

CATO EXPLORATION, LLC
SHAY #1

GL: 2653' KB: 2659'
SEC 22 16S-28W
SHL: 1250' FWL & 1670' FNL OF
SEC. 22 16S-28W
LANE CO., KS

FIELD: WILDCAT

API: 15-101-22529

SPUD ON : 7/21/2014

SET CASING 8 5/8" @ 1430'

DRILLING W/ FRESH WATER /GEL

DRILLING W/ BIT #2: 7 7/8": JZ:
ENPO123: 1405634: 3X13'S: IN @
1430'

-10 Cato Exploration :: SHAY #1 80

BEGAN LOGGING @ 1430' ON
7/24/2014

GAS

+++++ MOSTLY CEMENT IN SAMPLE +++++

KD

FG 15 UNITS

SH: GY TO DK GY, SCAT GRNSH, TR RDSH TO
ORNG, MOD SFT TO MOD FRM, TR BRTL, FN TO
V/FN TXT, DULL TO SM ERTHY LSTR, NON CALC,
TR SLTY IP, SCAT LAM LS: CRM TO V/LT TAN,
OCC BRN MOTT, SCAT OFF WHT, FRM TO SM
MOD FRM, BRTL, V/FN TO MICRO XLN, BLKY, SM
CHNKY, TR ARG, OCC DOLC CMT, TR INTRBD
DOLO, OCC CALCITE FL, NO VIS STAIN, NO
ODOR, SCAT FRAC POR, OCC VUG POR, TR YEL
FLOR, NO VIS CUT

KD

FM GAS 18 UNITS

07/24/2014

SURVEYS

ROP

DEV. SURVEY @
1430'
DEV. 2.0°

WOB-8/9K
RPM-80
PP-650
SPM-52

0 ROP (min/ft) 5

0 ROP (min/ft) 5

1350

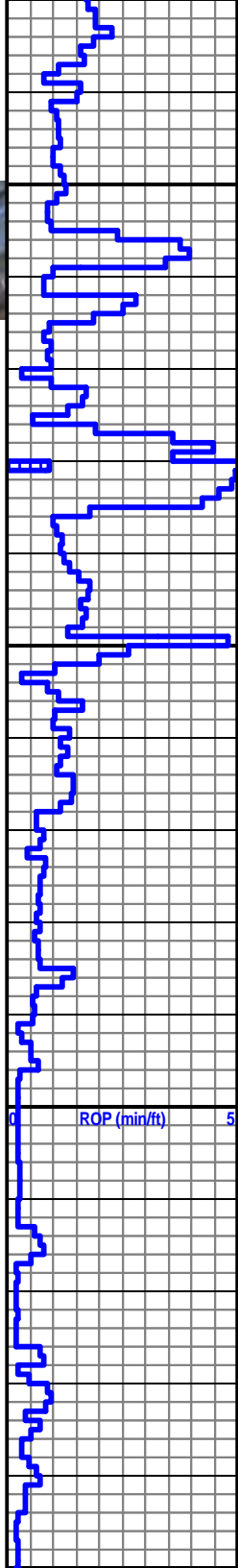
1400

1450



RIG REPAIR -
WORK ON
ROTARY CHAIN

WOB-30K
RPM-90
PP-800
SPM-60

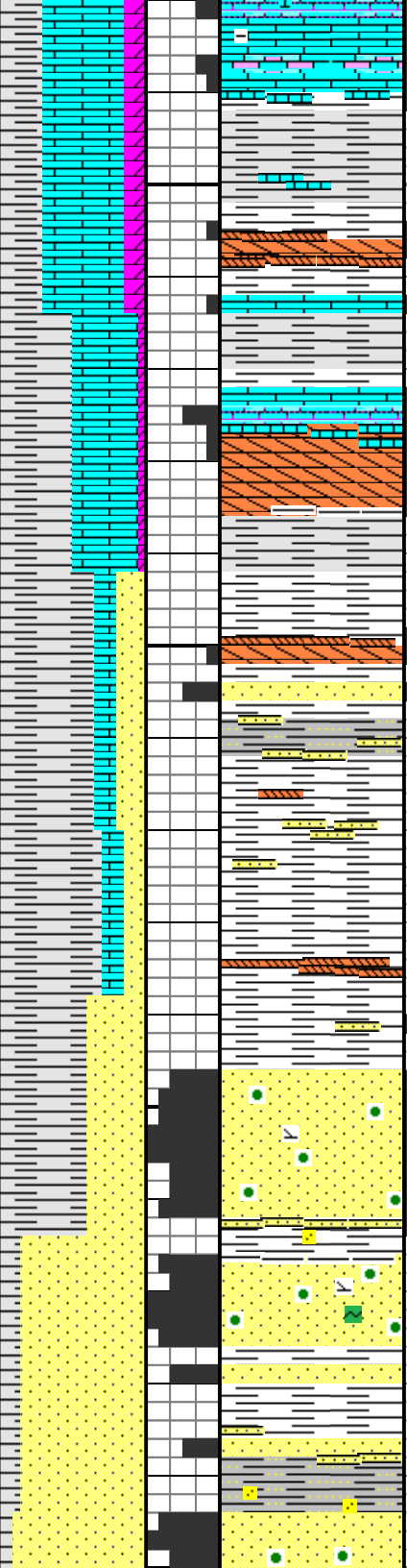


1500

1550

1600

16



BLAINE @ 1505'

(1155')



GYP: OFF WHT, FRSTD, TR CLR TO TRNSP, FRM TO MOD FRM, TR BRTL, MICRO XLN, TR FN XLN, BLKY, TR CHNKY, TR INTRBD LS: CRM, OFF WHT, TR WHT, FRM, BRTL, V/FN TO MICRO XLN, PLTY, BLKY, TR DOLC, NO VIS STAIN, NO ODOR, SCAT FRAC POR, TR LAM SH: GRNSH, GY TO LT GY, OCC ORNG, MOD FRM, BLKY, V/FN TXT, DULL LSTR, OCC YEL FLOR, NO VIS CUT



FLOWER POT @ 1543'

(1117')

SH: ORNG, LT ORNG, TR RDSH/ ORNG, FRM, SM MOD FRM, OCC BRTL, V/FN TXT, TR SLTY IP, DULL TO SM ERTHY LSTR, BLKY, OCC CHNKY, NON CALC, OCC THN BDD GYP, TR LENTC / LAM SS: OPQ TO TRNSL, SM TRNSP, MOD FRM, SM FRI, FN L TO TR FN U GRNS, SUB ANG, MOD SRTD, MOD CONSL, SIL CMT, NO VIS STAIN, NO ODOR, SM XGRNLR POR, OCC DULL BLU TO PALE YEL FLOR, NO VIS CUT

CEDAR HILLS @ 1596'

(1064')



SS: OPQ, TRNSL, SM TRNSP, SCAT FRSTD, UNCONSL, FN U TO MED L GRNS, SCAT MED U GRNS, RNDD GRNS, WELL SRTD, UNCONSL, SCAT FERR CTG, OCC CRSE U WELL RNDD QRTZ GRNS, OCC GLAUC, NO VIS STAIN NO ODOR, ABNDNT XGRNLR POR, SCAT LAM SH: RDSH TO RDSH/ORNG, OCC ORNG, MOD FRM, TR BRTL, V/FN TO FN TXT, TR AREN, BLKY, TR CHNKY, ERTHY LSTR, OCC V/DULL BLU TO V/DULL PALE YEL FLOR, NO VIS CUT

KD
KD
KD
KD
-10
KD
KD

FM GAS 19 UNITS

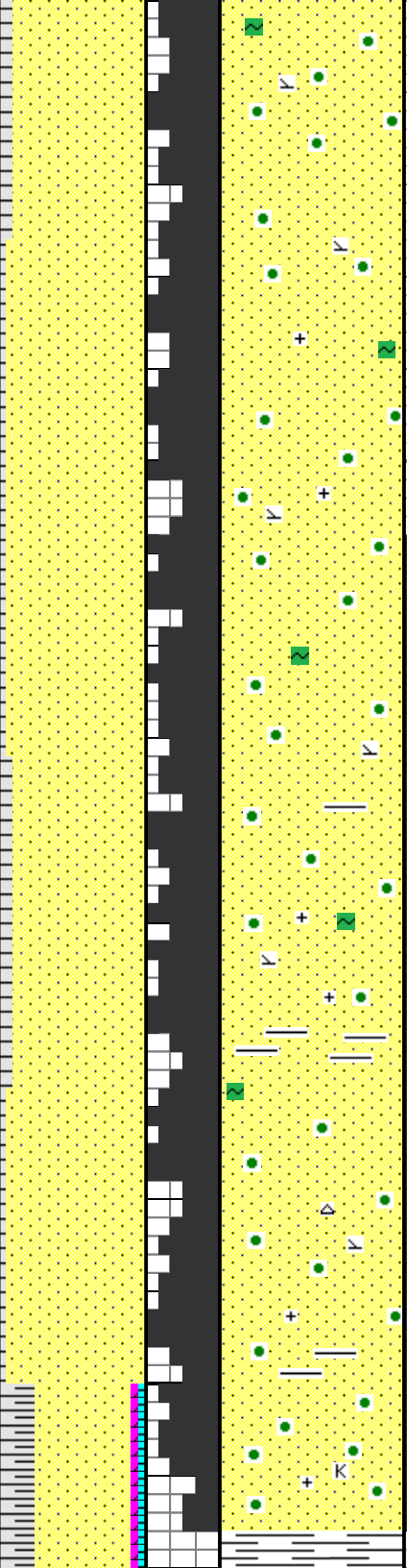
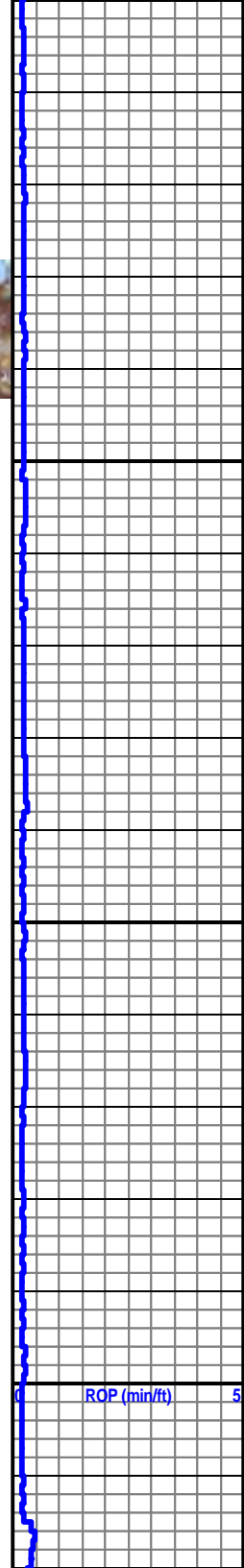
Cato Exploration :: SHAY #1

MWT 8.7

80



WOB-30/35K
RPM-90
PP-850
SPM-60

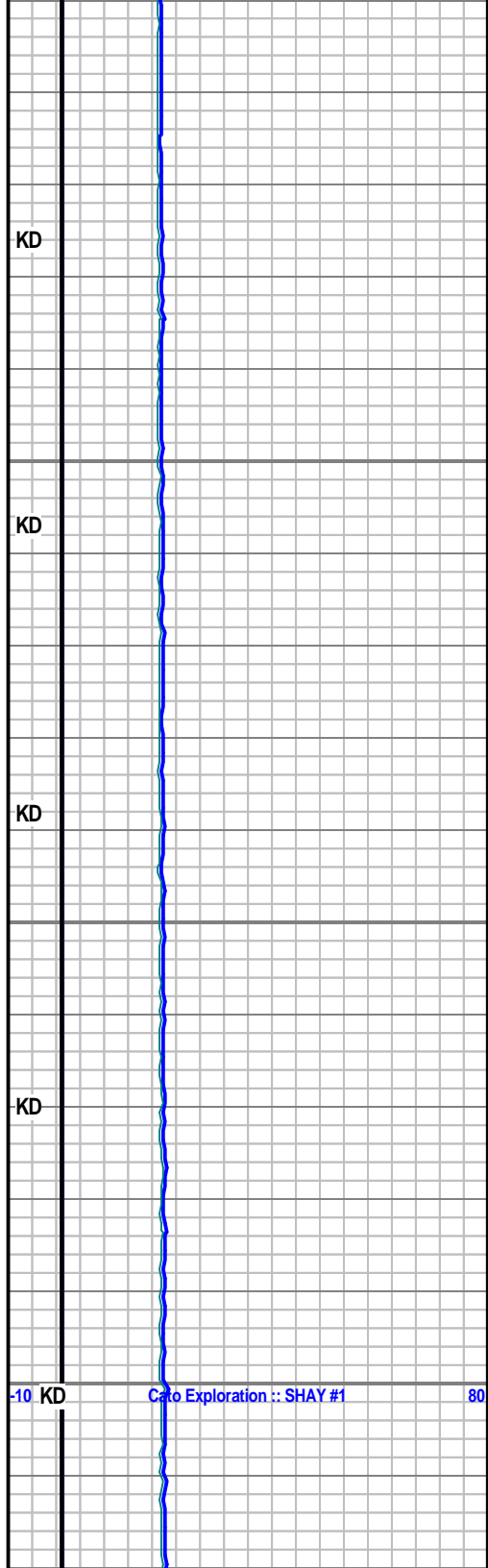


SS: OPQ TO TRNSL, SM FRSTD, RDSH, TR CLR TO TRNSP, OCC OFF WHT, V/FEW CLSTRS, FN L TO FN U GRNS, TR MED L GRNS, RND TO TR SUB RND, MSTLY UNCONSL, MOD TO WELL SRTD, TR SIL CMT, SCAT FERR CTG GRNS, TR INTST GLAUC, OCC FELSPR, NO VIS STAIN, NO ODOR, ABNDNT XGRNLR POR, NO VIS FLOR, NO CUT

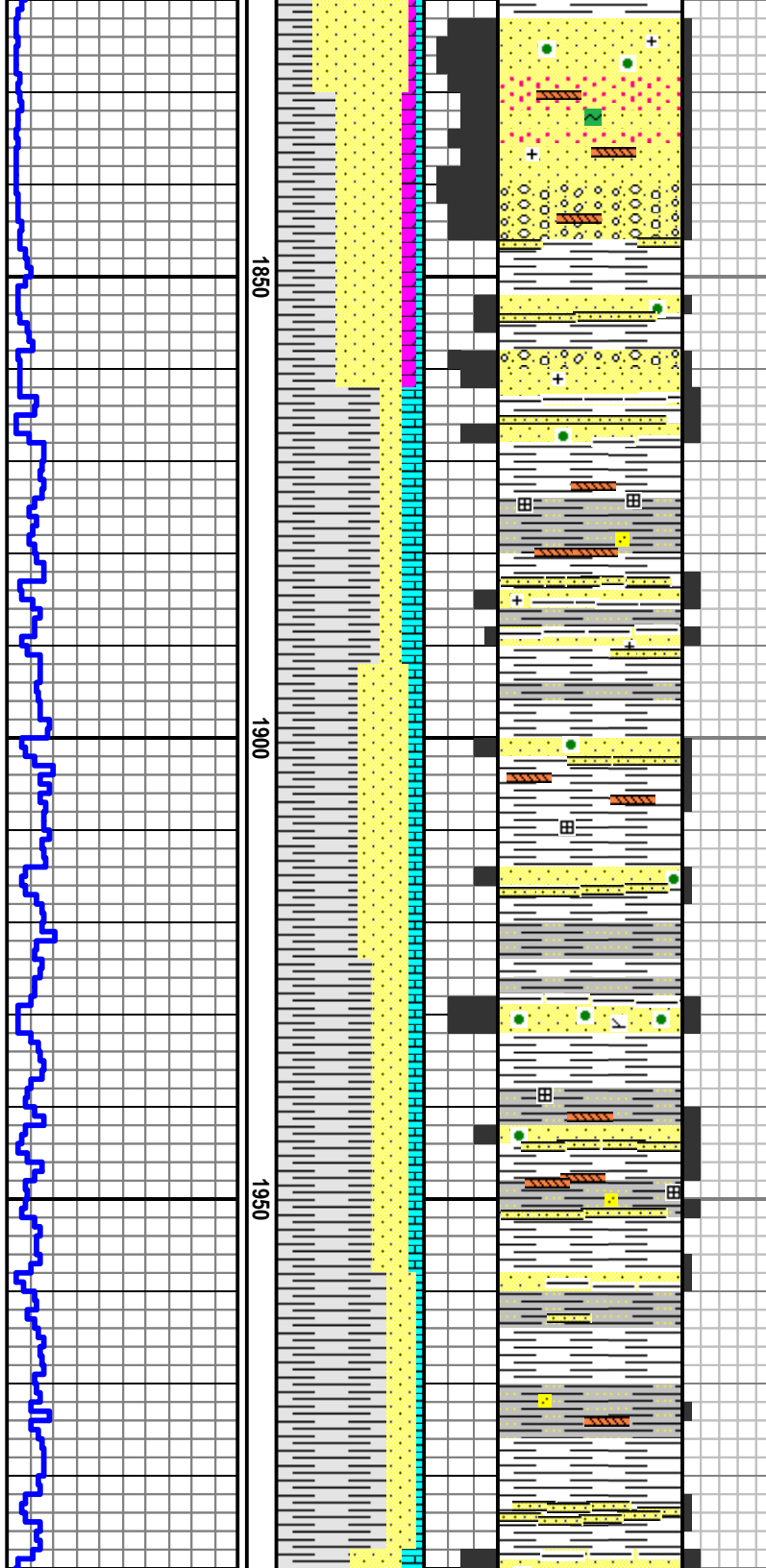
SS: OPQ TO TRNSL, SM FRSTD, RDSH, TR CLR TO TRNSP, OCC OFF WHT, V/FEW CLSTRS, FN L TO FN U GRNS, TR MED L GRNS, RND TO TR SUB RND, MSTLY UNCONSL, MOD TO WELL SRTD, TR SIL CMT, SCAT FERR CTG GRNS, TR INTST GLAUC, OCC FELSPR, NO VIS STAIN, NO ODOR, ABNDNT XGRNLR POR, OCC V/DULL BLU TO V/DULL PALE YEL FLOR, NO VIS CUT

SS: OPQ, SM FRSTD, TRNSL TO TRNSP, TR RDSH CTG, TR WHT TO OFF WHT, V/FEW CLSTRS, MOD FRM TO FRM, FRI, FN U TO SM FN L GRNS, SCAT MED L GRNS, RNDD TO TR SUB RND, WELL SRTD, MSTLY UNCONSL, OCC SIL CMT, SCAT FERR CTG GRNS, OCC INTST GLAUC, OCC MICS, OCC CHRT AREN, NO VIS STAIN, NO ODOR, ABNDNT XGRNLR POR, INCRSE V/DULL PALE YEL TO V/DULL BLUSH FLOR, NO VIS CUT

SS: OFF WHT, SCAT TO SM RDSH, OPQ TO TRNSP, SM TRNSL, TR GRNSH MOTT, FRM, TR HRD, INCRSNG CONSL, SCAT FRI, FN L TO



WOB-30K
RPM-70
PP-1000
SPM-60



1850

1900

1950

DECRSING FN U GRNS, FINING UPWARD, SM
SUB RND GRNS, SM SUB ANG GRNS, MOD SRTD,
MOD CONSL, TR DOLC CMT, TR IMBDD GYP,
INCRSE GLAUC, OCC FELDSPR, NO VIS STAIN,
NO ODOR, SM XGRNLR POR, TR LAM SH: ORNG,
RDSH/ORNG, MOD FRM, OCC FRM, TR BRTL,
V/FN TO FN TXT, TR AREN, BLKY, SCAT CHNKY,
NON CALC, OCC DULL BLU FLOR, NO VIS CUT

SALT PLAINS @ 1868'

+++++ (792') +++++

SH: ORNG, PALE ORNG, TR RDSH/ORNG, SCAT
GRNSH, SM MOD FRM, TR BRTL, V/FN TXT, SCAT
FN TO SLTY TXT, OCC AREN, MSTLY BLKY, TR
CHNKY, NON CALC, SM MUDST, TR LAM/IMBDD
HALITE EUHED, SM LAM TO LENTC SS: OFF
WHT, OCC GYSH, TR GRN MOTT, OCC OPQ, FRM
TO SM MOD FRM, SM FRI, FN L GRNS, OCC V/FN
U GRNS, ANG TO SUB ANG GRNS, WELL CONSL,
MOD TO PR SRTD, SIL CMT, OCC DOLC, OCC
INTRBD GYP, NO VIS STAIN, NO ODOR, SCAT
XGRNLR POR,

SH: ORNG, RDSH/ORNG, MOD SFT TO MOD FRM,
OCC BRTL, V/FN TO TR SLTY TXT, ERTHY LSTR,
CHNKY, TR BLKY, SM MUDST, OCC INTRBD GYP,
OCC IMBDD HALITE, OCC PYRC, TR LENTC TO
LAM SS: OPQ, TRNSL TO TRNSP, SCAT FRSTD,
V/FEW CLUSTRS, FN U TO TR FN L GRNS, RNDD
GRNS, MSTLY UNCONSL, FR SRTD, SM TO SCAT
V/LT FERR CTD GRNS, NO VIS STAIN, NO ODOR,
SM TO ABNDNT XGRNLR POR, TR DULL BLU
FLOR, NO VIS CUT

KD

KD

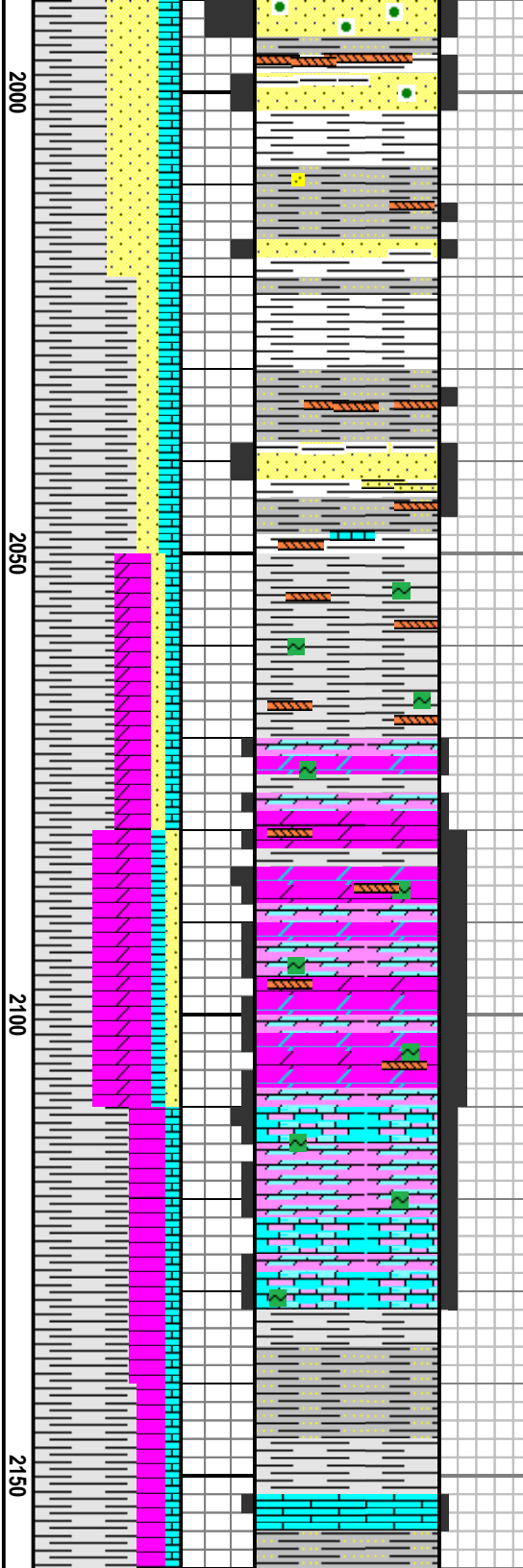
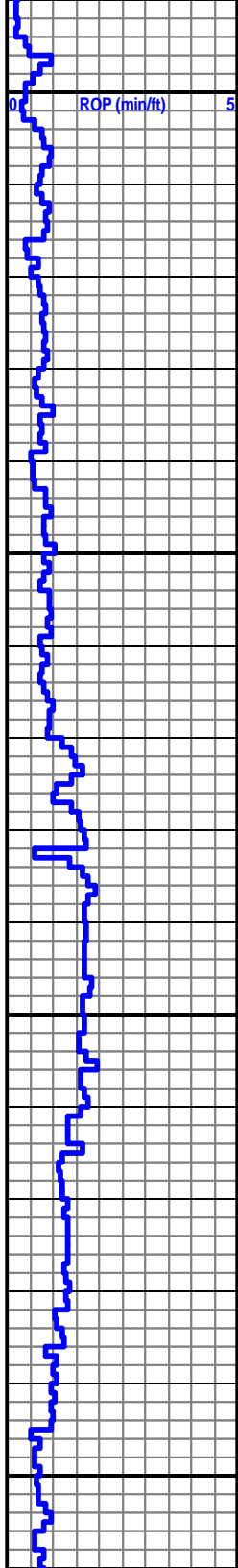
KD

KD

KD

KD

MUD CK @ 1910'
WT 9.1
VIS 27
PH 7.0
CHL 1000
CAL HVY
SOL 5.7%
WTR 94.3%



SH: ORNG, RDSH/ORNG, MOD SFT TO MOD FRM, OCC BRTL, V/FN TO SM SLTY TXT, SCAT AREN, ERTHY LSTR, CHNKY, TR BLKY, SM MUDST, TR LENTC TO LAM SS: OPQ, TRNSL TO TRNSP, SCAT FRSTD, V/FEW CLUSTRS, FN U TO TR FN L GRNS, RNDD GRNS, MSTLY UNCONSL, FR SRTD, SM TO SCAT V/LT FERR CTD GRNS, NO VIS STAIN, NO ODOR, SM TO ABDNT XGRNLR POR, TR DULL BLU FLOR, NO VIS CUT

DOLO: TRNSL TO OPQ, OCC CLR, MOD SFT TO MOD FRM, OCC FRM, OCC BRTL, FN TO V/FN XLN, CHNKY, SM PLTY, OCC CALC CMT, SM GYPSM, TR GLAUC, NO VIS STAIN, NO ODOR, OCC XLN POR, OCC DRK STRW FLOR, NO VIS CUT

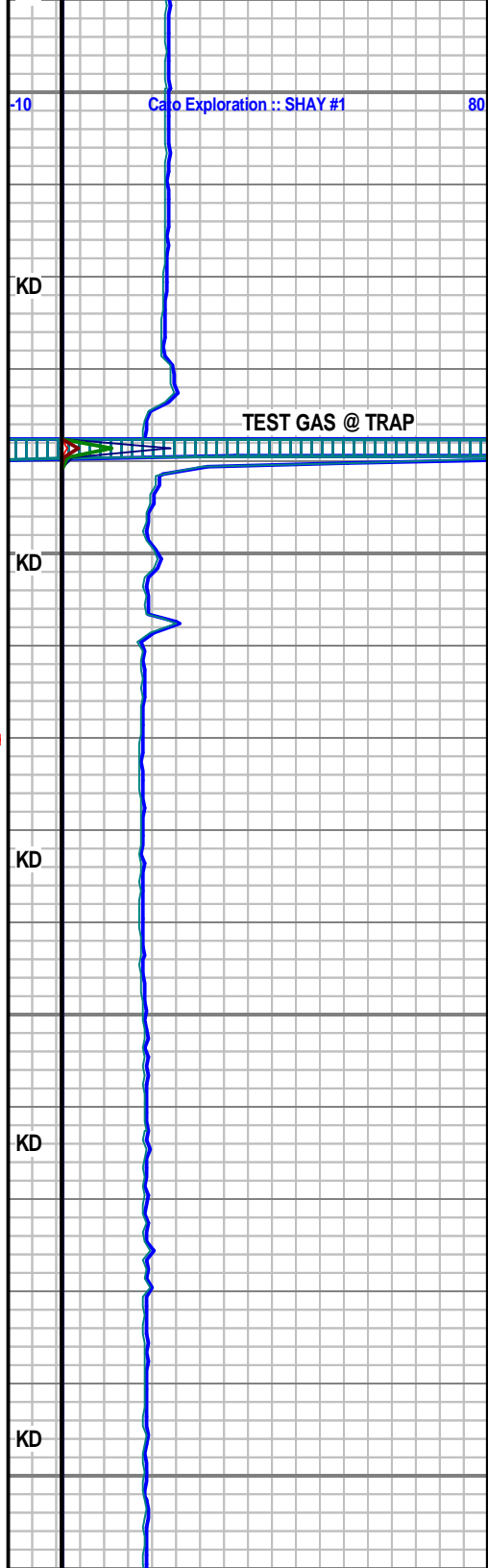
STONE CORRAL @ 2070'

+++++ (590') +++++

DOLO: OFF WHT, SM LT TN, TR OPQ TO TRNSL, MOD SFT TO MOD FRM, OCC FRM, OCC BRTL, V/FN TO FN XLN, CHNKY, SM PLTY, SCAT BLKY, OCC CALC CMT, TR GYPSM, OCC GLAUC, NO VIS STAIN, NO ODOR, SM XLN POR, OCC VUG POR, SCAT DULL YEL FLOR, NO VIS CUT

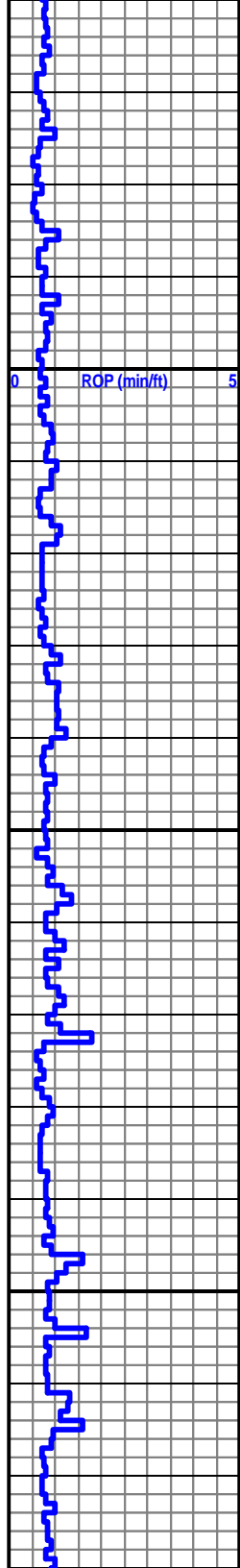
SH: RDSH/ORNG, SM ORNG, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN TXT, OCC SLTY TXT, DULL TO ERTHY LSTR, NON CALC, TR DOLO: OFF WHT, SM LT GY, SCAT TRNSL TO OPQ, MOD FRM TO FRM, OCC MOD SFT, V/FN TO FN XLN, CHNKY, SM PLTY, SCAT BLKY, OCC CALC CMT, OCC GLUAC, NO VIS STAIN, NO ODOR, SM XLN POR, OCC VUG POR, OCC PALE YEL TO YEL FLOR, NO VIS CUT

SH: ORNG, SM RDSH/ORNG, OCC LT GY, OCC GY, MOD SFT TO MOD FRM, OCC BRTL, V/FN TO FN



WOB- 30K
RPM- 80
PP- 800
SPM- 60

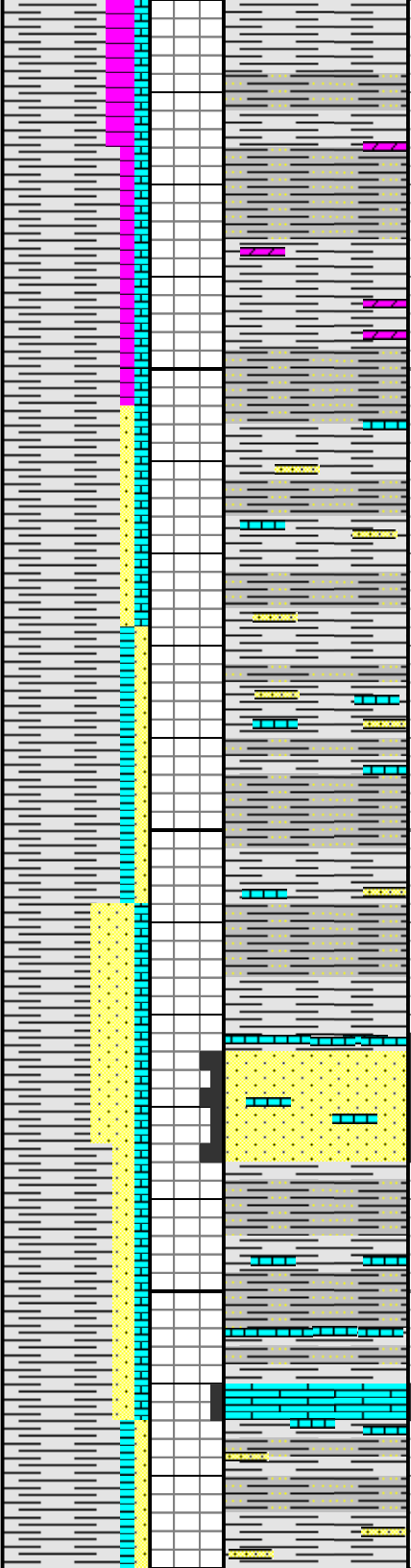
WOB- 30K
RPM- 80
PP- 200
SPM- 60



2200

2250

2300



TX, TR SLTY TXT, ERTHY TO SLI DULL SLTR,
NON CALC

SH: ORNG, SM RDSH/ORNG, OCC LT GY, MOD
SFT TO MOD FRM, OCC FRM, OCC SFT, OCC
BRTL IP, V/FN TO FN TXT, TR SLTY IP, ERTHY TO
DULL LSTR, NON CALC, OCC DOLO STRNGR

SH: ORNG, SM RDSH/ORNG, OCC LT GY, MOD
SFT TO MOD FRM, OCC SFT, OCC BRTL, V/FN TO
FN TXT, TR SLTY TXT IP, DULL TO ERTHY LSTR,
NON CALC, OCC UNCONSL SS STRNGR, OCC LS
STRNGR

SH: ORNG, SM RDSH/ORNG, OCC RDSH/BRN,
MOD SFT TO MOD FRM, OCC SFT, OCC FRM, OCC
BRTL, V/FN TO FN TXT, OCC SLTY IP, DULL TO
ERTHY LSTR, NON CALC, TR UNCONSL SS
STRNGR, OCC LS STRNGR

SH: ORNG, SCAT RDSH/ORNG, MOD SFT TO MOD
FRM, OCC SFT, OCC BRTL, V/FN TO FN TXT, OCC
SLTY IP, DULL LSTR, SLI ERTHY IP, NON CALC,
SM SS: CLR, SM TRNSL, OCC OPQ, MOD FRM TO
FRM, V/FN U TO FN L GRN, RNDD GRN, SM SUB
RNDD GRN, MSTLY UNCONSL, MOD SRTD, OCC
CALC CMT, NO VIS STAIN, NO ODOR, OCC
XGRNLR POR, OCC STRW TO YEL FLOR, NO VIS
CUT

SH: ORNG, SM RDSH/ORNG, MOD SFT TO MOD
FRM, OCC FRM, OCC SFT, OCC BRTL, V/FN TO FN
TXT, TR SLTY IP, DULL TO ERTHY LSTR, NON
CALC, OCC LS STRNGR, OCC UNCONSL SS
STRNGR

SH: ORNG, SM RDSH/ORNG, SM RSH/BRN, SCAT
LT GY, TR GY, MOD SFT TO MOD FRM, OCC FRM,
OCC BRTL, V/FN TO FN TXT, SM SLTY IP, DULL

KD

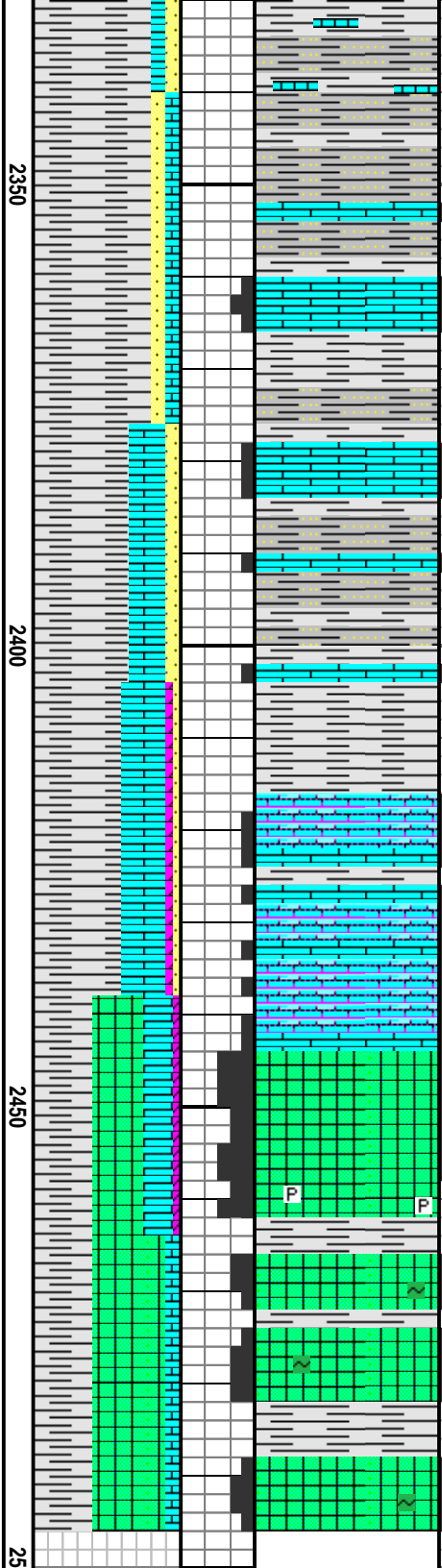
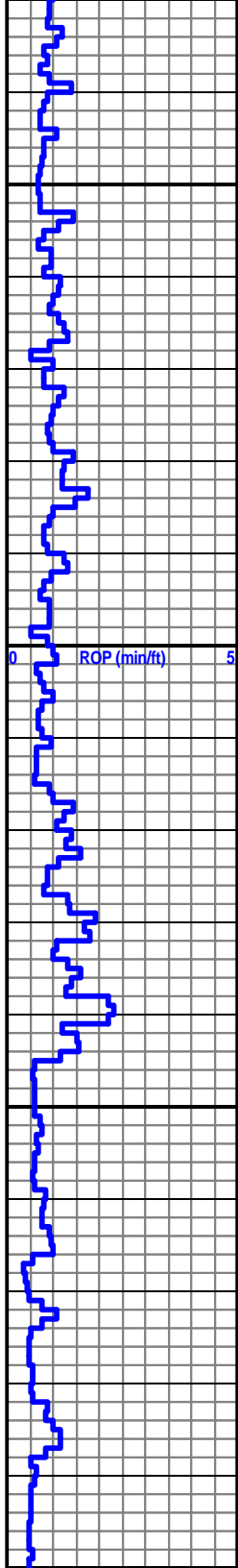
KD

KD

KD

KD

-10 Cato Exploration :: SHAY #1 80



OCC BRTL, V/FN TO FN TXT, SM SLTY IP, DULL TO ERTHY LSTR, NON CALC, OCC SS STRNGR, OCC LS STRNGR

SH: GY, SM ORNG, SM RDSH/ORNG, OCC LT GY, OCC BLK, MOD SFT TO MOD FRM, OCC FRM, OCC BRTL, V/FN TO FN TXT, OCC SLTY TXT IP, DULL TO ERTHY LSTR, NON CALC, OCC SS STRNGR

SH: GY, SM ORNG, SCAT RDSH/ORNG, OCC LT GY, MOD SFT TO MOD FRM, OCC BRTL, V/FN TO FN TXT, OCC SLTY IP, DULL TO ERTHY LSTR, NON CALC, OCC LS STRNGR

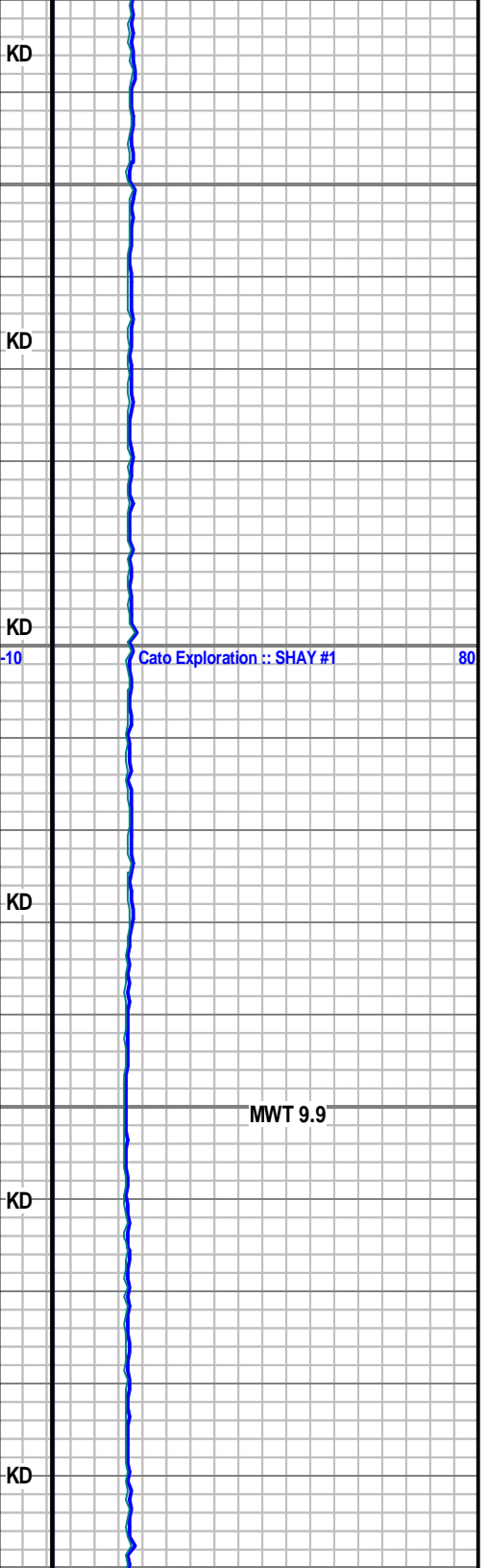
HUTCHINSON @ 2417' MD

(243)

LS: OFF WHT, SM LT GY, TR LT GY/OFF WHT MOTT, MOD SFT TO MOD FRM, OCC FRM, V/FN XLN, CHNKY, SM BLKY, TR PLTY, OCC DOLC CMT, NO VIS STAIN, NO ODOR, TR XLN POR, OCC HL FRAC POR, OCC STRW FLOR, NO VIS CUT

SALT: OFF WHT, SM LT GY, TR DK GY, OCC TO TR CLR TO TRNSP, MOD SFT TO MOD FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC PYR INC, NO VIS STAIN, NO ODOR, TR XLN POR, OCC VUG POR, OCC STRW FLOR, NO VIS CUT

SALT: OFF WHT, SM LT GY, OCC TRNSL, MOD SFT TO MOD FRM, OCC FRM, OCC FRI, V/FN TO FN XLN, CHNKY, SM BLKY, OCC GLAUC, NO VIS STAIN, NO ODOR, TR XLN POR, TR LAM SH: GY TO LT GY, MOD FRM, V/FN TO SLTY TXT, CHNKY TO PLTY, NON CALC, TR MICRO MICA, OCC STRW TO PALE YEL FLOR, NO VIS CUT



WORK ON PUMP

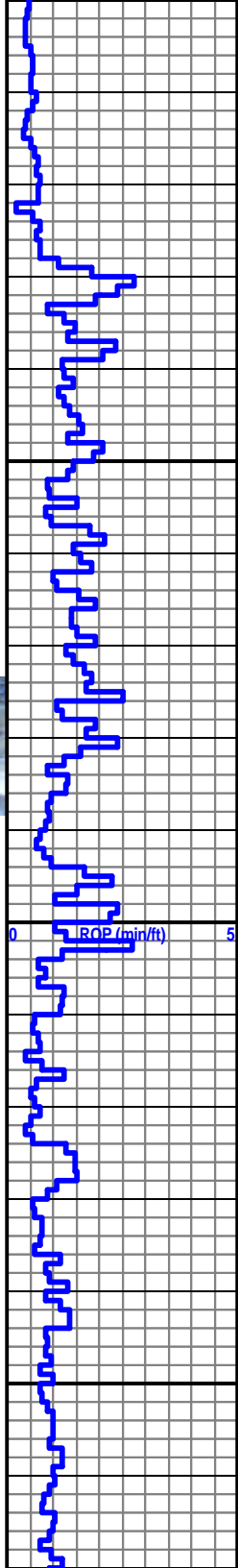
WOB- 28K
RPM- 100
PP- 900
SPM- 59

07/25/2014

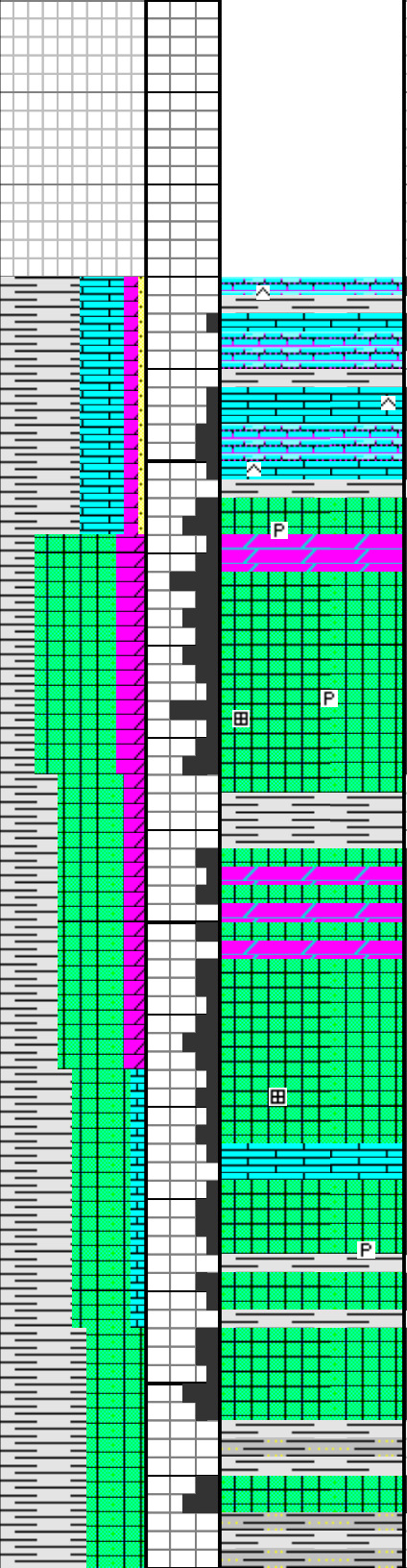
MWT 9.9

RIG REPAIR ::
WORK ON
ROTARY TABLE

WOB- 25K
RPM- 90
PP- 800
SPM- 52



2500
2550
2600
2650



NO SAMPLE CAUGHT

LS: OFF WHT, SM LT GY, SCAT GY, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC PLTY, TR DOLC CMT, OCC SIL CMT IP, NO VIS STAIN, NO ODOR, SM XLN POR, OCC HL FRAC POR, OCC STRW FLOR, NO VIS CUT

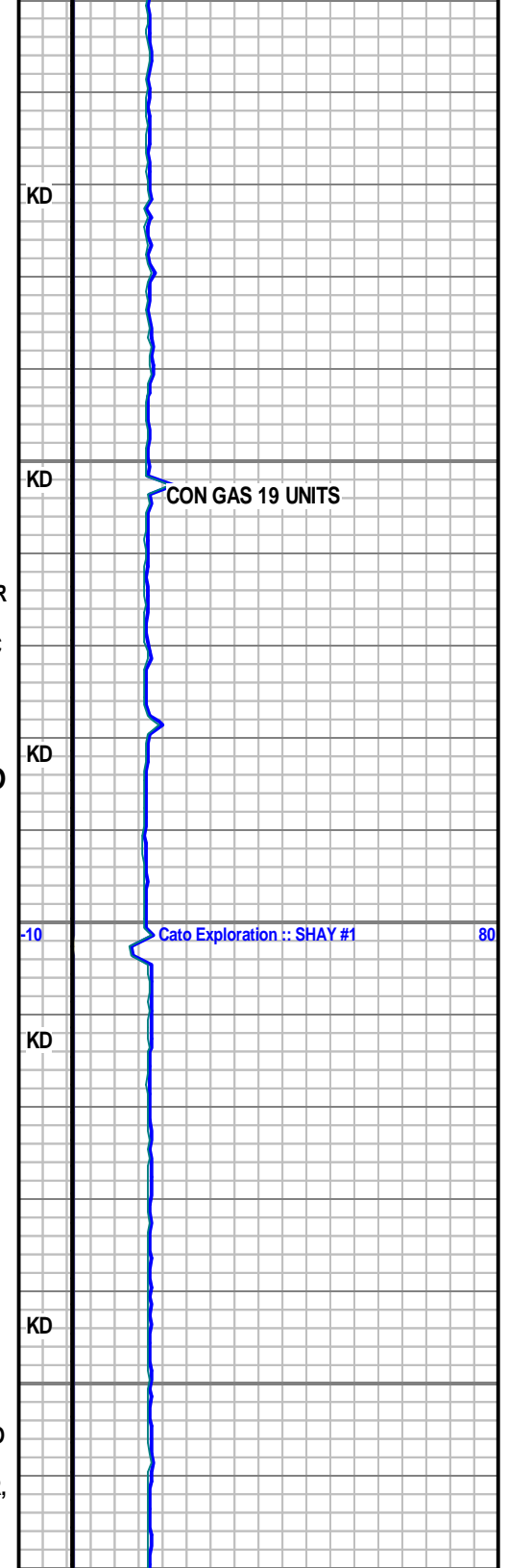
SALT: OFF WHT, SM LT GY, TR DK GY, OCC TO TR CLR TO TRNSP, MOD SFT TO MOD FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC LRG CLR CUBIC HALITE, OCC PYR INC, NO VIS STAIN, NO ODOR, TR XLN POR, OCC VUG POR, TR DULL YEL FLOR, NO VIS CUT

MUD PUMP DOWN :: PULL UP INTO SURFACE CASING TO REPLACE MUD PUMP @ 2601'

+++++

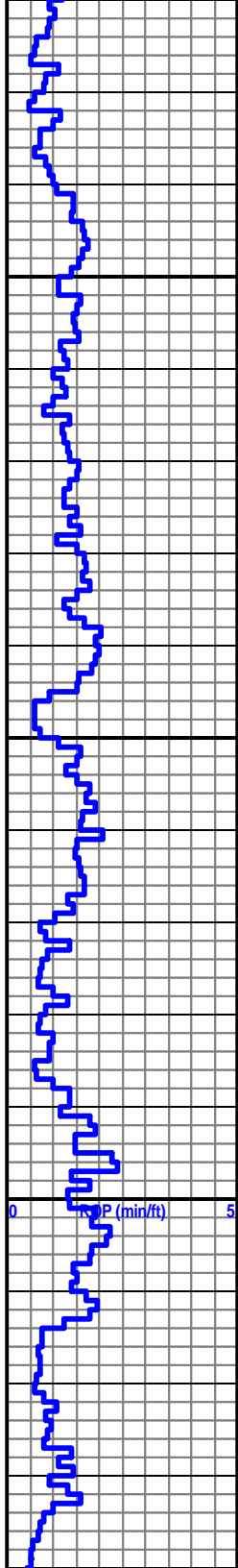
SALT: OFF WHT, SM LT GY, OCC DRK GY, OCC CLR TO TRNSL, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC PYR INC, NO VIS STAIN, NO ODOR, OCC XLN POR, OCC VUG POR, OCC DULL YEL FLOR, NO VIS CUT

SALT: OFF WHT, SM LT GY, OCC GY, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, NO VIS STAIN, NO ODOR, TR XLN POR, OCC HL FRAC POR, OCC DULL YEL FLOR, NO VIS CUT



KD
KD
KD
KD
KD

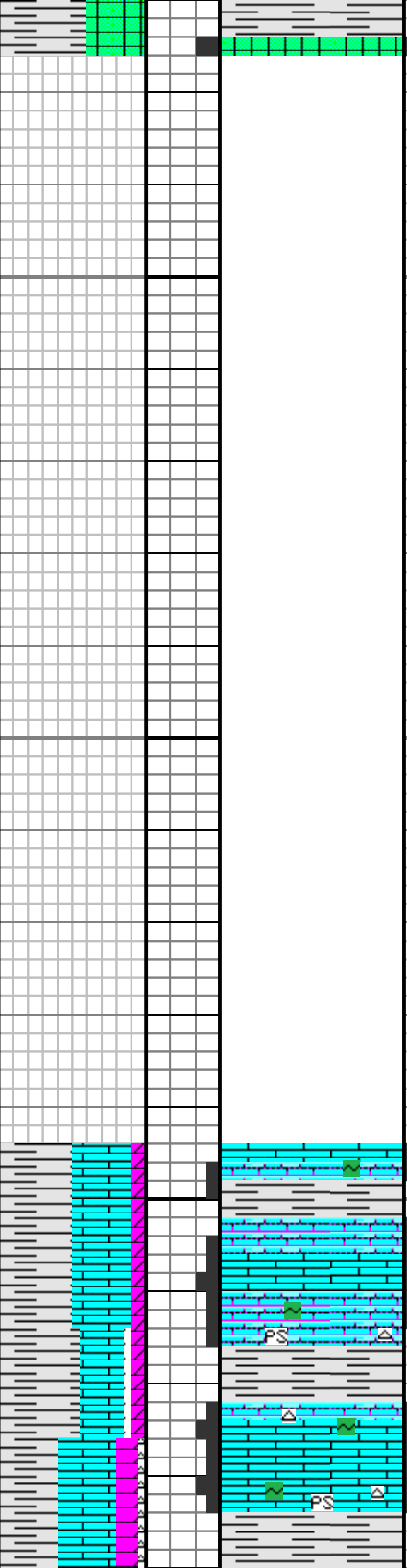
WOB- 32K
RPM- 80
PP- 800
SPM- 58



2700

2750

2800



NO SAMPLE CAUGHT

CHASE @ 2691' MD

NO SAMPLE CAUGHT

NO SAMPLE CAUGHT

NO SAMPLE CAUGHT

LS: OFF WHT, TR LT GY, OCC GY, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC DOLC CMT, OCC GLAUC, NO VIS STAIN, NO ODOR, TR XLN POR, OCC VUG POR, TR PALE YEL FLOR, NO VIS CUT

LS: OFF WHT, SM LT GY, OCC GY, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC DOLC CMT, OCC GLAUC, OCC WHT HRD CRYPTO XLN ANG CHRT, OCC PCKSTN, NO VIS STAIN, NO ODOR, TR XLN POR, OCC VUG POR, SCAT PALE YEL TO STRW FLOR, NO VIS CUT

LS: OFF WHT, SM LT GY, TR GY, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SCAT BLKY, OCC PLTY, TR DOLC CMT, OCC WHT HRD MIC XLN ANG CHRT, OCC GLAUC, OCC PCKSTN, TR XLN POR, OCC VUG POR, TR PALE YEL

KD

KD

KD

KD

KD

KD

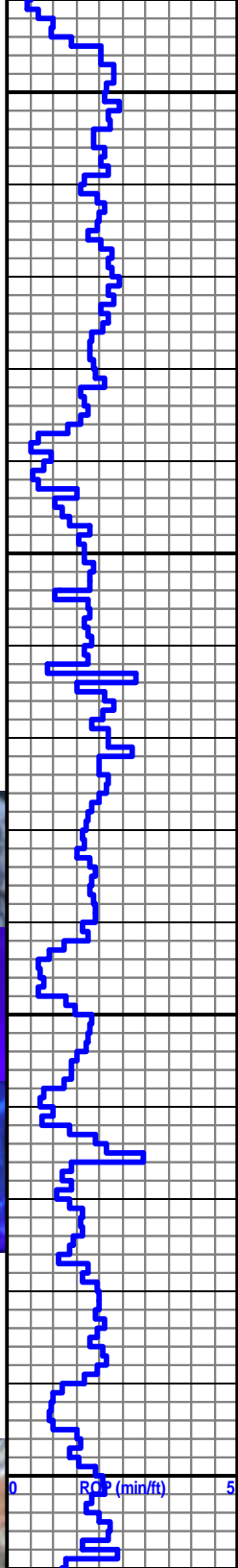
Cato Exploration :: SHAY #1

FM GAS 19 UNITS

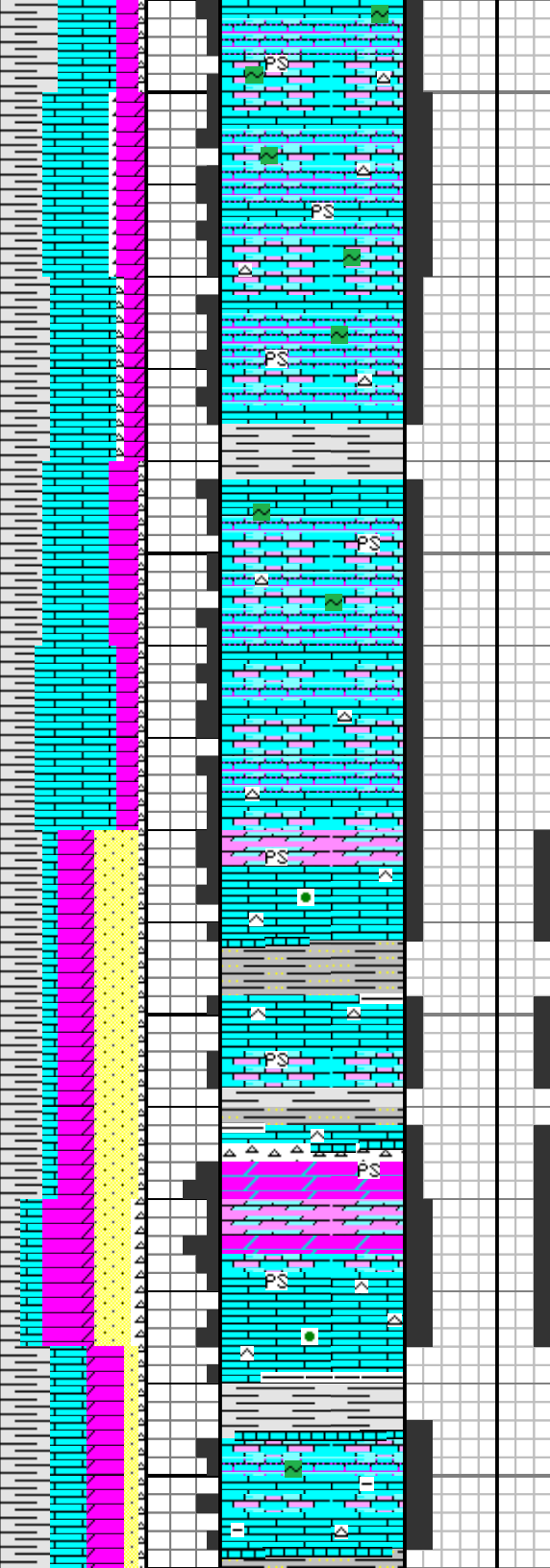
80

07/26/2014

WOB- 30K
RPM- 80
PP- 700
SPM- 54



2850
2900
2950
3000



FLOR, NO VIS CUT

LS: LT GY, SM GY, OCC OFF WHT, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC PLTY, OCC DOLC CMT, OCC ARG, OCC GLAUC, OCC OFF WHT TO WHT HRD MIC XLN ANG CHRT, OCC PCKSTN, TR XLN POR, SCAT PALE YEL FLOR, NO VIS CUT

LS: LT GY, SM GY, OCC OFF WHT, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, TR PLTY, OCC DOLC CMT, OCC GLAUC, OCC WHT TO OFF WHT HRD MIC XLN ANG CHRT, OCC PCKTN, SM XLN POR, TR PALEYEL FLOR, NO VIS CUT

LS: OFF WHT, SM LT GY, TR GY, MOD SFT TO MOD FRM, TR FRM, V/FN TO FN XLN, CHNKY, SM BLKY, OCC PLTY, OCC DOLC CMT, OCC GLAUC, OFF WHT TO OFF WHT HRD MIC XLN ANG CHRT, TR PCKSTN, SCAT XLN POR, TR PALEYEL FLOR, NO VIS CUT

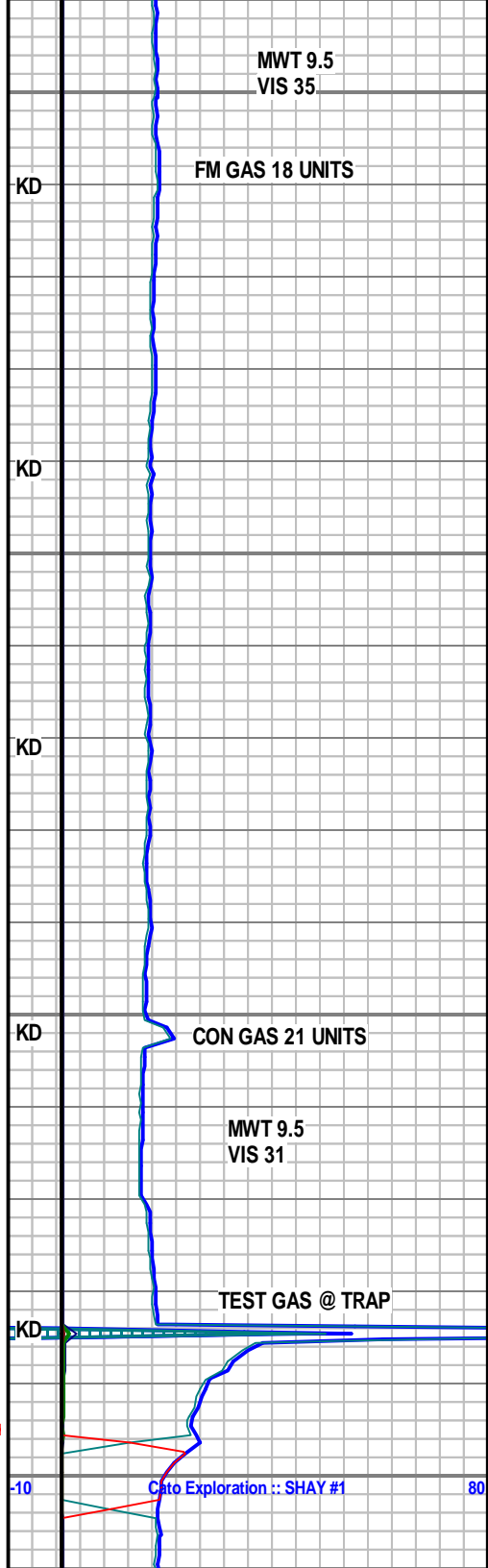
LS: GY, SM LT GY, TR OFF WHT, MOD FRM TO MOD SFT, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, TR DOLC CMT, OCC OFF WHT TO WHT HRD MIC XLN ANG CHRT, TR PCKSTN, TR XLN POR, TR PALE YEL FLOR, NO VIS CUT

LS: TAN, GY TO LT GY, TR TO OCC WHT TO OFF WHT MOTT, TR DK GY MOTT, FRM, TR HRD, SM BRTL, V/FN XLN, MSTLY PACKST, MSTLY SIL, TR ARG, SM INTRBD DOLO W/TR LAM, TR WHT TO GYSH/WHT SHRP ANG CHAL CHRT W/OCC SPIC, OCC QRTZ OVRGRWTH, OCC V/DK ASPHLTC STAIN ALONG FRAC, NO ODOR, TR XLN POR, SCAT FRAC POR W/SM HAIRLINE, OCC PP POR, SCAT LAM SH: GY TO LT GY, MOD FRM, FN TO SLTY TXT, DULL LSTR, CHNKY TO PLTY, NON CALC, TR MICRO MICA, TR TO SCAT DK YEL W/OCC YEL FLOR, WK MLKY STRW CUT W/10% HCL, WK SPTTY PAL

COUNCIL GROVE @ 2995'

+++++
(-335')

LS: OFF WHT TO LT CRM, OCC WHT, OCC TO TR V/LT GY MOTT, MOD FRM, OCC FRM, TR CRMBLY, V/FN TO FN XLN, PLTY, SM CHNKY, TR SIL, SCAT



MWT 9.5
VIS 35

FM GAS 18 UNITS

CON GAS 21 UNITS

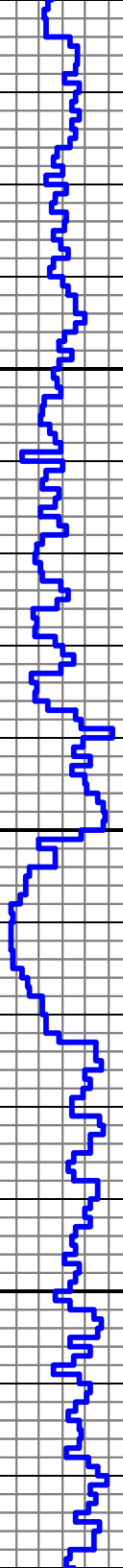
MWT 9.5
VIS 31

TEST GAS @ TRAP

Cato Exploration :: SHAY #1

WOB-30K
RPM-80
PP-700
SPM-54

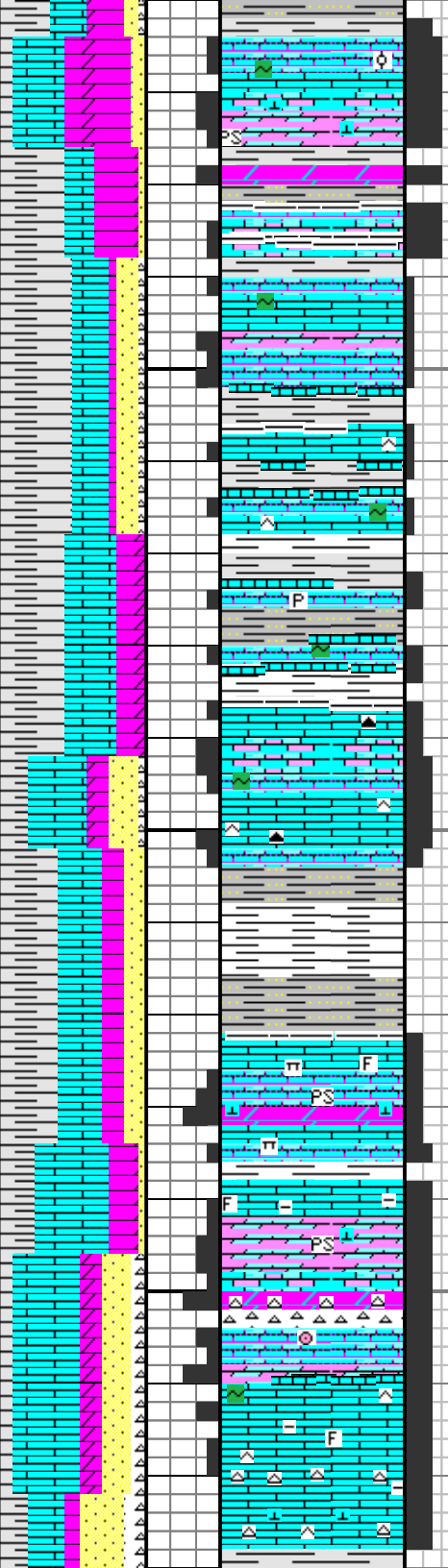
WORK ON MUD
PUMP



3050

3100

3150



DOLC CMT, SCAT INTRBD DOLO, TR GLAUC, OCC WHT CALCITE FL, OCC MIN PYR INC., OCC OOLTC, OCC WHT ANG CHAL CHRT, OCC V/DK BRN SPOT STAIN, NO ODOR, SCAT XLN POR, TR FN TO HAIRLINE FRAC, SM LAM SH: GY TO TR LT GY, OCC GRNSH/GY, TR MOD FRM, SM BRTL, V/FN TXT, TR SLTY IP, PLTY, TR CHNKY, NON CALC, SCAT V/DULL YEL FLOR, TR V/WK MLKY WHT CUT W/10% HCL, THIN FAINT BLU RES RING

LS: CRM TO LT CRM, SM OFF WHT, OCC WHT, TR GY TO LT GY MOTT, MOD FRM, TR FRM, MSTLY BRTL, V/FN TO MICRO XLN, BLKY, TR PLTY, TR CHNKY, SCAT DOLC CMT, TR ARG, DECRSE SIL, TR INTRBD DOLO, SCAT GLAUC, OCC MIN PYR INC., NO VIS STAIN, NO ODOR, TR XLN POR, SCAT FRAC POR W/HAIRLINE, TR DULL YEL TO TR DK YEL FLOR, NO VIS CUT

LS: CRM TO LT CRM, SM OFF WHT, OCC WHT, TR GY TO LT GY MOTT, MOD FRM, TR FRM, MSTLY BRTL, V/FN TO MICRO XLN, BLKY, TR PLTY, TR CHNKY, SCAT DOLC CMT, TR ARG, SCAT SIL, TR INTRBD DOLO, SCAT GLAUC, OCC THN BDD DK CHAL CHRT, NO VIS STAIN, N OODOR, TR XLN POR, SCAT FRAC POR W/HAIRLINE, LAM SH: LT GY TO GRNSH/GY, ORNG TO RDSH/ORNG, MOD SFT, OCC MSHY, CHNKY, V/FN TXT, DULL LSTR, SCAT DULL YEL FLOR, TR V/WK MLKY STRW CUT W/10% HCL, NO VIS RES RING

ADMIRE @ 3123'

(-463')

+++++
LS: TAN TO LT TAN, TR DK CRM, TR TO SCAT OFF WHT, OCC WHT, FRM, SM BRTL, V/FN XLN, TR FN XLN, SCAT PACKST, CHNKY, TR PLTY, SM ARG, TR SIL, TR DOLC CMT, TR INTRBD DOLO, TR MRL, TR CALCITE FL, OCC TO TR FOSS FRAGS, NO VIS STAIN, NO ODOR, TR XLN POR, SCAT TO SM HAIRLINE FRAC, OCC MOLDC POR, TR TO SCAT DULL YEL TO OCC YEL FLOR, V/WK TO WK MLKY STRW CUT W/10% HCL, WK TO MOD FR SPTTY PALE YEL RES RING

LS: OFF WHT TO V/LT TAN, OCC WHT, SCAT CRM

KD
KD
KD
KD
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KD
KD
KD
KD
KD

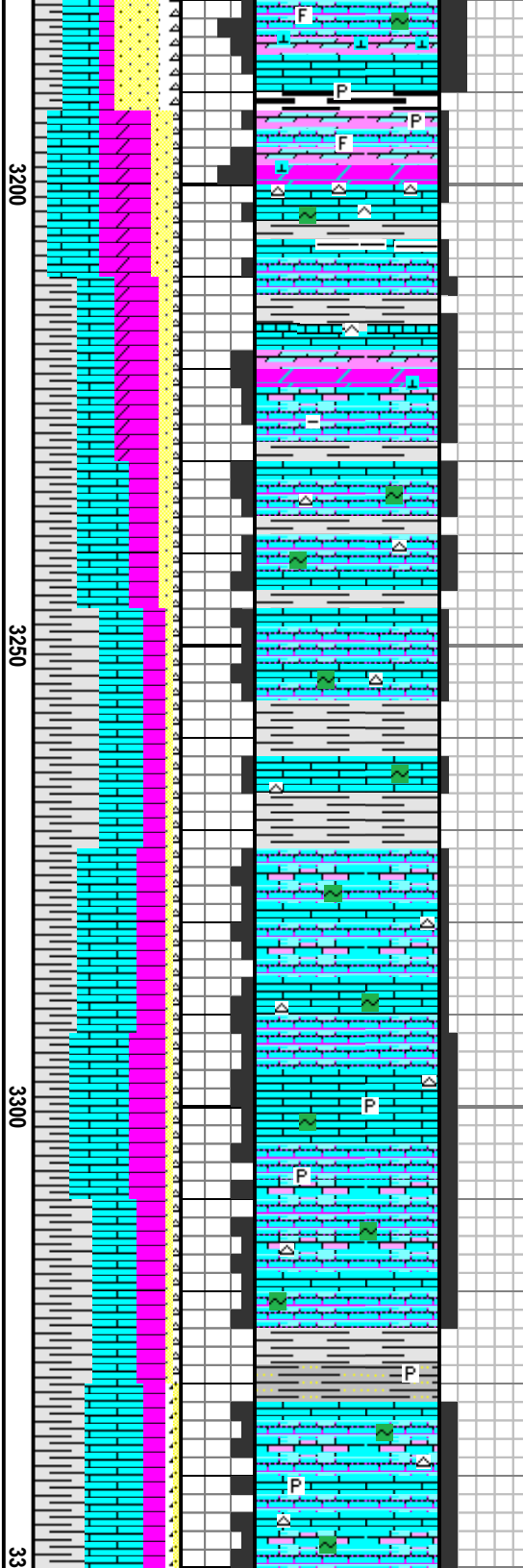
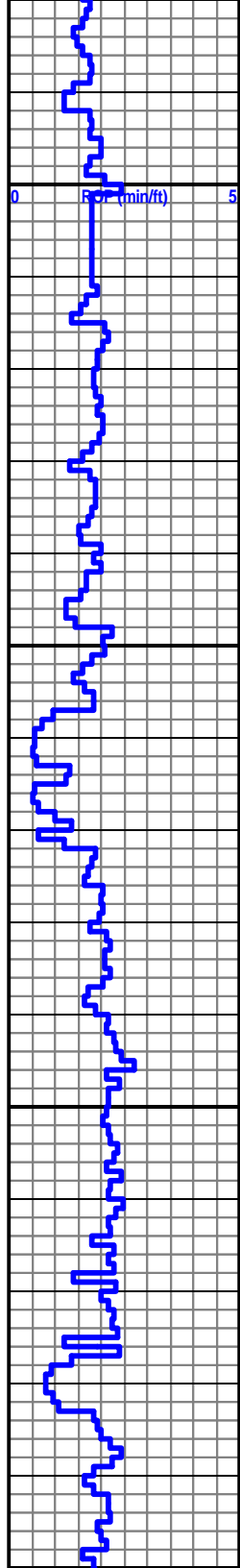
MWT 9.5
VIS 32

FM GAS 21 UNITS

V/ DULL PALE YEL FLOR,
FAINT MLKY CUT W/10% HCL

DID NOT KICK
GEOLOGRAPH IN
AFTER
CONNECTION

WOB-40K
RPM-70
PP-800
SPM-58



TO DK CRM, SCAT GYSH MOTT, FRM TO SM MOD
FRM, SM BRTL, V/FN XLN, SCAT MICRO XLN, OCC
PACKST, PLTY, SCAT BLKY, SM SIL, OCC DOLC
CMT, TR INTRBD DOLO, TR WHT TO OFF WHT
SHRP ANG CHAL CHRT W/OCC SPIC, TR TO
SCAT CHNKY CALCITE FL, TR PYRC, OCC
GLAUC, TR TO OCC FOSUS, NO VIS STAIN, NO
ODOR, TR VUG POR, TR XLN POR, SCAAT FRAC
POR, TR LAM SH: GY TO LT GY, TR ORNG, MSTLY
SFT TO MOD SFT, TR MSHY, DULL LSTR, NON
CALC, TR TO SCAT DULL YEL TO TR PALE YEL
FLOR, NOCUT

LS: LT GY, SM GY, SCAT GYSH MOTT, TR OFF
WHT, MOD FRM TO FRM, SM MOD SFT, V/FN XLN,
TR MIC XLN, OCC PCKSTN, PLTY, SM BLKY, SCAT
CHNKY, TR SIL CMT, OCC DOLC CMT, OCC WHT
TO OFF WHT HRD MIC XLN ANG CHRT, OCC
GLAUC, NO VIS STAIN, NO ODOR, SM XLN POR,
OCC VUG POR, TR PALE YEL FLOR, NO VIS CUT

LS: GY, SM LT GY, SCAT LT GYSH MOTT, OCC
OFF WHT, MOD FRM TO FRM, TR MOD SFT, V/FN
TO FN XLN, TR MIC XLN, OCC PCKSTN, CHNKY,
SM BLKY, SCAT PLTY, TR SIL, OCC DOLC CMT,
OCC WHT HRD MIC XLN ANG CHRT, OCC GLAUC,
NO VIS STAIN, NO ODOR, SM XLN POR, OCC
VUG POR, TR PALE YEL TO YEL FLOR, NO VIS
CUT

LS: LT GY, SM GY, OCC OFF WHT, OCC LT GY
MOTT, MOD FRM TO FRM, OCC MOD SFT, V/FN TO
FN XLN, OCC PCKSTN, CHNKY, SM BLKY, OCC
SIL, OCC DOLC CMT, OCC WHT HRD MIC XLN
ANG CHRT, OCC GLAUC, OCC PYR INC, NO VIS
STAIN, NO ODOR, SM XLN POR, OCC VUG POR,
TR PALE YEL FLOR, NO VIS CUT

-10 KD

KD

KD

KD

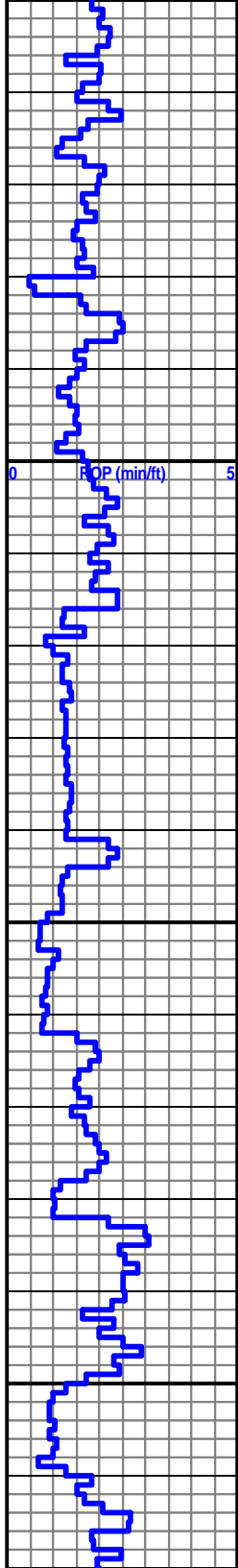
KD

Geo Exploration :: SHAY #1

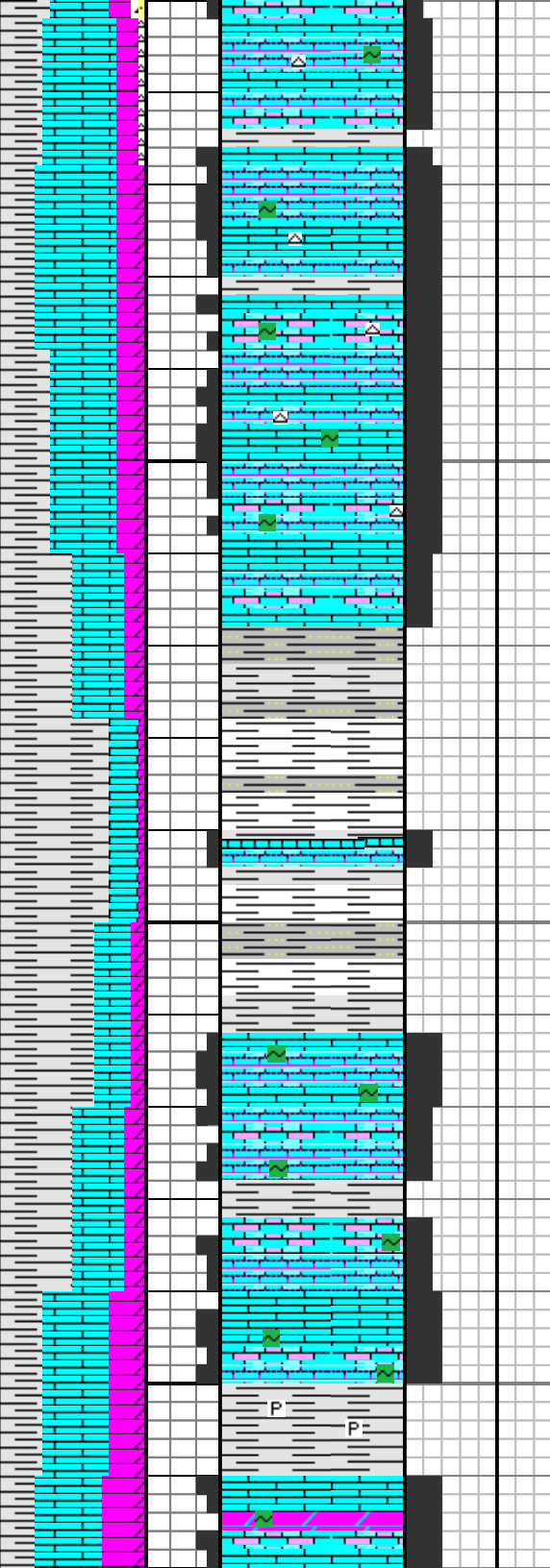
80

MUD CK @ 3262'
WT 9.2
VIS 33
PH 7.0
CHL 18,500
CAL HVY
SOL 5.4%
WTR 94.6%
LCM 1#

WOB- 35K
RPM- 70
PP- 650
SPM- 50



50
3400
3450
3500



LS: LT GY, SM OFF WHT, SCAT GY, SCAT GY/BLK MOTT, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, OCC PCKSTN, CHNKY, SM BLKY, OCC DOLC CMT, OCC OFF WHT HRD MIC XLN ANG CHRT, OCC GLAUC, NO VIS STAIN, NO ODOR, TR XLN POR, OCC VUG POR, SCAT PALE YEL FLOR, NO VIS CUT

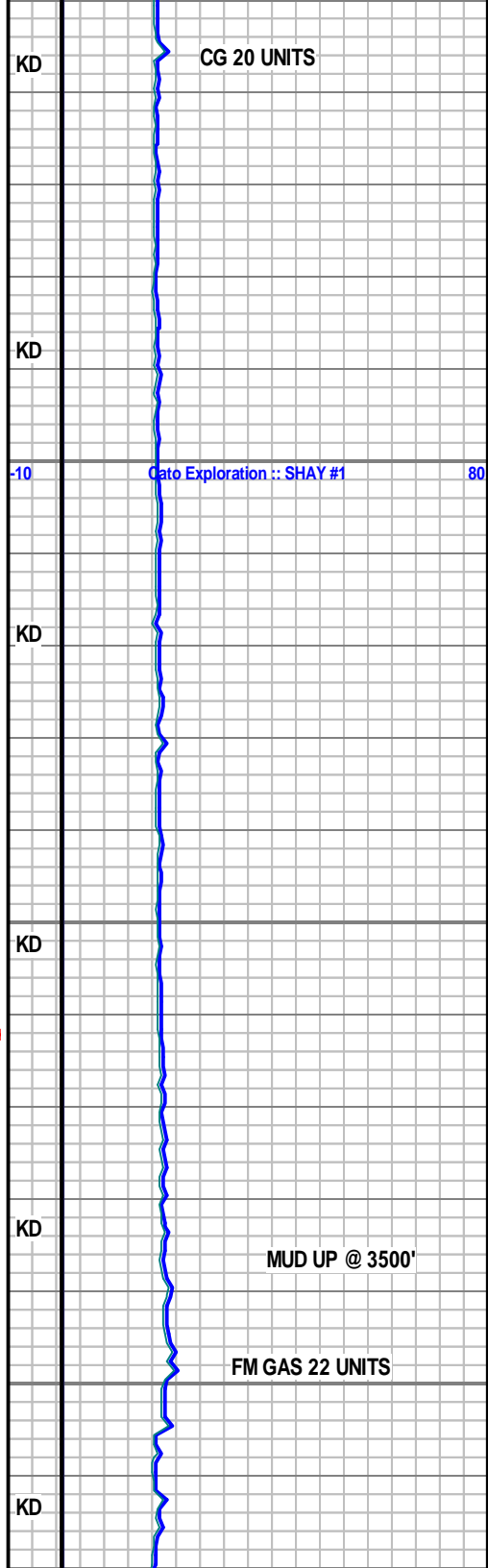
LS: LT GY, SM OFF WHT, TR GY, MOD SFT TO MOD FRM, OCC SFT, OCC FRM, V/FN TO FN XLN, OCC PCKSTN IP, CHNKY, SM PLTY, TR BLKY, OCC DOLC CMT, OCC OFF WHT TO WHT HRD MIC XLN ANG CHRT, OCC GLAUC, NO VIS STAIN, NO ODOR, SM XLN POR, TR VUG POR, SCAT PALE YEL TO YEL FLOR, NO VIS CUT

SH: ORNG, SM DRK GY, SCAT GY, OCC LT GY, MOD SFT, TR SFT, TR BRTL, V/FN TO FN TXT, DULL LSTR, BLKY, SM CHNKY, NON CALC, OCC SLTY IP, TR LS: OFF WHT TO WHT, SM LT GY, SM GY, MOD SFT TO MOD FRM, OCC FRM, V/FN TO FN XLN, OCC PCKSTN IP, CHNKY, SM BLKY, TR PLTY, OCC DOLC CMT, NO VIS STAIN, NO ODOR, SM XLN POR, OCC VUG POR, TR PALE YEL TO YEL FLOR, OCC STRW FLOR, NO VIS CUT

WABUNSEE @ 3462'
(-802')

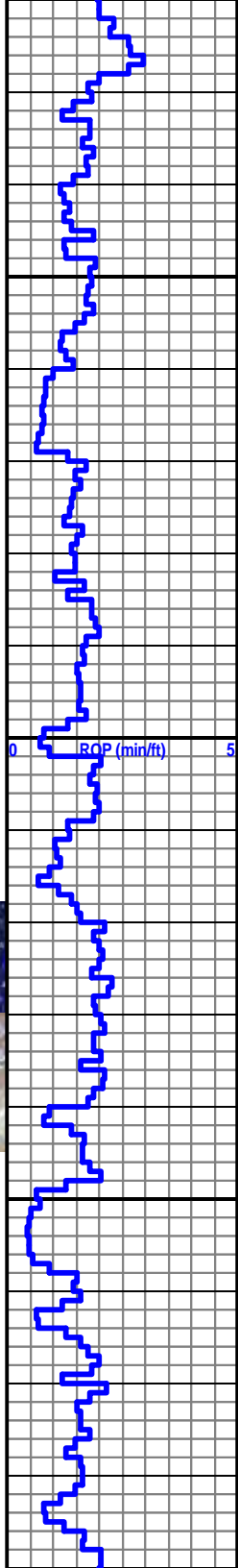
LS: OFF WHT, SM LT GY, OCC GY, MOD SFT TO MOD FRM, OCC SFT, V/FN TO FN XLN, CHNKY, SM BLKY, OCC PLTY, OCC DOLC CMT, OCC GLAUC, NO VIS STAIN, NO ODOR SM XLN POR, OCC VUG POR, TR PALE YEL FLOR, NO VIS CUT

LS: LT CRM, SM OFF WHT, SCAT LT TN, MOD SFT TO MOD FRM, OCC SFT, OCC FRM, V/FN TO FN XLN, CHNKY, SM BLKY, TR PLTY, OCC DOLC CMT, OCC GLAUC, OCC PYR INC, NO VIS STAIN, NO ODOR, SM XLN POR, TR VUG POR, SCAT PALE YEL FLOR, NO VIS CUT



07/27/2014

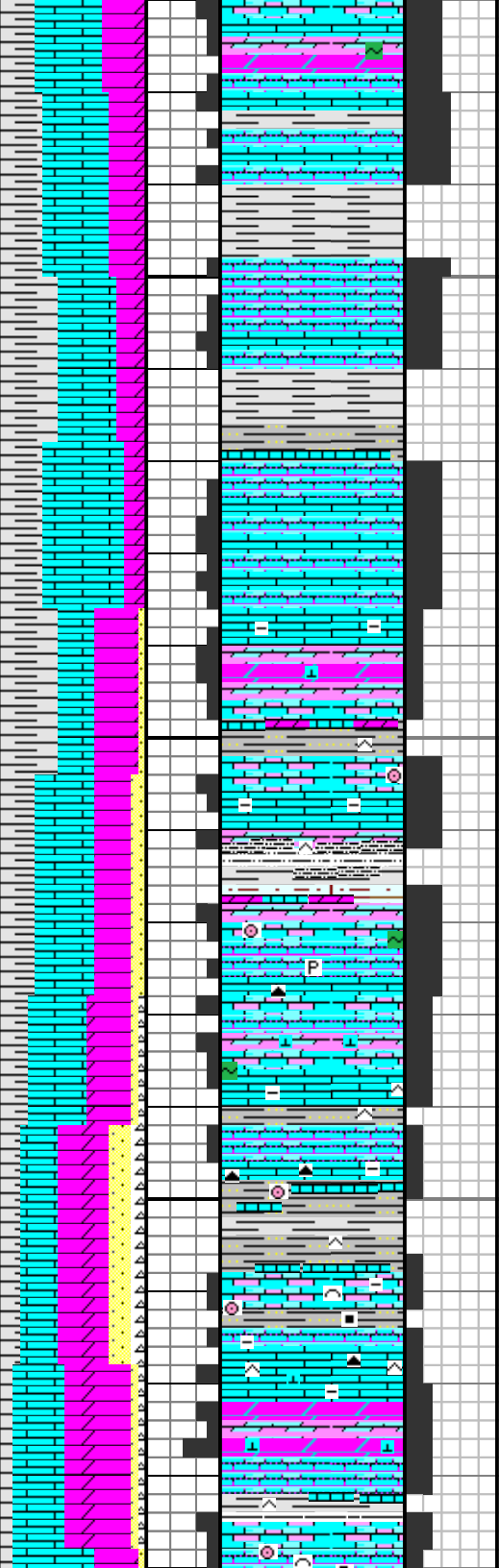
WOB- 35K
RPM- 80
PP- 850
SPM- 56



3550

3600

3650



YEL FLOR, NO VIS CUT

LS: LT CRM, SM LT TN, SCAT LT TN MOTT, TR LT GY, TR GY, OCC OFF WHT, MOD FRM TO MOD SFT, OCC SFT, V/FN TO FN XLN, CHNKY, SCAT BLKY, TR PLTY, OCC DOLC CMT, OCC GLAUC, OCC PYR INC, NO VIS STAIN, NO ODOR, SM XLN POR, OCC POR, SM PALE YEL TO YEL FLOR, NO VIS CUT

TOPEKA @ 3569'

(-909')

+++++

LS: LT CRM, SM LT TN, SM LT TN MOTT, TR LT GY, OCC LT GY MOTT, MOD SFT TO MOD FRM, OCC FRM, CHNKY, SM BLKY, TR PLTY, TR DOLC CMT, OCC GLAUC, NO VIS STAIN, NO ODOR, SM XLN POR, OCC VUG POR, SCAT PALE YEL TO YEL FLOR, NO VIS CUT

LS: OFF WHT, SCAT CRM TO DK CRM, TR TAN, OCC GYSH TO BRN MOTT, MOD FRM, SCAT FRM, OCC CRMBLY, V/FN TO TR MICRO XLN, BLKY/CHNKY, SM PLTY, SM ARG, TR DOLC CMT, TR WELL IND, SCAT INTRBD DOLO, TR OPQ CALCITE FL W/OCC DRSY EUHED, OCC GLAUC, OCC CRIN FRAGS, OCC ASPHLT ALONG FRAC, SM HAIRLINE FRAC, TR PP TO OCC VUG POR, TR LAM SH: GY TO TR LT GY, SCAT DK GY, SCAT SFT, SM FRM, TR MSHY, FN TO SLTY TXT, DULL LSTR, BLKY, TR CHNKY, TR CALC, TR SLTST W/SCAT WELL IND, SM SIL, SCAT DULL YEL/YEL FLOR, NO CUT

LS: CRM TO DK CRM, SCAT TAN TO LT TAN, TR TO SCAT OFF WHT TO WHT, FRM TO SM MOD FRM, TR CRMBLY, V/FN TO MICRO XLN, TR FN XLN, BLKY TO PLTY, SCAT CHNKY, SM ARG, INCRSE DOLC CMT, TR SIL, SM INTRBD DOLO, TR DK V/HRD WHT MOTT CHAL CHRT, OCC OPQ EUHED DRSY CALCITE, OCC GLAUC, OCC BIOCLST W/CRIN, NO VIS STIAN, NO ODOR, SCAT FRAC TO HAIRLINE FRAC, TR FN VUG TO PP POR, TR LAM SH: DK GY TO SM GY, SM HRD, BRTL, FN TO SLTY TXT, DULL LSTR, BLKY, TR SIL, OCC CRIN, SCAT TO TR DK YEL FLOR, NO

MWT 8.6
VIS 46

KD

KD

-10

KD

KD

KD

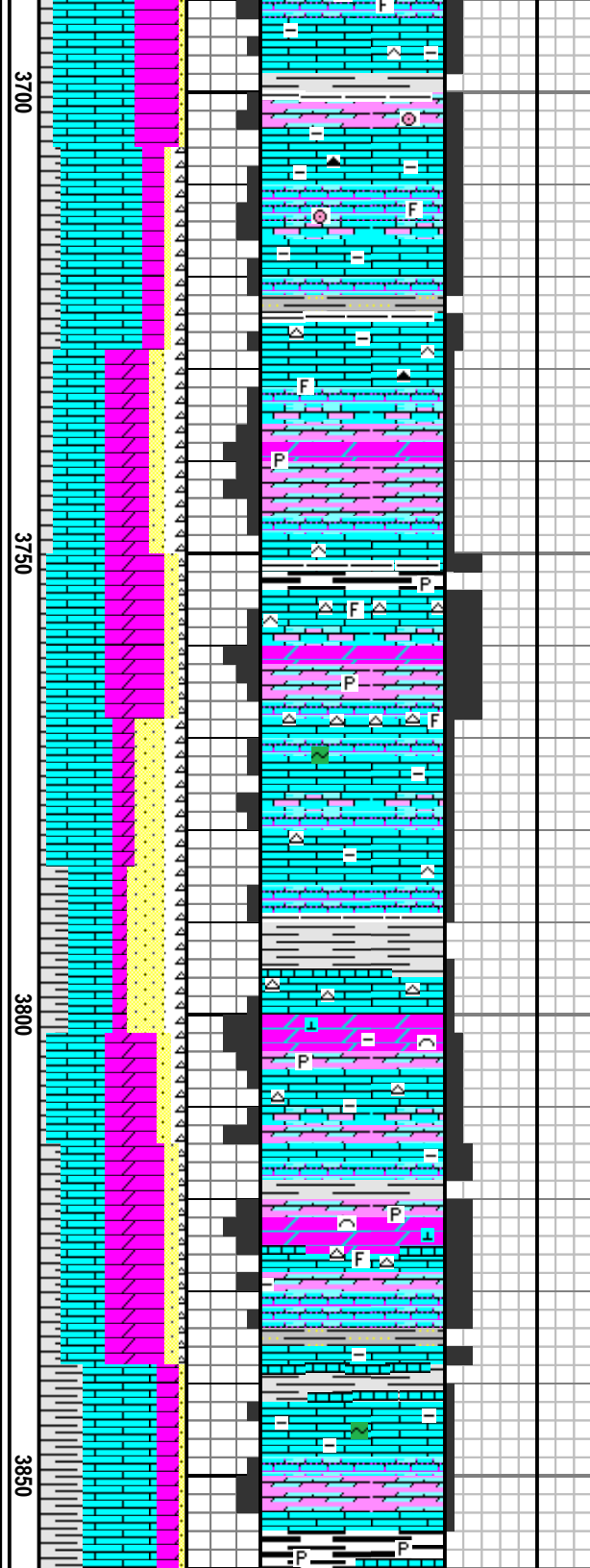
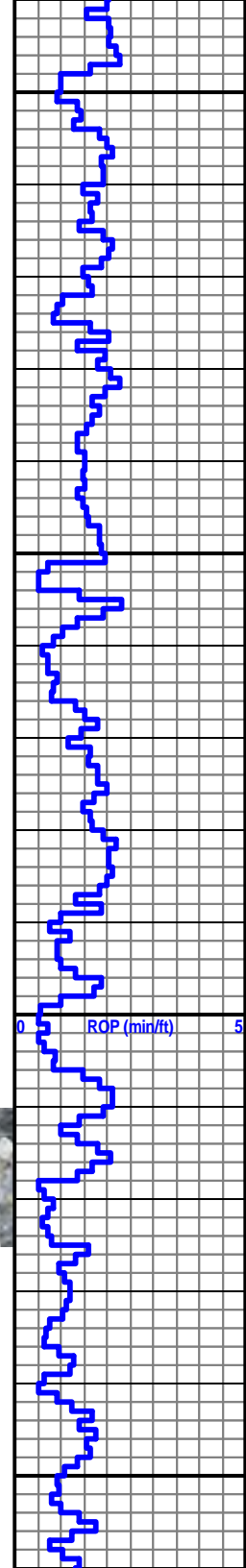
Sato Exploration :: SHAY #1

80

SCAT V/DULL YEL
FLOR, NO CUT



WOB-35K
RPM-80
PP-850
SPM-56



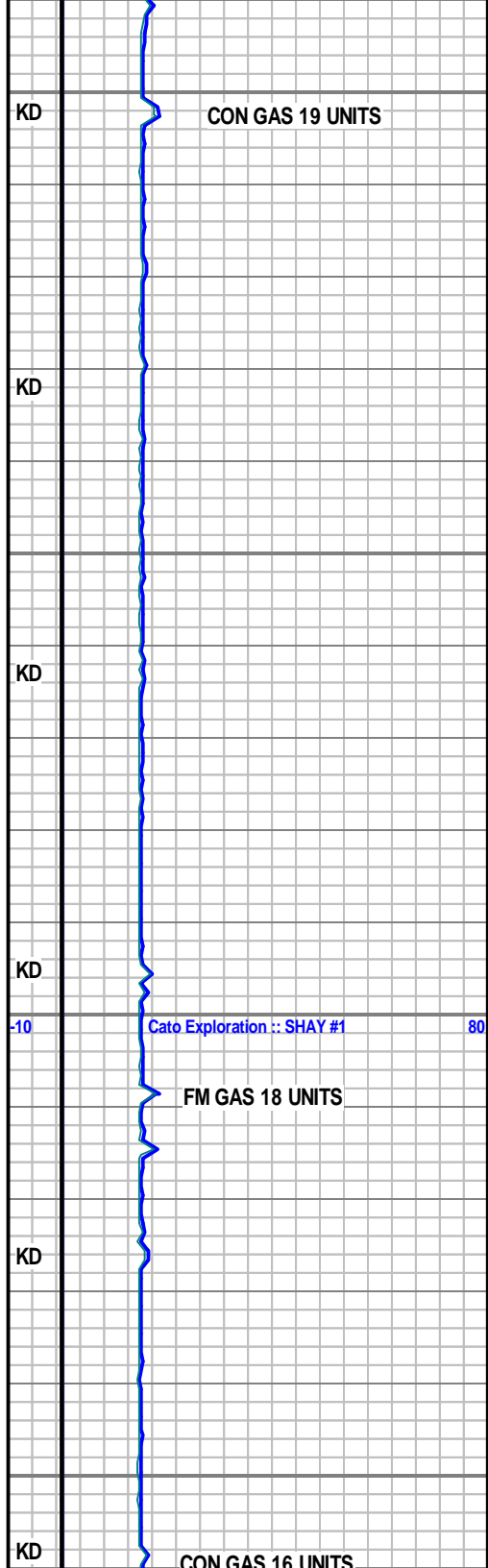
VIS CUT

LS: CRM, SCAT TAN, SM TO SCAT OFF WHT, TR BRN MOTT, FRM TO SM MOD FRM, BRTL, FN TO V/FN XLN, BLKY, SM CHNKY, DECRSING ARG, SM DOLC CMT, INCRSING INTRBD/LAM DOLO, TR GY TO WHT SHRP ANG CHAL CHRT W/TR TAN MOTT, OCC MIN PYR INC., OCC FOSS FRAGS W/OCC CRIN, TR DK SPOT STAIN, NO ODOR, SCAT XLN POR, SM HAIRLINE TO FN FRAC, TR DK YEL TO DULL YEL FLOR, NO VIS CUT

LS: OFF WHT TO TR WHT, SM V/LT CRM, TR CRM, TR GYSH/TAN MOTT, FRM TO TR HRD, MICRO TO SM V/FN XLN, TR WELL IND, MSTLY BLKY, TR PLTY, TR CHNKY, SM DOLC CMT, TR ARG, INCRSE SIL, TR INTRBD DOLO, OCC GLAUC, OCC MIN PYR INC., SCAT OPQ TO OFF WHT SHRP ANG CHAL CHRT W/TR FOSUS W/OCC SPIC, NO VIS STAIN, NO ODOR, SCAT FRAC POR, OCC XLN POR, SCAT DULL TO V/DULL YEL FLOR, NO VIS CUT

LS: V/LT CRM TO OFF WHT, SCAT CRM, INCRSE GYSH, SCAT OFF WHT, OCC WHT, SM MOD FRM, SCAT CRMBLY, SM MICRO XLN, SM V/FN TO FN XLN, CHNKY, TR BLKY, SCAT ARG, TR SIL, SM DOLC CMT, SM INTRBD/LAM DOLO, TR CALCITE FL, TR WHT TO OFF WHT ANG CHAL CHRT, OCC MIN PYR INC., OCC GLAUC, TR BIOCLST W/DOLC MTX, TR SH PRT, TR DK SPOT STAIN, OCC ASPHLT, NO ODOR, SCAT XLN POR, SCAT FRAC POR, OCC PP/MOLDIC POR, SCAT DULL YEL TO OCC DULL PALE YEL FLOR, NO VIS CUT

HEEBNER @ 3856'
(-1196')



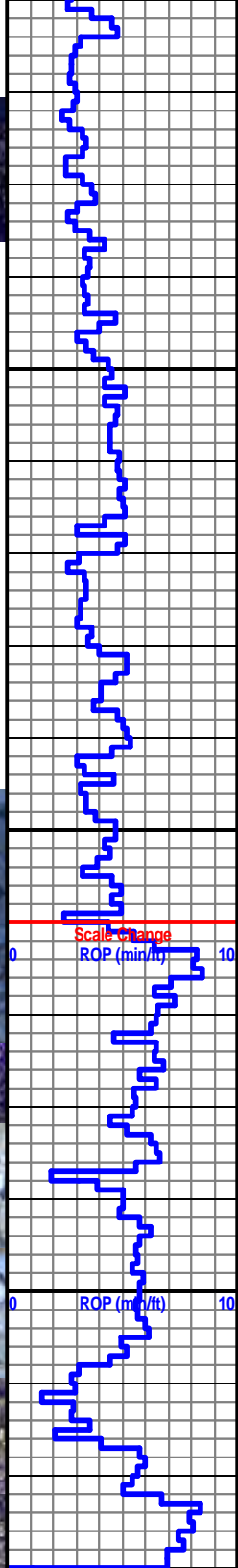
WOB-40K
RPM-70
PP-900
SPM-60



DEV. SURVEY @
3960'
DEV. 1.0°

WOB-5K
RPM-60
PP-300
SPM-46

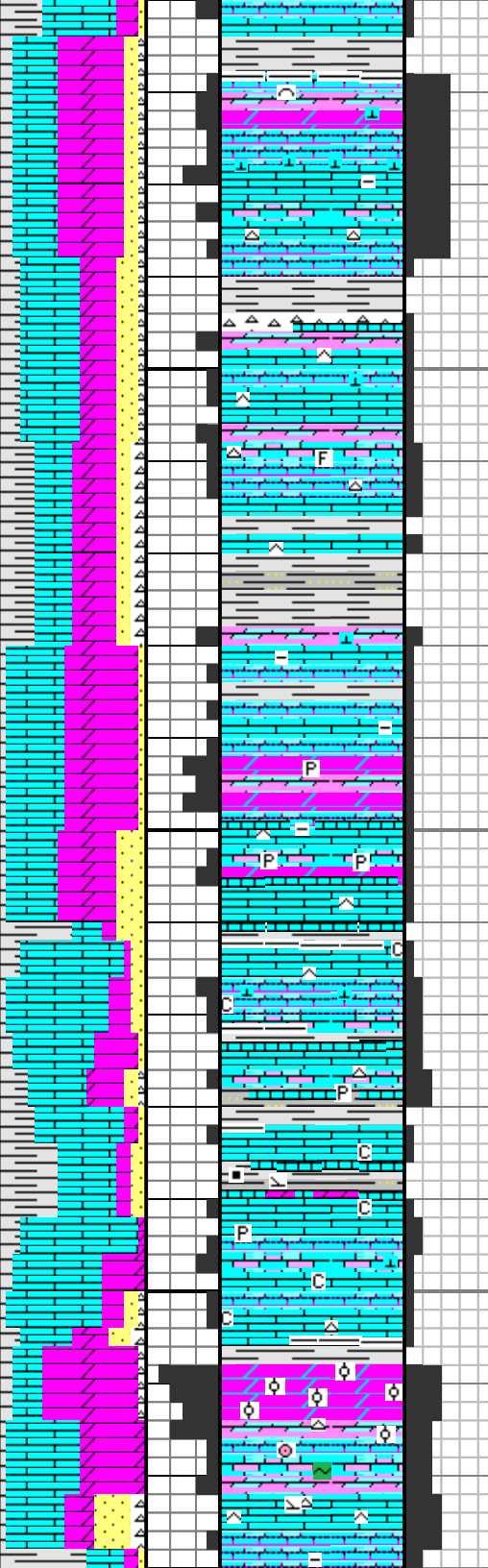
07/28/2014



3900

3950

4000



TORONTO @ 3869'

(-1219')

LS: OFF WHT TO WHT, SCAT LT CRM, TR V/LT CRM, SCAT LT GY MOTT, MOD FRM, MSTLY BRTL, TR CRMBLY, V/FN TO SM FN XLN, TR MICRO XLN, SCAT DOLC CMT, TR ARG, SM INTRBD/LAM DOLO, TR DRSY OPQ EUHED/SPRRY CALCITE, OCC GY/WHT MOTT ANG CHAL CHRT, TR BIOCLST W/MED TO FN XLN MTX, NO VIS STAIN, NO ODOR, SCAT XLN POR, TR VUG POR, TR FRAC POR, SCAT TO SM YEL TO PALE YEL FLOR, V/FAINT MLKY CUT, V/FAINT THN RES RING

LANSING @ 3894'

(-1234')

LS: LT CRM, SCAT CRM, TR OFF WHT TO WHT, OCC TAN TO BRN MOTT, FRM TO TR HRD, BRTL, MICRO TO SCAT V/FN XLN, MSTLY BLKY, TR CHNKY, OCC CHLKY, INCRSING DOLC CMT, SM SIL, TR RDSH TO WHT SHRP ANG CHRT, OCC DRSY EUHED CALCITE, OCC FOSS FRAGS, OCC DK BRN SPOT STAIN, TR PP TO VUG POR, TR XLN POR, SM FRAC POR W/SCAT HAIRLINE, OCC LAM GY TO DK GY V/FN TXT FRM PLTY SH, TR TO OCC DULL YEL FLOR, NO VIS CUT

TOH FOR CORING TOOLS : CORE BIT #1: 7 7/8" : DB: SERIAL# 3893: 6.5" BARREL: IN @ 3960'

LS: WHT TO OFF WHT, TR TO INCRSING CRM TO DK CRM, TR LT TAN MOTT, OCC BRN MOTT, MSTLY FRM TO MOD FRM, SM SFT, SCAT MSHY, V/FN TO MICRO XLN, SM CHLKY, CHNKY, SM PLTY TO BLKY, TR DOLC CMT, TR TO OCC INTRBD DOLO, OCC CALCITE FL, OCC PYRC, OCC OPQ ANG CHRT, NO VIS STAIN, NO ODOR, SCAT TO SM HAIRLINE FRAC, OCC PP POR, TR THN BDD GY GRNSH RDSH SM SLTY MOD SFT SH, TR DULL YEL TO DK YEL FLOR, NO VIS CUT

LS: WHT TO OFF WHT, TR TAN TO CRM, OCC TO TR GYSH MOTT, MSTLY MOD SFT TO SFT, TR FRM, TR BRTL, MSTLY CHNKY, TR MICRO TO OCC V/FN XLN, CHNKY, TR BLKY/PLTY, OCC TAB, TR DOLC CMT, SCAT ARG, OCC INTRBD DOLO, OCC GLAUC, OCC MIN PYR INC., OCC PLTY CALCITE FL, TR DK BRN TO BLK/BRN STAIN ALONG FRAC, NO ODOR, SCAT HAIRLINE FRAC, OCC XLN POR, TR LAM GY TO DK GY BLK TR FISS CARB SH, OCC DULL YEL TO DK YEL FLOR, NO VIS CUT

DOLO: LT BRN TO BRN, TR DK CRM, OCC OFF WHT, FRM TO MOD FRM, TR V/FRM, MSTLY BRTL, FN TO V/FN XLN, SM WEL IND, CHNKY, MSTLY CALC CMT, SM LAM LS W/SCAT SIL, OCC OPQ/RDSH CHAL CHRT NOD W/OCC FERR CTG, OCC GLAUC, ABNDNT OOLTIC W/OCC CRIN FRAG, OCC BRN SPOT STAIN, NO ODOR, ABNDNT MOLDIC POR, TR FN TO HAIRLINE FRAC POR, OCC XLN POR, SCAT DULL TO V/DULL YEL FLOR W/OCC DULL PALE YEL, NO VIS CUT

KD

KD

KD

KD

-10

KD

MUD CK @ 3960'
WT 8.9
VIS 51
PV 16
YP 12
GEL 8/29
PH 10.5
WL 5.6
CK 1.0
CHL 3200
CAL 10
SOL 4.2%
WTR 95.8%
LCM 1#
ECD 9.34

FM GAS 22 UNITS

TRIP GAS 22 UNITS

TR DULL PALE YEL FLOR, WOB-5K RPM-60 PP-300 SPM-46

YEL TO DK YEL FLOR

WOB-8/10K

FM GAS 26 UNITS

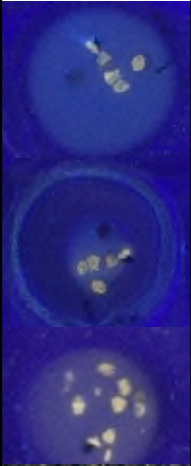
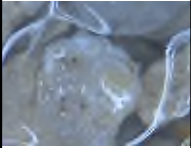
DULL YEL TO OCC V/DULL PALE YEL FLOR,

Cato Explora

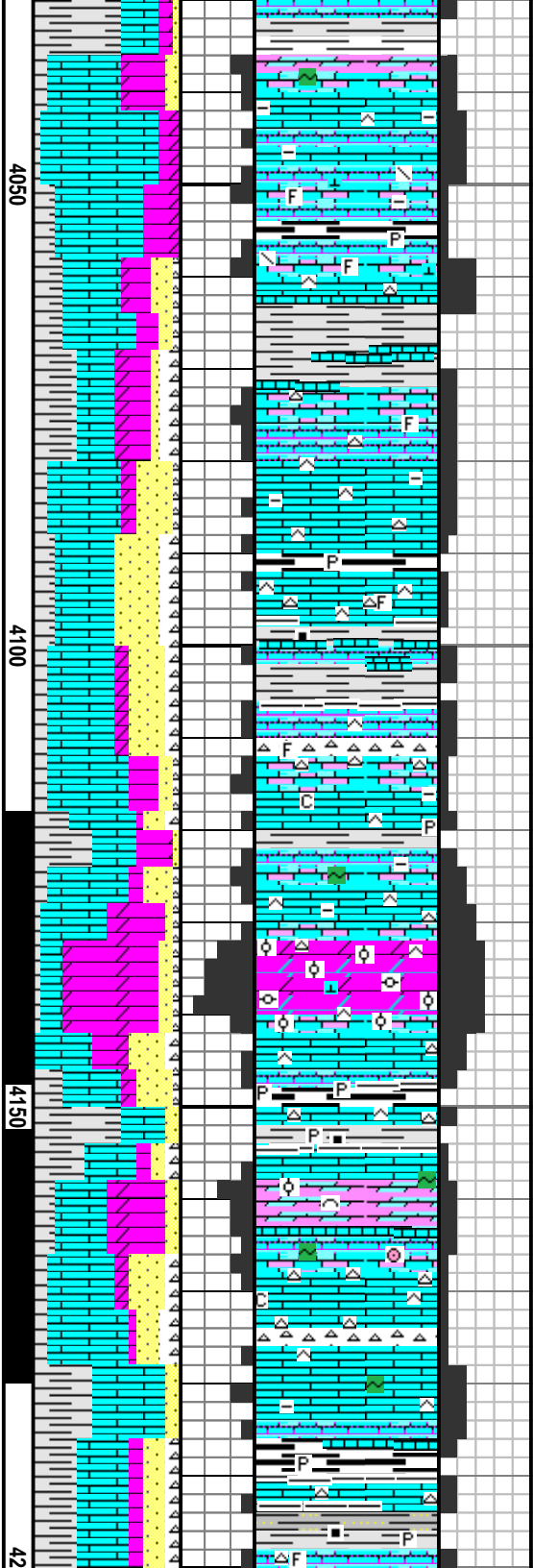
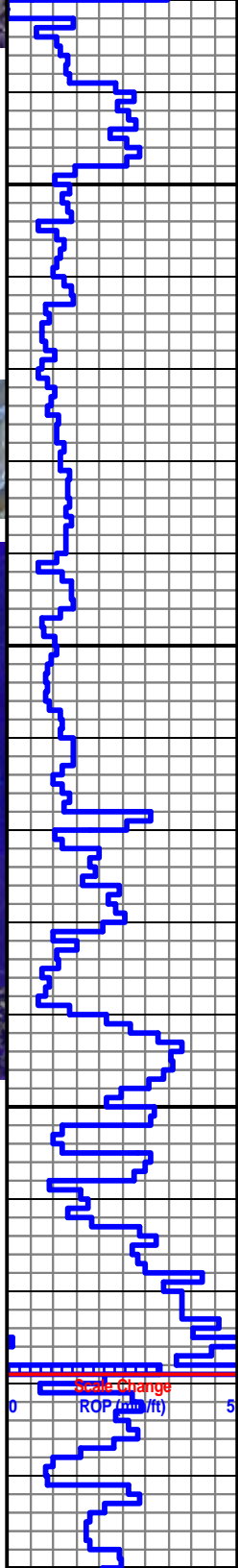
80

07/29/2014

WOB-30K
RPM-60
PP-800
SPM-58



07/30/2014



TOH W/ CORE RUN #1:: L/D CORE
:: P/U BIT #2: 7 7/8": JZ: ENP0123:
1405634: 3X13: IN @ 4030'

(-1395')

KANSAS CITY @ 4055'

LS: TAN TO SM BRN MOTT, SCAT OFF WHT, SM
LT CRM, TR GYSH, FRM TO SM MOD FRM, SM
BRTL, V/FN TO MICRO XLN, TR FN XLN, PLTY, SM
BLKY, SCAT CHNKY, SM DOLC CMT, TR SIL, TR
TO SCAT ARG, TR BLKY/PLTY OPQ CALCITE FL,
OCC GLAUC, TR FOSUS, OCC TO TR DK BRN TO
BLK STAIN ALONG FRAC W/OCC GIL, NO ODOR,
SCAT HAIRLINE FRAC, OCC FRAC, OCC XLN
POR, OCC MOLDIC POR, SM LAM SH: GY TO DK
GY, TR BLK, SM FISS, MSTLY V/FN TXT, DULL
LSTR, PLTY, TR CARB, SCAT DULL TO V/DULL
PALE YEL FLOR, NO VIS CUT

TOH TO P/U CORING TOOLS @
4118'

LS: CRM TO DK CRM, TR OFF WHT, FRM TO SCAT MOD FRM,
BRTL, V/FN TO MICRO XLN, PLTY, SCAT BLKY, TR DOLC CMT,
SM ARG, SCAT SIL, TR INTRBD DOLO, OCC MIN PYR, TR OPQ
TO BLU/GY SHRPANG CHRT, TR GIL ALONG POR, NO ODOR,
SCAT TO SM HAIRLINE FRAC, SCAT TO TR DULL YEL FLOR,
WK TO VWK SLO MLKY WHT CUT, TR WK SPTY PALE YEL
RES RING

DOLO: LT TAN, TR BRN, SCAT OFF WHT, OCC WHT, TR GY
MOTT, MOD FRM TO FRM, BRTL, V/FN TO FN XLN, CHNKY, TR
WELL IND, TR SIL, SM CALC CMT, SM WELL IND, SCAT
INTRBD LS, TR MRL, OCC LRG CHNKY CALCITE FL, OCC
MASS PYR, OCC OFF WHT TO OPQ SHRP CHAL CHRT,
ABNDNT OOLT W/OCC PISO, OCC DK SPOT STAIN, NO ODOR,
ABNDNT MOLDIC POR, OCC FRAC POR, SM YEL TO DULL YEL
FLOR, TR WK V/SLO MLKY STRW CUT, FAINT RES RING

LS: CRM, SM LT TAN, SCAT OFF WHT TO GYSH, FRM TO MOD
FRM, BRTL, MICRO XLN, SM V/FN XLN, MSTLY PLTY, TR BLKY
TO CHNKY, SM SIL, TR ARG, SCAT INTRBD CHLKY, SCAT LAM
DOLO, TR INTRBD DOLO, TR GLAUC, TR OPQ TO BLU/GYANG
SHRP CHAL CHRT, OCC PYRC, SCAT FOSUS W/ OCC
CRIN/OOLT, NO VIS STAIN, NO ODOR, TR TO SCAT XLN POR,
SCAT FRAC POR W/SM HAIRLINE, TR MOLDIC POR, TR DULL
YEL TO DK YEL FLOR, NO VIS CUT

TOH TO L/D CORE #2 :: P/U BIT #2::
IN @ 4179'

LS: CRM TO SM LT CRM, SCAT OFF WHT, SCAT
GYSH, TR TANGY, TR DK TAN MOTT, MOD FRM,
TR FRM, BRTL, MICRO TO TR FN XLN, PLTY,
BLKY, SM SIL, TR DOLC CMT, TR CHLKY IP TR

GEOLOGRAPH NOT WORKING:: REPAIR AIR
CLUTCH ON DRAWWORKS DURING TRIP IN
HOLE

MUD CK @ 3992'
WT 9.0
VIS 47
PV 14
YP 12
GEL 7/28
PH 10.0
WL 6.0
CK 1.0
CHL 5000
CAL 40
SOL 4.7%
WTR 95.3%
LCM TR
ECD 9.45

SM SIL

DECRSING ARG

TRIP GAS 21 UNITS

FM GAS 21 UNITS

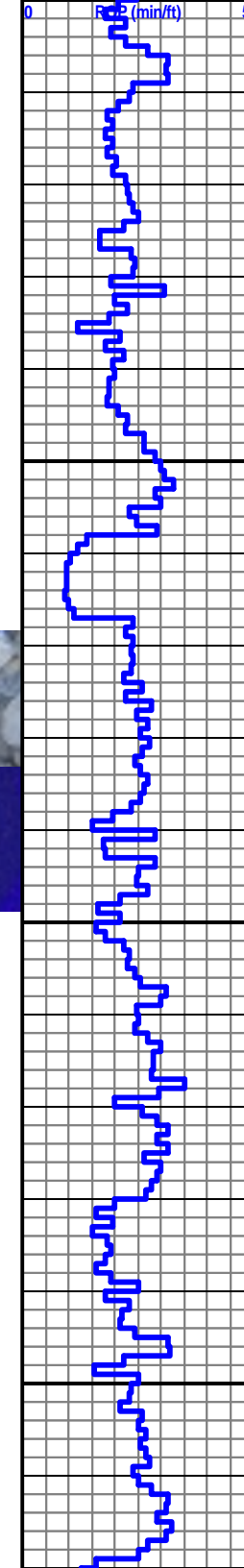
DECRSE YEL FLOR

FM GAS 21 UNITS

TR DK YEL FLOR

TEST GAS @ TRAP

SH GAS 57 UNITS

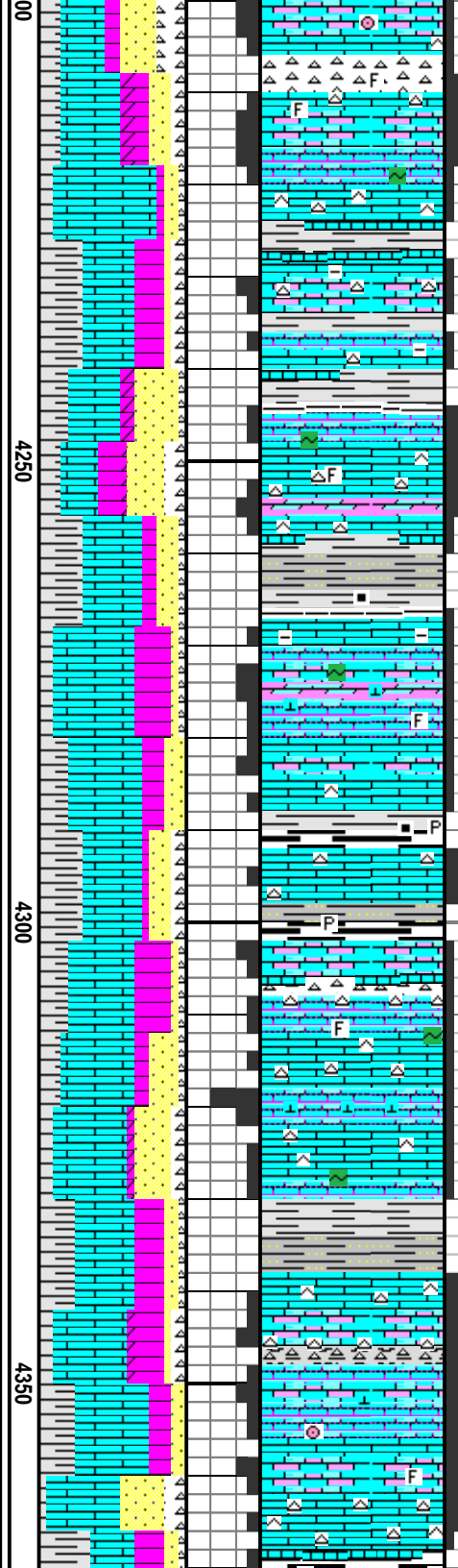


MSTLY DK YEL
FLOR

WOB-38K
RPM-75
PP-900
SPM-59



07/31/2014



LS: OFF WHT, TR WHT, SCAT GY TO LT GY, TR TAN TO DK TAN
MOTT, TR DK CRM, SM FRM, BRTL, MICRO XLN, SCAT V/FN
XLN, PLTY, TR BLKY, OCC CHNKY, SM SIL, SCAT TO TR DOLC
CMT, DECRSNG ARG, TR INTRBD DOLO, TR TO SCAT OPQ TO
BLU/GY ANG CHALCHRT W/OCC FOSS, OCC PYRC, OCC
GLAUC, NO VIS STAIN, NO ODOR, SCAT FRAC POR, TR XLN
POR, OCC VUG POR, SM LAM SH: GY TO SM DK GY, TR BLK,
MOD FRM, SCAT FISS, V/FN TXT, DULL LSTR, OCC CARB, TR
DK YEL FLOR, NO VIS CUT

LS: OFF WHT, TR WHT, SCAT GY TO LT GY, TR TAN TO DK TAN
MOTT, TR DK CRM, SM FRM, BRTL, MICRO XLN, SCAT V/FN
XLN, PLTY, TR BLKY, OCC CHNKY, SM SIL, SCAT TO TR DOLC
CMT, DECRSNG ARG, TR INTRBD DOLO, TR TO SCAT OPQ TO
BLU/GY ANG CHALCHRT W/OCC FOSS, OCC PYRC, OCC
GLAUC, NO VIS STAIN, NO ODOR, SCAT FRAC POR, TR XLN
POR, OCC VUG POR, SM LAM SH: GY TO SM DK GY, TR BLK,
MOD FRM, SCAT FISS, V/FN TXT, DULL LSTR, OCC CARB, TR
DK YEL FLOR, NO VIS CUT

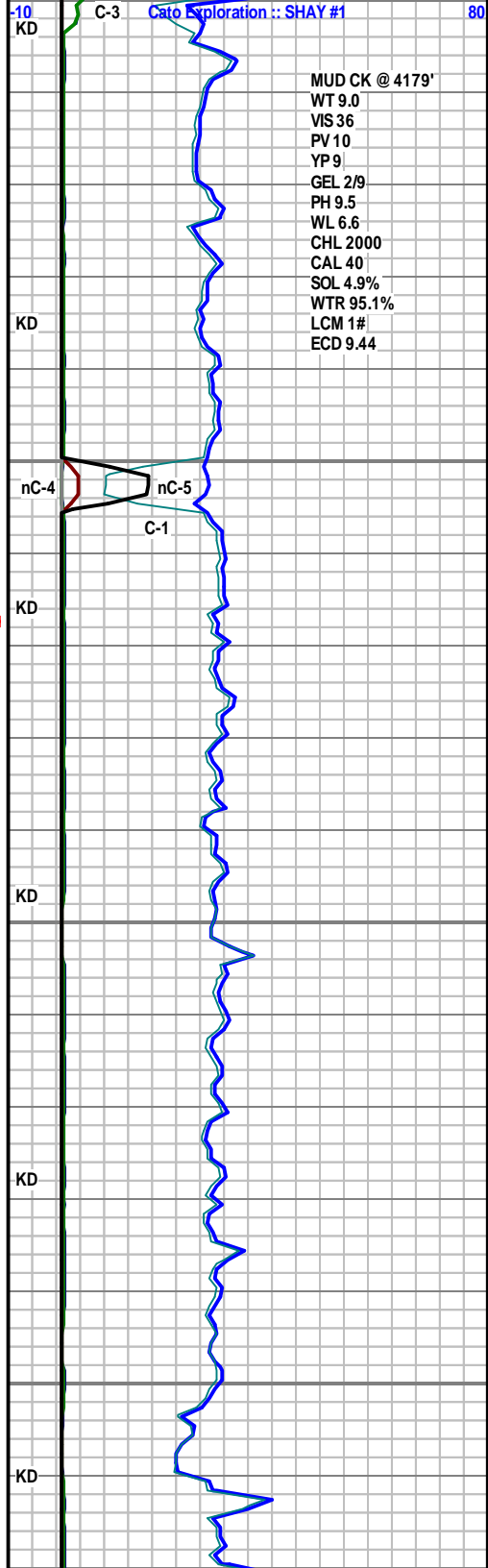
MARMATON @ 4267'

+++++(-1607)+++++

LS: CRM TO DK CRM, SCAT DK TAN TO TR BRN,
TR TAN, TR GYSH, MSTLY MOD FRM, TR V/FRM,
BRTL, OCC CRMBLY, V/FN XLN, TR MICRO XLN,
BLKY/PLTY, SCAT CHNKY, OCC ARG, OCC SIL,
SM DOLC CMT, SCAT INTRBD DOLO, TR DRSY
EUHED CALCITE, OCC GLAUC, OCC FOSS
FRAGS, NO VIS STAIN, NO ODOR, SCAT V/FN
VUG TO PP POR, SCAT FN FRAC POR, OCC XLN
POR, TR LAM SH: GY TO LT GY, OCC V/DK GY,
MOD FRM TO SM MOD SFT, V/FN TXT, PLTY, NON
CALC, TR SLTY IP, OCC V/DULL YEL TO DK YEL
FLOR, OCC V/FAINT MLKY STRW CUT W/10%
HCL, NO VIS

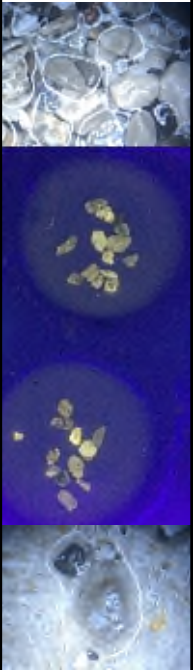
LS: DK TAN TO BRN, TR GYSH/TAN, TR OFF WHT
TO LT CRM, SM V/FRM TO HRD, BRTL, V/FN TO
MICRO XLN, PLTY, SM BLKY, TR CHNKY, SM SIL,
TR TO SCAT DOLO CMT, SCAT INTRBD DOLO,
SCAT OPQ TO SMKY ANG SHRP CHAL CHRT
W/OCC SPIC, TR MIN PYR INC., OCC GLAUC,
OCC FOSS FRAGS, NO VIS STAIN, NO ODOR, SM
FN TO HAIRLINE FRAC, OCC XLN POR, OCC PP
POR, SM LAM SH: GY TO DK GY, OCC BLK, OCC
V/DK GY, MOD FRM, V/FN TXT, OCC CARB, OCC
DK YEL FLOR W/TR DULL YEL, NO VIS CUT

LS: DK TAN TO BRN, TR GYSH/TAN, TR OFF WHT
TO LT CRM, SM FRM TO V/FRM, BRTL, V/FN TO
MICRO XLN, PLTY, SM BLKY, TR CHNKY, SM SIL,
TR TO SCAT DOLO CMT, SCAT INTRBD DOLO,
SCAT OPQ TO SMKY ANG SHRP CHAL CHRT
W/OCC SPIC, TR MIN PYR INC., OCC GLAUC,
OCC FOSS FRAGS, NO VIS STAIN, NO ODOR, SM
FN TO HAIRLINE FRAC, OCC XLN POR, OCC PP
POR, SM LAM SH: GY TO DK GY, OCC BLK, OCC
V/DK GY, MOD FRM, V/FN TXT, OCC CARB, OCC
DK YEL FLOR W/TR DULL YEL, NO VIS CUT

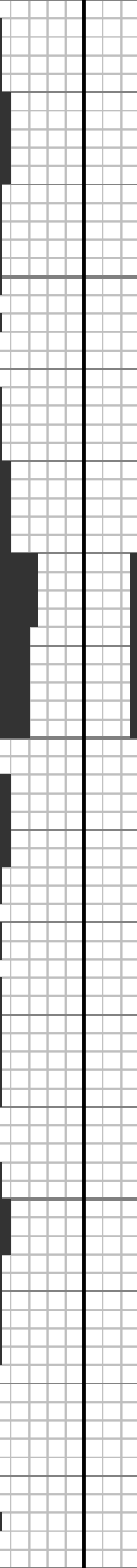
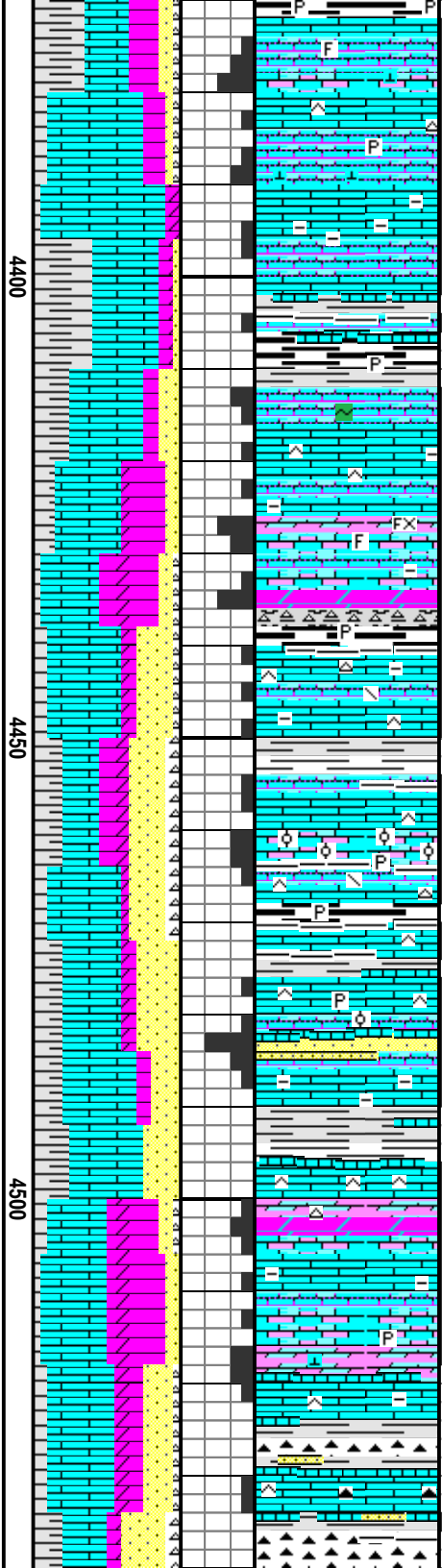
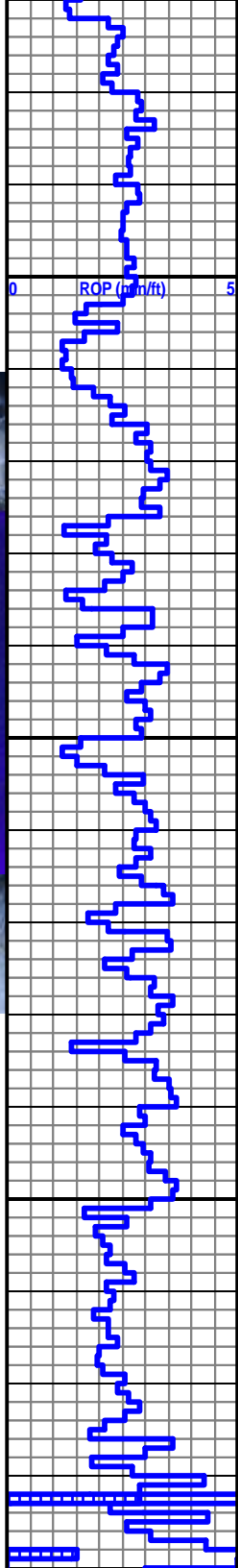


MUD CK @ 4179'
WT 9.0
VIS 36
PV 10
YP 9
GEL 2/9
PH 9.5
WL 6.6
CHL 2000
CAL 40
SOL 4.9%
WTR 95.1%
LCM 1#
ECD 9.44

WOB-38K
RPM-80
PP-950
SPM-55



WORK ON MUD
PUMP - REPLACE
LINER



MICRO XLN, PLTY, SM BLKY, TR CHNKY,
INCRSING ARG, SCAT SIL, TR DOLO CMT, TR
INTRBD DOLO, SCAT OPQ TO SMKY ANG SHRP
CHAL CHRT W/OCC SPIC, OCC CALCITE FL, TR
TO SCAT FOSS FRAGS, NO VIS STAIN, NO
ODOR, SM FN TO HAIRLINE FRAC W/TR SEALD,
TR MOLDIC POR, OCC XLN POR, SM LAM SH: GY
TO DK GY, OCC BLK, OCC V/DK GY, MOD FRM,
V/FN TXT, OCC CARB, OCC TO TR DK YEL FLOR
W/OCC DULL YEL, NO VIS CUT

CHEROKEE @ 4412'

(-1752')

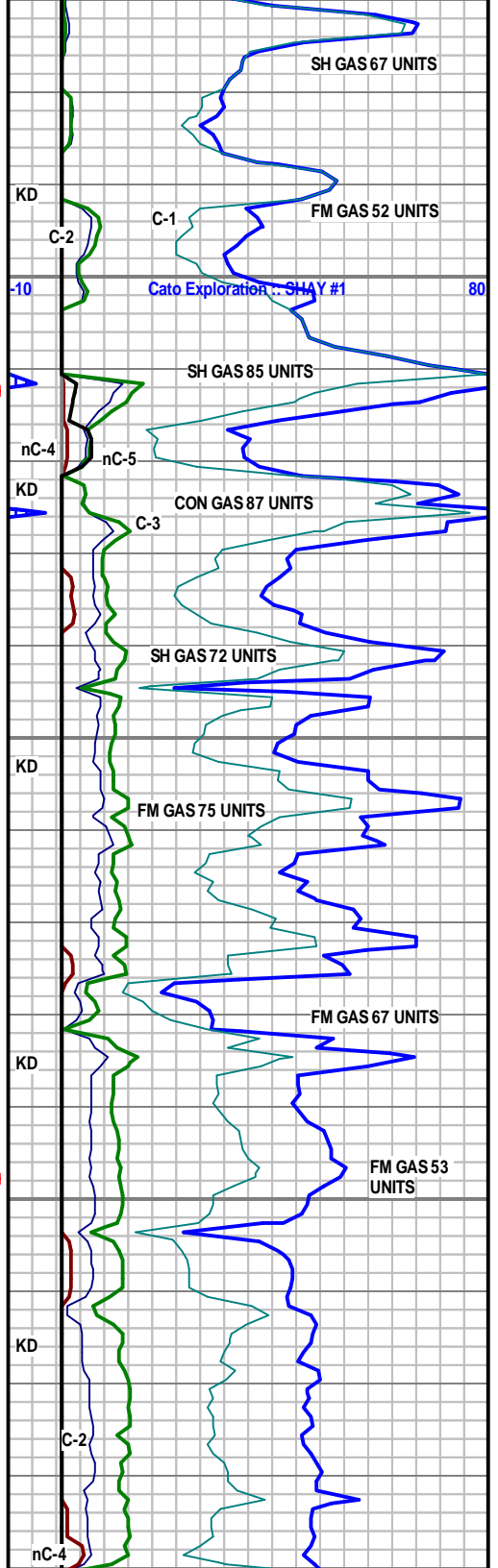
LS: V/LT TAN TO GYSH/TAN, SM GYSH/LT TAN,
TR CRM, TR BRN, SCAT OFF WHT, MOD FRM,
SCAT HRD/V/FRM, SCAT V/BRTL, MSTLY V/FN
XLN, TR TO SCAT MICRO XLN, PLTY, SM BLKY,
SM ARG, TR DOLC CMT, SCAT SIL, SCAT LAM
/INTRBD DOLO, TR OPQ TO WHT V/SHRP ANG
SPIC CHRT, OCC MIN PYR INC., OCC GLAUC,
SCAT FOSS, OCC GIL, NO ODOR, SCAT FRAC
POR, TR TO SCAT MOLDIC POR, OCC XLN POR,
SCAT LAM THN BDD SH: DK GY TO BLK, SM GY,
TR LT GY, SM CARB, TR PYRC, SCAT V/DULL
PALE YEL FLOR, TR DK YEL FLOR, SCAT V/FAINT
MLKY YEL CUT

LS: LT TAN TO OFF WHT, SM CRM, SCAT DK CRM,
TR TAN, TR V/DK BRN MOTT, TR GY MOTT, FRM
TO SM MOD FRM, MSTLY BRTL, MICRO TO SCAT
V/FN XLN, TR FN XLN, PLTY/BLKY, TR CHNKY,
SCAT DOLC CMT, SM SIL, SCAT INTRBD DOLO,
TR CALCITE FL, TR TO SCAT ANG WHT TO OPQ
CHAL CHRT W/OCC FOSS, TR OOLT W/SM FRI FN
XLN LS/DOLO MTX, OCC GIL, TR MOLDIC POR,
SCAT FRAC POR, INCRSE XLN POR, LAM SH: GY
TO DK GY, TR PRPL, TR BLK, MOD FRM TO TR
FRM, BRTL, SM FISS, TR CARB, OCC LENTC V/FN
RND GRN SS, TR DULL YEL FLOR, NO CUT

MISSISSIPPI @ 4495'

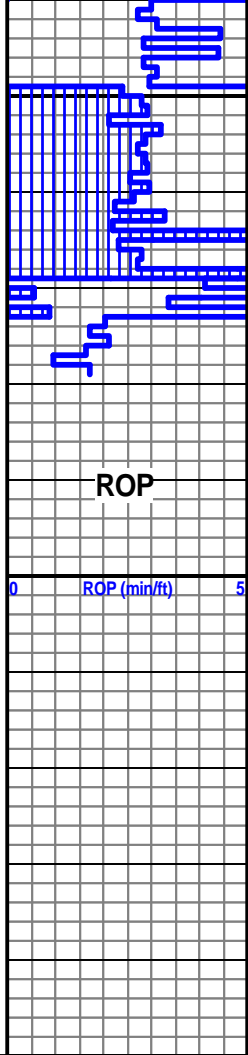
(-1835')

LS: OFF WHT, SCAT TAN TO LT TAN, TR
GYSH/TAN, TR WHT, FRM TO SCAT HRD, BRTL,
V/FN TO TR FN XLN, SCAT MICRO XLN, BLKY,
PLTY, DECRSING ARG, TR DOLC CMT, INCRSING
SIL, SCAT INTRBD DOLO, OCC OPQ TO TR DK
V/SHRP ANG CHAL CHRT, OCC CALCITE FL, OCC
PYR INC., OCC DK BRN/BLK ASPHLTC STAIN
ALONG V/FN FRAC, NO ODOR, SM HAIRLINE
FRAC, TR DISS FRAC, OCC XLN POR, TR LAM SH:
GY TO DK GY, MOD FRM, V/FN TXT, DULL LSTR,
OCC DULL TO V/DULL YEL FLOR, NO VIS CUT



WOB-35K
RPM-80
PP-900
SPM-57

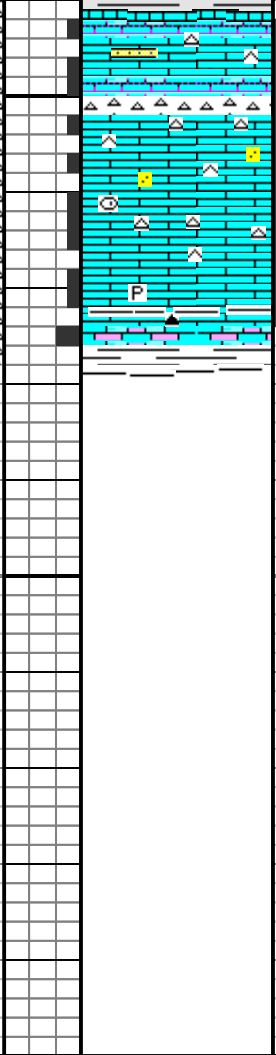
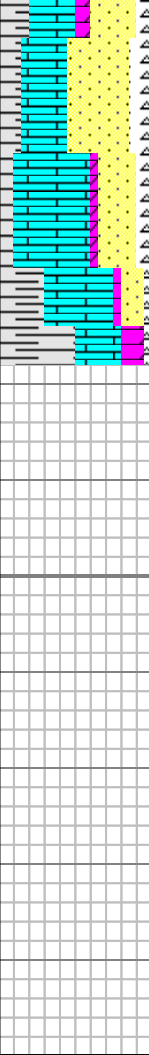
07/31/2014



4550

4600

46



LS: CRM TO DK CRM, SM V/LT TAN, FRM TO HRD,
SM BRTL, MICRO TO TR V/FN XLN, BLKY, PLTY,
SHRP, WELL IND, SM TO ABDNT SIL, OCC DOLC
CMT, SCAT WHT TO OFF WHT ANG SHRP CHAL
CHRT W/OCC PYRC, OCC MASS PYR, OCC FOSS,
NO VIS STAIN, NO ODOR, SCAT HAIRLINE FRAC,
TR INTRBD/LENTC SS: WHT TO OF FWHT, OPQ,
FRM, SM BRTL, V/WELL IND, V/FN U GRNS, ANG
TO SUB ANG, V/WELL CONSL, WELL SRTD, SIL
CMT, NO VIS STAIN, TR XGRNLR POR, OCC DK
DULL YEL FLOR, NO VIS CUT

DRILLER'S TD @ 4579' MD -1919'
SS ON 07/31/2014

