



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1168621
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: _____



1168621

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

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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Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	12-22-8 H3
Doc ID	1168621

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	8720-8722		8720-8722
6	8650-8652		8650-8652
6	8567-8569		8567-8569
6	8414-8416		8414-8416
6	8359-8361		8359-8361
6	8283-8285		8283-8285
6	8168-8170		8168-8170
6	8090-8092		8090-8092
6	8014-8016		8014-8016
6	7875-7877		7875-7877
6	7803-7805		7803-7805
6	7673-7675		7673-7675
6	7594-7596		7594-7596
6	7510-7512		7510-7512
6	7442-7444		7442-7444
6	7331-7333		7331-7333
6	7250-7252		7250-7252
6	7154-7156		7154-7156
6	7000-7002		7000-7002
6	6951-6953		6951-6953
6	6872-6874		6872-6874
6	6768-6770		6768-6770
6	6652-6654		6652-6654
6	6572-6574		6572-6574

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	12-22-8 H3
Doc ID	1168621

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6473-6475		6473-6475
6	6376-6378		6376-6378
6	6289-6291		6289-6291
6	6179-6181		6179-6181
6	6106-6108		6106-6108
6	6020-6022		6020-6022
6	5850-5852		5850-5852
6	5786-5788		5786-5788
6	5696-5698		5696-5698
6	5578-5580		5578-5580
6	5504-5506		5504-5506
6	5449-5451		5449-5451
6	5331-5333		5331-5333
6	5253-5255		5253-5255
6	5199-5201		5199-5201
6	5133-5135		5133-5135
6	5049-5051		5049-5051
6	5017-5019		5017-5019
6	4951-4953		4951-4953
6	4889-4891		4889-4891
6	4834-4836		4834-4836

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

November 18, 2013

CHRISTOPHER MITCHELL
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-195-22882-01-00
12-22-8 H3
NE/4 Sec.08-12S-22W
Trego County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
CHRISTOPHER MITCHELL

PO Box 93999
Southlake, TX 76092

Invoice Number: 137876
Invoice Date: Aug 9, 2013
Page: 1

Voice: (817) 546-7282
Fax: (817) 246-3361

V1308-AP-833

Bill To:
Samuel Gary, Jr. & Assoc.
ATTN: Kurt
1815 11th St
Great Bend, KS 67530

RECEIVED
AUG 22 2013
SAMUEL GARY JR. & ASSOCIATES, INC.

Now Includes:



8/27

Customer ID	Field Ticket #	Payment Terms	
Gary	60560	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Great Bend	Aug 9, 2013	9/8/13

Quantity	Item	Description	Unit Price	Amount
		12-22-8 #H-3		
400.00	CEMENT MATERIALS	Class A Common	17.90	7,160.00
14.00	CEMENT MATERIALS	Chloride	64.00	896.00
200.00	CEMENT MATERIALS	Flo Seal	2.97	594.00
433.20	CEMENT SERVICE	Cubic Feet	2.48	1,074.34
778.40	CEMENT SERVICE	Ton Mileage	2.60	2,023.84
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
40.00	CEMENT SERVICE	Pump Truck Mileage	7.70	308.00
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
1.00	CEMENT SERVICE	High Connection	577.50	577.50
40.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	176.00
1.00	EQUIPMENT SALES	9.5/8 Sawtooth Guide Shoe	518.31	518.31
1.00	EQUIPMENT SALES	9.5/8 AFU Insert	534.69	534.69
5.00	EQUIPMENT SALES	9.5/8 Centralizer	87.75	438.75
1.00	EQUIPMENT SALES	9.5/8 Rubber Plug	184.86	184.86
4.00	EQUIPMENT SALES	Thread Lock	83.07	332.28
1.00	CEMENT SUPERVISOR	Dustin Chambers		
1.00	CEMENT SUPERVISOR	Tim Dickson		
1.00	OPERATOR ASSISTANT	Shawn Kearns		
1.00	EQUIPMENT OPERATOR	Ben Newell		

DRUG COMP W/O LOE GG
 Account: 8200.138
 Well/Prospect: [Signature]
 Deck: [Signature]
 AFB: [Signature]
 Approval: [Signature]
 Description:

Subtotal	16,605.82
Sales Tax	815.41
Total Invoice Amount	17,421.23
Payment/Credit Applied	
TOTAL	17,421.23

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 5,812.04

ONLY IF PAID ON OR BEFORE
Sep 3, 2013

(5812.04)
11,609.19

ALLIED OIL & GAS SERVICES, LLC 060560

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend, KS

DATE <u>5-9-13</u>	SEC. <u>12</u>	TWP. <u>22</u>	RANGE <u>9</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>12-22-8</u>		WELL# <u>H-3</u>		LOCATION <u>Ogallah, KS N to Rd. H</u>		COUNTY <u>Trego</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)				<u>2 1/2" x 2 1/2" GIATO</u>			

CONTRACTOR <u>HWD #3</u>	OWNER
TYPE OF JOB <u>Surf face</u>	
HOLE SIZE <u>13 3/16</u>	T.D.
CASING SIZE <u>9 5/8</u>	DEPTH <u>357.67</u>
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>43.04 lb</u>	
PERFS.	
DISPLACEMENT <u>28 bbls Fresh water</u>	

CEMENT			
AMOUNT ORDERED <u>400 SKS Class A</u>			
<u>34' cc 1/4 Flo</u>			
COMMON	<u>400</u>	@ <u>17.90</u>	<u>7160.00</u>
POZMIX		@	
GEL		@	
CHLORIDE	<u>14</u>	@ <u>64.00</u>	<u>896.00</u>
ASC		@	
<u>Flo 400</u>	<u>200</u>	@ <u>2.97</u>	<u>594.00</u>
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	<u>433.7</u>	@ <u>2.48</u>	<u>1074.34</u>
MILEAGE	<u>19.46 x 40 x</u>		<u>2023.84</u>
TOTAL			<u>16,748.18</u>

EQUIPMENT	
PUMP TRUCK # <u>597</u>	CEMENTER <u>Dustin Chambers</u>
	HELPER <u>Tim Drikson</u>
BULK TRUCK # <u>544 199</u>	DRIVER <u>Shawn Kerns</u>
BULK TRUCK #	DRIVER <u>Ben Newell</u>

REMARKS:

Deep Ball Circulate for 20 min / test lines
pump 5 bbls Fresh water Ahead
plug 400 SKS Class A 37' cc 1/4 Flo
plug Down & Release Plug
Displace 28 bbls Fresh water
Land plug @ 600 IF
Plug Down - 11:30 AM
Rig Down

SERVICE

DEPTH OF JOB	<u>357</u>		
PUMP TRUCK CHARGE		<u>1512.25</u>	
EXTRA FOOTAGE		@	
MILEAGE	<u>HVM 40</u>	@ <u>7.70</u>	<u>308.00</u>
MANIFOLD	<u>Head Rental</u>	@ <u>275.00</u>	<u>275.00</u>
	<u>High cap pressure</u>	@ <u>577.50</u>	<u>577.50</u>
	<u>LVM 40</u>	@ <u>4.40</u>	<u>176.00</u>

TOTAL 2848.75

CHARGE TO: Sam Gary Jr.
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>9 5/8 Sawtooth Guide Shoe</u>	@	<u>519.71</u>
<u>9 5/8 AFV En 50 ft</u>	@	<u>534.69</u>
<u>5 Rental 200's</u>	@ <u>67.75</u>	<u>478.75</u>
<u>9 5/8 Rubber Plug</u>	@	<u>184.56</u>
<u>4 1/2 x Thread Lock</u>	@ <u>69.07</u>	<u>332.28</u>

TOTAL 2009.89

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	<u>16,605.83</u>
DISCOUNT	<u>5,812.04</u>
	<u>10,793.79</u>

PRINTED NAME X Knobel APL

SIGNATURE X [Signature]

Thank You!!

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 138138
Invoice Date: Aug 18, 2013
Page: 1

Voice: (817) 546-7282
Fax: (817) 246-3361

9/12

Bill To:

Samuel Gary, Jr. & Assoc.
ATTN: Kurt
1815 11th St
Great Bend, KS 67530

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Gary	60568	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Great Bend	Aug 18, 2013	9/17/13

Quantity	Item	Description	Unit Price	Amount
8.00	CEMENT MATERIALS	Chloride	64.00	512.00
350.00	CEMENT MATERIALS	ALW	16.50	5,775.00
87.00	CEMENT MATERIALS	Flo Seal	2.97	258.39
1.00	CEMENT SERVICE	Production -- Top Stage	2,406.25	2,406.25
8.00	CEMENT SERVICE	Waiting on Location	440.00	3,520.00
1.00	CEMENT SUPERVISOR	Dustin Chambers		
1.00	EQUIPMENT OPERATOR	Charles Kinyon		
1.00	OPERATOR ASSISTANT	Shawn Kearns		
1.00	OPERATOR ASSISTANT	Steven Vasquez		

RECEIVED

SEP 06 2013

SAMUEL GARY JR.
& ASSOCIATES, INC.

DRLG COMP W/O LOE GG

Account	8300.209
Well/Prospect	
Deck	
AFE	
Approval	
Description	

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 4,365.07

ONLY IF PAID ON OR BEFORE

Sep 12, 2013

Subtotal	12,471.64
Sales Tax	500.72
Total Invoice Amount	12,972.36
Payment/Credit Applied	
TOTAL	12,972.36

<4365.07>
8607.29

ALLIED OIL & GAS SERVICES, LLC 060568

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend, KS

DATE <u>4/14/13</u>	SEC. <u>6</u>	TWP. <u>12</u>	RANGE <u>22</u>	CALLED OUT	ON LOCATION	JOB START <u>2:00 PM</u>	JOB FINISH <u>3:30 AM</u>
LEASE <u>12-22-26</u>	WELL # <u>H3</u>		LOCATION <u>Ogallah North Rd</u>			COUNTY <u>Frego</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)			<u>2 1/2 W 9INTO</u>				

CONTRACTOR <u>HW/D #3</u>	OWNER _____
TYPE OF JOB <u>production top grade</u>	CEMENT
HOLE SIZE <u>8 7/8" T.D.</u>	AMOUNT ORDERED <u>350 sks 65+ class A</u>
CASING SIZE <u>7" DEPTH <u>4824</u></u>	<u>3541 po2 6.1 gal 2+cc 1/4 Plo</u>
TUBING SIZE _____ DEPTH _____	COMMON _____ @ _____
DRILL PIPE _____ DEPTH _____	POZMIX _____ @ _____
TOOL <u>grape collar DEPTH <u>2971.82</u></u>	GEL _____ @ _____
PRES. MAX _____ MINIMUM _____	CHLORIDE <u>8</u> @ <u>64.00</u> <u>512.00</u>
MEAS. LINE _____ SHOE JOINT _____	ASC _____ @ _____
CEMENT LEFT IN CSG. _____	<u>ALLW 350 @ 16.50 5775.00</u>
PERFS. _____	<u>Flo seal 87 @ 2.97 258.39</u>
DISPLACEMENT <u>94 bbls Freshwater</u>	_____ @ _____
EQUIPMENT	_____ @ _____

PUMP TRUCK # <u>597</u>	CEMENTER <u>Dustin Chambers</u>
BULK TRUCK # <u>599</u>	HELPER <u>Charles Kinyon</u>
BULK TRUCK # <u>544-198</u>	DRIVER <u>Shawn Kearns</u>
	DRIVER <u>Steve Vasquez</u>

REMARKS:

Dropped Pump wait 15 min pressured to 2000 # pump thru circulation 15 bbls mud hooked up to rig circulated 4 hrs mixed 350 sks 65/75 6.1 gal 2+cc 1/4 Plo shut down wash line & released plug displaced 94 bbls Freshwater land plug & 1200 # released & held circulated 60 bbls to pit

HANDLING _____ @ _____	
MILEAGE _____ @ _____	
TOTAL	<u>6545.39</u>

SERVICE

DEPTH OF JOB <u>2971.82</u>	
PUMP TRUCK CHARGE _____	<u>2406.25</u>
EXTRA FOOTAGE _____ @ _____	
MILEAGE _____ @ _____	
MANIFOLD _____ @ _____	
<u>wait time 8 hr @ 440.00</u>	<u>3520.00</u>
TOTAL	<u>5926.25</u>

CHARGE TO: Samuel Gray JR & ASSOCIATES
STREET _____
CITY _____ STATE _____ ZIP _____

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.

SALES TAX (If Any) _____
TOTAL CHARGES 12471.64
DISCOUNT 4365.07 IF PAID IN 30 DAYS

PRINTED NAME X Jack Conley
SIGNATURE X Jack Conley

Thank you!

\$ 8,106.57

PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 138048
Invoice Date: Aug 17, 2013
Page: 1

9/5

RECEIVED

SEP 03 2013

SAMUEL GARY JR. & ASSOCIATES, INC.

Now Includes:



V1309 AP-138

Bill To:
Samuel Gary, Jr. & Assoc.
ATTN: Kurt
1815 11th St
Great Bend, KS 67530

Customer ID	Field Ticket #	Payment Terms	
Gary	60567	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Great Bend	Aug 17, 2013	9/16/13

Quantity	Item	Description	Unit Price	Amount
		12-22-8 #H3		
300.00	CEMENT MATERIALS	AMD	25.90	7,770.00
85.00	CEMENT MATERIALS	FL-160	18.90	1,606.50
42.00	CEMENT MATERIALS	Defoamer	9.80	411.60
900.00	CEMENT MATERIALS	Gilsonite	0.98	882.00
487.00	CEMENT SERVICE	Cubic Feet	2.48	1,207.76
808.03	CEMENT SERVICE	Ton Mileage	2.60	2,100.80
1.00	CEMENT SERVICE	Production -- Bottom Stage	2,765.75	2,765.75
25.00	CEMENT SERVICE	Pump Truck Mileage	7.70	192.50
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
25.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	110.00
14.00	EQUIPMENT SALES	7 in Lock Rings	45.96	643.44
1.00	EQUIPMENT SALES	7 in Float Shoe	712.53	712.53
1.00	EQUIPMENT SALES	7 in Float Collar	886.86	886.86
1.00	EQUIPMENT SALES	7 in Stage Collar	6,502.50	6,502.50
3.00	EQUIPMENT SALES	7 in Basket	462.15	1,386.45
7.00	EQUIPMENT SALES	7 in Spiral Centralizer	258.58	1,810.06
4.00	EQUIPMENT SALES	Thread Lock	83.07	332.28
4.00	EQUIPMENT SALES	7 in Centralizer	65.52	262.08
1.00	CEMENT SUPERVISOR	Dustin Chambers		
1.00	EQUIPMENT OPERATOR	Charles Kinyon		

DRLG COMP W/O LOE

Account	8200.138	462.15	1,386.45
Well/Prospect		258.58	1,810.06
Deck		83.07	332.28
AFE		65.52	262.08
Approval			
Description			

Subtotal	Continued
Sales Tax	Continued
Total Invoice Amount	Continued
Payment/Credit Applied	
TOTAL	Continued

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 10,446.79

ONLY IF PAID ON OR BEFORE
Sep 11, 2013

PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 138048
Invoice Date: Aug 17, 2013
Page: 2

Bill To:
Samuel Gary, Jr. & Assoc. ATTN: Kurt 1815 11th St Great Bend, KS 67530

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Gary	60567	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Great Bend	Aug 17, 2013	9/16/13

Quantity	Item	Description	Unit Price	Amount
1.00	OPERATOR ASSISTANT	Shawn Kearns		
1.00	OPERATOR ASSISTANT	Steven Vasquez		

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 10,446.79

ONLY IF PAID ON OR BEFORE
Sep 11, 2013

Subtotal	29,858.11
Sales Tax	1,775.28
Total Invoice Amount	31,633.39
Payment/Credit Applied	
TOTAL	31,633.39

(10,446.79)
21,186.60

ALLIED OIL & GAS SERVICES, LLC 060567

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:

Great Bend, KS

DATE <u>8-17-13</u> <u>12-22-13</u>	SEC. <u>6</u>	TWP. <u>12</u>	RANGE <u>22</u>	CALLED OUT	ON LOCATION <u>5:00 pm</u>	JOB START <u>9:00 pm</u>	JOB FINISH <u>10:00 pm</u>
LEASE	WELL # <u>H3</u>	LOCATION <u>Ogallah N TO Rd H 2 1/2 W</u>			COUNTY <u>Trego</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)				<u>S into</u>			

CONTRACTOR <u>HWD #3</u>	OWNER
TYPE OF JOB <u>Production Bottom Stage</u>	CEMENT
HOLE SIZE <u>8 3/4</u> T.D.	AMOUNT ORDERED <u>300 gks AMID</u>
CASING SIZE <u>7"</u> DEPTH <u>4804</u>	<u>2% salt + 2% Gyp + 2% Sodium met 4% gel +</u>
TUBING SIZE DEPTH	<u>3% of 14 FL-160 + .14 DF + 3 # Gilsonite</u>
DRILL PIPE DEPTH	COMMON @
TOOL <u>Float collar</u> DEPTH <u>4757.57</u>	POZMIX @
PRES. MAX <u>1700</u> MINIMUM	GEL @
MEAS. LINE SHOE JOINT	CHLORIDE @
CEMENT LEFT IN CSG.	ASC @
PERFS.	AMID 300 @ <u>25.90</u> <u>7770.00</u>
DISPLACEMENT <u>90 bbls H2O / 86.25 bbls mud</u>	FL-160 85 @ <u>18.90</u> <u>1606.50</u>

EQUIPMENT		TOTAL <u>13,978.66</u>	
PUMP TRUCK # <u>597</u>	CEMENTER <u>Dustin Chambers</u>	DEFORMER 42 @ <u>9.90</u>	<u>411.60</u>
BULK TRUCK # <u>599</u>	HELPER <u>Charles Kinyon</u>	GILSONITE 900 @ <u>1.98</u>	<u>882.00</u>
BULK TRUCK # <u>544-198</u>	DRIVER <u>Shawn Keras</u>	HANDLING <u>487</u> @ <u>2.48</u>	<u>1207.76</u>
	DRIVER <u>Steve Varguez</u>	MILEAGE <u>809 x 260</u>	<u>2100.90</u>

REMARKS:

Ran 4804 DF 7" CG. Broke circulation
Pumped 5 BDIS H2O PRESSURE TEST LINE
To 3000# Mixed 300 SKS AMID 2% SALT
2% GYP Seal 2% Sodium met 4% gel 3% FL-160 .14 Deformer 3% Gilsonite PER SACK
Wash lines clean Displace with H2O mud
1700 # land plug Released & float held
Had 1000 LIFT Pressure Co. man said
To open stage collar

SERVICE

DEPTH OF JOB <u>4804</u>	
PUMP TRUCK CHARGE	<u>2765.25</u>
EXTRA FOOTAGE @	
MILEAGE <u>25</u> @ <u>2.70</u>	<u>192.50</u>
MANIFOLD @	
Head Rent @ <u>275.00</u>	<u>275.00</u>
Lvm <u>25</u> @ <u>4.40</u>	<u>110.00</u>

CHARGE TO: Samuel Gary JR. & ASSOCIATES
STREET _____
CITY _____ STATE _____ ZIP _____

TOTAL 3,143.25

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.

PLUG & FLOAT EQUIPMENT		<u>643.44</u>
14 lock rings <u>45.96</u>		<u>327.72</u>
7" float shoe <u>712.53</u>		<u>712.53</u>
float collar @ <u>886.86</u>		<u>886.86</u>
stage collar @ <u>6502.50</u>		<u>6502.50</u>
SA-BASKETS @ <u>462.15</u>		<u>1386.45</u>
78-SPIRAL CENTRALIZERS @ <u>258.58</u>		<u>20271.84</u>
Thread lock <u>4</u> @ <u>83.07</u>		<u>332.28</u>
4-CENTRALIZERS <u>65.52</u>		<u>262.08</u>
TOTAL		<u>12,536.20</u>

SALES TAX (If Any) _____
TOTAL CHARGES 29,658.11
DISCOUNT 10,380.34 IF PAID IN 30 DAYS
\$ 19,277.77

PRINTED NAME X JACK Conkey
SIGNATURE Jack Conkey
Thank You!!



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 138450
Invoice Date: Sep 2, 2013
Page: 1

Bill To:
Samuel Gary, Jr. & Assoc. ATTN: Kurt 1815 11th St Great Bend, KS 67530

RECEIVED

SEP 23 2013

SAMUEL GARY JR. & ASSOCIATES, INC.

Now Includes:



9/26

V1309-AP-847

Customer ID	Field Ticket #	Payment Terms	
Gary	61877	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-06	Great Bend	Sep 2, 2013	10/2/13

Quantity	Item	Description	Unit Price	Amount
		12-22-8 #3		
490.00	CEMENT MATERIALS	Class A Common	17.90	8,771.00
44.00	CEMENT MATERIALS	C-45	3.47	152.68
88.00	CEMENT MATERIALS	C-51	17.55	1,544.40
351.00	CEMENT MATERIALS	FL-160	18.90	6,633.90
88.00	CEMENT MATERIALS	C-37	10.30	906.40
940.00	CEMENT MATERIALS	Kol Seal	0.98	921.20
20.00	CEMENT MATERIALS	Sugar -- No Charge		
40.00	CEMENT MATERIALS	Allied Spacer	115.00	4,600.00
500.00	CEMENT SERVICE	Cubic Feet	<input type="checkbox"/> DRLG <input type="checkbox"/> COMP <input type="checkbox"/> W/O <input type="checkbox"/> LOE <input type="checkbox"/> GG 2.48	1,240.00
798.00	CEMENT SERVICE	Ton Mileage	2.60	2,074.80
1.00	CEMENT SERVICE	Liner	6,827.70	6,827.70
35.00	CEMENT SERVICE	Pump Truck Mileage	7.70	269.50
35.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	154.00
1.00	CEMENT SUPERVISOR	Tim Dickson		
1.00	EQUIPMENT OPERATOR	Charles Kinyon		
1.00	EQUIPMENT OPERATOR	Daniel Casper		
1.00	OPERATOR ASSISTANT	Kevin Weighous		

Account	8300.238	
Well/Prospect		
Deck		
ATE		
Approval		
Description		

Subtotal	34,095.58
Sales Tax	1,800.01
Total Invoice Amount	35,895.59
Payment/Credit Applied	
TOTAL	35,895.59

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 10,228.67

ONLY IF PAID ON OR BEFORE
Sep 27, 2013

-10,228.67
25,666.92

ALLIED OIL & GAS SERVICES, LLC 061877

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend, KS

DATE <u>9-2-13</u>	SEC. <u>8</u>	TWP. <u>12</u>	RANGE <u>22</u>	CALLED OUT <u>10:30AM</u>	ON LOCATION <u>8:00PM</u>	JOB START <u>1:00AM</u>	JOB FINISH <u>2:00AM</u>
LEASE <u>12-22-8#3</u>	WELL # <u>H3</u>	LOCATION <u>Ogallah North to H Rd</u>			COUNTY <u>Logan</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one) <u>NEW</u>			<u>2 1/2 W, 3 Ints</u>				

CONTRACTOR HWD #3 OWNER Same

TYPE OF JOB Liner

HOLE SIZE	T.D.
CASING SIZE <u>4 1/2</u>	DEPTH <u>9056'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX <u>1800*</u>	MINIMUM <u>1300*</u>
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT <u>110 bbls</u>	Landed @ <u>114.9 bbls</u>
EQUIPMENT	

CEMENT		
AMOUNT ORDERED <u>490 lbs Class A, 0.1%</u>		
<u>C45, 0.8% FL-160, 0.2% CO-31, 2# Redwood</u>		
<u>pack, 1520 CSI 20, Sugar, 3400# Allied</u>		
<u>Specs, 17# performed.</u>		
COMMON <u>490</u>	@ <u>17.90</u>	<u>8,771.00</u>
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC	@	
<u>C 45</u>	@ <u>3.47</u>	<u>152.68</u>
<u>C 51</u>	@ <u>10.55</u>	<u>1,549.90</u>
<u>FL-160</u>	@ <u>18.90</u>	<u>6,633.90</u>
<u>C-37</u>	@ <u>10.30</u>	<u>906.40</u>
<u>Kal Seal</u>	@ <u>9.40</u>	<u>921.20</u>
<u>Sugar</u>	@	
<u>Allied Specs</u>	@ <u>115.00</u>	<u>4600.00</u>
HANDLING <u>500 X</u>	@ <u>2.48</u>	<u>1240.00</u>
MILEAGE <u>798 X</u>	@ <u>2.60</u>	<u>2074.80</u>
		TOTAL <u>26,844.38</u>

PUMP TRUCK # <u>597</u>	CEMENTER <u>Tom Dickson</u>
BULK TRUCK # <u>579</u>	HELPER <u>Charles Kuyper</u>
BULK TRUCK # <u>544-198</u>	DRIVER <u>Don Cayan</u>
	DRIVER <u>Kevin Weighman</u>

REMARKS:

Liner @ 9056', Draped Ball, Pumped 112 bbl & Pressured to 1800#. Pressured to 3800* & Blew Collar. Pumped 40 bbls Fluid Mixed 490 lbs Class A, 0.1% C45, 0.8% FL-160, 0.2% CO-31, 2# Redwood pack, 1520 CSI, Washed up. Pumped 4 bbls Sugar #20. Released Plug. Pumped 6 bbls Sugar #30 & 108.9 bbls #20, Landed Plug at 1800#. Released & Held. Finished

CHARGE TO: Samuel Gray Jr & Associates
STREET _____
CITY _____ STATE _____ ZIP _____

1/2

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 JACK COOPER
SIGNATURE [Signature]

SERVICE

DEPTH OF JOB <u>Liner</u>		
PUMP TRUCK CHARGE	@ <u>6.827</u>	<u>70</u>
EXTRA FOOTAGE	@	
MILEAGE <u>HUM 35</u>	@ <u>7.70</u>	<u>269.50</u>
MANIFOLD	@	
<u>HUM 35</u>	@ <u>4.40</u>	<u>154.00</u>
		TOTAL <u>7,251.20</u>

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
		TOTAL _____

SALES TAX (If Any) _____
TOTAL CHARGES 34095.58
10,228.67
DISCOUNT _____ IF PAID IN 30 DAYS
23,866.90



Well Name 12-22-8-H3
Operator Sam Gary and Associates
Rig HWD 3
Location WaKeeney, Trego Co., Kansas
 Minimum Curvature Calculation

MWDs George Hunt / Mike Evans
DIRECTIONAL DRILLERS: Clark Summers / Garret Man
Magnetic Declination: 6.7
Job #: DR1308-110
Vertical Section Azimuth 1.77

No.	Survey Depth	INC	AZM	TVD	N-S	E-W	Vertical Section	DLS/100	BUR	WR
Tie	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
1	400.00	0.30	0.00	400.00	1.05	0.00	1.05	0.08	0.08	0.00
2	907.00	0.40	4.80	906.99	4.14	0.15	4.14	0.02	0.02	0.95
3	1400.00	0.88	17.59	1399.96	9.46	1.44	9.50	0.10	0.10	2.59
4	1934.00	0.88	344.19	1933.90	17.32	1.56	17.36	0.09	0.00	6.25
5	2425.00	0.40	314.09	2424.87	22.14	-0.70	22.10	0.12	-0.10	-6.13
6	2921.00	0.30	61.60	2920.86	23.96	-0.80	23.92	0.11	-0.02	-21.68
7	3063.00	0.31	79.20	3062.86	24.21	-0.10	24.19	0.07	0.01	12.39
8	3072	0.30	77.80	3071.86	24.22	-0.05	24.20	0.14	-0.11	-15.56
9	3117	1.00	353.40	3116.86	24.63	0.02	24.62	2.26	1.56	187.56
10	3162	5.20	351.60	3161.78	27.04	-0.32	27.02	9.33	9.33	-4.00
11	3207	7.90	350.50	3206.48	32.11	-1.13	32.06	6.01	6.00	-2.44
12	3252	11.60	353.00	3250.82	39.65	-2.19	39.57	8.27	8.22	5.56
13	3297	15.50	356.80	3294.56	50.15	-3.08	50.03	8.89	8.67	8.44
14	3342	18.40	356.90	3337.61	63.25	-3.80	63.10	6.44	6.44	0.22
15	3386	21.70	358.10	3378.93	78.32	-4.45	78.14	7.56	7.50	2.73
16	3431	25.10	359.10	3420.23	96.18	-4.87	95.98	7.61	7.56	2.22
17	3476	28.50	0.60	3460.39	116.47	-4.91	116.26	7.70	7.56	-3.33
18	3521	30.10	1.20	3499.63	138.48	-4.56	138.28	3.61	3.56	1.33
19	3563	31.70	0.90	3535.67	160.05	-4.17	159.84	3.83	3.81	-0.71
20	3608	35.10	1.10	3573.23	184.81	-3.73	184.61	7.56	7.56	0.44
21	3652	38.40	0.90	3608.48	211.13	-3.28	210.93	7.50	7.50	-0.45
22	3697	40.60	1.30	3643.20	239.75	-2.72	239.55	4.92	4.89	0.89
23	3742	41.90	1.30	3677.03	269.41	-2.05	269.22	2.89	2.89	0.00
24	3787	44.70	1.40	3709.78	300.26	-1.32	300.08	6.22	6.22	0.22
25	3827	48.00	1.70	3737.39	329.19	-0.54	329.01	8.27	8.25	0.75
26	3871	51.60	1.20	3765.78	362.78	0.31	362.61	8.23	8.18	-1.14
27	3916	54.10	0.60	3792.95	398.64	0.87	398.48	5.66	5.56	-1.33
28	3961	57.20	0.80	3818.34	435.78	1.32	435.62	6.90	6.89	0.44
29	4006	59.40	0.80	3841.99	474.06	1.86	473.90	4.89	4.89	0.00
30	4051	59.70	0.00	3864.79	512.86	2.13	512.68	1.67	0.67	-1.78
31	4096	59.70	359.50	3887.50	551.71	1.96	551.51	0.96	0.00	1.11
32	4141	59.80	358.90	3910.17	590.58	1.42	590.34	1.17	0.22	-1.33
33	4186	60.10	358.30	3932.70	629.52	0.46	629.23	1.33	0.67	-1.33
34	4230	63.80	359.70	3953.39	668.33	-0.21	668.01	8.87	8.41	3.18
35	4275	66.90	0.60	3972.16	709.23	-0.09	708.89	7.12	6.89	-2.00
36	4320	69.70	1.90	3988.79	751.02	0.82	750.69	6.78	6.22	2.89
37	4365	72.70	2.50	4003.29	793.59	2.46	793.28	6.79	6.67	1.33
38	4410	76.00	2.80	4015.43	836.86	4.46	836.60	7.36	7.33	0.67



Well Name 12-22-8-H3
Operator Sam Gary and Associates
Rig HWD 3
Location WaKeeney, Trego Co., Kansas
 Minimum Curvature Calculation

MWDs George Hunt / Mike Evans
DIRECTIONAL DRILLERS: Clark Summers / Garret Man
Magnetic Declination: 6.7
Job #: DR1308-110
Vertical Section Azimuth 1.77

No.	Survey Depth	INC	AZM	TVD	N-S	E-W	Vertical Section	DLS/100	BUR	WR
39	4455	79.60	2.50	4024.94	880.79	6.50	880.57	8.03	8.00	-0.67
40	4499	83.10	2.60	4031.56	924.24	8.43	924.06	7.96	7.95	0.23
41	4544	86.40	2.60	4035.67	969.00	10.46	968.86	7.33	7.33	0.00
40	4589	89.30	2.70	4037.36	1013.92	12.54	1013.82	6.45	6.44	0.22
41	4634	91.20	2.50	4037.16	1058.87	14.58	1058.81	4.25	4.22	-0.44
42	4679	91.10	2.70	4036.26	1103.81	16.62	1103.80	0.50	-0.22	0.44
43	4724	91.20	3.10	4035.36	1148.75	18.90	1148.78	0.92	0.22	0.89
44	4769	91.30	2.70	4034.38	1193.68	21.18	1193.76	0.92	0.22	-0.89
45	4826	91.30	2.80	4033.08	1250.60	23.91	1250.74	0.18	0.00	0.18
46	4849	91.10	3.20	4032.60	1273.56	25.11	1273.73	1.94	-0.87	1.74
47	4865	90.90	3.10	4032.32	1289.54	25.99	1289.72	1.40	-1.25	-0.63
48	4879	90.70	3.00	4032.13	1303.51	26.74	1303.72	1.60	-1.43	-0.71
49	4909	90.20	3.00	4031.89	1333.47	28.31	1333.71	1.67	-1.67	0.00
50	4940	91.30	3.20	4031.49	1364.42	29.99	1364.70	3.61	3.55	0.65
51	4971	91.40	3.30	4030.75	1395.37	31.74	1395.68	0.46	0.32	0.32
52	5002	90.80	2.50	4030.16	1426.32	33.31	1426.67	3.23	-1.94	-2.58
53	5032	90.10	2.10	4029.92	1456.29	34.51	1456.67	2.69	-2.33	-1.33
54	5063	89.70	1.60	4029.98	1487.28	35.51	1487.66	2.07	-1.29	-1.61
55	5093	89.20	1.30	4030.27	1517.27	36.27	1517.66	1.94	-1.67	-1.00
56	5124	89.30	1.10	4030.67	1548.26	36.92	1548.66	0.72	0.32	-0.65
57	5154	88.90	1.10	4031.14	1578.25	37.50	1578.65	1.33	-1.33	0.00
58	5185	88.40	0.50	4031.87	1609.24	37.93	1609.64	2.52	-1.61	-1.94
59	5216	87.40	0.70	4033.01	1640.21	38.26	1640.61	3.29	-3.23	0.65
60	5246	87.40	1.30	4034.37	1670.18	38.78	1670.58	2.00	0.00	2.00
61	5276	88.70	2.70	4035.39	1700.14	39.83	1700.56	6.37	4.33	4.67
62	5307	89.70	3.30	4035.82	1731.09	41.45	1731.55	3.76	3.23	1.94
63	5337	89.10	3.30	4036.14	1761.04	43.17	1761.54	2.00	-2.00	0.00
64	5368	88.80	3.40	4036.71	1791.98	44.99	1792.52	1.02	-0.97	0.32
65	5399	89.20	3.50	4037.25	1822.92	46.85	1823.50	1.33	1.29	0.32
66	5430	90.00	3.30	4037.46	1853.87	48.69	1854.49	2.66	2.58	-0.65
67	5460	90.70	3.60	4037.28	1883.81	50.49	1884.47	2.54	2.33	1.00
68	5491	90.80	3.70	4036.87	1914.75	52.47	1915.45	0.46	0.32	0.32
69	5521	90.70	3.50	4036.48	1944.69	54.35	1945.44	0.75	-0.33	-0.67
70	5551	89.90	3.30	4036.33	1974.63	56.13	1975.42	2.75	-2.67	-0.67
71	5582	89.50	2.80	4036.49	2005.59	57.78	2006.42	2.07	-1.29	-1.61
72	5612	91.00	2.80	4036.36	2035.55	59.25	2036.41	5.00	5.00	0.00
73	5642	91.70	3.10	4035.65	2065.50	60.79	2066.39	2.54	2.33	1.00
74	5673	92.60	3.30	4034.49	2096.43	62.52	2097.36	2.97	2.90	0.65



Well Name 12-22-8-H3
Operator Sam Gary and Associates
Rig HWD 3
Location WaKeeney, Trego Co., Kansas
 Minimum Curvature Calculation

MWDs George Hunt / Mike Evans
DIRECTIONAL DRILLERS: Clark Summers / Garret Man
Magnetic Declination: 6.7
Job #: DR1308-110
Vertical Section Azimuth 1.77

No.	Survey Depth	INC	AZM	TVD	N-S	E-W	Vertical Section	DLS/ 100	BUR	WR
75	5701	92.60	2.40	4033.22	2124.37	63.91	2125.33	3.21	0.00	-3.21
76	5731	91.30	1.00	4032.20	2154.34	64.80	2155.31	6.37	-4.33	-4.67
77	5772	89.70	0.60	4031.84	2195.33	65.37	2196.30	4.02	-3.90	-0.98
78	5814	89.50	0.50	4032.13	2237.33	65.77	2238.29	0.53	-0.48	-0.24
79	5856	89.60	1.10	4032.46	2279.32	66.36	2280.28	1.45	0.24	1.43
80	5897	90.40	2.50	4032.46	2320.30	67.65	2321.28	3.93	1.95	3.41
81	5939	91.30	3.40	4031.84	2362.24	69.81	2363.27	3.03	2.14	2.14
84	5981	90.80	3.40	4031.07	2404.16	72.30	2405.24	1.19	-1.19	0.00
85	6022	90.10	3.50	4030.75	2445.08	74.77	2446.22	1.72	-1.71	0.24
86	6064	91.40	4.60	4030.20	2486.97	77.73	2488.19	4.05	3.10	2.62
87	6106	89.70	4.00	4029.79	2528.85	80.88	2530.14	4.29	-4.05	-1.43
88	6147	88.40	3.30	4030.47	2569.76	83.49	2571.11	3.60	-3.17	-1.71
89	6189	90.70	4.20	4030.80	2611.66	86.24	2613.08	5.88	5.48	2.14
90	6231	88.90	3.30	4030.95	2653.57	88.98	2655.05	4.79	-4.29	-2.14
91	6272	89.00	3.20	4031.70	2694.50	91.31	2696.03	0.34	0.24	-0.24
92	6314	87.60	2.10	4032.95	2736.43	93.25	2738.01	4.24	-3.33	-2.62
93	6356	87.60	2.60	4034.71	2778.36	94.97	2779.97	1.19	0.00	1.19
94	6397	87.20	1.50	4036.57	2819.29	96.44	2820.93	2.85	-0.98	-2.68

Sam Gary & Associates

Location Kansas Installation Trego County
Field Sec 8 - 12S - 22W Well 12-22-8 H3

Installation Data

Name	Latitude	Longitude	Northing	Easting
Trego County	N39 1 48.50	W99 46 42.54	258738.00	1494795.00

Coordinate System Kansas State Planes, Northern Zone

Slot Data

Name	North [ft]	East [ft]	Latitude	Longitude	Northing	Easting
12-22-8 H3	-2440.09 N	-2050.08 E	N39 1 23.99	W99 47 7.90	256298.00	1492745.00

Elevation Data

Slot - Mean Sea Level [ft]	Mean Sea Level - Mudline/Ground level [ft]	Slot - Mudline/Ground level [ft]
0.00	0.00	0.00

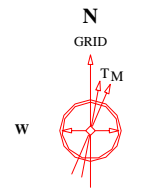
WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
KOP	5814.00	89.50	0.50	4032.13	2237.33	65.77	0.00	2238.29
End of Build/Turn	5902.90	89.50	1.39	4032.90	2326.21	67.24	1.00	2327.17
End of Hold	6104.73	89.50	1.39	4034.66	2527.97	72.13	0.00	2528.99
Target	6201.80	90.34	1.88	4034.79	2625.00	74.90	1.00	2626.06
T.D. & Target 12-22-8-H	9068.04	90.35	1.89	4017.50	5489.63	169.30	0.00	5492.24

TARGET DATA

MD	Inc	Azi	TVD	North	East	Name	Position
-	-	-	1.00	4813.18	445.02	Rinker-Babb #1	1493190.00 East : 261111.00 North
-	-	-	1.00	492.02	680.03	Babb #1	1493425.00 East : 256790.00 North
9068.04	90.35	1.89	4017.50	5489.63	169.30	12-22-8-H3 - BHL	1492914.29 East : 261787.43 North

Created by admin
Date plotted 30-Aug-2013
Plot reference is 12-22-8 H3 (Plan 4) Revision.
Ref wellpath is 12-22-8 H3 (PWP#1).
Coordinates are in feet reference 12-22-8 H3.
True Vertical Depths are reference 12-22-8 H3.
Measured Depths are reference Slot.
Plot North is aligned to GRID North.

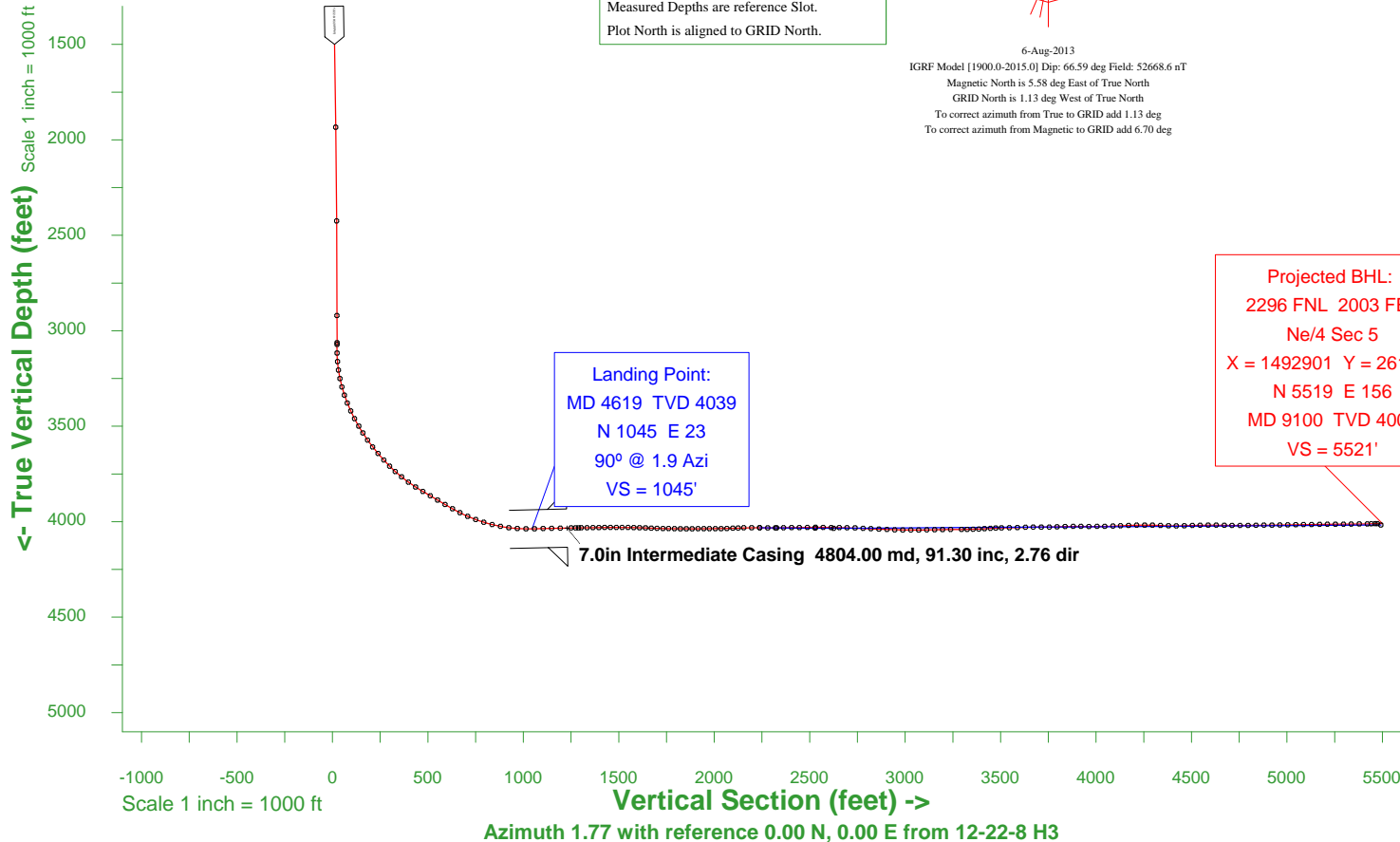


6-Aug-2013
IGRF Model [1900.0-2015.0] Dip: 66.59 deg Field: 52668.6 nT
Magnetic North is 5.58 deg East of True North
GRID North is 1.13 deg West of True North
To correct azimuth from True to GRID add 1.13 deg
To correct azimuth from Magnetic to GRID add 6.70 deg



9630 Pole Rd.
Oklahoma City, OK 73160
Tel: (405) 604-2969

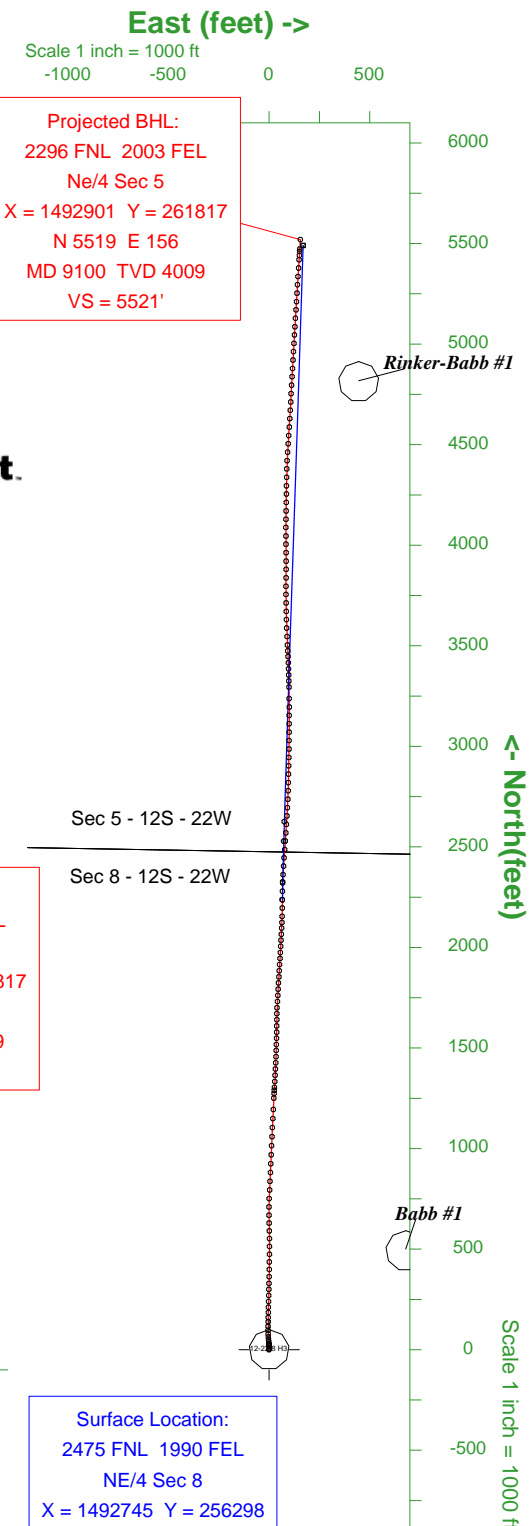
Plan Revision: 8-14-13
Landing Point: TVD 4039'



Landing Point:
MD 4619 TVD 4039
N 1045 E 23
90° @ 1.9 Azi
VS = 1045'

Projected BHL:
2296 FNL 2003 FEL
Ne/4 Sec 5
X = 1492901 Y = 261817
N 5519 E 156
MD 9100 TVD 4009
VS = 5521'

Surface Location:
2475 FNL 1990 FEL
NE/4 Sec 8
X = 1492745 Y = 256298



Projected BHL:
2296 FNL 2003 FEL
Ne/4 Sec 5
X = 1492901 Y = 261817
N 5519 E 156
MD 9100 TVD 4009
VS = 5521'

Rinker-Babb #1

Babb #1



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

Well Name: 12-22-8-H3
 Location: Sec. 8-T12S-R22W, Trego County, Kansas
 License Number: 15-195-22882-01-00
 Spud Date: AUG. 8-2013
 Surface Coordinates: 2475' FNL & 1990' FEL Sec 8
 Region: WILDCAT
 Drilling Completed: AUG 28-2013

Bottom Hole 400' FNL & 1990' FEL Sec. 5
 Coordinates:
 Ground Elevation (ft): 2389' K.B. Elevation (ft): 2401'
 Logged Interval (ft): 400' To: 4850 Total Depth (ft): 9100
 Formation: Marmaton Chert
 Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Samuel Gary Jr. & Assoc.
 Address: 1515 Wynkoop, Ste. # 700
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 Geo: Dan Pritchard/ Chris Mitchell

GEOLOGIST

Name: Tom Flowers, Schuyler Hedrick
 Company: Earth Tech OGL, Inc.
 Address: PO Box 683
 Hooker, Okla . 73945
 Off. 888-543-8378 Cell: (580) 821-1097

ROCK TYPES

Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal
 Congl
 Dol

Gyp
 Igne
 Lmst
 Meta
 Mrlst
 Salt
 Shale
 Shcol

Shgy
 Sltst
 Ss
 Till
 Carb sh
 Dol
 Dtd
 Gry sh

Sandylms
 Shale
 Sltstn
 Shlyslts
 Sltys
 Lms

ACCESSORIES

FOSSIL
 Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral
 Crin
 Echin
 Fish
 Foram
 Fossil
 Gastro
 Oolite
 Ostra
 Pelec
 Pellet
 Pisolite
 Plant
 Strom
 Fuss
 Oomold

MINERAL
 Anhy
 Arggrn
 Arg
 Bent
 Bit
 Brecfrag
 Calc
 Carb
 Chtdk
 Chtlt
 Dol
 Feldspar
 Ferrpel
 Ferr
 Glau
 Gyp
 Hvymin
 Kaol
 Marl
 Minxl
 Nodule
 Phos
 Pyr

Salt
 Sandy
 Silt
 Sil
 Sulphur
 Tuff
 Chlorite
 Dol
 Sand
 Silty

Dol
 Grysh
 Gryslt
 Lms
 Sandylms
 Sh
 Sltstn

STRINGER

Anhy
 Arg
 Bent
 Coal
 Dol
 Gyp
 Ls
 Mrst
 Sltstrg
 Ssstrg
 Carbsh
 Clystn

TEXTURE

Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

OTHER SYMBOLS

INTERVALS
 Core
 Dst
 Dst

EVENTS
 Rft
 Sidewall

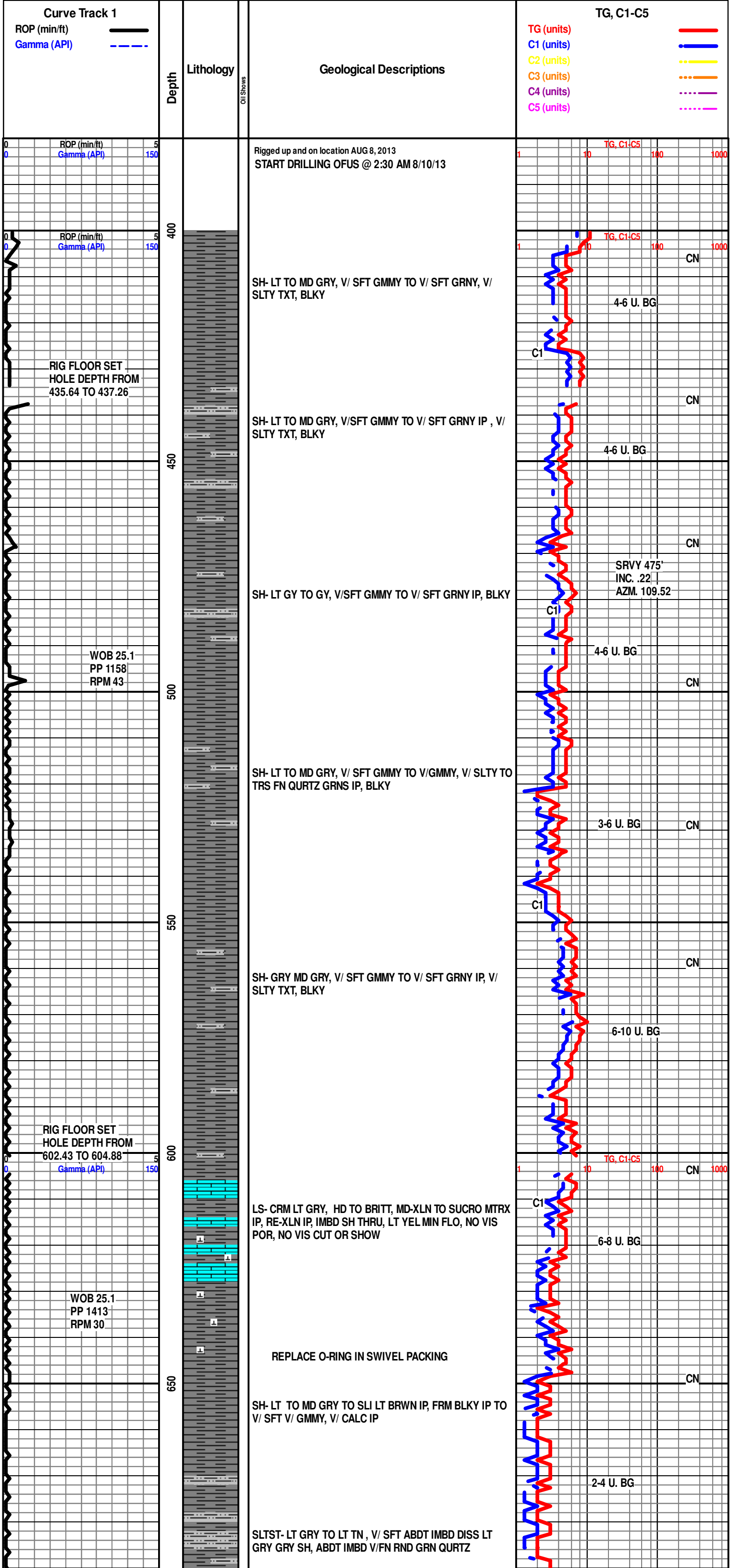
POROSITY TYPE
 Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic
 Pinpoint
 Vuggy

SORTING
 Well
 Moderate
 Poor

ROUNDING
 Rounded
 Subrnd
 Subang

Angular

OIL SHOWS
 Even
 Spotted
 Ques
 Dead
 Gas show



ROP (min/ft)
Gamma (API)

ROP (min/ft)
Gamma (API)

RIG FLOOR SET
HOLE DEPTH FROM
435.64 TO 437.26

WOB 25.1
PP 1158
RPM 43

RIG FLOOR SET
HOLE DEPTH FROM
602.43 TO 604.88

WOB 25.1
PP 1413
RPM 30

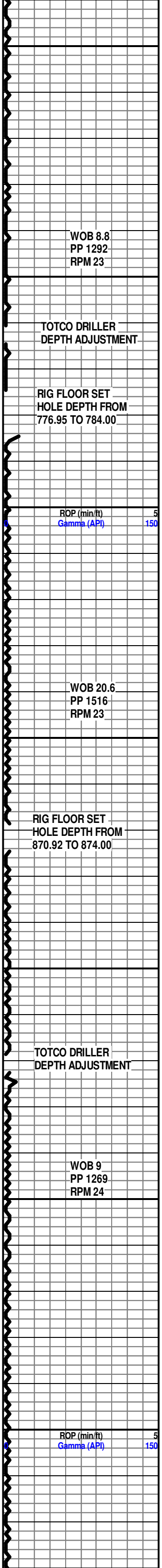
TG, C1-C5

TG, C1-C5

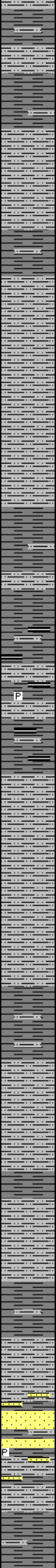
SRVY 475'
INC. 22'
AZM. 109.52

TG, C1-C5

TG, C1-C5



700
750
800
850
900
950
1000



SLTST- LT GRY TO LT TN , V/ SFT ABTD IMBD DISS AND LMND SH, ABTD IMBD V/V/FN RND GRN QURTZ

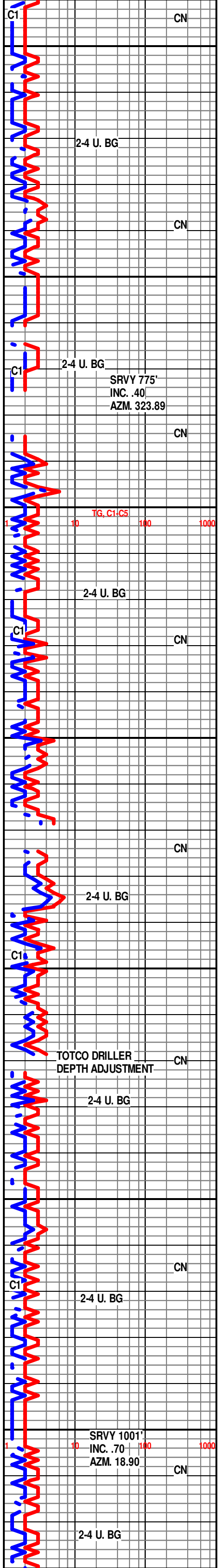
SLTST- LT GRY TO LT TN CLR , V/ SFT ABTD IMBD DISS AND LMND MD GRY TO GRY SH, ABTD IMBD V/V/FN RND GRN QURTZ

SLTST- CRM TO LT TN, V/ SFT ABTD IMBD DISS AND LMND GRY SH, ABTD IMBD V/FN RND TO SUB- ANG GRN QURTZ, HVY TRS BLK CARB SH W/ IMBD PYR IP

SLTST- CRM TO LT GRY, PRED SMLL CLSTRS, ABTD UNCONSOLIDATED GRNS, V/ SFT ABTD IMBD DISS AND LMND GRY LT GRY SH, ABTD IMBD V/V/ FN-GRN QURTZ

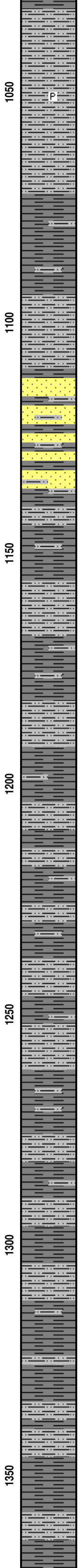
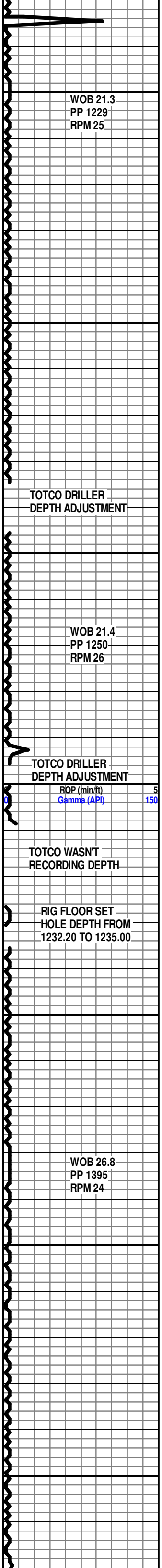
SLTST- LT GRY TO SLI MD GRY, V/ SFT V/V/BRITT TO SLI GMMY, ABTD V/FN-GRN QURTZ, ABTD IMBD DISS GRY SH

SS- CRM LT GRY TO LT TN IP, V/ FRI IP, V/ CALC TO SLI LMY IP, ABTD IMBD DISS AND LMND GRY SH THRU, V/F-GRN QURTZ, SUB-ANG TO SUB-RND, PR SRT, TRS IMBD PYR IP, NO VIS FLO, NO VIS POR, NO VIS SHOW OR CUT



C1
C1
C1
C1
C1
C1
C1
C1
C1
C1

CN
2-4 U. BG
CN
2-4 U. BG
SRVY 775'
INC. .40
AZM. 323.89
CN
TG, C1-C5
10 100 1000
2-4 U. BG
CN
2-4 U. BG
CN
2-4 U. BG
CN
TOTCO DRILLER
DEPTH ADJUSTMENT
CN
2-4 U. BG
CN
2-4 U. BG
CN
SRVY 1001'
INC. .70
AZM. 18.90
CN
2-4 U. BG



SLTST- LT GRY TO GRY, V/ SFT TO TRS GMMY, ABDT V/
FN-GRN QRTZ, ABDT IMBD DISS SH AND LMND GRY LT
GRY SH THRU, TRS IMBD PYR IP

SS- FRSTY WHT TO OFF WHT CLR, HD TO V/V/ FRI,
PRED UNCONSOLIDATED GRNS, ABDT FREE GRNS,
FN-MD QRTZ GRNS, ABDT SUB-ANG TO SUB-RND TO
RND, PR SRT TO SLI WLL SRT, IMBD SH GY LT GY THRU
IP, NO VIS FLO, NO VIS POR, NO VIS SHOW OR CUT

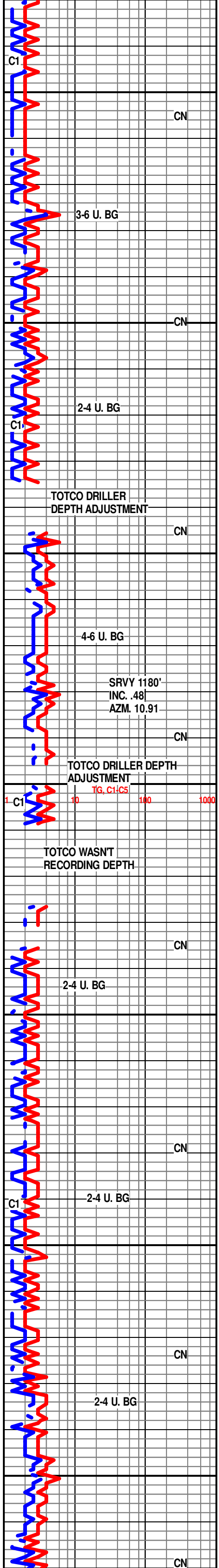
SH- GRY, SLI FRM TO SFT BRITT IP, SLI SLTY TXT,
SPLNTY

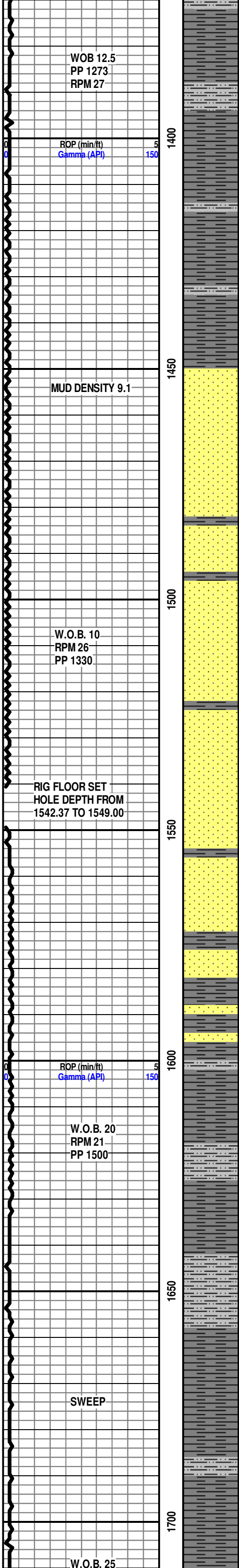
SH & SLST- GRY TO DK GRY SLI RED IP, FRM TO V/ SFT,
SPLNTY, SCAT IMBD V/VFN- QRTZ GRNS IN TRAY

SH & SLST- GY TO DK GY RD, FRM TO V SFT, SPLNTY,
SCAT IMB V/VF- GRN QRTZ

SH-GY TO DK GY LT RD TO RD, FRM IP TO V SFT GMMY
THRU, SMTH TXT

SH-GY TO DK GY RD TO DK RD, FRM IP TO V SFT GMMY
THRU, SMTH TXT





SH- GY TO DK GY RD IP, FRM TO V SFT, SPLNTY

SH-OFF WHT, LT GY TO GY, FRM TO SFT, BLCK SLTY TXT

SS- CLR TO FRST WHT, F/VF SM PRED UNCONSILDATED QRTZ GRNS, V PR SRT, S-RND TO RND, V SLI TR INTER-BD GY TO GRN SH IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

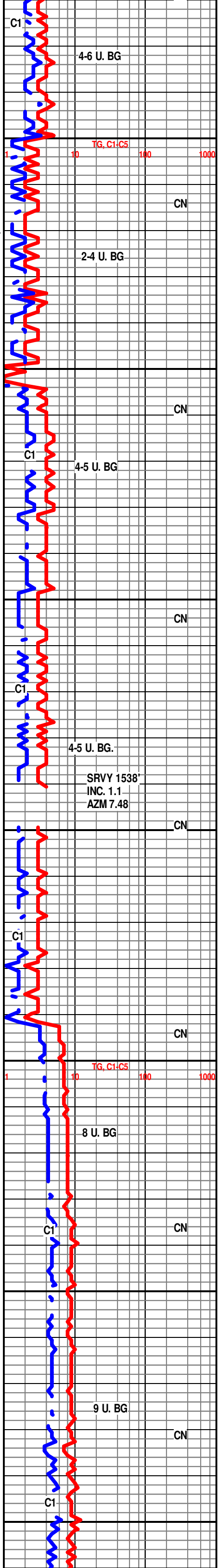
SS- CLR TO FRSTY, HD TO V FRI, F/VF PRED UNCONSOLIDATED QRTZ GRNS THRU, SM S-RND CLR QRTZ GRNS, V PR SRT TO SLI TR WELL SRT, SCAT INTERBED SH'S, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

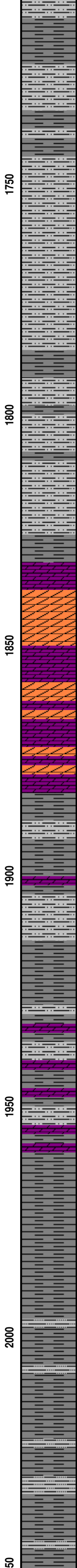
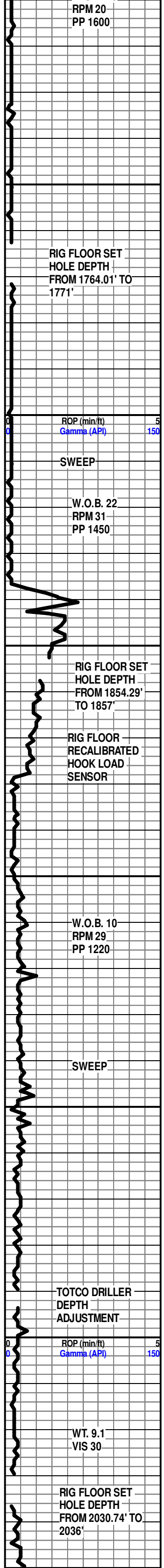
SS- CLR TO FRSTY WHT IP, HD TO V FRI, F/VF PRED UNCONSOLIDATED QRTZ GRNS THRU, SM TO MD S-RND TO RND CLR QRTZ GRNS, PR SRT TO TR FR SRT, SCAT INTERBED SH'S, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SS- RD TO DK RD, V GMMY THRU, ABDT PRED UNCONSOLIDATED CLR QRTZ GRNS THRU

SS- RD TO DK RD, V GMMY THRU, ABDT PRED UNCONSOLIDATED CLR QRTZ GRNS THRU

SS- RD TO DK RD, SFT TO GMMY THRU, BLKY SLTY TXT, SCAT PRED UNCONSOLIDATED CLR QRTZ GRNS THRU





SLTSTN- RD TO DK RD, FRM TO SFT GMMY IP, BLCK V SLTY TXT, IMB SM RND QRTZ GRNS, SCAT PRED UNCONSOLIDATED QRTZ GRNS THRU

SLTSTN- RD TO DK RD, FRM TO SFT, BLCKY V SLTY TXT, ABDT PRED UNCONSOLIDATED QRTZ GRNS THRU

STONE CORRAL 1837' 561'

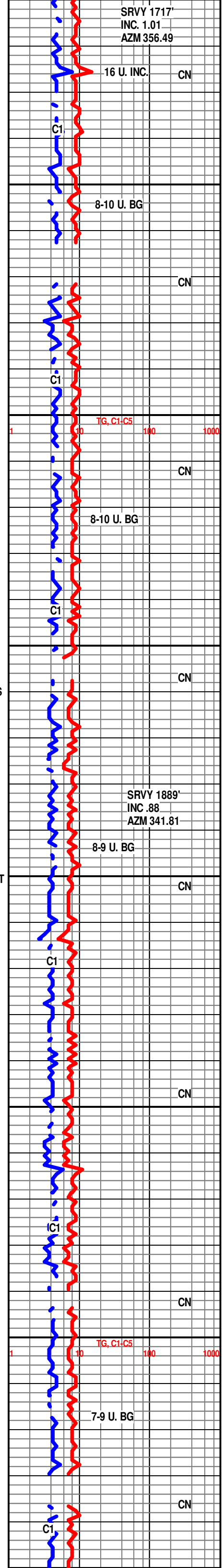
DOLO- WHT TO OFF WHT IP, V HD, V TT SUCRO MTRX, RE-XLN, ABDT IMB SM RND TO ANG DOLO GRNS THRU, ABDT IMB ANHY THRU, V DUL YEL SPTTD FLO IP, NO VIS POR, NO VIS CUT OR SHOW

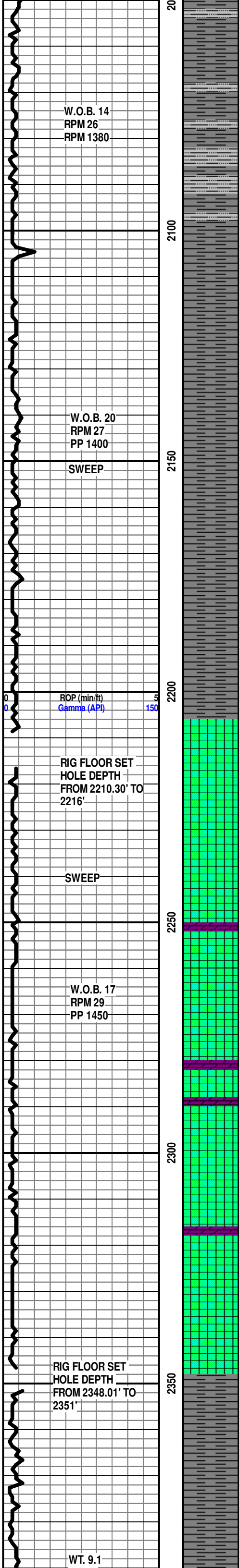
SH- GY TO DK GY RD, FRM TO V SFT, SPLNTY, HVY TO LT TR V SLTY TXT THRU

SH- GY TO DK GY, FRM TO V SFT GMMY IP, BLCKY SLTY TXT, INTERBED WHT DOLO THRU

SH- RD TO DK RD GY, FRM TO V SFT, BLCKY SLTY TXT

SH- RD TO DK RD GY TO LT TR GRN, V SFT TO GMMY IP, BLCKY SLTY TXT





BLCKY SLTY TXT

SH- RD TO DK RD, SFT TO LT TR GMMY IP, BLKY V SLTY TXT

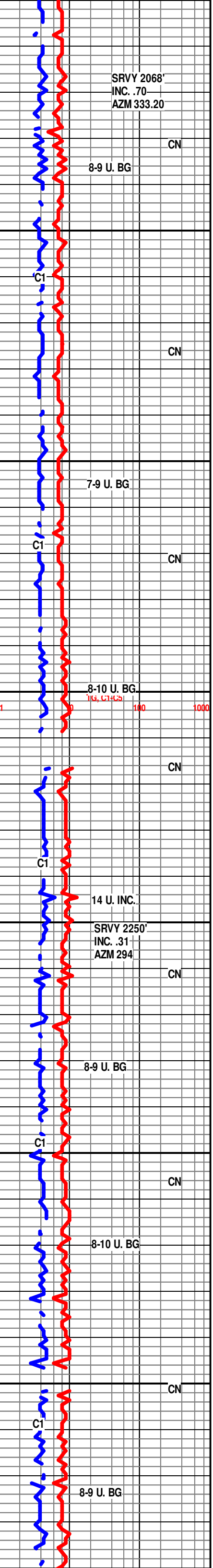
SH- GY TO DK GY LT TR RD, FRM TO V SFT, BLCKY SMTH TXT, LT TR SLTY IP

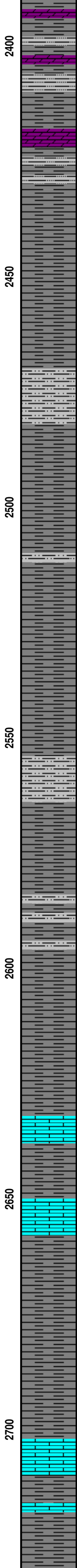
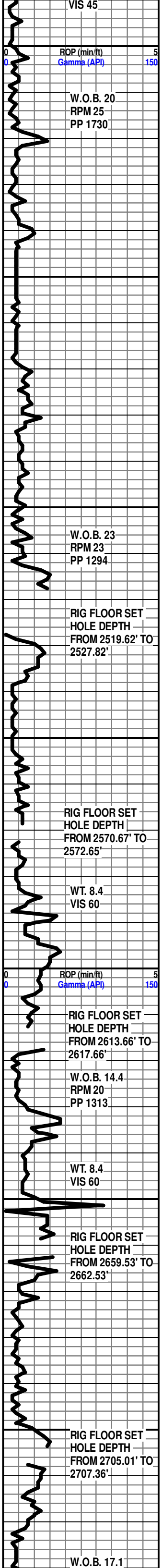
SH- GY TO DK GY LT TR RD IP, FRM TO V SFT, BLCKY SMTH TXT

HUTCHINSON SALT 2206' 192'

BASE HUTCHINSON 2347' 51'

SH- GY TO DK GY RD, FRM TO V SFT GMMY IP, BLCKY SMTH TXT, LT TR SLTY IP





SH- RD TO DK RD GY IP, FRM TO V SFT GMMY IP, BLCKY SLTY TXT, HVY TR SCAT PRED UNCONSOLIDATED QRTZ GRNS, INTERBED WHT DOLO THRU

JET PITS/ DISPLACE MUD @ 2434'

SH- LT RD TO RD GY LT TN MOTT, FRM TO SFT, V SLTY TXT THRU

CHASE 2484'-86'

SH- LT TN TO GY RD MOTT, FRM SFT TO V GMMY, SMTH TX V SLTY IP

RIG FLOOR SET HOLE DEPTH FROM 2519.62' TO 2527.82'

SH- RD TO DK RD LT TN MOTT, SFT TO V GMMY THRU, V SLTY TXT

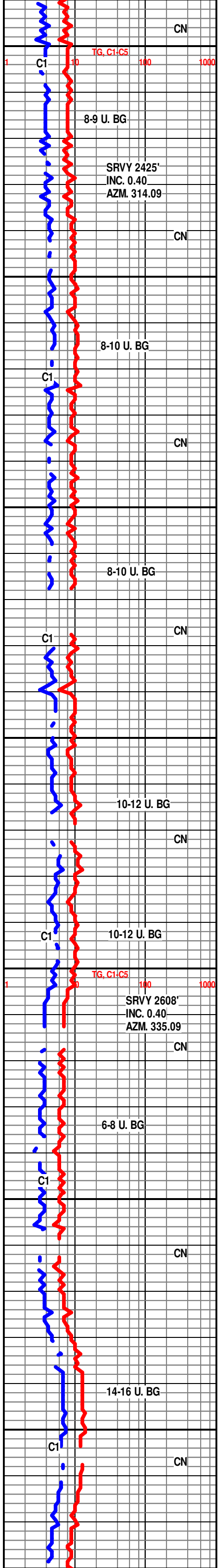
RIG FLOOR SET HOLE DEPTH FROM 2570.67' TO 2572.65'

SH- LT RD TO TN, SFT TO V GMMY THRU, SLTY TXT IP

SH- RD TO DK RD LT GY IP, SFT TO V GMMY THRU

LS- CRM TO WHT LT GY, HD DNS TO BRTT IP, VF-XLN MTRX, RE-XLN IP, V SLI TR IMB CALC-XLS IP, V SLI TR V DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LS-OFF WHT TO WHT CRM TO LT GY, HD DNS TO BRTT IP, F/VF-XLN MTRX, RE-XLN IP, SLI TR IMB CALC-XLS IP, SLI TR V DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW



CN

8-9 U. BG

SRVY 2425'
INC. 0.40
AZM. 314.09

CN

8-10 U. BG

C1

CN

8-10 U. BG

C1

CN

10-12 U. BG

CN

10-12 U. BG

C1

TG, C1-C5

SRVY 2608'
INC. 0.40
AZM. 335.09

CN

6-8 U. BG

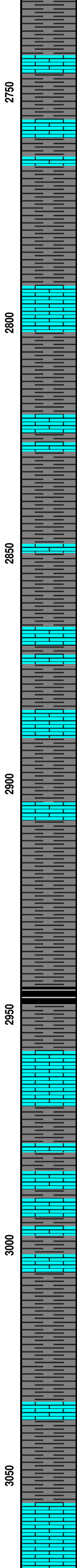
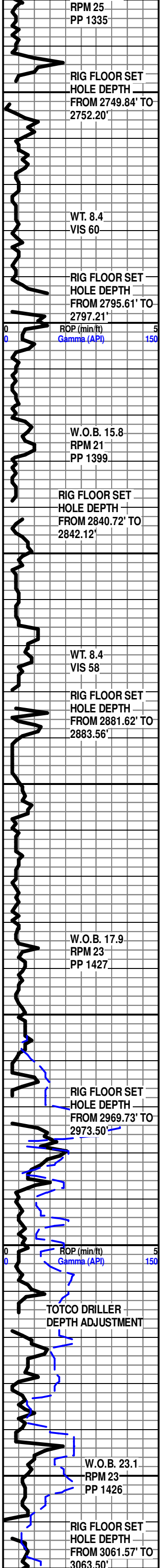
C1

CN

14-16 U. BG

C1

CN



LS-WHT TO OFF WHT CRM LT GY, HD DNS TO BRITT IP, VF-XLN MTRX, SLI TR IMB CALC-XLS IP, SLI TRS V DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

LS-OFF WHT CRM TO LT GY, HD DNS TO BRTT IP, VF-XLN MTRX, RE-XLN IP, SLI TR IMB CALC-XLS IP, TR V DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO GY, FRM TO V SFT GMMY IP, BLCKY SMTH TXT

LS-OFF WHT CRM TO LT GY, HD DNS TO BRTT IP, FN-XLN MTRX, RE-XLN IP, TR IMB CALC-XLS IP, TR V DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO GY OCC DRK GY, FRM TO SFT GMMY IP, BLCKY SMTH TXT, SLI LMY IP

NEVA 2935'-537'

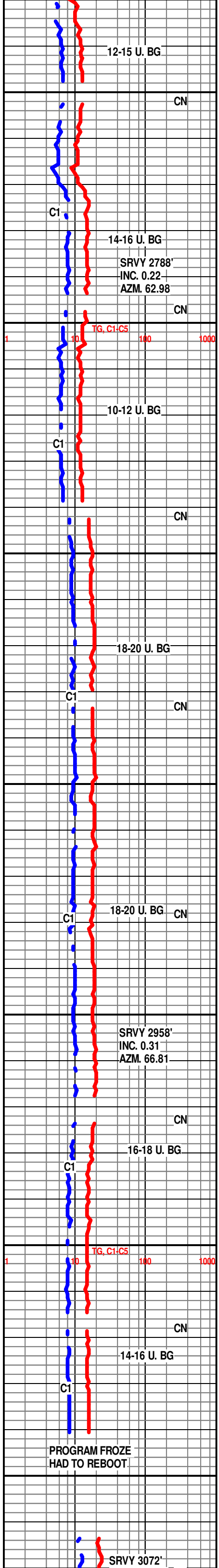
SH- BLCK SFT CARB

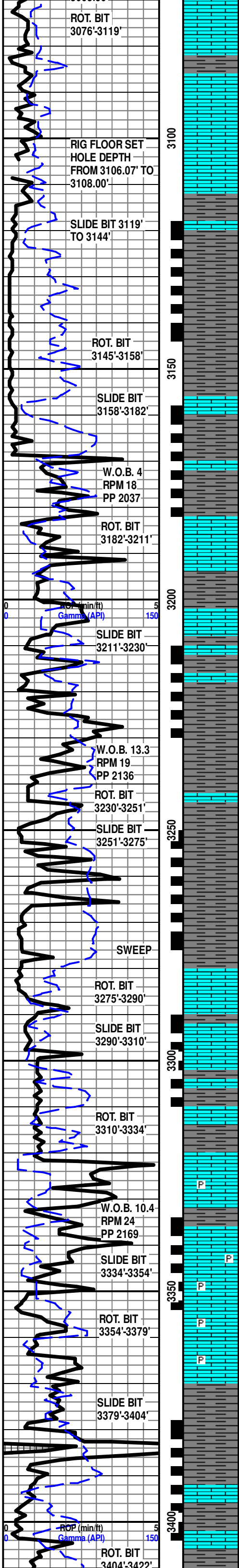
LS- WHT TO OFF WHT CRM TO LT GY, HD DNS TO BRTT, MD-XLN, SLI TR RE-XLN IP, S-SCURO, SCAT IMBD CALC-XLS IP, TR V DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LS-WHT TO OFF WHT CRM TO LT TN, HD DNS TO BRTT IP, MD/F-XLN, SUCRO MTRX, SCAT IMBD CALC-XLS IP, V DUL YEL FLO 20% , NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO GY, V SFT TO V GMMY THRU, BLCKY

LS- WHT CRM TO LT TN, HD DNS TO BRTT IP, MD/F-XLN, SUCRO MTRX, SCAT IMBD CALC-XLS IP, V DUL YEL FLO





IP, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT TO WHT CRM TO LT TN, HD DNS TO BRTT IP, MD/F-XLN, SUCRO MTRX, SCAT IMBD CALC-XLS IP, V DUL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

CFS @ 3115'/ T.O.H. @ 6:45 A.M. AUG 11, 2013

B.O.B. W/ MWD TOOL @ 3121' @ 9:42 P.M. AUG 11, 2013

SH- GY TO DRK GY, FRM BLKY, TRS IMBD LS IP

SH-LT GY TO GY DRK GY FRM BLKY IP SMTH TXT TO SFT GMMY IP

LS- OFF WHT TO CRM LT GY, HD DNS TO BRTT IP, SUCRO MTRX, SCAT IMBD CALC-XLS IP, TRS IMBD SH, DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- WHT TO OFF WHT CRM TO LT GY, HD DNS TO BRTT IP, SUCRO MTRX, SLI TRS CHLK, TRS SCAT IMBD CALC-XLS IP, TRS IMBD SH, DUL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

SH-LT GY TO GY DRK GY FRM BLKY IP SMTH TXT TO SFT GMMY IP

RIG FLOOR SET HOLE DEPTH FROM 3249.85' TO 3251.36'

SH-LT GY TO GY FRM BLKY IP SMTH TXT TO SFT GMMY IP

ELMONT MD 3279'/ TVD 3277.07'

LS- OFF WHT TO CRM LT TN, HD DNS TO BRTT, MD/F-XLN, SUCRO, S-CHLKY, SLI TRS SCAT SFT WHT CHLK, V DUL YEL MIN FLO IP, NO VIS POR, NO VIS CUT OR SHOW

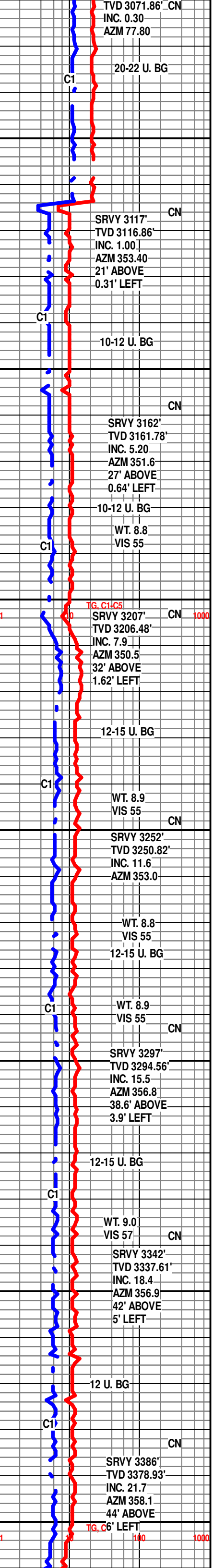
SH- GY TO DK GY, FRM TO V SFT, SPLNTY SLTY TXT IP, SCAT PYR IN TRAY

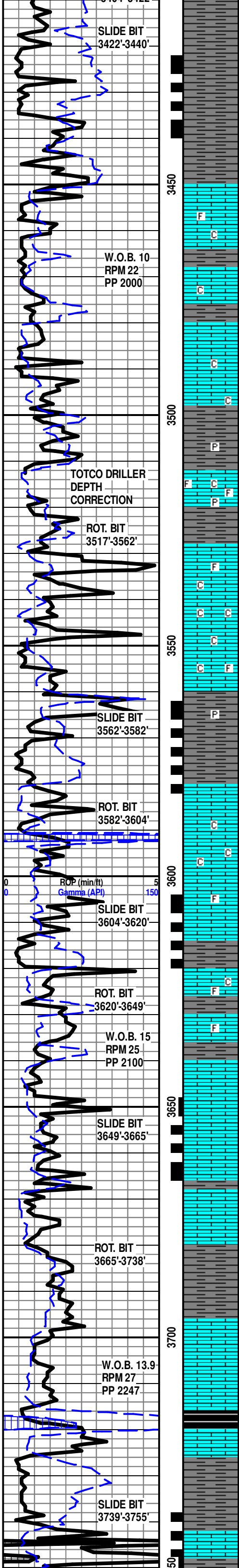
LS- WHT TO OFF WHT CRM IP, HD DNS TO BRTT IP, MD/F-XLN MTRX, RE-XLN IP, S-CHLKY, ABDT FREE CALC-XLS THRU, LT TR PYR, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO CRM LT TN IP, HD DNS TO BRTT IP, F/VF-XLN, S-CHLKY, HVY TR FREE FOSSIL IN TRAY, LT TR PYR IN TRAY, V SLI TR IMB SM CALC-XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO GY, V FRM SFT IP, BLCKY SMTH TXT

LS- OFF WHT TO CRM BFF, HD DNS TO BRTT IP, F-XLN MTRX, S-CHLKY IP, SLI TR IMB SM FOSS FRAGS IP, V DUL YEL FLO IP, NO VIS POR, NO VIS SHOW





SH- GY TO DK GY, FRM TO SFT, BLCKY SMTH TXT, LT TR PYR IN TRAY

TOPEKA MD 3451' / TVD 3438'-1040'

LS- CRM TO LT TN, HD DNS TO BRTT IP, MD/F-XLN MTRX, RE-XLN IP, S-CHLKY, LT TR SFT WHT CHLK IN TRAY, V SLI TR IMB SM FOSS FRAGS IP, V DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO LT TN TN IP, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, S-CHLKY, TR SCAT SFT WHT CHLK IN TRAY, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

SH- GY TO DK GY TR GRN IP, FRM TO SFT, BLCKY SMTH TXT

LS- OFF WHT TO CRM BFF TO LT TN IP, HD DNS TO BRTT IP, MD/F-XLN MTRX, S-CHLKY THRU, SCAT IMB SM FOSS FRAGS, LT TR PYR IN TRAY, DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

LS- WHT TO OFF WHT CRM, HD DNS TO BRTT, F/VF-XLN, V S-CHLKY THRU, ABDT WHT SFT CHLK THRU TRAY, SLI TR IMB SM FOSS FRAGS IP, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

@ 3563' RIG MADE DEPTH CORRECTION FROM 3563' TO 3517' DUE TO MIS-CALCULATED DRILL COLLAR THAT WAS NOT IN THE HOLE

LECOMPTON MD 3580' TVD 3549.86-1152'

RIG FLOOR RECALIBRATED HOOK LOAD SENSOR
RIG FLOOR SET HOLE DEPTH FROM 3602.41' TO 3604.18'

LS- CRM TO LT TN, HD DNS TO BRTT, MD/F-XLN MTRX, S-CHLKY, HVY TR SCAT SFT WHT CHLK THRU TRAY, LT TR FREE FOSSIL IN TRAY, DUL YEL MIN FLO IN 20-30%, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO LT TN, HD DNS TO BRTT, F/VF-XLN MTRX, S-CHLKY, IMB SM CALC-XLS IP, LT TR LG FREE FOSSIL IN TRAY, V DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

RIG FLOOR SET HOLE DEPTH FROM 3648.50'-3649.06'

LS- OFF WHT TO CRM LT TN IP, HD DNS TO BRTT, MD/F-XLN MTRX, RE-XLN IP, TR S-CHLKY IP, LT TR SCAT IMB SM CALC-XLS, V DUL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

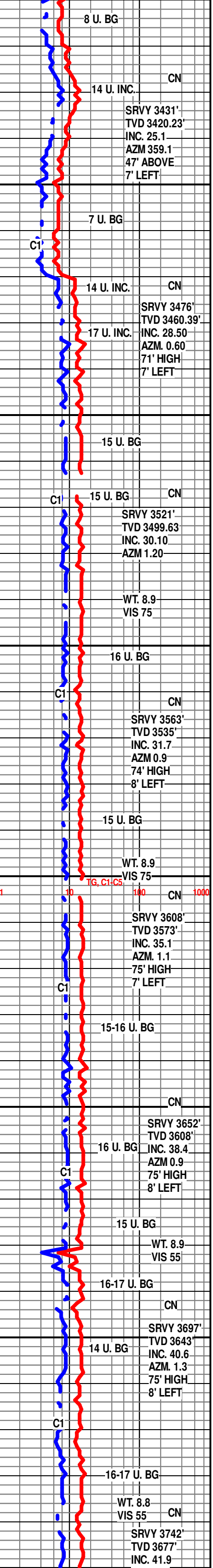
SH- GY TO DK GY, FRM TO SFT, SPLNTY SMTH TXT
RIG FLOOR RECALIBRATED HOOK LOAD SENSOR

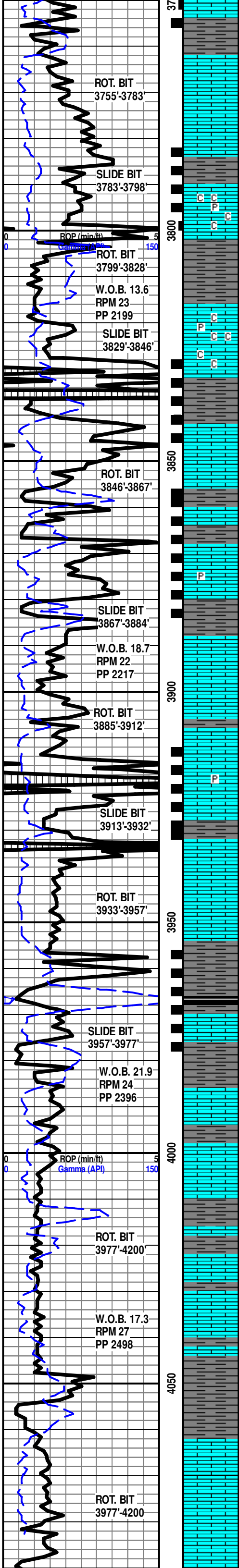
LS- CRM OFF WHT TO LT TN, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, S-SUCRO IP, IMBD SM CALC-XLS IP, SLI TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

HEEBNER MD 3715'-1314' TVD 3656'-1258'

SH- BLCK SFT CARB, W/ GY TO DK GY, SLI TR FRM TO SFT, BLCKY SMTH TXT

LS-CRM BFF LT GY TO LT TN, HRD DNS TO TR BRTT IP, F/VF-XLN MTRX, S-SUCRO IP, LT TRS CHRT CLR TO WHT IN TRAY, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT





OR SHOW

LANSING MD 3763'-1362'
TVD 3692'-1291'

LS- WHT TO OFF WHT CRM, HD DNS TO TR BRTT, VF-XLN, S-CHLKY, ABDT SFT WHT CHLK THRU TRAY, V SLI TR IMBD CALC XLS, DUL YEL MIN FLO 40%, SLI TRS YEL MIN FLO IP, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT TO CRM LT TN IP, HD DNS TO BRTT, F/VF-XLN, V S-CHLKY THRU, ABDT IMB SFT WHT CHLK THRU, V SLI TR PYR IN TRAY, V DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LANSING "C" MD 3816'-1415'
TVD 3729'-1328'

MWD TOOL QUIT WORKING (DUE TO TOOL BEING PLUGGED W/ WALNUT HULLS @ 3:15 AM AUG 13, 2013 3835' MD)

T.O.H @ 3836' MD FOR MWD TOOL ON AUG 13, 2013 @ 5:15 AM
B.O.B. @ 3823' MD ON AUG 13, 2013 @ 6:36 P.M.

RIG FLOOR SET HOLE DEPTH FROM 3836.99' TO 3823.59'

ADJ FROM 3836' TO 3831' HOLE DEPTH
LANSING "F" MD 3856'-1455' TVD 3756'-1355'

LS- WHT TO OFF WHT CRM, HD DNS TO TR BRTT IP, MD/F-XLN, RE-XLN IP, S-CHLKY IP, HVY TR IMB SM CALC-XLS, LT TR IMB SM FOSS FRGS, DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

RIG FLOOR SET HOLE DEPTH FROM 3867.62' TO 3868.08'

LS- OFF WHT TO CRM, HD DNS TO BRTT IP, F/VF-XLN MTRX, RE-XLN IP, S-CHLKY, SCAT IMB SFT WHT CHLK, LT TR PYR IN TRAY, DUL YEL FLO IN 30%, SPTTD YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

RIG FLOOR RECALIBRATED HOOK LOAD SENSOR

LS- WHT TO OFF WHT CRM, HD DNS TO BRTT IP, VF-XLN MTRX, RE-XLN IP, S-CHLKY, SCAT IMBD SFT WHT CHLK THRU TRAY, SLI TR PYR IN TRAY, DUL YEL FLO IN 30%, SLI TRS BRIT YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO WHT, HD DNS TO BRTT IP, F/VF-XLN MTRX, RE-XLN IP, S-CHLKY, SCAT IMBD SFT WHT CHLK THRU TRAY, DUL YEL FLO IN 20%, SLI TRS BRIT YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

LANSING "H-SHALE" MD 3955'-1554'
TVD 3814'-1413'

SH- BLCK SFT CARB, SLI TR FRM TO SFT, SMTH TXT

SH- LT GY TO GY, V/ SFT TXT TO FRM IP

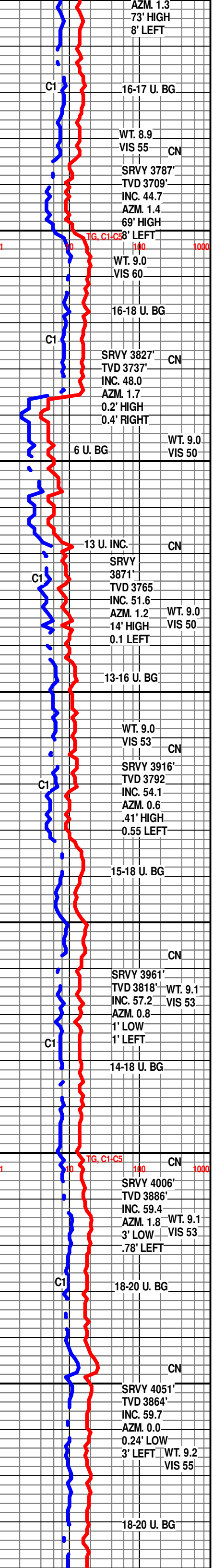
LS- OFF WHT TO WHT CRM, HD DNS TO BRTT IP, F/VF-XLN MTRX, RE-XLN IP, CHLKY, SCAT IMBD SFT WHT CHLK THRU TRAY, DUL YEL FLO IN 20%, SLI TRS BRIT YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

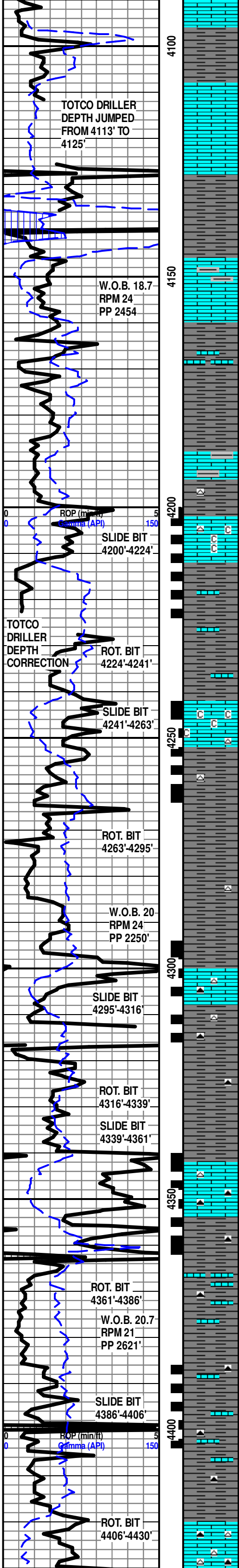
SH- LT GY TO GY, FRM BLKY, SMTH TXT, CALC IP

LS- WHT TO OFF WHT CRM (W/ LT TN OIL STN IN 10-20%), HD DNS, VF-XLN MTRX, S-CHLKY IP, V DUL YEL GLD FLO IN 10%, NO VIS POR, V PR FLSH CUT V NO VIS STRM CUT, NO LCH ON DSH, NO OIL ODOR

SH- LT GY TO GY, FRM BLKY, SMTH TXT, SLI LMY IP

LS-OFF WHT TO WHT CRM LT TN, HD DNS, V/FN-XLN MTRX, S-CHLKY IP, SCAT IMBD SFT WHT CHLK THRU TRAY, DUL YEL GLD FLO IN 20%, TRS BRIT YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW





LS- OFF WHT TO WHT CRM LT TN, HD DNS TO BRTT IP, F/VF-XLN MTRX, RE-XLN IP, CHLKY, SCAT IMBD SFT WHT CHLK THRU TRAY, DUL YEL FLO IN 20%, SLI TRS BRIT YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

RIG FLOOR SET HOLE DEPTH FROM 4146.76' TO 4137.62'

BASAL SHALE-LANSING
4147' -1746' MD/ TVD 3913' -1512'

LS- OFF WHT TO CRM LT TN, HD DNS TO BRTT, F/VF-XLN MTRX, S-CHLKY IP, SCAT PYR IN TRAY, LT TR INTERBED GY SH'S, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO RD GRN MOTT, V SFT TO GMMY IP, BLKCY

SH- RD TO DK RD, FRM IP TO V SFT, BLCKY, V LT TR WHT CHRT IN TRAY

LS- WHT TO OFF WHT CRM, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, V-S-CHLKY THRU, ABDT IMB WHT SFT CHLK, V LT TR WHT CHRT IP, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

SH- RD TO DK RD GRN IP, FRM TO V SFT TR GMMY IP, LT TR SCAT INTERBED LMS

LS- OFF WHT TO CRM BFF, HD DNS TO BRTT IP, VF/CRYTPO-XLN, S-CHLKY, SCAT IMB SFT WHT CHLK, V DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

@ 4254' STOPPED TO CHANGE SWIVEL @ 10:46 A.M. BACK TO DRILLING @ 4:33 P.M.

SH- RD TO DK RD GRN, V SFT, BLCKY, V SLI TR PYR IN TRAY, LT TR WHT CHRT

SH- RD TO DK RD, V SFT TO GMMY IP, BLCKY

LS- CRM TO LT TN, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, LT TR SCAT ORNG CHRT IN TRAY, V SLI TR IMB SM CALC-XLS IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

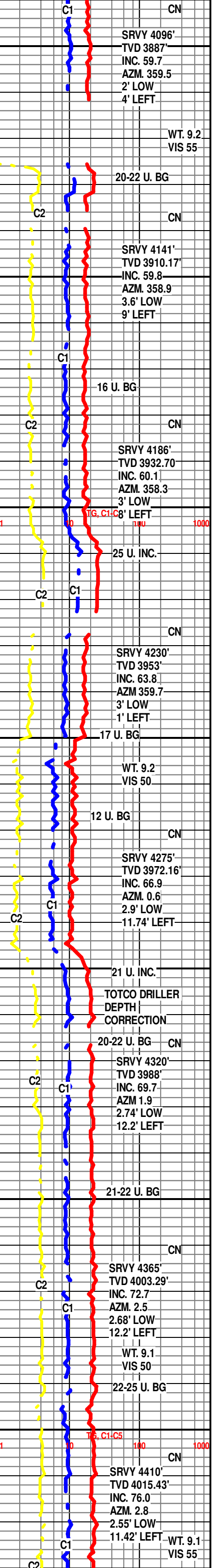
SH- RD TO DK RD PRP GRN, V SFT TO GMMY, HVY TR ORNG & TRANS CHRT IN TRAY

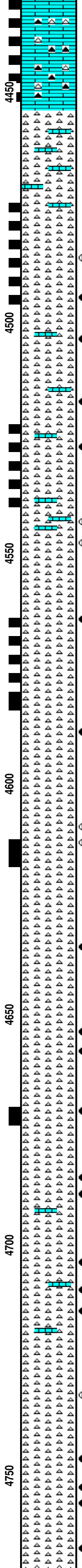
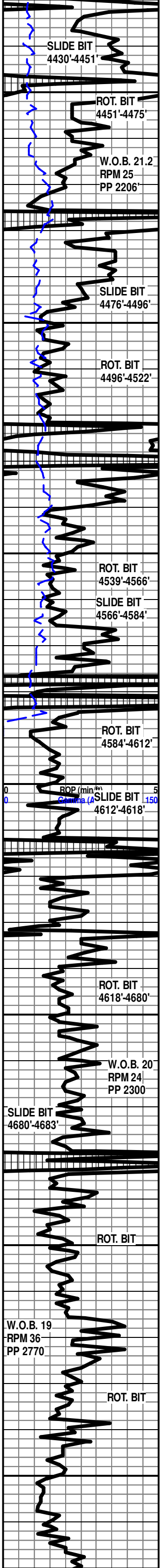
LS- OFF WHT TO CRM, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, SCAT IMB S-RND CLR QRTZ GRNS, LT TR ORNG & CLR CHRT, V DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

SH- RD TO DK RD GRN PRP, V SFT TO VV GMMY THRU, LT TR ORNG CHRT, W/ LMS INTERBED

SH- RD TO DK RD PRP GRN, V SFT TO GMMY, SLI TRS ORNG CHRT, W/ LMS INTERBED

MARMATON MD 4421'
TVD 4017'-1616'





LS- WHT TO OFF WHT CRM, HD DNS TO SLI TR BRTT IP, MD/F-XLN, SUCRO MTRX, TRS INTER-BED CLR TO WHT WTHRD AN SLI TRS ORNG CHRT THRU TRAY, V DUL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

CHRT- WHT CRM ORNG, HD DNS, WTHRD CHRT, V CALC-IP, INTER-BED LS, YEL GLD FLO IN 30%, SLI TR V PR MICRO-PP POR IP, NO VIS CUT OR SHOW

4480'-4510' CHRT- OFF WHT CRM TO ORNG IP (W/ TR TN TO DRK TN OIL STN IN 60%), HD DNS, WTHRD, SLI TR S-SUCRO, SLI CALC IP, DUL YEL GLD FLO IN 40%, TRS BRIT YEL FLO IN 20% TRS PR VIS MICRO-PP POR IP, FR TO GD FLSH CUT IN 50-60%, FR TO GD SLW STRM IN 40-50% LT TN LCH ON DSH, GOOD OIL ODOR

4510'-4530' CHRT- OFF WHT TO CRM DK TN (DUE TO OIL STN IN 40-50%), HD DNS TO BRTT, WTHRD CHRT, V TT SUCRO MTRX, V CALC-IP, ABDT ORNG & TRANS CHRT THRU, SCAT INTERBED LMS, YEL GLD FLO IN 60%, DUL YEL FLO IN 20%, SPTTD BRT YEL GLD FLO IP, PR TO FR MICRO-PP POR IN 2%, FR MICRO-VUG POR IP, GD FLSH CUT IN 80%, GD TO EXCEL SLW STRM IN 80%, GD OIL ODOR, TN TO DK TN LCH ON DSH

SLIDE BIT 4522'-4539'

4530'-4560' CHRT- WHT TO OFF WHT CRM IP (W/ TN TO DK TN BRWN IP OIL STN IN 50%), HD DNS TO BRTT, WTHRD CHRT, V TT SUCRO MTRX, V CALC-IP, HVY TR INTERBED LMS, SCAT ORNG & TRANS CHRT THRU, DUL YEL GLD FLO IN 70%, YEL GLD FLO SCAT IN 10%, V PR TO PR VIS MICRO-PP POR IN 1%, SLI TR PR MICRO VUG POR IP, FR TO GD FLSH CUT IN 50%, GD SLW STRM IN 60%, GD OIL ODOR, TN TO DK LCH ON DSH

4560'-4590' CHRT- WHT TO OFF WHT CRM (W/ LT TN TO TN OIL STN IN 50%), HD DNS TO BRTT IP, WTHRD CHRT, V TT SUCRO MTRX, CALC, ABDT TRANS CHRT THRU, LT TR ORNG CHRT, V SLI TR LMS INTERBEDS, V DUL YEL GLD FLO IN 50%, LT TR YEL GLD FLO IP, V PR TO PR MICRO-PP POR 3%, GD FLSH CUT IN 70%, EXCEL SLW STRM IN 70%, GD OIL ODOR, TN LCH ON DSH

(DUE TO GAMMA RAY NOT OPERATIONAL THERE WILL BE GAMMARAY READING TO CASING POINT)

4600'-4630' CHRT- WHT TO OFF WHT CRM (W/ LT TN OIL STN IN 20-30%), HD DNS TO BRTT IP, V TT SUCRO MTRX, F/XLN IP, WTHRD CHRT, V CALC-IP, ABDT TRANS CHRT THRU, DUL YEL GLD FLO IN 30-40%, V PR TO PR VIS MICRO-PP POR IN 1%, FR FLSH CUT IN 40%, FR SLW STRM IN 40%, LT OIL ODOR, NO LCH ON DSH

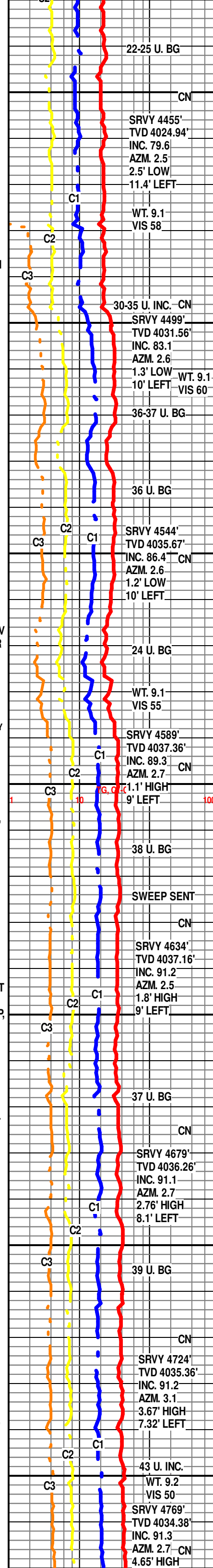
4630'-4660' CHRT- WHT TO DK TN BRWN DU TO OIL STN IN 70-80%), HD DNS TO BRTT IP, V TT SUCRO MTRX, WTHRD CHRT, CALC-IP, ABDT CLR TRANS CHRT THRU, LT TR ORNG CHRT IP, DUL YEL GLD FLO IN 40%, V PR VIS MICRO-PP POR IP, V SLI TR V PR VIS MICRO-VUG POR IP, EXCEL FLSH CUT IN 90%, EXCEL SLW STRM IN 90%, DK TN LCH ON DSH, V LT OIL ODOR

4660'-4690' CHRT- DK TN TO BRWN OFF WHT (DUE TO OIL STN IN 80-90%), HD DNS TO BRTT IP, V TT SUCRO MTRX, WTHRD CHRT, V CALC-IP, ABDT CLR TRANS CHRT THRU, LT TR ORNG CHRT IP, DUL YEL FLGD FLO IN 60%, YEL GLD FLO IN 10%, V PR TO PR TO TR FR VIS MICRO-PP POR IN 2%, TR V PR VIS MICRO-VUG POR IP, EXCEL FLSH CUT IN 90%, EXCEL SLW STRM IN 90%, DK TN LCH ON DSH, FR TO TR GD OIL ODOR

4700'-4730' CHRT- DK TN TO BRWN (DUE TO OIL STN IN 100%), HD DNS TO BRTT, V TT SUCRO MTRX, WTHRD CHRT, CALC-IP, ABDT CLR CHRT THRU TRAY, HVY TR INTER-BED LMS, DUL YEL GLD FLO IN 60%, YEL GLD FLO IN 10%, PR TO FR MICRO-PP POR IN 1-2%, EXCEL FLSH CUT IN 100%, EXCEL SLW STRM IN 100%, DK TN TO BRWN LCH ON DSH, GD OIL ODOR

4730'-4760' CHRT- DK TN TO BRWN OFF WHT IP (DUE TO OIL STN IN 80-90%), HD DNS TO BRTT, V TT SUCRO MTRX, WTHRD CHRT, CALC-IP, ABDT CLR TRANS CHRT THRU TRAY, DUL YEL GLD FLO IN 70%, PR VIS MICRO-PP IN 3%, GD FLSH CUT IN 80%, GD SLW STRM IN 80%, DK TN TO BRWN LCH ON DSH, GD OIL ODOR

4760'-4780' CHRT- DRK TN TO BRWN OFF WHT CRM IP, (DUE TO OIL STN IN 80-90%), HD DNS TO BRTT, V TT SUCRO MTRX, WTHRD CHRT, CALC-IP, ABDT CLR TRANS



W.O.B. 23 ROT. BIT
RPM 38
PP 2470

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WELL COMPLETED BY:
SCHUYLER HEDRICK TOM
FLOWERS

4800

50

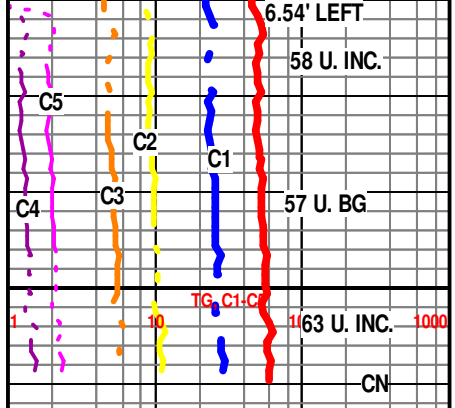
CHRT THRU TRAY, DUL YEL GLD FLO 60%, YEL GLD FLO IN 30%, PR TO FR MICRO PP POR IN 2%, EXCEL FLUSH CUT 100%, EXCEL STRM CUT IN 100%, BRWN LCH ON DISH, GD STRNG OIL ODOR

4780'-4810' CHRT- BRWN TO DRK TN LT TRS OFF WHT IP,(DUE TO OIL STN IN 90%) (W/ LIVE OIL STN IN 10%) HD DNS TO V-BRTT, V TT SUCRO MTRX, WTHRD CHRT, SLI CALC-IP, SCATT CLR TRANS CHRT THRU TRAY, DUL YEL GLD FLO 80%, YEL GLD FLO IN 10%, V PR TO PR MICRO PP POR IN 1%, EXCEL FLUSH CUT 100%, EXCEL STRM CUT IN 100% BRWN LCH ON DISH, GD STRNG OIL ODOR, LT TRS OIL SHM ON SAMPLE CUP

**CASING POINT @ 4810'
ON AUGUST 15, 2013 @ 10:28 P.M.**

R.T.D 9100' T.V.D 4010.19'

**REACHED MEASURED DEPTH TD AT
11:00 A.M. AUG 29, 2013**



THANK YOU FOR CHOOSING EARTH TECH
MUDLOGGING



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

Well Name: 12-22-8-H3
Location: Sec. 8-T12S-R22W TREGO COUNTY, KANSAS
License Number: 15-195-22882-01-00 Region: WILDCAT
Spud Date: AUG 8, 2013 Drilling Completed: AUG 29, 2013
Surface Coordinates: 2475' FNL/ 1990' FEL SEC. 8

Bottom Hole 400' FNL/ 1990' FEL SEC. 5
Coordinates:
Ground Elevation (ft): 2389' K.B. Elevation (ft): 2401'
Logged Interval (ft): 400' To: 9100 Total Depth (ft): 9100
Formation: Marmaton Chert
Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

ROCK TYPES

	Bent		Dol		Salt		Shgy
	Brec		Gyp		Htshale		Sltst
	Cht		Igne		Newhotsh		Ss
	Clyst		Lmst		Shale		Till
	Coal		Meta		Shlyss		Blank
	Congl		Mrlst		Shcol		

Directional Drilling Information

GARRET MANUEL-DD DRILL RIGHT TECH.
CLARK SUMMERS-DD 9630 POLE RD.
GEORGE HUNT-MWD OKC, OK 73160
CHARLIE MINYARD-MWD 405-604-2969

GEOLOGIST

Name: Schuyler Hedrick/Tom Flowers
Company: Earth Tech OGL, Inc.
Address: P.O. Box 683
Hooker, OK 73945
Off; 888-543-8378 Cell; 580-754-0062

ACCESSORIES

FOSSIL

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

- Plant
- Strom

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol

- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Shale gy

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint

- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

- INTERVAL
None

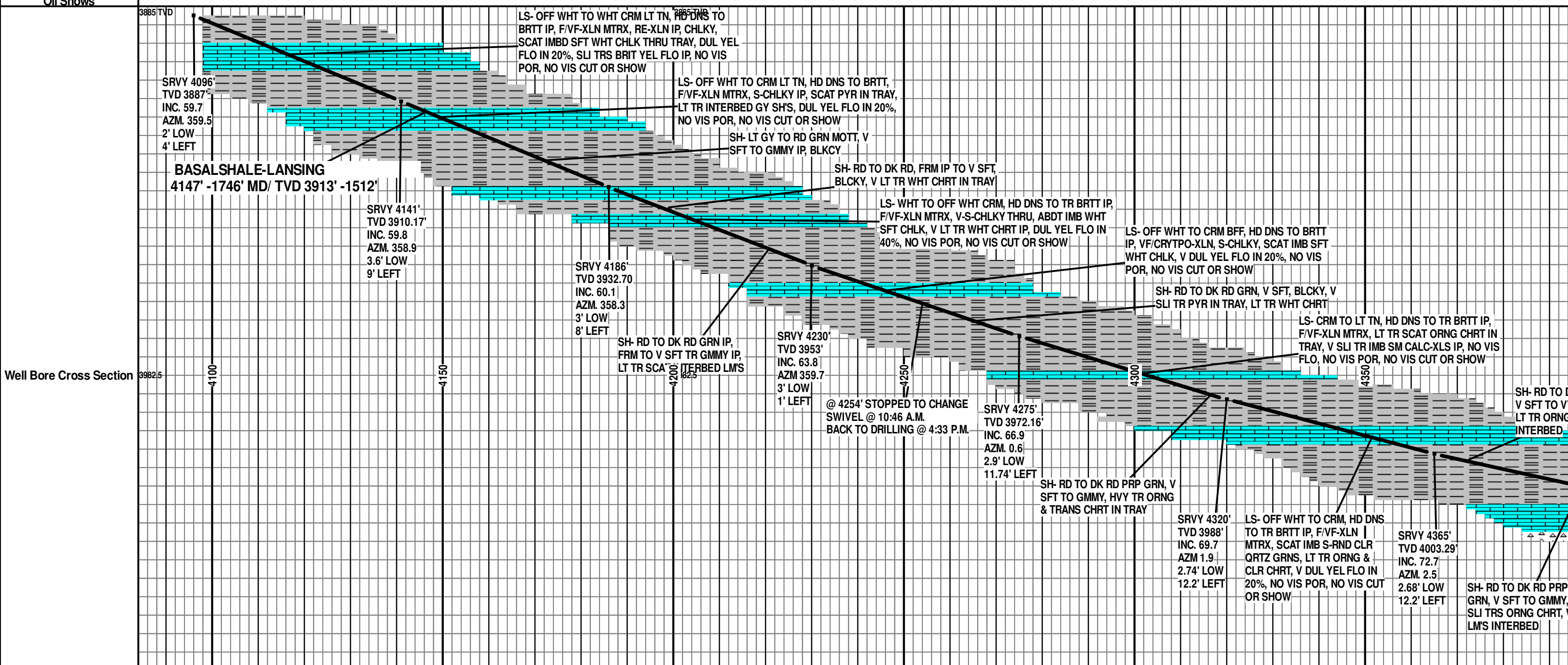
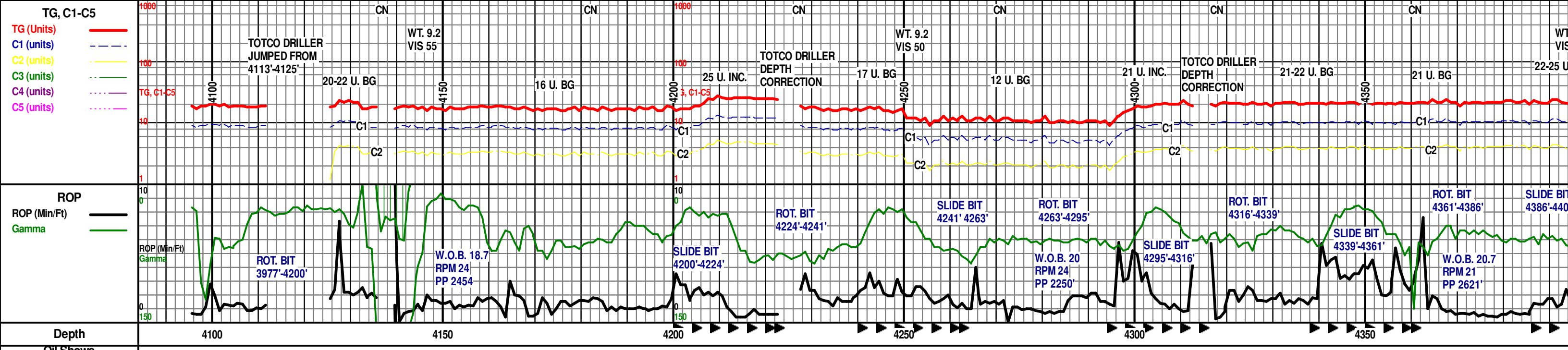
- Core
- Dst

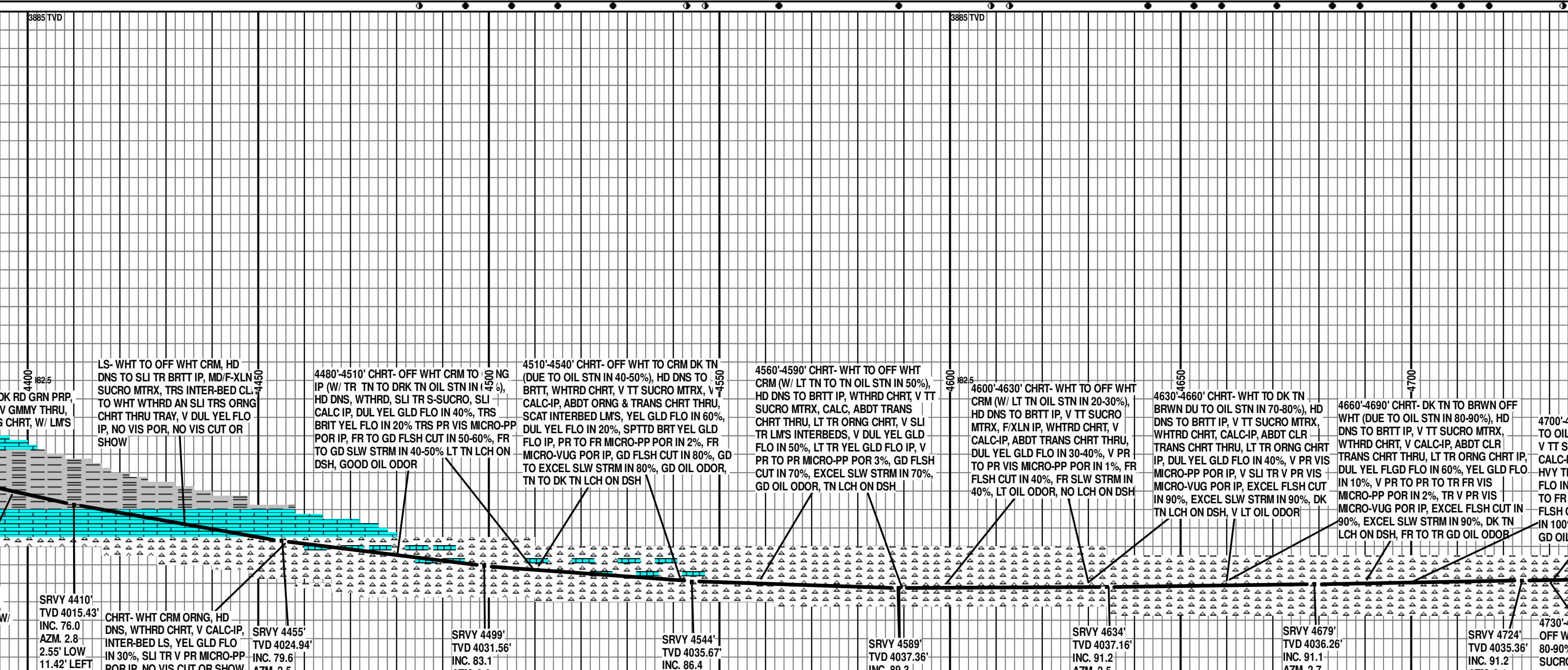
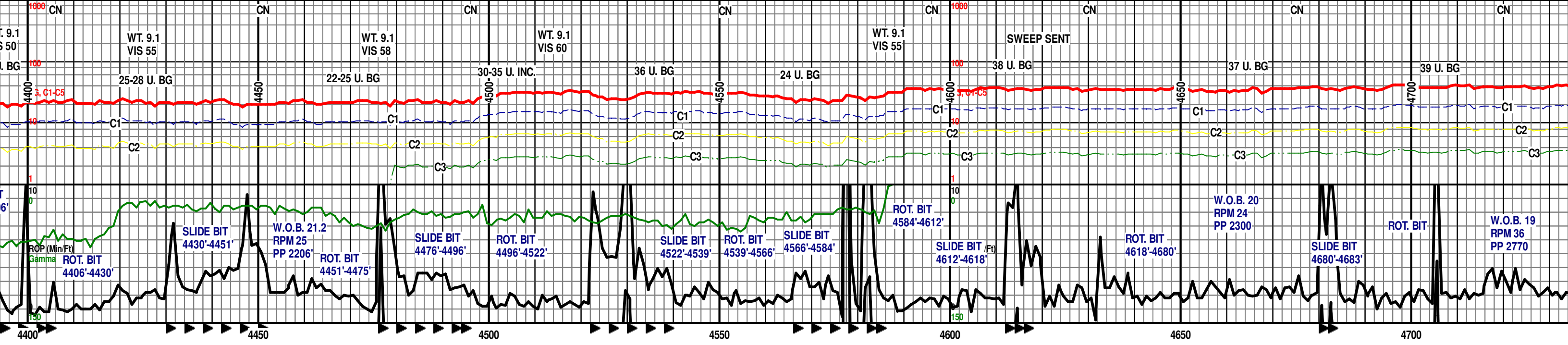
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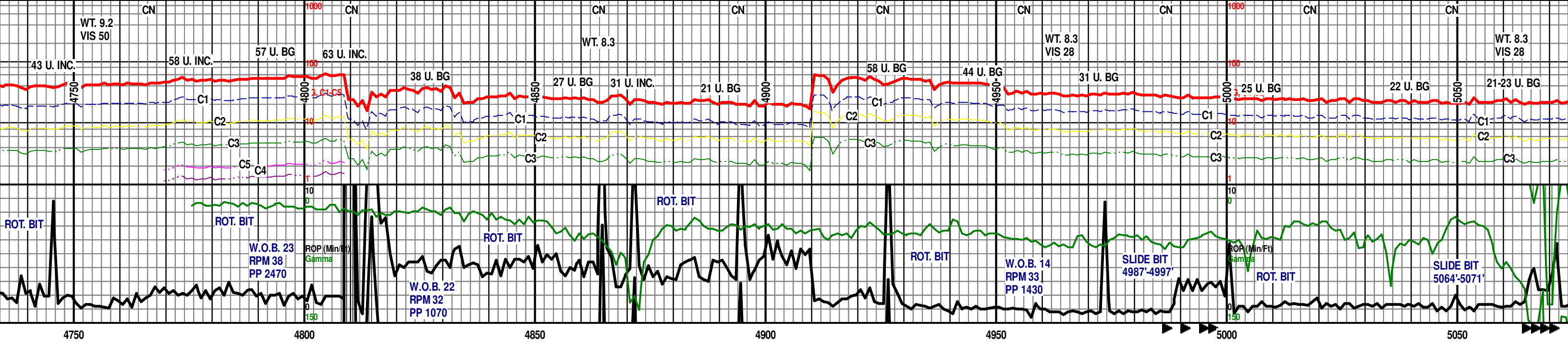
- Rft
- Slide
- Perf

OPERATOR

Company: Sam Gary Jr. & Assoc.
 Address: 1515 Wynkoop, Ste. # 700
 Denver, Co. 80202
 Co. Geo: Dan Pritchard







CASING POINT @ 4810'
ON AUGUST 15, 2013 @ 10:28 P.M.
B.O.B @ 7:20 AM ON
AUGUST 19, 2013

T.O.H. (TO CHANGE BIT) @
4910' ON AUG 19 @ 4:15 P.M.
B.O.B @ 10:10 AM ON
AUGUST 20, 2013
 RIG FLOOR
 RECALIBRATED
 HOOK LOAD SENSOR

4730'-4780' CHRT- DK TN TO BRWN (DUE TO OIL STN IN 100%), HD DNS TO BRTT, UCRO MTRX, WTHRD CHRT, ABTD CLR CHRT THRU TRAY, R INTER-BED LMS, DUL YEL GLD FLO 60%, YEL GLD FLO IN 10%, PR MICRO-PP POR IN 1-2%, EXCEL CUT IN 100%, EXCEL SLW STRM % DK TN TO BRWN LCH ON DSH, L ODOR

4760'-4780' CHRT- DRK TN TO BRWN OFF WHT CRM IP, (DUE TO OIL STN IN 80-90%), HD DNS TO BRTT, V TT SUCRO MTRX, WTHRD CHRT, CALC-IP, ABTD CLR TRANS CHRT THRU TRAY, DUL YEL GLD FLO 60%, YEL GLD FLO IN 30%, PR TO FR MICRO PP POR IN 2%, EXCEL FLUSH CUT 100%, EXCEL STRM CUT IN 100%, BRWN LCH ON DISH, GD STRNG OIL ODOR

4820'-4850' CHRT- DK TN TO BRWN TR OFF WHT IP (DUE TO OIL STN IN 90-100%), HD DNS TO BRTT, V TT SUCRO MTRX, WTHRD CHRT, TR CALC-IP, ABTD INTERBED LMS THRU, SCAT CLR TO WHT CHRT IN TRAY, DUL YEL GLD FLO IN 80%, YEL GLD FLO IN 10%, V PR TO PR MICRO-PP POR IP, EXCEL FLSH CUT IN 90%, EXCEL SLW STRM IN 100%, DK TN TO BRWN LCH ON DSH, FR OIL ODOR

4850'-4880' LM & CHRT- WHT CLR TO ORNG, V HD DNS, F/VF-XLN, SLI TR S-SUCRO, V CALC-IP, ABTD CLR TRANS CHRT, ABTD RD SFT SH THRU SAMPLE, DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

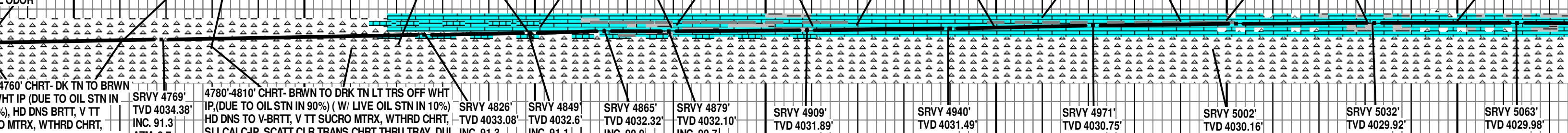
4880'-4910' LM & CHRT- WHT TO OFF WHT CLR ORNG, V HD TO DNS, F/VF-XLN MTRX, ABTD CLR TRANS ORNG CHRT THRU, SCAT RD SFT SH THRU, V DUL YEL FLO IN 30%, NO VIS POR, NO VIS SHOW

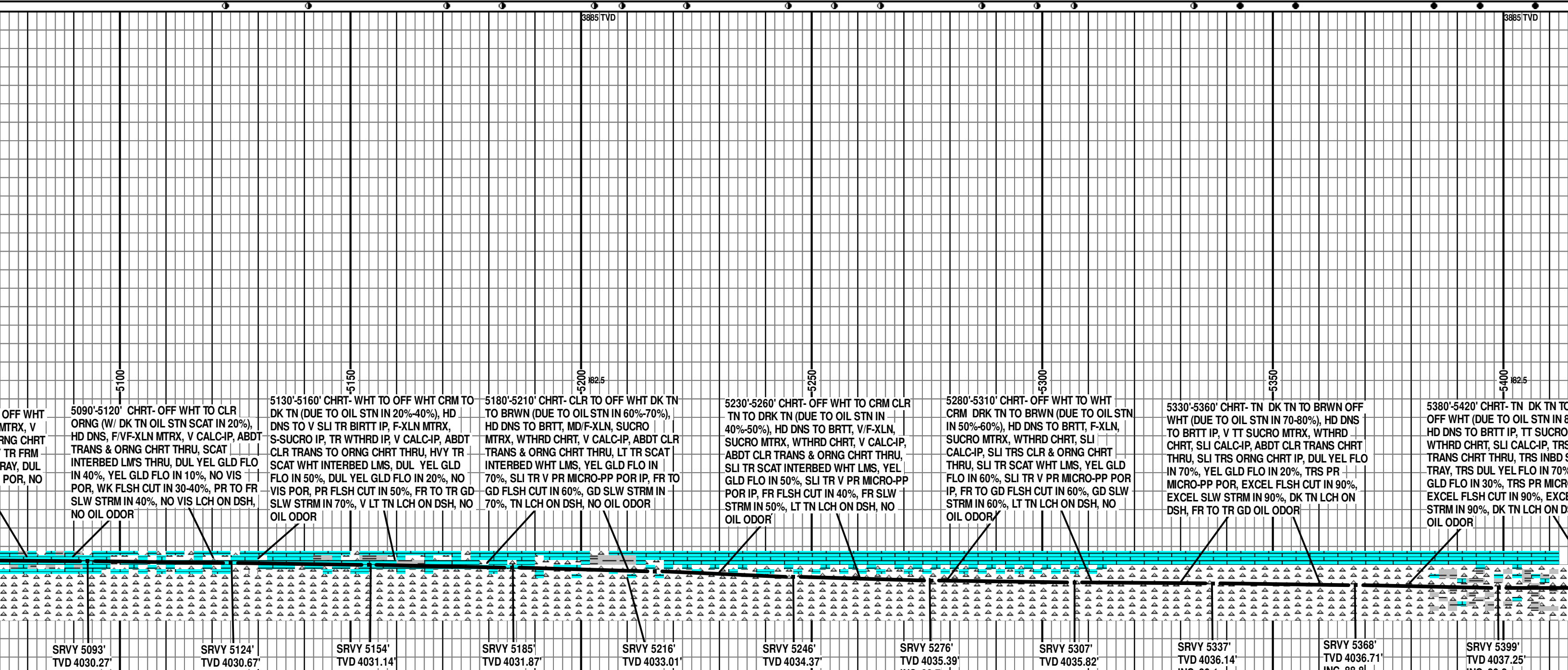
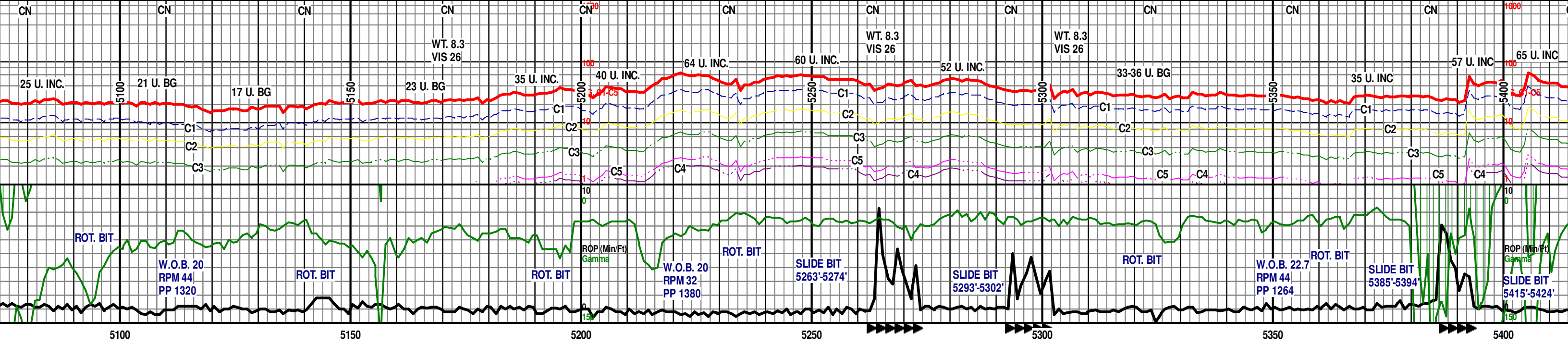
4920'-4950' LS- WHT TO OFF WHT ORNG, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, V CALC, ABTD TRANS & ORNG CHRT THRU, TR SCAT RD SFT SH IP, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

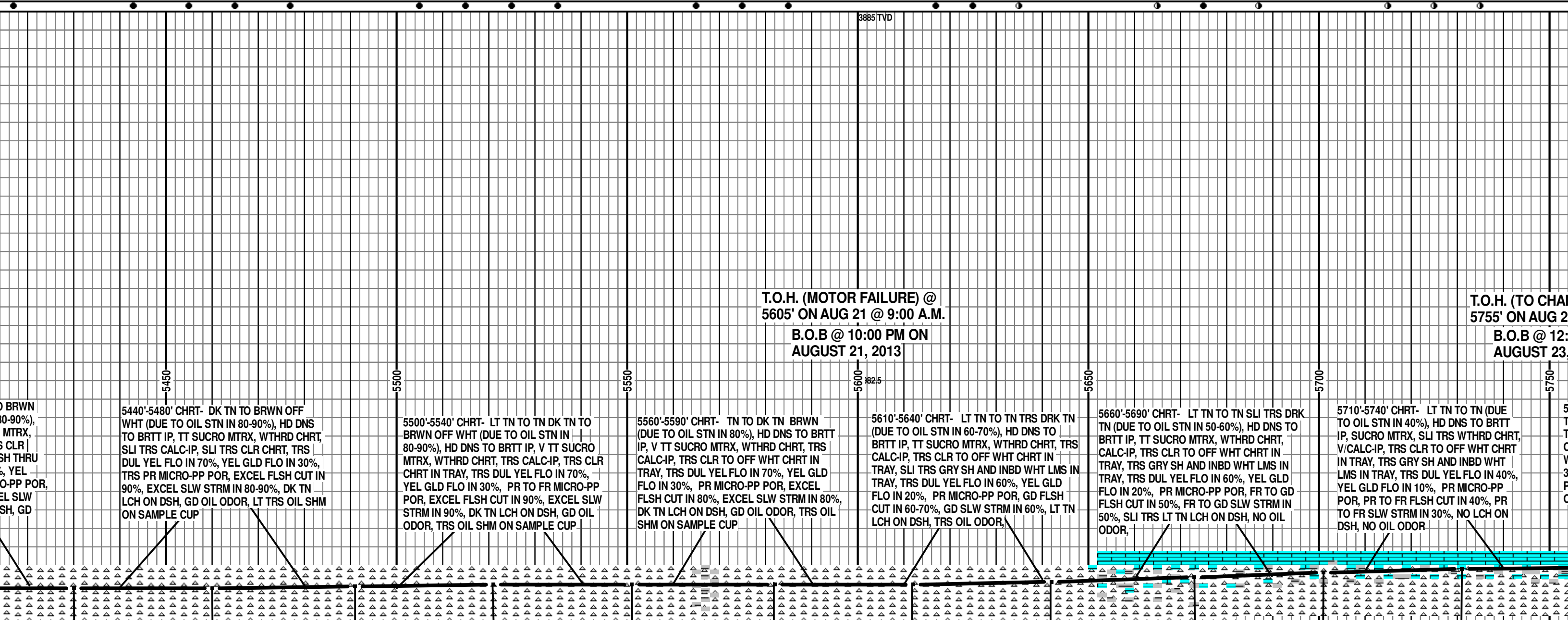
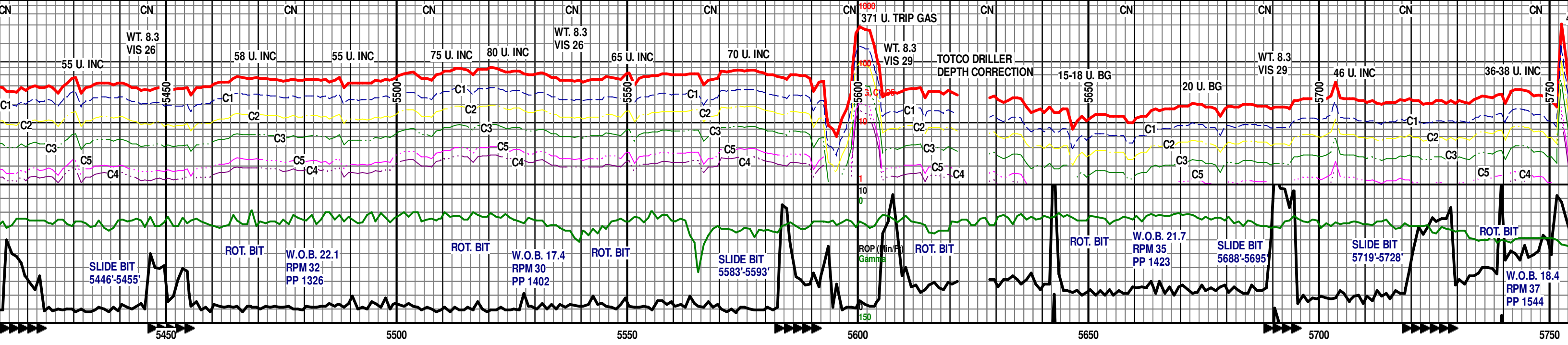
4960'-4990' LS- WHT TO OFF WHT ORNG, HD DNS, F/VF-XLN MTRX, V CALC, ABTD CLR TO ORNG TRANS CHRT THRU, SCAT SFT GY TO GRN SH THRU, V DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

5000'-5030' LS- WHT TO OFF WHT ORNG, HD DNS TO BRTT IP, F/VF-XLN MTRX, ABTD TRANS & ORNG CHRT THRU W/ LT TR IMB MIN, HVY TR SCAT FRM TO V SFT GY TO GRN SH THRU, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

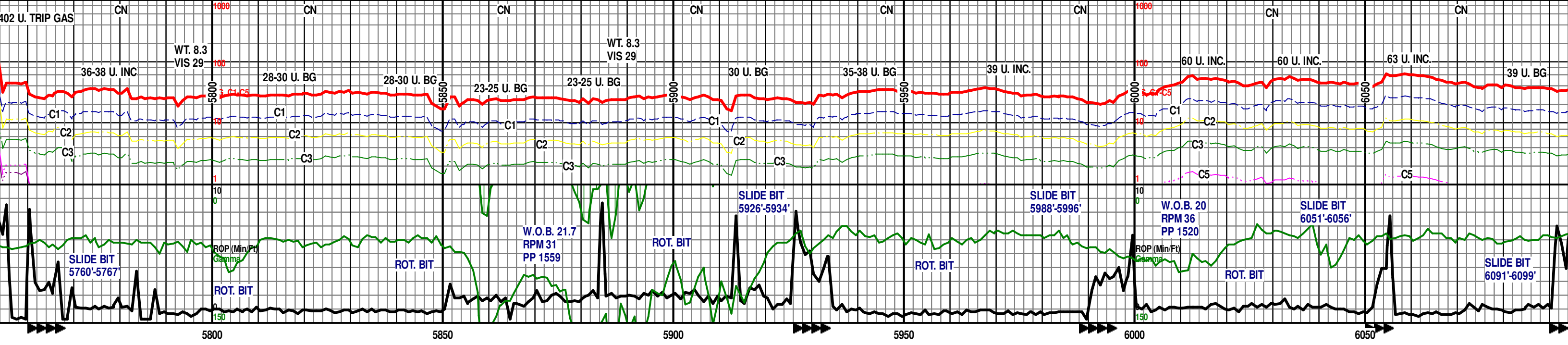
5050'-5080' LS- WHT TO ORNG, HD DNS, VF-XLN MTRX, CALC, ABTD TRANS & OF W/ HVY TR IMB MIN, HVY TO V SFT GY SH THRU T YEL FLO IN 40%, NO VIS VIS CUT OR SHOW







SRVY 5430' TVD 4037.46'	SRVY 5460' TVD 4037.28'	SRVY 5491' TVD 4036.87'	SRVY 5521' TVD 4036.48'	SRVY 5551' TVD 4036.32'	SRVY 5582' TVD 4036.49'	SRVY 5612' TVD 4036.36'	SRVY 5642' TVD 4035.65'	SRVY 5673' TVD 4034.49'	SRVY 5701' TVD 4033.22'	SRVY 5731' TVD 4032.20'
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CHANGE BIT) @ 2 @ 9:30 A.M. 01 AM ON 2013

5760'-5790' CHRT- CLR TO OFF WHT LT GRY TO LT TN (DUE TO OIL STN IN 30%), HD DNS TO BRTT IP, SUCRO MTRX, SLI TRS WTHRD CHRT, V/CALC-IP, TRS GRY SH AND INBD WHT LMS IN TRAY, SLI TRS DUL YEL FLO IN 30-40%, YEL GLD FLO, V/PR MICRO-PP POR, PR FLSH CUT IN 30%, NO VIS STRM CUT, NO LCH ON DSH, NO OIL ODOR

5810'-5840' CHRT- OFF WHT TO LT GRY CLR TO LT TN, HD DNS TO BRTT IP, SUCRO MTRX, SLI TRS WTHRD CHRT, V/CALC-IP, TRS GRY SH AND INBD WHT LMS IN TRAY, TRS DUL YEL FLO IN 30-40%, YEL GLD FLO, V/ PR MICRO PP POR, NO VIS FLSH CUT, NO VIS SHOW, NO LCH ON DSH, NO OIL ODOR

5860'-5890' CHRT- OFF WHT TO LT GRY CLR SLI TRS ORNG, HD DNS TO BRTT IP, SUCRO MTRX, SLI TRS WTHRD CHRT, V/CALC-IP, TRS GRY SH AND INBD WHT LMS IN TRAY, TRS DUL YEL FLO IN 30%, YEL GLD FLO, V/ PR MICRO PP POR, NO VIS FLSH CUT, NO VIS SHOW, NO LCH ON DSH, NO OIL ODOR

5910'-5940' CHRT- LT GRY CLR TRS ORNG, HD DNS TO BRTT IP, SUCRO MTRX, V/V-SLI TRS WTHRD CHRT, CALC-IP, TRS SH GRY, BLCKY, GMMY, TRS INBD LMS WHT TO OFF WHT IN TRAY, TRS DUL YEL FLO IN 30-40%, YEL GLD FLO, V/ PR MICRO PP POR, NO VIS FLSH CUT, NO VIS SHOW, NO LCH ON DSH, NO OIL ODOR

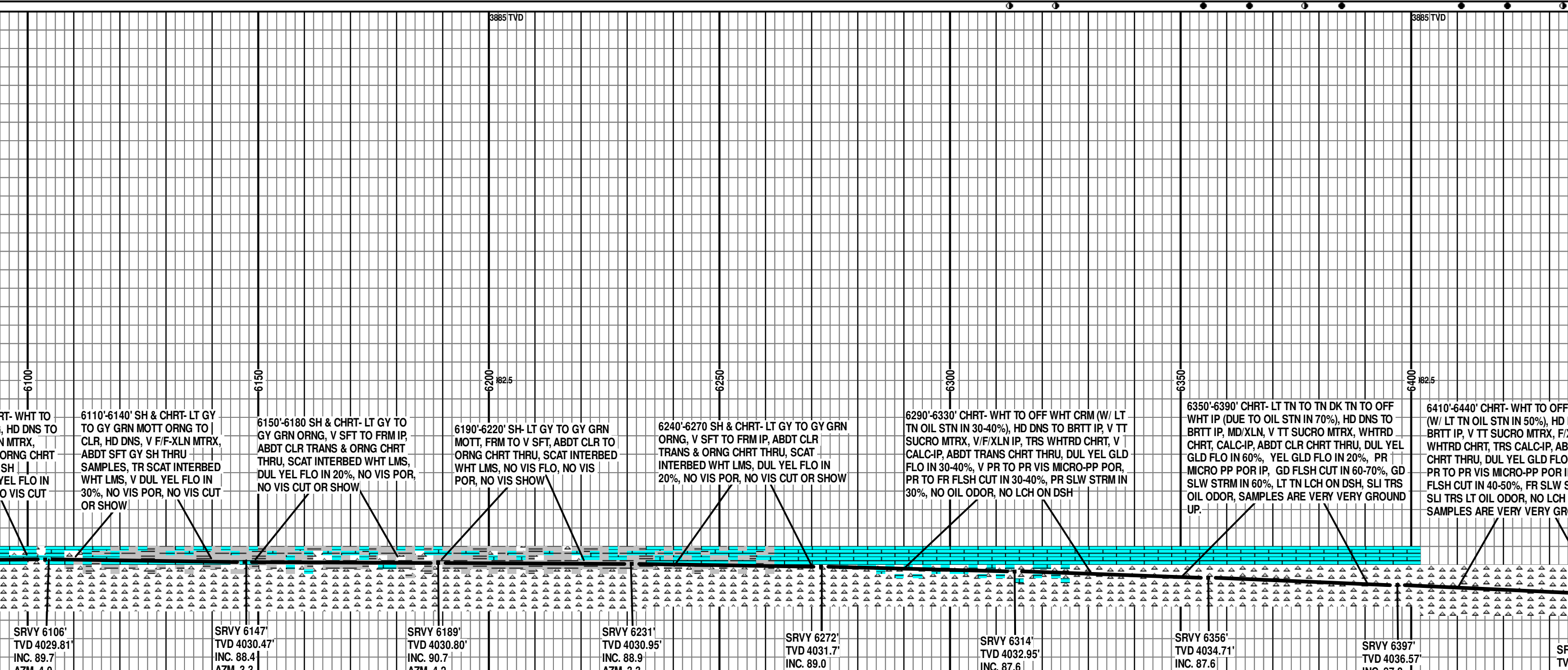
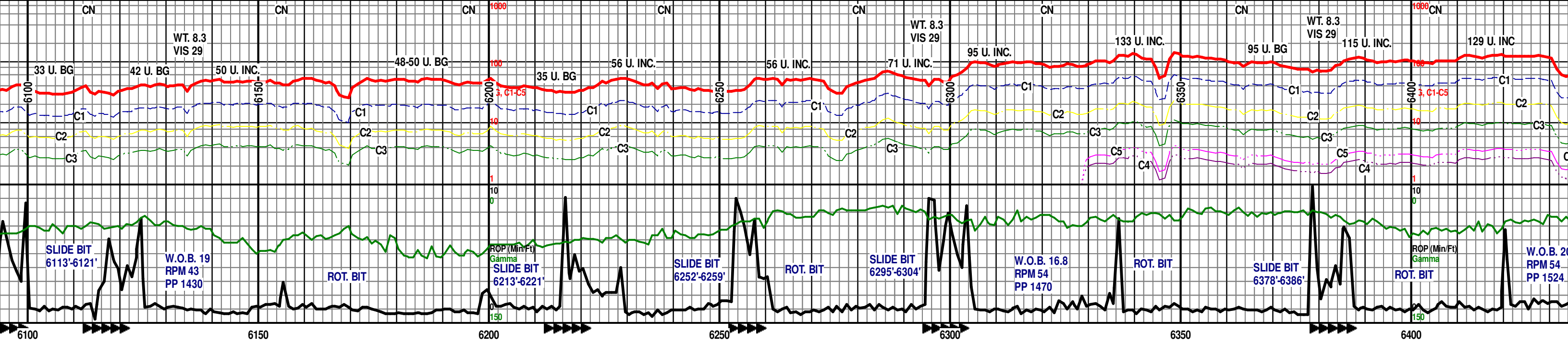
5950'-5980' LS & CHRT- WHT TO OFF WHT ORNG, HD DNS TO BRTT IP, F/VF-XLN MTRX, V-CALC, ABDT CLR TRANS & ORNG CHRT THRU, V DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

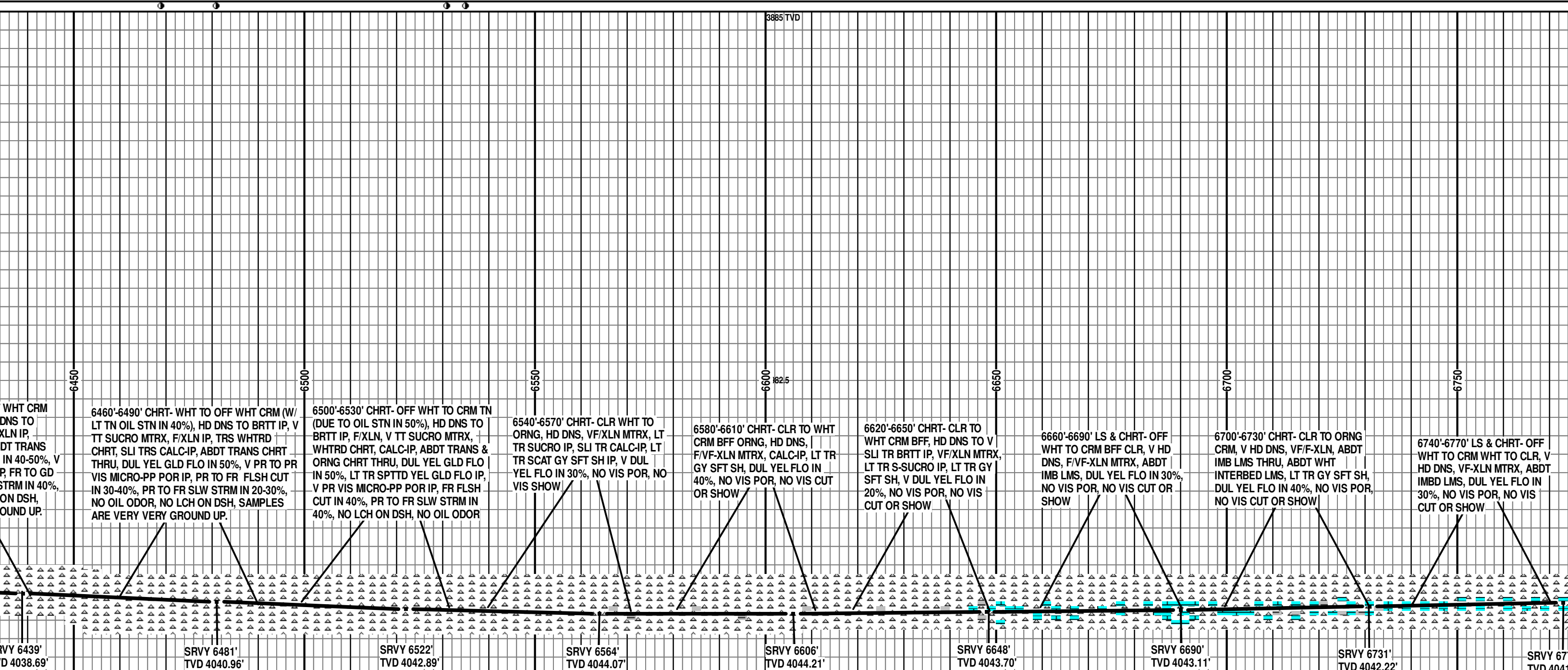
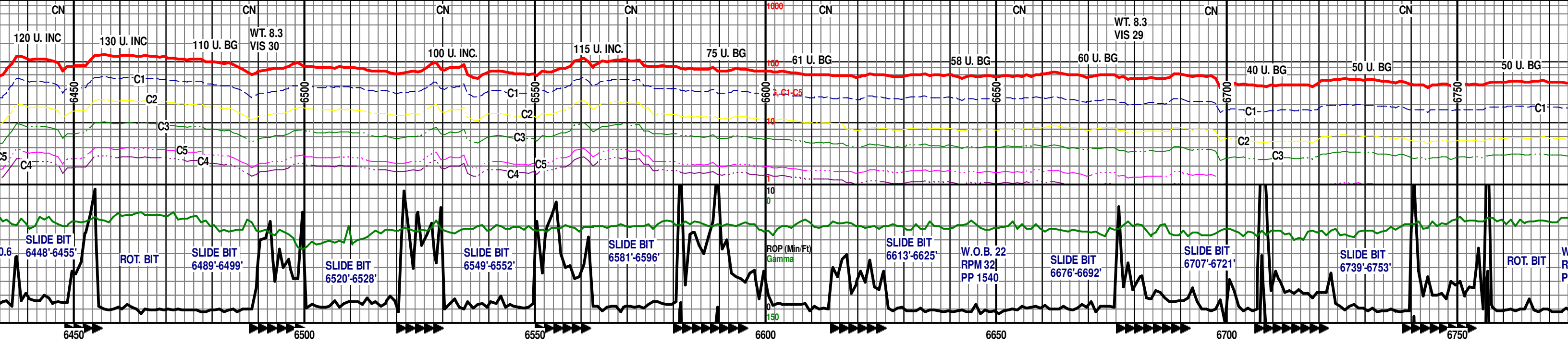
5990'-6020' CHRT- TN TO DK TN BRWN OFF WHT IP (DUE TO OIL STN IN 60-70%), HD DNS TO BRTT IP, MD/XLN, V TT SUCRO MTRX, WTHRD CHRT, CALC-IP, ABDT CLR & ORNG CHRT THRU, ABDT INTERBED LMS THRU, SCAT GY SFT SH, DUL YEL GLD FLO IN 60%, SPTTD YEL GLD FLO IP, V PR MICRO PP POR IP, FR TO GD FLSH CUT IN 60%, GD TO EXCEL SLW STRM IN 70%, TN TO DK TN LCH ON DSH, NO OIL ODOR

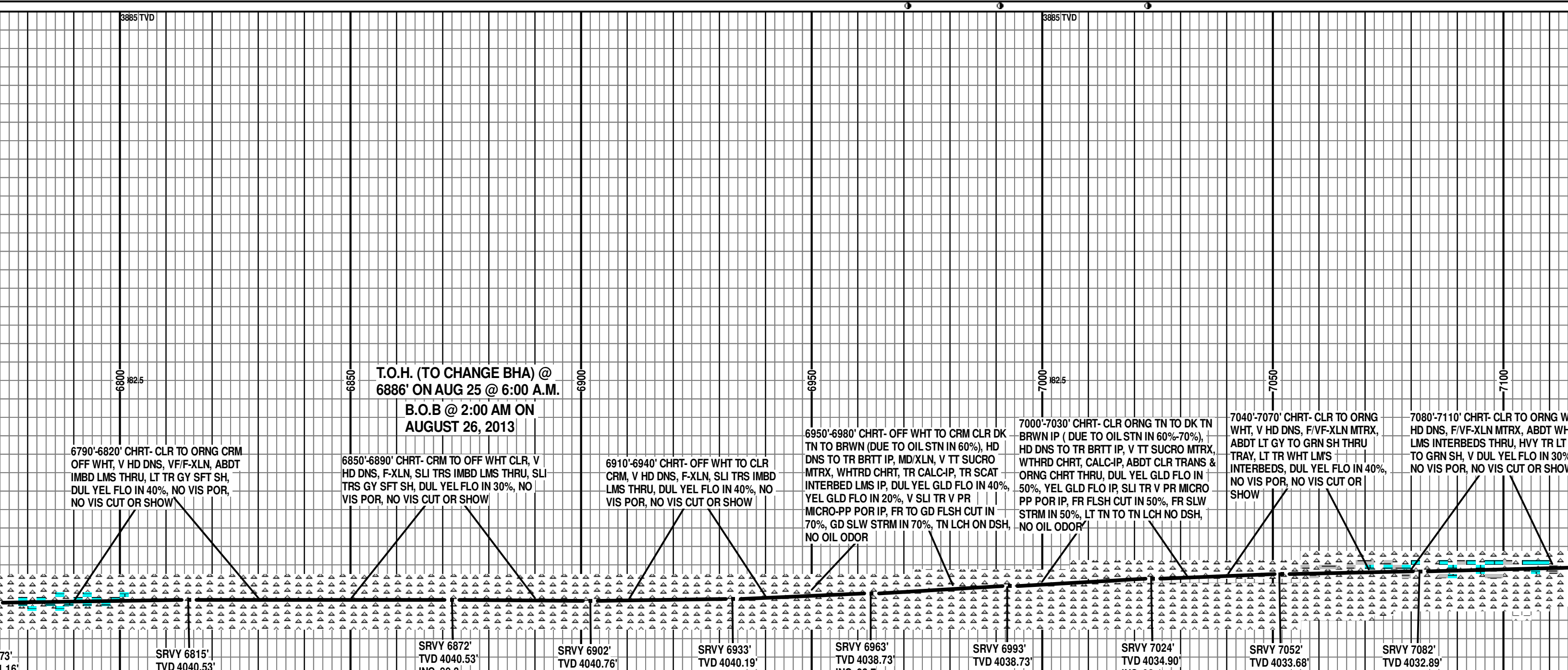
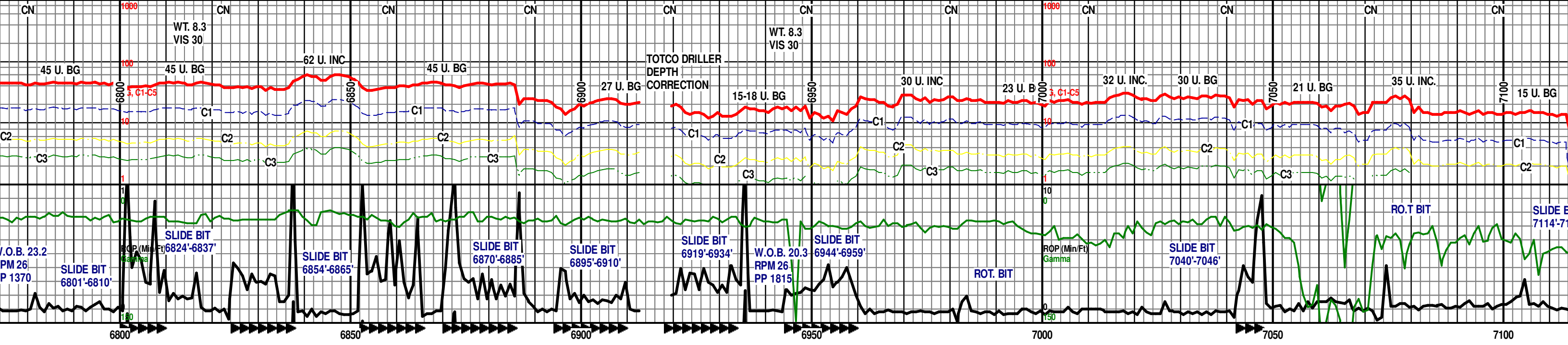
6030'-6060' CHRT & LMS- CLR TO WHT ORNG CRM LT TN, HD DNS TO TR BRTT IP, MD/F-XLN MTRX, S-SUCRO IP, SLI TR WTHRD IP, V CALC, ABDT CLR & ORNG CHRT THRU, SCAT INTERBED LMS THRU, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

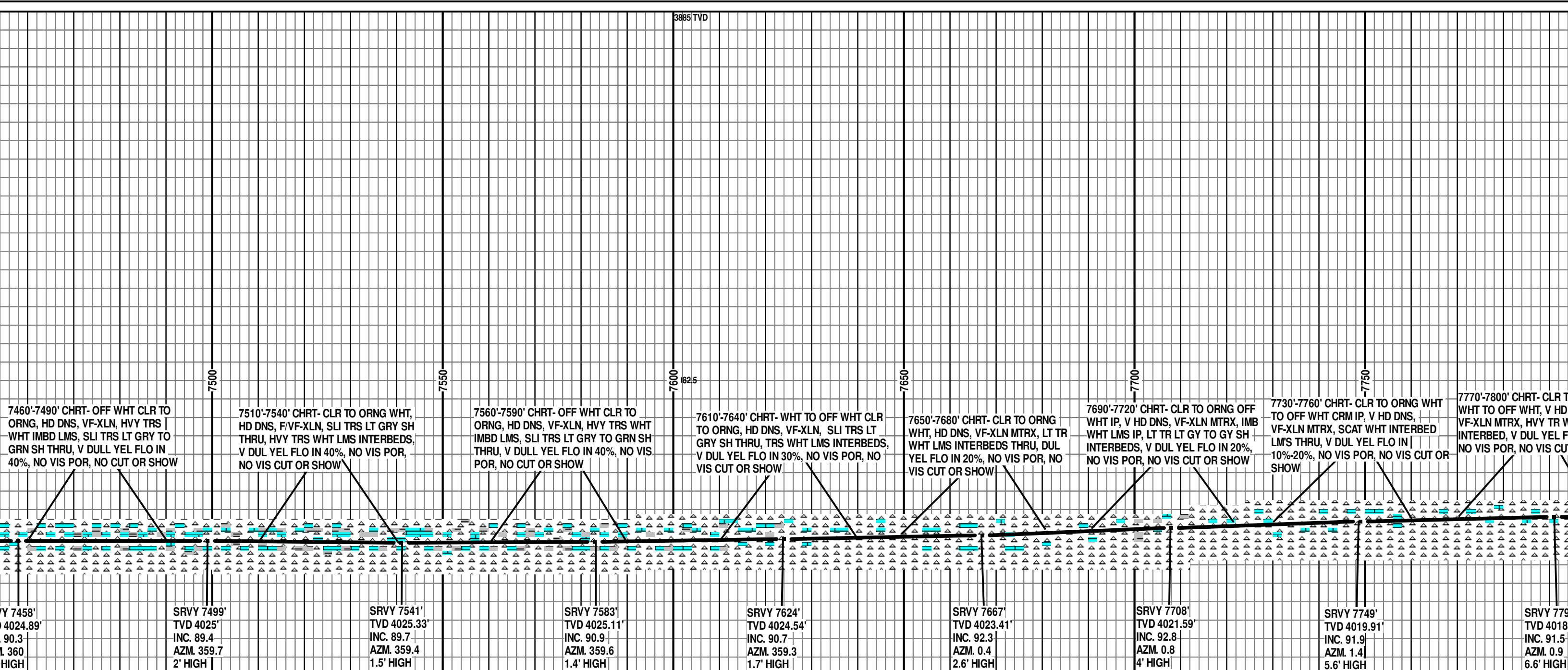
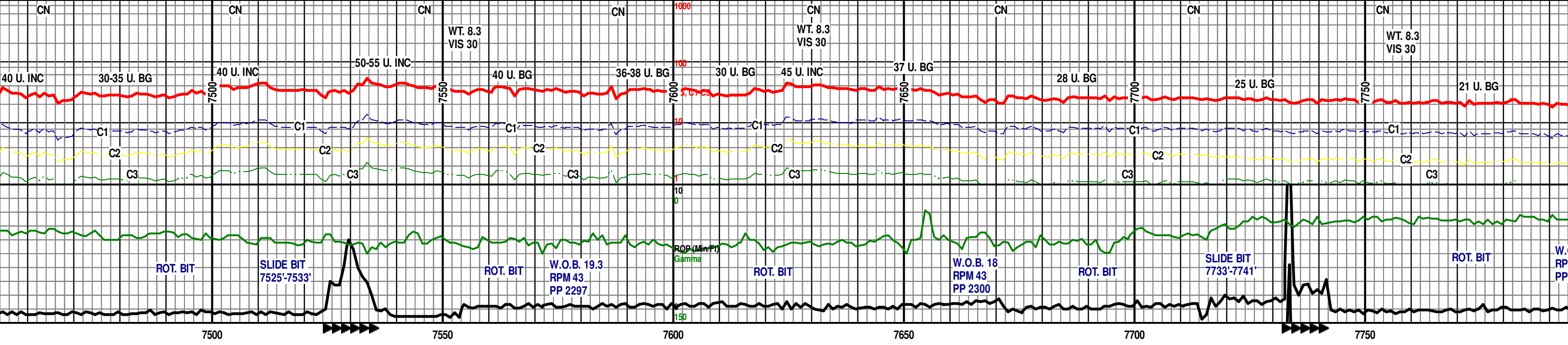
6070'-6100' LS & CHRT- OFF WHT CLR ORNG TR BRTT IP, F/VF-XLN MTRX, ABDT CLR TRANS & THRU, SCAT GY SFT INTERBEDS IP, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

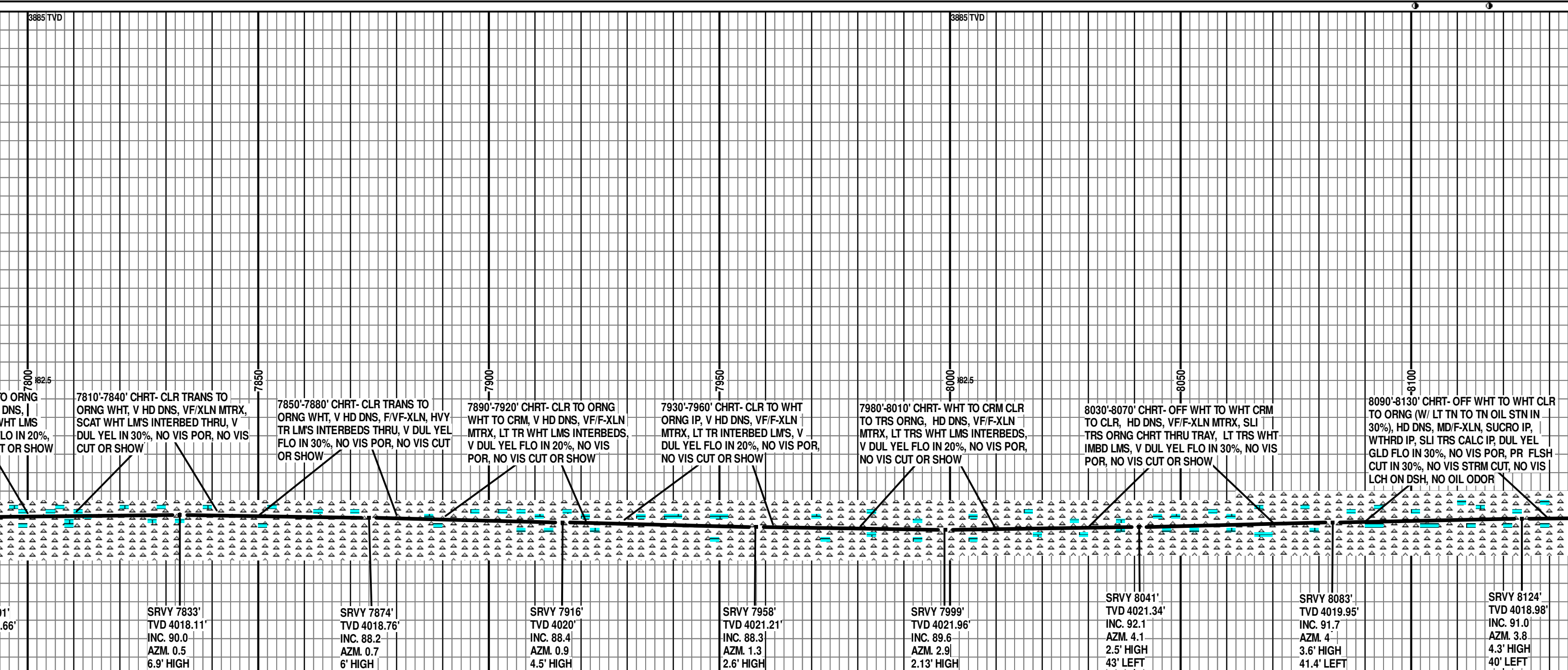
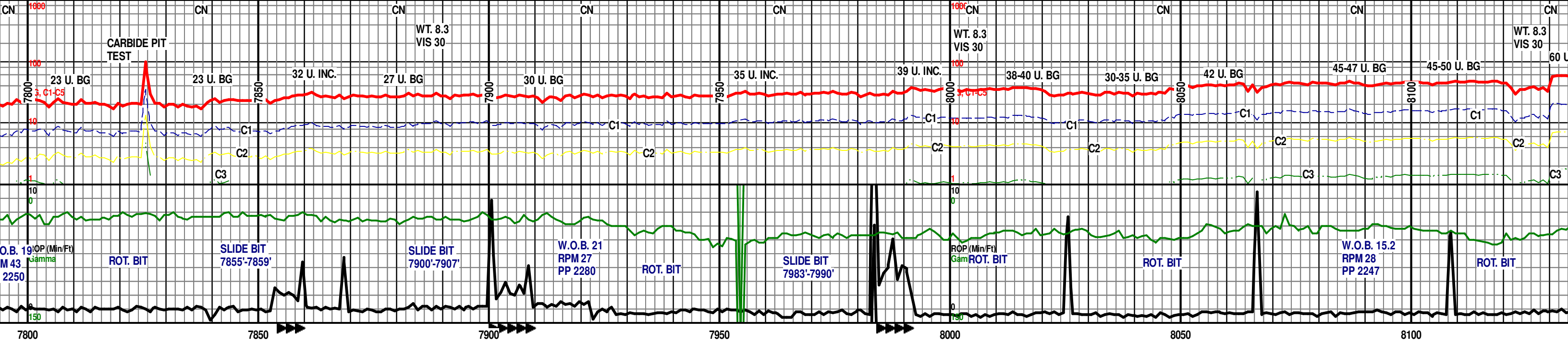
SRVY 5772' TVD 4031.84' INC. 89.7 AZM 0.6	SRVY 5814' TVD 4032.13' INC. 89.5 AZM 0.5	SRVY 5856' TVD 4032.46' INC. 89.6 AZM 1.1	SRVY 5897' TVD 4032.46' INC. 90.4 AZM 2.5	SRVY 5939' TVD 4031.84' INC. 91.3 AZM 3.4	SRVY 5981' TVD 4031.07' INC. 90.8 AZM 3.4	SRVY 6022' TVD 4030.75' INC. 90.1 AZM 2.5	SRVY 6064' TVD 4030.20' INC. 91.4 AZM 1.6
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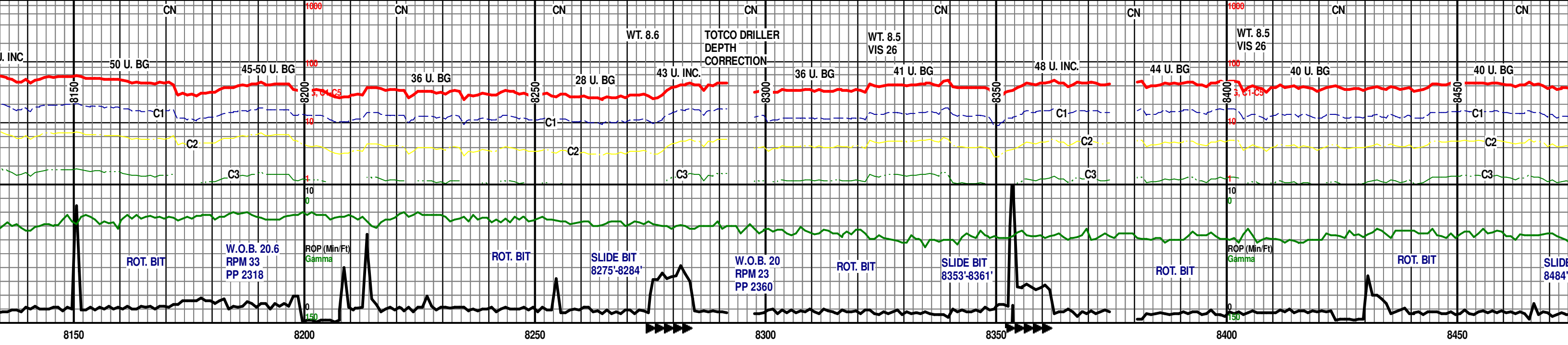












T.O.H. (CIRC AND SHORT TRIP TO 6886' TO CLEAN HOLE) @ 8171' ON AUG 28 @ 2:00 A.M.
B.O.B @ 6:15 AM ON AUGUST 28, 2013

8150'-8190' CHRT- WHT CLR TO ORNG (W/ LT TN TO TN OIL STN IN 30%), HD DNS, MD/F-XLN, S-SUCRO IP, WTHRD IP, SLI TRS CALC IP, DUL YEL GLD FLO IN 20%, NO VIS POR, PR FLSH CUT IN 30%, NO VIS STRM CUT, NO VIS LCH ON DSH, NO OIL ODOR

8200'-8230' CHRT- CLR TO ORNG WHT TO OFF WHT, V HD DNS, MD/F/VF-XLN MTRX, SLI TR SUCRO-IP, LT TR WTHRD IP, HVY TR WHT LM INTERBEDS, DUL YEL FLO IN 40%-50%, NO VIS POR, NO VIS CUT OR SHOW

8240'-8270' CHRT- CLR TO WHT OFF WHT ORNG, V HD DNS TO SLI TR BRTT IP, F/VF-XLN MTRX, ABDT LMS INTERBEDS, V DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

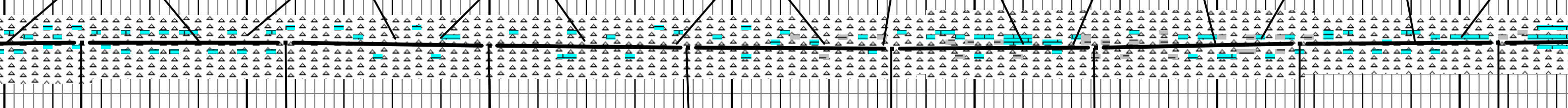
8290'-8320' CHRT-CLR TO WHT OFF WHT CRM ORNG IP, V HD DNS, MD/F/VF-XLN MTRX, V SLI TR S-SUCRO IP, HVY TR LM INTERBEDS, V SLI TR LT GY SH, DUL YEL FLO IN 30%-40%, NO VIS POR, NO VIS CUT OR SHOW

8330'-8360' CHRT- CLR TO WHT (W/ TN TO DK OIL STN IN 20%-30%), HD DNS, MD/F/VF-XLN MTRX, SLI TR WTHRD IP, ABDT TRANS & ORNG CHRT THRU, HVY TR LM INTERBEDS, HVY TO LT TR LT GY SH, DUL YEL GLD FLO IN 20%, YEL GLD FLO IP, NO VIS POR, PR TO TR FR FLSH CUT IN 30%, FR TO GD SLW STRM IN 30%, NO VIS LCH ON DSH, NO OIL ODOR

8370'-8400' CHRT- CLR TO WHT OFF WHT (W/ LT TN TO TN OIL STN IN 30%-40%), HD DNS TO SLI TR BRTT IP, MD/F-XLN, S-SUCRO IP, TR WTHRD IP, ABDT TRANS & ORNG THRU, HVY TR LMS INTERBEDS, LT TR LT GY SH, DUL YEL GLD FLO IN 40%, NO VIS POR, FR FLSH CUT IN 30%, FR TO GD SLW STRM IN 20%, NO VIS LCH ON DSH, NO OIL ODOR

8410'-8440' CHRT- CLR TO WHT OFF WHT (W/ LT TN TO TN OIL STN IN 20%), HD DNS, F/VF-XLN, TR S-SUCRO IP, ABDT TRANS & ORNG THRU, HVY TR LMS INTERBEDS, V DUL YEL GLD FLO IN 30%, NO VIS POR, PR TO NO FLSH CUT, FR SLW STRM IN 20%, NO VIS LCH ON DSH, NO OIL ODOR

8450'-8480' CLR TO WHT CRM, HD DNS, F/VF-XLN MTRX, ABDT LMS INTERBEDS, LT GY SH, V DUL YEL GLD FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW



SRVY 8166' TVD 4018.47' INC. 90.4 AZM. 3.5 4.5' HIGH 38' LEFT

SRVY 8208' TVD 4018.58' INC. 89.3 AZM. 3.1 4.2' HIGH 37' LEFT

SRVY 8250' TVD 4019.27' INC. 88.8 AZM. 3.3 3.2' HIGH 36' LEFT

SRVY 8291' TVD 4019.74' INC. 89.9 AZM. 3.2 2.5' HIGH 35' LEFT

SRVY 8333' TVD 4020.07' INC. 89.2 AZM. 2.6 2' HIGH 34' LEFT

SRVY 8375' TVD 4019.81' INC. 91.5 AZM. 3.6 2' HIGH 34' LEFT

SRVY 8417' TVD 4018.86' INC. 89.9 AZM. 3.3 2.6' HIGH 33' LEFT

SRVY 8458' TVD 4018.5' INC. 89.9 AZM. 3.2 2.79' HIGH 32' LEFT

