



Confidentiality Requested:

Yes No

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1230870

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: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	11-21-29 H1
Doc ID	1230870

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6350-6352		6350-6352
6	6176-6178		6176-6178
6	6215-6217		6215-6217
6	6266-6268		6266-6268
6	6000-6002		6000-6002
6	6040-6042		6040-6042
6	6080-6082		6080-6082
6	5795-5797		5795-5797
6	5838-5840		5838-5840
6	5886-5888		5886-5888
6	5578-5580		5579-5580
6	5638-5640		5638-5640
6	5700-5702		5700-5702
6	5380-5382		5380-5382
6	5444-5446		5444-5446
6	5490-5492		5490-5492
6	5190-5192		5190-5192
6	5240-5242		5240-5242
6	5290-5292		5290-5292
6	5000-5002		5000-5002
6	5062-5064		5062-5064
6	5100-5102		5100-5102
6	4836-4838		4836-4838
6	4880-4882		4880-4882

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	11-21-29 H1
Doc ID	1230870

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	4920-4922		4920-4922
6	4700-4702		4700-4702
6	4738-4740		4738-4740
6	4780-4782		4780-4782
4	3912-3924	250 GAL 28% MCA W/ 3% MAS	3912-3924

Summary of Changes

Lease Name and Number: 11-21-29 H1

API/Permit #: 15-195-22865-01-00

Doc ID: 1230870

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	10/30/2013	11/10/2014
Fracturing Question 1		Yes
Fracturing Question 2		Yes
Fracturing Question 3		Yes
LocationInfoLink	https://solar.kgs.ku.edu/kcc/detail/locationInformation.cfm?section=20&tMARMATON	https://kolar.kgs.ku.edu/kcc/detail/locationInformation.cfm?section=20&tMARMATON, LANSING
Producing Formation		
Save Link	../kcc/detail/operatorEditDetail.cfm?docID=1165786	../kcc/detail/operatorEditDetail.cfm?docID=1230870

Summary of Attachments

Lease Name and Number: 11-21-29 H1

API: 15-195-22865-01-00

Doc ID: 1230870

Correction Number: 1

Attachment Name

11-21-29-H1 FRACTURING FLUIDS DISCLOSURE



CONFIDENTIAL

WELL COMPLETION FORM

Form Must Be Typed
Form must be Signed
All blanks must be Filled

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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	11-21-29 H1
Doc ID	1165786

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6350-6352		6350-6352
6	6176-6178		6176-6178
6	6215-6217		6215-6217
6	6266-6268		6266-6268
6	6000-6002		6000-6002
6	6040-6042		6040-6042
6	6080-6082		6080-6082
6	5795-5797		5795-5797
6	5838-5840		5838-5840
6	5886-5888		5886-5888
6	5578-5580		5579-5580
6	5638-5640		5638-5640
6	5700-5702		5700-5702
6	5380-5382		5380-5382
6	5444-5446		5444-5446
6	5490-5492		5490-5492
6	5190-5192		5190-5192
6	5240-5242		5240-5242
6	5290-5292		5290-5292
6	5000-5002		5000-5002
6	5062-5064		5062-5064
6	5100-5102		5100-5102
6	4836-4838		4836-4838
6	4880-4882		4880-4882

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	11-21-29 H1
Doc ID	1165786

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	4920-4922		4920-4922
6	4700-4702		4700-4702
6	4738-4740		4738-4740
6	4780-4782		4780-4782

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

October 29, 2013

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

Re: ACO1
API 15-195-22865-01-00
11-21-29 H1
SW/4 Sec.20-11S-21W
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

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

INVOICE

Invoice Number: 137471
Invoice Date: Jul 15, 2013
Page: 1

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

Now Includes:



8/8

V1308 AP-133

Customer ID	Field Ticket #	Payment Terms	
Gary	60498	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Great Bend	Jul 15, 2013	8/14/13

Quantity	Item	Description	Unit Price	Amount
		11-21-29 H-1		
275.00	MAT	Class A Common	17.90	4,922.50
10.00	MAT	Chloride	64.00	640.00
69.00	MAT	Flo Seal	2.97	204.93
293.34	SER	Cubic Feet	2.48	727.48
346.83	SER	Ton Mileage	2.60	901.78
1.00	SER	Surface	1,512.25	1,512.25
26.00	SER	Pump Truck Mileage	7.70	200.20
52.00	SER	Light Vehicle Mileage	4.40	228.80
1.00	SER	Manifold Head Rental	275.00	275.00
1.00	EQP	9.5/8 Saw Tooth Guide Shoe	518.31	518.31
1.00	EQP	9.5/8 Float Collar	1,414.53	1,414.53
5.00	EQP	9.5/8 Centralizer	87.75	438.75
1.00	EQP	9.5/8 Rubber Plug	184.86	184.86
1.00	CEMENTER	Tim Dickson		
1.00	EQUIP OPER	Charles Kinyon		
1.00	EQUIP OPER	Daniel Casper		

RECEIVED
JUL 31 2013
SAMUEL GARY JR. & ASSOCIATES, INC.

DRLG COMP W/O LOE GG

Account	8200.138
Well/Prospect	
Deck	
AFE	
Approval	

[Handwritten signature]

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

\$ 3,650.82

ONLY IF PAID ON OR BEFORE
Aug 9, 2013

Subtotal	Description	12,169.39
Sales Tax		636.78
Total Invoice Amount		12,806.17
Payment/Credit Applied		
TOTAL		12,806.17

13650.82
9155.35
✓

ALLIED OIL & GAS SERVICES, LLC 060498

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend, Ki

DATE <u>7-15-13</u>	SEC <u>20</u>	TWP. <u>11</u>	RANGE <u>21</u>	CALLED OUT <u>4:00 AM</u>	ON LOCATION <u>7:00 AM</u>	JOB START <u>1:30 PM</u>	JOB FINISH <u>2:30 PM</u>
LEASE <u>11-21-29</u>	WELL # <u>H1</u>	LOCATION <u>I-70 & Riggs Exit 4 1/2 N to H</u>			COUNTY <u>Trego</u>	STATE <u>Ki</u>	
OLD OR <u>NEW</u> (Circle one)		RD. <u>2 west to 300th 2 south 1/2 mile</u>					

CONTRACTOR HWD #3 OWNER Same

TYPE OF JOB Surface

HOLE SIZE 13 5/8 T.D. 410' CEMENT AMOUNT ORDERED 225 class A 32cc

CASING SIZE 9 5/8 DEPTH 409.42 1/4" Floerul/sh

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 400# MINIMUM 200# COMMON 225 @ 12.90 4922.50

MEAS. LINE SHOE JOINT 2.5' POZMIX @

CEMENT LEFT IN CSG. 2.5' GEL @

PERFS. CHLORIDE 10 @ 64.00 640.00

DISPLACEMENT 31 1/2 bbls ASC @

EQUIPMENT Floerul 69 @ 2.97 204.93

PUMP TRUCK CEMENTER Tom Duthen @

597 HELPER Charles Kuyon @

BULK TRUCK @

599 DRIVER Don Cooper @

BULK TRUCK @

DRIVER @

HANDLING 293.34 @ 2.48 727.48

MILEAGE 13.34 x 26 x @ 2.60 901.72

TOTAL \$ 72392.69

REMARKS:

Ran 409' of 9 5/8" Broke Circulation -
Pumped 5 bbls H₂O Mixed 225 sacks
class A, 32cc, 1/4" Floerul/sh Released
Plug Displaced with H₂O. Loaded
Plug at 400# Released a float H₂O.
Cement did circulate.
Circulated 10 bbls to Pit

SERVICE

DEPTH OF JOB 409.42

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @

MILEAGE HVM 26 @ 7.20 200.20

MANIFOLD @

Head Rent @ 225.00 225.00

LVM 52 @ 4.40 228.80

TOTAL 2216.25

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

PLUG & FLOAT EQUIPMENT

9 5/8"

Sawtooth Guide Shoe @ 518.31 518.31

Float Collar @ 1414.53 1414.53

5" Centralizers @ 87.75 438.75

Rebar Plug @ 184.96 184.96

TOTAL 2556.45

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 X SHANE MORRISON

SIGNATURE X Shane Morrison

SALES TAX (If Any) _____

TOTAL CHARGES 12,169.39

DISCOUNT 3650.82 IF PAID IN 30 DAYS

\$ 8518.57

PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 137605
Invoice Date: Jul 23, 2013
Page: 1

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

RECEIVED

AUG 12 2013

SAMUEL GARY JR.
& ASSOCIATES, INC.

Now Includes:



8/15

V1308-AP-376

Customer ID	Field Ticket #	Payment Terms	
Gary	61727	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Great Bend	Jul 23, 2013	8/22/13

Quantity	Item	Description	Unit Price	Amount
		11-21-29 #H1		
300.00	MAT	AMD	25.90	7,770.00
85.00	MAT	FL-160	18.90	1,606.50
42.00	MAT	Defoamer	9.80	411.60
900.00	MAT	Gilsonite	0.98	882.00
487.00	SER	Cubic Feet	2.48	1,207.76
808.00	SER	Ton Mileage	2.60	2,100.80
1.00	SER	Production -- Bottom Stage	2,765.75	2,765.75
25.00	SER	Pump Truck Mileage	7.70	192.50
1.00	SER	Manifold Head Rental	275.00	275.00
25.00	SER	Light Vehicle Mileage	4.40	110.00
7.00	EQP	7" Lock Ring	45.96	321.72
1.00	EQP	7" Float Shoe	712.53	712.53
1.00	EQP	7" Float Collar	886.86	886.86
1.00	EQP	7" Stage Collar	6,502.50	6,502.50
2.00	EQP	7" Basket	462.15	924.30
3.00	EQP	7" Sprial Centralizer	256.58	775.74
4.00	EQP	Thread Lock	83.07	332.28
4.00	EQP	7" Centralzier	65.52	262.08
1.00	CEMENTER	Tim Dickson		
1.00	EQUIP OPER	Kevin Eddy		

DRLG COMP W/O LOE GG

Account	8200 138	83.07
Well/Prospect		65.52
Deck		
AFE		
Approval		
Description		
Total Invoice Amount		
Payment/Credit Applied		

Subtotal	Approval	Continued
Sales Tax	Description	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

\$ 9,813.97

ONLY IF PAID ON OR BEFORE
Aug 17, 2013



PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 137605
Invoice Date: Jul 23, 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	61727	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Great Bend	Jul 23, 2013	8/22/13

Quantity	Item	Description	Unit Price	Amount
1.00	OPER ASSIST	Shawn Kearns		
1.00	EQUIP OPER	Daniel Casper		

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

\$ 9,813.97

ONLY IF PAID ON OR BEFORE
Aug 17, 2013

Subtotal	28,039.92
Sales Tax	1,636.19
Total Invoice Amount	29,676.11
Payment/Credit Applied	
TOTAL	29,676.11

-9813.97
19,862.14

ALLIED OIL & GAS SERVICES, LLC 061727

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Heat Pump, K
7-23-13 / 7-23-13

DATE <u>7-23-13</u>	SEC. <u>35</u>	TWP. <u>11</u>	RANGE <u>21</u>	CALLED OUT <u>4:00 PM</u>	ON LOCATION <u>10:10 AM</u>	JOB START <u>5:00 AM</u>	JOB FINISH <u>6:00 PM</u>
LEASE <u>11-21-29</u>	WELL # <u>H1</u>	LOCATION <u>E 70 & Rega Exit, 4 W to H Rd</u>			COUNTY <u>Trigo</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)			<u>2 W, 2 N, E & N into</u>				

CONTRACTOR <u>HWD #3</u>	OWNER <u>Same</u>
TYPE OF JOB <u>Production (Bottom Stage)</u>	
HOLE SIZE <u>8 3/4"</u>	T.D. <u>4165.54</u>
CASING SIZE <u>7"</u>	DEPTH <u>4163.70</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL STAGE COLLAR	DEPTH <u>2302'</u>
PRES. MAX <u>1250*</u>	MINIMUM
MEAS. LINE	SHOE JOINT <u>48.93'</u>
CEMENT LEFT IN CSG. <u>48.93</u>	
PERFS.	
DISPLACEMENT <u>8 7/8" H₂O - 88.16 Mud</u>	

EQUIPMENT	
PUMP TRUCK # <u>597</u>	CEMENTER <u>Tom Neuman</u>
BULK TRUCK # <u>544-198</u>	HELPER <u>Kevin Eddy</u>
BULK TRUCK # _____	DRIVER <u>Shawn Keam</u>
BULK TRUCK # _____	DRIVER <u>Don Carter</u>

CEMENT			
AMOUNT ORDERED <u>300 lbs ANO, 2% Salt, 2% Gypsel, 2% Sodium Met, 4% Def, 7% K, 1-160, 14 Defoamer, 3# Gilsomite / gal</u>			
COMMON		@	
POZMIX		@	
GEL		@	
CHLORIDE		@	
ASC		@	
ANO	<u>300</u>	@	<u>25.90 7770.00</u>
Fl-160	<u>85</u>	@	<u>18.90 1606.50</u>
Defoamer	<u>42</u>	@	<u>9.80 411.60</u>
Gilsomite	<u>900</u>	@	<u>.99 892.00</u>
HANDLING	<u>487</u>	@	<u>2.48 1207.76</u>
MILEAGE	<u>808 x 2.60</u>		<u>2100.80</u>
			TOTAL <u>13,978.66</u>

REMARKS:

Ran 4163' of 7" cas. Base Circulation Pumped 5 bbls H₂O. Pressure test line to 3000#. Mixed 300 lbs ANO, 2% Salt, 2% Gypsel, 2% Sodium Met, 4% Def, 7% K, 3/16" Fl-160, 14 Defoamer, 3# Gilsomite per sack. Washed line clean. Displaced with H₂O & Mud. And set hand plug. Released & float held. Had 1250 psi pressure. Co. Man said to open stage collar.

SERVICE

DEPTH OF JOB	<u>4163.70</u>		
PUMP TRUCK CHARGE			<u>2765.75</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>25</u>	@	<u>7.70 192.50</u>
MANIFOLD		@	
Head Rent		@	<u>275.00 275.00</u>
LVM	<u>25</u>	@	<u>4.40 110.00</u>
			TOTAL <u>3143.25</u>

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

Stank
5

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		
7" Lock Plug	<u>45.96</u>	<u>321.72</u>
7" Float Seal	<u>717.53</u>	<u>717.53</u>
Float Collar	@ <u>886.86</u>	<u>886.86</u>
Stage Collar	@ <u>6502.50</u>	<u>6502.50</u>
2- Beribets	@ <u>412.15</u>	<u>824.30</u>
3- Spiral Centralizer	@ <u>258.98</u>	<u>775.74</u>
Thread Loc 4	@ <u>83.07</u>	<u>332.28</u>
4- Centralizers	<u>65.52</u>	<u>262.08</u>
		TOTAL <u>10,718.01</u>

SALES TAX (If Any) _____
TOTAL CHARGES \$27,839.92
DISCOUNT \$9,743.97 IF PAID IN 30 DAYS
\$18,095.95

PRINTED NAME X Kendal Kyle
SIGNATURE X [Signature]



PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 137606
Invoice Date: Jul 23, 2013
Page: 1

V/308 AP-377

Now Includes:



8/15

RECEIVED
AUG 12 2013
SAMUEL GARY JR.
& ASSOCIATES, INC.

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

Customer ID	Field Ticket #	Payment Terms	
Gary	61728	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Great Bend	Jul 23, 2013	8/22/13

Quantity	Item	Description	Unit Price	Amount
		11-21-29 #H1		
8.00	MAT	Chloride	64.00	512.00
350.00	MAT	ALW	16.50	5,775.00
87.00	MAT	Flo Seal	2.97	258.39
1.00	SER	Production -- Top Stage	2,406.25	2,406.25
8.00	SER	Waiting on Location	440.00	3,520.00
1.00	CEMENTER	Tim Dickson		
1.00	EQUIP OPER	Kevin Eddy		
1.00	EQUIP OPER	Daniel Casper		
1.00	OPER ASSIST	Shawn Kearns		

DRLG COMP W/O LOE GG

Account	<i>8200.138</i>
Well/Prospect	
Deck	
AFE	
Approval	
Description	

Ph

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
Aug 17, 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 061728

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Great Bend, KS

DATE <u>7-23-13</u>	SEC. <u>35</u>	TWP. <u>11</u>	RANGE <u>21</u>	CALLED OUT _____	ON LOCATION _____	JOB START <u>5:00 PM</u>	JOB FINISH <u>6:00 PM</u>
LEASE <u>11-21-29</u>		WELL # <u>H1</u>		LOCATION <u>I70 + Rye Exit 4 W to H R</u>		COUNTY <u>Trego</u>	STATE <u>KS</u>
OLD OR <u>(NEW)</u> (Circle one)				<u>2 W, 2 N, E & N into</u>			

CONTRACTOR HWD #3

TYPE OF JOB Production Top Stage

HOLE SIZE 8 3/4 T.D. _____

CASING SIZE 7" DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL Stage collar DEPTH 2302

PRES. MAX 2000# MINIMUM 1100

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT 88.16

OWNER Senne

CEMENT AMOUNT ORDERED 350 lbs 65/35, 60 to H R

25cc, 4" floreal job

EQUIPMENT

PUMP TRUCK CEMENTER Tom Dehner

597 HELPER Kevin Eddy

BULK TRUCK DRIVER Don Cooper

609-241

BULK TRUCK DRIVER Shawn Keane

COMMON _____	@ _____	_____
POZMIX _____	@ _____	_____
GEL _____	@ _____	_____
CHLORIDE <u>8</u>	@ <u>64.00</u>	<u>512.00</u>
ASC _____	@ _____	_____
<u>ALW 350</u>	@ <u>16.50</u>	<u>5775.00</u>
<u>Floreal 87</u>	@ <u>2.97</u>	<u>258.39</u>
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
HANDLING _____	@ _____	_____
MILEAGE _____	@ _____	_____

REMARKS:

Moved Bomb. Wait 15 min. Pressure
In 2300' & opened stage collar
circulated and could not get return
Rig moved 30 yds to 15' 4" and pumped
with 25cc, 4" floreal job. Released plug
141 lbs of 1100# hold staging full
No return. Wait on order. Rig moved
30 yds to 15' 4" and pumped 250 lbs of 65/35
with 25cc, 4" floreal job. Released plug
Deployed with H2O. Landed plug @ 2000'

TOTAL 12545.39

SERVICE

DEPTH OF JOB <u>2302'</u>	_____
PUMP TRUCK CHARGE _____	<u>2406.25</u>
EXTRA FOOTAGE _____	@ _____
MILEAGE _____	@ _____
MANIFOLD _____	@ _____
<u>Wait Time 8 hr</u>	@ <u>44.00</u> <u>352.00</u>
_____	@ _____

TOTAL 5926.25

PLUG & FLOAT EQUIPMENT

_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____

TOTAL _____

CHARGE TO: Samuel Gray Jr & Associates

STREET _____

CITY _____ STATE _____ ZIP _____

(12.5 ppg) Released & Held: 1 Stage

(1.92 yard)

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 12,471.64

DISCOUNT 4365.07 IF PAID IN 30 DAYS

\$ 8,106.57

PRINTED NAME X Kendal Kyle

SIGNATURE X [Signature]



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 8/15/2013
 Invoice # 7751

P.O.#:
 Due Date: 9/14/2013
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

RECEIVED

AUG 26 2013

**SAMUEL GARY JR.
& ASSOCIATES, INC.**

Reference:
 11-21-29 H-1

Description of Work:
 CIRCULATE CEMENT

DRLG COMP W/O LOE GG

Account	8300.217
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	No				
mon, MetsoBeads, Plater, Gel, FloSeal, Calcium)	200	\$ 4,151.77	Yes				
Bulk Truck Matl-Material Service Charge	260	\$ 564.57	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	34	\$ 215.58	No				
Flo Seal	62	\$ 134.63	Yes				
Premium Gel (Bentonite)	2	\$ 35.35	Yes				

Invoice Terms:

Net 30

	SubTotal:	\$	6,093.29
	Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(913.99)
<hr/>			
	SubTotal for Taxable Items:	\$	3,673.49
	SubTotal for Non-Taxable Items:	\$	1,505.81
<hr/>			
	Total:	\$	5,179.30
	Tax:	\$	281.02
	Amount Due:	\$	5,460.32
	Applied Payments:		
	Balance Due:	\$	5,460.32

7.65% Trego County Sales Tax

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7751

Date	8-15-13	Sec.	29	Twp.	11	Range	21	County	Trego	State	Ks	On Location		Finish	3:15 PM
------	---------	------	----	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	---------

Lease	11-21-29	Well No.	H-1	Owner	Riga + I-70 N to H Rd, 3W to 360 Rd, 1/2 N Ekinto
-------	----------	----------	-----	-------	---

Contractor	Rawhide well service	Charge To	Sam Gary Jr. + Associates
Type Job	Circulate Cement	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	

Hole Size	T.D.	Street	
-----------	------	--------	--

Csg.	7"	Depth	
------	----	-------	--

Tbg. Size	2 7/8"	Depth	891'
-----------	--------	-------	------

Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
------	-------	--	--

Cement Left in Csg.	Shoe Joint	Cement Amount Ordered	250 SX Q MDC 1/4# Flouren
---------------------	------------	-----------------------	---------------------------

Meas Line	Displace	BLS	10 gal on side used 200
-----------	----------	-----	-------------------------

EQUIPMENT

Pumptrk	16	No.	Cementer	Billy	Common	200 Q MDC
			Helper		Poz. Mix	
Bulktrk	8	No.	Driver	Doug	Gel.	2
			Driver		Calcium	
Bulktrk	p.u.	No.	Driver	Rick	Hulls	

JOB SERVICES & REMARKS

Remarks:	perfs 1030'	Salt	
Rat Hole	pressure backside to 500#	Flowseal	62#
Mouse Hole	pump 100 BLS of	Kol-Seal	
Centralizers	Rig Mud.	Mud CLR 48	
Baskets	pump 25X Gel	CFL-117 or CD110 CAF 38	
D/V or Port Collar	Mix 200 SX Q MDC	Sand	
	1/4# Flouren - Displaced	Handling	260
	with 9 1/2 BLS of water.	Mileage	
	shut in.	FLOAT EQUIPMENT	

Rigger down.

Pumptrk Charge *Cin Cement*
Mileage 34

X Signature

Tax
Discount
Total Charge



Well 11-21-29-H1
 Sam Gary and Associates
 HWD 3
 Trego Co, Kansas
 Minimum Curvature Calculation

MWD George Hunt / Charlie Minyard
 DIRECTIONAL DRILLERS: Clark Summers / Garret
 Magnetic Declination: **6.6**
 Job #: DR1306096
 Vertical Section Azimuth **181.96**

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	
1	410.00	0.20	0.00	410.00	0.72	0.00	-0.72	0.05	0.05	0.00
2	682.00	0.40	87.83	682.00	1.23	0.95	-1.26	0.16	0.07	32.29
3	949.00	0.22	25.81	948.99	1.72	2.10	-1.79	0.13	-0.07	-23.23
4	1225.00	0.09	333.13	1224.99	2.39	2.24	-2.47	0.07	-0.05	19.09
5	1492.00	0.48	352.11	1491.99	3.69	1.99	-3.75	0.15	0.15	7.11
6	1762.00	0.40	55.00	1761.98	5.35	2.60	-5.44	0.17	-0.03	-23.29
7	2029.00	0.31	246.60	2028.98	5.60	2.71	-5.69	0.26	-0.03	63.07
8	2300.00	0.22	126.02	2299.98	5.00	2.45	-5.08	0.17	-0.03	-44.49
9	2569.00	0.40	167.02	2568.97	3.78	3.08	-3.88	0.10	0.07	15.24
10	2835.00	0.40	162.31	2834.97	1.99	3.57	-2.11	0.01	0.00	-1.77
11	2950.00	0.31	162.40	2949.97	1.31	3.79	-1.44	0.08	-0.08	0.08
12	3006.00	0.40	192.80	3005.96	0.98	3.79	-1.11	0.37	0.16	54.29
13	3051.00	0.50	175.50	3050.96	0.63	3.77	-0.76	0.37	0.22	-38.44
14	3096.00	2.10	191.80	3095.95	-0.37	3.62	0.25	3.61	3.56	36.22
15	3141.00	6.10	197.00	3140.83	-3.47	2.75	3.37	8.92	8.89	11.56
16	3186.00	9.60	194.80	3185.40	-9.39	1.09	9.34	7.80	7.78	-4.89
17	3231.00	12.70	193.70	3229.54	-17.82	-1.04	17.85	6.90	6.89	-2.44
18	3276.00	14.40	185.10	3273.29	-28.20	-2.71	28.28	5.85	3.78	-19.11
19	3321.00	16.60	186.40	3316.65	-40.16	-3.92	40.28	4.95	4.89	2.89
20	3363.00	18.00	191.10	3356.76	-52.50	-5.84	52.66	4.71	3.33	11.19
21	3409.00	20.50	188.10	3400.18	-67.45	-8.34	67.69	5.84	5.43	-6.52
22	3453.00	24.40	183.80	3440.84	-84.15	-10.03	84.44	9.61	8.86	-9.77
23	3498.00	26.50	184.70	3481.47	-103.43	-11.47	103.77	4.75	4.67	2.00
24	3542.00	28.10	183.90	3520.57	-123.56	-12.98	123.93	3.73	3.64	-1.82
25	3584.00	33.50	182.50	3556.63	-145.02	-14.16	145.42	12.97	12.86	-3.33
26	3629.00	38.70	181.20	3592.98	-171.51	-15.00	171.92	11.68	11.56	-2.89
27	3674.00	43.90	179.30	3626.78	-201.20	-15.10	201.60	11.89	11.56	-4.22
28	3719.00	49.10	177.30	3657.75	-233.81	-14.11	234.16	12.00	11.56	-4.44
29	3763.00	55.10	177.50	3684.76	-268.48	-12.54	268.75	13.64	13.64	0.45
30	3808.00	60.00	178.10	3708.90	-306.41	-11.08	306.61	10.95	10.89	1.33
31	3853.00	60.30	177.40	3731.30	-345.41	-9.55	345.54	1.50	0.67	-1.56
32	3899.00	60.40	177.30	3754.05	-385.35	-7.70	385.38	0.29	0.22	-0.22
33	3940.00	60.60	177.40	3774.24	-420.99	-6.05	420.95	0.53	0.49	0.24
34	3985.00	61.70	177.00	3795.96	-460.36	-4.13	460.23	2.57	2.44	-0.89
35	4030.00	66.10	176.40	3815.75	-500.69	-1.80	500.46	9.85	9.78	-1.33
36	4075.00	67.90	177.00	3833.33	-542.05	0.59	541.71	4.18	4.00	1.33
37	4120.00	68.80	177.40	3849.93	-583.82	2.63	583.39	2.16	2.00	0.89
38	4164.00	72.70	178.20	3864.44	-625.32	4.22	624.81	9.03	8.86	1.82
39	4209.00	73.80	177.70	3877.41	-668.38	5.76	667.80	2.67	2.44	-1.11
40	4254.00	75.40	177.50	3889.36	-711.73	7.58	711.05	3.58	3.56	-0.44



Well 11-21-29-H1
Sam Gary and Associates
HWD 3
Trego Co, Kansas
Minimum Curvature Calculation

MWD George Hunt / Charlie Minyard
DIRECTIONAL DRILLERS: Clark Summers / Garret
Magnetic Declination: 6.6
Job #: DR1306096
Vertical Section Azimuth 181.96

No.	Survey Depth	INC	AZM	TVD	N-S	E-W	Vertical Section	DLS/ 100	BUR	WR
41	4298.00	80.30	178.40	3898.61	-754.70	9.11	753.95	11.31	11.14	2.05
42	4343.00	82.60	179.30	3905.30	-799.19	10.00	798.38	5.48	5.11	2.00
43	4388.00	86.90	179.60	3909.42	-843.99	10.43	843.14	9.58	9.56	0.67
44	4433.00	90.80	180.50	3910.32	-888.97	10.39	888.09	8.89	8.67	2.00
45	4478.00	90.80	180.60	3909.69	-933.96	9.96	933.08	0.22	0.00	0.22

Sam Gary & Associates

Location Kansas Installation Trego County
Field Sec 20 - 11S - 21W Well 11-21-29-H1

Installation Data

Name	Latitude	Longitude	Northing	Easting
Trego County	N39 4 25.78	W99 41 7.83	274142.00	1521499.00

Coordinate System Kansas State Planes, Northern Zone

Name	North [ft]	East [ft]	Latitude	Longitude	Northing	Easting
11-21-29-H1	668.03 N	1123.05 E	N39 4 32.59	W99 40 53.75	274810.00	1522622.00

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

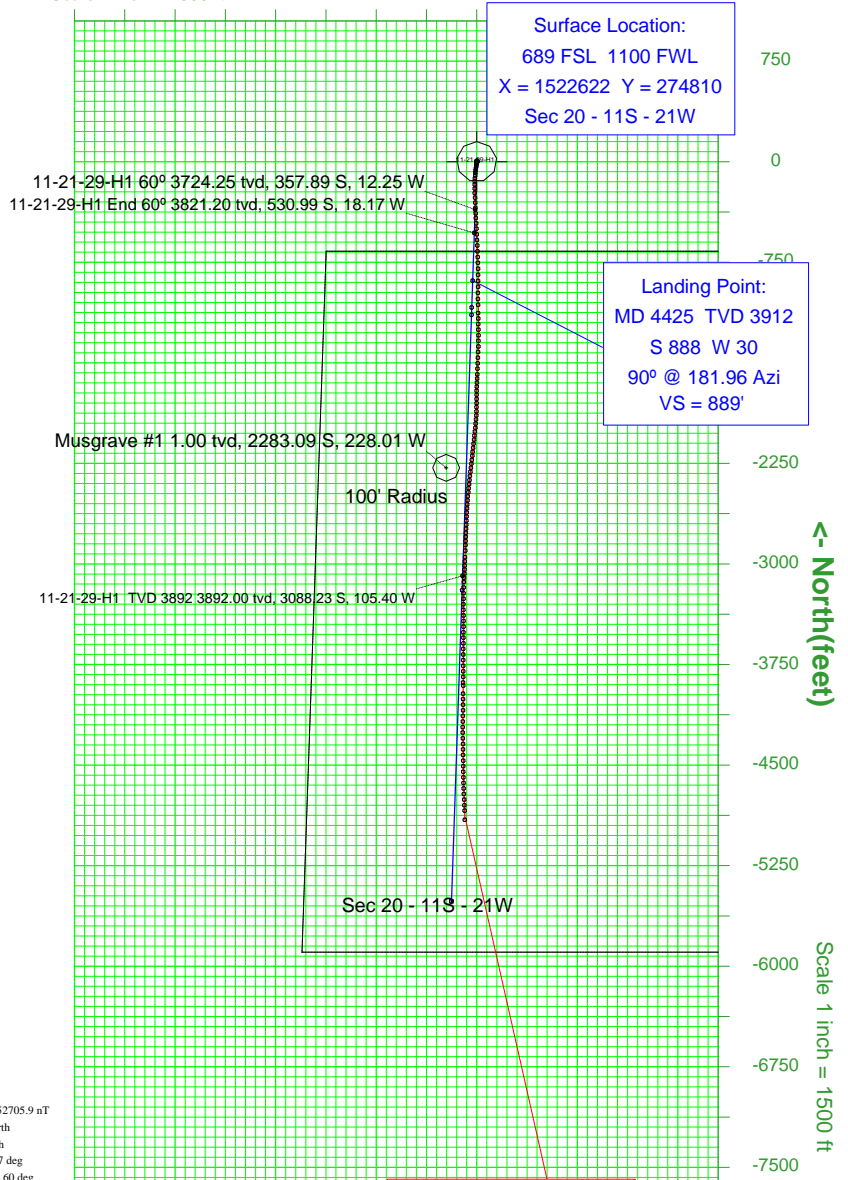
Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on KOP	3104.00	0.00	0.00	3104.00	0.00	0.00	0.00	-0.00
Target 11-21-29-H1 60°	3854.00	60.00	181.96	3724.25	-357.89	-12.25	8.00	358.10
Target 11-21-29-H1 End	4052.50	61.52	181.96	3821.20	-530.99	-18.17	0.77	531.30
Target 11-21-29-H1 LP	4425.04	89.96	181.96	3912.00	-888.15	-30.39	7.63	888.67
Target 11-21-29-H1 CP	4625.03	90.04	181.96	3912.00	-1088.03	-37.23	0.04	1088.67
End of Build/Turn	4679.42	90.58	181.95	3911.71	-1142.38	-39.09	1.00	1143.05
Target 11-21-29-H1 TV	6626.50	90.58	181.95	3892.00	-3088.23	-105.40	0.00	3090.03
End of Drop/Turn	6734.03	89.50	181.97	3891.92	-3195.70	-109.08	1.00	3197.56
T.D. & Target 11-21-29-	9057.02	89.50	181.97	3912.00	-5517.22	-189.01	0.00	5520.46

TARGET DATA

MD	Inc	Azi	TVD	North	East	Name	Position
-	-	-	1.00	-2283.09	-228.01	Musgrave #1	1522394.00 East : 272527.00 North
3854.00	60.00	181.96	3724.25	-357.89	-12.25	11-21-29-H1 60°	1522609.75 East : 274452.12 North
4052.50	61.52	181.96	3821.20	-530.99	-18.17	11-21-29-H1 End 60°	1522603.83 East : 274279.03 North
6626.50	90.58	181.95	3892.00	-3088.23	-105.40	11-21-29-H1 TVD 3892	1522516.60 East : 271721.90 North
4425.04	89.96	181.96	3912.00	-888.15	-30.39	11-21-29-H1 LP	1522591.61 East : 273921.89 North
4625.03	90.04	181.96	3912.00	-1088.03	-37.23	11-21-29-H1 CP	1522584.77 East : 273722.01 North
9057.02	89.50	181.97	3912.00	-5517.22	-189.01	11-21-29-H1 BHL	1522433.00 East : 269293.00 North

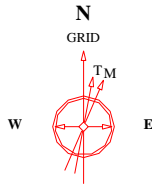
East (feet) ->

-3000 -2250 -1500 -750 0 750 1500
Scale 1 inch = 1500 ft



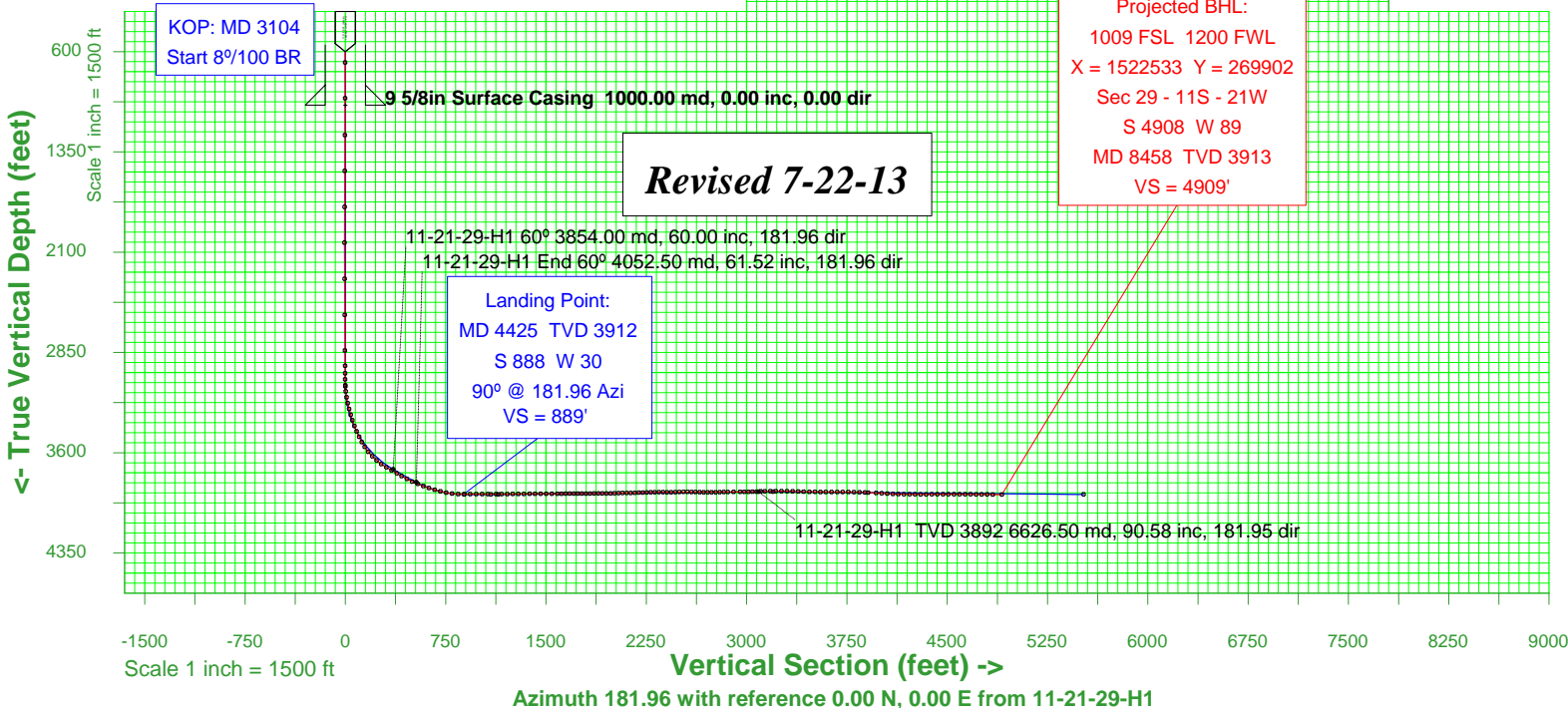
9630 Pole Rd.
Oklahoma City, OK 73160
Tel: (405) 604-2969

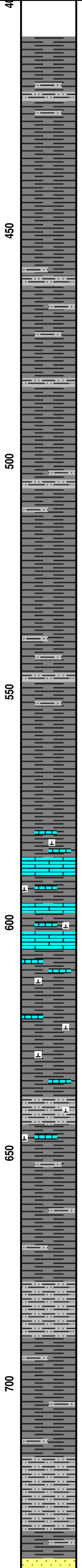
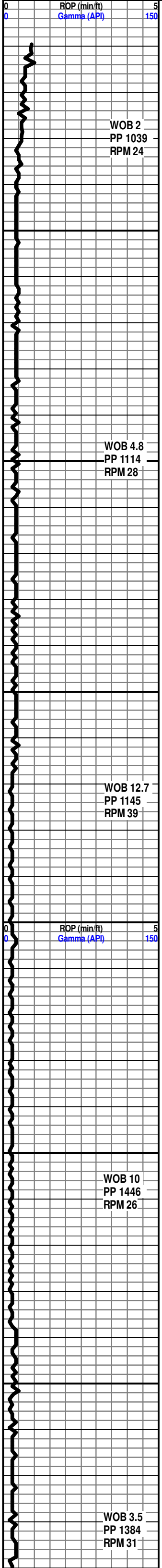
Plan 2
TVD 3912



Created by admin
Date plotted 5-Aug-2013
Plot reference is 11-21-29-H1 (Revised Plan TVD 3912).
Ref wellpath is 11-21-29-H1 (PWP#1).
Coordinates are in feet reference 11-21-29-H1.
True Vertical Depths are reference 11-21-29-H1.
Measured Depths are reference Slot.
Plot North is aligned to GRID North.

12-Jul-2013
IGRF Model [1900.0-2015.0] Dip: 66.64 deg Field: 52705.9 nT
Magnetic North is 5.53 deg East of True North
GRID North is 1.07 deg West of True North
To correct azimuth from True to GRID add 1.07 deg
To correct azimuth from Magnetic to GRID add 6.60 deg





Rigged up and on location July 15, 2013
 START DRILLING OFUS @ 6:00 AM 7/16/13

ULTERRA 8 3/4 5-15'S JETS
 SER. # 17393 PDC

SH- LT GRY TO GRY, SFT GMMY IP, V/ SFT GRNY, V/ SLTY TXT, BLKY

SH- LT TO MD GRY, V/ SFT GMMY TO V/ SFT GRNY, V/ SLTY TXT IP, BLKY

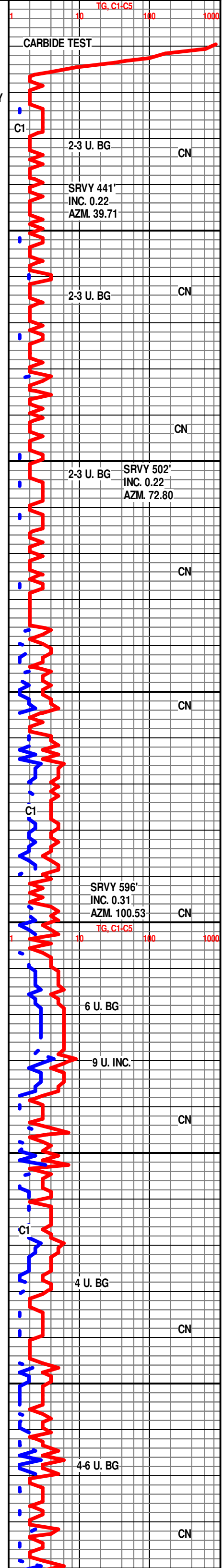
SH- LT GRY TO GRY, SFT GMMY IP, V/ SLTY TO TRS FN QURTZ GRNS IP, BLKY

SH- LT GRY TO GRY, SFT GMMY, V/ SLTY TO TRS FN QURTZ GRNS IP, BLKY

LS- CRM LT GRY, HD BRITT MOTT, SLI CALC IP, MD-XLN TO SUCRO MTRX IP, RE-XLN IP, IMBD DISS SH THRU, LT YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GRY TO GRY, FRM BLKY IP TO V/ SFT GMMY, V/ CALC IP, TRS SLTY IP, TRS IMBE LS- OFF WHT TO CRM, HD BRITT, SLI CALC IP

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



WOB 2
 PP 1039
 RPM 24

WOB 4.8
 PP 1114
 RPM 28

WOB 12.7
 PP 1145
 RPM 39

ROP (min/ft)
 Gamma (API)

WOB 10
 PP 1446
 RPM 26

WOB 3.5
 PP 1384
 RPM 31

CARBIDE TEST

C1

2-3 U. BG CN

SRVY 441'
 INC. 0.22
 AZM. 39.71

2-3 U. BG CN

CN

2-3 U. BG SRVY 502'
 INC. 0.22
 AZM. 72.80

CN

CN

C1

SRVY 596'
 INC. 0.31
 AZM. 100.53 CN

6 U. BG

9 U. INC.

CN

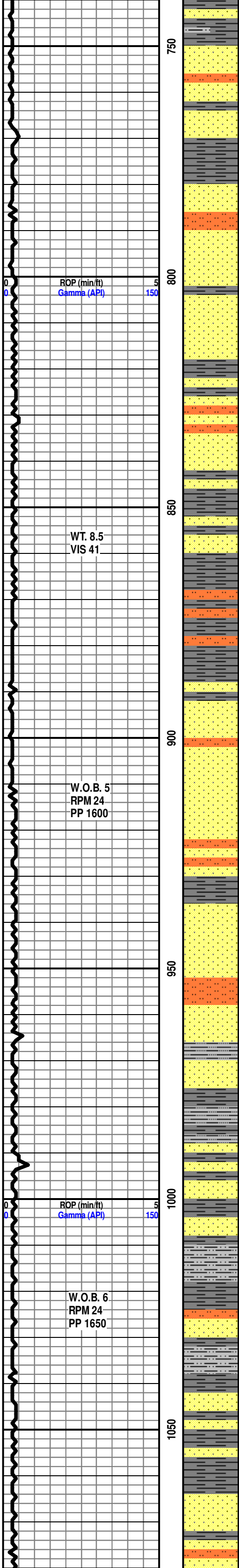
C1

4 U. BG

CN

4-6 U. BG

CN



SS- CLR FRSTY TO WHT IP, ABDT UNCONSOLIDATED QRTZ GRNS THRU, FN/VF RND-S RND QRTZ GRNS, V PR SRT, SLI TR PYR, INTER-BED SH SFT BLCKY SMTH

SS- CLR FRSTY, ABDT UNCONSOLIDATED QRTZ GRNS THRU, VFN/MD S-RND TO S-ANG QRTZ GRNS, PR SRT, NO VIS FLO, NO VIS POR, NO VIS SHOW

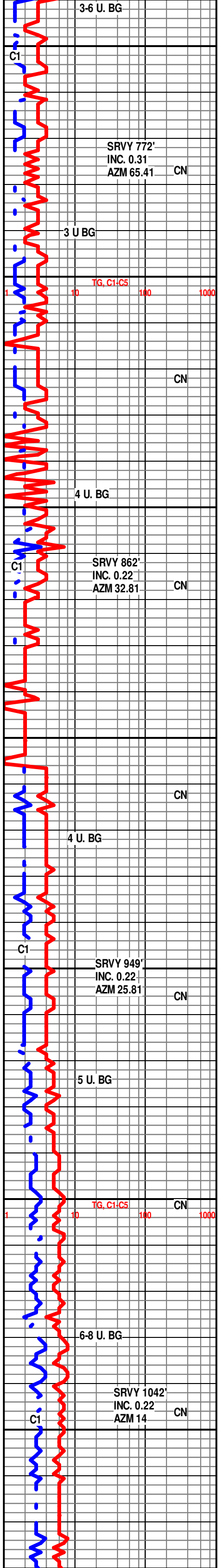
INTERBED SS & SH- CLR TO FRSTY, ABDT UNCONSOLIDATED QRTZ GRNS, VF/FN S-RND QRTZ GRNS, V PR SRT, LMNTD SFT GY SH THRU, TR SCAT PYR, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SS- FRST WHT, ABDT UNCONSOLIDATED QRTZ GRNS, VFN/FN S-RND TO ANG QRTZ GRNS, PR SRT, V SLI TR DISS GY SH, NO VIS FLO, NO VIS POR, NO VIS SHOW

SS- FRST WHT TO CRM IP, ABDT UNCONSOLIDATED QRTZ GRNS, FN/VFN S-RND TO ANG QRTZ GRNS, PR SRT, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SS- FRSTY WHT TO CRM, ABDT UNCONSOLIDATED QRTZ GRNS, VFN/VVFN S-RND QRTZ GRNS, INTERBED SLTY SFT GY SH, SCAT PYR IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SS & SLTSTN- LT GY TO GY V/SFT, ABDT UNCONSOLIDATED CLR FRSTY VFN S-RND QRTZ GRNS THRU, ABDT DISS GY SH AND LMNTD SH THRU,

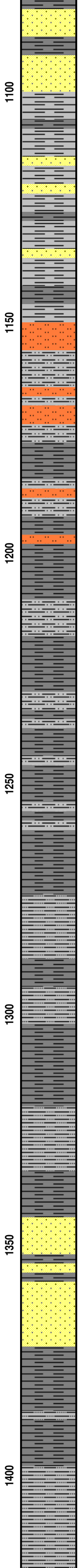
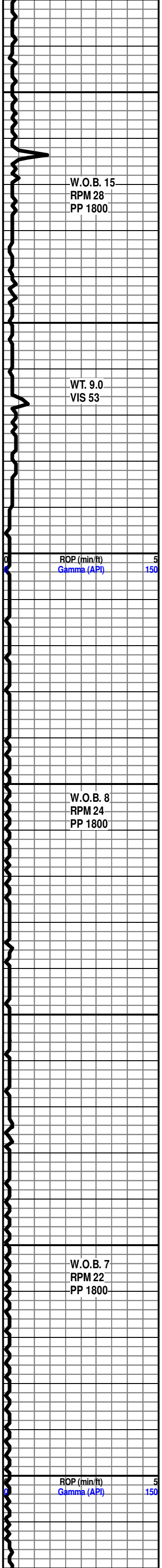


SRVY 772'
INC. 0.31
AZM 65.41 CN

SRVY 862'
INC. 0.22
AZM 32.81 CN

SRVY 949'
INC. 0.22
AZM 25.81 CN

SRVY 1042'
INC. 0.22
AZM 14 CN



SS- CLR TO FRSTY IP, ABDT UNCONSOLIDATED QRTZ GRNS THRU, VFN/FN S-RND QRTZ GRNS, PR SRT, HVY TR SCAT PYR THRU, INTERBED SFT GY SH SLTY IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SLTSTN- LT GY TO GY, ABDT V FN GRN QRTZ, ABDT IMB DISS SH & LMNDT SH THRU, V GMMY IP

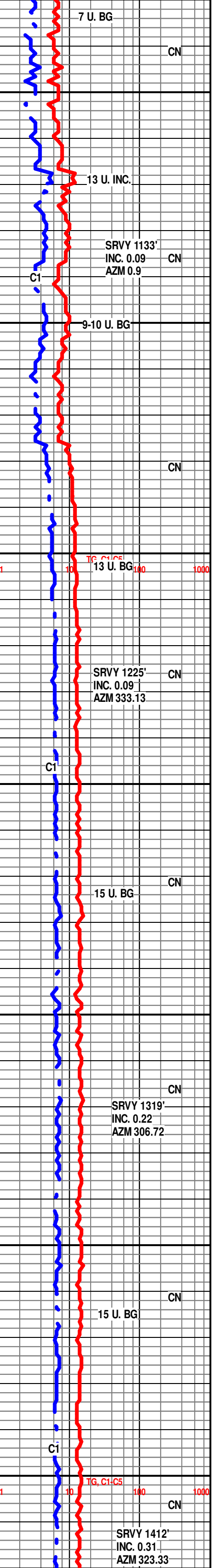
SLTSTN- LT TN TO LT GY GY, ABDT FN TO V FN GRN QRTZ, INTER BED GY TO RD SH THRU, SCAT PYR THRU, ABDT IMB DISS SH & LMNDT SH THRU, V GMMY

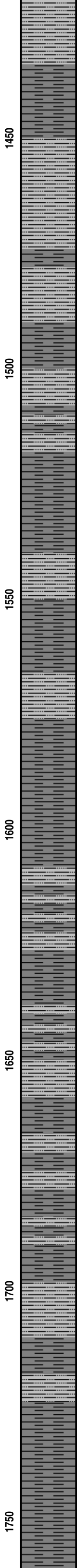
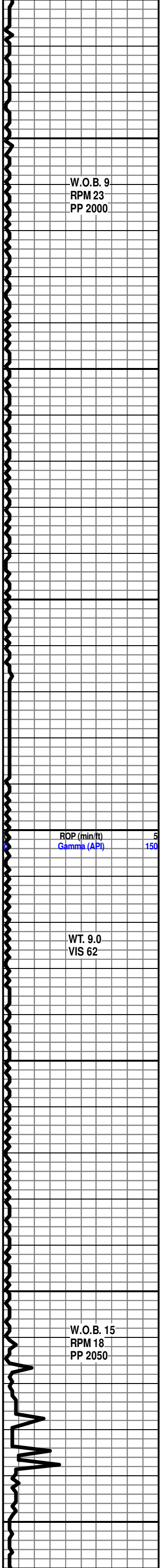
SLTY SH'S- RD TO DK RD, V GMMY THRU, ABDT UNCONSOLIDATED FN QRTZ GRNS THRU, SLI TR SCAT PYR

SH- RD TO DK RD, V GMMY THRU, SCAT IMB VFN S-RND CLR QRTZ GRNS THRU

SS- CLR TO FRSTY IP, HD TT, UNCONSOLIDATE QRTZ GRNS THRU, V FN RND QRTZ GRNS, IMB DISS RD SH IP, SLI TR PYR IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- RD TO DK RD, SFT TO V GMMY THRU, V SLTY, ABDT UNCONSOLIDATED V/FN QRTZ GRNS THRU





SHLY SLTS- RD, V GMMY THRU, V SLTY TXT, ABDT UNCONSOLIDATED FN/VFN CLR RND QRTZ GRNS THRU

SHLY SLTS- RD TO DK RD, V GMMY THRU, ABDT UNCONSOLIDATED QRTZ GRNS, V/V/FN CLR RND QRTZ GRNS THRU, V SLI TR PYR IP

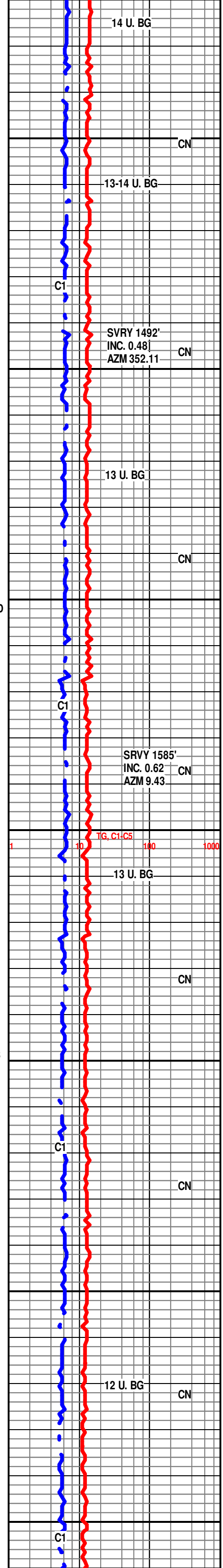
SHLY SLTS- RD TO DK RD, V GMMY THRU, ABDT UNCONSOLIDATED QRTZ GRNS, FN/VFN CLR FRSTY RND QRTZ GRNS THRU

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

SH- RD TO DK RD, V GMMY THRU, V SLTY TXT, ABDT IMB V/FN QRTZ GRNS THRU

SHLY SLTS- RD TO DK RD, V GMMY THRU, V SLTY TXT, ABDT IMB FN/VFN CLR RND QRTZ GRNS THRU, SLI TR DISS GY SH

SH- RD TO DK RD, V GMMY THRU, V SLTY TXT



STONE CORRAL 1761' 534'

TOTCO DEPTH CORRECTION

ROP (min/ft)
Gamma (API)

TOTCO DEPTH CORRECTION

W.O.B. 24
RPM 23
PP 2150

TOTCO DEPTH CORRECTION

WT. 9.2
VIS 40

W.O.B. 17
RPM 24
PP 2200

ROP (min/ft)
Gamma (API)

DOLO- WHT TO OFF WHT LT GY IP, HD DNS, TT SUCRO MTRX, ABDT IMB ANHY, HVY TR RD SH

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

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

SH- RD TO GY DK GY, FRM TO V SFT SLI TR GMMY IP, BLCKY, INTERBED- DOLO- WHT TO OFF WHT, HD DNS, HD TT SUCRO MTRX, ABDT IMB S-RND DOLO GRNS THRU, SCAT IMB S-RND CLR QRTZ GRNS, DUL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

SH- RD TO GY GRN IP, FRM TO V SFT, BLCKY SMTH TXT, SLI TR SLTY IP, SLI TR PRED SS CLSTERS

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

SH- LT GY TO GY DK GY IP, FRM TO SFT IP, SLTY TXT

SVRY 1762'
INC. 0.4
AZM 55

13 U. BG

TG, C1-C5

12-13 U. BG

SRVY 1851'
INC. 0.09
AZM 61.81

12 U. BG

12 U. BG

13 U. BG

TG, C1-C5

SRVY 2029'
INC. 0.31
AZM 246

15 U. BG

CN

CN

C1

CN

CN

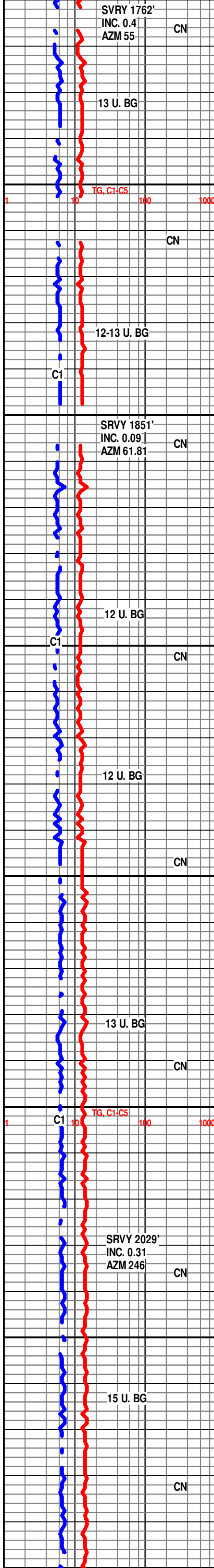
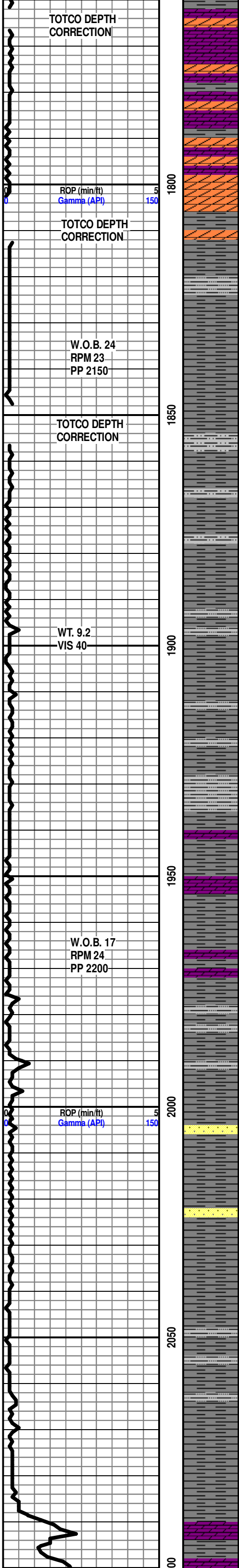
CN

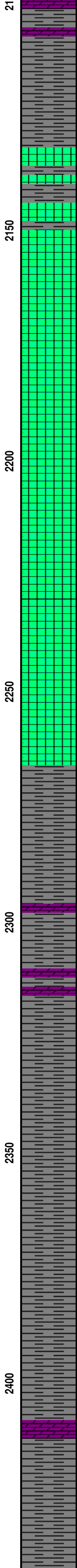
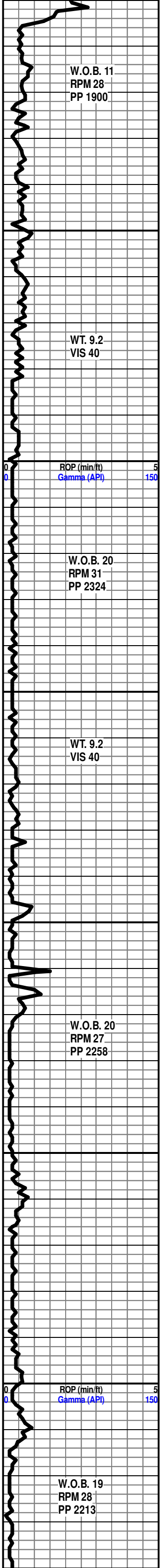
CN

C1

CN

CN





THRU, INTER-BED DOLO- OFF WHT TO TN, HD DNS, SUCRO MTRX, IMB V FN S-RND DOLO GRNS THRU, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

HUTCHINSON SALT 2131' 164'

BASE HUTCHINSON 2266' 29'

SH-LT GY TO GY F/BLKY V/GRNY TXT TO S GMMY IP,

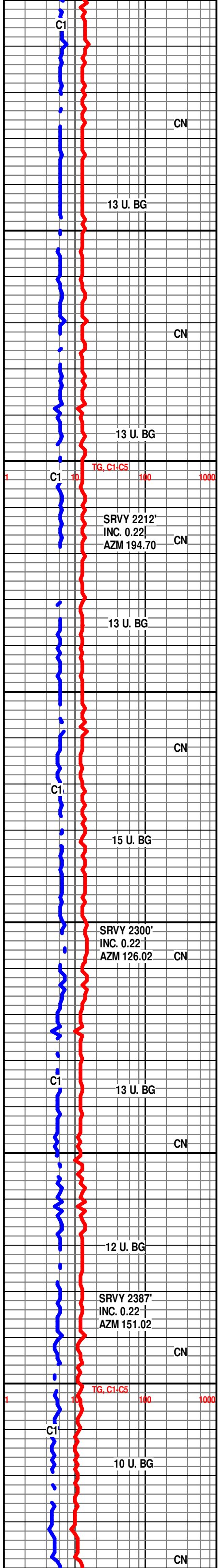
DOLO-CRM LT GY TO GY HD TO BRITT MOTT, V/TT SUCRO MTRX, V/ARG TO SHLY, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

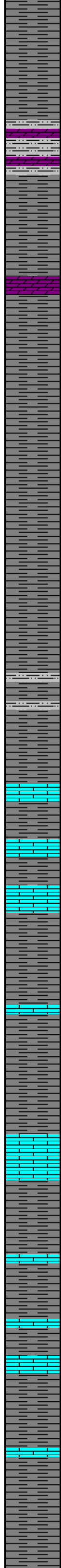
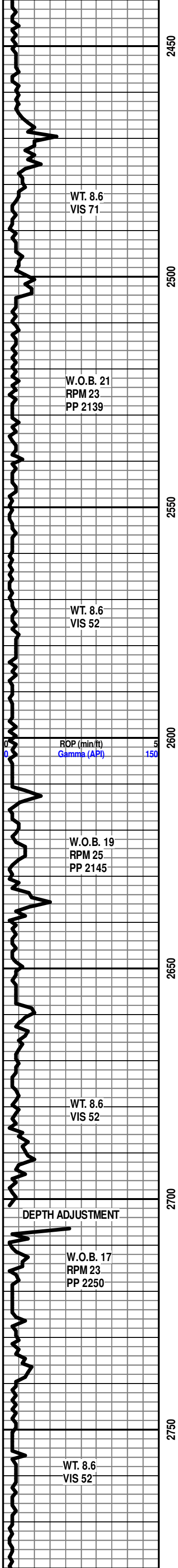
SH- LT GY TO GY RD TO BRN OCC GRN, SFT TO GMMY TXT, V/T

SH- LT TN TO LT GY, V/SFT GMMY TO V/SLTY IP

CHASE 2397' -102'

DOLO-CRM TO LT GY TO GY, HD BRTT V/MOTT, V/SUCRO MTRX, ABDT IMB GY TO DRK GY SH, SLI CALC IP, NO FLO, NO VIS POR, NO SHOW





SH- GY MD GY TO RD MOTT V/SFT GMMY TXT TO HVY TRC SLTY IP

SHLY SLTS-RD TO DRK RD OCC BRN, V/SFT SILTY TXT, SLI TRS IMBED DOLO- CRM TO LT GY TO GY, HD BRIT V/MOTT, V/SUCRO MTRX,SLI CALC IP

DOLO-CRM LT GY DK GY MOTT HD DNS TO BRIT MD TO F XLN IMBD DISS AND LMNTD SH THRU, SLI CALC IP, NO FLO, NO VIS POR, NO VIS SHOW

SH-LT RD TO RD TRC GRN LT GY TO GY, FRM IP V/SFT GMMY, BLKY

SH-LT GY TO GY FRM BLKY SM TXT TO V-SFT SILTY IP

LS-LT TN TO TN LT GY TO GY, HD DNS F TO V/F-XLN, TRC TT SUCRO IP, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

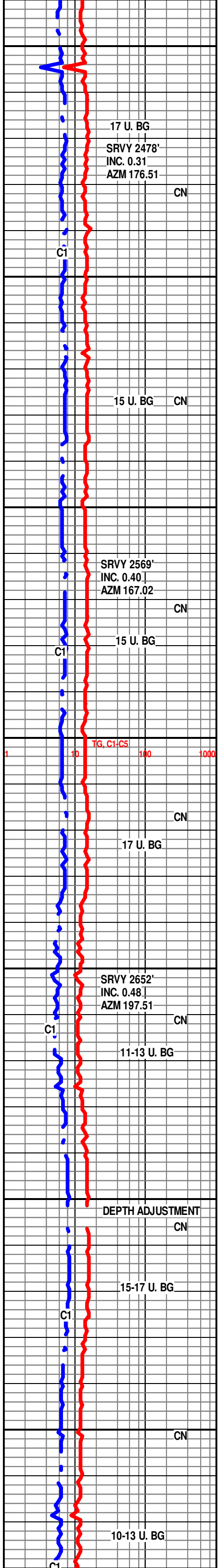
LS-CR LT TN TN HD TO BRIT MD XLN TO SUCRO IP, TRC SFT WHT CHLK, ABTD IMBD WHT LT GY CHRT, NO FLO, NO VIS POR, NO SHOW

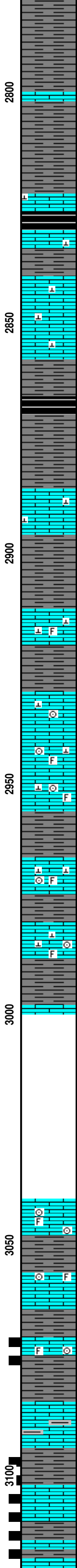
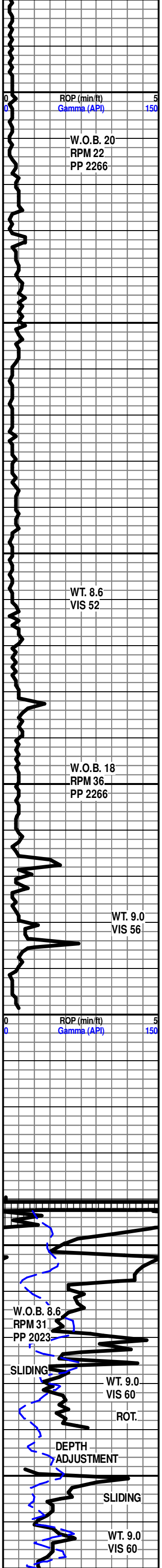
LS- OFF WHT TO CRM LT TN TO TN, HD TO BRIT MD XLN TO SUCRO IP, NO FLO, NO VIS POR, NO SHOW

DEPTH ADJUSTMENT

LS- OFF WHT TO CRM LT TN TO TN LT GRN, HD TO BRIT MD XLN TO SUCRO IP, NO VIS POR, NO VIS CUT, NO SHOW

SH- LT GY TO GY OCC GRN, SFT TO SLI TRS GMMY, BLCKY





SH- LT GY TO GY OCC GRN TN TO RD, SFT TO SLI TRS GMMY, BLCKY

SH- BLCK SFT CARB

LS- OFF WHT TO WHT CRM TO LT GRY, HD TO BRITT, RE-XLN MTRX, TRS IMBD SH IP, DUL YEL MIN FLO IN 20%, NO VIS POR, NO VIS CUT, NO SHOW

NEVA 2860'-565'

SH- BLCK SFT CARB

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

SH- LT GY TO GY OCC DRK GY, SFT TO FRM, SMTH TXT, BLCKY TO SPLNTY

LS- OFF WHT TO CRM LT GY TO GY OCC DRK GY, HD DNS TO V BRTT, MD/F-XLN, SLI TRS CHLK, IMBED SH IP, SCAT FREE CALC-XLS THRU TRAY, TRS FOSS FRGS, TRS CRIN STM THRU TRAY, DUL YEL FLO IN 20%, SLI TRS MICRO PP POR, NO VIS CUT OR SHOW

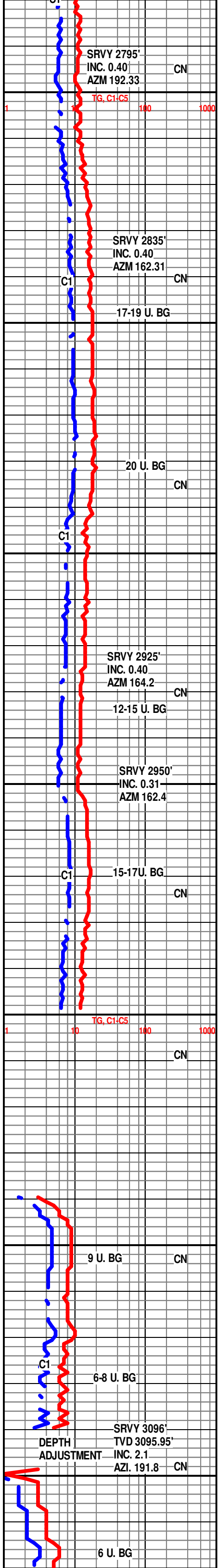
LS- CRM TO OFF WHT LT GY TO GY, HD DNS TO V BRTT, MD/F-XLN, IMBED SH IP, SCAT FREE CALC-XLS THRU TRAY, TRS FOSS FRGS, TRS CRIN STM THRU TRAY, DUL YEL FLO IN 20%, SLI TRS MICRO PP POR, NO VIS CUT OR SHOW

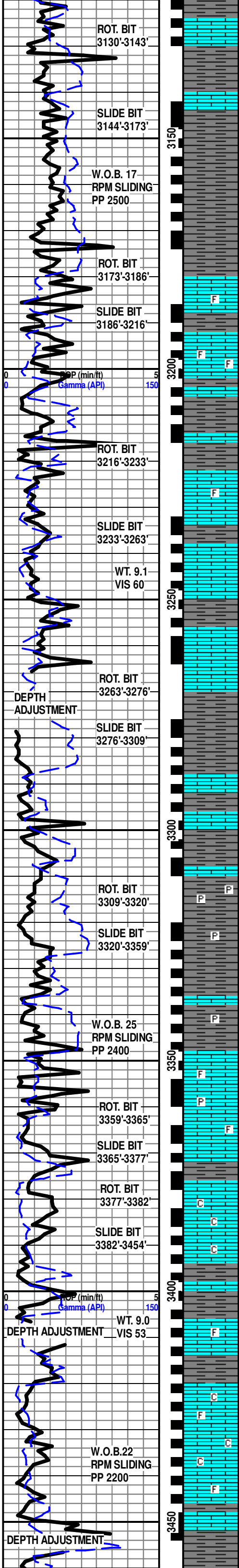
**CFS @ 3000'/ T.O.H. @ 7:15 A.M.
JULY 17, 2013
PUTTING MWD & DD TOOLS ON
BACK TO DRILLING AT 1:30 AM. JULY 18, 2013.. TOTCO DEPTH OFF.
TAGGED BOTTOM AT 3040'
INSTEAD OF 3000'**

BEGIN SLIDING AFTER 3040'

LS-CRM BFF LT TN, HD DNS TO BRITT, MD XLN TO TT SUCRO MTRX, TRS CRIN STEM, TRS FOSS FRGS IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

LS-CRM OFF WHT OCC TN, HD DNS TO BRITT, MD XLN TO TT SUCRO MTRX, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW





SH- GY TO DRK GY, SFT TO FRM, BLKY TO SMTH TXT

RIG FLOOR SET HOLE DEPTH FROM 3146.71' TO 3143'

SH-GY TO DK GY, FRM TO SFT, BLCK SMTH TXT

ELMONT MD 3189'
TVD 3188'-893'

LS- CRM BFF TO LT TN TN, HD DNS TO BRTT IP, MD/F-XLN MTRX, S-CHLKY IP, HVY TR IMB FOSS FRGS IP, TR DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

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

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

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

RIG FLOOR SET BIT POSITION FROM 3277' TO 3276'

RIG FLOOR SET HOLE DEPTH FROM 3280.04' TO 3278'

SH- GY TO DK GY, FRM TO V SFT SLI TR GMMY IP, SPLNTY

SH- LT GY TO GY, FRM TO V SFT, BLCKY

SH- LT GY TO GY DK GY, FRM TO V SFT TR GMMY IP, BLCK SMTH TXT, SCAT PYR IN TRAY

TOPEKA MD 3349'
TVD 3343'-1048'

LS- CRM BFF TO LT TN TN, HD DNS TO BRTT, MD-XLN, RE-XLN IP, SLI TR S-CHLKY, SCAT IMB CALC-XLS, HVY TR IMB SM FOSS FRGS IP, V SLI TR PYR IN TRAY, DUL YEL FLO IN 30-40%, TR V PR MICRO-VUG POR IP, NO VIS CUT OR SHOW

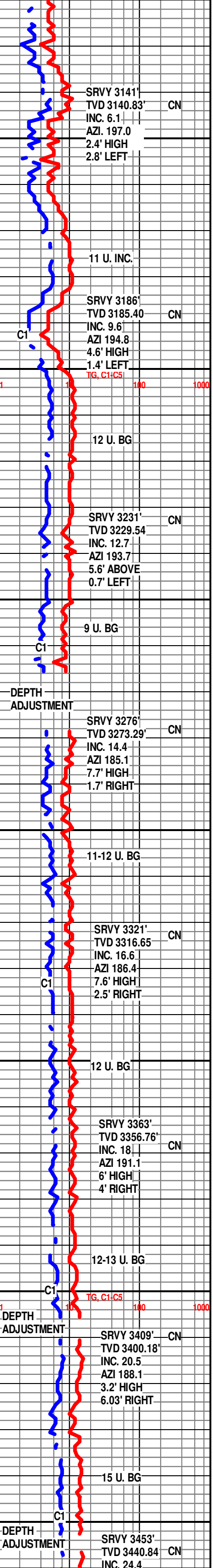
LS- OFF WHT TO CRM BFF LT TN IP, HD DNS TO BRTT, MD/XLN, V S-CHLKY, SCAT IMB SFT WHT CHLK THRU, IMB SM TO MD CALC-XLS THRU, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

RIG FLOOR SET HOLE DEPTH FROM 3411.63' TO 3410'

LS- CRM BFF TO LT TN TN, HD DNS TO BRTT IP, MD/F-XLN MTRX, S-CHLKY, HVY TR SFT WHT CHLK IN TRAY, SCAT LT TR WHT CHRT IN TRAY, SLI TR IMB FOSS FRAGS, V DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LECOMPTON MD 3453'
TVD 3440'-1145'

RIG FLOOR SET HOLE DEPTH FROM 3454.45' TO 3456.05'



SRVY 3141'
TVD 3140.83' CN
INC. 6.1
AZI. 197.0
2.4' HIGH
2.8' LEFT

11 U. INC.

SRVY 3186'
TVD 3185.40 CN
INC. 9.6
AZI 194.8
4.6' HIGH
1.4' LEFT
TG, C1-C5

12 U. BG

SRVY 3231'
TVD 3229.54 CN
INC. 12.7
AZI 193.7
5.6' ABOVE
0.7' LEFT

9 U. BG

DEPTH ADJUSTMENT

SRVY 3276'
TVD 3273.29' CN
INC. 14.4
AZI 185.1
7.7' HIGH
1.7' RIGHT

11-12 U. BG

SRVY 3321'
TVD 3316.65 CN
INC. 16.6
AZI 186.4
7.6' HIGH
2.5' RIGHT

12 U. BG

SRVY 3363'
TVD 3356.76' CN
INC. 18
AZI 191.1
6' HIGH
4' RIGHT

12-13 U. BG

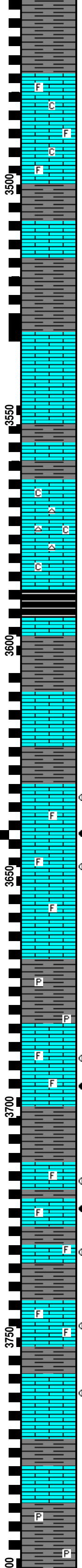
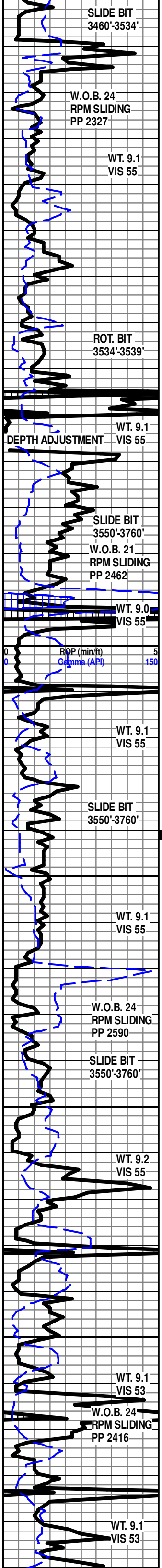
DEPTH ADJUSTMENT

SRVY 3409' CN
TVD 3400.18'
INC. 20.5
AZI 188.1
3.2' HIGH
6.03' RIGHT

15 U. BG

DEPTH ADJUSTMENT

SRVY 3453'
TVD 3440.84 CN
INC. 24.4



SH- LT GY TO GY, FRM TO V SFT TRS GMMY IP, BCKY

LS OFF WHT TO CRM LT TN TO TN, HD DNS TO BRTT IP, F-XLN MTRX, SLI TRS CHLK, LT TRS WHT CHRT IN TRAY, TRS IMBD FOSS FRAGS, DUL YEL FLO IN 20%, SLI TRS V/ FN-MICRO PP POR, NO VIS CUT NO VIS SHOW

SH- LT GY TO GY, FRM TO V SFT, BCKY SMTH TXT

TRIPPING OUT FOR DOWN HOLE MOTOR @ 3546' MD STARTED TRIPPING @ 11:00 PM JULY 18, 2013

B.O.B. & DRILLING @ 11:45 A.M. JULY 19, 2013

ULTERRA 8 3/4 5-15'S JETS SERIAL # 16493 PDC

RIG FLOOR SET HOLE DEPTH FROM 3546.75' TO 3540'

JULY 19, 2013 @ 12:15 PM, CHANGED SWIVEL PACKING/ BACK TO DRILLING @ 9:00 PM, JULY 19, 2013

LS-OFF WHT CRM LT TN, MD HD TO SFT V/SUCRO S-CHLKY MTRX, TR MD XLN IP, TR WHT CHRT, NO VIS FLO, NO VIS POR, NO SHOW

HEEBNER 3588'/TVD 3559'-1264'

SH- BCK SFT CARB

LS- OFF WHT TO CRM LT TN, HD TO BRITT, V/SUCRO S-CHLKY MTRX, TRS F-XLN IP, SLI TRS WHT CHRT, DUL YEL MIN FLO, NO VIS POR, NO VIS CUT, NO SHOW

LANSING 3631'/TVD 3594'-1299'

3630'3650 LS- OFF WHT TO CRM TO LT TN (W/ TN OIL STN IN 20%-30%), HD DNS V-BRITT, MD XLN RE-XLN, S-CHLKY THRU, SLI TRS FOSS FRAGS IP, DUL YEL FLO IN 10%, TRS PR TO FR MICRO PP POR, SCAT PR TO FR MICRO VUG POR, PR FLSH CUT, FR TO GD SLOW STRM IN 30% V SLI TR LT TN LCH ON DSH, SLI TRS OIL ODOR

SH- GY TO DK GY, FRM BCKY TO SFT, CARB IP, TRS IMBD PYR

LANSING "C" 3685'/TVD 3634'-1339'

3685'-3700' LS- OFF WHT TO CRM TO LT TN (W/ TN OIL STN IN 30%), HD DNS V-BRITT, MD XLN RE-XLN, S-CHLKY THRU, TRS IMBD FOSS FRAGS, DUL YEL FLO IN 20%, TRS PR TO FR MICRO VUG POR, PR FLSH CUT, FR TO GD SLOW STRM IN 30-40% V SLI TR LT TN LCH ON DSH, FR TRS OIL ODOR

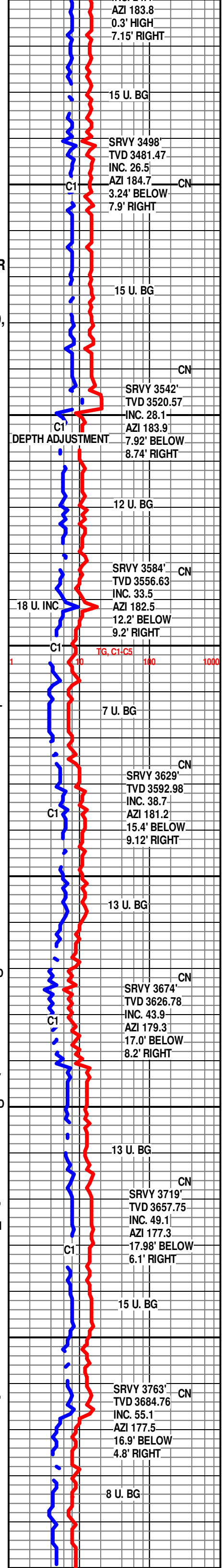
3710'-3734' LS- WHT TO OFF WHT CRM LT TN (W/ TN OIL STN IN 20%), HD DNS TO BRITT, RE-XLN, S-CHLKY THRU, TRS FOSS FRAGS, DUL YEL MIN FLO IN 20%, TRS PR MICRO PP POR, PR FLSH CUT, FR TO GD SLOW STRM IN 30%, SLI TR LT TN LCH ON DSH, SLI TRS OIL ODOR

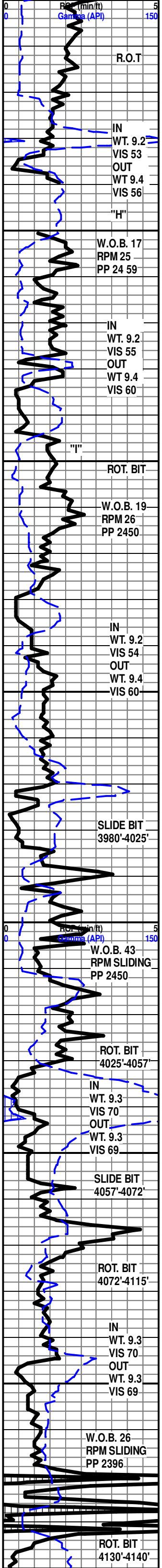
LANSING "F" 3742'/ TVD 3671'-1376'

3742'-3770' LS- CRM TO OFF WHT LT TN (W/ TN OIL STN IN 10-20%), HD DNS TO BRITT, S-SUCRO, RE-XLN MTRX IP, S-CHLKY THRU, ABDT SFT WHT CHLK THRU TRAY, TRS FOSS FRAGS IP, DUL YEL MIN FLO IN 20-30%, TRS PR MICRO PP POR, PR FLSH CUT, FR SLOW STRM 20%, V/ SLI TRS LCH ON DSH, NO OIL ODOR

SH- GY TO DK GY, FRM BCKY TO SFT, TRS IMBD PYR

BEGIN TANGENT @ 3810'





LS- OFF WHT TO CRM TO LT TN, HD DNS TO BRIT IP, F/VF-XLN, SLI TR S-CHLKY, SCAT SFT WHT CHLK, V SLI TR PRY, DUL YEL FLO IN 20%, NO VIS CUT OR SHOW

LANSING "H" 3820' MD/ TVD 3714'-1419'

SH- BLCK SFT CARB
SH- GY TO DK GY TRS BLK, FRM BLKY TO SFT, CARB IP, TRS IMBD PYR

LS- OFF WHT TO CRM BFF LT TN, HD DNS TO BRIT IP, MD/F/VF-XLN MTRX, SLI TR S-CHLKY IP, V SLI TR WHT CHRT IP, V DUL YEL FLO IN 20-30%, NO VIS POR, NO VIS CUT OR SHOW

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

3914'-3923' LS- WHT TO TN TO DK TN (DUE TO OIL STN IN 40%), HD DNS TO BRIT, MD/XLN, RE-XLN, S-SUCRO THRU, SCAT FREE FOSSIL IN TRAY, V SLI TR WHT CHRT, YEL GLD FLO IN 60%, BRT YEL GLD FLO IN 20%, PR TO SLI TR FR MICRO-VUG POR IN 2%, FR TO GD FLSH CUT IN 60%, GD SLW STRM CUT IN 60%, TN LCH ON DSH, GD OIL ODOR

SH- LT GY TO GY, FRM TO SFT IP, BLCKY TO SPLNTY IP

LS- OFF WHT TO CRM BFF LT TN IP, HD DNS TO BRIT IP, MD/F/VF-XLN MTRX, S-CHLKY IP, SCAT IMB SM CALC-XLS, V SLI TR PYR IN TRAY, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO GY RD, FRM TO SFT GMMY IP, BLCKY, SCAT ORNG CHRT THRU

END TANGENT @ 3980'/ BEGIN SLIDE

LS- WHT TO OFF WHT CRM, HD DNS TO TR BRIT IP, F/VF-XLN MTRX, ABTD ORNG CHRT THRU TRAY, V SLI TR IMB SM CALC-XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO GY RD GRN IP, FRM TO SFT, SCAT ORNG CHRT IP

BKC MD 4032' TVD 3816'-1521'

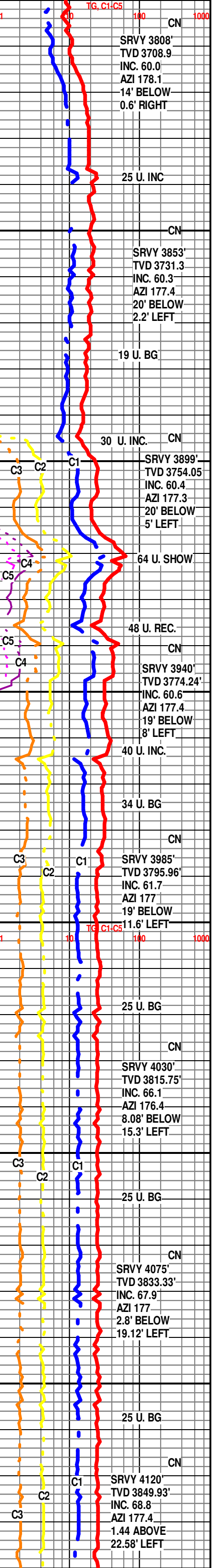
SH- BLCK SFT CARB

SH- LT GY TO GY DK GY IP, FRM TO SFT GMMY IP, INTER-BED LMS

LS- CRM BFF TO LT TN IP, HD DNS TO TR BRIT IP, F/VF-XLN MTRX, S-CHLKY IP, LT TR ORNG CHRT IN TRAY, DUL YEL FLO IN 40%, YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GY TO GY DK GY IP, FRM TO SFT GMMY IP, INTER-BED LMS

LS- OFF WHT TO CRM LT TN IP, HD DNS TO TR BRIT IP, F-XLN MTRX, S-CHLKY IP, TR ORNG CHRT IN TRAY, DUL YEL FLO IN 40%, YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW



SRVY 3808'
TVD 3708.9
INC. 60.0
AZI 178.1
14' BELOW
0.6' RIGHT

SRVY 3853'
TVD 3731.3
INC. 60.3
AZI 177.4
20' BELOW
2.2' LEFT

SRVY 3899'
TVD 3754.05
INC. 60.4
AZI 177.3
20' BELOW
5' LEFT

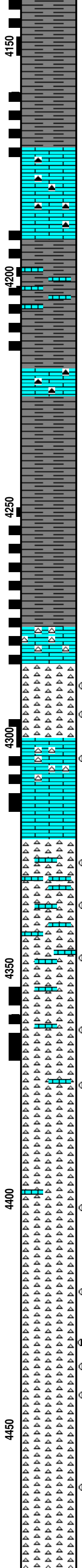
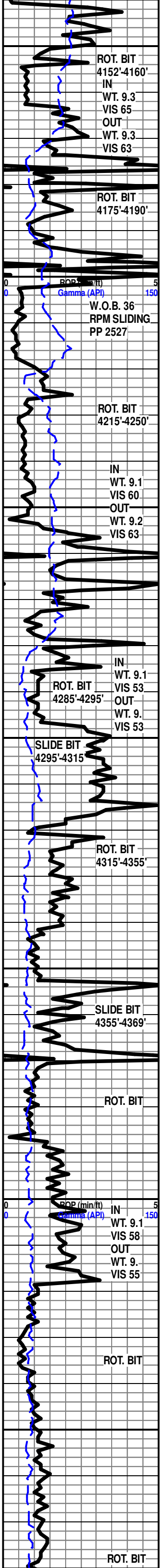
SRVY 3940'
TVD 3774.24
INC. 60.6
AZI 177.4
19' BELOW
8' LEFT

SRVY 3985'
TVD 3795.96
INC. 61.7
AZI 177
19' BELOW
11.6' LEFT

SRVY 4030'
TVD 3815.75
INC. 66.1
AZI 176.4
8.08' BELOW
15.3' LEFT

SRVY 4075'
TVD 3833.33
INC. 67.9
AZI 177
2.8' BELOW
19.12' LEFT

SRVY 4120'
TVD 3849.93
INC. 68.8
AZI 177.4
1.44 ABOVE
22.58' LEFT



SH- BRWN TO DRK BRWN GRY, FRM BLKY, SMTH TXT TO GRNY IP, ABTD SFT GMMY IP

LS- CRM TO OFF WHT LT TN, HD DNS TO TR BRTT IP, F-XLN MTRX, S-CHLKY IP, ABTD ORNG CHRT THRU TRAY, DUL YEL FLO IN 30%, SLI TRS MICRO PP POR, NO VIS CUT OR SHOW

SH- BRWN TO DRK BRWN LT GRY TO GRY, FRM BLKY, SMTH TXT, V/ GMMY IP, SLI LMY IP

LS- CRM TO LT TN, HD DNS TO BRITT IP, V/F-XLN MTRX, SLI S-CHLKY IP, ABTD ORNG CHRT THRU TRAY, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

SH- BRWN TO DRK BRWN GRY, FRM BLKY, SMTH TXT, V/ GMMY IP

MARMATON 4276' MD/ TVD 3893.98'-1598

LS- OFF WHT TO CRM, HD DNS TO BRIT, MD XLN SUCRO MTRX, RE-XLN, IMBD FOSS FRG, ABTD IMBD WHT WTHRD CHRT, DUL YEL FLO IN 10-20%, PR MICRO PP POR, NO VIS CUT, NO SHOW

CHRT- WHT CRM TO ORNG MOTT LT TN (W/ SCAT TN OIL STN), HD DNS WTHRD, TR IMBD LS, DUL YEL FLO IP TO NO FLO, PR MICRO PP POR, PR TO FR FLSH CUT, PR STRM CUT

LS- CRM TO OFF WHT, HD DNS TO BRIT, MD XLN SUCRO MTRX, RE-XLN, ABTD IMBD WHT WTHRD CHRT, DUL YEL FLO IN 10%, PR MICRO PP POR, PR FLSH CUT, PR STRM CUT

4320'-4350' CHRT- LT TN TO TN DK TN BRWN (DUE TO OIL STN IN 50%), HD DNS TO TR WTHRD IP, SCAT IMB LMS, CALC-IP, SCAT ORNG CHRT IN TRAY, V SLI TR PYR, V DUL YEL FLO IN 30%, NO VIS POR, PR TO TR FR FLSH CUT IN 60%, FR SLW STRM IN 60%, NO LCH ON DSH, NO OIL ODOR

4360'-4380' CHRT- WHT CRM TO LT TN (DUE TO OIL STN IN 40%), HD DNS TO TR BRTT IP, WTHRD IP, CALC-IP, SCAT ORNG CHRT, TR IMB LS IP, LT TR V DUL YEL GLD FLO IN 10%, PR FLSH CUT IN 40%, PR SLW STRM IN 40%, NO VIS LCH ON DSH, NO OIL ODOR

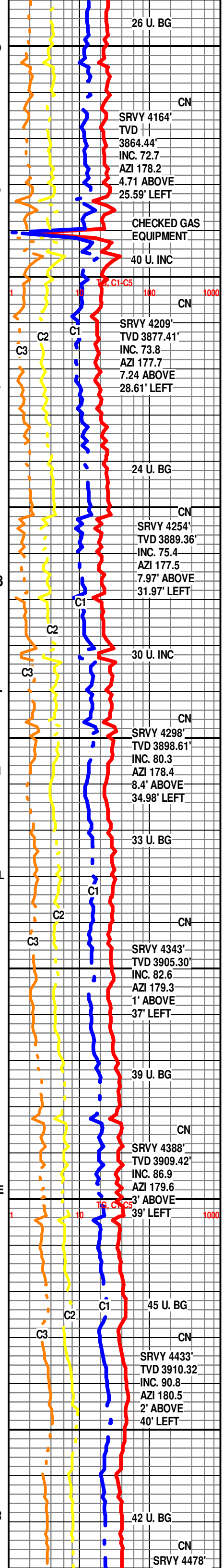
RIG FLOOR SET HOLE DEPTH FROM 4488.73' TO 4385'

4400'-4420' CHRT- OFF WHT TO CRM LT TN TO TN IP (DUE TO OIL STN IN 40-50%), HD DNS TO V BRTT, WTHRD, SLI TR CALC-IP, HVY TR ORNG CHRT SCAT THRU TRAY, DUL YEL GLD FLO IN 40%, LT TR YEL GLD FLO IP, TR V PR MICRO-PP POR IP, PR WK FLSH CUT IN 40%, PR TO FR SLW STRM IN 50%, NO LCH ON DSH, NO OIL ODOR

**LANDING POINT @ 4430'
10:00 A.M. 7/21/13**

4430'-4450' CHRT- TN TO DK TN BRWN OFF WHT IP (DUE TO OIL STN IN 70-80%), HD DNS TO V BRTT, WTHRD CHRT, SLI TR CALC-IP, LT TR ORNG CHRT IN TRAY, YEL GLD FLO IN 60-70%, V PR VIS MICRO-PP POR IP, PR TO FR FLSH CUT IN 70%, FR TO TR GD SLW STRM IN 80%, LT TN LCH ON DSH, NO OIL ODOR

4360'-4380' CHRT- TN TO DK TN BRWN, HD DNS TO V-BRTT, WTHRD CHRT, V SLI TR CALC-IP, LT TR INTER-BED LMS IP, V DUL YEL GLD FLO IN 40%, TR V PR VIS MICOR-PP POR IP, FR FLSH CUT IN 50%, FR SLW STRM IN 50%, LT TR LT TN LCH ON DSH, NO OIL ODOR



26 U. BG

CN

SRVY 4164'
TVD 3864.44'
INC. 72.7
AZI 178.2
4.71 ABOVE
25.59' LEFT

CHECKED GAS EQUIPMENT

40 U. INC

CN

SRVY 4209'
TVD 3877.41'
INC. 73.8
AZI 177.7
7.24 ABOVE
28.61' LEFT

24 U. BG

CN

SRVY 4254'
TVD 3889.36'
INC. 75.4
AZI 177.5
7.97' ABOVE
31.97' LEFT

30 U. INC

CN

SRVY 4298'
TVD 3898.61'
INC. 80.3
AZI 178.4
8.4' ABOVE
34.98' LEFT

33 U. BG

CN

SRVY 4343'
TVD 3905.30'
INC. 82.6
AZI 179.3
1' ABOVE
37' LEFT

39 U. BG

CN

SRVY 4388'
TVD 3909.42'
INC. 86.9
AZI 179.6
3' ABOVE
39' LEFT

45 U. BG

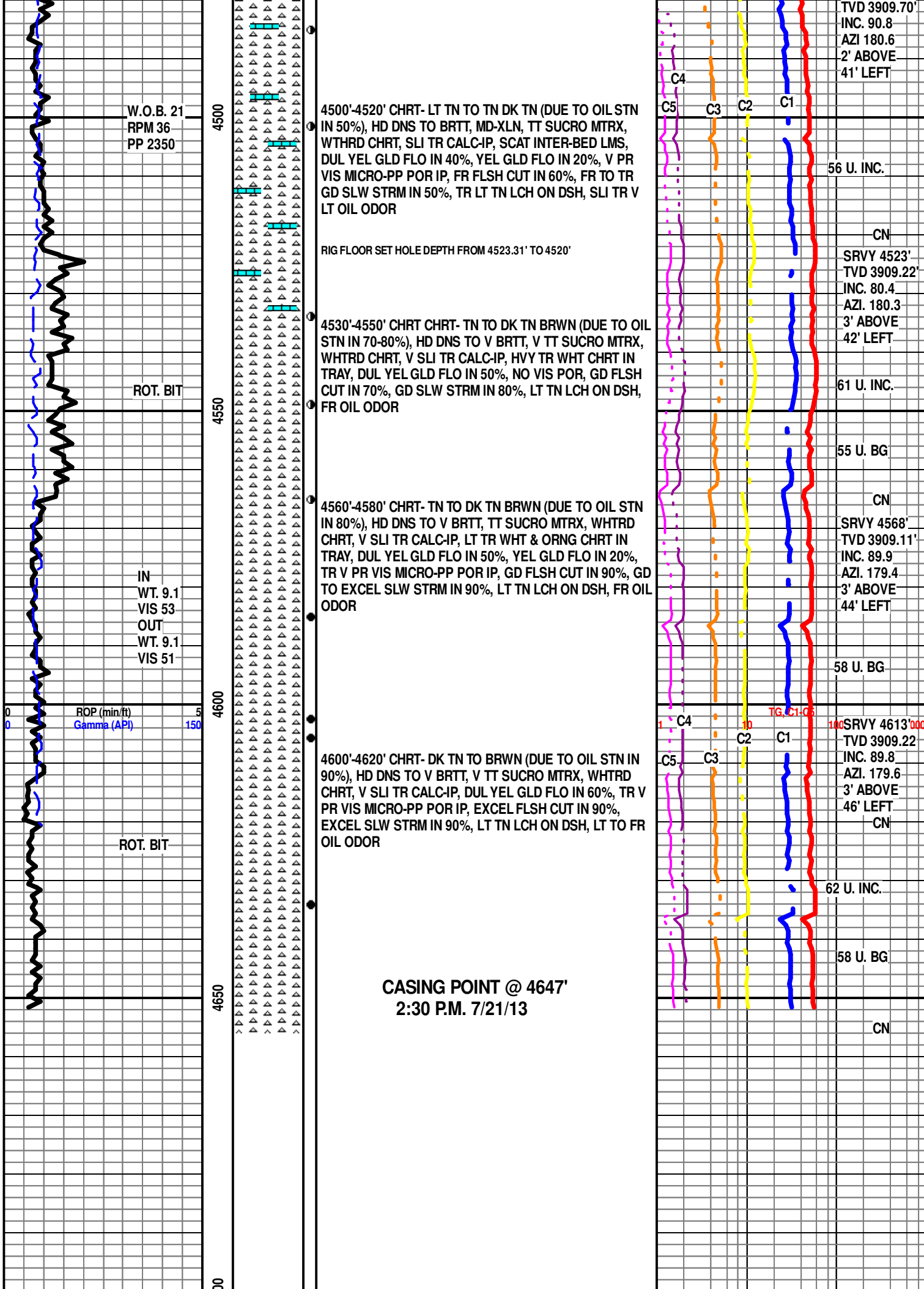
CN

SRVY 4433'
TVD 3910.32'
INC. 90.8
AZI 180.5
2' ABOVE
40' LEFT

42 U. BG

CN

SRVY 4478'





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

Well Name: 11-21-29-H1
Location: Sec. 20-T11S-R21W, Trego County, Kansas
License Number: 15-195-22865-01-00
Spud Date: July 15, 2013
Surface Coordinates: 689' FSL & 1100' FWL Sec 20
Region: WILDCAT
Drilling Completed: July 7, 2013
Bottom Hole Coordinates: 400' FSL & 1100' FWL Sec. 29
Ground Elevation (ft): 2282' K.B. Elevation (ft): 2295'
Logged Interval (ft): 410' To: Total Depth (ft):
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
CLARK SUMMERS-DD
GEORGE HUNT-MWD
CHARLIE MINYARD-MWD
DRILL RIGHT TECH.
9630 POLE RD.
OKC, OK 73160
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
-  Brecfrag
-  Calc
-  Carb
-  Chtdk
-  Chtlt
-  Dol
-  Feldspar
-  Ferrpel
-  Ferr
-  Glau
-  Gyp

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

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

TEXTURE








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

STRINGER

-  Anhy
-  Arg
-  Bent
-  Coal
-  Dol

OTHER SYMBOLS

POROSITY





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

-  Vuggy

SORTING

-  Well
-  Moderate
-  Poor

ROUNDING

-  Rounded
-  Subrnd
-  Subang
-  Angular

-  Core
-  Dst

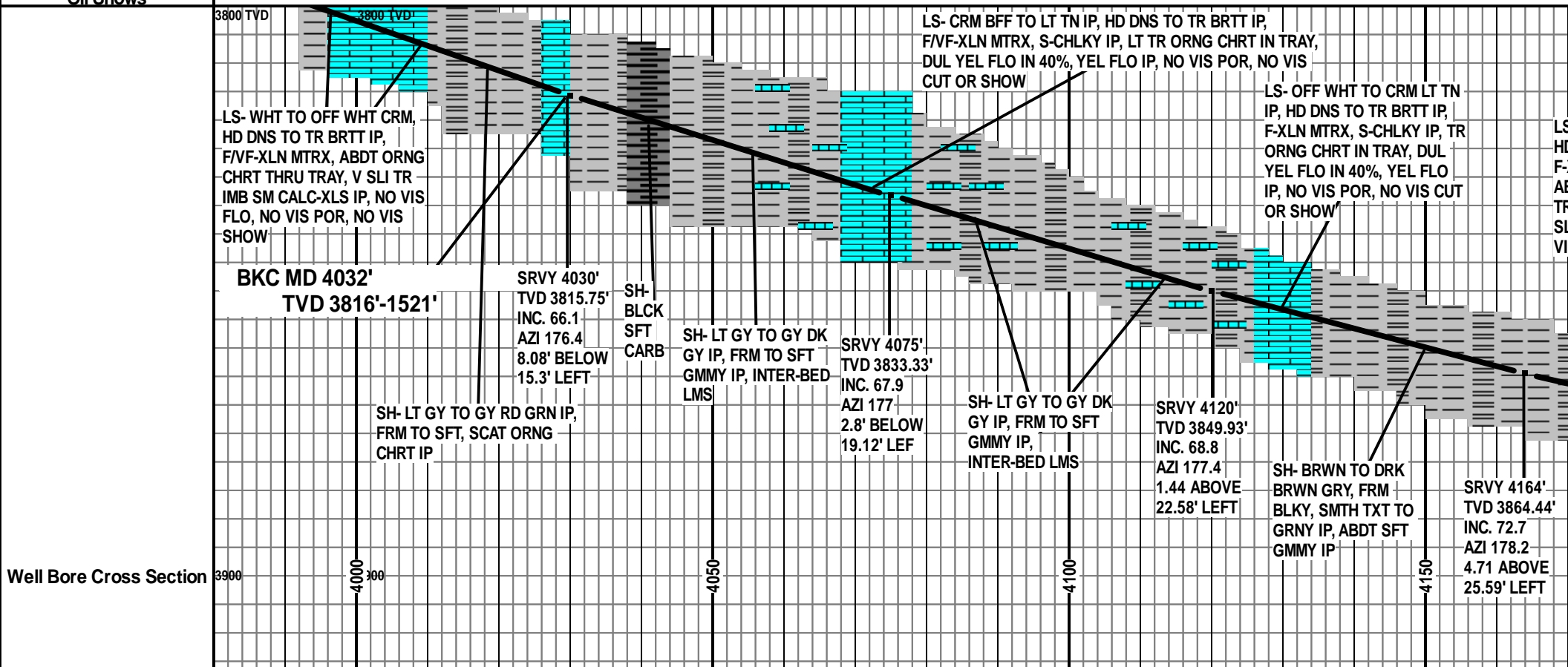
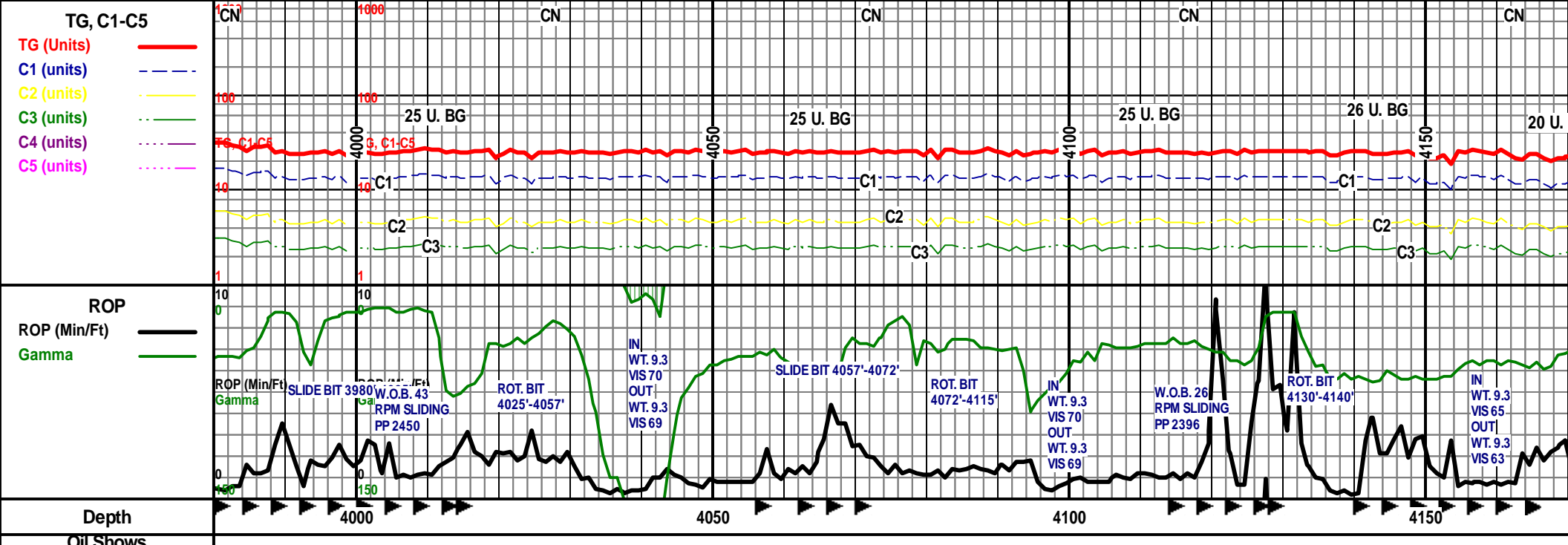
EVENT

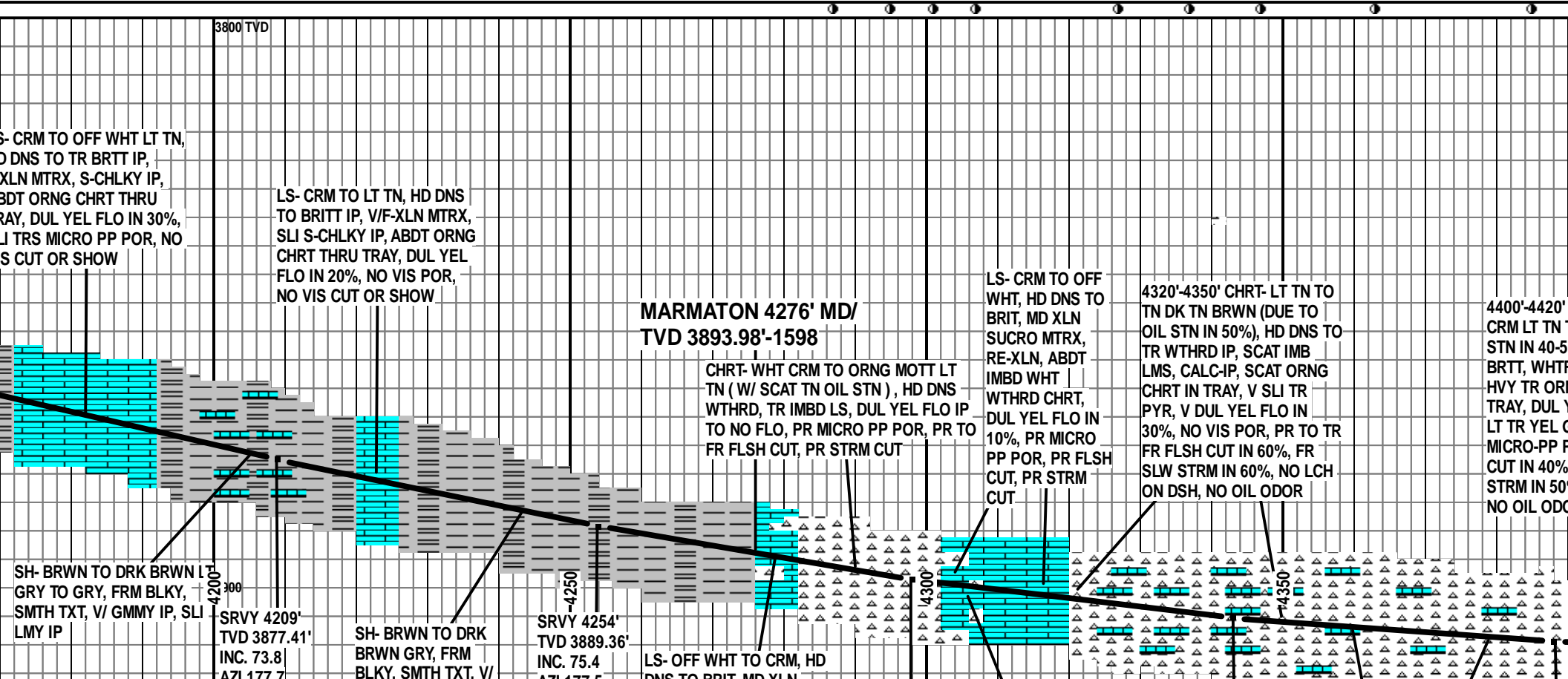
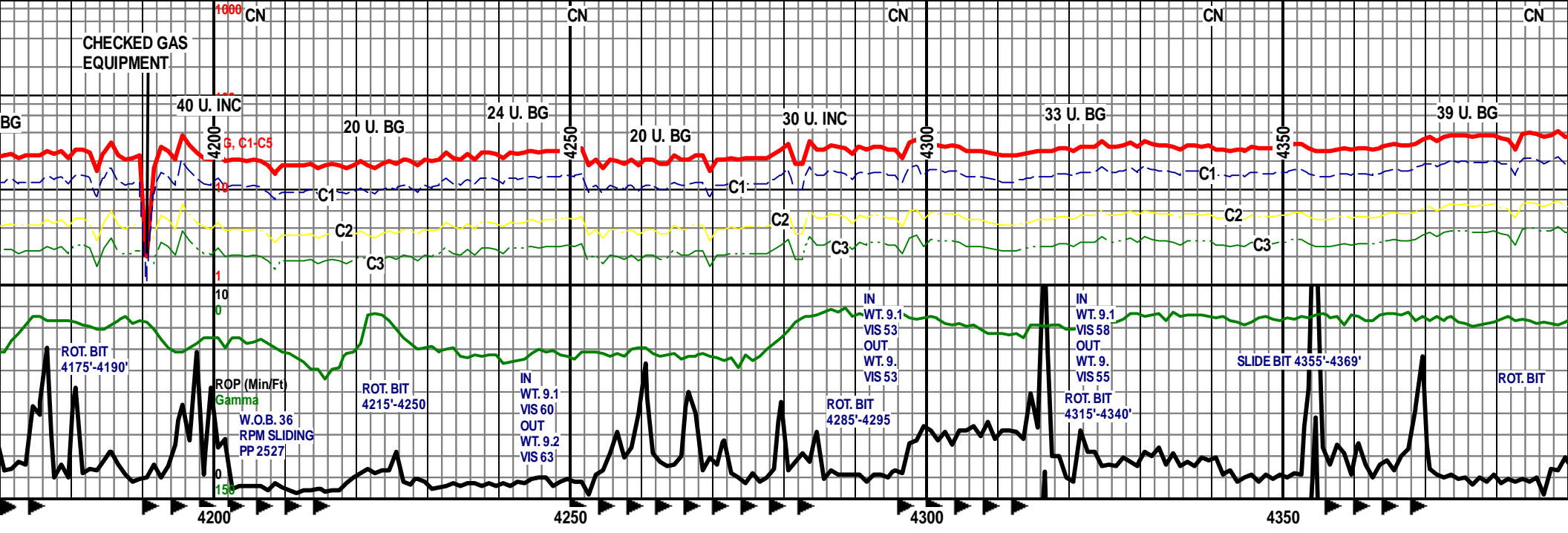
-  Rft
-  Slide
-  Perf

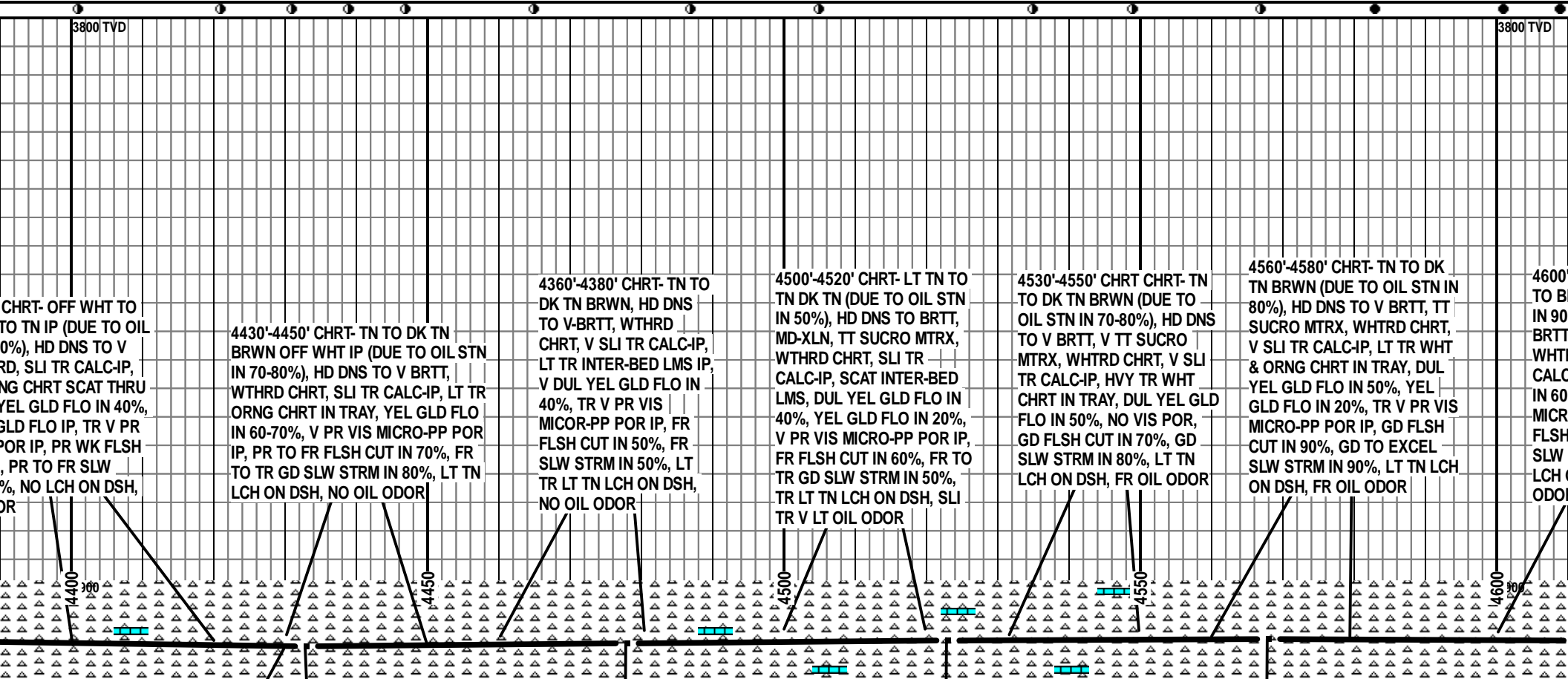
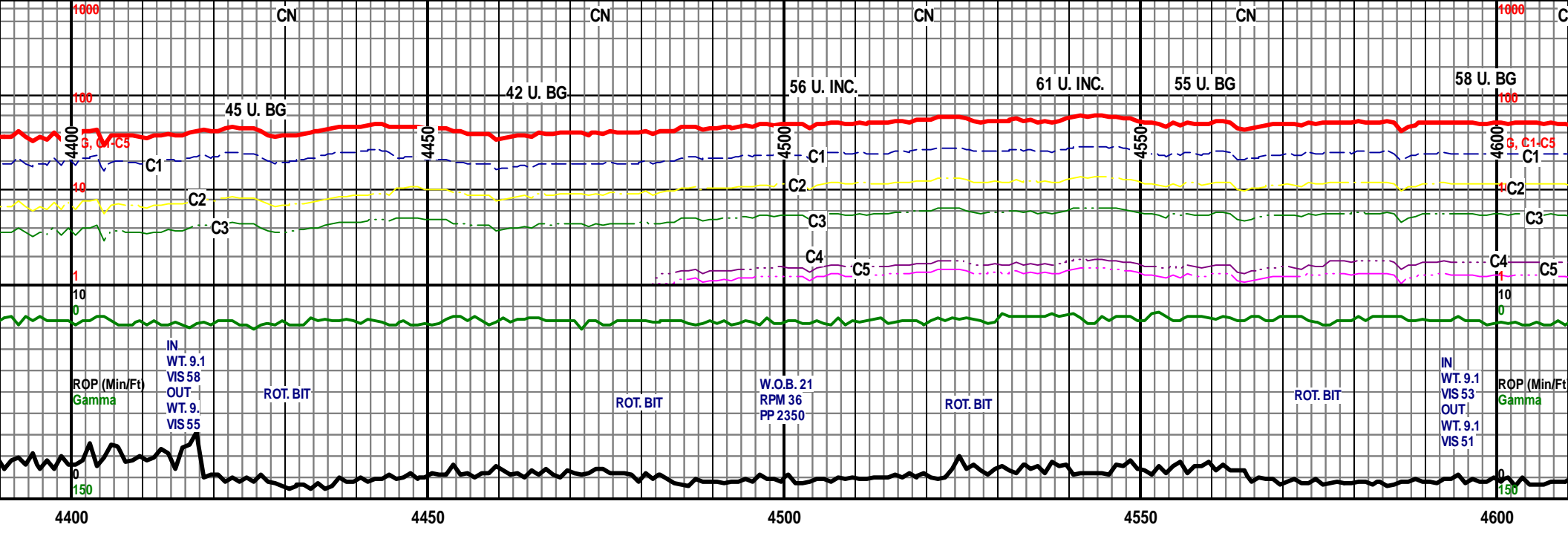
-  INTERVAL
-  None

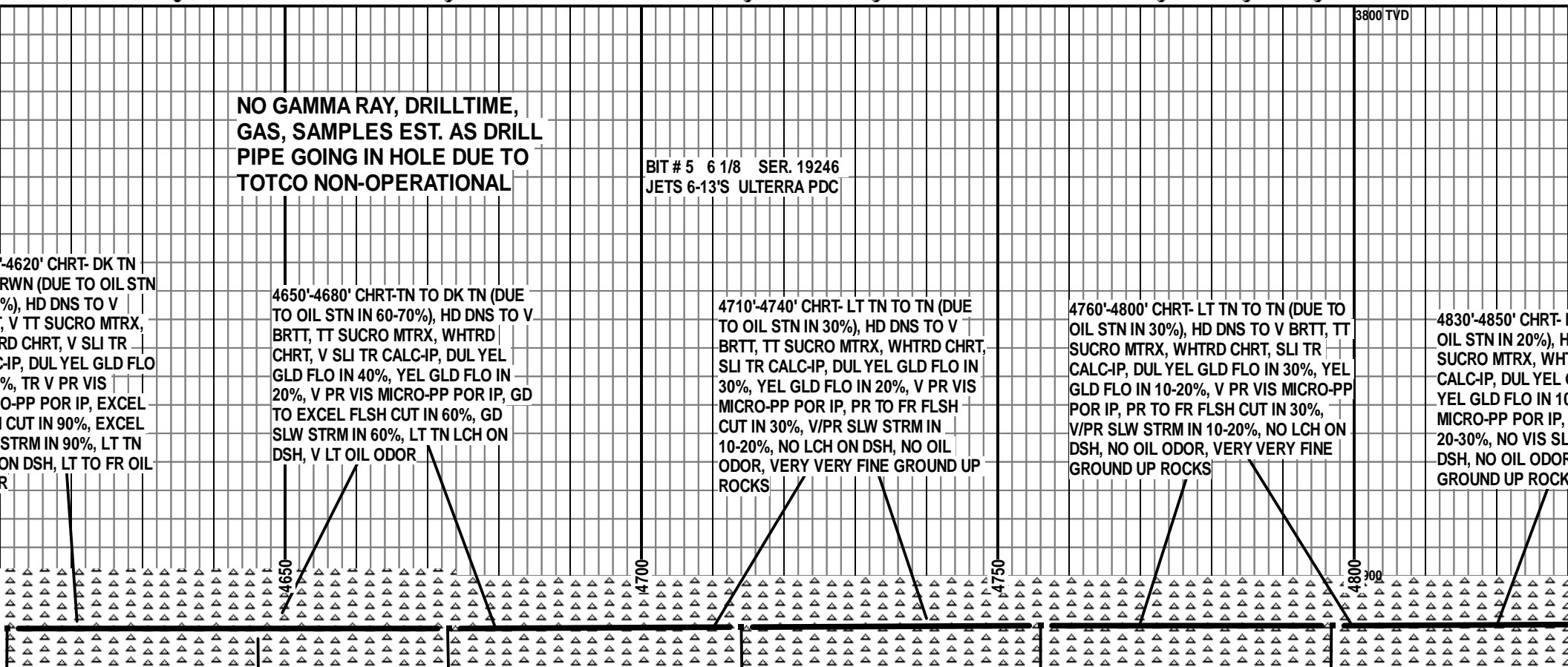
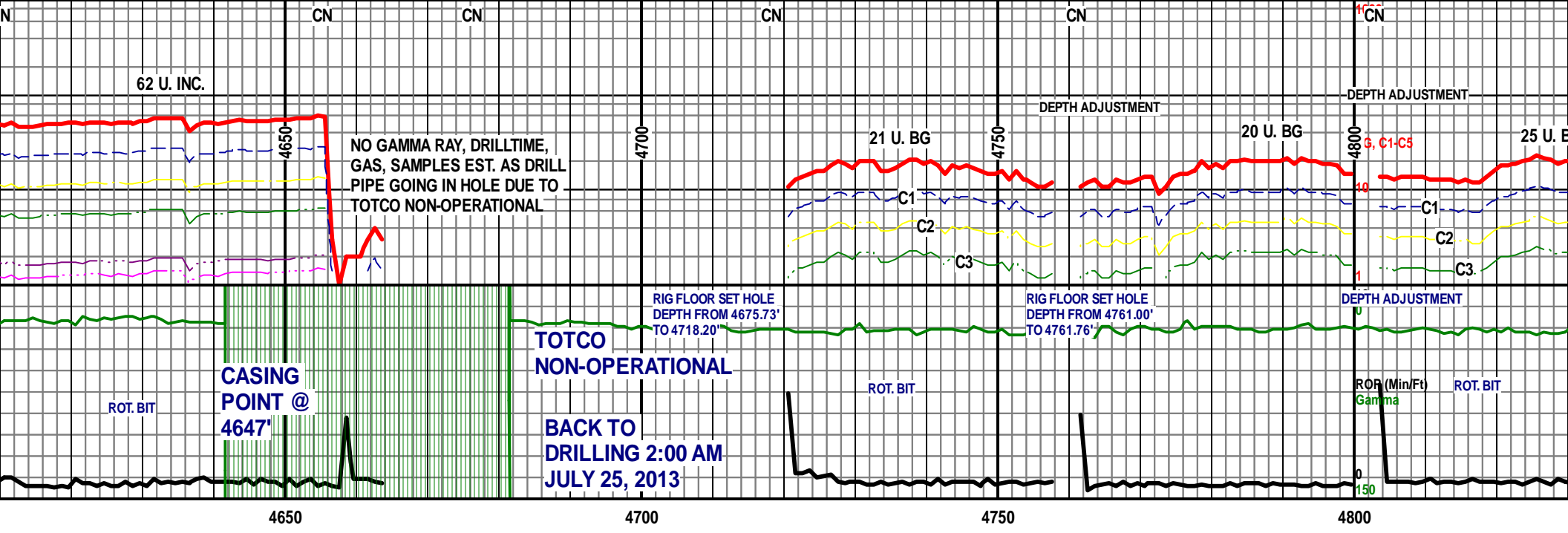
OPERATOR

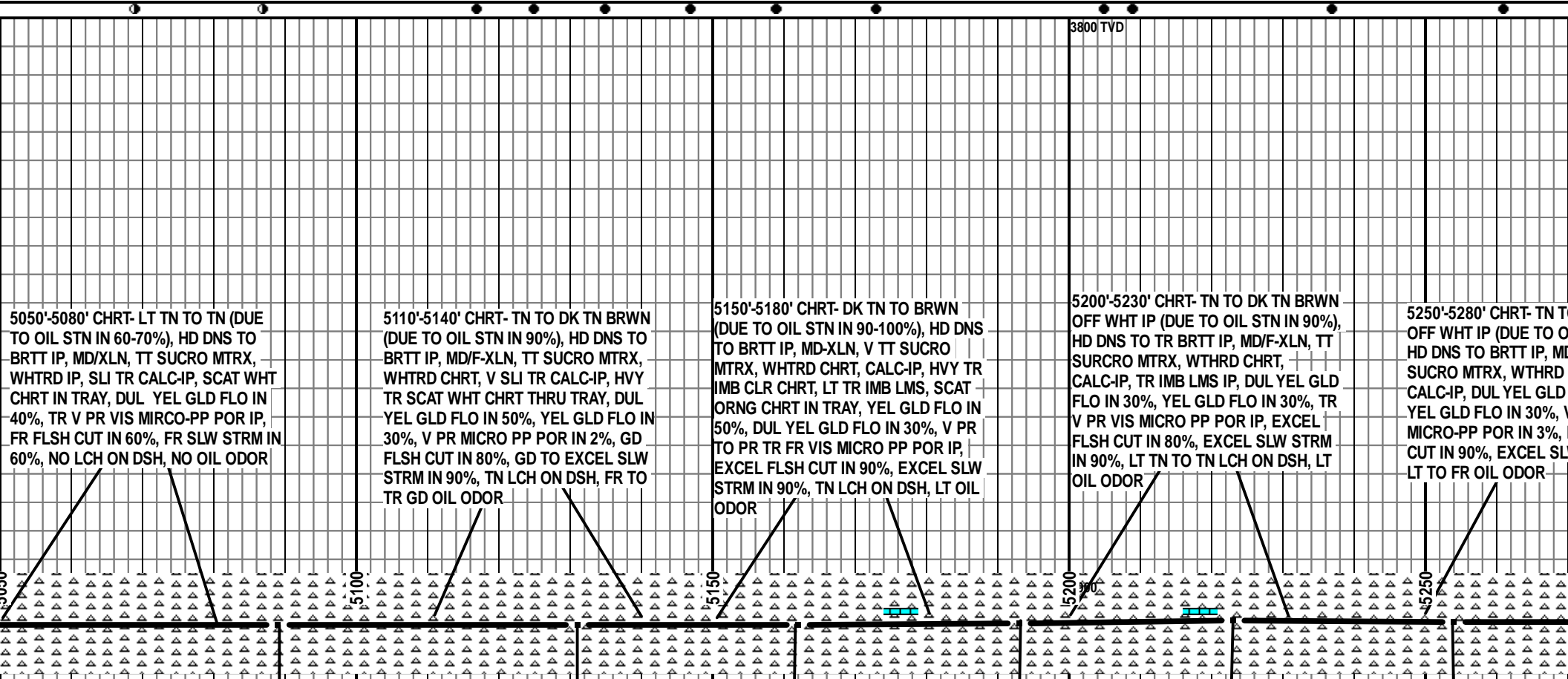
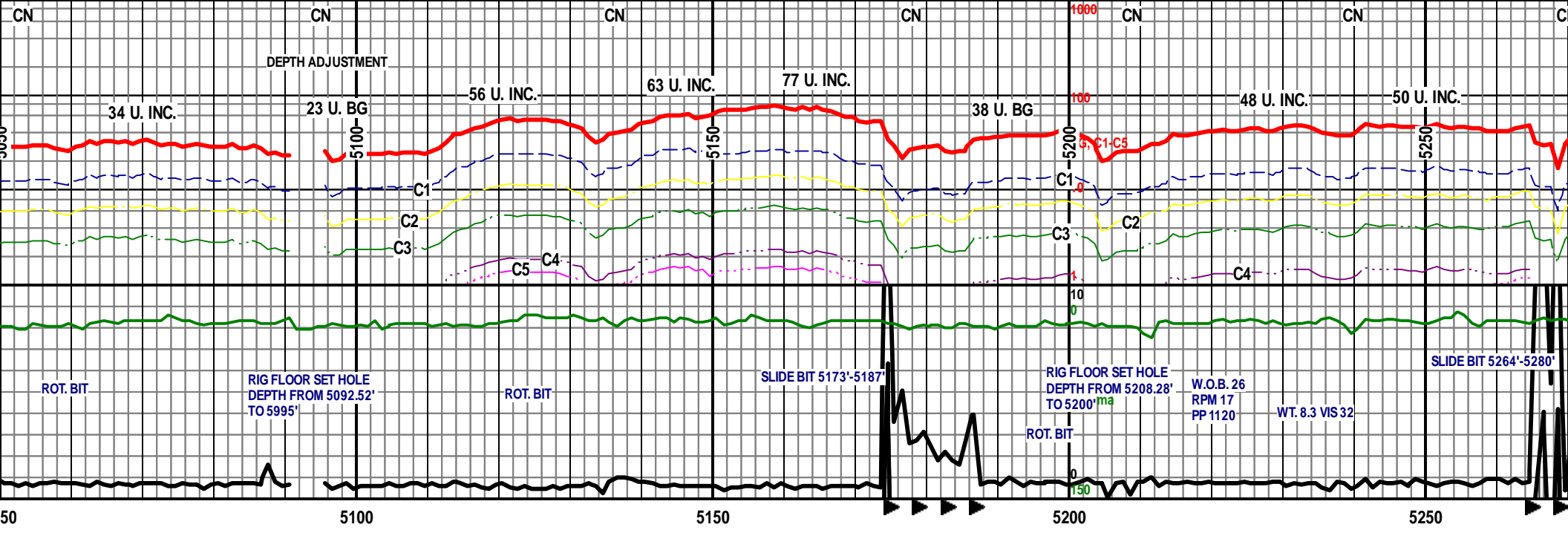
Company: Sam Gary Jr. & Assoc.
 Address: 1515 Wynkoop, Ste. # 700
 Denver, Co. 80202
 Co. Geo: Dan Pritchard

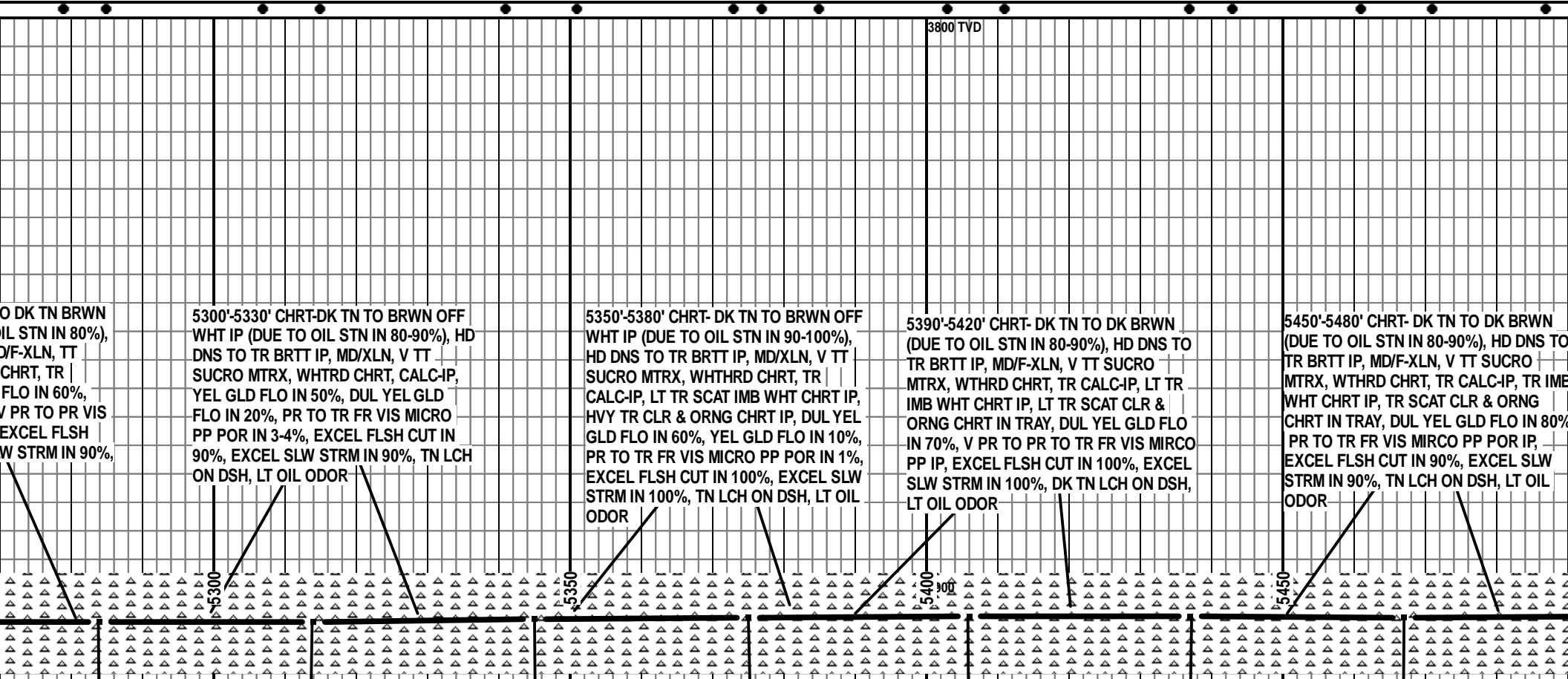
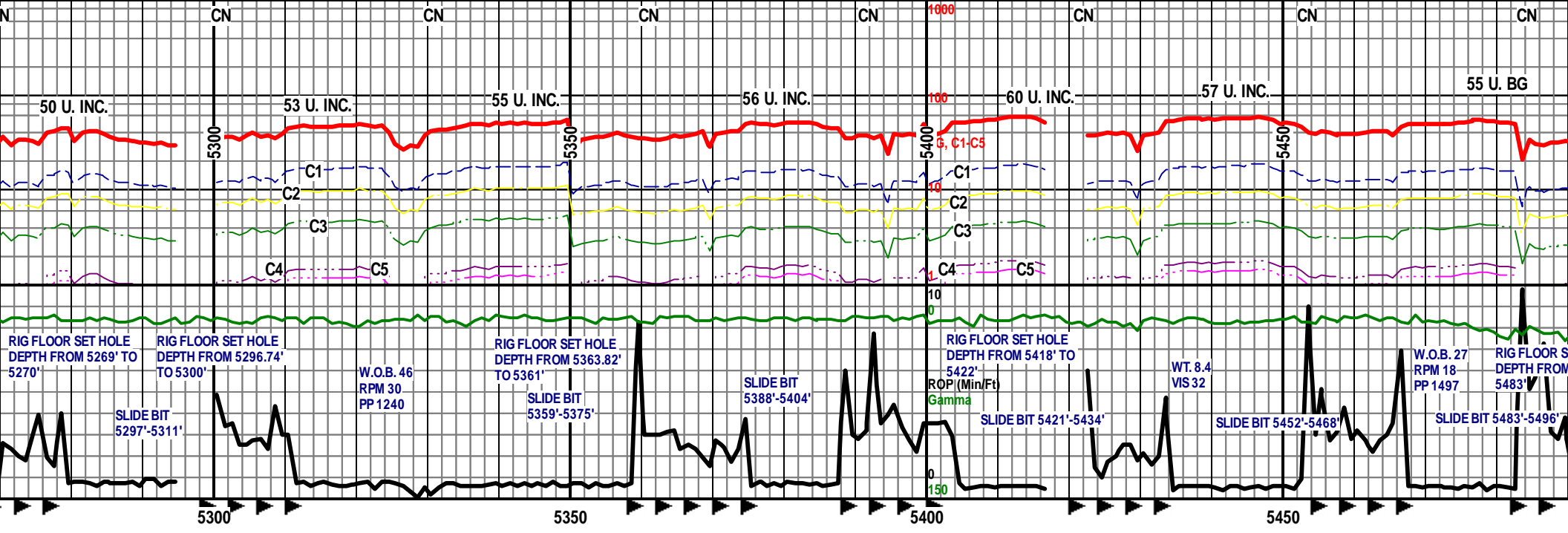


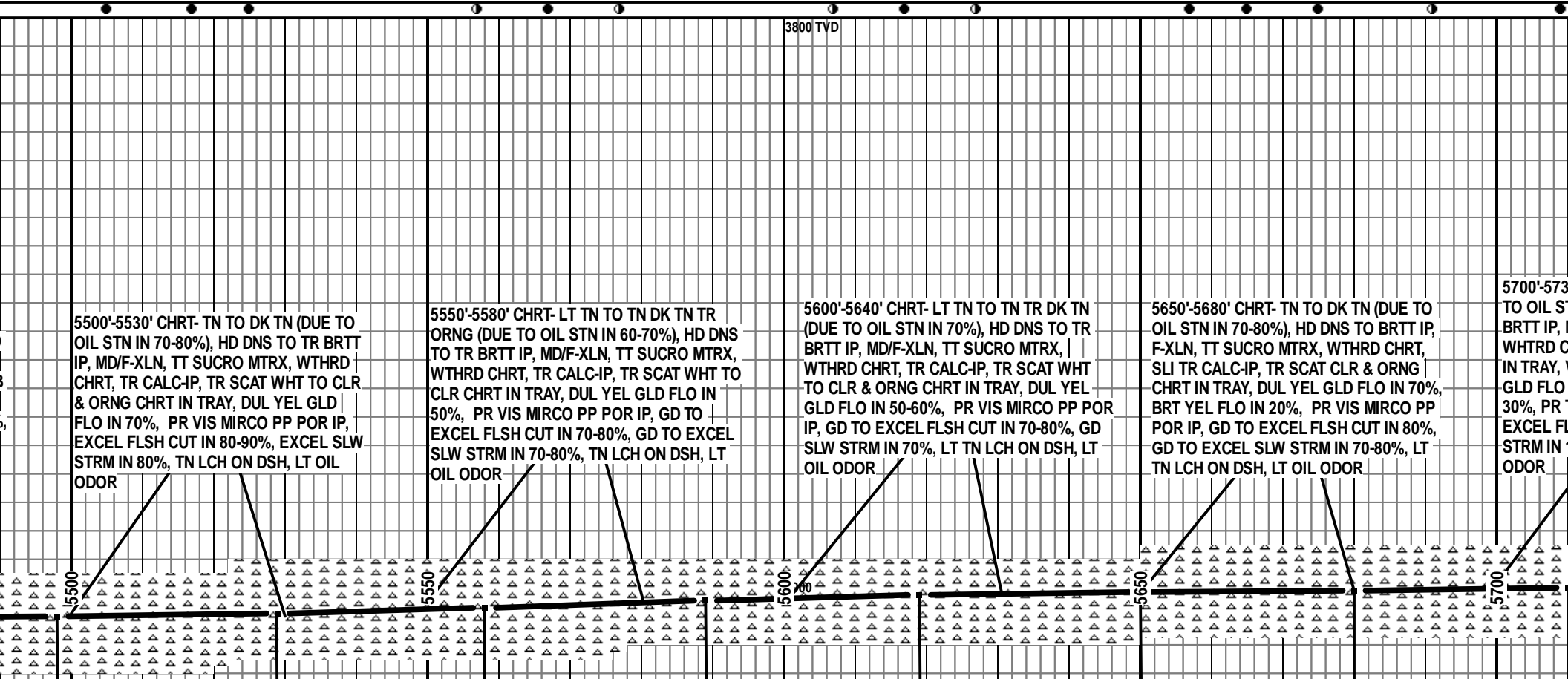
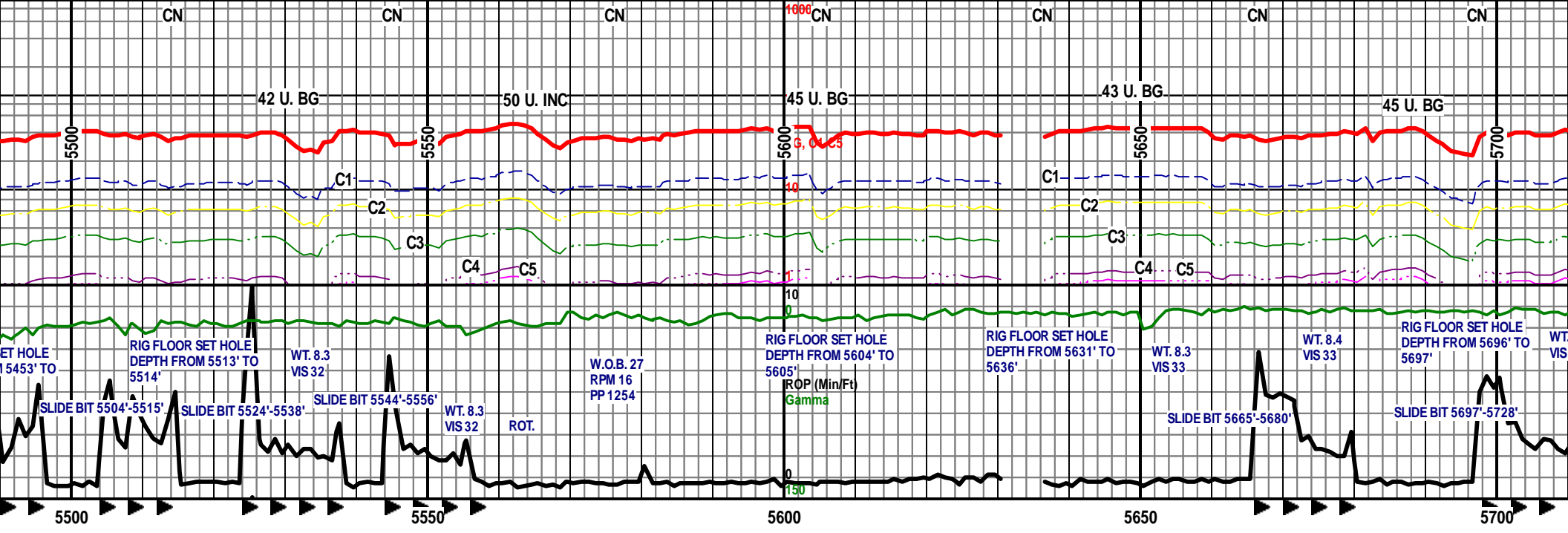


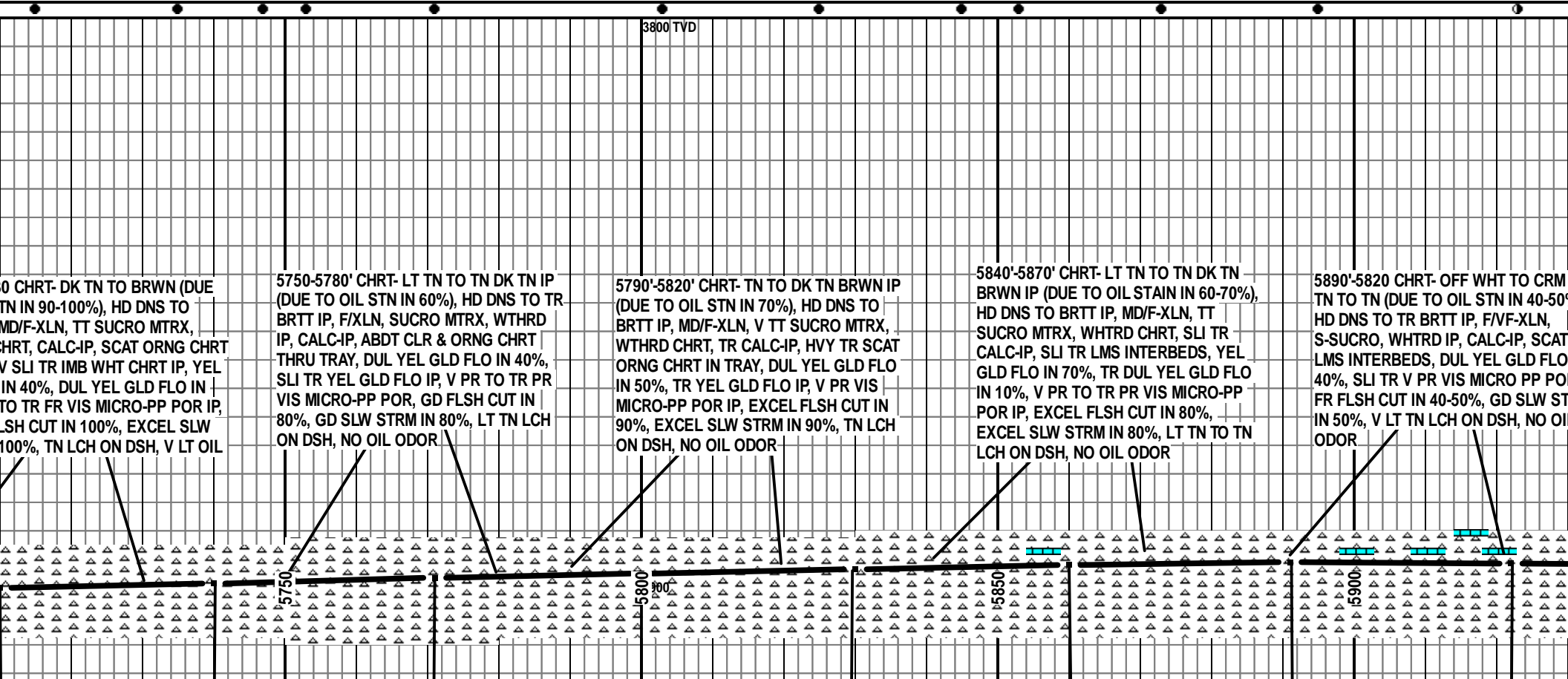
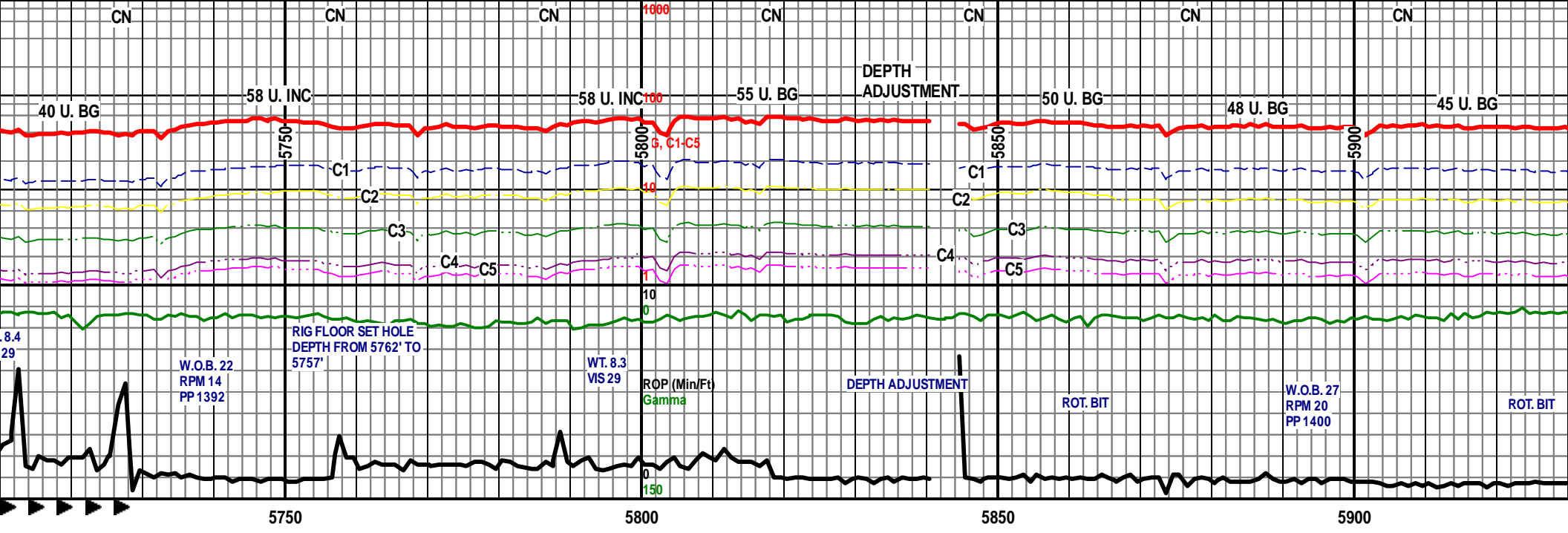












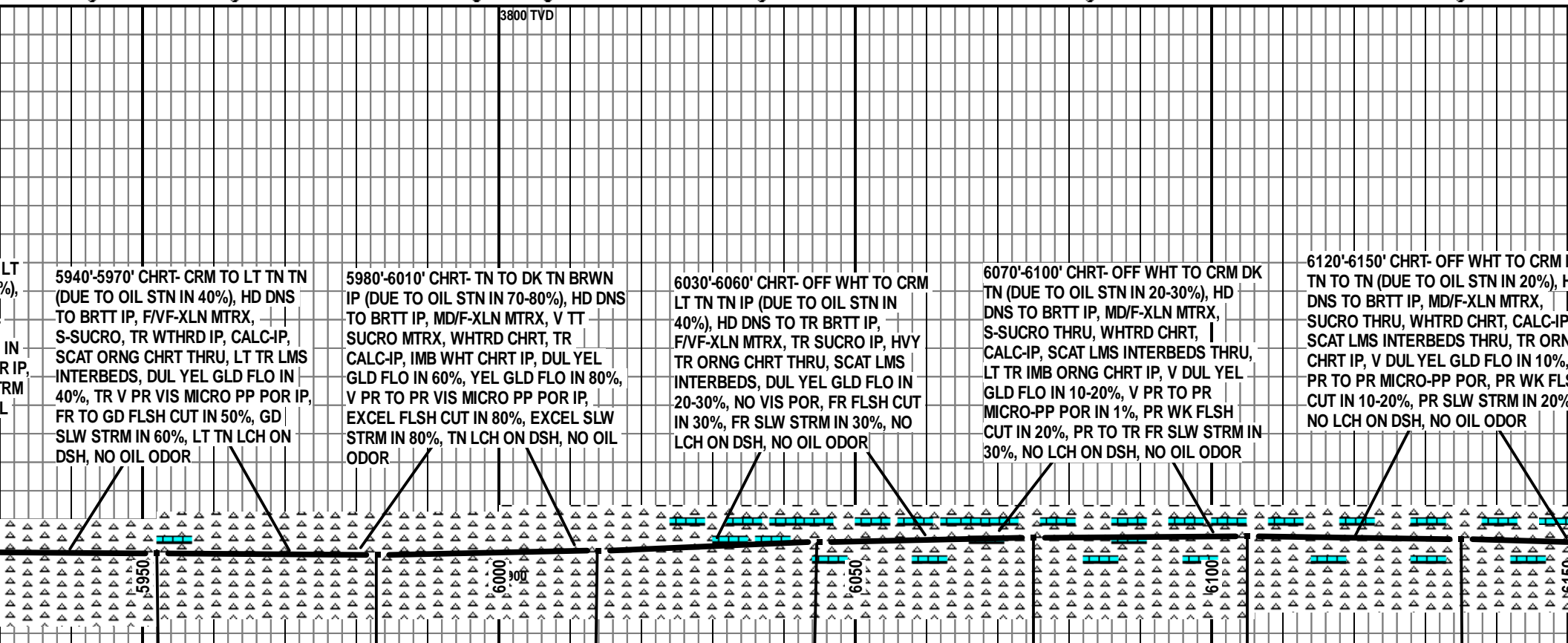
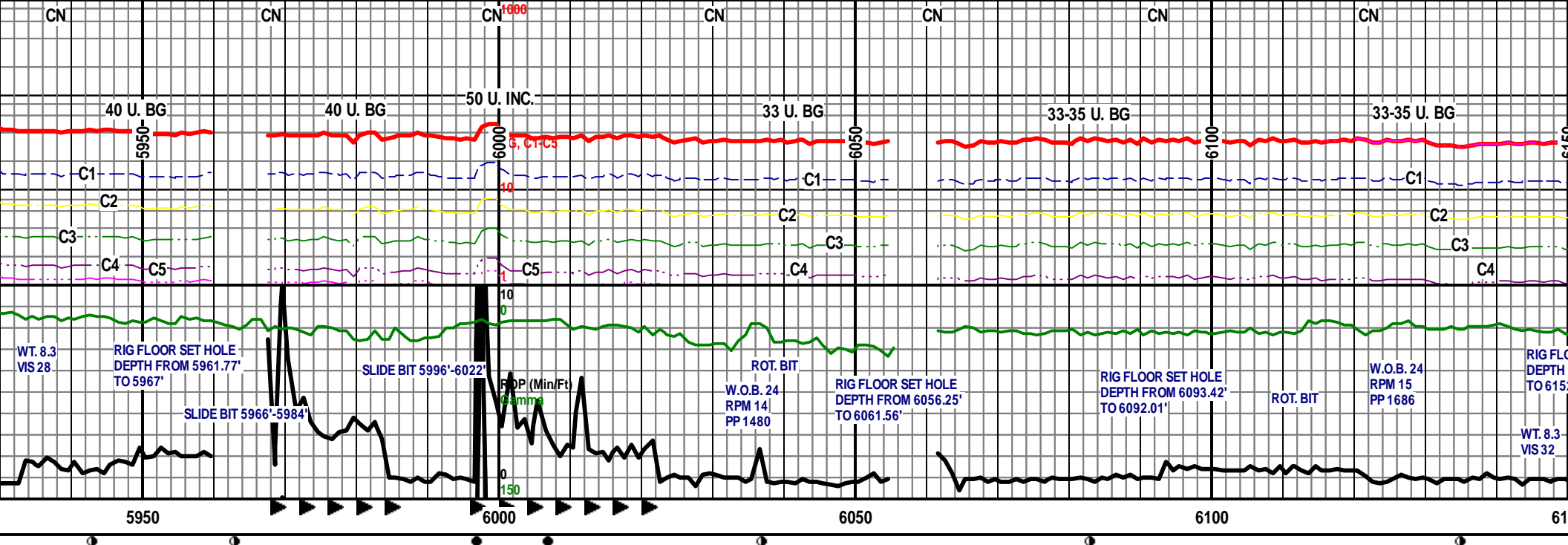
0 CHRT- DK TN TO BRWN (DUE
TN IN 90-100%), HD DNS TO
MD/F-XLN, TT SUCRO MTRX,
CHRT, CALC-IP, SCAT ORNG CHRT
V SLI TR IMB WHT CHRT IP, YEL
IN 40%, DUL YEL GLD FLO IN
TO TR FR VIS MICRO-PP POR IP,
SH CUT IN 100%, EXCEL SLW
100%, TN LCH ON DSH, V LT OIL

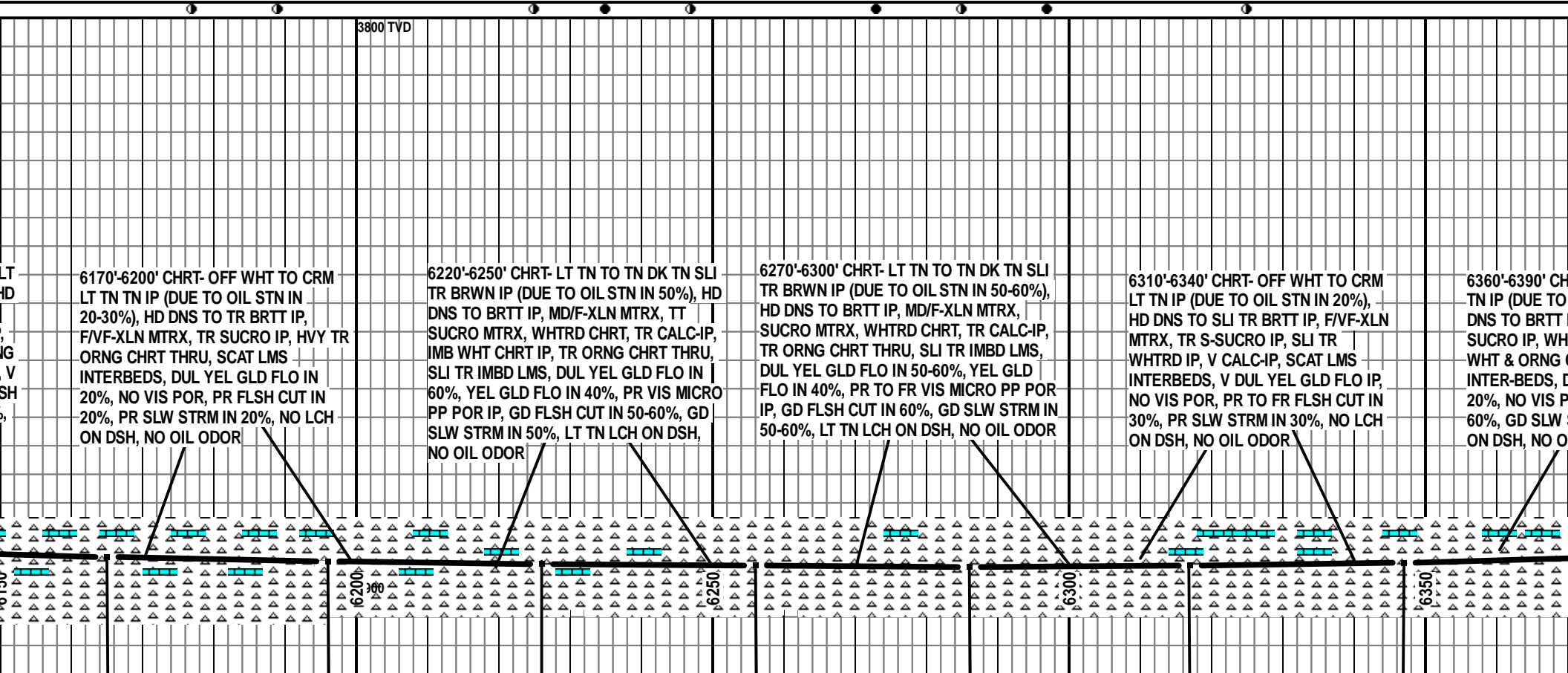
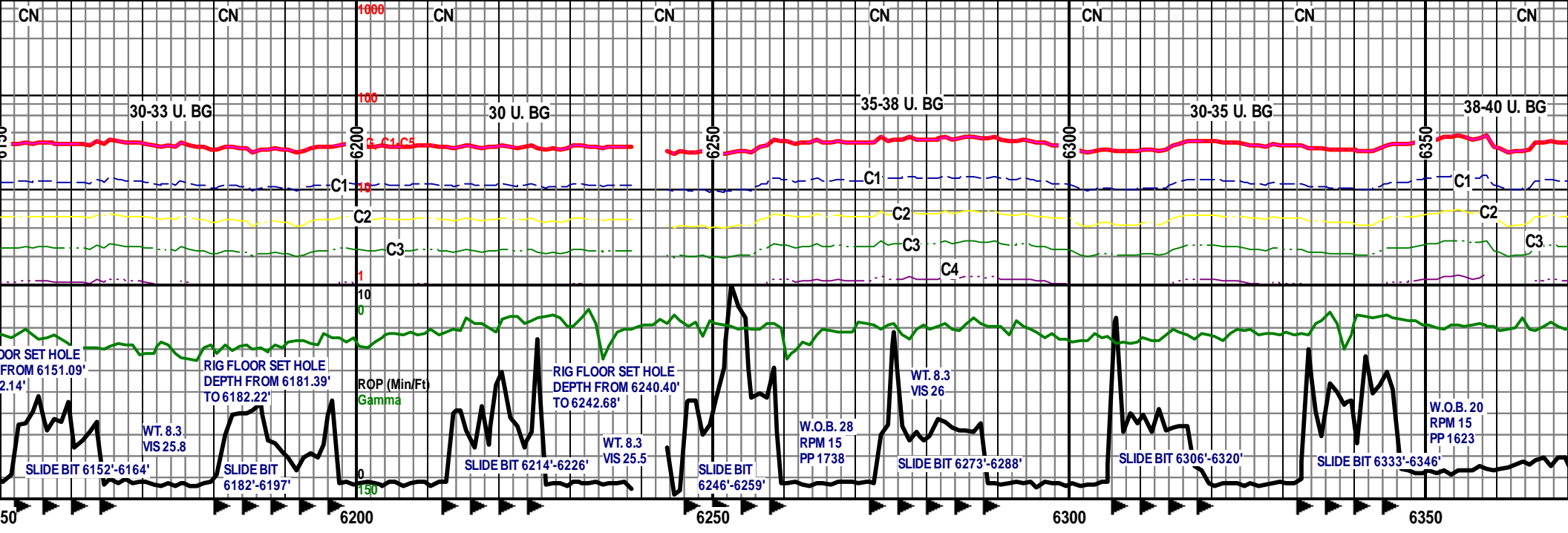
5750-5780' CHRT- LT TN TO TN DK TN IP
(DUE TO OIL STN IN 60%), HD DNS TO TR
BRTT IP, F/XLN, SUCRO MTRX, WTHRD
IP, CALC-IP, ABDT CLR & ORNG CHRT
THRU TRAY, DUL YEL GLD FLO IN 40%,
SLI TR YEL GLD FLO IP, V PR TO TR PR
VIS MICRO-PP POR, GD FL SH CUT IN
80%, GD SLW STRM IN 80%, LT TN LCH
ON DSH, NO OIL ODOR

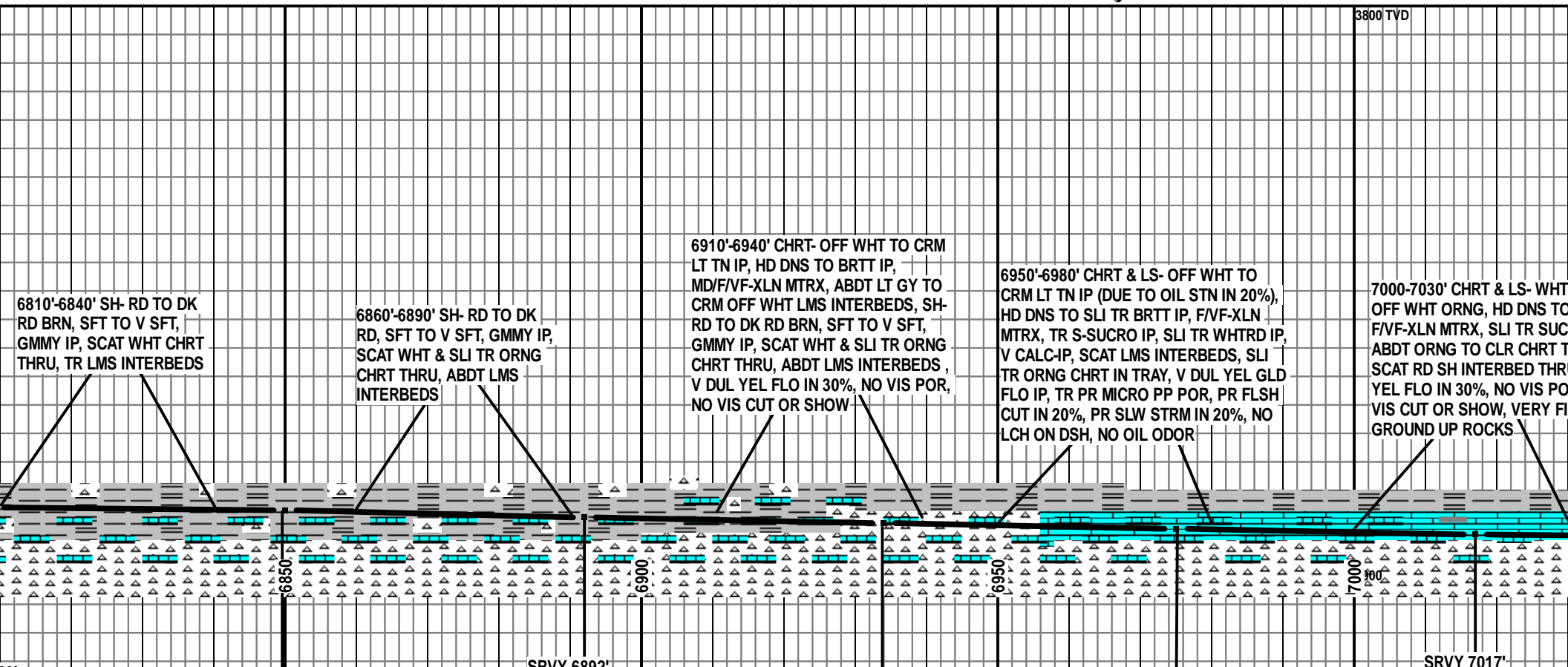
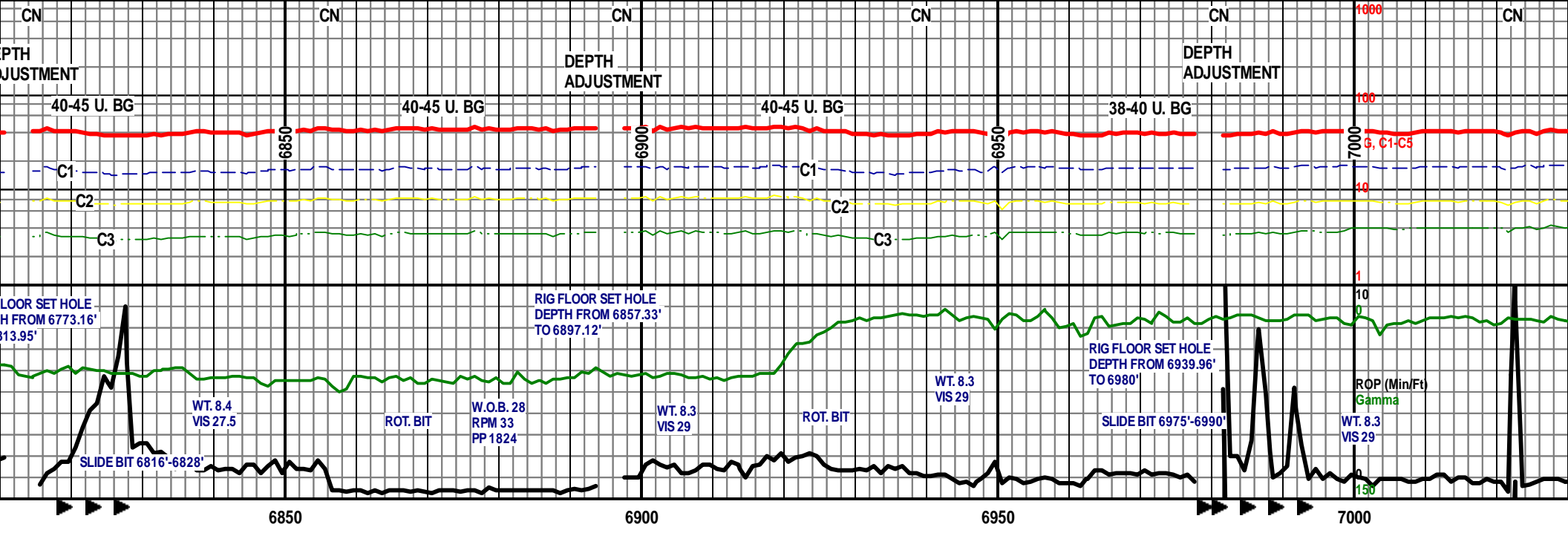
5790'-5820' CHRT- TN TO DK TN BRWN IP
(DUE TO OIL STN IN 70%), HD DNS TO
BRTT IP, MD/F-XLN, V TT SUCRO MTRX,
WTHRD CHRT, TR CALC-IP, HVY TR SCAT
ORNG CHRT IN TRAY, DUL YEL GLD FLO
IN 50%, TR YEL GLD FLO IP, V PR VIS
MICRO-PP POR IP, EXCEL FL SH CUT IN
90%, EXCEL SLW STRM IN 90%, TN LCH
ON DSH, NO OIL ODOR

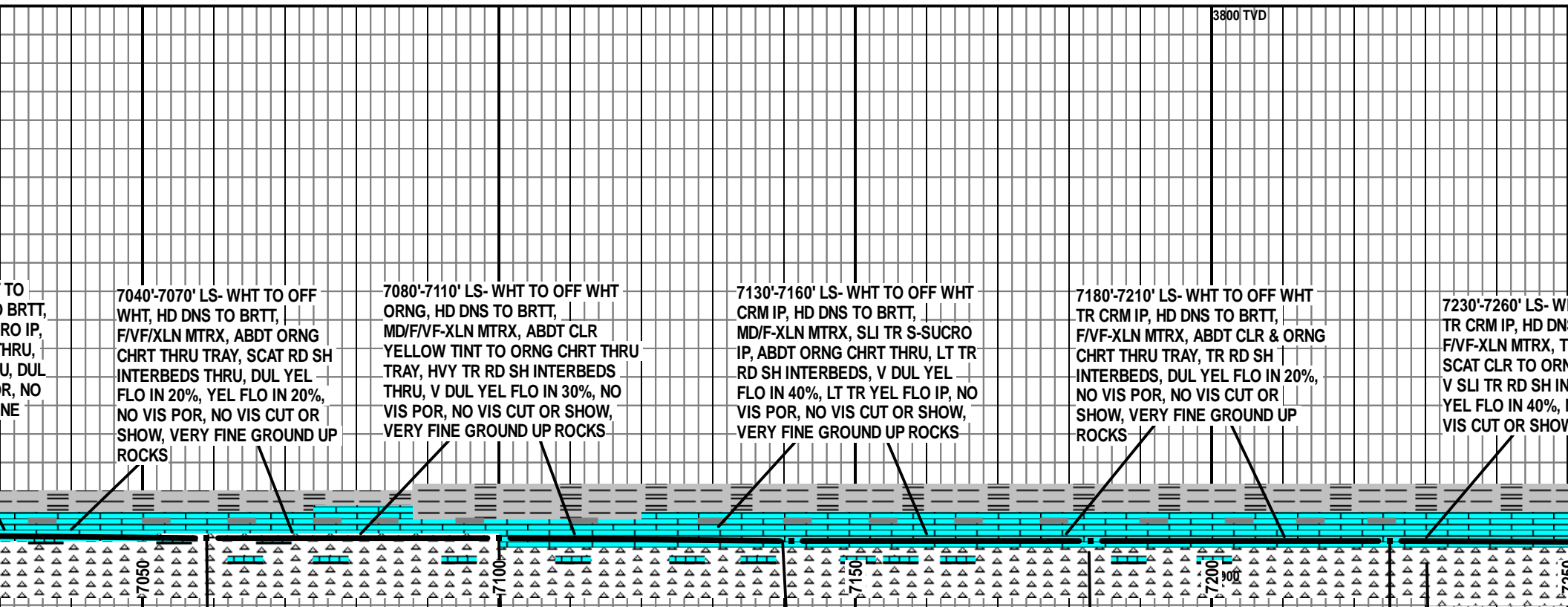
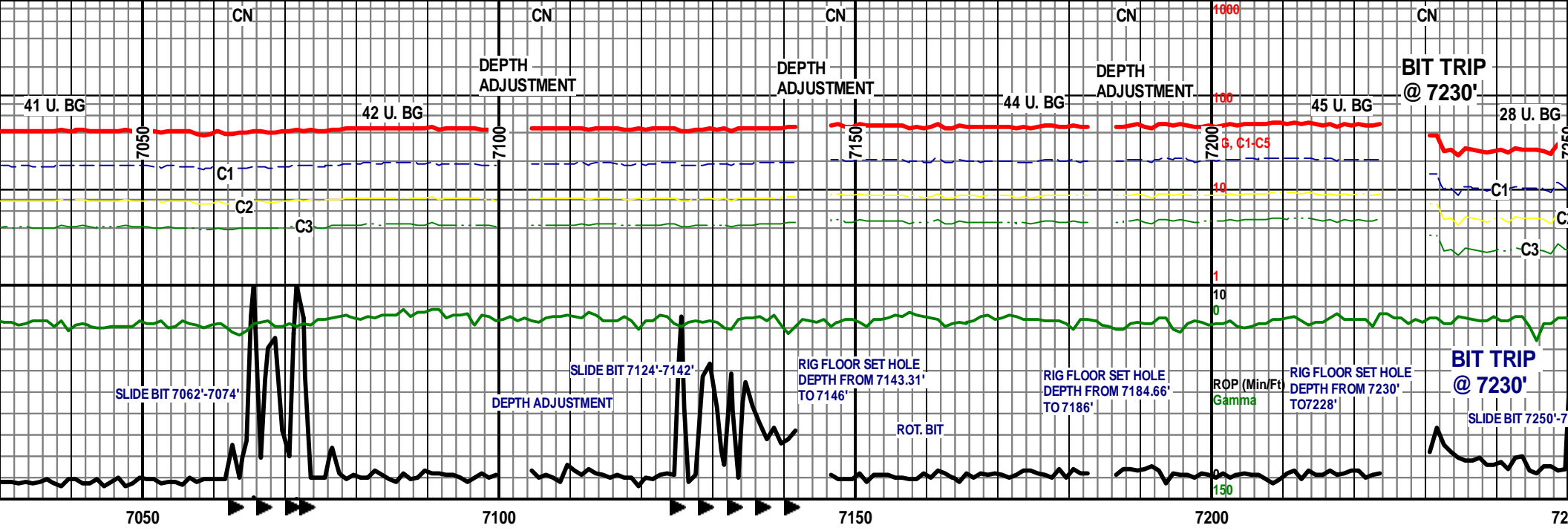
5840'-5870' CHRT- LT TN TO TN DK TN
BRWN IP (DUE TO OIL STAIN IN 60-70%),
HD DNS TO BRTT IP, MD/F-XLN, TT
SUCRO MTRX, WTHRD CHRT, SLI TR
CALC-IP, SLI TR LMS INTERBEDS, YEL
GLD FLO IN 70%, TR DUL YEL GLD FLO
IN 10%, V PR TO TR PR VIS MICRO-PP
POR IP, EXCEL FL SH CUT IN 80%,
EXCEL SLW STRM IN 80%, LT TN TO TN
LCH ON DSH, NO OIL ODOR

5890'-5820' CHRT- OFF WHT TO CRM
TN TO TN (DUE TO OIL STN IN 40-50%)
HD DNS TO TR BRTT IP, F/VF-XLN,
S-SUCRO, WTHRD IP, CALC-IP, SCAT
LMS INTERBEDS, DUL YEL GLD FLO
40%, SLI TR V PR VIS MICRO PP POR
FR FL SH CUT IN 40-50%, GD SLW ST
IN 50%, V LT TN LCH ON DSH, NO OIL
ODOR



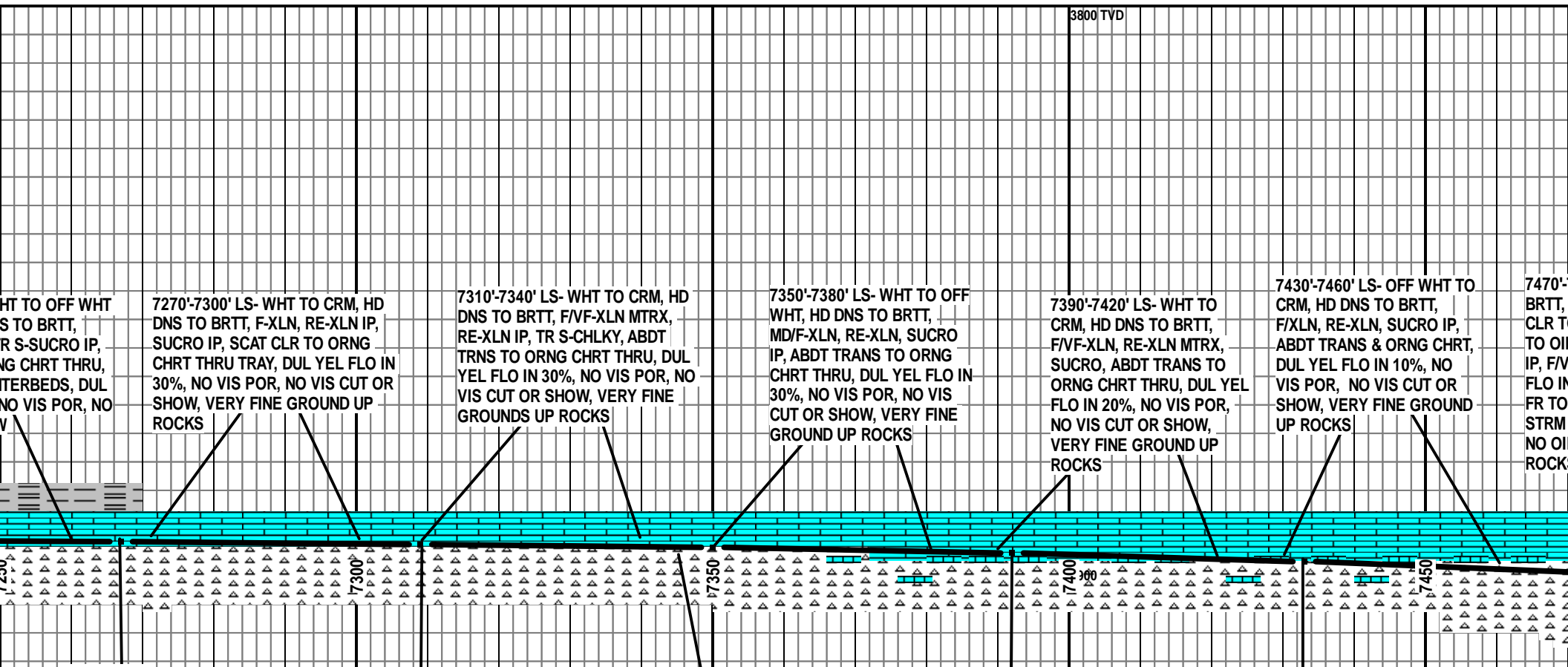
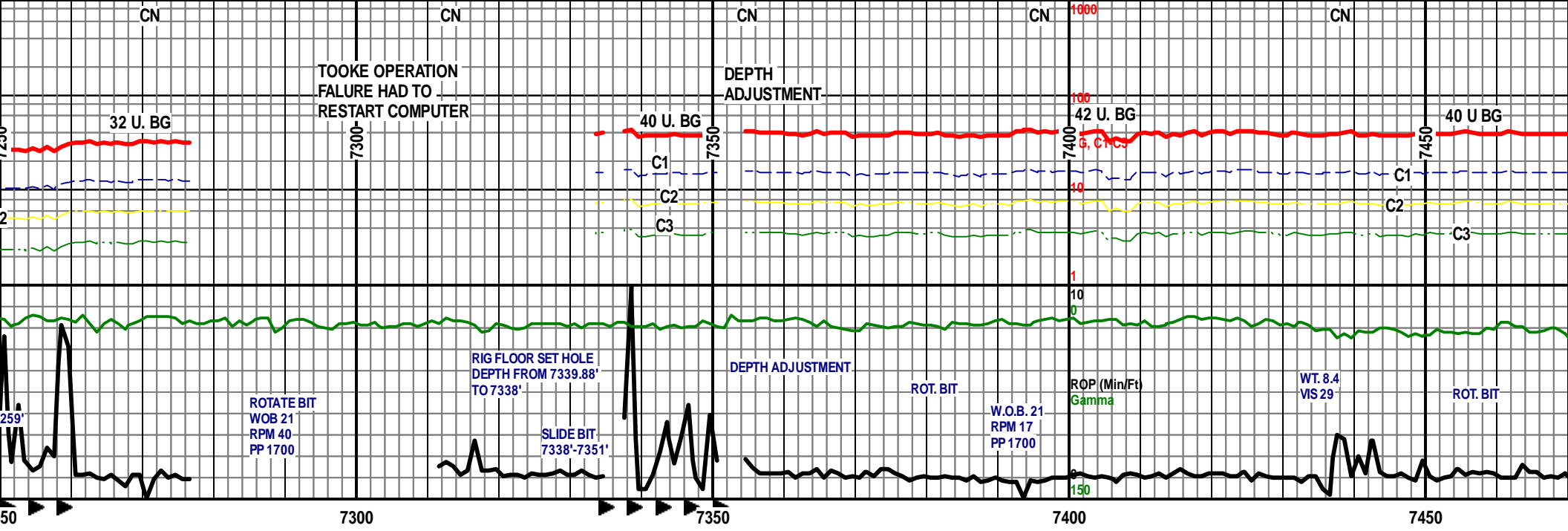


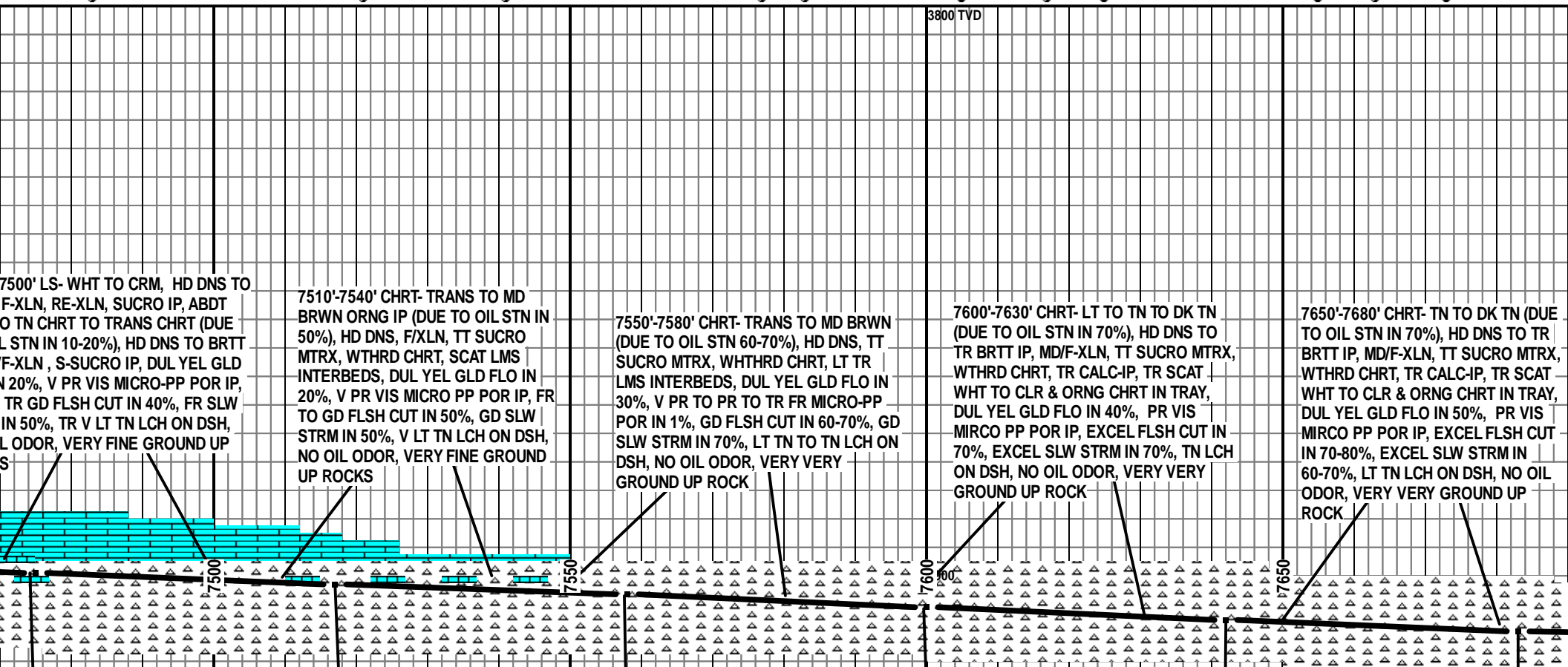
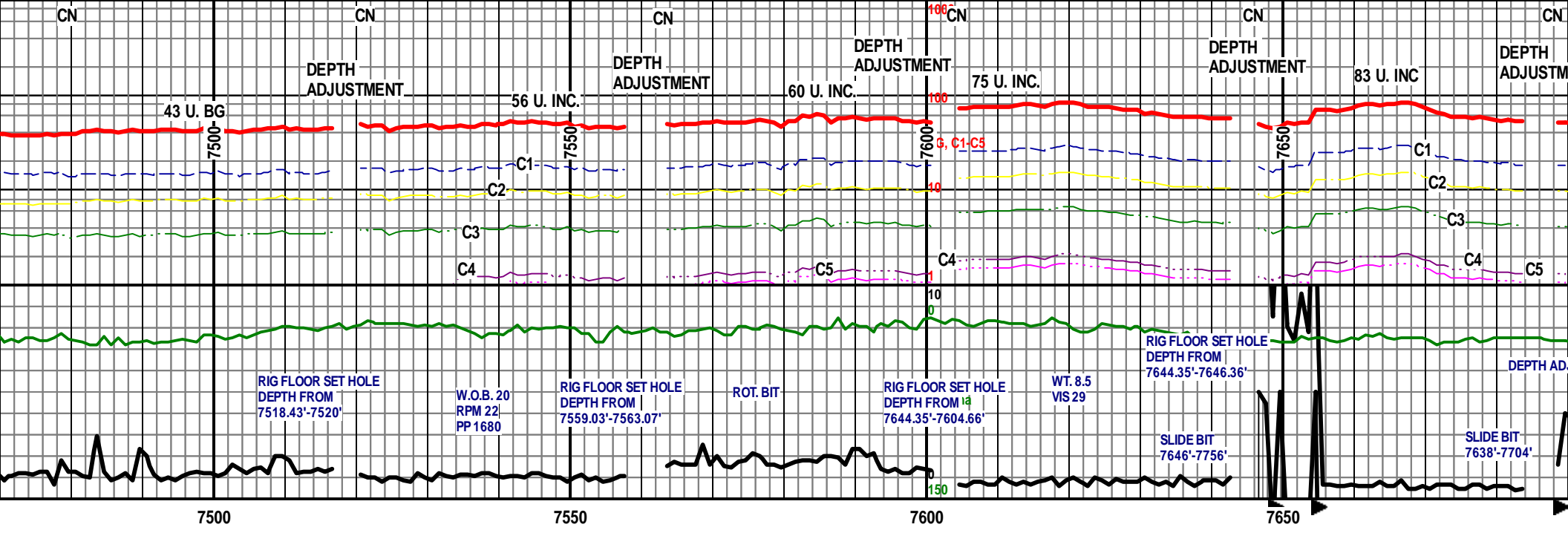


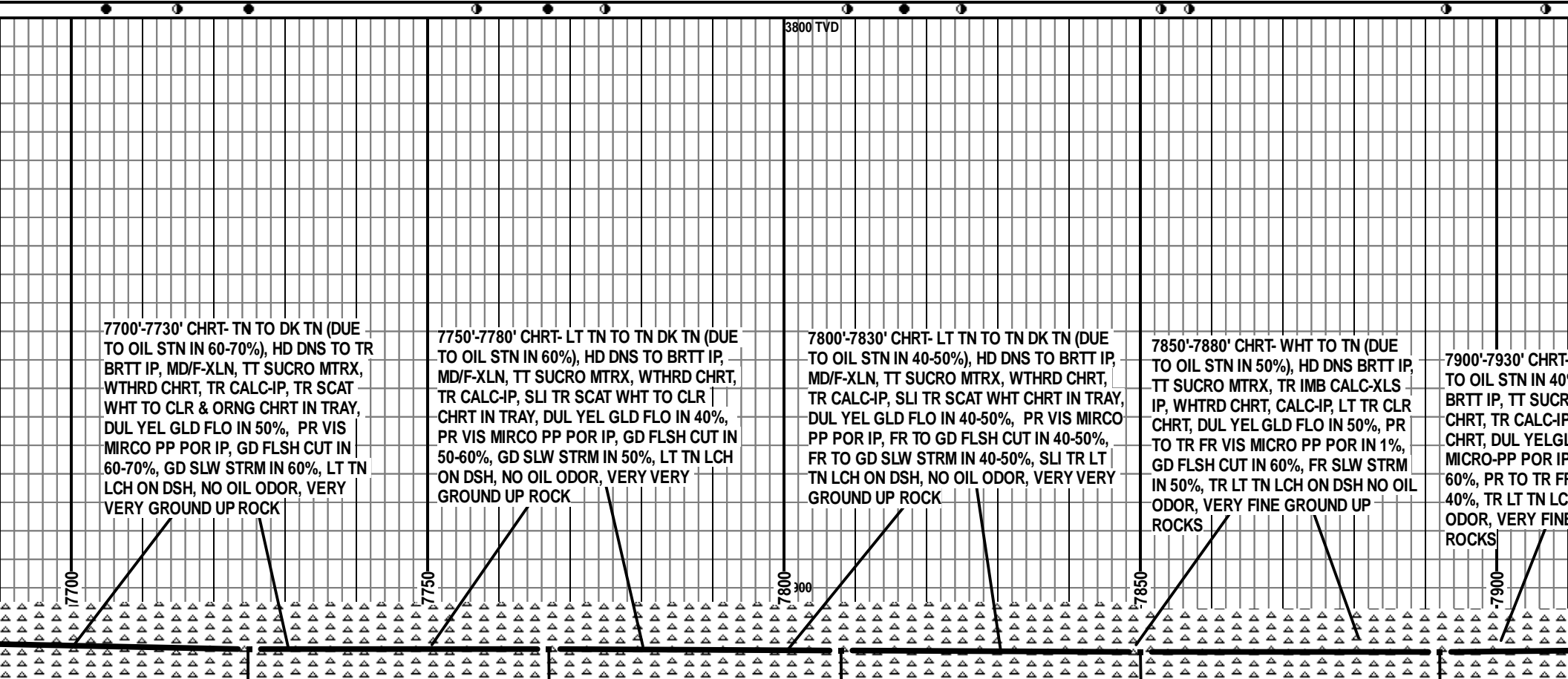
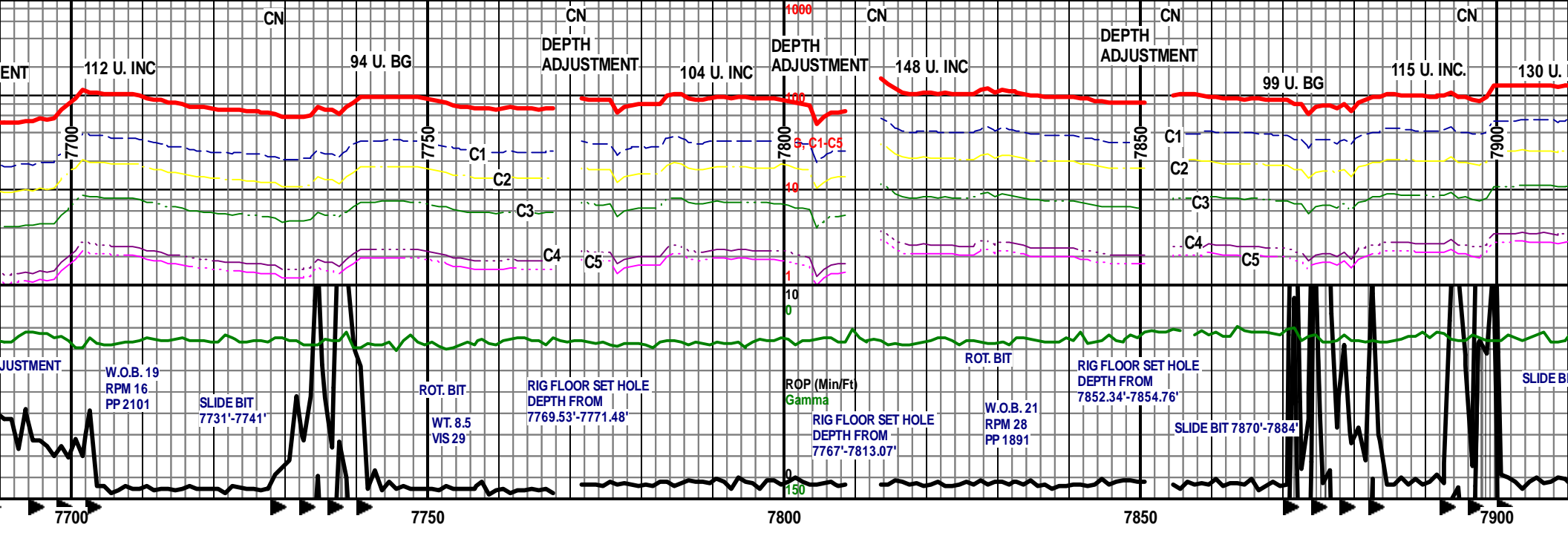


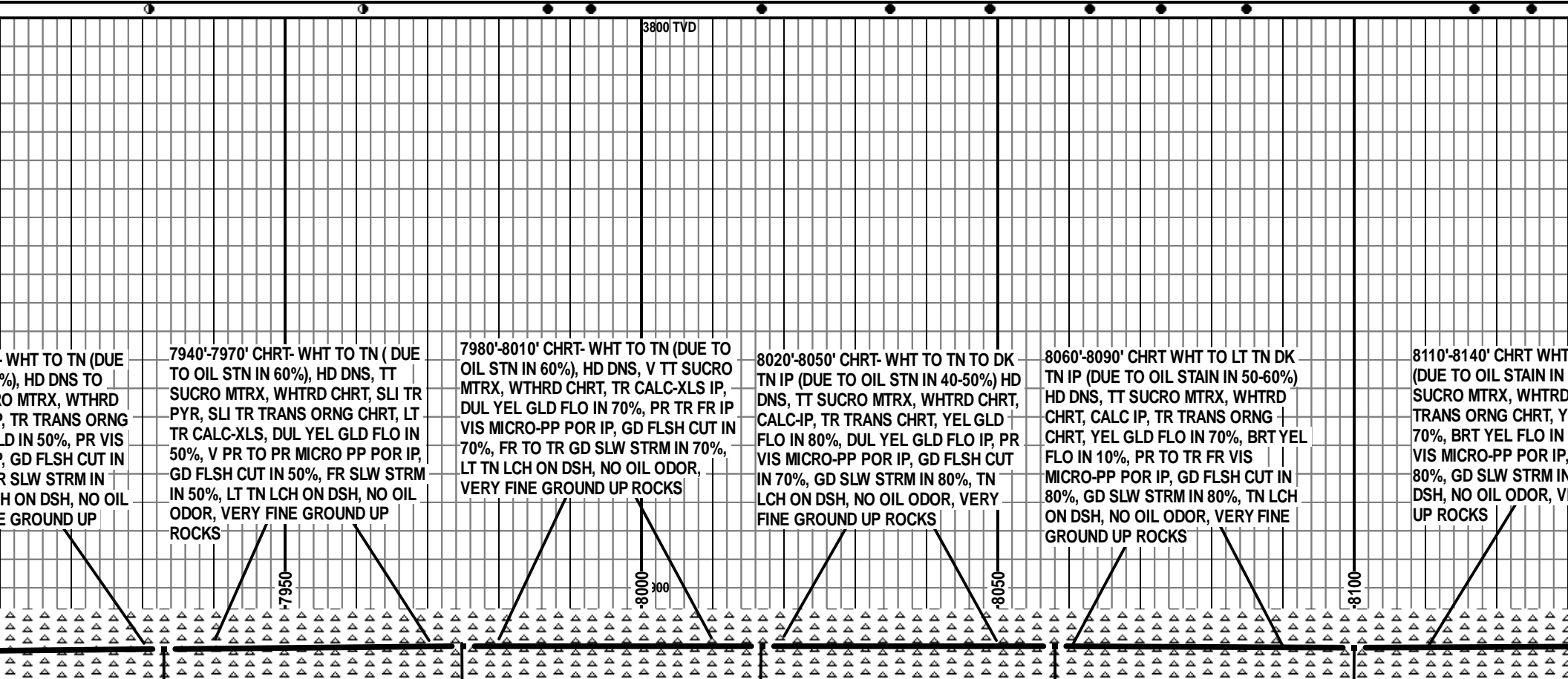
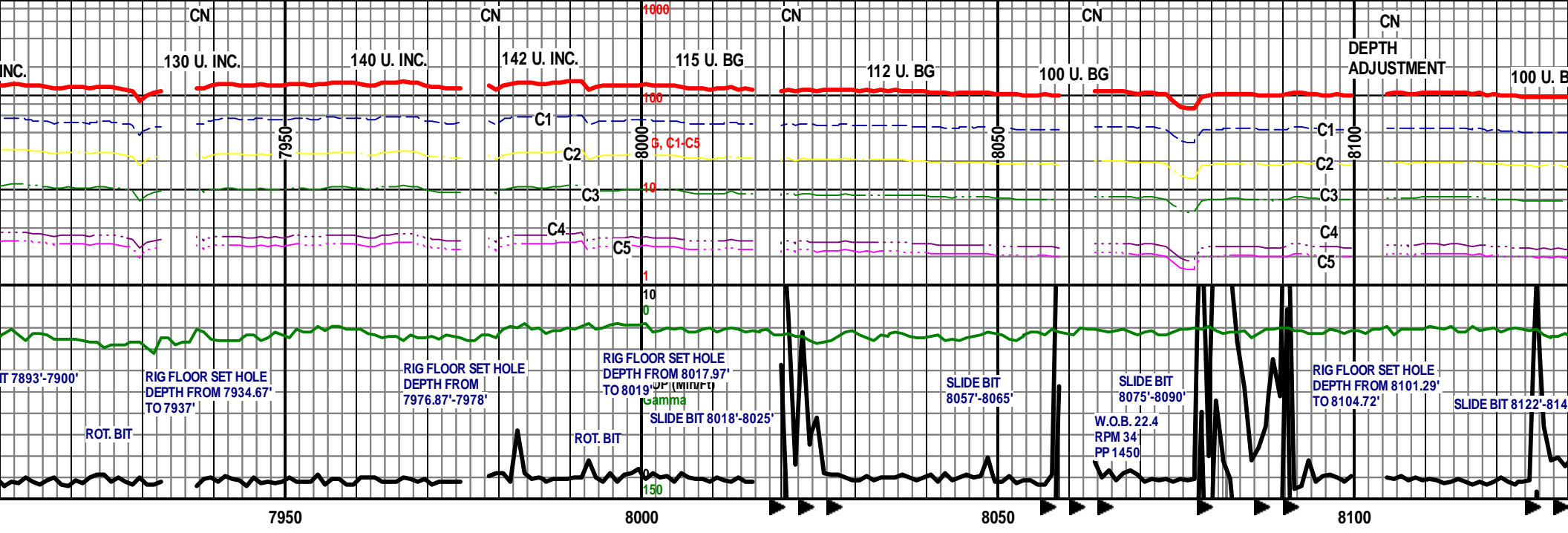
SRVY 7059'
TVD 3893.10'

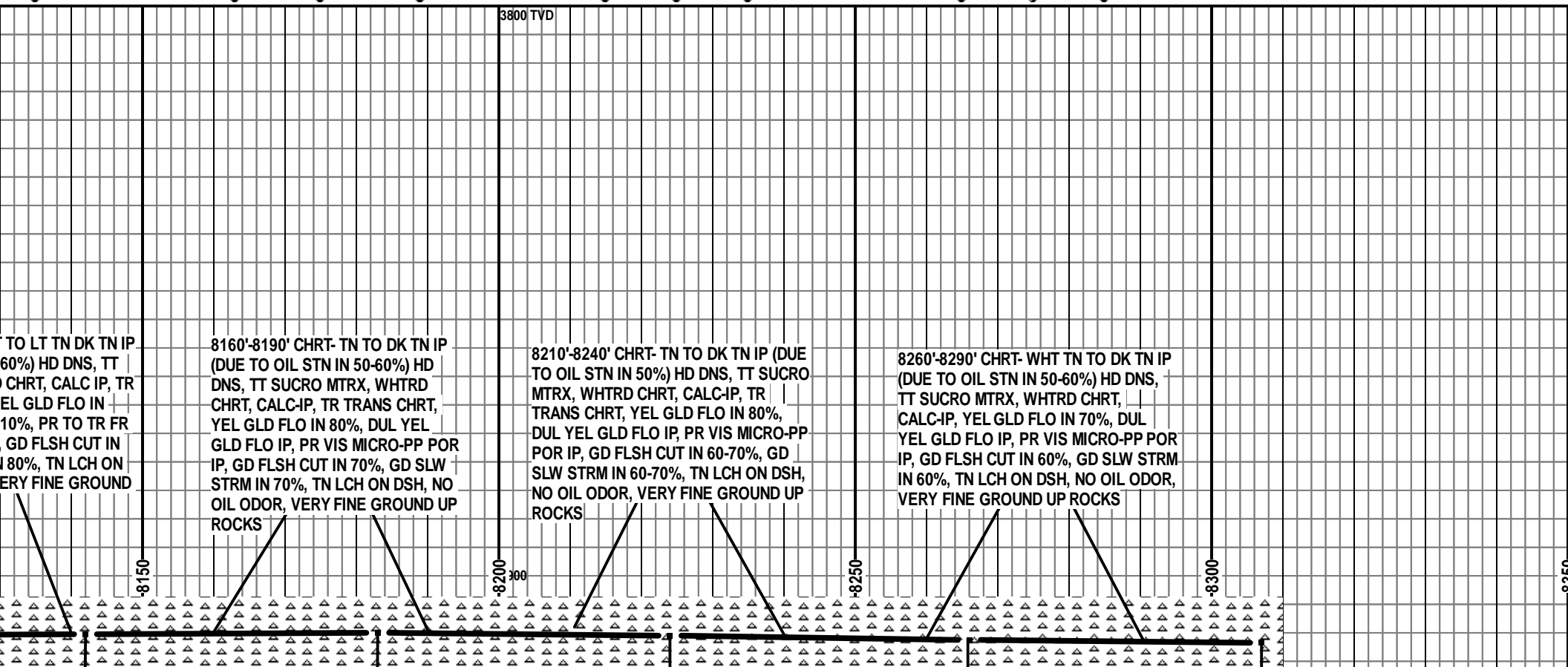
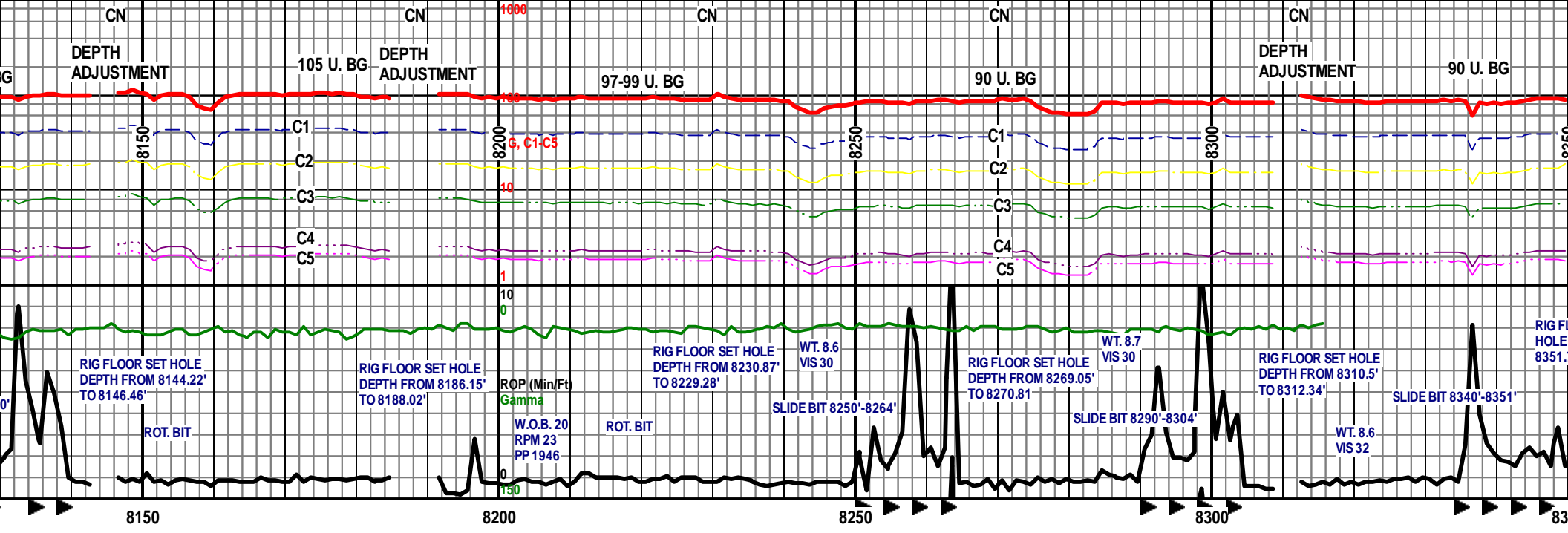
BIT TRIP @ 7230'
12:01 P.M. 7/28/13

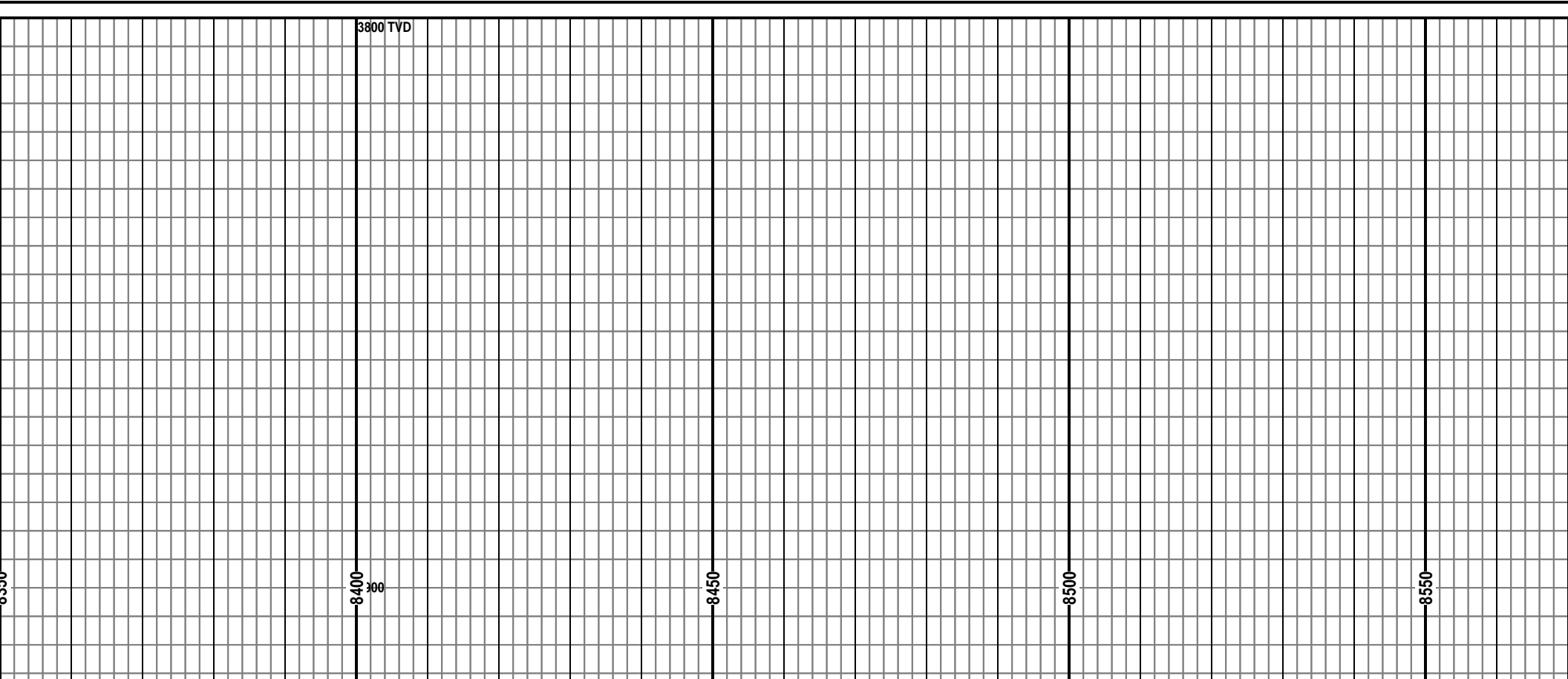
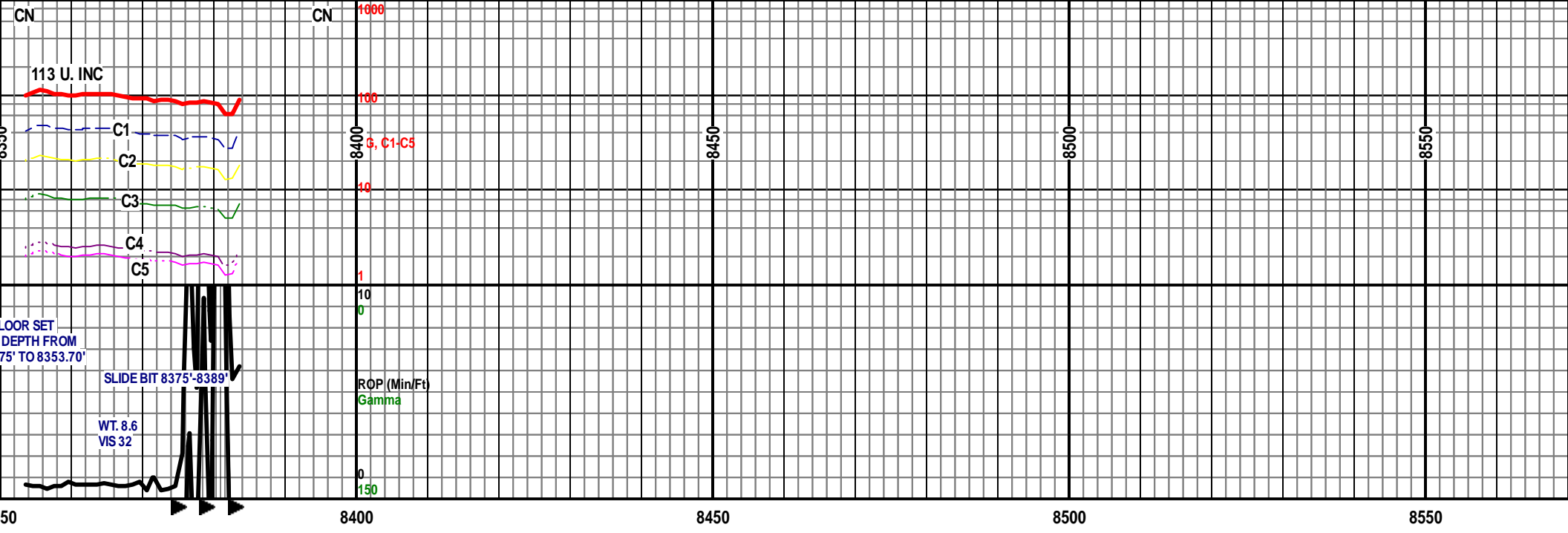












1000

100

8600

10

1

10

0

ROP (Min/Ft)
Gamma

0
150

8600

8650

8700

8750

3800 TVD

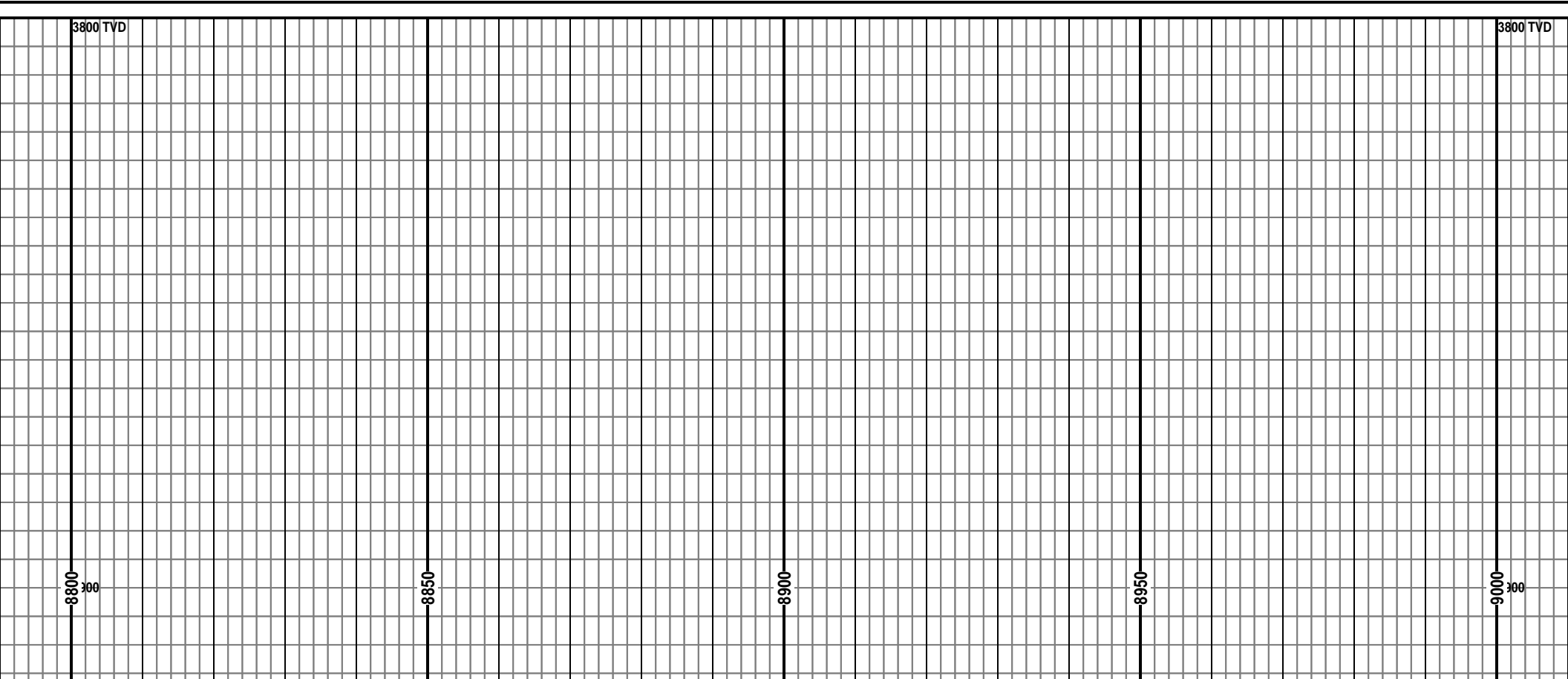
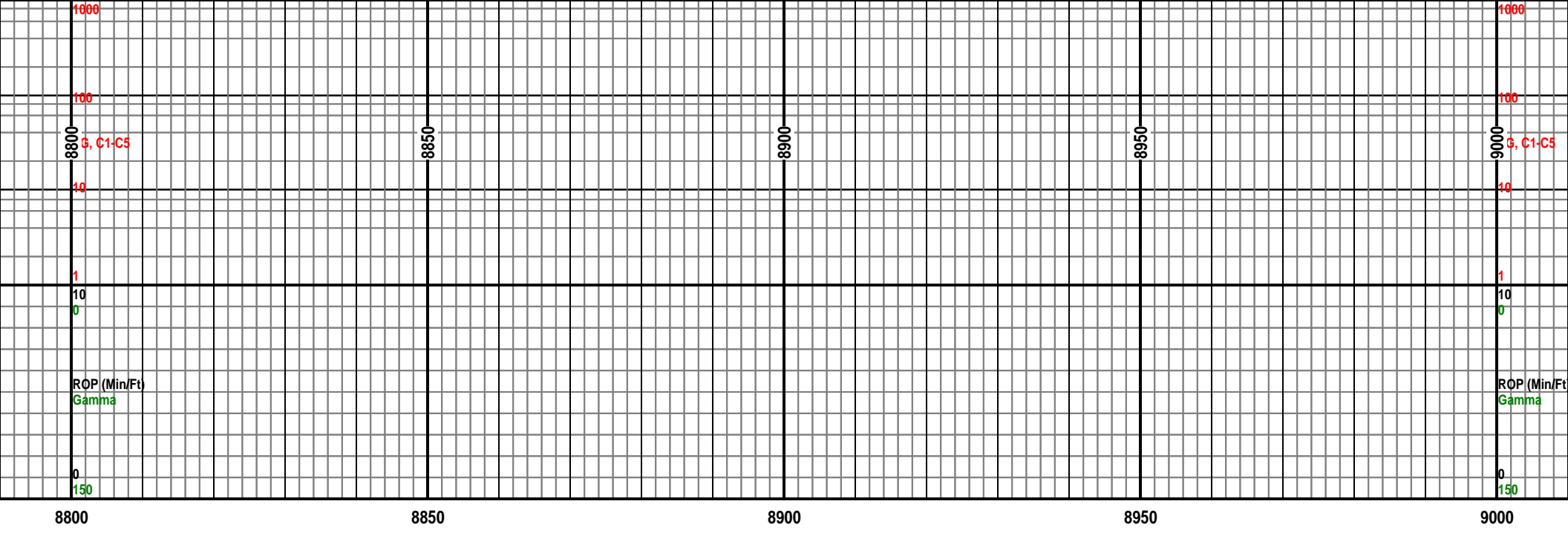
8600

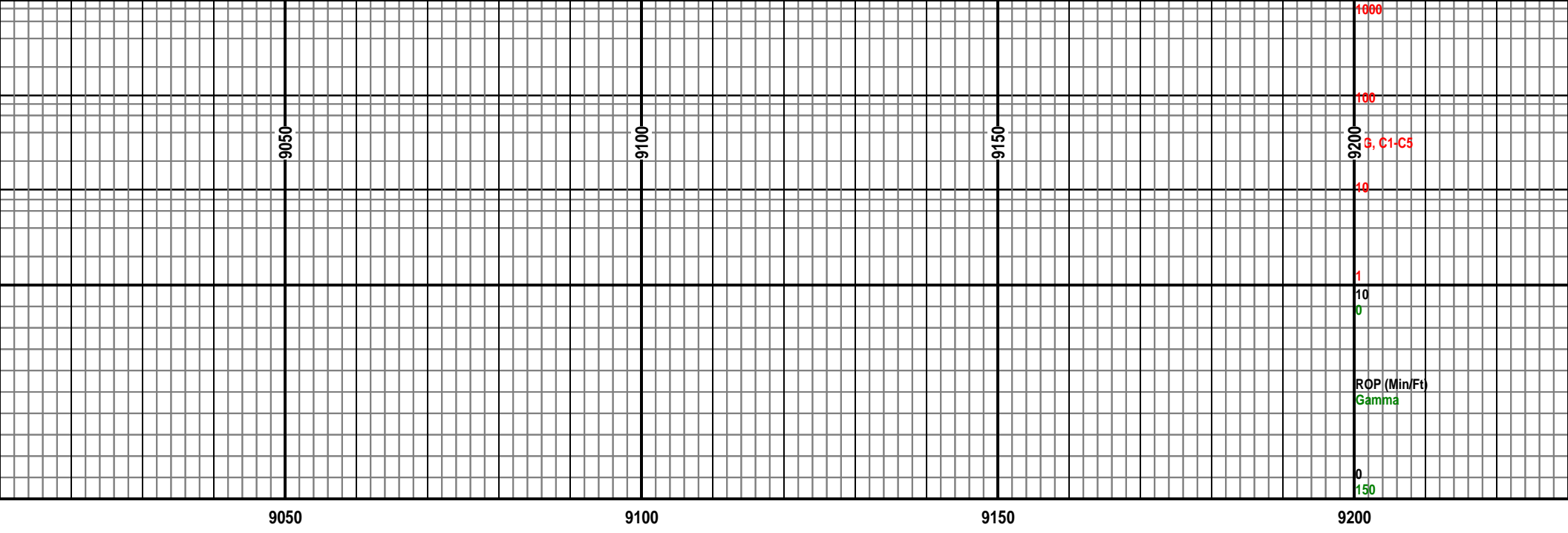
300

8650

8700

8750





9050

9100

9150

9200

1000

100

10

1

10

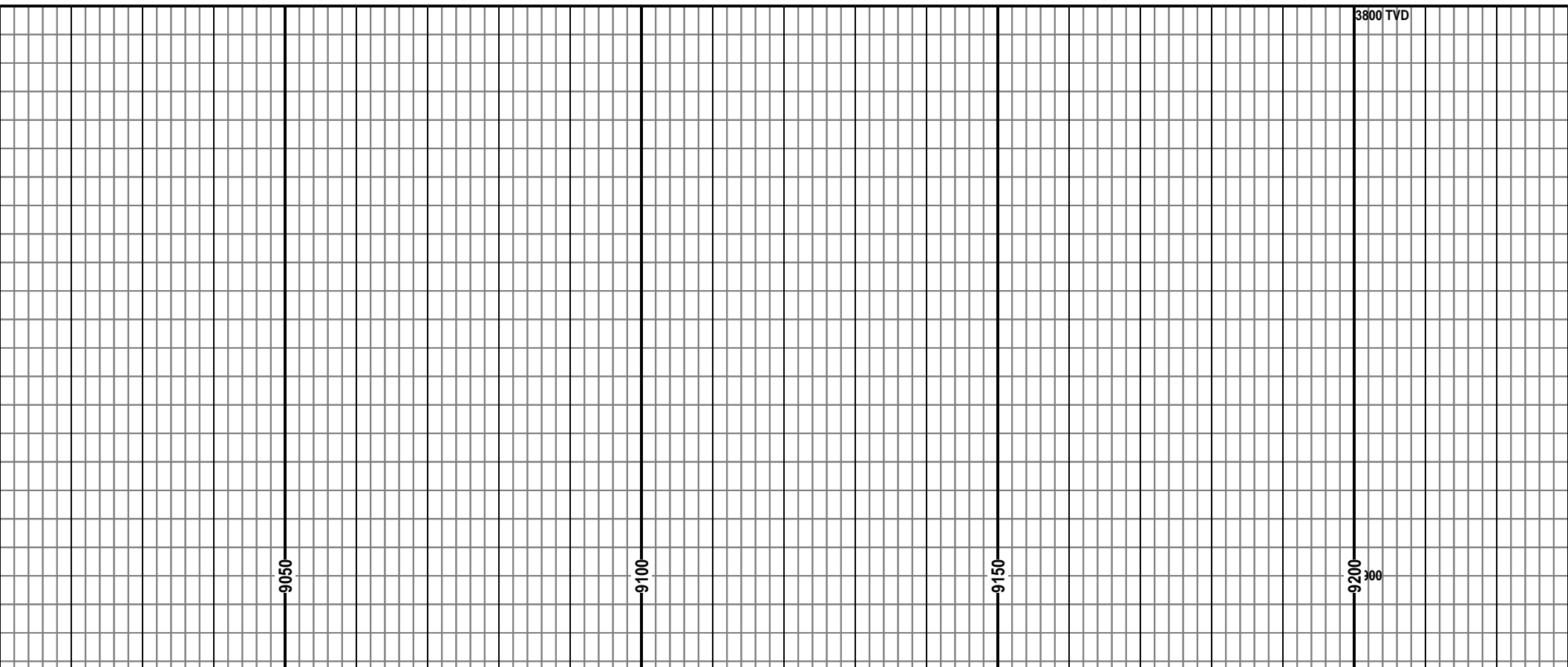
0

0

150

G, C1-C5

ROP (Min/Ft)
Gamma



9050

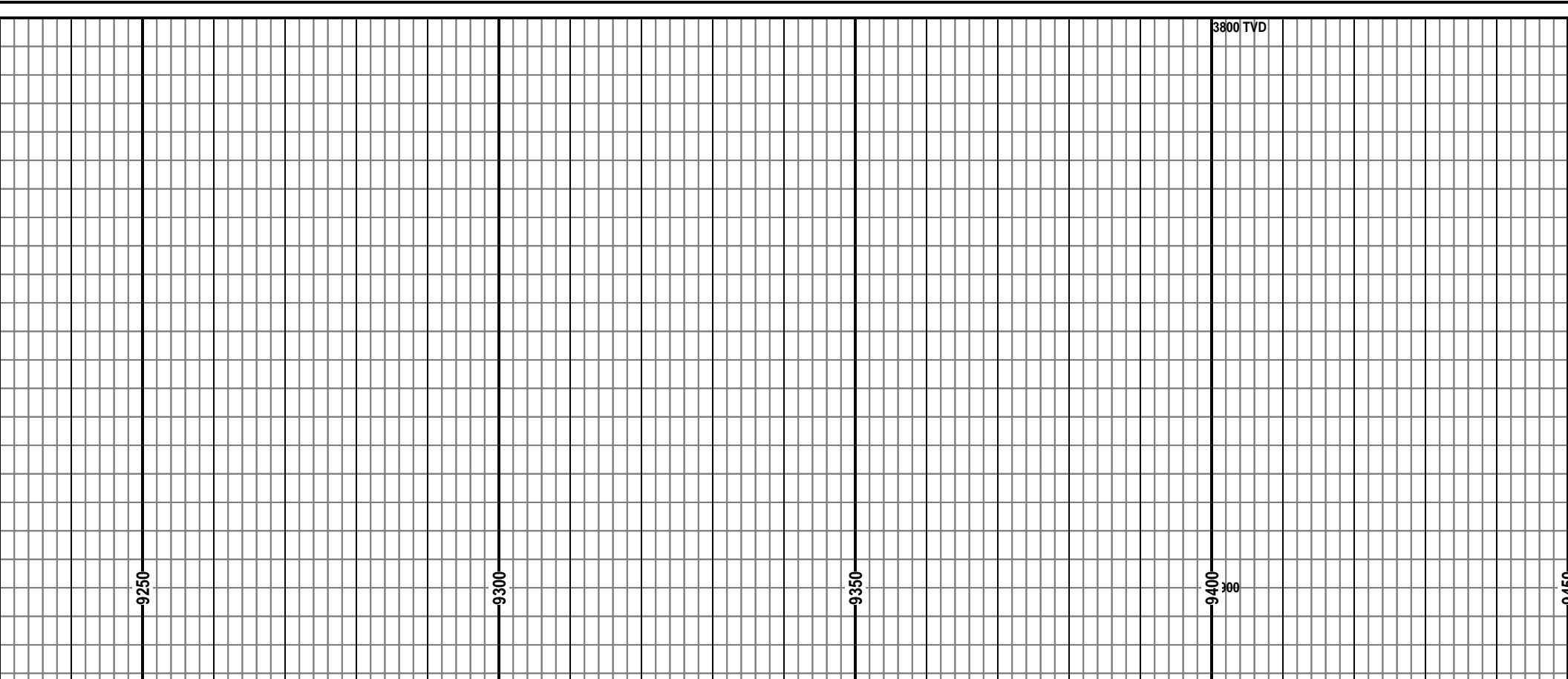
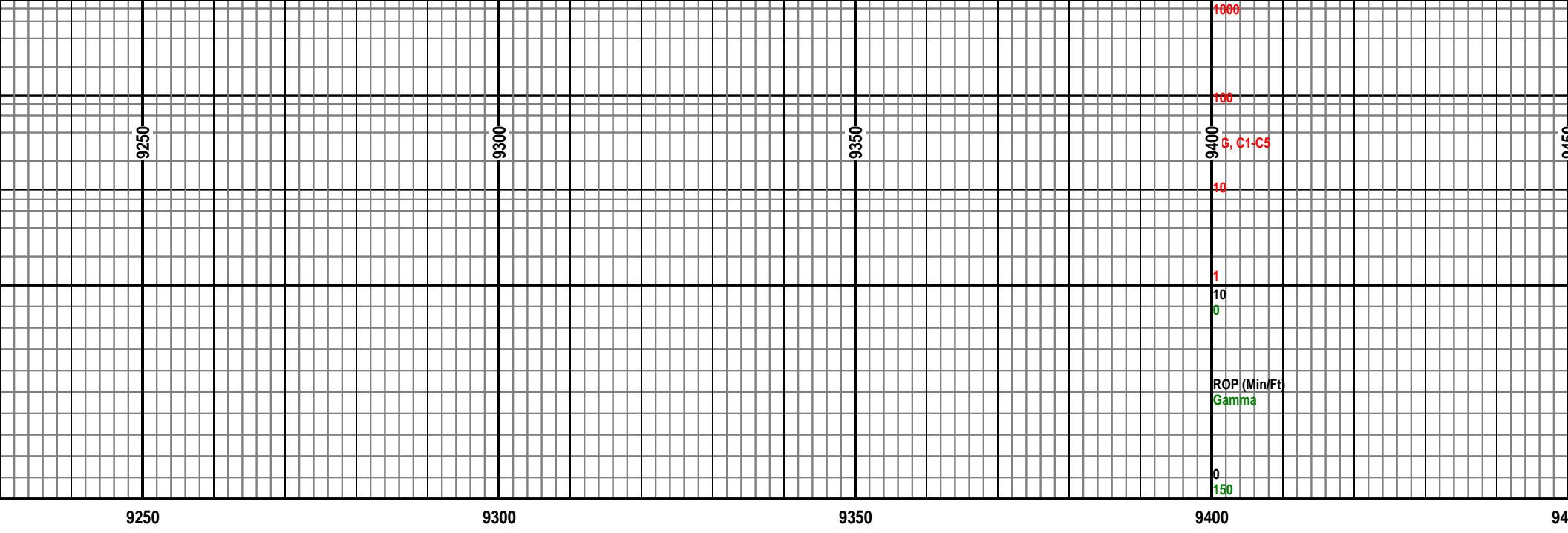
9100

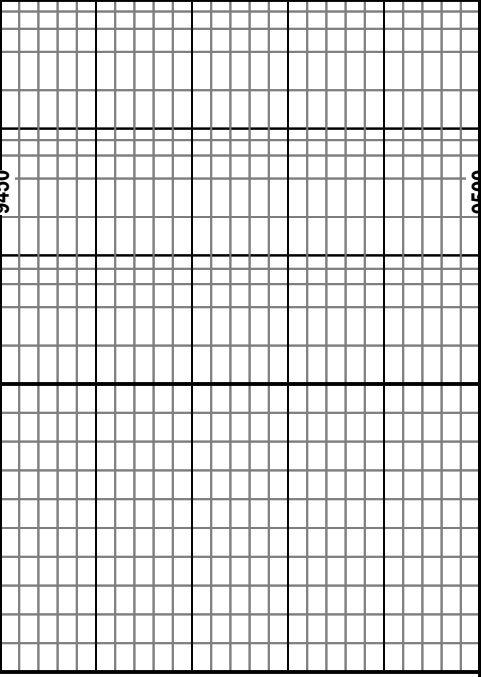
9150

9200

3800 TVD

300





95

