



FILE NO: _____ COMPANY: **HUSKY OIL OPERATIONS LIMITED**
 WELL: **LITTLE BEAR N-9**
 API NO: _____ FIELD: **SLATER RIVER**
 PROVINCE: **NORTHWEST TERRITORIES**

Ver. 3.87
 UID: **300N080500126300**
 LICENSE: **463**
 LOCATION: **SURF LOC: LAT 64° 58' 55.21N LONG 129° 31' 20.2'**
31° 20.2'
BH LOC, LSD: LAT 64° 58' 55.21N LONG 129° 31' 20.2'

PERMANENT DATUM: **G.L. _____ ELEVATION 253.5 M**
 LOG MEASURED FROM: **K.B. _____ 5.3 M ABOVE P.D.**
 DRILL MEAS. FROM: **KELLY BUSHING _____**

OTHER SERVICES:
 ZDL-GR-CAL
 HDIL-GR-CAL, IUREX
 XMAC-GR, FLEX-DLS
 EI-CRIL-GR, CRIL
 ELEVATIONS:
 KB 258.8 M
 DF _____
 GL 253.5 M

DATE	TRIP	1	2
13-FEB-2012			
SERVICE ORDER		CA212310	
DEPTH DRILLER		1868.0 M	
DEPTH LOGGER		1868.0 M	
BOTTOM LOGGED INTERVAL		1853.0 M	
TOP LOGGED INTERVAL		638.5 M	
CASING DRILLER		244.5 M	638.0 M
CASING LOGGER		638.5 M	
BIT SIZE		222.0 MM	
TYPE OF FLUID IN HOLE		INVERT	
DENSITY	1280.0 G/L	39.0 S	
PH	N/A	N/A	
SOURCE OF SAMPLE		NO SAMPLE	
RM AT MEAS. TEMP.		MA	0
RMF AT MEAS. TEMP.		MA	0
RMC AT MEAS. TEMP.		MA	0
SOURCE OF RMF	RMC	NO SAMPLE	
RM AT BHT		MA	0
TIME SINCE CIRCULATION		22.5 HOURS	
MAX. RECORDED TEMP.		72.8 DEGC	
EQUIP. NO.	LOCATION	Z009872	CANADA OPEN
RECORDED BY		J. COLLIER / I. ZALESKI KH	
WITNESSED BY		H. PARENHOVEN	

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
311.0 MM	0.0 M	638.0 M
222.0 MM	638.0 M	1868.0 M

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
244.5 MM	53.6 KG/M	J-55	0.0 M	638.0 M

REMARKS

RUN 1 TRIP 2: TIME STOPPED CIRCULATION: 12-FEB-2012 05:30 PM

CALIPERS READING 7MM UNDER GAUGE, NORMALIZE FOR BHP AND RECALCULATE CVL
 7" MUD EXCLUDER RUN ON ECBIL
 IMAGED TD - 800M, CALIPERS TO CSG

HOLE VOLUMES OBTAINED FROM EI 6-ARM CALIPER.
 INTEGRATED BOREHOLE VOLUME TICS EVERY: 0.1, 1.0 & 10.0 M3.
 INTEGRATED CEMENT VOLUME TICS EVERY: 0.1, 1.0, & 10.0 M3.

RIG: NABORS 23

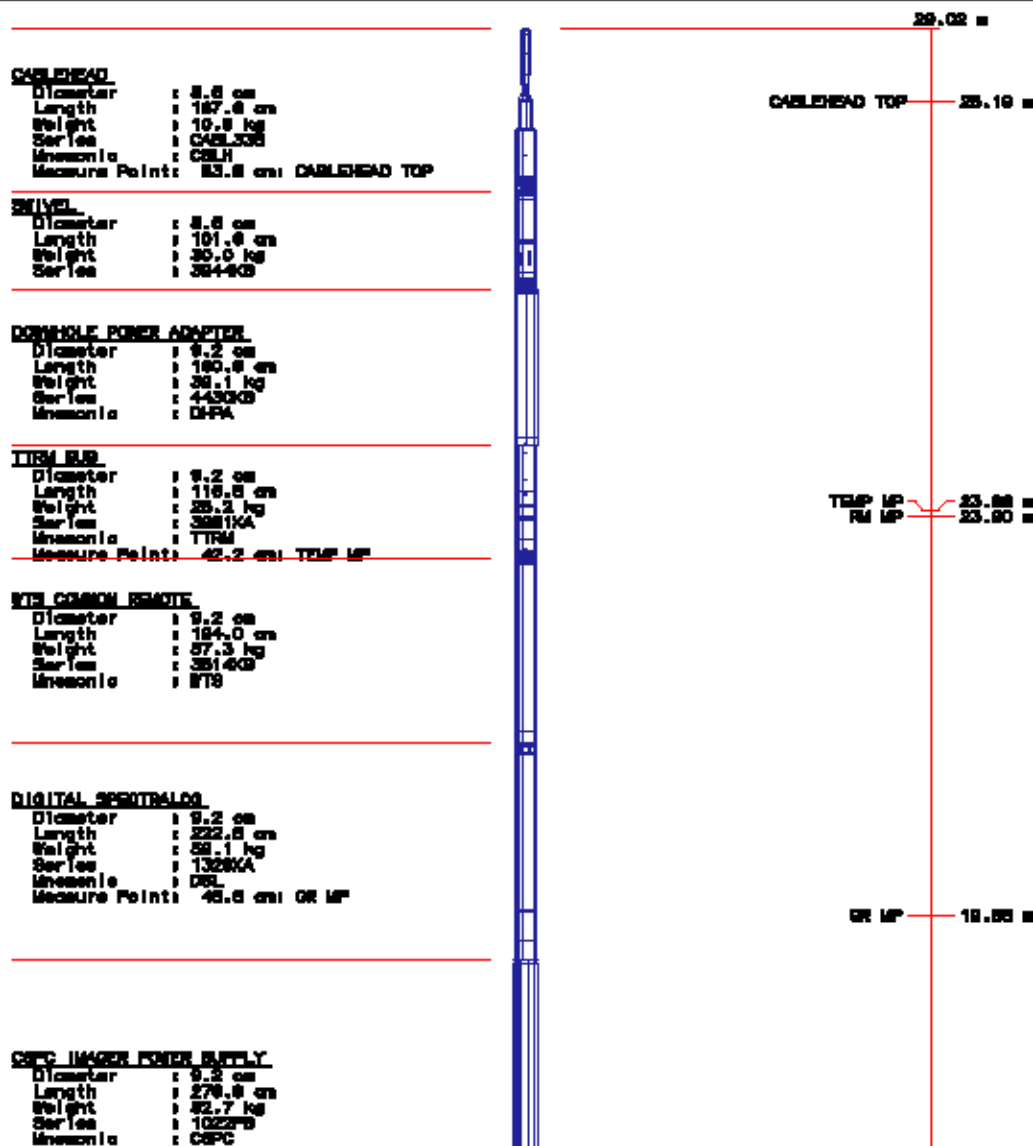
CREW: J. COLLIER, I. ZALESKI KH, D. KIRWAN, D. SCHNEIDER, N. McDERMID, J. VANDER HONING

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	2	SRVCL	3844XD	11848158	FREE
1	2	DHFA	4430KB	12088588	FREE
1	2	TTRM SUB	3981XA	Z173348	FREE
1	2	CONK	3514KC	12079083	FREE
1	2	WTS DGR/SJ	1328KB	11756874	FREE
1	2	STAR II PS	1022PB	12083301	FREE
1	2	F/ GDM	1036EH	12075777	FREE
1	2	STAR MANDRE	4238MA	10209809	6-PAD DEVICE
1	2	WTS ISO SUB	3982XA	12074457	FREE
1	2	CRS	4401KB	12039483	FREE
1	2	WTS DBL KWJ	3938XA	12061597	FREE
1	2	CEIL ELEC	1873EA	10172838	FREE
1	2	CEIL MANDRE	1873MA	10171847	CENTRALIZED

INSTRUMENT CONFIGURATION

Source File: /dat1a/husky_CA212510/run2-tdg



OBFO IMAGER ELECTRONICS

Diameter : 9.2 cm
Length : 270.0 cm
Weight : 43.7 kg
Series : 1038EB
Mnemonic : CBPC

OBFO IMAGER MANDREL

Diameter : 13.3 cm
Length : 381.0 cm
Weight : 128.4 kg
Series : 4338AB
Mnemonic : CBPC
Measure Point: 100.8 cm: PAD MP

ISOLATION RETURN SLEEVE

Diameter : 9.2 cm
Length : 83.5 cm

DIGITAL ORIENTATION

Diameter : 8.6 cm
Length : 329.4 cm
Weight : 50.0 kg
Series : 4401KB
Mnemonic : ORIT
Measure Point: 0.0 cm: ORIENT MP

KNICKLE JOINT (DOUBLE)

Diameter : 8.6 cm
Length : 141.8 cm
Weight : 40.8 kg
Series : 3838KA
Mnemonic : KJUT

E-CRIL ACOUSTIC IMAGER ELECTRONICS

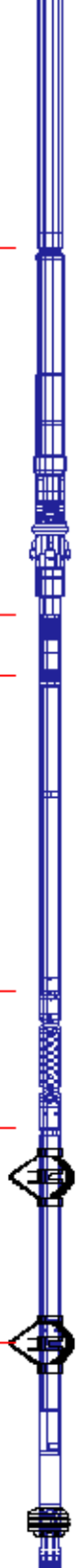
Diameter : 8.6 cm
Length : 223.0 cm
Weight : 54.5 kg
Series : 1673EA
Mnemonic : CBIL

E-CRIL ACOUSTIC IMAGER MANDREL

Diameter : 9.2 cm
Length : 238.1 cm
Weight : 85.2 kg
Series : 1673EA
Mnemonic : CBIL
Measure Point: 80.7 cm: MUD MP
Measure Point: 40.3 cm: IMAGE MP

BALL PLUG 3 3/8"

TOTAL LENGTH: 29.02 m
TOTAL WEIGHT: 880.0 kg
MAX DIAMETER: 16.8 cm



PAD MP — 11.00 m

ORIENT MP — 8.12 m

MUD MP — 1.08 m

IMAGE MP — 0.48 m

0.00 m

BOREHOLE PROFILE ORIENTED TO TRUE NORTH - 177.8 MM CASING

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/husky_CA212310/m837g_XC03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 842.898 m BOTTOM DEPTH: 1884.995 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT TENSION	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME MULTI-ARM (6) CALIPER PROCESSING BIT SIZE	CASING O.D.	177.800	mm	TOP	BOTTOM
	CALC. METHOD	CALD (AVG DIA)		"	"
	BIT SIZE	222.000	mm	"	"

CURVE DESCRIPTION REPORT

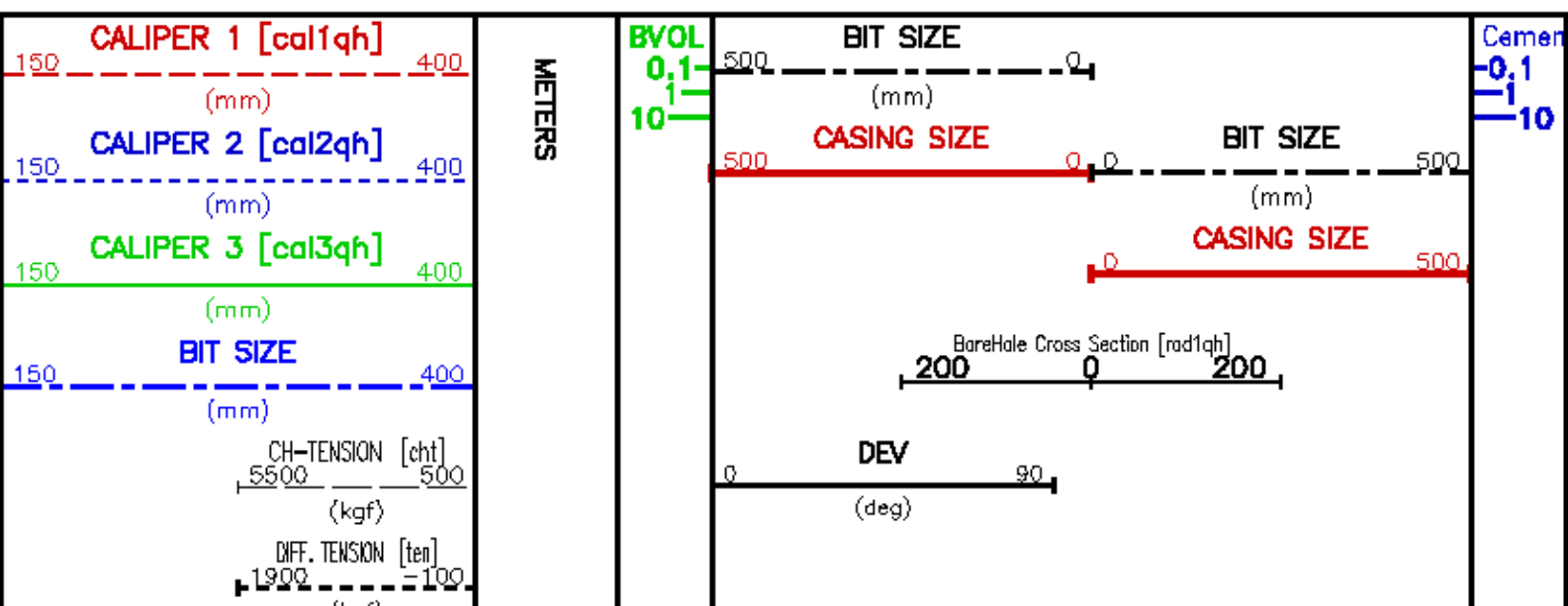
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Feb 13 15:58:48 2012	BIT SIZE
F1:BVOL	Feb 13 15:58:48 2012	BOREHOLE VOLUME
F1:CAL1QH	Feb 13 15:58:48 2012	DIAMETER FROM PAD 1 AND ITS OPPOSITE
F1:CAL2QH	Feb 13 15:58:48 2012	DIAMETER FROM PAD 2 AND ITS OPPOSITE
F1:CAL3QH	Feb 13 15:58:48 2012	DIAMETER FROM PAD 3 AND ITS OPPOSITE
F1:CHT	Feb 13 15:58:48 2012	CABLE HEAD TENSION
F1:CVOL	Feb 13 15:58:48 2012	CEMENT VOLUME
F1:TEN	Feb 13 15:58:48 2012	DIFFERENTIAL TENSION

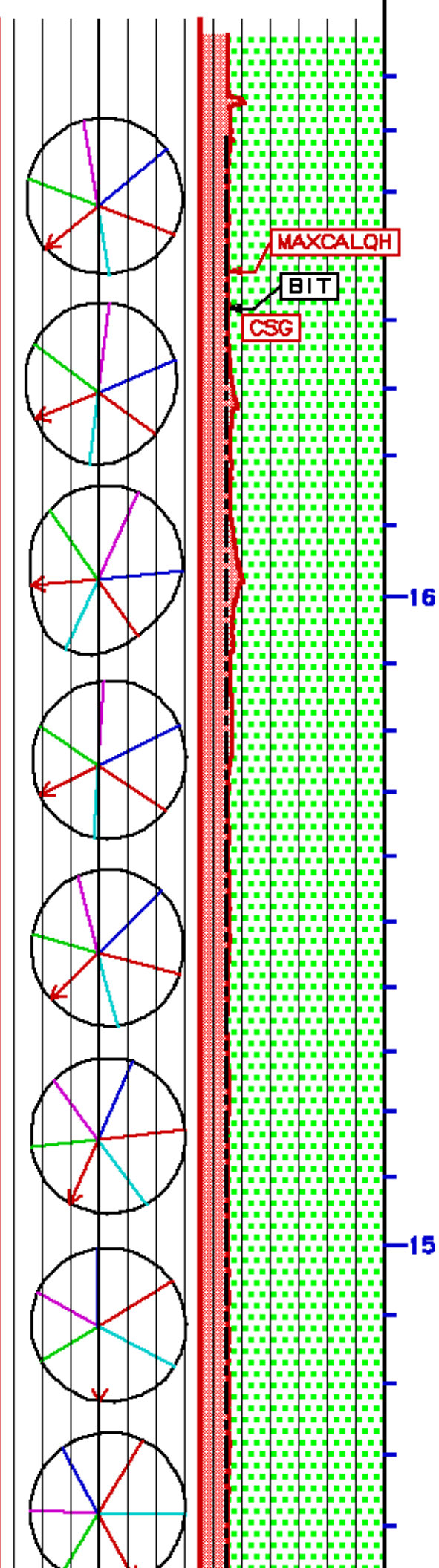
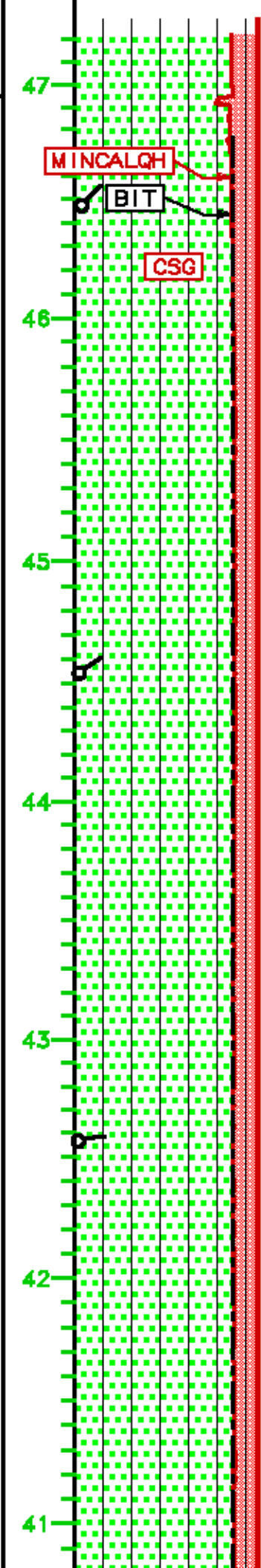
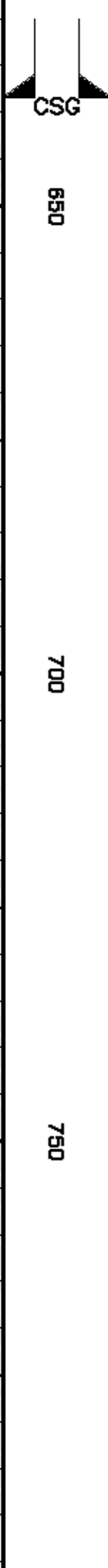
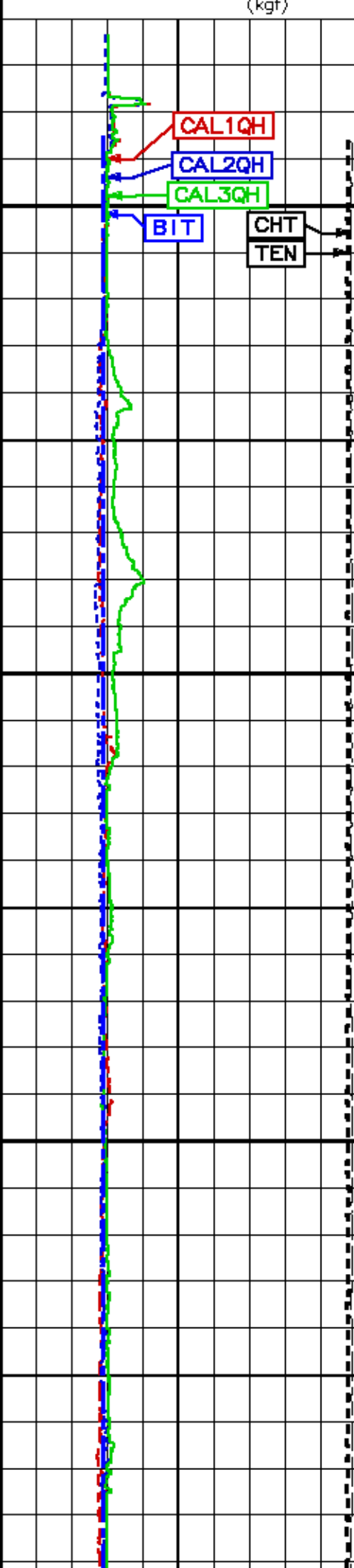
CURVE MEASURE POINT OFFSET

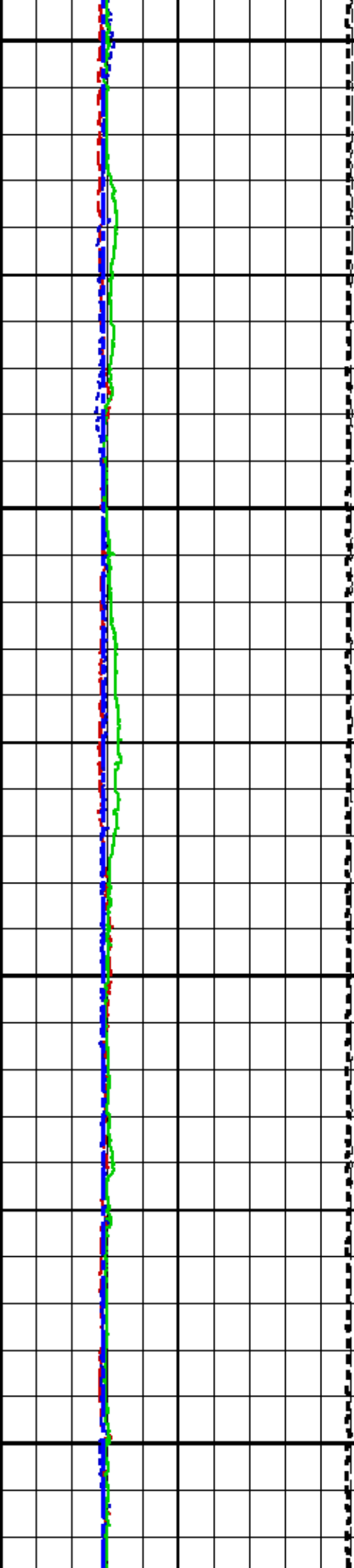
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CAL2QH	10.97	CHT	0.00		
CAL1QH	10.97	CAL3QH	10.97	TEN	0.00		

Presentation : epua:/data/husky_CA212310/bhphexcal-true_177.B.pdf [1:800 Scale]
 Plot Interval : 830 - 1884.99 Meters

Data File 1 : F1 : epua:/data/husky_CA212310/r1t2_crl_main.tif
 Created On : Feb 13 15:58:48 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR N-8
 Field : SLATER RIVER
 File Interval : 818.973 - 1884.99 Meters
 Oct : m837g_XC





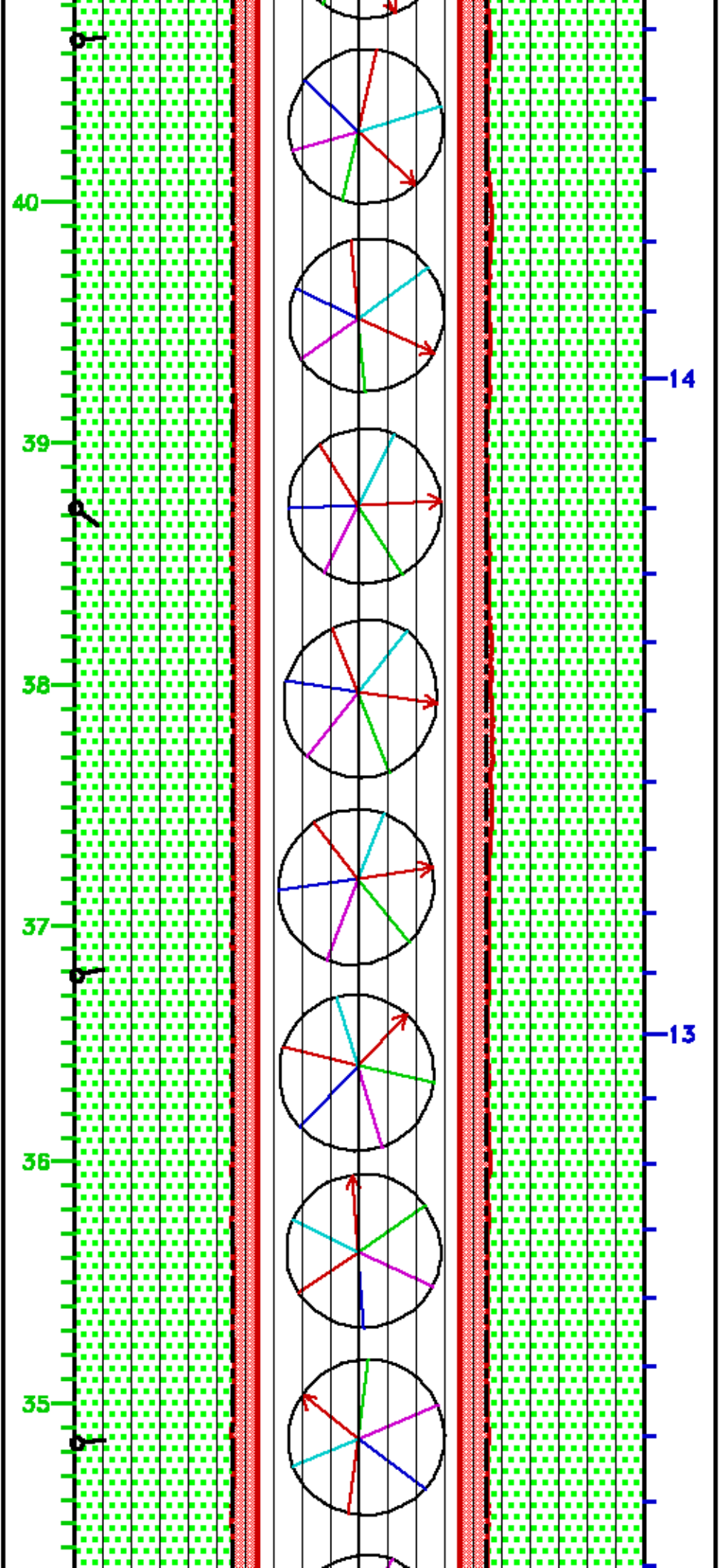


800

850

900

950



40

39

38

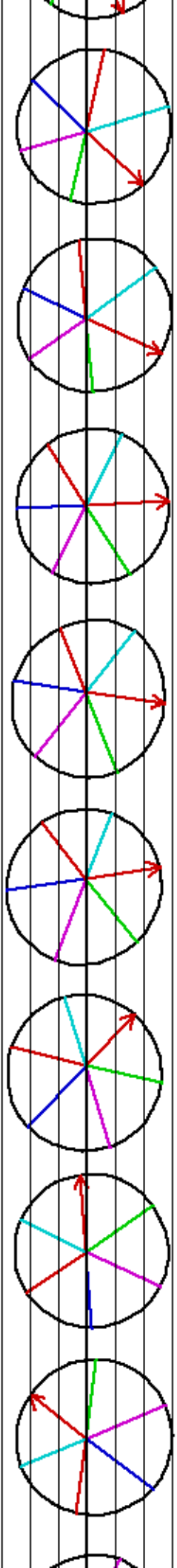
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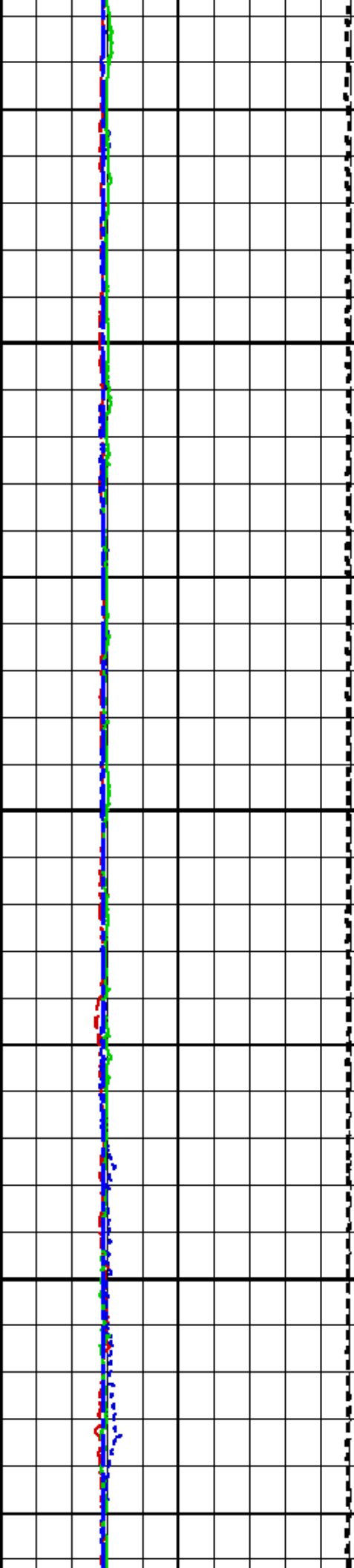
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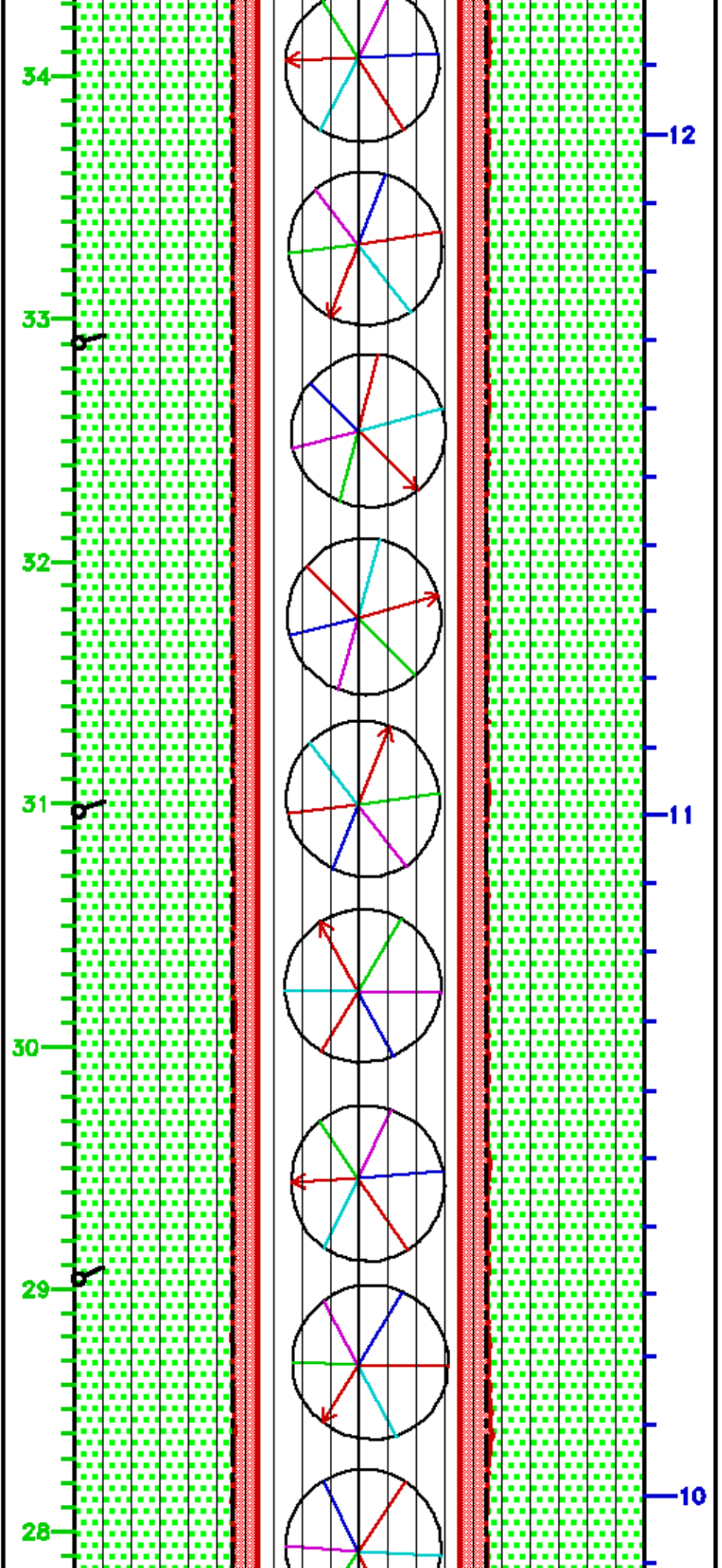




1000

1050

1100



34

33

32

31

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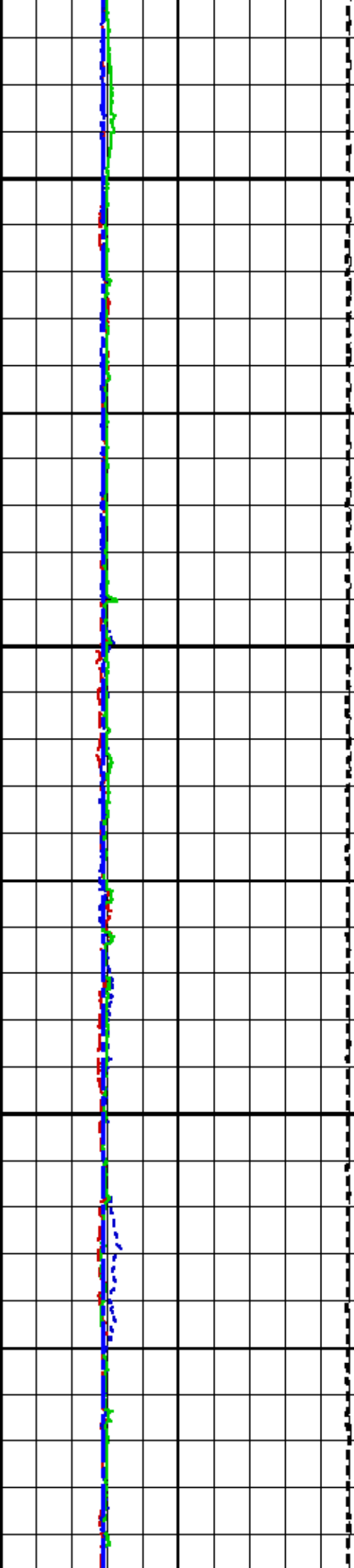
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12

11

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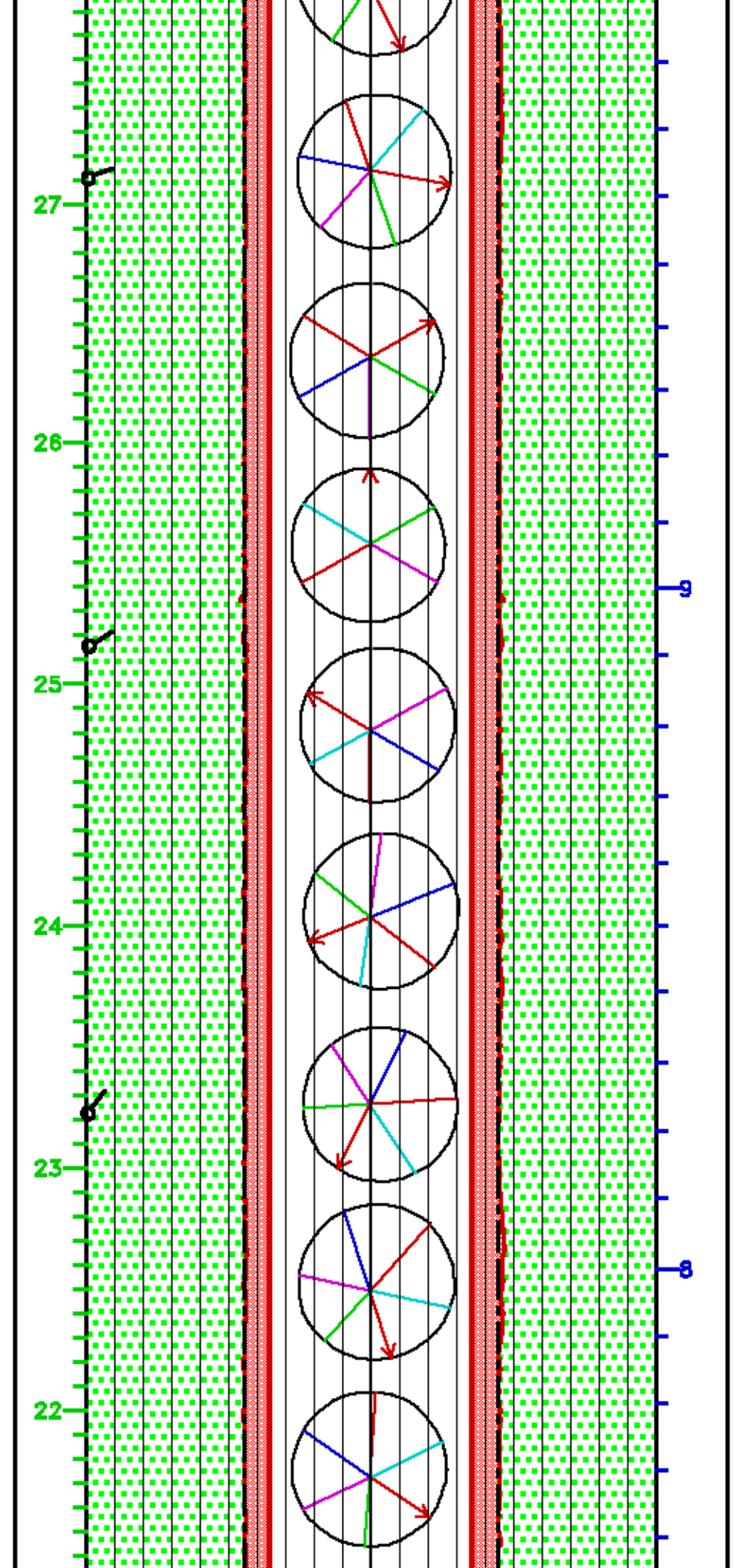


1150

1200

1250

1



22

23

24

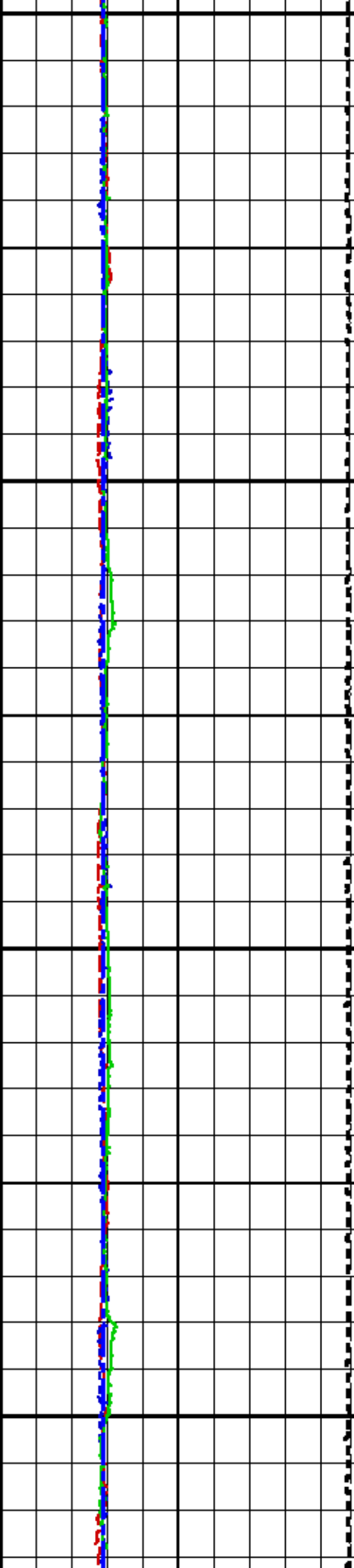
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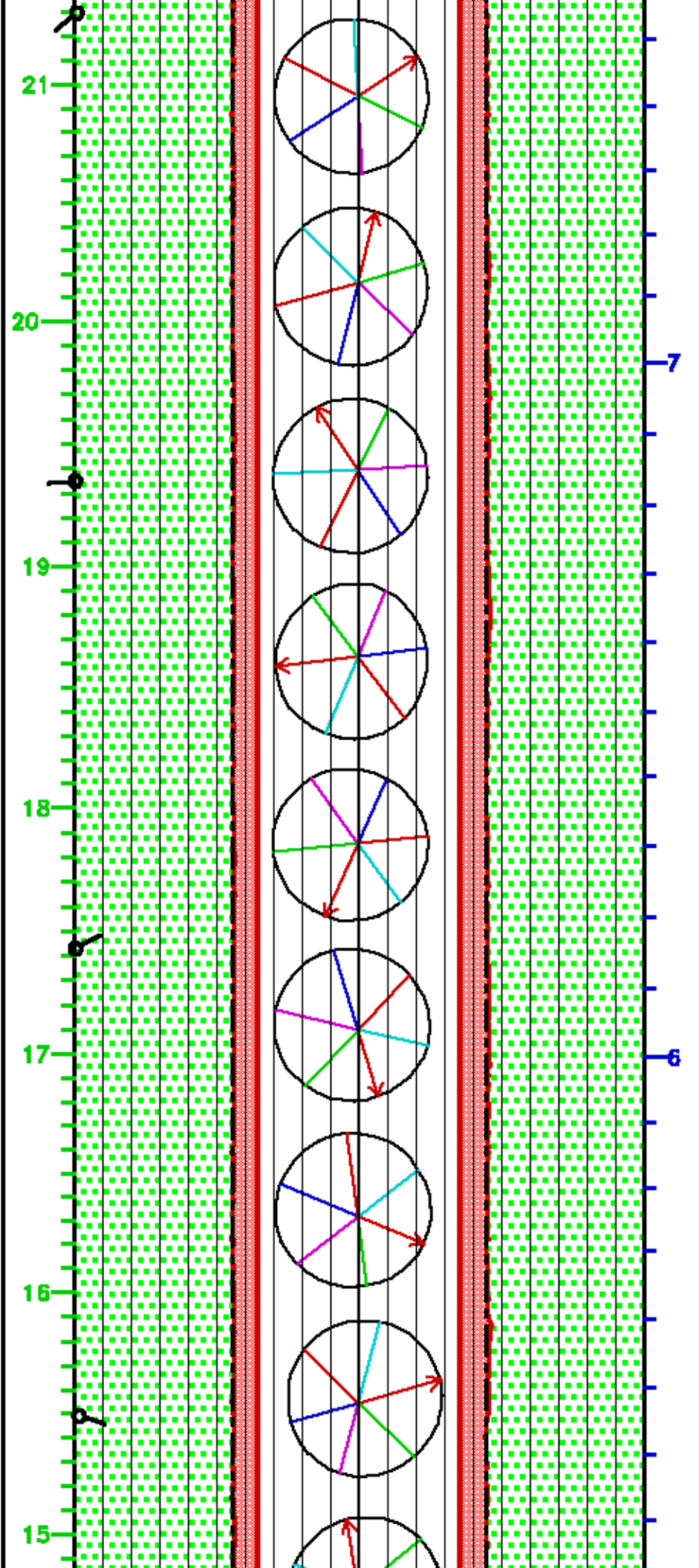


300

1350

1400

1450



15

16

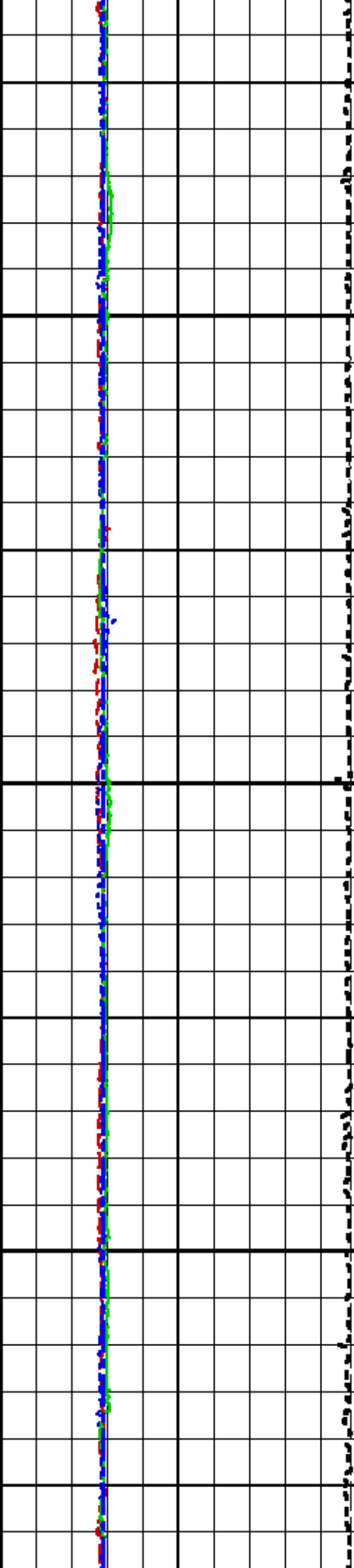
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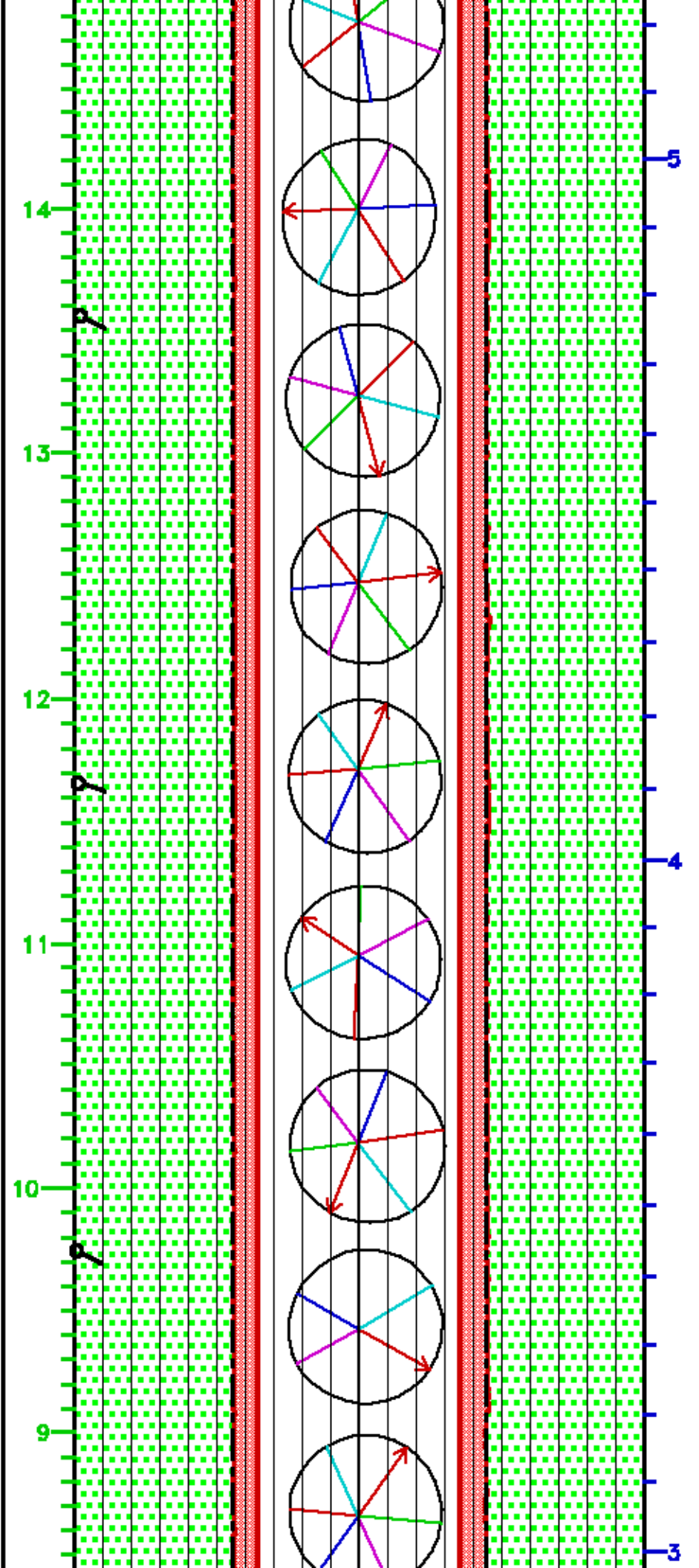
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1500

1550

1600



9

10

11

12

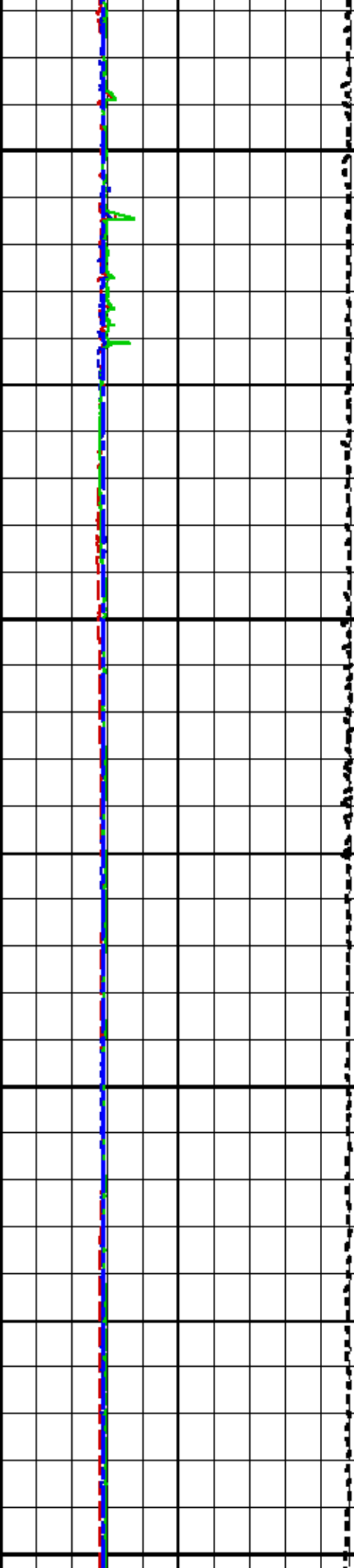
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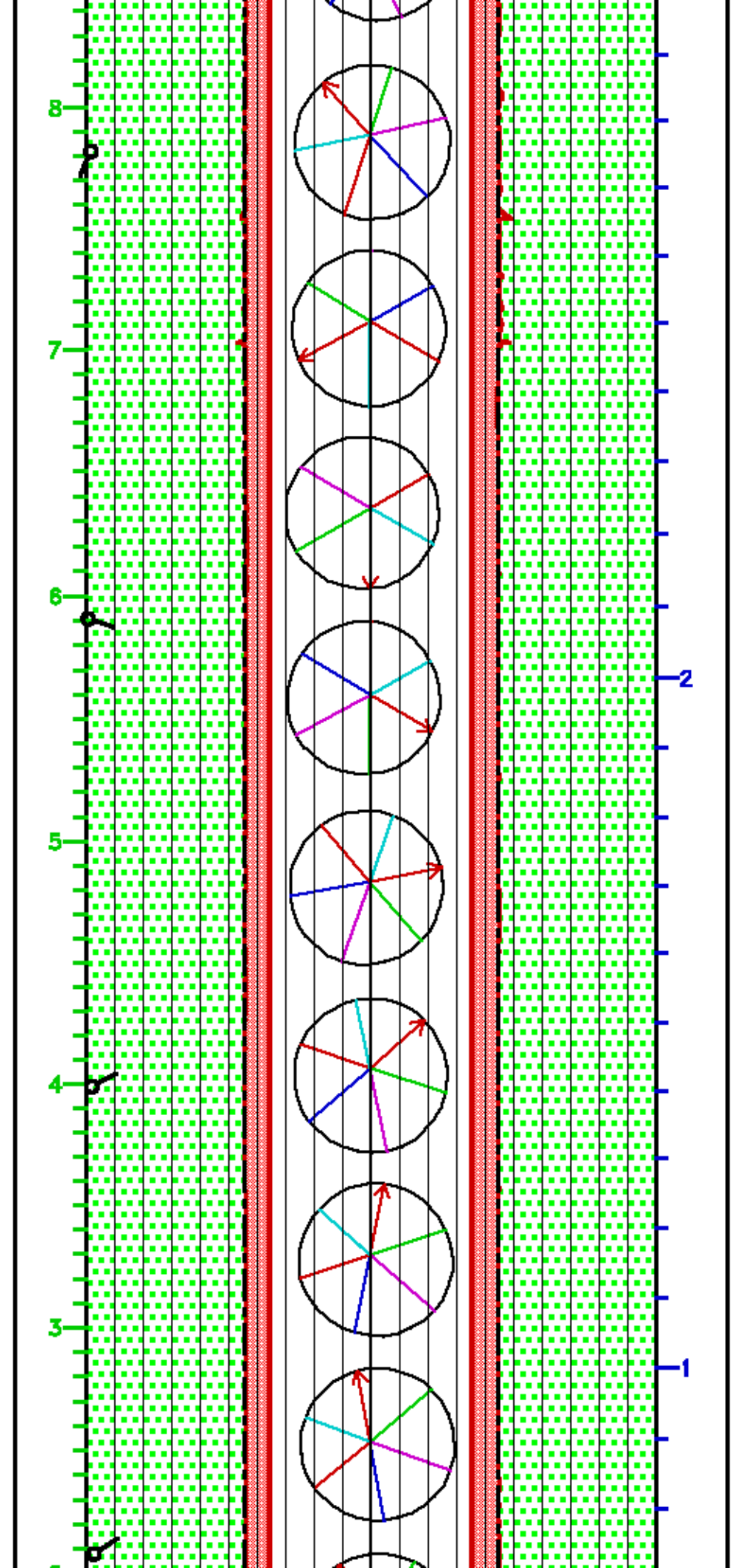


1650

1700

1750

1800



8

7

6

5

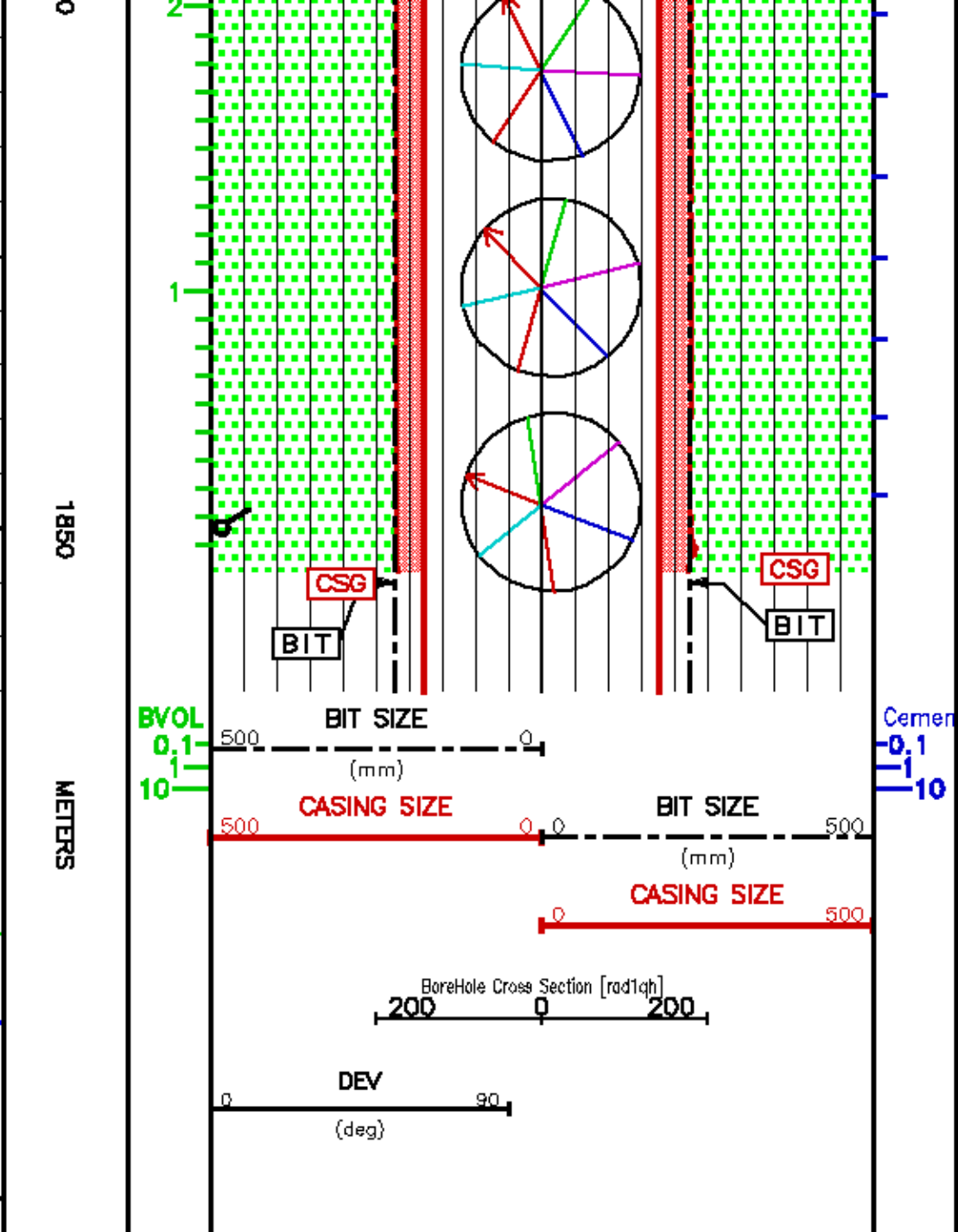
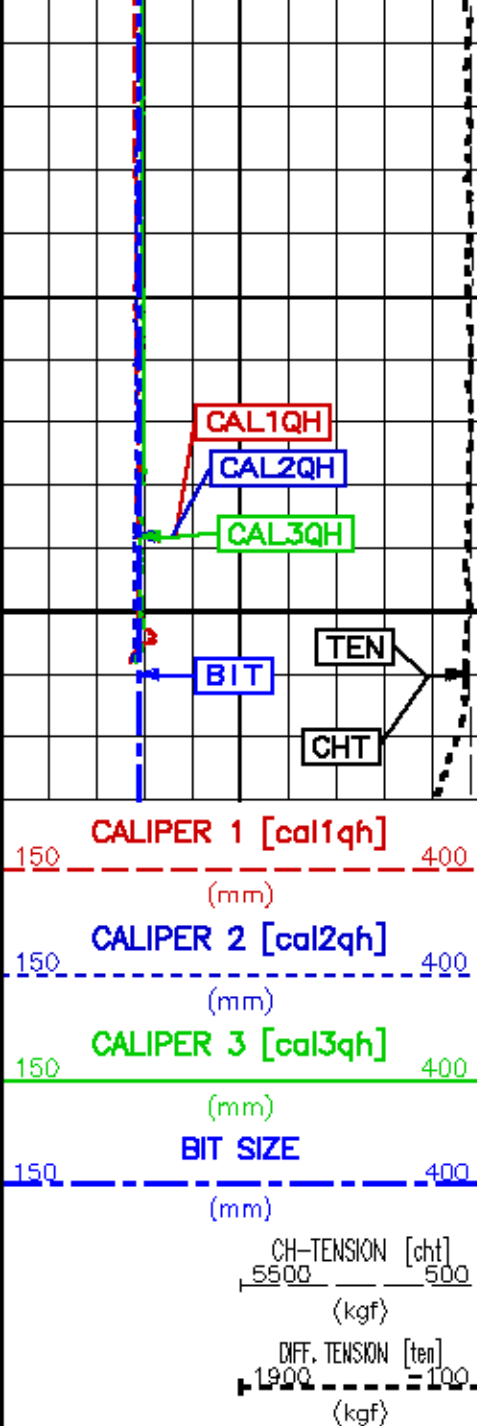
4

3

2

2

1



CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/hunlky_CA212510/m837a_XC_r2_pah.tp1

CHTEN PRIMARY CALIBRATION SUMMARY

TOOL #: 3981XA 173348

DATE/TIME PERFORMED: Mon Feb 13 03:05:54 2012

UNIT #: 38545A 008672

	Signal (raw)	Low Signal (raw)	High Signal	Mult	Scale Add	Engr Low (kgf)	Engr High (kgf)
CHT	2014.20	2119.20	22.89	-20989.31	-80.00	1010.00	

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 15:40:57 2012

UNIT #: 3854SA 008672 CALB JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	34.36	938.07	903.7	0.166	5.70	155.70	150
			830.0 960.0				

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 15:55:48 2012

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	33.04	928.56	0.166	5.48	154.12	148.64
						140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 16:23:14 2012 DAYS SINCE CAL: 0

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	36.04	928.44	0.166	5.98	154.11	148.12
						138.64 158.64

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 13 12:23:20 2012 DAYS SINCE CAL: 1

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	181.31	1042.73	0.166	30.09	173.08	142.98
						138.12 158.12

EARTCAL PRIMARY CALIBRATION SUMMARY

TOOL #: 4236MB 10209809

DATE/TIME PERFORMED: Thu Jan 12 11:34:49 2012

UNIT #: 38545A 008672

	SMALL RING (row)	LARGE RING (row)	MULT (mm/row)	ADD (mm)	SMALL RING (mm)	LARGE RING (mm)
RADIUS 1	1192.1	2709.9	0.0502	41.7505	101.600	177.800
RADIUS 2	1176.8	2705.1	0.0499	42.9284	101.600	177.800
RADIUS 3	1176.8	2700.2	0.0500	42.7404	101.600	177.800
RADIUS 4	1171.9	2678.2	0.0506	42.3196	101.600	177.800
RADIUS 5	1171.9	2670.9	0.0508	42.0300	101.600	177.800
RADIUS 6	1147.5	2668.4	0.0501	44.1136	101.600	177.800
CALIPER 1					203.200	355.600
CALIPER 2					203.200	355.600
CALIPER 3					203.200	355.600

SMALL RING LARGE RING

PAD FORCE % 1.449 0.068

DC MOTOR V 0.6 0.0

EARTCAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 4236MB 10209809

DATE/TIME PERFORMED: Mon Feb 13 14:35:12 2012

DAYS SINCE CAL: 32

UNIT #: 38545A 008672

	I.D. (row)	MULT	ADD	I.D. (mm per V)	CASING SIZE (mm)
RADIUS 1	1062.0	0.05020	41.75046	95.067	
RADIUS 2	1281.7	0.04986	42.92843	106.834	
RADIUS 3	1606.2	0.05002	42.74038	123.080	
RADIUS 4	1608.9	0.05059	42.31961	123.707	
RADIUS 5	1333.0	0.05083	42.02997	109.791	

	DEV (deg)	QA (mG)	MEAS RB (deg)	RB OFFSET (deg)	ROTATED RB (deg)
ORIT TBM CHECK	89.8	1000.1	359.0		
	890.0	1010.0	357.5		
EART ORIENTATION			67.9	67.9	0.0



COMPANY HUSKY OIL OPERATIONS LIMITED
WELL LITTLE BEAR N-9
FIELD SLATER RIVER
PROVINCE NORTHWEST TERRITORIES

FILE NO: _____
API NO: _____

LOCATION:
SURF LOC: LAT 64° 58' 55.2N LONG 126° 31' 20.2
BH LOC. LSD:
LAT 64° 58' 55.2"N LONG 126° 31' 20.2'

ELEVATIONS:
KB 258.8 W
DF
GL 253.5 W
DATE 13-FEB-2012

UID: 300ND98500128300
LICENSE: 483