Final Well Report

FINAL WELL REPORT

PARAMOUNT RESOURCES LTD.

PARA ET AL CAMERON K-19

Grid: 60^0 10′, 117^0 30′

DATE: May 17, 2004

COMPANY REPRESENTATIVE:
Dave Block

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D. GEOLOGY Page

A. INTRODUCTION

Paramount Resources Ltd. (Paramount) drilled a 1484 meter development well spudded on February 12, 2004 and finishing drilling on February 19, 2004 to evaluate hydrocarbon potential. The primary target was the Sulphur Point formation at a depth of 1435 mKB. The secondary target was the Slave Point formation at 1372 mKB

The drilling contractor was Precision Drilling Ltd based out of Calgary, Alberta. Precision's Rig # 247 was used and is a land rig rated for 2200 m. The rig had a mud system capacity of 63 m^3 and was equipped with a boiler.

The well was drilled on Production License No PL-005 in which Paramount has an 88% working interest. Operating License No 2003 was issued to Paramount on January 13, 2004.

The exact co-ordinates of the well are as follows:

Latitude: 60^0 08' 38.128"
Longitude: 117^0 33' 06.928"

Shadow Rathole Drilling Ltd. drilled a 610 mm conductor hole to 12.2 meters. From surface to 1.0 meters was snow, 1.0 – 2.0 m was peat moss, 2.0 – 12.2 m was clay and rock. A 406 mm conductor pipe was set and cemented at 12.2 meters.

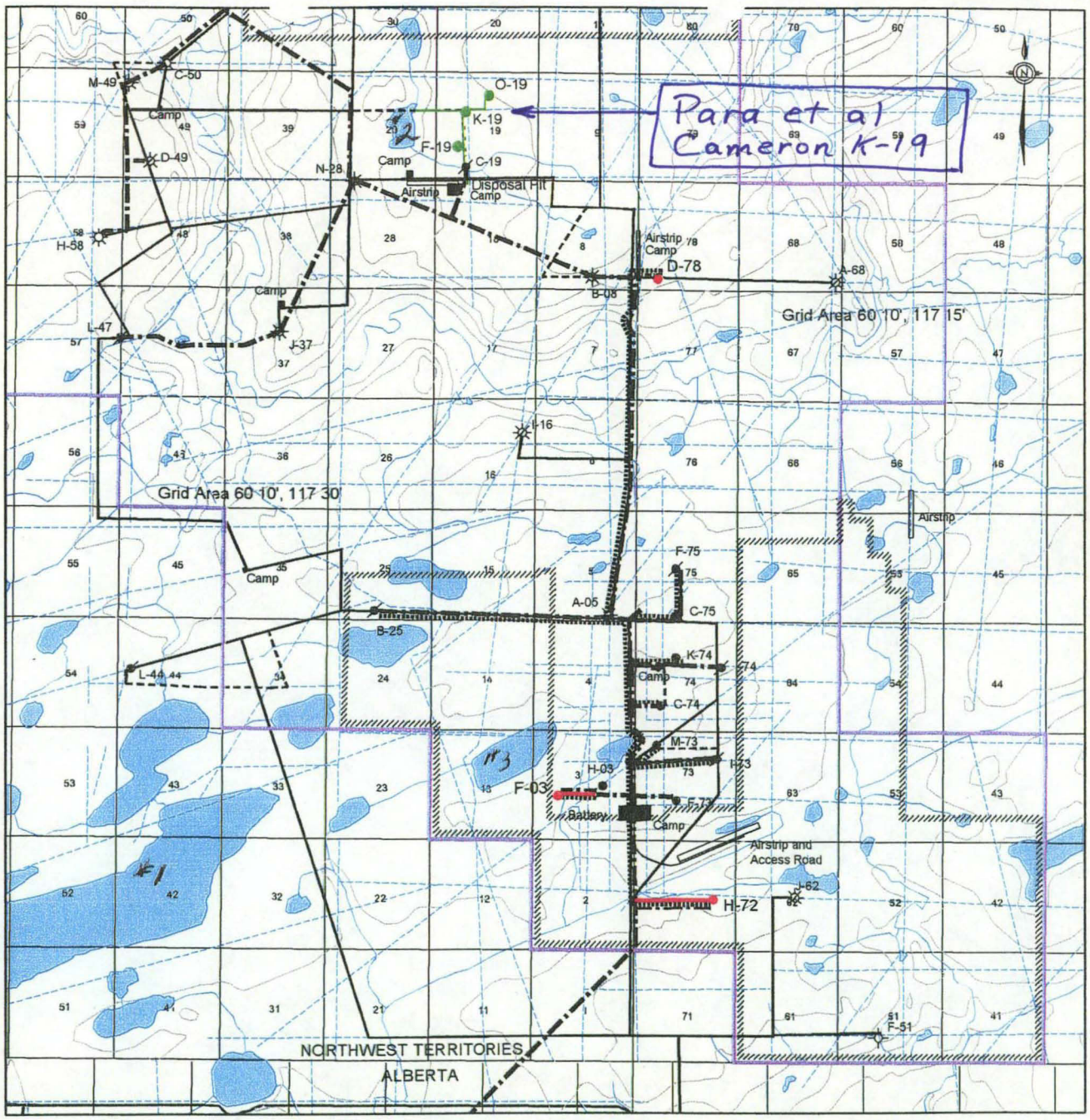
Precision #247 was moved onto the location and rigged up on February 11, 2004. The diverter was nippled up and drilling commenced February 12, 2004 at 08:00 hours. A 311 mm surface hole was drilled to 431 mKB. There were no major lost circulation or mud ring problems encountered in the surface hole. A string of 219.1 mm, 35.7 kg/m, J-55, ST&C surface casing was run to 431 mKB. The casing was cemented with 32 t class 'G' cement plus 2% $CaCl_2$. There were 12 m^3 of cement returned to surface while cementing. The plug was bumped and the float held OK. The plug was down at 00:29 hours on February 14, 2004.

The casing and conductor were trimmed and the casing bowl was welded on. The BOP's were installed and function tested. The BOP's and manifold were pressure tested to 1500 kPa low pressure and 12000 kPa high pressure.

The float collar and shoe were drilled out to 439 mKB on February 14, 2004 A leak off test was performed with the leak off gradient found to be 20.1 kPa/m. A 200 mm hole was drilled with a flocculated water system to approximately 600 m when mud losses were observed into the Wabamun. Gel was added to the drilling fluid at this point in an attempt to control the losses. The gel/chem mud system was then used to drill to a total depth of 1484 mKB. Precision Wireline ran induction, density, and sonic logs from bottom to surface casing.

139.7 mm, 20.83 kg/m, J-55, ST&C production casing was run and set at 1484 mKB. It was cemented with 26 t Thixlite + 1% SMS and 4 t Expando LWL + 0.1% CFL-3 + 0.2% LTR + 0.2% SPC-II. There were 2.0 m^3 cement returns and the plug was bumped with 18.5 MPa.

Precision #247 was rigged out and released at 22:00 hours on February 20, 2004.



LEGEND

- SDL
- WELLSITE/ACCESS
- EMERGENCY ACCESS
- SEISMIC LINE
- PIPELINE
- 3D SEISMIC
- POWERLINE/FUEL LINE
- SATELLITE/AIRSTRIP & ACCESS

EXISTING OR PERMITTED BUT NOT YET CONSTRUCTED BY MAY 2003

- AMENDED WELLSITE/ACCESS
- DELETED

NOTE: EMERGENCY ACCESS NOT SHOWN FOR THIS APPLICATION

THIS APPLICATION

Proposed Location | Abandoned Gas Well | Suspended Gas Well | Abandoned Oil Well | Suspended Oil Well | Active Oil Well | Active Gas Well

REFERENCE

ORIGINAL PLANIMETRIC DATA SUPPLIED BY UNIVERSAL SURVEYS INC. IN NAD 83 UTM ZONE 11. PROJECT DATA OBTAINED FROM PARAMOUNT RESOURCES LTD.

2 0 2
SCALE KILOMETRES

NOTE: WIDTH OF LINES NOT TO SCALE

PROJECT: Paramount resources ltd. — CAMERON HILLS PROJECTS

TITLE

F-19, K-19 AND O-19 AMENDMENT WELLS

Golder Associates, Calgary, Alberta

PROJECT 03-1322-134.9000			FILE No.	Application-2
DESIGN	DJ	09/10/03	SCALE AS SHOWN	REV. 0
CADD	RFM	09/10/03		
CHECK				
REVIEW				

FIGURE: 2

R:\CAD\2003\1322\03-1322-132\Application Figures\ Drawing file: Application-2.dwg Oct 10, 2003 - 1:40pm

B. GENERAL DATA

1. Well Name: Para et al Cameron K-19

   Authority to Drill a Well No: 2004

   Exploration Agreement Number: PL-005

   Location Unit: K

   Section: 19

   Grid Area: 60^0 10' N, 117^0 30' W

   Classification: Development

2. Coordinates:
   Latitude: 60^0 08' 38.128"
   Longitude: 117^0 33' 06.928"

3. Unique Well Identifier: 300K196010117300

4. Operator: Paramount Resources Ltd.

5. Contractor: Precision Drilling

6. Drilling Unit: Precision Rig # 247, Land Rig

7. Position Keeping: N/A

8. Support Craft (Helicopter): N/A

9. Drilling Unit Performance: Good

10. Difficulties and Delays: None

11. Total Well Cost: $650,000

12. Bottom Hole Co-ordinates: Same as surface

C. SUMMARY OF DRILLING OPERATIONS

1. Elevations:
   Ground: 786.32 m above sea level
   KB: 790.92 m above sea level
   KB to Casing Flange: 4.6 m

2. Total Depth:
   FTD: 1484 mKB
   PBTD: 1478 mKB
   TVD: 1484 mKB

3. Date and Hour Spudded: February 12, 2004 at 08:00

4. Date Drilling Completed: February 19, 2004

5. Date of Rig Release: February 20, 2004

6. Well status: Cased and Suspended

7. Hole Sizes and Depths:

Conductor Hole:	610 mm to 12.2 m
Surface Hole:	311 mm to 431 mKB
Main Hole:	200 mm to 1484 mKB

8. Casing and Cementing Record:

   Conductor Hole:

Casing Size:	406 mm
Wall Thickness:	7 mm
Depth Set:	12.2 m
Cut Height:	At Surface
Date Set:	January 22, 2004
Cement Volume:	40 sacks
Cement Type:	Portland Normal

   Surface Hole:

Casing Make:	Ipsco
Casing Size:	219.1 mm
Casing Weight:	35.7 kg/m
Casing Grade:	J-55
Thread:	ST&C
Number of Joints:	32
Depth Set:	431 mKB
Cut Height:	At surface
Date Set:	February 13, 2004
Cement Volume:	32 Tonnes

Float Shoe Depth:	431 mKB
Float Collar Depth:	417 mKB
Cement Type:	Class 'G'
Additives:	2% $CaCl_2$
Cement Top:	Surface
Casing Bowl Size:	279 mm x 21 MPa
Casing Bowl Make:	ABB Vetco

Main Hole:

Casing Size:	139 mm
Casing Weight:	20.83 kg/m
Casing Grade:	J-55
Casing Make:	Ipsco
Number of Joints:	114
Thread:	ST&C
Depth Set:	1484 m KB
Cut Height:	Surface
Date Set:	February 20, 2004
Float Shoe Depth:	1484 mKB
Float Collar Depth:	1478 mKB
Cement Volume 1:	26.0 Tonnes
Cement Type 1:	Thixlite
Additives 1:	1% SMS
Cement Volume 2:	4.0 Tonnes
Cement Type 2:	Expando LWL
Additives 2:	0.1% CFL-3 & 0.2% LTR & 0.2% SPC-II
Cement Top:	Surface

9. Sidetracked Hole: N/A

10. Drilling Fluid:

Conductor Hole:	Water	
Properties:	N/A	
Surface Hole:	Gel - Chemical	
Properties:	Viscosity:	36 - 52 sec/L
	Weight:	1075 - 1150 kg/m^3
	PH:	9.0 – 9.5
Main (431 – 605 m):	Floc water	
Properties:	Viscosity:	29 sec/L
	Weight:	1010 kg/m^3
	PH:	9.0
Main (605 m – TD):	Gel-chem	

Properties:	Viscosity:	40 - 80 sec/L
	Weight:	1060 - 1180 kg/m^3
	PH:	7.0 – 11.0
	Water loss:	7.0 – 15.0 cc
	Solids:	Not reported
	Gels:	Not reported
	Filtrate:	Not reported
	PV / YP:	Not reported

11. Fishing Operations: **N/A**

12. Well Kicks and Well Control Operations: N/A

13. Formation Leak Off Tests:

Depth:	439 m
Fluid Density:	1000 kg/m^3
Applied Pressure:	4600 kPa
Hydrostatic Pressure:	4228 kPa
Mud Weight Equivalent:	2088 kg/m^3
Casing setting depth:	431 mKB

The surface casing leak-off test was taken to a gradient of 20.1 kPa/m before leak off was detected.

14. Time Distribution

Date	Hours	Activity
04/02/11	14.0	Move in / rig up
04/02/12	0.25	Safety meeting
	0.5	Rig service
	7.5	Nipple up diverter
	0.25	Test diverter
	10.0	Drill
	3.75	Trip
	1.75	Survey
04/02/13	0.5	Safety meeting
	0.25	Rig service
	4.75	Drill
	0.75	Survey
	1.25	Circulate and condition mud
	7.5	Trip
	8.5	Run casing
	0.5	Cement casing
04/02/14	0.25	Rig service
	0.75	Cement casing
	4.0	Wait on cement
	2.5	Weld bowl
	3.25	Nipple up BOP's
	4.5	Pressure test BOP's
	0.25	Leak off test
	2.5	Trip
	2.0	Drill out casing shoe
	2.75	Drill
	0.75	Leak off test
	0.5	Circulate and condition mud
04/02/15	0.75	Rig service
	1.5	Survey
	21.75	Drill
04/02/16	0.5	Rig service
	1.0	Rig repair
	1.0	Survey
	11.0	Drill

	0.25	Wash to bottom
	10.25	Trip
04/02/17	0.5	Rig service
	0.5	Survey
	15.25	Drill
	0.5	Circulate and condition mud
	7.25	Trip
04/02/18	0.5	Rig service
	0.75	Survey
	16.0	Drill
	0.5	Circulate and condition mud
	0.75	Slip & cut drill line
	5.5	Trip
04/02/19	0.5	Rig service
	0.25	BOP drill
	0.25	Survey
	6.25	Drill
	6.5	Trip
	4.75	Circulate and condition mud
	5.5	Logging
04/02/20	0.5	Safety meeting
	2.5	Circulate and condition mud
	4.75	Run casing
	1.5	Cement casing
	0.5	Trip
	4.75	Lay down drill string
	1.5	Set slips
	8.0	Tear out rig

Time Break Down by Activity:

Activity	Hours
Move in / rig up:	14.0
Drilling:	87.75
Surveying:	6.75
Circulate and condition mud:	10.0
Running casing:	13.25
Cementing casing:	2.75

Wait on cement	4.0
Drill out casing shoe:	2.0
Rig service:	3.75
Rig repair:	1.0
Wash to bottom:	0.25
Tripping:	43.75
Safety meetings:	1.25
Nipple up diverter:	7.5
Test diverter:	0.25
Weld casing bowl:	2.5
Nipple up BOP's:	3.25
Pressure test BOP's:	4.5
BOP drill:	0.25
Leak off tests:	0.75
Logging:	5.5
Lay down drill string:	4.75
Set slips:	1.0
Tear out rig:	8.0

15. Deviation Survey: See page 8 of the Geological Report in the Attachment Section

16. Abandonment Plugs: N/A

17. Composite Well Record: See the copy of the strip log in the Geological Report in the Attachment Section.

18. Completion Record: Reported in a separate report.

D: GEOLOGY

GEOLOGICAL SUMMARY

Tops: See page 11 of the Geological Report in the Attachment Section.

Sample Descriptions: See page 12 - 15 of the Geological Report in the Attachment Section.

Total Depth: 1484 mKB

GAS DETECTION REPORT

A gas detector was utilized from the drill out of the conductor pipe to total depth. The gas detector readings are included on the composite geological log at the end of the Geological Report in the Appendix Section.

DRILL STEM TESTS: N/A

WELL EVALUATION

The following logs were run:

Simultaneous Triple Induction Shallow Focused Log:	431 – 1481 mKB
Spectral Density Compensated Neutron Log:	431 – 1474 mKB
Borehole Compensated Sonic Log:	431 – 1462 mKB

GAS, OIL, & WATER ANALYSES: N/A

FORMATION STIMULATION: N/A

FORMATION AND TEST RESULTS: N/A

DETAILED TEST PRESSURE DATA READINGS: N/A

E. ENVIRONMENTAL CONSIDERATIONS

There are no known outstanding environmental considerations on this well. The well was drilled sumpless with all drilling fluids being held in tanks on the lease. At the end of the job the water was stripped from the mud system and hauled to the next lease for re-use. The solids were hauled to a remote site at E-78 60^0 10' N, 117^0 15' W where they were disposed of using the mix/bury/cover technique.

RUNNING HORSE RESOURCES INC.

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Geological Report

on

Para et al Cameron K-19
Unit K Section 19

Well Reached Total Depth of 1484.0 metres
on
Feb 19, 2004 @ 09:15 hours

for

Paramount resources ltd.

Prepared for: **Mr. Llew Williams, Manager**
Paramount Resources Ltd.

Wellsite Geologist: **Brad Powell, B.Sc.**
Running Horse Resources Inc.

Approved by: D. Winchester

Dennis Winchester, P.Geol.
Running Horse Resources Inc.

PROFESSIONAL GEOLOGIST OF ALBERTA
DENNIS WINCHESTER

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Executive Summary

Para et al Cameron K-19 is a vertical development well spudded by Precision Drilling Rig #247 on February 12, 2004 @ 08:00. Surface hole is 311mm drilled to 431.0m with 219.1mm casing landed at 431.0m. The 200mm main hole terminated in the **Muskeg** formation at 1484.0m February 19, 2004 @ 09:15.

This well was drilled primarily to produce oil from the **Sulphur Point Dolomite** and secondarily to evaluate the **Slave Point** for possible gas. Cutting samples were taken from 1345m to TD at 1484.0m. Triple Induction, SP, Neutron, Density, Compensated Sonic, Pe, Gamma Ray and XY Caliper logs were run from TD to surface casing. Microlog was run from TD to 1350m. A total gas detector was run from surface casing to TD.

The **Sulphur Point Dolomite** is a microcrystalline to finely crystalline packstone to grainstone. The dolomite was picked in samples at 1443.0m which was confirmed by logs. It was 12.1m thick, conformably and sharply underlain by anhydrite of the Muskeg formation. Observation of samples saw common subhedral and euhedral crystal growth. Grain size was cryptocrystalline to medium crystalline with streaks of fair to good vug porosity and fair intercrystalline in part sucrosic porosity. The samples appeared quite granular in texture. The most porous intervals show 15-24% porosity on density logs. Excellent ROP rates also indicate good porosity. The samples were light brown to brown and saw common dark brown oil staining. They showed deep yellow fluorescence and a slow streaming watery to milky yellowish white cut, and a strong petroliferous odor. Induction log analysis showed 7.5-20ohms on the deep induction in the porous intervals. Caliper logs show filter cake, and the SP curve shows 25mV deflection, both indicating permeability. Gas detector readings in the dolomite interval peaked at 455 units over a baseline of 205 units. A gas zone in the above Sulphur Point limestone formation should act favourably by providing pressure for production. **The Sulphur Point Dolomite appears to have good potential for oil production.**

The **Slave Point** occurs on logs at 1382m. It is a massive, clean limestone mudstone to wackestone, 41.0m thick, resting conformably on the dolomitic F4 marker. The Slave Point is cream to brown, in part mottled, cryptocrystalline to microcrystalline, with trace very fine crystalline. It appears in part chalky, argillaceous in part, and flaky to blocky, with scattered pyrite nodules and locally disseminated pyrite crystals. The lower section has minor anhydrite stringers. It was dense with traces of poor intercrystalline porosity, and inferred minor earthy porosity. This was confirmed by density logs and over the slightly porous upper interval of 1387-1397m; it showed 3-6% porosity. The samples had a slight petroliferous odor, and common yellow fluorescence, with a questionable watery greenish cut. Deep induction logs show over 40-110ohms. There were no

significant gas detector readings. **The Slave Point does not appear to have production potential at this location.**

Para et al Cameron K-19 was cased for production as an oil well from the Sulphur Point Dolomite.

Sulphur Point Dolomite euhedral and subhedral crystal growth along vug porosity, 1455m.

Well Data Summary

OPERATOR	Paramount Resources Ltd.
WELL NAME	Para et al Cameron K-19
LOCATION	Unit K Section 19
	Grid Area: Lat 60° 10' N Long 117° 30' W
UWI	300K196010117300
POOL	Undefined
FIELD	Cameron Hills
PROVINCE	Northwest Territories
LICENCE NUMBER	2004
CLASSIFICATION	Production
A.F.E. NUMBER	03N410023
SURFACE COORDINATES	Latitude: 60° 08' 38.128" North
	Longitude: 117° 33' 08.928" West
ELEVATIONS	KB: 790.92m
	GL: 786.32m
TOTAL DEPTH	Driller: 1484.0m (-693.08m SubSea)
	Logger: 1483.4m (-692.48m SubSea)
DRILLING CONTRACTOR	Precision Drilling Rig #247
ENGINEER	Meril Schrader 780-446-3768
GEOLOGIST	Brad Powell, B.Sc. 403-861-0838
SPUD DATE	February 12, 2004 @ 08:00
COMPLETED DRILLING	February 19, 2004 @ 09:15
RIG RELEASE	February 20, 2004 @ 23:59

Well Data Summary

HOLE SIZE Surface hole: 311mm
Main hole: 200mm

CASING Surface: 219.1mm, 35.70 kg/m set @ 431.0m
Production: 139.7mm, 20.83 kg/m set @ 1484.0m

LOGGING STI / MRT/ SpeD / CNS / GR / XY CAL / BCS from TD to surface casing. Microlog from TD to top of Slave Point.

DSTs none

CORES none

SAMPLES

Operator:	1 set vials (@ 5m) over interval:	1345m - TD
NEB:	2 sets vials (@ 5m) over interval:	1345m - TD
	1 set bags (@ 5m) over interval:	1345m - TD

MUD RECORD

0-431m	Gelchem
431-600m	Floc Water
600-TD	Gelchem

DIRECTIONS From High Level, Alberta, go north on Highway 35. 1.3km south of Indian Cabins, turn west onto main road and go 33km, staying right at all Y forks. Turn right up big hill, drive 22km, following rig signs.

PROBLEMS

On Surface Hole: None.

On Main Hole: Problems with hydraulic action and jet plugging in the Twin Falls formation forced unplanned wiper trips / bit trips.

Had to stop and treat mud for anhydrite contamination in mud upon drilling into Muskeg formation.

Logging Summary

Date: February 19, 2004

Logging Company: Precision Wireline Engineer: Darren Anderson

Mud Properties: WT: 1140 kg/m3 Visc: 100 s/L WL: 8.0 pH: 10.0

Hole Size: 200mm

Surface Casing: 219.1mm, 35.7kg/m, set @ 431.0m

Depths: Driller: 1484.0m Strap: 1484.37m Logger: 1483.4m

Logging Times: First Alerted: 14:00 February 16, 2004

Time Required: 14:30 February 19, 2004 (7.0hr final notice)

Arrived: 15:30 February 19, 2004

Rig Up: 16:15 February 19, 2004
Rig Out: 21:15 February 19, 2004 (5.0hr rig time)

Hole Condition: Good

Circulations: 1.5hr after TD and 1.5hr after wiper

Wiper Trips: TD to 431.0m (surface casing)

LOGGING SEQUENCE

Run #1: STI / SpeD / CNS / Pe / GR / BCS/ CAL

Interval: TD to surface casing

REMARKS: No problems getting logging tools to bottom for Run #1. On bottom with logging Run #1 @ 18:00 February 19, 2004

Bit Record & Casing Summary

Bit Record

Bit #	Make	Type	Size	In (m)	Out (m)	Meters (m)	Hours	ROP (m/hr)	CONDITION
1A	Varel	GVXVC	311mm	0	273	273	9.75	28.00	5 - 5 – WT – 1mm - PR
2A	Varel	CH1GMS	311mm	273	431	158	5.00	31.60	4 – 4 - IN
1	Varel	MKS-55	200mm	431	1193	762	34.75	21.90	4 – 2 – CT – 1mm - PP
2	Varel	MKS-55	200mm	1193	1264	71	7.75	9.16	OK
3	Varel	CH18S	200mm	1264	1394	130	19.75	6.58	4 – 2 - IN
2RR	Varel	MKS-55	200mm	1394	1484	90	9.75	9.23	4 – 2 – WT – 1mm - TD

Casing / Cement Summary

Type	Casing Size	Hole Size	Landed	Total Joints	Remarks
Surface	219.1mm	311mm	431.0m	32	32 joints of 219.1mm 35.72kg/m, J-55, ST&C new Camanch casing ran. Cemented with Sanjel 32t of 0:1:0 Class G + 2% CaCl2 with density 1901 kg/m3.. Approximately 12.0m3 of good returns, float OK, plug down @ 00:30 February 14, 2004.
Production	139.7mm	200mm	1484m	114	114 joints of 139.7mm 20.83kg/m, J-55, 8RD ST&C new Camanch casing ran. Cemented with Sanjel with 26t Thixlite with 1% SMS for lead. Tail cement 4.0t Expandomix LWL with 0.1% CFL-3 and 0.2% LTR and 0.2% SPC-11. 4m3 good returns. Plug down 20:00 on February 20, 2004.

Deviation Surveys

Depth Meters	Inclination Degrees	Azimuth Degrees	TVD Meters	North Meters	East Meters	Section Meters	Dogleg /30m	Build Rate /30m	Turn Rate /30m

THIS WELL IS A VERTICAL WELL

30	0.25
60	1.00
90	1.00
115	0.50
160	1.00
206	0.50
254	0.50
308	0.50
366	0.25
484	0.25
588	0.50
699	1.00
805	1.00
908	0.50
1014	0.75
1123	1.00
1226	0.75
1339	0.25
1476	2.00

Daily Drilling Summary

*** note that operations are as reported from 00:00 to 23:59 on the date shown**

DATE	DEPTH @ 23:59	PROGRESS	OPERATIONS LAST 24 HOURS
Feb 11	0	0	Move to location. Spot and level rig and buildings, raise derrick, rig to spud.
Feb 12	283	283	Rig up. Pre-spud and safety meeting. Spud well @ 08:00 February 12, 2004. Drill ahead with Bit #1A 311mm surface hole with required rig services and surveys to 283m. Bit trip for poor ROP. RIH with new BHA with Bit #2A.
Feb 13	431	148	Drill 311mm surface hole from 283m to 410m with required deviation surveys and rig service. Trip for mud rings. RIH, work mud rings. Drill from 410m to 431m. Circulate and condition mud for running casing. Wiper trip. Condition hole and circulate. Hoist to run casing. Run 32 joints 219.1mm Camanch surface casing. Circulate casing. Cement with Sanjel.
Feb 14	575	144	Plug down 00:30 February 14, 2004. WOC. Cut casing, weld on bowl. Nipple up BOPs. Test BOPs, pressure test manifold, valves, HCR, rams, etc., and repair rig. RIH with Bit #1, circulate, drill cement, float and shoe. Drill out at 20:30. Drill ahead 200mm main hole with required rig service and surveys from 431m to 439m. Leak off test. Drill with 200mm Bit #1 main hole with required rig service and directional surveys from 439m to 575m.
Feb 15	1017	442	Drill ahead 200mm main hole to with required rig service and directional surveys from 575m to 1017m.
Feb 16	1208	191	Drill ahead 200mm main hole with required rig service and directional surveys from 1017m to 1118m. Wiper trip to clear hydraulic action (mud rings?). Drill ahead from 1118m to 1193m. POOH for plugged jets. Make up new BHA with new Bit #2 and RIH. Drill 1193m to 1208m.

Daily Drilling Summary

Feb 17	1323	115	Drill ahead 200mm main hole to with required rig service and directional surveys from 1208m to 1264m. Circulate, pump pill for bit trip for clogged jets. POOH with strap and flow checks. RIH with new Bit #3. Drill ahead from 1264m to 1323m.
Feb 18	1424	101	Drill ahead 200mm main hole with required rig service and directional surveys from 1323m to 1394m. Circulate sample, POOH with flow checks for wiper trip / bit trip. RIH with Bit #2RR. Drill from 1394m to 1424m.
Feb 19	1484	60	Drill 200mm main hole from 1424m to TD @ 09:15. Circulate and condition hole for logging. Rig in Precision Wireline. Log Run #1. Rig out loggers. RIH to condition hole for casing.
Feb 20	1484	0	POOH. Rig for casing. Ran 114 joints 114.3mm production casing. Circulate casing, rig for cementing. Cement with Sanjel. Plug down 14:00. Tear out BOPs, set casing slips. Tear out rig. Rig release 23:59 February 20, 2004.

Formation Tops

Kelly Bushing Elevation: **790.92m**

Formation	Sample (m)	Logger (m)	Elevation (m)
Wabamun	565.5	565.0	+ 225.9
Fort Simpson	757.2	757.2	+ 33.7
Twin Falls	871.0	871.0	- 80.1
Slave Point *	1384.5	1382.0	- 591.1
F4 Marker	1424.0	1423.0	- 632.1
Watt Mountain	1431.2	1430.0	- 639.1
Sulphur Point LS	1434.0	1433.3	- 642.4
Sulphur Point DOL **	1443.0	1443.0	- 652.1
Muskeg	1456.0	1455.1	- 664.2
Total Depth	1484.0	1483.4	- 692.5

***Primary Zones of Interest*
** Secondary Zones of Interest*

1340-1360 SHALE 85%, 1) medium gray, gray to slightly green gray, very calcareous grading to shaly limestone, dull to micromicaceous in part, splintery to blocky, sub fissile to firm, smooth to waxy texture in part, trace pyrite, 2) dark brown to black, micromicaceous in part, blocky, bituminous in part?, scattered pyrite crystalline clusters, LIMESTONE 15%, off white to light gray, tan, cryptocrystalline to predominantly microcrystalline, argillaceous mudstone, lumpy, local disseminated pyrite, tight, no show

1360-1370 SHALE 50%, 1) medium gray, gray to slightly green gray, very calcareous grading to shaly limestone, dull to micromicaceous in part, splintery to blocky, sub fissile to firm, smooth to waxy texture in part, trace pyrite, 2) dark brown to black, micromicaceous in part, blocky, bituminous in part?, scattered pyrite crystalline clusters, LIMESTONE 50%, off white to light gray, tan, cryptocrystalline to predominantly microcrystalline, argillaceous mudstone, lumpy, local disseminated pyrite, tight, no show

1370-1375 SHALE 70%, medium gray to dark gray, gray to slightly green gray, very calcareous grading to shaly limestone, dull to micromicaceous in part, splintery to blocky, sub fissile to firm, very smooth to waxy texture in part, scattered pyrite clusters and cubic crystals, LIMESTONE 30%, white to light gray, occasional tan, cryptocrystalline to predominantly microcrystalline, argillaceous mudstone to bioclastic wackestone, lumpy, local disseminated pyrite, tight, no show, occasional Crinoids and other fossil debris (possible Brachiopod?)

1375-1380 SHALE 60%, as above, LIMESTONE 40%, as above

1380-1385 SHALE 80%, as above, abundant pyrite and pyritized fossil remains, LIMESTONE 20%, as above, scattered fossils

SLAVE POINT @ 1384.5m

1385-1390 LIMESTONE 100%, cream to light brown, brown, mottled, cryptocrystalline to predominantly microcrystalline, mudstone to wackestone, in part chalky, argillaceous in part, flaky to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, dense with trace poor intercrystalline porosity, inferred minor earthy porosity, tight, pale yellow fluorescence, questionable watery greenish cut

1390-1405 LIMESTONE 100%, cream to tan to brown, becoming lighter, argillaceous mudstone to wackestone, massive, cryptocrystalline to microcrystalline, occasional very fine crystalline, in part chalky, argillaceous in part, flaky to blocky, soft to firm, scattered pyrite, trace sparry calcite infill, trace poor porosity, slightly petroliferous odor, pale yellow fluorescence, weak slow greenish cut

1405-1415 LIMESTONE 100%, cream to tan to light gray tan, brown, mottled, argillaceous mudstone to wackestone, cryptocrystalline to very fine crystalline, flaky to blocky, chalky texture in part, tight, spot pale yellow to yellow fluorescence, weak watery green cut

1415-1424 LIMESTONE 100%, cream to light gray brown to brown, slightly darker than as above, mottled, argillaceous mudstone to wackestone, cryptocrystalline to very fine crystalline, flaky to lumpy to blocky, in part chalky, spot pale yellow to yellow fluorescence, weak greenish slow cut, minor ANHYDRITE, light gray, translucent to pearly lustre, microcrystalline

F4 MARKER @ 1424.0m

1424-1428 DOLOMITE 40%, cream to light brown, microcrystalline, sandy texture, slightly anhydritic, scattered poor pinpoint porosity, no shows, LIMESTONE 40%, as above, yellow fluorescence, no cut, 20% ANHYDRITE, off white to light brown, pearly, amorphous, bedded

1428-1431.2 LIMESTONE 80%, cream to brown, mottled, mudstone to wackestone, microcrystalline to very fine crystalline, soft, anhydritic, flaky to lumpy, tight, pale yellow fluorescence, no cut, ANHYDRITE 20%, white, pearly to watery appearance, amorphous, soft, cryptocrystalline to microcrystalline

WATT MOUNTAIN @ 1431.2m

1431.2-1434 SHALE 10%, light gray green to mint green, argillaceous, waxy, lumpy, soft, scattered disseminated pyrite, in part calcareous, LIMESTONE 90%

SULPHUR PT LIMESTONE @ 1434.0m

1434-1443 LIMESTONE 100%, predominantly white to tan, occasional light brown to dark brown, gray, cryptocrystalline to very fine crystalline, mudstone to wackestone, dolomitic in part, mottled, chalky, in part resinous, lumpy to blocky, scattered local pyrite crystals, dense with streaks of poor pinpoint porosity, assumed minor earthy porosity, very spot yellow fill, no show

SULPUR PT DOLOMITE @ 1443.0m

1443-1445 DOLOMITE 100%, tan to light brown, microcrystalline to very fine crystalline packstone to grainstone, streaks of fair pinpoint/vug porosity, poor to fair intercrystalline porosity, scattered sparry calcite, in part sandy appearance, limy in part, slightly petroliferous odor, very dull yellow fluorescence, questionable cut

1445-1450 DOLOMITE 100%, essentially as above, becoming coarser, becoming darker brown, clear euhedral and subhedral dolomite crystalline, local micro sucrosic texture, petroliferous odor, even bright yellow fluorescence, slow streaming milky yellow white cut

1450-1456 DOLOMITE 100%, light brown to brown, dark brown oil stain, microcrystalline to fine crystalline packstone to grainstone, fair to good vug porosity, fair to good intercrystalline porosity, sucrosic, clear euhedral and subhedral dolomite crystalline growth along cutting edges suggests vug and/or fracture porosity, scattered sparry calcite, in part sandy appearance, strong petroliferous odor, slight oily sheen in sample, common deep yellow to yellow fluorescence, slow streaming milky to watery yellow white cut

MUSKEG @ 1456.0m

1456-1460 ANHYDRITE 35%, white amorphous nodules, off white to tan, occasional light gray brown, pearly to watery lustre, cryptocrystalline, slightly dolomitic in part, dense, tight, DOLOMITE 65%, buff to light brown, trace spot dark brown oil stain, microcrystalline to very fine crystalline in part argillaceous grainstone, occasionally sucrosic, anhydritic in part, streaky poor intercrystalline porosity, pale yellow to yellow fluorescence, no show

Sample Descriptions

1460-1475 ANHYDRITE 75%, white amorphous nodules, off white to tan, occasional light gray brown, slightly reddish?, pearly to watery lustre, cryptocrystalline, slightly dolomitic in part, dense, tight, DOLOMITE 25%, buff to light brown, trace spot dark brown oil stain, microcrystalline to very fine crystalline in part argillaceous grainstone, occasionally sucrosic euhedral crystalline growth, anhydritic in part, streaky poor intercrystalline porosity, occasional poor vug porosity, pale yellow fluorescence, no show

1475-1484 ANHYDRITE 85%, as above, DOLOMITE 15%, as above

TOTAL DEPTH @ 1484.0m

1350m, Twin Falls and Muskwa shale, 10X

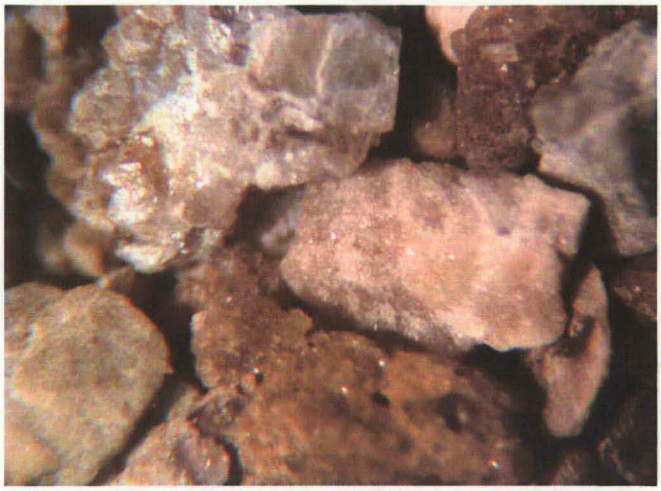
1380m, Twin Falls, crinoids and pyrite, 20X

1385m, Slave Point, darker upper Ls 20X

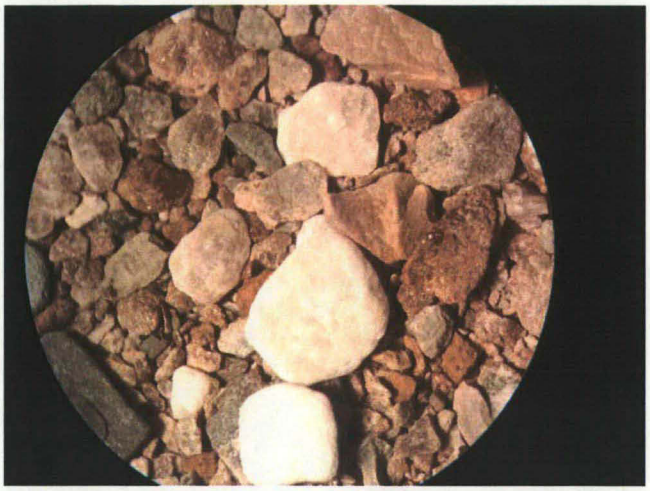
1405m, Slave Point, massive chky lime, 20X

1450m, Sulphur Point Dol spotty fluorescence

1455m, Sulphur Point dolomite, 20X



1455m, Sulphur Point dolomite, 60X



1460m, Muskeg top, 10X

1470m, Muskeg, 20X

Precision 247

Scale 1:240 (5"=100') Metric

Well Name:	Para et al Cameron K-19
Location:	Unit K Section 19 Grid Area: Lat 60° 10' N Long 117° 30' W
Licence Number:	2004 Region: Cameron Hills, NWT
Spud Date:	Feb 12, 2004 @ 08:00 Drilling Completed: Feb 19, 2004 @ 09:15
Surface Coordinates:	Latitude: 60° 08' 38.128" North
	Longitude: 117° 33' 08.928" West
Bottom Hole Coordinates	as surface
Ground Elevation (m):	786.32m K.B. Elevation (m): 790.92m
Logged Interval (m):	1345m To: 1484m Total Depth (m): 1484m
Formation:	Primary = Sulphur Point DOL Secondary = Slave Point
Type of Drilling Fluid:	Gel Chemical

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Paramount Resources Ltd.
Address: 4700 Bankers Hall West
888 3rd Street S.W.
Calgary, Alberta T2P 5C5

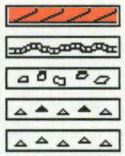
GEOLOGIST

Name: Brad Powell, B.Sc.
Company: Running Horse Resources
Address: 66A New Streeet S.E.
Calgary, Alberta T2G 3X9
(403) 660-9883

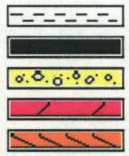
Comments

This well was drilled by Precision Drilling Rig #247.
Paramount AFE #03N410023
A Wellsite Gas Detection gas detector was run.
Logging Program: Precision Wireline
Run #1: STI-SP-MRT-SPED-CNT-GR-BHS-CAL

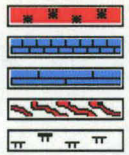
ROCK TYPES



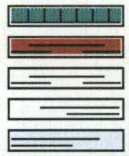
Anhy
Bent
Brec
Chtlt&dk
Cht



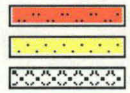
Clyst
Coal
Congl
Dol
Gyp



Igne
Lime mud
Lmst
Meta
Mrlst



Salt
Shorg
Shale
Shcol
Shgy



Sltst
Ss
Till

ACCESSORIES

MINERAL

- Anhy
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Quartz
- Mmica
- Micromica
- Glau

FOSSIL

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

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst

- Sltstrg
- Ssstrg

TEXTURE

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

OTHER SYMBOLS

POROSITY

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

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOW

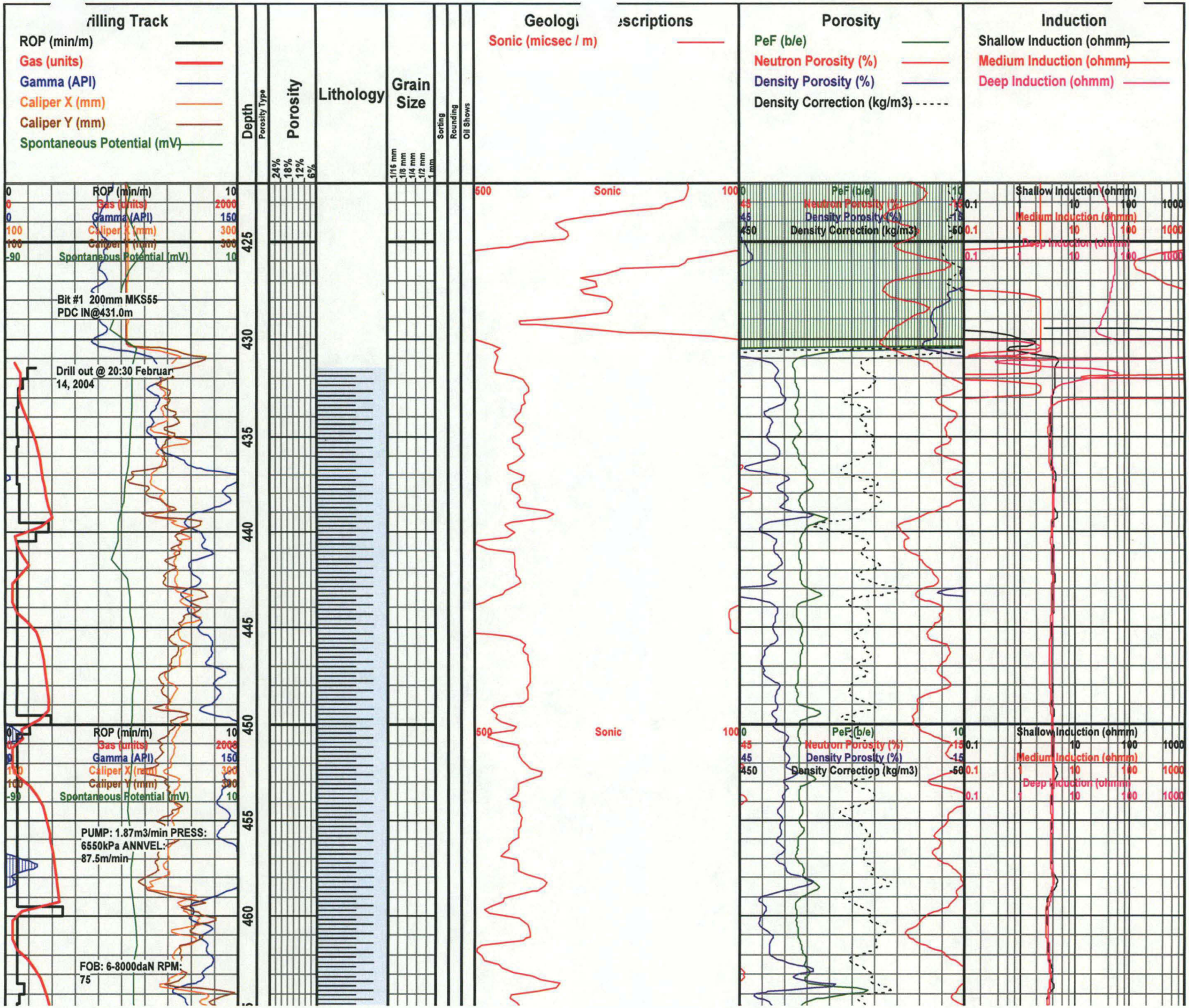
- Even
- Spotted
- Ques
- Dead

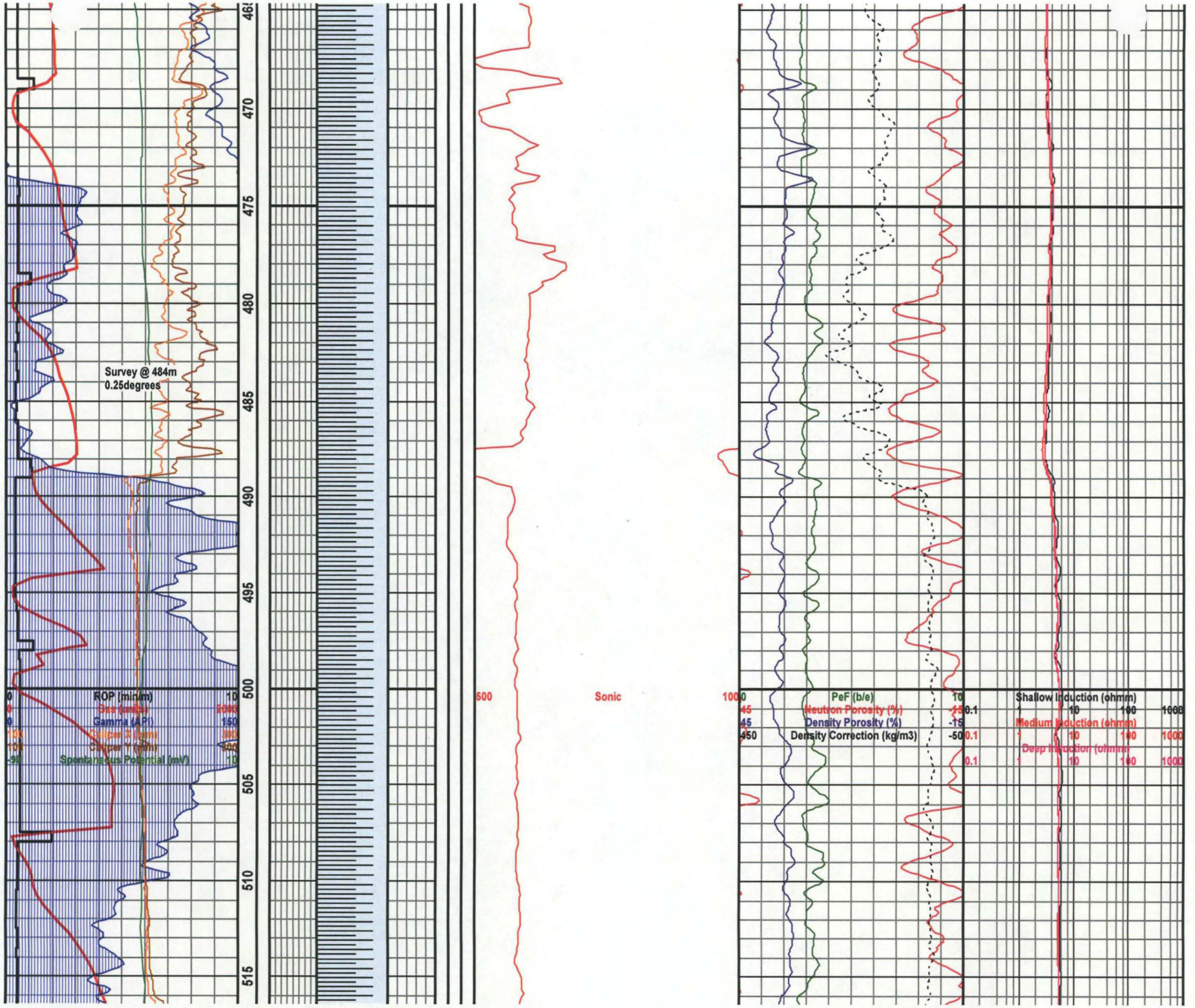
INTERVAL

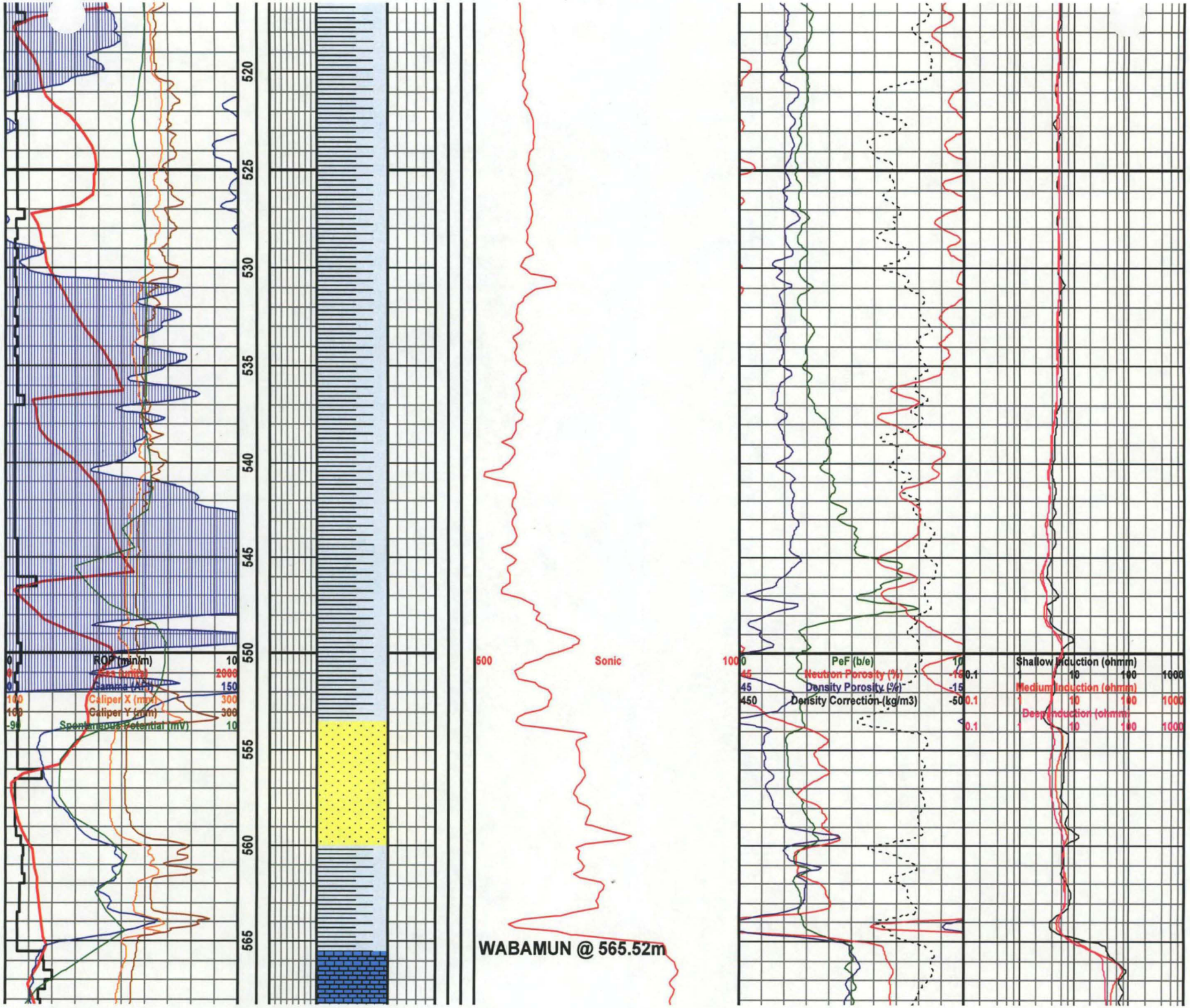
- Core
- Dst

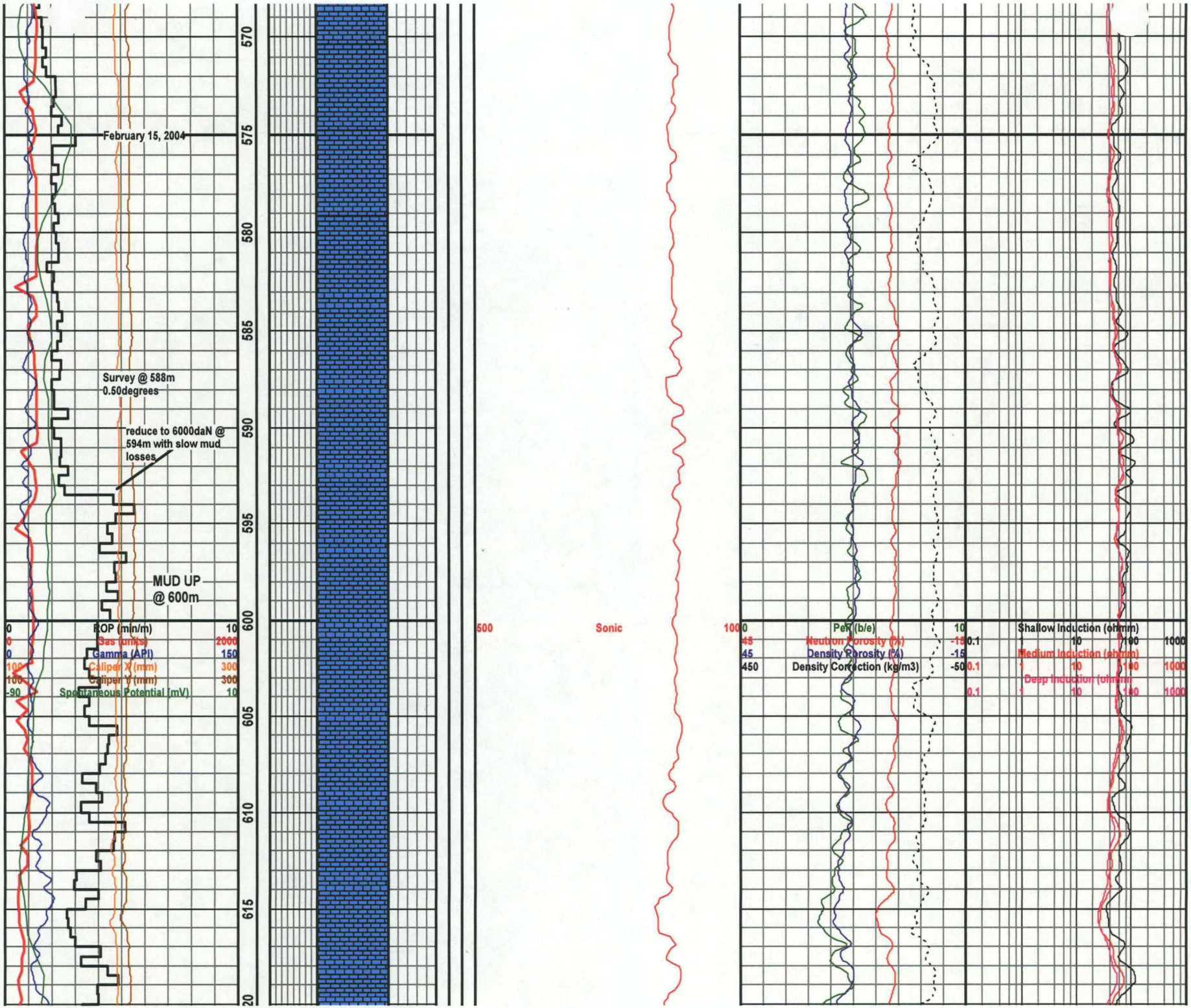
EVENT

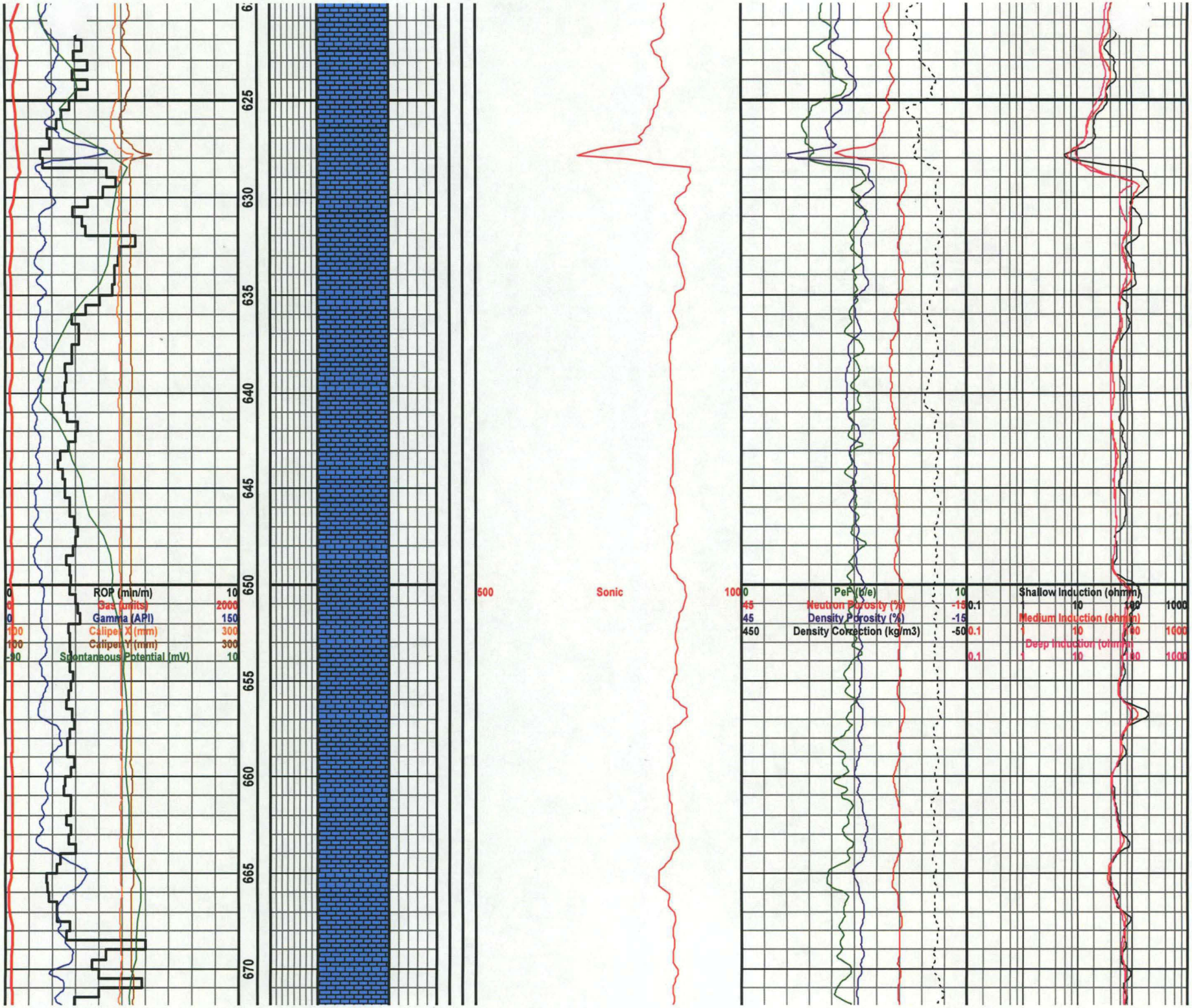
- Rft
- Sidewall

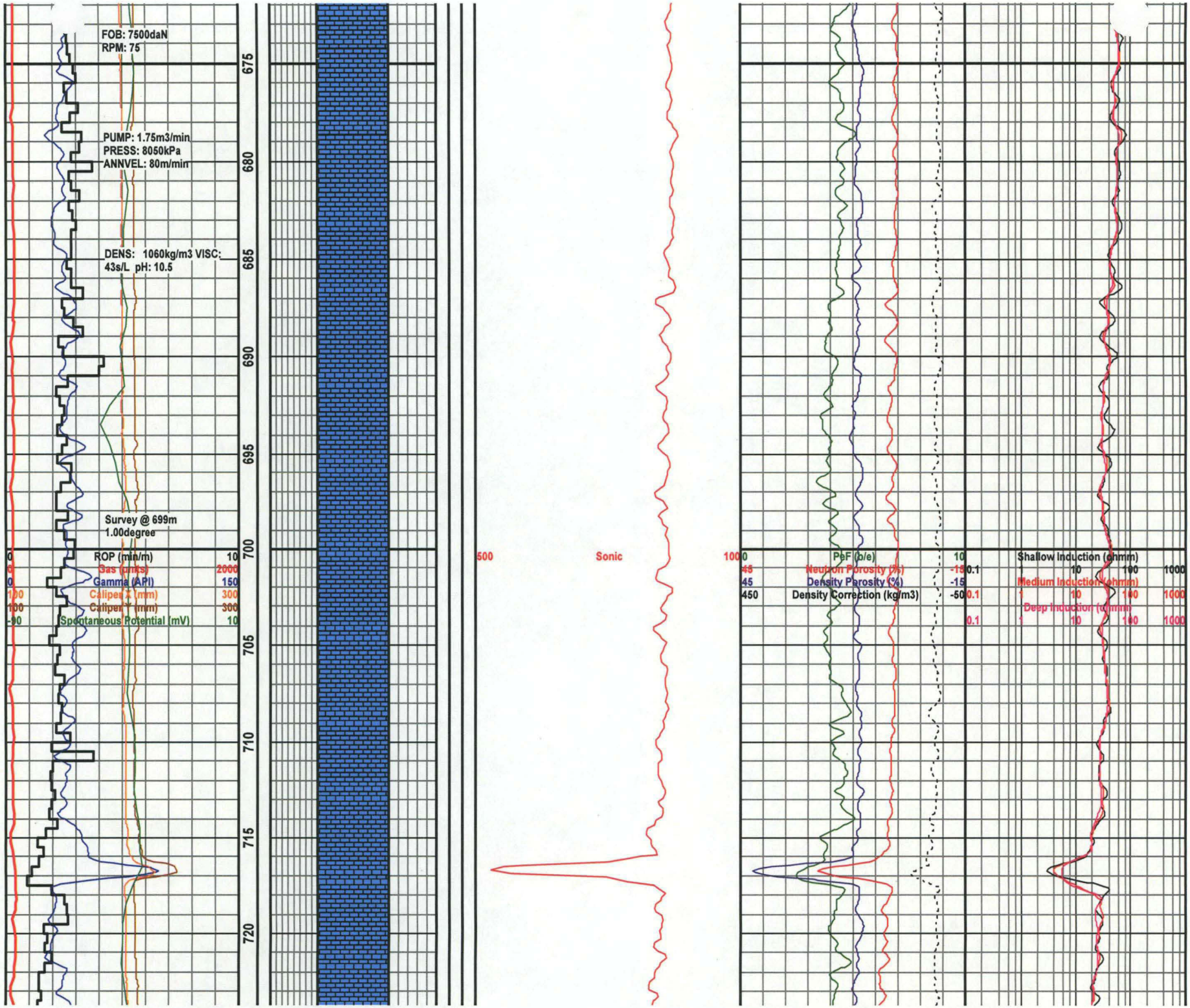

rilling Track
ROP (min/m)
Gas (units)
Gamma (API)
Caliper X (mm)
Caliper Y (mm)
Spontaneous Potential (mV)
Depth
Porosity Type
Porosity
24%
18%
12%
6%
Lithology
Grain Size
1/16 mm
1/8 mm
1/4 mm
1/2 mm
1 mm
Sorting
Rounding
Oil Shows
Geologi escriptions
Sonic (micsec / m)
Porosity
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Induction
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)
Bit #1 200mm MKS55
PDC IN@431.0m
Drill out @ 20:30 Februar
14, 2004
PUMP: 1.87m3/min PRESS:
6550kPa ANNVEL:
87.5m/min
FOB: 6-8000daN RPM:
75
425
430
435
440
445
450
455
460

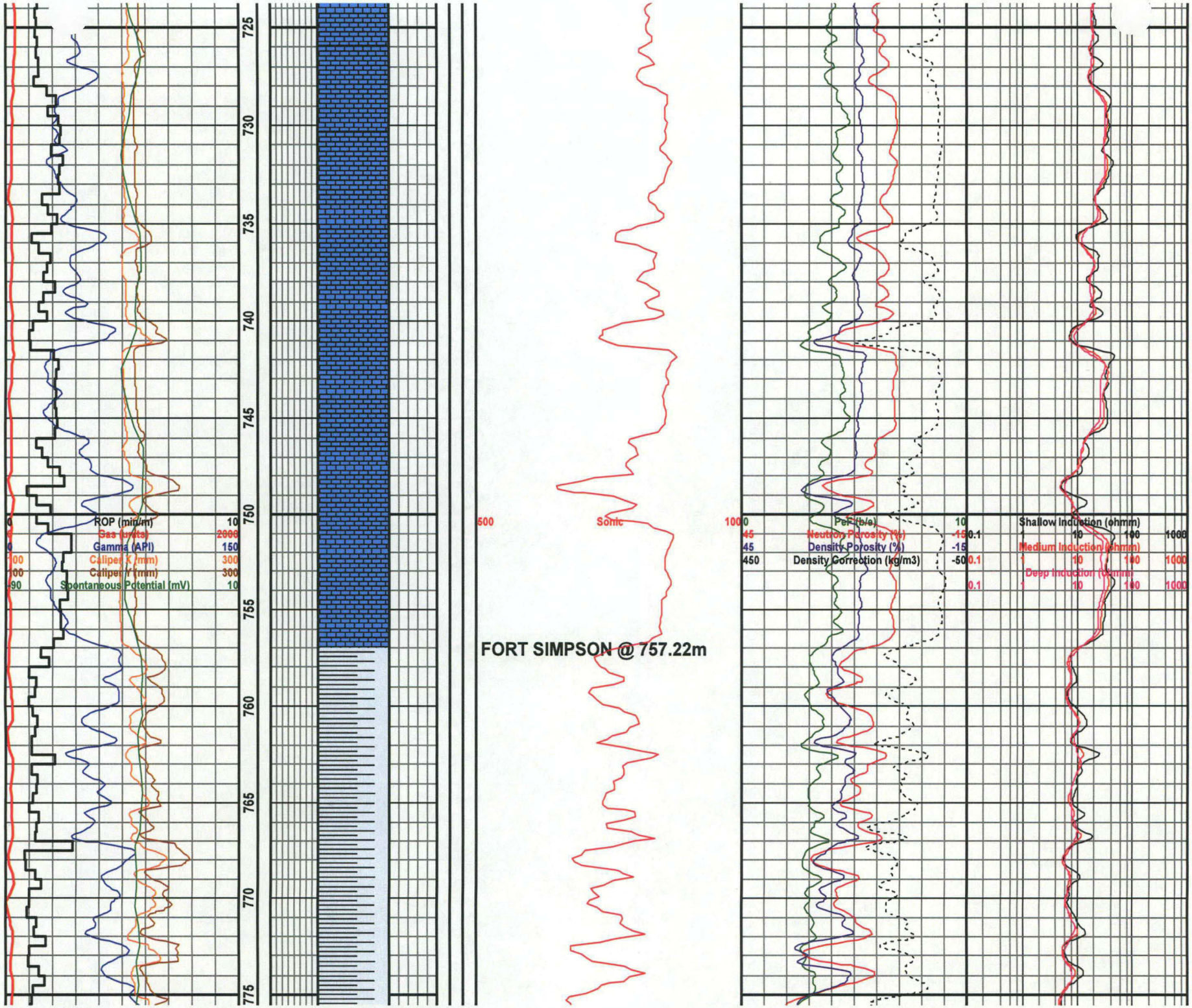

Survey @ 484m
0.25degrees
ROP (min/m)
Gamma (API)
Spontaneous Potential (mV)
Sonic
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)

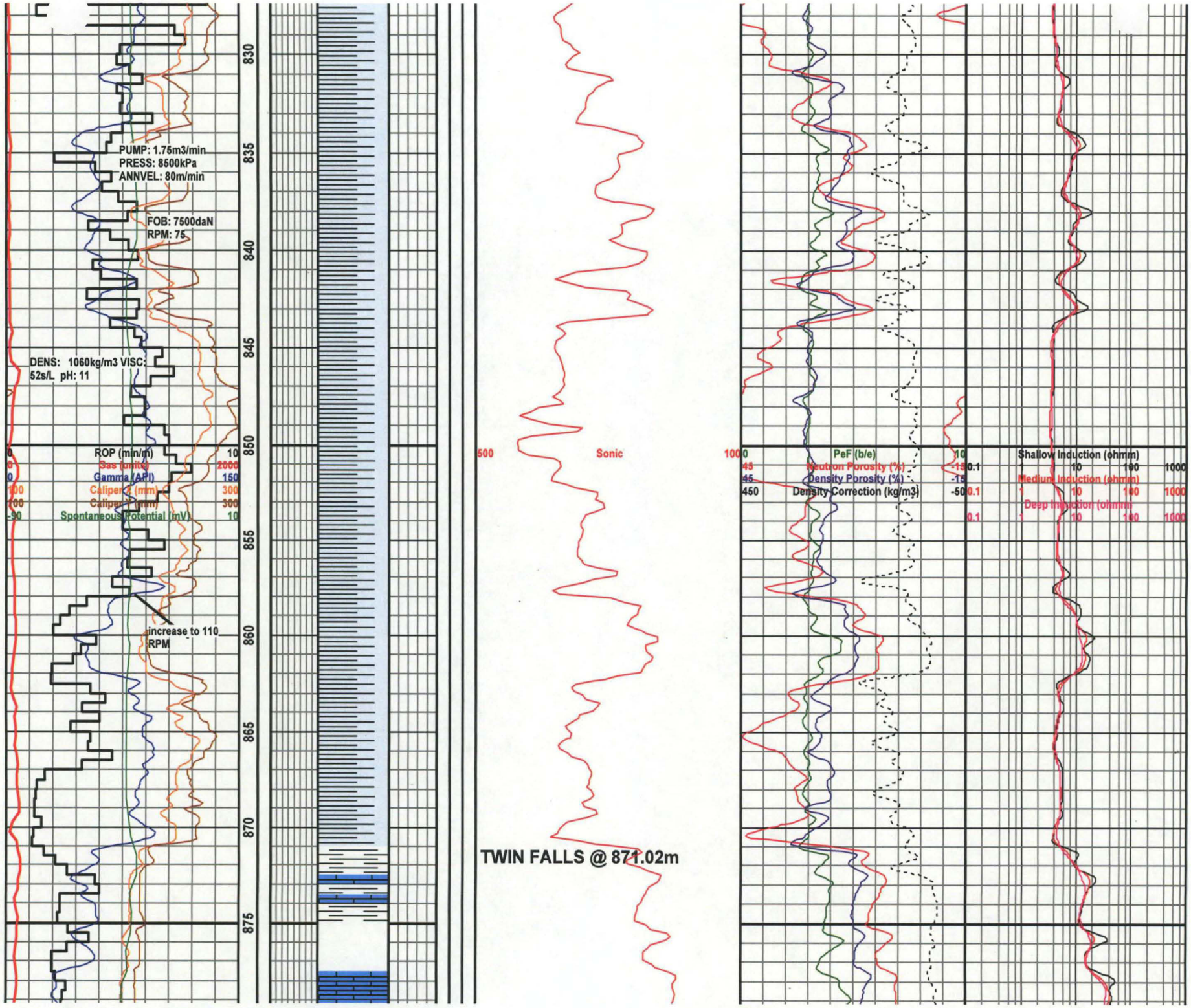

520
525
530
535
540
545
550
555
560
565
ROP (min/m)
Gamma (API)
Caliper X (mm)
Caliper Y (mm)
Spontaneous Potential (mV)
500
Sonic
WABAMUN @ 565.52m
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)

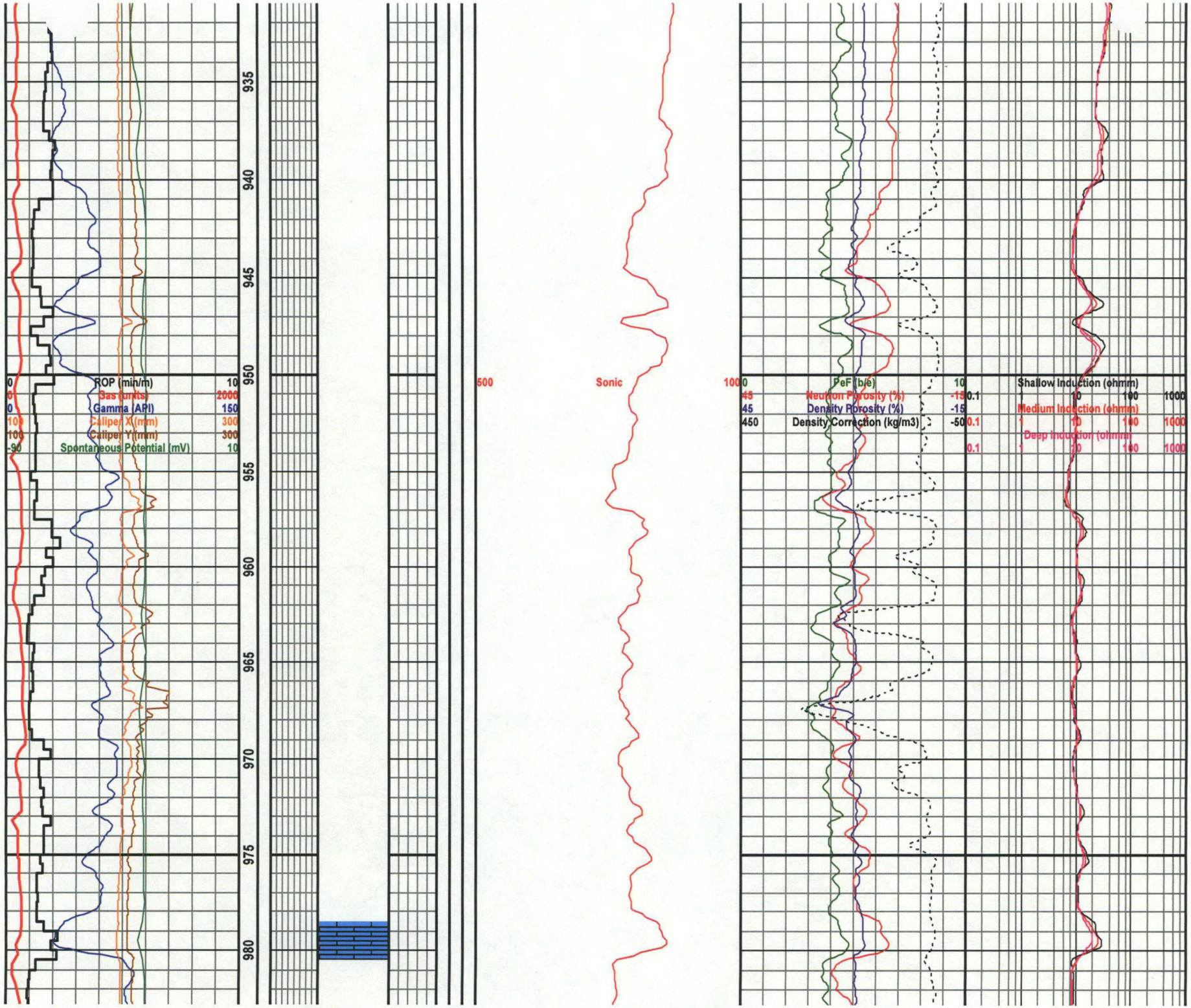

February 15, 2004
Survey @ 588m
0.50degrees
reduce to 6000daN @
594m with slow mud
losses
MUD UP
@ 600m
570
575
580
585
590
595
600
605
610
615
620
0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-50
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
1
10
100
1000
Deep Induction (ohmm)
0.1
1
10
100
1000

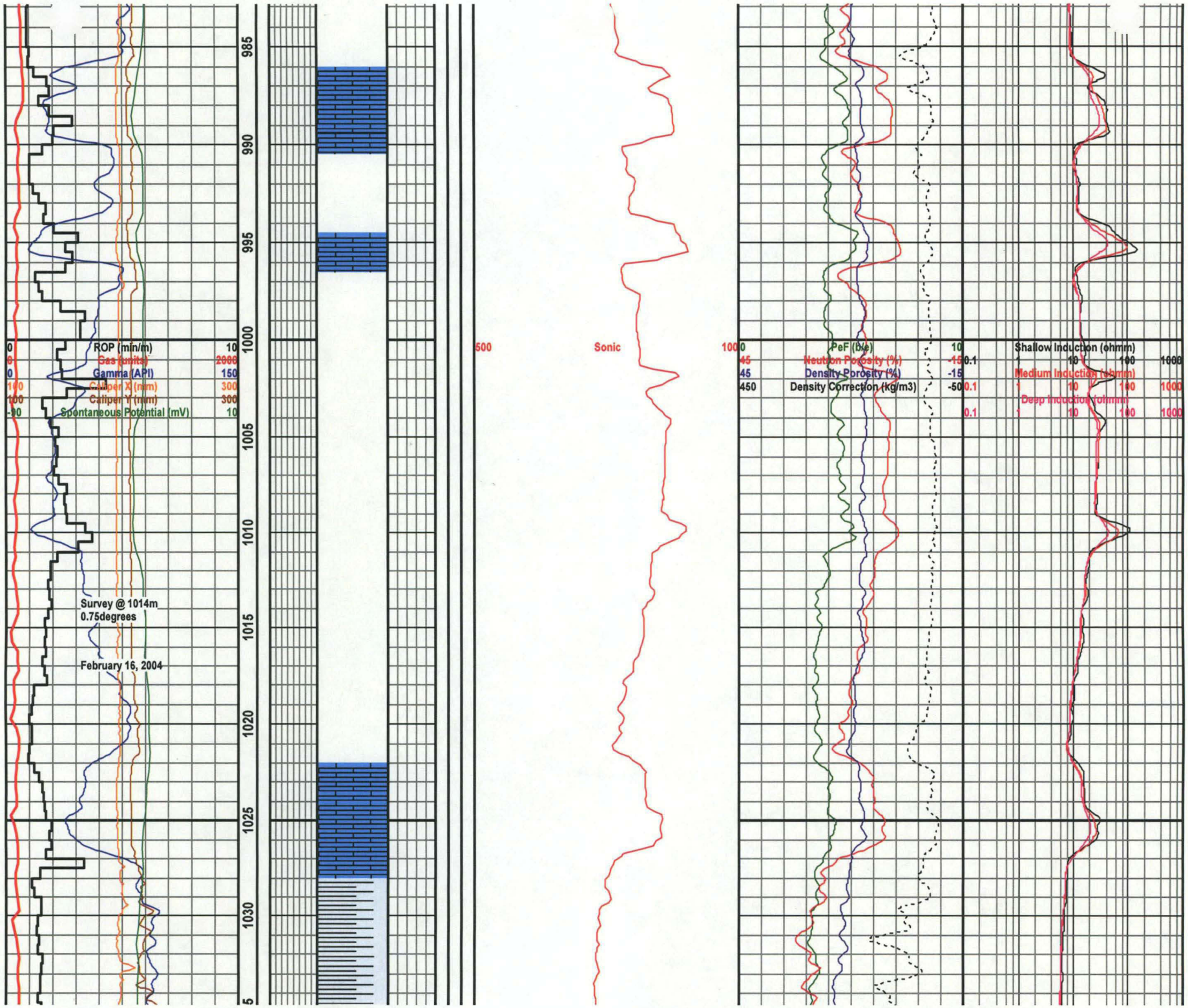

625
630
635
640
645
650
655
660
665
670
0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500.1
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
1
10
100
1000
Deep Induction (ohmm)
0.1
1
10
100
1000

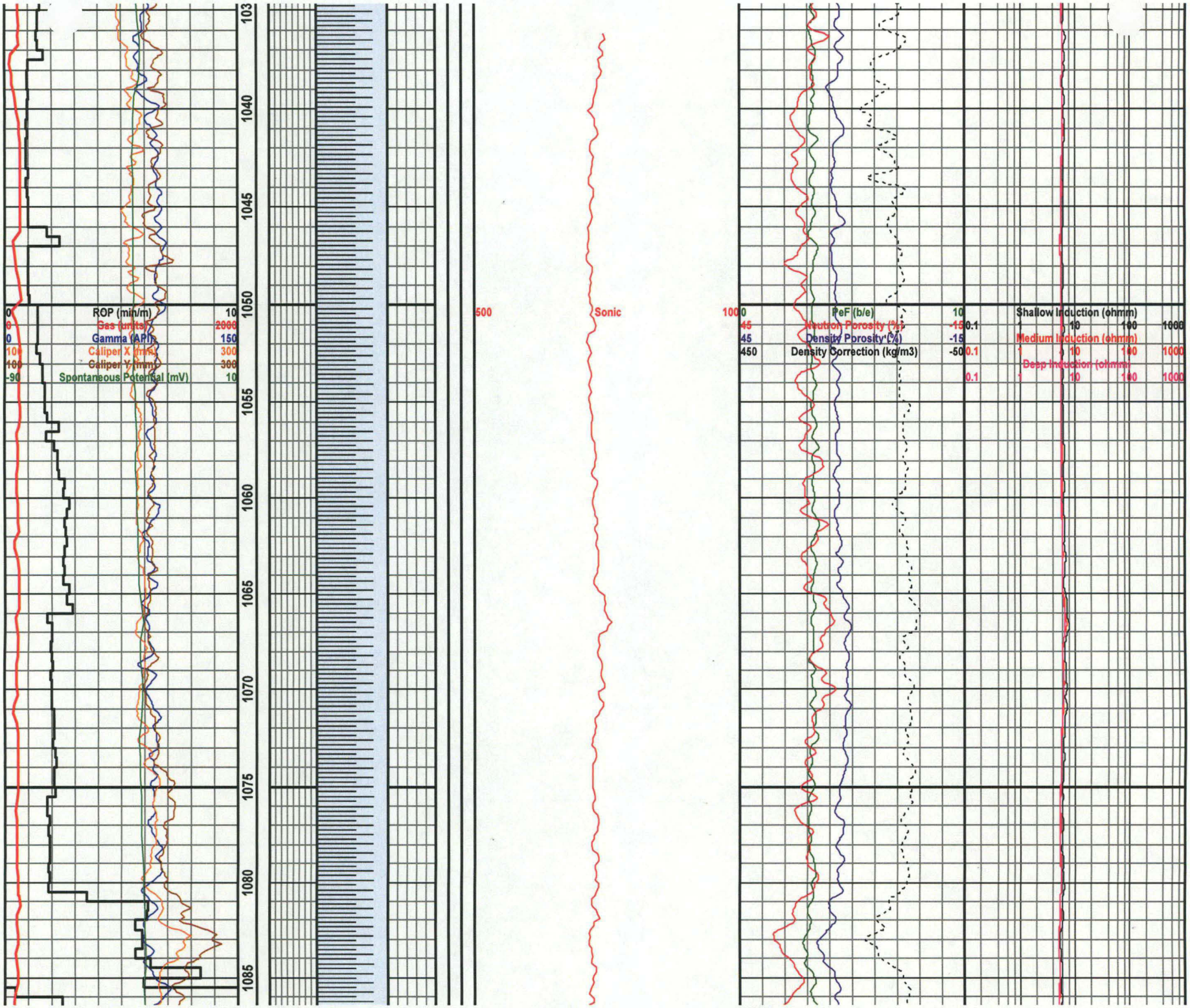

FOB: 7500daN
RPM: 75
PUMP: 1.75m3/min
PRESS: 8050kPa
ANNVEL: 80m/min
DENS: 1060kg/m3 VISC:
43s/L pH: 10.5
Survey @ 699m
1.00degree
675
680
685
690
695
700
705
710
715
720
0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-50
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
Deep Induction (ohmm)

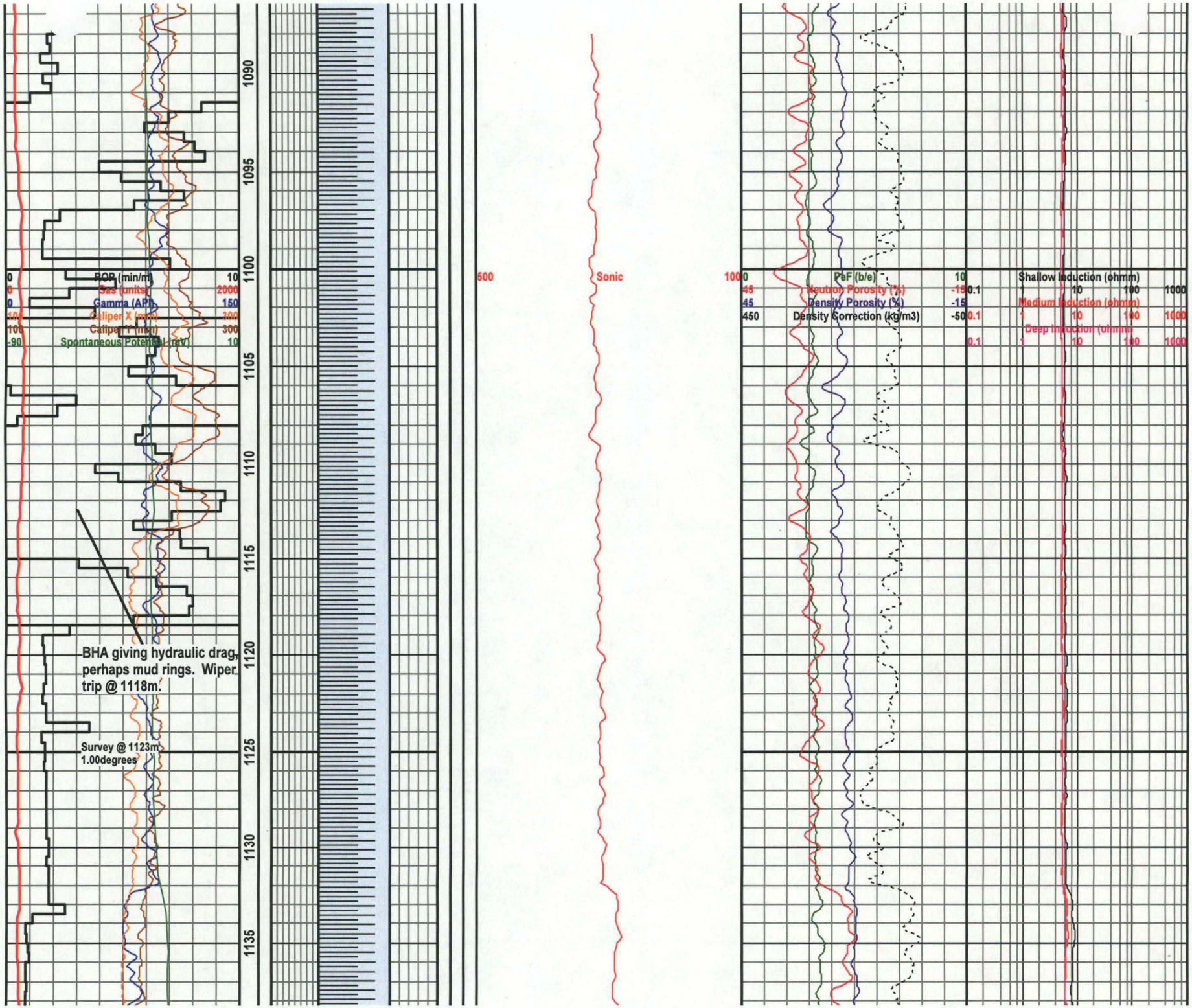

725
730
735
740
745
750
755
760
765
770
775
0
ROP (min/m)
10
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
500
Sonic
1000
FORT SIMPSON @ 757.22m
0
Perf (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
1
10
100
1000
0.1
Deep Induction (ohmm)
1
10
100
1000

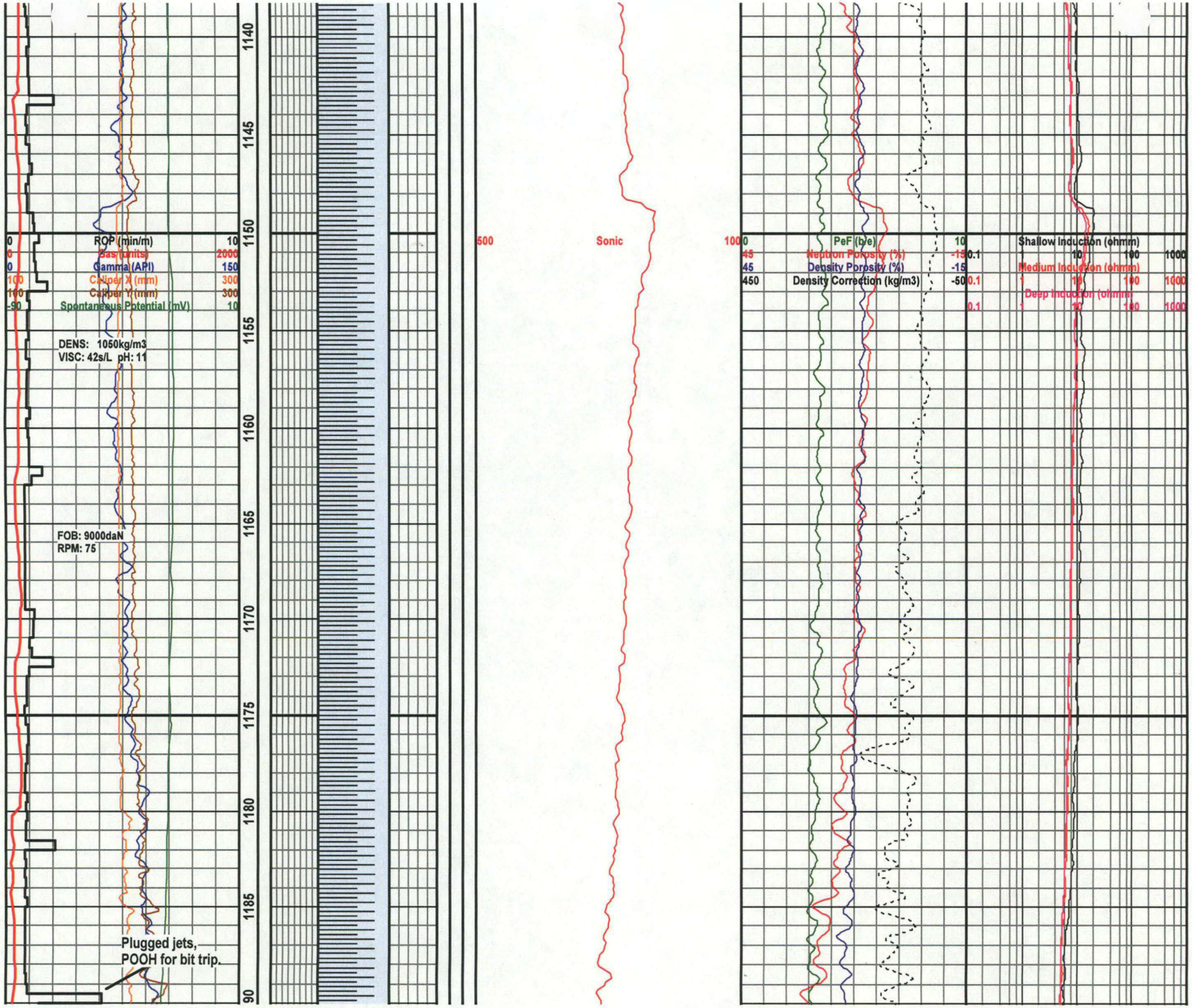

PUMP: 1.75m3/min
PRESS: 8500kPa
ANNVEL: 80m/min
FOB: 7500daN
RPM: 75
DENS: 1060kg/m3 VISC:
52s/L pH: 11
ROP (min/m)
Gas (units)
Gamma (API)
Caliper 1 (mm)
Caliper 2 (mm)
Spontaneous Potential (mV)
increase to 110 RPM
Sonic
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)
TWIN FALLS @ 871.02m

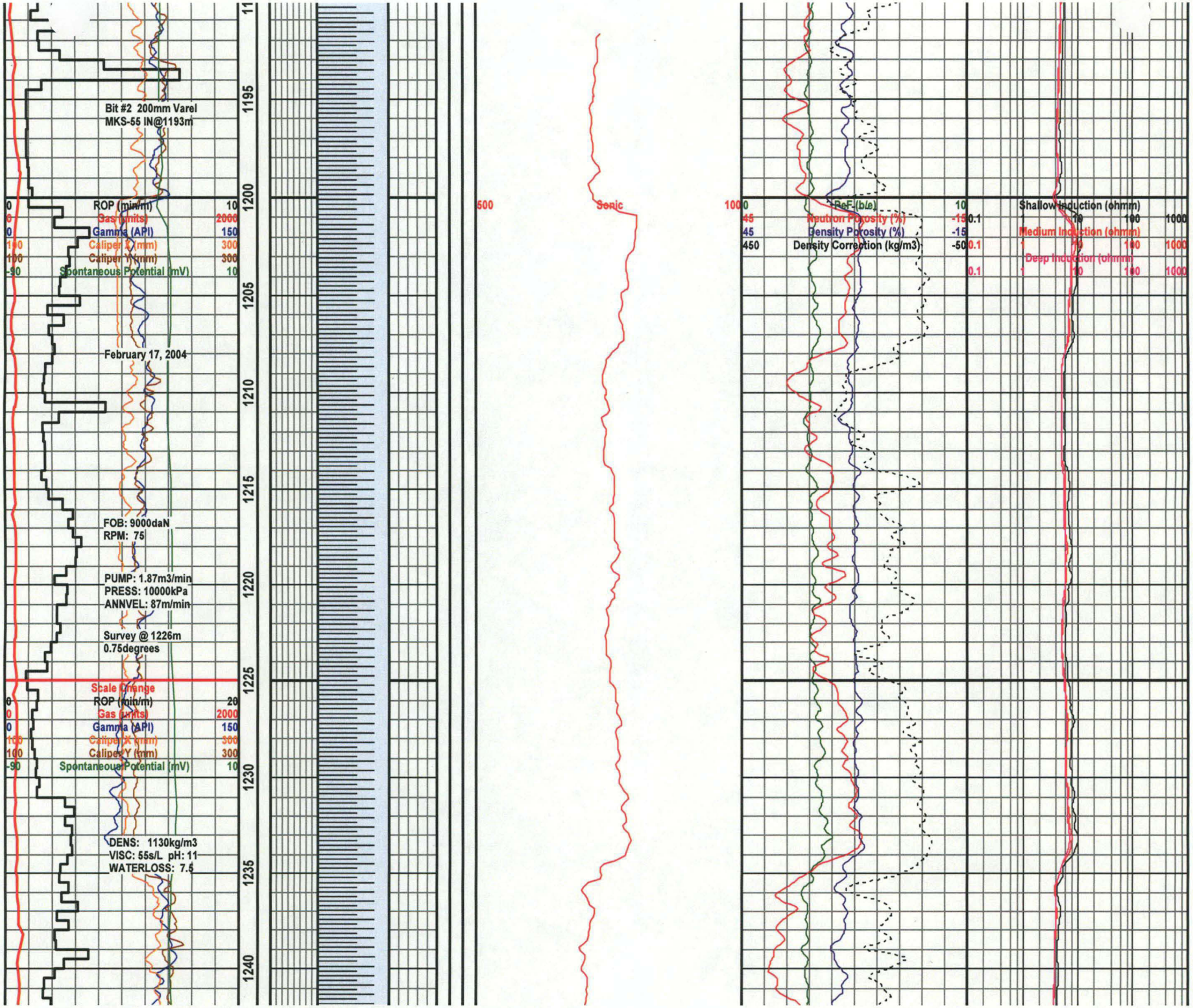

0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
935
940
945
950
955
960
965
970
975
980
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
1
10
100
1000
Deep Induction (ohmm)
1
10
100
1000

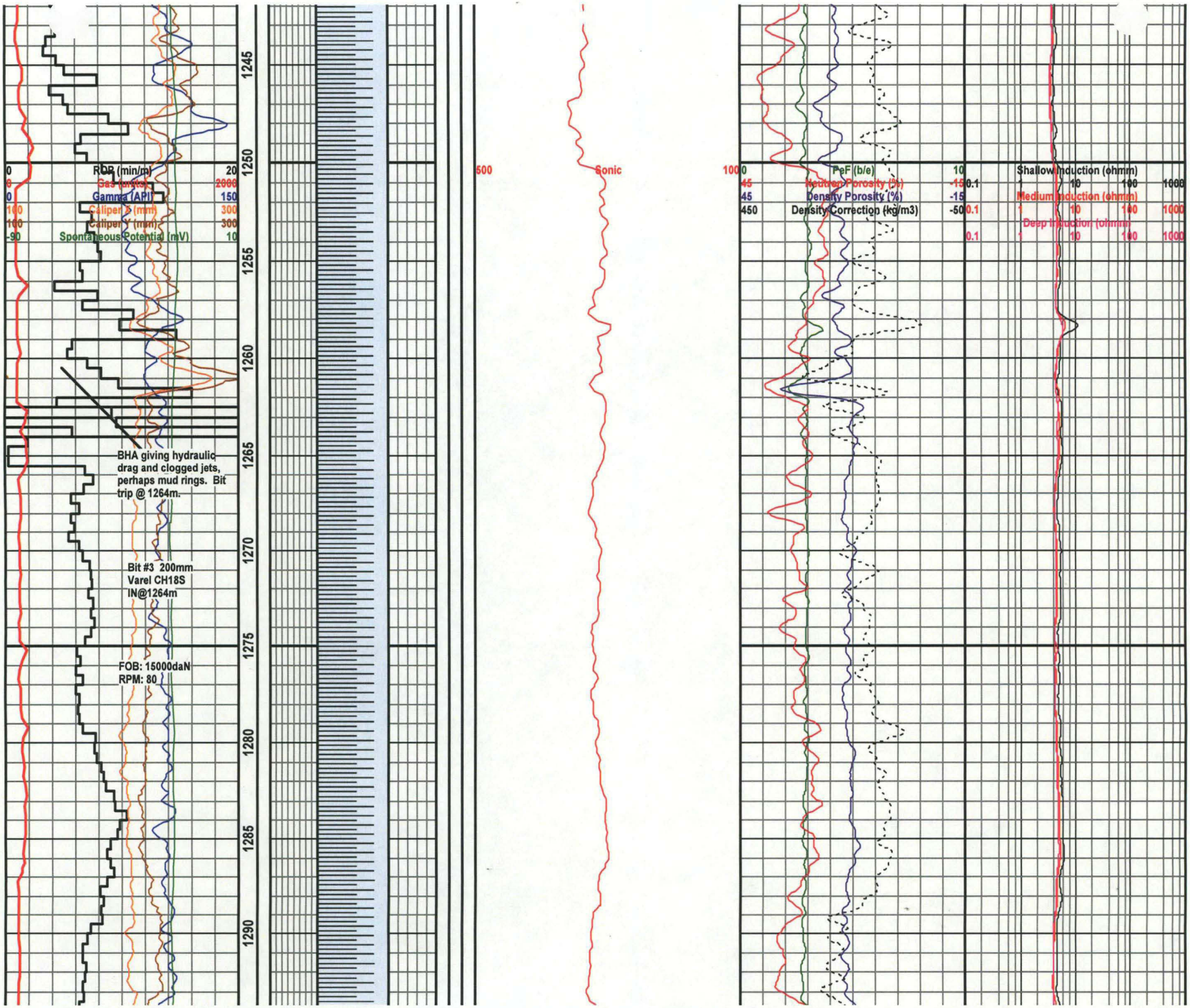

0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
985
990
995
1000
1005
1010
1015
1020
1025
1030
5
Survey @ 1014m
0.75degrees
February 16, 2004
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500.1
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
1
10
100
1000
Deep Induction (ohmm)
1
10
100
1000

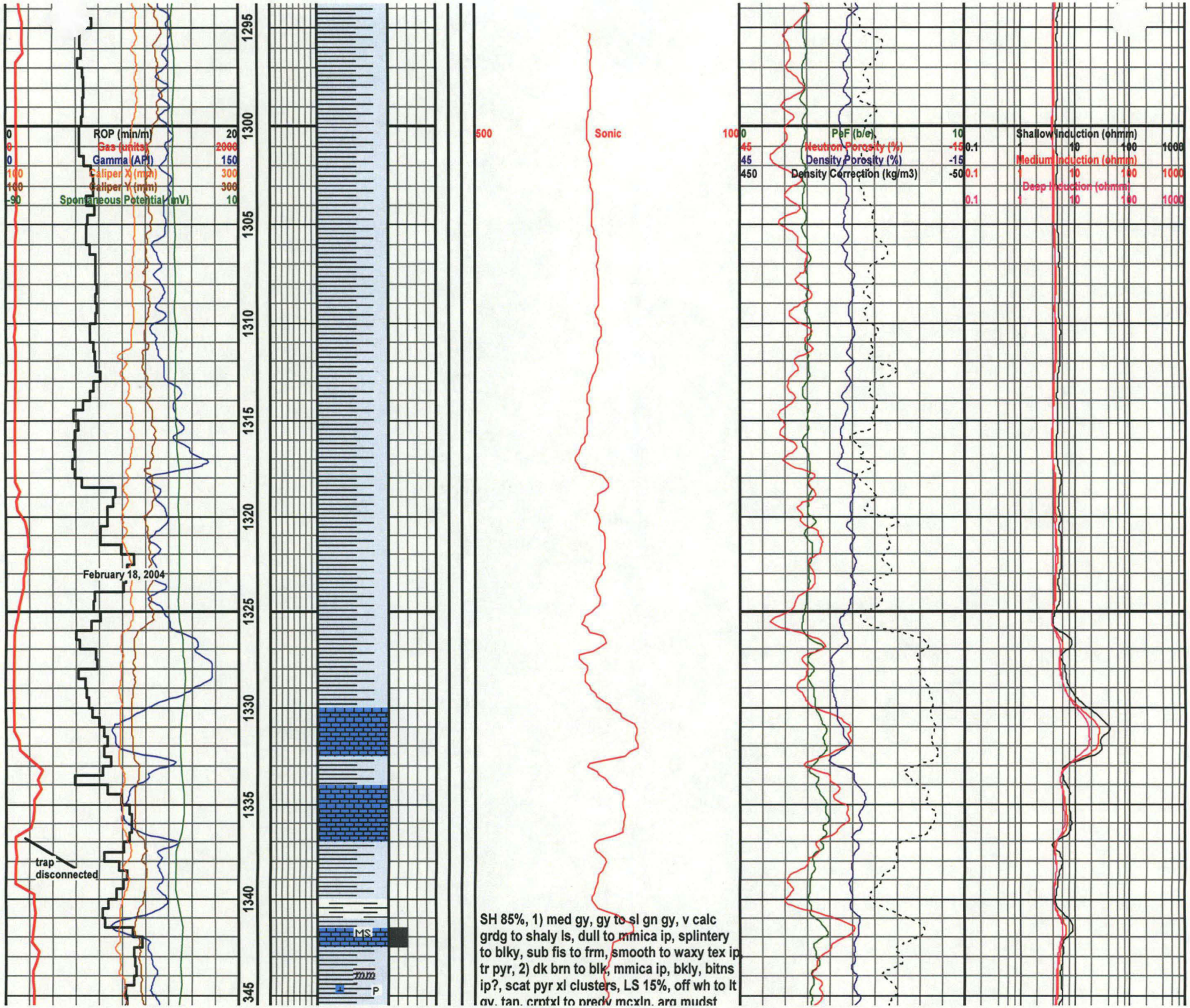

0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
10
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
103
1040
1045
1050
1055
1060
1065
1070
1075
1080
1085
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
Deep Induction (ohmm)

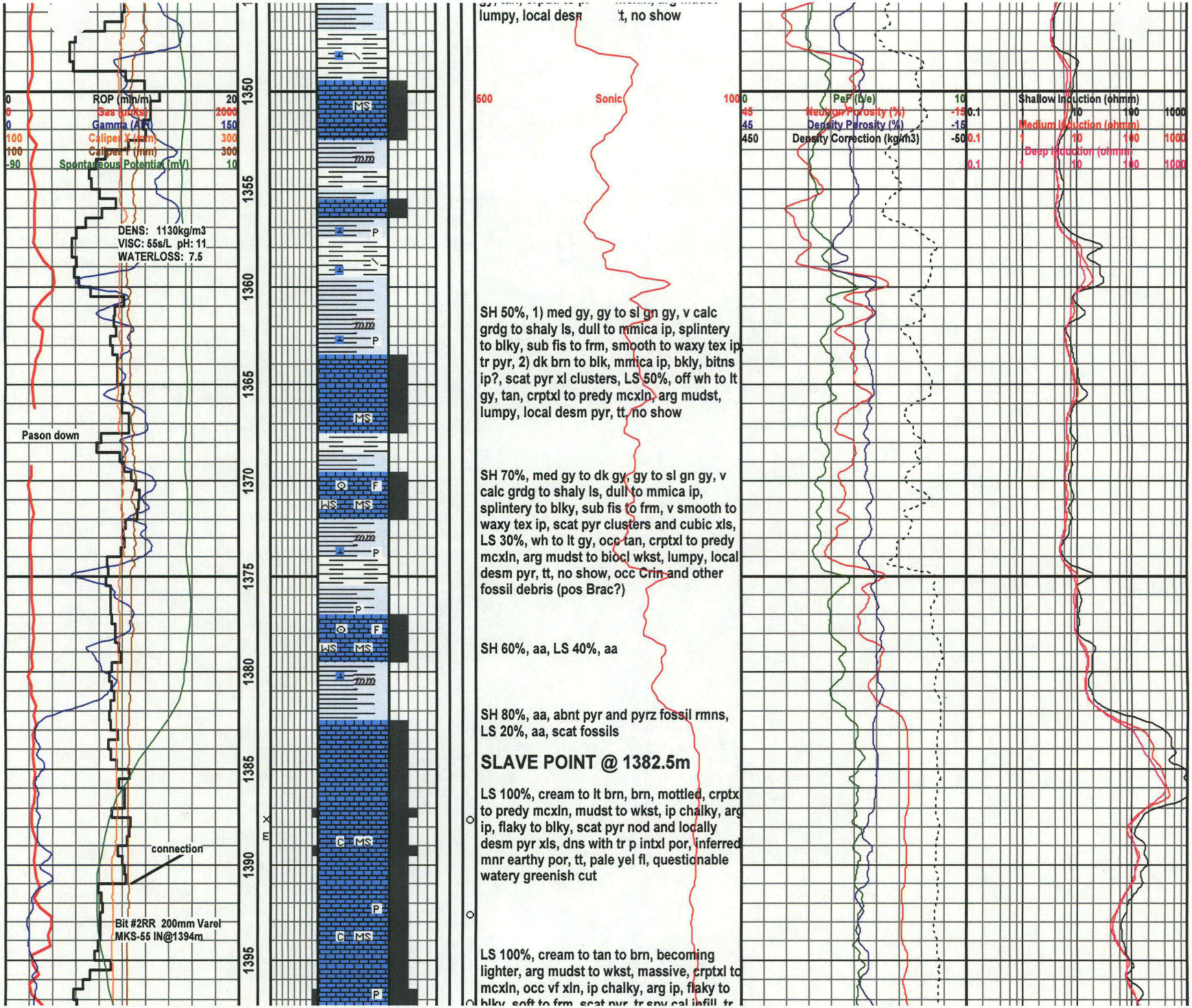

0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
1090
1095
1100
1105
1110
1115
1120
1125
1130
1135
500
Sonic
1000
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
Deep Induction (ohmm)
BHA giving hydraulic drag, perhaps mud rings. Wiper trip @ 1118m.
Survey @ 1123m
1.00degrees

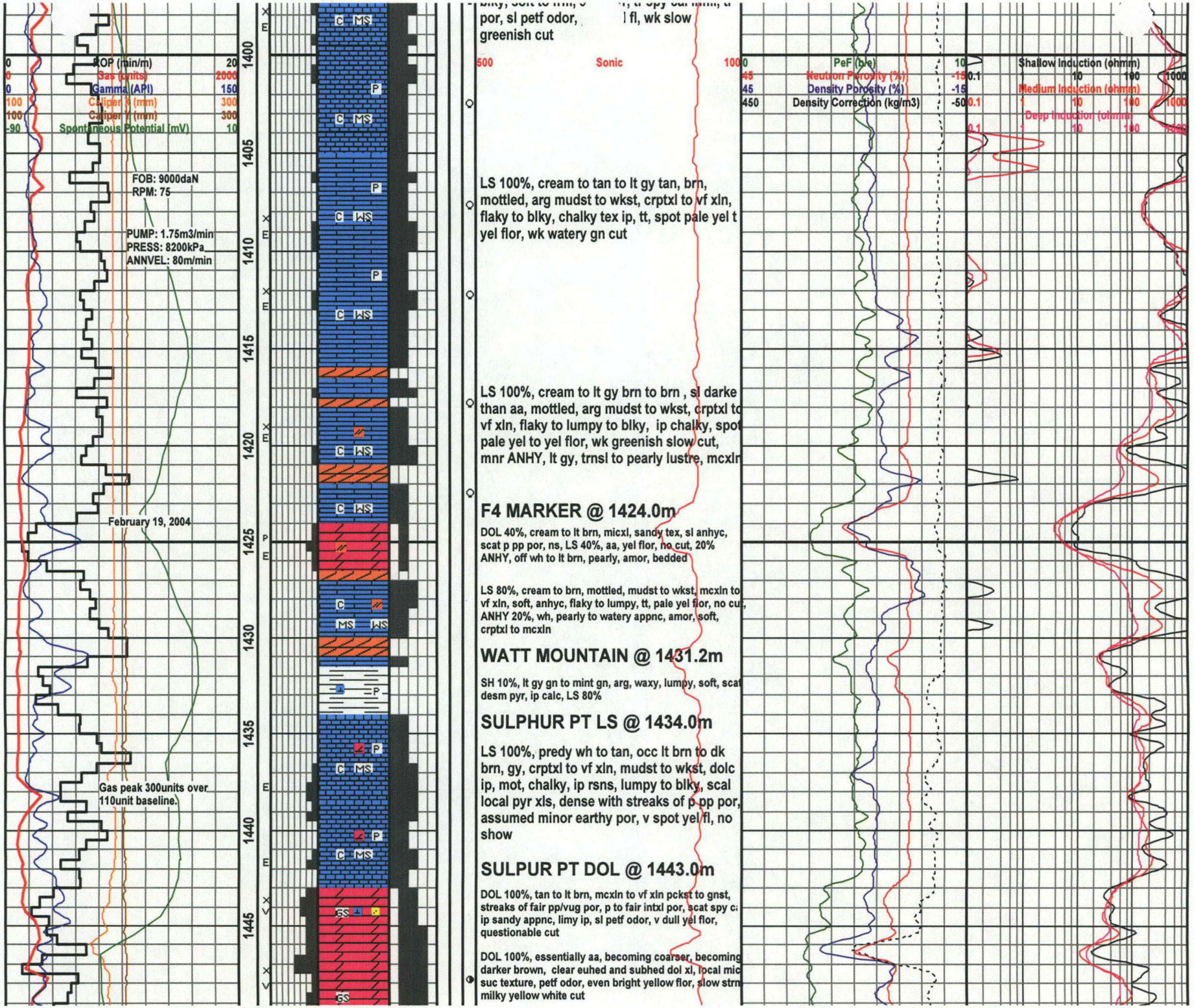

0
ROP (min/m)
10
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
DENS: 1050kg/m3
VISC: 42s/L pH: 11
FOB: 9000daN
RPM: 75
Plugged jets,
POOH for bit trip.
1140
1145
1150
1155
1160
1165
1170
1175
1180
1185
90
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500
0.1
Shallow Induction (ohmm)
10
100
1000
0.1
Medium Induction (ohmm)
1
10
100
1000
0.1
Deep Induction (ohmm)
1
10
100
1000

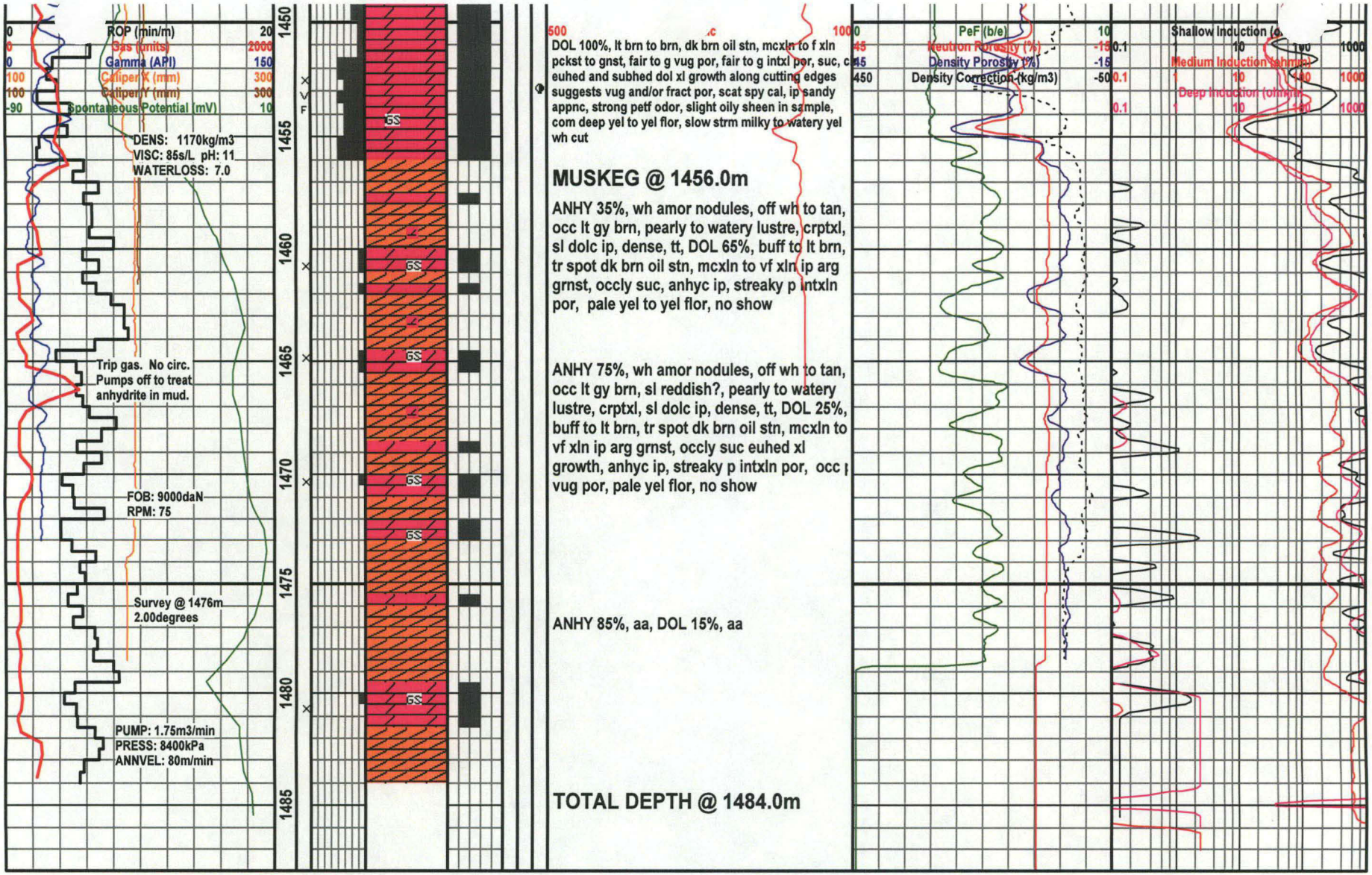

Bit #2 200mm Varel
MKS-55 IN@1193m
ROP (min/m)
Gas (units)
Gamma (API)
Caliper X (mm)
Caliper Y (mm)
Spontaneous Potential (mV)
February 17, 2004
FOB: 9000daN
RPM: 75
PUMP: 1.87m3/min
PRESS: 10000kPa
ANNVEL: 87m/min
Survey @ 1226m
0.75degrees
Scale Change
ROP (min/m)
Gas (units)
Gamma (API)
Caliper X (mm)
Caliper Y (mm)
Spontaneous Potential (mV)
DENS: 1130kg/m3
VISC: 55s/L pH: 11
WATERLOSS: 7.5
Sonic
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)

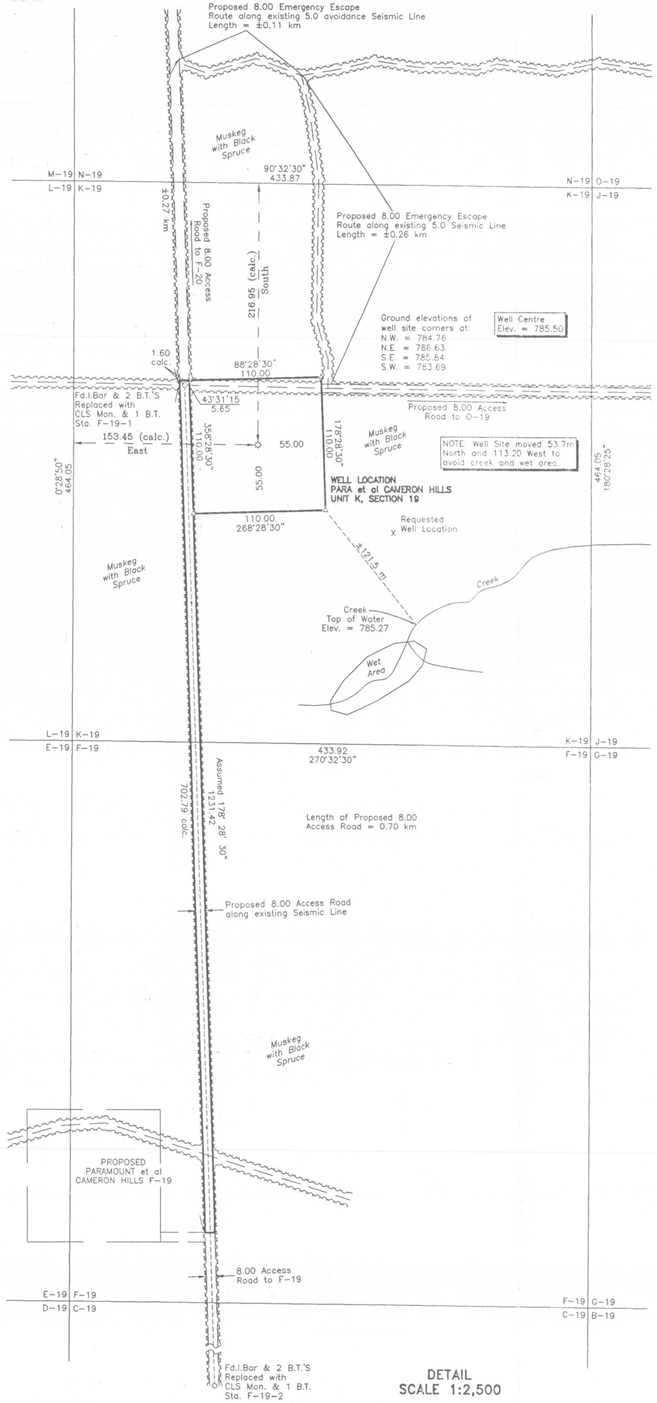

0
ROP (min/m)
20
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
1245
1250
1255
1260
1265
1270
1275
1280
1285
1290
BHA giving hydraulic drag and clogged jets, perhaps mud rings. Bit trip @ 1264m.
Bit #3 200mm
Varel CH18S
IN@1264m
FOB: 15000daN
RPM: 80
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-500
0.1
Shallow Induction (ohmm)
1
10
100
1000
0.1
Medium Induction (ohmm)
1
10
100
1000
0.1
Deep Induction (ohmm)
1
10
100
1000


0
ROP (min/m)
20
0
Gas (units)
2000
0
Gamma (API)
150
100
Caliper X (mm)
300
100
Caliper Y (mm)
300
-90
Spontaneous Potential (mV)
10
1295
1300
1305
1310
1315
1320
1325
1330
1335
1340
1345
February 18, 2004
trap
disconnected
MS
mm
P
500
Sonic
1000
0
PeF (b/e)
10
45
Neutron Porosity (%)
-15
45
Density Porosity (%)
-15
450
Density Correction (kg/m3)
-50
0.1
Shallow Induction (ohmm)
1
10
100
1000
Medium Induction (ohmm)
Deep Induction (ohmm)
SH 85%, 1) med gy, gy to sl gn gy, v calc grdg to shaly ls, dull to mmica ip, splintery to blky, sub fis to frm, smooth to waxy tex ip, tr pyr, 2) dk brn to blk, mmica ip, bkly, bitns ip?, scat pyr xl clusters, LS 15%, off wh to lt gy, tan, crptxl to predy mcxln, arg mudst

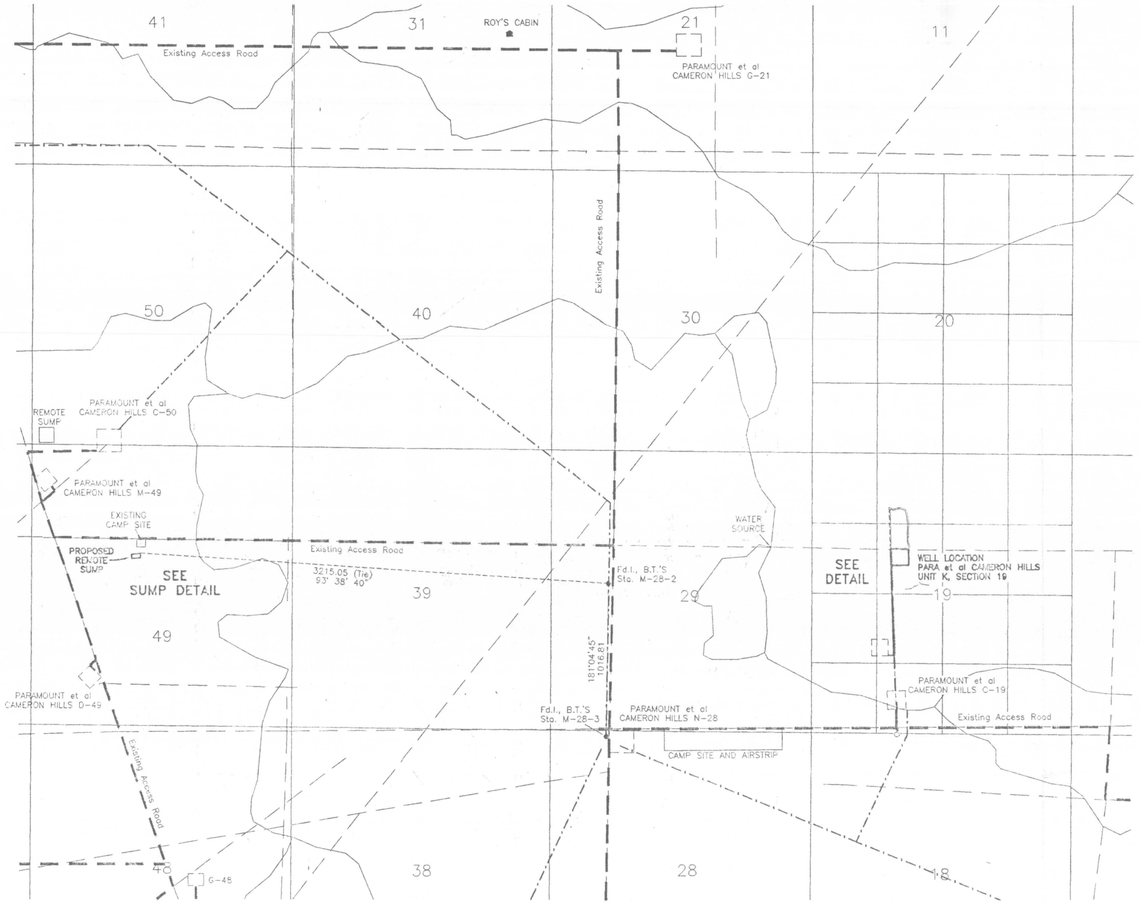

ROP (min/m)
Gas (units)
Gamma (API)
Caliper X (mm)
Caliper Y (mm)
Spontaneous Potential (mV)
DENS: 1130kg/m3
VISC: 55s/L pH: 11
WATERLOSS: 7.5
Pason down
connection
Bit #2RR 200mm Varel
MKS-55 IN@1394m
Sonic
lumpy, local desm
t, no show
SH 50%, 1) med gy, gy to sl gn gy, v calc grdg to shaly ls, dull to mmica ip, splintery to blky, sub fis to frm, smooth to waxy tex ip, tr pyr, 2) dk brn to blk, mmica ip, bkly, bitns ip?, scat pyr xl clusters, LS 50%, off wh to lt gy, tan, crptxl to predy mcxln, arg mudst, lumpy, local desm pyr, tt, no show
SH 70%, med gy to dk gy, gy to sl gn gy, v calc grdg to shaly ls, dull to mmica ip, splintery to blky, sub fis to frm, v smooth to waxy tex ip, scat pyr clusters and cubic xls, LS 30%, wh to lt gy, occ tan, crptxl to predy mcxln, arg mudst to biocl wkst, lumpy, local desm pyr, tt, no show, occ Crin and other fossil debris (pos Brac?)
SH 60%, aa, LS 40%, aa
SH 80%, aa, abnt pyr and pyrz fossil rmns, LS 20%, aa, scat fossils
SLAVE POINT @ 1382.5m
LS 100%, cream to lt brn, brn, mottled, crptxl to predy mcxln, mudst to wkst, ip chalky, arg ip, flaky to blky, scat pyr nod and locally desm pyr xls, dns with tr p intxl por, inferred mnr earthy por, tt, pale yel fl, questionable watery greenish cut
LS 100%, cream to tan to brn, becoming lighter, arg mudst to wkst, massive, crptxl to mcxln, occ vf xln, ip chalky, arg ip, flaky to
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)

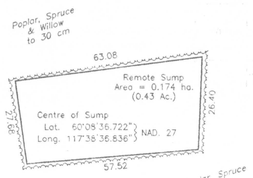

0 ROP (min/m) 20
0 Gas (units) 2000
0 Gamma (API) 150
100 Caliper X (mm) 300
100 Caliper Y (mm) 300
-90 Spontaneous Potential (mV) 10
FOB: 9000daN
RPM: 75
PUMP: 1.75m3/min
PRESS: 8200kPa
ANNVEL: 80m/min
February 19, 2004
Gas peak 300units over 110unit baseline.
1400
1405
1410
1415
1420
1425
1430
1435
1440
1445
C MS
P
C WS
MS WS
GS
por, sl petf odor, fl, wk slow greenish cut
500 Sonic 1000
LS 100%, cream to tan to lt gy tan, brn, mottled, arg mudst to wkst, crptxl to vf xln, flaky to blky, chalky tex ip, tt, spot pale yel t yel flor, wk watery gn cut
LS 100%, cream to lt gy brn to brn , sl darke than aa, mottled, arg mudst to wkst, crptxl to vf xln, flaky to lumpy to blky, ip chalky, spot pale yel to yel flor, wk greenish slow cut, mnr ANHY, lt gy, trnsl to pearly lustre, mcxln
F4 MARKER @ 1424.0m
DOL 40%, cream to lt brn, micxl, sandy tex, sl anhyc, scat p pp por, ns, LS 40%, aa, yel flor, no cut, 20% ANHY, off wh to lt brn, pearly, amor, bedded
LS 80%, cream to brn, mottled, mudst to wkst, mcxln to vf xln, soft, anhyc, flaky to lumpy, tt, pale yel flor, no cut, ANHY 20%, wh, pearly to watery appnc, amor, soft, crptxl to mcxln
WATT MOUNTAIN @ 1431.2m
SH 10%, lt gy gn to mint gn, arg, waxy, lumpy, soft, scat desm pyr, ip calc, LS 80%
SULPHUR PT LS @ 1434.0m
LS 100%, predy wh to tan, occ lt brn to dk brn, gy, crptxl to vf xln, mudst to wkst, dolc ip, mot, chalky, ip rsns, lumpy to blky, scal local pyr xls, dense with streaks of p-pp por, assumed minor earthy por, v spot yel fl, no show
SULPUR PT DOL @ 1443.0m
DOL 100%, tan to lt brn, mcxln to vf xln pckst to gnst, streaks of fair pp/vug por, p to fair intxl por, scat spy c ip sandy appnc, limy ip, sl petf odor, v dull yel flor, questionable cut
DOL 100%, essentially aa, becoming coarser, becoming darker brown, clear euhed and subhed dol xl, local mic suc texture, petf odor, even bright yellow flor, slow strn milky yellow white cut
0 PeF (b/e) 10
45 Neutron Porosity (%) -15
45 Density Porosity (%) -15
450 Density Correction (kg/m3) -500
0.1 Shallow Induction (ohmm) 1000
0.1 Medium Induction (ohmm) 1000
0.1 Deep Induction (ohmm) 1000


ROP (min/m)
Gas (units)
Gamma (API)
Caliper X (mm)
Caliper Y (mm)
Spontaneous Potential (mV)
DENS: 1170kg/m3
VISC: 85s/L pH: 11
WATERLOSS: 7.0
Trip gas. No circ.
Pumps off to treat
anhydrite in mud.
FOB: 9000daN
RPM: 75
Survey @ 1476m
2.00degrees
PUMP: 1.75m3/min
PRESS: 8400kPa
ANNVEL: 80m/min
DOL 100%, lt brn to brn, dk brn oil stn, mcxln to f xln pckst to gnst, fair to g vug por, fair to g intxl por, suc, c euhed and subhed dol xl growth along cutting edges suggests vug and/or fract por, scat spy cal, ip sandy appnc, strong petf odor, slight oily sheen in sample, com deep yel to yel flor, slow strm milky to watery yel wh cut
MUSKEG @ 1456.0m
ANHY 35%, wh amor nodules, off wh to tan, occ lt gy brn, pearly to watery lustre, crptxl, sl dolc ip, dense, tt, DOL 65%, buff to lt brn, tr spot dk brn oil stn, mcxln to vf xln ip arg grnst, occly suc, anhyc ip, streaky p intxln por, pale yel to yel flor, no show
ANHY 75%, wh amor nodules, off wh to tan, occ lt gy brn, sl reddish?, pearly to watery lustre, crptxl, sl dolc ip, dense, tt, DOL 25%, buff to lt brn, tr spot dk brn oil stn, mcxln to vf xln ip arg grnst, occly suc euhed xl growth, anhyc ip, streaky p intxln por, occ vug por, pale yel flor, no show
ANHY 85%, aa, DOL 15%, aa
TOTAL DEPTH @ 1484.0m
PeF (b/e)
Neutron Porosity (%)
Density Porosity (%)
Density Correction (kg/m3)
Shallow Induction (ohmm)
Medium Induction (ohmm)
Deep Induction (ohmm)

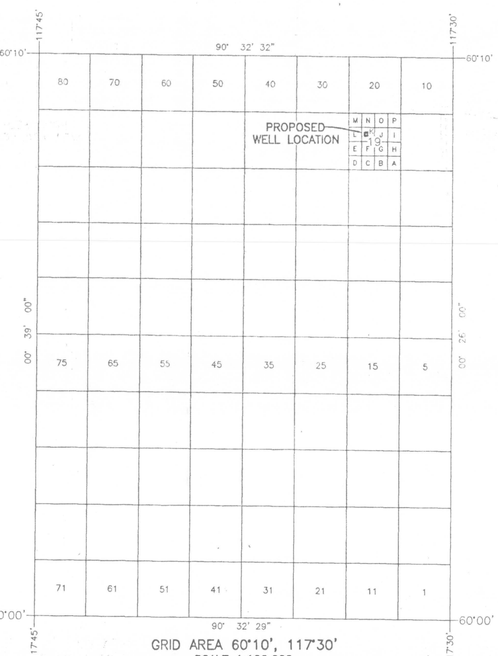


DETAIL
SCALE 1:2,500





SUMP DETAIL
Not To Scale



GRID AREA 60°10', 117°30'
SCALE 1:100,000

AREAS:

	Hectares	Acres
Well Site =	1.210	2.99
Access Road =	0.562	1.39
Remote Sump =	0.174	0.43
Total =	1.946	4.81

BEARING TREES

STATION	BEARING	DISTANCE	TREE
F-19-1	–	–	–
	–	–	–
	–	–	–
F-19-2	116°34'10"	23.46	5 cm Spruce
	298°36'15"	18.81	10 cm Spruce
	339°31'20"	21.39	10 cm Spruce

GRID AREA 60°10', 117° 30'– GEOGRAPHIC AND UTM COORDINATES, (1927 NAD)				
N.E.	60°10'00"	117°30'00"	6669871.56	472250.65
N.W.	60°10'00"	117°45'00"	6670002.85	458376.31
S.W.	60°00'00"	117°45'00"	6651441.75	458165.71
S.E.	60°00'00"	117°30'00"	6651310.02	472110.25
K-19, N.E.	60°08'45.130"	117°32'48.750"	6667575.99	469630.02
K-19, N.W.	60°08'45.146"	117°33'16.875"	6667580.10	469196.17
K-19, S.W.	60°08'30.146"	117°33'16.875"	6667116.06	469192.28
K-19, S.E.	60°08'30.130"	117°32'48.750"	6667111.96	469626.18
PROPOSED WELL				
K-19 (As Surveyed)	60°08'38.128"	117°33'06.928"	6667361.70	469347.80
K-19 (As Requested)			6667308.00	469461.00

GEOGRAPHIC AND UTM COORDINATES, (1983 NAD)					
Station	Latitude(N)	Longitude(W)	Northings	Eastings	Elev.
CONTROL MONUMENTS					
F-19-1	60°08'40.080"	117°33'15.967"	6667629.49	469210.06	784.93
F-19-2	60°08'00.300"	117°33'13.168"	6666398.52	469242.92	782.94
PROPOSED WELL					
K-19, WELL CENTRE	60°08'38.500"	117°33'12.030"	6667580.11	469270.38	785.50

PLAN AND FIELD NOTES
OF SURVEY OF
PROPOSED EXPLORATORY WELL
PARA ET AL CAMERON
IN UNIT K, SECTION 19
GRID AREA 60° 10', 117° 30'
NORTHWEST TERRITORIES
CANADA OIL AND GAS REGULATIONS
EXPLORATORY WELL, NORTHWEST TERRITORIES

SCALE 1:20,000

400m 200 0m 400 800 1200 1600m

SURVEYED FOR
PARAMOUNT RESOURCES LTD.

BY : GREG A. BOGGS, C.L.S.
August & September, 2003.

THIS SURVEY WAS EXECUTED ON
AUGUST 27th 2003.

Certified correct and completed on the 11th day of February 2004.

Canada Lands Surveyor

PARAMOUNT RESOURCES LTD.

Dave Bk

WITNESS

5/5/04
DATE

LEGEND

UTM coordinates are computed for Zone 11, Central Meridian 117° W. Bearings were derived from differentially corrected GPS Observations, and are referred to meridian 117° W.

Distances are expressed in metres and decimals thereof.

Distances shown in traverse are measured distances reduced to the horizontal at general ground level.

For the computation of coordinates measured distances have been reduced to the UTM plane by multiplying them by an average combined scale factor of 0.999493.

Distances shown on grid area susdivisions are UTM plane, NAD 27 Datum. All other dimensions are based on NAD83 Datum.

Statutory iron posts placed are shown thus:..... ○
Statutory iron posts found are shown thus:..... ●
Wooden posts placed are shown thus:..... □
Alberta Survey Control Markers found are shown thus:..... ⏃
Traverse stations placed are shown thus:..... △
Areas dealt with shown thus:.....
Buried pipe lines are shown thus:.....
Seismic lines are shown thus:.....

Elevations were derived from Alberta Survey Control Marker 440958 Elev. = 713.96 m.
(Geoid Separation HT1-01)

Survey was completed prior to drilling; therefore well as drilled may not necessarily agree with proposed location.

REV.	DESCRIPTION	BY	DATE
1	REVISED K-19 WELL CENTRE NAD 83 UTM COORDINATES	JDS	FEB. 11/04
0	PLAN ISSUED	JDS	SEPT. 24/03

GREG A. BOGGS
CANADA LANDS SURVEYOR

Date: Sept. 24, 2003

McELHANNEY LAND SURVEYS LTD.
PROFESSIONAL LAND SURVEYORS
138, 14315-118 Avenue
Edmonton, Alberta
PH: (780) 451-3420 FAX: (780) 452-7033

Plan No.: 1 of 1

Job No.: 32111430 1

SCALE AS SHOWN

File No.: 14301

JDS

Plan ID 14301ws1