

FINAL WELL REPORTAMOCO AUSTRALIA PETROLEUM COMPANYKOORKAH No.1

by

EXPLORATION LOGGING OF AUSTRALIA INC

November - December 1985

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I. INTRODUCTIONA. Well and Rig Data

Company: Amoco Australia Petroleum Company

Well Name: Koorkah No.1

Location: Offshore, Bass Basin, Tasmania

Permit: T18/P

Position: Latitude: 39° 37' 57.24" S
Longitude: 145° 09' 05.13" E

Field: Wildcat

Rig: Diamond M, Diamond M Epoch
Semi-submersible

RT-MSL: 22.2m (73')

RT-Seabed: 89.9m (295')

Spud Date: 27th November 1985

Completion Date: TD. 21st December 1985
P&A. 23rd December 1985

Completion Depth: 3149m (10331')

Completion Status: Plugged and abandoned

Exlog Unit Number: 216 GEMDAS X

Crew, GEMDAS: A. Fell, G. Hodge, D. New

Logging: S. Evans, A. Hodgson, J. Reeve

B. Prognosis

Koorkah No.1 was a wildcat well drilled to test the sandstones of the Eastern View Coal Measures, of Eocene to Cretaceous age. A secondary objective was the Otway Group, this also being Cretaceous. A projected Total Depth of 3200m (10500') was thought sufficient to penetrate the objectives.

Exploration Logging provided Geological Engineering Monitoring and Data Acquisition System (GEMDAS) service, Formation Logging and Pressure Evaluation service on Koorkah No.1 from 414.5m (1360') to T.D. In addition to formation evaluation and conventional mud logging, automatic real-time data monitoring and recording and pressure and drilling analyses were carried out. Continuous evaluation of pressures and drilling progress provided an aid in optimizing drilling costs and insuring that drilling continued with maximum safety to personnel, the well and equipment. The Operator was continuously advised as to the status of these analyses and results were stored on magnetic disk for post well evaluation.

The printouts and plots of these services are contained within the appendices to this report.

II. DRILLING AND ENGINEERING

A. WELL HISTORY

36" Hole section : Interval 89.9 - 192m (295 - 629')

Koorkah No.1 was spudded at 15:12 hrs on the 27th of November 1985, in a water depth of 67.6m (222'). Rotary table to Mean Sea Level was 22.3m (73'). All depths in this report are in metres (feet) below the rotary table.

The 36" hole was drilled using a 26" bit in tandem with a 36" hole opener. The drilling time was 3.1 hours, giving an average ROP of 32.9 m/hr (108 ft/hr). Seawater was used as a drilling fluid. The deviation at 192m (629') was 1.0 degrees. The 30" casing was set and cemented at 190m (624').

26" Hole section : Interval 192 - 414.5m (629 - 1360')

This section was drilled in 6.3 hours at an average ROP of 35.3 m/hr (116 ft/hr). Seawater was used as the drilling fluid. Deviations at 244.5m (802') and 405m (1330') were 0.75 and 0.5 degrees respectively. After a wiper trip at 405m the hole had to be reamed and washed from 363 - 405m (1192 - 1330'). After drilling to 414.5m (1360') the hole was displaced with 9.0 ppg mud and no fill was noted after a wiper trip to 183m (600'). The 20" casing was run and set at 402m (1319'). The BOP stack and marine riser were then installed.

17.5" Hole section : Interval 414.5 - 1599m (1360 - 5246')

This section was drilled using two bits, in 35.0 hours, at an average ROP of 33.8 m/hr (111 ft/hr). For bit details refer to Table 1, Bit Data.

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After running and testing the BOP stack the cement, casing shoe and new hole to 416m (1365') were drilled and a leak-off test run, giving a formation breakdown pressure of 13.2 ppg EMD. Gumbo type clays were encountered in this section and the hole had to be circulated at 771m, 1008m, 1041m, 1205m, 1272m, 1276m and 1398m to condition the hole and to clear the flowline. At 1599m (5246') a wiper trip was made and the bit pulled to run wireline logs, however it was not possible to get below 1234m (4048') with the logging tool. The hole was then reamed over the interval 1217 - 1599m (3993 - 5246') and conditioned for logging. Wireline logs were then run, (see Section IV), and the 13.375" casing was run and cemented, with the shoe at 1587.5m (5208').

A freshwater-gel mud system was used in this hole section with mud densities between 8.8 and 9.3 ppg. Tight hole, up to 90 klbs drag, was noted on trips in this hole section, probably due to the swelling of hydratable "gumbo" type clays. These clays also caused the blocking of the flowline and possum belly on several occasions and some time was lost circulating and running wiper trips while they were unblocked. The maximum hole deviation was 1.5 degrees at 1042m (3419') and 1361m (4465').

The lithology was limestone, claystone and siltstone, refer to the Formation Evaluation Log, Appendix F.

12.25" Hole section : Interval 1599 - 3149m (5246 - 10331')

This section was drilled using 5 bits in 199.7 hours at an average ROP of 7.8 m/hr (25.5 ft/hr). Refer to Table 1 for bit details.

After drilling to 1600.5m (5251'), a Formation Integrity test was run which gave formation breakdown at an equivalent mud density of 16.0 ppg.

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The lithology consisted of interbedded sandstone, siltstone and claystone, with minor coal beds in parts. Volcanic rocks occurred from 2092 - 2128m (6864 - 6982'). No hydrocarbon accumulations were encountered and the maximum gas was 27 units at 2434m (7986'). Refer to the Formation Evaluation Log, Appendix F, for detailed lithology descriptions.

A fresh-water/low-solids/lightly dispersed mud system was used, with the mud density ranging from 8.8 - 9.3 ppg.

The maximum hole deviation was 1.25 degrees at 2589m (8494').

Wireline logs were run at 3149m (10331'), see Section IV.

The well was plugged and abandoned on the 23rd December 1985.

B. Bit Optimisation and Bit Analysis

Refer to the Bit Summary, Table 1.

Bit costs, a rig cost of 5000 AUS \$/hr and a trip time of 0.8 hr/km (0.25 hr/kft) were used to compute instantaneous and running costs. Drilling/cost optimisation was made on the basis of that point at which cumulative cost reached a minimum, and instantaneous cost intersected the cumulative cost curve. Drilling parameters were maintained within the recommended work ranges, though WOB and RPM were varied to maximize and/or control the drill rate where necessary. No bits were tripped out as a result of cost/m criteria.

The 36" and 26" hole sections were drilled trouble free with good rates of penetration through the surface formations, an average of 34.5 m/hr (113 ft/hr).

The 17.5" hole was drilled using 2 bits in 35 drilling hours. Bit wear was consistent with the lithologies drilled. The series 111 and 114 bits used were well suited to the generally non abrasive lithologies of the Torquay Group.

The 12.25" hole was drilled in 199.7 hours using 5 bits, comprising one milled tooth bit (Series 135) and four insert bits (Series 527). The tooth bit drilled the 13.375" casing shoe and 327.5m (1074') of formation and was graded at T6 after 15.7 hours. The insert bits all performed well and had low wear after approximately 50 hours, except NB#9 which was graded at T8 B8 after 47.7 hours and 222m (728'). These series 527 bits gave good drilling performance in the abrasive formations encountered below the top of the Eastern View Coal Measures. The use of the centre jet may be of benefit, as NB#7 averaged 6.0 m/hr for 50.3 hours and NB#8 averaged 6.5 m/hr for 52.3 hours, (20 and 21 ft/hr respectively).

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BIT DATA

Table #1

BIT#	SIZE inch	TYPE	JETS	DEPTH	DEPTH	BIT DIST m	BIT TIME hrs	AVG ROP m/hr	WOB klbs	RPM	TORQUE	BIT REVS	CONDITION			
				IN m	OUT m						amps avg - max		T	B	G	
NB1	26	Smith DGJ	3x14	90	192	102	3.1	32.9	0 - 5	30 - 70	110 - 160	12000				
	with 36 Hole opener		4x20													
NB2	26	Smith DSJ	3x24	192	414.5	222.5	6.3	35.3	5 - 20	70 - 110	160 - 440	33000				
NB3	17.5	Smith SDS-C	12,3x16	414.5	1463	1048.5	26.6	39.4	10 - 55	110 - 120	260 - 560	192000	6	2	4	
NB4	17.5	Smith SDS-C	13,3x16	1463	1599	136	8.4	16.2	30 - 50	120	150 - 270	60000	2	4	0	
NB5	12.25	Smith SDGH	15,13,13	1599	1926.5	327.5	15.7	20.9	20 - 65	85 - 150	150 - 280	134000	7	7	2	
NB6	12.25	Smith F2	3x13	1926.5	2289	362.5	33.7	10.8	40 - 45	110 - 120	160 - 560	228600	2	5	8	
NB7	12.25	Smith F2	3x13	2289	2589	300	50.3	6.0	45 - 50	110 - 120	100 - 225	350500	1	5	4	
NB8	12.25	Smith F2	9,3x13	2589	2927	338	52.3	6.5	45 - 55	105 - 115	180 - 260	345000	1	5	4	
NB9	12.25	Smith F2	9,3x12	2927	3149	222	47.7	4.7	45 - 50	105 - 115	170 - 450	307500	8	8	4	

HYDRAULICS DATA

Table #2

BIT#	SIZE	START	JETS	FLOW	SPM	PUMP	MUD	ECD	PV/YP	ANNULAR VELOCITIES ft/m				JET	BIT	HHP	IMPACT
		DEPTH		IN		PRESS				WT.	riser	pipe	collar	crit			
		m		gpm		psi	ppg	ppg					ft/sc	psi/ %	hp	lbs	
NB1	26	90	3x14	995	201	1200	Seawater					19		190	275/23	161	838
	with 36" HO		4x20														
NB2	26	192	3x24	998	201	2000	Seawater				38	40		242	445/22	258	1061
NB3	17.5	414.5	12,3x16	897	181	2930	9.0	9.2	8/10	67	78	90	188	411	1360/46	712	1719
NB4	17.5	1463	13,3x16	852	172	2850	9.3	9.4	11/17	64	74	86	274	380	1200/42	597	1560
NB5	12.25	1599	13 13 15	675	136	2830	8.8	9.1	12/7	51	132	192	205	502	1975/70	778	1542
NB6	12.25	1926.5	3x13	622	125	2970	8.9	9.0	18/9	47	122	177	252	513	2115/71	768	1487
NB7	12.25	2289	3x13	622	125	2950	9.1	9.2	15/19	47	122	177	239	512	2125/72	769	1494
NB8	12.25	2589	9,3x13	645	130	2990	9.2	9.3	15/13	48	126	184	302	459	1730/58	651	1409
NB9	12.25	2927	9,3x12	620	120	2860	9.2	9.3	20/13	47	122	177	313	506	2100/60	759	1493

Lithology Summary : Koorkah No.1

Depth (m) Interval	Lithology	ROP (m/hr)		GAS (units)	
		max	avg	max	avg
415 - 650	Calcarenite	250	120		
650 - 740	Calcarenite, calcilutite	200	120		
770 - 840	Calcilutite	120	50		
840 - 950	Calcilutite, claystone	100	50		
950 - 1530	Claystone, siltstone, minor limestone	60	25		
1530 - 1609	Siltstone, claystone, minor sandstone	28	15	11	6
1609 - 1643	Sandstone with interbedded siltstone	100	70	4	1
1643 - 1744	Siltstone with minor claystone	30	25	9	4
1744 - 2092	Siltstone with interbedded sandstone and minor coal	150	20	5	3
2092 - 2182	Igneous (Dolerite)	15	4	2	1
2182 - 2246	Sandstone and siltstone	50	12	11	3
2246 - 2290	Claystone with minor siltstone	8	5	1.5	1
2290 - 2308	Claystone and siltstone	25	12	2.5	2
2308 - 2372	Claystone, siltstone, minor sandstone and coal	10	7	3.5	2
2372 - 2488	Sandstone, siltstone, minor claystone and coal	40	10	27	4
2488 - 2580	Claystone	7	5	3.5	2
2580 - 2612	Sandstone, siltstone, claystone	50	10	5	3
2612 - 2690	Claystone, minor siltstone and sandstone	20	7	2.5	2
2690 - 2952	Interbedded sandstone, siltstone and minor claystone	60	10	5.5	2.5
2952 - 2980	Claystone, siltstone, sandstone	30	7	2.5	2
2980 - 3088	Interbedded sandstone, claystone and minor siltstone	60	10	6	2
3088 - 3128	Claystone with interbedded siltstone	4	3	2	1.5
3128 - 3149	Sandstone with minor siltstone and claystone	30	7	2.5	1.5

C. Hydraulics Analysis

Refer to the Bit Hydraulics Summary, Table 2, in this section and to the Hydraulics Analysis printouts and Morning Reports in Appendix E.

The rig was equipped with two Oilwell A-1700 PT triplex pumps. Both pumps were fitted with 6.5" liners and had a 12" stroke to give an output of 4.96 gallons/stroke at 96% efficiency.

The 36" hole section was drilled using seawater with returns to the seabed. Both pumps were used in tandem and hole cleaning was good, when aided by high viscosity mud slugs. There was no fill on a wiper trip prior to running the 30" casing.

The 26" hole section was drilled with seawater, with regular high viscosity gel mud pills. These again provided adequate hole cleaning but 42m (138') of fill was noted after a wiper trip at 405m (1330'). At 414.5m (1360') the hole was filled with 9.0 ppg mud and no fill was noted after a wiper trip.

The 17.5" hole was drilled with a seawater-gel mud system with densities of 9.0 to 9.3 ppg and flow rates of 850 - 900 gpm. Bit pressure loss was 46% with 3x16, 1x12 jets and 42% with 3x16, 1x13 jets. The soft and relatively unconsolidated nature of the sediments drilled combined with the flow rates used produced significant hole washouts over much of this section. While the use of both pumps in tandem was sufficient to clean the drilled cuttings from the hole, hydratable "gumbo" clay cavings proved difficult to remove and often extensive circulating was required to remove them.

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A fresh-water/low solids/lightly dispersed mud system was used to drill the 12.25" section, with the density in the range 8.8 - 9.3 ppg. Flow rates of 620 - 675 gpm gave bit pressure losses ranging from 58 - 72% with the various jet combinations used. Hole cleaning was good with no fill following wiper trips. The annular flow rate between the collars and the hole was always less than the theoretical critical velocity but there were many sections of washed out hole, to a maximum of 22 inches. The hydraulics in this section were generally good and resulted in no hole problems.

D. Borehole Condition

The borehole condition was monitored during drilling by observing the differential carbide lag time , as well as the type, percentage, size and shape of cavings. During trips, swab and surge, hole drag and fill were monitored.

From spud to 414.5m (1360') there were no hole problems apart from 42m (138') of fill following a wiper trip at 405m (1330'). The maximum hole deviation was 1 degree at 192m (629').

In the 17.5" hole gumbo was encountered between 600 - 1050m (1968 - 3445') and 1190 - 1597m (3905 - 5234'). During trips these intervals also gave drag, with a maximum of 90 klb at 1463m (4800'). The hole had to be reamed from 1217 - 1599m (3993 - 5246') due to the wireline tool being held up. The hole was washed out to in excess of 22" in some sections, the washout being associated with the intervals of gumbo. The 13.375" casing was run problem free. The maximum hole diameter was 1.5 degrees.

Hole problems in the 12.25" hole were restricted to occasional high and erratic torque at lithological boundaries. There was minor drag on the trips out, with a maximum of 50 klb overpull at approximately 2190 - 2180m (7185 - 7152') on trips at 2289m (7509') and 2927m (9603'). The maximum hole deviation was 1.5 degrees at TD. Washout was a maximum of 22 inches between 2800 - 2830m (9185 - 9285').

Overall the hole condition was good apart from the gumbo intervals in the 17.5" hole section.

III. FORMATION PRESSURE

A. Formation Overburden Pressure.

Refer to Appendix C (i), Pressure Evaluation Log.

Formation overburden pressure was estimated to 1599m (5246'), beyond this depth density data from wireline logs used. An estimated OBG was in use while drilling for fracture pressure determination. The plotted curve is smoothed and does not vary with interbedded lithologies.

B. Formation Fracture Pressure

Refer to Appendix C (i).

Estimated fracture pressures were calculated using the " Constant Effective Stress Ratio " method. This utilises leak-off data and allows for pore pressure and lithological variations. It should be noted that this method assumes uniform tectonic stress, and thus any unconformities may place the sections on either side in a different stress regime.

Formation Integrity Tests were conducted as follows:

Hole (m)	Depth (ft)	Hole Size (inches)	Casing Depth (m)	Depth (ft)	Mud Wt. (ppg)	Fracture Pressure (ppg EMD)
416	1365	17.5	402	1319	8.8	13.2
1600.5	5251	12.25	1587.5	5208	8.7	16.0

The mud density in use was always less than the estimated fracture pressure, and no lost circulation occurred during the drilling of this well.

C. Formation Pore Pressure

Refer to Appendix C (i - iv).

During the drilling of Koorkah No.1, penetration rate, drilling exponent, flow-line temperature, gas and hole behaviour were continuously monitored and plotted so that abnormal pore pressure could be detected and evaluated. Wireline data, consisting of sonic, resistivity and density values, were also incorporated in this evaluation.

In the 17.5" hole section, no abnormal pore pressure indicators were recorded. The lithology was generally under-compacted and immature claystones. All hole problems were related to the nature of these clays rather than abnormal pore pressure. Due to the presence of gumbo clays the Exlog gas trap and mud temperature sensor were removed from the mud flow for much of the hole section. The mud density whilst drilling was 9.0 - 9.3 ppg.

In the 12.25" hole section no abnormal pore pressure indicators were observed. The mud weight was 8.8 - 9.3 ppg, while the estimated pore pressure was 8.7 ppg. The Dxc plot showed a normal pore pressure trend through to TD although shifts in trend were observed at 2290m (7513') and 2590m (8497'). These were attributed to unconformities at or around these depths but may have been due to bit changes.

IV. EVALUATION AND TESTING

A. Hydrocarbon Evaluation

Standard mud-logging techniques were used for hydrocarbon evaluation while drilling Koorkah No.1. Combustible gas levels were monitored continuously using a Flame Ionisation Detector, and the gas analysed continuously for methane through butane using an FID Chromatograph. Hydrogen sulphide and carbon dioxide detectors were run continuously for the duration of the well. Gas trapped in drill cuttings was detected by pulverising 100cc of sample in a blender with water and monitoring the amount of gas liberated, using a hot-wire detector. Mud, unwashed and washed cuttings were observed under ultra-violet light to test for the presence of liquid hydrocarbons.

B. Wireline Logging

The following Wireline-Logs were run:

Depth	Log Suite
1599m (5246')	ISF-BHC-GR-SP-Cal
3149m (10331')	ISF-BHC-MSFL-GR-SP-Cal LDL-CNL-GR HDT CST WST

V. DATA INVENTORY

The following were delivered to Amoco Aust. weekly:

Sepias of the Formation Evaluation, Drilling Data Pressure and Temperature

Data Logs

Weekly Report

Drilling Data Printout

Drilling Data Plot

The following were delivered after the completion of the well:

Spliced original of the Formation Evaluation Log

8 copies of the Final Well Report

Originals of the Drilling Data Pressure, Temperature Data, Pressure Evaluation and Wireline Data Pressure Logs and the Well Progress Log and Well Schematic Diagram.

The following have been retained and stored by Exploration Logging:

1 Copy of the Final Well Report

1 Set of disks containing the drilling data

Miscellaneous worksheets, charts, etc used while drilling Koorkah No.1.

Exploration Logging will use reasonable diligence to maintain and store the listed information and items in a manner to reasonably prevent loss or damage. Provided, however, Exploration Logging assumes no responsibility of or the loss, damage, or theft of the items or the information contained therein and shall not be liable to the Operator in any such event, irrespective of the cause, fault or the active or passive negligence of Exploration Logging or its employees.

VI. CONCLUSIONS

Koorkah No.1 was drilled to a total depth of 3149m (10331') in a total drilling time of 244.1 hours, giving an average ROP of 12.5 m/hr (41 ft/hr). Nine bits were used, in 9 bit runs, to drill the well. Bit and hydraulics selection provided good drilling performance throughout the well, giving good rates of penetration for the lithologies encountered and good hole cleaning. Hole problems were mainly due to the presence of gumbo clays.

No abnormal formation pore pressures were present in the well.

No hydrocarbon accumulations were encountered while drilling Koorkah No.1 and the well was plugged and abandoned on the 23rd of December 1985.

A P P E N D I X A

G E O P R E S S U R E
D A T A A C Q U I S I T I O N A N D A N A L Y S I S M E T H O D

APPENDIX ADATA ACQUISITION AND ANALYSIS METHOD

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APPENDIX ADATA ACQUISITION AND ANALYSIS METHODSA. PORE PRESSURE EVALUATIONI. Pre-Drilling1. Offset Well Data

Whenever available, offset well data are examined to predict and evaluate pore pressure prospects in the new well. Information that can be useful is available from seismic profiles; wireline logs, especially acoustic and resistivity logs, with bottom hole temperature data; FIT, DST, and Well Kick (if any) and mud logs; daily drilling reports, including bit record, mud properties used, and remarks concerning borehole stability; and the geopressure evaluation and completion reports.

2. Seismic Information

Pore pressure prediction using seismic data primarily focuses on the interpretation of detailed velocity analyses made possible by Common-Depth-Point (CDP) recording methods. The velocity analyses are performed with velocity scan increments (50ft/sec) and output intervals in the time domain (10 milliseconds). Based on such analyses, RMS (Root Mean Square) velocity values at a series of record times (i.e. two-way travel times) may be identified. The sequence of interpreted RMS velocity-time data pairs obtained from a velocity analysis may then be recomputed to interval transit time (ITT) using Dix's (1955) formula (see figure 1).

Figure 1

..... assuming near
horizontal beds

V_{n-1}
 $n-1$ _____ t_{n-1}
 V_n
 n _____ t_n

V_{int_n}

$$V_{int_n}^2 = (V_n^2 t_n - V_{n-1}^2 t_{n-1}) / (t_n t_{n-1}) \dots \dots \text{eq. 1}$$

Where V_{int_n} = ITT for reflecting horizon n, ft/sec.
 V_n = RMS velocity for layer n, ft/sec.
 V_{n-1} = RMS velocity for layer (n-1), ft/sec.
 t_n = Two-way time to layer n, sec.
 t_{n-1} = Two-way time to layer (n-1), sec.

$$1/V_{int_n} \times 10^6 = \text{ITT, microseconds} \dots\dots\dots \text{eq. 2}$$

The ITT when plotted with depth will produce a "synthetic acoustic log" which can be readily compared with that derived from the wireline acoustic log. The ITT plots show that velocity increases exponentially with depth in normally-compacted sediments. The "normal compaction trend" through the shale points which form a linear trend on the plot can be identified. Any departure from this normal trend is caused by the presence of geopressed formations and/or gross changes in lithology. There is no accurate way to separate shale from other lithologies when using seismic velocity data. Therefore since the influence of these other lithologies can adversely affect the interpretation of a seismic pressure plot, all available geologic and other subsurface information should be integrated into the evaluation. The accuracy of ITT plots will also depend upon the quality of the seismic data, and the use of high resolution seismic data will enhance the prediction of a shallow geopressed interval.

II. Drilling

1. Drilling Parameters: ROP and Drilling Exponents

Exploration Logging utilizes the Kelly Height system to calculate the rate of penetration. The system responds to the hydrostatic pressure variation of a sensing device and a Kelly chamber located near the Kelly swivel. The Kelly Height variations recorded on a time chart allows computation of the rate of penetration.

When the drilling variables (bit type, bit size, weight on bit, rotary rpm, mud hydraulics, mud rheological properties) are held constant in a uniform lithology, the rate of penetration will be determined by formation compaction characteristics and differential pressure. The rate of penetration would decrease uniformly with depth as compaction of shale increased. On entering a geopressure transition zone in shale, increasing porosity due to decreased compaction, and decreasing differential pressure across the bottom will cause an increase in the rate of penetration. A marked reduction in drilling rate is often observed at the top of a transition zone, possibly caused by a lithology difference in the so called "cap rock".

Maintaining constant drilling variables is not always possible; various formulae have been proposed in the attempts to resolve the problem of normalizing drill rate. Jordan and Shirley's (1968) formulation allows control of most of the drilling variables and has proven very successful in most areas.

$$d = \frac{\log \frac{R}{60N}}{\log \frac{12W}{10^3 D}}$$

Where d = drilling exponent (dimensionless)

R = Rate of Penetration, ft/hr.

N = Rotary Speed, RPM

W = Weight on Bit, klbs

D = Bit Diameter, inches

The d-exponent will increase as the depth, compaction and differential pressure across bottom increase in normally pressured homogeneous shale. Upon entering a geopressured zone, the compaction and differential pressure will decrease, which is reflected by a decrease in the d-exponent.

Differential pressure is dependent upon mud weight as well as formation pressure. Rehm and McClendon (1971) proposed the correction to allow for mud weight.

$$D_{xc} = d \times \frac{W_{eq}}{ECD}$$

Where D_{xc} = corrected d-exponent

d = d exponent

W_{eq} = normal pore pressure gradient
(Equivalent Mud Weight, ppg)

ECD = Effective Circulating Density, ppg

Any negative deviation of the D_{xc} from a normal trend (based on clean shale points) may be indicative of an increase in pore pressure.

Exlog introduced N_x and N_{xb} to account for ROP variations due to tooth wear/efficiency (based on Bourgoyne and Young's (1973) model), mud hydraulics, and lithology. A plot of N_{xb} with depth then serves as an indication of formation pressure changes at the bit.

2. Gas

The drilling mud continuously passes through the gas trap situated at the flowline, and the gas extracted is pumped to the logging unit to be analysed by the catalytic or flame ionisation gas detector. The amount of gas is expressed as "gas unit". Exlog's gas detectors are calibrated with a mixture of 1% methane in air to read 50 units, i.e. 1 unit is 200 ppm, according to API standards for mud logging.

The volume of gas released from a drilled formation is dependent upon the porosity, permeability, gas saturation, and differential pressure. Gas magnitude is relative when gas is being used as a measure of differential pressure. Low permeability formations with low gas saturation, and high permeability formations with low gas saturation, are both likely to yield only low background gas.

Background gas is the total drilled gas resulting primarily from the unit volume of formation cut by the drill bit, i.e. liberated gas. A continued increase of background gas indicates a higher formation porosity and/or a higher hydrocarbon saturation in the available pore space. Thus if lithology, permeability rate, rate of penetration, gas saturation, and mud density are given due consideration, then an increasing background gas may indicate increasing pore pressure. The background gas after a gas peak should be compared with the background gas prior to the peak. A higher background gas after a peak than that before the peak may suggest an underbalanced hole condition.

Produced gas, i.e. gas produced into the drilling fluid from a specific zone in response to formation pressure that exceeds the opposing effective hydrostatic pressure (e.g. connection gas, swab gas, and trip gas), are also important factors to consider in pore pressure analysis. Their presence indicates a near balanced hole condition for permeable hydrocarbon bearing formations, and that at least some degree of effective permeability is present.

Connection gas results from momentary underbalance due to pump shutdown, and/or pipe movement while making a pipe connection. Negative differential pressure caused in part by the loss of annular pressure drop during periods of no circulation and in part by the swabbing action of drilling string, could lead to feeding into the borehole of formation fluid.

Swab gas is that gas produced by a formation due to underbalance caused by the upward movement of the drillstring. This may be accompanied by pump shutdown (e.g. during connections and trips) or not. There are two types of swabbing, one being the piston type (some part of the drill string acting as a plunger in the borehole) and the other being the frictional type (friction between moving drill string and annular mud inducing a slight lifting force in annular mud column).

Trip gas is produced gas caused by the loss of annular pressure drop during pump shutdown by swabbing the entire hole (influenced by the speed of tripping out the drill string), lowering of hydrostatic head (if the hole is not kept full), and the period of non-drilling operations while making a trip. It also is a measure of the degree of static balance in the borehole, but its utility is less because time interval is a significant factor in round trips when compared to connections.

3. Cuttings Analysis

(a) Shale Density

The compaction of sediments through applied overburden pressure and diagenetic process is largely a function of dewatering. The exclusion of water with compaction will result in a decrease in primary porosity and an increase in bulk density, generally with depth. With normal compaction, bulk density typically ranges from 1.7 to 2.7 gm/cc and shows a steady rate of increase with depth. Anomalies from this normal compaction trend may be due to mineralogy, e.g. siderite, dolomite, and calcitic shales exhibit higher than normal values. Sandy, silty shales and soft wet clays will produce further variations.

Geopressure in homogeneous claystone/shale sections is indicated by a constant or decrease in density with depth reflecting a higher than normal porosity and fluid content. "Cap rocks" of higher than normal density may be present above this zone of geopressure.

Two methods of shale density determination commonly used by Exlog at the wellsite are:

- (i) Single-solution shale density kit (Density Gradient Method) which consists of a column of variable density solution fluid (bromoform and neothene) in which beads of known density are suspended. A calibration curve of density versus depth is prepared. Shale cuttings immersed in the column will sink to the level at which their density is the same as the fluid; density is then read off from the calibration curve.
- (ii) Multi-solution shale density kit ("sink or float" method) which consists of a set of liquids of varying densities. By placing a piece of shale in such a liquid, its density can be determined when it either sinks or floats through the liquid.

(b) Shale Factor

Smectite is the principle component of clay during normal sedimentation. This is a flocculated sheet silicate which has a large capacity to absorb and retain water between the individual molecular sheets and between the flocculate particles. With burial and continual compaction, smectite will undergo diagenesis due to increasing temperature and pressure. Ionic exchange occurs and structured water becomes liberated to the pores. Providing that the hydraulic conductivity is sufficiently high to remove this water, compaction will continue. The outer layers of water bonded to the clay particles may next be removed as smectite alters diagenetically with depth to mixed-layer clays and finally, to illite. This alteration involves compaction of pore spaces, orientation of particles and reduction in inter-layer and intraparticle area, thereby reducing the total area available for chemical adsorption. If the hydraulic conductivity is insufficient to remove the liberated water as it is flushed, then at depth the clays will be geopressed and of a "younger" diagenetic age.

Illite or kaolinite may be deposited as the primary clays. As non-swelling clays they have very little intraparticle water. These clays dewater by loss of interparticle water through compaction. Again, if the hydraulic conductivity of the clays is lower than that required to efficiently flush the water, then these clays will be geopressured. Non-swelling clays, as stated above, are geometrically more compact than their swellable counterparts and therefore originally contain less sites for chemical adsorption of free ions.

Shale factor is a measure of the cation capacity of clays. Cation exchange capacity will decrease as clays convert from smectite to illite. Therefore, geopressured zones generated by restricted diagenesis due to inefficient dewatering mechanism, will theoretically show an increase of the shale factor due to the increased porosity and hence larger surface areas of cation exchange. If illite and kaolinite were the primary clays, the shale factor would be low initially. In geopressured sections of such clays, the shale factor may show no increase whatsoever. Hence in sections of mature, reworked clays, shale factor may be of little use in the detection of geopressures.

Also, in geopressure zones caused by dehydration, i.e. water released to the pore spaces has been unable to escape fast enough and resulting in a pore pressure increase, the shale factor will decrease since the smectite has been converted to illite. Therefore shale factor may not be a useful geopressure indicator; this is also the case when geopressure was generated by tectonic forces and aquathermal pressuring other than compaction disequilibrium.

The method of shale factor determination used by Exlog at the wellsite is as follows:

1. dry samples in oven;
2. pulverise the sample to fine powder with mortar and pestle;
3. Seive powdered sample through 80-mesh seive;
4. weight 0.5 gm of the powder & add this to a solution of distilled water acidified with a few drops of 5N Sulphuric acid in the blender metal measuring cup;

5. heat solution to boiling on the hot plate, stirring continuously and titrate with methylene blue solution until end-point is reached - this occurs when the halo of pale turquoise around a blue dye spot on filter paper occurs;
6. calculate the shale factor:

$$\text{Shale Factor (meq/100gm)} = \frac{100}{\text{sample wt, gm}} \times \text{volume} \times \text{normality of methylene blue solution}$$

Where volume = volume of methylene blue used when end-point was reached, ml

7. If clay is calcareous, and calcimetries are also being run, shale factor may be corrected for carbonate content (assuming clay matrix is of same density as the carbonate matrix).

$$\text{True shale factor} = \frac{100}{100 - C_{CaCO_3}\%} \times \text{apparent shale factor}$$

Note that the shale factor as measured at the wellsite will not give values corresponding to actual chemical cation exchange capacity. This is due to impurities in the sample, variations in methodology, experimental errors, and the fact that the methylene blue dye (used in the titration) is a very large molecule and thus cannot be adsorbed in interlayer sites.

(c) Cuttings Physical Character

Cuttings over shale shaker are continuously monitored for any indication of geopressure. Cuttings for normally pressured shales are generally small, semi-flat and rounded edges, while cuttings from a geopressure zone drilled underbalanced are typically larger, angular edges, flat, splintery, and often as jagged and elongated concave, curved samples. The quantity of cuttings often increases while drilling underbalanced

because the formation explodes into the wellbore. Cavings are also produced by stress relief mechanism, characteristically blocky and varying in size tremendously, depending on the formation characteristics.

4. Mud Properties

(a) Flowline Temperature

Heat flow is generated radially from the earth's core with a constant heat flux across any depth increment. For any given area, the geothermal gradient is usually assumed to be constant. While this may be true for the average gradient across normally pressured formations, geopressured formations have exhibited abnormally high geothermal gradients. The top of a geopressured zone will be marked by a sharp increase in geothermal gradient due to the higher than normal porosity and fluid content of the formation which reduces the thermal conductivity. The seal above geopressured zones may exhibit a decrease in the geothermal gradient due to the insulating effect of the geopressured zone below and/or due to the greater thermal conductivity at the abnormally compacted seal rock.

The temperature of the drilling fluid at the flowline may reflect the geotemperature, and the recording of flowline temperature is a practical method of determining temperature gradient. However, many variables must be accounted for, including the mixing, treatment and addition of new cooler mud into the circulatory system, pump rate, lag time, ambient temperature, lithology, solid content of mud (weighing material), penetration rate, casing size, and the length of marine riser. Exlog uses a dual temperature probe system with sensors at the flowline and suction pit - surface effects may be removed if lagged differential temperature is plotted.

Returns are often circulated prior to pulling each bit, and after significant drilling breaks. A plot of these circulated returns temperatures usually provides a better approximation of the geothermal gradient than that obtained from the flowline temperature over the bit run. As with the standard method, recent mud additions can have a serious effect upon the circulated returns temperatures.

A plot of maximum temperature on regaining circulation after a period of downtime can also closely approximate geothermal trends. After a trip, mud temperature will reach a maximum on bottoms-up. Monitoring these peaks may aid geothermal trend interpretations.

Another method of obtaining geothermal gradient between hole deviation survey runs is the use of Temp Plates. These are self-adhesive sensors containing thermetically sealed heat-sensitive elements which change chemical structure at given calibrated temperatures. When exposed to the new rated temperature, the indicator turns from pastel grey to black. The Temp Plates are attached to the survey tool. A record of downhole survey temperatures can therefore be kept. It has been found that this method more closely reflects the true geothermal gradient, although recorded temperature values are lower than true values.

Maximum bottom-hole temperatures recorded during wireline log runs at the same depth can be utilized to estimate the true formation temperature. By use of a modified Horner Plot, a method adapted from Homer's bottom-hole pressure plots (Fertl & Wichmann, 1977), it is possible to estimate true bottom hole temperatures. The method requires maximum recorded bottom hole temperature on each logging run, and information concerning circulating time (t_k = hours) and time since circulation stopped (dt , hours). The recorded data may then be plotted on semilogarithmic paper, with temperature on the linear coordinate and one dimensionless time factor, $\frac{dt}{t_k + dt}$ on the semilog abscissa.

BOTTOM HOLE TEMPERATURE CALCULATION

LOG RUN #	TIME SINCE CIRCLN. (dt)	MEASURED B.H.T.	dt tk+dt
1	4.00	210.00	.500
2	7.83	225.00	.662
3	11.17	231.00	.736

CIRCULATION TIME (tk) = 4.00 hours

HOGNER - FERTL METHOD

BOTTOM HOLE TEMPERATURE = 247.46 DEGREES

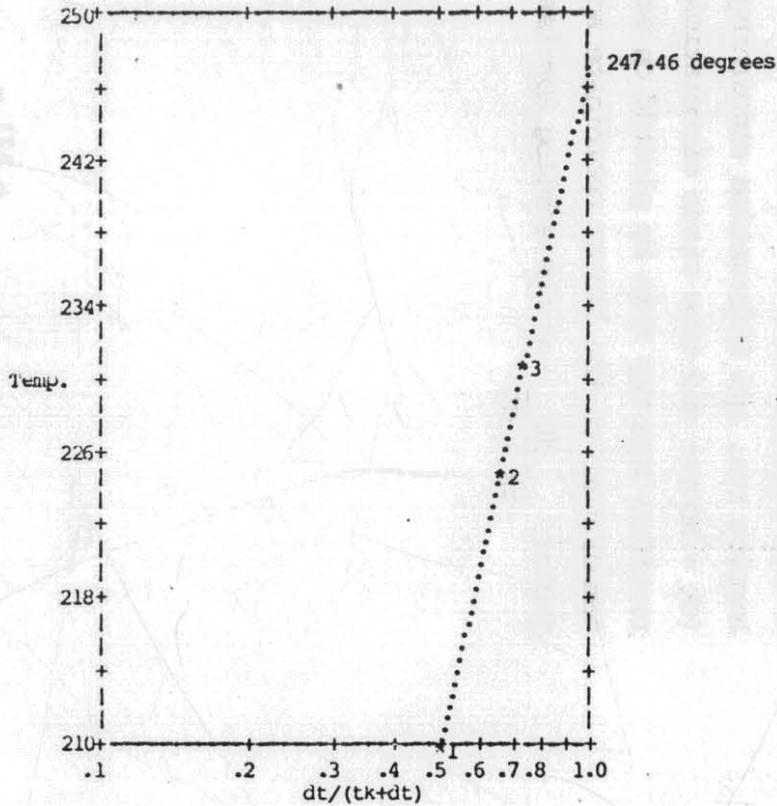


Figure 2

BOTTOM HOLE TEMPERATURE CALCULATION

LOG RUN #	TIME SINCE CIRCLN. (dt)	MEASURED B.H.T.	dt tk+dt
1	4.00	210.00	.500
2	7.83	225.00	.662
3	11.17	231.00	.736

CIRCULATION TIME (tk) = 4.00 hours

NWACHUKWU METHOD

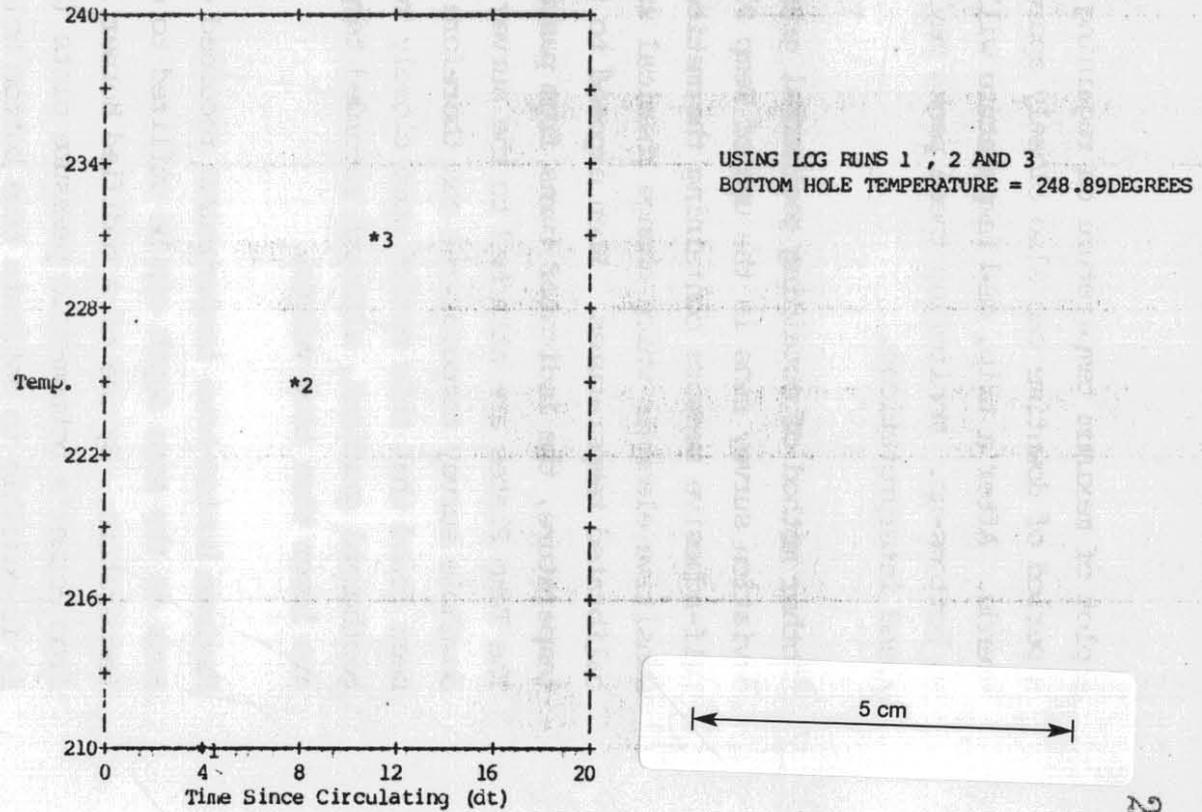


Figure 3

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A straight line joining the plotted points is extrapolated to the temperature axis and true bottom hole static temperature is read off (figure 2). The method fails if circulation and the addition of new, cool mud into the system occurs between log runs.

Nwachukwu (1976) proposed a mathematical method, utilizing a modified Lachenbruch-Brewer (1959) equation, to calculate true static bottom hole temperature when three bottom hole temperatures are available from logging runs (figure 3). True bottom hole temperature, T_f , is solved by:

$$T_f \frac{(t_2 - t_1) + ((T_1 \cdot t_1) - (T_2 \cdot t_2))}{T_2 - T_1} = T_f \frac{(t_3 - t_1) + ((T_1 \cdot t_1) - (T_3 \cdot t_3))}{T_3 - T_1}$$

where T_1 = recorded BHT, log run 1

T_2 = recorded BHT, log run 2

T_3 = recorded BHT, log run 3

t_1 = time since circulation stopped, log run 1

t_2 = time since circulation stopped, log run 2

t_3 = time since circulation stopped, log run 3

T_f = true static formation temperature

(b) Mud Resistivity/Conductivity

Dissolved solids in formation water are often correlated to the total chloride concentration of salinity. When conductivity is monitored at the flowline and the mud pits, a conversion is made to chlorides, and the differential, ΔCl , is purportedly an indicator of geopressure. The dissolved solid contents of water in normally pressured shale is known to increase with depth, but shows a decrease in geopressured shale. The trend is similar in normally pressured sands but at a higher concentration than shale waters, while in geopressured sands the dissolved solid concentration of sands pure water approaches that of shale water. Therefore geopressured zones may be detected in the resistivity changes of returning mud, but this will be influenced by the shale/sand ratio of the basin. Moreover, the

use of saline mud system will severely mask small changes caused by fluctuating pore water chemistry.

5. Borehole Condition

Borehole condition has to be used in conjunction with all other data. Increased rotary torque while drilling, drag on trips and connections, occurrence of connection gases, swab gases, quantity and physical character of cuttings, carbide lag versus theoretical lag time are all indicators of hole condition and will tend to indicate the presence of geopressure.

6. Verification of Wireline Logs .

(a) Acoustic Log

The acoustic (sonic) log measures the shortest time for a sound wave to travel through rock. The acoustic logging devices consist of acoustic transmitters with a fixed distance from the receivers, thus time is the only variable. The interval transit time can be related to the porosity of the formation.

$$\phi = \frac{dt - dtm}{dtf - dtm}$$

where ϕ = fractional porosity

dt = transit time of particular formation (from log)

dtm = transit time of matrix

dtf = transit time of pore fluids

The transit times decrease with increasing formation compaction due to burial depth and older geological age. A normal trend can be produced from a plot of clay transit times in normally pressured sections. Geopressured clays will show increasing transit times due to increasing porosity associated with increasing pore pressure.

(b) Resistivity Logs

The resistivity of a rock is the ability of the rock to impede the flow of electric current through rock, and is dependent upon the amount of water, its salinity, and the distribution of the water within the rock's porous network.

Any log producing resistivity curves can be utilized for formation pressure evaluation, but the best logs are the induction and microlog types. A resistivity plot in a normally pressured clay shows an increasing trend with depth caused by compaction that decreases clays porosity which results in less connate water to act as an electrical resistance. The increase in porosity in geopressured clays is reflected by a decrease in resistivity, provided the resistivity of the pore water has not increased.

(c) Other Logs

Other electrical logs, including Spontaneous Potential (SP), Formation Density (FDC), Neutron Logs, have been used for formation pressure plotting.

Quantitative formation pressure evaluation involves the determination of normal trends in normally pressured clay sections, and departure from these trend lines in geopressured clays.

All electrical logs used for formation pressure evaluation should be utilised with the considerations for possible pitfalls and limitations, posed by factors such as borehole conditions, mud salinity, shale hydration, tools calibrations, which are inherent with different logging tools.

B. PORE PRESSURE QUANTIFICATION

Pore pressure quantification can be made from either empirical data such as well kick information, or from pressure parameter data such as seismic data, drilling data (including drilling exponents and shale density), and wireline log data. The quantification of pore pressure from pressure parameter data requires the knowledge of the normal pore pressure for the area, the establishment of a normal shale compaction trend line on a plot of the pressure parameter deviation from normal and abnormal pore pressure which causes such deviation.

The normal pore pressure for all areas can either be assumed to be 8.3-9.0 ppg EMW (Equivalent Mud Weight) on a rank wildcat well, estimated from formation tests data gathered in the area of interest, or calculated from wireline log formation salinity data.

Pressure parameters described above usually increase exponentially with depth in normally pressured clean shales. Thus a "normal compaction trend" can be identified by a best fit line drawn through clean shale points which form a linear trend on the plot when the pressure parameter scale is log and the depth scale is linear. This trend line represents the normal pore pressure and quantification of geopressure can be made by noting the divergence from this trend line. It should be noted that the above mentioned pressure parameters reflect changes in porosity, and hence compaction only, and do not reflect changes in pore pressure from other causes.

The magnitude of pore pressure can be estimated by the use of overlays, calibration curves, rock matrix stress analysis, or variable overburden method. However, the overlays and calibration curves should ideally only be used in the areas where the empirical well data, used to derive the pore pressure versus pressure parameter departure relationships, was obtained. Differences in lithologies, sediment age, pore water density, and overburden, compaction and cementation rates between areas can produce significantly variant departure relationships. Ignoring this can result in invalid and misleading estimations. In a rank wildcat area where no established empirical guides are available, a

technique using rock matrix stress analysis or variable overburden method is therefore preferable.

Overlays and calibration curves can be developed from known pore pressure gradient corresponding to the difference in actual pressure parameter value in geopressed shale from the pressure parameter value on the extrapolated normal trend line. The estimated pore pressure can be determined by:

$$P_f = P_p \times \left(\frac{V_n}{V_o} \right)$$

where P_f = pore pressure at depth of interest, ppg

P_p = normal pore pressure, ppg

V_o = observed pressure parameter value at depth of interest

V_n = pressure parameter value on the extrapolated trend line at depth of interest

The matrix stress or Equivalent Depth method assumes that part of the overburden supported by the clay matrix will be constant for clays with the same porosity. More precisely it assumes that the rock matrix stress at a shallow depth point where the pressure parameter value on the parameter normal trend is equal to the pressure parameter value at the depth of interest in the geopressed zone. If overburden gradient and normal pore pressure are known, then pore pressure at any depth of interest can be calculated by:

$$P_{fi} = D_i \cdot OBG_i - D_e (OBG_e - P_{pg})$$

where P_{fi} = formation pore pressure at depth of interest, psi

P_{pg} = normal pore pressure gradient, psi/ft

OBG_i = overburden gradient at D_i , psi/ft

OBG_e = overburden gradient at D_e , psi/ft

D_i = depth of interest, ft

D_e = normal, equivalent depth, ft

Geopressure magnitude may also be calculated by variable overburden method from the pressure parameter data using the following equations:

$$P/D = S/D - (S/D - (P/D)n) \times (R_o/R_n)^{1.2}$$

$$P/D = S/D - (S/D - (P/D)n) \times (dt_n/dt_o)^{3.0}$$

$$P/D = S/D - (S/D - (P/D)n) \times (dc_o/dc_n)^{1.2}$$

where P/D = Formation pressure gradient either normal or geopressured, psi/ft

(P/D)n = Normal water gradient, psi/ft

S/D = Overburden stress gradient, psi/ft

R_n = Shale resistivity from normal line, ohm-metres

R_o = Shale resistivity from well log, ohm-metres

dt_n = Normal shale travel time, microsecs/ft

dt_o = Shale travel time from log, microsec/ft

dc_n = Actual dc from trend time

dc_o = Actual dc calculated

C. OVERBURDEN PRESSURE DETERMINATION

The overburden pressure at any point in the formation is that pore pressure exerted by the total density of the overlying formations, gravity, and the depth at the point of interest.

$$\int_0^z \rho dz = \int_0^z \rho(z) dz$$

where z = depth interval

ρ = bulk density

The bulk density of a rock is a function of the density of the rock matrix itself, the density of the bore fluids, and the porosity.

The formation densities are derived from cuttings or, preferably, from the FDC, or Acoustic logs. The average density for each

successive 50 feet interval from surface to total depth is then used to compute overburden gradient. The overburden pressures are referenced from the rig floor, hence in offshore drilling the height of an air gap and depth and density of seawater must be accounted for.

D. FRACTURE PRESSURE DETERMINATION

Fracture pressure is the pressure required to overcome the tensile strength and fluid pressure of a formation at depth. Both empirical and theoretical methods are utilised to determine the fracture pressure of the formation. Empirical data from formation pressure integrity tests and lost circulation are the most reliable. Fracture data from well histories can be very beneficial. The following theoretical models are used:

- a) Hubbert and Willis (1957)

$$\begin{aligned} \frac{F}{D} &= \frac{P}{D} + \frac{1}{3} \left(\frac{S - P}{D} \right) \dots \dots \dots \text{minimum} \\ &= \frac{P}{D} + \frac{1}{2} \left(\frac{S - P}{D} \right) \dots \dots \dots \text{maximum} \end{aligned}$$

- b) Mathews and Kelly (1967)

$$\frac{F}{D} = \frac{P}{D} + k_i \left(\frac{S - P}{D} \right)$$

- c) Eaton (1969)

$$\frac{F}{D} = \frac{P}{D} + \frac{\mu}{1 - \mu} \left(\frac{S - P}{D} \right)$$

- d) Anderson, et.al (1972)

$$\frac{F}{D} = \frac{P}{D} \left(\frac{1 - 3\mu}{1 - \mu} \right) + \frac{S}{D} \left(\frac{2\mu}{1 - \mu} \right)$$

e) Exlog (1980)

$$F = \sigma_t + \sigma_1' \left(\frac{\mu}{1-\mu} \right) + P$$

Where F = fracture pressure

D = depth

S = overburden pressure

P = pore pressure

ki = matrix stress coefficient

μ = Poisson's Ratio

σ_t = superposed horizontal tectonic stress

σ_1' = maximum compressive effective stress = S - P

The stress ratios, ki and μ in equation (b) and (c) may be backcalculated with measured formation breakdown ("Leak-off") pressures or taken from curves derived in Gulf Coast. It should be noted that Eaton's Poisson's ratio is not a function of the rock itself but of the regional stress field (i.e. the horizontal-to-vertical stress ratio); Anderson's Poisson's ratio is a function of the shaliness of the sand; Exlog's Poisson's ratio is a function of the rock and the values obtained by sonic testing. Exlog's method also requires a "leak-off" test to calculate the superposed tectonic stress, if present.

With known overburden pressure (from density data) and pore pressure (from drilling and log plots), fracture pressure can thus be predicted for any depth using one of the above equations. However, returns may be lost in vugular or naturally fractured formations regardless of the fracture gradient in the overlying formation.

E. REFERENCES

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APPENDIX B

INSTRUMENTATION AND DATA COLLECTION METHODS

INSTRUMENTATION:

The GEMDAS Level X System consists of the following equipment packages:

- a) One Hewlett Packard 21MX, 128K memory computer system with associated line tape drives, disk drives, operator consoles, printer-plotter outputs and remote video display units.
- b) Drill Monitor System (DMS) which monitors the drilling variable, hook load, weight on bit, rotary RPM, total bit revolution, depth, kelly height rig heave, drill rate, torque, standpipe and casing pressures. The system monitors, displays and records these variables and feeds them to the online computer system for analysis and final tape storage.
- c) Drill Monitor System for recording total and individual pit volumes, mud weights in and out, mud temperatures in and out, and mud flow in and out. These variables are also interfaced with the online computer.
- d) Gas detection system for the analysis of mud stream and blender gases which includes the standard hot wire detectors for total gas and petrol vapours; standard catalytic chromatograph for hydrocarbons C_1 through C_5 ; flame ionisation detectors (FID) for total gas and C_1-C_5 for high percentage of these gases which would saturate a normal system, and an H_2S detection system.

SOFTWARE CAPABILITIES:

The GEMDAS system incorporates software capabilities that have been developed to monitor drilling operations, aid in drilling control and pressure detection and provide a permanent easy-recall record of all pertinent drilling data. The following basic units are involved:

- a) The Drill Monitor program which monitors and provides for the recording of real-time drilling parameters including calculated variables such as rate of penetration, vertical depth, Dxc, Nxb, drilled porosity and estimated formation pressure. In addition, the GEMDAS operator is able to set values for rotary speed, weight on bit and other parameters, which enables the software "Drill Logic" to distinguish between drilling, reaming, circulation, connection and off-bottom situations.
- b) The Trip Monitor program which provides a critical real-time monitoring of all necessary parameters during trips, and calculated trip-related parameters such as hole fill-up, actual and expected hookload, pit volume, running/pulling speed and swab/surge pressure.
- c) The Kill Monitor program which monitors and records parameters related to the killing operation such as choke and standpipe pressures, pit volume, and gas readings. The Kill Monitor is used following a complete kick analysis, thus enabling the suggested and actual well kill parameters to be compared.

d) The Engineering Assistance Programs which are a comprehensible suite of auxiliary programs in onsite problem-solving. They include mud hydraulics, bit hydraulics optimisation, swab and surge analysis, overburden and fracture gradient estimations, kick analysis, Dxc and Nxb analysis, formation abrasiveness and tooth wear estimation, cost per unit depth calculation, and wireline log programs.

e) Data Collection:

The complete drilling data for Koorkah #1 is stored on 4 discs :
Data: 280 - 3149m

A complete printout of this data is presented in Appendix D(i) and selected parameters have been plotted on various scales and presented in Appendix D(ii). Handplots of drill rate, Dxc, background gas, shale density and mud temperature are presented in Appendix C.

APPENDIX C. MANUAL PLOTS

- (i) Pressure Evaluation Log
- (ii) Drilling Data Pressure Log
- (iii) Temperature Data Log
- (iv) Wireline Data Pressure Log
- (v) Well Progress Log and Well Schematic
 Diagram

APPENDIX C.

- i. Pressure Evaluation Log



HOLE SIZE	
36" TO 192M	121" TO 3149M
26" TO 415.4M	TO
17 1/2" TO 1599M	TO

EXLOG SUITE	
FORMATION EVALUATION LOG	<input checked="" type="checkbox"/> WIRELINE DATA PRESSURE LOG
PRESSURE EVALUATION LOG	<input checked="" type="checkbox"/> TEMPERATURE DATA LOG
DRILLING DATA PRESSURE LOG	<input checked="" type="checkbox"/> GEMDAS COMPUTER LOGS
	<input type="checkbox"/>

COMPANY AMOCO AUSTRALIA

WELL KOORKAH #1

FIELD WILDCAT

REGION BASS BASIN

COORDINATES LAT : 39° 37' 54.24" S
LONG: 145° 09' 05.13" E

API WELL INDEX NO. _____

SPUD DATE 27TH NOVEMBER 1985

ELEVATION RKB - MSL 22.3M
MSL - SEABED 67.6M

TOTAL DEPTH 3149M

CONTRACTOR DIAMOND M DRILLING

RIG / TYPE DIAMOND M EPOCH/SEMI SUB

CASING RECORD	
30" AT 190M	AT
20" AT 402M	AT
13 3/8" AT 1587.5M	AT

MUD TYPES	
SEA-WATER/GEL PILLS	TO 402M
FRESH-WATER GEL	TO 1599M
FRESH-WATER/LSD/DFCL	TO 3149M

LITHOLOGY SYMBOLS			

ABBREVIATIONS	
NB NEW BIT	SVG SURVEY GAS
RRB RERUN BIT	C CARBIDE TEST
CB CORE BIT	W MUD DENSITY PPG
WOB WEIGHT ON BIT	V FUNNEL VISCOSITY
RPM REVS PER MINUTE	F FILTER CAKE
FLC FLOW CHECK	FC FILTER CAKE
CR CIRCULATE RETURNS	PV PLASTIC VISCOSITY
PR POOR RETURNS	YP YIELD POINT
NR NO RETURNS	SOL SOLIDS - %
LAT LOGGED AFTER TRIP	SD SAND - %
BG BACKGROUND GAS	S SALINITY - PPM Cl
TG TRIP GAS	RM MUD RESISTIVITY
STG SHORT TRIP GAS	RMF FILTRATE RESISTIVITY
CG CONNECTION GAS	
SWG SWAB GAS	
	WIRELINE LOG RUN
	TEST INTERVAL
	WIRELINE TEST

LOG INTERVAL

DEPTH FROM 402M TO 3149M

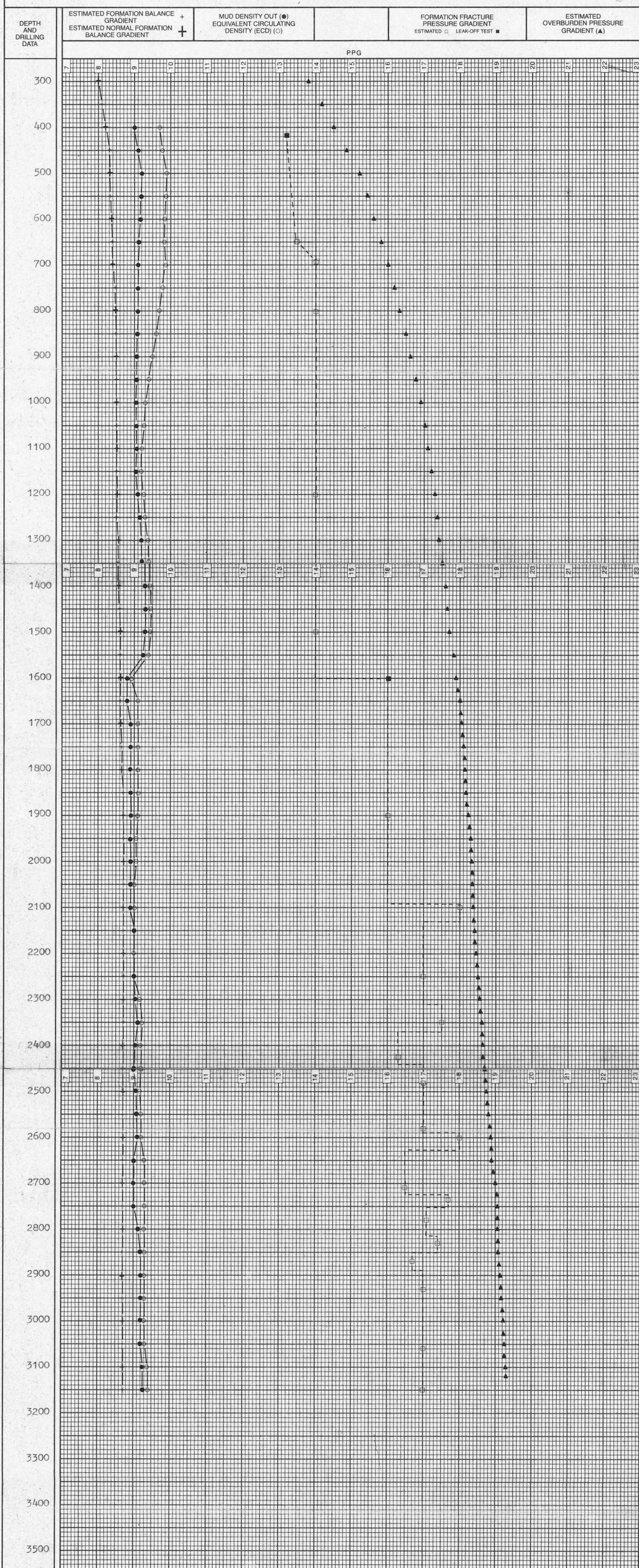
DATE FROM 1/12/85 TO 21/12/85

SCALE 1:5000 UNIT 216

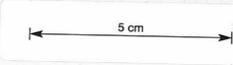
LOG PREPARED BY FELL HODGE NEW

GAS - 100 Total gas units is equivalent to 2% methane-in-air
OIL - Based on live oil in unwashed cuttings and percentage staining of washed cuttings.

PRESSURE EVALUATION LOG



OR-0291



APPENDIX C.

- ii. Drilling Data Pressure Log



HOLE SIZE	36" TO 192M	121" TO 3149M
	25" TO 415.4M	
	17 1/2" TO 1599M	

EXLOG SUITE	<input checked="" type="checkbox"/> FORMATION EVALUATION LOG	<input checked="" type="checkbox"/> WIRELINE DATA PRESSURE LOG
	<input checked="" type="checkbox"/> PRESSURE EVALUATION LOG	<input checked="" type="checkbox"/> TEMPERATURE DATA LOG
	<input checked="" type="checkbox"/> DRILLING DATA PRESSURE LOG	<input checked="" type="checkbox"/> GEMDAS COMPUTER LOGS

COMPANY AMOCO AUSTRALIA
WELL KOORKAH #1
FIELD WILDGAT
REGION BISS BASIN
COORDINATES LAT: 39° 37' 54.24" S
 LONG: 145° 09' 05.13" E
API WELL INDEX NO.
SPUD DATE 15:12HRS NOV 27TH 1985
ELEVATION RT-MSL 22.5M
 MSL-SEABED 67.6M
TOTAL DEPTH 3149M
CONTRACTOR DIAMOND M DRILLING Co.
RIG / TYPE DIAMOND M EPOCH/SEMI SUB

CASING RECORD	30" AT 190M	AT
	20" AT 402M	AT
	17 1/2" AT 1587.5M	AT

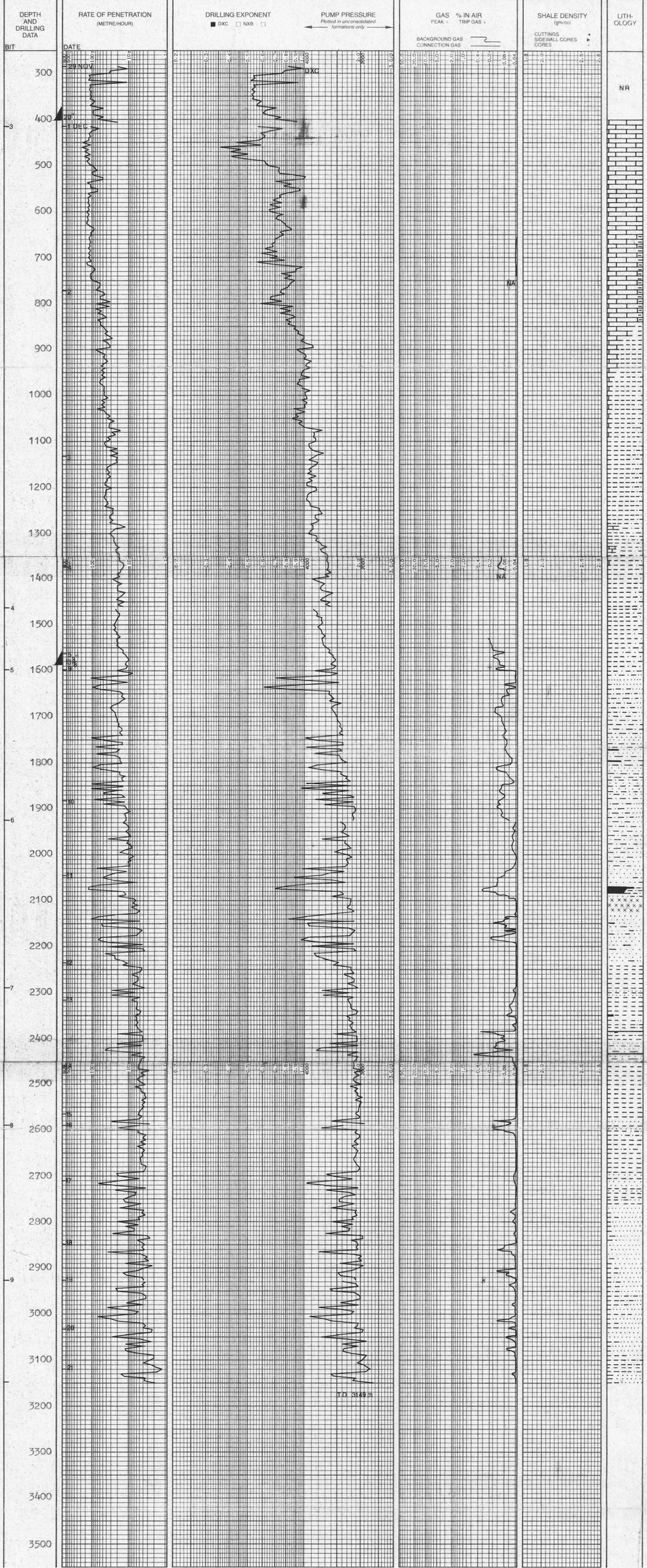
MUD TYPES	SEA-WATER/GEL PILLS TO 402M
	FRESH-WATER GEL TO 1539M
	FRESH-WATER/LSND/DFCL TO 3149M

LITHOLOGY SYMBOLS			
LIMESTONE	DOLOMITE	ANHYDRITE AND GYPSUM	HALITE
COAL AND LIGNITE	CLAY	SHALE	SILT AND SILTSTONE
SILTY SANDSTONE	SAND AND SANDSTONE	CONGLOMERATE	CHERT
IGNEOUS UNDIFFERENTIATED			

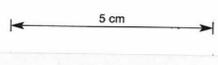
ABBREVIATIONS	
NB NEW BIT	SVG SURVEY GAS
RRB RERUN BIT	C CARBIDE TEST
CB CORE BIT	W MUD DENSITY
WOB WEIGHT ON BIT	V FUNNEL VISCOSITY
RPM REVS PER MINUTE	F FILTRATE - API
FLC FLOW CHECK	FC FILTER CAKE
CR CIRCULATE RETURNS	PV PLASTIC VISCOSITY
PR POOR RETURNS	YP YIELD POINT
NR NO RETURNS	SOL SOLIDS - %
LAT LOGGED AFTER TRIP	SD SAND - %
BG BACKGROUND GAS	S SALINITY - PPM Cl
TG TRIP GAS	RM MUD RESISTIVITY
STG SHORT TRIP GAS	RMF FILTRATE RESISTIVITY
CG CONNECTION GAS	
SWG SWAB GAS	
	WIRELINE LOG RUN
	TEST INTERVAL
	WIRELINE TEST

LOG INTERVAL
DEPTH FROM 402M TO 3149M
DATE FROM 1/12/85 TO 21/12/85
SCALE 1:5000 UNIT 216
LOG PREPARED BY FELL HODGE NEW

DRILLING DATA PRESSURE LOG



OR-0291



APPENDIX C.

iii. Temperature Data Pressure Log



HOLE SIZE	
36" TO 192M	12 1/2" TO 3149M
26" TO 415.4M	TO
17 1/2" TO 1599M	TO

EXLOG SUITE	
FORMATION EVALUATION LOG	<input checked="" type="checkbox"/> WIRELINE DATA PRESSURE LOG
PRESSURE EVALUATION LOG	<input checked="" type="checkbox"/> TEMPERATURE DATA LOG
DRILLING DATA PRESSURE LOG	<input checked="" type="checkbox"/> GEMDAS COMPUTER LOGS

COMPANY AMOCO AUSTRALIA

WELL KOORKAH #1

FIELD WILDCAT

REGION BASS BASIN

COORDINATES LAT: 39° 37' 54.24" S
LONG: 145° 09' 05.13" E

API WELL INDEX NO. _____

SPUD DATE 15:12Hrs Nov 27th 1985

ELEVATION RT-MSL 22.3M
MSL-SEABED 67.6M

TOTAL DEPTH 3149M

CONTRACTOR DIAMOND M DRILLING Co.

RIG / TYPE DIAMOND M EPOCH/SEMI SUB

LOG INTERVAL

DEPTH FROM 402M TO 3149M

DATE FROM 1/12/85 TO 21/12/85

SCALE 1:5000 UNIT 216

LOG PREPARED BY FELL HODGE NEW

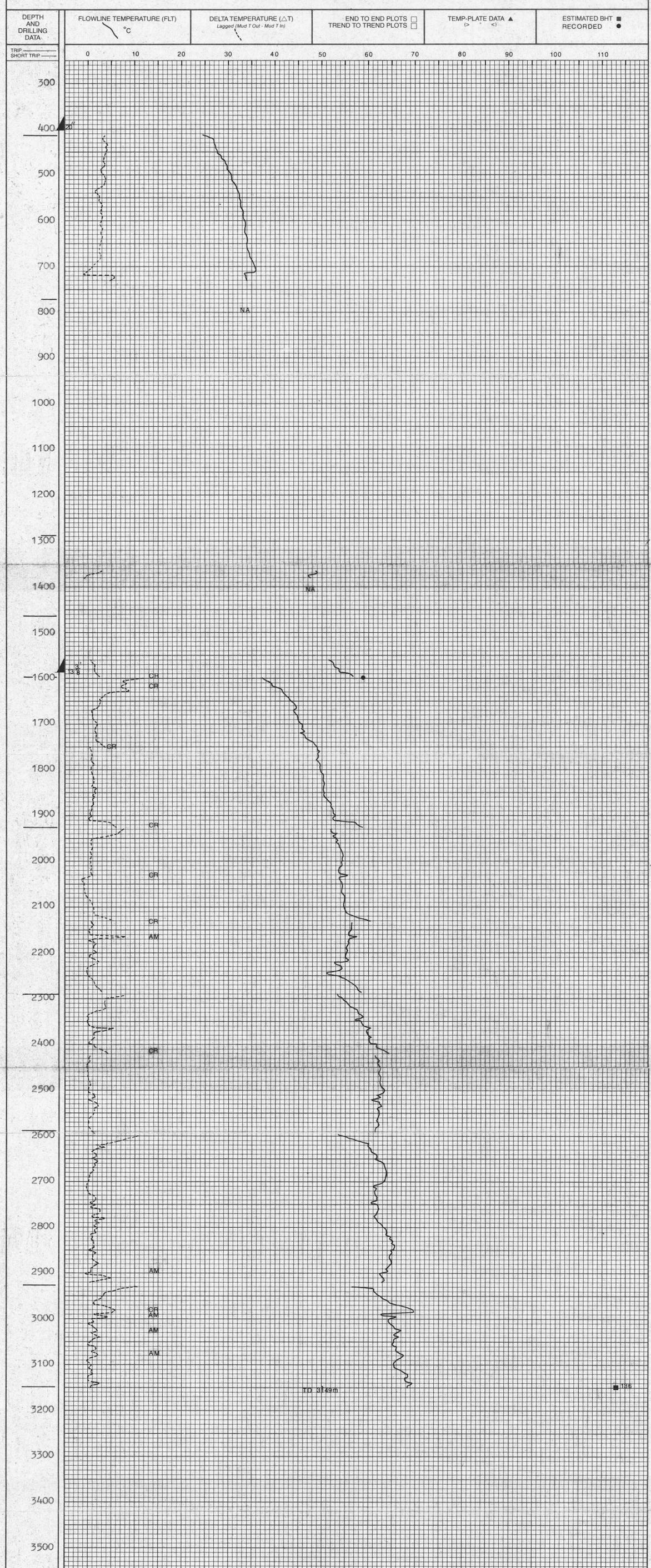
CASING RECORD	
30" AT 190M	AT
20" AT 402M	AT
13 1/2" AT 1587.5M	AT

MUD TYPES	
SEA-WATER/GEL PILLS	TO 402M
FRESH-WATER GEL	TO 1599M
FRESH-WATER/LSD/DFCL	TO 3149M

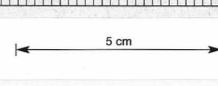
LITHOLOGY SYMBOLS			

ABBREVIATIONS	
NB NEW BIT	SVG SURVEY GAS
RRB RERUN BIT	C CARBIDE TEST
CB CORE BIT	W MUD DENSITY PPG
WOB WEIGHT ON BIT	V FUNNEL VISCOSITY
RPM REVS PER MINUTE	F FILTRATE - API
FLC FLOW CHECK	FC FILTER CAKE
CR CIRCULATE RETURNS	PV PLASTIC VISCOSITY
PR POOR RETURNS	YP YIELD POINT
NR NO RETURNS	SOL SOLIDS - %
LAT LOGGED AFTER TRIP	SD SAND - %
BG BACKGROUND GAS	S SALINITY - PPM Cl
TG TRIP GAS	RM MUD RESISTIVITY
STG SHORT TRIP GAS	RMF FILTRATE RESISTIVITY
CG CONNECTION GAS	
SWG SWAB GAS	
	WIRELINE LOG RUN
	TEST INTERVAL
	WIRELINE TEST

TEMPERATURE DATA LOG



OR-0291



APPENDIX C.

iv. Wireline Data Pressure Log



HOLE SIZE
 36" TO 192M 12 1/4" TO 3149M
 26" TO 415.4M TO
 17 1/2" TO 1599M TO

EXLOG SUITE
 FORMATION EVALUATION LOG WIRELINE DATA PRESSURE LOG
 PRESSURE EVALUATION LOG TEMPERATURE DATA LOG
 DRILLING DATA PRESSURE LOG GEMDAS COMPUTER LOGS

COMPANY AMOCO AUSTRALIA
WELL KOORKAH #1
FIELD WILDCAT
REGION BASS BASIN
COORDINATES LAT : 39° 37' 54.24" S
 LONG: 145° 09' 05.13" E
API WELL INDEX NO.
SPUD DATE 15:12HRS NOV 27TH 1985
ELEVATION RT-MSL 22.3M
 MSL-SEABED 67.6M
TOTAL DEPTH 3149M
CONTRACTOR DIAMOND M DRILLING CO.
RIG / TYPE DIAMOND M EPOCH/SEMI SUB
LOG INTERVAL
DEPTH FROM 402M TO 3149M
DATE FROM 1/12/85 TO 21/12/85
SCALE 1:5000 UNIT 216
LOG PREPARED BY FELL HODGE NEW

CASING RECORD
 30" AT 190M AT
 20" AT 402M AT
 13 1/8" AT 1587.5M AT

MUD TYPES
 SEA-WATER/GEL PILLS TO 402M
 FRESH-WATER GEL TO 1599M
 FRESH-WATER/LSD/DFCL TO 3149M

LITHOLOGY SYMBOLS

LIMESTONE	DOLOMITE	ANHYDRITE AND GYPSUM	HALITE
COAL AND LIGNITE	CLAY	SHALE	SILT AND SILTSTONE
SILTY SANDSTONE	SAND AND SANDSTONE	CONGLOMERATE	CHERT
GNEISS	UNDIFFERENTIATED		

ABBREVIATIONS

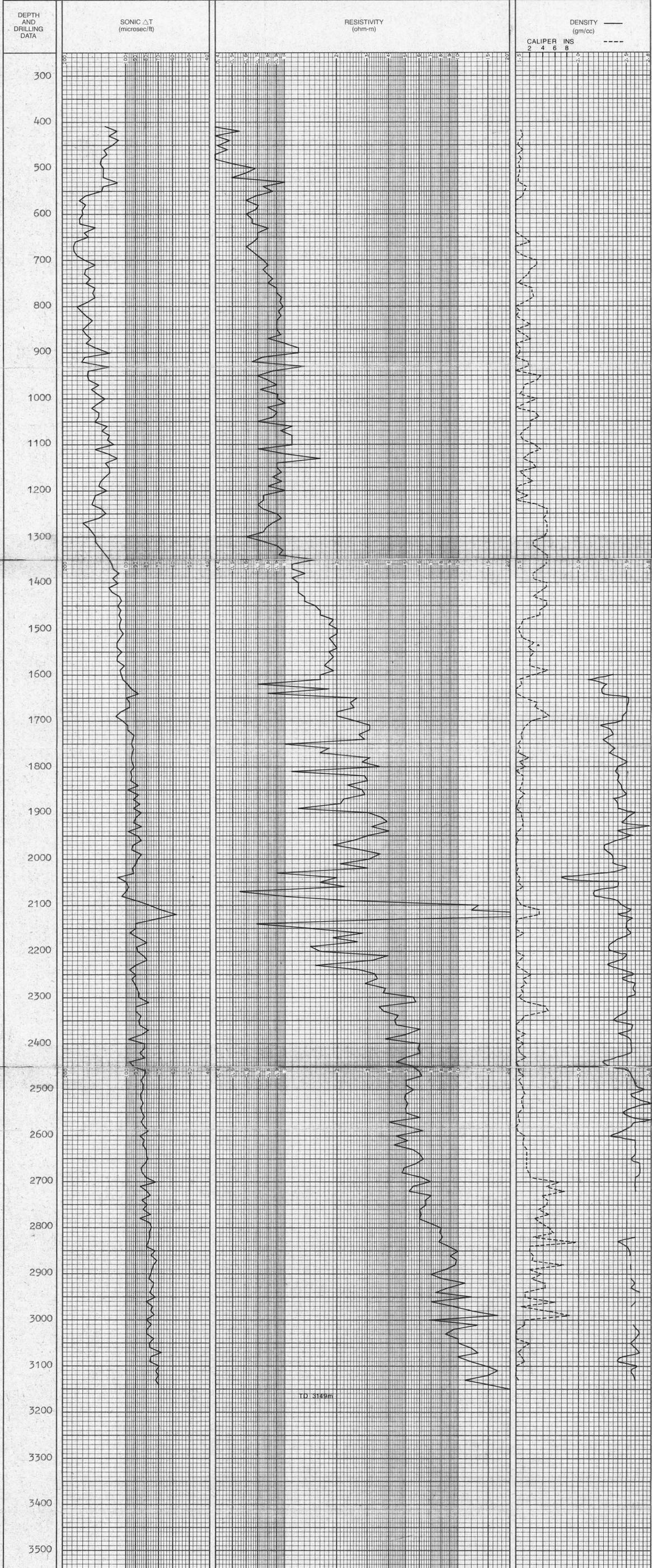
NB NEW BIT	SVG SURVEY GAS
RRB RERUN BIT	C CARBIDE TEST
CB CORE BIT	W MUD DENSITY $\frac{g}{cc}$
WOB WEIGHT ON BIT	V FUNNEL VISCOSITY
RPM REVS PER MINUTE	F FILTRATE - API
FLC FLOW CHECK	FC FILTER CAKE
CR CIRCULATE RETURNS	PV PLASTIC VISCOSITY
PR POOR RETURNS	YP YIELD POINT
NR NO RETURNS	SOL SOLIDS - %
LAT LOGGED AFTER TRIP	SD SAND - %
BG BACKGROUND GAS	S SALINITY - PPM Cl
TG TRIP GAS	RM MUD RESISTIVITY
STG SHORT TRIP GAS	RMF FILTRATE RESISTIVITY
CG CONNECTION GAS	
SWG SWAB GAS	

▲ CASING SEAT
 ▬ CORED INTERVAL
 ▬ NO RECOVERY
 ▶ SIDEWALL CORE

▲ WIRELINE LOG RUN
 ▬ TEST INTERVAL
 + WIRELINE TEST

GAS - 100 Total gas units is equivalent to 2% methane-in-air
 OIL - Based on live oil in unwashed cuttings and percentage staining of washed cuttings.

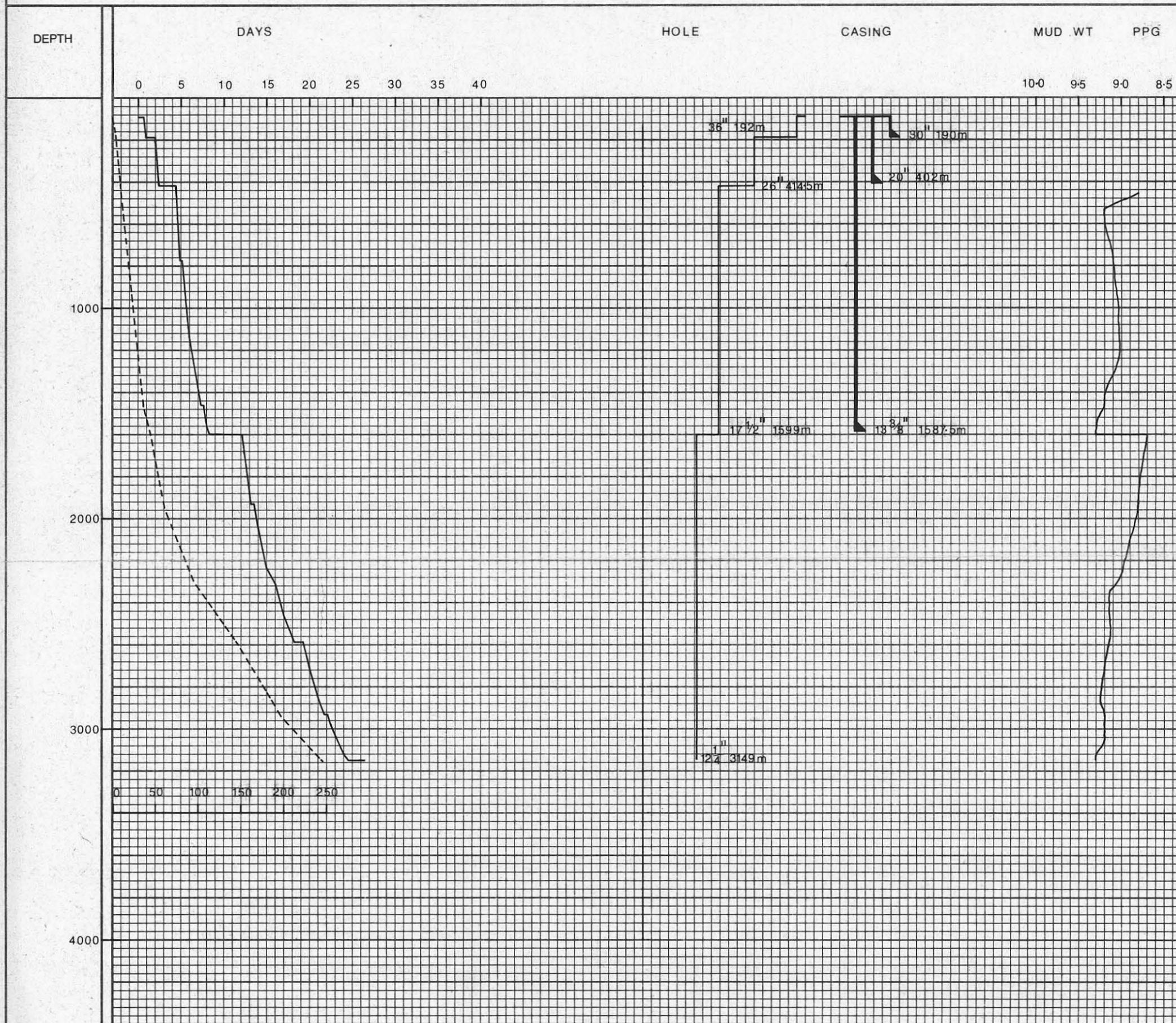
WIRELINE DATA PRESSURE LOG



OR-0291

(v) Well Progress Log and Well Schematic Diagram

WELL PROGRESS LOG



OR-0291

5 cm

283057

APPENDIX D.

- i. Drilling Data Printout 414.5 - 3149m
- ii. Drilling Data Plots
 - a. ROP-DXC-WOB-RPM-Torque-Lithology-Total Gas 1:500
 - b. As above 1:5000

i. Drilling Data Printout

KOORKAH NO.1

Data Printed at time 02:27 Date Dec 22 '85
 Data Recorded at time 03:57 Date Nov 29 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS	MW lb/gal		FLOW/MIN		TEMP (C)	PVT	---THIS BIT---			EST	DLC	NK	NKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	RUN
Koorakah No.1 spudded on 27th November 1985. Water depth 67.7m (222').																												
36" hole drilled to 192m (629') - 30" casing set at 190m (624').																												
NB#2 SMITH DSJ 26" 3x24 jets. Start depth 192m.																												
3	0435	285.01	19.4	211	312	94	9.8	1850	275.54	8.43	0.00	1000	0	14.9	0.0	40	11498	93.0	2.4	278	284	.78	.83	.81	1.20	8.71	8.67	D
4	0413	287.50	10.9	208	338	99	11.6	1840	278.43	8.41	0.00	998	0	14.9	0.0	40	12845	95.5	2.7	489	288	.83	.98	.96	1.20	8.69	8.67	D
5	0432	290.01	11.5	203	270	104	11.0	1850	284.70	8.38	0.00	999	0	15.0	0.0	40	14203	98.0	2.9	438	292	.88	.98	.96	1.20	8.58	8.67	D
6	0447	292.50	20.2	211	309	101	10.4	1870	288.20	8.43	0.00	996	0	15.0	0.0	247	15106	100	3.0	248	292	.91	.86	.84	1.21	8.53	8.67	D
7	0451	295.01	31.5	232	342	101	11.4	1860	289.33	8.46	0.00	997	0	15.0	0.0	249	15586	103	3.1	161	289	.92	.79	.77	1.21	8.57	8.67	D
8	0454	297.51	54.3	223	268	102	11.2	1860	289.81	8.45	0.00	996	0	15.0	0.0	249	15867	105	3.2	93	285	.94	.68	.66	1.21	8.62	8.67	D
9	0520	300.07	33.4	222	279	101	11.5	1890	292.95	8.49	0.00	997	0	15.0	0.0	284	17008	108	3.4	170	291	.96	.77	.75	1.21	8.61	8.67	Df
10	0528	302.51	18.4	227	307	100	12.9	1880	293.81	8.49	0.00	995	0	15.0	0.0	271	17800	110	3.6	220	290	.99	.90	.88	1.21	8.66	8.67	D
11	0529	305.01	137	252	404	99	18.3	1890	293.91	8.49	0.00	997	0	15.0	0.0	270	17907	113	3.6	36	285	1.00	.54	.51	1.21	8.71	8.67	D
12	0530	307.51	110	239	282	99	16.8	1890	293.98	8.50	0.00	999	0	15.0	0.0	270	18041	115	3.6	45	280	1.00	.57	.55	1.21	8.77	8.67	D
13	0551	310.00	110	234	305	98	16.2	1930	295.19	8.47	0.00	994	0	15.1	0.0	278	18885	118	3.8	44	281	1.02	.55	.52	1.21	8.83	8.67	Df
14	0552	312.51	129	254	305	101	17.0	1930	295.47	8.49	0.00	997	0	15.1	0.0	277	19001	120	3.8	39	276	1.03	.54	.51	1.21	8.98	8.67	D
15	0553	315.03	149	266	322	102	18.7	1920	295.73	8.49	0.00	995	0	15.1	0.0	275	19103	123	3.8	33	271	1.03	.52	.49	1.21	8.93	8.67	D
16	0554	317.53	158	259	326	101	18.4	1930	295.96	8.49	0.00	996	0	15.1	0.0	274	19198	125	3.8	32	267	1.04	.50	.47	1.21	8.98	8.67	D
17	0615	320.01	12.2	239	502	96	11.8	1920	301.48	8.46	0.00	995	0	15.0	0.0	282	20131	128	4.1	89	271	1.06	.93	.91	1.21	8.93	8.67	D
18	0617	322.54	91.9	298	387	101	17.4	1920	301.88	8.46	0.00	997	0	15.0	0.0	277	20297	130	4.1	56	267	1.06	.60	.58	1.21	8.97	8.67	D
19	0618	325.01	124	299	392	102	17.3	1920	302.18	8.50	0.00	997	0	15.0	0.0	275	20417	133	4.1	40	263	1.07	.54	.51	1.21	9.02	8.67	D
20	0628	327.54	129	256	337	101	16.0	1940	303.31	8.50	0.00	995	0	15.0	0.0	293	20775	135	4.2	41	261	1.08	.52	.49	1.21	9.05	8.67	Df
21	0630	330.04	114	231	291	104	16.2	1940	303.31	8.50	0.00	994	0	15.0	0.0	285	20909	138	4.2	41	257	1.08	.55	.52	1.21	9.11	8.67	D
22	0631	332.52	117	243	301	104	17.7	1940	303.31	8.50	0.00	994	0	15.0	0.0	283	21039	140	4.2	41	253	1.09	.55	.52	1.21	9.16	8.67	D
23	0632	335.01	133	254	315	103	19.7	1940	303.31	8.47	0.00	997	0	15.0	0.0	278	21150	143	4.2	37	249	1.09	.53	.50	1.21	9.21	8.67	D
24	0641	337.55	136	250	313	103	18.0	1920	303.31	8.47	0.00	996	0	15.0	0.0	286	21454	145	4.3	41	247	1.10	.51	.49	1.21	9.27	8.67	Df
25	0642	340.02	105	301	445	101	16.4	1930	303.31	8.49	0.00	998	0	15.0	0.0	283	21593	148	4.3	46	243	1.11	.55	.52	1.21	9.33	8.67	D
26	0644	342.52	115	289	422	102	16.5	1920	303.31	8.49	0.00	997	0	15.0	0.0	278	21724	150	4.3	43	240	1.11	.53	.50	1.21	9.38	8.67	D
27	0645	345.02	117	284	356	102	17.5	1920	303.31	8.52	0.00	999	0	15.0	0.0	277	21852	153	4.4	41	237	1.12	.53	.50	1.21	9.43	8.67	D
28	0702	347.52	28.9	238	332	99	15.2	1970	303.55	8.51	0.00	996	0	15.0	0.0	286	22608	155	4.6	152	239	1.13	.77	.74	1.21	9.47	8.67	D
29	0704	350.02	101	256	310	101	16.5	1970	303.82	8.51	0.00	997	0	15.0	0.0	282	22758	158	4.6	51	236	1.14	.54	.52	1.21	9.52	8.67	D
30	0705	352.53	132	256	326	100	19.1	1960	304.02	8.51	0.00	998	0	15.0	0.0	280	22969	160	4.6	38	233	1.14	.51	.48	1.21	9.57	8.67	D
31	0706	355.05	117	249	303	101	18.7	1960	304.36	8.50	0.00	995	0	15.0	0.0	278	22997	163	4.6	42	230	1.15	.53	.50	1.21	9.61	8.67	D
32	0716	357.52	102	224	343	101	14.2	1940	312.73	8.51	0.00	994	0	15.0	0.0	285	23000	165	4.7	54	229	1.16	.53	.50	1.22	9.48	8.67	D
33	0717	360.01	84.4	257	335	101	17.8	1940	312.73	8.50	0.00	997	0	15.0	0.0	280	23477	168	4.7	55	226	1.16	.59	.56	1.22	9.53	8.67	D
34	0719	362.52	90.9	266	341	102	18.0	1940	312.78	8.49	0.00	994	0	15.0	0.0	278	23645	170	4.7	54	224	1.17	.57	.54	1.22	9.58	8.67	D
35	0721	365.02	96.2	277	323	102	19.4	1950	312.82	8.50	0.00	998	0	14.9	0.0	276	23799	173	4.8	51	221	1.17	.57	.54	1.22	9.62	8.67	D
36	0737	367.56	19.0	236	330	98	17.3	1960	321.78	8.50	0.00	996	0	15.0	0.0	286	24483	175	4.9	82	223	1.19	.86	.84	1.22	9.48	8.67	Df
37	0738	370.00	117	291	391	103	23.3	1960	322.02	8.51	0.00	995	0	15.0	0.0	282	24610	178	4.9	43	221	1.19	.56	.53	1.22	9.52	8.67	D
38	0741	372.51	46.4	258	599	94	20.9	1960	327.96	8.46	0.00	996	0	15.0	0.0	276	24909	180	5.0	78	219	1.20	.72	.69	1.22	9.45	8.67	D
39	0752	375.00	49.6	229	352	99	18.3	1960	339.73	8.43	0.00	993	0	15.0	0.0	287	25411	183	5.1	103	218	1.22	.71	.68	1.22	9.25	8.67	Df
40	0754	377.51	72.0	234	316	101	20.4	1960	341.77	8.47	0.00	992	0	15.0	0.0	281	25620	185	5.1	72	217	1.23	.65	.62	1.22	9.25	8.67	D
41	0756	380.01	89.8	274	351	103	22.9	1960	346.31	8.47	0.00	993	0	15.0	0.0	278	25789	188	5.1	56	214	1.23	.63	.60	1.22	9.21	8.67	D
42	0757	382.54	98.9	284	344	102	25.1	1950	349.35	8.47	0.00	992	0	15.0	0.0	275	25943	190	5.2	51	212	1.24	.62	.59	1.22	9.19	8.67	D
43	0807	385.02	91.1	232	346	102	19.5	2010	351.15	8.47	0.00	998	0	15.0	0.0	284	26274	193	5.2	54	211	1.25	.61	.57	1.22	9.20	8.67	Df
44	0809	387.55	82.8	264	382	99	22.7	2010	355.58	8.48	0.00	998	0	15.0	0.0	279	26452	195	5.3	61	209	1.25	.64	.61	1.22	9.16	8.67	D
45	0811	390.01	87.1	280</																								

KOORCAH NO.1

Data Printed at time 02:30 Date Dec 22 '85
Data Recorded at time 08:29 Date Nov 29 '85

#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS	MV lb/gal		FLOW/MIN		TEMP (C)	PVT	---THIS BIT---			---COST---		EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS	m	hrs							INST	RUN
50	0829	402.50	77.0	271	447	104	21.2	2010	369.30	8.45	3.00	999	0	15.0	0.0	270	27938	21.0	5.5	64	201	1.30	.66	.63	1.22	9.15	8.67	D
51	0846	405.01	21.2	214	306	96	23.0	1970	368.72	8.47	3.00	993	0	15.0	0.0	273	23645	21.3	5.7	72	203	1.32	.92	.89	1.22	9.20	8.67	D
Drill 26" hole to 405m (1330'). Pull out of hole to run 20" casing.																												
Drill 26" hole to 414.5m (1360'), set 20" casing at 402m (1319').																												
NB#3 SMITH SDS-C 17.5" 12,16,16,16 jets. Drill casing shoe and cement. Drill new formation from 414.5m (1360').																												
Date Dec 1 '85																												
58	0934	415.03	113	218	269	101	10.7	2170	402.65	8.95	3.33	904	314	21.8	24.0	430	4399	.50	.8	45	27500	.11	.57	.57	1.23	8.63	8.60	D
Leak-off test at 417m (1360').																												
60	1012	417.52	125	190	234	99	9.3	3020	409.54	8.80	8.88	923	974	23.2	24.6	450	4516	3.00	.8	44	3834	.11	.53	.52	1.24	8.77	8.70	D
61	1014	420.02	66.9	232	284	105	20.7	2890	411.01	8.79	9.08	889	1057	23.4	25.3	442	4747	5.50	.9	66	2114	.12	.77	.77	1.23	8.86	8.70	D
62	1022	422.52	132	200	246	113	12.1	2860	414.92	8.81	8.85	865	973	23.6	25.4	481	4838	8.00	.9	29	1466	.12	.49	.49	1.24	8.93	8.70	D
63	1024	425.02	101	221	301	111	16.7	1400	416.47	8.84	8.89	870	944	23.5	25.8	499	5002	10.5	.9	55	1120	.13	.65	.64	1.24	9.00	8.70	D
64	1026	427.52	77.0	208	249	113	13.0	2930	416.47	8.92	8.94	796	384	23.4	25.3	527	5222	13.0	.9	59	921	.13	.67	.66	1.24	9.06	8.70	D
65	1033	430.06	134	212	249	114	17.1	2860	416.47	9.04	8.82	866	361	23.0	25.6	629	5325	15.5	.9	40	782	.14	.59	.58	1.24	9.10	8.70	D
66	1035	432.53	129	213	269	111	12.2	2870	416.47	8.98	8.85	874	374	23.0	25.7	628	5450	18.0	1.0	46	675	.14	.55	.54	1.24	9.16	8.70	D
67	1036	435.00	128	251	282	114	20.8	2870	416.47	8.97	8.79	875	361	23.1	25.7	636	5579	20.5	1.0	39	600	.14	.62	.61	1.24	9.20	8.70	D
68	1037	437.54	132	256	281	115	22.7	2860	416.47	9.00	8.79	874	359	23.1	26.0	647	5709	23.0	1.0	38	537	.15	.63	.62	1.24	9.25	8.70	D
69	1044	440.09	145	251	280	114	24.1	2760	418.11	8.95	8.82	809	716	23.3	26.7	656	5808	25.5	1.0	35	493	.15	.61	.60	1.24	9.29	8.70	D
70	1045	442.53	148	213	268	113	13.5	2800	419.57	8.98	8.86	854	784	23.3	26.6	656	5916	28.0	1.0	33	447	.15	.53	.52	1.24	9.32	8.70	D
71	1046	445.00	146	242	271	112	21.3	2810	420.39	8.94	8.88	862	301	23.4	26.6	656	6029	30.5	1.1	34	414	.16	.58	.58	1.24	9.34	8.70	D
72	1047	447.53	160	241	277	111	21.5	2810	420.45	8.91	8.90	866	320	23.4	26.5	655	6133	33.0	1.1	31	386	.16	.56	.55	1.24	9.39	8.70	D
73	1055	450.02	239	206	263	114	14.8	2800	424.49	8.99	9.02	831	750	23.7	26.9	644	6204	35.5	1.1	33	361	.16	.44	.43	1.24	9.38	8.70	D
74	1056	452.52	108	239	322	111	14.4	2830	426.07	9.01	9.10	864	792	23.8	26.9	641	6355	38.0	1.1	47	339	.17	.58	.58	1.24	9.42	8.70	D
75	1057	455.03	124	270	339	112	17.7	2830	428.58	8.95	9.19	870	808	23.9	27.0	634	6489	40.5	1.1	41	322	.17	.59	.58	1.24	9.42	8.70	D
76	1058	457.54	148	202	293	112	13.3	2820	429.30	8.95	9.21	867	798	24.0	27.0	634	6602	43.0	1.1	32	304	.17	.51	.51	1.25	9.47	8.70	D
77	1107	460.06	288	184	232	114	9.3	2860	435.51	8.96	9.21	875	303	24.5	27.2	616	6660	45.5	1.1	32	289	.17	.36	.35	1.24	9.42	8.70	D
78	1108	462.52	156	184	220	112	6.9	2850	437.31	8.99	9.22	878	796	24.5	27.3	615	6763	48.0	1.2	31	276	.18	.44	.44	1.25	9.44	8.70	D
79	1110	465.03	150	174	221	112	7.4	2860	439.04	8.97	9.21	876	797	24.6	27.2	608	6873	50.5	1.2	37	264	.18	.46	.45	1.24	9.44	8.70	D
80	1110	467.54	153	191	227	111	10.3	2860	439.09	8.93	9.22	878	790	24.6	27.2	608	6980	53.0	1.2	32	253	.18	.48	.47	1.25	9.48	8.70	D
81	1117	470.01	208	179	234	112	9.1	2800	443.58	8.93	9.04	852	743	24.9	27.5	603	7058	55.5	1.2	35	243	.19	.41	.41	1.24	9.45	8.70	D
82	1118	472.51	140	197	239	110	11.0	2820	445.94	8.99	9.06	868	782	25.0	27.5	595	7174	58.0	1.2	35	234	.19	.50	.50	1.25	9.44	8.70	D
83	1119	475.01	145	196	232	111	11.0	2820	448.21	8.96	9.07	871	796	25.0	27.6	591	7286	60.5	1.2	34	226	.19	.50	.49	1.24	9.45	8.70	D
84	1120	477.50	166	215	249	110	15.7	2820	448.38	8.96	9.07	872	784	25.0	27.6	588	7383	63.0	1.3	30	218	.20	.50	.50	1.25	9.48	8.70	D
85	1128	480.02	202	174	222	111	8.2	2890	452.13	9.00	8.97	878	738	25.3	27.5	580	7465	65.5	1.3	33	211	.20	.41	.40	1.24	9.46	8.70	D
86	1129	482.51	143	202	242	111	13.1	2900	454.10	8.95	9.02	885	784	25.4	27.5	571	7578	68.0	1.3	34	205	.20	.52	.51	1.25	9.47	8.70	D
87	1130	485.03	185	211	255	112	15.4	2890	456.02	9.02	9.00	881	784	25.4	27.4	564	7667	70.5	1.3	27	199	.20	.48	.48	1.24	9.48	8.70	D
88	1139	487.52	137	216	260	114	15.5	2810	458.36	8.97	9.14	873	783	25.7	27.9	549	7901	73.0	1.3	47	194	.21	.55	.54	1.25	9.47	8.70	D
89	1140	490.01	132	250	280	116	22.4	2820	460.10	8.94	9.16	873	790	25.7	27.7	545	8031	75.5	1.4	37	189	.21	.61	.60	1.25	9.49	8.70	D
90	1142	492.52	124	267	299	116	26.2	2810	462.44	8.96	9.20	874	801	25.7	27.8	538	8169	78.0	1.4	40	184	.22	.65	.64	1.25	9.49	8.70	D
91	1151	495.03	129	233	302	115	20.4	2810	469.38	8.97	9.97	852	707	26.1	28.5	539	8302	80.5	1.4	53	180	.22	.60	.59	1.25	9.42	8.70	D
92	1153	497.53	96.5	236	274	115	17.1	2820	472.66	9.02	9.63	870	801	26.2	28.4	525	8479	83.0	1.4	47	176	.23	.64	.63	1.25	9.41	8.70	D
93	1155	500.01	90.4	273	308	115	24.8	2820	475.67	8.96	9.51	877	819	26.3	28.4	519	8667	85.5	1.4	53	173	.23	.71	.70	1.25	9.40	8.70	D
94	1156	502.52	82.7	277	326	115	27.1	2820	475.88	8.93	9.51	874	818	26.4	28.6	518	8873	88.0	1.5	61	170	.24	.75	.74	1.25	9.44	8.70	D
95	1207	505.00	83.5	232	298	116	17.0	2740	483.96	8.99	9.37	868	780	27.0	29.2	518	9077	90.5	1.5	100	167	.24	.68	.67	1.25	9.35	8.70	D
96	1209	507.52	72.4	223	255	115	14.0	2740	483.96	9.00	9.35	873	781	27.1	29.4	512	9314	93.0	1.5	66	164	.25	.67	.66	1.25	9.38	8.70	D
97	1210	510.01	85.3	224	262	115	15.0	2740	486.17	8.95	9.28	871	794	27.2	28.9	512	9514	95.5	1.6	58	161	.26	.65	.64	1.25	9.39	8.70	D
98	1212	512.50	75.3	249	280	115	20.5	2740	490.00	8.97	9.28	871	803	27.3	29.1	510												

KOORCAH 3D.1

Data Printed at time 02:34 Date Dec 22 '85
 Data Recorded at time 12:30 Date Dec 1 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS		M/Lb/gal		FLOW/MIN		TEMP (C)		PVT	---THIS BIT---			EST	DKC	BK	NKB	SCD	EST		
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		IN	OUT	REVS						m	hrs	INST
102	1230	522.50	53.6	260	285	117	23.7	2760	502.17	8.37	6.76	378	830	28.1	29.4	501	10638	108	1.7	101	151	.29	.84	.82	1.26	9.32	8.70	D
103	1242	525.03	51.7	240	346	112	13.2	2820	506.44	8.95	7.78	392	807	28.6	30.1	509	11014	110	1.3	113	150	.30	.79	.73	1.25	9.27	8.70	D
104	1243	527.53	92.6	352	397	110	43.3	2820	508.84	8.88	7.52	888	822	28.7	30.1	505	11190	113	1.8	55	148	.31	.82	.81	1.26	9.26	8.70	D
105	1246	530.03	53.6	352	470	108	50.7	2770	511.88	8.91	8.49	884	777	28.8	30.2	507	11489	115	1.9	106	147	.32	1.01	1.00	1.25	9.25	8.70	D
106	1256	532.56	137	348	462	110	44.9	2800	513.45	8.93	6.32	866	744	29.3	30.7	520	11640	118	1.9	64	145	.32	.79	.78	1.26	9.25	8.70	D
107	1301	535.00	111	303	371	113	30.3	2680	518.61	8.94	6.82	871	724	29.4	30.7	515	11737	120	1.9	46	143	.33	.71	.70	1.25	9.20	8.70	D
108	1303	537.51	73.2	375	436	115	48.3	2690	520.60	8.91	7.09	875	734	29.5	31.1	510	12020	123	1.9	70	141	.34	.93	.91	1.26	9.21	8.70	D
109	1304	540.04	103	415	481	114	54.3	2690	521.37	8.90	7.47	876	737	29.5	31.4	509	12185	125	2.0	49	140	.34	.86	.85	1.25	9.22	8.70	D
110	1312	542.52	167	365	431	114	42.5	2710	521.67	8.96	7.87	866	692	29.8	31.5	517	12286	128	2.0	32	138	.35	.67	.66	1.26	9.26	8.70	D
111	1313	545.02	133	346	405	112	39.9	2700	522.38	8.95	8.09	879	702	29.8	31.5	513	12447	130	2.0	44	136	.35	.78	.77	1.25	9.29	8.70	D
112	1316	547.51	67.0	384	442	112	50.5	2700	524.11	8.89	8.29	879	689	29.9	31.3	506	12693	133	2.0	78	135	.36	.95	.93	1.26	9.31	8.70	D
113	1318	550.01	73.5	426	492	111	57.1	2700	526.99	8.90	8.50	880	703	29.9	31.4	506	12919	135	2.1	67	134	.37	.96	.94	1.26	9.31	8.70	D
114	1327	552.50	77.5	380	459	112	47.1	2750	530.68	8.93	8.32	887	725	30.3	31.9	510	13229	138	2.1	64	133	.39	.89	.88	1.26	9.29	8.70	D
115	1329	555.00	73.2	425	495	114	54.2	2750	531.57	8.88	8.40	890	695	30.3	32.0	508	13461	140	2.1	70	132	.40	.95	.93	1.26	9.31	8.70	D
116	1331	557.50	108	437	507	114	53.1	2760	532.36	8.82	8.30	889	691	30.3	32.0	507	13616	143	2.2	45	130	.40	.83	.81	1.26	9.34	8.70	D
† Deviation at 559m = 0.25 degrees																												
118	1406	560.09	144	399	485	115	43.6	2720	540.16	8.87	7.95	857	701	30.6	31.3	508	13738	145	2.2	39	129	.40	.72	.70	1.26	9.23	8.70	D
119	1407	562.53	99.3	376	452	116	40.4	2710	542.57	8.86	7.83	883	735	30.6	30.3	497	13906	148	2.2	51	128	.41	.80	.79	1.26	9.24	8.70	D
120	1409	565.00	111	409	458	116	45.6	2720	544.28	8.86	7.94	883	779	30.7	31.2	487	14059	150	2.2	46	126	.42	.80	.78	1.26	9.25	8.70	D
121	1410	567.53	120	427	486	116	48.5	2710	545.55	8.86	7.94	883	765	30.7	31.2	484	14204	153	2.3	42	125	.42	.79	.77	1.26	9.26	8.70	D
122	1417	570.05	140	406	490	115	44.9	2710	548.92	8.93	7.83	854	730	30.8	32.2	501	14333	155	2.3	38	124	.43	.74	.72	1.26	9.23	8.70	D
123	1418	572.52	116	387	479	117	38.4	2710	548.92	8.87	7.86	882	756	30.8	32.4	494	14479	158	2.3	44	122	.43	.75	.73	1.26	9.26	8.70	D
124	1419	575.05	132	419	471	116	44.9	2700	549.52	8.82	7.89	883	771	30.8	32.2	488	14611	160	2.3	37	121	.44	.75	.73	1.26	9.29	8.70	D
125	1421	577.53	122	444	505	116	48.4	2710	550.81	8.84	7.98	883	776	30.8	32.3	483	14750	163	2.3	40	120	.44	.78	.76	1.26	9.30	8.70	D
126	1428	580.00	139	386	467	114	36.9	2720	556.49	8.96	7.78	876	701	31.3	32.7	488	14871	165	2.3	38	119	.45	.69	.68	1.26	9.25	8.70	D
127	1430	582.52	110	378	467	113	39.5	2710	558.58	8.89	8.15	881	687	31.4	33.0	478	15023	168	2.4	50	118	.45	.76	.75	1.27	9.24	8.70	D
128	1432	585.09	115	407	472	111	42.5	2740	558.58	8.83	8.06	882	676	31.4	33.2	474	15171	170	2.4	45	117	.46	.76	.74	1.26	9.27	8.70	D
129	1433	587.51	126	427	464	111	46.7	2730	558.58	8.89	7.84	883	671	31.5	33.3	475	15296	173	2.4	39	115	.46	.75	.73	1.27	9.31	8.70	D
130	1440	590.02	149	374	454	114	34.4	2730	558.58	8.97	7.69	875	672	31.8	33.2	482	15410	175	2.4	37	114	.46	.66	.64	1.26	9.34	8.70	D
131	1441	592.51	130	416	451	115	43.5	2720	558.58	8.97	7.70	879	665	31.9	33.4	476	15543	178	2.4	37	113	.47	.74	.72	1.27	9.37	8.70	D
132	1442	595.03	128	435	502	115	46.9	2730	558.58	8.93	7.73	880	689	32.0	33.3	472	15677	180	2.5	38	112	.47	.75	.73	1.26	9.40	8.70	D
133	1444	597.52	134	435	514	115	49.7	2740	559.65	8.87	7.80	879	691	32.0	33.5	471	15803	183	2.5	37	111	.48	.75	.73	1.27	9.43	8.70	D
134	1453	600.03	137	364	439	113	32.8	2720	568.58	8.99	7.85	878	683	32.5	33.3	472	15927	185	2.5	40	110	.48	.67	.65	1.26	9.34	8.70	D
135	1454	602.53	116	405	467	115	43.6	2720	568.62	8.88	7.87	879	732	32.6	33.2	468	16072	188	2.5	43	110	.49	.76	.74	1.27	9.38	8.70	D
136	1455	605.03	119	444	517	115	48.4	2720	569.22	8.88	7.85	879	733	32.7	33.4	463	16213	190	2.5	41	109	.49	.78	.76	1.26	9.41	8.70	D
137	1503	607.53	153	444	547	115	42.3	2750	577.22	8.95	7.63	854	777	32.9	33.8	476	16324	193	2.6	41	108	.50	.69	.67	1.27	9.34	8.70	D
138	1504	610.03	124	396	484	114	39.5	2780	577.64	8.97	7.57	881	756	33.0	33.8	466	16460	195	2.6	44	107	.50	.73	.71	1.26	9.37	8.70	D
139	1505	612.51	117	440	506	117	47.8	2780	577.64	8.97	7.57	886	730	33.0	33.8	459	16606	198	2.6	41	106	.51	.79	.76	1.27	9.40	8.70	D
140	1506	615.01	136	465	547	117	51.5	2780	578.75	8.92	7.57	887	769	33.1	34.1	454	16735	200	2.6	37	105	.51	.76	.74	1.27	9.42	8.70	D
141	1513	617.50	154	410	524	118	39.9	2720	584.79	9.02	7.58	841	788	33.2	34.3	463	16847	203	2.6	35	105	.52	.68	.66	1.27	9.38	8.70	D
142	1515	620.00	112	405	490	116	41.1	2710	586.63	9.08	7.63	873	743	33.4	34.1	455	16999	205	2.7	45	104	.52	.76	.74	1.27	9.39	8.70	D
143	1516	622.51	129	441	492	115	47.9	2730	587.11	9.06	7.56	874	722	33.4	34.3	451	17131	208	2.7	39	103	.53	.75	.73	1.27	9.42	8.70	D
144	1517	625.00	142	457	543	114	49.1	2740	587.52	9.05	7.58	875	724	33.4	34.5	448	17249	210	2.7	34	102	.53	.73	.71	1.27	9.45	8.70	D
145	1525	627.54	112	435	518	116	43.5	2770	594.93	9.22	7.53	877	872	33.6	34.4	448	17404	213	2.7	51	102	.54	.78	.75	1.27	9.39	8.70	D
146	1526	630.02	124	440	497	118	45.0	2760	596.66	9.14	7.49	882	861	33.7	34.9	440	17544	215	2.7	39	101	.54	.76	.74	1.27	9.40	8.70	D
147	1527	632.51	100	473	545	118	49.3	2770	596.66	9.17	7.45	883	801	33.8	34.8	437	17716	218	2.8	49	100	.55	.84	.81	1.27	9.43	8.70	D
148	1529	635.01	96.9	460	531	118	48.3	2780	596.66	9.19	7.49	882	771	33.8	34.7	437	17897	220	2.8	51	100	.55	.84	.81	1.27	9.47	8.70	D
149	1537	637.52	117	417	539	115	38.6	2780	603.25	9.29	7.47	882	879	33.8	34.5	433	18041	223	2.8	44	99	.56	.73	.71	1.27	9.45	8.70	D
150	1539	640.05	85.8	458	557	11																						

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	M V lb/gal		FLO/ MIN		TEMP (C)		PVT	-----THIS BIT-----			--COST--		EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT		IN	OUT	REVS	m	hrs						INST	RUN	TV
152	1541	645.02	11.7	435	530	11.5	42.9	2700	606.06	9.24	7.38	884	318	34.0	35.1	41.9	18506	230	2.9	43	98	.58	.75	.73	1.27	9.52	8.70	D
153	1550	647.53	12.5	398	516	11.5	32.0	2760	614.62	9.30	7.53	371	1550	34.2	34.6	41.6	18643	233	2.9	42	97	.58	.68	.66	1.28	9.49	8.70	D
154	1551	650.03	13.2	433	535	11.6	41.9	2760	615.63	9.25	7.80	878	1697	34.2	34.6	40.4	18813	235	2.9	50	97	.59	.78	.76	1.27	9.52	8.70	D
155	1553	652.53	97.5	435	512	11.6	43.3	2760	615.98	9.22	7.91	877	1680	34.2	34.9	39.7	18988	238	2.9	50	96	.59	.80	.77	1.28	9.56	8.70	D
156	1601	655.01	12.7	422	519	11.6	39.5	2740	624.16	9.15	8.07	852	1532	34.4	35.7	42.1	19123	240	3.0	44	96	.60	.71	.69	1.27	9.53	8.70	D
157	1605	657.51	10.3	413	499	11.7	35.3	2740	625.39	8.79	7.77	866	1571	31.9	35.8	42.1	19536	243	3.0	40	96	.61	.74	.72	1.28	9.57	8.70	D
158	1606	660.00	12.3	421	472	11.7	37.5	2730	626.03	8.70	7.65	876	1542	31.4	35.8	41.6	19676	245	3.0	40	95	.61	.70	.68	1.27	9.61	8.70	D
159	1614	662.54	15.5	404	478	11.3	29.1	2750	633.78	8.70	7.68	887	747	30.7	35.1	45.1	19736	248	3.1	42	95	.62	.60	.58	1.28	9.59	8.70	D
160	1616	665.01	11.5	395	443	11.3	34.2	2740	634.28	8.65	7.70	888	692	30.7	35.6	45.2	19930	250	3.1	45	94	.62	.70	.68	1.27	9.62	8.70	D
161	1617	667.52	11.4	434	455	11.3	35.7	2730	634.28	8.60	7.67	889	678	30.7	35.6	45.4	20077	253	3.1	43	94	.62	.70	.68	1.28	9.66	8.70	D
162	1625	670.08	12.3	395	444	11.3	35.7	2710	640.57	8.73	7.33	861	694	30.6	35.9	46.7	20216	255	3.1	41	93	.63	.68	.66	1.27	9.60	8.70	D
163	1626	672.52	11.9	382	455	11.4	30.5	2720	642.37	8.78	7.24	879	696	31.3	35.3	45.7	20353	258	3.1	42	93	.63	.67	.65	1.28	9.59	8.70	D
164	1627	675.02	11.0	384	429	11.5	31.2	2720	643.52	8.80	6.95	880	692	31.6	35.6	44.6	20506	260	3.2	45	93	.64	.69	.67	1.28	9.61	8.70	D
165	1629	677.52	10.3	391	449	11.5	33.3	2730	643.52	8.80	6.95	880	699	31.6	35.6	44.0	20671	263	3.2	48	92	.64	.72	.70	1.28	9.61	8.70	D
166	1637	680.00	13.8	380	435	11.2	27.8	2710	649.37	8.84	5.29	868	675	33.2	34.0	43.5	20791	265	3.2	42	92	.65	.62	.60	1.28	9.48	8.70	D
167	1639	682.53	10.6	380	470	11.4	29.3	2720	651.33	8.87	8.67	873	630	33.4	34.9	42.4	20951	268	3.2	46	91	.65	.70	.68	1.28	9.46	8.70	D
168	1640	685.00	10.8	391	439	11.6	32.2	2730	652.55	8.88	8.43	874	603	33.5	35.5	41.8	21107	270	3.3	45	91	.65	.72	.69	1.28	9.47	8.70	D
169	1641	687.51	12.4	389	436	11.6	32.4	2730	652.55	8.88	8.43	872	597	33.5	35.5	41.6	21246	273	3.3	40	90	.66	.68	.66	1.28	9.47	8.70	D
170	1651	690.01	15.8	345	426	11.5	24.5	2790	658.09	8.93	8.54	866	562	34.3	35.4	41.9	21353	275	3.3	42	90	.66	.59	.57	1.28	9.36	8.70	D
171	1652	692.51	12.4	392	439	11.3	31.6	2810	659.10	8.92	8.72	867	562	34.4	35.2	41.4	21489	278	3.3	43	90	.67	.68	.66	1.28	9.35	8.70	D
172	1654	695.01	11.7	406	472	11.3	36.6	2830	659.60	8.92	8.72	867	558	34.4	35.2	40.7	21632	280	3.3	42	89	.67	.72	.70	1.28	9.38	8.70	D
173	1655	697.52	11.7	396	454	11.3	36.6	2790	659.89	8.93	8.83	866	556	34.5	35.3	40.3	21775	283	3.4	42	89	.67	.72	.70	1.28	9.38	8.70	D
174	1704	700.02	12.2	369	442	11.2	27.0	2790	668.15	8.87	8.29	864	557	34.6	34.3	41.3	21911	285	3.4	47	88	.68	.66	.64	1.28	9.25	8.70	D
175	1705	702.52	11.4	380	422	11.8	30.8	2780	669.23	8.87	8.29	865	569	34.6	34.3	40.4	22064	288	3.4	43	88	.68	.71	.69	1.28	9.25	8.70	D
176	1706	705.02	91.3	381	469	11.7	34.0	2770	669.26	8.91	8.68	867	553	34.7	34.1	39.8	22254	290	3.4	56	88	.69	.79	.76	1.28	9.27	8.70	D
177	1708	707.52	10.7	388	475	11.7	36.1	2770	670.32	8.90	8.91	866	543	34.7	33.6	39.0	22418	293	3.4	48	87	.69	.76	.73	1.29	9.28	8.70	D
178	1716	710.03	17.0	359	418	11.2	23.0	2850	677.61	8.93	8.88	878	553	34.5	35.5	40.9	22516	295	3.5	39	87	.69	.56	.54	1.28	9.24	8.70	D
179	1717	712.50	12.0	386	443	11.1	32.5	2860	678.50	8.93	8.88	881	555	34.5	35.5	40.2	22652	298	3.5	46	87	.70	.70	.68	1.29	9.26	8.70	D
180	1718	715.00	13.5	423	511	11.1	39.6	2870	678.66	8.87	8.27	882	555	34.2	35.7	39.8	22774	300	3.5	37	86	.70	.70	.68	1.28	9.30	8.70	D
+ Deviation at 716m = 0.25 degrees.																												
182	1902	717.50	10.4	376	518	11.0	42.2	2580	716.45	9.33	10.0	817	506	28.2	33.6	44.8	23612	303	3.6	67	88	.72	.82	.79	1.29	8.88	8.70	D
183	1903	720.01	9.6	184	262	10.7	45.1	2590	716.45	9.33	10.0	824	512	28.2	33.6	44.7	23670	305	3.6	66	87	.72	.98	.95	1.29	8.89	8.70	D
184	1903	722.54	81.2	197	251	11.1	46.4	2590	716.45	9.33	10.0	826	514	28.2	33.6	45.4	23713	308	3.6	65	87	.73	1.06	1.03	1.29	8.92	8.70	D
185	1904	725.02	82.9	194	242	11.2	48.7	2590	716.45	9.31	9.89	829	516	28.0	33.1	45.4	23806	310	3.6	55	86	.73	.91	.88	1.29	8.98	8.70	D
186	1904	727.54	84.5	200	232	11.2	49.6	2600	716.45	9.31	9.89	830	519	28.0	33.1	45.5	23866	313	3.7	58	86	.73	.91	.88	1.29	8.98	8.70	D
187	1906	730.02	90.2	197	261	11.2	51.9	2610	716.45	8.96	9.83	832	521	28.7	33.0	46.5	24049	315	3.7	55	85	.74	.90	.87	1.29	9.03	8.70	D
188	1908	732.51	83.9	213	264	11.2	55.9	2630	716.45	8.96	9.75	833	526	29.2	33.5	46.4	24246	318	3.7	61	85	.75	.94	.91	1.29	9.06	8.70	D
189	1916	735.01	12.4	219	282	11.3	41.6	2850	716.45	8.93	9.96	864	537	30.0	33.4	46.9	24409	320	3.7	42	85	.75	.76	.73	1.29	9.08	8.70	D
190	1917	737.52	11.4	226	290	11.6	49.2	2830	716.45	8.88	9.90	868	545	30.2	33.5	46.2	24560	323	3.8	42	85	.76	.82	.79	1.29	9.10	8.70	D
191	1918	740.01	11.2	218	264	11.5	56.7	2830	716.45	8.76	9.85	868	549	30.3	33.3	45.8	24681	325	3.8	43	84	.76	.86	.83	1.29	9.12	8.70	D
192	1919	742.52	11.1	218	261	11.5	60.7	2820	716.45	8.76	9.85	869	552	30.3	33.3	45.8	24834	328	3.8	44	84	.77	.88	.84	1.29	9.16	8.70	D
193	1928	745.08	11.6	127	253	11.3	47.1	2790	716.45	8.83	9.91	866	543	31.4	34.0	47.1	25000	330	3.8	53	84	.78	.79	.76	1.29	9.21	8.70	D
194	1930	747.52	96.4	138	221	11.2	48.5	2790	716.45	8.83	9.91	867	542	31.4	34.0	45.9	25170	333	3.9	55	84	.78	.84	.81	1.29	9.26	8.70	D
195	1932	750.02	89.7	206	251	11.2	52.7	2790	716.45	8.78	9.89	868	542	31.6	34.7	45.5	25354	335	3.9	55	83	.79	.88	.85	1.29	9.30	8.70	D
196	1933	752.52	83.5	226	275	11.2	51.3	1910	716.45	8.81	9.83	801	539	31.7	34.9	45.6	25554	338	3.9	60	83	.80	.89	.86	1.29	9.33	8.70	D
197	1945	755.01	60.9	248	355	11.2	31.6	1920	718.10	8.87	10.0	708	533	32.4	34.4	44.6	25829	340	3.9	91	83	.80	.85	.82	1.29	9.36	8.70	D
198	1947	757.52	76.8	306	357	11.2	31.8	1910	718.24	8.85	9.77	708	530	32.6	33.8	43.3	26043	343	4.0	64	83	.81	.79	.77	1.29	9.38	8.70	D
199	1950	760.01	60.6	297	352	11.1	30.7	1920	719.70	8.84	9.62	708	529	32.7	33.6	42.6	26314	345	4.0	78	83	.82	.84	.81	1.29	9.39	8.70	D
200	2001	76																										

KOORKAH NO.1

Date Printed at time 02:42 Date Dec 22 '85
 Data Recorded at time 20:05 Date Dec 1 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS	M/lb/gal		FLOW/MLN		TEMP (C)		PVT	THIS BIT			COST		EST	DKC	NK	NKB	ECD	EST
				AVG	MAX					AVG	AVG	IN	OUT	IN	OUT		IN	OUT	REVS	m	hrs						
202	2005	767.52	72.6	288	329	113	29.0	1920	728.09	3.81	9.44	708	532	32.8	34.0	400	27028	353	4.1	69	83	.84	.79	.76	1.30	9.38	8.70
203	2007	770.01	77.1	278	312	113	26.6	1920	729.33	3.81	9.47	708	534	32.8	33.9	394	27245	355	4.2	64	83	.84	.76	.73	1.29	9.40	8.70
† Flowline blocked at 771m, wiper trip while clearing flowline. † Gas-trap and temperature sensor not in mud stream. Date Dec 2 '85																											
205	0231	772.50	51.6	233	285	106	11.2	2800	771.00	9.20	9.20	911	869	32.3	0.0	494	27609	358	4.2	150	83	.85	.72	.70	1.28	9.01	8.70
206	0233	775.03	49.5	218	274	111	13.1	2800	771.00	9.16	9.20	911	875	32.5	0.0	492	27891	360	4.3	104	83	.85	.75	.73	1.28	9.07	8.70
207	0236	777.51	41.6	227	279	111	14.8	2870	771.00	9.19	9.20	910	874	32.7	0.0	492	28185	363	4.3	114	83	.86	.81	.78	1.28	9.13	8.70
208	0248	780.02	43.2	241	296	111	14.5	2800	771.00	9.20	9.20	891	848	33.1	0.0	496	28351	365	4.3	119	83	.86	.79	.76	1.28	9.24	8.70
209	0251	782.50	56.9	224	286	116	13.5	2820	771.00	9.17	9.20	902	858	33.2	0.0	485	28665	368	4.4	108	83	.87	.69	.66	1.29	9.29	8.70
210	0254	785.11	59.9	246	301	116	13.0	2830	771.00	9.19	9.20	902	860	33.2	0.0	485	28965	370	4.4	86	83	.87	.67	.64	1.28	9.34	8.70
211	0258	787.52	37.3	237	289	115	12.8	2820	771.00	9.19	9.20	902	870	33.3	0.0	486	29408	373	4.5	134	83	.88	.79	.76	1.29	9.41	8.70
212	0311	790.06	56.8	228	284	112	13.1	2840	771.00	9.22	9.20	903	881	33.5	0.0	498	29713	375	4.5	112	84	.89	.66	.64	1.28	9.46	8.70
213	0315	792.51	37.1	231	293	115	9.2	2830	772.66	9.18	9.20	901	889	33.5	0.0	489	30163	378	4.6	145	84	.89	.73	.71	1.29	9.47	8.70
214	0320	795.00	32.9	224	272	115	9.4	2820	774.38	9.17	9.20	902	892	33.6	0.0	492	30682	380	4.7	154	84	.90	.76	.73	1.28	9.47	8.70
215	0324	797.53	34.9	236	288	115	11.2	2800	777.35	9.18	9.20	903	895	33.7	0.0	497	31167	383	4.7	147	85	.91	.77	.75	1.29	9.47	8.70
216	0339	800.04	72.5	224	262	113	8.2	2810	778.89	9.23	9.20	898	890	34.1	0.0	499	31401	385	4.8	122	85	.92	.59	.57	1.29	9.49	8.70
217	0343	802.50	35.0	238	299	111	15.2	2800	781.02	9.14	9.20	898	876	34.1	0.0	489	31863	388	4.8	140	85	.93	.81	.79	1.29	9.50	8.70
218	0347	805.01	34.1	262	325	112	19.9	2800	784.64	9.16	9.20	897	871	34.2	0.0	493	32356	390	4.9	151	85	.93	.87	.85	1.29	9.49	8.70
219	0351	807.51	44.2	289	344	112	23.2	2770	786.57	9.16	9.20	897	867	34.3	0.0	489	32734	393	5.0	119	86	.94	.85	.82	1.29	9.50	8.70
220	0401	810.00	76.3	285	375	115	25.0	2790	788.42	9.19	9.20	894	863	34.5	0.0	488	32956	395	5.0	71	86	.95	.75	.72	1.29	9.49	8.70
221	0404	812.50	49.8	310	368	116	30.2	2800	791.12	9.11	9.20	893	869	34.6	0.0	486	33307	398	5.1	98	86	.95	.89	.86	1.29	9.49	8.70
222	0407	815.04	56.6	307	391	113	30.4	2820	793.72	9.13	9.20	891	875	34.7	0.0	492	33607	400	5.1	84	86	.96	.85	.82	1.29	9.49	8.70
223	0416	817.53	98.3	271	347	113	24.4	2810	797.98	9.27	9.20	884	862	34.9	0.0	504	33780	403	5.1	53	86	.96	.68	.65	1.29	9.46	8.70
224	0418	820.06	68.7	264	317	115	21.9	2830	798.26	9.16	9.20	896	870	34.9	0.0	495	34031	405	5.2	89	85	.97	.75	.72	1.29	9.48	8.70
225	0421	822.56	52.3	264	306	115	22.0	2820	799.70	9.13	9.20	897	879	35.0	0.0	493	34359	408	5.2	97	86	.97	.81	.78	1.29	9.49	8.70
226	0424	825.03	49.9	294	343	116	28.8	2830	801.53	9.11	9.20	897	878	35.0	0.0	488	34699	410	5.3	104	86	.98	.87	.84	1.29	9.50	8.70
227	0436	827.51	48.4	285	365	114	26.0	2860	806.73	9.17	9.20	893	868	35.3	0.0	492	35047	413	5.3	106	86	.99	.86	.83	1.29	9.40	8.70
228	0440	830.01	39.5	262	332	112	23.8	2900	807.10	9.05	9.20	903	861	35.4	0.0	480	35472	415	5.4	127	86	1.00	.89	.86	1.29	9.42	8.70
229	0444	832.51	41.7	256	378	112	30.4	2900	808.58	9.04	9.20	904	865	35.5	0.0	469	35875	418	5.4	121	86	1.00	.93	.89	1.29	9.43	8.70
230	0446	835.02	69.2	295	334	112	29.3	2880	810.51	9.06	9.20	903	861	35.5	0.0	465	36118	420	5.5	71	86	1.01	.80	.77	1.29	9.43	8.70
231	0459	837.51	55.9	287	333	112	31.1	2900	816.52	9.11	9.20	908	881	35.7	0.0	463	36172	423	5.5	70	86	1.01	.87	.84	1.29	9.36	8.70
232	0501	840.02	58.1	261	321	117	25.0	2910	817.56	9.15	9.20	909	882	35.7	0.0	462	36220	425	5.5	80	85	1.01	.85	.81	1.29	9.38	8.70
233	0504	842.51	62.3	267	335	115	28.0	2900	820.03	9.07	9.20	910	873	35.7	0.0	445	36491	428	5.5	72	85	1.02	.83	.79	1.29	9.37	8.70
234	0518	845.00	60.2	269	331	114	25.7	2840	825.54	9.21	9.20	894	833	36.1	0.0	454	36766	430	5.6	82	85	1.02	.82	.79	1.29	9.32	8.70
235	0521	847.50	49.7	252	313	116	24.3	2850	825.85	9.05	9.20	902	861	36.0	0.0	437	37113	433	5.6	126	86	1.03	.85	.82	1.29	9.34	8.70
236	0524	850.00	47.6	255	316	115	29.4	2870	827.69	9.09	9.20	902	849	36.0	0.0	419	37472	435	5.7	115	86	1.04	.90	.87	1.29	9.35	8.70
237	0526	852.51	61.0	255	315	115	26.9	2850	829.44	9.08	9.20	901	847	36.0	0.0	406	37753	438	5.7	82	86	1.04	.82	.79	1.30	9.36	8.70
238	0541	855.06	43.1	248	302	114	25.5	2900	834.83	9.20	9.20	909	887	36.4	0.0	402	38160	440	5.8	117	86	1.05	.89	.86	1.29	9.33	8.70
239	0544	857.51	40.0	252	323	113	21.2	2900	837.91	9.15	9.20	908	886	36.4	0.0	389	38567	443	5.8	120	86	1.06	.87	.84	1.30	9.35	8.70
240	0548	860.00	39.3	288	333	114	28.9	2920	840.68	9.18	9.20	908	895	36.5	0.0	382	38993	445	5.9	125	86	1.07	.94	.91	1.30	9.35	8.70
241	0553	862.53	33.9	290	359	115	31.9	2890	844.30	9.32	9.20	908	907	36.8	0.0	379	39505	448	6.0	147	87	1.08	1.01	.97	1.30	9.34	8.70
242	0605	865.01	45.3	268	336	115	32.1	2890	847.22	9.32	9.20	902	912	37.0	0.0	371	39998	450	6.0	110	87	1.09	.93	.90	1.30	9.38	8.70
243	0608	867.56	53.0	275	319	115	28.6	2880	849.65	9.28	9.20	902	907	37.0	0.0	355	40323	453	6.1	98	87	1.09	.87	.83	1.30	9.39	8.70
244	0612	870.01	35.2	290	331	113	33.4	2900	852.76	9.22	9.20	900	893	36.9	0.0	350	40797	455	6.1	127	87	1.10	1.00	.96	1.30	9.39	8.70
† Survey at 871.5m																											
246	0701	872.52	32.1	234	356	114	32.2	2930	859.09	9.33	9.20	902	897	32.5	0.0	483	41408	4									

KOORCAH D.1

Data Printed at time 02:45 Date Dec 22 '85
Data Recorded at time 07:28 Date Dec 2 '85

F#	TIME	DEPTH	ROP m/hr	TORQUE		RPM	DB	PUMP	RTRNS	M / lb/gal		FLOW/ MIN		TEMP (C)	PVT	-----THIS BIT-----			EST	DKC	AK	NKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	RUN
250	J728	382.51	44.5	273	345	114	33.6	2910	878.47	9.34	9.20	895	940	34.6	0.0	385	43243	463	6.5	1.11	89	1.15	.96	.92	1.30	9.26	8.70	D
251	J732	385.01	37.7	280	373	116	36.3	2910	871.28	8.72	9.20	899	940	34.3	0.0	367	43704	470	6.6	1.38	89	1.16	1.03	.98	1.30	9.26	8.70	D
252	J737	387.50	32.2	259	395	116	42.1	2910	871.28	9.13	9.20	897	931	31.9	0.0	404	44236	473	6.6	1.60	90	1.17	1.10	1.06	1.29	9.31	8.70	D
253	J741	390.00	33.0	260	388	114	45.6	2900	871.28	9.04	9.20	889	918	32.0	0.0	439	44754	475	6.7	1.46	90	1.18	1.11	1.07	1.29	9.34	8.70	D
254	J753	392.50	46.5	240	336	114	37.5	2930	874.32	9.10	9.20	897	888	34.6	0.0	427	45156	478	6.8	1.12	90	1.19	.97	.93	1.29	9.32	8.70	D
255	J802	395.00	32.1	248	331	115	45.7	2920	877.70	9.07	9.20	898	861	34.8	0.0	423	45693	480	6.9	1.44	90	1.21	1.13	1.09	1.29	9.29	8.70	D
256	J809	397.51	23.9	260	352	114	58.1	2910	880.13	9.06	9.20	900	898	35.3	0.0	407	46401	483	7.0	1.78	91	1.23	1.30	1.25	1.28	9.28	8.70	D
257	J820	400.02	79.0	221	395	112	51.9	2890	883.03	9.10	9.20	899	865	35.4	0.0	461	46627	485	7.0	.62	91	1.23	.92	.87	1.29	9.27	8.70	D
258	J822	402.52	58.5	203	386	115	48.3	2900	884.59	9.10	9.10	896	857	35.0	0.0	463	46919	488	7.0	.83	91	1.24	.99	.94	1.28	9.28	8.70	D
259	J825	405.03	59.3	175	315	116	43.8	2910	885.89	9.09	9.10	895	845	34.1	0.0	471	47209	490	7.1	.81	91	1.24	.96	.91	1.29	9.28	8.70	D
260	J828	407.51	45.5	173	272	116	46.6	2920	887.46	9.03	9.10	896	854	33.5	0.0	473	47583	493	7.1	1.02	91	1.25	1.05	1.00	1.29	9.27	8.70	D
261	J840	410.00	42.7	221	349	113	40.2	2860	889.63	9.06	9.10	885	825	33.6	0.0	487	48016	495	7.2	1.14	91	1.26	1.01	.97	1.29	9.30	8.70	D
262	J843	412.50	46.3	272	384	113	42.3	2860	891.46	9.06	9.10	885	829	33.8	0.0	482	48378	498	7.3	1.07	91	1.27	1.00	.96	1.29	9.31	8.70	D
263	J846	415.00	48.4	345	392	113	47.9	2860	893.10	9.12	9.10	885	844	34.3	0.0	485	48726	500	7.3	1.04	91	1.28	1.03	.98	1.29	9.32	8.70	D
264	J857	417.51	47.7	343	394	113	46.4	2920	896.07	9.16	9.10	886	843	35.2	0.0	496	49096	503	7.4	1.02	92	1.29	1.02	.97	1.29	9.32	8.70	D
265	J900	420.01	44.5	338	382	115	39.5	2930	898.71	9.14	9.10	900	869	35.6	0.0	487	49470	505	7.4	1.16	92	1.29	1.00	.95	1.29	9.32	8.70	D
266	J904	422.51	41.2	363	409	115	45.4	2830	898.34	9.12	9.10	888	848	36.0	0.0	484	49887	508	7.5	1.16	92	1.30	1.06	1.01	1.29	9.34	8.70	D
267	J908	425.02	37.7	350	421	113	47.8	2870	901.34	9.15	9.10	888	848	36.2	0.0	481	50335	510	7.5	1.32	92	1.31	1.09	1.04	1.28	9.35	8.70	D
268	J921	427.50	29.4	266	384	114	46.6	2860	907.78	9.18	9.20	884	839	36.6	0.0	492	50941	513	7.6	1.89	92	1.33	1.16	1.11	1.28	9.31	8.70	D
269	J925	430.01	44.5	271	386	115	47.6	2860	907.84	9.13	9.20	887	840	36.7	0.0	489	51325	515	7.7	1.14	93	1.33	1.05	1.00	1.28	9.34	8.70	D
270	J928	432.51	50.6	262	389	115	51.6	2870	909.37	9.14	9.20	887	844	36.7	0.0	491	51663	518	7.7	.98	93	1.34	1.04	.99	1.28	9.36	8.70	D
271	J930	435.01	56.0	281	423	114	54.9	2860	911.61	9.13	9.20	886	829	36.8	0.0	488	51966	520	7.8	.89	93	1.35	1.02	.97	1.28	9.37	8.70	D
272	J943	437.51	47.6	359	488	114	47.8	2980	916.79	9.17	9.20	885	831	37.3	0.0	491	52333	523	7.8	1.02	93	1.36	1.03	.98	1.28	9.36	8.70	D
273	J947	440.05	42.8	412	475	114	52.0	2930	917.96	9.13	9.20	885	844	37.3	0.0	480	52737	525	7.9	1.21	93	1.37	1.08	1.03	1.27	9.38	8.70	D
274	J949	442.51	52.2	358	471	114	49.5	2930	919.33	9.09	9.20	887	833	37.4	0.0	474	53055	528	7.9	.98	93	1.37	1.01	.96	1.28	9.39	8.70	D
275	J001	445.00	54.0	287	463	113	49.9	2930	924.60	9.18	9.20	875	787	37.8	0.0	496	53374	530	8.0	.98	93	1.38	1.00	.95	1.27	9.37	8.70	D
276	J004	447.50	56.6	286	387	114	37.8	2890	925.37	9.18	9.20	881	830	37.9	0.0	490	53676	533	8.0	.92	93	1.39	.91	.87	1.28	9.38	8.70	D
277	J007	450.00	47.5	262	371	113	41.9	2910	926.05	9.20	9.20	881	806	37.9	0.0	488	54027	535	8.1	.99	93	1.39	.98	.94	1.28	9.40	8.70	D
278	J010	452.50	43.8	263	367	114	44.5	2890	926.78	9.16	9.20	881	824	38.0	0.0	487	54404	538	8.1	1.12	93	1.40	1.02	.97	1.28	9.42	8.70	D
279	J021	455.00	54.9	254	380	114	44.7	2920	932.07	9.14	9.20	876	826	38.2	0.0	502	54733	540	8.2	.92	93	1.41	.97	.92	1.28	9.39	8.70	D
280	J024	457.52	48.9	247	399	114	45.3	2900	934.65	9.14	9.20	877	862	38.2	0.0	478	55079	543	8.2	1.04	93	1.42	1.00	.95	1.28	9.39	8.70	D
281	J027	460.01	42.5	250	380	114	49.9	2890	935.15	9.09	9.20	879	848	38.2	0.0	456	55474	545	8.3	1.22	93	1.42	1.07	1.01	1.28	9.41	8.70	D
282	J030	462.51	58.2	269	385	114	47.0	2890	935.28	9.07	9.20	879	847	38.2	0.0	441	55767	548	8.3	.85	93	1.43	.96	.91	1.28	9.44	8.70	D
283	J041	465.00	57.2	284	392	114	42.6	2900	940.50	9.09	9.10	877	837	38.2	0.0	411	56078	550	8.4	.91	93	1.44	.94	.89	1.28	9.41	8.70	D
284	J044	467.50	48.0	284	417	114	45.1	2920	942.58	9.07	9.10	878	844	38.2	0.0	391	56433	553	8.4	1.03	93	1.44	1.00	.95	1.28	9.41	8.70	D
285	J046	470.00	59.6	263	386	115	46.4	2920	943.62	9.06	9.10	877	823	38.2	0.0	386	56724	555	8.5	.82	93	1.45	.95	.90	1.28	9.42	8.70	D
286	J049	472.54	56.6	270	389	115	46.1	2930	944.26	9.06	9.10	874	826	38.2	0.0	381	57027	558	8.5	.88	93	1.46	.96	.91	1.28	9.43	8.70	D
287	J100	475.00	56.1	269	389	114	38.7	2930	948.73	9.06	9.10	872	821	37.0	0.0	395	57334	560	8.6	.92	93	1.46	.92	.87	1.28	9.40	8.70	D
288	J103	477.52	50.9	294	403	116	42.3	2960	951.11	9.03	9.10	872	827	36.8	0.0	389	57676	563	8.6	1.00	93	1.47	.97	.92	1.29	9.40	8.70	D
289	J106	480.02	47.6	298	406	116	40.6	2820	953.32	9.04	9.10	855	831	36.6	0.0	377	58036	565	8.7	1.10	93	1.48	.98	.93	1.28	9.40	8.70	D
290	J116	482.53	58.7	290	419	115	39.9	2750	955.50	9.04	9.10	830	795	36.6	0.0	374	58336	568	8.7	.85	93	1.48	.92	.87	1.29	9.38	8.70	D
291	J120	485.01	47.0	300	435	114	40.8	2780	957.68	9.05	9.10	847	810	36.7	0.0	363	58694	570	8.8	1.06	93	1.49	.98	.93	1.28	9.38	8.70	D
292	J123	487.51	42.7	304	440	114	44.5	2790	960.45	8.87	9.10	848	811	36.9	0.0	360	59092	573	8.8	1.14	94	1.50	1.04	.98	1.29	9.36	8.70	D
293	J126	490.01	47.5	309	425	114	45.4	2780	962.80	8.88	9.10	847	818	37.0	0.0	343	59451	575	8.9	1.06	94	1.50	1.01	.96	1.28	9.36	8.70	D
294	J138	492.53	51.7	301	388	115	38.3	2690	965.62	8.99	9.10	836	806	37.5	0.0	315	59793	578	8.9	1.00	94	1.51	.95	.90	1.29	9.33	8.70	D
295	J141	495.03	44.8	271	394	116	42.7	2720	969.68	9.01	9.10	838	800	37.0	0.0	298	60100	580	9.0	1.09	94	1.52	1.02	.97	1.28	9.31	8.70	D
296	J145	497.51	44.6	249	393	115	47.7	2830	972.13	9.03	9.10	857	809	35.5	0.0	275	60561	583	9.0	1.11	94	1.52	1.05	1.00	1.29	9.29	8.70	

KOORKAH W.D.1

Data Printed at time 02:49 Date Dec 22 '85
 Data Recorded at time 12:08 Date Dec 2 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTRNS		MV lb/gal		FLOW/MIN		TEMP (C)	PVT	---THIS BIT---			EST PI	DKC	AK	NKB	ECD	EST EM PR			
				AVG	MAX				IN	DEPTH	IN	OUT	IN	OUT			REVS	m	hrs							INST	RUN	
300	1208	1007.5	44.3	329	410	11.4	42.4	2750	981.27	9.30	9.10	336	697	30.2	0.0	389	62165	593	9.3	1.17	94	1.56	1.02	.97	1.29	9.23	3.70	D
301	1403	1010.0	51.9	365	411	11.3	39.4	2830	1007.7	9.31	9.10	876	371	35.4	0.0	391	62535	595	9.3	1.10	94	1.56	.98	.93	1.28	9.32	3.70	D
302	1413	1012.5	50.7	358	423	11.4	36.9	2730	1007.7	9.67	9.10	862	359	34.7	0.0	529	62881	598	9.4	1.01	94	1.57	.98	.92	1.29	9.01	3.70	D
303	1416	1015.0	47.3	401	447	11.4	43.8	2760	1007.7	9.75	9.10	859	369	34.5	0.0	549	63238	600	9.4	1.07	95	1.58	1.04	.98	1.29	9.02	3.70	D
304	1419	1017.5	45.9	393	434	11.4	44.3	2770	1007.7	9.80	9.10	859	349	34.3	0.0	546	63607	603	9.5	1.09	95	1.58	1.05	1.00	1.29	9.04	3.70	D
305	1435	1020.0	53.5	381	443	11.4	40.3	2730	1007.7	9.37	9.10	840	363	33.4	0.0	553	63925	605	9.5	0.89	95	1.59	.97	.91	1.29	9.13	3.70	D
306	1438	1022.5	48.6	405	453	11.6	42.7	2720	1007.7	9.19	9.10	846	364	33.9	0.0	545	64280	608	9.6	0.98	95	1.60	1.01	.95	1.29	9.19	3.70	D
307	1441	1025.0	42.1	404	453	11.5	43.9	2750	1007.7	9.13	9.10	846	356	34.1	0.0	552	64639	610	9.6	1.11	95	1.60	1.05	.99	1.29	9.25	3.70	D
308	1445	1027.6	47.3	390	431	11.5	43.2	2790	1007.7	9.10	9.10	857	382	34.5	0.0	549	65060	613	9.7	1.08	95	1.61	1.00	.95	1.29	9.35	3.70	D
309	1456	1030.0	59.1	356	436	11.4	35.8	2820	1007.7	9.10	9.10	867	416	32.4	0.0	602	65341	615	9.7	0.87	95	1.62	.88	.83	1.29	9.49	3.70	D
310	1459	1032.5	44.9	386	415	11.2	43.2	2790	1008.1	9.11	9.10	873	435	32.0	0.0	586	65701	618	9.8	1.04	95	1.62	.99	.93	1.29	9.54	3.70	D
311	1502	1035.0	44.6	391	456	11.4	41.9	1970	1009.6	9.07	9.10	719	391	32.3	0.0	577	66085	620	9.8	1.14	95	1.63	.98	.93	1.29	9.58	3.70	D
312	1506	1037.5	37.6	371	431	11.4	40.9	2730	1010.6	9.39	9.10	863	473	32.1	0.0	567	66537	623	9.9	1.26	95	1.64	1.02	.96	1.30	9.61	3.70	D
313	1519	1040.0	41.1	330	376	11.4	29.4	2680	1017.4	9.10	9.10	863	646	32.4	0.0	557	66967	625	10.0	1.24	95	1.65	.91	.86	1.29	9.62	3.70	D
314	1844	1042.6	73.0	270	364	11.5	24.3	2820	1040.6	8.99	9.10	913	707	32.4	0.0	606	67320	628	10.0	1.31	95	1.65	.78	.73	1.30	9.06	3.70	D
315	1848	1045.0	35.1	227	256	11.4	21.9	2820	1040.6	8.96	9.10	917	700	32.4	0.0	611	67783	630	10.1	1.61	96	1.66	.93	.88	1.29	9.08	3.70	D
316	1852	1047.5	36.3	216	243	11.5	20.0	2820	1040.6	8.96	9.10	917	700	32.5	0.0	614	68253	633	10.2	1.37	96	1.67	.90	.85	1.30	9.09	3.70	D
+ Deviation at 1042m = 1.5 degrees.																												
318	1910	1050.0	37.6	179	219	11.4	17.2	2770	1040.6	8.93	9.10	907	661	33.3	0.0	601	68993	635	10.3	1.31	96	1.68	.87	.82	1.29	9.08	3.70	D
319	1915	1052.5	29.1	170	198	11.4	17.5	2770	1040.6	8.88	9.10	907	653	33.4	0.0	594	69576	638	10.3	1.71	96	1.68	.92	.87	1.30	9.10	3.70	D
320	1921	1055.0	26.3	189	244	11.5	19.8	2810	1040.6	8.89	9.10	916	657	33.6	0.0	597	70231	640	10.4	1.79	97	1.69	.97	.92	1.29	9.12	3.70	D
321	1938	1057.5	22.9	165	196	11.5	19.2	2820	1042.1	8.86	9.10	916	652	34.3	0.0	595	70999	643	10.6	2.34	97	1.71	1.00	.95	1.30	9.11	3.70	D
322	1943	1060.0	31.4	175	206	11.7	20.2	2830	1044.4	8.80	9.10	916	651	34.4	0.0	583	71551	645	10.6	1.60	98	1.71	.94	.89	1.29	9.10	3.70	D
323	1949	1062.5	24.5	180	222	11.7	23.7	2780	1047.0	8.82	9.10	918	661	34.7	0.0	584	72265	648	10.7	2.17	98	1.72	1.04	.98	1.30	9.09	3.70	D
324	1954	1065.0	32.3	182	209	11.7	24.5	2800	1047.1	8.84	9.10	918	657	34.9	0.0	591	72805	650	10.8	1.54	98	1.73	.98	.93	1.29	9.11	3.70	D
325	2009	1067.5	31.6	174	231	11.5	23.1	2790	1052.7	8.88	9.10	917	663	35.6	0.0	588	73355	653	10.9	1.68	99	1.74	.97	.92	1.30	9.06	3.70	D
326	2014	1070.0	31.6	199	253	11.2	28.9	2830	1055.0	8.86	9.10	916	653	35.7	0.0	587	73885	655	11.0	1.73	99	1.75	1.02	.97	1.29	9.04	3.70	D
327	2019	1072.5	29.5	214	257	11.2	34.9	2850	1056.4	8.87	9.10	919	659	36.0	0.0	585	74450	658	11.1	1.69	99	1.76	1.09	1.03	1.30	9.04	3.70	D
328	2027	1075.0	13.9	190	262	11.3	41.6	2800	1057.1	8.88	9.10	918	658	36.3	0.0	584	75341	660	11.2	3.20	100	1.78	1.27	1.20	1.30	9.05	3.70	D
329	2040	1077.5	39.9	205	265	11.1	36.6	2780	1061.0	8.90	9.10	902	674	36.9	0.0	556	75762	663	11.3	1.31	100	1.78	1.03	.97	1.30	9.04	3.70	D
330	2045	1080.0	29.7	222	276	11.1	38.8	2780	1063.7	8.83	9.10	901	681	37.0	0.0	551	76342	665	11.3	1.57	100	1.79	1.13	1.07	1.30	9.03	3.70	D
331	2051	1082.5	23.4	254	339	11.1	38.1	2780	1065.7	8.84	9.10	901	668	37.4	0.0	548	77033	668	11.4	1.99	101	1.80	1.18	1.12	1.29	9.03	3.70	D
332	2056	1085.0	32.2	252	315	11.2	45.5	2810	1065.7	8.83	9.10	902	668	37.6	0.0	548	77549	670	11.5	1.56	101	1.82	1.15	1.08	1.29	9.06	3.70	D
333	2112	1087.5	25.2	227	278	11.5	38.3	2800	1071.5	8.85	9.10	902	678	38.0	0.0	543	78240	673	11.6	3.10	101	1.83	1.17	1.11	1.28	9.04	3.70	D
334	2116	1090.0	38.1	243	307	12.1	46.2	2790	1073.2	8.88	9.10	901	676	38.3	0.0	542	78719	675	11.7	1.30	101	1.84	1.13	1.06	1.27	9.04	3.70	D
335	2121	1092.5	27.9	239	272	12.1	46.0	2850	1074.4	8.90	9.10	902	671	38.5	0.0	562	79359	678	11.8	1.44	102	1.85	1.22	1.15	1.27	9.04	3.70	D
336	2138	1095.0	31.3	225	276	12.0	43.6	2710	1077.8	8.92	9.10	873	653	38.9	0.0	573	80084	680	11.9	1.63	102	1.87	1.17	1.10	1.26	9.03	3.70	D
337	2142	1097.5	30.5	254	309	12.0	46.6	2850	1079.8	8.97	9.10	895	674	38.9	0.0	567	80664	683	12.0	1.70	102	1.88	1.19	1.12	1.26	9.04	3.70	D
338	2147	1100.0	36.2	218	310	12.0	46.9	2850	1081.7	8.97	9.10	897	692	39.0	0.0	567	81163	685	12.0	1.49	102	1.89	1.15	1.08	1.25	9.04	3.70	D
339	2151	1102.5	34.4	233	271	12.1	45.0	2830	1083.7	8.97	9.10	896	529	39.2	0.0	571	81688	688	12.1	1.51	103	1.90	1.15	1.08	1.25	9.05	3.70	D
340	2204	1105.0	41.3	231	256	12.0	40.4	2850	1085.4	9.07	9.10	899	772	39.6	0.0	570	82142	690	12.2	1.56	103	1.91	1.06	.99	1.25	9.08	3.70	D
341	2207	1107.5	44.7	241	270	12.2	44.1	2900	1086.2	9.12	9.10	897	851	39.5	0.0	582	82548	693	12.2	1.12	103	1.91	1.07	1.00	1.25	9.10	3.70	D
342	2211	1110.0	40.4	232	273	12.2	39.6	2830	1088.4	9.12	9.10	897	877	39.2	0.0	580	82998	695	12.3	1.21	103	1.92	1.06	.99	1.25	9.11	3.70	D
343	2215	1112.5	34.0	212	246	12.2	35.3	2880	1090.2	9.16	9.10	896	845	39.1	0.0	586	83533	698	12.4	1.41	103	1.93	1.07	1.00	1.25	9.14	3.70	D
344	2312	1115.0	31.2	213	260	12.3	35.4	2870	1108.1	9.08	9.10	901	874	40.0	0.0	594	84128	700	12.4	1.70	103	1.94	1.09	1.02	1.24	9.16	3.70	D
345	2317	1117.5	30.2	251	303	12.2	42.6	2880	1111.2	9.07	9.10	903	859	40.2	0.0	595	84728	703	12.5	1.62	103	1.96	1.16	1.09	1.24	9.16	3.70	D
346	2322	1120.0	32.4	251	302	12.1	43.0	2890	1112.1	9.09	9.10	903	844	40.6	0.0	595	85287	705	12.6	1.54	104	1.97	1.14	1.07	1.23	9.18	3.70	D
347	2334																											

KOORKAH NO.1

Data Recorded at time 02:53 Date Dec 22 '85
Data Recorded at time 23:54 Date Dec 2 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTRNS DEPTH	M/lb/gal		FLJO/MIN		TEMP (C)		PVT	---THIS BIT---			---COST---		EST TV	DKC	SK	NKB	ECD	EST FM PR
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN						
350	2354	1130.0	30.6	251	293	121	45.9	2900	1113.7	9.34	9.13	902	874	41.3	0.0	616	88257	715	13.0	165	105	2.32	1.17	1.39	1.22	9.24	8.70
	Date	Dec 3 '85																									
351	0013	1132.5	35.4	245	297	120	38.8	1590	1116.2	9.12	9.13	643	621	42.2	0.0	625	88793	718	13.1	148	105	2.33	1.07	1.30	1.21	9.24	8.70
352	0017	1135.0	20.3	189	285	121	26.9	1590	1119.1	9.10	9.10	645	608	42.1	0.0	611	89664	720	13.2	222	106	2.05	1.11	1.34	1.21	9.22	8.70
353	0025	1137.5	18.8	198	241	121	22.5	1570	1121.5	9.13	9.10	639	632	42.0	0.0	610	90623	723	13.3	269	106	2.06	1.08	1.32	1.20	9.22	8.70
354	0031	1140.0	22.2	204	241	121	24.5	1570	1122.3	9.13	9.10	640	624	42.0	0.0	615	91444	725	13.4	223	107	2.07	1.06	1.30	1.20	9.23	8.70
355	0047	1142.5	25.3	198	238	120	22.5	1640	1125.5	9.16	9.10	655	655	42.4	0.0	624	92161	728	13.5	197	107	2.09	1.01	.94	1.21	9.23	8.70
356	0054	1145.0	20.2	212	258	120	33.6	1630	1126.9	9.18	9.10	654	654	42.2	0.0	626	93051	730	13.7	221	108	2.10	1.17	1.10	1.20	9.24	8.70
357	0104	1147.5	24.3	206	250	119	38.0	2870	1130.0	9.11	9.10	892	892	42.3	0.0	585	93795	733	13.8	213	108	2.11	1.16	1.09	1.20	9.24	8.70
358	0123	1150.0	28.0	217	266	120	42.6	2850	1132.1	9.08	9.10	786	736	41.9	0.0	607	94436	735	13.9	179	108	2.12	1.16	1.08	1.19	9.26	8.70
359	0126	1152.5	41.4	217	252	119	39.0	2890	1133.2	9.03	9.10	904	854	41.8	0.0	591	94858	738	13.9	120	108	2.13	1.03	.95	1.20	9.28	8.70
360	0131	1155.0	36.6	234	264	120	44.5	2900	1135.2	9.05	9.10	904	842	41.7	0.0	594	95345	740	14.0	134	108	2.13	1.10	1.32	1.19	9.30	8.70
361	0135	1157.5	34.1	225	258	119	44.3	2900	1137.1	9.04	9.10	904	845	41.7	0.0	593	95868	743	14.1	147	108	2.14	1.11	1.33	1.19	9.31	8.70
362	0147	1160.0	38.9	222	275	119	41.5	2870	1140.1	9.03	9.10	892	835	42.2	0.0	623	96348	745	14.1	128	109	2.15	1.06	.98	1.18	9.32	8.70
363	0151	1162.5	32.3	209	247	121	39.1	2870	1142.0	9.05	9.10	893	841	42.2	0.0	619	96899	748	14.2	161	109	2.16	1.09	1.31	1.18	9.32	8.70
364	0156	1165.0	32.8	214	244	119	40.0	2850	1144.3	9.03	9.10	895	831	42.3	0.0	622	97437	750	14.3	149	109	2.17	1.09	1.31	1.17	9.31	8.70
365	0201	1167.5	32.6	222	259	120	43.9	2890	1145.4	9.06	9.10	896	851	42.6	0.0	618	97985	753	14.4	151	109	2.18	1.12	1.34	1.17	9.32	8.70
366	0212	1170.0	38.9	212	261	119	43.4	2890	1149.1	9.13	9.10	893	846	43.0	0.0	636	98455	755	14.4	132	109	2.18	1.05	.97	1.17	9.30	8.70
367	0216	1172.5	35.9	234	265	120	46.7	2870	1149.5	9.13	9.10	895	841	42.9	0.0	631	98954	758	14.5	140	109	2.19	1.12	1.34	1.16	9.31	8.70
368	0220	1175.0	31.5	236	269	120	47.9	2890	1150.5	9.13	9.10	894	838	42.8	0.0	636	99515	760	14.6	159	109	2.20	1.16	1.38	1.16	9.31	8.70
369	0225	1177.5	34.2	248	282	120	51.1	2900	1153.0	9.12	9.10	888	837	42.7	0.0	632	100043	763	14.6	147	110	2.21	1.16	1.38	1.15	9.30	8.70
370	0237	1180.0	38.0	202	243	119	41.0	2890	1157.7	9.13	9.10	896	831	43.0	0.0	625	100516	765	14.7	131	110	2.22	1.06	.99	1.15	9.26	8.70
371	0241	1182.5	31.8	220	250	120	48.2	2900	1158.5	9.09	9.10	895	845	42.8	0.0	628	101080	768	14.8	159	110	2.23	1.16	1.38	1.14	9.28	8.70
372	0245	1185.0	39.4	223	247	119	49.3	2860	1160.4	9.02	9.10	897	834	42.4	0.0	634	101531	770	14.9	124	110	2.24	1.11	1.33	1.14	9.28	8.70
373	0258	1187.5	40.9	216	256	120	49.0	2890	1165.2	9.01	9.10	897	880	42.6	0.0	646	101986	773	14.9	121	110	2.24	1.10	1.32	1.14	9.27	8.70
374	0301	1190.0	42.6	221	261	121	41.8	2890	1167.1	9.07	9.10	903	906	42.7	0.0	654	102407	775	15.0	119	110	2.25	1.04	.96	1.13	9.28	8.70
375	0305	1192.5	38.1	234	265	120	45.5	2910	1168.0	8.91	9.10	901	907	42.5	0.0	659	102877	778	15.0	139	110	2.26	1.09	1.31	1.13	9.30	8.70
376	0309	1195.0	41.8	225	257	121	41.2	2880	1169.4	8.90	9.10	902	916	42.5	0.0	664	103305	780	15.1	117	110	2.27	1.04	.96	1.12	9.32	8.70
377	0331	1197.5	35.7	236	274	121	31.7	2940	1177.2	8.90	9.10	885	835	42.7	0.0	601	103851	783	15.2	140	110	2.27	1.01	.94	1.12	9.26	8.70
378	0348	1200.0	29.5	228	245	120	41.7	2910	1184.9	9.03	9.10	898	823	43.7	0.0	586	104462	785	15.3	161	110	2.28	1.15	1.37	1.12	9.18	8.70
379	0352	1202.5	31.6	233	271	119	50.6	2930	1186.6	9.07	9.10	897	835	44.2	0.0	587	105028	788	15.3	157	111	2.29	1.20	1.11	1.11	9.16	8.70
380	0356	1205.0	40.1	241	284	119	56.7	2930	1187.0	9.10	9.10	897	844	44.4	0.0	584	105469	790	15.4	122	111	2.30	1.17	1.38	1.11	9.18	8.70
+ Circulate to clear gumbo at 1205m. Deviation at 1205m = 0.75 degrees.																											
382	0627	1207.5	29.4	285	322	120	42.6	2910	1205.1	9.00	9.10	897	876	43.5	0.0	549	106359	793	15.5	204	111	2.31	1.13	1.05	1.10	9.37	8.70
383	0631	1210.0	41.9	300	340	121	51.0	2940	1205.1	9.00	9.10	899	889	43.4	0.0	546	106791	795	15.6	126	111	2.32	1.09	1.31	1.10	9.43	8.70
384	0634	1212.5	42.4	301	342	121	53.2	2930	1205.1	9.00	9.10	896	873	43.3	0.0	543	107217	798	15.6	120	111	2.33	1.09	1.31	1.10	9.50	8.70
385	0645	1215.0	41.9	285	333	120	47.2	2890	1205.1	9.00	9.10	884	826	44.0	0.0	553	107664	800	15.7	126	111	2.34	1.05	.97	1.09	9.53	8.70
386	0649	1217.5	39.7	313	355	121	47.5	2940	1205.1	8.97	9.10	888	830	44.0	0.0	548	108120	803	15.8	126	111	2.34	1.07	.99	1.09	9.54	8.70
387	0653	1220.0	45.7	317	365	122	48.3	2930	1205.1	8.97	9.10	888	824	44.0	0.0	546	108520	805	15.8	108	111	2.35	1.04	.95	1.08	9.56	8.70
388	0656	1222.5	40.8	316	357	122	48.1	2940	1205.1	9.02	9.10	888	807	44.0	0.0	537	108958	808	15.9	124	111	2.36	1.06	.98	1.08	9.57	8.70
389	0708	1225.0	40.9	308	356	120	43.2	2880	1205.1	9.05	9.10	880	820	44.2	0.0	558	109410	810	16.0	114	111	2.37	1.03	.95	1.08	9.57	8.70
390	0711	1227.5	40.5	329	366	120	46.7	2900	1205.1	9.03	9.10	880	858	44.3	0.0	553	109853	813	16.0	120	111	2.37	1.06	.98	1.07	9.53	8.70
391	0715	1230.0	39.3	335	414	120	44.8	2890	1205.1	9.05	9.10	879	851	44.3	0.0	549	110309	815	16.1	129	112	2.38	1.06	.97	1.07	9.51	8.70
392	0728	1232.5	29.6	323	397</																						

KOORCAH NO.1

Data Printed at time 02:57 Date Dec 22 '85
Data Recorded at time 08:13 Date Dec 3 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM		JOB	PUMP PRES	RTRNS		M/lb/gal		FLO/MIN		TEMP (C)	PVT	-----THIS BIT-----			EST TV	DKC	NK	NKB	ECD	EST FM PR		
				AVG	MAX	AVG	AVG			DEPTH	IN	OUT	IN	OUT	IN			OUT	REVS	m							hrs	LIST
399	0810	1250.0	27.3	343	388	120	43.3	2930	1225.4	9.00	9.10	865	324	46.1	0.0	550	114964	835	16.7	139	113	2.45	1.22	1.13	1.07	9.25	8.70	D
400	0826	1252.5	28.6	323	400	120	48.3	2910	1232.1	9.00	9.10	864	317	44.7	0.0	544	115632	838	16.8	179	113	2.46	1.20	1.11	1.08	9.23	8.70	D
401	0832	1255.0	25.5	231	390	120	51.6	2890	1233.0	9.00	9.10	865	315	46.5	0.0	543	116332	840	16.9	203	113	2.48	1.25	1.16	1.09	9.26	8.70	D
402	0837	1257.5	29.6	239	367	121	52.0	2880	1235.9	9.00	9.10	860	314	46.6	0.0	534	116942	843	17.0	168	113	2.49	1.22	1.12	1.09	9.26	8.70	D
403	0849	1260.0	31.1	238	367	119	46.6	2910	1241.8	9.00	9.10	874	325	46.6	0.0	542	117534	845	17.1	162	114	2.49	1.16	1.07	1.09	9.22	8.70	D
404	0903	1262.5	32.4	258	379	120	45.0	2890	1244.3	9.00	9.10	871	382	43.9	0.0	519	118149	848	17.2	154	114	2.50	1.13	1.04	1.08	9.31	8.70	D
405	0908	1265.0	32.3	296	379	121	48.7	2890	1246.1	9.00	9.10	871	366	43.3	0.0	519	118711	850	17.2	153	114	2.51	1.16	1.07	1.08	9.33	8.70	D
406	0912	1267.5	32.5	343	397	121	49.3	2890	1248.2	9.00	9.10	868	909	43.1	0.0	538	119266	853	17.3	155	114	2.52	1.16	1.07	1.08	9.32	8.70	D
407	0929	1270.0	27.4	310	393	121	47.5	2940	1251.5	9.00	9.10	884	331	42.5	0.0	619	119968	855	17.4	200	114	2.53	1.20	1.11	1.08	9.29	8.70	D
+ Circulate hole at 1271.5m.																												
409	1137	1272.5	19.7	273	399	119	45.5	2890	1271.8	9.00	9.10	871	704	43.3	0.0	529	120874	858	17.5	271	115	2.55	1.13	1.21	1.09	9.32	8.70	D
410	1142	1275.0	31.0	250	416	121	42.4	2840	1271.8	9.00	9.10	867	324	43.7	0.0	530	121459	860	17.6	166	115	2.55	1.16	1.07	1.08	9.34	8.70	D
411	1222	1277.5	20.3	263	400	120	30.2	1680	1271.8	9.00	9.10	653	689	44.8	0.0	525	122347	863	17.7	345	115	2.56	1.16	1.08	1.08	9.36	8.70	D
412	1239	1280.0	17.3	261	350	121	13.7	1630	1271.8	9.00	9.10	645	687	44.7	0.0	519	123399	865	17.9	285	116	2.58	1.00	.93	1.08	9.38	8.70	D
413	1249	1282.6	15.3	279	358	121	14.3	1620	1271.8	9.00	9.10	645	681	43.7	0.0	534	124605	868	18.1	334	116	2.59	1.04	.96	1.07	9.10	8.70	D
414	1301	1285.0	12.9	290	339	121	14.9	1610	1274.0	8.88	9.10	645	691	41.6	0.0	553	125992	870	18.2	395	117	2.60	1.07	1.00	1.07	9.10	8.70	D
415	1315	1287.5	10.4	288	385	122	14.9	1650	1276.6	8.98	9.10	653	702	44.0	0.0	550	127751	873	18.5	531	118	2.62	1.12	1.05	1.07	9.11	8.70	D
+ Ripper trip at 1288m.																												
417	1745	1290.0	24.3	247	314	121	29.2	2760	1287.9	8.98	9.10	852	737	39.7	0.0	485	128572	875	18.6	225	119	2.63	1.11	1.02	1.37	9.35	8.70	D
418	1750	1292.5	27.9	281	327	121	30.7	2780	1287.9	8.88	9.10	851	738	39.8	0.0	476	129215	878	18.7	173	119	2.64	1.09	1.00	1.37	9.36	8.70	D
419	1755	1295.0	28.8	235	289	121	31.1	2820	1287.9	8.93	9.10	852	752	40.0	0.0	491	129844	880	18.8	172	119	2.65	1.08	.99	1.37	9.37	8.70	D
420	1808	1297.5	41.9	247	266	121	26.8	2740	1287.9	9.02	9.10	845	734	38.6	0.0	525	130292	883	18.8	123	119	2.66	.95	.87	1.37	9.09	8.70	D
421	1813	1300.0	32.0	257	309	123	30.2	2730	1287.9	8.89	9.10	846	721	38.0	0.0	528	130856	885	18.9	165	119	2.66	1.05	.96	1.37	9.10	8.70	D
422	1818	1302.5	26.9	263	309	123	35.4	2710	1287.9	8.91	9.10	844	731	38.1	0.0	543	131524	888	19.0	186	119	2.67	1.14	1.04	1.37	9.11	8.70	D
423	1824	1305.0	28.8	256	315	123	42.0	2720	1287.9	9.01	9.10	844	734	38.4	0.0	543	132150	890	19.1	172	119	2.68	1.17	1.08	1.37	9.12	8.70	D
424	1837	1307.5	38.1	287	336	121	37.5	2770	1287.9	8.92	9.10	857	735	38.0	0.0	547	132480	893	19.1	143	119	2.68	1.06	.96	1.37	9.14	8.70	D
425	1843	1310.0	26.8	287	340	120	42.9	2820	1287.9	8.85	9.10	857	734	36.6	0.0	543	133151	895	19.2	201	119	2.69	1.19	1.09	1.38	9.15	8.70	D
426	1848	1312.5	27.4	290	534	121	40.6	2790	1288.3	8.93	9.10	857	744	38.2	0.0	545	133804	898	19.3	182	120	2.70	1.16	1.07	1.37	9.16	8.70	D
427	1854	1315.0	24.9	263	333	121	37.3	2800	1290.8	8.98	9.10	858	747	39.8	0.0	554	134522	900	19.4	200	120	2.71	1.17	1.07	1.38	9.15	8.70	D
428	1910	1317.5	25.8	229	338	119	36.8	2770	1296.5	9.09	9.10	842	830	42.4	0.0	543	135210	903	19.5	194	120	2.72	1.15	1.05	1.37	9.15	8.70	D
429	1916	1320.0	24.3	288	351	119	43.6	2750	1297.7	9.07	9.10	840	822	42.8	0.0	541	135939	905	19.6	202	120	2.73	1.21	1.12	1.37	9.17	8.70	D
430	1923	1322.5	22.9	287	343	119	42.7	2790	1301.2	9.12	9.10	844	813	43.3	0.0	547	136720	908	19.7	205	121	2.74	1.22	1.13	1.36	9.17	8.70	D
431	1941	1325.0	22.2	281	367	119	44.2	2800	1306.1	9.12	9.10	851	818	44.4	0.0	549	137582	910	19.8	223	121	2.75	1.24	1.14	1.35	9.19	8.70	D
432	1947	1327.5	23.5	255	323	118	46.9	2830	1308.3	9.09	9.10	850	808	44.4	0.0	539	138327	913	19.9	210	121	2.76	1.24	1.14	1.35	9.21	8.70	D
433	1956	1330.0	16.8	267	352	119	44.4	2890	1312.2	9.15	9.10	848	800	44.5	0.0	548	139383	915	20.1	318	122	2.78	1.31	1.21	1.34	9.22	8.70	D
434	2003	1332.5	22.4	272	344	117	47.4	2900	1314.8	9.13	9.10	843	814	44.7	0.0	553	140153	918	20.2	235	122	2.79	1.25	1.15	1.34	9.25	8.70	D
435	2028	1335.0	24.3	252	320	118	45.6	2850	1320.8	9.21	9.10	847	824	45.4	0.0	524	140936	920	20.3	206	122	2.80	1.22	1.12	1.33	9.25	8.70	D
436	2034	1337.5	26.3	210	272	120	48.7	2880	1322.9	9.13	9.10	845	807	45.4	0.0	525	141610	923	20.4	191	122	2.81	1.22	1.12	1.33	9.27	8.70	D
437	2040	1340.0	23.5	194	271	119	48.8	2770	1324.7	9.20	9.10	819	796	45.5	0.0	523	142366	925	20.5	220	123	2.82	1.25	1.15	1.32	9.27	8.70	D
438	2049	1342.5	17.4	195	253	120	51.8	2780	1325.8	9.19	9.10	811	801	45.9	0.0	526	143402	928	20.7	273	123	2.84	1.36	1.25	1.31	9.29	8.70	D
439	2111	1345.0	18.1	302	391	119	56.7	2750	1330.9	9.30	9.10	817	793	46.2	0.0	524	144498	930	20.8	286	124	2.86	1.38	1.27	1.31	9.31	8.70	D
440	2119	1347.5	18.1	320	566	120	51.7	2780	1333.6	9.12	9.10	813	799	46.6	0.0	513	145474	933	20.9	277	124	2.87	1.34	1.23	1.30	9.33	8.70	D
441	2128	1350.0	17.7	346	456	121	49.9	2790	1333.8	9.20	9.10	819	791	47.1	0.0	520	146502	935	21.1	273	124	2.89	1.33	1.23	1.30	9.35	8.70	D
442	2146	1352.5	18.0	283	374	122	49.1	2710	1336.9	9.39	9.10	813	790	47.7	0.0	537	147534	938	21.2	281	125	2.90	1.32	1.21	1.29	9.36	8.70	D
443	2154	1355.0	17.0	298	350	120	48.7	2730	1340.0	9.32	9.10	814	783	47.6	0.0	529	148580	940	21.4	299	125	2.92	1.33	1.22	1.29	9.38	8.70	D
444	2203	1357.5	17.5	295	355	120	49.1	2730	1342.6	9.41	9.10	815	788	47.8	0.0	530	149608	943	21.5	283	126	2.94	1.32	1.21	1.28	9.40	8.70	D
445	2211	1360.0	17.8	297	352	120	49.6	2770	1342.9	9.41	9.10	811	777	48.0	0.0	540	150623	945	21.6	290	126	2.95	1.31	1.21	1.28	9.44	8.70	D
446	2310	1362.5	21.4	315	406	121	48.1	2730	1349.1	9.24	9.10	815	781	46.7	0.0	552	151531	948	2									

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTNS		MV lb/gal		FLO /MIN		TEMP (C)	PVT	-----THIS BIT-----			EST T/I	DKC	NK	MKB	ECD	EST FM PR			
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	IN			OUT	REVS	m							hrs	INST	RUN
449	2339	1370.0	13.9	41.1	563	121	47.2	2830	1355.8	9.07	9.10	81.4	762	47.0	0.0	581	155002	955	22.3	373	128	3.02	1.34	1.24	1.26	9.58	8.70	D
Date Dec 4 '85																												
450	0005	1372.6	15.9	442	504	121	45.2	2910	1360.5	9.13	9.10	824	774	46.9	0.0	568	156202	958	22.4	314	129	3.03	1.30	1.19	1.25	9.50	8.70	D
451	0015	1375.0	15.0	465	526	120	47.9	2890	1361.4	9.08	9.10	826	739	47.3	0.0	569	157401	960	22.6	338	129	3.05	1.34	1.23	1.25	9.47	8.70	D
452	0025	1377.5	15.3	477	617	120	47.1	2870	1362.5	9.00	9.20	827	737	47.3	48.9	571	158557	963	22.7	316	130	3.07	1.33	1.23	1.24	9.44	8.70	D
453	0047	1380.1	17.2	485	557	120	46.5	2750	1367.2	9.18	9.20	745	686	48.0	48.3	589	159639	965	22.9	304	130	3.08	1.32	1.21	1.24	9.26	8.70	D
454	0055	1382.5	16.3	465	527	120	54.0	2860	1369.1	9.01	9.20	821	818	48.3	49.1	551	160694	968	23.0	314	131	3.10	1.40	1.29	1.24	9.21	8.70	D
455	0104	1385.0	17.8	440	505	120	53.9	2950	1370.6	9.12	9.20	817	728	47.7	49.2	438	161696	970	23.2	287	131	3.11	1.38	1.27	1.24	9.19	8.70	D
456	0111	1387.5	21.1	408	468	120	48.6	2790	1371.5	9.19	9.20	822	791	44.8	49.1	410	162538	973	23.3	238	131	3.12	1.29	1.18	1.24	9.19	8.70	D
457	0131	1390.1	21.3	391	441	119	47.1	2830	1374.8	9.20	9.30	819	945	43.6	47.1	390	163414	975	23.4	243	131	3.14	1.29	1.18	1.23	9.09	8.70	D
458	0138	1392.5	21.3	426	493	120	47.3	2810	1376.6	9.20	9.30	821	841	41.2	45.5	380	164235	978	23.5	239	132	3.15	1.30	1.18	1.23	9.05	8.70	D
459	0147	1395.0	17.6	455	506	119	47.3	2780	1378.3	9.20	9.30	819	818	41.7	47.8	389	165245	980	23.7	282	132	3.16	1.35	1.23	1.23	9.06	8.70	D
460	0153	1397.5	24.4	471	517	120	48.1	2790	1379.7	9.20	9.30	820	841	41.4	47.4	407	165979	983	23.8	209	132	3.17	1.26	1.14	1.22	9.09	8.70	D
+ Circulate to clear gumbo at 1398m.																												
462	0257	1400.0	26.8	463	527	120	33.1	2870	1386.6	9.20	9.30	848	776	41.4	0.0	548	166651	985	23.9	202	132	3.18	1.11	1.00	1.22	9.13	8.70	D
463	0305	1402.5	19.0	484	549	120	37.3	2880	1388.9	9.20	9.30	848	848	41.7	0.0	563	167594	988	24.0	285	133	3.19	1.23	1.12	1.22	9.18	8.70	D
464	0312	1405.0	21.0	461	499	120	36.9	2880	1389.8	9.20	9.30	852	851	42.1	0.0	565	168425	990	24.1	244	133	3.20	1.19	1.08	1.21	9.26	8.70	D
465	0329	1407.6	20.0	452	491	120	37.3	2840	1393.9	9.20	9.30	789	821	42.2	0.0	613	169343	993	24.2	249	133	3.21	1.20	1.09	1.21	9.31	8.70	DX
466	0338	1410.0	16.0	455	500	122	40.5	2870	1397.3	9.20	9.30	845	847	43.6	0.0	586	170464	995	24.4	317	134	3.22	1.29	1.18	1.20	9.31	8.70	D
467	0346	1412.5	18.7	480	516	120	41.9	2860	1398.2	9.20	9.30	844	856	44.1	0.0	590	171440	998	24.5	279	134	3.23	1.25	1.14	1.20	9.32	8.70	D
468	0353	1415.0	20.1	481	521	120	41.3	2850	1398.2	9.20	9.30	843	818	44.4	0.0	585	172313	1000	24.6	247	134	3.24	1.23	1.12	1.19	9.34	8.70	D
469	0410	1417.5	19.0	424	524	120	41.6	2880	1399.8	9.20	9.30	849	836	44.9	0.0	595	173280	1003	24.8	262	135	3.26	1.24	1.13	1.19	9.35	8.70	D
470	0417	1420.0	20.4	351	394	121	41.1	2880	1402.2	9.20	9.30	847	855	45.2	0.0	580	174163	1005	24.9	245	135	3.27	1.22	1.11	1.18	9.35	8.70	D
471	0425	1422.5	19.7	344	384	121	41.0	2880	1404.6	9.20	9.30	846	849	45.0	0.0	570	175067	1008	25.0	250	135	3.28	1.23	1.12	1.18	9.35	8.70	D
472	0432	1425.0	20.3	338	378	120	43.9	2880	1407.0	9.20	9.30	847	831	45.1	0.0	565	175955	1010	25.1	241	136	3.29	1.24	1.13	1.18	9.35	8.70	D
473	0446	1427.5	23.4	314	360	121	46.9	2820	1408.8	9.20	9.30	840	844	45.4	0.0	574	176770	1013	25.3	215	136	3.30	1.23	1.12	1.17	9.36	8.70	D
474	0458	1430.0	12.9	319	389	122	48.3	2850	1412.3	9.20	9.30	841	832	45.4	0.0	556	178167	1015	25.5	398	137	3.32	1.41	1.29	1.18	9.35	8.70	D
475	0506	1432.5	18.0	308	347	122	47.6	2840	1415.0	9.20	9.30	841	827	45.9	0.0	544	179190	1018	25.6	290	137	3.33	1.31	1.19	1.18	9.35	8.70	D
476	0524	1435.0	16.1	307	339	122	46.6	2790	1418.2	9.20	9.30	836	832	46.4	0.0	555	180359	1020	25.8	309	137	3.34	1.33	1.21	1.18	9.34	8.70	D
477	0530	1437.5	21.2	289	317	124	44.9	2800	1420.1	9.20	9.30	838	837	46.6	0.0	550	181049	1023	25.8	235	137	3.35	1.25	1.13	1.18	9.35	8.70	D
478	0537	1440.0	19.3	280	318	123	45.6	2830	1422.6	9.20	9.30	837	839	46.4	0.0	551	181994	1025	26.0	263	138	3.37	1.28	1.16	1.18	9.35	8.70	D
479	0545	1442.5	18.7	270	309	120	46.8	2820	1425.4	9.20	9.30	837	853	46.1	0.0	559	182954	1028	26.1	273	138	3.38	1.29	1.17	1.17	9.34	8.70	D
480	0606	1445.1	21.3	276	308	119	41.9	2860	1428.7	9.20	9.30	638	694	45.6	0.0	617	183815	1030	26.2	268	138	3.39	1.22	1.10	1.17	9.33	8.70	D
481	0613	1447.5	20.6	281	314	120	45.1	2860	1430.1	9.20	9.30	847	848	45.6	0.0	596	184663	1033	26.3	261	139	3.40	1.25	1.13	1.16	9.34	8.70	D
482	0622	1450.0	15.4	279	327	119	49.9	2870	1433.0	9.20	9.30	849	844	45.1	0.0	590	185803	1035	26.5	314	139	3.41	1.37	1.24	1.17	9.34	8.70	D
483	0626	1451.0	16.2	264	347	119	50.3	2860	1433.8	9.20	9.30	850	850	45.2	0.0	593	186228	1036	26.6	299	139	3.42	1.36	1.23	1.17	9.34	8.70	D
484	0630	1452.0	16.3	281	337	119	50.4	2850	1434.8	9.20	9.30	850	866	45.2	0.0	596	186672	1037	26.6	323	139	3.43	1.35	1.23	1.18	9.34	8.70	D
485	0634	1453.0	13.9	284	334	119	51.6	2860	1435.3	9.20	9.30	852	848	45.3	0.0	604	187171	1038	26.7	333	140	3.43	1.41	1.28	1.18	9.35	8.70	D
486	0646	1454.0	16.7	298	339	119	51.1	2890	1437.4	9.20	9.30	855	841	45.5	0.0	628	187640	1039	26.8	312	140	3.44	1.35	1.23	1.18	9.34	8.70	D
487	0649	1455.0	19.9	315	344	121	49.4	2880	1438.3	9.20	9.30	859	848	45.5	0.0	618	187991	1040	26.8	233	140	3.44	1.30	1.17	1.18	9.34	8.70	D
488	0653	1456.0	15.5	324	353	121	49.8	2850	1439.5	9.20	9.30	860	849	45.5	0.0	624	188456	1041	26.9	296	140	3.45	1.37	1.24	1.19	9.34	8.70	D
489	0657	1457.0	14.2	350	390	122	49.9	2850	1441.1	9.20	9.30	861	838	45.7	0.0	578	188983	1042	26.9	439	140	3.46	1.40	1.27	1.19	9.33	8.70	D
490	0701	1458.0	16.4	359	400	122	50.4	2840	1442.2	9.20	9.30	860	841	45.7	0.0	534	189427	1043	27.0	2								

283070

KOORCAH NO.1

Data Printed at time 12:35
Data Recorded at time 17:09

Data Dec 22 '35
Data Dec 1 '35

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS		MV lb/gal		FLOW/MIN		TEMP (C)	PVT	THIS BIT			EST	DKC	NK	NKB	ECD	EST			
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT			IN	OUT	IN							OUT	REVS	m
502	1709	1464.0	23.5	151	197	119	31.3	2680	1463.0	9.20	9.30	831	793	36.8	J.J	522	790	1.00	.1	213	5089	.33	1.11	1.11	1.39	9.24	8.70	D
503	1710	1465.0	16.9	143	177	122	31.7	2690	1463.0	9.20	9.30	832	789	36.3	J.J	520	963	2.00	.1	244	4312	.34	1.20	1.19	1.39	9.24	8.70	D
504	1711	1466.0	21.4	127	152	122	31.9	2690	1463.0	9.20	9.30	832	793	36.8	J.J	518	979	3.00	.1	231	4165	.34	1.13	1.13	1.39	9.24	8.70	D
505	1713	1467.0	22.9	124	148	122	31.2	2680	1463.0	9.20	9.30	833	805	37.3	J.J	515	1319	4.00	.2	206	3132	.35	1.12	1.11	1.39	9.25	8.70	D
506	1716	1469.0	20.1	134	155	122	32.3	2670	1463.0	9.20	9.30	834	817	37.5	J.J	511	1616	6.00	.2	238	2617	.36	1.16	1.15	1.39	9.25	8.70	D
507	1719	1473.0	21.0	128	149	122	32.0	2680	1463.0	9.20	9.30	834	809	37.6	J.J	494	2035	7.00	.3	245	1852	.38	1.15	1.14	1.39	9.27	8.70	D
508	1723	1471.0	29.4	130	165	122	31.4	2680	1463.0	9.20	9.30	836	826	37.7	J.J	479	2283	8.00	.3	179	1643	.39	1.06	1.05	1.39	9.28	8.70	D
509	1802	1472.0	13.0	121	135	122	31.3	2600	1463.0	9.20	9.30	832	789	36.3	J.J	466	4344	9.00	.6	262	1617	.17	1.18	1.17	1.39	9.28	8.70	D
510	1805	1473.0	21.7	150	181	122	30.2	2590	1463.0	9.20	9.30	832	754	36.9	J.J	460	4630	10.00	.6	246	1480	.18	1.12	1.11	1.39	9.29	8.70	D
511	1810	1475.0	13.2	127	181	122	31.3	2720	1463.0	9.20	9.30	853	837	37.7	J.J	455	5292	13.00	.7	298	1175	.20	1.25	1.24	1.39	9.31	8.70	D
512	1811	1477.0	18.3	130	179	122	29.9	2720	1463.0	9.20	9.30	852	817	37.7	J.J	453	5477	14.00	.8	248	1298	.21	1.15	1.14	1.39	9.30	8.70	D
513	1814	1478.0	21.3	114	192	122	31.2	2710	1463.0	9.20	9.30	851	842	38.1	J.J	458	5727	15.00	.8	285	1034	.22	1.13	1.12	1.39	9.33	8.70	D
514	1817	1479.0	19.5	128	184	122	33.2	2720	1463.0	9.20	9.30	850	809	39.0	J.J	454	6089	16.00	.8	276	990	.23	1.17	1.16	1.39	9.33	8.70	D
515	1838	1480.0	14.0	137	220	122	37.8	2730	1463.0	9.20	9.30	842	813	40.8	J.J	456	7559	17.00	1.0	306	988	.28	1.30	1.28	1.38	9.30	8.70	D
516	1841	1481.0	21.5	168	231	122	42.1	2700	1470.2	9.20	9.30	842	822	41.1	J.J	455	7891	18.00	1.1	241	946	.30	1.23	1.21	1.38	9.30	8.70	D
517	1842	1482.0	24.6	172	228	122	41.6	2690	1470.6	9.20	9.30	842	810	41.1	J.J	459	7972	19.00	1.1	232	899	.30	1.18	1.17	1.38	9.30	8.70	D
518	1845	1483.0	20.6	166	228	122	41.8	2700	1471.7	9.20	9.30	842	802	41.7	J.J	457	8322	20.00	1.1	241	866	.31	1.23	1.22	1.38	9.30	8.70	D
519	1848	1484.0	19.8	169	233	122	42.7	2700	1473.1	9.20	9.30	842	784	42.0	J.J	461	8690	21.00	1.2	242	336	.33	1.25	1.24	1.38	9.30	8.70	D
520	1850	1485.0	21.3	167	231	122	42.7	2720	1474.6	9.20	9.30	842	792	42.2	J.J	459	9031	22.00	1.2	233	809	.34	1.23	1.22	1.37	9.29	8.70	D
521	1905	1486.0	21.4	157	228	122	42.3	2740	1475.8	9.20	9.30	846	768	43.0	J.J	468	9651	23.00	1.3	244	792	.36	1.23	1.21	1.37	9.29	8.70	D
522	1905	1487.0	18.7	172	226	122	43.7	2740	1475.8	9.20	9.30	847	792	42.9	J.J	466	9721	24.00	1.3	252	762	.36	1.28	1.26	1.37	9.29	8.70	D
523	1908	1488.0	24.0	174	237	122	45.2	2720	1475.8	9.20	9.30	847	783	42.8	J.J	459	10022	25.00	1.4	207	740	.38	1.22	1.20	1.37	9.31	8.70	D
524	1911	1489.0	22.4	168	224	122	45.1	2720	1475.8	9.20	9.30	846	812	42.7	J.J	463	10351	26.00	1.4	219	721	.39	1.24	1.22	1.37	9.31	8.70	D
525	1911	1490.0	24.3	174	228	122	44.4	2720	1475.8	9.20	9.30	845	818	42.7	J.J	466	10412	27.00	1.4	239	695	.39	1.20	1.19	1.37	9.31	8.70	D
526	1914	1491.0	23.5	176	233	122	45.8	2720	1475.8	9.20	9.30	844	802	42.5	J.J	468	10725	28.00	1.5	240	680	.40	1.23	1.21	1.36	9.33	8.70	D
527	1915	1492.0	17.3	175	224	122	44.3	2710	1475.8	9.20	9.30	844	809	42.4	J.J	471	10871	29.00	1.5	240	658	.41	1.30	1.28	1.36	9.33	8.70	D
528	1917	1493.0	25.0	174	235	122	45.5	2700	1475.8	9.20	9.30	843	811	42.3	J.J	479	11156	30.00	1.5	195	644	.42	1.21	1.19	1.36	9.34	8.70	D
529	1920	1494.0	23.5	175	237	122	45.7	2710	1476.1	9.20	9.30	844	798	42.3	J.J	490	11459	31.00	1.6	219	630	.43	1.22	1.20	1.36	9.35	8.70	D
530	1922	1495.0	23.2	177	241	122	45.6	2700	1477.4	9.20	9.30	844	784	42.2	J.J	491	11772	32.00	1.6	217	616	.44	1.23	1.21	1.36	9.34	8.70	D
531	1923	1496.0	28.6	183	235	122	44.9	2700	1478.0	9.20	9.30	843	801	42.2	J.J	488	11890	33.00	1.6	210	600	.44	1.17	1.15	1.36	9.35	8.70	D
532	1926	1497.0	23.4	177	243	122	45.3	2700	1478.7	9.20	9.30	842	811	42.2	J.J	493	12201	34.00	1.7	207	589	.45	1.22	1.20	1.35	9.35	8.70	D
533	1938	1499.0	28.2	164	245	122	42.1	2800	1481.3	9.20	9.30	860	804	42.7	J.J	505	12559	36.00	1.7	181	581	.47	1.15	1.13	1.35	9.34	8.70	D
534	1940	1500.0	26.6	181	241	122	45.0	2800	1482.1	9.20	9.30	862	784	42.7	J.J	497	12793	37.00	1.8	188	553	.48	1.19	1.16	1.35	9.34	8.70	D
535	1941	1501.0	19.3	178	250	119	44.4	2810	1482.3	9.20	9.30	862	789	42.7	J.J	501	12900	38.00	1.8	202	540	.48	1.25	1.23	1.35	9.35	8.70	D
536	1943	1502.0	26.0	181	237	119	45.4	2800	1482.6	9.20	9.30	861	752	42.7	J.J	505	13170	39.00	1.8	191	531	.49	1.19	1.17	1.35	9.35	8.70	D
537	1945	1503.0	28.3	182	256	119	44.9	2800	1482.6	9.20	9.30	861	843	42.8	J.J	503	13426	40.00	1.8	182	522	.50	1.16	1.14	1.34	9.36	8.70	D
538	1948	1504.0	20.2	187	254	119	45.5	2790	1482.6	9.20	9.30	861	849	42.9	J.J	508	13763	41.00	1.9	205	515	.51	1.25	1.23	1.34	9.37	8.70	D
539	1950	1505.0	22.6	184	258	119	45.1	2790	1482.6	9.20	9.30	861	809	43.0	J.J	508	14072	42.00	1.9	229	508	.52	1.22	1.20	1.34	9.38	8.70	D
540	1953	1506.0	28.9	182	239	119	45.1	2800	1482.6	9.20	9.30	863	834	43.1	J.J	501	14324	43.00	2.0	181	531	.53	1.15	1.13	1.34	9.38	8.70	D
541	1955	1507.0	22.6	189	250	119	44.9	2800	1482.7	9.20	9.30	862	849	43.1	J.J	505	14622	44.00	2.0	212	494	.54	1.22	1.19	1.34	9.39	8.70	D
542	1957	1508.0	25.3	190	265	119	45.6	2800	1484.1	9.20	9.30	862	851	43.3	J.J	500	14898	45.00	2.0	187	488	.55	1.19	1.16	1.33	9.39	8.70	D
543	2010	1509.0	26.3	185	252	119	44.2	2680	1483.4	9.20	9.30	839	836	43.6	J.J	510	15316	46.00	2.1	193	483	.56	1.18	1.15	1.33	9.36	8.70	D
544	2013	1510.0	21.3	193	263	119	44.9	2690	1489.8	9.20	9.30	841	800	43.6	J.J	510	15645	47.00	2.2	229	479	.57	1.23	1.21	1.33	9.36	8.70	D
545	2015	1511.0	20.1	193	267	119	43.9	2680	1490.9	9.20	9.30	840	790	43.7	J.J	514	15990	48.00	2.2	247	473	.58	1.24	1.22	1.33	9.36	8.70	D
546	2018	1512.0	24.4	195	260	119	44.5	2690	1491.1	9.20	9.30	841	813	43.8	J.J	511	16266	49.00	2.2	208	468	.59	1.19	1.17	1.32	9.36	8.70	D
547	2020	1513.0	24.3	194	258	119	44.4	2680	1491.1	9.20	9.30	840	816	43.9	J.J	512	16546	50.00	2.3	209	463	.60	1.19	1.16	1.32	9.37	8.70	D
548	2023	1514.0	24.0	189	263	119	43.9	2670	1491.3	9.20	9.30	840	775	44.0	J.J	509	16839	51.00	2.3									

KOORCAH NO.1

Data Printed at time 03:39 Date Dec 22 '85
Data Recorded at time 20:30 Date Dec 4 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTNS	M/lb/gal		FLOW/MIN		TEMP (C)	PVT	---THIS BIT---			EST	JKC	JK	KKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	RUN
552	2030	1518.0	16.0	192	241	119	44.2	2680	1493.7	9.20	9.30	340	785	44.4	0.0	511	17754	55.0	2.4	219	436	.64	1.30	1.28	1.31	9.38	8.70	D
553	2042	1519.0	23.4	183	267	119	44.2	2730	1496.8	9.20	9.30	344	813	45.0	0.0	515	18210	56.0	2.5	224	434	.65	1.20	1.18	1.31	9.38	8.70	D
554	2045	1520.0	21.2	196	263	119	44.9	2730	1498.2	9.20	9.30	344	785	45.1	0.0	510	18543	57.0	2.6	259	430	.66	1.23	1.21	1.31	9.37	8.70	D
555	2048	1521.0	18.5	192	269	119	44.4	2730	1499.5	9.20	9.30	343	822	45.2	0.0	511	18930	58.0	2.6	285	428	.67	1.27	1.24	1.31	9.37	8.70	D
556	2051	1522.0	26.2	197	267	119	44.5	2730	1499.8	9.20	9.30	344	797	45.3	0.0	507	19201	59.0	2.7	187	424	.68	1.17	1.15	1.31	9.37	8.70	D
557	2053	1523.0	23.1	195	275	119	44.5	2730	1499.8	9.20	9.30	343	781	45.4	0.0	511	19509	60.0	2.7	229	420	.69	1.21	1.18	1.30	9.38	8.70	D
558	2103	1524.0	7.03	169	254	119	46.0	2730	1503.5	9.20	9.30	341	801	45.9	0.0	514	20542	61.0	2.8	1048	425	.72	1.54	1.51	1.31	9.36	8.70	D
559	2106	1525.0	17.4	193	260	119	45.2	2730	1505.0	9.20	9.30	344	796	46.2	0.0	512	20953	62.0	2.9	308	423	.74	1.29	1.26	1.31	9.36	8.70	D
560	2110	1526.0	18.7	186	252	119	45.0	2730	1506.3	9.20	9.30	344	838	46.3	0.0	517	21333	63.0	3.0	279	421	.75	1.27	1.24	1.30	9.36	8.70	D
561	2113	1527.0	18.2	191	267	119	45.1	2720	1507.6	9.20	9.30	343	798	46.5	0.0	506	21730	64.0	3.0	289	419	.76	1.28	1.25	1.30	9.35	8.70	D
562	2124	1528.0	25.0	172	263	119	40.5	2730	1509.2	9.20	9.30	352	800	46.7	0.0	509	22115	65.0	3.1	223	417	.77	1.16	1.13	1.30	9.35	8.70	D
563	2127	1529.0	20.9	178	235	119	44.9	2730	1509.6	9.20	9.30	344	832	46.8	0.0	504	22440	66.0	3.1	239	414	.79	1.24	1.21	1.30	9.35	8.70	D
564	2130	1530.0	20.9	175	233	119	44.9	2730	1510.6	9.20	9.30	344	823	47.0	0.0	506	22781	67.0	3.2	234	411	.79	1.24	1.21	1.29	9.35	8.70	D
565	2132	1531.0	22.8	179	235	119	44.8	2730	1511.6	9.20	9.30	346	813	47.0	0.0	507	23095	68.0	3.2	233	408	.80	1.22	1.19	1.29	9.35	8.70	D
566	2136	1532.0	17.4	178	248	119	45.5	2730	1512.9	9.20	9.30	344	815	47.1	0.0	510	23493	69.0	3.3	313	406	.81	1.30	1.26	1.29	9.35	8.70	D
567	2140	1533.0	15.5	171	231	119	44.9	2730	1514.5	9.20	9.30	342	809	47.2	0.0	509	23942	70.0	3.3	322	405	.83	1.32	1.29	1.29	9.35	8.70	D
568	2142	1534.0	20.8	173	224	119	44.9	2720	1515.7	9.20	9.30	342	798	47.3	0.0	509	24285	71.0	3.4	244	403	.84	1.24	1.21	1.29	9.35	8.70	D
569	2145	1535.0	20.8	169	222	119	45.2	2740	1516.9	9.20	9.30	342	819	47.4	0.0	507	24618	72.0	3.4	239	401	.84	1.25	1.21	1.28	9.34	8.70	D
570	2148	1536.0	23.5	171	263	119	44.5	2750	1518.0	9.20	9.30	342	826	47.5	0.0	503	24919	73.0	3.5	212	398	.85	1.21	1.17	1.28	9.34	8.70	D
571	2159	1537.0	24.3	153	245	119	40.5	2690	1519.1	9.20	9.30	329	798	48.0	0.0	515	25328	74.0	3.5	205	397	.86	1.17	1.14	1.28	9.34	8.70	D
572	2202	1538.0	23.7	168	218	119	43.9	2680	1519.9	9.20	9.30	333	833	48.0	0.0	510	25627	75.0	3.6	207	394	.87	1.20	1.17	1.28	9.34	8.70	D
573	2205	1539.0	19.9	172	231	119	46.4	2690	1521.0	9.20	9.30	333	793	48.0	0.0	510	25982	76.0	3.6	247	392	.88	1.27	1.23	1.28	9.34	8.70	D
574	2208	1540.0	20.3	171	226	119	46.5	2680	1522.1	9.20	9.30	333	819	48.0	0.0	509	26335	77.0	3.7	250	391	.89	1.26	1.23	1.27	9.34	8.70	D
575	2211	1541.0	20.5	168	220	119	47.1	2690	1523.0	9.20	9.30	332	789	48.1	0.0	510	26675	78.0	3.7	235	389	.90	1.27	1.23	1.27	9.34	8.70	D
576	2214	1542.0	18.8	164	218	119	46.3	2690	1523.8	9.20	9.30	332	819	48.2	0.0	512	27038	79.0	3.7	257	387	.91	1.28	1.25	1.27	9.34	8.70	D
577	2223	1543.0	6.90	153	224	119	48.2	2690	1525.0	9.20	9.30	332	780	48.6	0.0	513	28112	80.0	3.9	629	391	.94	1.57	1.53	1.27	9.34	8.70	D
578	2226	1544.0	20.9	171	224	119	49.9	2690	1525.8	9.20	9.30	333	810	48.7	0.0	512	28448	81.0	3.9	236	389	.95	1.28	1.24	1.27	9.34	8.70	D
579	2229	1545.0	20.6	168	218	119	49.9	2680	1526.6	9.20	9.30	333	824	48.8	0.0	511	28793	82.0	4.0	252	387	.96	1.29	1.25	1.27	9.35	8.70	D
580	2241	1546.0	18.9	158	220	119	49.5	2730	1527.9	9.20	9.30	335	825	49.0	0.0	513	29418	83.0	4.1	263	388	.98	1.31	1.27	1.27	9.34	8.70	D
581	2243	1547.0	21.9	168	220	119	47.4	2740	1528.8	9.20	9.30	340	817	49.0	0.0	505	29727	84.0	4.1	230	386	.99	1.25	1.21	1.27	9.35	8.70	D
582	2247	1548.0	16.1	166	218	119	49.1	2730	1530.1	9.20	9.30	341	817	49.0	0.0	501	30169	85.0	4.2	323	385	1.00	1.35	1.31	1.27	9.34	8.70	D
583	2250	1549.0	17.7	165	222	119	48.9	2730	1531.4	9.20	9.30	340	829	49.0	0.0	501	30570	86.0	4.2	282	384	1.01	1.32	1.28	1.27	9.34	8.70	D
584	2254	1550.0	14.2	161	222	119	47.8	2350	1532.5	9.20	9.30	324	772	49.1	0.0	499	31072	87.0	4.3	347	383	1.02	1.37	1.33	1.27	9.34	8.70	D
585	2259	1551.0	13.0	162	213	119	48.3	2700	1533.8	9.20	9.30	333	797	49.4	0.0	498	31617	88.0	4.4	389	384	1.04	1.40	1.36	1.28	9.34	8.70	D
586	2303	1552.0	17.3	163	213	119	47.8	2710	1535.1	9.20	9.30	334	811	49.5	0.0	496	32030	89.0	4.4	299	383	1.05	1.32	1.28	1.28	9.34	8.70	D
587	2307	1553.0	12.6	164	221	119	47.8	2700	1536.6	9.20	9.30	335	831	49.8	0.0	495	32599	90.0	4.5	390	383	1.07	1.40	1.36	1.28	9.33	8.70	D
588	2310	1554.0	22.0	172	237	119	47.3	2700	1536.9	9.20	9.30	334	843	49.9	0.0	499	32934	91.0	4.6	246	381	1.08	1.25	1.21	1.28	9.34	8.70	D
589	2314	1555.0	15.2	164	218	119	48.2	2630	1537.5	9.20	9.30	333	844	50.0	0.0	497	33366	92.0	4.6	331	380	1.09	1.36	1.31	1.28	9.34	8.70	D
590	2326	1556.0	18.5	154	209	119	47.3	2740	1540.4	9.20	9.30	339	836	50.2	0.0	506	33993	93.0	4.7	271	381	1.10	1.30	1.25	1.28	9.33	8.70	D
591	2329	1557.0	21.1	160	213	119	46.7	2740	1541.3	9.20	9.30	338	832	50.2	0.0	504	34334	94.0	4.8	250	380	1.11	1.26	1.21	1.28	9.33	8.70	D
592	2333	1558.0	15.1	156	209	119	46.6	2750	1542.4	9.20	9.30	337	805	50.2	0.0	504	34798	95.0	4.8	322	379	1.12	1.35	1.30	1.28	9.33	8.70	D
593	2336	1559.0	19.5	157	209	119	47.3	2740	1542.7	9.20	9.30	339	833	50.5	0.0	504	35157	96.0	4.9	257	378	1.13	1.28	1.24	1.28	9.33	8.70	D
594	2340	1560.0	15.4	150	203	119	47.3	2750	1543.0	9.20	9.30	339	804	50.6	0.0	498	35617	97.0	4.9	333	377	1.15	1.35	1.30	1.28	9.34	8.70	D
595	2356	1561.0	4.98	163	231	119	47.2	2740	1546.8	9.20	9.30	340	783	51.2	0.0	494	37220	98.0	5.2	1916	385	1.19	1.65	1.61	1.28	9.32	8.70	D
Date		Dec 5 '85																										
596	0000	1562.0	14.7	140	235	119	47.9	2750	1547.9	9.20	9.30	341	821	51.3	0.0	494	37666	99.0	5.2	336	384	1.20	1.37	1.32	1.28	9.32	8.70	D
597	0005	1563.0	13.3	155	209	119	47.0	2740	1549.1	9.20	9.30	339	831	51.4	0.0	494	38198	100	5.3	383	384	1.21	1.39	1.34	1.29	9.31	8.70	D
598	0010	1564.0	11.0	157	213</																							

KOORKAH NO.1

Data Printed at time 03:13 Date Dec 22 '85
Data Recorded at time 00:36 Date Dec 5 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM		DB AVG	PUMP PRES	RTNRS DEPTH		M lb/gal IN OUT		FLOW/MIN IN OUT		TEMP (C) IN OUT		PVT	---THIS BIT---			EST TV	KXC	KX	KKB	ECD	EST RM PR	
				AVG	MAX	AVG	AVG			IN	OUT	IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs							INST
601	0336	1567.3	13.9	148	213	119	47.3	1630	1554.5	9.20	9.30	637	405	51.3	51.3	516	40538	1.04	5.6	367	385	1.27	1.38	1.33	1.30	9.30	8.70	D
602	0342	1568.3	11.6	146	202	119	48.1	1620	1555.4	9.20	9.30	637	475	51.1	51.0	516	41153	1.05	5.7	461	386	1.29	1.43	1.39	1.30	9.30	8.70	D
603	0345	1569.3	15.6	151	211	119	48.3	1630	1555.4	9.20	9.30	636	521	51.1	51.3	512	41609	1.06	5.8	357	385	1.30	1.35	1.30	1.30	9.31	8.70	D
604	0350	1573.3	12.1	150	216	119	48.5	1620	1556.0	9.20	9.30	640	582	51.1	51.4	512	42188	1.07	5.9	407	385	1.31	1.42	1.37	1.30	9.31	8.70	D
605	0355	1571.3	12.9	151	218	119	48.2	1620	1557.1	9.20	9.30	636	535	51.2	51.4	510	42740	1.08	5.9	386	385	1.33	1.40	1.35	1.31	9.31	8.70	D
606	0359	1572.3	14.2	146	216	119	48.0	1600	1557.9	9.20	9.30	635	535	51.5	51.6	510	43241	1.09	6.0	352	385	1.34	1.38	1.33	1.31	9.31	8.70	D
607	0403	1573.3	15.3	149	220	119	48.1	1620	1558.9	9.20	9.30	636	565	51.6	51.5	509	43709	1.10	6.1	327	385	1.35	1.36	1.31	1.31	9.31	8.70	D
608	0417	1574.3	11.1	124	194	120	49.7	2840	1560.7	9.20	9.30	355	882	51.7	49.9	507	44561	1.11	6.2	461	386	1.37	1.46	1.41	1.31	9.31	8.70	D
609	0423	1575.3	10.3	128	183	120	49.7	2840	1561.0	9.20	9.30	356	878	51.4	51.3	504	45259	1.12	6.3	496	387	1.39	1.48	1.43	1.32	9.31	8.70	D
610	0428	1576.3	12.5	125	178	120	48.7	2830	1561.1	9.20	9.30	358	904	51.6	51.5	497	45835	1.13	6.4	417	388	1.40	1.42	1.37	1.32	9.32	8.70	D
611	0434	1577.3	11.0	119	165	120	48.8	2820	1562.2	9.20	9.30	356	374	51.3	51.7	504	46503	1.14	6.5	540	388	1.42	1.46	1.40	1.33	9.32	8.70	D
612	0438	1578.3	13.3	128	176	120	49.0	2810	1563.1	9.20	9.30	357	891	52.1	51.9	508	47029	1.15	6.5	376	388	1.43	1.40	1.35	1.33	9.32	8.70	D
613	0446	1579.3	10.6	125	174	120	49.1	2820	1564.4	9.20	9.30	351	864	52.4	52.2	513	47777	1.16	6.6	500	389	1.45	1.47	1.41	1.33	9.32	8.70	D
614	0451	1580.3	11.5	113	158	120	49.2	2860	1565.0	9.20	9.30	357	901	52.7	52.4	516	48399	1.17	6.7	439	390	1.46	1.45	1.39	1.34	9.32	8.70	D
615	0456	1581.3	11.7	110	154	120	49.6	2880	1566.1	9.20	9.30	353	917	52.3	52.4	516	48999	1.18	6.8	424	390	1.48	1.45	1.39	1.34	9.32	8.70	D
616	0501	1582.3	11.0	108	152	120	49.4	2860	1567.6	9.20	9.30	352	898	52.8	52.4	517	49635	1.19	6.9	432	390	1.50	1.46	1.41	1.34	9.32	8.70	D
617	0519	1583.3	13.0	136	165	120	49.2	2780	1570.4	9.20	9.30	355	909	53.1	50.9	530	50335	1.20	7.0	381	391	1.51	1.41	1.36	1.35	9.30	8.70	D
618	0524	1584.3	11.4	138	156	120	49.1	2780	1572.1	9.20	9.30	357	937	52.5	52.5	520	50947	1.21	7.1	416	392	1.53	1.45	1.39	1.35	9.30	8.70	D
619	0528	1585.3	14.3	142	171	120	48.7	2790	1573.5	9.20	9.30	356	930	52.5	52.7	516	51449	1.22	7.1	351	391	1.54	1.39	1.33	1.35	9.30	8.70	D
620	0534	1586.3	14.1	136	174	120	49.1	2790	1574.1	9.20	9.30	399	897	52.8	52.6	520	51961	1.23	7.2	364	391	1.55	1.39	1.33	1.35	9.30	8.70	D
621	0535	1587.3	5.73	169	227	120	48.7	2840	1578.6	9.30	9.30	350	944	54.0	53.3	513	53419	1.24	7.4	382	396	1.58	1.64	1.58	1.35	9.29	8.70	D
622	0539	1588.3	12.4	188	218	120	51.6	2810	1579.2	9.30	9.30	348	955	54.0	53.6	517	53993	1.25	7.5	381	396	1.59	1.45	1.39	1.35	9.30	8.70	D
623	0545	1589.3	10.0	179	209	120	51.2	2850	1580.2	9.30	9.30	348	970	54.1	53.8	515	54707	1.26	7.6	480	397	1.61	1.50	1.44	1.36	9.31	8.70	D
624	0541	1590.3	10.6	172	194	120	51.2	2860	1581.0	9.30	9.30	348	947	54.3	54.0	515	55383	1.27	7.7	468	397	1.63	1.49	1.43	1.36	9.31	8.70	D
625	0547	1591.3	10.1	169	210	120	51.1	2850	1582.4	9.30	9.30	348	934	54.4	53.8	516	56097	1.28	7.8	500	398	1.64	1.50	1.44	1.37	9.32	8.70	D
626	0543	1592.3	12.8	165	195	120	51.1	2870	1583.4	9.30	9.30	349	950	54.6	53.1	520	56731	1.29	7.9	404	399	1.66	1.43	1.37	1.37	9.34	8.70	D
627	0535	1593.3	11.4	182	219	120	50.6	2870	1584.3	9.30	9.30	350	975	54.4	53.5	508	57409	1.30	8.0	431	399	1.67	1.46	1.39	1.37	9.34	8.70	D
628	0540	1594.3	12.1	209	231	120	51.2	2880	1585.4	9.30	9.30	350	937	54.2	53.9	505	58001	1.31	8.1	426	399	1.69	1.44	1.38	1.37	9.35	8.70	D
629	0545	1595.3	12.8	210	238	120	50.8	2880	1586.2	9.30	9.30	350	958	54.3	54.0	505	58565	1.32	8.1	379	399	1.70	1.42	1.36	1.37	9.35	8.70	D
630	0549	1596.3	12.8	194	244	120	50.5	2890	1586.7	9.30	9.30	351	903	54.5	54.2	505	59127	1.33	8.2	384	399	1.72	1.42	1.36	1.37	9.36	8.70	D
631	0552	1597.3	21.1	197	225	120	50.5	2860	1586.8	9.30	9.30	353	930	54.7	54.5	505	59463	1.34	8.3	255	398	1.72	1.28	1.22	1.37	9.37	8.70	D
632	0553	1598.3	19.7	191	220	120	50.5	2840	1586.8	9.30	9.30	352	942	54.6	54.9	503	59621	1.35	8.3	266	396	1.73	1.30	1.24	1.37	9.38	8.70	D
633	0556	1599.3	26.6	169	233	120	49.6	2840	1586.9	9.30	9.30	352	944	54.6	54.9	501	59889	1.36	8.3	187	395	1.73	1.21	1.15	1.36	9.39	8.70	D
+ Circulate returns at 1599m. Pull out of hole to run 13.375" casing.																												
+ NB#5 SMITH SDGH 12.25" 13,13,15 jets. Drill cement from 1561m and casing shoe. Drill new formation from 1599m.																												
+ Leak-off test in cement at 1588.5m.																												
Units for Torque changed from kfl/lbs to Amps, at Amoco's request.																												
Date Dec 9 '85																												
641	0227	1599.5	8.88	143	176	80	28.6	2780	1586.3	8.70	8.70	665	601	25.8	35.7	458	5170	1.50	.1	545	13524	.13	1.34	1.34	1.42	8.90	8.70	D
642	0230	1600.0	20.5	140	150	83	30.7	2760	1586.3	8.70	8.70	663	601	25.5	36.0	459	5386	1.00	.1	279	15350	.14	1.15	1.15	1.42	8.90	8.70	D
+ Leak-off test at 1600.5m.																												
644	0314	1600.5	4.64	140	154	84	30.0	2390	1586.8	8.70	8.70	613	532	23.7	35.9	461	6000	1.50	.2	450	7943	.15	1.54	1.54	1.42	9.29	8.70	D
645	0316	1601.0	12.2	143	160	86	27.9	2390	1587.3	8.70	8.70	612	525	29.1	35.7	459	6175	2.00	.3	431	6348	.16	1.26	1.26	1.42	9.29	8.70	D
646	0319	1601.5	10.3	147	158	85	30.7	2400	1588.2	8.70	8.70	608	512	29.6	35.7	457	6433	2.50	.3	523	5196	.17	1.34	1.34	1.42	9.28	8.70	D
647	0322	1602.0	8.72	146	152	85	30.9	2410	1588.4	8.70	8.70	616	523	30.0	35.8	474	6700	3.00	.4	515	4419	.18	1.39	1.40	1.42	9.25	8.70	D
648	0325	1602.5	11.5	150	160	85	32.2	2420	1588.7	8.70	8.70	605	520	30.3	35.9	484	6918	3.50	.4	431	3835	.18	1.34	1.34	1.42	9.23	8.70	D
649	0327	1603.0	10.3	149	154	85	34.2	2400	1592.3	8.70	8.70	612	535	30.4	35.8	489	7029	4.00	.4	488	3378	.19	1.36	1.36	1.42	9.20	8.70	D
650	0334	1603.5	11.0	136	156	91	29.8	2470	1594.8	8.70	8.70	601	473	30.5	35.8	519	7068	4.50	.5	563	3042	.19	1.37	1.37	1.42	9.16	8.70	D
651	0336	1604.0	10.7	145	158	89	29.0	2470	1594.8	8.70	8.70	619	525	30.5	36.0	508	7295	5.00	.5	701	2761	.20	1.34	1.34	1.41	9.14	8.70	D
652	0339	1604.5	10.1	147	158	88	31.3	2480	1594.9	8.70	8.70	618	534	30.5	36.0	504	7554	5.50	.5	508	2550	.21	1.39	1.39	1.41	9.12	8.70	D

KOORCAH .D.1

Data Printed at time 03:16 Date Dec 22 '85
Data Recorded at time 03:43 Date Dec 9 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTNRS DEPTH	M/lb/gal		FLOI/MIN		TEMP (C)		PVI	-----THIS BIT-----			---COST---		EST PI	DKC	AK	NKB	ECD	EST PM PR	
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN							
653	J343	1605.5	7.53	147	156	35	32.9	2490	1595.6	3.70	8.70	616	466	30.5	36.6	496	7391	6.00	.6	721	2394	.22	1.49	1.49	1.42	9.39	8.70	D
654	J347	1605.5	3.74	146	158	36	30.7	2480	1596.4	3.70	8.70	619	525	30.5	37.2	490	8136	6.50	.7	577	2254	.23	1.42	1.42	1.42	9.36	8.70	D
655	J349	1606.0	15.0	149	160	36	29.4	2490	1596.5	3.70	8.70	620	591	30.5	37.2	488	3358	7.00	.7	337	2118	.23	1.26	1.26	1.42	9.33	8.70	D
656	J350	1606.5	23.7	152	162	36	29.8	2490	1596.5	3.70	8.70	619	595	30.5	37.2	489	8467	7.50	.7	221	1998	.24	1.14	1.14	1.41	9.33	8.70	D
657	J352	1607.0	14.2	151	158	36	30.8	2480	1596.5	3.70	8.70	617	603	30.6	37.3	486	8645	8.00	.7	313	1889	.24	1.30	1.30	1.41	9.32	8.70	D
658	J355	1607.5	11.1	148	154	37	31.3	2480	1596.5	3.70	8.70	618	361	30.6	37.3	482	8878	8.50	.8	525	1802	.25	1.38	1.38	1.41	8.99	8.70	D
659	J357	1608.0	10.6	146	154	37	31.4	2480	1596.5	3.70	8.70	618	364	30.7	37.3	479	9120	9.00	.8	490	1729	.26	1.39	1.39	1.41	8.96	8.70	D
660	J401	1608.5	3.33	143	152	37	31.3	2470	1596.5	3.70	8.70	623	343	30.9	37.3	477	9431	9.50	.9	591	1669	.27	1.47	1.46	1.41	8.93	8.70	D
661	J403	1609.0	13.3	145	156	37	30.2	2460	1596.7	3.70	8.70	607	352	30.9	37.2	474	9631	10.0	.9	377	1607	.28	1.33	1.32	1.41	8.92	8.70	D
662	J405	1609.5	14.9	144	152	37	30.8	2470	1597.0	3.70	8.70	620	345	31.0	37.2	472	9790	10.5	1.0	340	1546	.28	1.30	1.30	1.41	8.90	8.70	D
663	J408	1610.0	11.1	145	162	36	31.6	2480	1597.6	3.70	8.70	622	481	31.0	37.2	467	10027	11.0	1.0	406	1495	.29	1.39	1.39	1.41	8.89	8.70	D
664	J408	1610.5	146	139	146	36	25.7	2470	1597.6	3.70	8.70	622	491	31.0	37.2	468	10044	11.5	1.0	52	1441	.29	.63	.63	1.41	8.89	8.70	D
665	J409	1611.0	75.3	138	148	37	23.4	2470	1597.7	3.70	8.70	622	503	31.0	37.2	468	10074	12.0	1.0	53	1374	.29	.79	.79	1.41	8.89	8.70	D
666	J410	1611.5	24.9	145	156	36	29.5	2460	1597.9	3.70	8.70	620	533	31.1	37.2	468	10172	12.5	1.0	196	1327	.30	1.14	1.14	1.41	8.90	8.70	D
667	J412	1612.0	12.8	144	156	36	30.7	2440	1598.3	3.70	8.70	620	571	31.2	37.3	470	10377	13.0	1.1	357	1291	.30	1.34	1.34	1.41	8.89	8.70	D
668	J412	1612.5	109	125	146	36	26.1	2450	1598.3	3.70	8.70	619	565	31.2	37.3	469	10400	13.5	1.1	106	1252	.30	.71	.71	1.41	8.89	8.70	D
669	J421	1613.0	81.0	138.8	132	78	17.1	2420	1599.0	3.70	8.70	612	498	31.8	37.3	496	10424	14.0	1.1	141	1206	.30	.73	.73	1.41	8.89	8.70	D
670	J428	1614.1	4.99	132	168	37	29.0	2390	1602.2	3.70	8.70	617	475	32.0	37.0	469	11003	15.0	1.2	436	1160	.32	1.59	1.58	1.41	8.88	8.70	D
671	J428	1614.6	155	134	142	37	23.8	2430	1602.3	3.70	8.70	617	468	32.0	37.0	468	11020	15.5	1.2	100	1131	.32	.60	.60	1.41	8.88	8.70	D
672	J428	1615.0	110	146	214	35	26.5	2360	1602.3	3.70	8.70	617	488	32.0	37.0	468	11036	16.0	1.2	28	1093	.32	.71	.71	1.41	8.88	8.70	D
673	J428	1615.5	78.2	133	184	34	23.5	2370	1602.4	3.70	8.70	615	501	32.0	37.0	467	11065	16.5	1.2	61	1067	.32	.77	.77	1.41	8.88	8.70	D
674	J434	1616.0	14.6	136	150	36	28.3	2430	1602.9	3.70	8.70	619	423	32.1	37.6	471	11228	17.0	1.2	523	1037	.33	1.28	1.27	1.41	8.88	8.70	D
675	J437	1616.5	9.51	132	176	36	26.1	2420	1603.3	3.70	8.70	621	391	31.7	38.0	457	11510	17.5	1.3	468	1027	.34	1.36	1.36	1.41	8.88	8.70	D
676	J437	1617.0	103	139	270	33	26.1	2410	1603.3	3.70	8.70	620	385	31.7	38.0	458	11532	18.0	1.3	50	1003	.34	.72	.72	1.41	8.89	8.70	D
677	J438	1617.6	53.2	137	208	32	24.0	2420	1603.4	3.70	8.70	620	380	31.7	38.0	458	11578	18.5	1.3	102	980	.34	.87	.87	1.41	8.89	8.70	D
678	J438	1618.0	128	132	136	36	18.8	2420	1603.4	3.70	8.70	620	372	31.7	38.0	456	11595	19.0	1.3	34	950	.34	.61	.61	1.41	8.89	8.70	D
679	J438	1618.5	114	134	136	36	22.4	2430	1603.4	3.70	8.70	617	362	31.7	38.0	457	11614	19.5	1.3	38	933	.34	.67	.67	1.41	8.89	8.70	D
680	J443	1619.0	106	108	142	35	19.7	2470	1603.9	3.70	8.70	616	317	31.5	38.2	466	11639	20.0	1.3	48	904	.34	.66	.66	1.41	8.90	8.70	D
681	J444	1619.5	34.1	130	136	37	22.8	2470	1604.1	3.70	8.70	626	331	31.5	38.2	460	11705	20.5	1.3	128	884	.34	.99	.98	1.41	8.90	8.70	D
682	J447	1621.5	41.6	132	220	37	26.1	2420	1605.1	3.70	8.70	624	257	31.4	38.1	452	11956	22.5	1.4	51	816	.35	.96	.95	1.41	9.04	8.70	D
+ Flow checks at 1613m, 1615.5m, 1619m and 1621.5m. Circulate returns at 1621.5m.																												
684	J607	1622.0	175	149	158	92	14.2	2390	1621.4	3.70	8.70	539	263	37.5	40.0	447	11979	23.0	1.4	40	305	.35	.52	.51	1.41	8.91	8.70	D
685	J607	1622.5	103	158	168	101	21.6	2400	1621.4	3.70	8.70	578	265	37.5	40.0	446	12006	23.5	1.4	45	784	.35	.73	.72	1.41	8.92	8.70	D
686	J608	1623.0	58.6	151	168	115	21.4	2420	1621.4	3.70	8.70	610	267	37.5	40.0	446	12059	24.0	1.4	73	770	.35	.90	.89	1.41	8.93	8.70	D
687	J610	1623.5	12.9	154	166	126	29.4	2410	1621.4	3.70	8.70	622	270	37.1	39.7	441	12338	24.5	1.4	564	761	.37	1.42	1.40	1.41	8.94	8.70	D
688	J612	1624.0	13.1	152	170	102	36.5	2400	1621.4	3.70	8.70	620	272	36.4	39.7	438	12569	25.0	1.5	368	752	.37	1.45	1.44	1.41	8.94	8.70	D
689	J615	1624.5	10.8	157	170	102	38.3	2390	1621.4	3.70	8.70	620	269	36.2	40.0	436	12841	25.5	1.5	438	746	.39	1.53	1.51	1.41	8.95	8.70	D
690	J618	1625.0	10.7	155	184	102	37.9	2400	1621.4	3.70	8.70	620	264	36.1	40.0	434	13126	26.0	1.6	495	741	.40	1.52	1.51	1.41	8.95	8.70	D
691	J622	1625.5	6.79	149	182	102	38.7	2380	1621.4	3.70	8.70	620	265	36.7	40.1	431	13576	26.5	1.6	708	741	.42	1.67	1.65	1.42	8.95	8.70	D
692	J624	1626.0	21.3	175	282	90	35.7	2380	1621.4	3.70	8.70	619	264	36.9	40.1	431	13711	27.0	1.7	270	732	.42	1.26	1.25	1.42	8.96	8.70	D
693	J624	1626.5	33.5	158	206	97	36.4	2350	1621.4	3.70	8.70	618	266	36.9	40.1	434	13790	27.5	1.7	144	722	.43	1.16	1.14	1.41	8.96	8.70	D
694	J625	1627.0	32.8	155	166	99	36.9	2360	1621.4	3.70	8.70	618	265	36.9	40.1	433	13873	28.0	1.7	144	711	.43	1.17	1.16	1.41	8.96	8.70	D
+ Flow check at 1627.5m.																												
696	J631	1627.5	26.9	139	166	99	33.5	2390	1621.4	3.70	8.70	619	268	37.4	40.1	446	13990	28.5	1.7	245	703	.43	1.19	1.18	1.41	8.97	8.70	D
697	J632	1628.0	25.6	152	166	101	35.3	2390	1621.4	3.70	8.70	623	269	37.9	39.9	443	14098	29.0	1.7	179	693	.44	1.23	1.22	1.41	8.97	8.70	D
698	J633	1628.5	23.0	155	170	101	36.6	2380	1621.4	3.70	8.70	623	268	38.0	40.0	440	14235	29.5	1.7	242	686	.44	1.28	1.26	1.41	8.97	8.70	D
699	J634	1629.0	59.8	155	170	101	33.9	2380	1621.4	3.70	8.70	624	267	38.0	40.0	439	14284	30.0	1.8	85	675	.44	.98	.96	1.41	8.98	8.70	D
700	J634	1629.5	80.4	151	172	100	31.6	2380	1621.4	3.70	8.70	624	267	38.0	40.0	439	14321	30.5	1.8	62	668	.45	.87	.86	1.41	8.98	8.70	D
701	J634	1630.0	60.0	151	170	100	33.4	2380	1621.4	3.70	8.70	624	268	38.0	40.0	436												

KOORCAH NO.1

Data Printed at time 03:20 Date Dec 22 '85
Data Recorded at time J6:35 Date Dec 9 '85

F#	FILE	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTNRS DEPTH	M/lb/gal		FLO/MLN		TEMP (C) IN OUT	PVT	---THIS BIT---			---COST---	EST T/I	LXC	KX	K3	ECD	EST PM PR			
				AVG	MAX					IN	OUT	IN	OUT			REVS	m	hrs								INST	RUN	
733	J635	1631.3	62.5	154	173	101	32.6	2380	1621.4	3.70	3.70	623	267	38.2	40.3	436	14465	32.0	1.8	79	639	.45	.95	.94	1.41	8.99	8.70	D
734	J644	1631.5	60.1	166	260	95	30.5	2360	1621.4	3.80	3.80	627	264	38.6	40.1	438	14658	32.5	1.8	131	636	.46	.93	.92	1.41	9.00	8.70	D
735	J645	1632.0	92.1	157	246	100	28.0	2380	1621.4	3.80	3.80	627	265	38.6	40.1	435	14690	33.0	1.8	53	626	.46	.80	.79	1.41	9.00	8.70	D
736	J645	1632.5	103	160	210	99	28.2	2390	1621.4	3.80	3.80	627	264	38.6	40.1	435	14716	33.5	1.8	46	613	.46	.77	.76	1.41	9.00	8.70	D
737	J645	1633.0	103	152	166	101	24.8	2390	1621.4	3.80	3.80	627	264	38.6	40.1	435	14745	34.0	1.8	46	609	.46	.75	.74	1.41	9.01	8.70	D
738	J646	1633.5	77.0	180	284	94	29.1	2360	1621.4	3.80	3.80	623	265	38.7	40.5	430	14766	34.5	1.8	53	602	.46	.84	.83	1.41	9.01	8.70	D
739	J649	1634.5	55.5	136	286	102	12.7	2380	1621.4	3.80	3.80	626	264	38.9	40.6	424	14836	35.5	1.8	61	585	.46	.77	.76	1.41	9.02	8.70	D
740	J650	1635.0	95.5	174	290	98	10.1	2380	1621.4	3.80	3.80	626	265	38.9	40.6	425	14865	36.0	1.9	63	577	.46	.61	.60	1.41	9.02	8.70	D
741	J651	1635.5	86.3	176.5	242	37	12.0	2350	1621.4	3.80	3.80	622	267	39.0	40.3	425	14877	36.5	1.9	144	576	.46	.61	.60	1.41	9.02	8.70	D
742	J652	1636.0	75.1	129	138	103	6.6	2360	1621.4	3.80	3.80	623	266	39.0	40.3	425	14904	37.0	1.9	172	563	.46	.62	.61	1.41	9.02	8.70	D
743	J652	1636.5	56.4	127	140	105	9.6	2370	1621.4	3.80	3.80	624	265	39.0	40.3	425	14958	37.5	1.9	90	556	.47	.73	.72	1.41	9.03	8.70	D
744	J653	1637.0	30.5	131	148	104	12.9	2360	1621.4	3.80	3.80	625	266	39.1	40.9	425	15052	38.0	1.9	150	551	.47	.91	.90	1.41	9.03	8.70	D
745	J656	1637.5	36.4	155	288	102	10.7	2360	1621.4	3.80	3.80	624	266	39.3	41.0	426	15093	38.5	1.9	125	547	.47	.65	.64	1.41	9.04	8.70	D
746	J657	1638.5	36.2	128	140	113	7.9	2350	1621.4	3.80	3.80	624	268	39.4	41.1	426	15149	39.5	1.9	57	533	.47	.61	.59	1.41	9.05	8.70	D
747	J657	1639.0	91.5	130	148	114	12.7	2350	1621.6	3.80	3.80	625	268	39.4	41.1	426	15185	40.0	1.9	53	527	.47	.69	.67	1.41	9.05	8.70	D
748	J658	1639.5	50.0	141	164	109	16.0	2350	1621.9	3.80	3.80	624	268	39.4	41.1	426	15248	40.5	1.9	96	521	.47	.85	.84	1.41	9.05	8.70	D
749	J706	1640.0	58.7	145.5	146	103	13.9	2330	1624.0	3.80	3.80	619	269	40.0	41.2	443	15302	41.0	1.9	96	516	.48	.78	.76	1.41	9.05	8.70	D
750	J707	1640.5	25.0	156	264	108	26.1	2330	1624.3	3.80	3.80	621	268	40.0	41.4	441	15430	41.5	1.9	196	512	.48	1.15	1.13	1.41	9.05	8.70	D
751	J708	1641.0	42.7	144	194	115	30.3	2350	1624.5	3.80	3.80	621	267	40.0	41.4	440	15503	42.0	2.0	125	509	.48	1.06	1.04	1.41	9.06	8.70	D
752	J710	1641.5	19.6	148	220	109	32.9	2350	1624.8	3.80	3.80	622	269	40.0	41.5	442	15630	42.5	2.0	296	504	.49	1.29	1.27	1.41	9.07	8.70	D
753	J710	1642.0	109	151	174	109	28.3	2350	1624.9	3.80	3.80	622	268	40.0	41.5	442	15706	43.0	2.0	90	501	.49	.78	.76	1.41	9.07	8.70	D
754	J710	1642.5	80.4	147	156	111	30.4	2350	1625.0	3.80	3.80	623	268	40.0	41.5	441	15743	43.5	2.0	48	494	.49	.88	.86	1.41	9.07	8.70	D
755	J711	1643.0	68.2	147	156	110	31.9	2340	1625.1	3.80	3.80	624	268	40.0	41.5	442	15789	44.0	2.0	72	490	.49	.94	.92	1.41	9.07	8.70	D
756	J712	1643.5	21.1	146	158	112	34.2	2350	1625.3	3.80	3.80	623	268	40.0	41.5	442	15947	44.5	2.0	311	486	.50	1.29	1.27	1.41	9.08	8.70	D
757	J714	1644.0	16.1	153	186	106	35.2	2350	1625.5	3.80	3.80	619	268	40.0	41.5	445	16142	45.0	2.0	286	484	.51	1.36	1.34	1.41	9.09	8.70	D
758	J716	1644.5	16.3	146	158	109	36.3	2330	1625.7	3.80	3.80	623	267	40.1	41.5	440	16342	45.5	2.1	317	483	.52	1.38	1.36	1.41	9.09	8.70	D
759	J713	1645.0	16.8	149	160	110	36.6	2360	1626.3	3.80	3.80	622	268	40.2	41.5	445	16539	46.0	2.1	306	481	.52	1.37	1.35	1.41	9.10	8.70	D
760	J720	1645.5	13.2	153	180	109	36.5	2370	1627.4	3.80	3.80	621	272	40.2	41.6	447	16731	46.5	2.1	387	479	.53	1.44	1.42	1.41	9.10	8.70	D
761	J721	1646.0	17.6	153	206	109	35.8	2360	1627.8	3.80	3.80	622	271	40.4	41.6	441	16964	47.0	2.2	280	477	.54	1.35	1.33	1.41	9.10	8.70	D
762	J724	1646.5	13.4	146	168	110	36.1	2350	1628.3	3.80	3.80	621	272	40.5	41.6	443	17208	47.5	2.2	328	476	.55	1.43	1.41	1.41	9.10	8.70	D
763	J726	1647.0	15.8	147	158	110	36.0	2350	1629.6	3.80	3.80	620	271	40.5	41.7	444	17416	48.0	2.2	324	474	.56	1.39	1.36	1.41	9.10	8.70	D
764	J723	1647.5	14.2	147	162	110	35.5	2360	1631.3	3.80	3.80	620	272	40.6	41.8	443	17647	48.5	2.3	370	473	.57	1.41	1.39	1.41	9.10	8.70	D
765	J730	1648.0	13.8	143	154	110	36.4	2340	1632.0	3.80	3.80	618	271	40.7	41.9	444	17835	49.0	2.3	357	472	.58	1.43	1.41	1.41	9.10	8.70	D
766	J731	1648.5	22.1	144	162	111	35.3	2340	1632.0	3.80	3.80	620	272	40.8	42.0	443	18034	49.5	2.3	241	470	.58	1.28	1.26	1.40	9.11	8.70	D
767	J739	1649.0	25.6	131	150	110	31.3	2370	1632.0	3.80	3.80	611	264	41.0	42.0	455	18132	50.0	2.4	218	468	.59	1.20	1.17	1.40	9.11	8.70	D
768	J741	1649.5	21.5	138	156	107	31.5	2370	1632.0	3.80	3.80	623	269	41.0	42.0	450	18328	50.5	2.4	273	465	.59	1.24	1.22	1.40	9.12	8.70	D
769	J743	1650.0	15.3	140	150	108	34.0	2370	1633.2	3.80	3.80	623	271	41.0	41.9	448	18543	51.0	2.4	341	464	.60	1.36	1.34	1.40	9.13	8.70	D
770	J745	1650.5	13.4	141	152	108	35.7	2370	1634.0	3.80	3.80	618	273	41.0	41.8	442	18774	51.5	2.5	405	463	.61	1.42	1.39	1.40	9.13	8.70	D
771	J747	1651.0	13.5	141	150	108	35.2	2370	1634.9	3.80	3.80	623	270	41.1	42.1	436	19016	52.0	2.5	365	462	.62	1.41	1.39	1.40	9.13	8.70	D
772	J749	1651.5	17.9	143	158	107	35.5	2370	1635.3	3.80	3.80	623	272	41.1	42.1	437	19195	52.5	2.5	279	460	.62	1.33	1.31	1.40	9.13	8.70	D
773	J751	1652.0	14.5	145	162	107	35.8	2370	1637.3	3.80	3.80	623	272	41.2	42.4	437	19417	53.0	2.6	332	459	.63	1.40	1.37	1.40	9.13	8.70	D
774	J753	1652.5	13.5	141	152	108	37.0	2370	1637.4	3.80	3.90	623	272	41.4	42.5	434	19658	53.5	2.6	367	458	.64	1.43	1.41	1.40	9.13	8.70	D
775	J755	1653.0	14.5	142	160	108	37.0	2360	1637.4	3.80	3.90	623	272	41.5	42.4	433	19887	54.0	2.6	347	457	.65	1.41	1.39	1.40	9.13	8.70	D
776	J757	1653.5	14.5	147	172	109	37.2	2370	1637.9	3.80	3.90	624	272	41.5	42.4	433	20093	54.5	2.7	365	456	.66	1.42	1.39	1.40	9.13	8.70	D
777	J759	1654.0	12.4	155	194	108	36.5	2360	1639.5	3.80	3.90	623	273	41.6	42.5	432	20349	55.0	2.7	379	456	.67	1.45	1.43	1.40	9.12	8.70	D
778	J801	1654.5	15.9	144	158	109	36.9	2360	1640.7	3.80	3.90	624	272	41.7	42.6	429	20553	55.5	2.7	322	454	.68	1.39	1.36	1.40	9.12	8.70	D
779	J803	1655.0	15.6	143	158	109	37.1	2370	1641.3	3.80	3.90	625	271	41.8	42.8	425	20771	56.0	2.8	356	453	.68						

	m	m/hr	AVG	MAX	AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT	IN	OUT	REVS	m	hrs	INST	RUN	TVI	AK	AKB	BCD	EST	PM	PR		
753	J811	1657.3	13.5	142	156	110	38.4	2350	1643.4	8.80	8.90	623	271	42.2	42.8	417	21627	58.3	2.9	401	449	.72	1.45	1.43	1.39	9.12	8.70	D
754	J813	1657.5	14.7	143	154	110	38.0	2360	1643.8	8.80	8.90	622	273	42.3	43.0	417	21848	58.5	2.9	327	448	.73	1.42	1.40	1.39	9.12	8.70	D
755	J814	1658.3	13.4	143	154	109	38.1	2360	1644.2	8.80	8.90	622	272	42.3	43.0	416	21987	59.0	2.9	357	446	.73	1.45	1.42	1.40	9.12	8.70	D
756	J824	1658.5	12.8	140	164	108	36.9	2380	1645.7	8.80	8.90	617	534	42.5	42.8	424	22194	59.5	3.0	458	445	.74	1.45	1.42	1.40	9.11	8.70	D
757	J826	1659.0	15.1	142	158	105	36.8	2360	1646.4	8.80	8.90	624	595	42.5	42.8	416	22387	60.0	3.0	306	444	.75	1.39	1.37	1.40	9.11	8.70	D
758	J828	1659.5	13.7	143	154	106	36.9	2370	1646.4	8.80	8.90	623	615	42.5	43.1	410	22622	60.5	3.0	372	443	.75	1.42	1.40	1.40	9.11	8.70	D
759	J830	1660.3	13.0	145	164	107	36.7	2380	1646.7	8.80	8.90	623	606	42.5	43.4	405	22849	61.0	3.1	367	443	.76	1.44	1.41	1.40	9.12	8.70	D
760	J832	1660.5	16.3	143	158	107	36.1	2380	1647.3	8.80	8.90	623	602	42.5	43.4	402	23031	61.5	3.1	296	441	.77	1.36	1.33	1.40	9.11	8.70	D
761	J834	1661.3	16.7	150	172	107	36.1	2380	1647.7	8.80	8.90	623	672	42.6	43.3	402	23219	62.0	3.1	301	440	.77	1.36	1.33	1.39	9.12	8.70	D
762	J835	1661.5	15.8	146	170	107	37.4	2380	1648.1	8.80	8.90	623	631	42.6	43.5	397	23409	62.5	3.2	302	439	.78	1.39	1.36	1.39	9.12	8.70	D
763	J837	1662.0	16.4	171	274	104	37.0	2370	1648.5	8.80	8.90	618	622	42.6	43.6	396	23598	63.0	3.2	299	438	.79	1.37	1.34	1.39	9.12	8.70	D
764	J839	1662.5	14.7	166	274	105	37.0	2370	1649.1	8.80	8.90	622	592	42.6	43.6	393	23818	63.5	3.2	329	437	.80	1.40	1.37	1.39	9.12	8.70	D
765	J841	1663.0	14.7	147	180	108	36.4	2370	1649.6	8.80	8.90	622	606	42.7	43.6	392	24030	64.0	3.3	349	437	.80	1.40	1.37	1.39	9.12	8.70	D
766	J843	1663.5	16.7	142	208	109	36.3	2380	1650.0	8.80	8.90	622	593	42.7	43.4	388	24222	64.5	3.3	302	435	.81	1.37	1.34	1.39	9.12	8.70	D
767	J846	1664.0	9.20	139	158	109	37.6	2360	1650.8	8.80	8.90	622	612	42.8	43.7	382	24574	65.0	3.3	592	436	.82	1.55	1.52	1.39	9.11	8.70	D
768	J849	1664.5	10.2	142	172	109	37.4	2370	1651.5	8.80	8.90	622	618	42.9	43.8	379	24895	65.5	3.4	436	437	.84	1.52	1.49	1.39	9.11	8.70	D
769	J851	1665.0	16.6	148	166	108	36.8	2380	1652.0	8.80	8.90	622	595	43.0	43.8	379	25091	66.0	3.4	334	436	.84	1.37	1.34	1.39	9.11	8.70	D
770	J853	1665.5	18.2	148	158	121	37.7	2370	1652.4	8.80	8.90	622	622	43.1	43.9	380	25280	66.5	3.5	276	435	.85	1.39	1.35	1.39	9.11	8.70	D
771	J854	1666.0	32.1	164	176	141	47.2	2380	1652.6	8.80	8.90	623	622	43.2	43.9	380	25407	67.0	3.5	158	433	.85	1.36	1.31	1.39	9.11	8.70	D
772	J854	1666.5	30.2	166	180	144	49.8	2390	1652.9	8.80	8.90	623	619	43.2	43.9	381	25549	67.5	3.5	163	431	.86	1.41	1.36	1.39	9.12	8.70	D
773	J856	1667.0	26.8	170	204	145	50.4	2390	1653.2	8.80	8.90	624	613	43.2	43.9	380	25710	68.0	3.5	194	429	.87	1.46	1.41	1.39	9.12	8.70	D
774	J857	1667.5	18.3	174	278	137	49.3	2380	1653.7	8.80	8.90	616	610	43.2	44.1	384	25923	68.5	3.5	279	428	.89	1.55	1.51	1.39	9.12	8.70	D
775	J906	1668.0	26.8	141	168	134	42.3	2370	1655.2	8.80	8.90	604	558	43.1	44.1	399	26050	69.0	3.5	234	426	.89	1.45	1.41	1.39	9.11	8.70	DX
776	J907	1668.5	32.1	161	174	144	45.1	2370	1655.4	8.80	8.90	619	600	43.2	43.6	393	26190	69.5	3.6	149	424	.90	1.35	1.30	1.39	9.11	8.70	D
777	J908	1669.0	24.5	162	172	145	47.7	2370	1655.7	8.80	8.90	621	611	43.2	43.6	388	26358	70.0	3.6	234	423	.91	1.46	1.41	1.39	9.11	8.70	D
778	J910	1669.5	20.5	170	184	145	48.9	2380	1655.8	8.80	8.90	621	604	43.2	43.5	384	26561	70.5	3.6	249	421	.92	1.53	1.47	1.39	9.12	8.70	D
779	J911	1670.0	19.1	164	174	145	49.7	2390	1656.0	8.80	8.90	621	620	43.2	44.0	380	26793	71.0	3.6	256	420	.93	1.56	1.50	1.40	9.12	8.70	D
780	J913	1670.5	24.1	175	212	145	50.2	2380	1656.2	8.80	8.90	621	616	43.2	44.0	379	26967	71.5	3.7	232	418	.94	1.49	1.44	1.40	9.12	8.70	D
781	J914	1671.0	24.6	168	182	145	49.2	2380	1656.4	8.80	8.90	622	633	43.2	44.1	380	27144	72.0	3.7	210	417	.96	1.47	1.42	1.40	9.12	8.70	D
782	J915	1671.5	19.4	160	172	146	49.8	2380	1656.6	8.80	8.90	621	655	43.2	43.8	375	27367	72.5	3.7	266	416	.97	1.55	1.50	1.40	9.12	8.70	D
783	J917	1672.0	26.3	160	172	146	49.7	2380	1656.9	8.80	8.90	621	621	43.2	43.8	371	27532	73.0	3.7	197	414	.98	1.46	1.40	1.40	9.13	8.70	D
784	J918	1672.5	25.0	161	170	146	49.8	2380	1657.1	8.80	8.90	620	655	43.2	43.8	370	27704	73.5	3.7	195	413	.99	1.47	1.42	1.40	9.13	8.70	D
785	J919	1673.0	28.2	163	172	145	50.8	2380	1657.4	8.80	8.90	620	656	43.2	43.8	369	27856	74.0	3.8	190	411	1.00	1.44	1.39	1.40	9.13	8.70	D
786	J920	1673.5	28.2	162	172	146	50.0	2380	1657.6	8.80	8.90	620	639	43.2	43.9	367	28011	74.5	3.8	177	410	1.01	1.44	1.38	1.40	9.13	8.70	D
787	J921	1674.0	23.6	161	172	145	50.6	2380	1658.0	8.80	8.90	621	656	43.2	43.9	366	28190	75.0	3.8	198	408	1.02	1.50	1.44	1.40	9.13	8.70	D
788	J922	1674.5	25.8	165	176	146	49.5	2380	1658.3	8.80	9.00	620	665	43.2	43.9	364	28358	75.5	3.8	191	407	1.02	1.46	1.40	1.40	9.13	8.70	D
789	J923	1675.0	27.8	162	176	145	49.8	2380	1658.6	8.80	9.00	620	642	43.3	44.0	363	28512	76.0	3.8	167	405	1.03	1.44	1.38	1.40	9.13	8.70	D
790	J924	1675.5	25.2	164	172	146	49.7	2380	1658.9	8.80	9.00	620	640	43.3	44.0	363	28678	76.5	3.8	206	404	1.05	1.47	1.41	1.40	9.14	8.70	D
791	J925	1676.0	30.1	163	176	146	49.2	2380	1659.2	8.80	9.00	621	661	43.4	43.9	362	28821	77.0	3.9	168	403	1.05	1.41	1.35	1.40	9.14	8.70	D
792	J926	1676.5	27.2	163	176	146	49.6	2390	1659.5	8.80	9.00	621	661	43.4	43.9	362	28981	77.5	3.9	188	401	1.06	1.44	1.39	1.40	9.14	8.70	D
793	J935	1677.0	23.0	151	172	145	48.3	2370	1661.0	8.80	9.00	605	599	43.5	44.4	378	29184	78.0	3.9	266	400	1.07	1.48	1.43	1.40	9.13	8.70	D
794	J936	1677.5	32.1	162	172	145	46.7	2360	1661.3	8.80	9.00	615	633	43.6	43.6	373	29312	78.5	3.9	155	399	1.08	1.36	1.31	1.40	9.13	8.70	D
795	J937	1678.0	33.7	168	196	146	48.0	2360	1661.4	8.80	9.00	617	635	43.6	43.6	367	29441	79.0	3.9	169	397	1.08	1.36	1.30	1.40	9.14	8.70	D
796	J938	1678.5	34.4	164	180	146	49.3	2370	1661.6	8.80	9.00	617	645	43.6	43.6	363	29565	79.5	4.0	150	396	1.09	1.37	1.31	1.40	9.14	8.70	D
797	J939	1679.0	28.7	162	178	146	48.7	2350	1661.7	8.80	9.00	617	641	43.6	44.2	362	29714	80.0	4.0	162	394	1.10	1.42	1.36	1.40	9.14	8.70	D
798	J940	1679.5	26.1	162	170	146	48.5	2350	1661.8	8.80	9.00	617	614	43.6	44.2	361	29882	80.5	4.0	186	393	1.11	1.44	1.39	1.40	9.14	8.70	D
799	J941	1680.0	30.7	162	170	146	49.0	2360	1662.0	8.80	9.00	616	601	43.6	44.2	360	30023	81.0	4.0	166	392	1.12	1.40	1.34	1.40	9.15	8.70	D
800	J942	1680.5	27.3	162	170	146	48.8	2350	1662.2	8.80	9.																	

KOORCAH NO.1

Data Printed at time 03:28 Date Dec 22 '85
Data Recorded at time 09:45 Date Dec 9 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM		WB AVG	PUMP PRES	RTRNS		M1 lb/gal		FLO I/MIN		TEMP (C)		PVT	-----THIS BIT-----			DKC	NK	NKB	ECD	EST FM PR		
				AVG	MAX	AVG	AVG			DEPTH	IN	OUT	IN	OUT	IN	OUT	REVS		m	hrs	INST						RUN	PVI
303	J945	1632.2	26.9	159	172	145	47.9	2360	1663.1	3.90	9.30	612	571	43.7	44.3	357	30610	33.3	4.1	173	386	1.15	1.43	1.37	1.39	9.16	8.70	D
304	J946	1632.5	27.3	163	174	145	48.5	2350	1663.4	3.90	9.30	614	576	43.7	44.3	356	30758	33.5	4.1	176	385	1.15	1.43	1.37	1.39	9.16	8.70	D
305	J947	1683.2	27.3	159	170	145	47.7	2360	1663.9	3.90	9.30	615	585	43.7	44.3	355	30913	34.2	4.1	173	384	1.17	1.42	1.36	1.39	9.17	8.70	D
306	J948	1683.5	28.2	159	166	146	48.3	2350	1664.4	3.90	9.30	615	587	43.7	44.3	354	31063	34.5	4.1	174	383	1.17	1.41	1.35	1.39	9.17	8.70	D
307	J949	1684.2	35.3	162	172	145	49.0	2360	1664.8	3.90	9.30	615	579	43.8	44.5	355	31187	35.0	4.1	156	381	1.18	1.35	1.29	1.39	9.17	8.70	D
308	J950	1684.5	24.5	170	214	145	49.2	2360	1665.2	3.90	9.30	613	576	43.8	44.5	354	31358	35.5	4.2	212	380	1.19	1.46	1.40	1.39	9.18	8.70	D
309	J951	1685.2	28.8	168	190	146	49.4	2360	1665.4	3.90	9.30	613	574	43.8	44.5	353	31506	36.0	4.2	175	379	1.20	1.42	1.36	1.39	9.18	8.70	D
310	J952	1685.5	23.9	161	172	146	50.2	2360	1665.5	3.90	9.30	616	582	43.8	44.5	353	31685	36.5	4.2	206	378	1.21	1.48	1.42	1.39	9.18	8.70	D
311	J953	1686.2	28.7	159	172	145	49.0	2360	1665.5	3.90	9.30	616	569	43.8	44.6	353	31840	37.0	4.2	177	377	1.21	1.41	1.35	1.39	9.19	8.70	D
312	J001	1686.5	27.6	137	164	132	38.4	2400	1666.5	3.90	9.30	614	566	43.9	44.5	383	31933	37.5	4.2	189	375	1.22	1.43	1.38	1.39	9.19	8.70	DX
313	J002	1687.2	33.0	159	170	144	46.2	2400	1666.9	3.90	9.30	621	604	43.9	43.9	379	32058	38.0	4.2	133	374	1.22	1.34	1.28	1.39	9.20	8.70	D
314	J003	1687.5	30.7	158	174	146	50.3	2400	1667.2	3.90	9.30	621	613	43.9	43.9	376	32196	38.5	4.3	159	373	1.23	1.40	1.34	1.39	9.20	8.70	D
315	J004	1688.2	28.8	159	170	146	50.5	2390	1667.6	3.90	9.30	621	616	43.7	44.1	372	32340	39.0	4.3	158	372	1.24	1.42	1.36	1.39	9.21	8.70	D
316	J005	1688.5	29.0	159	166	146	51.3	2390	1668.0	3.90	9.30	621	619	43.7	44.1	369	32488	39.5	4.3	176	371	1.25	1.43	1.37	1.39	9.21	8.70	D
317	J006	1689.2	27.3	156	166	146	48.7	2400	1668.4	3.90	9.30	622	628	43.7	44.0	367	32651	40.0	4.3	192	370	1.26	1.42	1.36	1.38	9.21	8.70	D
318	J007	1689.5	25.6	159	170	146	50.6	2400	1668.8	3.90	9.30	622	620	43.7	44.0	367	32806	40.5	4.3	193	369	1.27	1.46	1.40	1.39	9.21	8.70	D
319	J009	1690.2	25.0	157	168	146	50.2	2390	1669.3	3.90	9.30	622	621	43.7	44.1	365	32979	41.0	4.3	200	368	1.27	1.46	1.40	1.39	9.22	8.70	D
320	J010	1690.5	29.8	155	168	146	49.3	2400	1669.7	3.90	9.30	622	595	43.7	44.1	365	33125	41.5	4.4	180	367	1.28	1.40	1.34	1.39	9.22	8.70	D
321	J011	1691.2	25.4	156	168	146	50.0	2390	1670.1	3.90	9.30	622	602	43.7	44.0	365	33300	42.0	4.4	198	366	1.29	1.46	1.39	1.39	9.22	8.70	D
322	J012	1691.5	29.8	159	170	146	49.7	2390	1670.5	3.90	9.30	621	614	43.7	44.0	365	33439	42.5	4.4	178	365	1.30	1.41	1.35	1.39	9.22	8.70	D
323	J013	1692.2	27.3	158	166	146	49.7	2390	1671.0	3.90	9.30	621	597	43.7	44.2	366	33585	43.0	4.4	172	363	1.31	1.42	1.36	1.38	9.23	8.70	D
324	J014	1692.5	27.3	156	168	146	50.1	2390	1671.5	3.90	9.30	622	609	43.7	44.2	366	33745	43.5	4.4	186	363	1.32	1.43	1.37	1.38	9.23	8.70	D
325	J015	1693.2	23.3	154	164	146	49.1	2390	1672.0	3.90	9.30	621	609	43.7	44.5	368	33923	44.0	4.5	210	362	1.33	1.47	1.41	1.38	9.23	8.70	D
326	J016	1693.5	24.8	155	166	146	48.4	2380	1672.5	3.90	9.30	622	598	43.7	44.5	363	34096	44.5	4.5	202	361	1.33	1.45	1.38	1.38	9.23	8.70	D
327	J017	1694.2	26.5	156	168	146	50.5	2370	1673.0	3.90	9.30	622	616	43.7	44.5	369	34259	45.0	4.5	191	360	1.34	1.44	1.38	1.38	9.24	8.70	D
328	J018	1694.5	26.5	157	178	145	49.6	2370	1673.5	3.90	9.30	622	618	43.7	44.4	368	34424	45.5	4.5	196	359	1.35	1.43	1.37	1.38	9.24	8.70	D
329	J020	1695.2	23.6	157	168	146	50.3	2370	1674.1	3.90	9.30	622	621	43.7	44.4	367	34601	46.0	4.5	208	358	1.36	1.48	1.41	1.38	9.24	8.70	D
330	J028	1695.5	23.4	143	164	142	47.2	2300	1674.7	3.90	8.93	601	556	43.8	44.2	387	34831	46.5	4.6	223	358	1.37	1.44	1.38	1.38	9.25	8.70	D
331	J029	1696.2	30.8	153	160	148	46.9	2380	1675.0	3.90	8.93	615	602	43.8	44.2	380	34982	47.0	4.6	177	357	1.38	1.37	1.30	1.38	9.25	8.70	D
332	J030	1696.5	20.4	156	164	148	50.6	2380	1675.4	3.90	8.90	621	600	43.8	44.4	375	35185	47.5	4.6	240	356	1.39	1.53	1.46	1.38	9.26	8.70	D
333	J031	1697.2	29.1	156	164	149	50.1	2370	1675.9	3.90	8.90	622	586	43.8	44.4	371	35336	48.0	4.6	180	356	1.39	1.41	1.35	1.38	9.26	8.70	D
334	J033	1697.5	23.5	178	208	148	51.1	2380	1676.6	3.90	8.90	622	608	43.8	44.5	369	35531	48.5	4.6	220	355	1.41	1.49	1.42	1.38	9.26	8.70	D
335	J034	1698.2	21.6	161	186	148	53.4	2380	1677.3	3.90	8.90	622	620	43.8	44.5	367	35729	49.0	4.7	225	354	1.42	1.51	1.44	1.39	9.26	8.70	D
336	J035	1698.5	21.8	157	166	148	51.1	2380	1677.9	3.90	8.90	622	612	43.8	44.5	364	35934	49.5	4.7	234	354	1.43	1.51	1.44	1.39	9.26	8.70	D
337	J037	1699.2	24.2	157	166	148	49.8	2370	1678.6	3.90	8.90	621	606	43.9	44.5	364	36126	50.0	4.7	224	353	1.44	1.47	1.40	1.39	9.26	8.70	D
338	J038	1699.5	20.2	157	164	148	50.3	2370	1679.2	3.90	8.90	622	605	43.9	44.5	363	36329	50.5	4.7	239	352	1.45	1.53	1.46	1.39	9.26	8.70	D
339	J039	1700.2	21.9	157	162	148	50.3	2370	1679.9	3.90	8.90	621	607	43.9	44.6	362	36526	51.0	4.7	236	352	1.46	1.50	1.43	1.39	9.26	8.70	D
340	J041	1700.5	18.0	155	168	148	50.1	2380	1680.7	3.90	8.90	621	622	43.9	44.6	362	36769	51.5	4.8	274	351	1.47	1.56	1.49	1.40	9.25	8.70	D
341	J043	1701.2	19.7	155	166	148	49.4	2380	1681.4	3.90	8.90	622	617	43.9	44.6	362	36991	52.0	4.8	250	351	1.48	1.53	1.46	1.40	9.25	8.70	D
342	J044	1701.5	20.8	155	162	148	50.5	2380	1682.1	3.90	8.90	622	612	44.0	44.8	362	37201	52.5	4.8	238	350	1.50	1.52	1.45	1.40	9.25	8.70	D
343	J045	1702.2	20.8	156	166	148	51.2	2380	1682.8	3.87	8.90	622	599	44.0	44.8	362	37406	53.0	4.8	238	350	1.50	1.53	1.46	1.40	9.25	8.70	D
344	J047	1702.5	21.1	157	168	148	50.4	2380	1683.3	3.87	8.90	622	592	44.0	44.8	362	37613	53.5	4.9	228	349	1.52	1.52	1.44	1.40	9.25	8.70	D
345	J048	1703.2	19.3	157	164	148	51.5	2370	1683.7	3.87	8.91	621	597	44.0	44.8	362	37845	54.0	4.9	254	349	1.53	1.56	1.48	1.41	9.25	8.70	D
346	J050	1703.5	18.6	155	162	148	51.6	2370	1683.9	3.87	8.91	622	609	44.1	44.8	361	38077	54.5	4.9	274	348	1.54	1.57	1.49	1.41	9.25	8.70	D
347	J052	1704.2	19.2	154	162	148	50.8	2380	1684.0	3.87	8.90	621	606	44.1	44.7	361	38312	55.0	4.9	258	348	1.55	1.55	1.48	1.41	9.26	8.70	D
348	J100	1704.5	20.1	148	164	142	49.0	2390	1686.7	3.90	8.88	604	543	44.2	44.8	379	38550	55.5	5.0	259	347	1.56	1.51	1.44	1.41	9.24	8.70	DX

KOORCAH NO.1

Data Printed at time 03:32 Date Dec 22 '85
Data Recorded at time 11:07 Date Dec 9 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	M/V lb/gal		FLO I/MIN		TEMP (C)		PVT	---THIS BIT---			DNC	AK	MKB	ECD	EST					
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs						INST	RUN	T/I	EM	PR
853	1107	1707.5	20.4	157	168	147	51.1	2380	1689.9	3.38	3.90	619	590	44.2	44.3	361	39576	108	5.1	264	345	1.61	1.54	1.46	1.42	9.24	8.70	D
854	1109	1707.5	17.8	157	168	145	51.2	2380	1690.7	3.90	3.94	620	608	44.3	45.0	360	39818	108	5.1	267	344	1.62	1.58	1.50	1.42	9.23	8.70	D
855	1111	1708.0	19.7	157	164	145	51.1	2330	1691.3	3.90	3.94	620	613	44.3	45.0	359	40036	109	5.1	262	344	1.63	1.54	1.47	1.42	9.23	8.70	D
856	1112	1708.5	18.4	156	164	145	51.2	2390	1691.9	3.90	3.94	620	596	44.3	45.0	358	40270	109	5.2	269	344	1.65	1.57	1.49	1.43	9.23	8.70	D
857	1114	1709.0	16.5	155	168	145	51.5	2380	1692.7	3.90	3.92	620	613	44.3	45.0	357	40531	110	5.2	289	344	1.66	1.60	1.53	1.43	9.23	8.70	D
858	1116	1709.5	13.3	155	164	145	50.9	2380	1693.2	3.89	3.90	620	616	44.4	44.9	353	40771	110	5.2	290	343	1.67	1.57	1.49	1.43	9.23	8.70	D
859	1117	1710.0	21.1	158	163	145	50.8	2380	1693.2	3.89	3.90	620	604	44.4	44.9	357	40974	111	5.2	241	343	1.68	1.52	1.44	1.43	9.23	8.70	D
860	1119	1710.5	18.5	157	166	145	51.5	2380	1693.3	3.91	3.90	619	585	44.4	45.0	357	41208	111	5.3	266	342	1.69	1.57	1.49	1.44	9.23	8.70	D
861	1120	1711.0	21.9	157	164	145	50.3	2380	1693.6	3.91	3.87	621	591	44.4	45.1	357	41401	112	5.3	229	342	1.70	1.50	1.43	1.43	9.24	8.70	D
862	1122	1711.5	17.1	156	168	145	49.8	2380	1694.3	3.92	3.88	620	591	44.5	45.3	357	41652	112	5.3	290	342	1.72	1.57	1.50	1.44	9.23	8.70	D
863	1123	1712.0	18.9	157	168	145	50.9	2380	1695.0	3.92	3.88	620	611	44.5	45.3	358	41882	113	5.4	259	341	1.73	1.55	1.47	1.44	9.24	8.70	D
864	1125	1712.5	18.4	157	168	145	51.0	2390	1695.6	3.91	3.87	621	624	44.5	45.3	357	42121	113	5.4	290	341	1.74	1.56	1.48	1.44	9.23	8.70	D
865	1126	1713.0	18.8	159	168	146	51.7	2390	1696.2	3.92	3.88	621	631	44.6	45.4	357	42347	114	5.4	263	341	1.75	1.56	1.48	1.44	9.23	8.70	D
866	1128	1713.5	21.9	159	172	146	52.3	2390	1696.7	3.92	3.88	621	637	44.6	45.4	358	42550	114	5.4	236	340	1.76	1.52	1.44	1.44	9.23	8.70	D
867	1144	1714.0	18.2	151	170	140	52.6	2490	1700.0	3.91	3.90	641	633	44.7	45.8	370	42872	115	5.5	270	341	1.77	1.57	1.49	1.45	9.22	8.70	D
868	1146	1714.5	17.9	160	170	138	52.7	2480	1700.6	3.87	3.89	636	647	44.6	45.9	359	43101	115	5.5	268	340	1.78	1.58	1.50	1.45	9.22	8.70	D
869	1147	1715.0	17.7	160	170	138	52.5	2490	1701.1	3.87	3.89	636	642	44.6	45.9	353	43333	116	5.5	278	340	1.79	1.58	1.50	1.45	9.22	8.70	D
870	1149	1715.5	18.2	158	168	138	51.6	2430	1701.7	3.87	3.88	633	646	44.5	45.7	348	43558	116	5.5	280	340	1.80	1.56	1.48	1.45	9.22	8.70	D
871	1151	1716.0	19.9	160	168	138	52.2	2430	1702.1	3.88	3.89	635	643	44.3	45.6	348	43762	117	5.6	249	339	1.81	1.54	1.46	1.45	9.22	8.70	D
872	1152	1716.5	17.7	158	168	138	51.6	2430	1702.2	3.86	3.87	635	643	44.1	45.7	343	43997	117	5.6	280	339	1.83	1.57	1.49	1.46	9.22	8.70	D
873	1153	1717.0	23.2	158	170	138	50.7	2430	1702.2	3.86	3.87	636	615	44.1	45.7	350	44174	118	5.6	211	339	1.83	1.47	1.39	1.45	9.22	8.70	D
874	1155	1717.5	16.4	158	168	138	51.1	2430	1702.5	3.85	3.86	636	637	44.0	45.7	353	44427	118	5.7	268	339	1.85	1.58	1.50	1.46	9.23	8.70	D
875	1157	1718.0	16.5	153	164	138	48.0	2430	1703.1	3.85	3.86	636	622	43.9	45.7	356	44675	119	5.7	283	338	1.85	1.55	1.47	1.46	9.23	8.70	D
876	1159	1718.5	16.5	156	166	138	51.2	2430	1703.7	3.86	3.85	636	635	43.8	45.8	359	44923	119	5.7	294	338	1.87	1.58	1.50	1.46	9.23	8.70	D
877	1200	1719.0	21.3	161	172	143	50.9	2490	1704.2	3.86	3.85	636	645	43.8	45.8	360	45125	120	5.7	269	338	1.88	1.51	1.43	1.46	9.23	8.70	D
878	1202	1719.5	20.1	161	172	142	51.6	2490	1704.6	3.85	3.87	635	645	43.7	45.7	362	45334	120	5.8	245	337	1.89	1.53	1.45	1.46	9.23	8.70	D
879	1203	1720.0	19.2	160	172	142	51.3	2430	1705.1	3.84	3.86	636	656	43.6	45.8	366	45555	121	5.8	255	337	1.90	1.55	1.46	1.46	9.23	8.70	D
880	1205	1720.5	20.4	162	172	142	51.6	2500	1705.6	3.84	3.86	636	658	43.6	45.8	367	45761	121	5.8	247	337	1.91	1.53	1.45	1.46	9.23	8.70	D
881	1206	1721.0	18.2	158	170	142	50.5	2490	1706.1	3.84	3.88	636	647	43.6	45.9	370	45996	122	5.8	290	337	1.92	1.55	1.47	1.46	9.23	8.70	D
882	1208	1721.5	18.6	160	172	142	51.3	2430	1706.6	3.85	3.88	636	648	43.5	45.8	373	46219	122	5.9	280	336	1.93	1.56	1.47	1.46	9.23	8.70	D
883	1210	1722.0	18.8	158	170	142	51.3	2490	1707.1	3.86	3.89	635	635	43.5	45.8	374	46445	123	5.9	259	336	1.94	1.55	1.47	1.46	9.23	8.70	D
884	1211	1722.5	19.8	161	174	142	51.0	2490	1707.6	3.86	3.89	635	623	43.5	45.8	377	46658	123	5.9	259	336	1.95	1.53	1.45	1.46	9.23	8.70	D
885	1222	1723.0	17.7	142	168	142	43.2	2430	1710.0	3.89	3.85	609	616	43.4	45.8	404	46834	124	5.9	251	335	1.96	1.57	1.49	1.46	9.20	8.70	D
886	1223	1723.5	18.7	154	162	146	45.6	2430	1710.3	3.89	3.85	624	645	43.4	45.8	399	46985	124	6.0	268	335	1.96	1.55	1.46	1.46	9.21	8.70	D
887	1225	1724.0	16.8	156	162	147	48.8	2440	1710.9	3.91	3.90	626	644	43.4	45.8	397	47235	125	6.0	334	334	1.97	1.58	1.49	1.46	9.21	8.70	D
888	1227	1724.5	16.7	152	160	147	48.5	2440	1711.3	3.94	3.94	626	639	43.4	45.6	394	47496	125	6.0	294	334	1.98	1.58	1.49	1.46	9.20	8.70	D
889	1229	1725.0	16.0	153	162	147	49.1	2430	1711.4	3.94	3.94	625	646	43.5	45.5	392	47767	126	6.0	302	334	2.00	1.59	1.51	1.47	9.21	8.70	D
890	1230	1725.5	17.6	152	164	146	47.7	2430	1711.4	3.94	3.94	625	610	43.5	45.5	392	48013	126	6.1	280	334	2.01	1.55	1.46	1.46	9.21	8.70	D
891	1231	1726.0	26.9	154	166	147	48.5	2430	1711.4	3.94	3.94	625	622	43.5	45.5	391	48177	127	6.1	204	333	2.01	1.43	1.34	1.46	9.21	8.70	D
892	1233	1726.5	18.5	152	162	147	48.1	2430	1711.4	3.96	3.90	625	634	43.6	45.6	392	48411	127	6.1	256	333	2.02	1.54	1.45	1.46	9.21	8.70	D
893	1235	1727.0	17.2	151	158	146	49.5	2430	1711.6	3.96	3.86	626	620	43.8	45.7	391	48672	128	6.1	295	333	2.03	1.57	1.49	1.46	9.21	8.70	D
894	1236	1727.5	18.3	152	162	147	48.9	2440	1711.9	3.97	3.89	626	641	43.9	45.8	391	48902	128	6.2	263	333	2.04	1.55	1.46	1.46	9.21	8.70	D
895	1238	1728.0	15.0	150	158	147	48.3	2440	1712.6	3.98	3.82	626	645	44.0	45.7	390	49206	129	6.2	325	333	2.06	1.61	1.52	1.47	9.21	8.70	D
896	1240	1728.5	15.9	151	158	148	48.9	2430	1713.1	3.98	3.82	626	634	44.0	45.7	393	49459	129	6.2	316	333	2.07	1.60	1.50	1.47	9.21	8.70	D
897	1242	1729.0	16.2	150	160	148	48.8	2430	1713.7	3.96	3.89	626	632	44.1	45.9	394	49727	130	6.3	307	333	2.08	1.59	1.50	1.47	9.20	8.70	D
898	1244	1729.5	16.3	150	158	147	49.4	2430	1714.3	3.98	3.93	624	638	44.3	45.9	395	49999	130	6.3	316	332	2.09	1.59	1.50	1.47	9.20	8.70	D
899	1246	1730.0	16.1	153	1																							

KOORCAH NO.1

Data Printed at time 03:36 Date Dec 22 '95
 Data Recorded at time 13:02 Date Dec 9 '95

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTNS	M/W lb/gal		FLO W/ MIN		TEMP (C)	PVT	-----THIS BIT-----			EST	KXC	KX	KKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	RUN
903	1302	1732.1	17.9	145	153	142	49.3	2460	1718.3	9.13	9.32	624	610	45.3	45.9	416	51371	133	6.5	321	332	2.15	1.55	1.46	1.48	9.23	8.70	D
904	1304	1732.5	16.3	158	166	145	48.2	2460	1719.3	9.13	9.32	629	630	45.3	45.9	410	51599	133	6.5	296	332	2.16	1.57	1.48	1.48	9.23	8.70	D
905	1305	1733.3	16.7	174	202	145	48.3	2470	1719.3	9.08	9.30	630	654	45.3	46.2	407	51855	134	6.5	299	332	2.17	1.57	1.48	1.48	9.23	8.70	D
906	1306	1733.5	25.0	171	178	145	48.2	2470	1720.2	9.08	9.30	629	642	45.3	46.2	404	52024	134	6.5	203	331	2.17	1.44	1.35	1.48	9.20	8.70	D
907	1308	1734.0	22.4	171	180	145	49.9	2470	1720.4	9.33	9.33	629	635	45.3	45.9	405	52210	135	6.6	205	331	2.18	1.49	1.40	1.47	9.21	8.70	D
908	1309	1734.5	19.4	171	184	145	49.1	2470	1720.5	9.32	9.38	630	634	45.3	45.6	404	52443	135	6.6	310	331	2.19	1.53	1.44	1.47	9.22	8.70	D
909	1311	1735.0	19.3	172	190	145	47.9	2460	1720.5	9.32	9.38	629	643	45.3	45.6	402	52663	136	6.6	256	330	2.20	1.52	1.43	1.47	9.22	8.70	D
910	1313	1735.5	15.7	172	184	145	49.3	2460	1720.5	9.33	9.30	628	634	45.3	45.8	401	52933	136	6.6	295	330	2.21	1.59	1.50	1.47	9.23	8.70	D
911	1315	1736.0	15.9	173	182	145	48.2	2460	1721.1	9.34	9.32	629	637	45.1	45.9	402	53207	137	6.7	314	330	2.22	1.58	1.48	1.48	9.24	8.70	D
912	1316	1736.5	16.3	173	182	145	48.6	2460	1721.6	9.32	9.31	625	623	45.1	46.3	402	53462	137	6.7	292	330	2.23	1.56	1.47	1.47	9.24	8.70	D
913	1318	1737.0	19.9	174	184	145	48.1	2470	1722.0	9.30	9.31	623	635	45.2	46.3	402	53680	138	6.7	252	330	2.24	1.50	1.41	1.47	9.25	8.70	D
914	1320	1737.5	16.7	171	184	145	48.1	2470	1722.5	9.30	9.31	629	629	45.2	46.3	403	53938	138	6.8	293	330	2.25	1.56	1.46	1.47	9.25	8.70	D
915	1321	1738.0	21.3	173	182	145	48.2	2470	1722.9	9.31	9.30	623	630	45.2	46.3	403	54129	139	6.8	246	329	2.26	1.48	1.38	1.47	9.26	8.70	D
916	1323	1738.5	17.5	169	178	145	48.2	2470	1723.5	9.30	9.30	630	641	45.3	46.1	403	54372	139	6.8	280	329	2.27	1.54	1.44	1.47	9.27	8.70	D
917	1324	1740.0	19.5	171	178	145	49.1	2470	1724.0	9.31	9.32	623	625	45.3	46.3	404	54594	141	6.8	263	329	2.28	1.52	1.42	1.47	9.27	8.70	D
918	1326	1740.5	15.7	174	192	145	49.5	2470	1724.6	9.31	9.32	623	640	45.3	46.3	405	54867	141	6.9	297	329	2.29	1.59	1.49	1.47	9.28	8.70	D
919	1328	1741.0	14.3	173	186	145	48.7	2470	1725.1	9.31	9.33	629	650	45.4	46.3	406	55177	142	6.9	373	329	2.30	1.61	1.51	1.47	9.29	8.70	D
920	1329	1741.5	23.1	172	188	145	48.5	2460	1725.5	9.33	9.34	627	640	45.4	46.4	406	55357	142	6.9	231	329	2.31	1.45	1.36	1.47	9.30	8.70	D
921	1331	1742.0	16.4	172	190	145	49.5	2470	1726.0	9.31	9.36	627	643	45.5	46.3	407	55628	143	6.9	311	329	2.32	1.57	1.47	1.47	9.30	8.70	D
922	1340	1742.5	27.2	147	180	147	45.1	2390	1727.5	9.35	9.32	612	609	45.5	46.4	424	55825	143	7.0	188	328	2.33	1.38	1.28	1.47	9.31	8.70	D
923	1342	1743.0	23.2	153	162	149	46.6	2390	1727.9	9.15	9.34	617	628	45.5	46.5	422	56009	144	7.0	215	328	2.33	1.44	1.34	1.47	9.32	8.70	D
924	1342	1743.5	34.5	154	164	150	49.1	2390	1728.1	9.15	9.34	613	646	45.5	46.5	419	56138	144	7.0	140	327	2.34	1.34	1.24	1.47	9.32	8.70	D
925	1343	1744.0	28.6	160	180	150	47.7	2390	1728.4	9.13	9.32	616	620	45.5	46.8	418	56301	145	7.0	188	327	2.34	1.39	1.29	1.47	9.32	8.70	D
926	1344	1744.5	123	172	130	150	45.3	2390	1728.5	9.13	9.32	616	623	45.5	46.8	417	56331	145	7.0	55	326	2.35	.92	.82	1.47	9.32	8.70	D
927	1344	1745.5	93.9	164	192	149	47.3	2390	1728.6	9.13	9.32	617	637	45.5	46.8	417	56420	146	7.0	54	324	2.35	1.32	.92	1.47	9.33	8.70	D
928	1345	1746.0	98.4	172	196	149	48.2	2390	1728.7	9.13	9.32	617	627	45.5	46.8	417	56470	147	7.0	50	323	2.35	1.31	.91	1.47	9.33	8.70	D
929	1345	1746.5	110	172	180	151	49.3	2390	1728.8	9.13	9.32	617	634	45.5	46.8	416	56510	147	7.0	43	322	2.35	.99	.89	1.47	9.34	8.70	D
930	1345	1747.0	96.4	161	174	150	44.7	2390	1728.9	9.13	9.32	617	640	45.5	46.8	416	56552	148	7.0	47	321	2.36	1.30	.90	1.47	9.34	8.70	D
931	1351	1747.5	40.3	131	174	145	41.6	2340	1729.6	9.12	9.34	608	596	45.5	46.6	425	56672	148	7.1	124	321	2.36	1.22	1.13	1.47	9.34	8.70	D
932	1351	1747.0	71.9	160	172	150	39.1	2350	1729.6	9.12	9.34	609	607	45.5	46.6	424	56729	148	7.1	65	320	2.36	1.04	.95	1.47	9.34	8.70	D
933	1351	1747.5	67.3	155	166	149	39.3	2350	1729.7	9.12	9.34	611	612	45.5	46.6	424	56794	148	7.1	74	319	2.36	1.06	.96	1.47	9.35	8.70	D
934	1352	1748.0	40.3	150	162	150	39.3	2340	1729.7	9.15	9.33	610	630	45.6	46.3	422	56896	149	7.1	119	318	2.37	1.21	1.11	1.47	9.35	8.70	D
+ Circulated bottoms up at 1749.5m.																												
936	1456	1750.0	46.5	143	166	149	31.5	2530	1747.6	8.70	8.30	641	615	48.6	49.7	424	57075	151	7.1	106	315	2.37	1.09	1.00	1.47	9.34	8.70	D
937	1457	1750.5	34.3	144	154	151	33.9	2530	1747.6	8.70	8.30	641	619	48.6	49.7	424	57198	151	7.1	133	314	2.37	1.20	1.11	1.47	9.35	8.70	D
938	1458	1751.0	30.4	141	156	151	35.0	2520	1747.6	8.70	8.30	641	603	48.6	49.7	425	57349	152	7.1	169	314	2.38	1.24	1.15	1.47	9.35	8.70	D
939	1459	1751.5	33.7	143	156	150	41.5	2520	1747.6	8.70	8.30	640	625	48.6	48.9	425	57476	152	7.2	140	313	2.38	1.28	1.18	1.47	9.35	8.70	D
940	1507	1752.0	42.9	140	162	145	43.3	2410	1747.6	8.70	8.30	622	612	48.7	48.4	439	57678	153	7.2	118	313	2.39	1.22	1.12	1.47	9.34	8.70	D
941	1509	1752.5	19.3	151	164	150	47.3	2410	1747.6	8.70	8.30	623	633	48.7	48.4	434	57903	153	7.2	265	313	2.40	1.49	1.39	1.47	9.35	8.70	D
942	1510	1753.0	21.2	169	186	149	49.3	2410	1747.6	8.70	8.30	623	629	48.7	48.7	433	58113	154	7.2	234	312	2.41	1.50	1.39	1.47	9.34	8.70	D
943	1511	1753.5	37.6	172	180	148	49.3	2410	1747.6	8.70	8.30	624	621	48.7	48.7	432	58229	154	7.2	133	312	2.41	1.31	1.21	1.47	9.35	8.70	D
944	1512	1754.0	22.3	167	176	149	50.3	2410	1747.6	8.70	8.30	625	638	48.7	48.6	431	58428	155	7.3	213	312	2.42	1.48	1.38	1.46	9.35	8.70	D
945	1514	1754.5	13.3	168	180	149	50.3	2420	1747.6	8.70	8.30	625	600	48.7	48.6	431	58737	155	7.3	353	312	2.43	1.65	1.54	1.47	9.35	8.70	D
946	1517	1755.0	14.5	168	176	149	50.5	2410	1747.6	8.70	8.30	625	618	48.6	48.3	431	59048	156	7.3	360	312	2.45	1.62	1.51	1.47	9.36	8.70	D
947	1518	1755.5	22.0	164	170	150	50.3	2420	1747.6	8.70	8.30	625	612	48.6	48.2	431	59248	156	7.4	221	312	2.45	1.49	1.39	1.47	9.34	8.70	D
948	1519	1756.0	20.6	165	176	149	48.7	2410	1747.6	8.70	8.30	624	620	48.6	48.4	430	59464	157	7.4	238	311	2.46	1.50	1.39	1.47	9.35	8.70	D
949	1520	1756.5	31.3	166	176	149	47.3	2420	1747.6	8.70	8.30	624	625	48.6	48.4	431	59614	157	7.4	170	311	2.47	1.36	1.25	1.46	9.33	8.70	D
950																												

KOORCAH NO.1

Data Printed at time 03:43 Date Dec 22 '35
Data Recorded at time 15:26 Date Dec 9 '35

F#	TIME	DEPTH	ROP	TORQUE		RPM	OB	PUMP	RTRNS		M1 lb/gal		FLO W/MIN		TEMP (C)		PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT	LN	OUT		IN	OUT	REVS						m	hrs	INST
953	1526	1753.5	18.3	163	173	149	49.9	2420	1747.6	3.70	3.30	625	629	48.6	48.5	435	63424	159	7.5	261	31J	2.50	1.54	1.43	1.46	9.30	3.70	D
954	1527	1759.0	21.1	163	174	149	49.0	2430	1747.6	3.70	3.30	625	629	48.7	48.4	435	60635	160	7.5	236	31J	2.51	1.50	1.39	1.46	9.29	3.70	D
955	1529	1759.5	14.7	167	176	149	50.0	2430	1747.6	3.70	3.30	625	630	48.7	48.4	435	63933	160	7.5	290	31J	2.52	1.62	1.52	1.46	9.28	3.70	D
956	1531	1760.0	15.5	166	176	149	51.2	2430	1747.6	3.70	3.30	625	629	48.7	48.4	436	61221	161	7.6	309	31J	2.54	1.62	1.51	1.46	9.28	3.70	D
957	1539	1760.5	25.4	145	176	149	40.4	2440	1747.6	3.70	3.30	616	554	48.6	48.0	455	6141J	161	7.6	194	31J	2.54	1.36	1.26	1.46	9.25	3.70	DX
958	1540	1761.0	24.3	143	158	150	45.6	2450	1747.6	3.70	3.30	625	588	48.6	48.0	450	61500	162	7.6	231	309	2.55	1.38	1.27	1.46	9.24	3.70	D
959	1541	1761.5	23.6	166	173	151	49.0	2440	1747.6	3.70	3.30	628	615	48.6	48.0	445	61686	162	7.6	242	309	2.56	1.47	1.37	1.46	9.25	3.70	D
960	1543	1762.0	19.4	166	174	151	48.0	2440	1747.6	3.70	3.30	628	640	48.6	48.2	441	61927	163	7.7	251	308	2.56	1.53	1.42	1.46	9.23	3.70	D
961	1545	1762.5	14.4	167	176	150	49.4	2430	1747.6	3.70	3.30	627	632	48.5	47.4	439	62229	163	7.7	361	309	2.58	1.64	1.53	1.46	9.22	3.70	D
962	1546	1763.0	13.7	165	174	150	48.2	2440	1747.6	3.70	3.30	627	627	48.5	47.4	435	62467	164	7.7	263	308	2.59	1.54	1.43	1.46	9.22	3.70	D
963	1548	1763.5	23.9	171	190	151	47.9	2430	1747.6	3.70	3.30	627	639	48.5	48.2	435	62623	164	7.7	211	308	2.59	1.41	1.30	1.46	9.21	3.70	D
964	1548	1764.0	33.1	130	186	150	44.5	2430	1747.6	3.70	3.30	627	641	48.5	48.2	434	62675	165	7.7	53	307	2.60	1.05	.95	1.46	9.21	3.70	D
965	1548	1764.5	71.2	175	182	151	41.0	2430	1747.6	3.70	3.30	627	646	48.5	48.2	435	62733	165	7.7	65	307	2.60	1.07	.97	1.46	9.21	3.70	D
966	1549	1765.0	39.0	166	182	150	42.3	2430	1747.6	3.70	3.30	627	641	48.5	48.2	434	62846	166	7.8	122	306	2.60	1.26	1.16	1.46	9.22	3.70	D
967	1555	1765.5	16.5	166	204	150	49.1	2430	1747.9	3.70	3.30	624	611	48.4	47.4	446	63142	166	7.8	229	306	2.61	1.60	1.48	1.47	9.18	3.70	D
968	1555	1766.0	42.8	130	196	152	44.2	2430	1748.1	3.70	3.30	625	622	48.4	47.4	444	63251	167	7.8	115	306	2.61	1.26	1.15	1.46	9.19	3.70	D
969	1556	1766.5	43.1	177	204	151	44.8	2430	1748.3	3.70	3.30	624	629	48.4	47.4	444	63347	167	7.8	109	305	2.62	1.26	1.15	1.47	9.19	3.70	D
970	1557	1767.0	23.8	181	218	152	47.0	2430	1748.7	3.70	3.30	624	612	48.4	47.3	444	63491	168	7.8	165	305	2.62	1.41	1.30	1.46	9.17	3.70	D
971	1558	1767.5	38.0	193	214	151	48.9	2430	1749.1	3.70	3.30	625	617	48.4	47.3	443	63612	168	7.8	137	304	2.63	1.34	1.23	1.46	9.17	3.70	D
972	1559	1768.0	21.9	177	202	152	47.9	2420	1749.4	3.70	3.30	624	617	48.4	48.0	442	63814	169	7.9	218	304	2.64	1.50	1.39	1.46	9.16	3.70	D
973	1600	1768.5	21.4	177	192	152	49.1	2430	1749.5	3.70	3.30	624	634	48.4	48.0	443	64034	169	7.9	244	304	2.65	1.52	1.41	1.46	9.16	3.70	D
974	1602	1769.0	18.2	175	186	152	49.3	2440	1749.6	3.70	3.30	625	636	48.4	48.4	443	64274	170	7.9	269	304	2.66	1.53	1.46	1.46	9.14	3.70	D
975	1611	1769.5	16.9	166	183	150	49.4	2410	1751.7	3.70	3.30	593	557	48.3	48.5	459	64586	170	7.9	302	304	2.67	1.61	1.49	1.46	9.10	3.70	DX
976	1612	1770.0	17.6	168	180	149	47.8	2420	1752.1	3.70	3.30	619	615	48.3	48.7	455	64737	171	8.0	238	303	2.67	1.58	1.67	1.46	9.08	3.70	D
977	1614	1770.5	13.1	174	184	150	50.8	2420	1752.6	3.70	3.30	621	635	48.3	48.7	449	64989	171	8.0	296	303	2.68	1.60	1.48	1.46	9.08	3.70	D
978	1615	1771.0	23.2	172	180	150	50.1	2410	1752.9	3.70	3.30	622	627	48.2	48.9	447	65173	172	8.0	210	303	2.69	1.52	1.40	1.46	9.07	3.70	D
979	1617	1771.5	12.7	172	182	150	51.3	2410	1753.5	3.70	3.30	619	624	48.2	48.9	445	65526	172	8.0	402	303	2.71	1.73	1.61	1.47	9.05	3.70	D
980	1619	1772.0	19.5	175	182	150	51.4	2410	1754.0	3.70	3.30	622	624	48.2	48.9	444	65756	173	8.1	263	303	2.72	1.59	1.47	1.47	9.05	3.70	D
981	1620	1772.5	13.1	171	180	151	50.3	2410	1754.9	3.70	3.30	622	625	48.2	49.0	444	66004	173	8.1	272	303	2.73	1.61	1.49	1.47	9.04	3.70	D
982	1622	1773.0	13.9	171	180	150	49.8	2410	1755.5	3.70	3.30	621	628	48.2	49.2	444	66231	174	8.1	261	303	2.74	1.59	1.47	1.47	9.04	3.70	D
983	1623	1773.5	24.1	190	260	149	49.8	2420	1755.9	3.70	3.30	622	614	48.2	49.2	444	66415	174	8.1	221	303	2.74	1.50	1.39	1.47	9.04	3.70	D
984	1624	1774.0	27.5	175	218	150	45.9	2430	1756.3	3.70	3.30	622	622	48.2	49.2	443	66577	175	8.2	130	302	2.75	1.43	1.31	1.47	9.04	3.70	D
985	1626	1774.5	21.3	171	180	149	48.5	2410	1756.7	3.70	3.30	622	631	48.2	49.2	443	66784	175	8.2	229	302	2.76	1.53	1.41	1.47	9.04	3.70	D
986	1627	1775.0	23.4	168	178	150	50.4	2410	1757.0	3.70	3.30	622	627	48.3	49.2	444	66938	176	8.2	193	302	2.76	1.46	1.34	1.46	9.04	3.70	D
987	1629	1775.5	15.4	167	174	150	49.4	2430	1757.5	3.70	3.30	621	626	48.3	49.1	445	67227	176	8.2	306	302	2.77	1.65	1.53	1.47	9.04	3.70	D
988	1630	1776.0	20.9	172	182	150	49.6	2430	1757.9	3.70	3.30	622	621	48.3	49.1	445	67442	177	8.3	254	302	2.78	1.55	1.43	1.46	9.04	3.70	D
989	1631	1776.5	20.2	172	182	150	47.2	2410	1758.2	3.70	3.30	621	635	48.4	48.3	445	67663	177	8.3	274	302	2.79	1.54	1.42	1.46	9.04	3.70	D
990	1633	1777.0	19.5	173	184	150	47.7	2410	1758.3	3.70	3.30	622	607	48.4	48.3	446	67893	178	8.3	243	301	2.80	1.55	1.43	1.46	9.05	3.70	D
991	1635	1777.5	16.7	173	186	149	50.2	2410	1758.5	3.70	3.30	622	618	48.4	48.3	447	68152	178	8.3	299	301	2.81	1.63	1.51	1.46	9.05	3.70	D
992	1636	1778.0	21.8	172	190	150	51.1	2410	1758.9	3.70	3.30	622	626	48.5	48.7	446	68356	179	8.4	232	301	2.82	1.55	1.43	1.46	9.05	3.70	D
993	1637	1778.5	21.6	170	178	150	51.4	2380	1759.4	3.70	3.30	621	624	48.5	48.7	447	68561	179	8.4	222	301	2.83	1.56	1.43	1.46	9.05	3.70	D
994	1656	1779.0	29.3	150	178	147	47.8	3010	1765.3	3.70	3.30	660	623	48.4	49.1	463	68855	180	8.4	178	301	2.84	1.42	1.31	1.46	9.02	3.70	DX
995	1657	1779.5	58.4	171	182	148	47.2	3030	1766.0	3.70	3.30	679	636	48.4	49.1	456	68929	180	8.4	101	301	2.84	1.20	1.08	1.46	9.02	3.70	D
996	1657	1780.0	63.3	169	184	146	48.4	3040	1766.3	3.70	3.30	697	646	48.4	49.1	449	68995	181	8.4	71	300	2.84	1.18	1.07	1.46	9.02	3.70	D
997	1658	1780.5	76.2	173	182	146	49.1	3030	1766.5	3.70	3.30	703	643	48.4	49.6	444	69051	181	8.4	61	299	2.84	1.13	1.01	1.46	9.02	3.70	D
998	1658	1781.0	58.8	167	186	146	45.9	3040	1766.6	3.70	3.30	707	645	48.4	49.6	438	69122	182	8.5	31	299	2.85	1.19	1.07	1.46	9.02	3.70	

KOORKAH JO.1

Data Printed at time J3:44 Date Dec 22 '85
 Data Recorded at time 17:01 Date Dec 9 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lb/gal		FLO I/MIN		TEMP (C)		PVT	-----THIS BIT-----			---COST---		EST	DKC	WX	AXB	ECD	EST	
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		IN	OUT	REVS	m	hrs							INST
1J03	1701	1783.5	37.3	163	176	148	44.1	3050	1767.4	3.70	3.30	708	629	48.4	48.6	424	69473	184	3.5	62	296	2.86	1.05	.93	1.46	9.34	3.70	D	
1J04	1701	1784.0	46.3	165	176	148	47.3	3050	1767.5	3.70	3.30	705	642	48.4	48.6	422	69562	185	3.5	93	295	2.86	1.28	1.16	1.46	9.34	3.70	D	
1J05	1702	1784.5	26.4	165	172	148	50.3	3050	1767.3	3.70	3.30	705	655	48.3	48.3	420	69733	185	3.5	139	295	2.37	1.48	1.36	1.46	9.34	3.70	D	
1J06	1703	1785.0	24.3	167	180	148	50.9	3050	1767.8	3.70	3.30	707	643	48.3	48.3	421	69901	186	3.5	193	295	2.88	1.52	1.39	1.46	9.35	3.70	D	
1J07	1705	1785.5	24.0	165	172	148	49.8	3060	1767.9	3.70	3.30	707	653	48.2	48.9	421	70086	186	8.6	206	295	2.88	1.50	1.38	1.46	9.35	3.70	D	
1J08	1706	1786.0	23.5	163	178	148	49.9	3050	1768.3	3.70	3.30	704	636	48.2	48.9	417	70274	187	8.6	221	294	2.39	1.51	1.39	1.46	9.35	3.70	D	
1J09	1708	1786.5	17.8	164	174	148	49.3	3050	1768.8	3.70	3.30	708	629	48.2	49.2	412	70506	187	3.6	279	294	2.90	1.59	1.47	1.46	9.35	3.70	D	
1J10	1709	1787.0	19.6	161	172	148	49.6	3050	1769.3	3.70	3.30	708	652	48.3	49.2	414	70724	188	3.6	251	294	2.91	1.57	1.44	1.46	9.35	3.70	D	
1J11	1711	1787.5	19.1	162	170	148	49.4	3040	1769.8	3.70	3.30	707	642	48.3	49.2	417	70956	188	3.7	266	294	2.92	1.57	1.45	1.46	9.35	3.70	D	
1J12	1720	1788.0	21.1	156	170	147	47.7	2960	1771.6	3.70	3.30	673	581	48.4	49.4	449	71193	189	3.7	225	294	2.93	1.52	1.40	1.45	9.34	3.70	D	
1J13	1722	1788.5	17.3	164	172	150	48.3	2960	1772.4	3.70	3.30	695	641	48.4	49.4	439	71445	189	3.7	255	294	2.93	1.59	1.47	1.46	9.34	3.70	D	
1J14	1723	1789.0	18.9	163	170	150	49.5	2950	1773.1	3.70	3.30	695	649	48.4	49.3	432	71682	190	8.7	237	294	2.95	1.58	1.46	1.46	9.34	3.70	D	
1J15	1725	1789.5	21.7	164	174	149	49.6	2960	1773.6	3.70	3.30	694	628	48.4	48.9	428	71894	190	3.8	235	294	2.95	1.54	1.41	1.45	9.34	3.70	D	
1J16	1726	1790.0	19.7	165	182	149	50.9	2960	1774.1	3.70	3.30	695	639	48.4	48.9	426	72113	191	3.8	247	294	2.96	1.58	1.46	1.45	9.34	3.70	D	
	2	1729	1791.5	42.1	167	194	149	50.1	2960	1775.2	3.70	3.30	695	624	48.5	48.3	424	72550	192	8.3	114	293	2.98	1.33	1.21	1.45	9.34	3.70	D
	3	1730	1792.0	32.7	164	186	149	49.6	2960	1775.5	3.70	3.30	695	625	48.5	48.3	424	72682	193	8.9	154	292	2.98	1.41	1.28	1.45	9.34	3.70	D
	4	1731	1792.5	25.5	164	178	149	49.2	2960	1775.9	3.70	3.30	694	631	48.5	49.2	424	72854	193	3.9	202	292	2.99	1.48	1.36	1.45	9.34	3.70	D
	5	1732	1793.0	27.0	165	182	150	49.3	2960	1776.3	3.70	3.30	694	620	48.5	49.2	425	73019	194	8.9	191	292	3.00	1.47	1.35	1.45	9.34	3.70	D
	6	1733	1793.5	24.9	162	180	149	48.3	2950	1776.8	3.70	3.30	695	625	48.5	49.2	423	73195	194	3.9	201	292	3.00	1.49	1.36	1.45	9.34	3.70	D
	7	1735	1794.0	20.6	162	176	150	50.1	2960	1776.8	3.70	3.30	695	633	48.6	48.9	424	73412	195	8.9	222	292	3.01	1.56	1.43	1.44	9.34	3.70	D
	8	1736	1794.5	20.4	161	170	149	48.3	2960	1776.8	3.70	3.30	695	626	48.6	49.0	423	73631	195	9.0	240	291	3.02	1.55	1.42	1.44	9.35	3.70	D
	9	1738	1795.0	18.4	161	170	150	49.2	2960	1776.8	3.70	3.30	695	639	48.6	49.3	424	73871	196	9.0	258	291	3.03	1.59	1.46	1.44	9.35	3.70	D
	10	1739	1795.5	19.7	163	174	150	49.3	2970	1776.8	3.70	3.30	696	640	48.7	49.3	424	74098	196	9.0	253	291	3.04	1.56	1.44	1.44	9.35	3.70	D
	11	1741	1796.0	19.0	164	174	150	49.4	2970	1776.8	3.70	3.30	696	655	48.7	49.6	424	74332	197	9.0	262	291	3.05	1.58	1.45	1.44	9.36	3.70	D
	12	1743	1796.5	15.8	162	172	150	49.4	2970	1776.8	3.70	3.30	697	630	48.8	49.9	425	74616	197	9.1	313	291	3.06	1.63	1.51	1.45	9.36	3.70	D
	13	1753	1797.1	19.4	149	170	148	49.0	2980	1779.8	3.70	3.30	691	595	49.0	48.0	440	74881	198	9.1	305	291	3.07	1.56	1.44	1.44	9.34	3.70	D
	14	1754	1797.5	54.7	158	170	150	45.2	2970	1779.8	3.70	3.30	694	613	49.0	48.0	437	74941	198	9.1	99	291	3.07	1.21	1.08	1.45	9.34	3.70	D
	15	1755	1798.0	17.9	169	178	151	49.5	2980	1781.5	3.70	3.30	694	633	49.0	49.6	432	75196	199	9.1	274	291	3.08	1.60	1.47	1.45	9.34	3.70	D
	16	1757	1798.5	18.2	167	180	150	51.1	2870	1782.4	3.70	3.30	696	633	49.0	49.6	429	75428	199	9.2	271	291	3.09	1.61	1.48	1.45	9.34	3.70	D
	17	1759	1799.0	15.7	167	174	151	49.0	2870	1783.5	3.70	3.30	682	634	49.0	50.2	428	75715	200	9.2	290	291	3.10	1.64	1.51	1.45	9.33	3.70	D
	18	1801	1799.5	15.9	167	178	152	50.3	2860	1784.3	3.70	3.30	683	641	49.0	50.2	426	75993	200	9.2	317	291	3.11	1.66	1.52	1.46	9.33	3.70	D
	19	1802	1800.0	22.3	162	178	152	49.7	2860	1784.7	3.70	3.30	683	641	49.0	49.8	427	76202	201	9.2	225	291	3.12	1.54	1.41	1.45	9.33	3.70	D
	20	1803	1800.5	24.2	166	178	151	48.3	2850	1785.1	3.70	3.30	683	612	49.1	49.3	427	76392	201	9.3	208	291	3.13	1.50	1.37	1.45	9.33	3.70	D
	21	1804	1801.0	25.0	166	174	152	49.6	2860	1785.4	3.70	3.30	683	636	49.1	49.3	425	76566	202	9.3	192	290	3.14	1.50	1.37	1.45	9.33	3.70	D
	22	1805	1801.5	30.7	170	184	151	49.2	2850	1785.7	3.70	3.30	682	643	49.1	49.5	424	76710	202	9.3	163	290	3.14	1.43	1.30	1.45	9.33	3.70	D
	23	1807	1802.0	24.9	169	186	151	48.2	2860	1785.8	3.70	3.30	680	637	49.1	49.5	425	76876	203	9.3	223	290	3.15	1.49	1.35	1.45	9.34	3.70	D
	24	1808	1802.5	24.8	164	174	152	46.3	2860	1786.0	3.70	3.30	681	644	49.2	49.5	424	77063	203	9.3	199	290	3.15	1.47	1.34	1.45	9.34	3.70	D
	25	1809	1803.0	35.9	168	174	152	44.9	2860	1786.0	3.70	3.30	677	638	49.2	49.5	425	77184	204	9.4	148	289	3.16	1.34	1.21	1.45	9.34	3.70	D
	26	1809	1803.5	37.3	165	176	151	49.2	2860	1786.0	3.70	3.30	680	645	49.2	49.5	424	77298	204	9.4	124	289	3.16	1.36	1.23	1.45	9.34	3.70	D
	27	1810	1804.0	49.5	171	188	152	50.7	2860	1786.0	3.70	3.30	679	637	49.2	49.5	425	77388	205	9.4	102	288	3.16	1.29	1.15	1.45	9.35	3.70	D
	28	1811	1804.5	50.0	168	198	151	47.2	2860	1786.1	3.70	3.30	677	625	49.2	49.6	425	77477	205	9.4	96	288	3.17	1.25	1.12	1.45	9.35	3.70	D
	29	1811	1805.0	66.8	173	188	151	44.1	2870	1786.2	3.70	3.30	680	627	49.2	49.6	425	77537	206	9.4	72	287	3.17	1.14	1.01	1.45	9.35	3.70	D
	30	1811	1805.5	84.6	176	194	151	43.6	2870	1786.3	3.70	3.30	681	629	49.2	49.6	425	77592	206	9.4	62	287	3.17	1.06	.93	1.45	9.35	3.70	D
	31	1812	1806.0	87.6	179	188	151	47.0	2860	1786.4	3.70	3.30	682	641	49.2	49.6	424	77640	207	9.4	52	286	3.17	1.08	.95	1.45	9.35	3.70	D
	32	1821	1806.5	79.9	146	186	144	40.7	2770	1788.1	3.70	3.30	656	575	49.3	49.6	451	77709	207	9.4	71	286	3.18	1.04	.92	1.45	9.34	3.70	DX
	33	1821	1807.0	104	176	186	149	46.4	2780	1788.2	3.70	3.30	663	594	49.3	49.6</													

KOORIKAH NO.1

Data Printed at time J3:53 Date Dec 22 '85
 Data Recorded at time 18:23 Date Dec 9 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	JOB AVG	PUMP PRES	RTNS DEPTH	M7 lb/gal		FLO I/MIN		TEMP (C)		PVT	-----THIS BIT-----			---COST---		EST T/H	DKC	K	AKB	ECD	EST F1 PR	
				AVG	MAX					IN	OUT	IN	OUT	LI	OUT		REVS	m	hrs	INST	RUN							
38	1823	1309.5	74.6	169	188	149	41.3	2830	1739.0	3.70	3.30	676	651	49.3	49.7	439	78045	21.0	9.5	64	233	3.19	1.38	.95	1.45	9.36	3.70	D
39	1823	1311.0	13.0	177	184	149	41.3	2890	1739.0	3.70	3.30	678	652	49.3	49.7	439	78077	21.1	9.5	37	282	3.19	.91	.78	1.45	9.36	3.70	D
40	1824	1311.5	54.7	167	184	149	47.6	2830	1739.3	3.70	3.30	681	659	49.3	49.3	437	78157	21.1	9.5	36	282	3.19	1.22	1.39	1.45	9.37	3.70	D
41	1824	1311.0	92.3	175	190	149	46.3	2890	1739.5	3.70	3.30	683	655	49.3	49.3	437	78204	21.2	9.5	57	281	3.19	1.35	.92	1.45	9.37	3.70	D
42	1824	1311.5	126	170	186	149	45.1	2890	1739.6	3.70	3.30	683	651	49.3	49.3	436	78236	21.2	9.5	35	281	3.19	.94	.82	1.45	9.37	3.70	D
43	1825	1312.0	79.7	166	188	149	46.6	2890	1739.8	3.70	3.30	682	649	49.3	49.3	434	78234	21.3	9.5	50	280	3.19	1.10	.97	1.45	9.37	3.70	D
44	1825	1312.5	40.4	164	190	149	47.7	2830	1790.2	3.70	3.30	683	654	49.3	49.3	433	78390	21.3	9.5	114	280	3.20	1.32	1.19	1.45	9.37	3.70	D
45	1826	1313.0	32.4	165	190	149	48.4	2830	1790.6	3.70	3.30	683	665	49.3	49.4	432	78525	21.4	9.5	154	279	3.21	1.39	1.26	1.45	9.37	3.70	D
46	1827	1313.5	32.6	164	192	149	46.6	2830	1791.1	3.70	3.30	683	663	49.3	49.4	430	78664	21.4	9.5	151	279	3.21	1.37	1.24	1.44	9.37	3.70	D
47	1828	1314.0	52.0	173	184	149	50.0	2830	1791.3	3.70	3.30	683	672	49.3	49.4	429	78746	21.5	9.5	100	279	3.21	1.26	1.12	1.45	9.38	3.70	D
48	1828	1314.5	103	170	173	149	47.7	2830	1791.4	3.70	3.30	683	666	49.3	49.4	429	78736	21.5	9.5	44	278	3.21	1.33	.89	1.44	9.38	3.70	D
49	1828	1315.0	54.9	168	180	149	49.3	2830	1791.6	3.70	3.30	681	676	49.4	49.3	429	78860	21.6	9.5	33	278	3.22	1.23	1.10	1.45	9.38	3.70	D
50	1843	1315.5	29.3	146	172	143	44.3	2870	1794.0	3.70	3.30	594	492	49.3	50.0	468	79036	21.6	9.6	220	278	3.22	1.38	1.25	1.45	9.35	3.70	D
51	1843	1316.0	35.7	160	178	150	46.2	2870	1794.2	3.70	3.30	659	587	49.3	50.0	457	79151	21.7	9.6	135	277	3.23	1.34	1.21	1.44	9.37	3.70	D
52	1845	1316.5	17.4	162	170	150	45.7	2850	1794.7	3.70	3.30	674	671	49.3	48.7	443	79413	21.7	9.6	274	277	3.23	1.56	1.43	1.44	9.37	3.70	D
53	1847	1317.0	18.5	166	176	150	46.4	2810	1795.1	3.70	3.30	675	678	49.3	48.7	434	79645	21.8	9.6	257	277	3.24	1.55	1.42	1.44	9.37	3.70	D
54	1848	1317.5	19.2	164	172	149	47.0	2820	1795.3	3.70	3.30	676	679	49.2	47.8	430	79877	21.8	9.7	268	277	3.25	1.54	1.41	1.44	9.37	3.70	D
55	1850	1318.0	22.0	164	174	149	51.2	2830	1795.3	3.70	3.30	680	652	49.2	47.8	428	80081	21.9	9.7	229	277	3.26	1.54	1.41	1.44	9.38	3.70	D
56	1851	1318.5	22.4	168	192	149	48.2	2870	1795.3	3.70	3.30	683	655	49.1	49.0	425	80284	21.9	9.7	223	277	3.27	1.51	1.37	1.44	9.38	3.70	D
57	1852	1319.0	30.3	166	200	149	45.4	2870	1795.3	3.70	3.30	682	667	49.1	48.9	427	80423	22.0	9.7	159	277	3.27	1.38	1.25	1.44	9.38	3.70	D
58	1853	1319.5	17.2	165	178	149	47.5	2860	1795.8	3.70	3.30	683	670	49.1	48.9	424	80661	22.0	9.7	313	277	3.28	1.58	1.45	1.44	9.38	3.70	D
59	1855	1320.0	17.5	171	182	149	50.2	2870	1796.3	3.70	3.30	680	681	49.1	49.3	424	80914	22.1	9.8	291	277	3.29	1.60	1.47	1.44	9.38	3.70	D
60	1857	1320.5	21.3	170	178	149	47.5	2860	1796.7	3.70	3.30	672	672	49.1	49.3	424	81118	22.1	9.8	239	277	3.30	1.51	1.38	1.44	9.38	3.70	D
61	1858	1321.0	19.9	170	176	149	47.2	2870	1797.1	3.70	3.30	681	655	49.1	48.9	423	81344	22.2	9.8	240	277	3.31	1.53	1.40	1.44	9.38	3.70	D
62	1900	1321.5	13.0	167	178	149	49.1	2870	1797.8	3.70	3.30	683	670	49.1	49.3	426	81634	22.2	9.9	470	277	3.32	1.69	1.55	1.44	9.38	3.70	D
63	1901	1322.0	25.9	165	176	149	45.2	2870	1798.1	3.70	3.30	682	670	49.1	49.3	427	81355	22.3	9.9	205	277	3.32	1.43	1.30	1.44	9.38	3.70	D
64	1903	1322.5	19.7	163	172	149	46.4	2870	1798.7	3.70	3.30	681	668	49.1	49.2	429	82073	22.3	9.9	261	277	3.33	1.53	1.39	1.44	9.38	3.70	D
65	1905	1323.0	17.5	160	170	149	49.4	2830	1799.4	3.70	3.30	677	671	49.1	49.4	430	82326	22.4	9.9	284	277	3.34	1.60	1.46	1.44	9.38	3.70	D
66	1906	1323.5	23.5	163	174	149	48.0	2830	1800.0	3.70	3.30	678	660	49.1	49.4	432	82517	22.4	10.0	214	276	3.35	1.49	1.35	1.44	9.38	3.70	D
67	1907	1324.0	20.0	166	180	149	46.5	2870	1800.7	3.70	3.30	681	675	49.1	49.9	433	82736	22.5	10.0	297	276	3.36	1.52	1.39	1.44	9.38	3.70	D
68	1918	1324.5	15.1	166	178	149	47.5	2790	1804.4	3.70	3.30	665	623	49.2	50.0	450	83079	22.5	10.0	372	277	3.37	1.63	1.49	1.44	9.36	3.70	D
69	1920	1325.0	17.6	167	176	150	43.3	2890	1805.6	3.70	3.30	683	675	49.2	49.3	444	83317	22.6	10.0	281	277	3.38	1.59	1.45	1.44	9.36	3.70	D
70	1921	1325.5	15.2	169	176	150	49.3	2900	1805.8	3.70	3.30	685	684	49.2	49.3	440	83470	22.7	10.1	299	277	3.38	1.67	1.53	1.39	8.94	3.70	D
71	1922	1326.0	18.6	176	186	150	49.9	2890	1806.6	3.70	3.30	685	689	49.2	49.3	438	83610	22.7	10.1	278	276	3.39	1.61	1.47	1.44	8.94	3.70	D
72	1924	1326.5	19.5	177	190	150	52.8	2890	1807.9	3.70	3.30	681	674	49.3	49.4	437	83896	22.7	10.1	257	276	3.40	1.34	1.22	1.44	9.32	3.70	D
73	1925	1327.0	17.5	169	184	150	54.4	2900	1808.1	3.70	3.30	685	672	49.3	50.3	435	84151	22.8	10.1	273	276	3.41	1.66	1.51	1.44	9.35	3.70	D
74	1927	1327.5	15.4	166	180	151	55.7	2890	1808.1	3.70	3.30	685	671	49.3	50.3	434	84439	22.8	10.2	355	276	3.42	1.71	1.56	1.44	9.35	3.70	D
75	1929	1328.0	14.5	159	172	150	52.0	2830	1808.1	3.70	3.30	686	671	49.3	49.3	432	84749	22.9	10.2	355	277	3.44	1.69	1.55	1.45	9.36	3.70	D
76	1932	1328.5	12.0	163	174	150	52.6	2880	1808.1	3.70	3.30	682	670	49.3	49.8	433	85114	22.9	10.2	416	277	3.45	1.76	1.61	1.45	9.36	3.70	D
77	1934	1329.0	14.4	162	174	150	52.6	2880	1808.7	3.70	3.30	686	674	49.4	49.6	434	85416	23.0	10.3	354	277	3.47	1.70	1.55	1.45	9.36	3.70	D
78	1935	1329.5	19.0	162	172	150	50.7	2890	1808.7	3.70	3.30	681	666	49.4	49.6	433	85649	23.0	10.3	302	277	3.48	1.59	1.44	1.45	9.36	3.70	D
79	1937	1330.0	14.3	163	174	150	52.3	2890	1808.7	3.70	3.30	685	674	49.4	50.1	434	85958	23.1	10.3	317	277	3.49	1.70	1.55	1.45	9.37	3.70	D
80	1939	1330.5	16.5	163	174	150	50.7	2890	1809.2	3.70	3.30	686	670	49.5	50.6	434	86228	23.1	10.4	312	277	3.50	1.63	1.49	1.45	9.37	3.70	D
81	1941	1331.0	11.3	165	176	150	46.8	2890	1809.2	3.70	3.30	686	676	49.5	50.6	434	86490	23.2	10.4	404	277	3.51	1.71	1.57	1.45	9.37	3.70	D
82	1943	1331.5	12.2	159	168	150	43.1	2890	1809.2	3.70	3.30	686	674	49.5	50.3	434	86841	23.2	10.4	411	277	3.52	1.70	1.56	1.46	9.37	3.70	D
83	1946	1332.0	13.3	167	182	150	50.7	2900	1809.2	3.70	3.30	686	683	49.6	50.2	434	87176	23.3	10.5	384	278	3.54	1.70	1.55	1.46	9.38	3.70	D

KOORCAH NO.1

Data Printed at time 33:57 Date Dec 22 '85
Data Recorded at time 23:12 Date Dec 9 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTNRS	WT lb/gal		FLOW/MIN		TEMP (C)		PVT	---THIS BIT---			---COST---		EST	DKC	IK	IKB	ECD	EST	
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN							P#
Run deviation survey.																												
89	2047	1834.5	23.7	128	164	132	42.7	2870	1809.2	3.73	3.30	634	584	49.9	49.3	516	38296	235	13.6	223	277	3.58	1.34	1.20	1.46	9.08	3.70	D
90	2048	1835.5	37.4	159	166	149	44.4	2860	1809.2	3.73	3.30	672	625	49.9	49.3	505	38408	236	13.6	133	277	3.58	1.31	1.17	1.47	9.09	3.70	D
91	2050	1835.5	15.9	163	173	149	47.3	2880	1809.2	3.73	3.30	683	643	49.2	46.3	432	38634	236	13.6	255	277	3.59	1.61	1.46	1.46	9.10	3.70	D
92	2051	1836.5	19.1	163	170	149	47.3	2880	1809.2	3.70	3.30	681	670	49.2	42.7	463	38907	237	13.7	259	277	3.60	1.54	1.40	1.46	9.10	3.70	D
93	2052	1836.5	23.5	163	176	149	44.5	2870	1809.2	3.73	3.30	680	673	49.2	42.7	456	39093	237	13.7	201	277	3.61	1.45	1.31	1.46	9.10	3.70	D
94	2053	1837.5	43.0	164	176	149	47.3	2840	1809.2	3.70	3.30	679	667	49.2	42.7	453	39208	238	13.7	127	277	3.61	1.31	1.17	1.46	9.10	3.70	D
95	2055	1837.5	17.3	159	163	149	47.2	2860	1809.2	3.70	3.30	683	673	49.3	46.5	452	39463	238	13.7	375	277	3.62	1.58	1.43	1.46	9.11	3.70	D
96	2057	1838.5	17.3	159	170	149	47.9	2870	1812.2	3.70	3.30	683	668	48.8	48.7	452	39719	239	13.8	281	277	3.63	1.58	1.43	1.46	9.10	3.70	D
97	2058	1838.5	13.7	159	168	149	47.4	2850	1821.8	3.73	3.30	683	669	43.7	43.7	452	39955	239	13.8	259	277	3.64	1.56	1.41	1.46	9.04	3.70	D
98	2101	1839.5	13.4	159	166	149	47.4	2850	1821.8	3.73	3.30	682	675	43.7	48.7	453	30299	240	13.8	395	277	3.65	1.67	1.52	1.46	9.04	3.70	D
99	2103	1839.5	13.3	160	174	149	47.3	2840	1822.4	3.73	3.30	683	685	43.7	43.9	451	30607	240	13.9	362	277	3.66	1.66	1.51	1.46	9.04	3.70	D
100	2105	1840.5	15.6	161	170	149	43.1	2840	1822.3	3.70	3.30	679	676	43.6	49.3	451	30892	241	13.9	325	277	3.67	1.63	1.43	1.47	9.04	3.70	D
101	2106	1840.5	13.9	162	174	149	47.5	2840	1823.2	3.73	3.30	680	671	43.6	49.1	452	31127	241	13.9	273	277	3.68	1.56	1.41	1.46	9.04	3.70	D
102	2108	1841.5	17.3	161	184	149	48.0	2830	1823.6	3.73	3.30	683	688	43.6	49.1	453	31387	242	14.0	290	277	3.69	1.60	1.45	1.46	9.04	3.70	D
103	2110	1841.5	15.3	161	168	149	48.3	2840	1823.9	3.73	3.30	679	682	43.6	49.3	451	31680	242	14.0	360	277	3.70	1.63	1.48	1.46	9.04	3.70	D
104	2112	1842.5	16.9	162	176	149	48.2	2840	1824.3	3.73	3.30	681	673	43.6	49.4	451	31923	243	14.0	290	277	3.71	1.63	1.45	1.46	9.04	3.70	D
105	2113	1842.5	19.6	160	184	149	48.3	2830	1824.7	3.73	3.30	680	666	43.6	49.4	451	32153	243	14.0	271	277	3.71	1.56	1.41	1.46	9.04	3.70	D
106	2115	1843.5	15.3	164	176	149	49.2	2830	1824.9	3.73	3.30	683	673	43.7	49.5	453	32436	244	14.1	297	277	3.72	1.64	1.49	1.46	9.05	3.70	D
107	2116	1843.5	26.9	173	192	149	47.9	2840	1825.1	3.73	3.30	684	656	43.3	49.3	451	32599	244	14.1	182	277	3.73	1.45	1.30	1.46	9.05	3.70	D
108	2116	1844.5	98.3	167	186	148	44.6	2840	1825.1	3.73	3.30	684	654	43.3	49.3	451	32644	245	14.1	60	277	3.73	1.02	.87	1.46	9.05	3.70	D
109	2126	1844.5	64.2	140	193	144	43.4	2900	1826.4	3.32	3.78	681	656	49.3	4.8	463	32728	245	14.1	82	277	3.73	1.10	.96	1.46	9.04	3.70	D
110	2127	1845.5	23.0	165	172	148	49.1	2890	1826.3	3.32	3.78	686	655	49.3	49.3	459	32932	246	14.1	274	276	3.74	1.55	1.43	1.46	9.05	3.70	D
111	2129	1845.5	17.7	164	194	148	50.2	2830	1827.2	3.33	3.78	687	655	49.3	49.3	455	33187	246	14.2	230	276	3.75	1.61	1.45	1.46	9.05	3.70	D
112	2130	1846.5	25.1	171	184	148	55.6	2870	1827.6	3.33	3.78	687	675	49.3	49.3	453	33358	247	14.2	197	276	3.76	1.55	1.39	1.46	9.05	3.70	D
113	2131	1846.5	38.0	175	193	148	55.3	2870	1827.7	3.31	3.78	686	662	49.3	49.1	452	33479	247	14.2	155	276	3.77	1.40	1.25	1.46	9.05	3.70	D
114	2132	1847.5	35.2	180	198	148	53.3	2870	1827.8	3.31	3.78	685	660	49.3	49.1	452	33555	248	14.2	34	276	3.77	1.27	1.11	1.46	9.05	3.70	D
115	2132	1847.5	35.3	171	196	148	55.1	2860	1827.9	3.31	3.78	679	677	49.3	49.1	453	33676	248	14.2	140	275	3.77	1.43	1.27	1.46	9.05	3.70	D
116	2134	1848.5	19.3	170	186	148	60.9	2870	1828.1	3.31	3.78	684	675	49.3	49.1	452	33909	249	14.2	283	275	3.79	1.69	1.53	1.46	9.06	3.70	D
117	2136	1848.5	17.3	169	188	149	60.6	2860	1828.2	3.33	3.77	683	670	49.3	49.7	449	34161	249	14.3	287	275	3.81	1.72	1.55	1.46	9.06	3.70	D
118	2138	1849.5	15.3	163	174	149	60.6	2880	1828.2	3.31	3.76	682	677	49.1	49.9	452	34451	250	14.3	339	275	3.82	1.76	1.59	1.47	9.06	3.70	D
119	2139	1849.5	15.8	163	180	148	60.3	2880	1828.2	3.31	3.76	684	681	49.1	49.9	454	34730	250	14.3	309	276	3.84	1.74	1.58	1.47	9.06	3.70	D
120	2141	1850.5	14.9	162	186	148	60.7	2880	1828.6	3.33	3.76	684	685	49.1	50.3	455	35015	251	14.4	339	276	3.86	1.77	1.63	1.47	9.07	3.70	D
121	2144	1850.5	13.9	169	180	148	61.8	2880	1829.2	3.33	3.77	683	657	49.2	49.9	455	35334	251	14.4	359	276	3.88	1.80	1.63	1.47	9.07	3.70	D
122	2145	1851.5	16.4	172	184	148	62.4	2870	1829.9	3.33	3.79	683	669	49.2	50.3	455	35601	252	14.4	300	276	3.90	1.75	1.58	1.47	9.06	3.70	D
123	2147	1851.5	25.0	174	186	149	62.1	2880	1830.5	3.33	3.79	683	675	49.2	50.3	454	35779	252	14.4	207	276	3.91	1.61	1.44	1.47	9.06	3.70	D
124	2147	1852.5	63.0	180	202	148	59.5	2880	1830.7	3.33	3.79	683	681	49.2	50.3	456	35849	253	14.5	79	275	3.92	1.27	1.10	1.47	9.06	3.70	D
125	2147	1852.5	134	180	188	148	57.1	2880	1830.8	3.33	3.79	683	673	49.2	50.3	455	35881	253	14.5	43	275	3.92	1.30	.84	1.47	9.07	3.70	D
126	2147	1853.5	115	148	186	145	55.8	2810	1830.9	3.38	3.79	682	671	49.3	50.5	456	35917	254	14.5	39	275	3.92	1.33	.87	1.48	9.07	3.70	D
127	2157	1853.5	147	146	176	146	39.7	2920	1832.4	3.80	3.74	678	643	49.4	50.3	480	35953	254	14.5	47	274	3.92	1.86	.71	1.47	9.07	3.70	D
128	2157	1854.5	109	164	186	154	41.6	2910	1832.5	3.80	3.74	682	656	49.4	50.3	479	35992	255	14.5	40	274	3.92	1.97	.82	1.48	9.07	3.70	D
129	2158	1854.5	63.3	181	194	154	54.1	2930	1832.6	3.80	3.74	686	673	49.4	50.3	476	36067	255	14.5	80	273	3.92	1.26	1.09	1.47	9.08	3.70	D

KOORCAH NO.1

Data Printed at time 34:00 Date Dec 22 '85
Data Recorded at time 22:08 Date Dec 9 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTRIS		MV lb/gal		FLOW/MIN		TEMP (C)	PVT	---THIS BIT---			---COST---	EST PV	DNC	.K	.KKB	EOD	EST PM PR		
				AVG	MAX				IN	DEPTH	IN	OUT	IN	OUT			REVS	m	hrs								INST	RUN
138	2208	1859.0	26.5	173	188	153	61.3	2860	1835.5	3.73	3.71	683	673	49.3	50.2	454	97713	260	11.7	182	272	4.33	1.58	1.41	1.47	9.11	3.70	D
139	2210	1859.5	24.7	165	174	153	61.3	2860	1835.3	3.73	3.71	680	671	49.3	50.2	453	97899	260	11.7	209	272	4.34	1.60	1.43	1.47	9.11	3.70	D
140	2212	1860.0	15.1	168	188	153	62.1	2860	1836.4	3.71	3.70	683	680	49.3	50.1	453	98139	261	11.7	312	272	4.37	1.78	1.60	1.47	9.12	3.70	D
141	2213	1860.5	19.2	168	196	153	61.3	2870	1836.8	3.71	3.70	682	687	49.3	50.1	452	98429	261	11.7	263	272	4.38	1.69	1.52	1.47	9.12	3.70	D
142	2214	1861.0	23.9	167	186	153	61.3	2870	1837.2	3.72	3.74	680	652	49.9	50.2	452	98617	262	11.8	203	272	4.10	1.61	1.43	1.47	9.13	3.70	D
143	2216	1861.5	16.7	169	178	153	62.0	2880	1837.3	3.73	3.72	685	661	50.0	50.0	452	98900	262	11.8	291	272	4.11	1.74	1.56	1.47	9.13	3.70	D
144	2226	1862.0	20.4	150	188	150	60.9	2840	1842.4	3.71	3.75	615	577	50.2	50.4	478	99147	263	11.8	261	272	4.13	1.66	1.48	1.48	9.11	3.70	D
145	2226	1862.5	41.1	156	178	149	56.9	2850	1842.6	3.71	3.75	667	640	50.2	50.4	472	99254	263	11.8	127	272	4.14	1.39	1.21	1.47	9.13	3.70	D
146	2228	1863.0	17.7	171	182	149	62.3	2840	1843.1	3.73	3.75	680	675	50.3	50.6	462	99500	264	11.9	242	272	4.15	1.72	1.54	1.48	9.14	3.70	D
147	2229	1863.5	21.2	174	192	149	60.9	2840	1843.6	3.73	3.75	680	671	50.3	50.6	457	99719	264	11.9	220	272	4.17	1.64	1.46	1.47	9.14	3.70	D
148	2230	1864.0	147	175	182	149	58.9	2840	1843.7	3.72	3.78	680	677	50.3	50.2	456	99746	265	11.9	33	271	4.18	.97	.30	1.48	9.15	3.70	D
149	2230	1864.5	48.3	172	186	149	60.4	2850	1844.0	3.72	3.78	680	677	50.3	50.2	456	99836	265	11.9	94	271	4.18	1.36	1.18	1.47	9.15	3.70	D
150	2240	1865.0	6.10	180	344	148	55.5	2880	1846.5	3.71	3.79	681	678	50.4	50.8	448	100572	266	12.0	912	272	4.20	1.99	1.82	1.48	9.15	3.70	D
151	2242	1865.5	27.2	167	186	156	45.2	2910	1846.7	3.69	3.78	684	674	50.5	50.4	446	100738	266	12.0	182	272	4.21	1.42	1.25	1.48	9.15	3.70	D
152	2242	1866.0	39.8	170	194	154	53.3	2910	1846.9	3.69	3.78	685	678	50.5	50.4	445	100856	267	12.0	124	272	4.21	1.37	1.20	1.47	9.16	3.70	D
153	2243	1866.5	28.0	175	188	154	58.1	2920	1847.1	3.69	3.78	686	671	50.5	50.4	447	101012	267	12.0	178	271	4.22	1.53	1.35	1.47	9.16	3.70	D
154	2244	1867.0	35.3	176	186	155	59.0	2820	1847.3	3.69	3.78	683	669	50.6	50.1	447	101136	268	12.0	132	271	4.23	1.46	1.28	1.47	9.16	3.70	D
155	2245	1867.5	22.4	181	196	154	60.9	2810	1847.5	3.69	3.78	675	670	50.6	50.1	446	101337	268	12.1	231	271	4.24	1.63	1.45	1.47	9.16	3.70	D
156	2246	1868.0	55.6	178	196	154	61.9	2810	1847.6	3.69	3.78	675	679	50.6	50.1	445	101421	269	12.1	98	271	4.25	1.33	1.15	1.47	9.16	3.70	D
157	2248	1868.5	17.1	172	192	155	62.9	2820	1848.7	3.69	3.79	676	681	50.6	50.1	445	101677	269	12.1	326	271	4.27	1.74	1.55	1.47	9.16	3.70	D
158	2249	1869.0	15.0	170	184	154	62.9	2830	1849.4	3.69	3.81	677	673	50.7	50.7	444	101962	270	12.1	325	271	4.29	1.78	1.60	1.48	9.16	3.70	D
159	2251	1869.5	16.2	170	184	154	62.4	2880	1849.4	3.69	3.81	678	675	50.7	50.7	444	102246	270	12.2	314	271	4.31	1.75	1.57	1.48	9.16	3.70	D
160	2253	1870.0	16.4	171	182	154	63.7	2880	1849.4	3.69	3.82	679	683	50.7	50.7	444	102539	271	12.2	300	271	4.34	1.76	1.57	1.48	9.17	3.70	D
161	2255	1870.5	17.0	168	180	154	63.9	2880	1850.2	3.72	3.81	684	685	50.8	50.6	443	102801	271	12.2	306	271	4.36	1.75	1.56	1.48	9.16	3.70	D
162	2257	1871.0	18.2	169	178	154	63.6	2850	1851.1	3.72	3.81	683	672	50.8	50.6	443	103048	272	12.2	272	271	4.38	1.73	1.53	1.49	9.16	3.70	D
163	2306	1871.5	19.9	163	180	150	62.7	2860	1853.2	3.72	3.82	677	657	50.9	50.9	458	103357	272	12.3	260	271	4.40	1.68	1.49	1.49	9.14	3.70	D
164	2307	1872.0	25.8	176	190	150	62.9	2850	1853.6	3.76	3.83	679	674	50.9	51.2	455	103529	273	12.3	176	271	4.41	1.60	1.41	1.48	9.13	3.70	D
165	2307	1872.5	55.0	185	210	150	61.2	2850	1853.8	3.76	3.83	679	671	50.9	51.2	452	103609	273	12.3	94	271	4.42	1.32	1.13	1.49	9.13	3.70	D
166	2309	1873.0	14.5	173	190	150	61.4	2840	1854.5	3.75	3.83	679	673	50.9	50.5	449	103904	274	12.3	373	271	4.44	1.78	1.59	1.49	9.13	3.70	D
167	2312	1873.5	10.7	185	226	150	63.5	2860	1855.2	3.73	3.80	679	672	50.9	50.5	447	104318	274	12.4	438	271	4.47	1.90	1.71	1.49	9.12	3.70	D
168	2314	1874.0	14.6	172	192	150	63.5	2860	1855.7	3.74	3.80	679	682	50.9	50.7	446	104626	275	12.4	351	271	4.50	1.80	1.61	1.49	9.11	3.70	D
169	2317	1874.5	12.4	192	318	150	59.7	2860	1856.4	3.71	3.78	680	685	50.9	50.9	445	104986	275	12.5	413	272	4.52	1.82	1.62	1.50	9.11	3.70	D
170	2319	1875.0	12.7	162	174	151	59.3	2860	1856.6	3.71	3.78	679	676	50.9	50.9	444	105339	276	12.5	402	272	4.54	1.81	1.62	1.50	9.10	3.70	D
171	2321	1875.5	12.3	164	182	150	61.4	2880	1856.7	3.69	3.78	681	668	50.9	50.9	442	105702	276	12.5	403	272	4.57	1.84	1.64	1.50	9.09	3.70	D
172	2324	1876.0	12.0	163	176	150	61.2	2870	1857.5	3.70	3.76	682	681	51.0	51.0	442	106072	277	12.6	415	272	4.59	1.85	1.65	1.50	9.08	3.70	D
173	2326	1876.5	11.5	167	182	151	62.1	2870	1859.0	3.71	3.75	681	678	51.0	50.8	441	106465	277	12.6	441	273	4.62	1.88	1.68	1.51	9.07	3.70	D
174	2329	1877.0	13.4	174	186	150	61.6	2870	1859.6	3.69	3.76	681	678	51.1	51.3	440	106798	278	12.7	390	273	4.64	1.82	1.62	1.51	9.06	3.70	D
175	2329	1877.5	33.4	182	198	151	59.9	2880	1859.6	3.69	3.76	681	677	51.1	51.3	441	106850	278	12.7	38	272	4.65	1.18	.99	1.51	9.06	3.70	D
176	2329	1878.0	91.4	181	194	150	58.4	2880	1859.6	3.69	3.76	681	674	51.1	51.3	442	106895	279	12.7	51	272	4.65	1.14	.95	1.51	9.06	3.70	D
177	2331	1878.5	19.0	189	260	150	60.3	2880	1859.6	3.73	3.77	681	665	51.1	51.0	441	107119	279	12.7	811	272	4.66	1.69	1.49	1.51	9.06	3.70	D
178	2333	1879.0	13.6	238	264	149	60.6	2870	1859.6	3.73	3.77	681	672	51.1	51.1	442	107446	280	12.7	457	272	4.68	1.80	1.60	1.51	9.06	3.70	D
179	2335	1879.5	14.1	240	328	150	60.1	2890	1859.8	3.72	3.74	680	679	51.2	51.2	443	107775	280	12.8	387	272	4.70	1.78	1.59	1.51	9.06	3.70	D
180	2336	1880.0	34.9	254	304	149	56.4	2880	1860.0	3.72	3.74	681	675	51.2	51.2	443	107822	281	12.8	57	272	4.70	1.15	.95	1.51	9.07	3.70	D
181	2353	1880.5	16.9	194	258	148	59.8	2850	1864.1	3.76	3.80	677	658	51.4	51.9	452	108224	281	12.8	449	272	4.72	1.72	1.52	1.51	9.05	3.70	D
182	2355	1881.0	12.2	169	180	148	62.3	2850	1864.7	3.74	3.81	671	681	51.4	50.2	446	108571	282	12.9	427	272	4.75	1.86	1.66	1.51	9.05	3.70	D
183	2357	1881.5	13.9	170	188	148	62.2	2840	1865.4	3.73	3.80	677	680	51.5	50.7	444	108904	282	12.9	396	273							

KOORCAH J.D.1

Data Printed at time 04:04 Date Dec 22 '85
Data Recorded at time 00:03 Date Dec 10 '85

P#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTS		M lb/gal		FLOW/MLN		TEMP (C)		PVT	THIS BIT			EST P/H	DNC	.K	.K3	ECD	EST EM PR		
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	IN	OUT	IN		OUT	REVS	m							hrs	INST
137	J003	1883.5	14.1	181	192	143	63.9	2810	1865.9	3.72	3.77	663	670	51.4	51.6	443	109697	234	13.0	354	272	4.33	1.32	1.61	1.52	9.35	3.70	D
138	J004	1884.0	15.6	184	243	143	64.0	2840	1866.2	3.72	3.77	677	675	51.4	51.6	443	109985	285	13.0	334	272	4.36	1.79	1.58	1.52	9.35	3.70	D
139	J006	1884.5	24.3	171	130	143	62.6	2350	1866.7	3.72	3.78	676	681	51.5	51.3	442	110163	285	13.0	202	272	4.37	1.62	1.42	1.52	9.35	3.70	D
190	J008	1885.0	13.3	170	194	148	63.0	2850	1867.6	3.72	3.80	677	665	51.6	51.9	443	110430	286	13.1	375	272	4.90	1.82	1.61	1.52	9.35	3.70	D
191	J010	1885.5	16.0	180	212	143	63.9	2860	1867.9	3.72	3.80	677	665	51.6	51.9	441	110756	236	13.1	343	273	4.92	1.75	1.54	1.52	9.35	3.70	D
192	J010	1886.0	125	194	206	143	57.3	2350	1868.0	3.72	3.80	677	662	51.6	51.9	441	110791	287	13.1	55	272	4.92	1.33	.82	1.52	9.35	3.70	D
193	J010	1886.5	11.6	184	206	143	59.3	2850	1868.8	3.71	3.80	677	665	51.6	51.6	442	110826	287	13.1	39	272	4.92	1.36	.86	1.52	9.36	3.70	D
194	J015	1887.0	23.7	165	230	144	59.4	2860	1868.6	3.73	3.79	665	632	51.7	51.5	456	111023	288	13.1	207	272	4.93	1.59	1.39	1.52	9.36	3.70	D
195	J016	1887.5	56.4	172	224	146	55.7	2850	1868.7	3.73	3.79	674	658	51.7	51.5	455	111098	288	13.2	39	271	4.93	1.27	1.07	1.52	9.36	3.70	D
196	J016	1888.0	99.3	188	226	146	56.5	2860	1868.8	3.73	3.79	675	664	51.7	51.5	453	111142	289	13.2	51	271	4.93	1.39	.89	1.52	9.36	3.70	D
197	J016	1888.5	75.4	170	222	148	56.2	2350	1868.9	3.73	3.79	676	663	51.7	51.5	452	111197	289	13.2	62	271	4.93	1.13	.98	1.53	9.37	3.70	D
198	J019	1889.0	11.1	199	276	143	58.3	2860	1869.4	3.75	3.78	673	666	51.3	51.5	446	111569	290	13.2	537	271	4.96	1.35	1.64	1.53	9.37	3.70	D
199	J023	1889.5	13.5	229	290	143	55.3	2900	1870.6	3.73	3.78	647	587	51.3	51.7	464	111941	290	13.2	377	271	4.97	1.74	1.54	1.53	9.37	3.70	X
200	J023	1890.0	48.3	157	176	149	51.2	2910	1870.7	3.75	3.80	676	637	51.3	51.7	460	112033	291	13.3	113	271	4.97	1.29	1.39	1.53	9.37	3.70	D
201	J029	1890.5	25.5	180	201	149	56.1	2900	1870.9	3.75	3.80	682	672	51.3	51.7	452	112204	291	13.3	176	271	4.98	1.54	1.34	1.53	9.38	3.70	D
202	J031	1891.0	14.3	229	292	149	58.6	2900	1871.4	3.75	3.83	683	668	51.9	51.3	447	112493	292	13.3	406	271	5.00	1.75	1.54	1.53	9.38	3.70	D
203	J033	1891.5	17.0	213	273	149	60.9	2880	1872.1	3.75	3.83	681	683	51.9	51.3	442	112762	292	13.3	304	271	5.02	1.73	1.52	1.53	9.38	3.70	D
204	J035	1892.0	19.3	172	196	149	62.0	2870	1872.3	3.72	3.89	673	671	51.9	51.4	441	112988	293	13.4	245	271	5.03	1.69	1.48	1.53	9.37	3.70	D
205	J036	1892.5	21.4	172	202	149	61.1	2880	1873.4	3.72	3.89	680	681	51.9	51.4	440	113194	293	13.4	239	271	5.04	1.65	1.44	1.52	9.37	3.70	D
206	J038	1893.0	13.2	169	180	149	62.3	2880	1874.2	3.73	3.88	679	672	51.9	52.1	440	113528	294	13.4	366	271	5.07	1.33	1.61	1.53	9.37	3.70	D
207	J040	1893.5	14.4	168	188	150	61.3	2880	1874.9	3.73	3.88	679	673	51.9	52.1	439	113837	294	13.5	369	271	5.09	1.79	1.57	1.53	9.37	3.70	D
208	J043	1894.0	11.3	167	182	150	62.2	2880	1875.0	3.73	3.85	680	661	51.9	51.6	405	114231	295	13.5	401	271	5.12	1.38	1.66	1.53	9.37	3.70	D
209	J045	1894.5	14.5	172	190	150	62.6	2880	1875.1	3.66	3.81	680	656	51.9	52.0	397	114550	295	13.5	396	272	5.14	1.30	1.58	1.53	9.37	3.70	D
210	J047	1895.0	13.2	171	190	150	62.1	2870	1875.1	3.63	3.78	675	681	52.0	52.1	397	114877	296	13.6	375	272	5.16	1.33	1.61	1.54	9.37	3.70	D
211	J050	1895.5	12.1	168	180	149	63.0	2870	1875.3	3.65	3.76	669	675	52.0	51.9	398	115258	296	13.6	387	272	5.19	1.37	1.65	1.54	9.37	3.70	D
212	J052	1896.0	12.3	165	173	149	64.1	2870	1875.7	3.66	3.76	673	684	52.1	51.7	397	115606	297	13.7	401	272	5.22	1.37	1.65	1.54	9.38	3.70	D
213	J054	1896.5	14.6	171	184	150	64.5	2880	1876.1	3.65	3.78	679	676	52.2	51.9	398	115910	297	13.7	330	272	5.25	1.32	1.59	1.54	9.38	3.70	D
214	J056	1897.0	20.5	181	214	149	63.1	2880	1876.4	3.65	3.78	680	669	52.2	51.9	396	116144	298	13.7	284	272	5.27	1.68	1.46	1.54	9.38	3.70	D
215	J056	1897.5	40.7	190	240	149	62.0	2880	1876.6	3.64	3.78	680	676	52.3	51.9	398	116233	298	13.7	108	272	5.28	1.44	1.21	1.54	9.38	3.70	D
216	J059	1898.0	13.3	200	296	143	64.2	2890	1877.7	3.64	3.78	681	673	52.3	51.9	396	116539	299	13.8	415	272	5.30	1.33	1.60	1.55	9.38	3.70	D
217	J103	1898.5	9.10	208	290	147	63.4	2840	1878.9	3.66	3.79	672	672	52.4	51.9	397	117079	299	13.8	685	273	5.34	1.96	1.73	1.55	9.38	3.70	D
218	J113	1899.0	12.4	152	182	145	58.8	2250	1881.1	3.71	3.84	605	657	52.3	51.8	396	117516	300	13.9	391	273	5.36	1.80	1.58	1.55	9.36	3.70	D
219	J113	1899.5	12.9	178	248	143	63.5	2860	1883.6	3.64	3.90	674	652	52.2	51.7	387	117896	300	13.9	331	274	5.38	1.85	1.62	1.55	9.35	3.70	D
220	J121	1900.0	11.5	175	230	149	62.2	2850	1884.0	3.62	3.89	672	671	52.2	52.7	385	118264	301	14.0	407	274	5.41	1.88	1.65	1.56	9.35	3.70	D
221	J123	1900.5	16.5	172	204	149	61.0	2840	1884.2	3.61	3.84	675	681	52.2	51.7	384	118546	301	14.0	362	274	5.43	1.74	1.51	1.56	9.35	3.70	D
222	J123	1901.0	61.3	180	208	149	59.0	2850	1884.2	3.61	3.84	675	682	52.2	51.7	382	118611	302	14.0	75	274	5.44	1.28	1.05	1.56	9.04	3.70	D
223	J124	1901.5	37.5	186	200	149	58.1	2840	1884.2	3.61	3.84	675	677	52.2	51.7	383	118660	302	14.0	60	273	5.44	1.15	.93	1.56	9.35	3.70	D
224	J124	1902.0	104	192	222	149	59.9	2840	1884.2	3.61	3.84	675	675	52.2	51.7	382	118702	303	14.0	48	273	5.44	1.11	.88	1.56	9.35	3.70	D
225	J124	1902.5	61.2	184	208	143	60.8	2820	1884.2	3.61	3.84	674	673	52.2	51.7	383	118769	303	14.0	74	272	5.44	1.29	1.06	1.56	9.35	3.70	D
226	J125	1903.0	35.3	203	234	143	59.7	2720	1884.3	3.62	3.84	672	665	52.2	51.6	384	118889	304	14.0	133	272	5.45	1.46	1.23	1.56	9.36	3.70	D
+ Flow check at 1903m.																												
228	J130	1903.5	29.7	272	282	146	57.0	2860	1885.6	3.66	3.89	681	660	52.3	52.3	394	119121	304	14.1	195	272	5.46	1.62	1.40	1.56	9.34	3.70	D
229	J132	1904.0	21.2	280	284	144	57.3	2820	1885.9	3.66	3.89	673	680	52.3	52.3	388	119322	305	14.1	235	272	5.47	1.61	1.39	1.55	9.34	3.70	D
230	J136	1904.5	9.75	226	284	145	58.3	2840	1887.1	3.61	3.86	672	673	52.3	52.1	381	119783	305	14.1	555	273	5.49	1.89	1.66	1.56	9.33	3.70	D
231	J139	1905.0	9.63	281	282	143	55.9	2840	1887.9	3.61	3.87	674	695	52.3	52.3	377	120255	306	14.2	480	273	5.51	1.37	1.65	1.56	9.33	3.70	D
232	J141	1905.5	12.3	281	284	147	58.9	2850	1888.4	3.63	3.96	672	683	52.4	52.0	375	120595	306	14.2	389	273	5.53	1.82	1.59	1.56	9.33	3.70	D
233	J144	1906.0	10.2	283	286	145	63.4	2860	1889.0	3.70	3.85	675	655	52.4	52.0	370	121019	307	14.3	508	274	5.55	1.90</					

KOORCAH J0.1

Data Printed at time J4:J8 Date Dec 22 '85
Data Recorded at time J2:J6 Date Dec 1J '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTN3		M lb/gal		FLO //MIN		TEMP (C)		PVT	-----PHIS BIT-----			---COST---	EST T/H	DKC	WK	AKS	SCD	EST 21 PRI	
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	LI	OUT	REVS		m	hrs	LIST								RUN
237	J2J6	1908.J	12.1	148	184	147	64.4	285J	1392.3	3.77	3.91	667	659	52.7	52.2	337	1.22637	309	14.5	45J	275	5.67	1.89	1.65	1.58	3.99	3.7J	D
238	J2J8	1908.5	12.5	17J	18J	149	62.1	285J	1393.1	3.78	3.89	674	666	52.6	51.3	372	1.22988	309	14.5	383	275	5.7J	1.86	1.62	1.58	3.98	3.7J	D
239	J21J	1909.J	13.5	17J	136	149	62.6	284J	1393.3	3.78	3.99	673	666	52.6	51.3	363	1.23318	31J	14.5	371	275	5.73	1.84	1.60	1.58	3.93	3.7J	D
240	J213	1909.5	12.7	17J	184	149	6J.3	283J	1393.3	3.77	3.88	673	659	52.5	51.0	36J	1.23664	31J	14.6	387	275	5.74	1.84	1.60	1.58	3.93	3.7J	D
241	J215	1910.J	13.6	166	173	149	6J.1	283J	1393.4	3.76	3.86	672	667	52.5	51.8	358	1.23994	31.1	14.6	390	276	5.77	1.81	1.57	1.58	3.98	3.7J	D
242	J218	191J.5	11.5	163	176	148	6J.2	283J	1393.7	3.76	3.86	673	679	52.5	51.8	358	1.24390	31.1	14.7	426	276	5.79	1.87	1.63	1.58	3.98	3.7J	D
243	J219	1911.J	33.5	176	196	149	57.1	284J	1393.8	3.78	3.83	673	659	52.5	52.1	355	1.24511	31.2	14.7	133	276	5.8J	1.48	1.24	1.58	3.93	3.7J	D
244	J219	1911.5	73.3	173	212	148	59.6	284J	1393.9	3.78	3.83	673	669	52.5	52.1	354	1.24568	31.2	14.7	61	275	5.8J	1.23	.99	1.58	3.93	3.7J	D
245	J220	1912.J	48.4	173	204	148	6J.5	281J	1394.J	3.78	3.83	673	675	52.5	52.1	355	1.24657	31.3	14.7	97	275	5.8J	1.38	1.14	1.58	3.93	3.7J	D
+ Flow check at 1912m.																												
247	J225	1912.5	42.3	163	198	148	55.4	286J	1394.5	3.74	3.81	659	614	52.4	52.1	373	1.24734	31.3	14.7	144	275	5.81	1.38	1.15	1.59	3.98	3.7J	D
248	J225	1913.J	11.7	177	2J2	149	56.3	285J	1394.5	3.74	3.81	667	631	52.4	52.1	371	1.24819	31.4	14.7	38	274	5.81	1.05	.82	1.58	3.98	3.7J	D
249	J225	1913.5	1J3	177	196	150	55.3	286J	1394.6	3.74	3.81	67J	642	52.4	52.1	371	1.24862	31.4	14.7	47	274	5.81	1.09	.86	1.59	3.99	3.7J	D
250	J226	1914.J	64.5	163	202	150	57.2	285J	1394.7	3.74	3.81	674	654	52.4	52.1	367	1.24929	31.5	14.7	72	274	5.81	1.26	1.32	1.58	3.99	3.7J	D
251	J228	1914.5	15.4	164	182	150	59.9	285J	1395.6	3.75	3.82	675	668	52.4	51.7	359	1.25212	31.5	14.7	284	274	5.83	1.77	1.52	1.58	3.9J	3.7J	D
252	J230	1915.J	14.2	166	18J	151	6J.9	285J	1397.0	3.73	3.90	669	682	52.4	51.9	356	1.25540	31.6	14.3	388	274	5.85	1.81	1.56	1.58	3.99	3.7J	D
253	J232	1915.5	13.3	169	18J	151	6J.8	284J	1397.8	3.73	3.91	672	689	52.4	52.4	354	1.25867	31.6	14.3	373	274	5.87	1.83	1.58	1.58	3.99	3.7J	D
254	J234	1916.J	12.9	167	18J	151	61.6	284J	1398.2	3.73	3.91	674	651	52.4	52.4	352	1.26079	31.7	14.3	357	274	5.88	1.85	1.60	1.58	3.99	3.7J	D
255	J235	1916.5	16.1	165	180	151	6J.3	284J	1398.8	3.73	3.91	674	667	52.4	52.5	35J	1.26351	31.7	14.9	341	274	5.90	1.76	1.51	1.58	3.99	3.7J	D
256	J237	1917.J	18.9	167	182	152	6J.7	285J	1398.9	3.73	3.91	674	655	52.4	52.5	35J	1.26588	31.8	14.9	248	274	5.92	1.71	1.46	1.58	3.99	3.7J	D
257	J246	1917.5	21.7	153	18J	148	54.3	284J	1399.9	3.74	3.93	661	688	52.5	52.8	371	1.26812	31.8	14.9	226	274	5.93	1.59	1.35	1.58	3.9J	3.7J	DK
258	J247	1918.J	17.8	160	174	151	6J.2	283J	1393.2	3.74	3.91	672	643	52.5	53.3	364	1.27047	31.9	15.3	293	274	5.94	1.72	1.47	1.58	3.9J	3.7J	D
259	J25J	1918.5	12.3	169	182	15J	61.5	284J	1393.6	3.73	3.91	674	668	52.4	52.5	357	1.27412	31.9	15.3	416	274	5.97	1.86	1.61	1.58	3.9J	3.7J	D
260	J252	1919.J	13.4	163	18J	15J	61.3	282J	1393.9	3.73	3.91	672	676	52.4	52.5	354	1.27744	32J	15.3	363	274	5.99	1.83	1.58	1.58	3.9J	3.7J	D
261	J254	1919.5	15.2	17J	184	15J	62.5	282J	1391.2	3.73	3.91	672	667	52.4	51.4	354	1.28336	32J	15.1	326	275	6.01	1.79	1.54	1.58	3.9J	3.7J	D
262	J256	1920.J	13.3	170	184	149	62.5	282J	1391.7	3.74	3.88	671	68J	52.5	51.8	357	1.2838J	32.1	15.1	367	275	6.04	1.84	1.59	1.58	3.9J	3.7J	D
263	J258	1920.5	13.7	168	184	15J	62.9	282J	1392.1	3.73	3.86	673	655	52.5	52.1	359	1.28692	32.1	15.1	353	275	6.06	1.83	1.58	1.58	3.93	3.7J	D
264	J302	1921.0	9.11	166	182	149	62.9	282J	1392.6	3.74	3.83	673	684	52.5	52.2	362	1.29206	32.2	15.2	527	275	6.10	1.97	1.71	1.58	3.93	3.7J	D
265	J304	1921.5	10.6	169	188	148	62.6	283J	1392.7	3.74	3.84	673	679	52.5	52.4	366	1.296J2	32.2	15.2	454	276	6.13	1.91	1.65	1.58	3.94	3.7J	D
266	J307	1922.J	9.54	172	214	148	63.2	283J	1393.1	3.75	3.83	673	687	52.5	52.3	366	1.30065	32.3	15.3	529	276	6.17	1.95	1.69	1.59	3.95	3.7J	D
267	J310	1922.5	12.6	165	19J	149	63.2	282J	1393.7	3.75	3.85	673	679	52.5	52.3	366	1.30429	32.3	15.3	411	276	6.20	1.85	1.59	1.59	3.95	3.7J	D
268	J312	1923.J	13.7	164	186	148	63.4	282J	1394.1	3.74	3.84	665	671	52.6	52.4	365	1.30743	32.4	15.4	382	276	6.23	1.83	1.57	1.59	3.96	3.7J	D
269	J315	1923.5	9.40	164	176	148	62.3	283J	1394.8	3.76	3.85	675	686	52.6	52.4	365	1.31213	32.4	15.4	49J	277	6.26	1.94	1.68	1.59	3.96	3.7J	D
270	J318	1924.J	9.35	163	176	149	62.6	283J	1393.1	3.74	3.87	675	679	52.7	52.3	364	1.31685	32.5	15.5	536	277	6.30	1.95	1.69	1.59	3.96	3.7J	D
271	J322	1924.5	3.31	161	174	148	62.1	281J	1397.1	3.73	3.86	671	666	52.8	52.5	363	1.32220	32.5	15.5	574	278	6.34	1.98	1.72	1.59	3.97	3.7J	D
272	J324	1925.J	13.1	166	228	148	6J.8	282J	1393.9	3.73	3.86	674	667	52.8	52.5	363	1.32558	32.6	15.6	38J	278	6.36	1.82	1.55	1.59	3.96	3.7J	D
273	J326	1925.5	15.1	167	18J	149	61.7	281J	1393.7	3.73	3.88	674	647	52.8	52.8	363	1.32862	32.6	15.6	342	278	6.38	1.78	1.51	1.59	3.96	3.7J	D
274	J329	1926.J	3.96	174	186	148	62.4	281J	1391.5	3.73	3.86	674	678	52.8	52.7	362	1.33314	32.7	15.7	515	278	6.41	1.96	1.70	1.59	3.96	3.7J	D
275	J332	1926.5	9.30	161	236	146	61.3	293J	1391.1	3.74	3.83	675	659	52.9	52.5	361	1.33579	32.8	15.7	482	278	6.43	1.94	1.68	1.60	3.96	3.7J	D
+ Pull out of hole at 1926.5m.																												
+ #6 SMITH F2 12.25" with 3x13 jets. Start depth 1926.5m.																												
283	1143	1927.J	6.19	131	146	93	21.4	291J	1392.5	3.80	3.90	635	619	43.3	49.3	349	1.335	.49	.1	595	36981	.J0	1.43	1.43	1.48	8.33	3.7J	D
284	1151	1927.5	9.14	14J	16J	93	23.2	292J	1392.5	3.80	3.90	634	638	43.6	49.2	349	1.336	.98	.1	539	17584	.J0	1.43	1.43	1.48	8.33	3.7J	D
285	1154	1928.J	12.2	149	192	92	37.2	292J	1392.5	3.80	3.90	635	65J	44.1	48.7	35J	1.337	1.49	.2	43J	1163J	.J0	1.47	1.47	1.48	8.34	3.7J	D
286	1154	1928.5	37.4	17J	204	91	44.8	290J	1392.5	3.80	3.90	635	649	44.1	48.7	351	1.338	1.99	.2	152	8933	.J0	1.19	1.2J	1.48	8.34	3.7J	D
287	1155	1929.J	37.3	166	19J	91	46.1	291J	1392.5	3.80	3.90	632	628	44.4	48.1	355	1.339	2.49	.2	136	70J	.J0	1.21	1.21	1.48	8.35	3.7J	D
288	1157	1929.5	12.8	162	213	93	48.6	291J	1392.5	3.80	3.90	634	593	44.3	49.4	357	1.346	2.98	.2	384	5923	.J1	1.58	1.58	1.48	8.86	3.7J	D
289	1200	1930.J	13.7	160	234	99	43.3	293J	1392.5	3.80	3.90	636	58J	45.2	49.5	363	1.356	3.50	.3	374	5102	.J1	1.57	1.57	1.48	8.86	3.7J	D
290	1202	1930.5	10.3	162	186	103	48.9	285J	1392.5																			

KOORCAH JD.1

Data Printed at time 04:12 Date Dec 22 '35
Data Recorded at time 12:07 Date Dec 10 '35

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTNRS	M lb/gal		FLOW/MIN		TEMP (C)	PVT	-----THIS BIT-----			EST	DKC	NK	NKB	ECD	EST				
				AVG	MAX					AVG	IN	OUT	LI			OUT	IN	OUT							REVS	m	hrs	INST
292	1207	1931.5	15.5	160	198	133	46.7	286J	1926.5	3.30	3.90	622	606	45.9	49.3	381	2338	5.00	.4	329	3693	.J1	1.52	1.52	1.49	3.37	3.70	D
293	1210	1932.0	10.3	162	200	132	46.3	285J	1926.5	3.30	3.90	629	606	45.9	50.0	389	2619	5.50	.5	458	3396	.J1	1.64	1.64	1.49	3.37	3.70	D
294	1213	1932.5	10.0	160	198	133	49.2	286J	1926.5	3.30	3.90	629	605	45.8	50.2	394	2908	6.00	.5	527	3154	.J2	1.69	1.69	1.49	3.37	3.70	D
295	1215	1933.0	10.4	158	190	138	47.6	287J	1926.5	3.30	3.90	631	587	45.8	49.9	404	3219	6.47	.5	520	2964	.J2	1.68	1.67	1.49	3.37	3.70	D
296	1219	1933.5	9.12	157	188	111	48.2	284J	1926.5	3.30	3.90	630	592	45.8	49.8	414	3532	7.00	.6	494	2780	.J2	1.74	1.73	1.50	3.38	3.70	D
297	1232	1934.0	13.3	160	200	139	41.4	292J	1926.5	3.30	3.90	620	595	46.1	48.9	512	3797	7.50	.6	382	2616	.J2	1.59	1.59	1.50	3.38	3.70	D
298	1234	1934.5	11.4	163	200	110	46.1	286J	1926.5	3.30	3.90	624	591	46.1	50.1	508	3915	7.99	.7	298	2496	.J2	1.61	1.61	1.49	3.38	3.70	D
299	1236	1935.0	9.33	156	186	110	46.3	287J	1926.5	3.30	3.90	624	582	46.1	49.7	509	4233	8.50	.7	511	2350	.J2	1.69	1.68	1.50	3.31	3.70	D
300	1239	1935.5	11.5	155	176	111	46.5	287J	1926.5	3.30	3.90	621	613	46.1	49.9	506	4538	8.99	.7	415	2245	.J3	1.63	1.63	1.50	3.93	3.70	D
301	1241	1936.0	13.2	158	134	111	47.4	287J	1926.5	3.30	3.90	625	602	46.1	50.6	506	4731	9.50	.3	357	2146	.J3	1.60	1.59	1.50	3.93	3.70	D
302	1244	1936.6	12.6	154	180	112	46.5	285J	1926.5	3.30	3.90	625	591	46.1	50.9	507	5072	9.99	.3	422	2062	.J3	1.60	1.59	1.50	3.97	3.70	D
303	1247	1937.0	9.39	157	198	111	47.3	291J	1926.5	3.30	3.90	632	580	46.1	50.9	507	5372	10.5	.9	541	1992	.J3	1.70	1.69	1.51	3.97	3.70	D
304	1249	1937.5	10.5	157	192	110	47.9	292J	1926.7	3.30	3.90	631	586	46.1	50.7	506	5631	11.0	.9	447	1914	.J3	1.67	1.66	1.51	3.97	3.70	D
305	1251	1938.0	15.9	150	182	111	43.6	290J	1926.9	3.30	3.90	633	588	46.1	50.8	505	5893	11.5	1.0	342	1848	.J3	1.49	1.49	1.51	3.96	3.70	D
306	1255	1938.5	3.31	153	184	111	48.0	293J	1927.6	3.30	3.90	632	577	46.1	51.0	506	6280	12.0	1.0	523	1793	.J4	1.74	1.74	1.51	3.96	3.70	D
307	1257	1939.0	13.8	158	176	111	46.1	294J	1928.1	3.30	3.90	632	585	46.1	51.3	507	6525	12.5	1.0	396	1737	.J4	1.56	1.56	1.51	3.95	3.70	D
308	1259	1939.5	13.9	153	192	111	47.3	292J	1928.9	3.30	3.90	634	603	46.1	51.5	509	6755	13.0	1.1	382	1686	.J4	1.58	1.58	1.51	3.94	3.70	D
309	1301	1940.0	15.6	154	180	110	48.0	293J	1929.5	3.30	3.90	635	583	46.1	51.8	506	6955	13.5	1.1	335	1632	.J4	1.55	1.54	1.52	3.93	3.70	D
310	1302	1940.5	33.1	160	196	110	47.0	295J	1929.7	3.30	3.90	633	580	46.1	52.1	505	7053	13.9	1.1	170	1588	.J4	1.30	1.29	1.51	3.93	3.70	D
311	1303	1941.0	18.6	191	350	105	46.1	292J	1930.0	3.30	3.90	626	591	46.1	52.1	505	7212	14.5	1.2	310	1534	.J4	1.46	1.46	1.51	3.93	3.70	D
312	1305	1941.5	20.9	168	202	109	47.7	295J	1930.3	3.30	3.90	633	549	46.1	52.2	504	7366	15.0	1.2	236	1491	.J4	1.45	1.45	1.51	3.93	3.70	D
313	1306	1942.0	25.3	158	186	110	45.0	296J	1930.5	3.30	3.90	637	587	46.1	52.1	504	7493	15.5	1.2	179	1451	.J4	1.36	1.35	1.51	3.93	3.70	D
314	1308	1942.5	13.3	159	186	110	47.3	296J	1930.9	3.30	3.90	636	613	46.1	52.1	502	7739	16.0	1.2	450	1415	.J5	1.60	1.59	1.51	3.93	3.70	D
315	1326	1943.0	18.4	147	173	109	43.9	262J	1932.7	3.30	3.90	580	501	46.2	51.4	499	8068	16.5	1.3	341	1394	.J5	1.45	1.45	1.51	3.93	3.70	D
316	1327	1943.5	19.0	162	186	114	46.3	262J	1932.9	3.30	3.90	594	543	46.2	51.2	498	8208	17.0	1.3	263	1356	.J5	1.49	1.48	1.51	3.91	3.70	D
317	1328	1944.0	10.5	164	204	114	44.2	262J	1932.9	3.30	3.90	594	533	46.2	51.2	499	8267	17.5	1.3	321	1320	.J5	1.65	1.64	1.51	3.91	3.70	D
318	1341	1944.5	15.4	160	192	110	44.4	292J	1933.6	3.30	3.90	633	596	49.9	51.5	497	8540	18.0	1.4	429	1299	.J5	1.52	1.51	1.51	3.90	3.70	D
319	1342	1945.0	27.9	164	188	109	45.5	293J	1933.6	3.30	3.90	633	575	49.9	51.5	495	8634	18.5	1.4	152	1263	.J5	1.34	1.34	1.51	3.90	3.70	D
320	1345	1945.5	10.4	162	190	110	47.0	294J	1934.4	3.30	3.90	632	601	50.2	52.3	496	8931	19.0	1.4	397	1241	.J5	1.67	1.67	1.51	3.89	3.70	D
321	1346	1946.0	11.0	158	180	110	48.4	294J	1934.7	3.30	3.90	627	564	50.1	51.9	496	9068	19.5	1.4	441	1216	.J5	1.67	1.67	1.51	3.89	3.70	D
322	1347	1946.5	9.01	167	210	109	49.6	293J	1934.9	3.30	3.90	628	566	50.1	51.9	495	9187	20.0	1.5	463	1189	.J6	1.75	1.74	1.52	3.89	3.70	D
323	1351	1947.0	3.09	154	186	110	49.9	294J	1935.7	3.30	3.90	631	574	50.4	52.3	495	9610	20.5	1.5	583	1176	.J6	1.79	1.79	1.52	3.86	3.70	D
324	1354	1947.5	9.30	159	202	110	52.8	295J	1936.4	3.30	3.90	632	605	50.7	52.7	495	9933	21.0	1.6	511	1159	.J6	1.79	1.79	1.52	3.81	3.70	D
325	1356	1948.0	16.2	161	192	110	52.5	295J	1936.8	3.30	3.90	627	600	50.9	52.9	494	10136	21.5	1.6	313	1139	.J6	1.60	1.60	1.52	3.81	3.70	D
326	1358	1948.5	16.7	161	190	110	52.2	294J	1937.2	3.30	3.90	627	596	51.1	53.1	494	10333	22.0	1.6	288	1120	.J6	1.59	1.59	1.52	3.80	3.70	D
327	1359	1949.0	22.4	162	188	110	49.8	294J	1937.5	3.30	3.90	632	590	51.1	53.1	494	10479	22.5	1.7	223	1101	.J6	1.47	1.47	1.52	3.80	3.70	D
328	1401	1949.5	16.6	163	186	110	52.4	295J	1937.9	3.30	3.90	629	593	51.2	53.5	494	10674	23.0	1.7	316	1083	.J7	1.60	1.59	1.53	3.80	3.70	D
329	1403	1950.0	12.4	161	188	110	42.5	295J	1938.5	3.30	3.90	631	589	51.4	53.7	493	10951	23.5	1.7	485	1069	.J7	1.58	1.58	1.53	3.80	3.70	D
330	1406	1950.5	12.0	161	186	110	41.4	296J	1938.9	3.30	3.90	631	583	51.7	53.3	493	11197	24.0	1.8	397	1055	.J7	1.58	1.57	1.53	3.80	3.70	D
331	1408	1951.0	12.0	158	182	110	42.6	296J	1939.4	3.30	3.90	626	575	51.9	53.4	491	11468	24.5	1.8	405	1041	.J7	1.59	1.59	1.53	3.80	3.70	D
332	1411	1951.5	9.79	154	190	110	42.2	295J	1940.2	3.30	3.90	634	593	52.2	53.3	485	11804	25.0	1.9	532	1031	.J7	1.65	1.65	1.54	3.80	3.70	D
333	1414	1952.0	10.7	161	206	110	41.2	296J	1941.2	3.30	3.90	632	576	52.3	53.4	486	12110	25.5	1.9	435	1020	.J7	1.61	1.61	1.54	3.80	3.70	D
334	1416	1952.5	14.0	154	184	111	39.1	296J	1942.1	3.30	3.90	631	598	52.3	53.4	486	12344	26.0	1.9	365	1007	.J8	1.51	1.50	1.54	3.80	3.70	D
335	1425	1953.0	18.6	153	180	110	40.7	296J	1943.9	3.30	3.90	599	497	52.9	52.9	483	12560	26.5	2.0	294	995	.J8	1.44	1.43	1.54	3.79	3.70	D
336	1426	1953.5	11.6	154	174	113	38.7	295J	1944.1	3.30	3.90	624	560	53.1	52.2	478	12669	27.0	2.0	399	980	.J8	1.68	1.68	1.53	3.79	3.70	D
337	1429	1954.0	3.45	151	186	112	43.7	294J	1944.1	3.30	3.90	629	584	53.0	52.2	463	13052	27.5	2.0	1654	972	.J8	1.72	1.72	1.54	3.79	3.70	D
338	1432	1954.5	9.69	158	206	113	45.3																					

KJORKAH NO.1

Data Printed at time 04:16 Date Dec 22 '85
Data Recorded at time 14:45 Date Dec 10 '85

#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	PRESS		IN	OUT	FLOW/MIN		TEMP (C)	PVT	THIS BIT			EST	KJC	KX	KXB	ECD	EST			
				AVG	MAX				PRESS	DEPTH			LN	OUT			LN	OUT	LN							OUT	REVS	m
342	1445	1956.5	3.35	154	190	113	44.5	2960	1945.9	3.30	3.90	632	573	52.3	52.6	463	14800	30.0	2.3	574	934	.09	1.72	1.71	1.55	3.30	3.70	D
343	1443	1957.0	3.82	150	192	114	43.5	2930	1946.5	3.30	3.90	632	544	52.4	52.3	465	15190	30.5	2.4	585	928	.09	1.72	1.71	1.55	3.30	3.70	D
344	1449	1957.5	24.5	155	208	113	43.3	2930	1946.6	3.30	3.90	633	559	52.4	52.6	465	15284	31.0	2.4	311	915	.09	1.39	1.38	1.55	3.30	3.70	D
345	1450	1958.0	29.7	158	182	113	42.2	2920	1946.3	3.30	3.90	634	569	52.4	52.6	465	15393	31.5	2.4	186	905	.09	1.32	1.31	1.55	3.30	3.70	D
346	1452	1958.5	14.3	157	186	113	46.0	2950	1947.1	3.30	3.90	630	575	52.5	52.7	468	15616	32.0	2.4	557	896	.10	1.58	1.57	1.55	3.30	3.70	D
347	1453	1959.0	37.3	157	194	113	42.4	2950	1947.2	3.30	3.90	631	567	52.5	52.7	467	15698	32.5	2.4	193	886	.10	1.25	1.24	1.55	3.30	3.70	D
348	1454	1959.5	23.1	158	183	113	42.3	2950	1947.5	3.30	3.90	630	561	52.5	52.4	467	15847	33.0	2.5	209	874	.10	1.40	1.39	1.55	3.30	3.70	D
349	1457	1960.0	3.23	157	200	113	44.9	2940	1948.2	3.30	3.90	631	563	52.5	52.8	465	16212	33.5	2.5	554	863	.10	1.75	1.74	1.55	3.30	3.70	D
350	1501	1960.5	3.01	158	198	113	45.5	2950	1949.3	3.30	3.90	634	561	52.6	52.3	466	16587	34.0	2.6	554	863	.10	1.73	1.72	1.55	3.30	3.70	D
351	1503	1961.0	11.0	166	202	112	46.3	2960	1950.0	3.30	3.90	634	568	52.7	53.1	465	16384	34.5	2.6	478	858	.10	1.68	1.67	1.56	3.30	3.70	D
352	1506	1961.5	9.60	157	188	113	45.3	2950	1950.7	3.30	3.90	630	563	52.3	52.9	465	17224	35.0	2.7	483	852	.11	1.71	1.70	1.56	3.30	3.70	D
353	1509	1962.0	7.64	151	180	113	44.9	2970	1951.2	3.30	3.90	629	565	52.9	52.9	465	17504	35.5	2.7	679	846	.11	1.77	1.76	1.56	3.30	3.70	D
354	1511	1962.5	11.4	151	172	113	44.9	2950	1951.6	3.30	3.90	633	557	52.9	53.2	465	17793	36.0	2.7	515	841	.11	1.64	1.64	1.56	3.30	3.70	D
355	1521	1963.0	13.9	151	176	111	39.5	2890	1953.2	3.30	3.90	623	529	53.1	53.1	474	18030	36.5	2.8	236	834	.11	1.42	1.42	1.56	3.79	3.70	D
356	1524	1963.5	10.3	159	204	112	45.9	2870	1953.3	3.30	3.90	629	575	53.1	53.1	476	18335	37.0	2.8	478	829	.11	1.69	1.68	1.56	3.79	3.70	D
357	1527	1964.0	9.78	158	188	110	45.1	2860	1953.7	3.30	3.90	631	564	53.0	53.3	476	18671	37.5	2.9	531	824	.11	1.69	1.68	1.57	3.30	3.70	D
358	1529	1964.5	17.4	168	232	109	47.4	2820	1954.1	3.30	3.90	631	569	53.0	53.3	477	18864	38.0	2.9	380	819	.12	1.53	1.52	1.56	3.30	3.70	D
359	1529	1965.0	38.2	162	190	111	42.6	2830	1954.2	3.30	3.90	632	628	53.0	53.3	476	18943	38.5	2.9	125	809	.12	1.24	1.23	1.57	3.30	3.70	D
360	1531	1965.5	28.5	162	194	111	41.1	2810	1954.4	3.30	3.90	633	630	52.9	53.2	478	19061	39.0	2.9	162	801	.12	1.31	1.31	1.56	3.30	3.70	D
361	1532	1966.0	15.3	158	198	110	42.6	2830	1954.7	3.30	3.90	631	603	52.9	53.4	480	19263	39.5	3.0	336	796	.12	1.51	1.50	1.56	3.30	3.70	D
362	1533	1966.5	37.0	162	212	110	41.6	2890	1954.9	3.30	3.90	632	612	52.9	53.4	478	19352	40.0	3.0	129	786	.12	1.23	1.23	1.56	3.30	3.70	D
363	1539	1967.0	21.5	151	178	107	42.0	2620	1955.6	3.30	3.90	588	556	53.1	53.5	477	19516	40.5	3.0	461	780	.12	1.40	1.39	1.56	3.30	3.70	D
364	1540	1967.5	19.4	159	190	111	44.2	2610	1955.9	3.30	3.90	591	604	53.1	53.5	476	19684	41.0	3.0	270	773	.12	1.46	1.46	1.56	3.30	3.70	D
365	1543	1968.0	9.50	155	190	113	43.3	2620	1956.2	3.30	3.90	591	607	53.2	53.0	474	20001	41.5	3.1	475	770	.12	1.69	1.68	1.56	3.30	3.70	D
366	1546	1968.5	3.93	154	186	114	44.4	2620	1956.3	3.30	3.90	591	586	53.2	53.1	474	20402	42.0	3.1	533	767	.13	1.72	1.71	1.57	3.30	3.70	D
367	1550	1969.0	9.27	154	178	112	43.5	2610	1957.1	3.30	3.90	591	609	53.0	53.3	472	20762	42.5	3.2	522	765	.13	1.69	1.68	1.57	3.30	3.70	D
368	1553	1969.5	9.00	154	176	110	43.7	2620	1957.9	3.30	3.90	591	609	52.9	53.3	466	21126	43.0	3.2	554	762	.13	1.70	1.69	1.57	3.30	3.70	D
369	1556	1970.0	10.4	157	188	110	45.5	2620	1959.0	3.30	3.90	592	616	52.9	53.3	462	21453	43.5	3.3	502	759	.13	1.67	1.66	1.57	3.30	3.70	D
370	1559	1970.5	9.71	154	184	110	44.3	2610	1959.3	3.30	3.90	591	611	53.0	53.3	462	21782	44.0	3.3	526	757	.13	1.68	1.67	1.58	3.79	3.70	D
371	1602	1971.0	11.1	155	184	110	44.0	2610	1960.2	3.30	3.90	591	594	53.0	53.2	462	22086	44.5	3.4	453	753	.14	1.63	1.63	1.58	3.79	3.70	D
372	1605	1971.5	9.64	154	186	110	43.2	2630	1960.7	3.30	3.90	592	611	53.1	53.1	465	22414	45.0	3.4	529	750	.14	1.67	1.66	1.58	3.79	3.70	D
373	1614	1972.0	21.7	148	174	111	36.1	2980	1961.3	3.30	3.90	631	613	53.2	53.3	471	22617	45.5	3.5	247	745	.14	1.35	1.34	1.58	3.78	3.70	D
374	1617	1972.5	9.71	152	172	116	41.2	2320	1962.3	3.30	3.90	609	619	53.2	52.8	472	22969	46.0	3.5	1131	743	.14	1.66	1.65	1.58	3.78	3.70	D
375	1620	1973.0	11.0	153	180	115	42.8	2870	1962.8	3.30	3.90	620	629	53.2	52.8	472	23278	46.5	3.6	487	740	.14	1.64	1.63	1.59	3.78	3.70	D
376	1622	1973.5	12.2	153	180	113	42.4	2940	1962.8	3.30	3.90	631	630	53.2	53.1	475	23555	47.0	3.6	392	736	.14	1.60	1.59	1.59	3.78	3.70	D
377	1626	1974.0	3.82	154	180	112	43.4	2960	1963.2	3.30	3.90	631	642	53.3	53.5	474	23953	47.5	3.7	595	735	.15	1.71	1.70	1.59	3.79	3.70	D
378	1627	1974.5	26.5	155	180	112	39.0	2950	1963.4	3.30	3.90	632	639	53.4	53.3	472	24069	48.0	3.7	300	730	.15	1.32	1.31	1.59	3.30	3.70	D
379	1627	1975.0	64.9	168	194	111	38.0	2930	1963.4	3.30	3.90	628	627	53.4	53.3	472	24119	48.5	3.7	87	724	.15	1.30	1.30	1.59	3.81	3.70	D
380	1633	1975.5	21.3	136	176	112	41.9	2950	1963.9	3.30	3.90	623	611	53.5	53.7	470	24272	49.0	3.7	605	717	.15	1.41	1.40	1.59	3.82	3.70	D
381	1635	1976.0	9.22	160	190	110	44.7	2960	1964.4	3.30	3.90	627	647	53.6	53.1	472	24575	49.5	3.8	767	715	.15	1.69	1.69	1.59	3.83	3.70	D
382	1638	1976.5	3.30	155	178	110	43.7	2970	1965.8	3.30	3.90	627	627	53.6	53.4	475	24905	50.0	3.8	556	713	.15	1.70	1.69	1.59	3.83	3.70	D
383	1641	1977.0	12.9	156	196	109	44.3	2970	1966.7	3.30	3.90	632	623	53.7	53.5	473	25161	50.4	3.8	451	711	.15	1.59	1.58	1.59	3.82	3.70	D
384	1642	1977.5	13.5	163	198	109	42.3	2960	1967.1	3.30	3.90	630	620	53.6	53.4	473	25336	51.0	3.9	254	705	.16	1.45	1.45	1.59	3.83	3.70	D
385	1645	1978.0	9.43	155	198	110	44.9	2970	1967.5	3.30	3.90	629	604	53.6	53.3	476	25682	51.5	3.9	558	703	.16	1.69	1.68	1.59	3.83	3.70	D
386	1649	1978.5	3.99	164	230	109	44.2	2970	1968.2	3.30	3.90	631	627	53.7	53.7	476	26345	52.0	4.0	557	702	.16	1.70	1.69	1.60	3.83	3.70	D
387	1652	1979.0	10.5	153	188	110	43.3	2980	1968.7	3.30	3.90	632	612	53.7	53.6	478	26356	52.5	4.0	470	700	.16	1.64	1.63	1.60	3.83	3.70	D
388	1655	1979.5	9.37	155																								

F#	TIME	DEPTH	ROP	TORQUE		RPM	OB	PUMP	RTNS	M lb/gal		FLOW/MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	DNC	IX	KKB	ECD	EST			
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs							LAST	RUN	P/I
392	1712	1931.5	17.3	153	132	115	42.0	2990	1971.5	3.30	3.90	631	614	54.0	53.6	485	27770	55.0	4.2	300	688	.17	1.43	1.47	1.60	3.33	3.70	D
393	1714	1932.0	14.5	151	130	115	43.0	3000	1971.7	3.30	3.90	633	614	53.3	53.5	484	27988	55.5	4.3	343	685	.17	1.55	1.54	1.60	3.34	3.70	D
394	1717	1932.5	9.54	149	173	114	42.2	2980	1971.3	3.30	3.90	632	581	53.7	53.9	435	23347	56.0	4.3	431	683	.17	1.66	1.65	1.60	3.35	3.70	D
395	1720	1933.0	3.32	151	172	116	39.4	2730	1972.5	3.30	3.90	601	606	53.6	53.7	487	23776	56.5	4.4	555	682	.13	1.69	1.67	1.61	3.35	3.70	D
396	1723	1933.5	11.6	155	192	116	38.9	2760	1973.0	3.30	3.90	603	602	53.6	54.0	487	29038	57.0	4.4	422	680	.13	1.57	1.56	1.60	3.35	3.70	D
397	1725	1934.0	12.0	156	186	114	39.5	2860	1973.4	3.30	3.90	617	584	53.6	53.3	487	29349	57.5	4.5	410	678	.13	1.56	1.55	1.60	3.35	3.70	D
398	1728	1934.5	12.7	153	173	111	39.9	2850	1973.9	3.30	3.90	617	616	53.6	54.0	487	29620	58.0	4.5	394	676	.13	1.54	1.53	1.60	3.36	3.70	D
399	1731	1935.0	3.44	150	172	113	44.1	2870	1975.0	3.30	3.90	618	588	53.7	53.7	487	30000	58.5	4.6	673	675	.13	1.72	1.71	1.60	3.35	3.70	D
400	1735	1935.5	7.33	161	232	111	45.2	2330	1975.3	3.30	3.90	619	609	53.7	54.2	487	30423	59.0	4.6	614	674	.13	1.73	1.77	1.61	3.32	3.70	D
401	1737	1936.0	16.7	162	232	109	42.9	2850	1976.1	3.30	3.90	618	597	53.7	54.2	487	30622	59.5	4.7	313	671	.19	1.49	1.48	1.61	3.32	3.70	D
402	1740	1936.5	11.0	146	193	112	44.4	2860	1976.6	3.30	3.90	613	580	53.3	54.2	487	30935	60.0	4.7	675	671	.19	1.65	1.64	1.61	3.31	3.70	D
403	1742	1937.0	11.3	156	193	112	44.3	2850	1977.0	3.30	3.90	613	596	53.3	54.5	483	31202	60.5	4.7	408	667	.19	1.62	1.61	1.61	3.31	3.70	D
404	1745	1937.5	10.3	161	222	111	46.2	2850	1977.6	3.30	3.90	613	622	53.3	54.9	488	31527	61.0	4.3	469	666	.19	1.67	1.66	1.61	3.31	3.70	D
405	1748	1938.0	10.7	155	194	112	43.3	2840	1978.1	3.30	3.90	618	596	53.3	54.9	487	31321	61.5	4.3	456	664	.20	1.65	1.64	1.61	3.31	3.70	D
406	1750	1938.5	10.4	152	184	112	42.6	2860	1978.5	3.30	3.90	619	599	54.0	55.0	490	32144	62.0	4.9	492	663	.20	1.64	1.63	1.62	3.31	3.70	D
407	1753	1939.0	9.71	155	194	112	45.1	2860	1979.1	3.30	3.90	619	615	54.0	54.5	491	32437	62.5	4.9	495	661	.20	1.69	1.68	1.62	3.31	3.70	D
408	1756	1939.5	14.4	152	190	112	43.7	2860	1979.5	3.30	3.90	618	609	54.1	54.9	492	32720	63.0	5.0	382	659	.20	1.55	1.54	1.62	3.31	3.70	D
409	1758	1939.0	13.7	159	194	112	44.4	2850	1979.3	3.30	3.90	618	603	54.2	54.7	492	32949	63.5	5.0	370	657	.20	1.58	1.57	1.62	3.31	3.70	D
410	1807	1940.5	14.6	148	190	109	38.5	2860	1980.9	3.30	3.90	617	514	54.2	54.1	481	33074	64.0	5.0	313	654	.20	1.47	1.46	1.62	3.31	3.70	DX
411	1807	1941.0	15.6	157	196	109	38.0	2860	1981.0	3.30	3.90	618	558	54.3	54.6	471	33152	64.5	5.0	432	649	.20	1.47	1.48	1.62	3.31	3.70	D
412	1809	1941.5	16.9	159	182	110	40.3	2860	1981.2	3.30	3.90	618	601	54.3	54.6	446	33344	65.0	5.1	403	646	.20	1.46	1.45	1.62	3.31	3.70	D
413	1812	1942.0	11.2	157	196	110	41.2	2860	1981.3	3.30	3.90	617	572	54.1	54.0	444	33633	65.5	5.1	459	645	.21	1.60	1.59	1.61	3.32	3.70	D
414	1815	1942.5	9.43	155	190	110	41.6	2860	1981.3	3.30	3.90	617	598	54.0	54.5	440	33983	66.0	5.2	504	644	.21	1.65	1.64	1.62	3.32	3.70	D
415	1817	1943.0	12.1	154	184	110	41.6	2840	1982.2	3.30	3.90	615	579	53.9	54.2	437	34255	66.5	5.2	429	642	.21	1.58	1.57	1.62	3.32	3.70	D
416	1821	1943.5	3.36	157	182	110	42.1	2780	1982.3	3.30	3.90	616	602	53.3	55.1	432	34631	67.0	5.3	557	641	.21	1.63	1.67	1.62	3.32	3.70	D
417	1824	1944.0	3.98	155	194	110	43.0	2850	1983.3	3.30	3.90	617	576	53.3	54.2	431	34990	67.5	5.3	595	641	.21	1.63	1.67	1.62	3.32	3.70	D
418	1825	1944.5	19.6	163	183	110	41.3	2850	1983.5	3.30	3.90	617	582	53.3	54.2	432	35157	68.0	5.3	270	638	.22	1.42	1.41	1.62	3.32	3.70	D
419	1827	1945.0	18.9	166	276	109	41.6	2850	1983.9	3.30	3.90	617	594	53.3	54.7	431	35328	68.5	5.4	252	635	.22	1.44	1.43	1.62	3.32	3.70	D
420	1829	1945.5	16.3	171	230	109	40.6	2850	1984.3	3.30	3.90	616	593	53.9	54.5	430	35535	69.0	5.4	360	633	.22	1.47	1.46	1.62	3.32	3.70	D
421	1832	1946.0	9.45	196	288	108	42.4	2840	1984.3	3.30	3.90	617	591	53.9	54.2	431	35850	69.5	5.4	835	632	.22	1.66	1.65	1.62	3.32	3.70	D
422	1835	1946.5	10.3	153	186	111	41.5	2840	1985.3	3.30	3.90	616	579	53.9	54.1	433	36149	70.0	5.5	466	631	.22	1.63	1.62	1.62	3.32	3.70	D
423	1836	1947.0	17.6	159	192	110	42.5	2830	1985.5	3.30	3.90	617	592	54.0	54.5	433	36336	70.5	5.5	282	623	.22	1.47	1.46	1.62	3.32	3.70	D
424	1838	1947.5	14.4	156	180	109	40.6	2840	1985.9	3.30	3.90	616	587	54.0	54.1	434	36562	71.0	5.6	337	626	.22	1.51	1.50	1.62	3.32	3.70	D
425	1841	1948.0	11.6	157	180	110	41.3	2830	1986.4	3.30	3.90	616	622	54.0	54.4	434	36850	71.5	5.6	465	625	.23	1.59	1.58	1.61	3.32	3.70	D
426	1843	1948.5	15.6	151	176	110	41.0	2850	1986.3	3.30	3.90	616	614	54.0	54.1	433	37044	72.0	5.6	432	624	.23	1.49	1.48	1.61	3.32	3.70	D
427	1845	1949.0	11.4	155	222	110	40.3	2830	1987.3	3.30	3.90	612	648	54.0	54.1	435	37337	72.5	5.7	437	622	.23	1.58	1.57	1.61	3.32	3.70	D
428	1856	1949.6	14.6	148	196	110	36.9	2880	1988.6	3.30	3.90	612	616	54.1	54.2	443	37624	73.0	5.7	513	621	.23	1.46	1.45	1.61	3.32	3.70	D
429	1859	2000.0	3.74	156	204	110	43.9	2870	1989.1	3.30	3.90	619	644	54.1	53.9	442	37914	73.5	5.8	566	619	.23	1.71	1.70	1.61	3.32	3.70	D
430	1902	2000.5	8.39	149	182	110	41.5	2880	1989.3	3.30	3.90	621	647	53.9	54.0	442	38307	74.0	5.8	609	619	.23	1.67	1.66	1.61	3.32	3.70	D
431	1906	2001.0	7.13	150	184	111	42.3	2850	1990.7	3.30	3.90	617	640	53.8	53.9	442	38744	74.5	5.9	608	619	.24	1.76	1.75	1.62	3.31	3.70	D
432	1910	2001.5	7.29	152	184	110	42.3	2880	1991.2	3.30	3.90	620	650	53.7	54.3	465	39197	75.0	6.0	710	620	.24	1.75	1.74	1.62	3.31	3.70	D
433	1914	2002.0	7.32	159	216	111	44.7	2870	1992.2	3.30	3.90	621	651	51.9	54.5	468	39667	75.5	6.0	764	620	.24	1.77	1.76	1.62	3.31	3.70	D
434	1917	2002.5	10.3	157	198	111	49.4	2850	1992.6	3.30	3.90	617	633	52.0	54.5	468	39969	76.0	6.1	635	619	.24	1.71	1.69	1.63	3.31	3.70	D
435	1918	2003.0	22.0	165	194	110	47.4	2860	1992.9	3.30	3.90	621	643	52.3	54.4	468	40117	76.5	6.1	231	617	.25	1.45	1.44	1.62	3.31	3.70	D
436	1920	2003.5	19.9	170	216	111	48.7	2860	1993.3	3.30	3.90	621	629	52.5	54.1	469	40232	77.0	6.1	269	615	.25	1.50	1.49	1.62	3.31	3.70	D
437	1922	2004.0	14.8	156	216	110	46.7	2840	1993.5	3.30	3.90	617	633	52.5	54.1	467	40510	77.5	6.1	414	613	.25	1.57	1.56	1.62	3.31	3.70	D
438	1926	2004.5	7.12	157	184	111	46.4</																					

KOORCAH ID.1

Data Printed at time 14:24 Date Dec 22 '85
Data Recorded at time 19:34 Date Dec 13 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTNS		AT lb/gal		FLOW/MLJ		TEMP (C) IN OUT	PVT	-----THIS BIT-----			EST TWT	KJC	KX	KKB	KCD	EST EM PR			
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	REVS			n	hrs										
442	1934	2306.5	13.2	164	233	111	44.3	2850	1996.1	3.30	3.90	621	651	53.2	54.0	471	41319	30.0	6.3	338	605	.26	1.49	1.48	1.62	3.31	3.70	D
443	1936	2307.0	13.0	161	202	110	46.1	2840	1996.4	3.30	3.90	613	613	53.2	54.0	472	42050	30.5	6.4	436	605	.26	1.61	1.59	1.62	3.31	3.70	D
444	1937	2307.6	35.1	130	340	92	42.7	2840	1996.6	3.30	3.90	611	647	53.3	53.9	474	42133	31.0	6.4	155	602	.26	1.20	1.20	1.62	3.32	3.70	D
445	1938	2308.0	20.9	164	206	114	42.9	2820	1997.0	3.30	3.90	620	632	53.3	53.9	475	42234	31.5	6.4	313	600	.26	1.43	1.42	1.62	3.32	3.70	D
446	1940	2308.5	22.7	166	204	114	45.6	2850	1997.3	3.30	3.90	617	659	53.3	53.9	475	42433	32.0	6.4	220	597	.26	1.43	1.42	1.62	3.32	3.70	D
447	1949	2309.0	17.1	148	132	111	43.5	2890	1998.3	3.72	3.79	616	620	53.4	53.3	472	42660	32.5	6.5	564	596	.26	1.49	1.48	1.62	3.31	3.70	D
448	1952	2309.5	13.2	158	200	110	45.3	2900	1999.3	3.30	3.90	625	659	53.4	53.4	474	42993	33.0	6.5	479	595	.26	1.63	1.67	1.62	3.31	3.70	D
449	1955	2310.0	9.27	154	130	110	44.7	2900	1999.5	3.30	3.90	620	646	53.4	53.3	474	43319	33.5	6.6	510	594	.27	1.70	1.68	1.62	3.31	3.70	D
450	1957	2310.5	12.3	155	196	110	45.2	2900	1999.5	3.30	3.90	625	641	53.4	53.6	473	43553	34.0	6.6	382	593	.27	1.60	1.59	1.62	3.32	3.70	D
451	1958	2311.0	2.67	160	136	111	45.1	2830	1999.5	3.30	3.90	623	644	53.4	53.6	475	43694	34.5	6.6	570	591	.27	2.10	2.03	1.62	3.32	3.70	D
452	2002	2311.5	9.34	151	204	110	46.1	2900	2000.3	3.30	3.90	620	650	53.3	53.3	475	44074	35.0	6.7	604	591	.27	1.72	1.71	1.63	3.32	3.70	D
453	2005	2312.0	3.14	154	176	110	46.2	2890	2000.3	3.30	3.90	624	651	53.4	53.3	474	44442	35.5	6.7	611	590	.27	1.76	1.74	1.63	3.32	3.70	D
454	2008	2312.5	9.50	158	190	110	46.0	2890	2001.2	3.30	3.90	622	648	53.4	54.0	477	44739	36.0	6.3	450	590	.28	1.70	1.69	1.63	3.32	3.70	D
455	2012	2313.0	6.95	150	194	110	45.6	2830	2001.3	3.30	3.90	617	652	53.5	54.0	476	45260	36.5	6.9	661	591	.28	1.30	1.79	1.63	3.32	3.70	D
456	2016	2313.5	9.32	158	132	110	46.0	2830	2002.2	3.30	3.90	625	663	53.5	53.3	478	45610	37.0	6.9	543	590	.28	1.69	1.68	1.64	3.32	3.70	D
457	2019	2314.0	3.47	156	132	110	45.4	2830	2002.5	3.30	3.90	624	666	53.6	53.8	477	45935	37.5	7.0	533	590	.28	1.73	1.72	1.64	3.32	3.70	D
458	2022	2314.5	13.3	153	184	110	44.4	2890	2003.4	3.30	3.90	621	635	53.6	53.6	477	46255	38.0	7.0	543	589	.29	1.66	1.65	1.64	3.32	3.70	D
459	2024	2315.0	15.8	162	192	110	44.7	2890	2004.1	3.30	3.90	624	659	53.6	53.6	478	46430	38.5	7.1	289	588	.29	1.53	1.51	1.64	3.32	3.70	D
460	2025	2315.5	21.6	161	192	110	44.3	2830	2004.4	3.30	3.90	626	633	53.6	53.6	479	46610	39.0	7.1	214	586	.29	1.43	1.42	1.64	3.32	3.70	D
461	2026	2316.0	29.4	175	223	109	43.3	2830	2004.6	3.30	3.90	625	652	53.6	53.6	476	46723	39.5	7.1	142	583	.29	1.32	1.30	1.64	3.32	3.70	D
462	2029	2316.5	9.32	153	136	110	44.9	2830	2005.0	3.30	3.90	625	646	53.6	53.7	478	47070	40.0	7.1	595	583	.29	1.70	1.68	1.64	3.32	3.70	D
463	2031	2317.0	12.1	159	134	110	42.9	2830	2005.5	3.30	3.90	625	651	53.6	53.3	475	47336	40.5	7.2	403	582	.29	1.59	1.58	1.64	3.32	3.70	D
464	2034	2317.5	12.2	158	192	110	44.3	2870	2006.2	3.30	3.90	621	654	53.6	53.3	477	47593	41.0	7.2	387	581	.29	1.61	1.59	1.64	3.32	3.70	D
465	2036	2318.0	12.4	160	138	110	45.1	2870	2006.9	3.30	3.90	625	648	53.6	53.7	479	47859	41.5	7.3	364	580	.30	1.61	1.60	1.64	3.32	3.70	D
466	2045	2318.5	12.3	131	176	104	43.6	2870	2009.0	3.30	3.90	617	596	53.6	53.7	479	47960	42.0	7.3	532	573	.30	1.59	1.58	1.64	3.31	3.70	DX
467	2046	2319.0	13.7	160	136	109	44.7	2870	2009.3	3.30	3.90	615	647	53.5	53.5	478	48099	42.5	7.3	275	576	.30	1.47	1.46	1.64	3.31	3.70	D
468	2048	2319.5	15.9	161	192	110	44.3	2870	2009.4	3.30	3.90	616	640	53.4	53.2	476	48310	43.0	7.3	336	575	.30	1.52	1.51	1.63	3.31	3.70	D
469	2050	2320.0	16.3	161	132	109	43.3	2830	2009.4	3.30	3.90	623	643	53.4	53.2	474	48437	43.5	7.4	290	573	.30	1.49	1.47	1.63	3.32	3.70	D
470	2052	2320.5	14.3	158	200	109	41.7	2870	2009.3	3.30	3.90	623	658	53.3	53.1	475	48716	44.0	7.4	326	572	.30	1.51	1.50	1.63	3.32	3.70	D
471	2054	2321.0	15.4	168	206	109	42.5	2860	2010.1	3.30	3.90	623	662	53.2	53.4	474	48913	44.5	7.4	307	570	.30	1.51	1.50	1.63	3.32	3.70	D
472	2056	2321.5	14.3	166	198	109	43.6	2860	2010.5	3.30	3.90	624	661	53.2	53.3	474	49156	45.0	7.5	447	570	.30	1.54	1.53	1.63	3.32	3.70	D
473	2058	2322.0	14.4	157	134	109	43.9	2870	2010.9	3.30	3.90	620	666	53.1	54.0	472	49377	45.5	7.5	396	563	.31	1.55	1.53	1.63	3.32	3.70	D
474	2100	2322.5	13.0	155	192	109	44.4	2840	2011.4	3.30	3.90	619	625	53.1	53.9	470	49623	46.0	7.5	359	567	.31	1.58	1.57	1.62	3.32	3.70	D
475	2103	2323.0	9.60	156	174	110	44.3	2870	2011.9	3.30	3.90	622	644	53.1	53.3	469	49972	46.5	7.6	517	567	.31	1.68	1.67	1.63	3.32	3.70	D
476	2106	2323.5	9.83	155	136	109	44.0	2850	2012.2	3.30	3.90	623	633	53.1	53.7	467	50295	47.0	7.6	497	567	.31	1.67	1.65	1.63	3.32	3.70	D
477	2109	2324.0	13.1	158	134	110	44.2	2850	2012.7	3.30	3.90	621	651	53.2	53.9	466	50620	47.5	7.7	533	566	.31	1.66	1.65	1.63	3.32	3.70	D
478	2112	2324.5	10.7	156	176	110	43.3	2850	2013.1	3.30	3.90	613	630	53.3	53.6	466	50926	48.0	7.7	481	566	.32	1.64	1.62	1.63	3.32	3.70	D
479	2114	2325.0	11.5	155	136	109	44.3	2860	2013.5	3.30	3.90	613	641	53.3	53.3	464	51209	48.5	7.3	457	565	.32	1.62	1.61	1.63	3.32	3.70	D
480	2118	2325.5	9.34	164	214	109	43.9	2860	2014.1	3.30	3.90	623	642	53.3	53.7	464	51557	49.0	7.3	468	565	.32	1.68	1.67	1.63	3.32	3.70	D
481	2120	2326.0	11.1	159	178	109	43.9	2870	2014.5	3.30	3.90	623	644	53.4	53.9	464	51365	49.5	7.9	458	564	.32	1.63	1.61	1.63	3.32	3.70	D
482	2122	2326.5	16.1	159	190	110	43.7	2860	2014.3	3.30	3.90	612	652	53.4	53.9	464	52051	50.0	7.9	276	563	.32	1.51	1.50	1.63	3.32	3.70	D
483	2123	2327.0	33.5	171	194	109	43.1	2860	2015.0	3.30	3.90	619	643	53.4	53.8	464	52140	50.5	7.9	161	561	.32	1.27	1.26	1.63	3.32	3.70	D
484	2124	2327.5	40.3	173	206	109	43.2	2870	2015.1	3.30	3.90	622	641	53.4	53.3	464	52209	51.0	7.9	103	559	.32	1.22	1.20	1.63	3.32	3.70	D
485	2132	2328.0	75.1	152	206	101	35.7	2870	2016.7	3.30	3.90	599	580	53.5	53.8	466	52275	51.5	7.9	37	557	.32	1.94	1.93	1.63	3.32	3.70	DX
486	2132	2328.5	67.2	179	214	110	40.2	2890	2016.3	3.30	3.90	616	614	53.5	53.8	465	52320	52.0	7.9	72	555	.32	1.34	1.32	1.63	3.32	3.70	D
487	2133	2329.0	63.2	192	250	106	42.6	2830	2016.9	3.30	3.90	622	637	53.5	53.5	464	52366	52.5	8.0	70	552	.32	1.36	1.35	1.63	3.32	3.70	D
488	2133	2329.5	62.1	202	274	106	40.0	2																				

KOORCAH D.1

Data Printed at time 14:28 Date Dec 22 '85
Data Recorded at time 22:31 Date Dec 11 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTNS	M/Lb/gal		FLD//ALI		TEMP (C)		PVT	---THIS BIT---			---COST---		BSP	DKC	K	K3	ECD	EST	
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN							PI
+ Circulate bottoms up at 2331a.																												
493	2303	2331.5	32.1	142	193	106	39.7	2130	2331.6	3.30	3.90	529	576	56.7	57.4	430	52692	105	3.3	156	542	.33	1.25	1.24	1.63	3.75	3.70	D
494	2304	2332.0	32.3	173	202	106	40.7	2120	2331.6	3.30	3.90	531	568	56.7	57.4	431	52729	105	3.3	30	543	.33	1.98	.96	1.63	3.75	3.70	D
495	2305	2332.5	28.3	171	204	105	44.0	2130	2331.6	3.30	3.90	534	579	56.0	56.9	430	52833	106	3.3	155	538	.33	1.33	1.32	1.63	3.76	3.70	D
496	2307	2333.0	13.3	162	186	109	45.1	2110	2331.6	3.30	3.90	533	531	56.0	55.6	432	53135	106	3.1	679	537	.33	1.66	1.65	1.63	3.76	3.70	D
497	2311	2333.5	3.30	162	182	108	45.1	2100	2331.6	3.30	3.90	534	587	56.1	55.4	432	53525	107	3.1	539	537	.33	1.74	1.73	1.64	3.76	3.70	D
498	2313	2334.0	15.0	161	186	107	43.9	2130	2331.6	3.30	3.90	534	573	56.1	55.5	433	53748	107	3.2	384	537	.33	1.54	1.52	1.63	3.76	3.70	D
499	2315	2334.5	12.0	162	186	109	44.5	2170	2331.6	3.30	3.90	540	590	56.1	55.5	432	54009	108	3.2	415	536	.33	1.62	1.61	1.63	3.77	3.70	D
500	2317	2335.0	14.7	165	184	109	44.9	2190	2331.6	3.30	3.90	534	581	56.1	55.3	431	54230	108	3.2	392	535	.34	1.56	1.54	1.63	3.77	3.70	D
501	2319	2335.5	15.2	167	182	110	46.2	2170	2331.6	3.30	3.90	540	593	56.0	54.9	431	54445	109	3.3	326	534	.34	1.56	1.55	1.63	3.77	3.70	D
502	2322	2336.0	13.3	166	182	110	46.5	2150	2331.6	3.30	3.90	539	587	56.0	54.8	432	54690	109	3.3	359	533	.34	1.61	1.59	1.63	3.78	3.70	D
503	2323	2336.5	23.3	169	212	109	46.3	2150	2331.6	3.30	3.90	538	590	56.0	54.3	430	54345	110	3.3	237	532	.34	1.46	1.45	1.63	3.78	3.70	D
504	2338	2337.0	21.5	153	194	109	41.9	2200	2331.6	3.30	3.90	491	534	55.6	54.9	434	55052	110	3.4	208	531	.34	1.41	1.39	1.63	3.78	3.70	D
505	2339	2337.5	29.3	164	178	115	42.3	2210	2331.6	3.30	3.90	536	570	55.5	54.8	431	55149	111	3.4	139	529	.34	1.33	1.31	1.62	3.78	3.70	D
506	2341	2338.0	18.1	164	184	116	44.7	2210	2331.6	3.30	3.90	542	588	55.5	54.8	433	55349	111	3.4	355	528	.34	1.51	1.49	1.62	3.79	3.70	D
507	2342	2338.5	15.2	169	190	117	44.9	2210	2331.6	3.30	3.90	543	580	55.3	54.3	432	55560	112	3.4	347	527	.35	1.57	1.55	1.62	3.79	3.70	D
508	2344	2339.0	15.5	169	200	117	44.3	2210	2331.6	3.30	3.90	543	587	55.2	53.9	431	55779	112	3.5	319	526	.35	1.55	1.54	1.62	3.79	3.70	D
509	2346	2339.5	18.7	169	202	116	44.1	2200	2331.6	3.30	3.90	542	571	55.2	53.9	431	55951	113	3.5	306	525	.35	1.49	1.47	1.62	3.79	3.70	D
510	2347	2340.0	15.3	172	202	117	44.3	2210	2331.6	3.30	3.90	543	595	55.1	54.1	429	56154	113	3.5	287	524	.35	1.55	1.53	1.62	3.80	3.70	D
511	2349	2340.5	25.4	171	196	117	43.5	2200	2331.6	3.30	3.90	542	591	55.1	54.1	431	56288	114	3.5	187	523	.35	1.39	1.37	1.61	3.80	3.70	D
512	2350	2341.0	15.5	168	184	117	44.3	2200	2331.6	3.30	3.90	543	589	55.0	54.3	429	56495	114	3.6	319	522	.35	1.55	1.54	1.61	3.80	3.70	D
513	2351	2341.5	33.4	175	193	117	42.9	2210	2331.6	3.30	3.90	542	587	55.0	54.3	432	56599	115	3.6	141	520	.35	1.30	1.28	1.62	3.81	3.70	D
514	2352	2342.0	51.3	177	194	117	42.7	2210	2331.6	3.30	3.90	542	579	55.0	54.3	433	56665	115	3.6	106	519	.35	1.16	1.14	1.61	3.81	3.70	D
515	2352	2342.5	37.9	171	200	116	42.3	2210	2331.6	3.30	3.90	542	587	55.0	54.3	432	56706	116	3.6	54	517	.35	1.99	.97	1.62	3.81	3.70	D
516	2353	2343.0	60.8	169	188	118	41.2	2210	2331.6	3.30	3.90	542	590	54.9	54.2	433	56759	116	3.6	79	515	.35	1.10	1.08	1.61	3.82	3.70	D
517	2355	2343.5	11.7	163	252	117	44.7	2210	2331.6	3.30	3.90	543	587	54.9	54.2	433	57040	117	3.6	737	514	.35	1.64	1.62	1.61	3.82	3.70	D
518	2357	2344.0	16.8	164	180	117	43.9	2200	2331.6	3.30	3.90	543	595	54.3	54.0	434	57251	117	3.7	311	513	.36	1.52	1.50	1.61	3.82	3.70	D
519	2358	2344.5	31.2	172	192	116	42.9	2210	2331.6	3.30	3.90	542	593	54.3	54.0	434	57362	118	3.7	171	512	.36	1.31	1.30	1.61	3.82	3.70	D
520	2359	2345.0	33.3	166	194	117	41.5	2210	2331.6	3.30	3.90	542	586	54.3	54.2	433	57469	118	3.7	148	510	.36	1.28	1.26	1.61	3.83	3.70	D
Date Dec 11 '85																												
521	0001	2345.5	12.2	153	186	117	43.5	2210	2331.6	3.30	3.90	542	585	54.3	54.2	433	57731	119	3.7	680	510	.36	1.61	1.60	1.61	3.83	3.70	D
522	0015	2346.0	15.6	149	202	115	43.3	2230	2331.6	3.30	3.90	539	543	54.6	52.0	438	58007	119	3.8	340	509	.36	1.53	1.51	1.61	3.83	3.70	D
523	0015	2346.5	56.8	160	202	115	36.4	2320	2331.6	3.30	3.90	539	578	54.6	52.0	438	58059	120	3.8	37	507	.36	1.07	1.05	1.61	3.83	3.70	D
524	0017	2347.0	14.7	165	200	118	44.3	2340	2331.6	3.30	3.90	555	606	54.5	53.3	437	58280	120	3.8	436	507	.36	1.57	1.55	1.61	3.84	3.70	D
525	0019	2347.5	19.6	163	198	118	43.5	2340	2331.7	3.30	3.90	557	600	54.4	53.7	439	58459	121	3.9	271	506	.36	1.47	1.45	1.61	3.84	3.70	D
526	0020	2348.0	16.0	164	190	118	43.1	2340	2332.2	3.30	3.90	557	607	54.4	53.7	439	58686	121	3.9	374	505	.37	1.53	1.51	1.61	3.84	3.70	D
527	0022	2348.5	14.5	166	192	118	43.2	2440	2332.3	3.30	3.90	558	602	54.4	53.6	437	58922	122	3.9	356	504	.37	1.56	1.54	1.61	3.84	3.70	D
528	0023	2349.0	54.3	207	324	114	40.6	2620	2333.0	3.30	3.90	570	616	54.4	53.6	438	58938	122	3.9	39	502	.37	1.11	1.10	1.61	3.84	3.70	D
529	0023	2349.5	102	207	324	39	39.8	2590	2333.0	3.30	3.90	577	621	54.4	53.6	438	59008	123	3.9	47	501	.37	1.84	.83	1.61	3.85	3.70	D
530	0028	2350.0	47.7	176	362	111	15.2	2550	2334.1	3.30	3.90	582	610	54.3	53.4	435	59091	123	3.9	203	500	.37	1.88	.86	1.61	3.84	3.70	D
531	0031	2350.5	51.5	217	370	104	13.6	2550	2334.7	3.30	3.90	583	617	54.3	54.2	434	59147	124	3.9	151	498	.37	1.82	.81	1.61	3.84	3.70	D
532	0032	2351.0	74.1	191	372	99	14.6	2630	2334.9	3.30	3.90	595	621	54.2	54.2	434	59177	124	3.9	118	496	.37	1.74	.73	1.61	3.84	3.70	D
533	0107	2351.5	43.9	124	370	132	5.6	2940	2345.1	3.30	3.90	633	647	54.6	54.7	420	59211	125	3.9	2516	496	.37	1.76	.75	1.61	3.79	3.70	D
534	0108	2352.0	16.1	137	206	1																						

KOORCAH NO.1

Data Printed at time J4:32 Date Dec 22 '85
Data Recorded at time J1:31 Date Dec 11 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	REFRS	W lb/gal		FLOW/MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	KJC	KX	KKB	ECD	EST			
				AVG	MAX					IN	OUT	LN	OUT	LN	OUT		LN	OUT	REVS							m	hrs	LNST
541	J131	2J55.5	23.5	17J	1.83	1.18	47.7	249J	2J5J.2	3.3J	3.9J	582	627	54.5	54.3	412	61311	129	9.3	191	493	.38	1.46	1.44	1.61	3.78	3.7J	D
542	J132	2J56.0	33.2	174	1.9J	1.2J	45.9	249J	2J5J.4	3.3J	3.9J	579	621	54.5	54.3	411	61417	129	9.3	152	489	.38	1.34	1.32	1.61	3.78	3.7J	D
543	J133	2J56.5	24.3	171	1.92	1.2J	43.1	250J	2J5J.7	3.3J	3.9J	579	616	54.5	54.3	411	61561	13J	9.3	184	488	.38	1.46	1.44	1.61	3.79	3.7J	D
544	J135	2J57.0	16.9	17J	1.32	1.21	49.6	25J	2J5J.9	3.3J	3.9J	578	614	54.4	53.9	409	61767	13J	9.3	255	487	.39	1.59	1.57	1.61	3.79	3.7J	D
545	J136	2J57.5	19.3	172	1.86	1.2J	45.6	249J	2J5J.2	3.3J	3.9J	579	622	54.3	53.3	409	6196J	131	9.4	259	486	.39	1.51	1.49	1.6J	3.79	3.7J	D
546	J138	2J58.0	15.6	169	1.82	1.2J	44.9	249J	2J5J.6	3.3J	3.9J	579	62J	54.3	53.8	408	62134	131	9.4	37J	486	.39	1.57	1.55	1.6J	3.79	3.7J	D
547	J140	2J58.5	16.0	166	1.76	1.2J	45.4	250J	2J5J.8	3.3J	3.9J	578	618	54.3	54.2	406	62413	132	9.4	314	485	.39	1.56	1.54	1.6J	3.79	3.7J	D
548	J142	2J59.0	15.2	166	1.78	1.2J	45.3	249J	2J5J.8	3.3J	3.9J	578	623	54.2	54.3	4J5	62641	132	9.4	322	484	.39	1.58	1.56	1.6J	3.79	3.7J	D
549	J143	2J59.5	2J.9	167	1.92	1.2J	43.9	249J	2J5J.8	3.3J	3.9J	577	611	54.2	54.3	403	62819	133	9.5	262	483	.39	1.46	1.44	1.6J	3.8J	3.7J	D
550	J145	2J6J.0	16.2	17J	2.13	1.2J	44.7	248J	2J5J.8	3.3J	3.9J	577	621	54.2	54.3	4J3	63J21	133	9.5	288	483	.39	1.55	1.53	1.6J	3.8J	3.7J	D
551	J152	2J6J.5	6.43	2J6	3.6J	1.16	33.2	245J	2J5J.8	3.3J	3.9J	574	625	54.2	54.4	399	63612	134	9.6	1543	484	.4J	1.67	1.66	1.6J	3.8J	3.7J	D
552	J155	2J61.0	9.32	21J	3.14	1.2J	3J.3	248J	2J5J.8	3.3J	3.9J	575	624	54.2	54.4	397	63937	134	9.6	674	484	.4J	1.53	1.52	1.6J	3.8J	3.7J	D
553	J157	2J61.5	17.5	17J	2.52	1.21	26.0	245J	2J5J.8	3.3J	3.9J	576	60J	54.2	54.4	397	64199	135	9.7	29J	483	.4J	1.3J	1.28	1.6J	3.81	3.7J	D
554	J158	2J62.0	4J.7	198	3.34	1.19	25.9	246J	2J5J.8	3.3J	3.9J	576	594	54.2	54.5	396	64235	135	9.7	15J	482	.4J	1.37	1.35	1.6J	3.81	3.7J	D
555	J2JJ	2J62.5	11.3	168	3.34	1.2J	29.9	248J	2J5J.8	3.3J	3.9J	576	615	54.2	54.1	394	64588	136	9.7	461	482	.4J	1.47	1.45	1.6J	3.81	3.7J	D
556	J2J2	2J63.0	17.9	157	1.9J	1.22	36.3	247J	2J5J.8	3.3J	3.9J	575	609	54.2	54.1	396	64734	136	9.7	275	481	.4J	1.43	1.41	1.6J	3.82	3.7J	D
557	J2J4	2J63.5	14.1	164	2.06	1.22	38.0	248J	2J5J.8	3.3J	3.9J	576	619	54.2	54.0	394	65J36	137	9.8	387	481	.4J	1.52	1.5J	1.59	3.82	3.7J	D
558	J2J7	2J64.4	13.4	139	2.0J	1.18	41.3	257J	2J5J.8	3.3J	3.9J	578	571	54.2	54.1	395	65236	138	9.8	323	48J	.41	1.56	1.55	1.59	3.82	3.7J	D
559	J214	2J65.0	67.8	178	2.24	1.19	38.2	261J	2J5J.8	3.3J	3.9J	588	641	54.3	54.3	394	65346	138	9.8	98	478	.41	1.84	1.82	1.59	3.83	3.7J	D
560	J214	2J65.5	97.1	175	2.1J	1.2J	33.2	262J	2J5J.8	3.3J	3.9J	59J	642	54.2	54.2	394	65382	139	9.8	48	476	.41	.9J	.88	1.59	3.83	3.7J	D
561	J215	2J66.0	1.04	222	3.64	1.09	34.8	262J	2J5J.8	3.3J	3.9J	589	645	54.2	54.2	393	65412	139	9.8	54	474	.41	.86	.84	1.59	3.83	3.7J	D
562	J215	2J66.6	1.13	175	2.84	1.19	27.5	262J	2J5J.8	3.3J	3.9J	586	623	54.2	54.2	393	65439	14J	9.8	37	473	.41	.8J	.78	1.59	3.83	3.7J	D
563	J221	2J67.0	58.7	146	3.38	1.18	2J.8	254J	2J52.0	3.3J	3.9J	549	554	54.2	53.8	395	65496	14J	9.8	93	471	.41	.9J	.9J	1.59	3.83	3.7J	D
564	J222	2J67.5	2.94	151	1.62	1.2J	3J.0	253J	2J52.0	3.3J	3.9J	56J	568	54.2	53.8	394	6551.0	141	9.8	19	47J	.41	.66	.65	1.59	3.83	3.7J	D
565	J222	2J68.2	1.66	175	2.62	1.13	29.6	254J	2J52.1	3.3J	3.9J	567	576	54.2	53.8	393	65538	142	9.8	25	468	.41	.71	.7J	1.59	3.84	3.7J	D
566	J222	2J69.0	1.36	154	1.66	1.21	29.1	253J	2J52.3	3.3J	3.9J	576	598	54.2	53.8	394	65532	142	9.9	34	465	.41	.77	.75	1.59	3.85	3.7J	D
567	J222	2J69.5	1.35	153	1.66	1.2J	27.1	253J	2J52.4	3.3J	3.9J	578	60J	54.2	53.8	394	65606	143	9.9	34	464	.41	.75	.74	1.59	3.85	3.7J	D
568	J223	2J7J.0	1.26	154	1.64	1.2J	28.6	254J	2J52.5	3.3J	3.9J	58J	603	54.2	53.8	393	65632	143	9.9	37	462	.41	.78	.77	1.59	3.85	3.7J	D
569	J223	2J7J.5	1.34	156	1.6J	1.2J	30.1	254J	2J52.6	3.3J	3.9J	58J	606	54.2	53.8	393	65658	144	9.9	33	461	.41	.78	.76	1.6J	3.85	3.7J	D
57J	J223	2J71.1	1.24	154	1.64	1.2J	28.3	254J	2J52.7	3.3J	3.9J	581	614	54.2	53.8	393	65636	144	9.9	38	459	.41	.79	.77	1.59	3.85	3.7J	D
571	J223	2J71.5	1.31	155	1.6J	1.2J	27.6	254J	2J52.8	3.3J	3.9J	581	607	54.2	53.8	392	65716	145	9.9	44	458	.41	.84	.82	1.6J	3.85	3.7J	D
572	J224	2J72.0	97.5	149	1.8J	1.21	23.3	255J	2J52.9	3.3J	3.9J	582	609	54.2	53.8	394	65753	145	9.9	55	457	.41	.81	.8J	1.59	3.86	3.7J	D
573	J224	2J72.5	1.1J	157	1.76	1.21	29.6	254J	2J53.0	3.3J	3.9J	582	603	54.1	53.8	393	65783	146	9.9	57	456	.41	.83	.81	1.6J	3.86	3.7J	D
574	J224	2J73.0	1.1J	162	1.72	1.19	29.6	253J	2J53.0	3.3J	3.9J	582	611	54.1	53.8	392	65813	146	9.9	41	454	.41	.83	.81	1.59	3.86	3.7J	D
575	J232	2J73.5	1.16	185	1.6J	1.15	28.5	253J	2J53.2	3.3J	3.9J	535	507	54.0	53.4	394	65866	147	9.9	48	453	.41	.79	.78	1.6J	3.86	3.7J	D
576	J232	2J74.0	1.83	152	1.74	1.19	27.0	253J	2J53.3	3.3J	3.9J	55J	538	54.0	53.4	392	65883	147	9.9	25	451	.41	.67	.65	1.59	3.86	3.7J	D
577	J232	2J74.5	1.78	153	1.6J	1.17	28.6	253J	2J53.3	3.3J	3.9J	557	553	54.0	53.4	391	65899	148	9.9	23	45J	.41	.68	.67	1.6J	3.86	3.7J	D
578	J233	2J75.2	1.69	158	1.86	1.16	29.7	253J	2J53.3	3.3J	3.9J	562	57J	54.0	53.4	39J	65924	149	9.9	28	448	.41	.7J	.69	1.6J	3.87	3.7J	D
579	J233	2J76.0	1.46	165	1.84	1.21	30.7	253J	2J53.4	3.3J	3.9J	569	585	54.0	53.4	391	65961	149	9.9	34	446	.41	.76	.74	1.6J	3.87	3.7J	D
58J	J233	2J76.5	1.49	163	2.06	1.2J	29.9	254J	2J53.5	3.3J	3.9J	572	60J	54.0	53.4	39J	65983	15J	9.9	31	444	.41	.75	.73	1.6J	3.88	3.7J	D
581	J234	2J77.1	6J.0	15J	1.78	1.21	29.6	253J	2J53.6	3.3J	3.9J	577	612	54.0	53.4	39J	66J45	151	9.9	30	442	.41	1.3J	.98	1.6J	3.88	3.7J	D
582	J236	2J77.5	9.33	161	1.74	1.21	36.9	253J	2J54.1	3.3J	3.9J	579	627	53.8	53.0	387	66345	151	1.0J	787	443	.41	1.61	1.59	1.6J	3.88	3.7J	D
583	J239	2J78.0	12.5	166	1.78	1.21	42.3	253J	2J54.5	3.3J	3.9J	579	626	53.7	52.8	386	6665J	151	1.0J	374	443	.41	1.59	1.57	1.59	3.88	3.7J	D
584	J24J	2J78.5	21.5	171	1.9J	1.21	43.3	253J	2J54.7	3.3J	3.9J	58J	623	53.7	52.8	385	66813	152	1.0J	233	442	.41	1.44	1.42	1.59	3.89	3.7J	D
585	J242	2J79.0	15.7	167	1.8J	1.21	43.3	253J	2J54.9	3.3J	3.9J	58J	624	53.7	52.8	384	67J36	152	1.0J	347	441	.42	1.53	1.51	1.59	3.89	3.7J	D
586	J244	2J79.5	14.1	166	1.78	1.21	44.7	254J	2J55.0	3.3J	3.9J	581	614	53.6	53.1	381	67294	153	1.0J	356	441	.42	1.58	1.56	1.59	3.89	3.7J	D
587	J246	2J8J.0	15.3	169	1.9J	1.21	43.8	255J	2J55.2	3.3J	3.9J	582	613	53.6	53.5	383												

KOORCAH 10.1

Data Printed at time J4:35 Date Dec 22 '85
Data Recorded at time J2:52 Date Dec 11 '85

#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRIS		17 lb/gal		FLO I/MIN		TEMP (C)		PVT	-----THIS BIT-----			---COST---		EST	DKC	K	K3	SD	EST
				AVG	MAX				AVG	AVG	PREG	DEPTH	LI	OUT	LI	OUT		IN	OUT	REVS	m	hrs						
591	J252	2382.J	13.4	173	196	121	45.J	254J	2357.4	3.72	3.99	583	627	53.5	53.9	381	63275	155	13.2	344	438	.43	1.60	1.58	1.58	3.39	3.70	D
592	J254	2382.5	14.3	191	216	121	43.9	255J	2358.J	3.72	9.31	583	623	53.4	54.0	381	63527	156	13.3	323	438	.43	1.57	1.55	1.58	3.39	3.70	D
593	J3J2	2383.J	25.7	176	233	118	36.4	254J	2359.2	3.72	3.39	566	571	53.4	53.3	382	63736	156	13.3	221	438	.43	1.33	1.23	1.53	3.38	3.70	D
594	J3J4	2383.5	17.1	169	192	121	38.7	253J	2359.3	3.72	9.39	579	614	53.4	53.3	377	68923	157	13.3	363	437	.43	1.45	1.43	1.58	3.38	3.70	D
595	J3J6	2384.J	12.5	173	184	121	43.7	252J	2360.4	3.72	9.39	579	627	53.5	53.5	377	69233	157	13.4	412	437	.43	1.61	1.59	1.58	3.88	3.70	D
596	J3J8	2384.5	12.1	166	178	121	43.6	251J	2360.7	3.72	9.12	579	633	53.5	53.4	375	69498	158	13.4	434	437	.43	1.62	1.58	1.58	3.38	3.70	D
597	J311	2385.J	12.3	165	133	122	43.1	252J	2360.8	3.72	9.11	579	626	53.5	53.3	373	69836	158	13.4	463	437	.44	1.62	1.59	1.58	3.89	3.70	D
598	J313	2385.5	12.1	176	206	123	43.6	252J	2361.1	3.72	9.10	576	623	53.5	53.3	374	70397	159	13.5	429	437	.44	1.62	1.59	1.58	3.89	3.70	D
599	J315	2386.J	22.3	224	366	99	42.2	251J	2361.3	3.72	9.10	577	626	53.5	53.3	372	70238	159	13.5	234	436	.44	1.36	1.34	1.58	3.89	3.70	D
600	J319	2386.5	8.69	132	358	123	43.9	252J	2362.3	3.72	9.10	571	616	53.6	54.1	373	70653	160	13.6	776	437	.44	1.68	1.66	1.59	3.88	3.70	D
601	J322	2387.J	9.92	163	176	123	43.4	252J	2363.6	3.72	9.34	575	633	53.6	54.2	372	71322	160	13.6	535	437	.44	1.68	1.66	1.59	3.38	3.70	D
602	J325	2387.5	13.5	163	132	123	43.9	252J	2364.2	3.72	3.97	574	613	53.7	54.3	373	71371	161	13.7	532	437	.45	1.67	1.65	1.59	3.38	3.70	D
603	J327	2388.J	13.5	177	208	123	45.3	252J	2364.4	3.72	9.13	573	619	53.7	54.3	371	71576	161	13.7	273	437	.45	1.51	1.43	1.59	3.38	3.70	D
604	J327	2388.5	52.3	132	234	124	42.4	253J	2364.4	3.72	9.13	579	618	53.7	54.3	371	71543	162	13.7	94	436	.45	1.16	1.14	1.59	3.89	3.70	D
605	J328	2389.J	31.3	186	244	121	43.3	253J	2364.4	3.72	9.13	578	619	53.7	54.3	369	71751	162	13.7	146	435	.45	1.32	1.33	1.59	3.89	3.70	D
606	J329	2389.5	26.5	202	284	123	43.7	252J	2364.4	3.72	9.13	578	617	53.7	54.3	371	71893	163	13.7	176	434	.45	1.37	1.35	1.59	3.89	3.70	D
607	J331	2390.J	20.6	221	352	117	40.6	250J	2365.5	3.72	9.20	578	626	53.8	54.1	370	72362	163	13.8	214	433	.45	1.41	1.39	1.59	3.89	3.70	D
608	J331	2390.5	43.3	199	353	113	38.1	250J	2366.3	3.72	9.23	576	628	53.8	54.1	369	72141	164	13.8	121	432	.45	1.17	1.15	1.59	3.89	3.70	D
609	J334	2391.J	25.5	226	358	112	37.9	250J	2368.3	3.72	9.16	574	622	53.8	54.3	367	72236	164	13.8	277	432	.45	1.31	1.29	1.59	3.38	3.70	D
610	J336	2391.5	11.3	233	296	121	37.1	250J	2371.3	3.72	9.33	573	629	53.9	53.9	363	72531	165	13.8	395	432	.45	1.55	1.53	1.53	3.87	3.70	D
611	J345	2392.J	16.1	193	292	119	39.5	249J	2376.6	3.72	9.19	553	549	53.8	53.9	349	72354	165	13.9	365	432	.46	1.48	1.46	1.53	3.34	3.70	D
612	J348	2392.5	9.36	139	316	123	32.4	250J	2377.6	3.72	9.14	577	633	53.6	53.3	337	73197	166	13.9	593	432	.46	1.56	1.54	1.53	3.34	3.70	D
613	J351	2393.J	9.64	175	273	122	33.7	248J	2378.3	3.72	9.16	577	624	53.5	53.4	336	73572	166	13.9	535	432	.46	1.64	1.62	1.58	3.33	3.70	D
614	J356	2393.5	5.93	173	266	119	41.4	248J	2379.6	3.72	9.11	573	624	53.4	53.3	337	74136	167	13.1	1133	433	.46	1.32	1.79	1.59	3.33	3.70	D
615	J403	2394.J	6.36	157	213	121	44.3	248J	2381.3	3.72	9.13	575	634	53.3	53.9	335	74733	167	13.1	383	434	.47	1.36	1.34	1.59	3.32	3.70	D
616	J406	2394.5	5.33	158	178	122	45.3	247J	2382.6	3.72	9.38	576	624	53.4	54.3	337	75413	168	13.2	939	436	.47	1.91	1.39	1.59	3.32	3.70	D
617	J413	2395.J	7.32	164	182	123	44.3	250J	2383.3	3.72	9.39	575	623	53.5	54.1	337	75871	168	13.3	735	436	.48	1.77	1.75	1.63	3.32	3.70	D
618	J414	2395.5	7.74	165	182	123	44.7	251J	2383.9	3.72	9.38	578	624	53.5	54.1	336	76331	169	13.4	635	437	.48	1.78	1.76	1.63	3.32	3.70	D
619	J413	2396.J	6.77	164	178	123	44.9	251J	2384.3	3.72	9.13	579	624	53.6	54.1	339	76867	169	13.4	763	438	.48	1.83	1.33	1.63	3.31	3.70	D
620	J422	2396.5	3.70	166	182	121	45.3	250J	2385.6	3.72	9.20	578	618	53.7	54.1	338	77295	170	13.5	584	438	.49	1.76	1.74	1.63	3.31	3.70	D
621	J426	2397.J	6.21	167	178	121	46.3	251J	2386.3	3.72	9.25	579	631	53.8	54.1	339	77826	170	13.6	355	439	.49	1.37	1.35	1.61	3.31	3.70	D
622	J430	2397.5	7.38	171	196	123	44.9	249J	2386.9	3.72	9.22	578	619	53.8	54.3	335	78336	171	13.6	649	443	.49	1.83	1.73	1.61	3.31	3.70	D
623	J434	2398.J	7.38	170	182	121	45.3	216J	2387.9	3.72	9.25	573	634	53.9	54.1	334	78923	171	13.7	716	441	.50	1.82	1.79	1.61	3.31	3.70	D
624	J438	2398.5	7.53	166	178	121	45.4	222J	2389.6	3.72	9.24	539	633	54.0	54.3	335	79321	172	13.8	693	441	.50	1.83	1.78	1.61	3.30	3.70	D
625	J443	2399.J	7.11	168	184	123	44.5	221J	2390.9	3.93	3.90	544	597	54.0	54.1	336	79812	172	13.8	751	442	.51	1.81	1.78	1.62	3.31	3.70	D
626	J446	2399.5	9.79	173	134	119	44.7	221J	2391.5	3.31	3.39	543	597	54.0	54.1	335	80171	173	13.9	559	442	.51	1.71	1.68	1.62	9.13	3.70	D
627	J449	2100.J	7.73	167	182	119	44.7	222J	2392.3	3.93	3.39	545	633	54.1	54.3	335	80639	173	13.9	662	443	.51	1.78	1.76	1.62	9.13	3.70	D
628	J455	2100.5	5.71	164	183	121	43.5	220J	2392.6	3.93	3.37	543	636	54.1	53.9	335	81255	174	12.3	966	444	.52	1.86	1.84	1.62	9.13	3.70	D
629	J502	2101.J	4.29	170	193	122	43.9	222J	2393.4	3.93	3.73	537	594	54.2	53.9	341	82133	174	12.2	1336	446	.52	1.96	1.94	1.63	9.13	3.70	D
630	J513	2101.5	13.2	163	188	123	39.6	227J	2394.2	3.93	3.93	543	582	54.1	52.6	344	82353	175	12.2	295	446	.52	1.45	1.43	1.63	9.13	3.70	D
631	J519	2102.J	5.66	183	238	123	43.3	227J	2394.3	3.93	3.84	547	595	54.1	54.3	343	83033	175	12.3	1343	447	.53	1.86	1.84	1.63	9.13	3.70	D
632	J524	2102.5	5.96	167	136	123	44.1	226J	2395.3	3.93	3.83	547	635	54.0	54.3	346	83571	176	12.4	323	448	.53	1.85	1.83	1.63	9.13	3.70	D
633	J528	2103.J	6.59	157	176	123	44.3	225J	2395.8	3.93	3.77	546	593	53.9	54.1	341	84116	176	12.4	305	449	.54	1.81	1.79	1.63	9.13	3.70	D
634	J534	2103.5	4.94	153	172	121	43.6	225J	2396.6	3.93	3.78	547	599	53.8	53.9	341	84349	177	12.5	1312	451	.54	1.93	1.87	1.64	9.13	3.70	D
635	J538	2104.J	6.99	154	172	121	44.3	232J	2397.3	3.93	3.78	555	579	53.8	53.9	343	85364	177	12.6	737	452	.55	1.79	1.77	1.64	9.13	3.70	D
636	J543	2104.5	6.39	163	178	123	42.3	232J	2397.6	3.93	3.83	555	636	53.8	53.9	348	85948	178	12.7	738	453	.55	1.79	1.77	1.64	9.13	3.70	D
637	J547	2105.J	7.66	174	196	123	45.3	232J	2398.1</																			

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KOORCAH NO.1

Data Printed at time 04:39 Date Dec 22 '85
Data Recorded at time 06:08 Date Dec 11 '85

FH	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	REFRNS		M/lb/gal		FLOW/ML		TEMP (C)	PVT	-----THIS BIT-----			EST	DKC	JK	SKB	SCD	EST			
				AVG	MAX				AVG	AVG	PRE	DEPTH	LI	OUT			IN	OUT	IN							OUT	REVS	m
641	J6J8	21J7.J	6.14	161	176	122	43.2	2340	21J0.5	3.90	3.33	556	604	53.3	53.3	352	88634	13J	13.1	795	457	.57	1.31	1.79	1.66	3.95	3.70	D
642	J6J3	21J7.5	5.93	161	176	121	43.4	2310	21J0.9	3.90	3.39	551	606	53.7	54.0	353	8932J	13J	13.2	95J	458	.57	1.32	1.79	1.66	3.96	3.70	D
643	J6J9	21J8.J	5.36	155	172	120	43.3	2300	21J1.1	3.90	3.33	549	608	53.7	54.3	352	89973	13J	13.2	914	459	.58	1.34	1.31	1.66	3.98	3.70	D
644	J623	21J8.5	7.02	157	174	121	42.9	2300	21J1.6	3.90	3.39	549	597	53.6	53.9	353	90503	132	13.3	740	460	.58	1.76	1.73	1.66	3.98	3.70	D
645	J629	21J9.J	5.16	163	213	120	43.3	2310	21J2.2	3.90	3.90	548	602	53.5	53.9	352	91163	132	13.4	903	461	.59	1.36	1.33	1.67	3.98	3.70	D
646	J636	21J9.5	29.0	217	286	119	44.3	2380	21J2.0	3.90	3.37	557	603	53.3	53.3	351	91262	133	13.4	360	460	.59	1.00	.98	1.51	3.91	3.70	D
647	J641	21J1.J	5.53	166	273	123	23.7	2380	21J2.0	3.90	3.86	553	599	53.7	54.2	344	91913	133	13.5	366	461	.59	1.63	1.61	1.51	3.99	3.70	D
648	J645	21J1.5	7.02	155	170	122	39.3	2350	21J2.0	3.90	3.38	557	605	53.7	53.9	350	92413	134	13.6	690	462	.60	1.70	1.67	1.51	3.99	3.70	D
649	J658	21J1.J	3.63	156	234	121	40.0	2360	21J2.0	3.90	3.90	554	595	53.9	47.0	353	92890	134	13.6	599	463	.60	1.65	1.63	1.51	3.99	3.70	D
650	J701	21J1.5	3.49	192	230	121	41.3	2360	21J2.0	3.90	3.71	554	602	53.9	53.3	350	93318	135	13.7	593	463	.60	1.68	1.66	1.51	3.90	3.70	D
651	J705	21J2.J	7.30	180	232	122	43.0	2350	21J2.0	3.90	3.69	555	589	53.3	53.5	349	93791	135	13.3	331	464	.61	1.73	1.70	1.51	3.90	3.70	D
652	J710	21J2.5	6.33	173	256	122	42.1	2340	21J2.0	3.90	3.75	554	593	53.3	53.9	349	94337	136	13.3	306	464	.61	1.75	1.73	1.51	3.90	3.70	D
653	J713	21J3.J	7.53	168	182	122	42.6	2320	21J2.0	3.90	3.75	551	605	53.3	53.9	350	94739	136	13.9	635	465	.61	1.70	1.70	1.51	3.91	3.70	D
654	J717	21J3.5	3.77	170	184	123	43.2	2310	21J2.0	3.90	3.76	549	584	53.3	53.9	348	95234	137	14.0	534	465	.62	1.69	1.67	1.51	3.91	3.70	D
655	J721	21J4.0	5.76	165	180	123	43.6	2330	21J2.0	3.90	3.74	593	623	53.3	53.8	347	95798	137	14.0	315	466	.62	1.33	1.33	1.51	3.91	3.70	D
656	J726	21J4.5	5.98	167	184	120	43.3	2940	21J2.0	3.90	3.73	625	661	53.9	54.1	347	96398	138	14.1	841	467	.62	1.80	1.78	1.51	3.92	3.70	D
657	J730	21J5.0	3.30	166	182	121	43.1	2940	21J2.0	3.90	3.75	627	659	53.9	54.7	348	96850	138	14.2	651	467	.63	1.70	1.68	1.51	3.92	3.70	D
658	J736	21J5.5	5.33	169	202	121	43.5	2950	21J2.0	3.90	3.77	627	638	54.0	54.7	348	97509	139	14.3	901	468	.63	1.84	1.31	1.51	3.92	3.70	D
659	J740	21J6.0	6.43	173	202	121	44.0	2940	21J2.0	3.90	3.78	625	653	53.9	54.9	350	98064	139	14.4	766	469	.64	1.79	1.76	1.51	3.93	3.70	D
660	J746	21J6.5	5.48	170	213	121	43.9	2930	21J4.2	3.90	3.78	624	651	53.9	55.2	353	98724	190	14.4	353	470	.64	1.84	1.31	1.51	3.92	3.70	D
661	J751	21J7.0	5.69	173	208	121	42.9	2930	21J5.5	3.90	3.75	626	655	54.2	55.0	352	99360	190	14.5	331	472	.65	1.82	1.79	1.51	3.91	3.70	D
662	J757	21J7.5	5.07	171	202	119	44.3	2920	21J6.1	3.90	3.75	623	649	54.3	55.1	349	100055	191	14.6	1036	473	.65	1.86	1.34	1.52	3.91	3.70	D
663	J804	21J8.0	4.34	155	200	114	45.1	2930	21J6.9	3.90	3.77	626	656	54.6	54.9	350	100347	191	14.7	1400	475	.66	1.91	1.38	1.52	3.91	3.70	D
664	J808	21J8.5	6.36	169	222	123	43.1	2940	21J7.6	3.90	3.77	626	651	54.6	54.7	350	101423	192	14.3	771	476	.66	1.79	1.76	1.52	3.91	3.70	D
665	J813	21J9.0	6.34	183	214	122	43.0	2950	21J3.3	3.90	3.75	626	638	54.7	54.7	349	101999	192	14.9	322	476	.66	1.79	1.76	1.52	3.91	3.70	D
666	J819	21J9.5	5.21	152	182	121	43.2	2950	21J9.1	3.90	3.77	625	662	54.7	54.7	350	102657	193	15.0	385	477	.67	1.85	1.32	1.52	3.91	3.70	D
667	J830	21J2.0	7.56	156	203	119	41.4	2920	21J13.2	3.90	3.90	609	599	54.8	49.5	354	103176	193	15.1	663	478	.67	1.71	1.68	1.52	3.98	3.70	D
668	J834	21J2.5	8.55	216	243	123	41.2	2970	21J13.5	3.90	3.81	625	650	54.3	54.3	350	103619	194	15.1	642	478	.68	1.68	1.65	1.52	3.99	3.70	D
669	J839	21J2.0	5.88	186	220	123	43.0	2970	21J13.9	3.90	3.67	625	646	54.7	54.6	351	104230	194	15.2	370	479	.68	1.32	1.79	1.52	3.99	3.70	D
670	J841	21J2.5	10.2	173	238	122	42.5	2930	21J14.0	3.90	3.66	624	657	54.7	55.1	351	104578	195	15.3	479	479	.68	1.64	1.61	1.52	3.99	3.70	D
671	J844	21J2.0	9.56	170	188	122	42.7	2970	21J14.2	3.90	3.69	624	651	54.7	55.2	354	104949	195	15.3	508	479	.69	1.66	1.63	1.52	3.99	3.70	D
672	J848	21J2.5	9.45	163	188	123	42.3	2970	21J14.4	3.90	3.84	625	659	54.6	55.2	350	105351	196	15.4	607	480	.69	1.68	1.65	1.52	3.99	3.70	D
673	J851	21J3.0	3.07	173	190	122	42.3	2960	21J14.7	3.90	3.84	625	634	54.7	55.1	350	105807	196	15.4	736	480	.69	1.71	1.68	1.52	3.99	3.70	D
674	J857	21J3.5	6.00	167	192	122	42.2	2960	21J15.0	3.90	3.91	624	656	54.7	55.0	348	106435	197	15.5	330	481	.70	1.80	1.77	1.52	3.90	3.70	D
675	J901	21J4.0	6.11	163	184	122	43.1	2960	21J15.3	3.90	3.90	624	656	54.7	55.2	345	107017	197	15.6	818	482	.70	1.80	1.77	1.52	3.90	3.70	D
676	J905	21J4.5	7.39	155	168	123	41.0	2960	21J15.5	3.90	3.95	625	635	54.7	55.2	344	107507	198	15.7	670	482	.70	1.72	1.69	1.52	3.90	3.70	D
677	J911	21J5.0	5.73	155	163	123	41.5	2950	21J15.8	3.90	3.94	625	653	54.7	55.2	346	108159	198	15.7	385	483	.71	1.80	1.77	1.52	3.90	3.70	D
678	J915	21J5.5	6.36	150	160	123	42.5	2960	21J16.1	3.90	3.92	625	630	54.3	55.7	344	108756	199	15.3	346	484	.71	1.80	1.77	1.52	3.90	3.70	D
679	J920	21J6.0	7.14	157	176	122	41.9	2960	21J16.4	3.90	3.89	625	645	54.3	55.3	344	109276	199	15.9	759	485	.72	1.74	1.71	1.52	3.90	3.70	D
680	J925	21J6.5	5.86	161	182	122	42.7	2950	21J16.7	3.90	3.92	626	662	54.9	55.3	344	109832	200	16.0	922	486	.72	1.81	1.78	1.52	3.90	3.70	D
681	J928	21J7.0	3.96	163	186	122	41.9	2950	21J16.9	3.90	3.94	625	648	54.9	55.4	344	110239	200	16.0	616	486	.72	1.67	1.64	1.52	3.90	3.70	D
682	J931	21J7.5	10.2	170	192	121	41.9	2960	21J17.2	3.90	3.90	625	648	55.0	55.9	346	110663	201	16.1	555	486	.73	1.63	1.60	1.52	3.91	3.70	D
683	J934	21J8.0	11.5	172	190	121	41.6	2960	21J17.5	3.90	3.90	626	635	55.1	55.9	346	110968	201	16.1	434	486	.73	1.59	1.56	1.52	3.91	3.70	D
684	J936	21J8.5	11.7	180	213	121	41.3	2960	21J17.7	3.90	3.88	625	655	55.2	55.9	348	111251	202	16.2	425	486	.73	1.58	1.55	1.52	3.91	3.70	D
685	J937	21J9.0	33.6	231	262	120	39.1	2940	21J17.8	3.90	3.88	626	649	55.2	55.9	346	111361	202	16.2	199	485	.73	1.24	1.21	1.52	3.91	3.70	D
686	J946	21J9.5	56.6	196	234	120	33.2	3000	21J18.5	3.90	3.90	622	635	55.4	52.2	350	111475	203	16.2	114	484	.73	1.30	1.30	1.52	3.91	3.70	D
687	J947	21J10.0	22.9	227</																								

KOORCAH JO.1

Data Printed at time J4:43 Date Dec 22 '35
Data Recorded at time J9:56 Date Dec 11 '35

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M7 lb/gal		FLOW/MLN		TEMP (C)		PVT	-----THIS BIT-----			EST	DWC	WK	KB	ECD	EST		
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT	IN	OUT		IN	OUT	REVS							m	hrs
691	J956	2132.0	43.1	142	224	116	38.8	283J	2119.6	3.9J	3.9J	567	565	55.4	55.9	343	1122J17	205	16.3	123	48J	.73	1.15	1.12	1.51	9.31	3.7J	D
692	J957	2132.5	57.3	136	214	121	38.3	283J	2119.6	3.9J	3.9J	598	624	55.4	51.2	346	1122J69	206	16.3	71	479	.73	1.13	1.10	1.52	9.32	3.7J	D
693	J958	2133.0	41.7	236	256	121	39.9	292J	2119.7	3.9J	3.9J	614	633	55.4	51.2	346	112154	206	16.3	115	473	.74	1.13	1.15	1.51	9.32	3.7J	D
694	J958	2133.5	63.3	231	254	122	40.4	293J	2119.7	3.9J	3.9J	613	652	55.4	51.2	348	112209	207	16.3	86	477	.74	1.06	1.03	1.52	9.32	3.7J	D
695	J959	2134.0	50.1	23J	26J	122	41.4	293J	2119.3	3.9J	3.9J	62J	664	55.4	51.2	347	11230J	207	16.3	112	477	.74	1.14	1.11	1.52	9.32	3.7J	D
+ Circulate bottoms up at 2134.5m.																												
697	1122	2135.1	49.0	14J	23J	109	38.4	293J	2131.5	3.9J	3.39	621	67J	59.7	53.1	313	11254J	208	16.3	121	475	.74	1.1J	1.07	1.52	8.97	3.7J	D
698	1122	2135.5	53.3	213	24J	12J	39.2	293J	2131.5	3.9J	3.39	621	661	59.7	53.1	312	112591	209	16.4	73	474	.74	1.03	1.05	1.52	8.97	3.7J	D
699	1122	2136.0	39.0	234	253	12J	36.5	293J	2131.5	3.9J	3.39	622	653	59.7	53.4	306	112631	209	16.4	52	473	.74	.93	.90	1.52	8.97	3.7J	D
700	1123	2136.5	98.9	242	26J	12J	33.3	292J	2131.5	3.9J	3.39	621	647	59.7	53.4	303	112655	21J	16.4	49	472	.74	.88	.85	1.52	8.97	3.7J	D
701	1123	2137.0	113	226	266	12J	33.3	292J	2131.5	3.9J	3.39	621	647	59.7	53.4	299	112695	21J	16.4	31	471	.74	.83	.80	1.52	8.97	3.7J	D
702	1124	2137.5	23.1	229	25J	113	36.7	291J	2131.5	3.9J	3.39	621	642	59.7	53.4	288	112337	211	16.4	354	47J	.74	1.32	1.29	1.51	8.98	3.7J	D
703	1128	2138.0	6.32	192	238	12J	41.7	291J	2131.5	3.9J	3.39	621	644	59.7	53.9	283	113344	211	16.5	1113	471	.74	1.75	1.72	1.52	8.98	3.7J	D
704	1213	2138.5	16.7	158	22J	112	40.4	291J	2131.5	3.9J	3.39	589	571	58.7	56.9	295	113539	212	16.5	414	471	.74	1.44	1.41	1.52	8.98	3.7J	D
705	1214	2139.0	35.7	177	22J	109	40.3	290J	2131.5	3.9J	3.39	613	62J	58.7	56.9	295	113667	212	16.5	123	47J	.75	1.23	1.13	1.52	8.99	3.7J	D
706	1216	2139.5	14.3	177	22J	109	41.3	291J	2131.5	3.9J	3.39	616	644	57.0	52.5	296	11388J	213	16.5	432	469	.75	1.49	1.46	1.52	8.99	3.7J	D
707	1221	2140.0	6.22	16J	198	11J	42.5	289J	2131.5	3.9J	3.39	615	65J	56.9	51.3	297	114413	213	16.6	975	47J	.75	1.76	1.73	1.52	8.99	3.7J	D
708	1226	2140.5	5.22	166	194	11J	44.8	289J	2131.5	3.9J	3.39	614	651	56.0	56.2	294	115031	214	16.7	974	471	.75	1.34	1.31	1.52	9.00	3.7J	D
709	1231	2141.0	5.37	164	183	109	44.7	288J	2131.5	3.9J	3.39	614	644	55.5	56.6	293	11560J	214	16.3	909	472	.76	1.8J	1.77	1.52	9.0J	3.7J	D
710	1236	2141.5	6.51	17J	234	109	44.5	289J	2131.5	3.9J	3.39	614	644	55.5	56.1	291	116089	215	16.9	773	473	.76	1.76	1.74	1.53	9.0J	3.7J	D
711	1239	2142.0	9.94	139	256	108	43.3	288J	2131.5	3.9J	3.39	615	649	55.6	56.1	291	116421	215	16.9	529	473	.76	1.61	1.59	1.53	9.0J	3.7J	D
712	1240	2142.5	43.3	184	324	10J	42.4	287J	2131.5	3.9J	3.39	614	63J	55.6	56.1	239	116433	216	16.9	11J	472	.76	1.13	1.11	1.53	9.01	3.7J	D
713	1245	2143.0	34.3	163	224	11J	38.3	293J	2131.3	3.9J	3.39	614	617	55.6	56.4	286	116591	216	17.3	163	472	.77	1.20	1.17	1.53	9.01	3.7J	D
714	1245	2143.5	60.8	165	192	11J	32.1	293J	2131.3	3.9J	3.39	617	629	55.6	56.4	286	116641	217	17.3	77	471	.77	.98	.95	1.53	9.01	3.7J	D
715	1247	2144.0	25.1	163	238	111	35.3	293J	2131.3	3.9J	3.39	613	645	55.6	56.4	235	117569	217	17.3	206	47J	.77	1.26	1.23	1.53	9.01	3.7J	D
716	1248	2144.5	17.9	163	192	114	41.3	293J	2131.3	3.9J	3.39	619	652	55.6	56.4	233	116957	218	17.3	261	473	.77	1.43	1.40	1.52	9.02	3.7J	D
717	1250	2145.0	14.5	179	233	112	43.1	293J	2131.3	3.9J	3.39	619	64J	55.6	55.9	282	117198	213	17.3	296	469	.77	1.51	1.48	1.52	9.02	3.7J	D
718	1252	2145.5	14.4	169	216	111	42.4	293J	2131.3	3.9J	3.39	62J	652	55.7	55.9	281	117419	219	17.1	325	469	.77	1.5J	1.47	1.52	9.02	3.7J	D
719	1255	2146.0	14.3	166	232	112	42.3	292J	2131.3	3.9J	3.39	62J	657	55.7	56.5	283	117661	219	17.1	392	469	.77	1.53	1.47	1.52	9.03	3.7J	D
720	1255	2146.5	39.4	172	20J	111	41.5	293J	2131.3	3.9J	3.39	62J	65J	55.7	56.5	284	117737	22J	17.1	12J	468	.77	1.19	1.16	1.52	9.03	3.7J	D
721	1256	2147.0	41.2	172	186	111	43.1	293J	2131.3	3.9J	3.39	619	657	55.7	56.5	283	117317	22J	17.1	113	467	.77	1.19	1.16	1.52	9.03	3.7J	D
722	1304	2147.5	56.2	137	194	107	37.6	288J	2131.3	3.9J	3.39	607	615	55.8	56.7	295	118393	221	17.2	113	467	.77	1.34	1.31	1.52	9.03	3.7J	D
723	1305	2148.0	37.7	18J	218	109	39.8	287J	2131.3	3.9J	3.39	612	644	55.8	56.7	291	117976	221	17.2	124	466	.77	1.13	1.15	1.52	9.03	3.7J	D
724	1306	2148.5	31.5	165	194	11J	40.3	288J	2131.3	3.9J	3.39	613	654	55.8	56.7	289	118084	222	17.2	157	465	.78	1.24	1.21	1.52	9.04	3.7J	D
725	1307	2149.0	36.6	174	20J	109	41.3	288J	2132.0	3.9J	3.39	613	655	55.8	56.3	287	11817J	222	17.2	133	464	.78	1.23	1.17	1.52	9.04	3.7J	D
726	1308	2149.5	24.6	169	206	11J	40.7	287J	2133.3	3.9J	3.39	613	653	55.8	56.3	285	118332	223	17.2	213	464	.78	1.31	1.29	1.52	9.04	3.7J	D
727	1310	2150.0	15.6	17J	196	111	41.4	289J	2134.6	3.9J	3.39	613	663	55.9	56.3	273	118512	223	17.2	252	463	.78	1.46	1.43	1.52	9.03	3.7J	D
728	1312	2150.5	13.9	165	186	11J	41.3	287J	2134.3	3.9J	3.39	613	648	55.9	56.4	28J	118759	224	17.3	51J	463	.78	1.5J	1.47	1.52	9.03	3.7J	D
729	1313	2151.0	42.0	167	196	111	38.6	289J	2134.9	3.9J	3.39	614	654	55.9	56.4	28J	118831	224	17.3	11J	462	.78	1.14	1.11	1.52	9.03	3.7J	D
730	1313	2151.5	54.7	172	196	111	38.3	289J	2134.9	3.9J	3.39	615	652	55.9	56.4	278	118838	225	17.3	102	462	.78	1.06	1.03	1.52	9.04	3.7J	D
731	1314	2152.0	41.2	17J	192	111	39.3	289J	2135.0	3.9J	3.39	616	648	55.7	56.6	279	118965	225	17.3	116	461	.78	1.15	1.12	1.52	9.04	3.7J	D
732	1315	2152.5	33.1	175	198	111	40.1	29J	2135.1	3.9J	3.39	616	646	55.7	56.6	28J	119063	226	17.3	15J	46J	.78	1.22	1.19	1.52	9.04	3.7J	D
733	1316	2153.0	35.1	181	216	11J	40.3	289J	2135.3	3.9J	3.39	616	646	55.7	56.6	278	119159	226	17.3	141	459	.78	1.21	1.18	1.52	9.04	3.7J	D
734	1316	2153.5	44.3	17J	184	111	40.3	289J	2135.3	3.9J	3.39	616	655	55.6	56.1	281	119231	227	17.4	111	459	.78	1.14	1.11	1.52	9.05	3.7J	D
735	1319	2154.0	9.0J	163	186	111	41.4	290J	2135.6	3.9J	3.39	616	655	55.5	56.3	278	119555	227	17.4	699	459	.79	1.62	1.60	1.52	9.05	3.7J	D
736	1324	2154.5	6.54	155	183	111	42.2	289J	2136.3	3.35	3.39	616	649	55.5	56.5	277	120067	228	17.5	681	459	.79	1.73	1.70	1.52	9.04	3.7J	D
737	1328	2155.0	7.37	154	182	111	42.2	289J	2137.2	3.35	3.39	615	648	55.6	56.2	275	120551	228	17.6	767	46J	.79	1.71	1.68	1.52	9.04	3.7	

KOORCAH JO.1

Data Printed at time J4:47 Data Dec 22 '85
 Data Recorded at time 13:52 Data Dec 11 '85

F#	TIME	DEPTH	ROP	TORQUE			PUMP	RTNS	M7 lb/gal		FLOW/MLN		TEMP (C)		PVT	-----MHS BIT-----			EST	DKC	NK	KKB	EOD	EST				
				AVG	MAX	AVG			AVG	IN	OUT	IN	OUT	IN		OUT	REVS	m							hrs	INST	RUN	T/I
741	1352	2157.5	11.1	151	172	111	39.9	297J	2140.4	3.35	3.39	622	66J	55.5	56.6	291	122409	23J	17.3	463	462	.30	1.55	1.52	1.53	9.33	3.7J	D
742	1356	2157.5	3.19	151	13J	11J	42.1	295J	2141.4	3.35	3.39	622	659	55.4	56.6	273	122326	231	17.9	632	462	.31	1.66	1.63	1.53	9.32	3.7J	D
743	1401	2153.5	6.1J	147	17J	11J	40.7	295J	2142.6	3.35	3.39	623	656	55.3	56.3	27J	123345	231	18.3	36J	463	.31	1.74	1.71	1.54	9.32	3.7J	D
744	1404	2153.5	3.33	148	138	111	41.7	297J	2144.2	3.35	3.39	623	647	55.3	55.9	268	123742	232	18.3	643	463	.31	1.66	1.63	1.54	9.31	3.7J	D
745	1407	2159.5	1J.3J	153	21J	11J	41.5	295J	2144.4	3.35	3.39	623	653	55.3	56.3	266	124076	232	18.1	513	463	.32	1.60	1.57	1.54	9.31	3.7J	D
746	1409	2159.5	19.6	156	204	11J	42.3	297J	2144.4	3.35	3.39	623	659	55.3	56.3	266	12424J	233	18.1	259	463	.32	1.40	1.37	1.54	9.31	3.7J	D
747	141J	216J.5	19.4	158	19J	11J	40.7	294J	2145.2	3.35	3.39	623	656	55.3	56.3	264	124413	233	18.1	291	463	.32	1.39	1.36	1.54	9.31	3.7J	D
743	1415	216J.5	6.41	152	17J	11J	41.3	296J	2147.3	3.35	3.39	623	659	55.1	56.5	283	124942	234	18.2	349	463	.32	1.74	1.71	1.54	8.99	3.7J	D
749	1419	2161.5	6.71	154	173	11J	41.7	296J	2149.1	3.35	3.39	623	649	53.5	56.3	298	125407	234	18.3	73J	464	.32	1.73	1.70	1.54	8.98	3.7J	D
75J	1425	2161.5	4.97	158	196	11J	42.3	297J	2151.1	3.35	3.39	623	653	51.7	56.2	333	126073	235	18.4	947	465	.33	1.83	1.80	1.54	8.97	3.7J	D
751	143J	2162.5	5.99	163	19J	11J	42.2	297J	2151.7	3.35	3.39	624	645	5J.3	55.9	362	126627	235	18.5	834	466	.33	1.77	1.74	1.55	8.96	3.7J	D
752	1437	2162.5	4.4J	180	254	11J	41.9	297J	2152.4	3.35	3.39	622	65J	48.1	55.9	399	127377	236	18.6	1J17	467	.34	1.86	1.83	1.55	8.96	3.7J	D
753	1442	2163.5	7.95	163	238	11J	41.1	294J	2152.9	3.35	3.39	624	65J	48.3	55.9	392	127845	236	18.6	708	468	.34	1.71	1.68	1.55	8.95	3.7J	D
754	1446	2163.5	6.12	156	178	11J	41.6	295J	2153.3	3.35	3.39	623	655	49.3	55.3	388	128387	237	18.7	835	463	.35	1.76	1.73	1.55	8.95	3.7J	D
755	1449	2164.5	14.1	179	28J	1J9	41.1	295J	2153.4	3.35	3.39	622	665	49.9	55.1	388	128629	237	18.3	375	468	.35	1.5J	1.47	1.55	8.96	3.7J	D
756	1449	2164.5	38.6	18J	252	1J9	39.5	294J	2153.4	3.35	3.39	622	657	49.9	55.1	389	128711	238	18.3	124	468	.35	1.18	1.15	1.55	8.96	3.7J	D
757	145J	2165.5	47.3	205	316	1J8	38.6	294J	2153.4	3.35	3.39	622	662	49.9	55.1	39J	128779	238	18.3	1J6	467	.35	1.1J	1.07	1.55	8.96	3.7J	D
758	1451	2165.5	49.7	161	194	11J	38.2	294J	2153.5	3.35	3.39	623	661	50.5	54.8	389	12884J	239	18.3	94	466	.35	1.09	1.06	1.56	8.96	3.7J	D
759	15J6	2166.5	36.7	112	17J	1J2	41.3	291J	2154.6	3.35	3.39	595	618	52.4	53.8	395	128977	239	18.3	134	465	.35	1.19	1.16	1.55	8.95	3.7J	D
76J	151J	2166.5	7.46	151	188	1J9	4J.7	291J	2155.1	3.35	3.39	619	665	52.6	53.8	391	129432	24J	18.9	879	466	.35	1.68	1.65	1.56	8.96	3.7J	D
761	1514	2167.5	3.16	149	194	1J9	41.7	291J	2155.5	3.35	3.39	618	663	52.8	54.9	392	129383	24J	18.9	652	466	.35	1.67	1.64	1.56	8.96	3.7J	D
762	1519	2167.5	6.12	158	226	1J9	41.5	291J	2156.6	3.35	3.39	619	636	53.1	55.6	391	13J334	241	19.3	772	467	.36	1.75	1.72	1.56	8.96	3.7J	D
763	1524	2168.5	5.23	155	294	1J9	42.3	29J	2157.5	3.35	3.39	619	656	53.6	55.5	388	13J953	241	19.1	359	468	.36	1.81	1.78	1.56	8.96	3.7J	D
764	1529	2168.5	7.36	147	173	11J	41.7	292J	2158.3	3.35	3.39	618	656	53.8	55.1	383	131425	242	19.2	731	463	.37	1.72	1.68	1.57	8.96	3.7J	D
765	1533	2169.5	7.99	147	134	11J	41.5	291J	2158.4	3.35	3.39	618	659	54.3	55.3	389	131882	242	19.3	697	469	.37	1.71	1.68	1.57	8.96	3.7J	D
766	1537	2169.5	6.48	144	172	1J9	42.4	291J	2158.3	3.35	3.39	619	643	54.4	55.3	385	132387	243	19.3	335	469	.37	1.75	1.72	1.57	8.96	3.7J	D
767	1542	217J.5	6.9J	149	172	11J	41.3	291J	2159.1	3.35	3.39	619	643	54.7	55.4	383	132885	243	19.4	697	47J	.38	1.72	1.69	1.57	8.96	3.7J	D
768	1543	217J.5	21.5	162	194	1J9	41.4	292J	2159.3	3.35	3.39	613	643	54.7	55.4	381	133032	244	19.4	355	47J	.38	1.37	1.34	1.57	8.96	3.7J	D
769	1544	2171.5	83.3	172	224	1J7	37.6	292J	2159.3	3.35	3.39	618	639	54.7	55.4	381	133J71	244	19.4	719	469	.38	.93	.9J	1.57	8.96	3.7J	D
77J	1545	2171.5	22.3	153	198	1J9	38.5	291J	2159.4	3.35	3.39	619	644	54.3	54.9	379	1332J0	245	19.5	315	468	.38	1.33	1.30	1.57	8.96	3.7J	D
771	1549	2172.5	6.63	148	172	11J	42.5	292J	2159.9	3.35	3.39	619	638	55.3	55.6	376	133693	245	19.5	334	469	.38	1.74	1.71	1.58	8.96	3.7J	D
772	1554	2172.5	6.9J	149	174	1J9	42.9	291J	2160.4	3.35	3.39	619	65J	55.3	55.8	381	134237	246	19.6	781	469	.38	1.78	1.74	1.58	8.96	3.7J	D
773	1559	2173.5	6.64	149	176	1J9	42.7	293J	2161.3	3.35	3.39	619	641	55.3	55.7	391	13473J	246	19.7	759	47J	.39	1.75	1.71	1.58	8.96	3.7J	D
774	16J2	2173.5	8.3J	151	192	11J	42.5	293J	2162.8	3.35	3.39	618	643	55.2	55.6	39J	135136	247	19.8	616	47J	.39	1.69	1.65	1.58	8.96	3.7J	D
775	16J7	2174.5	6.67	15J	172	11J	42.8	293J	2162.9	3.35	3.39	618	634	55.3	55.8	385	135635	247	19.8	868	471	.39	1.75	1.71	1.59	8.96	3.7J	D
776	1611	2174.5	6.33	148	182	1J9	41.8	292J	2163.5	3.35	3.39	617	634	55.4	55.7	381	13613J	248	19.9	758	472	.9J	1.73	1.69	1.59	8.96	3.7J	D
777	1613	2175.5	15.3	131	184	1J8	41.5	285J	2163.7	3.35	3.39	618	634	55.5	55.8	38J	136329	243	19.9	345	471	.9J	1.46	1.43	1.59	8.96	3.7J	D
778	171J	2175.5	35.1	183	192	11J	39.2	293J	2165.1	3.35	3.39	615	612	55.5	57.6	403	136416	249	19.9	317	471	.9J	1.21	1.18	1.59	8.95	3.7J	D
779	1711	2176.5	45.6	178	196	1J9	39.6	292J	2165.2	3.35	3.39	614	639	55.5	57.6	4J1	136482	249	2J.3	117	47J	.9J	1.13	1.1J	1.59	8.96	3.7J	D
78J	1711	2176.5	58.3	176	2J2	11J	38.3	292J	2165.3	3.35	3.39	614	64J	55.1	55.2	40J	136535	25J	2J.8	1J4	469	.9J	1.05	1.01	1.59	8.96	3.7J	D
781	1712	2177.5	51.5	177	292	11J	39.2	292J	2165.3	3.35	3.39	614	653	55.1	55.2	398	136597	25J	2J.3	93	468	.9J	1.09	1.06	1.59	8.96	3.7J	D
782	1713	2177.5	31.3	166	186	11J	40.2	292J	2165.4	3.35	3.39	614	649	55.1	55.2	394	136698	251	2J.3	154	468	.9J	1.24	1.21	1.59	8.96	3.7J	D
783	1713	2178.5	45.9	171	186	11J	38.3	292J	2165.5	3.35	3.39	614	645	55.1	55.2	39J	136759	251	2J.3	11J	467	.9J	1.12	1.09	1.59	8.97	3.7J	D
784	1714	2178.5	28.3	17J	238	11J	39.2	293J	2165.6	3.35	3.39	614	629	54.5	48.7	39J	136872	252	2J.3	165	466	.9J	1.27	1.23	1.59	8.97	3.7J	D
785	1715	2179.5	34.3	189	31J	1J8	38.8	293J	2165.7	3.35	3.39	615	65J	54.5	48.7	387	136963	252	2J.3	135	466	.9J	1.2J	1.17	1.59	8.97	3.7J	D
786	1716	2179.5	3J.2	163	258	1J9	35.4	295J	2165.8	3.35	3.39	616	658	54.5	43.7	389	137067	253	2J.3	175	465	.9J	1.21	1.18	1.59	8.97	3.7J	D
787	1717	218																										

KOORKAH NO.1

Data Printed at time J4:51 Date Dec 22 '85
 Data Recorded at time 17:27 Date Dec 11 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS		M7 lb/gal		FLOI/MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	DNC	.K	.K3	DGD	EST		
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		IN	OUT	IN							OUT	REVS
791	1727	2132.0	15.2	154	190	11.2	38.3	2960	2166.3	3.35	3.39	623	649	53.7	54.6	387	137733	255	20.1	308	463	.91	1.45	1.41	1.59	3.98	3.70	D
792	1729	2132.5	15.3	156	188	11.2	38.0	2950	2167.1	3.35	3.39	620	650	53.7	55.3	386	137949	256	20.2	308	462	.91	1.43	1.40	1.58	3.98	3.70	D
793	1731	2133.0	17.3	155	182	11.2	37.1	2960	2167.5	3.35	3.39	620	646	53.7	55.3	387	138143	256	20.2	296	462	.91	1.39	1.35	1.58	3.98	3.70	D
794	1734	2133.5	9.30	153	186	11.2	38.9	2950	2168.7	3.35	3.39	619	643	53.7	55.5	386	138491	257	20.3	776	462	.91	1.60	1.57	1.58	3.98	3.70	D
795	1737	2134.0	9.72	154	216	11.2	39.3	2930	2169.1	3.35	3.39	620	649	54.3	56.1	390	138829	257	20.3	537	462	.92	1.59	1.56	1.58	3.98	3.70	D
796	1738	2134.5	20.3	139	334	10.8	37.5	2930	2169.3	3.35	3.39	623	642	54.0	56.1	389	138991	258	20.3	272	462	.92	1.34	1.31	1.58	3.98	3.70	D
797	1747	2135.0	55.2	135	200	10.6	33.9	2950	2169.3	3.35	3.39	615	587	54.2	55.9	387	139059	258	20.3	131	461	.92	1.97	.94	1.58	3.98	3.70	D
798	1748	2135.5	38.3	163	190	11.1	33.3	2960	2169.9	3.35	3.39	671	633	54.2	55.9	387	139133	259	20.4	106	460	.92	1.12	1.09	1.58	3.98	3.70	D
799	1748	2136.0	41.1	167	192	11.1	35.9	2930	2169.9	3.35	3.39	653	637	54.3	55.9	387	139207	259	20.4	114	460	.92	1.13	1.09	1.58	3.99	3.70	D
800	1751	2136.5	9.08	157	196	11.1	38.1	2930	2170.3	3.35	3.39	617	647	54.5	54.1	386	139513	260	20.4	373	460	.92	1.59	1.56	1.58	3.99	3.70	D
801	1753	2137.0	20.5	159	204	11.1	36.9	2930	2170.5	3.35	3.39	617	653	54.5	54.1	386	139674	260	20.4	249	459	.92	1.34	1.31	1.58	3.99	3.70	D
802	1754	2137.5	23.9	160	188	11.1	36.4	2910	2170.7	3.35	3.39	617	656	54.3	55.1	385	139813	261	20.5	214	459	.92	1.29	1.26	1.58	3.99	3.70	D
803	1755	2138.0	28.3	163	192	11.1	35.9	2910	2170.8	3.35	3.39	617	656	54.3	55.1	384	139923	261	20.5	176	458	.92	1.23	1.20	1.58	3.99	3.70	D
804	1756	2138.5	35.0	172	216	11.0	35.9	2920	2170.9	3.35	3.39	618	654	54.3	55.1	384	140016	262	20.5	124	458	.92	1.17	1.14	1.58	3.99	3.70	D
805	1758	2139.0	11.3	151	190	11.2	35.4	2930	2171.2	3.35	3.39	617	647	54.5	56.1	383	140311	262	20.5	212	458	.92	1.49	1.46	1.58	3.99	3.70	D
806	1803	2139.5	6.36	150	170	11.2	37.3	2920	2171.3	3.35	3.39	617	644	54.6	55.8	383	140853	263	20.6	810	458	.93	1.70	1.67	1.58	3.99	3.70	D
807	1809	2139.0	5.23	150	168	11.2	38.9	2930	2172.3	3.35	3.39	617	638	54.9	55.6	381	141502	263	20.7	983	459	.93	1.77	1.73	1.58	3.99	3.70	D
808	1814	2139.5	6.16	149	170	11.2	39.4	2930	2172.3	3.35	3.39	617	620	55.1	55.7	381	142063	264	20.8	361	460	.94	1.73	1.69	1.59	3.99	3.70	D
809	1818	2139.0	6.63	211	364	10.2	37.3	2910	2172.4	3.35	3.39	617	646	55.0	55.7	378	142537	264	20.9	742	461	.94	1.65	1.62	1.59	3.99	3.70	D
810	1822	2139.5	12.4	190	362	10.1	34.1	2910	2174.1	3.35	3.39	613	644	55.2	55.6	381	142700	265	20.9	392	460	.94	1.42	1.39	1.59	3.99	3.70	D
811	1824	2139.0	13.9	155	196	10.9	31.4	2920	2175.4	3.35	3.39	616	631	55.3	55.4	380	143015	265	20.9	358	460	.94	1.38	1.35	1.59	3.99	3.70	D
812	1826	2139.5	14.9	151	180	11.0	35.7	2920	2176.4	3.35	3.39	615	648	55.3	55.3	379	143233	266	21.0	335	460	.94	1.42	1.38	1.58	3.98	3.70	D
813	1831	2139.0	5.33	148	168	11.0	38.4	2910	2177.7	3.35	3.39	615	645	55.3	56.2	372	143775	266	21.1	676	461	.95	1.70	1.67	1.59	3.98	3.70	D
814	1837	2139.5	4.34	142	162	11.1	39.3	2900	2179.8	3.35	3.39	620	642	55.1	55.9	369	144512	267	21.2	1224	462	.95	1.33	1.29	1.59	3.97	3.70	D
815	1849	2139.0	9.42	151	192	11.0	36.6	2930	2181.4	3.35	3.39	615	652	55.0	55.8	366	144990	267	21.2	544	462	.95	1.56	1.53	1.59	3.96	3.70	D
816	1850	2139.5	32.9	166	212	11.1	36.3	2910	2181.6	3.35	3.39	615	647	55.0	55.3	369	145072	268	21.2	145	462	.95	1.20	1.17	1.59	3.97	3.70	D
817	1850	2139.0	39.0	165	196	11.1	36.0	2920	2181.3	3.35	3.39	614	637	54.9	55.3	363	145155	268	21.3	131	461	.96	1.15	1.11	1.59	3.97	3.70	D
818	1855	2139.5	27.4	138	188	10.9	35.1	2930	2182.0	3.35	3.39	606	601	54.9	55.4	363	145279	269	21.3	173	461	.96	1.23	1.20	1.59	3.97	3.70	D
819	1858	2139.0	11.4	160	208	10.9	38.3	2920	2183.3	3.35	3.39	616	652	54.3	55.9	365	145528	269	21.3	581	460	.96	1.52	1.49	1.59	3.97	3.70	D
820	1900	2139.5	12.0	161	236	10.8	38.1	2930	2183.7	3.35	3.39	615	650	54.3	55.1	366	145800	270	21.4	436	460	.96	1.51	1.47	1.59	3.97	3.70	D
821	1905	2139.0	12.6	147	362	9.3	24.5	2900	2185.3	3.35	3.39	611	650	54.8	55.8	366	146039	270	21.4	465	460	.96	1.28	1.25	1.59	3.96	3.70	D
822	1907	2139.5	17.0	155	198	10.8	33.4	2900	2186.0	3.35	3.39	615	634	54.3	56.3	365	146223	271	21.4	311	460	.96	1.35	1.32	1.59	3.96	3.70	D
823	1910	2139.0	11.0	154	190	11.1	37.7	2900	2186.3	3.35	3.39	615	642	54.7	56.4	366	146530	271	21.5	409	460	.96	1.53	1.50	1.59	3.96	3.70	D
824	1911	2139.5	28.3	171	204	11.1	36.0	2910	2186.4	3.35	3.39	616	629	54.7	56.4	368	146635	272	21.5	175	460	.96	1.23	1.20	1.59	3.96	3.70	D
825	1912	2139.0	29.0	201	320	10.8	34.3	2900	2186.5	3.35	3.39	614	642	54.7	56.4	368	146749	272	21.5	172	459	.96	1.21	1.18	1.59	3.96	3.70	D
826	1912	2139.5	39.2	193	274	10.7	33.2	2900	2186.5	3.35	3.39	615	644	54.7	56.4	367	146828	273	21.5	132	458	.96	1.11	1.08	1.59	3.97	3.70	D
827	1913	2200.0	39.7	196	336	10.8	34.9	2890	2186.6	3.35	3.39	615	643	54.7	56.4	368	146935	273	21.5	117	458	.97	1.12	1.09	1.59	3.97	3.70	D
828	1914	2200.5	26.1	173	268	10.9	34.9	2910	2186.7	3.35	3.39	614	641	54.3	56.4	368	147031	274	21.6	135	457	.97	1.25	1.21	1.59	3.97	3.70	D
829	1915	2201.0	22.3	169	212	11.1	36.1	2900	2186.8	3.35	3.39	620	628	54.3	56.4	368	147174	274	21.6	228	457	.97	1.30	1.27	1.59	3.97	3.70	D
830	1919	2201.5	18.0	165	360	9.7	28.3	2880	2187.1	3.35	3.39	611	644	55.0	56.4	369	147337	275	21.6	325	457	.97	1.24	1.21	1.59	3.97	3.70	D
831	1921	2202.0	12.3	150	198	10.8	32.8	2880	2187.3	3.35	3.39	612	653	55.0	56.4	368	147579	275	21.6	425	456	.97	1.42	1.39	1.59	3.98	3.70	D
832	1923	2202.5	15.5	152	186	10.8	36.0	2890	2187.5	3.35	3.39	613	640	55.1	56.9	368	147787	276	21.7	335	456	.97	1.40	1.37	1.59	3.98	3.70	D
833	1941	2203.0	5.36	146	168	10.8	37.8	2900	2189.8	3.35	3.39	614	638	55.6	54.1	367	148374	276	21.8	671	457	.97	1.69	1.65	1.59	3.97	3.70	D
834	1944	2203.5	9.48	151	176	11.1	37.0	2880	2190.1	3.35	3.39	618	659	55.6	56.1	364	148745	277	21.8	543	457	.98	1.57	1.53	1.59	3.97	3.70	D
835	1949	2204.0	5.24	149	186	11.1	37.9	2880	2190.5	3.35	3.39	614	640	55.6	57.0	363	149360	277	21.9	973	458	.98	1.76	1.72	1.59	3.97	3.70	D
836	1956	2204.5	4.31	148	170	11.1	38.4	2870	2190.7	3.35	3.39	612	655	55.7	56.6	365	150108	278	22.0									

KOORCAH NO.1

Data Printed at time J4:55 Date Dec 22 '35
Data Recorded at time 20:24 Date Dec 11 '35

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTNS		M/lb/gal		L/O/MIN		TEMP (C)	PVT	---THIS BIT---			EST	DKC	K	KKB	ECD	EST			
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT			IN	OUT	IN							OUT	REVS	m
341	2224	2227.0	4.42	150	200	11.1	37.3	2920	2198.1	3.35	3.39	626	643	56.0	56.0	356	153153	230	22.5	1039	463	1.00	1.31	1.77	1.60	3.95	3.70	D
342	2230	2227.5	4.49	148	168	11.1	39.0	2920	2199.6	3.35	3.39	621	647	55.9	56.0	356	153903	231	22.6	1133	464	1.01	1.32	1.78	1.61	3.94	3.70	D
343	2238	2228.0	4.21	149	172	11.1	40.7	2910	2199.9	3.35	3.39	623	651	55.9	56.6	353	154721	231	22.7	1134	466	1.02	1.37	1.33	1.61	3.94	3.70	D
344	2245	2228.5	4.32	150	168	11.0	39.3	2910	2200.2	3.35	3.39	626	644	55.3	56.0	354	155507	232	22.8	1204	467	1.02	1.36	1.82	1.61	3.94	3.70	D
345	2249	2229.0	7.39	155	180	11.0	39.5	2920	2200.7	3.35	3.39	623	647	55.8	56.1	352	155977	232	22.9	720	467	1.02	1.63	1.64	1.62	3.94	3.70	D
346	2253	2229.5	7.95	156	190	11.1	39.2	2910	2201.0	3.35	3.39	636	648	55.7	56.2	352	156330	233	23.0	627	468	1.03	1.65	1.62	1.62	3.94	3.70	D
347	2255	2210.0	15.4	160	198	11.0	38.8	2910	2202.3	3.35	3.99	619	651	55.7	55.9	354	156601	233	23.0	343	467	1.03	1.45	1.41	1.61	3.95	3.70	D
348	2259	2210.5	6.15	145	232	11.1	39.3	2910	2204.7	3.35	9.10	640	654	55.7	56.2	352	157060	234	23.1	1124	468	1.03	1.74	1.70	1.62	3.93	3.70	D
349	2104	2211.0	5.37	151	168	11.1	40.5	2910	2205.7	3.35	9.10	619	650	55.6	56.1	354	157627	234	23.1	355	469	1.04	1.76	1.73	1.62	3.93	3.70	D
350	2108	2211.5	3.37	156	188	11.1	40.6	2910	2205.9	3.35	9.10	619	647	55.5	56.1	355	158025	235	23.2	642	469	1.04	1.66	1.62	1.62	3.93	3.70	D
351	2108	2212.0	43.2	191	290	10.8	38.0	2920	2205.9	3.35	9.10	619	650	55.5	56.0	353	158095	235	23.2	113	468	1.04	1.13	1.10	1.62	3.93	3.70	D
352	2110	2213.0	23.5	172	260	10.9	36.8	2890	2206.0	3.35	9.10	611	623	55.5	56.0	353	158212	236	23.2	274	468	1.04	1.34	1.30	1.62	3.93	3.70	D
353	2120	2213.5	35.1	160	176	11.1	37.2	2930	2206.5	3.35	9.10	613	654	55.4	55.7	352	158233	237	23.2	235	466	1.04	1.19	1.16	1.62	3.94	3.70	D
354	2122	2214.0	16.3	168	192	11.1	38.0	2920	2206.5	3.35	9.10	620	651	55.4	55.7	351	158491	237	23.3	333	466	1.04	1.43	1.39	1.62	3.94	3.70	D
355	2124	2214.5	17.5	161	176	11.1	37.9	2920	2206.6	3.35	9.10	620	646	55.2	55.9	352	158665	238	23.3	255	466	1.04	1.40	1.37	1.62	3.95	3.70	D
356	2125	2215.0	13.4	162	186	11.1	38.7	2910	2206.7	3.35	9.10	619	649	55.2	56.3	354	158841	238	23.3	272	465	1.04	1.40	1.36	1.61	3.95	3.70	D
357	2127	2215.5	22.1	165	194	11.1	39.0	2910	2206.8	3.35	9.10	620	658	55.2	56.3	353	158988	239	23.4	244	465	1.04	1.34	1.31	1.61	3.96	3.70	D
358	2133	2216.0	22.4	155	200	10.7	37.3	2940	2207.0	3.35	9.10	635	592	55.1	55.6	354	159149	239	23.4	232	465	1.05	1.32	1.28	1.61	3.97	3.70	D
359	2148	2216.5	3.26	166	348	10.5	25.5	2950	2207.7	3.35	9.10	621	644	55.2	56.3	353	159517	239	23.4	525	465	1.05	1.43	1.39	1.61	3.90	3.70	D
360	2149	2217.0	17.1	177	360	9.7	34.6	2920	2207.7	3.35	9.10	621	640	55.2	56.2	357	159678	239	23.5	230	464	1.05	1.32	1.29	1.61	3.91	3.70	D
361	2202	2217.5	4.38	227	362	11.9	18.3	2910	2208.6	3.35	9.10	620	652	55.2	56.1	360	160393	239	23.6	320	465	1.05	1.46	1.43	1.61	3.94	3.70	D
362	2204	2218.0	25.0	157	308	12.0	25.1	2910	2208.7	3.35	9.10	620	635	55.2	56.1	362	160536	239	23.6	266	465	1.05	1.16	1.13	1.61	3.94	3.70	D
363	2205	2218.5	13.6	200	352	11.2	36.4	2880	2208.8	3.35	9.10	613	642	55.2	56.0	362	160716	239	23.6	253	465	1.05	1.36	1.32	1.61	3.95	3.70	D
364	2210	2219.0	12.6	197	366	10.6	21.3	2900	2209.2	3.35	9.10	613	620	55.2	56.2	363	160993	239	23.7	356	465	1.05	1.26	1.23	1.61	3.96	3.70	D
365	2216	2219.5	14.6	157	366	9.9	17.6	2930	2210.0	3.35	9.10	614	640	55.2	56.0	365	161198	239	23.7	778	465	1.05	1.14	1.11	1.61	3.98	3.70	D
366	2217	2220.0	21.1	151	194	10.7	18.0	2370	2210.5	3.35	9.10	614	638	55.2	56.0	368	161344	239	23.7	235	464	1.06	1.07	1.04	1.62	3.98	3.70	D
367	2218	2220.5	26.6	176	268	10.6	19.6	2370	2210.9	3.35	9.10	614	636	55.1	55.3	369	161466	239	23.7	247	464	1.06	1.04	1.01	1.61	3.98	3.70	D
368	2220	2221.0	15.5	168	358	10.5	22.0	2370	2210.9	3.35	9.10	617	640	55.1	55.3	370	161645	239	23.8	239	463	1.06	1.20	1.17	1.62	3.98	3.70	D
369	2222	2221.5	15.4	167	218	10.6	23.3	2370	2211.0	3.35	9.10	633	631	55.1	55.7	370	161346	239	23.8	306	463	1.06	1.22	1.19	1.61	3.99	3.70	D
370	2226	2222.0	9.92	189	352	9.9	26.1	2390	2211.2	3.35	9.10	616	633	55.1	55.9	374	162163	239	23.8	1608	463	1.06	1.36	1.33	1.61	3.90	3.70	D
371	2244	2222.5	17.3	147	172	11.0	23.2	2960	2213.9	3.35	9.10	611	631	55.0	53.6	379	162372	239	23.9	275	463	1.06	1.16	1.13	1.61	3.99	3.70	D
372	2245	2223.0	22.9	212	348	10.6	26.9	2920	2213.9	3.35	9.10	625	637	55.0	53.6	372	162504	239	23.9	206	462	1.06	1.17	1.14	1.61	3.90	3.70	D
373	2308	2223.5	9.40	194	364	9.7	17.1	2560	2216.3	3.35	9.10	579	608	54.5	56.0	377	162816	239	24.0	380	463	1.06	1.23	1.20	1.61	3.98	3.70	D
374	2311	2224.0	17.7	147	182	10.6	26.0	2900	2216.7	3.35	9.10	611	631	54.5	55.3	378	163004	239	24.0	322	462	1.06	1.23	1.19	1.61	3.99	3.70	D
375	2312	2224.5	30.4	160	192	11.0	29.8	2900	2216.9	3.35	9.10	616	643	54.5	55.3	379	163110	238	24.0	163	462	1.06	1.14	1.10	1.61	3.99	3.70	D
376	2313	2225.0	23.5	166	188	11.0	36.0	2920	2217.1	3.35	9.10	613	644	54.5	55.3	379	163244	238	24.0	237	461	1.06	1.27	1.24	1.61	3.99	3.70	D
377	2314	2225.5	42.0	177	206	11.1	37.1	2900	2217.2	3.35	9.10	613	648	54.5	55.3	378	163324	239	24.0	117	461	1.06	1.12	1.08	1.61	3.99	3.70	D
378	2314	2226.0	45.0	178	204	11.0	35.8	2920	2217.4	3.35	9.10	613	645	54.5	55.3	376	163393	239	24.0	113	460	1.07	1.08	1.05	1.61	3.99	3.70	D
379	2315	2226.5	40.0	201	252	11.0	36.2	2910	2217.5	3.35	9.10	613	641	54.5	55.3	377	163463	300	24.1	122	460	1.07	1.12	1.08	1.61	3.99	3.70	D
380	2316	2227.0	43.9	204	224	11.0	37.1	2920	2217.6	3.35	9.10	617	639	54.6	55.3	381	163538	300	24.1	106	459	1.07	1.07	1.04	1.61	3.90	3.70	D
381	2316	2227.5	41.0	188	212	11.0	37.1	2910	2217.6	3.35	9.10	622	638	54.6	55.3	392	163611	301	24.1	121	459	1.07	1.12	1.09	1.62	3.90	3.70	D
382	2317	2228.0	30.7	235	354	10.6	36.2	2910	2217.6	3.35	9.10	613	637	54.6	55.3	381	163714	301	24.1	162	458	1.07	1.19	1.15	1.61	3.90	3.70	D
383	2318	2228.5	26.3	175	200	11.0	37.0	2900	2217.6	3.35	9.10	616	643	54.6	54.3	378	163835	302	24.1	131	458	1.07	1.24	1.21	1.62	3.90	3.70	D
384	2320	2229.0	19.0	176	196	11.1	37.2	2910	2217.9	3.35	9.10	613	635	54.6	54.3	380	164009	302	24.1	283	457	1.07	1.35	1.31	1.61	3.90	3.70	D
385	2321	2229.5	25.0	170	188	11.0	37.5	2920	2218.1	3.35	9.10	619	643	54.6	54.3	382	164137	303	24.2	228	457	1.07	1.27	1.23	1.62	3.90	3.70	D
386	2323	2230.0	16.0	168	192	11.1	37.7	2930	2218.2	3.35	9.1																	

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTNS		M/lb/gal		FLO/MLI		TEMP (C)		PVI	-----THIS BIT-----			---COST---		EST P/H	DKC	WK	KKB	ECD	EST PM PR
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	IN	OUT	IN		OUT	REVS	m	hrs	INST						
391	2349	2232.5	24.9	165	193	123	36.3	293J	222J.6	3.35	9.1J	624	63J	54.2	52.7	334	165213	306	24.3	215	455	1.38	1.23	1.24	1.61	9.11	3.73	D
392	2350	2233.0	21.6	175	244	119	35.9	297J	222J.6	3.35	9.1J	625	644	54.2	52.7	335	165376	306	24.3	223	455	1.38	1.32	1.28	1.61	9.11	3.73	D
393	2351	2233.5	26.3	165	212	122	34.4	293J	222J.6	3.35	9.1J	625	644	54.1	54.3	385	165514	307	24.4	214	454	1.38	1.25	1.21	1.61	9.12	3.73	D
394	2353	2234.0	12.7	162	233	122	35.7	297J	222J.6	3.35	9.1J	624	643	54.1	54.3	383	165797	307	24.4	379	454	1.38	1.47	1.43	1.61	9.12	3.73	D
395	2356	2234.5	14.4	161	206	122	35.3	293J	222J.3	3.35	9.1J	626	622	54.1	55.3	382	166352	303	24.4	469	454	1.38	1.43	1.39	1.61	9.12	3.73	D
396	2358	2235.0	13.9	157	134	122	36.3	297J	2221.1	3.35	9.1J	626	63J	54.0	55.2	385	166334	338	24.5	423	454	1.38	1.52	1.48	1.61	9.12	3.73	D
Date Dec 12 '85																												
397	0002	2235.5	7.33	156	174	123	36.6	297J	2221.2	3.35	9.1J	625	633	54.0	55.3	385	166849	309	24.5	672	454	1.39	1.62	1.58	1.61	9.12	3.73	D
398	0007	2236.0	6.15	149	166	122	35.3	297J	2221.3	3.35	9.1J	625	636	54.1	54.7	383	167445	309	24.6	302	455	1.39	1.63	1.64	1.61	9.12	3.73	D
399	0011	2236.5	6.64	143	163	123	36.8	296J	2221.5	3.35	9.1J	624	647	54.1	54.3	378	167997	313	24.7	736	455	1.39	1.67	1.63	1.61	9.13	3.73	D
399	0016	2237.0	6.61	147	156	122	36.9	295J	2221.6	3.35	9.1J	625	641	54.2	55.1	383	168573	313	24.8	783	456	1.13	1.67	1.63	1.61	9.13	3.73	D
901	0031	2233.0	5.63	150	162	122	36.3	293J	2226.3	3.35	9.1J	639	64J	54.1	54.3	373	169917	311	25.0	961	457	1.11	1.72	1.68	1.62	9.11	3.73	D
902	0033	2238.5	14.5	162	133	121	35.6	293J	2227.6	3.35	9.1J	633	642	54.0	54.1	37J	170163	312	25.0	472	457	1.11	1.43	1.39	1.62	9.11	3.73	D
903	0035	2239.0	20.9	164	176	121	36.1	293J	2228.1	3.35	9.1J	635	654	54.0	54.1	369	170328	312	25.0	229	457	1.11	1.33	1.29	1.62	9.11	3.73	D
904	0036	2239.5	16.5	165	136	121	36.5	297J	2228.5	3.35	9.1J	629	638	53.5	54.3	373	170553	313	25.0	298	457	1.11	1.41	1.36	1.62	9.11	3.73	D
905	0038	2240.0	15.4	160	174	121	36.6	297J	2229.3	3.35	9.1J	629	643	53.4	54.5	371	170779	313	25.1	323	456	1.11	1.43	1.38	1.62	9.11	3.73	D
906	0041	2240.5	9.39	159	133	121	37.3	297J	2229.6	3.35	9.1J	638	623	53.3	54.2	367	171147	314	25.1	613	456	1.12	1.56	1.52	1.62	9.11	3.73	D
907	0056	2241.4	6.31	151	163	119	36.4	297J	2230.5	3.35	9.1J	625	623	53.1	54.4	363	171502	315	25.2	716	457	1.12	1.65	1.61	1.61	9.13	3.73	D
908	0057	2242.0	2.67	151	172	113	36.7	297J	2230.6	3.35	9.1J	625	642	53.1	54.4	369	171634	315	25.2	936	455	1.12	1.92	1.38	1.61	9.11	3.73	D
909	0102	2242.5	5.56	155	136	113	37.3	297J	2231.0	3.35	9.1J	629	641	53.0	53.3	363	172217	316	25.3	1141	456	1.12	1.72	1.68	1.62	9.11	3.73	D
910	0103	2243.0	21.0	169	192	117	36.7	296J	2231.2	3.35	9.1J	623	644	53.0	53.3	369	172383	316	25.3	309	456	1.12	1.33	1.29	1.62	9.11	3.73	D
911	0104	2243.5	26.6	163	176	113	35.4	297J	2231.5	3.35	9.1J	627	639	52.9	54.3	369	172533	317	25.3	203	455	1.13	1.25	1.21	1.62	9.11	3.73	D
912	0106	2244.0	21.9	165	137	113	36.3	297J	2232.0	3.35	9.1J	626	649	52.9	54.3	371	172640	317	25.3	216	455	1.13	1.32	1.28	1.62	9.11	3.73	D
913	0107	2244.5	23.3	162	134	113	36.3	297J	2232.6	3.35	9.1J	626	64J	52.9	54.3	367	172805	313	25.4	261	454	1.13	1.33	1.29	1.62	9.11	3.73	D
914	0113	2245.0	4.49	153	174	113	37.6	297J	2234.1	3.35	9.1J	625	635	52.7	53.9	371	173523	313	25.5	1574	455	1.13	1.79	1.75	1.62	9.11	3.73	D
915	0120	2245.5	4.46	153	173	113	36.7	297J	2235.2	3.35	9.1J	664	632	52.6	53.3	37J	174322	319	25.6	1132	456	1.14	1.73	1.74	1.62	9.13	3.73	D
916	0127	2246.0	4.33	143	166	119	37.5	297J	2236.0	3.35	9.1J	626	643	52.6	54.0	373	175212	319	25.7	1197	453	1.14	1.32	1.78	1.63	9.13	3.73	D
917	0134	2246.5	4.20	160	212	113	37.4	297J	2236.3	3.35	9.1J	625	64J	52.6	54.2	363	176053	320	25.8	1158	459	1.15	1.30	1.76	1.63	9.13	3.73	D
918	0141	2247.0	4.27	151	203	113	37.3	297J	2237.2	3.35	9.1J	625	640	52.7	54.3	371	176885	320	25.9	1296	463	1.15	1.79	1.75	1.63	9.13	3.73	D
919	0148	2247.5	4.58	156	136	116	37.7	296J	2238.4	3.35	9.1J	624	637	52.7	53.9	369	177669	321	26.0	1143	461	1.16	1.73	1.74	1.63	9.13	3.73	D
920	0154	2248.0	5.39	169	272	117	36.9	295J	2239.3	3.35	9.1J	624	64J	52.8	51.9	363	178241	321	26.1	399	462	1.16	1.73	1.66	1.64	9.39	3.73	D
921	0159	2248.5	5.35	165	204	113	37.3	295J	2240.3	3.35	9.1J	624	631	52.7	52.3	367	178391	322	26.2	1331	462	1.17	1.74	1.70	1.64	9.39	3.73	D
922	0206	2249.0	4.69	153	173	113	38.3	296J	2240.6	3.35	9.1J	624	623	52.5	51.3	366	179633	322	26.3	1173	463	1.17	1.76	1.72	1.64	9.39	3.73	D
923	0213	2249.5	4.38	152	162	113	37.7	295J	2242.3	3.35	9.1J	624	626	52.3	52.3	367	180382	323	26.5	1164	464	1.13	1.73	1.74	1.64	9.39	3.73	D
924	0219	2250.0	4.96	154	166	111	41.9	297J	2243.4	3.35	9.1J	624	633	52.1	51.3	363	181017	323	26.6	1173	465	1.13	1.33	1.76	1.65	9.38	3.73	D
925	0225	2250.5	4.53	153	166	111	43.8	297J	2243.3	3.35	9.1J	624	632	51.8	51.9	365	181753	324	26.7	1363	466	1.19	1.36	1.31	1.65	9.38	3.73	D
926	0240	2251.0	5.96	155	172	111	43.3	296J	2244.6	3.35	9.1J	621	642	51.6	52.3	359	182542	324	26.3	359	467	1.19	1.77	1.73	1.65	9.38	3.73	D
927	0246	2251.5	5.33	150	164	111	43.2	297J	2245.0	3.35	9.1J	621	642	51.6	53.1	357	183233	325	26.9	937	463	1.20	1.32	1.77	1.66	9.38	3.73	D
928	0251	2252.0	6.39	147	163	111	44.1	297J	2245.3	3.35	9.1J	622	637	51.6	54.3	363	183719	325	27.0	792	469	1.20	1.75	1.71	1.66	9.38	3.73	D
929	0256	2252.5	5.39	147	164	111	42.6	293J	2245.7	3.35	9.1J	622	639	51.7	53.7	353	184303	326	27.0	855	469	1.21	1.76	1.72	1.66	9.38	3.73	D
930	0301	2253.0	6.39	149	164	111	42.9	293J	2246.0	3.35	9.1J	622	632	51.9	53.7	356	184302	326	27.1	796	473	1.21	1.74	1.70	1.66	9.38	3.73	D
931	0307	2253.5	5.22	153	256	109	43.3	293J	2246.6	3.35	9.1J	622	635	52.1	53.7	353	185458	327	27.2	837	473	1.22	1.33	1.75	1.67	9.38	3.73	D
932	0312	2254.0	4.36	150	173	113	43.3	293J	2247.1	3.35	9.1J	622	646	52.3	54.2	356	186383	327	27.3	942	471	1.22	1.31	1.77	1.67	9.38	3.73	D
933	0313	2254.5	5.67	143	166	111	43.3	293J	2247.4	3.35	9.1J	622	633	52.5	54.1	353	186671	328	27.4	383	472	1.23	1.73	1.74	1.67	9.39	3.73	D
934	0324	2255.0	4.92	147	164	111	42.5	296J	2247.9	3.35	9.1J	623	646	52.7	54.2	356	187344	328	27.5	972	473	1.23	1.31	1.77	1.68	9.39	3.73	D
935	0329	2255.5	5.71	147	162	113	42.6	297J	2248.3	3.35	9.1J	623	643	52.9	54.2	363	187922	329	27.6	933	473	1.24	1.77	1.72	1.68	9.39	3.73	D
936	0334	2256.0	5.43	147	163	113	43.4	297J	2248.3	3.35</																		

#	TIME	DEPTH	ROP m/hr	TORQUE		RPM	DB	PUMP PRES	RTNS		WT lb/gal		FLOW/ALI		TEMP (C)	PVT	---THIS BIT---			---COST---		EST PI	DNC	AK	AKB	ECD	EST PM PR	
				AVG	MAX				AVG	AVG	DEPTH	IN	OUT	IN			OUT	IN	OUT	REVS	m							hrs
94J	J359	2253.5	4.53	155	172	11.0	44.3	296J	2253.5	3.35	9.1J	623	639	53.4	52.3	359	191205	331	23.1	1.02	477	1.26	1.35	1.30	1.69	9.39	3.73	D
94I	J435	2253.5	4.36	154	173	10.9	43.5	297J	2251.1	3.35	9.1J	623	626	53.2	52.7	363	191375	332	23.2	1.02	478	1.27	1.35	1.77	1.73	9.39	3.73	D
942	J411	2259.5	4.59	154	173	11.3	43.9	298J	2251.7	3.35	9.1J	622	632	53.1	52.7	349	192530	332	23.3	1.039	479	1.27	1.35	1.30	1.73	9.39	3.73	D
943	J417	2259.5	5.33	154	168	10.6	43.6	297J	2252.1	3.35	9.1J	621	633	53.1	52.7	353	193183	333	23.4	1.026	480	1.28	1.35	1.75	1.73	9.39	3.73	D
944	J424	2263.5	4.27	154	173	10.8	43.1	299J	2252.3	3.33	9.1J	622	623	53.3	52.4	363	193963	333	23.5	1.154	481	1.28	1.35	1.31	1.73	9.39	3.73	D
945	J434	2263.5	3.92	146	168	11.1	41.5	297J	2253.5	3.33	9.1J	611	595	52.7	52.6	369	194373	334	23.6	569	481	1.29	1.62	1.58	1.70	9.38	3.73	D
946	J441	2261.5	4.62	145	168	11.2	42.3	297J	2254.1	3.33	9.1J	623	632	52.7	53.6	363	195381	334	23.7	1.347	482	1.29	1.33	1.79	1.71	9.38	3.73	D
947	J446	2261.5	5.52	146	168	11.1	42.2	296J	2254.5	3.33	9.1J	619	634	52.9	54.3	364	195644	335	23.8	373	482	1.30	1.73	1.73	1.71	9.38	3.73	D
943	J513	2263.5	4.73	143	168	11.1	42.1	295J	2256.3	3.33	9.1J	615	636	53.6	55.4	366	197658	336	29.1	1.166	485	1.31	1.32	1.78	1.72	9.38	3.73	D
949	J516	2263.5	5.33	141	174	11.2	44.2	296J	2256.3	3.33	9.1J	615	631	53.7	55.5	364	198341	337	29.2	1.111	435	1.32	1.33	1.78	1.72	9.38	3.73	D
95J	J522	2264.5	5.43	143	173	11.1	44.7	295J	2257.2	3.33	9.1J	615	639	53.3	55.5	363	198966	337	29.3	923	436	1.32	1.31	1.76	1.72	9.38	3.73	D
95I	J527	2264.5	5.37	144	164	11.1	44.3	294J	2257.6	3.33	9.1J	615	642	54.3	56.1	363	199519	338	29.3	345	437	1.33	1.79	1.74	1.73	9.38	3.73	D
952	J532	2265.5	6.43	147	163	11.1	44.5	293J	2258.3	3.33	9.1J	614	627	54.3	55.9	361	200036	338	29.4	732	437	1.33	1.76	1.71	1.72	9.38	3.73	D
953	J538	2265.5	4.36	146	166	11.1	45.3	292J	2258.5	3.33	9.1J	613	653	54.4	56.5	365	200798	339	29.5	1013	438	1.34	1.39	1.84	1.73	9.38	3.73	D
954	J543	2266.5	6.27	147	172	11.1	45.3	296J	2258.3	3.33	9.1J	639	646	54.7	56.1	365	201331	339	29.6	831	438	1.34	1.78	1.73	1.73	9.38	3.73	D
955	J549	2266.5	4.39	143	164	11.2	45.2	296J	2259.3	3.33	9.1J	613	654	54.9	56.9	363	202018	340	29.7	992	439	1.35	1.86	1.81	1.73	9.38	3.73	D
956	J554	2267.5	6.32	145	164	11.3	45.5	297J	2259.7	3.33	9.1J	617	654	55.3	57.1	367	202574	340	29.8	832	490	1.35	1.80	1.75	1.73	9.38	3.73	D
957	J600	2267.5	5.44	145	164	11.2	45.3	298J	2263.1	3.33	9.1J	613	674	55.2	57.5	363	203191	341	29.9	374	490	1.36	1.82	1.77	1.74	9.38	3.73	D
958	J636	2268.5	4.52	139	162	11.2	45.1	306J	2263.5	3.33	9.1J	613	661	55.6	57.3	367	203933	341	30.3	1.169	491	1.36	1.88	1.83	1.74	9.38	3.73	D
959	J614	2268.5	3.12	143	178	11.2	46.6	293J	2261.1	3.33	9.1J	617	649	56.1	57.9	374	204319	342	30.1	1.654	492	1.37	2.01	1.96	1.74	9.38	3.73	D
960	J615	2269.5	2.35	144	156	11.2	45.3	295J	2261.1	3.33	9.1J	613	651	56.1	57.9	376	204885	342	30.1	1.657	492	1.37	2.03	1.98	1.74	9.38	3.73	D
96I	J617	2269.5	5.51	147	183	11.2	45.9	296J	2261.3	3.33	9.1J	613	655	56.2	58.1	376	205156	343	30.2	1.238	492	1.37	1.83	1.73	1.74	9.39	3.73	D
962	J622	2273.5	5.37	143	166	11.2	46.4	297J	2261.3	3.33	9.1J	617	652	56.3	58.2	377	205728	343	30.3	371	492	1.38	1.81	1.76	1.75	9.39	3.73	D
963	J633	2273.5	6.55	133	162	10.7	42.2	301J	2262.4	3.33	9.1J	609	593	56.5	58.4	381	205936	344	30.3	313	492	1.38	1.71	1.66	1.75	9.38	3.73	D
964	J635	2271.5	5.33	154	174	11.2	42.5	303J	2262.6	3.33	9.1J	619	656	56.7	57.9	378	206135	344	30.3	762	492	1.38	1.73	1.42	1.75	9.39	3.73	D
965	J639	2271.5	6.31	151	173	11.2	46.3	303J	2263.2	3.33	9.1J	619	661	56.5	57.3	376	206638	345	30.4	580	492	1.39	1.78	1.73	1.74	9.39	3.73	D
966	J646	2272.5	4.59	146	172	11.2	45.9	301J	2263.9	3.33	9.1J	613	653	56.4	57.6	380	207336	345	30.5	989	493	1.39	1.87	1.82	1.75	9.39	3.73	D
967	J652	2272.5	4.53	146	168	11.1	45.7	301J	2264.6	3.33	9.1J	613	653	56.4	57.3	380	208390	346	30.6	1230	494	1.40	1.88	1.83	1.75	9.38	3.73	D
968	J659	2273.5	4.45	145	168	11.1	46.3	303J	2265.2	3.33	9.1J	617	633	56.4	57.1	383	208775	346	30.7	1.086	495	1.40	1.89	1.84	1.75	9.38	3.73	D
969	J734	2273.5	5.46	153	178	11.3	47.4	299J	2265.3	3.33	9.1J	613	645	56.3	56.6	382	209331	347	30.8	946	495	1.41	1.84	1.79	1.76	9.38	3.73	D
97J	J713	2274.5	5.13	154	183	11.3	45.7	299J	2266.5	3.33	9.1J	619	652	56.3	57.4	387	210016	347	30.9	946	496	1.42	1.84	1.79	1.76	9.38	3.73	D
97I	J715	2274.5	5.72	153	176	11.3	46.2	298J	2267.3	3.33	9.1J	619	658	55.9	57.7	387	210562	348	31.0	349	496	1.42	1.81	1.76	1.76	9.38	3.73	D
972	J723	2275.5	5.36	147	174	11.3	45.1	297J	2267.4	3.33	9.1J	623	642	56.2	58.3	388	211123	348	31.1	930	497	1.42	1.79	1.74	1.76	9.38	3.73	D
973	J725	2275.5	5.33	151	178	11.3	46.7	297J	2267.7	3.33	9.1J	623	656	56.4	58.3	393	211737	349	31.2	843	497	1.43	1.82	1.76	1.76	9.38	3.73	D
974	J733	2276.5	5.43	149	183	11.3	45.7	296J	2268.0	3.33	9.1J	623	652	56.5	58.1	392	212260	349	31.2	303	498	1.43	1.82	1.77	1.76	9.38	3.73	D
975	J736	2276.5	4.75	146	174	11.3	46.3	296J	2268.6	3.33	9.1J	623	662	56.7	58.4	394	212949	350	31.3	1313	499	1.44	1.87	1.82	1.77	9.38	3.73	D
976	J741	2277.5	6.33	143	184	11.3	45.1	296J	2269.0	3.33	9.1J	621	652	56.9	58.5	395	213459	350	31.4	788	499	1.45	1.76	1.71	1.76	9.39	3.73	D
977	J747	2277.5	5.22	149	182	11.3	47.3	296J	2269.7	3.33	9.1J	621	651	57.3	58.5	394	214055	351	31.5	921	500	1.45	1.85	1.80	1.77	9.38	3.73	D
978	J753	2278.5	4.73	144	170	11.3	46.3	298J	2270.2	3.33	9.1J	621	663	57.3	58.5	399	214750	351	31.6	1017	500	1.46	1.87	1.82	1.77	9.38	3.73	D
979	J758	2278.5	5.53	149	182	11.3	45.3	299J	2270.7	3.33	9.1J	621	662	57.3	58.6	403	215338	352	31.7	954	501	1.46	1.81	1.76	1.77	9.38	3.73	D
98J	J803	2279.5	6.36	148	170	11.3	46.3	297J	2271.3	3.33	9.1J	619	651	57.5	58.5	400	215881	352	31.8	886	502	1.47	1.79	1.74	1.77	9.38	3.73	D
98I	J819	2279.5	5.63	148	174	11.3	45.6	286J	2272.1	3.33	9.1J	608	645	57.7	58.1	401	216543	353	31.9	998	502	1.47	1.81	1.76	1.77	9.38	3.73	D
982	J822	2283.5	7.66	149	173	10.9	44.2	235J	2272.4	3.33	9.1J	606	653	57.6	58.2	401	216928	353	31.9	597	502	1.47	1.73	1.64	1.76	9.38	3.73	D
983	J829	2283.5	4.35	149	176	11.3	45.2	238J	2273.1	3.33	9.1J	613	647	57.4	58.3	399	217712	354	32.1	1451	503	1.48	1.88	1.83	1.77	9.38	3.73	D
984	J836	2281.5	4.64	143	162	11.1	45.3	289J	2273.7	3.33	9.1J	611	645	57.4	58.2	404	218435	354	32.2	1.143	504	1.49	1.87	1.81	1.77	9.38	3.73	D
985	J842	2281.5	4.52	147	173	10.9	45.8	292J	2274.3	3.33	9.1J	613	638</															

KOORCAH 00.1

Data Printed at time 05:07 Date Dec 22 '85
 Data Recorded at time 09:12 Date Dec 12 '85

#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTNS	M/lb/gal		FLOW/MLN		TEMP (C)		PVT	-----THIS BIT-----			EST	DGC	K	K3	D2D	EST			
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs							INST	RUN	T/I
990	0912	2234.0	4.64	145	172	111	45.3	2940	2277.0	9.00	9.10	615	656	57.5	53.3	409	222433	357	32.3	1236	503	1.52	1.37	1.32	1.73	9.33	3.70	D
991	0913	2234.5	5.11	144	170	111	45.2	2930	2277.5	9.00	9.10	615	661	57.6	53.3	406	223034	353	32.9	1364	509	1.53	1.34	1.73	1.73	9.33	3.70	D
992	0924	2235.0	5.23	146	172	111	45.3	2950	2277.3	9.00	9.10	615	655	57.7	53.3	413	223716	353	33.0	940	513	1.53	1.34	1.73	1.73	9.38	3.70	D
993	0931	2235.5	3.93	146	170	111	45.6	2920	2278.2	9.00	9.10	614	654	57.3	53.4	416	224532	359	33.1	1215	511	1.54	1.32	1.37	1.79	9.38	3.70	D
994	0935	2236.0	7.44	149	132	111	44.5	2910	2278.6	9.00	9.10	613	652	57.3	53.4	416	224979	359	33.2	676	511	1.54	1.71	1.66	1.73	9.38	3.70	D
995	0942	2236.5	4.27	144	166	111	44.9	2910	2279.1	9.00	9.10	613	653	57.3	53.1	416	225760	360	33.3	1262	512	1.55	1.39	1.83	1.79	9.38	3.70	D
996	0943	2237.0	5.03	141	166	111	45.3	2930	2279.5	9.00	9.10	613	650	57.3	53.3	413	226414	360	33.4	1028	512	1.55	1.34	1.79	1.79	9.38	3.70	D
997	0956	2237.5	4.01	141	170	111	45.5	2920	2280.1	9.00	9.10	613	645	57.9	53.6	419	227251	361	33.5	1579	514	1.56	1.32	1.36	1.79	9.38	3.70	D
998	0958	2238.0	11.4	150	190	111	44.1	2920	2280.3	9.00	9.10	613	650	58.0	53.5	421	227551	361	33.5	454	513	1.56	1.53	1.52	1.79	9.38	3.70	D
999	1004	2238.5	5.08	144	166	111	45.2	2940	2280.3	9.00	9.10	614	630	58.1	53.3	419	228134	362	33.6	1353	514	1.57	1.34	1.73	1.79	9.38	3.70	D
1000	1011	2239.0	3.73	132	156	111	43.7	2700	2281.5	9.00	9.10	600	539	58.1	53.2	423	228593	362	33.7	1292	515	1.57	1.31	1.36	1.79	9.38	3.70	D
+ P004 at 2239m due to low ROP.																												
+ BIT # 2 WITH 22.25" with 3x13 jets. Start depth 2239.0m																												
4	2005	2239.5	3.65	142	156	89	16.1	3000	2239.0	9.00	9.10	611	715	42.1	50.4	400	733	50	1.1	1397	37277	.01	1.41	1.42	1.55	9.35	3.70	D
5	2016	2239.0	2.33	138	150	90	16.2	2990	2239.0	9.00	9.10	613	717	44.3	51.9	413	1680	1.00	.3	1797	19473	.02	1.47	1.48	1.55	9.35	3.70	D
6	2021	2239.5	5.25	141	156	90	20.0	2930	2239.0	9.00	9.10	615	731	45.4	52.6	401	2195	1.50	.4	959	13332	.02	1.40	1.41	1.55	9.35	3.70	D
7	2027	2239.0	5.23	147	172	90	23.7	2990	2239.0	9.00	9.10	616	718	46.4	53.2	406	2712	1.36	.5	978	13450	.03	1.47	1.47	1.55	9.36	3.70	D
8	2033	2239.5	5.27	151	176	89	29.3	2930	2239.0	9.00	9.10	610	717	47.3	53.6	406	3214	2.50	.6	963	3364	.03	1.56	1.56	1.55	9.36	3.70	D
9	2044	2239.0	13.3	167	214	107	33.4	3000	2239.0	9.00	9.10	620	695	49.3	53.7	409	3522	3.00	.6	461	7215	.04	1.46	1.46	1.55	9.36	3.70	D
10	2046	2239.5	15.0	165	208	110	37.3	3020	2239.0	9.00	9.10	621	713	49.4	53.6	409	3742	3.49	.7	339	6127	.04	1.43	1.42	1.55	9.36	3.70	D
11	2047	2239.0	29.6	169	216	109	43.2	3010	2239.0	9.00	9.10	621	734	49.4	53.6	405	3851	4.00	.7	169	5397	.04	1.25	1.25	1.54	9.36	3.70	D
12	2049	2239.5	15.8	164	194	110	33.6	1960	2239.0	9.00	9.10	603	772	49.5	54.0	409	4058	4.49	.7	413	4308	.04	1.42	1.42	1.54	9.37	3.70	D
13	2053	2239.0	22.5	169	202	109	36.3	2850	2239.0	9.00	9.10	591	727	49.7	54.3	413	4215	5.00	.3	249	4392	.05	1.30	1.29	1.54	9.37	3.70	D
14	2055	2239.5	27.5	170	222	109	41.5	2900	2239.0	9.00	9.10	609	762	49.7	54.3	414	4333	5.50	.3	132	3971	.05	1.23	1.23	1.54	9.37	3.70	D
15	2108	2239.0	3.36	162	206	112	42.9	2920	2239.0	9.00	9.10	614	733	51.2	52.1	411	5401	5.93	.9	643	3777	.07	1.66	1.66	1.55	9.37	3.70	D
16	2112	2239.5	3.13	161	212	111	43.5	2920	2239.0	9.00	9.10	613	718	50.2	52.4	413	5319	6.49	1.0	617	3526	.08	1.67	1.67	1.55	9.38	3.70	D
17	2115	2239.0	11.1	165	200	111	42.9	2920	2239.0	9.00	9.10	613	700	50.1	53.1	409	6092	7.00	1.0	412	3305	.08	1.57	1.57	1.55	9.38	3.70	D
18	2117	2239.5	10.9	165	202	110	43.6	2930	2239.1	9.00	9.10	614	693	50.1	53.3	412	6391	7.50	1.1	485	3111	.09	1.53	1.53	1.55	9.38	3.70	D
19	2121	2239.0	7.53	162	196	111	43.3	2930	2239.3	9.00	9.10	614	695	50.2	53.5	411	6836	7.99	1.1	609	2962	.10	1.70	1.69	1.56	9.38	3.70	D
20	2127	2239.5	3.62	146	184	109	43.2	3020	2239.5	9.00	9.10	622	657	50.2	53.5	414	7226	8.50	1.2	531	2319	.10	1.65	1.64	1.56	9.38	3.70	D
21	2130	2239.0	3.90	161	186	111	42.5	3000	2239.7	9.00	9.10	622	697	50.5	53.0	417	7603	8.99	1.3	553	2693	.11	1.64	1.63	1.56	9.39	3.70	D
22	2133	2239.5	3.20	160	186	111	43.4	3020	2239.3	9.00	9.10	621	697	50.7	53.0	416	7962	9.50	1.3	569	2531	.12	1.64	1.63	1.56	9.39	3.70	D
23	2138	2239.0	7.01	161	182	111	43.3	3010	2239.0	9.00	9.10	619	692	50.9	53.2	416	8434	10.00	1.4	771	2483	.13	1.72	1.72	1.57	9.39	3.70	D
24	2141	2239.5	3.32	160	182	112	43.3	3010	2239.3	9.00	9.10	622	694	51.0	53.2	413	8335	10.50	1.4	596	2401	.13	1.65	1.65	1.57	9.39	3.70	D
25	2154	2239.0	7.40	155	186	110	44.2	2920	2239.0	9.00	9.10	612	710	51.5	53.1	421	9433	11.00	1.5	591	2337	.15	1.71	1.70	1.57	9.39	3.70	D
26	2153	2239.5	6.57	162	196	111	43.3	2950	2239.3	9.00	9.10	616	702	51.5	53.2	423	9953	11.50	1.6	308	2263	.16	1.74	1.73	1.57	9.39	3.70	D
27	2201	2239.0	3.74	163	190	110	42.4	2940	2239.4	9.00	9.10	617	710	51.6	53.7	423	13332	12.00	1.7	620	2193	.16	1.64	1.63	1.53	9.39	3.70	D
28	2203	2239.5	16.3	170	183	111	42.0	2940	2239.5	9.00	9.10	616	713	51.6	53.7	420	13536	12.50	1.7	329	2124	.17	1.45	1.44	1.57	9.39	3.70	D
29	2204	2239.0	29.4	171	210	111	42.1	2940	2239.7	9.00	9.10	616	708	51.6	53.7	422	13651	13.00	1.7	132	2045	.17	1.27	1.26	1.53	9.10	3.70	D
30	2205	2239.5	25.3	169	194	111	41.0	2950	2239.9	9.00	9.10	612	709	51.6	53.7	423	13776	13.50	1.7	194	1977	.17	1.30	1.30	1.58	9.10	3.70	D
31	2208	2239.0	11.1	164	183	111	42.2	2950	2239.3	9.00	9.10	617	704	51.9	54.2	425	11073	14.00	1.3	531	1920	.18	1.56	1.55	1.57	9.10	3.70	D
32	2211	2239.5	13.4	162	182	111	41.9	2950	2239.3	9.00	9.10	611	707	52.2	54.2	423	11393	14.50	1.3	509	1373	.18	1.53	1.57	1.57	9.10	3.70	D
33	2213	2239.0	14.0	163	186	111	43.6	2960	2239.9	9.00	9.10	615	737	52.2	54.2	425	11623	15.00	1.9	355	1321	.19	1.51	1.50	1.57	9.10	3.70	D
34	2215	2239.5	13.1	163	184	111	41.9	2960	2239.2	9.00	9.10	606	707	52.3	54.4	429	11376	15.50	1.9	389	1774	.19	1.51	1.50	1.57	9.10	3.70	D
35	2217	2239.0	16.3	165	184	111	43.0	2970	2239.2	9.00	9.10	616	710	52.3	53.4	427	12063	16.00	1.9	339	1727	.19	1.45	1.44	1.57	9.10	3.70	D
36	2219	2239.5	11.2	167	186	111	41.3	2960	2239.3	9.00	9.10	617	696	52.5	54.1	427	12333	16.50	2.0	474	1639	.20	1.55	1.54	1.57	9.10	3.70	D
37	2222	2239.0	12.6	164	184	111	40.2	2960	2239.4	9.00	9.10	615	694	52.6	54.3	433	12593	17.00	2.0	417	1649	.20	1.50	1.49	1.57	9.10	3.70	D
38	2224	2239.5	12.9	164	186	111	40.9	2960	2239.7	9.00	9.10	616	695	52.4	54.5	436	12357	17.50	2.1	394	1614	.21	1.50	1.49	1.57	9.10	3.70	D
39	2227</																											

KOORIKAI D.1

Data Printed at time 05:52 Date Dec 22 '85
 Data Recorded at time 22:33 Date Dec 12 '85

#	TIME	DEPTH	DPI	TORQUE		DB	PUMP	RTRIS	W lb/gal		FLOW/MIN		TEMP (C)	PVT	-----THIS BIT-----		---COST---		ESP	KXC	IK	KB	SCD	EST				
				AVG	MAX				AVG	AVG	IN	OUT			IN	OUT	REVS	n							hrs	INST	SUN	PI
41	2238	2338.3	4.92	155	183	11.1	42.2	2960	2296.3	9.33	9.13	616	674	52.9	54.2	438	14379	19.3	2.3	346	1545	.24	1.31	1.33	1.57	9.13	3.73	D
42	2243	2338.5	6.46	156	176	11.1	43.3	2970	2297.5	9.33	9.13	617	666	52.9	54.6	437	14936	19.5	2.4	385	1529	.25	1.73	1.72	1.57	9.13	3.73	D
43	2333	2339.3	5.92	156	182	13.9	44.7	2970	2299.3	9.33	9.13	615	688	53.3	54.1	436	15465	20.3	2.4	765	1513	.26	1.73	1.72	1.58	9.33	3.73	D
44	2333	2339.5	5.39	163	178	13.9	44.3	2960	2299.3	9.33	9.13	611	701	53.3	54.5	436	15994	20.5	2.5	332	1494	.27	1.77	1.76	1.58	9.13	3.73	D
45	2313	2313.3	5.31	159	182	13.9	44.7	2960	2299.6	9.33	9.13	616	693	53.4	55.1	435	16521	21.3	2.6	353	1473	.28	1.77	1.76	1.58	9.13	3.73	D
46	2313	2313.5	6.73	153	186	13.9	46.5	2950	2333.2	9.33	9.13	616	702	53.4	55.4	439	17319	21.5	2.7	759	1451	.29	1.76	1.75	1.53	9.13	3.73	D
47	2322	2311.3	6.55	159	182	13.9	45.2	2950	2331.3	9.33	9.13	616	701	53.4	55.4	442	17499	22.3	2.8	723	1444	.30	1.75	1.74	1.59	9.13	3.73	D
48	2327	2311.5	6.57	157	178	13.9	46.2	2930	2332.5	9.33	9.13	613	738	53.3	56.3	444	17992	22.5	2.8	746	1429	.31	1.76	1.75	1.59	9.33	3.73	D
49	2331	2312.3	6.23	159	183	13.9	46.5	2920	2333.3	9.33	9.13	613	737	53.2	56.3	443	18512	23.3	2.9	333	1415	.32	1.79	1.77	1.59	9.33	3.73	D
50	2335	2312.5	7.23	155	173	13.9	44.6	2930	2334.4	9.33	9.13	615	732	53.3	56.3	438	18962	23.5	3.0	579	1403	.33	1.72	1.71	1.59	9.33	3.73	D
51	2340	2313.3	6.69	153	182	13.9	45.3	2920	2335.4	9.33	9.13	615	711	53.9	56.3	438	19452	24.3	3.1	337	1387	.34	1.75	1.73	1.63	9.33	3.73	D
52	2345	2313.5	6.68	158	216	13.8	45.3	2920	2336.3	9.33	9.13	615	699	54.6	56.5	437	19948	24.5	3.1	779	1374	.35	1.75	1.73	1.63	9.33	3.73	D
53	2349	2314.3	7.23	157	176	13.8	45.9	2910	2336.3	9.33	9.13	614	737	54.3	56.4	437	20384	25.3	3.2	695	1361	.36	1.73	1.72	1.63	9.33	3.73	D
54	2355	2314.5	4.92	156	184	13.9	46.3	2930	2337.4	9.33	9.13	609	712	54.9	56.6	439	21034	25.5	3.3	1135	1353	.37	1.85	1.84	1.63	9.33	3.73	D
55	2358	2315.3	3.31	159	182	13.9	45.4	2930	2337.8	9.33	9.13	612	736	54.9	56.9	443	21446	26.3	3.4	661	1339	.38	1.73	1.63	1.61	9.33	3.73	D
Data Dec 13 '85																												
56	0033	2315.5	7.17	184	323	13.5	45.1	2910	2338.2	9.33	9.13	611	733	55.3	56.7	441	21878	26.5	3.4	735	1327	.39	1.72	1.73	1.61	9.33	3.73	D
57	0037	2316.3	6.33	159	212	13.8	45.5	2930	2338.5	9.33	9.13	633	692	55.1	57.3	443	22397	27.3	3.5	775	1317	.43	1.77	1.75	1.61	9.33	3.73	D
58	0012	2316.5	6.72	159	182	13.8	46.3	2930	2338.5	9.33	9.13	614	694	55.2	56.5	445	22868	27.5	3.6	752	1338	.41	1.76	1.74	1.61	9.33	3.73	D
59	0016	2317.3	5.53	155	194	13.9	45.9	2930	2338.3	9.33	9.13	615	692	55.3	56.3	443	23367	28.3	3.7	742	1297	.42	1.77	1.75	1.62	9.33	3.73	D
60	0021	2317.5	5.75	159	184	13.9	44.3	2930	2339.4	9.33	9.13	614	695	55.3	56.4	450	23933	28.5	3.7	353	1289	.43	1.79	1.77	1.62	9.33	3.73	D
61	0039	2318.3	6.17	153	173	13.9	45.3	2930	2339.7	9.33	9.13	612	686	55.7	56.1	461	24643	29.3	3.9	363	1286	.44	1.77	1.75	1.62	9.33	3.73	D
62	0044	2318.5	5.63	154	176	11.3	42.3	2920	2339.3	9.33	9.13	613	695	55.7	56.3	463	25233	29.5	3.9	357	1283	.45	1.77	1.75	1.63	9.33	3.73	D
63	0050	2319.3	5.51	156	182	13.9	42.1	2930	2339.3	9.33	9.13	611	699	55.7	57.1	464	25823	30.3	4.0	937	1273	.46	1.77	1.75	1.63	9.33	3.73	D
64	0054	2319.5	6.96	156	176	11.3	43.1	2930	2339.3	9.33	9.13	611	695	55.7	57.1	462	26296	30.5	4.1	742	1265	.47	1.71	1.70	1.63	9.33	3.73	D
65	0059	2320.3	6.13	156	176	11.3	43.3	2930	2339.9	9.33	9.13	612	704	55.7	57.6	462	26845	31.3	4.2	356	1259	.48	1.75	1.73	1.63	9.33	3.73	D
66	0104	2321.3	5.33	155	186	13.9	44.1	2920	2339.5	9.33	9.13	613	707	55.7	57.6	461	27433	31.5	4.3	399	1253	.49	1.81	1.79	1.64	9.33	3.73	D
67	0109	2321.3	5.92	159	186	11.3	43.7	2910	2339.5	9.33	9.13	615	706	55.6	57.4	461	27990	32.3	4.4	316	1246	.50	1.77	1.75	1.64	9.33	3.73	D
68	0114	2321.5	6.85	155	182	13.9	42.5	2930	2339.5	9.33	9.13	616	707	55.5	57.4	462	28468	32.5	4.4	763	1233	.51	1.71	1.69	1.64	9.33	3.73	D
69	0119	2322.3	6.39	153	184	11.3	42.3	2940	2339.5	9.33	9.13	616	714	55.4	58.3	464	29026	33.3	4.5	361	1233	.52	1.75	1.73	1.64	9.33	3.73	D
70	0123	2322.5	6.41	156	184	11.3	42.7	2940	2339.5	9.33	9.13	616	699	55.6	57.3	465	29525	33.5	4.6	799	1225	.53	1.74	1.72	1.65	9.33	3.73	D
71	0130	2323.3	4.74	154	172	11.3	42.6	2930	2339.3	9.33	9.13	615	733	56.9	58.1	467	30243	34.3	4.7	1037	1223	.54	1.83	1.83	1.65	9.33	3.73	D
72	0135	2323.5	5.79	155	176	11.3	42.7	2930	2339.3	9.33	9.13	615	697	57.3	58.3	469	30785	34.5	4.8	373	1217	.55	1.76	1.74	1.65	9.33	3.73	D
73	0141	2324.3	5.42	152	172	11.3	43.4	2930	2339.4	9.33	9.13	615	693	57.3	57.9	471	31418	35.3	4.9	1067	1215	.57	1.79	1.77	1.66	9.33	3.73	D
74	0145	2324.5	6.39	152	174	11.3	41.5	2930	2339.6	9.33	9.13	615	698	57.3	58.1	471	31935	35.5	5.0	756	1208	.57	1.74	1.71	1.66	9.33	3.73	D
75	0151	2325.3	5.46	164	232	13.9	42.7	2940	2339.7	9.33	9.13	616	698	57.3	57.5	473	32532	36.3	5.1	399	1204	.59	1.78	1.76	1.66	9.33	3.73	D
76	0156	2325.5	5.58	155	182	13.9	42.2	2940	2339.2	9.33	9.13	322	639	57.3	57.9	476	33118	36.5	5.1	921	1199	.60	1.77	1.75	1.66	9.33	3.73	D
77	0201	2326.3	5.98	156	182	11.3	43.2	2940	2339.7	9.33	9.13	613	703	57.1	57.3	475	33666	37.3	5.2	364	1194	.61	1.76	1.74	1.67	9.33	3.73	D
78	0203	2326.5	6.35	151	172	11.3	43.6	2930	2339.9	9.33	9.13	616	706	57.1	57.3	476	33886	37.5	5.3	364	1183	.61	1.75	1.73	1.67	9.33	3.73	D
79	0208	2327.3	6.32	153	173	11.3	43.3	2950	2339.5	9.33	9.13	611	695	57.1	58.2	474	34412	38.3	5.3	739	1173	.62	1.74	1.72	1.67	9.33	3.73	D
80	0220	2327.5	6.53	148	183	13.9	43.5	2930	2320.5	9.33	9.13	619	676	57.2	58.1	483	35116	38.5	5.5	752	1177	.63	1.74	1.71	1.67	9.33	3.73	D
81	0225	2328.3	6.36	158	178	11.2	42.4	2970	2321.3	9.33	9.13	623	713	57.2	58.3	477	35630	39.3	5.5	754	1172	.64	1.74	1.72	1.68	9.33	3.73	D
82	0231	2328.5	6.23	156	182	11.2	41.8	2970	2321.6	9.33	9.13	623	732	57.3	58.6	479	36261	39.5	5.6	979	1163	.65	1.79	1.77	1.68	9.33	3.73	D
83	0235	2329.3	7.16	155	176	11.3	43.5	2930	2322.3	9.33	9.13	623	705	57.3	58.4	479	36733	40.3	5.7	734	1163	.66	1.72	1.69	1.68	9.33	3.73	D
84	0239	2329.5	6.66	155	236	11.2	42.4	2930	2322.4	9.33	9.13	623	734	57.4	58.5	482	37237	40.5	5.8	736	1157	.67	1.73	1.73	1.68	9.33	3.73	D
85	0242	2330.3	5.79	153	173	11.2	42.8	2970	2322.6	9.33	9.13	623	739	57.4	58.3	483	37536	41.3	5.8	322	1149	.68	1.77	1.75	1.69	9.33	3.73	D
86	0246	2330.5	7.22	155	182	11.1	42.6	2960	2323.1	9.33	9.13	623	733	57.4	53.1	482	37995	41.5	5.9	391	1143	.69	1.73	1.67	1.63	9.33	3.73	D

KOORCAH NO.1

Data Printed at time 05:56 Date Dec 22 '35
Data Recorded at time 03:06 Date Dec 13 '35

#	WELL	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RETURN DEPTH	lb/gal		FLO/MIN		TEMP (C)		PVT	THIS BIT		--- COST ---		EST %I	DNC	AK	AKB	SCD	EST PM PR		
				AVG	MAX					LI	OUT	LI	OUT	LI	OUT		REVS	n	hrs	LIST							RUN	
90	J306	2332.5	6.33	155	174	112	42.4	2983	2325.1	9.33	9.13	621	704	58.3	59.3	483	40224	43.5	6.2	759	1129	.73	1.75	1.72	1.73	9.38	3.73	D
91	J311	2333.3	6.73	156	180	112	42.5	2963	2325.7	9.33	9.13	623	703	58.1	58.9	483	40734	44.3	6.3	752	1125	.74	1.72	1.69	1.73	9.38	3.73	D
92	J316	2333.5	5.61	156	173	111	42.5	2973	2326.2	9.33	9.13	623	696	58.2	59.1	483	41307	44.5	6.4	373	1122	.75	1.78	1.75	1.73	9.38	3.73	D
93	J321	2334.3	5.94	153	176	112	43.5	2973	2326.7	9.33	9.13	623	692	58.3	58.3	486	41398	45.3	6.5	324	1123	.76	1.77	1.74	1.73	9.33	3.73	D
94	J327	2334.5	5.15	155	182	111	44.3	2983	2327.4	9.33	9.13	623	697	58.5	59.5	484	42515	45.5	6.6	1333	1113	.77	1.83	1.80	1.73	9.38	3.73	D
95	J328	2335.3	4.38	152	172	112	43.2	2973	2327.4	9.33	9.13	620	691	58.5	59.5	486	42662	45.3	6.6	1339	1108	.77	1.88	1.85	1.71	9.38	3.73	D-
96	J333	2335.5	5.38	152	178	111	43.3	2933	2327.6	9.33	9.13	621	701	58.6	59.3	485	43257	46.5	6.7	399	1136	.78	1.82	1.79	1.71	9.38	3.73	D
97	J336	2336.3	4.96	152	173	111	43.5	2933	2327.9	9.33	9.13	623	694	58.6	59.1	483	43571	47.3	6.7	911	1399	.79	1.82	1.79	1.71	9.39	3.73	D-
98	J343	2336.5	4.38	154	182	111	44.1	2933	2323.7	9.33	9.13	623	689	58.7	59.1	493	44333	47.5	6.3	1117	1399	.80	1.87	1.84	1.71	9.38	3.73	D
99	J343	2337.3	6.34	152	174	111	44.3	2973	2329.3	9.33	9.13	621	703	58.7	58.9	493	44893	48.3	6.9	936	1397	.82	1.77	1.74	1.72	9.38	3.73	D
100	J445	2337.5	6.31	143	172	109	42.7	2973	2333.9	9.33	9.13	617	678	58.3	59.3	492	45436	48.5	7.3	766	1394	.82	1.74	1.71	1.71	9.38	3.73	D
101	J411	2338.3	5.13	153	176	112	42.5	2973	2331.5	9.33	9.13	623	708	59.1	57.9	483	46391	49.3	7.1	865	1393	.84	1.81	1.78	1.72	9.38	3.73	D
102	J414	2338.5	5.39	156	183	112	39.2	2973	2331.3	9.33	9.13	623	699	58.9	59.5	481	46460	49.5	7.1	747	1387	.84	1.72	1.69	1.72	9.38	3.73	D
103	J413	2339.3	6.73	155	176	112	42.2	2963	2332.3	9.13	9.13	623	703	58.9	59.7	483	46947	50.3	7.2	767	1384	.85	1.72	1.69	1.72	9.38	3.73	D
104	J423	2339.5	6.35	154	188	112	42.7	2963	2332.9	9.13	9.13	619	733	58.9	59.3	478	47516	50.5	7.3	373	1382	.86	1.76	1.73	1.72	9.38	3.73	D
105	J423	2340.3	6.31	152	184	112	42.3	2973	2333.5	9.13	9.13	621	696	58.3	59.4	481	48333	51.3	7.4	773	1379	.87	1.73	1.70	1.72	9.13	3.73	D
106	J434	2340.5	4.85	153	183	112	42.1	2953	2334.1	9.13	9.13	613	713	58.3	59.2	481	48632	51.5	7.5	979	1377	.88	1.81	1.78	1.72	9.13	3.73	D
107	J439	2341.3	5.39	157	182	112	42.2	2953	2334.6	9.13	9.13	619	693	58.9	58.4	484	49337	52.3	7.6	896	1376	.90	1.78	1.75	1.72	9.11	3.73	D
108	J444	2341.5	6.76	153	182	113	42.3	2953	2334.9	9.13	9.13	623	694	58.9	59.2	484	49825	52.5	7.6	333	1373	.90	1.72	1.69	1.72	9.11	3.73	D
109	J449	2342.3	5.91	155	176	112	42.3	2973	2335.5	9.13	9.13	619	694	59.3	59.1	485	50376	53.3	7.7	829	1371	.91	1.75	1.72	1.72	9.12	3.73	D
110	J454	2342.5	6.50	156	172	113	43.3	2953	2336.0	9.13	9.13	619	697	59.1	59.2	485	50392	53.5	7.3	735	1363	.92	1.73	1.70	1.72	9.12	3.73	D
111	J453	2343.3	6.77	153	173	112	42.7	2973	2336.4	9.13	9.13	619	693	59.2	59.3	485	51386	54.3	7.9	736	1365	.93	1.71	1.68	1.72	9.13	3.73	D
112	J534	2343.5	5.11	155	186	112	43.5	2953	2336.9	9.13	9.13	614	694	59.2	59.5	486	52341	54.5	8.3	1343	1364	.95	1.81	1.77	1.72	9.14	3.73	D
113	J539	2344.3	6.34	151	172	112	42.2	2953	2337.3	9.13	9.13	619	693	59.2	59.6	486	52573	55.3	8.1	332	1362	.96	1.72	1.69	1.72	9.15	3.73	D
114	J514	2344.5	5.33	151	174	112	42.4	2963	2337.3	9.13	9.13	623	693	59.3	59.3	487	53199	55.5	8.1	927	1361	.97	1.78	1.74	1.72	9.15	3.73	D
115	J519	2345.3	6.19	153	173	111	42.5	2953	2337.6	9.13	9.13	619	697	59.3	59.2	487	53737	56.3	8.2	822	1358	.98	1.73	1.69	1.72	9.16	3.73	D
116	J525	2345.5	5.31	151	172	111	42.7	2973	2338.2	9.13	9.13	619	692	59.3	59.5	488	54404	56.5	8.3	999	1353	.99	1.80	1.76	1.72	9.17	3.73	D
117	J533	2346.3	5.33	152	172	113	42.3	2953	2338.8	9.13	9.13	619	693	59.3	59.4	489	54995	57.3	8.4	923	1356	1.00	1.74	1.71	1.72	9.18	3.73	D
118	J535	2346.5	5.69	149	174	112	41.3	2983	2339.3	9.13	9.13	619	693	59.4	59.7	488	55574	57.5	8.5	309	1354	1.01	1.74	1.70	1.72	9.19	3.73	D
119	J553	2347.3	6.15	153	182	113	42.2	2993	2340.3	9.13	9.13	614	689	59.6	59.3	518	55963	58.3	8.6	332	1353	1.02	1.73	1.69	1.72	9.20	3.73	D
120	J554	2347.5	6.75	164	352	112	41.9	3033	2340.7	9.13	9.13	615	685	59.6	58.3	528	56461	58.5	8.6	691	1343	1.02	1.69	1.66	1.72	9.23	3.73	D
121	J553	2348.3	8.22	153	182	111	41.9	2923	2341.1	9.13	9.13	614	692	59.6	57.6	626	56879	59.3	8.7	612	1344	1.03	1.63	1.59	1.72	9.23	3.73	D
122	J631	2348.5	3.41	159	186	113	42.4	2923	2341.5	9.13	9.13	616	691	59.6	55.9	633	57263	59.5	8.8	633	1341	1.04	1.63	1.59	1.71	9.23	3.73	D
123	J634	2349.3	9.26	161	198	111	42.7	2923	2341.8	9.13	9.13	616	686	59.6	54.3	663	57614	60.3	8.8	512	1336	1.05	1.63	1.57	1.71	9.23	3.73	D
124	J637	2349.5	10.3	162	193	111	43.4	2933	2342.1	9.13	9.13	616	691	59.6	52.5	673	57935	60.5	8.9	476	1332	1.05	1.58	1.54	1.71	9.20	3.73	D
125	J612	2350.3	5.35	161	198	113	42.7	2833	2342.6	9.13	9.13	619	693	59.5	51.2	640	58495	61.3	8.9	1333	1330	1.06	1.74	1.70	1.71	9.20	3.73	D
126	J618	2350.5	7.71	155	192	108	41.9	2923	2343.2	9.13	9.13	616	690	59.5	51.5	636	58933	61.5	9.3	707	1323	1.07	1.64	1.63	1.71	9.23	3.73	D
127	J623	2351.3	6.74	163	186	113	43.1	2913	2343.5	9.13	9.13	623	699	59.5	53.2	635	59414	62.3	9.1	734	1325	1.08	1.70	1.66	1.71	9.20	3.73	D
128	J627	2351.5	7.19	156	192	113	42.2	2913	2344.0	9.13	9.13	623	688	59.5	54.4	636	59830	62.5	9.2	745	1323	1.09	1.67	1.63	1.73	9.23	3.73	D
129	J633	2352.3	8.58	166	193	109	47.9	2923	2344.3	9.13	9.13	621	695	59.6	55.8	636	60253	63.3	9.2	583	1319	1.09	1.68	1.64	1.73	9.20	3.73	D
130	J634	2352.5	3.66	166	192	113	49.4	2933	2344.7	9.13	9.13	621	699	59.6	56.2	631	60633	63.5	9.3	565	1316	1.10	1.73	1.66	1.73	9.23	3.73	D
131	J633	2353.3	6.50	162	186	113	49.3	2933	2345.1	9.13	9.13	620	703	59.6	56.6	632	61140	64.3	9.3	758	1314	1.11	1.79	1.75	1.73	9.20	3.73	D
132	J643	2353.5	6.64	161	184	113	53.1	2903	2345.5	9.13	9.13	619	703	59.6	56.6	634	61633	64.5	9.4	767	1312	1.13	1.79	1.75	1.71	9.23	3.73	D
133	J643	2354.3	5.73	163	186	113	49.6	2893	2346.0	9.13	9.13	619	699	59.6	56.7	634	62196	65.3	9.5	995	1311	1.14	1.83	1.79	1.71	9.23	3.73	D
134	J652	2354.5	6.81	163	196	109	50.5	2833	2346.4	9.13	9.13	618	694	59.6	57.1	639	62675	65.5	9.6	715	1308	1.15	1.79	1.74	1.71	9.23	3.73	D
135	J657	2355.3	6.34	161	188	103	49.3	2893	2346.7	9.13	9.13	617	688	59.6	57.7	638	63213	66.3	9.7	331	1307	1.16	1.81	1.77	1.72	9.23	3.73	D
136	J																											

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AA

KODORGH D.1

Data Printed at time J6:J0 Date Dec 22 '85
Data Recorded at time J7:28 Date Dec 13 '85

#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTRIS		M/Lb/gal IN OUT	FLOW/MIN		TEMP (C) IN OUT	PVT	-----PHIS BIT-----			--DOSP--		ESP T/I	DKC	K	K3	DOD	EST EM PRI		
				AVG	MAX				DEPTH	IN		OUT	IN			OUT	REVS	n	hrs	INST							RUN	T/I
140	J728	2357.5	6.23	157	132	109	43.2	293J	2349.3	9.1J	9.1J	617	642	59.5	54.4	64J	65816	63.5	10.1	347	1000	1.22	1.79	1.74	1.73	9.20	3.70	D
141	J733	2358.0	6.10	155	132	110	47.1	294J	2350.2	9.1J	9.1J	615	692	59.6	56.1	633	66350	69.0	10.1	337	998	1.23	1.78	1.74	1.73	9.20	3.70	D
142	J738	2358.5	5.46	153	138	111	46.3	293J	2350.9	9.1J	9.1J	617	693	58.9	57.3	634	66957	69.5	10.2	305	998	1.25	1.81	1.76	1.74	9.20	3.70	D
143	J743	2359.0	6.44	153	138	111	47.3	296J	2351.4	9.1J	9.1J	623	688	53.0	57.7	636	67472	70.0	10.3	749	996	1.26	1.78	1.73	1.74	9.20	3.70	D
144	J748	2359.5	5.36	161	216	110	48.5	294J	2352.1	9.1J	9.1J	624	635	55.4	57.9	638	67998	70.5	10.4	763	995	1.27	1.79	1.74	1.74	9.20	3.70	D
145	J751	2360.0	3.30	166	200	110	48.2	295J	2352.6	9.1J	9.1J	624	698	55.4	57.9	639	68385	71.0	10.5	609	992	1.28	1.70	1.65	1.73	9.20	3.70	D
146	J755	2360.5	3.33	167	210	108	47.9	293J	2352.9	9.1J	9.1J	623	700	55.4	57.3	633	68752	71.5	10.5	532	989	1.29	1.67	1.63	1.73	9.20	3.70	D
147	J759	2361.0	6.40	157	194	111	47.0	294J	2353.4	9.1J	9.1J	623	696	55.4	58.1	641	69269	72.0	10.6	395	988	1.30	1.77	1.72	1.73	9.20	3.70	D
148	J804	2361.5	6.07	153	176	111	44.9	294J	2353.9	9.1J	9.1J	622	698	55.4	58.2	650	69817	72.5	10.7	331	987	1.31	1.76	1.71	1.73	9.20	3.70	D
149	J810	2362.0	5.52	155	132	110	46.1	294J	2354.5	9.1J	9.1J	621	689	55.4	58.3	656	73417	73.0	10.8	301	986	1.32	1.80	1.75	1.73	9.20	3.70	D
150	J815	2362.5	5.15	152	178	112	46.9	293J	2355.1	9.1J	9.1J	615	687	55.4	58.3	656	71065	73.5	10.9	369	986	1.33	1.84	1.79	1.74	9.20	3.70	D
151	J821	2363.0	5.25	151	172	111	46.4	293J	2355.7	9.1J	9.1J	620	697	55.4	58.7	656	71699	74.0	11.0	368	986	1.35	1.82	1.77	1.74	9.20	3.70	D
152	J827	2363.5	5.28	152	176	111	45.9	293J	2356.0	9.1J	9.1J	620	685	55.5	58.3	656	72348	74.5	11.0	952	986	1.36	1.81	1.76	1.74	9.20	3.70	D
153	J833	2364.0	4.99	157	338	110	45.9	294J	2356.5	9.1J	9.1J	620	697	55.5	58.9	657	72984	75.0	11.1	991	986	1.37	1.83	1.78	1.74	9.20	3.70	D
154	J839	2364.5	4.98	156	184	113	47.2	291J	2357.2	9.1J	9.1J	619	684	55.5	59.0	663	73662	75.5	11.2	998	986	1.39	1.85	1.80	1.75	9.20	3.70	D
155	J844	2365.0	5.33	151	130	113	46.5	288J	2357.7	9.1J	9.1J	617	688	55.5	58.9	661	74272	76.0	11.3	321	985	1.40	1.81	1.76	1.75	9.20	3.70	D
156	J901	2365.5	5.07	147	178	113	45.3	295J	2359.0	9.1J	9.1J	623	681	55.5	56.9	663	75387	76.5	11.5	1011	987	1.42	1.83	1.77	1.75	9.20	3.70	D
157	J907	2366.0	5.03	149	174	114	42.3	294J	2359.3	9.1J	9.1J	623	677	55.5	58.1	664	75751	77.0	11.6	981	987	1.43	1.79	1.74	1.75	9.19	3.70	D
158	J911	2366.5	6.35	150	184	114	42.6	293J	2360.5	9.1J	9.1J	623	685	55.5	59.3	662	76283	77.5	11.6	804	986	1.44	1.73	1.67	1.75	9.19	3.70	D
159	J916	2367.0	6.74	153	182	114	41.3	292J	2360.9	9.1J	9.1J	623	688	55.5	59.5	664	76791	78.0	11.7	745	984	1.45	1.70	1.65	1.75	9.19	3.70	D
160	J920	2367.5	6.95	150	132	113	41.1	290J	2361.3	9.1J	9.1J	621	684	55.7	59.5	663	77290	78.5	11.8	697	982	1.45	1.68	1.63	1.75	9.19	3.70	D
161	J925	2368.0	5.50	148	176	114	42.3	291J	2361.9	9.1J	9.1J	621	680	55.9	59.5	663	77900	79.0	11.9	1026	982	1.47	1.76	1.71	1.75	9.19	3.70	D
162	J930	2368.5	6.55	150	136	114	44.5	289J	2362.3	9.1J	9.1J	621	692	56.5	60.3	661	78416	79.5	11.9	769	981	1.48	1.74	1.69	1.74	9.19	3.70	D
163	J935	2369.0	5.90	153	136	114	44.3	291J	2362.7	9.1J	9.1J	621	694	56.9	60.3	659	78997	80.0	12.0	373	980	1.49	1.77	1.72	1.74	9.19	3.70	D
164	J939	2369.5	7.57	159	202	114	45.7	290J	2363.0	9.1J	9.1J	615	696	57.4	60.0	659	79443	80.5	12.1	690	978	1.50	1.71	1.66	1.74	9.20	3.70	D
165	J943	2370.0	8.34	153	184	112	44.3	290J	2363.3	9.1J	9.1J	621	695	58.0	60.1	660	79860	81.0	12.2	538	976	1.51	1.68	1.62	1.74	9.20	3.70	D
166	J948	2370.5	6.36	153	182	112	45.0	289J	2363.8	9.1J	9.1J	620	703	58.4	60.5	674	80406	81.5	12.2	731	975	1.52	1.75	1.69	1.74	9.20	3.70	D
167	J952	2371.0	6.48	157	196	111	44.7	289J	2364.1	9.1J	9.1J	623	694	58.6	60.5	688	80905	82.0	12.3	754	973	1.53	1.74	1.68	1.74	9.20	3.70	D
168	J954	2371.5	20.5	163	130	111	44.3	289J	2364.3	9.1J	9.1J	616	702	58.7	60.4	696	81066	82.5	12.3	249	969	1.53	1.83	1.83	1.74	9.20	3.70	D
169	J955	2372.0	21.1	162	194	111	44.3	289J	2364.4	9.1J	9.1J	619	704	58.7	60.4	700	81221	83.0	12.4	239	965	1.53	1.87	1.82	1.74	9.20	3.70	D
170	J000	2372.5	13.5	149	190	111	42.0	294J	2364.7	9.1J	9.1J	614	657	58.7	60.4	706	81344	83.5	12.4	365	960	1.53	1.49	1.43	1.73	9.20	3.70	D
171	J001	2373.0	28.7	165	182	109	37.6	293J	2364.7	9.1J	9.1J	621	674	58.3	60.5	708	81408	84.0	12.4	274	955	1.53	1.21	1.16	1.74	9.20	3.70	D
172	J002	2373.5	9.60	152	194	111	41.1	292J	2364.9	9.1J	9.1J	623	691	58.3	60.5	708	81533	84.5	12.4	516	951	1.54	1.57	1.52	1.74	9.21	3.70	D
173	J006	2374.0	7.52	152	190	111	45.1	293J	2365.2	9.1J	9.1J	623	703	58.7	60.3	706	81973	85.0	12.5	625	949	1.55	1.69	1.64	1.73	9.21	3.70	D
174	J012	2374.5	5.14	149	176	111	45.9	293J	2365.2	9.1J	9.1J	622	692	58.5	60.2	713	82616	85.5	12.6	903	949	1.56	1.82	1.76	1.74	9.21	3.70	D
175	J017	2375.0	5.82	155	194	111	46.7	293J	2365.6	9.1J	9.1J	622	689	58.5	60.0	724	83138	86.0	12.7	357	948	1.57	1.79	1.74	1.74	9.21	3.70	D
176	J025	2375.5	9.78	151	198	111	46.2	289J	2366.1	9.1J	9.1J	608	642	58.1	59.3	716	83574	86.5	12.7	573	946	1.58	1.63	1.57	1.74	9.21	3.70	D
177	J027	2376.0	15.7	163	194	109	45.7	292J	2366.3	9.1J	9.1J	619	676	59.4	59.0	718	83781	87.0	12.8	314	943	1.58	1.47	1.42	1.73	9.21	3.70	D
178	J031	2376.5	7.79	156	200	109	44.8	293J	2366.3	9.1J	9.1J	619	683	59.2	58.2	715	84131	87.5	12.8	674	941	1.59	1.68	1.62	1.73	9.21	3.70	D
179	J036	2377.0	5.42	153	184	110	45.4	291J	2367.5	9.1J	9.1J	613	679	59.1	59.4	716	84785	88.0	12.9	929	941	1.60	1.79	1.74	1.73	9.21	3.70	D
180	J042	2377.5	5.60	155	190	110	46.6	290J	2368.1	9.1J	9.1J	613	679	59.4	58.5	714	85388	88.5	13.0	957	941	1.61	1.80	1.74	1.74	9.21	3.70	D
181	J044	2378.0	12.5	167	206	109	45.4	290J	2368.3	9.1J	9.1J	613	681	59.4	58.5	716	85641	89.0	13.0	437	938	1.62	1.54	1.48	1.73	9.21	3.70	D
182	J046	2378.5	20.2	162	204	109	44.3	289J	2368.5	9.1J	9.1J	613	680	59.5	58.6	718	85803	89.5	13.1	247	934	1.62	1.88	1.82	1.74	9.21	3.70	D
183	J053	2379.0	4.33	152	132	110	47.1	289J	2369.3	9.1J	9.1J	613	633	59.6	59.6	660	86552	90.0	13.2	1136	935	1.64	1.88	1.83	1.74	9.21	3.70	D
184	J059	2379.5	4.53	150	174	111	46.9	291J	2370.1	9.1J	9.1J	620	683	59.1	59.7	565	87282	90.5	13.3	1106	936	1.65	1.87	1.81	1.74	9.21	3.70	D
185	J105	2380.0	5.57	143	174	110	47.5	292J	2370.8	9.1J	9.1J	620	635	58.4	59.3	541	87379	91.0	13.4	383	935	1.67	1.81	1.75	1.74			

KOORAH J.O.1

Data Printed at time J6:04 Date Dec 22 '35
 Data Recorded at time 11:34 Date Dec 13 '35

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPA AVG	DB AVG	PUMP PRES	RTRNS DEPTH	Wt lb/gal		FLO I/MIN		TEMP (C)		PVT	----MIS BIT----			---DOSP---		EST T/H	DKC	NK	AKB	BOD	EST EM PR	
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	n	hrs	LIST	RUN							T/H
190	1134	2382.5	5.76	152	192	1.09	45.2	2830	2374.4	9.10	9.10	614	677	59.9	59.4	573	91361	93.5	13.9	885	937	1.73	1.77	1.71	1.75	9.2J	3.70	D
191	1139	2383.3	5.97	157	206	1.09	45.4	2830	2374.9	9.10	9.10	615	686	59.2	59.3	633	91609	94.0	13.9	872	936	1.74	1.76	1.70	1.75	9.2J	3.70	D
192	1144	2383.5	5.43	156	192	1.09	46.1	2850	2375.8	9.10	9.10	615	674	59.4	60.3	655	92210	94.5	14.0	867	936	1.76	1.80	1.74	1.75	9.2J	3.70	D
193	1149	2384.3	5.14	154	194	1.10	44.9	2850	2376.3	9.10	9.10	615	666	59.8	60.1	693	92756	95.0	14.1	863	936	1.77	1.75	1.69	1.75	9.2J	3.70	D
194	1152	2384.5	5.63	157	190	1.09	44.2	2840	2376.6	9.10	9.10	616	663	59.8	60.3	717	93126	95.5	14.2	848	934	1.77	1.64	1.58	1.74	9.2J	3.70	D
195	1205	2385.3	7.32	157	202	1.11	43.1	3050	2378.1	9.10	9.10	635	680	59.9	59.0	337	93605	96.0	14.2	691	933	1.78	1.66	1.60	1.74	9.2J	3.70	D
196	1206	2385.5	45.3	163	196	1.12	39.9	3040	2378.1	9.10	9.10	635	684	59.9	59.0	339	93679	96.5	14.3	163	929	1.78	1.11	1.05	1.74	9.2J	3.70	D
197	1206	2386.3	46.5	163	180	1.13	36.9	3050	2378.2	9.10	9.10	635	680	59.9	59.0	337	93743	97.0	14.3	94	924	1.78	1.08	1.02	1.74	9.2J	3.70	D
198	1210	2386.5	3.27	153	174	1.13	43.3	3040	2378.4	9.10	9.10	629	689	60.0	59.4	338	94147	97.5	14.3	1384	923	1.79	1.61	1.55	1.74	9.2J	3.70	D
199	1212	2387.3	14.9	157	182	1.14	42.6	3020	2378.5	9.10	9.10	634	685	60.0	60.0	338	94371	98.0	14.4	326	919	1.79	1.47	1.41	1.74	9.2J	3.70	D
200	1215	2387.5	9.94	157	186	1.14	41.5	3020	2378.8	9.10	9.10	633	682	60.0	60.2	339	94704	98.5	14.4	723	917	1.80	1.58	1.51	1.74	9.2J	3.70	D
201	1217	2388.3	10.0	155	190	1.13	43.6	3020	2379.0	9.10	9.10	632	676	60.0	60.1	340	95034	99.0	14.5	471	915	1.81	1.60	1.53	1.74	9.2J	3.70	D
202	1222	2388.5	7.41	155	184	1.13	41.9	3000	2379.4	9.10	9.10	633	685	60.0	60.2	337	95502	99.5	14.5	684	914	1.81	1.67	1.60	1.73	9.2J	3.70	D
203	1223	2389.3	15.7	158	174	1.13	45.5	3010	2379.5	9.10	9.10	633	683	60.0	60.2	337	95714	100	14.6	317	911	1.82	1.48	1.42	1.73	9.2J	3.70	D
204	1225	2389.5	20.4	163	182	1.14	47.9	3020	2379.6	9.10	9.10	634	677	60.0	60.0	338	95879	100	14.6	248	908	1.82	1.43	1.36	1.73	9.2J	3.70	D
205	1227	2390.3	17.6	163	186	1.13	49.0	3020	2379.8	9.10	9.10	634	685	60.0	60.0	339	96069	100	14.6	273	905	1.83	1.48	1.42	1.73	9.2J	3.70	D
206	1230	2390.5	9.49	163	202	1.13	49.9	3010	2380.1	9.10	9.10	633	684	60.0	59.3	338	96427	101	14.7	552	903	1.84	1.58	1.62	1.73	9.2J	3.70	D
207	1232	2391.3	12.0	159	194	1.13	50.2	3010	2380.3	9.10	9.10	633	679	60.0	60.0	341	96708	102	14.7	417	900	1.84	1.61	1.54	1.73	9.2J	3.70	D
208	1235	2391.5	11.7	158	200	1.13	51.3	3020	2380.5	9.10	9.10	632	672	60.0	59.7	342	96997	102	14.7	454	898	1.85	1.63	1.56	1.73	9.2J	3.70	D
209	1239	2392.3	5.94	153	182	1.14	50.5	3020	2380.8	9.10	9.10	632	689	60.1	59.6	342	97493	103	14.8	737	897	1.86	1.79	1.72	1.73	9.2J	3.70	D
210	1244	2392.5	5.35	152	180	1.14	50.1	3020	2381.4	9.10	9.10	634	690	60.1	59.9	342	98071	103	14.9	847	897	1.88	1.34	1.77	1.73	9.2J	3.70	D
211	1249	2393.3	6.39	152	182	1.14	43.7	3010	2381.8	9.10	9.10	635	689	59.3	60.7	342	98570	104	15.0	750	896	1.89	1.77	1.70	1.73	9.2J	3.70	D
212	1255	2393.5	4.42	147	182	1.15	48.5	3010	2382.5	9.10	9.10	634	689	59.3	60.7	344	99345	104	15.1	1164	897	1.91	1.91	1.84	1.73	9.2J	3.70	D
213	1313	2394.3	3.53	149	174	1.14	43.4	3010	2383.7	9.10	9.10	631	682	60.3	60.1	344	99792	105	15.2	692	897	1.92	1.64	1.58	1.73	9.2J	3.70	D
214	1313	2394.5	5.10	154	190	1.16	43.5	2990	2383.9	9.10	9.10	632	696	60.3	59.0	344	100437	105	15.3	1073	896	1.93	1.87	1.80	1.73	9.2J	3.70	D
215	1324	2395.0	4.98	150	180	1.12	47.6	2970	2383.3	9.10	9.10	632	702	60.3	60.5	345	101109	106	15.4	991	897	1.95	1.85	1.78	1.74	9.2J	3.70	D
216	1330	2395.5	5.57	153	186	1.11	43.3	2970	2386.4	9.10	9.10	631	689	60.3	60.0	342	101718	106	15.4	990	897	1.96	1.83	1.76	1.74	9.2J	3.70	D
217	1337	2396.3	4.17	143	170	1.12	43.7	2970	2387.5	9.10	9.10	631	704	60.4	60.3	341	102501	107	15.6	1152	898	1.98	1.92	1.85	1.74	9.2J	3.70	D
218	1343	2396.5	4.30	147	176	1.13	43.3	2850	2388.7	9.10	9.10	603	651	60.4	59.6	342	103249	107	15.7	1114	899	2.00	1.91	1.84	1.74	9.2J	3.70	D
219	1348	2397.3	5.95	147	164	1.17	47.9	2840	2389.8	9.10	9.10	614	669	60.5	60.2	344	103339	108	15.8	357	899	2.01	1.92	1.75	1.74	9.2J	3.70	D
220	1356	2397.5	4.23	152	170	1.17	48.9	2830	2391.1	9.10	9.10	614	678	60.5	60.1	347	104688	108	15.9	1609	901	2.03	1.94	1.86	1.75	9.1J	3.70	D
221	1359	2398.3	3.11	151	196	1.11	48.7	3030	2391.9	9.10	9.10	630	683	60.5	60.3	343	105080	109	15.9	670	900	2.04	1.63	1.61	1.75	9.1J	3.70	D
222	1402	2398.5	3.39	161	198	1.12	49.3	3020	2392.8	9.10	9.10	633	688	60.5	59.2	349	105430	109	16.0	473	898	2.05	1.63	1.55	1.74	9.1J	3.70	D
223	1405	2399.3	10.5	156	190	1.13	49.2	3010	2393.1	9.10	9.10	631	692	60.5	59.5	346	105740	110	16.3	474	896	2.06	1.64	1.56	1.74	9.2J	3.70	D
224	1411	2399.5	4.36	149	186	1.13	50.5	3010	2394.4	9.10	9.10	630	691	60.4	59.7	345	106433	110	16.1	1018	896	2.07	1.87	1.79	1.75	9.1J	3.70	D
225	1413	2400.3	4.46	148	182	1.13	49.6	3020	2395.0	9.10	9.10	636	684	60.4	59.3	351	107196	111	16.3	1132	897	2.09	1.92	1.84	1.75	9.1J	3.70	D
226	1424	2400.5	4.36	147	164	1.13	51.4	3010	2395.4	9.10	9.10	634	675	60.4	59.3	360	107885	111	16.4	1034	898	2.11	1.92	1.84	1.75	9.1J	3.70	D
227	1428	2401.3	7.75	151	182	1.12	43.7	3020	2395.7	9.10	9.10	633	675	60.4	59.9	362	108321	112	16.4	648	897	2.12	1.74	1.66	1.75	9.1J	3.70	D
228	1435	2401.5	4.33	149	184	1.13	43.6	3010	2396.4	9.10	9.10	634	682	60.3	60.1	363	109099	113	16.5	992	898	2.14	1.92	1.84	1.75	9.1J	3.70	D
229	1441	2402.3	4.36	152	172	1.13	49.1	3030	2396.8	9.10	9.10	634	680	60.3	60.2	361	109795	113	16.6	1050	899	2.15	1.89	1.81	1.76	9.1J	3.70	D
230	1448	2402.5	4.48	150	184	1.13	49.6	3020	2397.2	9.10	9.10	634	669	60.3	60.5	366	110538	113	16.7	1101	899	2.17	1.92	1.84	1.76	9.1J	3.70	D
231	1503	2403.3	5.29	151	190	1.12	47.4	3010	2398.0	9.10	9.10	631	673	60.2	58.9	364	111346	114	16.9	941	901	2.19	1.84	1.76	1.76	9.1J	3.70	D
232	1508	2403.5	6.14	156	188	1.11	46.3	3000	2398.2	9.10	9.10	631	683	60.2	60.5	371	111837	114	16.9	775	900	2.20	1.78	1.70	1.76	9.1J	3.70	D
233	1513	2404.3	5.94	152	188	1.11	44.4	3000	2398.5	9.10	9.10	631	683	60.2	61.9	371	112445	115	17.0	831	900	2.21	1.76	1.68	1.76	9.1J	3.70	D
234	1515	2404.5	15.6	156	180	1.11	41.0	3010	2398.5	9.10	9.10	631	689	60.2	61.9	372	112667	115	17.1	315	898	2.21	1.43	1.35	1.76	9.1J	3.70	D
235	1517	2405.3	19.4	162	192	1.10	46.1	3000	2398.5	9.10																		

KOORAH D.1

Data Printed at time 06:08 Date Dec 22 '85
Data Recorded at time 15:27 Date Dec 13 '85

#	TIME	DEPTH	DOP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lo/gal		FLOW/MLN		TEMP (C)		PVT	-----THIS BIT-----			---DOST---		EST	KJC	K	K3	DD	EST
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT	IN	OUT		IN	OUT	IN	OUT	REVS						
240	1527	2407.5	15.2	161	198	11.1	47.3	3000	2398.9	9.10	9.10	630	693	60.2	61.7	372	113984	113	17.3	347	384	2.24	1.53	1.42	1.75	9.21	3.70	D
241	1529	2408.0	13.1	162	202	11.1	46.5	2990	2399.0	9.10	9.10	630	688	60.2	61.7	373	114165	119	17.3	231	381	2.25	1.44	1.36	1.75	9.21	3.70	D
242	1530	2408.5	20.3	158	192	11.0	44.1	3000	2399.1	9.10	9.10	630	695	60.2	61.3	371	114323	120	17.3	232	378	2.25	1.38	1.30	1.75	9.21	3.70	D
243	1533	2409.0	11.1	161	204	11.1	47.3	3000	2399.3	9.10	9.10	631	702	60.2	61.5	372	114623	120	17.4	379	377	2.26	1.60	1.52	1.75	9.21	3.70	D
244	1536	2409.5	10.3	161	202	11.1	47.4	3010	2399.6	9.10	9.10	630	693	60.2	60.3	374	114946	120	17.4	463	375	2.26	1.63	1.54	1.75	9.21	3.70	D
245	1541	2410.0	5.72	155	188	11.1	48.4	3020	2400.0	9.10	9.10	631	694	60.2	59.9	368	115546	121	17.5	929	375	2.28	1.82	1.74	1.74	9.21	3.70	D
246	1546	2410.5	5.37	155	188	11.1	48.9	3010	2400.5	9.10	9.10	631	691	60.2	60.0	369	116091	121	17.6	344	375	2.29	1.82	1.73	1.74	9.21	3.70	D
247	1552	2411.0	5.23	156	194	11.1	48.9	3010	2401.0	9.10	9.10	631	690	60.2	62.3	369	116751	122	17.7	343	375	2.31	1.85	1.77	1.75	9.21	3.70	D
248	1554	2411.5	12.1	163	204	11.0	49.6	2990	2401.2	9.10	9.10	632	699	60.2	62.3	368	117014	122	17.7	416	373	2.31	1.60	1.51	1.74	9.21	3.70	D
249	1557	2412.0	11.7	160	200	11.0	48.2	3020	2401.4	9.10	9.10	633	691	60.1	61.3	372	117307	123	17.8	438	372	2.32	1.59	1.51	1.74	9.21	3.70	D
250	1610	2412.5	3.12	153	200	11.1	45.3	3020	2402.2	9.10	9.10	625	680	60.1	61.3	378	117819	123	17.8	707	371	2.33	1.68	1.60	1.74	9.21	3.70	D
251	1618	2413.0	5.55	153	196	11.2	48.4	2810	2402.3	9.10	9.10	580	575	60.1	60.1	373	118406	124	17.9	979	371	2.34	1.83	1.75	1.74	9.21	3.70	D
252	1623	2413.5	6.64	158	202	11.2	48.1	2820	2402.5	9.10	9.10	607	575	60.1	61.4	377	118911	124	18.0	718	371	2.35	1.77	1.69	1.74	9.22	3.70	D
253	1628	2414.0	5.39	152	192	11.2	49.6	2790	2403.0	9.10	9.10	605	579	60.1	61.2	380	119530	125	18.1	999	371	2.37	1.85	1.77	1.74	9.22	3.70	D
254	1635	2414.5	4.40	153	190	11.2	50.0	2810	2404.2	9.10	9.10	606	573	60.1	61.7	379	120290	125	18.2	1165	372	2.39	1.92	1.84	1.75	9.21	3.70	D
255	1636	2415.0	4.67	154	184	11.1	49.7	2800	2404.6	9.10	9.10	606	579	60.1	61.7	380	120467	126	18.2	1164	373	2.39	1.90	1.81	1.75	9.21	3.70	D
256	1644	2415.5	4.34	151	182	11.1	48.9	2810	2406.4	9.10	9.10	607	579	60.1	62.0	383	121200	126	18.4	1133	371	2.41	1.93	1.85	1.75	9.21	3.70	D
257	1650	2416.0	4.68	153	204	11.0	48.6	2800	2408.2	9.10	9.10	606	577	60.1	62.2	385	121991	127	18.5	1074	372	2.43	1.88	1.80	1.75	9.20	3.70	D
258	1654	2416.5	9.32	164	218	11.0	49.4	2810	2408.3	9.10	9.10	610	576	60.1	62.2	386	122358	127	18.5	536	371	2.44	1.88	1.80	1.75	9.20	3.70	D
259	1655	2417.0	31.9	168	204	11.0	48.3	2790	2408.9	9.10	9.10	607	575	60.1	62.2	386	122457	128	18.5	159	368	2.44	1.29	1.20	1.75	9.20	3.70	D
260	1655	2417.5	36.2	173	232	10.9	45.3	2800	2409.0	9.10	9.10	607	576	60.1	62.2	386	122543	128	18.5	140	365	2.44	1.22	1.14	1.75	9.20	3.70	D
261	1701	2418.0	21.2	168	208	11.1	47.3	2740	2409.4	9.10	9.10	585	640	60.1	62.1	387	122715	129	18.6	249	363	2.44	1.41	1.32	1.75	9.20	3.70	D
262	1702	2418.5	30.2	170	188	10.9	47.1	2800	2409.5	9.10	9.10	609	574	60.1	60.4	387	122822	129	18.6	171	360	2.45	1.29	1.20	1.75	9.21	3.70	D
263	1703	2419.0	29.1	166	188	10.8	45.3	2820	2409.6	9.10	9.10	607	579	60.1	60.4	386	122932	130	18.6	167	357	2.45	1.23	1.20	1.75	9.21	3.70	D
264	1704	2419.5	25.3	172	204	10.9	48.2	2820	2409.7	9.10	9.10	609	685	60.1	60.4	386	123058	130	18.6	133	355	2.45	1.35	1.26	1.75	9.21	3.70	D
265	1705	2420.0	39.0	167	180	10.9	46.9	2810	2409.8	9.10	9.10	616	684	60.1	60.4	387	123141	131	18.6	126	352	2.45	1.20	1.12	1.75	9.21	3.70	D
266	1706	2420.5	40.1	177	238	10.6	47.3	2790	2409.9	9.10	9.10	609	679	60.1	62.6	387	123214	131	18.6	119	349	2.45	1.17	1.08	1.75	9.22	3.70	D
267	1706	2421.0	45.3	179	238	10.6	49.3	2790	2410.0	9.10	9.10	609	677	60.1	62.6	388	123283	132	18.7	107	346	2.46	1.17	1.08	1.75	9.21	3.70	D
268	1707	2421.5	28.5	171	188	10.8	49.8	2770	2410.1	9.10	9.10	616	677	60.1	62.6	387	123339	132	18.7	138	345	2.46	1.32	1.23	1.75	9.21	3.70	D
269	1708	2422.0	39.5	163	210	10.5	48.7	2750	2410.1	9.10	9.10	615	674	60.1	62.6	387	123403	133	18.7	137	341	2.46	1.20	1.11	1.75	9.15	3.70	D
+ Circulate returns at 2422m.																												
271	1850	2422.5	13.0	162	198	11.1	44.9	3040	2420.9	9.10	9.10	638	696	61.4	62.3	400	124023	133	18.8	367	341	2.47	1.43	1.35	1.75	9.17	3.70	D
272	1852	2423.0	17.7	164	196	11.3	40.5	3030	2420.9	9.10	9.10	638	689	61.0	60.5	399	124214	134	18.8	294	339	2.47	1.40	1.31	1.75	9.18	3.70	D
273	1854	2423.5	12.7	160	186	11.4	38.1	3030	2420.9	9.10	9.10	637	691	61.0	60.5	399	124478	134	18.8	422	337	2.48	1.47	1.39	1.75	9.18	3.70	D
274	1858	2424.0	9.02	157	188	11.4	43.2	3040	2420.9	9.10	9.10	636	691	60.9	62.0	400	124854	135	18.9	641	336	2.49	1.63	1.54	1.75	9.18	3.70	D
275	1903	2424.5	5.43	155	194	11.4	48.3	3040	2420.9	9.10	9.10	637	688	61.0	62.6	399	125503	135	19.0	901	337	2.50	1.85	1.76	1.75	9.18	3.70	D
276	1908	2425.0	5.73	158	202	11.4	49.2	3040	2420.9	9.10	9.10	638	682	61.1	62.2	401	126079	136	19.1	364	337	2.52	1.84	1.75	1.75	9.18	3.70	D
277	1915	2425.5	4.35	151	174	11.4	48.3	3040	2420.9	9.10	9.10	638	688	61.4	62.1	403	126860	137	19.2	1277	338	2.53	1.92	1.82	1.75	9.19	3.70	D
278	1919	2426.0	3.39	160	208	11.3	48.5	3030	2420.9	9.10	9.10	637	686	61.5	61.4	403	127263	137	19.2	503	337	2.54	1.71	1.62	1.75	9.19	3.70	D
279	1923	2426.5	6.53	159	206	11.2	48.3	3040	2420.9	9.10	9.10	639	686	61.6	61.3	404	127772	137	19.3	694	337	2.56	1.73	1.69	1.75	9.19	3.70	D
280	1930	2427.0	4.35	157	198	11.2	48.3	3040	2420.9	9.10	9.10	639	690	61.6	60.9	407	128464	138	19.4	963	337	2.57	1.87	1.78	1.75	9.19	3.70	D
281	1934	2427.5	6.77	158	194	11.2	48.7	3040	2420.9	9.10	9.10	639	689	61.7	60.9	407	128959	138	19.5	740	337	2.58	1.78	1.68	1.75	9.20	3.70	D
282	1938	2428.0	8.43	160	200	11.2	47.2	3040	2420.9	9.10	9.10	639	692	61.7	60.9	407	129357	139	19.6	610	336	2.59	1.69	1.60	1.75	9.20	3.70	D
283	1942	2428.5	6.24	158	192	11.2	46.2	3030	2420.9	9.10	9.10	640	692	61.7	61.7	410	129393	139	19.6	777	336	2.60	1.77	1.68	1.75	9.20	3.70	D
284	1945	2429.0	10.4	164	200	11.2	48.3	3030	2420.9	9.10	9.10	636	695	61.7	62.2	410	130214	140	19.7	487	335	2.61	1.64	1.54	1.75	9.20	3.70	D
285	1948	2429.5	10.1	164	210	11.1	48.1	3040	2420.9	9.10	9.10	638	691	61.7	62.3	411	130543	140	19.7	517	330	2.62	1.64	1.55	1.75	9.21	3.70	D
286	1952	2430.0	8.43	163																								

KOORCAH NO.1

Data Printed at time 06:12 Date Dec 22 '85
Data Recorded at time 23:36 Date Dec 13 '85

#	TIME	DEPTH	ROP m/hr	TORQUE		D3 AVG	PUMP PRES	RFRIG		M lb/gal		FLO/MLN		TEMP (C)		PVT	-----THIS BIT-----			---COST---		XOC	XK	XKB	CSD	EST MI PR		
				AVG	MAX			DEPTH	LI	OUT	LI	OUT	LI	OUT	REVS		m	hrs	INST	RUN	T/I							
290	2306	2432.0	4.0	177	226	11.1	47.3	2930	2421.6	9.10	9.10	623	685	61.3	59.6	413	131733	143	19.9	113	325	2.65	1.21	1.11	1.74	9.21	3.70	D
291	2307	2432.5	5.0	191	360	10.7	44.3	2910	2421.7	9.10	9.10	623	685	61.3	60.7	415	131795	143	19.9	96	323	2.65	1.10	1.01	1.74	9.21	3.70	D
292	2308	2433.0	45.2	173	298	10.6	42.2	2930	2421.3	9.10	9.10	622	687	61.3	60.7	414	131360	144	19.9	103	320	2.65	1.11	1.03	1.74	9.22	3.70	D
293	2310	2433.5	11.5	163	204	11.2	43.5	2960	2422.4	9.10	9.10	621	685	61.3	60.6	412	132145	144	20.0	273	319	2.65	1.55	1.46	1.74	9.22	3.70	D
294	2316	2434.0	12.5	160	200	11.1	47.2	3020	2422.9	9.10	9.10	617	624	61.3	60.1	415	132419	145	20.0	397	318	2.66	1.56	1.47	1.74	9.22	3.70	D
295	2317	2434.5	4.25	153	190	11.1	48.6	3020	2423.1	9.10	9.10	634	679	61.3	60.1	415	132581	145	20.0	598	316	2.66	1.91	1.32	1.74	9.22	3.70	D
296	2321	2435.0	5.22	161	183	11.1	48.0	3020	2425.1	9.10	9.10	634	681	61.3	61.9	414	132937	146	20.0	341	315	2.67	1.34	1.75	1.74	9.21	3.70	D
297	2323	2435.5	5.66	154	190	11.1	46.2	3020	2425.2	9.10	9.10	634	685	61.3	61.5	415	133142	146	20.1	914	313	2.68	1.79	1.70	1.74	9.21	3.70	D
298	2328	2436.0	6.03	159	192	11.1	46.3	3030	2425.7	9.10	9.10	634	687	61.3	61.5	417	133702	147	20.2	793	313	2.69	1.73	1.69	1.74	9.21	3.70	D
299	2335	2436.5	4.15	152	182	11.1	47.9	3010	2426.3	9.10	9.10	634	683	61.9	61.7	419	134491	147	20.3	1272	314	2.71	1.91	1.82	1.74	9.21	3.70	D
300	2337	2437.0	16.2	169	206	11.0	47.4	3030	2426.5	9.10	9.10	633	682	61.9	61.6	419	134699	148	20.4	359	313	2.71	1.48	1.39	1.74	9.21	3.70	D
301	2339	2437.5	12.4	162	192	11.1	45.3	3010	2426.8	9.10	9.10	634	680	61.9	61.7	422	134972	148	20.4	468	311	2.72	1.54	1.45	1.74	9.22	3.70	D
302	2343	2438.0	7.70	159	202	11.1	46.7	3000	2427.1	9.10	9.10	634	685	61.9	61.9	421	135381	149	20.5	713	311	2.72	1.70	1.61	1.73	9.22	3.70	D
303	2350	2438.5	4.34	156	230	11.1	47.1	3010	2427.7	9.10	9.10	635	679	62.0	62.1	424	136147	149	20.6	991	312	2.74	1.39	1.79	1.74	9.22	3.70	D
304	2354	2439.0	7.58	161	210	11.0	48.8	3010	2428.1	9.10	9.10	635	684	62.0	62.0	425	136583	150	20.6	691	311	2.75	1.73	1.63	1.74	9.22	3.70	D
305	2358	2439.5	7.13	158	212	11.1	48.1	3010	2428.6	9.10	9.10	635	677	62.0	61.9	425	137048	150	20.7	721	311	2.76	1.75	1.65	1.73	9.22	3.70	D
306	2134	2440.0	4.43	156	206	11.1	48.3	3000	2429.5	9.10	9.10	635	687	62.0	61.9	425	137737	151	20.8	1019	312	2.78	1.39	1.79	1.74	9.21	3.70	D
307	2137	2440.5	12.3	165	198	11.1	46.6	3000	2429.8	9.10	9.10	633	678	62.0	61.9	425	138044	151	20.9	382	310	2.79	1.55	1.45	1.74	9.21	3.70	D
308	2113	2441.0	13.3	161	213	10.8	46.4	3000	2431.1	9.10	9.10	627	674	62.2	60.1	428	138413	152	20.9	525	310	2.79	1.61	1.51	1.73	9.21	3.70	D
309	2119	2441.5	26.1	131	244	10.8	48.9	2990	2431.3	9.10	9.10	630	673	62.2	60.1	427	138539	152	20.9	212	308	2.80	1.34	1.25	1.74	9.21	3.70	D
310	2124	2442.0	5.79	159	190	11.1	46.0	3000	2431.8	9.10	9.10	630	687	62.2	61.0	424	139115	153	21.0	367	309	2.81	1.32	1.72	1.73	9.21	3.70	D
311	2127	2442.5	10.6	164	210	11.1	45.7	2980	2433.0	9.10	9.10	630	690	62.2	61.0	428	139428	153	21.1	484	307	2.82	1.60	1.50	1.73	9.21	3.70	D
312	2130	2443.0	6.22	156	190	11.0	47.3	2930	2433.7	9.10	9.10	630	683	62.2	62.6	417	139709	154	21.1	753	305	2.82	1.78	1.68	1.73	9.21	3.70	D
313	2131	2443.5	3.91	163	190	11.0	48.5	2980	2433.8	9.10	9.10	630	681	62.2	62.6	417	139808	154	21.1	696	303	2.83	1.68	1.58	1.73	9.21	3.70	D
314	2136	2444.0	6.14	163	202	11.1	46.6	3000	2434.3	9.10	9.10	630	685	62.2	62.9	420	140350	155	21.2	834	303	2.84	1.77	1.67	1.73	9.21	3.70	D
315	2137	2444.5	10.3	160	188	11.1	47.4	3000	2434.4	9.10	9.10	631	686	62.2	62.3	420	140480	155	21.2	644	301	2.84	1.61	1.51	1.73	9.21	3.70	D
316	2143	2445.0	4.95	153	182	11.2	48.3	3000	2435.1	9.10	9.10	630	675	62.4	62.3	422	141173	156	21.3	1219	302	2.86	1.36	1.76	1.73	9.21	3.70	D
317	2146	2445.5	3.90	162	202	11.1	47.2	3010	2435.4	9.10	9.10	630	684	62.4	62.2	424	141535	156	21.4	516	301	2.86	1.67	1.57	1.73	9.21	3.70	D
318	2150	2446.0	7.91	158	206	11.0	46.8	3000	2436.7	9.10	9.10	631	674	62.4	62.1	423	141942	157	21.4	608	301	2.87	1.70	1.60	1.73	9.21	3.70	D
319	2152	2446.5	11.8	167	214	11.1	49.4	3000	2437.0	9.10	9.10	630	671	62.4	62.1	423	142239	157	21.5	404	300	2.88	1.61	1.50	1.73	9.21	3.70	D
320	2155	2447.0	12.5	163	204	11.0	46.5	3000	2437.6	9.10	9.10	631	665	62.5	62.4	424	142472	158	21.5	399	798	2.89	1.56	1.45	1.73	9.21	3.70	D
321	2159	2447.5	7.91	163	200	11.0	46.9	3000	2438.1	9.10	9.10	630	675	62.5	62.4	426	142390	158	21.6	942	798	2.89	1.70	1.60	1.72	9.21	3.70	D
322	2204	2448.0	5.69	153	186	11.1	47.7	2990	2438.5	9.10	9.10	630	670	62.8	62.2	429	143474	159	21.7	392	798	2.91	1.81	1.71	1.72	9.21	3.70	D
323	2209	2448.5	5.33	156	192	11.1	48.5	2990	2439.1	9.10	9.10	630	676	62.8	62.3	430	144093	159	21.8	922	798	2.92	1.34	1.74	1.72	9.21	3.70	D
324	2213	2449.0	7.40	158	194	11.1	47.9	2980	2439.6	9.10	9.10	631	671	62.9	62.3	431	144543	160	21.8	677	798	2.93	1.73	1.63	1.72	9.21	3.70	D
325	2217	2449.5	9.24	163	186	11.1	47.9	2990	2439.9	9.10	9.10	630	668	62.9	62.4	432	144901	160	21.8	497	796	2.94	1.66	1.56	1.72	9.21	3.70	D
326	2222	2450.0	5.21	152	170	11.1	46.6	3000	2440.4	9.10	9.10	630	678	62.9	62.1	433	145539	161	21.9	784	797	2.95	1.33	1.72	1.72	9.21	3.70	D
327	2227	2450.5	6.28	163	214	11.1	50.3	2990	2441.1	9.10	9.10	630	675	62.9	61.2	433	146069	161	22.0	726	797	2.96	1.81	1.71	1.72	9.21	3.70	D
328	2229	2451.0	14.0	164	193	11.1	47.9	2990	2441.2	9.10	9.10	629	678	62.9	62.2	433	146305	162	22.1	353	795	2.97	1.54	1.43	1.72	9.21	3.70	D
329	2240	2451.5	13.9	159	184	11.0	42.7	2980	2442.0	9.10	9.10	582	617	62.8	59.1	440	146506	162	22.1	301	794	2.97	1.39	1.29	1.72	9.23	3.70	D
330	2243	2452.0	10.2	166	196	11.2	43.0	2970	2442.3	9.10	9.10	625	675	62.8	61.2	438	146819	163	22.1	1534	793	2.98	1.64	1.53	1.72	9.21	3.70	D
331	2249	2452.5	5.05	154	188	11.1	48.5	2970	2443.0	9.10	9.10	626	680	62.9	61.3	437	147474	163	22.2	810	793	3.00	1.36	1.75	1.72	9.21	3.70	D
332	2254	2453.0	5.39	154	190	11.1	48.1	2960	2443.6	9.10	9.10	620	660	62.8	62.9	440	148101	164	22.3	938	794	3.01	1.34	1.73	1.72	9.21	3.70	D
333	2300	2453.5	5.10	157	200	11.1	50.3	2960	2444.0	9.10	9.10	625	654	62.5	62.5	446	148744	164	22.4	1014	794	3.03	1.88	1.77	1.72	9.21	3.70	D
334	2305	2454.0	6.23	157	210	11.1	48.3	2970	2444.4	9.10	9.10	625	671	62.4	62.6	447	149287	165	22.5	902	794	3.04	1.79	1.68	1.72	9.21	3.70	D
335	2308	2454.5	11.3	161	212	11.0	46.5	2960	2444.7	9.10	9.10	625	669	62.4	62.3	448	149547	165										

KOORAH D.D.

Data Printed at time 06:16 Date Dec 22 '85
Data Recorded at time 23:37 Date Dec 13 '85

#	LINE	DEPTH	RDP	TORQUE		RPM	DB	PUMP		M/GAL		FLOW/IN		TEMP (C)		PVT	-----THIS BIT-----			---COST---		EST	KJC	K	KB	EOD	EST	
				AVG	MAX			PRESS	DEPTH	LI	OUT	LI	OUT	LI	OUT		LI	OUT	REVS	n	hrs							INST
340	2337	2457.0	5.39	154	166	11.0	43.2	293J	2443.4	9.1J	9.1J	625	675	62.5	62.3	45J	152778	168	23.3	396	796	3.12	1.35	1.74	1.73	9.2J	3.7J	D
341	2343	2457.5	5.31	155	192	11.0	49.0	294J	2448.9	9.1J	9.1J	625	667	62.5	62.5	449J	153415	168	23.1	992	797	3.14	1.36	1.75	1.73	9.2J	3.7J	D
342	2349	2453.3	4.43	151	190	11.0	43.6	294J	2453.1	9.1J	9.1J	626	673	62.5	62.3	447J	154173	169	23.2	1159	797	3.15	1.30	1.73	1.73	9.2J	3.7J	D
343	2354	2453.5	7.12	159	200	11.0	47.9	293J	2453.1	9.1J	9.1J	624	664	62.5	62.5	449J	154621	169	23.3	663	797	3.17	1.74	1.63	1.73	9.2J	3.7J	D
344	2359	2459.0	5.37	156	196	10.9	43.2	293J	2450.8	9.1J	9.1J	625	667	62.4	61.7	449J	155176	170	23.4	304	797	3.18	1.30	1.69	1.73	9.2J	3.7J	D
Date Dec 14 '85																												
345	3005	2459.5	5.03	154	194	11.0	47.9	294J	2451.3	9.1J	9.1J	624	667	62.4	62.0	45J	155327	170	23.5	1100	798	3.20	1.35	1.73	1.73	9.2J	3.7J	D
346	3010	2460.0	5.21	154	196	11.0	43.1	291J	2451.9	9.1J	9.1J	619	665	62.3	62.2	451J	156450	171	23.6	964	798	3.21	1.34	1.73	1.73	9.2J	3.7J	D
347	3023	2460.5	6.34	155	180	11.0	45.1	297J	2452.9	9.1J	9.1J	559	559	62.2	59.3	459J	156955	171	23.7	750	798	3.22	1.74	1.52	1.73	9.19	3.7J	D
348	3035	2461.0	4.06	151	168	11.2	46.7	296J	2453.8	9.1J	9.1J	626	674	62.3	61.6	456J	157730	172	23.3	1393	799	3.24	1.91	1.79	1.73	9.2J	3.7J	D
349	3041	2461.5	4.64	153	183	11.2	49.0	296J	2454.3	9.1J	9.1J	625	679	62.4	63.0	456J	158504	173	23.9	1109	300	3.26	1.90	1.73	1.73	9.2J	3.7J	D
350	3047	2462.0	5.21	150	182	11.2	43.3	296J	2454.8	9.1J	9.1J	626	677	62.4	62.3	456J	159146	173	24.0	1304	301	3.28	1.36	1.74	1.73	9.2J	3.7J	D
351	3050	2462.5	11.7	165	208	11.1	49.5	295J	2456.0	9.1J	9.1J	625	677	62.4	61.7	461J	159424	173	24.0	454	300	3.28	1.61	1.49	1.73	9.19	3.7J	D
352	3053	2463.0	3.31	159	194	11.1	49.7	295J	2456.2	9.1J	9.1J	625	678	62.4	62.0	463J	159821	174	24.1	640	799	3.29	1.72	1.60	1.73	9.2J	3.7J	D
353	3057	2463.5	7.51	160	198	11.1	49.3	296J	2456.5	9.1J	9.1J	625	677	62.4	61.8	465J	160256	174	24.1	667	799	3.31	1.74	1.63	1.73	9.2J	3.7J	D
354	3100	2464.0	6.92	158	192	11.1	50.0	294J	2456.7	9.1J	9.1J	626	679	62.3	61.9	464J	160537	175	24.2	624	798	3.31	1.73	1.66	1.73	9.2J	3.7J	D
355	3105	2464.5	5.57	153	194	11.1	50.0	295J	2457.1	9.1J	9.1J	625	676	62.3	61.9	464J	161132	175	24.3	903	798	3.33	1.35	1.73	1.73	9.2J	3.7J	D
356	3111	2465.0	5.22	153	192	11.1	49.1	293J	2457.5	9.1J	9.1J	626	674	62.2	60.7	466J	161771	176	24.4	901	798	3.35	1.36	1.74	1.73	9.2J	3.7J	D
357	3117	2465.5	4.57	153	186	11.1	43.3	295J	2458.1	9.1J	9.1J	626	669	62.2	61.5	469J	162499	176	24.5	1086	799	3.36	1.39	1.77	1.73	9.2J	3.7J	D
358	3124	2466.0	4.17	152	180	11.2	49.1	294J	2458.7	9.1J	9.1J	625	671	62.3	61.6	471J	163233	177	24.6	1214	300	3.38	1.93	1.31	1.73	9.2J	3.7J	D
359	3131	2466.5	4.25	153	184	11.2	49.4	296J	2459.2	9.1J	9.1J	627	673	62.3	62.0	471J	164043	177	24.7	1223	301	3.40	1.93	1.31	1.74	9.2J	3.7J	D
360	3138	2467.0	4.69	151	168	11.2	49.4	294J	2459.6	9.1J	9.1J	624	675	62.3	62.0	471J	164734	178	24.3	1126	302	3.42	1.90	1.77	1.74	9.2J	3.7J	D
361	3144	2467.5	4.40	151	182	11.2	49.0	293J	2459.9	9.1J	9.1J	626	679	62.3	62.1	472J	165523	178	24.9	1142	303	3.44	1.91	1.79	1.74	9.2J	3.7J	D
362	3150	2468.0	5.52	156	198	11.1	49.0	293J	2460.2	9.1J	9.1J	626	664	61.3	62.4	472J	166122	179	25.0	935	303	3.45	1.34	1.72	1.74	9.2J	3.7J	D
363	3155	2468.5	5.93	157	192	11.1	50.7	292J	2460.5	9.1J	9.1J	627	671	61.2	61.4	473J	166633	179	25.1	331	303	3.47	1.34	1.71	1.74	9.2J	3.7J	D
364	3201	2469.0	4.51	151	170	11.1	49.9	293J	2461.1	9.1J	9.1J	623	634	62.3	61.9	476J	167419	180	25.2	1352	304	3.49	1.91	1.79	1.74	9.2J	3.7J	D
365	3207	2469.5	5.03	155	192	11.1	49.6	291J	2461.3	9.1J	9.1J	627	666	61.1	61.7	476J	168088	180	25.3	1016	304	3.51	1.33	1.75	1.74	9.2J	3.7J	D
366	3222	2470.0	5.00	156	192	11.2	50.0	291J	2463.2	9.1J	9.1J	623	679	61.1	61.3	433J	169039	181	25.5	987	306	3.53	1.39	1.76	1.75	9.2J	3.7J	D
367	3225	2470.5	2.86	155	176	11.4	43.5	293J	2463.5	9.1J	9.1J	629	630	62.3	61.2	443J	169355	181	25.5	1341	305	3.54	2.05	1.92	1.75	9.2J	3.7J	D
368	3231	2471.0	5.19	152	170	11.4	49.1	294J	2463.9	9.1J	9.1J	629	673	62.3	60.3	437J	170019	182	25.6	1172	306	3.55	1.37	1.74	1.75	9.2J	3.7J	D
369	3234	2471.5	3.41	151	170	11.4	50.3	294J	2464.3	9.1J	9.1J	628	673	62.3	61.0	439J	170441	182	25.7	1197	305	3.57	2.02	1.39	1.75	9.2J	3.7J	D
370	3242	2472.0	4.03	153	174	11.3	49.3	294J	2464.9	9.1J	9.1J	627	678	62.3	61.2	433J	171266	183	25.3	1221	306	3.59	1.95	1.32	1.75	9.2J	3.7J	D
371	3249	2472.5	4.25	154	180	11.3	49.5	294J	2465.4	9.1J	9.1J	623	672	61.0	61.4	433J	172082	183	25.9	1262	307	3.61	1.93	1.30	1.75	9.2J	3.7J	D
372	3256	2473.0	4.27	151	170	11.3	49.2	293J	2466.0	9.1J	9.1J	623	663	61.1	61.3	441J	172857	184	26.0	1149	308	3.63	1.93	1.30	1.76	9.2J	3.7J	D
373	3302	2473.5	4.65	154	186	11.3	49.8	293J	2466.6	9.1J	9.1J	628	672	61.1	60.2	442J	173604	184	26.1	1100	309	3.65	1.91	1.78	1.76	9.2J	3.7J	D
374	3309	2474.0	4.48	153	174	11.3	49.0	292J	2467.2	9.1J	9.1J	629	667	61.1	60.2	442J	174340	185	26.2	1203	310	3.67	1.91	1.78	1.76	9.2J	3.7J	D
375	3315	2474.5	4.65	154	194	11.3	49.7	291J	2467.9	9.1J	9.1J	623	672	61.0	60.7	445J	175069	185	26.3	1124	311	3.69	1.91	1.78	1.76	9.2J	3.7J	D
376	3322	2475.0	4.72	156	174	11.4	49.9	293J	2468.5	9.1J	9.1J	628	669	60.9	61.2	444J	175791	186	26.4	1067	311	3.71	1.91	1.77	1.77	9.19	3.7J	D
377	3323	2475.5	4.63	153	170	11.3	43.7	292J	2469.1	9.1J	9.1J	623	672	61.0	61.6	446J	176521	187	26.6	1123	312	3.72	1.90	1.76	1.77	9.19	3.7J	D
378	3334	2476.0	5.36	153	174	11.3	50.4	291J	2469.1	9.1J	9.1J	629	674	61.0	61.2	446J	177155	187	26.6	1037	312	3.74	1.37	1.74	1.76	9.2J	3.7J	D
379	3340	2476.5	4.57	153	188	11.3	49.0	293J	2469.5	9.1J	9.1J	629	678	61.5	60.5	445J	177374	187	26.8	1157	313	3.76	1.90	1.77	1.76	9.2J	3.7J	D
380	3346	2477.0	4.74	152	176	11.3	49.8	293J	2469.9	9.1J	9.1J	629	672	61.6	62.2	446J	178566	188	26.9	1077	314	3.78	1.90	1.77	1.76	9.2J	3.7J	D
381	3353	2477.5	4.56	151	180	11.2	49.3	294J	2470.4	9.1J	9.1J	630	675	61.8	61.3	446J	179294	188	27.0	1138	314	3.80	1.91	1.77	1.77	9.2J	3.7J	D
382	3404	2478.0	4.74	152	200	10.9	48.3	281J	2471.1	9.1J	9.1J	639	663	61.7	61.6	448J	180038	189	27.1	1042	315	3.81	1.38	1.75	1.76	9.2J	3.7J	D
383	3412	2478.5	3.33	149	172	11.0	48.7	279J	2471.7	9.1J	9.1J	638	661	61.9	62.2	453J	180857	189	27.2	1351	316	3.84	1.95	1.31	1.77	9.13	3.7J	D
384	3413	2479.0	5.36	153	206	11.0	49.1	278J	2472.0	9.1J	9.1J	637	660	62.0	62.4	455J	181470	190	27.3	943	316	3.85	1.35	1.71	1.76	9.13	3.7J	D
385	34																											

EXLOG

283108

49

KOORKAH NO.1

Data Printed at time 06:20 Date Dec 22 '85
Data Recorded at time 04:59 Date Dec 14 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lb/gal		FLO/ MIN		TEMP (C)		PVT	THIS BIT			DKC	NK	NKB	ECD	EST			
				AVG	MAX				AVG	AVG	AVG	AVG	IN	OUT	IN	OUT		IN	OUT	REVS						m	hrs	INST
389	0459	2481.5	4.80	148	188	109	48.0	2860	2475.0	9.10	9.00	61.2	65.9	62.3	62.4	460	184695	192	27.8	1095	819	3.93	1.87	1.73	1.76	9.17	8.70	D
390	0505	2482.0	5.67	154	198	110	48.5	2810	2475.4	9.10	9.00	61.0	66.1	62.4	62.7	460	185292	193	27.9	937	819	3.94	1.83	1.69	1.76	9.17	8.70	D
391	0511	2482.5	4.66	155	182	109	49.9	2830	2476.0	9.10	9.00	61.8	65.8	62.6	62.5	458	185967	193	28.0	1059	819	3.96	1.90	1.76	1.76	9.17	8.70	D
392	0517	2483.0	4.76	155	186	109	50.8	2800	2476.4	9.10	9.00	60.9	66.0	62.7	62.3	456	186656	194	28.1	1040	820	3.98	1.91	1.77	1.76	9.17	8.70	D
393	0527	2483.5	4.90	154	196	108	51.1	2980	2476.8	9.10	9.00	63.0	66.5	62.7	62.2	452	187348	194	28.2	1019	821	4.00	1.90	1.76	1.76	9.18	8.70	D
394	0533	2484.0	4.78	159	202	109	51.2	2980	2477.3	9.10	9.00	63.1	68.8	62.3	62.1	452	188021	195	28.3	1027	821	4.02	1.91	1.77	1.76	9.18	8.70	D
395	0539	2484.5	5.34	161	192	108	49.0	2980	2477.8	9.10	9.00	63.1	68.2	62.2	63.4	455	188640	195	28.4	913	821	4.03	1.85	1.70	1.76	9.18	8.70	D
396	0545	2485.0	4.87	159	192	109	49.9	2970	2478.4	9.10	9.00	63.0	67.8	62.6	63.1	455	189293	196	28.5	1008	822	4.05	1.89	1.74	1.76	9.18	8.70	D
397	0552	2485.5	3.90	155	196	109	50.8	2970	2478.5	9.10	9.00	62.9	67.3	62.6	62.6	456	190128	196	28.6	1277	823	4.07	1.97	1.82	1.76	9.18	8.70	D
398	0600	2486.0	4.13	155	188	108	49.7	2990	2479.0	9.10	9.00	62.9	67.5	62.8	63.2	455	190911	197	28.7	1210	824	4.09	1.94	1.79	1.76	9.18	8.70	D
399	0607	2486.5	4.30	154	182	108	49.2	2980	2479.6	9.10	9.00	62.9	68.1	62.8	61.6	458	191688	197	28.8	1166	825	4.11	1.92	1.77	1.76	9.18	8.70	D
400	0613	2487.0	4.36	157	192	108	50.6	3000	2480.0	9.10	9.00	63.0	67.5	62.8	63.7	458	192411	198	29.0	1105	826	4.13	1.93	1.78	1.77	9.18	8.70	D
401	0619	2487.5	5.02	158	288	108	50.6	2970	2480.5	9.10	9.00	62.8	66.8	63.1	63.4	465	193017	198	29.0	979	826	4.15	1.89	1.74	1.76	9.18	8.70	D
402	0625	2488.0	4.91	157	198	109	50.1	2980	2480.9	9.10	9.00	62.9	65.5	63.0	63.2	464	193680	199	29.2	998	826	4.16	1.89	1.74	1.76	9.18	8.70	D
403	0631	2488.5	4.92	155	186	109	49.6	2980	2481.5	9.10	9.00	63.0	67.6	63.0	63.3	464	194343	199	29.3	1052	827	4.18	1.88	1.73	1.76	9.18	8.70	D
404	0658	2489.0	4.92	158	200	109	50.3	2910	2483.2	9.10	9.00	62.0	66.0	62.7	63.1	471	196448	200	29.6	1033	833	4.24	1.89	1.74	1.76	9.17	8.70	D
405	0702	2489.5	6.43	153	180	110	49.9	2890	2483.6	9.10	9.00	62.1	66.1	62.7	62.3	471	196963	200	29.6	818	833	4.25	1.81	1.65	1.76	9.17	8.70	D
406	0708	2490.0	5.65	152	174	110	48.9	2890	2484.0	9.10	9.00	62.1	66.0	62.7	63.1	472	197544	201	29.7	819	833	4.27	1.83	1.68	1.76	9.17	8.70	D
407	0709	2490.5	5.58	159	170	110	49.8	2900	2484.0	9.10	9.00	62.0	67.3	62.7	63.1	474	197689	201	29.8	1007	831	4.27	1.83	1.67	1.76	9.17	8.70	D
408	0715	2491.0	4.91	155	174	110	49.9	2900	2484.5	9.10	9.00	62.1	66.5	62.9	62.6	474	198361	202	29.9	1120	832	4.29	1.89	1.74	1.75	9.17	8.70	D
409	0721	2491.5	4.95	154	184	110	49.2	2890	2484.9	9.10	9.00	62.1	66.2	63.0	63.3	475	199027	202	30.0	1360	832	4.30	1.88	1.72	1.75	9.17	8.70	D
410	0727	2492.0	5.07	154	184	110	49.0	2900	2485.4	9.10	9.00	62.1	66.0	63.2	63.3	477	199681	203	30.1	1030	833	4.32	1.87	1.72	1.75	9.17	8.70	D
411	0732	2492.5	6.22	154	190	110	50.6	2890	2485.8	9.10	9.00	62.1	66.3	63.2	63.6	479	200213	203	30.1	837	833	4.33	1.82	1.67	1.75	9.18	8.70	D
412	0738	2493.0	4.94	154	172	111	50.2	2890	2486.3	9.10	9.00	62.1	67.3	63.2	62.6	479	200866	204	30.2	892	833	4.35	1.89	1.74	1.75	9.17	8.70	D
413	0743	2493.5	5.77	155	174	110	49.3	2890	2486.8	9.10	9.00	62.1	67.7	63.3	64.1	479	201439	204	30.3	863	833	4.37	1.83	1.68	1.75	9.18	8.70	D
414	0749	2494.0	4.93	153	180	111	49.5	2890	2487.3	9.10	9.00	62.0	66.7	63.4	63.6	479	202111	205	30.4	1005	833	4.39	1.89	1.73	1.74	9.17	8.70	D
415	0753	2495.5	4.90	148	176	111	49.7	2910	2487.6	9.10	9.00	62.0	66.4	63.6	64.3	479	202572	205	30.5	1001	834	4.40	1.87	1.28	1.75	9.17	8.70	D
416	0755	2496.0	4.46	158	174	110	49.6	2900	2487.8	9.10	9.00	62.1	66.3	63.6	64.3	481	202778	207	30.5	2155	828	4.40	1.92	1.76	1.75	9.18	8.70	D
417	0802	2496.5	4.45	151	176	111	48.8	2880	2487.8	9.10	9.00	62.2	65.6	63.8	61.8	482	203515	208	30.6	1114	828	4.42	1.91	1.75	1.75	9.18	8.70	D
418	0811	2497.0	3.28	155	186	111	49.2	2930	2487.9	9.10	9.00	62.1	66.5	63.6	63.2	491	204558	208	30.8	1756	830	4.45	2.01	1.85	1.75	9.19	8.70	D
419	0818	2497.5	4.53	154	182	111	49.6	2950	2488.4	9.10	9.00	62.3	66.3	63.6	63.2	488	205281	208	30.9	1251	831	4.47	1.91	1.75	1.75	9.19	8.70	D
420	0823	2498.0	5.17	153	176	111	49.8	2830	2488.9	9.10	9.00	62.4	66.2	63.4	62.4	484	205915	209	31.0	997	831	4.48	1.87	1.71	1.75	9.19	8.70	D
421	0832	2498.5	3.68	153	184	110	49.5	2940	2489.6	9.10	9.00	62.3	66.5	63.2	63.0	486	206806	209	31.1	1187	832	4.51	1.97	1.81	1.75	9.19	8.70	D
422	0839	2499.0	3.88	156	186	111	49.8	2890	2490.3	9.10	9.00	62.4	65.8	63.1	62.7	487	207653	210	31.3	1467	834	4.53	1.96	1.80	1.75	9.18	8.70	D
424	0951	2499.5	4.81	155	274	111	47.9	2920	2492.5	9.10	9.00	62.0	66.5	63.2	55.6	491	208908	210	31.4	986	836	4.56	1.87	1.71	1.75	9.18	8.70	D
425	0959	2500.0	3.69	157	198	112	48.7	2910	2493.1	9.10	9.00	62.0	66.6	63.1	62.3	450	209755	211	31.6	1217	837	4.58	1.97	1.80	1.75	9.18	8.70	D
426	1006	2500.5	4.12	154	198	112	49.7	2920	2493.6	9.10	9.00	61.9	66.5	62.5	62.5	332	210557	211	31.7	1186	838	4.60	1.95	1.78	1.76	9.18	8.70	D
427	1011	2501.0	5.58	153	168	111	48.8	2870	2493.9	9.10	9.00	61.9	67.0	60.8	62.0	331	211152	212	31.8	918	838	4.61	1.84	1.67	1.76	9.18	8.70	D
428	1019	2501.5	3.93	156	208	111	48.4	2910	2494.3	9.10	9.00	62.0	66.3	61.0	61.8	332	211997	212	31.9	1624	839	4.63	1.94	1.78	1.76	9.18	8.70	D
429	1026	2502.0	4.33	156	204	111	48.7	2880	2494.9	9.10	9.00	61.7	66.9	61.4	62.4	341	212763	213	32.0	1165	840	4.65	1.91	1.75	1.76	9.18	8.70	D
430	1034	2502.5	3.77	155	198	111	48.8	2890	2495.4	9.10	9.00	61.9	66.0	61.6	62.1	337	213649	213	32.2	1250	841	4.67	1.96	1.80	1.76	9.18	8.70	D
431	1039	2503.0	5.35	153	182	111	48.1	2880	2495.7	9.10	9.00	61.8	66.4	61.7	63.1	340	214291	214	32.2	981	841	4.69	1.84	1.68	1.76	9.18	8.70	D
432	1046	2503.5	4.16	154	174	111	47.7	2960	2496.1	9.10	9.00	62.8	66.9	62.1	63.7	339	215066	214	32.4	1231	842	4.71	1.92	1.75	1.76	9.18	8.70	D
433	1053	2504.0	4.56	151	168	111	47.5	2940	2496.4	9.10	9.00	62.6	66.6	62.6	63.7	340	215795	215	32.5	1176	842	4.72	1.88	1.72	1.76	9.18	8.70	D
434	1058	2504.5	5.52	151	168	111	47.4	2950	2496.4	9.10	9.00	62.6	67.5	62.7	63.9	336	216402	215	32.6	1021	843	4.74	1.82	1.66	1.75	9.18	8.70	D

EXLOG

283109

KOORKAH NO.1

Data Printed at time 06:24 Date Dec 22 '85
 Data Recorded at time 11:31 Date Dec 14 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS	MV lb/gal		FLO/ MIN		TEMP (C)		PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST			
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs						INST	RUN	TV	FM
440	1131	2507.5	6.27	155	176	111	50.5	2970	2498.7	9.10	9.00	629	679	63.0	63.1	347	220057	218	33.1	811	844	4.83	1.82	1.65	1.74	9.18	8.70	D
441	1146	2508.0	5.48	151	168	110	49.8	2990	2499.3	9.10	9.00	620	640	62.9	63.4	346	220359	219	33.2	898	843	4.84	1.85	1.68	1.75	9.18	8.70	DK
442	1149	2508.5	5.01	161	196	111	48.1	2980	2499.5	9.10	9.00	629	662	62.3	61.8	343	220713	219	33.2	919	842	4.85	1.75	1.70	1.75	9.19	8.70	D
443	1156	2509.0	4.88	161	198	110	48.1	2970	2499.9	9.10	9.00	627	664	61.4	63.3	343	221389	220	33.3	909	842	4.86	1.87	1.70	1.74	9.19	8.70	D
444	1200	2509.5	6.68	162	204	110	48.0	2970	2500.3	9.10	9.00	626	643	60.8	62.8	344	221883	220	33.4	769	842	4.87	1.77	1.60	1.74	9.19	8.70	D
445	1208	2510.0	5.48	158	184	110	48.2	2790	2500.9	9.10	9.00	531	497	60.7	63.1	346	222515	221	33.5	860	843	4.89	1.83	1.66	1.74	9.17	8.70	Df
446	1212	2510.5	4.37	160	208	111	48.6	2840	2501.1	9.10	9.00	609	658	60.8	61.9	343	222888	221	33.5	921	842	4.90	1.84	1.67	1.74	9.19	8.70	D
447	1224	2511.0	3.33	156	206	108	48.6	3010	2501.9	9.10	9.00	629	656	60.8	61.9	352	223871	222	33.7	1121	843	4.92	1.98	1.81	1.74	9.19	8.70	Df
448	1229	2511.5	6.03	158	180	110	48.2	3020	2502.5	9.10	9.00	626	644	60.5	62.1	351	224415	222	33.8	853	843	4.93	1.80	1.63	1.74	9.19	8.70	D
449	1235	2512.0	4.68	156	196	108	46.9	3020	2503.1	9.10	9.00	628	660	60.5	62.1	354	225119	223	33.9	1183	844	4.95	1.86	1.69	1.74	9.19	8.70	D
450	1241	2512.5	4.64	159	182	110	48.5	2990	2503.6	9.10	9.00	627	652	60.7	62.9	354	225778	223	34.0	1043	844	4.96	1.89	1.71	1.74	9.18	8.70	D
451	1248	2513.0	4.64	159	190	108	46.5	3000	2504.1	9.10	9.00	627	655	60.9	63.3	358	226503	224	34.1	1172	845	4.98	1.86	1.68	1.73	9.18	8.70	D
452	1254	2513.5	5.38	163	180	108	46.9	2990	2504.6	9.10	9.00	628	650	61.2	62.3	359	227112	224	34.2	1021	845	4.99	1.82	1.64	1.73	9.19	8.70	D
453	1259	2514.0	4.80	160	190	110	47.4	3000	2505.1	9.10	9.00	627	641	61.2	63.1	360	227765	225	34.3	1000	845	5.01	1.86	1.69	1.73	9.19	8.70	D
454	1304	2514.5	6.57	162	200	110	46.8	3000	2505.2	9.10	9.00	627	648	61.3	61.7	362	228265	225	34.4	797	845	5.02	1.76	1.58	1.73	9.19	8.70	D
455	1310	2515.0	5.03	161	192	110	47.2	3010	2506.1	9.10	9.00	627	650	61.2	62.7	363	228932	226	34.5	1118	846	5.03	1.84	1.67	1.73	9.18	8.70	D
456	1315	2515.5	5.68	159	200	110	46.0	3010	2506.5	9.10	9.00	627	648	61.2	62.5	362	229519	226	34.5	982	846	5.04	1.79	1.62	1.73	9.18	8.70	D
457	1323	2516.0	3.72	159	198	110	46.5	3010	2507.4	9.10	9.00	627	657	61.3	62.8	367	230325	227	34.7	1146	847	5.06	1.93	1.75	1.73	9.18	8.70	D
458	1352	2518.5	5.08	167	194	109	47.5	3010	2511.0	9.10	9.10	627	648	60.4	61.8	365	231624	229	34.8	762	847	5.07	1.78	1.65	1.04	9.33	8.70	D
459	1357	2519.0	5.52	160	186	109	47.8	3010	2511.5	9.10	9.10	628	654	60.4	61.5	360	232240	230	34.9	860	847	5.07	1.76	1.63	1.02	9.31	8.70	D
460	1405	2519.5	4.06	163	188	109	47.7	3020	2512.2	9.10	9.10	627	639	60.5	62.3	364	233057	230	34.9	1101	847	5.07	1.87	1.69	1.04	9.26	8.70	D
461	1410	2520.0	6.13	167	192	109	47.3	2990	2512.6	9.10	9.10	629	654	60.6	62.2	363	233580	231	35.0	814	791	5.07	1.74	1.57	1.02	9.24	8.70	D
462	1417	2520.5	4.77	161	199	108	47.5	3020	2513.2	9.10	9.10	628	642	60.7	61.9	365	234255	231	35.1	1147	791	5.07	1.82	1.65	1.04	9.21	8.70	D
463	1432	2521.0	5.15	146	191	109	47.0	2990	2514.4	9.10	9.10	625	630	60.8	63.0	369	234978	232	35.2	1055	792	5.08	1.81	1.63	1.02	9.20	8.70	Df
464	1437	2521.5	5.49	163	188	110	46.3	2990	2514.8	9.10	9.10	627	651	60.9	62.3	367	235507	232	35.3	876	792	5.08	1.78	1.61	1.04	9.20	8.70	D
465	1443	2522.0	4.97	164	188	109	47.3	3000	2515.2	9.10	9.10	628	642	61.1	62.6	367	236162	233	35.4	1003	792	5.08	1.82	1.64	1.02	9.20	8.70	D
466	1448	2522.5	6.03	163	184	110	48.2	3010	2515.7	9.10	9.10	628	645	61.1	62.7	367	236721	233	35.5	835	792	5.08	1.77	1.60	1.04	9.20	8.70	D
467	1454	2523.0	5.10	165	194	109	48.0	3010	2516.1	9.10	9.10	628	630	61.2	61.3	373	237348	234	35.6	917	793	5.08	1.82	1.64	1.02	9.20	8.70	D
468	1500	2523.5	4.45	164	186	110	49.3	3000	2516.6	9.10	9.10	629	634	61.2	62.4	378	238085	234	35.7	1044	793	5.08	1.88	1.70	1.04	9.20	8.70	D
469	1506	2524.0	5.27	165	190	109	47.9	3010	2516.7	9.10	9.10	628	630	61.3	62.4	379	238704	235	35.8	1019	794	5.08	1.81	1.63	1.02	9.20	8.70	D
470	1514	2524.5	3.81	163	192	109	49.7	3040	2517.1	9.10	9.10	631	638	61.2	61.9	380	239591	235	35.9	1535	795	5.09	1.93	1.75	1.04	9.20	8.70	D
471	1520	2525.0	5.00	165	186	109	48.4	3030	2517.7	9.10	9.10	630	641	61.3	62.5	381	240222	236	36.0	970	795	5.09	1.83	1.65	1.02	9.20	8.70	D
472	1527	2525.5	4.41	166	196	109	47.5	3030	2518.3	9.10	9.10	631	640	61.3	62.2	382	240961	236	36.1	1000	796	5.09	1.85	1.68	1.04	9.20	8.70	D
473	1533	2526.0	4.50	163	192	109	48.0	3040	2518.8	9.10	9.10	631	640	61.3	61.7	384	241693	237	36.3	1146	797	5.09	1.85	1.68	1.02	9.20	8.70	D
474	1541	2526.5	4.05	161	192	109	49.2	3030	2519.4	9.10	9.10	631	643	61.2	62.3	384	242494	237	36.4	1222	798	5.09	1.90	1.73	1.04	9.20	8.70	D
475	1547	2527.0	5.03	163	190	109	47.5	3010	2519.9	9.10	9.10	631	640	61.3	60.6	385	243153	238	36.5	1106	798	5.09	1.82	1.64	1.02	9.20	8.70	D
476	1618	2527.5	4.48	169	198	127	46.6	3000	2521.5	9.10	9.10	627	642	60.3	61.7	389	244863	238	36.7	1126	801	5.10	1.89	1.71	1.04	9.20	8.70	D
477	1623	2528.0	5.83	180	232	127	47.1	3010	2521.9	9.10	9.10	627	640	60.5	61.3	390	245515	239	36.8	923	801	5.10	1.81	1.63	1.02	9.20	8.70	D
478	1629	2528.5	5.46	213	334	116	47.1	3000	2522.3	9.10	9.10	627	635	60.3	60.9	393	246170	239	36.9	970	801	5.10	1.81	1.63	1.04	9.20	8.70	Df
479	1636	2529.0	4.12	219	246	111	47.8	3000	2522.7	9.10	9.10	623	638	60.3	60.4	393	246957	240	37.0	1181	802	5.10	1.89	1.71	1.02	9.20	8.70	D
480	1641	2529.5	5.01	213	242	107	48.1	2970	2522.7	9.10	9.10	625	638	60.2	61.6	390	247579	240	37.1	1014	803	5.10	1.91	1.73	1.04	9.20	8.70	D
481	1650	2530.0	3.43	208	244	107	47.3	2990	2522.8	9.10	9.10	620	638	60.3	60.9	391	248508	241	37.2	1384	804	5.11	2.02	1.83	1.02	9.20	8.70	D
482	1657	2530.5	4.51	208	234	106	47.1	3010	2523.3	9.10	9.10	626	645	60.3	61.0	395	249211	241	37.4	1124	805	5.11	1.92	1.74	1.04	9.20	8.70	D
483	1700	2531.0	6.58	204	230	106	47.6	2980	2523.6	9.10	9.10	626	635	60.3	61.8	392	249496	242	37.4	904	804	5.11	1.81	1.63	1.03	9.20	8.70	D
484	1708	2531.5	3.65	203	236	106	48.6	3010	2524.3	9.10	9.10	624	639	60.5	59.7	399	250412	242	37.5	1603	805	5.11	2.01	1.83	1.04	9.20	8.70	D
485	1712	2532.0	5.13	206	238	107	48.8	3010	2524.7	9.10	9.10	6																

EXLOG

283110

51

KOORCAH NO.1

Data Printed at time 12:52 Date Dec 22 '85
Data Recorded at time 17:46 Date Dec 14 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS	M.V lb/gal		FLO/W/MIN		TEMP (C)	PVT	THIS BIT			DWC	NK	NKB	ECD	EST					
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS						m	hrs	INST	RUN	TW
490	1746	2534.5	4.12	199	232	106	50.6	3010	2527.1	9.10	9.10	624	643	60.6	62.2	403	254425	245	38.2	1193	808	5.12	2.00	1.81	1.03	9.20	8.70	D
491	1753	2535.0	4.33	199	252	107	50.8	3000	2527.7	9.10	9.10	624	638	60.7	61.8	405	255144	246	38.3	1183	809	5.12	1.99	1.80	1.04	9.20	8.70	D
492	1759	2535.5	4.89	194	234	107	49.7	3010	2528.2	9.10	9.10	624	642	60.8	62.7	406	255783	246	38.4	1027	809	5.12	1.94	1.75	1.03	9.20	8.70	D
493	1805	2536.0	4.53	193	222	109	50.1	3010	2528.7	9.10	9.10	625	646	61.0	61.0	408	256498	247	38.5	1069	810	5.12	1.97	1.78	1.04	9.20	8.70	D
502	1842	2537.0	4.23	193	252	104	49.1	3030	2530.7	9.10	9.10	627	640	60.4	62.3	352	257891	248	39.2	1137	811	5.14	1.97	1.75	1.03	9.20	8.70	D
503	1848	2538.0	5.01	191	238	110	50.1	3020	2531.2	9.10	9.10	627	641	60.5	62.3	356	258634	249	39.3	943	812	5.15	1.94	1.74	1.04	9.20	8.70	D
504	1859	2539.0	5.64	189	216	110	48.9	3020	2531.7	9.10	9.10	627	634	60.6	62.5	358	259834	250	39.5	900	814	5.16	1.89	1.71	1.04	9.20	8.70	D
507	1937	2542.5	4.81	182	212	110	47.6	3040	2538.6	9.10	9.10	627	626	61.0	62.8	364	282355	254	39.9	1205	816	5.47	1.93	1.73	1.05	9.20	8.70	D
508	1945	2543.5	4.08	182	210	110	48.9	3040	2539.0	9.10	9.10	626	625	61.1	62.2	366	283273	254	40.1	1226	817	5.47	1.99	1.80	1.03	9.20	8.70	D
509	1952	2544.0	4.39	183	212	110	49.5	3070	2539.3	9.10	9.10	627	631	61.0	62.7	364	283999	255	40.2	1270	818	5.48	1.98	1.78	1.05	9.20	8.70	D
510	1959	2544.5	4.60	179	210	110	47.6	3050	2539.7	9.10	9.10	627	621	61.2	62.2	365	284736	255	40.3	1222	818	5.48	1.94	1.74	1.03	9.20	8.70	D
511	2005	2545.0	4.91	183	218	109	50.0	3030	2539.9	9.10	9.10	627	637	61.0	61.9	362	285383	256	40.4	972	818	5.48	1.95	1.75	1.05	9.20	8.70	D
512	2009	2545.5	7.16	182	212	110	50.6	3020	2540.2	9.10	9.10	629	632	61.0	62.6	360	285841	256	40.5	679	818	5.48	1.83	1.63	1.03	9.20	8.70	D
513	2015	2546.0	4.45	177	202	110	50.0	3030	2540.5	9.10	9.10	627	634	61.0	62.1	360	286587	257	40.6	1224	819	5.48	1.98	1.78	1.05	9.20	8.70	D
514	2030	2546.5	5.34	175	200	110	47.3	3000	2541.1	9.10	9.10	625	630	60.9	61.6	359	287250	257	40.7	1086	819	5.48	1.89	1.69	1.03	9.20	8.70	D
515	2036	2547.0	4.39	188	250	105	48.0	3010	2541.4	9.10	9.10	620	629	60.6	61.7	362	287895	258	40.8	1882	820	5.48	1.94	1.75	1.05	9.20	8.70	D
516	2043	2547.5	4.35	184	218	105	48.0	2990	2541.7	9.10	9.10	623	628	60.5	62.4	361	288618	258	40.9	1116	820	5.49	1.95	1.75	1.03	9.20	8.70	D
517	2049	2548.0	5.14	186	224	105	49.0	2970	2542.0	9.10	9.10	624	639	60.6	62.7	355	289238	259	41.0	1002	820	5.49	1.91	1.71	1.05	9.20	8.70	D
518	2055	2548.5	4.69	183	234	107	48.9	2990	2542.5	9.10	9.10	621	633	60.8	62.4	361	289903	259	41.1	1077	821	5.49	1.94	1.74	1.03	9.20	8.70	D
519	2101	2549.0	5.24	176	202	109	46.9	2990	2542.9	9.10	9.10	623	626	60.8	62.2	362	290507	260	41.2	1017	821	5.49	1.88	1.69	1.05	9.20	8.70	D
520	2106	2549.5	5.44	176	222	109	49.1	3000	2543.3	9.10	9.10	622	636	60.8	62.4	360	291095	260	41.3	963	821	5.49	1.90	1.70	1.03	9.20	8.70	D
521	2113	2550.0	4.56	179	202	109	48.4	3010	2543.7	9.10	9.10	623	634	60.9	62.6	365	291810	261	41.4	941	822	5.49	1.95	1.75	1.05	9.20	8.70	D
522	2119	2550.5	4.68	177	198	109	48.3	3000	2544.2	9.10	9.10	624	635	61.1	62.5	366	292508	261	41.5	1119	822	5.49	1.94	1.74	1.03	9.20	8.70	D
523	2125	2551.0	5.43	179	226	109	51.3	3010	2544.7	9.10	9.10	623	642	61.4	62.9	366	293123	262	41.6	885	822	5.50	1.93	1.73	1.05	9.20	8.70	D
524	2131	2551.5	4.58	178	212	108	48.8	3010	2545.3	9.10	9.10	623	641	61.2	62.3	366	293811	262	41.7	1104	823	5.50	1.95	1.75	1.03	9.21	8.70	D
525	2137	2552.0	5.34	182	206	109	48.4	3010	2545.8	9.10	9.10	625	628	61.3	62.9	369	294438	263	41.8	998	823	5.50	1.90	1.70	1.05	9.21	8.70	D
526	2142	2552.5	5.30	180	218	109	49.1	3000	2546.2	9.10	9.10	623	627	61.3	63.0	372	295035	263	41.9	938	823	5.50	1.91	1.71	1.03	9.21	8.70	D
527	2149	2553.0	4.35	178	198	109	49.8	2980	2546.4	9.10	9.10	618	636	61.6	61.3	371	295783	264	42.0	1133	824	5.50	1.98	1.78	1.05	9.21	8.70	D
528	2157	2553.5	3.71	173	200	109	48.0	2980	2547.0	9.10	9.10	623	638	61.6	62.8	374	296664	264	42.1	1319	825	5.50	2.01	1.81	1.03	9.21	8.70	D
529	2205	2554.0	4.05	175	212	109	49.8	2990	2547.5	9.10	9.10	621	636	61.7	62.7	374	297464	265	42.2	1239	826	5.51	2.00	1.80	1.05	9.21	8.70	D
530	2211	2554.5	4.53	169	200	109	47.8	3000	2548.2	9.10	9.10	623	627	61.7	62.9	375	298192	265	42.4	1160	826	5.51	1.94	1.75	1.03	9.21	8.70	D
531	2219	2555.0	4.26	171	214	109	49.4	2990	2548.7	9.10	9.10	623	631	61.6	63.1	375	298982	266	42.5	1274	827	5.51	1.98	1.78	1.05	9.21	8.70	D
532	2225	2555.5	4.44	168	188	109	48.9	3000	2549.3	9.10	9.10	622	632	61.7	61.7	378	299697	266	42.6	1113	827	5.51	1.96	1.76	1.03	9.21	8.70	D
533	2239	2556.0	5.20	165	218	107	48.9	3000	2550.1	9.10	9.10	613	598	61.9	63.0	381	300332	267	42.7	1192	828	5.51	1.85	1.65	1.05	9.21	8.70	D
534	2239	2556.5	4.24	172	202	107	49.2	3000	2550.2	9.10	9.10	620	613	61.9	63.0	380	300398	267	42.7	1189	826	5.51	1.98	1.78	1.05	9.21	8.70	D
535	2248	2557.0	3.30	172	200	108	47.4	2990	2550.9	9.10	9.10	621	620	61.9	62.7	380	301362	268	42.8	2586	828	5.51	2.03	1.84	1.05	9.21	8.70	D
536	2256	2557.5	6.16	175	214	108	46.0	2950	2551.5	9.10	9.10	619	604	61.8	62.2	382	301915	268	42.9	1034	828	5.51	1.82	1.62	1.05	9.21	8.70	D
537	2303	2558.0	4.07	175	198	110	47.3	2950	2552.0	9.10	9.10	620	622	61.5	62.6	386	302686	269	43.0	1326	828	5.52	1.97	1.78	1.05	9.21	8.70	D
538	2309	2558.5	5.27	175	210	110	45.9	2960	2552.5	9.10	9.10	620	627	61.5	62.9	386	303346	269	43.1	910	829	5.52	1.87	1.68	1.05	9.21	8.70	D
539	2314	2559.0	5.74	178	216	110	49.0	2960	2552.9	9.10	9.10	620	621	61.5	62.8	385	303855	270	43.2	807	828	5.52	1.89	1.68	1.05	9.21	8.70	D
540	2323	2559.5	5.04	175	210	109	49.2	2950	2553.4	9.10	9.10	621	627	61.6	62.5	387	304815	271	43.4	946	829	5.52	1.93	1.73	1.05	9.21	8.70	D
541	2332	2560.5	5.00	172	212	108	47.8	2940	2554.0	9.10	9.10	620	626	61.6	62.9	385	305819	271	43.5	914	829	5.52	1.91	1.71	1.05	9.21	8.70	D
542	2338	2561.0	4.72	171	216	107	49.3	2960	2554.5	9.10	9.10	621	629	61.7	62.8	390	306499	272	43.6	1097	830	5.52	1.94	1.74	1.05	9.21	8.70	D
543	2344	2561.5	5.30	169	214	109	48.9	2960	2554.9	9.10	9.10	620	621	61.7	63.1	391	307116	272	43.7	1090	830	5.53	1.91	1.71	1.05	9.21	8.70	D
544	2350	2562.0	5.14	172	200	109	49.6	2960	2555.4	9.10	9.10	620	634	61.7	63.2	392	307750	273	43.8	954	830	5.53	1.92	1.72	1.05	9.21	8.70	D
545	2354	2562.5	6.54	178	214	109	49.7	2950	2555.6	9.10	9.10	620	616															

EXLOG

283111

52

KOORKAH NO.1

Data Printed at time 06:32 Date Dec 22 '85
 Data Recorded at time 00:06 Date Dec 15 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lb/gal		FLO l/min		TEMP (C)		PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	DEPTH	IN	OUT	IN	OUT	IN		OUT	IN	OUT							REVS	m
547	0006	2563.5	4.73	168	208	106	50.1	2970	2556.7	9.10	9.10	620	627	61.7	62.4	394	309509	274	44.1	1070	831	5.53	1.95	1.75	1.05	9.22	8.70	D
548	0012	2564.0	5.62	168	214	105	49.9	2960	2557.0	9.10	9.10	620	621	61.7	62.4	393	313086	275	44.2	920	831	5.53	1.89	1.69	1.05	9.22	8.70	D
549	0018	2564.5	4.51	169	210	106	49.4	2970	2557.5	9.10	9.10	619	612	62.1	62.8	393	310767	275	44.3	1212	831	5.53	1.95	1.75	1.05	9.22	8.70	D
550	0024	2565.0	5.22	168	216	106	49.0	2990	2557.9	9.10	9.10	619	619	62.1	63.2	395	311366	276	44.4	923	832	5.54	1.90	1.70	1.05	9.22	8.70	D
551	0030	2565.5	6.87	164	196	105	44.8	3010	2558.7	9.10	9.10	586	538	62.1	62.9	404	311856	276	44.5	945	832	5.54	1.76	1.57	1.05	9.21	8.70	D
552	0037	2566.0	6.89	170	208	104	46.6	3020	2559.0	9.10	9.10	624	620	62.3	60.4	399	312269	277	44.5	1090	831	5.54	1.78	1.58	1.05	9.22	8.70	D
553	0055	2566.5	4.07	165	202	105	46.8	3010	2559.6	9.10	9.10	621	626	62.2	62.5	397	313034	277	44.6	1118	832	5.54	1.95	1.75	1.05	9.22	8.70	D
554	0101	2567.0	4.56	166	210	104	48.1	3010	2560.2	9.10	9.10	622	627	62.0	62.6	397	313725	278	44.8	1127	832	5.54	1.93	1.73	1.05	9.22	8.70	D
555	0108	2567.5	4.77	170	294	104	47.9	3000	2560.7	9.10	9.10	614	622	61.1	62.8	398	314373	278	44.9	1099	833	5.54	1.91	1.72	1.05	9.21	8.70	D
556	0114	2568.0	4.74	167	206	107	48.4	2970	2561.3	9.10	9.10	621	621	61.2	62.5	396	315046	279	45.0	1085	833	5.54	1.93	1.73	1.05	9.22	8.70	D
557	0121	2568.5	4.52	167	208	106	48.1	2980	2561.9	9.10	9.10	621	616	61.5	62.6	397	315783	279	45.1	1135	834	5.55	1.94	1.74	1.05	9.21	8.70	D
558	0126	2569.0	5.17	164	188	107	47.5	2940	2562.4	9.10	9.10	621	623	61.6	62.2	396	316372	280	45.2	957	834	5.55	1.89	1.69	1.05	9.21	8.70	D
559	0133	2569.5	4.46	165	202	106	48.9	2960	2563.0	9.10	9.10	622	625	61.7	62.4	399	317086	280	45.3	1103	834	5.55	1.95	1.75	1.05	9.21	8.70	D
560	0140	2570.0	4.39	164	204	106	50.1	2970	2563.6	9.10	9.10	621	608	61.7	62.5	402	317827	281	45.4	1139	835	5.55	1.97	1.77	1.05	9.21	8.70	D
561	0146	2570.5	5.04	165	198	107	51.1	2970	2564.1	9.10	9.10	622	608	61.7	62.7	400	318430	281	45.5	1101	835	5.55	1.94	1.74	1.05	9.21	8.70	D
562	0153	2571.0	3.93	165	210	107	51.8	2830	2564.7	9.10	9.10	622	628	61.8	62.4	399	319246	282	45.6	1150	836	5.55	2.03	1.83	1.05	9.21	8.70	D
563	0200	2571.5	4.41	170	204	107	52.0	2970	2565.1	9.10	9.10	622	617	61.9	62.7	404	319968	282	45.7	1203	836	5.55	2.00	1.79	1.05	9.21	8.70	D
564	0206	2572.0	4.96	164	204	107	50.8	2960	2565.8	9.10	9.10	622	612	61.8	62.6	402	320577	283	45.8	1004	837	5.56	1.95	1.74	1.05	9.21	8.70	D
565	0212	2572.5	4.76	163	200	106	50.6	2970	2566.2	9.10	9.10	622	612	61.9	62.5	401	321250	283	45.9	1227	837	5.56	1.95	1.75	1.05	9.21	8.70	D
566	0219	2573.0	4.02	163	208	107	50.6	2970	2566.7	9.10	9.10	622	621	61.9	62.7	405	322044	284	46.1	1243	838	5.56	2.01	1.81	1.05	9.21	8.70	D
567	0227	2573.5	3.82	166	198	107	50.8	2980	2567.4	9.10	9.10	623	625	61.9	62.6	407	322886	284	46.2	1362	838	5.56	2.03	1.83	1.05	9.21	8.70	D
568	0235	2574.0	4.18	162	184	107	50.6	2960	2567.9	9.10	9.10	622	632	61.9	62.5	406	323676	285	46.3	1237	839	5.56	2.00	1.80	1.05	9.21	8.70	D
569	0242	2574.5	4.27	164	200	107	51.5	2970	2568.5	9.10	9.10	623	617	61.7	62.7	409	324395	285	46.4	1241	840	5.56	2.00	1.80	1.05	9.21	8.70	D
570	0254	2575.0	5.10	168	210	108	49.3	2990	2569.2	9.10	9.10	619	607	61.0	61.8	373	324806	286	46.5	799	839	5.56	1.94	1.60	1.05	9.21	8.70	D
571	0301	2575.5	4.05	169	202	109	50.2	2970	2569.6	9.10	9.10	623	624	60.5	61.1	308	325481	286	46.6	1505	840	5.57	2.01	1.81	1.05	9.21	8.70	D
572	0308	2576.0	4.28	169	212	111	51.8	2990	2570.2	9.10	9.10	622	611	60.4	62.2	312	326291	287	46.7	1173	840	5.57	2.02	1.81	1.05	9.21	8.70	D
573	0315	2576.5	4.45	164	202	111	50.8	3000	2570.8	9.10	9.10	623	630	60.5	62.3	305	327073	287	46.8	1066	841	5.57	1.99	1.79	1.05	9.21	8.70	D
574	0324	2577.0	3.19	171	212	111	51.9	2970	2571.4	9.10	9.10	622	632	60.5	62.5	313	328029	288	47.0	1363	842	5.57	2.12	1.91	1.05	9.21	8.70	D
575	0330	2577.5	5.12	169	186	110	51.2	2980	2571.9	9.10	9.10	622	616	60.6	62.1	317	328692	288	47.1	1221	842	5.57	1.95	1.75	1.05	9.21	8.70	D
576	0338	2578.0	3.58	166	200	111	51.4	3000	2572.4	9.10	9.10	623	620	60.6	62.1	315	329596	289	47.2	1350	843	5.58	2.07	1.87	1.05	9.21	8.70	D
577	0346	2578.5	3.48	164	206	111	50.8	3000	2573.1	9.10	9.10	621	623	60.6	62.4	318	330546	289	47.3	1499	844	5.58	2.07	1.87	1.05	9.21	8.70	D
578	0353	2579.0	4.29	171	216	111	50.5	3010	2573.6	9.10	9.10	623	624	60.7	61.8	321	331316	290	47.5	1245	845	5.58	2.00	1.80	1.05	9.21	8.70	D
579	0354	2579.5	53.9	184	206	110	48.1	3000	2573.6	9.10	9.10	623	630	60.7	61.9	316	331378	290	47.5	109	843	5.58	1.16	.96	1.05	9.21	8.70	D
580	0401	2580.0	24.0	183	218	110	47.7	2980	2573.9	9.10	9.10	609	600	60.7	61.9	322	331511	291	47.5	227	842	5.58	1.41	1.21	1.05	9.21	8.70	D
581	0401	2580.5	7.25	177	216	108	47.0	2980	2573.9	9.10	9.10	618	611	60.7	61.9	325	331586	291	47.5	606	841	5.58	1.78	1.58	1.05	9.21	8.70	D
582	0405	2581.0	6.01	178	214	107	49.3	2990	2574.2	9.10	9.10	620	623	60.5	61.0	324	331942	292	47.6	713	840	5.58	1.86	1.66	1.05	9.21	8.70	D
583	0409	2581.5	8.05	177	210	108	50.2	2970	2574.5	9.10	9.10	612	602	60.2	60.3	324	332354	292	47.6	679	840	5.58	1.78	1.58	1.05	9.22	8.70	D
584	0417	2582.0	3.35	164	210	107	50.7	2970	2575.2	9.10	9.10	620	618	60.0	61.6	323	333273	293	47.8	1177	841	5.58	2.07	1.87	1.05	9.21	8.70	D
585	0428	2582.5	2.80	162	204	108	50.7	2970	2575.9	9.10	9.10	619	624	60.0	61.7	323	334476	293	47.9	1984	842	5.59	2.14	1.93	1.05	9.21	8.70	D
586	0438	2583.0	2.96	162	210	107	51.1	2980	2576.7	9.10	9.10	619	619	60.1	62.0	328	335536	294	48.1	1912	844	5.59	2.12	1.92	1.05	9.20	8.70	D
587	0449	2583.5	2.82	162	182	107	50.5	2970	2577.4	9.10	9.10	619	620	60.3	61.9	325	336662	294	48.3	1737	845	5.59	2.13	1.92	1.05	9.20	8.70	D
588	0458	2584.0	3.17	163	198	108	51.2	2980	2578.1	9.10	9.10	619	612	60.3	61.8	329	337698	295	48.4	1956	847	5.59	2.10	1.90	1.05	9.20	8.70	D
589	0511	2584.5	2.34	162	188	108	51.1	2960	2579.0	9.10	9.10	619	610	60.3	61.7	332	339122	295	48.6	2013	849	5.60	2.20	2.00	1.05	9.20	8.70	D
590	0533	2585.0	4.32	166	206	111	47.4	2990	2581.4	9.10	9.10	625	623	59.7	60.1	331	339847	296	48.7	1074	849	5.60	1.96	1.76	1.05	9.19	8.70	D
591	0541	2585.5	3.71	166	188	111	49.9	2960	2581.7	9.10	9.10	616	623	59.3	62.2	330	340710	296	48.9	2786	850	5.60	2.04	1.84	1.05	9.19	8.70	D
592	0554	2586.0	2.18	163	214	110	50.1																					

EXLOG

283112

KOORCAH NO.1

Data Printed at time 06:36 Date Dec 22 '85
 Data Recorded at time 06:50 Date Dec 15 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		MV lb/gal		FLO/MIN		TEMP (C)		PVT	---THIS BIT---			---COST---		EST	DKC	NK	NKB	ECD	EST	
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT	IN	OUT		IN	OUT	IN	OUT	REVS						m	hrs
597	0650	2588.5	2.58	165	192	110	51.3	2900	2584.7	9.10	9.10	61.8	62.0	59.9	61.7	351	348288	299	50.0	2263	861	5.62	2.18	1.97	1.05	9.19	8.70	D	
598	0709	2589.0	2.31	161	184	109	50.8	2970	2585.7	9.10	9.10	61.8	62.1	60.2	60.8	300	350319	300	50.3	2314	864	5.62	2.21	2.00	1.05	9.19	8.70	D	
POOH at 2589m due to low ROP																													
NB#3 SMITH F2 12.25" 3 x 13, 9 jets. Start depth 2589m.																													
Date Dec 16 '85																													
603	0116	2589.5	4.41	166	134	109	24.5	2620	2589.0	9.10	9.10	59.0	65.8	30.0	43.7	306	293	.50	.0	684	47903	.00	1.65	1.32	1.71	9.20	8.70	D	
604	0122	2590.0	5.06	168	196	108	31.0	2590	2589.0	9.10	9.10	58.9	65.2	31.4	45.0	303	941	1.00	.1	980	24817	.00	1.61	1.61	1.71	9.20	8.70	D	
605	0126	2590.5	7.36	175	204	109	42.7	2600	2589.0	9.10	9.10	58.8	65.4	32.4	45.6	304	1368	1.50	.2	745	16854	.00	1.67	1.66	1.71	9.20	8.70	D	
606	0131	2591.0	5.59	180	208	107	48.5	2590	2589.0	9.10	9.10	58.8	65.5	34.3	46.9	306	1960	2.00	.3	895	12699	.00	1.81	1.81	1.73	9.20	8.70	D	
607	0137	2591.5	7.82	188	210	109	48.0	2800	2589.0	9.10	9.10	60.5	66.7	36.3	48.0	306	2384	2.50	.4	645	10276	.00	1.71	1.71	1.73	9.20	8.70	D	
608	0141	2592.0	8.30	186	208	109	49.0	2810	2589.0	9.10	9.10	60.5	66.8	37.3	47.9	310	2792	3.00	.4	635	8840	.00	1.70	1.70	1.72	9.20	8.70	D	
609	0144	2592.5	9.34	188	212	109	48.9	2810	2589.0	9.10	9.10	61.0	67.4	38.7	49.7	311	3129	3.50	.5	471	7497	.01	1.66	1.66	1.71	9.20	8.70	D	
610	0148	2593.0	7.48	183	208	109	49.2	2800	2589.0	9.10	9.10	61.1	66.9	39.5	50.1	312	3582	4.00	.6	802	6644	.01	1.74	1.73	1.71	9.20	8.70	D	
611	0152	2593.5	8.67	182	202	108	48.3	2890	2589.0	9.10	9.10	61.3	67.2	40.4	50.1	303	3945	4.50	.6	707	6027	.01	1.68	1.68	1.71	9.20	8.70	D	
612	0155	2594.0	8.93	189	208	109	49.9	2970	2589.0	9.10	9.10	61.6	68.9	41.6	50.9	312	4319	5.00	.7	541	5424	.01	1.69	1.68	1.70	9.20	8.70	D	
613	0158	2594.5	10.4	185	210	109	49.1	2860	2589.0	9.10	9.10	61.9	69.7	42.1	51.7	309	4622	5.50	.7	467	4977	.01	1.63	1.63	1.68	9.20	8.70	D	
614	0200	2595.0	19.4	191	208	108	49.3	2860	2589.0	9.10	9.10	61.3	70.0	42.8	52.6	313	4793	6.00	.7	283	4586	.01	1.44	1.43	1.70	9.20	8.70	D	
615	0200	2595.5	33.9	195	214	108	48.8	2860	2589.0	9.10	9.10	61.7	69.9	42.8	52.6	309	4886	6.50	.8	160	4269	.01	1.26	1.26	1.69	9.20	8.70	D	
616	0223	2596.0	60.3	192	220	108	38.9	2880	2589.0	9.10	9.10	61.4	60.7	45.1	53.5	307	4938	7.00	.8	79	3977	.01	1.02	1.01	1.70	9.20	8.70	D	
617	0223	2596.5	56.7	203	216	110	45.5	2910	2589.0	9.10	9.10	61.6	63.9	45.1	53.5	310	4993	7.50	.8	82	3692	.01	1.08	1.08	1.69	9.20	8.70	D	
618	0224	2597.0	28.7	202	218	110	47.9	2910	2589.0	9.10	9.10	61.5	67.0	46.3	54.6	309	5105	8.00	.8	169	3478	.01	1.31	1.30	1.70	9.20	8.70	D	
619	0226	2597.5	20.0	195	214	110	49.1	2910	2589.0	9.10	9.10	61.2	67.8	46.0	54.6	308	5266	8.50	.8	321	3299	.01	1.43	1.43	1.69	9.20	8.70	D	
620	0228	2598.0	13.4	189	212	111	49.3	2900	2589.0	9.10	9.10	62.3	69.1	46.8	55.9	306	5517	9.00	.8	380	3118	.01	1.56	1.55	1.65	9.20	8.70	D	
621	0231	2598.5	8.27	184	210	111	50.2	2890	2589.0	9.10	9.10	62.2	67.7	47.6	53.8	310	5907	9.50	.9	589	2987	.01	1.72	1.71	1.66	9.20	8.70	D	
622	0236	2599.0	6.35	176	196	111	50.4	2880	2589.0	9.10	9.10	62.3	67.2	48.2	53.3	310	6431	10.0	1.0	803	2874	.01	1.80	1.80	1.68	9.20	8.70	D	
623	0242	2599.5	4.71	178	194	111	50.9	2900	2589.0	9.10	9.10	62.3	66.1	49.6	53.2	311	7141	10.5	1.1	1040	2790	.01	1.90	1.90	1.71	9.20	8.70	D	
624	0249	2600.0	4.58	176	192	112	51.1	2890	2589.0	9.10	9.10	62.2	65.8	49.9	53.7	315	7867	11.0	1.2	1069	2711	.01	1.91	1.91	1.75	9.20	8.70	D	
625	0255	2600.5	5.22	175	190	112	50.3	2900	2590.3	9.10	9.10	62.3	65.6	51.2	53.7	317	8517	11.5	1.3	991	2636	.01	1.86	1.86	1.78	9.20	8.70	D	
626	0259	2601.0	6.28	176	192	112	50.0	2900	2590.8	9.10	9.10	62.3	66.3	51.5	54.3	312	9049	12.0	1.4	825	2558	.02	1.80	1.80	1.79	9.20	8.70	D	
627	0307	2601.5	4.09	176	192	113	50.2	2900	2591.7	9.10	9.10	62.3	65.5	52.0	54.6	319	9869	12.5	1.5	1194	2505	.02	1.94	1.94	1.83	9.20	8.70	D	
628	0312	2602.0	5.47	176	192	113	50.2	2890	2592.5	9.10	9.10	62.3	65.4	52.5	54.9	318	10484	13.0	1.6	947	2444	.02	1.85	1.85	1.84	9.20	8.70	D	
629	0319	2602.5	4.73	178	198	113	49.5	2890	2593.4	9.10	9.10	62.3	66.0	52.9	55.5	321	11197	13.5	1.7	1130	2393	.02	1.89	1.88	1.86	9.20	8.70	D	
630	0324	2603.0	5.55	178	192	113	49.9	2900	2594.4	9.10	9.10	62.4	65.2	53.5	55.9	317	11836	14.0	1.8	920	2342	.02	1.84	1.84	1.86	9.20	8.70	D	
631	0330	2603.5	4.67	176	198	113	50.3	2890	2595.4	9.10	9.10	62.5	66.0	53.8	56.1	322	12522	14.5	1.9	1220	2296	.02	1.90	1.90	1.87	9.20	8.70	D	
632	0336	2604.0	5.69	177	192	112	49.9	2960	2596.3	9.10	9.10	63.3	66.6	54.1	55.8	319	13113	15.0	2.0	892	2249	.02	1.83	1.83	1.86	9.20	8.70	D	
633	0341	2604.5	5.40	177	196	112	51.3	2960	2597.9	9.10	9.10	63.1	67.7	54.3	57.0	318	13734	15.5	2.1	971	2206	.02	1.87	1.86	1.86	9.20	8.70	D	
634	0347	2605.0	5.47	179	196	112	51.4	2960	2598.6	9.10	9.10	63.5	68.0	54.6	58.3	317	14345	16.0	2.2	847	2166	.02	1.87	1.86	1.86	9.20	8.70	D	
635	0350	2605.5	10.3	178	192	110	47.8	3000	2599.4	9.10	9.10	63.5	69.3	55.3	57.6	310	14689	16.5	2.2	476	2117	.03	1.62	1.62	1.82	9.20	8.70	D	
636	0404	2606.0	7.16	185	210	111	49.7	2890	2599.8	9.10	9.10	62.4	68.4	51.0	59.5	365	15150	17.0	2.3	589	2080	.03	1.76	1.75	1.81	9.20	8.70	D	
637	0406	2606.5	21.4	190	212	111	48.6	2910	2599.9	9.10	9.10	62.6	68.2	51.0	59.5	383	15306	17.5	2.3	220	2027	.03	1.41	1.43	1.83	9.20	8.70	D	
638	0407	2607.0	17.8	192	214	112	49.6	2900	2600.0	9.10	9.10	62.6	68.8	48.9	59.7	407	15491	18.0	2.3	268	1974	.03	1.48	1.47	1.81	9.20	8.70	D	
639	0411	2607.5	7.32	178	192	112	49.4	2900	2600.4	9.10	9.10	62.6	68.9	46.6	59.5	454	15954	18.5	2.4	915	1940	.03	1.75	1.74	1.79	9.20	8.70	D	
640	0414	2608.0	10.5	183	202	112	48.5	2910	2600.6	9.10	9.10	62.5	68.6	46.6	59.5	456	16263	19.0	2.4	496	1903	.03	1.63	1.62	1.76	9.20	8.70	D	
641	0419	2608.5	13.4	182	202	112	48.9																						

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283113

KOORCAH NO.1

Data Printed at time 06:39 Date Dec 22 '85
 Data Recorded at time 05:18 Date Dec 16 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS	MW		FLO	TEMP		PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST				
				AVG	MAX					IN	OUT		IN	OUT		IN	OUT	REVS							m	hrs	INST	RUN
648	0518	2612.0	3.96	174	192	110	49.5	2600	2605.0	9.20	9.10	597	643	54.8	57.4	459	21967	23.0	3.3	1263	1760	.04	1.93	1.92	1.87	9.20	8.70	D
649	0526	2612.5	3.76	172	186	110	50.0	2580	2606.1	9.20	9.10	596	646	55.1	56.7	460	22820	23.5	3.4	1340	1751	.04	1.95	1.94	1.90	9.20	8.70	D
650	0532	2613.0	4.77	173	190	110	50.5	2580	2607.3	9.20	9.10	596	648	55.5	58.2	460	23497	24.0	3.5	1070	1735	.04	1.88	1.87	1.89	9.20	8.70	D
651	0539	2613.5	4.01	173	194	110	50.2	2580	2608.5	9.20	9.10	597	635	55.8	57.6	460	24317	24.5	3.7	1272	1725	.04	1.93	1.92	1.90	9.20	8.70	D
652	0546	2614.0	4.27	170	186	110	50.5	2600	2609.0	9.20	9.10	598	619	56.0	56.1	457	25086	25.0	3.8	1191	1716	.04	1.91	1.90	1.90	9.20	8.70	D
653	0554	2614.5	3.70	170	190	110	50.0	2610	2609.5	9.20	9.10	597	637	55.9	56.9	458	25977	25.5	3.9	1232	1708	.05	1.95	1.94	1.91	9.20	8.70	D
654	0600	2615.0	4.00	172	190	113	46.6	2610	2609.7	9.20	9.10	595	579	55.9	57.5	456	26144	26.0	3.9	879	1682	.05	1.98	1.57	1.90	9.20	8.70	DK
655	0610	2615.5	5.10	178	194	116	48.1	2600	2609.9	9.20	9.10	592	635	55.8	57.1	452	26427	26.5	4.0	1015	1657	.05	1.86	1.61	1.91	9.20	8.70	D
656	0617	2616.0	4.25	174	196	113	48.4	2620	2610.2	9.20	9.10	597	647	55.3	57.6	453	27202	27.0	4.1	1090	1646	.05	1.89	1.88	1.91	9.20	8.70	D
657	0625	2616.5	4.07	175	194	110	48.7	2550	2610.8	9.20	9.10	592	647	55.5	58.5	455	28007	27.5	4.2	1161	1639	.05	1.90	1.89	1.91	9.31	8.70	D
658	0632	2617.0	3.85	173	198	110	48.5	2610	2611.3	9.20	9.10	597	654	56.0	58.9	507	28861	28.0	4.4	1333	1633	.05	1.91	1.91	1.91	9.30	8.70	D
659	0638	2617.5	5.00	175	194	110	47.5	2610	2611.8	9.20	9.10	596	650	56.4	58.4	502	29538	28.5	4.5	1117	1623	.05	1.82	1.82	1.89	9.30	8.70	D
660	0645	2618.0	4.18	174	192	110	46.8	2600	2612.3	9.20	9.10	596	652	56.7	58.6	502	30306	29.0	4.6	1116	1615	.05	1.87	1.86	1.88	9.30	8.70	D
661	0653	2618.5	4.34	177	200	110	47.6	2600	2612.8	9.20	9.10	596	651	57.0	59.5	503	31088	29.5	4.7	1199	1608	.05	1.87	1.86	1.88	9.30	8.70	D
662	0659	2619.0	4.65	175	194	110	47.3	2630	2613.3	9.20	9.10	597	644	57.3	58.4	504	31777	30.0	4.8	1139	1599	.06	1.84	1.84	1.87	9.30	8.70	D
663	0706	2619.5	4.29	174	200	110	47.0	2580	2613.8	9.20	9.10	597	653	57.6	59.4	504	32544	30.5	4.9	1141	1591	.06	1.86	1.86	1.86	9.30	8.70	D
664	0714	2620.0	3.72	175	198	110	48.0	2580	2614.3	9.20	9.10	596	650	57.8	59.7	507	33429	31.0	5.0	1277	1587	.06	1.92	1.91	1.87	9.30	8.70	D
665	0720	2620.5	4.93	174	200	110	47.9	2580	2614.7	9.20	9.10	595	650	58.0	59.7	509	34098	31.5	5.1	989	1578	.06	1.83	1.83	1.86	9.30	8.70	D
666	0727	2621.0	4.41	176	196	110	48.6	2580	2615.7	9.20	9.10	595	649	58.2	60.0	509	34853	32.0	5.3	1327	1573	.06	1.87	1.87	1.86	9.30	8.70	D
667	0734	2621.5	3.90	175	200	110	49.3	2580	2616.1	9.20	9.10	596	652	58.4	59.1	510	35692	32.5	5.4	1258	1567	.06	1.92	1.92	1.87	9.30	8.70	D
668	0740	2622.0	5.63	171	194	111	48.7	2570	2616.5	9.20	9.10	596	649	58.4	59.2	510	36287	33.0	5.5	944	1558	.06	1.80	1.80	1.86	9.30	8.70	D
669	0747	2622.5	3.80	174	200	111	49.2	2570	2617.0	9.20	9.10	595	634	58.4	59.6	514	37147	33.5	5.6	1244	1553	.06	1.93	1.92	1.87	9.30	8.70	D
670	0755	2623.0	3.97	170	190	111	49.3	2570	2617.5	9.20	9.10	596	622	58.5	58.6	520	37998	34.0	5.7	1303	1550	.07	1.92	1.91	1.87	9.30	8.70	D
671	0802	2623.5	4.44	173	198	110	49.4	2570	2618.0	9.20	9.10	596	621	58.5	59.5	524	38732	34.5	5.8	1207	1543	.07	1.88	1.88	1.88	9.30	8.70	D
672	0807	2624.0	5.44	175	194	111	50.0	2570	2618.4	9.20	9.10	596	621	58.4	59.8	523	39355	35.0	5.9	1033	1535	.07	1.83	1.82	1.87	9.30	8.70	D
673	0824	2624.5	4.76	171	192	111	48.8	2860	2619.2	9.20	9.10	622	646	58.1	58.2	520	40140	35.5	6.1	2141	1531	.07	1.85	1.85	1.86	9.30	8.70	D
674	0830	2625.0	4.65	180	202	109	49.2	2870	2619.7	9.20	9.10	627	655	57.6	58.9	519	40831	36.0	6.2	1099	1523	.07	1.86	1.86	1.86	9.30	8.70	D
675	0838	2625.5	4.29	181	200	108	48.6	2860	2620.2	9.20	9.10	628	654	57.7	59.3	452	41594	36.5	6.3	1349	1519	.07	1.88	1.87	1.86	9.30	8.70	D
676	0843	2626.0	4.73	181	202	107	50.0	2850	2620.7	9.20	9.10	627	647	57.8	59.8	454	42225	37.0	6.4	1023	1511	.07	1.86	1.86	1.86	9.30	8.70	D
677	0850	2626.5	4.84	178	202	108	49.4	2780	2621.2	9.20	9.10	626	656	57.9	59.8	454	42891	37.5	6.5	965	1505	.07	1.85	1.84	1.86	9.30	8.70	D
678	0859	2627.0	3.36	177	194	107	49.5	2840	2621.9	9.20	9.10	630	651	58.0	59.5	458	43904	38.0	6.6	1702	1506	.08	1.96	1.96	1.87	9.30	8.70	D
679	0905	2627.5	4.82	174	194	108	49.2	2840	2622.3	9.20	9.10	631	646	58.2	59.7	457	44514	38.5	6.7	1010	1499	.08	1.85	1.84	1.87	9.30	8.70	D
680	0912	2628.0	3.89	175	204	107	48.9	2840	2622.8	9.20	9.10	629	647	58.3	59.5	460	45317	39.0	6.9	1414	1496	.08	1.91	1.90	1.87	9.30	8.70	D
681	0917	2628.5	5.75	177	202	107	49.0	2860	2623.2	9.20	9.10	630	646	58.4	60.2	458	45876	39.5	6.9	901	1488	.08	1.79	1.79	1.86	9.30	8.70	D
682	0925	2629.0	4.17	177	196	106	49.7	2920	2623.8	9.20	9.10	636	654	58.7	59.7	464	46638	40.0	7.1	1067	1484	.08	1.89	1.89	1.86	9.30	8.70	D
683	0930	2629.5	5.58	175	196	106	49.4	2920	2624.3	9.20	9.10	635	642	58.7	60.2	461	47229	40.5	7.2	912	1478	.08	1.80	1.80	1.85	9.30	8.70	D
684	0938	2630.0	3.70	174	196	106	49.4	2950	2624.6	9.20	9.10	630	651	58.9	60.4	465	48064	41.0	7.3	1156	1476	.08	1.93	1.92	1.86	9.30	8.70	D
685	0945	2630.5	4.30	176	202	106	49.6	2950	2625.2	9.20	9.10	638	647	59.1	60.8	464	48799	41.5	7.4	1125	1472	.08	1.88	1.88	1.87	9.30	8.70	D
686	0952	2631.0	4.25	174	194	106	49.0	2930	2625.6	9.20	9.10	636	636	59.4	60.4	464	49552	42.0	7.5	1117	1468	.09	1.88	1.87	1.87	9.30	8.70	D
687	0958	2631.5	5.02	174	192	106	49.1	2910	2626.1	9.20	9.10	634	640	59.5	60.8	469	50236	42.5	7.6	1128	1464	.09	1.83	1.82	1.86	9.30	8.70	D
688	1004	2632.0	4.79	171	188	107	48.8	2880	2626.6	9.20	9.10	633	651	59.5	60.1	465	50852	43.0	7.7	1033	1459	.09	1.84	1.84	1.86	9.30	8.70	D
689	1010	2632.5	4.97	173	196	107	48.6	2800	2627.0	9.20	9.10	630	643	59.6	60.6	460	51400	43.5	7.8	1016	1454	.09	1.83	1.82	1.85	9.30	8.70	D
690	1017	2633.0	3.78	173	192	107	48.2	2920	2627.5	9.20	9.10	632	648	59.7	61.0	466	52253	44.0	7.9	1327	1450	.09	1.91	1.90	1.86	9.30	8.70	D
691	1023	2633.5	5.22	175	196	107	49.6	2930	2628.0	9.20	9.10	633	657	59.8	61.1	465	52885	44.5	8.0	963	1445	.09	1.82	1.82	1.85	9.30	8.70	D
692	1033	2634.0	4.30	173	190	108	46.5	2950	2628.4	9.20	9.10	617	648	59.8	60.9	450	53097	45.0	8.1	986	1436	.09	1.95	1.64	1.83	9.30	8.70	D
693	1035	2634.5	10.5	175	198	110	47.1	2930	2628.6	9.20	9.10	632	659	59.8	60.9	458	53323	45.5	8.1	1760	1424	.0						

EXLOG

KOORCAH NO.1

Data Printed at time 06:43
Data Recorded at time 11:09

Date Dec 22 '85
Date Dec 16 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTNS	M/lb/gal		FLOW/MIN		TEMP (C)		PVT	THIS BIT			COST		EST	DKC	NK	NKB	ECD	EST	
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN							T/I
698	1109	2637.0	4.24	173	200	109	48.6	2890	2630.9	9.20	9.10	630	646	59.7	60.6	466	56446	48.0	8.6	993	1398	.10	1.88	1.88	1.81	9.30	8.70	D
699	1116	2637.5	4.14	174	194	109	49.0	2880	2631.5	9.20	9.10	630	645	59.8	60.9	465	57224	48.5	8.7	1219	1394	.10	1.89	1.89	1.82	9.30	8.70	D
700	1120	2638.0	7.19	174	194	109	48.8	2890	2631.8	9.20	9.10	629	645	59.9	60.4	470	57686	49.0	8.8	762	1389	.10	1.72	1.72	1.80	9.30	8.70	D
701	1125	2638.5	5.54	178	214	109	48.3	2870	2632.4	9.20	9.10	624	639	60.0	60.8	470	58260	49.5	8.9	775	1383	.10	1.80	1.79	1.80	9.30	8.70	D
702	1128	2639.0	13.7	182	208	108	46.3	2860	2632.5	9.20	9.10	629	633	60.0	60.8	468	58491	50.0	8.9	365	1373	.10	1.50	1.49	1.80	9.31	8.70	D
703	1129	2639.5	18.0	180	204	108	43.7	2880	2632.7	9.20	9.10	626	636	60.0	60.8	469	58657	50.5	8.9	281	1362	.10	1.39	1.38	1.80	9.31	8.70	D
704	1131	2640.0	17.7	176	194	109	41.8	2860	2632.9	9.20	9.10	630	641	60.0	60.9	469	58843	51.0	8.9	295	1351	.10	1.37	1.37	1.80	9.31	8.70	D
705	1132	2640.5	21.7	171	192	108	42.0	2880	2633.0	9.20	9.10	629	644	60.0	60.9	468	58997	51.5	9.0	232	1341	.10	1.32	1.31	1.80	9.31	8.70	D
706	1141	2641.0	12.1	182	206	111	49.7	2860	2633.3	9.20	9.10	624	642	60.1	60.5	466	59281	52.0	9.0	392	1333	.10	1.58	1.57	1.77	9.31	8.70	D
707	1145	2641.5	7.48	176	196	107	49.8	2980	2633.8	9.20	9.10	639	642	60.1	60.0	471	59697	52.5	9.1	776	1327	.10	1.72	1.71	1.74	9.31	8.70	D
708	1153	2642.0	3.65	173	192	107	49.9	2990	2634.2	9.20	9.10	638	653	59.9	61.3	474	60569	53.0	9.2	1247	1326	.10	1.94	1.93	1.77	9.31	8.70	D
709	1158	2642.5	6.27	173	198	106	48.9	2990	2634.6	9.20	9.10	638	641	59.9	61.1	475	61079	53.5	9.3	807	1321	.11	1.76	1.75	1.77	9.31	8.70	D
710	1204	2643.0	4.47	171	194	107	49.4	2990	2635.2	9.20	9.10	638	640	60.0	61.3	481	61793	54.0	9.4	1207	1319	.11	1.87	1.86	1.79	9.31	8.70	D
711	1210	2643.5	4.92	172	190	107	50.1	2980	2635.7	9.20	9.10	637	638	60.1	61.3	481	62441	54.5	9.5	885	1316	.11	1.85	1.84	1.80	9.31	8.70	D
712	1221	2644.1	8.78	174	184	109	44.2	3060	2636.3	9.20	9.10	644	646	60.4	59.8	470	62676	55.0	9.5	979	1310	.11	1.61	1.60	1.78	9.31	8.70	D
713	1225	2644.5	6.57	178	196	109	48.4	3040	2636.6	9.20	9.10	643	647	60.4	60.0	473	63099	55.5	9.6	1072	1302	.11	1.74	1.74	1.77	9.31	8.70	D
714	1231	2645.0	4.98	179	198	110	48.8	3040	2637.1	9.20	9.10	643	638	60.1	61.2	475	63730	56.0	9.7	1522	1299	.11	1.83	1.83	1.78	9.31	8.70	D
715	1235	2645.5	6.25	173	194	109	48.5	3030	2637.5	9.20	9.10	644	651	60.1	61.7	475	64227	56.5	9.8	759	1294	.11	1.76	1.75	1.77	9.31	8.70	D
716	1241	2646.0	5.13	178	200	109	50.7	3020	2638.0	9.20	9.10	643	647	60.2	61.4	470	64863	57.0	9.9	819	1292	.11	1.85	1.84	1.78	9.31	8.70	D
717	1249	2646.5	4.22	176	198	109	50.2	3020	2639.6	9.20	9.10	643	652	60.4	60.9	444	65655	57.5	10.0	1591	1292	.11	1.90	1.90	1.80	9.31	8.70	D
718	1254	2647.0	4.73	176	198	109	49.1	3030	2640.6	9.20	9.10	643	654	60.5	61.7	421	66245	58.0	10.1	1029	1288	.11	1.85	1.85	1.81	9.31	8.70	D
719	1300	2647.5	5.23	177	198	109	48.6	3030	2641.5	9.20	9.10	643	663	60.5	61.2	398	66941	58.5	10.2	1050	1286	.12	1.82	1.81	1.82	9.30	8.70	D
720	1305	2648.0	5.93	177	196	109	50.0	3050	2641.8	9.20	9.10	644	651	60.6	61.7	373	67473	59.0	10.3	941	1282	.12	1.79	1.79	1.81	9.31	8.70	D
721	1310	2648.5	6.26	175	198	109	49.7	3050	2642.2	9.20	9.10	644	649	60.6	61.2	361	67964	59.5	10.4	803	1279	.12	1.77	1.77	1.80	9.31	8.70	D
722	1314	2649.0	6.89	175	194	109	49.4	3040	2642.6	9.20	9.10	644	664	60.7	61.4	343	68395	60.0	10.4	716	1273	.12	1.74	1.74	1.79	9.31	8.70	D
723	1320	2649.5	4.94	178	200	109	50.9	3040	2643.0	9.20	9.10	644	653	60.5	61.4	346	69074	60.5	10.5	917	1271	.12	1.86	1.86	1.80	9.31	8.70	D
724	1326	2650.0	4.52	174	196	109	48.3	3010	2643.5	9.10	9.10	644	652	60.6	61.5	344	69773	61.0	10.6	1196	1269	.12	1.86	1.85	1.81	9.31	8.70	D
725	1333	2650.5	4.03	174	192	109	48.1	3040	2643.9	9.10	9.10	644	652	60.6	61.7	355	70521	61.5	10.8	991	1268	.12	1.89	1.88	1.82	9.31	8.70	D
726	1339	2651.0	5.33	174	194	108	49.3	3030	2644.6	9.10	9.10	645	649	60.7	61.1	359	71130	62.0	10.8	969	1266	.12	1.82	1.81	1.82	9.31	8.70	D
727	1342	2651.5	5.43	173	196	109	48.6	3020	2644.8	9.10	9.10	644	645	60.8	61.5	355	71468	62.5	10.9	971	1263	.12	1.81	1.60	1.79	9.30	8.70	D
728	1351	2652.0	5.98	175	196	109	48.0	3050	2645.6	9.10	9.10	645	649	60.8	61.7	362	72458	63.0	11.1	942	1262	.12	1.79	1.79	1.81	9.29	8.70	D
729	1356	2652.5	6.24	176	196	108	49.7	3040	2646.1	9.10	9.10	645	646	60.9	61.5	360	72970	63.5	11.1	851	1259	.13	1.78	1.77	1.81	9.28	8.70	D
730	1401	2653.0	6.34	175	202	108	48.9	3050	2646.5	9.10	9.10	645	642	61.0	62.0	366	73492	64.0	11.2	769	1255	.13	1.76	1.76	1.80	9.28	8.70	D
731	1419	2653.5	7.06	173	192	107	44.6	2990	2647.3	9.10	9.10	644	595	61.1	61.6	356	73735	64.5	11.2	755	1248	.13	1.68	1.68	1.79	9.25	8.70	D
732	1422	2654.0	5.20	180	200	107	48.8	3020	2647.4	9.10	9.10	642	640	61.1	60.7	366	74029	65.0	11.3	951	1242	.13	1.83	1.82	1.75	9.26	8.70	D
733	1427	2654.5	5.07	176	194	110	48.2	3010	2647.9	9.10	9.10	643	628	60.7	61.4	366	74585	65.5	11.4	1319	1240	.13	1.84	1.83	1.76	9.26	8.70	D
734	1432	2655.0	5.59	178	198	111	48.9	3020	2648.4	9.10	9.10	643	645	60.5	61.9	372	75162	66.0	11.5	802	1237	.13	1.82	1.81	1.77	9.25	8.70	D
735	1438	2655.5	5.93	177	196	111	49.1	3010	2649.0	9.10	9.10	643	640	60.6	61.7	372	75742	66.5	11.6	971	1234	.13	1.80	1.80	1.77	9.24	8.70	D
736	1443	2656.0	4.83	174	194	110	48.9	3000	2649.6	9.10	9.10	641	617	60.8	62.1	373	76390	67.0	11.6	1031	1232	.13	1.86	1.86	1.79	9.23	8.70	D
737	1450	2656.5	4.71	172	196	110	47.5	3000	2650.0	9.10	9.10	640	630	61.1	61.4	377	77137	67.5	11.8	1144	1231	.13	1.85	1.85	1.80	9.23	8.70	D
738	1454	2657.0	7.58	175	194	109	47.7	3000	2650.4	9.10	9.10	641	633	61.1	62.0	371	77557	68.0	11.8	935	1229	.13	1.71	1.70	1.79	9.22	8.70	D
739	1500	2657.5	4.87	174	196	109	49.1	2990	2650.9	9.10	9.10	641	614	61.2	62.2	374	78212	68.5	11.9	902	1226	.13	1.86	1.86	1.80	9.21	8.70	D
740	1505	2658.0	6.19	172	200	109	48.8	2960	2651.4	9.10	9.10	641	623	61.3	61.6	374	78738	69.0	12.0	803	1222	.14	1.79	1.78	1.80	9.21	8.70	D
741	1511	2658.5	4.98	176	196	109	48.5	2980	2651.9	9.10	9.10	641	594	61.4	62.5	378	79394	69.5	12.1	840	1221	.14	1.85	1.84	1.81	9.21	8.70	D
742	1517	2659.0	5.07	172	194	109	48.6	2990	2652.4	9.10	9.10	641	613	61.5	61.8	379	80038	70.0	12.2	934	1219	.14	1.85	1.84	1.81	9.21	8.70	D
743	1522	2659.5	6.00	172	196	109	48.2	2990	2652.9	9.10	9.10	641	615	61.7	62.2	379	80587	70										

EXLOG

283115

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KOORCAH NO.1

Data Printed at time 06:47 Date Dec 22 '85
Data Recorded at time 15:48 Date Dec 16 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS	MW		FLO		TEMP	PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	RUN
748	1548	2662.0	6.76	171	192	109	46.7	3030	2655.4	9.10	9.10	637	587	62.0	62.7	388	83486	73.0	12.7	768	1206	.14	1.73	1.73	1.80	9.21	8.70	D
749	1554	2662.5	4.98	172	188	109	47.5	3040	2656.0	9.10	9.10	646	601	62.1	62.3	387	84123	73.5	12.8	1011	1204	.14	1.84	1.83	1.80	9.21	8.70	D
750	1608	2663.0	5.38	172	198	110	47.6	3020	2656.9	9.10	9.10	632	583	62.1	61.5	382	84784	74.0	12.9	957	1203	.15	1.82	1.81	1.80	9.20	8.70	DX
751	1612	2663.5	6.65	176	194	114	46.7	2990	2657.1	9.10	9.10	640	590	62.2	61.8	387	85202	74.5	13.0	644	1199	.15	1.75	1.75	1.79	9.21	8.70	D
752	1616	2664.0	7.54	177	198	108	48.3	2940	2657.5	9.10	9.10	644	584	62.2	62.3	390	85619	75.0	13.1	690	1195	.15	1.72	1.71	1.78	9.21	8.70	D
753	1622	2664.5	5.07	174	194	108	47.9	2920	2658.0	9.10	9.10	625	661	61.9	63.0	391	86278	75.5	13.2	1037	1194	.15	1.83	1.83	1.78	9.21	8.70	D
754	1627	2665.0	5.00	178	194	109	48.4	2890	2658.5	9.10	9.10	633	658	61.8	62.6	393	86895	76.0	13.3	1001	1193	.15	1.85	1.84	1.79	9.21	8.70	D
755	1632	2665.5	6.78	174	196	109	48.4	2910	2658.9	9.10	9.10	630	656	62.0	62.9	385	87402	76.5	13.3	754	1190	.15	1.75	1.75	1.79	9.21	8.70	D
756	1638	2666.1	5.17	174	198	109	46.8	3060	2659.5	9.10	9.10	645	657	62.2	63.1	393	88085	77.0	13.4	1088	1190	.15	1.82	1.81	1.79	9.21	8.70	D
757	1644	2666.5	3.69	177	196	107	48.5	2960	2660.1	9.10	9.10	638	655	62.2	63.4	391	88721	77.5	13.5	1276	1188	.15	1.94	1.93	1.81	9.21	8.70	D
758	1651	2667.0	4.57	176	196	108	49.4	2980	2660.6	9.10	9.10	639	661	62.3	62.5	397	89427	78.0	13.6	1118	1187	.15	1.89	1.88	1.83	9.20	8.70	D
759	1656	2667.5	5.63	177	198	108	49.1	3010	2661.0	9.10	9.10	642	657	62.4	62.8	394	90002	78.5	13.7	925	1186	.15	1.82	1.81	1.83	9.21	8.70	D
760	1701	2668.0	5.99	176	204	109	48.0	3050	2661.6	9.10	9.10	646	670	62.4	62.0	392	90564	79.0	13.8	1027	1184	.16	1.79	1.78	1.82	9.21	8.70	D
761	1706	2668.5	6.78	176	196	109	47.2	3060	2662.1	9.10	9.10	641	646	62.4	62.7	390	91032	79.5	13.9	779	1182	.16	1.74	1.73	1.80	9.21	8.70	D
762	1712	2669.0	4.48	177	202	109	48.6	3060	2662.6	9.10	9.10	647	652	62.3	62.9	389	91781	80.0	14.0	947	1181	.16	1.88	1.88	1.81	9.21	8.70	D
763	1718	2669.5	5.06	176	198	109	49.3	3020	2662.9	9.10	9.10	642	632	62.3	62.2	389	92369	80.5	14.1	1067	1180	.16	1.86	1.85	1.82	9.21	8.70	D
764	1724	2670.1	5.27	173	202	109	49.2	3030	2663.5	9.10	9.10	642	647	62.4	63.2	392	93047	81.0	14.2	1015	1179	.16	1.84	1.83	1.82	9.21	8.70	D
765	1732	2670.5	3.41	177	198	109	49.0	3030	2664.2	9.10	9.10	641	660	62.6	63.2	398	93918	81.5	14.3	1090	1179	.16	1.98	1.97	1.85	9.21	8.70	D
766	1738	2671.1	5.68	173	198	109	49.3	3040	2664.7	9.10	9.10	643	641	62.5	63.6	398	94510	82.0	14.4	965	1177	.16	1.82	1.81	1.85	9.21	8.70	D
767	1743	2671.5	4.54	175	196	109	50.2	3040	2665.4	9.10	9.10	643	655	62.6	63.3	399	95122	82.5	14.5	1030	1176	.16	1.90	1.89	1.86	9.21	8.70	D
768	1749	2672.0	4.75	176	198	109	49.6	3050	2665.7	9.10	9.10	637	642	62.5	62.7	398	95712	83.0	14.6	944	1174	.16	1.88	1.87	1.86	9.20	8.70	D
769	1754	2672.5	5.18	177	202	110	50.9	3060	2666.3	9.10	9.10	642	629	62.7	63.5	397	96345	83.5	14.7	882	1173	.17	1.87	1.86	1.86	9.21	8.70	D
770	1807	2673.0	5.28	171	192	110	38.4	3090	2667.1	9.10	9.10	645	647	63.0	62.3	401	96662	84.0	14.8	985	1172	.17	1.84	1.84	1.86	9.20	8.70	DF
771	1811	2673.5	6.30	178	200	109	46.5	3000	2667.4	9.10	9.10	638	646	62.9	62.4	404	97121	84.5	14.8	1140	1167	.17	1.75	1.75	1.84	9.20	8.70	D
772	1817	2674.0	4.81	177	196	108	49.4	2990	2668.1	9.10	9.10	630	643	62.6	63.7	413	97783	85.0	14.9	1065	1166	.17	1.87	1.86	1.84	9.20	8.70	D
773	1823	2674.5	4.88	177	194	107	48.5	2990	2668.6	9.10	9.10	637	650	62.3	63.6	407	98439	85.5	15.0	1011	1165	.17	1.85	1.84	1.84	9.20	8.70	D
774	1830	2675.0	4.88	173	198	106	49.8	3010	2669.2	9.10	9.10	635	637	62.6	63.5	394	99098	86.0	15.1	963	1164	.17	1.87	1.86	1.85	9.20	8.70	D
775	1836	2675.5	4.57	174	196	108	49.8	3010	2669.8	9.10	9.10	638	645	62.6	63.5	395	99821	86.5	15.2	993	1164	.17	1.89	1.88	1.85	9.20	8.70	D
776	1843	2676.0	4.39	173	194	108	46.9	3000	2670.3	9.10	9.10	639	647	62.6	62.9	394	100546	87.0	15.4	1017	1164	.17	1.87	1.86	1.86	9.20	8.70	D
777	1847	2676.5	7.04	175	202	109	48.6	3000	2670.6	9.10	9.10	639	628	62.7	62.2	397	101007	87.5	15.4	765	1161	.17	1.74	1.74	1.84	9.20	8.70	D
778	1856	2677.0	3.32	175	198	109	48.9	3000	2671.2	9.10	9.10	634	637	62.7	63.6	402	101980	88.0	15.6	1554	1163	.17	1.98	1.97	1.86	9.20	8.70	D
779	1902	2677.5	5.07	175	202	108	48.6	3000	2671.8	9.10	9.10	640	636	62.6	63.0	404	102619	88.5	15.7	954	1162	.18	1.84	1.84	1.86	9.20	8.70	D
780	1908	2678.0	4.78	177	198	109	50.1	2990	2672.4	9.10	9.10	639	646	62.5	62.7	411	103298	89.0	15.8	1161	1162	.18	1.88	1.87	1.86	9.20	8.70	D
781	1915	2678.5	4.81	174	198	108	50.4	3010	2672.6	9.10	9.10	640	630	62.6	63.8	407	103972	89.5	15.9	1034	1161	.18	1.88	1.87	1.87	9.20	8.70	D
782	1921	2679.0	4.57	174	198	109	51.2	3000	2673.2	9.10	9.10	635	646	62.7	62.7	410	104682	90.0	16.0	1042	1161	.18	1.91	1.90	1.87	9.20	8.70	D
783	1927	2679.5	5.24	172	198	108	47.7	3010	2673.8	9.10	9.10	640	654	63.0	63.3	409	105301	90.5	16.1	983	1160	.18	1.82	1.82	1.87	9.20	8.70	D
784	1933	2680.0	4.91	178	200	108	49.6	3010	2674.2	9.10	9.10	640	636	63.1	63.4	410	105964	91.0	16.2	1024	1160	.18	1.87	1.86	1.86	9.20	8.70	D
785	1940	2680.5	4.34	176	194	108	50.2	2910	2675.0	9.10	9.10	640	657	63.1	63.7	412	106706	91.5	16.3	1084	1159	.18	1.91	1.90	1.87	9.20	8.70	D
786	1948	2681.0	3.54	173	196	108	49.5	2990	2675.4	9.10	9.10	643	648	63.0	63.0	413	107628	92.0	16.5	1451	1161	.18	1.97	1.96	1.89	9.20	8.70	D
787	2004	2681.6	5.62	171	192	108	48.0	2910	2676.5	9.10	9.10	626	653	63.2	63.5	401	108351	92.5	16.6	1151	1160	.19	1.80	1.80	1.88	9.20	8.70	DF
788	2007	2682.0	5.98	178	206	107	48.3	3000	2676.7	9.10	9.10	641	642	63.3	62.6	407	108729	93.0	16.6	688	1157	.19	1.79	1.78	1.86	9.20	8.70	D
789	2016	2682.5	3.44	172	198	109	46.6	2990	2677.4	9.10	9.10	640	640	62.9	63.6	411	109719	93.5	16.8	1261	1159	.19	1.94	1.93	1.87	9.20	8.70	D
790	2019	2683.0	4.24	177	200	111	49.3	2970	2677.7	9.10	9.10	641	663	62.9	63.4	408	110069	94.0	16.8	1145	1156	.19	1.93	1.92	1.84	9.20	8.70	D
791	2027	2683.5	4.42	173	196	111	49.0	3000	2678.2	9.10	9.10	640	638	63.0	63.9	413	110864	94.5	17.0	1058	1156	.19	1.90	1.89	1.84	9.20	8.70	D
792	2033	2684.0	3.86	175	194	111	49.0	2980	2678.7	9.10	9.10	641	647	63.1	63.3	412	111576	95.0	17.1	1145	1156	.19	1.94	1.93	1.86	9.20	8.70	D
793	2040	2684.5	4.24	173	192	111	50.2	2990	2679.2	9.10	9.10	640	655	63.2	63.7	414												



KOORCAH NO.1

Data Printed at time 06:51 Date Dec 22 '85
Data Recorded at time 21:08 Date Dec 16 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lb/gal	FLOW/MIN		TEMP (C)		PVT	---THIS BIT---			---COST---		EST	DKC	NK	NKB	ECD	EST	
				AVG	MAX				IN	OUT		IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN							T/H
798	2108	2687.0	6.19	177	204	111	49.0	2970	2681.3	9.10	9.10	640	645	63.7	63.7	421	115422	98.0	17.6	793	1150	.20	1.80	1.79	1.84	9.20	8.70	D
799	2112	2687.5	6.50	176	200	111	49.1	2970	2681.5	9.10	9.10	643	654	63.7	64.6	420	115938	98.5	17.7	773	1148	.20	1.78	1.77	1.83	9.20	8.70	D
800	2115	2688.0	10.8	185	208	111	48.9	2990	2681.5	9.10	9.10	632	658	63.7	63.8	417	116256	99.0	17.8	488	1145	.20	1.62	1.61	1.79	9.21	8.70	D
801	2121	2688.5	4.19	173	204	111	48.1	3020	2682.1	9.10	9.10	646	663	63.7	63.4	418	116969	99.5	17.9	1690	1144	.20	1.90	1.89	1.80	9.21	8.70	D
802	2127	2689.0	5.43	171	190	111	47.0	3030	2682.4	9.10	9.10	640	645	63.6	64.0	417	117582	100	18.0	911	1143	.20	1.81	1.80	1.80	9.21	8.70	D
803	2135	2689.5	3.86	167	188	111	48.7	2960	2683.1	9.10	9.10	637	660	63.6	64.0	420	118425	100	18.1	1180	1144	.20	1.94	1.93	1.82	9.21	8.70	D
804	2139	2690.0	6.24	176	202	111	49.7	2960	2683.6	9.10	9.10	639	633	63.6	63.9	419	118978	101	18.2	1003	1143	.20	1.80	1.79	1.82	9.21	8.70	D
805	2143	2690.5	9.23	183	204	113	47.5	2940	2683.7	9.10	9.10	632	661	63.6	63.2	421	119321	101	18.2	504	1139	.20	1.66	1.65	1.79	9.21	8.70	D
806	2144	2691.0	23.0	190	212	112	48.7	2950	2683.8	9.10	9.10	638	667	63.5	63.7	422	119467	102	18.2	237	1135	.20	1.39	1.38	1.82	9.21	8.70	D
807	2155	2691.5	25.4	187	204	109	46.0	3080	2684.2	9.10	9.10	648	654	63.6	63.0	404	119627	102	18.3	234	1131	.20	1.32	1.32	1.79	9.21	8.70	D
808	2157	2692.0	18.5	185	208	106	48.6	3040	2684.4	9.10	9.10	648	648	63.6	63.0	410	119786	103	18.3	339	1127	.21	1.44	1.43	1.82	9.21	8.70	D
809	2159	2692.5	11.1	183	212	113	45.9	2930	2684.6	9.10	9.10	633	640	63.6	61.4	417	120084	103	18.3	430	1123	.21	1.58	1.57	1.79	9.21	8.70	D
810	2201	2693.0	17.5	187	222	112	46.1	2920	2684.7	9.10	9.10	632	653	63.6	62.2	421	120285	104	18.4	309	1120	.21	1.45	1.44	1.82	9.21	8.70	D
811	2203	2693.5	16.1	184	202	112	43.7	2910	2684.9	9.10	9.10	635	651	63.6	62.2	424	120476	104	18.4	305	1115	.21	1.45	1.44	1.79	9.22	8.70	D
812	2205	2694.0	11.8	178	214	112	48.8	2900	2685.1	9.10	9.10	635	657	63.6	63.4	423	120719	105	18.4	567	1111	.21	1.59	1.58	1.76	9.22	8.70	D
813	2207	2694.5	16.7	182	216	111	47.7	2920	2685.3	9.10	9.10	631	626	63.6	63.4	424	120913	105	18.5	361	1108	.21	1.47	1.46	1.79	9.22	8.70	D
814	2208	2695.0	38.5	188	210	113	45.8	2900	2685.3	9.10	9.10	632	642	63.4	63.6	423	120998	106	18.5	151	1103	.21	1.21	1.19	1.76	9.22	8.70	D
815	2209	2695.5	16.7	189	214	110	45.5	2940	2685.5	9.10	9.10	630	633	63.4	63.6	424	121202	106	18.5	293	1100	.21	1.45	1.44	1.79	9.22	8.70	D
816	2211	2696.0	16.3	186	214	109	46.6	2940	2685.5	9.10	9.10	631	643	63.4	63.6	428	121395	107	18.5	289	1096	.21	1.47	1.46	1.76	9.20	8.70	D
817	2214	2696.5	11.9	183	208	109	47.5	2940	2685.7	9.10	9.10	632	634	63.1	63.9	427	121669	107	18.6	475	1093	.21	1.57	1.56	1.73	9.22	8.70	D
818	2215	2697.0	17.1	188	214	109	48.9	2950	2685.9	9.10	9.10	632	643	63.1	63.9	426	121860	108	18.6	299	1089	.21	1.47	1.46	1.76	9.23	8.70	D
819	2218	2697.5	12.0	181	200	109	47.9	2930	2686.1	9.10	9.10	632	638	62.6	63.8	429	122130	108	18.6	527	1086	.21	1.57	1.56	1.73	9.23	8.70	D
820	2220	2698.0	11.6	185	206	109	47.3	2970	2686.3	9.10	9.10	638	629	62.8	62.4	431	122411	109	18.7	383	1083	.21	1.57	1.56	1.69	9.23	8.70	D
821	2223	2698.5	12.8	186	210	109	48.5	2970	2686.5	9.10	9.10	639	636	62.8	62.4	431	122677	109	18.7	379	1080	.21	1.56	1.55	1.66	9.23	8.70	D
822	2224	2699.0	19.4	190	214	109	48.8	2960	2686.7	9.10	9.10	639	645	63.1	63.1	432	122837	110	18.7	252	1076	.21	1.43	1.42	1.69	9.23	8.70	D
823	2226	2699.5	19.1	192	212	109	48.2	2950	2686.8	9.10	9.10	638	642	63.1	63.1	429	123015	110	18.8	280	1073	.21	1.43	1.42	1.66	9.23	8.70	D
824	2227	2700.0	20.3	186	210	109	44.2	2940	2687.0	9.10	9.10	637	642	63.1	64.1	430	123170	111	18.8	266	1069	.21	1.37	1.36	1.69	9.23	8.70	D
825	2229	2700.5	22.8	185	208	109	45.3	2930	2687.1	9.10	9.10	635	649	63.1	64.1	432	123311	111	18.8	206	1065	.21	1.35	1.34	1.66	9.24	8.70	D
826	2239	2701.0	21.5	182	196	109	44.2	2930	2687.9	9.10	9.10	631	639	63.1	63.5	417	123376	112	18.8	251	1061	.21	1.38	1.37	1.67	9.23	8.70	D
827	2242	2701.5	9.12	177	192	109	46.8	2960	2688.3	9.10	9.10	636	646	63.2	62.3	424	123733	112	18.9	2332	1058	.21	1.64	1.63	1.66	9.23	8.70	D
828	2249	2702.0	4.52	172	190	109	48.4	3000	2688.8	9.10	9.10	643	642	63.0	63.2	432	124444	113	19.0	1066	1058	.21	1.87	1.86	1.69	9.24	8.70	D
829	2254	2702.5	5.84	174	192	108	46.2	3040	2689.2	9.10	9.10	645	644	62.7	63.6	434	125010	113	19.1	884	1058	.21	1.77	1.76	1.71	9.24	8.70	D
830	2258	2703.0	7.34	170	200	108	50.0	3040	2689.5	9.10	9.10	646	648	62.7	63.0	434	125442	114	19.1	777	1056	.21	1.74	1.73	1.71	9.24	8.70	D
831	2307	2703.5	3.62	171	188	108	50.4	3040	2690.6	9.10	9.10	646	645	62.9	63.8	431	126354	114	19.3	1935	1058	.22	1.97	1.96	1.75	9.23	8.70	D
832	2313	2704.0	4.85	171	196	108	48.3	3040	2691.5	9.10	9.10	647	639	62.9	63.1	437	127008	115	19.4	975	1057	.22	1.85	1.84	1.77	9.23	8.70	D
833	2316	2704.5	8.27	180	202	107	45.5	3030	2692.2	9.10	9.10	646	660	63.0	63.4	437	127399	115	19.4	608	1055	.22	1.65	1.64	1.75	9.23	8.70	D
834	2322	2705.0	5.21	171	194	108	47.3	3020	2693.7	9.10	9.10	646	648	63.0	63.9	436	128019	116	19.5	2373	1056	.22	1.82	1.81	1.76	9.23	8.70	D
835	2329	2705.5	4.04	172	196	108	49.4	3010	2696.0	9.10	9.10	646	639	63.0	63.4	439	128820	116	19.7	1284	1056	.22	1.92	1.91	1.79	9.22	8.70	D
836	2337	2706.0	4.10	166	186	109	49.5	3010	2697.9	9.10	9.10	642	627	63.1	63.6	437	129617	117	19.8	1340	1057	.22	1.92	1.91	1.82	9.21	8.70	D
837	2343	2706.5	5.21	170	198	108	48.7	3000	2699.4	9.10	9.10	646	627	63.1	63.4	434	130258	117	19.9	1179	1057	.22	1.84	1.83	1.83	9.21	8.70	D
838	2348	2707.0	5.43	173	198	109	47.9	3010	2701.0	9.10	9.10	646	626	63.2	63.8	435	130833	118	20.0	835	1055	.22	1.82	1.81	1.83	9.20	8.70	D
839	2354	2707.5	4.72	177	198	107	48.5	3010	2701.8	9.10	9.10	645	640	63.2	63.6	435	131516	118	20.1	840	1055	.23	1.86	1.85	1.83	9.20	8.70	D
840	2359	2708.0	6.80	173	196	108	47.9	3000	2702.3	9.10	9.10	646	646	63.2	63.7	436	132024	119	20.2	804	1054	.23	1.74	1.73	1.82	9.20	8.70	D
Date Dec 17 '85																												
841	0003	2708.5	6.51	175	196	108	49.4	3010	2702.6	9.10	9.10	646	634	63.2	63.4	432	132455	119	20.2	767	1053	.23	1.78	1.77	1.81	9.20	8.70	D
842	0007	2709.0	6.82	173	200	107	49.2	3010	2703.0	9.10	9.10	646	602	63.1	63.7	435	132923	120	20.3	682	1051	.23	1.76	1.75	1.80	9.20	8.70	D
843	0010	2709.5	11.7	184	204	107	48.2	3010	2703.3	9.10	9.10	646	621	63.1	63.0	433	13											

EXLOG

283117

KOORCAH NO.1

Data Printed at time 06:55 Date Dec 22 '85
 Data Recorded at time 00:30 Date Dec 17 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	JOB AVG	PUMP PRES	RTRNS DEPTH	MW lb/gal		FLOI/MIN		TEMP (C)		PVT	THIS BIT			EST T/I	DKC	NK	NKB	ECD	EST			
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs						INST	RUN	FM	PR
847	0030	2711.5	13.5	192	218	107	44.9	2940	2703.8	9.10	9.10	637	613	63.0	62.9	432	133844	122	20.4	723	1037	.23	1.50	1.49	1.76	9.21	8.70	D
848	0031	2712.0	26.6	192	210	107	46.1	2940	2703.9	9.10	9.10	637	628	62.3	60.4	433	133965	123	20.5	185	1033	.23	1.31	1.30	1.79	9.21	8.70	D
849	0032	2712.5	24.3	190	212	108	46.6	2930	2704.0	9.10	9.10	637	621	62.3	60.4	434	134094	123	20.5	214	1029	.23	1.34	1.33	1.76	9.21	8.70	D
850	0033	2713.0	32.6	189	262	106	45.8	2930	2704.0	9.10	9.10	637	627	62.3	60.4	438	134195	124	20.5	157	1026	.23	1.24	1.23	1.79	9.22	8.70	D
851	0206	2713.5	55.8	190	234	110	37.3	2940	2713.1	9.10	9.10	634	616	64.2	64.9	438	134293	124	20.5	107	1024	.23	1.02	1.01	1.76	9.18	8.70	D
852	0207	2714.0	66.7	193	222	114	39.9	2960	2713.1	9.10	9.10	637	596	64.2	64.9	440	134337	125	20.5	177	1019	.23	1.00	.99	1.79	9.18	8.70	D
853	0207	2714.5	54.7	200	218	112	45.7	2910	2713.1	9.10	9.10	639	602	64.2	64.9	440	134392	125	20.5	91	1015	.23	1.10	1.09	1.76	9.18	8.70	D
854	0208	2715.0	63.2	208	220	110	45.3	2950	2713.1	9.10	9.10	639	604	64.2	64.9	440	134439	126	20.5	90	1012	.23	1.05	1.04	1.79	9.19	8.70	D
855	0209	2715.5	18.9	186	220	109	46.1	2940	2713.1	9.10	9.10	638	619	64.0	65.0	439	134600	126	20.5	433	1008	.23	1.42	1.41	1.76	9.19	8.70	D
856	0211	2716.0	14.2	183	206	110	47.2	2950	2713.1	9.10	9.10	638	641	63.9	64.5	438	134831	127	20.6	404	1006	.23	1.52	1.51	1.79	9.19	8.70	D
857	0214	2716.5	10.3	174	218	110	45.6	2940	2713.1	9.10	9.10	639	614	63.9	64.5	439	135167	127	20.6	1834	1004	.23	1.60	1.59	1.76	9.19	8.70	D
858	0219	2717.0	5.20	172	204	110	48.1	2950	2713.1	9.10	9.10	639	609	63.7	64.0	437	135728	128	20.7	857	1003	.23	1.84	1.83	1.76	9.19	8.70	D
859	0223	2717.5	8.22	234	268	109	47.7	2950	2713.1	9.10	9.10	638	617	62.9	64.3	437	136124	128	20.8	723	1002	.23	1.69	1.68	1.75	9.20	8.70	D
860	0225	2718.0	12.6	220	254	110	46.9	2950	2713.1	9.10	9.10	639	602	62.6	63.8	438	136377	129	20.8	394	999	.23	1.55	1.54	1.71	9.20	8.70	D
861	0227	2718.5	16.2	234	252	109	44.9	2960	2713.1	9.10	9.10	639	615	62.6	63.8	437	136560	129	20.8	353	997	.23	1.45	1.44	1.74	9.20	8.70	D
862	0228	2719.0	29.3	238	268	109	44.8	2960	2713.1	9.10	9.10	640	601	62.6	63.6	438	136674	130	20.9	185	994	.23	1.27	1.26	1.71	9.20	8.70	D
863	0241	2719.6	31.5	218	270	109	41.8	2990	2713.1	9.10	9.10	630	597	62.4	62.7	418	136809	130	20.9	209	991	.23	1.22	1.21	1.74	9.20	8.70	D
864	0242	2720.0	25.0	189	214	112	42.7	3000	2713.1	9.10	9.10	637	595	62.4	62.7	421	136835	131	20.9	50	988	.23	1.30	.90	1.72	9.20	8.70	D
865	0243	2720.5	24.3	192	218	110	44.5	2940	2713.1	9.10	9.10	664	600	62.4	62.7	424	136968	131	20.9	163	984	.23	1.33	1.31	1.74	9.21	8.70	D
866	0244	2721.0	20.5	196	220	110	46.1	2960	2713.1	9.10	9.10	653	606	61.9	61.0	429	137124	132	20.9	268	981	.23	1.39	1.38	1.72	9.21	8.70	D
867	0245	2721.5	27.5	195	218	111	44.8	2960	2713.1	9.10	9.10	650	625	61.9	61.0	434	137246	132	20.9	188	978	.23	1.29	1.28	1.74	9.21	8.70	D
868	0248	2722.0	10.5	180	212	111	47.0	2940	2713.1	9.10	9.10	661	600	61.6	60.9	434	137516	133	21.0	967	976	.24	1.61	1.60	1.72	9.22	8.70	D
869	0251	2722.5	7.79	180	352	110	45.5	2920	2713.1	9.10	9.10	643	589	61.4	62.1	431	137898	133	21.0	766	975	.24	1.68	1.67	1.70	9.22	8.70	D
870	0255	2723.0	7.28	188	332	108	45.1	2950	2713.1	9.10	9.10	671	626	61.1	62.6	425	138329	134	21.1	656	973	.24	1.69	1.68	1.69	9.22	8.70	D
871	0258	2723.5	13.5	183	210	110	44.2	2960	2713.1	9.10	9.10	657	600	61.1	62.5	422	138575	134	21.2	337	971	.24	1.50	1.49	1.65	9.22	8.70	D
872	0300	2724.0	12.1	188	208	110	43.9	2970	2713.1	9.10	9.10	653	597	61.1	62.3	424	138848	135	21.2	526	970	.24	1.53	1.52	1.63	9.22	8.70	D
873	0303	2724.5	9.57	176	234	110	45.5	2960	2713.1	9.10	9.10	676	588	61.1	62.4	422	139171	135	21.2	746	967	.24	1.61	1.60	1.61	9.23	8.70	D
874	0312	2725.0	3.44	169	190	111	45.8	3040	2713.1	9.10	9.10	676	583	61.2	62.4	421	140144	136	21.4	983	969	.24	1.93	1.92	1.63	9.23	8.70	D
875	0319	2725.5	3.81	170	190	110	45.9	3060	2713.1	9.10	9.10	669	598	61.2	61.9	426	140998	136	21.5	1240	970	.24	1.90	1.89	1.61	9.23	8.70	D
876	0329	2726.0	3.44	170	192	111	45.5	2970	2716.1	9.10	9.10	677	578	61.2	61.1	428	142029	137	21.7	1631	972	.24	1.93	1.91	1.63	9.22	8.70	D
877	0334	2726.5	4.81	170	200	110	45.3	2960	2716.8	9.10	9.10	639	573	61.1	61.4	424	142654	137	21.8	1221	972	.24	1.82	1.81	1.65	9.22	8.70	D
878	0338	2727.0	8.35	185	204	110	43.8	2990	2717.2	9.10	9.10	684	578	61.0	61.7	427	143038	138	21.8	633	971	.24	1.64	1.63	1.65	9.22	8.70	D
879	0339	2727.5	19.8	185	208	111	41.0	2990	2717.3	9.10	9.10	671	568	61.0	61.7	423	143192	138	21.8	243	963	.24	1.35	1.34	1.65	9.22	8.70	D
880	0341	2728.0	15.7	188	208	110	44.4	2980	2717.6	9.10	9.10	666	584	61.0	62.0	423	143366	139	21.9	291	966	.24	1.45	1.44	1.63	9.22	8.70	D
881	0343	2728.6	16.5	184	208	110	43.8	2990	2718.1	9.10	9.10	676	581	61.0	62.0	422	143587	139	21.9	381	964	.25	1.43	1.42	1.60	9.23	8.70	D
882	0353	2729.0	21.4	175	212	109	38.0	3060	2719.5	9.10	9.10	635	580	61.0	62.0	393	143690	140	21.9	264	961	.25	1.39	1.38	1.62	9.22	8.70	D
883	0354	2729.5	30.7	187	222	109	43.2	3000	2719.5	9.10	9.10	651	578	60.9	61.8	391	143751	140	21.9	204	958	.25	1.19	1.18	1.60	9.22	8.70	D
884	0355	2730.0	21.6	196	218	110	43.5	2990	2719.5	9.10	9.10	675	589	60.9	61.8	394	143899	141	22.0	266	955	.25	1.35	1.34	1.62	9.23	8.70	D
885	0356	2730.5	28.2	193	218	109	40.4	2910	2719.5	9.10	9.10	657	576	60.9	61.8	401	144012	141	22.0	192	952	.25	1.24	1.23	1.60	9.23	8.70	D
886	0359	2731.0	9.69	179	208	110	44.3	2890	2720.9	9.10	9.10	659	587	60.6	60.5	409	144339	142	22.0	5672	951	.25	1.60	1.59	1.53	9.22	8.70	D
887	0407	2731.5	3.50	171	204	110	45.9	2910	2722.7	9.10	9.10	668	577	60.3	61.0	412	145181	142	22.1	943	952	.25	1.93	1.91	1.60	9.22	8.70	D
888	0412	2732.1	4.98	170	194	110	45.4	2920	2723.3	9.20	9.10	665	574	60.2	61.4	413	145712	143	22.2	994	951	.25	1.81	1.80	1.62	9.20	8.70	D
889	0418	2732.6	5.07	177	202	110	44.9	3000	2724.5	9.20	9.10	652	587	60.2	61.3	413	146382	143	22.3	1017	952	.25	1.80	1.79	1.65	9.20	8.70	D
890	0421	2733.0	7.38	185	216	110	45.6	3000	2724.8	9.20	9.10	669	567	60.2	61.4	414	146708	144	22.4	621	950	.25	1.70	1.69	1.66	9.20	8.70	D
891	0426	2733.5	5.89	179	202	109	46.1	3000	2725.0	9.20	9.10	666	586	60.2	61.3	417	147246	144	22.5	789	950	.25	1.77	1.76	1.68	9.20	8.70	D
892	0428	2734.0	11.1	181	212	110	45.3	3010	2725.2	9.20	9.10	680	563	60.2	61.3	418	147516	145	22.5	427	943	.25						

EXLOG

283118

59

KOORKAH NO.1

Data Printed at time 06:59 Date Dec 22 '85
 Data Recorded at time 04:51 Date Dec 17 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	JOB AVG	PUMP PRES	RTRNS			MW lb/gal		FLO I/MIN		TEMP (C)		PVT	THIS BIT			EST T/H	DKC	NK	NXB	BCD	EST	
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	IN	OUT	REVS	m		hrs	INST	RUN						FM	PR
897	0451	2736.5	4.66	176	200	109	46.2	2990	2726.8	9.20	9.10	678	609	60.4	62.3	420	150028	147	22.9	1299	945	.26	1.84	1.83	1.70	9.31	8.70	D
898	0457	2737.0	5.71	173	203	109	45.2	2980	2728.0	9.20	9.10	670	530	60.4	62.1	421	150585	148	23.0	905	945	.26	1.77	1.75	1.72	9.31	8.70	D
899	0500	2737.5	9.40	184	214	109	46.2	2970	2728.9	9.20	9.10	674	514	60.5	62.2	420	150944	148	23.0	635	943	.26	1.62	1.61	1.70	9.31	8.70	D
900	0504	2738.0	7.77	185	204	110	45.7	3000	2729.1	9.20	9.10	661	537	60.5	62.1	423	151377	149	23.1	622	942	.26	1.68	1.67	1.70	9.31	8.70	D
901	0515	2739.4	6.90	181	206	106	47.2	2970	2728.5	9.20	9.10	633	520	60.5	61.6	414	151825	150	23.2	795	936	.26	1.85	1.52	1.66	9.31	8.70	D
902	0520	2740.0	6.65	179	212	109	49.0	2970	2728.5	9.20	9.10	635	544	60.1	61.4	420	152413	151	23.2	431	935	.26	1.76	1.74	1.67	9.31	8.70	D
903	0529	2740.5	3.46	174	206	110	49.9	2880	2728.5	9.20	9.10	632	537	59.9	61.5	422	153366	151	23.4	2577	937	.26	1.97	1.96	1.66	9.31	8.70	D
904	0533	2741.0	7.64	180	204	111	49.6	2990	2728.5	9.20	9.10	633	525	59.9	61.5	422	153790	152	23.5	804	936	.26	1.72	1.71	1.67	9.31	8.70	D
905	0538	2741.5	5.06	190	350	109	50.1	2900	2728.5	9.20	9.10	635	519	59.9	61.8	423	154420	152	23.5	958	936	.26	1.85	1.84	1.70	9.31	8.70	D
906	0543	2742.0	7.29	173	210	111	50.3	2940	2728.5	9.20	9.10	636	527	59.9	61.6	424	154886	153	23.6	751	935	.26	1.74	1.73	1.71	9.31	8.70	D
907	0544	2742.5	16.9	193	218	110	49.0	2950	2728.5	9.20	9.10	647	536	59.9	61.7	425	155078	153	23.6	311	933	.26	1.47	1.45	1.68	9.31	8.70	D
908	0547	2743.0	13.2	196	242	110	48.9	2960	2728.5	9.20	9.10	633	527	60.0	61.9	423	155332	154	23.7	1137	932	.27	1.54	1.53	1.65	9.31	8.70	D
909	0548	2743.5	28.2	188	262	109	48.7	2960	2728.5	9.20	9.10	631	520	60.0	61.9	420	155446	154	23.7	171	929	.27	1.30	1.29	1.68	9.31	8.70	D
910	0554	2744.0	16.7	186	222	111	49.0	3010	2728.5	9.20	9.10	637	499	60.0	61.5	411	155659	155	23.7	581	927	.27	1.47	1.46	1.65	9.31	8.70	D
911	0557	2744.5	11.8	207	262	111	47.5	3020	2728.5	9.20	9.10	636	536	59.9	61.1	415	155949	155	23.8	367	926	.27	1.56	1.55	1.62	9.31	8.70	D
912	0600	2745.0	8.37	227	252	111	49.5	3020	2728.5	9.20	9.10	638	553	59.9	61.1	419	156299	156	23.8	531	924	.27	1.69	1.67	1.63	9.31	8.70	D
913	0605	2745.5	6.49	221	240	111	48.7	3030	2728.5	9.20	9.10	638	549	59.8	61.4	424	156813	156	23.9	789	924	.27	1.75	1.74	1.64	9.31	8.70	D
914	0610	2746.0	5.86	180	238	111	49.1	3030	2728.5	9.20	9.10	639	508	59.8	62.0	424	157378	157	24.0	827	923	.27	1.79	1.78	1.67	9.31	8.70	D
915	0614	2746.5	7.45	177	210	112	49.0	3020	2728.5	9.20	9.10	638	530	60.0	61.9	427	157858	157	24.1	750	923	.27	1.72	1.70	1.68	9.31	8.70	D
916	0620	2747.0	4.86	174	204	113	49.5	3020	2728.5	9.20	9.10	639	554	60.0	61.9	429	158460	158	24.2	965	923	.27	1.85	1.84	1.71	9.31	8.70	D
917	0622	2747.5	11.8	185	206	112	48.8	3020	2728.5	9.20	9.10	639	521	60.0	61.6	430	158765	158	24.2	461	921	.27	1.57	1.56	1.69	9.31	8.70	D
918	0624	2748.0	15.4	187	212	112	47.9	3030	2728.5	9.20	9.10	639	531	60.0	61.8	430	158954	159	24.2	355	919	.27	1.48	1.47	1.66	9.31	8.70	D
919	0636	2748.5	17.6	185	200	113	46.5	3020	2731.2	9.20	9.10	613	493	59.9	61.9	414	159168	159	24.3	293	918	.27	1.43	1.42	1.69	9.31	8.70	DK
920	0637	2749.0	23.7	184	208	113	48.6	3030	2731.2	9.20	9.10	636	527	59.8	61.5	404	159301	160	24.3	715	915	.27	1.36	1.35	1.66	9.31	8.70	D
921	0638	2749.5	17.1	187	210	114	48.0	3020	2731.2	9.20	9.10	637	524	59.8	61.5	404	159495	160	24.3	299	913	.27	1.46	1.44	1.63	9.31	8.70	D
922	0641	2750.0	13.3	192	218	114	48.6	3010	2731.3	9.20	9.10	636	532	59.4	60.4	415	159745	161	24.3	581	912	.27	1.54	1.53	1.61	9.31	8.70	D
923	0643	2750.5	15.2	248	268	114	46.1	3020	2731.4	9.20	9.10	636	538	59.2	60.6	424	159974	161	24.4	307	910	.27	1.47	1.46	1.58	9.31	8.70	D
924	0644	2751.0	17.1	249	262	114	46.6	3020	2731.5	9.20	9.10	636	499	59.2	60.6	424	160131	162	24.4	309	908	.27	1.44	1.43	1.56	9.31	8.70	D
925	0647	2751.5	9.81	248	260	113	46.7	3020	2731.9	9.20	9.10	636	505	59.1	61.7	427	160476	162	24.4	442	906	.27	1.61	1.60	1.56	9.31	8.70	D
926	0650	2752.0	8.76	245	260	114	47.5	3030	2732.1	9.20	9.10	636	515	59.0	62.0	432	160863	163	24.5	569	905	.27	1.65	1.64	1.57	9.31	8.70	D
927	0654	2752.5	8.26	242	258	114	46.7	3040	2732.3	9.20	9.10	637	528	59.1	61.8	432	161289	163	24.6	690	905	.28	1.66	1.65	1.59	9.31	8.70	D
928	0656	2753.0	13.5	251	260	114	48.7	3030	2732.5	9.20	9.10	637	521	59.2	61.7	434	161531	164	24.6	383	903	.28	1.53	1.52	1.58	9.31	8.70	D
929	0658	2753.5	14.4	249	266	113	46.9	3050	2740.1	9.20	9.10	638	502	59.2	61.7	429	161766	164	24.6	370	901	.28	1.50	1.48	1.56	9.31	8.70	D
930	0702	2754.0	8.55	241	256	113	46.4	3050	2740.4	9.20	9.10	638	527	59.3	61.5	432	162167	165	24.7	604	901	.28	1.65	1.64	1.57	9.31	8.70	D
931	0704	2754.5	12.8	238	256	114	47.1	3040	2740.5	9.20	9.10	639	531	59.4	61.3	431	162427	165	24.7	395	899	.28	1.54	1.53	1.56	9.31	8.70	D
932	0706	2755.0	12.2	249	270	113	46.9	3010	2740.6	9.20	9.10	638	519	59.4	61.1	429	162663	166	24.8	447	897	.28	1.55	1.53	1.55	9.31	8.70	D
933	0708	2755.5	17.4	247	272	112	46.2	3030	2740.8	9.20	9.10	638	530	59.4	61.1	433	162852	166	24.8	272	895	.28	1.43	1.42	1.53	9.31	8.70	D
934	0711	2756.0	10.2	244	264	113	47.7	3020	2741.2	9.20	9.10	638	519	59.4	61.6	433	163180	167	24.8	1011	894	.28	1.61	1.60	1.53	9.31	8.70	D
935	0716	2756.5	6.52	231	254	113	46.8	3010	2741.7	9.20	9.10	638	545	59.4	61.7	430	163723	167	24.9	2197	894	.28	1.74	1.72	1.56	9.31	8.70	D
936	0725	2757.0	3.07	219	232	112	48.9	2960	2742.5	9.20	9.10	638	545	59.5	61.6	427	164787	168	25.1	3112	896	.28	1.99	1.98	1.54	9.31	8.70	D
937	0735	2757.5	2.92	221	238	112	47.7	3040	2743.1	9.20	9.10	639	545	59.6	61.7	430	165909	168	25.2	1719	898	.28	1.99	1.97	1.56	9.31	8.70	D
938	0747	2758.0	4.74	221	234	112	47.0	3040	2743.5	9.20	9.10	637	537	59.7	61.1	404	166296	169	25.3	1216	898	.28	1.83	1.82	1.55	9.31	8.70	DK
939	0748	2758.5	4.70	183	186	109	48.8	3040	2743.6	9.20	9.10	638	521	59.7	61.1	402	166322	169	25.3	265	895	.28	1.85	.90	1.56	9.31	8.70	D
940	0753	2759.0	2.86	163	196	110	47.6	3040	2744.7	9.20	9.10	638	554	59.2	60.7	424	167440	170	25.5	588	897	.29	1.99	1.97	1.55	9.31	8.70	D
941	0813	2759.5	2.78	167	196	109	48.7	3000	2749.8	9.20	9.10	638	559	59.4	62.0	427	169064	170	25.7	1756	902	.29	2.01	2.00	1.56	9.31	8.70	D
942	0819	2760.0	4.57	180	224	109	48.6	3010	2750.2	9.20	9.10	637	541	59.5	62.1	427	169718	171	25.8	1132	902	.29</						

EX-10

283119

60

KOORCAH NO.1

Data Printed at time 07:03 Date Dec 22 '85
Data Recorded at time 08:55 Date Dec 17 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTRNS DEPTH	M1 lb/gal		FLOW/ MIN		TEMP (C)		PVT	THIS BIT			EST TV	DXC	NK	NKB	BCD	EST			
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs						INST	RUN	FM	PR
947	0855	2762.5	4.02	211	230	109	47.1	3020	2753.2	9.20	9.10	639	531	59.8	61.4	421	173617	173	26.4	1325	906	.30	1.88	1.87	1.57	9.30	8.70	D
948	0900	2763.0	8.77	218	234	109	46.0	3040	2753.4	9.20	9.10	640	550	59.7	60.8	425	173989	174	26.5	762	905	.30	1.63	1.62	1.59	9.31	8.70	D
949	0907	2763.5	4.53	213	228	110	46.7	3030	2754.0	9.20	9.10	640	563	59.6	61.1	424	174710	174	26.6	1400	906	.30	1.84	1.83	1.57	9.31	8.70	D
950	0922	2764.1	7.22	198	224	109	46.7	3040	2754.4	9.20	9.10	640	522	59.3	60.9	403	175208	175	26.7	835	906	.30	1.70	1.68	1.59	9.31	8.70	D
951	0927	2764.5	6.33	180	204	108	46.4	3020	2754.6	9.20	9.10	638	530	59.2	61.3	408	175672	175	26.7	890	905	.30	1.73	1.72	1.62	9.31	8.70	D
952	0930	2765.3	9.35	201	232	108	47.0	3040	2754.9	9.20	9.10	640	524	59.1	61.5	412	175994	176	26.8	529	904	.30	1.62	1.61	1.62	9.31	8.70	D
953	0933	2765.5	15.1	232	256	108	46.2	3030	2755.0	9.20	9.10	640	542	59.2	62.2	413	176211	176	26.8	354	903	.30	1.47	1.45	1.60	9.31	8.70	D
954	0936	2766.0	9.86	232	246	108	47.3	3030	2755.2	9.20	9.10	634	555	59.2	62.2	412	176548	177	26.9	514	901	.30	1.61	1.59	1.59	9.31	8.70	D
955	0938	2766.5	13.9	233	246	108	47.7	3030	2755.3	9.20	9.10	639	516	59.3	62.0	412	176773	177	26.9	392	900	.30	1.51	1.49	1.57	9.31	8.70	D
956	0941	2767.0	10.8	231	244	108	47.1	3050	2755.5	9.20	9.10	636	531	59.3	62.0	414	177065	178	26.9	450	898	.30	1.57	1.56	1.57	9.31	8.70	D
957	0950	2767.5	10.1	198	242	111	45.7	3050	2756.0	9.20	9.10	613	468	59.7	61.8	386	177148	178	27.0	443	897	.30	1.58	1.14	1.57	9.31	8.70	D
958	0951	2768.0	15.2	218	246	109	46.1	3040	2756.1	9.20	9.10	641	513	59.7	61.8	392	177255	179	27.0	396	894	.30	1.48	1.29	1.57	9.31	8.70	D
959	0954	2768.6	24.7	236	248	109	46.2	3040	2756.3	9.20	9.10	642	549	59.7	60.4	402	177409	179	27.0	322	892	.30	1.32	1.31	1.57	9.32	8.70	D
960	0955	2769.0	19.0	233	246	111	46.2	3040	2756.4	9.20	9.10	642	517	59.7	60.4	407	177554	180	27.0	362	891	.30	1.40	1.39	1.55	9.32	8.70	D
961	0957	2769.5	18.8	239	250	110	45.5	3060	2756.6	9.20	9.10	642	527	59.5	60.7	411	177722	180	27.0	455	889	.30	1.40	1.38	1.53	9.32	8.70	D
962	0959	2770.0	18.2	240	250	110	45.9	3020	2756.6	9.20	9.10	641	531	59.5	60.7	411	177742	181	27.0	98	887	.30	1.40	.74	1.55	9.32	8.70	D
963	1006	2770.5	33.6	233	250	110	45.7	3010	2756.9	9.20	9.10	639	551	59.3	61.6	408	177838	181	27.1	179	884	.30	1.22	1.21	1.53	9.32	8.70	D
964	1007	2771.0	19.8	242	254	110	46.9	3000	2757.0	9.20	9.10	637	535	59.4	61.3	411	177990	182	27.1	249	883	.30	1.39	1.38	1.50	9.32	8.70	D
965	1009	2771.5	14.7	241	254	110	47.0	3010	2757.1	9.20	9.10	637	527	59.4	61.3	410	178203	182	27.1	427	881	.30	1.49	1.47	1.49	9.32	8.70	D
966	1011	2772.0	12.4	241	252	110	45.7	3020	2757.2	9.20	9.10	637	521	59.4	61.7	412	178466	183	27.2	427	880	.30	1.52	1.51	1.49	9.33	8.70	D
967	1013	2772.5	15.9	239	256	110	46.0	3000	2757.3	9.20	9.10	638	527	59.4	61.7	409	178665	183	27.2	320	878	.30	1.45	1.44	1.48	9.33	8.70	D
968	1017	2773.0	8.63	239	254	110	46.0	3020	2757.5	9.20	9.10	638	539	59.5	61.9	415	179043	184	27.2	420	877	.31	1.63	1.62	1.50	9.33	8.70	D
969	1019	2773.5	14.9	243	256	110	45.3	3020	2757.7	9.20	9.10	633	535	59.7	61.7	413	179267	184	27.3	351	876	.31	1.46	1.45	1.49	9.33	8.70	D
970	1020	2774.0	16.1	246	258	111	46.4	3020	2757.8	9.20	9.10	638	502	59.8	61.8	415	179467	185	27.3	305	874	.31	1.45	1.44	1.48	9.33	8.70	D
971	1023	2774.5	13.5	237	260	110	46.0	3030	2757.9	9.20	9.10	638	514	59.8	61.8	412	179700	185	27.3	418	873	.31	1.50	1.49	1.48	9.33	8.70	D
972	1030	2775.0	3.81	220	234	109	48.1	3030	2758.5	9.20	9.10	639	516	60.2	61.6	414	180548	186	27.5	1289	874	.31	1.90	1.89	1.48	9.33	8.70	D
973	1054	2776.4	4.07	211	234	110	47.7	3020	2760.5	9.20	9.10	636	515	60.5	61.6	398	182310	187	27.8	1285	877	.31	1.88	1.87	1.48	9.33	8.70	D
974	1216	2777.0	4.81	174	192	110	43.4	3070	2770.3	9.20	9.10	640	515	60.6	61.9	402	183402	188	27.9	844	877	.31	1.81	1.80	1.48	9.29	8.70	DX
975	1221	2777.5	6.22	171	198	109	45.6	3060	2770.7	9.20	9.10	641	523	57.6	51.0	393	184345	188	28.0	723	877	.31	1.73	1.72	1.48	9.29	8.70	D
976	1236	2778.0	2.87	176	206	110	48.4	3010	2772.0	9.20	9.10	637	529	56.8	60.8	399	185668	189	28.2	1652	881	.32	2.00	1.99	1.48	9.29	8.70	D
977	1243	2778.5	4.33	222	242	109	48.9	3030	2772.6	9.20	9.10	635	531	57.4	60.6	399	186442	189	28.4	1239	882	.32	1.88	1.87	1.48	9.29	8.70	D
978	1250	2779.0	4.62	230	252	110	48.1	3070	2773.2	9.20	9.10	641	552	57.7	60.8	396	187179	190	28.5	1292	883	.32	1.85	1.84	1.48	9.29	8.70	D
979	1252	2779.5	18.1	245	260	110	46.6	3060	2773.3	9.20	9.10	642	540	58.2	61.0	397	187350	190	28.5	309	881	.32	1.42	1.41	1.47	9.29	8.70	D
980	1253	2780.0	17.4	245	268	110	45.6	3070	2773.4	9.20	9.10	643	529	58.2	61.0	394	187539	191	28.5	304	879	.32	1.42	1.41	1.45	9.29	8.70	D
981	1259	2780.5	15.5	227	268	108	45.3	3050	2773.5	9.20	9.10	636	523	58.6	60.3	381	187666	191	28.5	310	877	.32	1.45	1.44	1.43	9.29	8.70	D
982	1302	2781.0	9.95	241	262	108	46.9	3030	2773.6	9.20	9.10	639	536	58.9	60.1	390	187984	192	28.6	1108	877	.32	1.60	1.59	1.45	9.30	8.70	D
983	1307	2781.5	5.63	229	242	109	46.2	3020	2773.7	9.20	9.10	637	520	59.1	60.8	387	188557	192	28.7	940	876	.32	1.77	1.75	1.43	9.30	8.70	D
984	1315	2782.0	3.55	224	240	108	46.6	3020	2774.0	9.20	9.10	638	514	59.5	61.2	389	189474	193	28.8	1490	878	.32	1.91	1.90	1.45	9.30	8.70	D
985	1323	2782.5	3.76	223	238	108	47.3	3020	2774.2	9.20	9.10	638	528	59.8	61.1	383	190326	193	29.0	1373	879	.32	1.90	1.89	1.43	9.30	8.70	D
986	1329	2783.0	4.80	225	240	109	45.7	3010	2774.4	9.20	9.10	638	532	60.1	61.3	387	191003	194	29.1	1072	879	.33	1.81	1.79	1.45	9.30	8.70	D
987	1336	2783.5	4.56	227	244	109	49.1	3040	2775.5	9.20	9.10	639	510	60.3	61.2	387	191716	194	29.2	1261	880	.33	1.87	1.85	1.43	9.30	8.70	D
988	1339	2784.0	8.88	231	250	109	49.5	3030	2775.9	9.20	9.10	640	533	60.4	61.4	389	192088	195	29.2	566	879	.33	1.67	1.65	1.45	9.30	8.70	D
989	1343	2784.6	8.67	239	256	109	49.3	3050	2776.2	9.20	9.10	640	520	60.4	61.1	391	192497	195	29.3	612	879	.33	1.67	1.66	1.43	9.30	8.70	D
990	1345	2785.0	13.4	246	258	109	47.9	3030	2776.4	9.20	9.10	639	508	60.4	61.1	390	192648	196	29.3	249	877	.33	1.43	1.41	1.42	9.30	8.70	D
991	1347	2785.5	14.7	244	258	109	48.2	3040	2776.6	9.20	9.10	639	499	60.5	61.0	390	192874	196	29.3	360	876	.33	1.50	1.48	1.43	9.30	8.70	D
992	1356	2786.1	13.7	185	250	105	42.1	3070	2776.9	9.20	9.10	632	533	60.5	60.7	369	192935	197	29.4	382	874	.33	1.54</					

EXLOG

KOORCAH NO.1

Data Printed at time 07:07
Data Recorded at time 14:10

Date Dec 22 '85
Date Dec 17 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	JOB AVG	PUMP PRES	RTNRS DEPTH	M/lb/gal		FLD I/MIN		TEMP (C)		PVT	---THIS BIT---			---COST---		EST TV	DKC	NK	NXB	ECD	EST	
				AVG	MAX					IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs	INST	RUN						FM	PR
997	1410	2788.5	5.29	223	238	109	48.5	2980	2777.8	9.20	9.10	633	514	60.2	61.3	390	194514	199	29.6	894	869	.33	1.81	1.80	1.46	9.31	8.70	D
998	1416	2789.0	5.19	222	244	109	46.4	2980	2779.0	9.20	9.10	634	525	60.2	61.4	390	195144	200	29.7	994	869	.33	1.79	1.78	1.48	9.31	8.70	D
999	1418	2789.5	17.9	238	250	109	47.1	2980	2779.3	9.20	9.10	634	507	60.2	61.4	393	195328	200	29.7	293	868	.33	1.43	1.41	1.47	9.31	8.70	D
1000	1420	2790.0	11.7	233	248	109	47.1	2980	2779.8	9.20	9.10	628	514	60.3	61.8	393	195606	201	29.8	368	867	.33	1.56	1.54	1.49	9.31	8.70	D
1001	1424	2790.5	9.47	233	252	109	48.5	2960	2780.2	9.20	9.10	631	511	60.4	61.6	389	195954	201	29.8	484	866	.33	1.63	1.62	1.51	9.31	8.70	D
1002	1426	2791.0	14.3	238	256	109	46.7	2960	2780.4	9.20	9.10	630	507	60.4	61.6	390	196180	202	29.8	316	865	.33	1.49	1.48	1.51	9.31	8.70	D
1003	1427	2791.5	25.4	236	258	109	46.5	2950	2780.5	9.20	9.10	630	502	60.5	62.0	391	196307	202	29.9	209	863	.33	1.32	1.30	1.49	9.31	8.70	D
1004	1435	2792.0	3.80	227	242	109	48.6	2950	2780.9	9.20	9.10	631	520	60.7	61.9	395	197158	203	30.0	1608	864	.34	1.91	1.90	1.51	9.31	8.70	D
1005	1442	2792.5	3.95	220	236	109	48.2	2940	2781.4	9.20	9.10	630	525	60.9	62.4	401	198009	203	30.1	1441	865	.34	1.90	1.88	1.49	9.31	8.70	D
1006	1449	2793.0	4.38	220	236	109	48.1	2960	2781.9	9.20	9.10	630	490	61.0	62.6	400	198778	204	30.2	1307	866	.34	1.86	1.85	1.51	9.31	8.70	D
1007	1455	2793.5	5.06	222	234	109	49.3	2940	2782.4	9.20	9.10	627	493	61.4	62.5	399	199387	204	30.3	954	866	.34	1.84	1.82	1.49	9.31	8.70	D
1008	1500	2794.0	5.93	225	238	107	48.0	2940	2782.9	9.20	9.10	629	517	61.5	62.6	400	199929	205	30.4	907	866	.34	1.76	1.75	1.51	9.31	8.70	D
1009	1505	2794.5	6.41	230	242	107	47.2	2940	2783.8	9.20	9.10	628	522	61.6	62.4	400	200430	205	30.5	762	866	.34	1.73	1.72	1.49	9.31	8.70	D
1010	1521	2795.0	11.0	233	248	110	49.0	2940	2785.4	9.20	9.10	625	527	61.8	61.9	376	200659	206	30.5	575	865	.34	1.60	1.58	1.50	9.30	8.70	D
2	1521	2795.5	11.2	175	192	109	43.5	2940	2785.4	9.20	9.10	623	535	61.8	61.9	377	200695	206	30.5	593	863	.34	1.60	1.59	1.49	9.30	8.70	D
3	1524	2796.0	9.52	180	204	110	45.7	2970	2786.1	9.20	9.10	631	540	61.6	60.9	388	201029	207	30.6	539	862	.34	1.60	1.59	1.51	9.31	8.70	D
4	1526	2796.5	16.4	180	204	110	44.6	2890	2786.4	9.20	9.10	632	522	61.6	60.9	395	201232	207	30.6	287	860	.34	1.43	1.42	1.50	9.31	8.70	D
5	1529	2797.0	10.6	181	212	110	45.7	2960	2787.0	9.20	9.10	629	532	61.4	61.4	397	201540	208	30.7	503	859	.34	1.57	1.56	1.51	9.31	8.70	D
6	1532	2797.5	9.75	186	236	110	46.8	2960	2787.4	9.20	9.10	632	527	61.2	62.0	401	201879	208	30.7	528	859	.34	1.61	1.60	1.53	9.31	8.70	D
7	1534	2798.0	14.0	237	258	111	48.6	2990	2787.6	9.20	9.10	630	532	61.2	62.3	400	202117	209	30.8	396	858	.34	1.52	1.51	1.53	9.31	8.70	D
8	1537	2798.5	9.06	234	256	110	46.9	2930	2788.0	9.20	9.10	633	517	61.2	62.3	396	202472	209	30.8	642	857	.34	1.63	1.62	1.55	9.31	8.70	D
9	1539	2799.1	23.4	234	270	110	49.0	3010	2788.1	9.20	9.10	634	530	61.2	62.1	401	202626	210	30.8	239	855	.34	1.36	1.35	1.52	9.31	8.70	D
10	1542	2799.6	3.43	230	258	110	45.7	3020	2788.4	9.20	9.10	637	524	61.3	62.0	406	203003	210	30.9	467	855	.35	1.64	1.63	1.54	9.31	8.70	D
11	1543	2800.0	19.0	235	256	110	48.0	3010	2788.6	9.20	9.10	637	529	61.3	62.0	406	203136	211	30.9	208	853	.35	1.42	1.40	1.52	9.31	8.70	D
12	1547	2800.6	9.94	229	248	110	48.8	3020	2789.2	9.20	9.10	633	517	61.3	62.4	404	203500	211	31.0	715	853	.35	1.63	1.61	1.54	9.31	8.70	D
13	1552	2801.0	5.29	222	238	111	50.6	3010	2790.2	9.20	9.10	637	518	61.4	62.3	399	204065	212	31.0	788	852	.35	1.84	1.83	1.52	9.31	8.70	D
14	1558	2801.5	4.36	218	232	110	50.6	3010	2791.1	9.20	9.10	633	522	61.6	62.1	405	204303	212	31.2	1206	853	.35	1.90	1.89	1.54	9.31	8.70	D
15	1604	2802.0	5.44	222	238	111	49.4	3030	2791.5	9.20	9.20	636	517	61.7	62.3	401	205467	213	31.3	964	853	.35	1.82	1.80	1.52	9.31	8.70	D
16	1606	2802.5	13.6	232	248	110	48.9	3010	2791.6	9.20	9.20	638	507	61.8	62.5	402	205688	213	31.3	411	852	.35	1.53	1.52	1.52	9.31	8.70	D
17	1610	2803.0	7.89	227	242	108	48.9	3000	2791.8	9.20	9.20	634	508	61.9	62.6	405	206107	214	31.4	909	852	.35	1.69	1.68	1.54	9.31	8.70	D
18	1615	2803.5	5.45	221	240	108	49.3	3010	2792.2	9.20	9.20	636	517	62.0	62.7	403	206645	214	31.4	926	852	.35	1.81	1.79	1.52	9.31	8.70	D
19	1621	2804.0	5.22	222	242	107	49.4	3030	2792.6	9.20	9.20	639	537	62.2	62.5	403	207255	215	31.5	990	852	.35	1.82	1.81	1.55	9.31	8.70	D
20	1630	2804.5	11.3	204	238	109	46.6	3030	2793.2	9.20	9.20	619	531	62.2	62.9	390	207556	215	31.6	838	851	.35	1.56	1.54	1.55	9.31	8.70	DX
21	1631	2805.0	5.43	181	200	112	50.0	3040	2793.3	9.20	9.20	632	535	62.3	62.1	391	207618	216	31.6	998	849	.35	1.81	1.80	1.55	9.31	8.70	D
22	1636	2805.5	5.62	225	246	111	48.3	3040	2793.8	9.20	9.20	639	515	62.3	61.7	399	208197	216	31.7	465	849	.35	1.80	1.78	1.57	9.31	8.70	D
23	1637	2806.0	17.5	235	248	109	48.1	3060	2794.0	9.20	9.20	639	525	62.3	61.7	401	208389	217	31.7	301	848	.35	1.44	1.43	1.55	9.31	8.70	D
24	1640	2806.5	12.9	232	248	109	47.8	3060	2794.4	9.20	9.20	641	511	62.2	62.0	401	208623	217	31.7	480	847	.35	1.53	1.52	1.54	9.32	8.70	D
25	1643	2807.0	9.83	227	244	109	49.4	3060	2795.1	9.20	9.20	642	537	62.2	63.0	399	208953	218	31.8	508	846	.35	1.63	1.62	1.56	9.31	8.70	D
26	1644	2807.5	16.2	233	250	109	47.5	3060	2795.5	9.20	9.20	637	526	62.2	63.0	404	209152	218	31.8	302	845	.36	1.46	1.44	1.54	9.31	8.70	D
27	1646	2808.0	20.6	228	252	109	49.0	3070	2795.8	9.20	9.20	640	531	62.2	62.8	400	209310	219	31.8	249	844	.36	1.40	1.39	1.52	9.32	8.70	D
28	1649	2808.5	11.3	234	270	108	49.8	3070	2796.3	9.20	9.20	642	540	62.2	62.7	401	209609	219	31.9	542	843	.36	1.59	1.58	1.52	9.32	8.70	D
29	1650	2809.0	20.4	238	284	109	48.1	3070	2796.5	9.20	9.20	640	524	62.2	62.7	404	209745	220	31.9	229	841	.36	1.39	1.38	1.50	9.32	8.70	D
30	1652	2809.5	16.8	229	258	109	49.2	3060	2796.8	9.20	9.20	640	511	62.2	62.7	403	209933	220	31.9	384	840	.36	1.46	1.45	1.49	9.32	8.70	D
31	1654	2810.0	11.7	237	256	109	50.3	3060	2797.3	9.20	9.20	640	518	62.3	62.4	404	210201	221	32.0	447	839	.36	1.59	1.57	1.50	9.32	8.70	D
32	1656	2810.5	13.1	233	248	109	49.2	3060	2797.8	9.20	9.20	640	539	62.3	62.4	404	210443	221	32.0	371	838	.36	1.54	1.53	1.50	9.32	8.70	D
33	1658	2811.0	14.5	235	252	108	50.0	3060	2798.3	9.20	9.20	639	527	62.3	62.9	405	210672	222	32.1	367	837	.36	1.5					

EXLOG

283121

62

KOORCAH NO.1

Data Printed at time 07:26 Date Dec 22 '85
Data Recorded at time 17:19 Date Dec 17 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lb/gal		FLO/ MIN		TEMP (C)	PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST			
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT			IN	OUT	IN							OUT	REVS	m
38	1719	2813.5	10.9	228	244	109	48.9	3050	2800.8	9.20	9.20	638	511	62.8	63.2	402	212893	224	32.4	458	835	.36	1.59	1.58	1.56	9.32	8.70	D
39	1729	2814.0	9.30	217	252	110	48.7	3020	2801.7	9.20	9.20	628	549	63.0	63.0	389	213167	225	32.4	485	834	.36	1.64	1.62	1.55	9.31	8.70	D
40	1733	2814.5	6.28	199	240	114	49.2	3030	2802.3	9.20	9.20	636	534	62.9	63.2	401	213663	225	32.5	1146	834	.36	1.78	1.76	1.58	9.32	8.70	D
41	1737	2815.0	6.92	219	240	112	48.4	3020	2802.7	9.20	9.20	636	524	62.9	62.7	406	214162	226	32.6	847	834	.36	1.74	1.72	1.61	9.32	8.70	D
42	1746	2815.5	3.49	215	234	110	49.1	3000	2803.4	9.20	9.20	635	529	62.8	63.4	401	215067	226	32.7	1304	835	.37	1.95	1.93	1.58	9.31	8.70	D
43	1755	2816.0	3.32	215	226	110	49.1	3020	2804.7	9.20	9.20	635	534	62.9	63.8	406	216061	227	32.9	1424	837	.37	1.97	1.95	1.61	9.31	8.70	D
44	1802	2816.5	4.22	215	230	111	48.1	3030	2806.2	9.20	9.20	638	537	63.1	63.8	406	216865	227	33.0	1249	838	.37	1.88	1.86	1.58	9.31	8.70	D
45	1807	2817.0	5.91	215	232	110	48.8	3040	2807.5	9.20	9.20	639	533	63.3	63.7	405	217406	228	33.1	979	837	.37	1.79	1.77	1.61	9.30	8.70	D
46	1816	2817.5	3.20	214	230	110	48.5	2990	2809.9	9.20	9.20	632	528	63.4	64.0	405	218467	228	33.2	1240	839	.37	1.97	1.96	1.58	9.30	8.70	D
47	1820	2818.0	7.94	221	258	109	47.7	2990	2810.5	9.20	9.20	629	536	63.5	63.8	405	218369	229	33.3	595	839	.37	1.68	1.67	1.60	9.30	8.70	D
48	1827	2818.5	4.32	216	238	110	47.9	2990	2811.1	9.20	9.20	633	530	63.6	63.4	406	219655	229	33.4	1089	839	.37	1.87	1.86	1.58	9.30	8.70	D
49	1830	2819.0	11.4	222	246	110	44.6	2990	2811.3	9.20	9.20	634	545	63.6	63.9	405	219900	230	33.4	462	839	.37	1.54	1.52	1.57	9.30	8.70	D
50	1831	2819.5	25.1	228	244	110	45.6	2980	2811.4	9.20	9.20	634	535	63.6	63.9	404	220029	230	33.5	208	837	.37	1.31	1.30	1.58	9.30	8.70	D
51	1835	2820.0	7.24	223	236	110	48.8	2980	2812.0	9.20	9.20	628	527	63.6	64.2	404	220477	231	33.5	768	837	.37	1.72	1.71	1.61	9.30	8.70	D
52	1840	2820.5	6.29	222	238	110	49.7	3010	2812.8	9.20	9.20	635	531	63.6	64.1	402	221018	231	33.6	873	837	.37	1.78	1.76	1.64	9.30	8.70	D
53	1846	2821.0	4.72	221	238	110	49.7	3030	2813.3	9.20	9.20	638	544	63.7	63.6	403	221685	232	33.7	1295	837	.38	1.87	1.85	1.67	9.30	8.70	D
54	1851	2821.5	6.04	219	242	110	48.8	3040	2813.7	9.20	9.20	639	542	63.7	64.1	403	222233	232	33.8	826	837	.38	1.78	1.76	1.70	9.30	8.70	D
55	1855	2822.0	7.98	224	242	110	48.8	3040	2814.0	9.20	9.20	639	542	63.7	64.4	406	222651	233	33.9	659	837	.38	1.70	1.68	1.70	9.30	8.70	D
56	1856	2822.5	17.6	235	264	110	48.5	3030	2814.2	9.20	9.20	638	541	63.7	64.4	406	222835	233	33.9	294	836	.38	1.45	1.43	1.70	9.30	8.70	D
57	1858	2823.0	23.7	231	256	110	45.5	3040	2814.3	9.20	9.20	639	539	63.8	63.9	407	222974	234	33.9	211	834	.38	1.33	1.31	1.70	9.30	8.70	D
58	1859	2823.5	15.5	229	248	110	47.7	3020	2814.4	9.20	9.20	638	543	63.8	63.9	405	223181	234	33.9	384	833	.38	1.48	1.46	1.67	9.30	8.70	D
59	1908	2824.0	18.5	217	248	116	47.3	3040	2814.8	9.20	9.20	639	547	63.8	63.2	398	223383	235	34.0	335	832	.38	1.44	1.42	1.70	9.30	8.70	D
60	1909	2824.5	20.2	235	278	111	47.9	3030	2814.8	9.20	9.20	639	547	63.8	63.2	399	223534	235	34.0	245	831	.38	1.40	1.39	1.68	9.30	8.70	D
61	1910	2825.0	27.0	236	270	110	47.5	3030	2814.9	9.20	9.20	639	538	63.8	63.2	403	223651	236	34.0	200	830	.38	1.31	1.29	1.70	9.31	8.70	D
62	1912	2825.5	16.6	234	254	110	48.3	3040	2815.0	9.20	9.20	638	539	63.7	63.6	405	223838	236	34.0	263	828	.38	1.46	1.45	1.67	9.31	8.70	D
63	1913	2826.0	21.7	238	258	110	49.4	3030	2815.1	9.20	9.20	637	546	63.7	63.6	405	223990	237	34.1	260	827	.38	1.39	1.38	1.70	9.31	8.70	D
64	1914	2826.5	36.6	238	256	110	47.1	3020	2815.2	9.20	9.20	637	545	63.7	63.6	405	224069	237	34.1	119	825	.38	1.21	1.20	1.68	9.31	8.70	D
65	1916	2827.1	21.8	234	262	111	49.3	3030	2815.3	9.20	9.20	637	546	63.7	63.6	404	224239	238	34.1	308	824	.38	1.39	1.38	1.70	9.31	8.70	D
Flow check at 2827.5m.																												
67	1925	2827.5	16.8	233	270	110	49.3	3010	2815.8	9.20	9.20	630	555	63.5	62.7	404	224406	238	34.1	342	823	.38	1.47	1.45	1.63	9.31	8.70	D
68	1932	2828.0	3.98	222	238	110	49.4	2980	2816.2	9.20	9.20	632	560	63.4	64.6	404	225169	239	34.2	830	824	.38	1.91	1.90	1.71	9.31	8.70	D
69	1942	2828.5	3.22	213	234	110	50.0	2980	2817.0	9.20	9.20	632	544	63.6	65.0	404	226161	239	34.4	1244	825	.38	1.98	1.97	1.68	9.31	8.70	D
70	1947	2829.0	6.50	222	240	109	50.3	2980	2817.5	9.20	9.20	634	530	63.7	65.0	404	226680	240	34.5	812	825	.38	1.77	1.76	1.69	9.31	8.70	D
71	1949	2829.5	14.9	232	256	109	50.1	2990	2817.7	9.20	9.20	634	524	63.8	64.9	402	226893	240	34.5	376	824	.38	1.51	1.50	1.66	9.31	8.70	D
72	1958	2830.0	3.05	221	240	110	52.2	2990	2819.3	9.20	9.20	634	542	64.0	65.0	403	227958	241	34.7	1597	826	.39	2.03	2.01	1.69	9.31	8.70	D
73	2009	2830.5	2.75	217	232	110	50.6	3000	2820.2	9.20	9.20	635	522	64.2	64.5	404	229162	241	34.8	1761	828	.39	2.04	2.03	1.66	9.31	8.70	D
74	2018	2831.0	3.57	216	230	110	50.3	2980	2821.5	9.20	9.20	635	553	64.2	64.6	407	230980	242	35.0	1445	829	.39	1.96	1.94	1.69	9.30	8.70	D
75	2027	2831.5	3.25	217	232	110	49.9	2990	2823.1	9.20	9.20	634	545	64.2	64.3	408	231099	242	35.1	1557	831	.39	1.98	1.97	1.66	9.30	8.70	D
76	2035	2832.0	3.70	219	236	110	51.0	2980	2826.1	9.20	9.20	634	545	64.2	64.5	404	231981	243	35.3	1373	832	.39	1.96	1.94	1.69	9.29	8.70	D
77	2043	2832.5	3.79	215	232	109	49.9	2930	2826.7	9.20	9.20	635	533	64.2	64.0	402	232845	243	35.4	1252	833	.39	1.94	1.92	1.66	9.29	8.70	D
78	2054	2833.0	3.77	191	226	109	48.2	3070	2827.2	9.20	9.20	634	541	64.1	63.0	383	233341	244	35.5	1354	833	.40	1.94	1.92	1.66	9.29	8.70	D
79	2058	2833.5	6.75	218	236	107	50.2	3070	2827.4	9.20	9.20	645	557	64.0	63.7	399	233774	244	35.5	674	832	.40	1.76	1.74	1.69	9.29	8.70	D
80	2106	2834.0	3.47	219	236	108	50.3	3040	2828.0	9.20	9.20	641	563	63.8	64.2	404	234622	245	35.7	1554	833	.40	1.96	1.95	1.66	9.29	8.70	D
81	2110	2834.5	6.58	219	238	108	51.0	3050	2828.7	9.20	9.20	640	569	63.6	64.6	404	235116	245	35.7	687	833	.40	1.78	1.76	1.69	9.29	8.70	D
82	2122	2835.0	2.61	216	232	108	50.5	3050	2829.2	9.20	9.20	640	545	63.7	64.4	403	236360	246	35.9	1734	835	.40	2.06	2.04	1.66	9.29	8.70	D
83	2131	2835.5	3.44	212	226	108	50.3	3040	2829.7	9.20	9.20	640	555	63.8	64.1	403	237297	246	36.1	1441	836	.40	1.97	1.95	1.69	9.29	8.70	D
84	2139	2836.0	3.64	210	222	108	51.0	3060	2830.2	9.20	9.20	640	547	63.9	65.1	402	238196	247	36.2	1405	837	.40	1.96</					

EXLOG

283122

63

KOORCAH NO.1

Data Printed at time 07:30 Date Dec 22 '85
Data Recorded at time 22:15 Date Dec 17 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		MV lb/gal		FLO/ MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT	IN	OUT		IN	OUT	IN						OUT	REVS	m
88	2215	2838.0	3.54	214	226	109	49.6	3050	2832.6	9.20	9.20	641	569	64.3	64.7	397	242077	249	36.8	1477	843	.41	1.95	1.94	1.66	9.29	8.70	D
89	2223	2838.5	3.57	212	226	108	51.2	3040	2833.1	9.20	9.20	642	554	64.3	64.8	396	242983	249	37.0	1383	844	.41	1.97	1.95	1.69	9.29	8.70	D
90	2229	2839.0	4.65	207	220	109	49.4	3050	2833.6	9.20	9.20	641	555	64.3	64.8	394	243681	250	37.1	1141	844	.41	1.87	1.85	1.72	9.29	8.70	D
91	2237	2839.5	3.73	209	226	108	50.1	3050	2834.0	9.20	9.20	640	545	64.4	64.8	389	244547	250	37.2	1417	845	.41	1.94	1.92	1.75	9.29	8.70	D
92	2243	2840.0	5.93	216	232	108	49.8	3040	2834.4	9.20	9.20	640	552	64.4	64.9	389	245092	251	37.3	899	845	.41	1.79	1.78	1.78	9.29	8.70	D
93	2250	2840.5	4.25	214	228	109	52.4	3040	2834.7	9.20	9.20	640	542	64.5	65.2	389	245858	251	37.4	1346	846	.42	1.93	1.91	1.81	9.29	8.70	D
94	2257	2841.0	4.17	218	230	110	49.5	3060	2835.2	9.28	9.28	640	546	64.5	65.1	389	246672	252	37.5	1335	847	.42	1.90	1.89	1.85	9.29	8.70	D
95	2301	2841.5	6.51	218	238	110	50.1	3050	2835.4	9.28	9.28	641	544	64.5	65.1	387	247133	252	37.6	704	846	.42	1.77	1.76	1.84	9.29	8.70	D
96	2307	2842.0	4.96	221	242	110	49.3	3040	2835.8	9.30	9.30	639	552	64.5	65.1	390	247799	253	37.7	1196	847	.42	1.85	1.83	1.84	9.29	8.70	D
97	2321	2842.5	7.87	193	230	110	46.4	3050	2836.3	9.30	9.30	636	568	64.5	64.2	381	248217	253	37.7	717	847	.42	1.67	1.66	1.81	9.29	8.70	D
98	2326	2843.0	5.35	209	232	109	51.0	3060	2836.6	9.30	9.30	639	572	64.3	65.5	390	248813	254	37.8	1314	847	.42	1.84	1.83	1.81	9.29	8.70	D
99	2333	2843.5	4.24	220	234	110	50.6	3060	2837.0	9.30	9.30	639	547	64.2	65.5	391	249564	254	38.0	1113	847	.42	1.91	1.89	1.84	9.29	8.70	D
100	2336	2844.0	10.1	231	248	109	49.9	3050	2837.2	9.30	9.30	640	571	64.2	65.6	389	249881	255	38.0	523	846	.42	1.63	1.62	1.81	9.29	8.70	D
101	2340	2844.5	7.84	227	246	109	50.1	3050	2837.5	9.30	9.30	639	547	64.2	65.2	388	250282	255	38.1	678	846	.42	1.71	1.70	1.78	9.29	8.70	D
102	2343	2845.0	9.91	229	250	109	50.7	3070	2837.7	9.30	9.30	640	554	64.2	65.6	388	250624	256	38.1	565	845	.42	1.65	1.63	1.75	9.30	8.70	D
103	2345	2845.5	10.7	227	244	108	50.9	3050	2837.8	9.30	9.30	640	563	64.2	65.7	388	250916	256	38.2	430	845	.42	1.62	1.60	1.72	9.30	8.70	D
104	2352	2846.0	4.77	219	246	110	51.1	3050	2838.3	9.30	9.30	640	560	64.4	65.4	389	251628	257	38.3	756	845	.43	1.88	1.86	1.74	9.31	8.70	D
105	2359	2846.5	3.82	216	234	110	51.7	3050	2838.9	9.30	9.30	639	553	64.5	65.2	383	252448	257	38.4	1308	846	.43	1.95	1.93	1.78	9.32	8.70	D
Date Dec 18 '85																												
106	0006	2847.0	4.30	218	232	109	51.5	3040	2839.4	9.30	9.30	636	554	64.6	65.1	378	253209	258	38.5	1144	846	.43	1.91	1.89	1.81	9.33	8.70	D
107	0014	2847.5	3.77	216	236	110	51.2	3050	2839.9	9.30	9.30	640	534	64.7	65.4	380	254080	258	38.6	1148	847	.43	1.95	1.93	1.85	9.34	8.70	D
108	0021	2848.0	4.35	218	236	110	51.0	3040	2840.6	9.30	9.30	639	542	64.7	65.5	376	254832	259	38.8	1123	848	.43	1.90	1.88	1.87	9.34	8.70	D
109	0028	2848.5	4.19	216	230	109	50.8	3050	2841.2	9.30	9.30	641	536	64.8	65.2	376	255616	259	38.9	1111	849	.43	1.90	1.89	1.89	9.35	8.70	D
110	0034	2849.0	5.08	217	232	109	50.3	3060	2841.4	9.30	9.30	640	525	64.8	65.1	376	256249	260	39.0	999	849	.43	1.84	1.82	1.88	9.37	8.70	D
111	0041	2849.5	4.39	214	232	109	50.3	3050	2842.0	9.30	9.30	640	531	64.8	65.3	376	256995	260	39.1	1173	849	.43	1.88	1.86	1.88	9.37	8.70	D
112	0048	2850.0	4.34	214	228	110	51.6	3060	2842.4	9.30	9.30	635	546	64.7	65.4	376	257754	261	39.2	1193	850	.44	1.90	1.88	1.88	9.38	8.70	D
113	0054	2850.5	4.56	218	228	110	50.5	3050	2843.1	9.30	9.30	637	542	64.7	65.1	373	258434	261	39.3	1133	850	.44	1.87	1.85	1.87	9.39	8.70	D
114	0100	2851.0	4.83	218	234	110	50.2	3060	2844.2	9.30	9.30	640	530	64.7	65.3	373	259114	262	39.4	1060	851	.44	1.85	1.83	1.86	9.39	8.70	D
115	0106	2851.5	5.52	222	238	109	51.4	3050	2844.8	9.30	9.30	640	541	64.7	65.3	374	259726	262	39.5	914	851	.44	1.82	1.80	1.85	9.39	8.70	D
116	0133	2852.0	4.29	236	220	109	51.7	2970	2845.4	9.30	9.30	630	552	64.3	64.1	358	259732	263	39.5	856	850	.44	1.90	1.88	1.85	9.39	8.70	D
117	0135	2852.5	4.56	192	236	109	45.8	3010	2845.6	9.30	9.30	636	532	63.2	63.3	360	259948	263	39.5	1110	848	.44	1.87	1.86	1.85	9.39	8.70	D
118	0141	2853.0	4.59	220	236	110	51.9	3000	2846.1	9.30	9.30	635	568	62.8	65.0	355	260640	264	39.6	1062	849	.44	1.88	1.86	1.86	9.39	8.70	D
119	0147	2853.5	5.01	213	234	110	51.7	2990	2846.4	9.30	9.30	634	586	62.7	65.4	348	261318	264	39.7	1020	849	.44	1.85	1.84	1.85	9.39	8.70	D
120	0153	2854.0	5.06	217	234	110	52.0	3030	2846.8	9.30	9.30	638	564	62.8	65.3	348	261952	265	39.8	958	849	.44	1.86	1.84	1.85	9.39	8.70	D
121	0158	2854.5	6.97	222	244	110	51.5	3020	2847.1	9.30	9.30	638	560	63.1	65.0	344	262443	265	39.9	814	849	.44	1.75	1.73	1.83	9.39	8.70	D
122	0200	2855.0	10.4	223	252	110	50.7	3050	2847.3	9.30	9.30	640	549	63.3	65.3	344	262750	266	39.9	471	848	.44	1.62	1.60	1.80	9.40	8.70	D
123	0208	2855.6	4.29	219	232	111	51.5	3050	2847.9	9.30	9.30	641	552	63.5	65.1	341	263594	266	40.1	1938	849	.45	1.90	1.88	1.80	9.40	8.70	D
124	0214	2856.0	4.69	216	236	111	53.2	3030	2848.3	9.30	9.30	640	567	63.6	65.0	339	264228	267	40.2	1011	849	.45	1.89	1.88	1.82	9.40	8.70	D
125	0222	2856.5	3.86	212	226	112	51.0	3050	2848.9	9.30	9.30	641	543	63.7	64.4	336	265136	267	40.3	1311	850	.45	1.93	1.91	1.84	9.40	8.70	D
126	0229	2857.0	4.12	212	222	111	50.4	3040	2849.4	9.30	9.30	638	562	63.7	64.9	335	265917	268	40.4	1224	851	.45	1.90	1.88	1.85	9.40	8.70	D
127	0237	2857.5	3.80	215	230	110	51.5	3040	2850.1	9.30	9.30	640	544	63.8	64.8	333	266765	268	40.5	1263	852	.45	1.94	1.92	1.87	9.40	8.70	D
128	0244	2858.0	3.89	211	226	109	51.2	3040	2850.6	9.30	9.30	641	536	63.8	64.1	333	267609	269	40.7	1263	853	.45	1.92	1.91	1.88	9.40	8.70	D
129	0251	2858.5	4.14	210	224	110	51.0	3050	2851.0	9.30	9.30	641	533	63.7	64.5	329	268402	269	40.8	1260	853	.45	1.90	1.88	1.88	9.40	8.70	D
130	0256	2859.0	7.07	219	248	109	50.1	3040	2851.9	9.30	9.30	638	560	63.7	64.3	326	268881	270	40.9	783	853	.45	1.73	1.71	1.86	9.39	8.70	D
131	0257	2859.5	19.8	226	240	109	49.4	3050	2852.0	9.30	9.30	641	547	63.7	64.3	326	269041	270	40.9	294	852	.45	1.40	1.39	1.88	9.40	8.70	D
132	0258	2860.0	23.2	227	240	109	50.5	3050	2852.1	9.30	9.30	641	548	63.6	64.9	330	269174	271	40.9	193	851	.45	1.37	1.35	1.86	9.40	8.70	D
133	0307	2860.5	36.4	198	248	109	47.5	3050	2852.6	9.30	9.30	638	563	63.5	64.7	324	269268											

E.L.D.

283123

64

KOORKAH NO.1

Data Printed at time 07:34 Date Dec 22 '85
Data Recorded at time 03:27 Date Dec 18 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		MV lb/gal		FLO/ MIN		TEMP (C)	PVT	-----THIS BIT-----			---COST---		EST	DKC	NK	NKB	ECD	EST	
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT			IN	OUT	IN	OUT	REVS							m
137	0327	2862.5	5.87	221	236	105	51.0	2990	2854.3	9.30	9.30	636	553	63.3	64.8	318	270628	273	41.1	915	847	.46	1.78	1.76	1.84	9.40	8.70	D
138	0330	2863.0	8.75	224	244	105	52.2	2980	2854.6	9.30	9.30	635	559	63.2	64.8	316	270996	274	41.2	608	847	.46	1.67	1.65	1.81	9.40	8.70	D
139	0333	2863.5	9.83	224	238	105	51.5	3000	2854.8	9.30	9.30	636	543	63.2	64.8	314	271306	274	41.2	522	846	.46	1.63	1.61	1.77	9.40	8.70	D
140	0336	2864.0	9.47	225	242	105	50.9	3000	2855.0	9.30	9.30	636	565	63.2	65.0	314	271636	275	41.3	543	845	.46	1.63	1.62	1.74	9.40	8.70	D
141	0339	2864.5	11.1	225	240	105	51.0	2990	2855.1	9.30	9.30	636	549	63.3	65.1	315	271917	275	41.3	454	845	.46	1.58	1.57	1.71	9.40	8.70	D
142	0342	2865.0	11.7	224	238	105	50.1	3000	2855.3	9.30	9.30	631	554	63.3	65.1	315	272185	276	41.4	480	844	.46	1.56	1.54	1.68	9.40	8.70	D
143	0344	2865.5	13.0	225	248	105	51.7	2990	2855.5	9.30	9.30	636	551	63.4	65.3	313	272426	276	41.4	384	843	.46	1.54	1.52	1.65	9.41	8.70	D
144	0347	2866.0	11.0	221	240	105	51.8	2990	2855.7	9.30	9.30	636	534	63.5	64.9	313	272709	277	41.5	452	842	.46	1.59	1.58	1.62	9.41	8.70	D
145	0350	2866.5	8.11	219	236	105	50.4	2990	2855.9	9.30	9.30	634	549	63.6	64.5	307	273095	277	41.5	811	842	.46	1.67	1.66	1.62	9.41	8.70	D
146	0355	2867.0	6.91	221	242	106	51.3	3000	2856.2	9.30	9.30	634	550	63.6	65.1	309	273552	278	41.6	702	842	.46	1.73	1.72	1.64	9.41	8.70	D
147	0401	2867.5	4.80	215	240	106	50.9	3000	2856.6	9.24	9.26	634	539	63.7	65.0	308	274226	278	41.7	1016	842	.46	1.84	1.82	1.67	9.41	8.70	D
148	0404	2868.0	9.27	223	246	105	49.9	2990	2856.9	9.20	9.20	634	541	63.7	65.2	310	274559	279	41.8	576	842	.46	1.63	1.61	1.66	9.40	8.70	D
149	0406	2868.5	20.8	234	260	105	50.5	3000	2857.0	9.20	9.20	635	549	63.7	65.2	307	274713	279	41.8	243	841	.46	1.39	1.37	1.67	9.41	8.70	D
150	0406	2869.1	37.2	236	260	106	49.1	3020	2857.1	9.20	9.20	635	543	63.7	65.1	307	274800	280	41.8	153	839	.46	1.20	1.18	1.66	9.41	8.70	D
151	0412	2869.5	28.9	191	238	105	44.3	3050	2857.2	9.20	9.20	630	559	63.8	65.0	299	274893	280	41.8	195	838	.46	1.23	1.22	1.67	9.41	8.70	D
152	0413	2870.0	24.3	227	250	107	48.3	3050	2857.3	9.20	9.20	640	545	63.8	65.0	296	275005	281	41.8	178	837	.46	1.32	1.31	1.66	9.41	8.70	D
153	0416	2870.5	11.1	234	252	107	50.4	3050	2857.5	9.20	9.20	640	544	63.7	64.3	292	275299	281	41.9	438	836	.46	1.58	1.56	1.63	9.41	8.70	D
154	0423	2871.0	22.7	220	250	108	47.0	2950	2857.7	9.20	9.20	632	557	63.7	64.3	290	275439	282	41.9	245	836	.46	1.34	1.32	1.66	9.41	8.70	DX
155	0424	2871.5	16.2	190	216	110	49.5	2960	2857.8	9.20	9.20	631	547	63.6	64.5	294	275495	282	41.9	499	834	.46	1.47	1.45	1.63	9.41	8.70	D
156	0426	2872.0	15.1	238	276	109	49.3	2980	2858.1	9.20	9.20	633	539	63.6	64.5	304	275688	283	41.9	274	833	.47	1.48	1.46	1.61	9.41	8.70	D
157	0432	2872.5	4.96	226	258	109	51.4	3010	2859.1	9.20	9.20	636	548	63.4	64.1	309	276341	283	42.0	1792	833	.47	1.85	1.83	1.64	9.41	8.70	D
158	0439	2873.0	4.00	219	234	109	51.5	3000	2859.9	9.20	9.20	635	525	63.0	64.6	306	277179	284	42.2	1612	834	.47	1.91	1.89	1.61	9.41	8.70	D
159	0448	2873.5	3.25	216	228	109	51.5	3000	2860.9	9.20	9.20	635	545	63.0	64.4	306	278154	284	42.3	1472	835	.47	1.98	1.96	1.63	9.41	8.70	D
160	0455	2874.0	4.33	215	230	109	51.9	2990	2861.7	9.20	9.20	633	561	63.0	64.7	305	278399	285	42.4	1179	836	.47	1.89	1.87	1.61	9.41	8.70	D
161	0505	2874.5	3.02	216	228	109	52.0	2990	2863.5	9.20	9.20	634	542	63.0	64.8	309	279981	285	42.6	1841	837	.47	2.01	1.99	1.64	9.38	8.70	D
162	0510	2875.0	5.68	221	236	109	51.8	3030	2864.6	9.20	9.20	637	539	63.0	64.4	307	280573	286	42.7	932	837	.47	1.82	1.80	1.67	9.38	8.70	D
163	0518	2875.5	3.72	217	230	108	51.8	3030	2865.6	9.20	9.20	637	541	63.0	64.3	305	281423	286	42.8	1276	838	.47	1.95	1.93	1.64	9.36	8.70	D
164	0522	2876.0	7.37	227	246	108	51.7	3030	2865.9	9.20	9.20	637	542	62.9	64.1	306	281860	287	42.9	697	838	.48	1.74	1.72	1.65	9.36	8.70	D
165	0528	2876.5	5.29	221	242	108	51.8	3040	2866.7	9.20	9.20	639	543	62.8	64.2	303	282472	287	43.0	894	838	.48	1.84	1.82	1.68	9.35	8.70	D
166	0530	2877.0	18.7	230	248	108	51.3	3050	2867.1	9.20	9.20	639	525	62.8	64.2	302	282644	288	43.0	396	837	.48	1.44	1.43	1.65	9.35	8.70	D
167	0537	2877.5	4.11	222	238	108	53.2	3050	2868.9	9.20	9.20	640	543	62.7	64.3	299	283436	288	43.1	1053	838	.48	1.94	1.92	1.68	9.33	8.70	D
168	0544	2878.0	4.10	219	228	109	52.4	3060	2870.8	9.20	9.20	641	546	62.7	64.7	298	284255	289	43.2	1189	839	.48	1.94	1.92	1.65	9.32	8.70	D
169	0552	2878.5	3.89	218	230	109	52.8	3060	2871.4	9.20	9.20	640	547	62.8	64.3	296	285071	289	43.4	1420	839	.48	1.96	1.94	1.68	9.31	8.70	D
170	0601	2879.0	3.16	217	234	108	53.1	3050	2871.9	9.20	9.20	641	552	62.7	64.5	294	286316	290	43.5	1545	840	.48	2.03	2.01	1.65	9.30	8.70	D
171	0610	2879.5	3.14	219	234	109	53.1	3060	2872.5	9.20	9.20	640	541	62.8	64.2	291	287058	290	43.7	1569	842	.48	2.04	2.02	1.68	9.29	8.70	D
172	0618	2880.0	3.79	218	230	109	52.8	3050	2873.0	9.20	9.20	640	545	62.7	64.6	289	287922	291	43.8	1418	842	.48	1.97	1.95	1.65	9.29	8.70	D
173	0634	2880.5	4.62	192	226	110	52.5	3060	2873.9	9.20	9.20	641	566	62.5	64.1	281	288657	291	43.9	1103	843	.49	1.91	1.89	1.68	9.29	8.70	D
174	0653	2881.0	5.21	173	228	109	51.1	2630	2874.7	9.20	9.20	579	498	62.4	64.6	277	289298	292	44.0	1068	843	.49	1.85	1.83	1.71	9.28	8.70	D
175	0707	2881.5	2.16	210	232	111	51.9	2740	2876.1	9.20	9.20	608	522	62.6	64.8	279	290839	292	44.2	3531	846	.49	2.15	2.13	1.68	9.28	8.70	D
176	0717	2882.0	3.14	216	234	111	52.0	2650	2876.8	9.30	9.30	605	516	62.8	64.1	278	291907	293	44.4	1537	847	.49	2.03	2.01	1.71	9.29	8.70	D
177	0731	2882.5	2.76	175	226	107	52.5	3010	2877.6	9.30	9.30	635	552	62.7	64.4	276	293076	293	44.6	1741	849	.49	2.07	2.05	1.68	9.28	8.70	D
178	0741	2883.0	2.96	169	192	107	52.2	3000	2878.1	9.30	9.30	637	548	62.9	64.4	276	294155	294	44.7	1742	850	.50	2.04	2.02	1.71	9.28	8.70	D
179	0750	2883.5	3.29	168	196	106	51.9	3010	2878.6	9.30	9.30	636	539	63.1	64.3	271	295125	294	44.9	1477	851	.50	2.00	1.98	1.68	9.28	8.70	D
180	0757	2884.0	4.15	209	232	106	52.8	3000	2878.9	9.30	9.30	634	545	63.1	64.8	271	295389	295	45.0	1199	852	.50	1.94	1.92	1.71	9.28	8.70	D
181	0803	2884.5	5.12	218	234	106	53.7	3010	2879.2	9.30	9.30	636	547	63.1	64.8	267	296534	295	45.1	1017	852	.50	1.88	1.86	1.74	9.28	8.70	D
182	0807	2885.0	8.27	221	238	105	51.9	3050	2879.4	9.30	9.30	639	529	63.1	64.8	274	296904	296	4									

EXLOG

KOORCAH NO.1

Data Printed at time 07:38 Date Dec 22 '85
Data Recorded at time 08:25 Date Dec 18 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	WOB	PUMP	RTRNS		MV lb/gal		FLO l/MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		IN	OUT	REVS							m	hrs
187	0825	2887.5	4.96	216	234	105	52.3	3030	2880.1	9.30	9.30	637	537	63.2	64.7	271	298854	298	45.5	909	850	.50	1.86	1.85	1.72	9.32	8.70	D
188	0829	2888.0	7.45	223	236	106	51.8	3030	2880.4	9.30	9.30	638	550	63.2	64.7	275	299290	299	45.6	706	849	.50	1.73	1.71	1.72	9.32	8.70	D
189	0832	2888.5	10.6	225	238	106	51.2	3030	2880.6	9.30	9.30	628	543	63.2	64.8	279	299581	299	45.6	501	849	.50	1.62	1.60	1.71	9.33	8.70	D
193	0835	2889.0	10.7	224	238	105	53.1	3030	2880.7	9.30	9.30	638	536	63.2	64.5	278	299872	300	45.6	475	848	.50	1.63	1.61	1.69	9.33	8.70	D
191	0837	2889.5	12.4	224	240	105	51.1	3040	2880.8	9.30	9.30	637	531	63.2	64.5	277	300126	300	45.7	413	847	.50	1.56	1.54	1.66	9.34	8.70	D
192	0846	2890.0	20.5	213	246	110	51.4	3040	2881.0	9.30	9.30	639	553	63.3	63.6	268	300313	301	45.7	259	846	.51	1.42	1.40	1.69	9.35	8.70	D
193	0848	2890.5	19.6	239	262	111	52.2	3030	2881.1	9.30	9.30	638	553	63.3	63.6	270	300475	301	45.7	249	845	.51	1.45	1.42	1.66	9.35	8.70	D
194	0850	2891.0	14.0	243	264	110	51.7	3040	2881.2	9.30	9.30	638	559	63.2	63.5	274	300720	302	45.8	309	845	.51	1.54	1.52	1.63	9.36	8.70	D
195	0852	2891.5	15.8	241	254	111	50.7	2970	2881.3	9.30	9.30	634	536	63.0	63.7	274	300922	302	45.8	307	844	.51	1.50	1.48	1.60	9.36	8.70	D
196	0856	2892.0	7.96	233	256	112	52.1	2970	2881.4	9.30	9.30	632	541	63.0	63.7	270	301339	303	45.9	1069	843	.51	1.72	1.70	1.61	9.36	8.70	D
197	0906	2892.5	2.96	222	236	112	52.3	2980	2881.9	9.30	9.30	632	528	62.9	64.6	273	302464	303	46.0	1594	845	.51	2.03	2.01	1.60	9.38	8.70	D
198	0915	2893.0	3.54	223	236	112	51.8	2970	2882.5	9.30	9.30	634	540	63.1	64.6	269	303456	304	46.2	1408	846	.51	1.97	1.95	1.61	9.39	8.70	D
199	0926	2893.5	2.40	219	234	112	52.1	2970	2883.5	9.30	9.30	636	543	63.2	64.3	273	304786	304	46.4	2129	848	.51	2.09	2.07	1.60	9.40	8.70	D
200	0934	2894.0	3.96	217	234	112	52.6	2970	2884.8	9.30	9.30	632	540	63.2	64.1	279	305677	305	46.5	1333	849	.51	1.94	1.92	1.61	9.40	8.70	D
201	0938	2894.5	9.01	227	240	112	51.9	2970	2885.3	9.30	9.30	632	539	63.3	64.2	275	306030	305	46.6	572	848	.51	1.68	1.66	1.62	9.40	8.70	D
202	0942	2895.0	6.74	223	240	112	51.8	2960	2885.8	9.30	9.30	631	534	63.3	64.0	271	306525	306	46.6	910	848	.52	1.77	1.75	1.64	9.40	8.70	D
203	0949	2895.5	4.14	219	232	112	52.2	2960	2886.5	9.30	9.30	632	535	63.4	64.0	271	307355	306	46.8	2109	848	.52	1.92	1.90	1.62	9.40	8.70	D
204	0959	2896.0	3.07	217	230	112	52.3	2960	2888.1	9.30	9.30	631	522	63.3	64.4	273	308420	307	46.9	1659	850	.52	2.02	2.00	1.64	9.39	8.70	D
205	1007	2896.5	3.60	216	228	112	52.0	2950	2889.2	9.30	9.30	634	536	63.4	64.3	267	309353	307	47.1	1412	851	.52	1.97	1.94	1.62	9.39	8.70	D
206	1016	2897.0	3.52	221	234	112	52.1	2990	2890.8	9.30	9.30	635	532	63.4	64.0	271	310303	308	47.2	1379	851	.52	1.98	1.95	1.64	9.38	8.70	D
207	1021	2897.5	5.57	220	232	112	52.3	2980	2891.1	9.30	9.30	635	547	63.3	64.1	267	310908	308	47.3	870	852	.52	1.83	1.81	1.67	9.38	8.70	D
208	1029	2898.0	3.93	222	238	112	53.2	3010	2891.5	9.30	9.30	631	537	63.3	63.8	271	311765	309	47.4	1616	852	.52	1.96	1.93	1.64	9.39	8.70	D
209	1035	2898.5	4.42	221	236	112	51.2	2960	2891.9	9.30	9.30	635	557	63.3	64.1	264	312518	309	47.5	1143	853	.53	1.89	1.87	1.67	9.39	8.70	D
210	1040	2899.0	7.06	222	236	112	52.3	3000	2892.1	9.30	9.30	635	543	63.3	64.0	268	312977	310	47.6	716	852	.53	1.76	1.74	1.69	9.39	8.70	D
211	1048	2899.6	4.93	191	228	110	49.8	3060	2892.3	9.30	9.30	634	558	63.1	64.3	257	313118	310	47.6	1045	852	.53	1.86	1.84	1.68	9.39	8.70	DX
212	1055	2900.0	3.67	185	230	109	51.6	3000	2892.8	9.30	9.30	633	549	62.9	63.8	269	313878	311	47.7	6263	852	.53	1.95	1.93	1.71	9.39	8.70	D
213	1101	2900.5	4.78	216	228	109	51.4	2980	2893.7	9.30	9.30	633	552	62.7	64.6	264	314555	311	47.8	1035	852	.53	1.86	1.84	1.74	9.39	8.70	D
214	1108	2901.0	4.27	218	240	109	51.3	2990	2894.3	9.30	9.30	633	548	60.8	64.4	316	315331	312	48.0	1196	853	.53	1.90	1.88	1.77	9.39	8.70	D
215	1112	2901.5	5.80	218	234	109	52.0	2990	2894.5	9.30	9.30	631	552	60.8	64.4	321	315728	312	48.0	977	852	.53	1.81	1.79	1.79	9.39	8.70	D
216	1118	2902.0	4.75	215	232	109	51.3	3000	2894.8	9.30	9.30	632	552	58.9	63.8	334	316412	313	48.1	951	853	.53	1.86	1.84	1.81	9.39	8.70	D
217	1126	2902.5	3.99	214	228	109	51.6	2990	2895.3	9.30	9.30	627	557	59.2	63.8	344	317230	313	48.2	1183	853	.53	1.92	1.90	1.84	9.39	8.70	D
218	1132	2903.0	4.97	214	232	109	52.2	2980	2895.6	9.30	9.30	627	550	59.4	63.9	354	317886	314	48.3	961	854	.53	1.86	1.84	1.85	9.39	8.70	D
219	1137	2903.5	5.74	216	232	109	51.8	2960	2896.0	9.30	9.30	629	545	59.7	63.8	362	318456	314	48.4	895	854	.53	1.81	1.79	1.84	9.39	8.70	D
220	1144	2904.0	4.41	216	234	109	51.3	2970	2896.6	9.30	9.30	630	557	59.8	63.4	372	319196	315	48.5	1427	854	.54	1.89	1.87	1.85	9.39	8.70	D
221	1149	2904.5	5.37	216	230	109	52.1	2970	2897.0	9.30	9.30	630	539	59.8	63.6	378	319805	315	48.6	930	854	.54	1.84	1.81	1.84	9.39	8.70	D
222	1155	2905.0	5.84	220	240	109	51.2	2990	2897.5	9.30	9.30	631	544	59.9	63.5	383	320365	316	48.7	910	854	.54	1.80	1.78	1.83	9.39	8.70	D
223	1157	2905.5	11.7	230	248	109	50.4	3000	2897.7	9.30	9.30	632	533	59.9	63.5	389	320643	316	48.8	413	853	.54	1.57	1.55	1.84	9.39	8.70	D
224	1159	2906.0	13.6	228	238	109	48.9	3000	2897.9	9.30	9.30	633	533	60.0	63.0	396	320883	317	48.8	398	853	.54	1.51	1.49	1.83	9.39	8.70	D
225	1203	2906.5	7.42	232	242	109	51.5	2990	2898.2	9.30	9.30	632	520	59.8	63.4	414	321317	317	48.9	859	852	.54	1.73	1.71	1.81	9.39	8.70	D
226	1206	2907.0	9.54	228	250	109	51.0	3000	2898.3	9.30	9.30	632	533	59.1	63.3	430	321661	318	48.9	546	852	.54	1.64	1.62	1.78	9.39	8.70	D
227	1209	2907.5	13.1	232	246	109	51.8	3000	2898.6	9.30	9.30	633	538	59.1	63.3	438	321917	318	49.0	420	851	.54	1.55	1.53	1.81	9.39	8.70	D
228	1212	2908.0	9.73	234	246	109	52.6	2990	2898.8	9.30	9.30	633	532	58.3	62.1	451	322237	319	49.0	539	851	.54	1.66	1.63	1.78	9.40	8.70	D
229	1215	2908.5	9.17	232	246	109	51.8	2990	2898.9	9.30	9.30	632	538	57.7	62.8	457	322591	319	49.1	544	850	.54	1.66	1.64	1.75	9.40	8.70	D
230	1230	2909.0	13.9	232	250	109	51.5	3010	2899.5	9.30	9.30	630	587	57.5	62.9	451	322762	320	49.1	372	850	.54	1.53	1.51	1.77	9.40	8.70	DX
231	1233	2910.0	14.3	232	250	109	55.0	3060	2899.6	9.30	9.30	636	576	58.3	60.9	450	322811	321	49.2	378	846	.54	1.52	1.50	1.49	9.40	8.70	D
232	1238	2910.5	14.2	204	258	108	54.0	3080	2899.6	9.30	9.30	639	550	58.3	60.9	452	322954	321	49.2									

KOORKAH NO.1

Date Printed at time 07:42
Data Recorded at time 12:55

Date Dec 22 '85
Date Dec 18 '85

#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS	MV lb/gal		FLOW/IN		TEMP (C)	PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	RUN
227	1255	2913.0	11.7	227	240	109	48.6	336J	2900.5	9.30	9.30	64.0	552	58.9	63.1	455	324351	324	49.5	449	843	.54	1.55	1.53	1.60	9.41	8.70	D
228	1259	2913.5	9.97	223	242	109	46.3	330J	2900.7	9.30	9.30	634	523	59.5	63.0	454	324579	324	49.5	459	842	.55	1.53	1.56	1.53	9.41	8.70	D
239	1302	2914.0	14.6	229	254	110	45.6	330J	2900.8	9.30	9.30	634	526	60.0	62.3	456	324939	325	49.6	357	841	.55	1.46	1.44	1.55	9.41	8.70	D
240	1305	2914.5	12.3	230	246	109	47.4	330J	2900.9	9.30	9.30	635	534	60.0	62.3	454	325166	325	49.6	405	841	.55	1.53	1.51	1.52	9.41	8.70	D
241	1308	2915.0	11.7	231	252	109	49.2	330J	2901.1	9.30	9.30	634	530	60.4	62.3	456	325447	326	49.7	430	840	.55	1.56	1.54	1.52	9.41	8.70	D
242	1315	2915.5	4.29	214	225	109	49.3	331J	2902.6	9.30	9.30	635	531	60.8	62.8	453	327636	326	49.8	3137	844	.55	1.87	1.85	1.49	9.41	8.70	D
243	1322	2916.0	4.13	215	229	110	49.8	330J	2903.1	9.30	9.30	635	543	60.9	62.2	455	328456	327	49.9	1279	844	.55	1.89	1.86	1.49	9.41	8.70	D
244	1330	2916.5	3.30	213	230	110	50.7	331J	2903.9	9.30	9.30	634	527	61.1	62.9	455	329352	327	50.1	1475	845	.55	1.92	1.90	1.49	9.41	8.70	D
245	1337	2917.0	4.30	212	226	110	48.7	330J	2904.7	9.30	9.30	635	544	61.4	62.5	453	330399	328	50.2	1206	846	.55	1.86	1.84	1.49	9.41	8.70	D
246	1343	2917.5	5.43	219	235	110	48.6	2990	2905.3	9.30	9.30	636	533	61.5	62.9	452	330729	328	50.3	323	845	.55	1.79	1.77	1.49	9.41	8.70	D
247	1348	2918.0	5.30	224	244	110	49.1	330J	2905.4	9.30	9.30	636	532	61.6	62.4	453	331275	329	50.4	325	846	.56	1.77	1.75	1.49	9.41	8.70	D
248	1401	2918.5	11.9	231	236	110	46.1	330J	2906.3	9.30	9.30	633	561	61.6	61.5	446	331555	329	50.4	555	845	.56	1.53	1.50	1.49	9.40	8.70	D
249	1408	2919.0	4.23	193	230	111	49.9	301J	2907.8	9.30	9.30	637	543	61.2	62.7	448	332318	330	50.5	1755	846	.56	1.88	1.86	1.49	9.40	8.70	D
250	1413	2919.5	5.46	212	230	110	47.7	284J	2908.5	9.30	9.30	624	522	61.3	63.1	444	332935	330	50.6	1116	846	.56	1.78	1.76	1.49	9.40	8.70	D
251	1422	2920.0	4.21	213	232	110	48.2	231J	2913.2	9.30	9.30	641	504	61.4	63.1	443	333736	331	50.7	1151	846	.56	1.86	1.84	1.49	9.42	8.70	D
252	1427	2920.5	7.39	213	232	110	48.2	277J	2913.4	9.30	9.30	639	549	61.5	62.7	446	334139	331	50.8	633	846	.56	1.69	1.67	1.51	9.33	8.70	D
253	1438	2921.0	2.77	211	224	107	47.5	293J	2913.9	9.30	9.30	639	533	61.5	62.6	443	335236	332	51.0	1572	847	.56	1.97	1.95	1.49	9.39	8.70	D
254	1444	2921.5	4.76	217	230	111	48.4	287J	2914.3	9.30	9.30	642	537	61.5	62.6	447	336038	332	51.1	1392	848	.56	1.83	1.81	1.51	9.39	8.70	D
255	1452	2922.0	3.63	213	226	111	48.3	278J	2914.9	9.30	9.30	645	521	61.5	63.0	449	336993	333	51.2	1375	849	.56	1.91	1.89	1.49	9.39	8.70	D
256	1504	2922.5	3.61	185	224	104	51.2	330J	2915.5	9.30	9.30	653	563	61.6	63.3	445	337314	333	51.4	1412	849	.57	1.93	1.91	1.51	9.39	8.70	D
257	1512	2923.0	6.44	171	192	110	50.3	283J	2915.0	9.30	9.30	645	527	61.6	62.9	436	338338	334	51.4	376	849	.57	1.77	1.74	1.49	9.39	8.70	D
258	1520	2923.5	4.19	214	230	108	49.7	297J	2916.8	9.30	9.30	659	550	61.5	62.3	431	339079	334	51.6	999	850	.57	1.88	1.86	1.51	9.39	8.70	D
259	1528	2924.0	3.38	212	230	108	48.5	294J	2917.4	9.30	9.30	664	555	61.7	62.9	429	340038	335	51.7	1429	851	.57	1.93	1.91	1.49	9.39	8.70	D
260	1546	2924.5	6.36	235	224	108	48.4	276J	2918.0	9.30	9.30	640	561	61.8	62.1	423	341568	335	51.8	332	851	.57	1.74	1.72	1.51	9.39	8.70	D
261	1553	2925.0	3.39	195	226	109	48.5	267J	2918.6	9.40	9.40	634	532	61.2	63.0	431	341371	336	51.9	1512	851	.57	1.39	1.87	1.49	9.38	8.70	D
262	1602	2925.5	3.33	215	230	109	50.7	263J	2919.3	9.40	9.40	635	528	61.0	62.9	428	342350	336	52.1	1454	852	.57	1.97	1.94	1.51	9.38	8.70	D
263	1635	2926.0	5.11	215	222	109	48.4	262J	2919.4	9.40	9.40	636	530	61.1	62.7	431	342493	337	52.1	1163	852	.57	1.85	1.82	1.52	9.39	8.70	D
264	1700	2926.5	4.18	170	185	111	49.4	264J	2916.6	9.40	9.40	635	564	58.1	59.1	395	343234	337	52.2	1542	852	.58	1.86	1.84	1.82	9.50	8.70	D
265	1709	2927.0	3.39	173	214	110	48.3	253J	2917.7	9.40	9.40	639	566	57.5	61.1	404	344257	338	52.3	1378	853	.58	1.91	1.89	1.84	9.50	8.70	D
+ Pull out of hole at 2927m due to loss of pump pressure.																												
+ NB#9 Smith F2 12.25" 3x1.2, 9 jets. Start depth 2927m.																												
Date Dec 19 '85																												
272	0248	2927.5	4.25	167	158	108	22.3	236J	2927.0	9.40	9.40	615	593	38.9	48.7	415	783	.50	.1	1600	59932	.33	1.47	1.47	1.82	9.46	8.70	D
273	0256	2928.0	3.56	173	190	107	25.5	236J	2927.0	9.40	9.40	616	596	39.6	50.6	417	1655	1.00	.3	1776	33677	.33	1.51	1.61	1.79	9.46	8.70	D
274	0310	2928.5	4.12	168	192	108	28.8	233J	2927.0	9.40	9.40	614	626	43.3	51.5	332	2442	1.50	.4	1747	22898	.30	1.58	1.58	1.75	9.46	8.70	D
275	0311	2929.0	4.56	183	232	111	37.7	281J	2927.0	9.40	9.40	617	627	43.3	51.5	383	2532	2.00	.4	1300	15807	.30	1.85	1.85	1.78	9.47	8.70	D
276	0315	2929.5	6.02	214	244	110	50.4	232J	2927.0	9.30	9.30	617	616	44.4	52.4	387	2933	2.50	.5	1173	12659	.31	1.73	1.73	1.77	9.47	8.70	D
277	0321	2930.0	4.79	231	244	110	50.9	293J	2927.0	9.30	9.30	617	630	46.0	53.4	383	3662	3.00	.6	1024	10621	.31	1.84	1.84	1.78	9.47	8.70	D
278	0328	2930.5	4.55	229	246	110	50.6	292J	2927.0	9.30	9.30	619	661	47.3	55.8	381	4383	3.50	.7	996	9275	.31	1.85	1.85	1.79	9.47	8.70	D
279	0334	2931.0	4.45	229	246	110	50.8	281J	2927.0	9.30	9.30	619	635	48.2	57.1	379	5123	4.00	.8	1392	3252	.31	1.87	1.86	1.81	9.46	8.70	D
280	0341	2931.5	4.36	225	246	110	51.3	293J	2927.0	9.30	9.30	620	593	50.3	55.3	384	5390	4.50	.9	1397	7467	.31	1.88	1.87	1.82	9.45	8.70	D
281	0348	2932.0	4.42	227	242	110	51.9	235J	2927.0	9.30	9.30	621	581	51.4	54.7	378	6222	5.00	1.3	1375	6827	.31	1.88	1.88	1.84	9.45	8.70	D
282	0353	2932.5	5.43	233	246	110	50.7	236J	2927.0	9.30	9.30	623	574	52.2	56.3	378	7217	5.50	1.1	804	6336	.31	1.81	1.81	1.84	9.44	8.70	D
283	0358	2933.0	6.55	234	250	110	51.8	235J	2927.0	9.30	9.30	623	575	52.5	55.8	376	7709	6.00	1.2	762	5341	.31	1.75	1.75	1.81	9.44	8.70	D
284	0405	2933.5	4.39	230	244	110	51.3	232J	2927.2	9.30	9.30	619	613	53.5	55.2	382	8310	6.50	1.3	1728	5472	.31	1.90	1.90	1.83	9.43	8.70	D
285	0411	2934.0	4.92	226	244	111	50.6	233J	2927.5	9.30	9.30	619	584	53.9	55.8	379	9182	7.00	1.4	1320	5168	.32	1.84	1.84	1.83	9.43	8.70	D
286	0417	2934.5	5.18	229	246	110	51.0	234J	2927.8	9.30	9.30	620	572	54.1	56.0	378	9821	7.50	1.5	942	4877	.32	1.83	1.83	1.83	9.42	8.70	D
287	0423	2935.0	5.21	229	244	110	50.9	234J	2928.1	9.20	9.24	620	571	54.4	56.4	379	10566	8.00	1.6	1004	4644	.32	1.83	1.82	1.83	9.41	8.70	D
288	0429	2935.5	4.54	227	242	111	50.8	234J	2928.4	9.20	9.20	621	573	54.7	56.4													

KOORCAH NO.1

Data Printed at time 07:46 Date Dec 22 '35
Data Recorded at time 04:44 Date Dec 19 '35

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS	W lb/gal		FLOW/MIN		TEMP (C)		PVT	----THIS BIT----			EST	DKC	IN	KIB	BOD	EST			
				AVG	MAX					AVG	AVG	PRES	DEPTH	IN	OUT		IN	OUT	IN						OUT	REVS	m	hrs
290	0444	2936.5	3.33	227	240	1.11	51.5	2340	2930.1	9.20	9.20	621	535	55.2	56.6	378	12335	9.50	2.0	1426	4391	.32	1.94	1.94	1.88	9.37	8.70	D
291	0451	2937.0	4.39	227	242	1.11	51.4	2350	2930.6	9.20	9.20	621	537	55.2	56.3	379	13518	10.0	2.1	1079	3944	.32	1.87	1.86	1.88	9.36	8.70	D
292	0456	2937.5	5.31	231	246	1.11	51.1	2340	2931.3	9.20	9.20	622	531	55.4	56.9	376	14173	13.5	2.2	1321	3798	.32	1.86	1.85	1.88	9.36	8.70	D
293	0517	2938.0	4.92	212	244	1.11	48.0	2740	2931.6	9.20	9.20	584	533	55.7	57.1	369	14557	11.0	2.2	506	3655	.33	1.84	1.84	1.84	9.34	8.70	D
294	0520	2938.5	3.96	212	242	1.11	49.2	2340	2931.3	9.20	9.20	623	593	55.5	57.0	384	14927	11.5	2.3	635	3513	.33	1.93	1.93	1.83	9.34	8.70	D
295	0528	2939.0	3.81	224	236	1.09	51.2	2330	2932.6	9.20	9.20	621	596	55.3	57.9	334	15810	12.0	2.4	1186	3428	.33	1.94	1.94	1.82	9.33	8.70	D
296	0535	2939.5	3.96	225	238	1.09	51.3	2330	2933.3	9.20	9.20	624	634	55.5	58.4	385	16612	12.5	2.5	1283	3343	.33	1.93	1.93	1.85	9.32	8.70	D
297	0541	2940.0	5.11	224	238	1.09	50.8	2330	2933.7	9.20	9.20	624	638	55.9	59.3	385	17243	13.0	2.6	947	3249	.33	1.85	1.85	1.86	9.31	8.70	D
298	0547	2940.5	5.59	227	242	1.09	50.7	2330	2934.1	9.20	9.20	623	634	55.4	59.6	331	17843	13.5	2.7	857	3164	.33	1.82	1.82	1.85	9.31	8.70	D
299	0551	2941.0	7.39	227	246	1.09	50.7	2310	2934.5	9.20	9.20	623	612	56.9	60.3	333	18315	14.0	2.8	725	3076	.33	1.75	1.75	1.83	9.30	8.70	D
300	0553	2941.5	12.2	233	254	1.10	50.0	2820	2934.7	9.20	9.20	623	618	56.9	60.0	379	18573	14.5	2.8	391	2934	.33	1.57	1.57	1.85	9.30	8.70	D
301	0555	2942.0	17.7	233	254	1.10	48.6	2820	2934.8	9.20	9.20	623	615	57.1	59.9	381	18757	15.0	2.9	275	2900	.33	1.45	1.44	1.83	9.30	8.70	D
302	0556	2942.5	22.3	237	250	1.09	49.4	2800	2934.9	9.20	9.20	623	639	57.1	59.9	382	18905	15.5	2.9	220	2311	.33	1.39	1.38	1.85	9.30	8.70	D
303	0609	2943.0	15.3	233	248	1.10	48.6	2900	2935.7	9.20	9.20	627	635	58.0	61.1	396	19181	16.0	2.9	260	2735	.33	1.49	1.49	1.83	9.29	8.70	D
304	0611	2943.5	16.1	234	250	1.10	49.2	2890	2935.8	9.20	9.20	627	538	58.0	61.1	399	19386	16.5	2.9	331	2669	.33	1.49	1.48	1.85	9.29	8.70	D
305	0613	2944.0	13.8	234	248	1.10	48.8	2890	2936.0	9.20	9.20	628	592	58.2	61.1	403	19624	17.0	3.0	392	2593	.33	1.53	1.52	1.83	9.29	8.70	D
306	0616	2944.5	11.1	233	244	1.11	48.2	2830	2936.2	9.20	9.20	622	534	58.1	60.6	400	19921	17.5	3.0	483	2533	.33	1.59	1.58	1.83	9.29	8.70	D
307	0617	2945.0	16.3	234	250	1.11	49.1	2830	2936.3	9.20	9.20	627	590	58.4	61.1	399	20116	18.0	3.1	309	2473	.33	1.49	1.48	1.83	9.29	8.70	D
308	0619	2945.5	15.4	236	248	1.11	49.1	2900	2936.4	9.20	9.20	627	539	58.4	61.1	401	20330	18.5	3.1	304	2412	.34	1.50	1.50	1.83	9.29	8.70	D
309	0621	2946.0	15.6	239	248	1.11	48.6	2890	2936.6	9.20	9.20	628	582	58.7	61.3	403	20543	19.0	3.1	313	2361	.34	1.49	1.48	1.83	9.30	8.70	D
310	0623	2946.5	15.8	238	253	1.10	49.1	2870	2936.7	9.20	9.20	627	586	58.9	61.1	403	20748	19.5	3.2	317	2305	.34	1.49	1.48	1.80	9.30	8.70	D
311	0625	2947.0	15.9	239	252	1.11	48.5	2890	2936.8	9.20	9.20	626	572	58.9	61.1	401	20957	20.0	3.2	323	2255	.34	1.46	1.46	1.83	9.30	8.70	D
312	0633	2947.5	16.1	139	246	1.09	47.2	2900	2937.2	9.20	9.20	623	592	59.3	60.3	393	21392	20.5	3.2	329	2235	.34	1.46	1.46	1.83	9.30	8.70	D
313	0635	2948.0	18.8	194	216	1.10	48.9	2890	2937.3	9.20	9.20	624	535	59.3	60.3	397	21219	21.0	3.2	198	2158	.34	1.42	1.42	1.83	9.30	8.70	D
314	0637	2948.5	11.9	189	210	1.10	49.4	2890	2937.5	9.20	9.20	625	579	59.4	60.5	393	21498	21.5	3.3	370	2123	.34	1.53	1.57	1.83	9.30	8.70	D
315	0639	2949.0	19.7	197	244	1.09	48.9	2880	2937.6	9.20	9.20	624	577	59.4	60.5	398	21663	22.0	3.3	256	2077	.34	1.41	1.41	1.83	9.30	8.70	D
316	0641	2949.5	13.8	237	252	1.10	49.2	2880	2937.8	9.20	9.20	619	575	59.2	60.5	398	21895	22.5	3.3	344	2037	.34	1.53	1.52	1.83	9.30	8.70	D
317	0643	2950.0	16.2	243	258	1.10	48.9	2870	2937.8	9.20	9.20	625	573	59.2	60.5	400	22097	23.0	3.4	305	1999	.34	1.48	1.47	1.83	9.31	8.70	D
318	0646	2950.5	9.51	237	250	1.10	49.2	2880	2938.1	9.20	9.20	625	575	59.3	60.5	402	22441	23.5	3.4	468	1968	.34	1.64	1.64	1.80	9.31	8.70	D
319	0648	2951.0	15.0	241	252	1.10	49.4	2870	2938.5	9.20	9.20	625	576	59.3	60.3	401	22659	24.0	3.4	366	1936	.34	1.50	1.50	1.83	9.31	8.70	D
320	0650	2951.5	11.1	240	252	1.10	49.5	2890	2938.6	9.20	9.20	625	576	59.4	60.9	402	22953	24.5	3.5	445	1904	.34	1.60	1.59	1.80	9.31	8.70	D
321	0655	2952.0	6.64	225	244	1.10	50.1	2890	2938.9	9.20	9.20	624	562	59.5	60.9	402	23447	25.0	3.6	1173	1834	.34	1.76	1.76	1.78	9.31	8.70	D
322	0701	2952.5	4.94	218	232	1.10	50.5	2330	2939.3	9.20	9.20	623	578	59.6	60.9	400	24112	25.5	3.7	898	1864	.34	1.86	1.86	1.79	9.31	8.70	D
323	0707	2953.0	4.97	220	234	1.10	49.9	2340	2939.3	9.20	9.20	623	576	59.8	60.8	398	24776	26.0	3.8	1013	1843	.34	1.85	1.85	1.80	9.31	8.70	D
324	0714	2953.5	4.39	227	240	1.10	50.0	2330	2940.4	9.20	9.20	626	537	59.9	61.1	397	25525	26.5	3.9	1053	1834	.34	1.89	1.89	1.81	9.31	8.70	D
325	0719	2954.0	5.73	227	242	1.10	49.4	2360	2940.9	9.20	9.20	625	576	59.9	60.4	398	26063	27.0	4.0	901	1816	.35	1.80	1.80	1.81	9.31	8.70	D
326	0727	2954.5	3.47	221	236	1.10	49.5	2340	2942.1	9.20	9.20	625	567	60.1	61.6	400	27318	27.5	4.1	1777	1839	.35	1.96	1.95	1.84	9.31	8.70	D
327	0736	2955.0	3.55	217	228	1.10	50.9	2850	2942.9	9.20	9.20	625	580	60.4	61.4	401	27946	28.0	4.2	1430	1802	.35	1.97	1.96	1.86	9.31	8.70	D
328	0744	2955.5	3.44	219	230	1.10	50.4	2340	2944.9	9.20	9.20	626	600	60.6	61.9	393	28905	28.5	4.4	1462	1796	.35	1.97	1.97	1.89	9.30	8.70	D
329	0752	2956.0	3.35	220	234	1.10	50.7	2340	2945.5	9.20	9.20	625	597	60.8	62.9	395	29737	29.0	4.5	1299	1787	.35	1.94	1.94	1.91	9.30	8.70	D
330	0759	2956.5	4.36	218	232	1.10	50.0	2340	2948.2	9.20	9.20	625	584	61.2	62.1	397	30532	29.5	4.6	1252	1777	.35	1.92	1.91	1.91	9.29	8.70	D
331	0814	2957.0	4.31	183	230	1.12	51.4	2330	2950.9	9.20	9.20	628	595	61.3	62.4	402	31429	30.0	4.8	1157	1770	.35	1.95	1.94	1.92	9.28	8.70	D
332	0823	2957.5	3.65	173	193	1.12	50.9	2370	2951.7	9.20	9.20	628	537	61.3	63.6	393	32346	30.5	4.9	1319	1764	.36	1.97	1.96	1.93	9.28	8.70	D
333	0830	2958.0	4.39	173	192	1.12	51.1	2330	2952.3	9.20	9.20	628	593	61.7	63.1	397	33165	31.0	5.0	1235	1755	.36	1.94	1.93	1.94	9.28	8.70	D
334	0837	2958.5	4.00	174	192	1.12	51.0	2370	2952.9	9.20	9.20	627	586	61.9	63.0	397	34031	31.5	5.2	1205	1747	.36	1.94	1.94	1.94	9.28	8.70	D
335	0846	2959.0	3.43	174	190	1.13	50.7	2370	2953.7	9.20	9.20	629	584	62.1	62.8	393	34932	32.0	5.3									

EXLOG

283127

68

KOORCAH NO.1

Data Printed at time 07:50
Data Recorded at time 09:27

Date Dec 22 '85
Date Dec 19 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	JOB AVG	PUMP PRES	RTNRIS		MV lb/gal		FLO I/MLI		TEMP (C)		PVT	---THIS BIT---			EST T/I	DKC	NK	NKB	BCD	EST EM PR		
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	IN	OUT	REVS		m	hrs	INST							RUN	
340	0927	2961.5	3.59	175	190	112	50.4	2870	2956.1	9.20	9.20	628	581	62.8	63.6	397	39557	34.5	6.0	1514	1715	.07	1.97	1.96	1.97	9.28	8.70	D
341	0935	2962.0	3.88	173	188	112	53.5	2870	2956.4	9.20	9.20	628	583	62.8	63.4	399	40445	35.0	6.1	1331	1710	.07	1.95	1.94	1.96	9.28	8.70	D
342	0942	2962.5	3.54	176	196	112	50.7	2860	2956.9	9.20	9.20	628	580	63.0	63.8	400	41314	35.5	6.2	1276	1704	.07	1.98	1.97	1.96	9.28	8.70	D
343	0949	2963.0	4.80	200	240	112	50.7	2860	2957.3	9.20	9.20	628	567	63.1	64.3	400	42012	36.0	6.3	1070	1694	.07	1.88	1.88	1.95	9.28	8.70	D
344	0956	2963.5	4.85	229	244	112	51.1	2860	2957.8	9.20	9.20	629	572	63.2	64.5	402	42838	36.5	6.5	1191	1639	.07	1.94	1.93	1.94	9.28	8.70	D
345	1000	2964.0	6.96	233	248	112	50.3	2860	2958.1	9.20	9.20	629	577	63.4	64.6	402	43319	37.0	6.5	740	1675	.08	1.76	1.76	1.91	9.28	8.70	D
346	1003	2964.5	10.0	235	252	112	48.8	2870	2958.2	9.20	9.20	629	574	63.4	65.0	401	43655	37.5	6.6	579	1661	.08	1.63	1.63	1.95	9.28	8.70	D
347	1007	2965.0	9.06	234	252	112	49.4	2860	2958.5	9.20	9.20	628	580	63.5	64.5	401	44035	38.0	6.6	516	1646	.08	1.67	1.66	1.90	9.28	8.70	D
348	1012	2965.5	5.68	229	248	112	50.7	2880	2958.8	9.20	9.20	630	570	63.7	65.0	400	44603	38.5	6.7	881	1635	.08	1.83	1.82	1.88	9.29	8.70	D
349	1022	2966.0	5.89	225	248	112	50.3	2830	2959.1	9.20	9.20	621	605	63.8	64.8	390	44938	39.0	6.8	849	1621	.08	1.81	1.81	1.86	9.29	8.70	D
350	1023	2966.5	5.98	184	206	109	50.9	2850	2959.2	9.20	9.20	627	572	63.8	64.8	391	45047	39.5	6.8	249	1604	.08	1.81	1.81	1.88	9.29	8.70	D
351	1026	2967.0	5.14	189	222	110	50.5	2760	2959.4	9.20	9.20	627	581	63.7	64.0	394	45346	40.0	6.8	249	1589	.08	1.88	1.88	1.84	9.29	8.70	D
352	1031	2967.5	5.61	182	202	110	50.3	2840	2959.7	9.20	9.20	626	574	63.3	65.0	397	45962	40.5	6.9	725	1580	.08	1.82	1.82	1.82	9.29	8.70	D
353	1035	2968.0	7.73	186	208	111	50.5	2850	2959.9	9.20	9.20	629	582	63.2	65.4	398	46367	41.0	7.0	597	1568	.08	1.73	1.72	1.79	9.29	8.70	D
354	1039	2968.5	6.93	186	206	110	50.0	2860	2960.2	9.20	9.20	628	570	63.3	64.2	398	46841	41.5	7.1	672	1558	.08	1.75	1.75	1.76	9.29	8.70	D
355	1044	2969.0	6.57	200	240	110	50.2	2860	2960.5	9.20	9.20	629	572	63.4	64.9	399	47357	42.0	7.1	820	1550	.08	1.77	1.77	1.76	9.29	8.70	D
356	1048	2969.5	7.29	235	252	110	49.4	2860	2960.8	9.20	9.20	629	573	63.5	64.8	397	47796	42.5	7.2	632	1539	.08	1.73	1.72	1.74	9.29	8.70	D
357	1053	2970.0	5.95	232	254	110	50.9	2850	2961.1	9.20	9.20	629	555	63.8	64.6	400	48367	43.0	7.3	1094	1531	.08	1.81	1.80	1.75	9.29	8.70	D
358	1056	2970.5	10.1	234	258	110	51.1	2830	2961.3	9.20	9.20	629	566	63.9	64.7	405	48634	43.5	7.3	597	1520	.08	1.65	1.64	1.72	9.30	8.70	D
359	1101	2971.0	5.75	228	250	110	50.1	2810	2961.6	9.20	9.20	629	564	63.9	64.0	409	49252	44.0	7.4	854	1512	.09	1.81	1.81	1.72	9.30	8.70	D
360	1106	2971.5	6.93	230	250	110	49.6	2790	2961.9	9.20	9.20	629	563	63.9	64.5	411	49727	44.5	7.5	777	1504	.09	1.75	1.74	1.73	9.30	8.70	D
361	1111	2972.0	5.71	229	244	110	50.1	2810	2962.3	9.20	9.20	629	571	63.9	64.4	412	50299	45.0	7.6	892	1496	.09	1.81	1.81	1.74	9.30	8.70	D
362	1114	2972.5	9.37	236	254	110	49.0	2770	2962.5	9.20	9.20	629	579	63.9	64.3	410	50651	45.5	7.6	549	1485	.09	1.65	1.64	1.72	9.30	8.70	D
363	1117	2973.0	11.3	238	250	110	49.9	2830	2962.8	9.20	9.20	629	580	63.9	64.7	409	50942	46.0	7.7	421	1474	.09	1.60	1.59	1.69	9.30	8.70	D
364	1119	2973.5	14.9	239	256	110	50.3	2800	2962.9	9.20	9.20	630	581	63.9	64.7	399	51164	46.5	7.7	361	1462	.09	1.52	1.51	1.66	9.30	8.70	D
365	1120	2974.0	23.5	235	248	110	49.2	2830	2963.0	9.20	9.20	629	590	63.9	64.2	396	51301	47.0	7.7	213	1449	.09	1.37	1.36	1.69	9.30	8.70	D
366	1121	2974.5	21.5	239	254	110	49.0	2840	2963.1	9.20	9.20	630	588	63.9	64.2	395	51455	47.5	7.8	225	1436	.09	1.39	1.39	1.66	9.30	8.70	D
367	1123	2975.0	12.2	213	256	110	49.5	2830	2963.7	9.20	9.20	628	587	63.9	64.0	387	51755	48.0	7.8	695	1426	.09	1.57	1.56	1.63	9.30	8.70	D
368	1131	2975.5	10.3	188	208	110	48.9	2810	2964.1	9.20	9.20	628	588	63.8	63.9	388	52046	48.5	7.9	476	1416	.09	1.62	1.61	1.61	9.30	8.70	D
369	1143	2976.0	19.6	182	204	111	42.3	2880	2964.4	9.20	9.20	621	605	63.8	63.9	377	52128	49.0	7.9	318	1403	.09	1.42	1.42	1.63	9.29	8.70	DX
370	1145	2976.5	20.9	226	258	109	50.1	2900	2964.6	9.20	9.20	622	603	63.5	63.8	370	52235	49.5	7.9	304	1391	.09	1.41	1.40	1.60	9.30	8.70	D
371	1147	2977.0	12.1	241	254	110	49.7	2880	2964.8	9.20	9.20	624	597	63.5	63.8	385	52555	50.0	7.9	568	1382	.09	1.57	1.57	1.57	9.31	8.70	D
372	1148	2977.5	35.0	245	260	110	47.8	2880	2964.9	9.20	9.20	624	580	63.1	64.7	338	52647	50.5	7.9	160	1370	.09	1.23	1.23	1.60	9.31	8.70	D
373	1149	2978.0	22.4	242	254	110	49.1	2880	2965.0	9.20	9.20	624	594	63.1	64.7	390	52731	51.0	8.0	199	1358	.09	1.38	1.37	1.57	9.31	8.70	D
374	1153	2978.5	7.04	233	248	111	51.7	2850	2965.4	9.20	9.20	620	575	62.8	65.9	401	53247	51.5	8.0	894	1351	.09	1.77	1.76	1.60	9.31	8.70	D
375	1158	2979.0	5.97	235	248	111	50.6	2850	2966.1	9.20	9.20	620	571	63.0	64.6	393	53809	52.0	8.1	834	1347	.09	1.80	1.80	1.63	9.31	8.70	D
376	1201	2979.5	10.9	242	252	110	50.0	2880	2966.6	9.20	9.20	619	567	63.3	65.5	387	54107	52.5	8.2	475	1338	.09	1.61	1.61	1.63	9.31	8.70	D
377	1209	2980.0	3.97	233	254	111	51.1	2870	2967.4	9.20	9.20	620	564	63.8	65.1	387	54954	53.0	8.3	1673	1338	.10	1.94	1.93	1.63	9.31	8.70	D
378	1210	2980.5	32.1	247	254	110	49.7	2870	2967.5	9.20	9.20	620	570	64.0	64.8	387	55050	53.5	8.3	254	1328	.10	1.27	1.27	1.63	9.31	8.70	D
379	1211	2981.0	16.2	246	262	111	50.0	2870	2967.7	9.20	9.20	621	566	64.0	64.8	386	55254	54.0	8.3	595	1318	.10	1.49	1.48	1.60	9.31	8.70	D
380	1213	2981.5	17.5	248	264	110	50.0	2850	2967.9	9.20	9.20	620	564	64.2	65.5	385	55438	54.5	8.4	317	1309	.10	1.46	1.46	1.57	9.31	8.70	D
381	1215	2982.0	18.8	254	276	110	49.3	2860	2968.2	9.20	9.20	620	572	64.2	65.5	385	55617	55.0	8.4	275	1299	.10	1.44	1.43	1.55	9.31	8.70	D
382	1216	2982.5	31.2	254	268	111	50.6	2860	2968.3	9.20	9.20	620	574	64.3	65.0	385	55725	55.5	8.4	154	1288	.10	1.29	1.29	1.57	9.31	8.70	D
+ Flow check at 2982.5m.																												
384	1221	2983.0	42.1	219	268	110	51.3	2860	2968.5	9.20	9.20	613	581	64.3	65.0	379	55816	56.0	8.4	128	1278	.10	1.20	1.20	1.55	9.31	8.70	D
385	1222	2983.5	29.1	265	278	110	50.6	2870	2968.6	9.20	9.20	619	577	64.5	65.0	381	55925	56.5	8.4	154	1268	.10	1.31	1.30	1.58	9.32	8.70	D
386	1222	2984.0	31.6	263	288	109	49.3	2860	2968.7	9.20	9.20	620	582	64.5	65.0	382												

EXLOG

283128

69

KOORKAH NO.1

Data Printed at time 07:54
Data Recorded at time 14:44

Date Dec 22 '85
Date Dec 19 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		MW lb/gal		FLOW/MIN		TEMP (C)	PVT	-----THIS BIT-----			EST	DKC	NK	NKB	BCD	EST			
				AVG	MAX				DEPTH	LN	OUT	IN	OUT	IN			OUT	REVS	m							hrs	INST	RUN
389	1444	2985.0	37.1	226	292	109	40.3	2390	2984.4	9.20	9.20	621	594	68.2	67.5	400	56188	58.0	8.5	133	1240	.10	1.21	1.20	1.55	9.25	8.70	DK
390	1446	2985.5	32.2	184	204	112	46.3	2900	2984.4	9.20	9.20	622	588	68.2	67.5	397	56214	58.5	8.5	143	1233	.10	1.28	1.27	1.57	9.25	8.70	D
391	1448	2986.0	16.5	194	206	112	49.7	2390	2984.4	9.20	9.20	621	599	67.7	61.2	380	56411	59.0	8.5	541	1221	.10	1.49	1.48	1.55	9.26	8.70	D
392	1452	2986.5	7.50	192	212	112	50.1	2390	2984.4	9.20	9.20	624	592	67.6	53.8	386	56843	59.5	8.6	1327	1217	.10	1.74	1.73	1.57	9.27	8.70	D
393	1455	2987.0	8.30	191	208	111	50.9	2900	2984.4	9.20	9.20	625	579	66.9	61.4	392	57235	60.0	8.6	675	1212	.10	1.71	1.71	1.60	9.27	8.70	D
394	1459	2987.5	8.11	190	210	111	50.6	2390	2984.4	9.20	9.20	622	577	65.2	65.0	402	57652	60.5	8.7	639	1207	.10	1.72	1.71	1.62	9.27	8.70	D
395	1502	2988.0	11.6	233	268	111	50.5	2380	2984.4	9.20	9.20	620	564	62.2	66.0	413	57944	61.0	8.7	440	1200	.10	1.60	1.60	1.62	9.27	8.70	D
396	1504	2988.5	9.76	250	264	110	50.1	2380	2984.4	9.20	9.20	620	572	61.6	64.9	420	58253	61.5	8.8	520	1195	.10	1.65	1.65	1.63	9.27	8.70	D
397	1507	2989.0	10.3	250	264	110	50.3	2370	2984.4	9.20	9.20	620	568	61.3	65.8	428	58564	62.0	8.8	465	1189	.10	1.64	1.63	1.63	9.28	8.70	D
398	1511	2989.5	8.76	245	258	110	51.1	2910	2984.4	9.20	9.20	624	578	61.3	66.0	439	58941	62.5	8.9	590	1184	.10	1.73	1.69	1.64	9.28	8.70	D
399	1513	2990.0	11.9	251	264	110	50.8	2910	2984.4	9.20	9.20	625	579	61.1	65.0	444	59219	63.0	8.9	412	1178	.10	1.60	1.59	1.63	9.28	8.70	D
400	1515	2990.5	18.8	254	268	111	50.2	2920	2984.4	9.20	9.20	624	581	61.1	65.0	450	59391	63.5	9.0	272	1171	.10	1.45	1.44	1.60	9.28	8.70	D
401	1516	2991.0	20.1	253	268	111	48.9	2920	2984.4	9.20	9.20	624	575	61.1	65.3	454	59549	64.0	9.0	230	1164	.10	1.42	1.41	1.58	9.28	8.70	D
402	1521	2991.5	5.46	242	264	111	51.3	2920	2984.4	9.20	9.20	624	568	60.9	65.4	468	60149	64.5	9.1	1407	1161	.10	1.85	1.84	1.60	9.29	8.70	D
403	1528	2992.0	4.93	236	244	111	51.6	2930	2984.4	9.20	9.20	625	571	60.5	65.6	483	60822	65.0	9.2	1344	1160	.11	1.88	1.87	1.58	9.29	8.70	D
404	1533	2992.5	5.74	237	254	110	50.8	2940	2984.4	9.20	9.20	624	576	60.2	65.0	500	61418	65.5	9.3	929	1159	.11	1.82	1.82	1.60	9.29	8.70	D
405	1538	2993.0	5.98	236	252	111	51.5	2910	2984.4	9.20	9.20	623	581	60.1	64.9	514	61951	66.0	9.3	830	1156	.11	1.82	1.81	1.63	9.29	8.70	D
406	1546	2993.5	3.88	231	246	110	52.3	2930	2984.4	9.20	9.20	624	564	59.9	64.0	533	62833	66.5	9.5	1356	1158	.11	1.96	1.95	1.60	9.29	8.70	D
407	1552	2994.0	4.51	228	242	110	50.9	2390	2984.4	9.20	9.20	625	579	60.1	65.3	528	63538	67.0	9.6	1070	1157	.11	1.90	1.89	1.63	9.30	8.70	D
408	1605	2994.5	4.94	226	244	110	50.9	2350	2984.4	9.20	9.20	619	571	60.9	65.1	512	64238	67.5	9.7	1043	1157	.11	1.87	1.86	1.60	9.29	8.70	D
409	1610	2995.0	5.38	179	198	111	50.6	2790	2984.6	9.20	9.20	613	576	61.8	62.8	529	64840	68.0	9.8	962	1154	.11	1.84	1.83	1.63	9.30	8.70	D
410	1618	2995.5	3.83	176	194	110	49.7	2940	2986.2	9.20	9.20	630	580	61.9	64.7	528	65696	68.5	9.9	1179	1155	.11	1.93	1.92	1.60	9.30	8.70	D
411	1624	2996.0	4.39	177	196	109	50.5	2940	2987.2	9.20	9.20	630	594	62.5	65.2	528	66438	69.0	10.0	1093	1155	.12	1.90	1.89	1.63	9.29	8.70	D
412	1631	2996.5	4.55	173	198	110	50.7	2950	2988.3	9.20	9.20	631	588	63.0	62.3	528	67161	69.5	10.1	1132	1155	.12	1.89	1.88	1.60	9.29	8.70	D
413	1636	2997.0	5.93	179	200	110	50.7	2940	2989.1	9.20	9.20	630	582	62.9	62.0	528	67714	70.0	10.2	880	1153	.12	1.81	1.80	1.63	9.29	8.70	D
414	1642	2997.5	5.17	176	194	109	49.9	2950	2990.7	9.20	9.20	629	586	62.4	62.9	528	68385	70.5	10.3	897	1152	.12	1.84	1.84	1.66	9.29	8.70	D
415	1649	2998.0	4.35	181	196	110	51.2	2960	2991.3	9.20	9.20	630	570	62.5	63.4	533	69119	71.0	10.4	1053	1152	.12	1.91	1.90	1.63	9.29	8.70	D
416	1655	2998.5	4.44	173	202	110	50.8	2940	2991.8	9.20	9.20	629	578	62.5	63.8	534	69837	71.5	10.5	1136	1151	.12	1.90	1.89	1.66	9.29	8.70	D
417	1702	2999.0	4.53	177	198	110	50.2	2950	2992.4	9.20	9.20	630	573	62.5	63.6	535	70564	72.0	10.7	1019	1151	.12	1.89	1.88	1.69	9.28	8.70	D
418	1708	2999.5	5.35	177	202	110	51.1	2940	2992.9	9.20	9.20	630	585	62.6	64.5	527	71177	72.5	10.8	947	1150	.12	1.85	1.84	1.72	9.29	8.70	D
419	1712	3000.0	6.41	188	228	110	50.7	2940	2993.2	9.20	9.20	629	596	62.6	64.6	526	71690	73.0	10.8	766	1147	.12	1.79	1.78	1.75	9.29	8.70	D
420	1713	3000.5	32.9	195	234	110	49.8	2950	2993.3	9.20	9.20	630	577	62.6	64.6	525	71790	73.5	10.8	174	1142	.12	1.27	1.26	1.72	9.29	8.70	D
421	1714	3001.0	28.2	214	264	108	54.0	2960	2993.3	9.20	9.20	630	577	62.6	64.6	524	71902	74.0	10.9	171	1134	.12	1.35	1.34	1.75	9.29	8.70	D
422	1715	3001.5	37.4	240	254	109	50.7	2960	2993.4	9.20	9.20	630	585	62.6	64.6	525	71986	74.5	10.9	131	1128	.12	1.24	1.23	1.72	9.29	8.70	D
+ Flow check at 3002m.																												
424	1720	3002.0	38.9	235	274	109	49.6	2880	2993.6	9.20	9.20	609	592	62.8	64.9	524	72082	75.0	10.9	148	1121	.12	1.21	1.21	1.76	9.29	8.70	D
425	1721	3002.5	58.6	246	288	110	52.0	2370	2993.6	9.20	9.20	616	589	62.8	64.9	527	72133	75.5	10.9	89	1114	.12	1.11	1.10	1.73	9.29	8.70	D
426	1721	3003.0	79.5	242	252	110	49.1	2390	2993.7	9.20	9.20	619	582	62.8	64.9	529	72174	76.0	10.9	70	1108	.12	.99	.99	1.76	9.29	8.70	D
427	1722	3003.5	63.1	254	270	111	51.8	2390	2993.7	9.20	9.20	620	575	62.8	64.9	530	72222	76.5	10.9	72	1102	.12	1.09	1.08	1.73	9.30	8.70	D
428	1727	3004.1	84.5	234	278	110	46.7	2330	2993.9	9.20	9.20	615	591	63.0	64.6	523	72270	77.0	10.9	67	1094	.12	.96	.95	1.76	9.29	8.70	D
429	1728	3005.0	67.8	254	322	109	53.6	2350	2993.9	9.20	9.20	615	585	63.0	64.6	524	72326	78.0	10.9	60	1081	.13	1.07	1.06	1.75	9.30	8.70	D
430	1731	3005.5	6.67	242	268	108	50.3	2340	2994.1	9.20	9.20	616	562	63.1	64.8	529	72802	78.5	11.0	1162	1079	.13	1.76	1.75	1.76	9.30	8.70	D
431	1738	3006.0	4.34	232	246	108	49.7	2360	2994.6	9.20	9.20	616	543	63.2	65.8	531	73508	79.0	11.1	1050	1079	.13	1.88	1.88	1.80	9.30	8.70	D
432	1746	3006.5	3.79	230	246	108	51.0	2360	2995.1	9.20	9.20	616	545	63.4	65.8	532	74356	79.5	11.2	1172	1080	.13	1.94	1.94	1.83	9.30	8.70	D
433	1754	3007.0	3.75	228	240	108	51.3	2380	2995.7	9.20	9.20	616	531	63.9	66.4	534	75218	80.0	11.4	1403	1082	.13	1.95	1.94	1.87	9.30	8.70	D
434	1801	3007.5	3.93	227	238	108	49.4	2350	2996.3	9.20	9.20	615	543	64.4	65.1	533	76044	80.5	11.5	1287	1083	.13	1.91	1.91	1.90	9.30	8.70	D
435	1808	3008.0	4.83	236	252	108	48.1	2360	2996.8	9.20	9.20	617	547	64.5	65.													

EX-10

283129

70

KOORCAH NO.1

Data Printed at time 07:57
Data Recorded at time 18:16

Date Dec 22 '85
Date Dec 19 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		MV lb/gal		FLOI/MIN		TEMP (C)		PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		IN	OUT	IN							OUT	REVS
439	1816	3013.0	30.1	248	266	108	48.3	2890	2997.4	9.20	9.20	618	529	64.6	64.8	528	77590	83.0	11.7	170	1065	.13	1.28	1.27	1.90	9.31	8.70	D
440	1817	3013.5	18.0	249	264	108	50.4	2990	2997.6	9.20	9.20	618	540	64.6	64.8	529	77766	83.5	11.8	277	1061	.13	1.45	1.45	1.86	9.31	8.70	D
441	1819	3011.0	23.7	250	274	108	49.4	2890	2997.7	9.20	9.20	618	529	64.6	64.8	529	77902	84.0	11.8	198	1055	.13	1.36	1.35	1.90	9.31	8.70	D
442	1819	3011.5	39.6	252	264	107	48.1	2890	2997.7	9.20	9.20	617	531	64.7	65.5	529	77982	84.5	11.8	112	1050	.13	1.19	1.18	1.86	9.31	8.70	D
443	1820	3012.0	51.4	252	262	107	52.6	2890	2997.8	9.20	9.20	617	533	64.7	65.5	530	78042	85.0	11.8	90	1045	.13	1.14	1.14	1.90	9.31	8.70	D
444	1822	3012.5	16.2	255	264	107	50.0	2890	2997.9	9.20	9.20	617	528	64.7	65.5	531	78235	85.5	11.8	372	1040	.14	1.48	1.47	1.86	9.31	8.70	D
445	1823	3013.0	19.7	254	264	108	49.2	2890	2998.0	9.20	9.20	617	530	64.7	65.4	532	78396	86.0	11.9	245	1036	.14	1.41	1.41	1.90	9.32	8.70	D
446	1834	3013.5	24.0	231	262	108	46.5	2790	2998.5	9.20	9.20	616	568	64.7	63.5	513	78549	86.5	11.9	216	1031	.14	1.33	1.32	1.86	9.32	8.70	D
447	1835	3014.0	26.5	191	266	109	46.9	2820	2998.6	9.20	9.20	620	552	64.7	63.5	513	78665	87.0	11.9	181	1026	.14	1.31	1.30	1.90	9.32	8.70	D
448	1837	3014.5	18.7	258	274	109	49.1	2880	2998.7	9.20	9.20	621	551	64.5	64.2	516	78837	87.5	11.9	211	1022	.14	1.43	1.42	1.86	9.32	8.70	D
449	1838	3015.0	20.1	259	272	109	48.6	2900	2998.9	9.20	9.20	621	564	64.5	64.2	516	78998	88.0	12.0	234	1018	.14	1.40	1.40	1.90	9.32	8.70	D
450	1844	3015.5	5.53	241	258	109	50.2	2880	2999.3	9.20	9.20	620	558	64.3	64.4	517	79591	88.5	12.1	1495	1017	.14	1.82	1.81	1.89	9.32	8.70	D
451	1852	3016.0	3.41	229	238	110	51.5	2890	3003.2	9.20	9.20	620	565	64.3	64.1	516	80536	89.0	12.2	1524	1019	.14	1.99	1.98	1.92	9.31	8.70	D
452	1900	3016.5	3.89	228	238	110	51.6	2910	3005.1	9.23	9.23	624	564	64.4	64.2	511	81395	89.5	12.3	1391	1021	.14	1.95	1.94	1.94	9.30	8.70	D
453	1908	3017.0	3.49	230	240	109	51.9	2920	3005.7	9.30	9.30	622	574	64.4	64.3	515	82264	90.0	12.5	1346	1023	.14	1.99	1.98	1.96	9.30	8.70	D
454	1915	3017.5	4.22	229	238	109	51.6	2940	3006.2	9.30	9.30	627	569	64.4	64.4	513	83042	90.5	12.6	1263	1024	.14	1.92	1.91	1.96	9.30	8.70	D
455	1924	3018.0	3.46	226	240	109	51.0	2970	3006.7	9.30	9.30	627	575	64.4	64.0	524	83984	91.0	12.7	1307	1026	.14	1.97	1.97	1.96	9.31	8.70	D
456	1933	3018.5	4.91	196	236	110	50.8	2910	3007.4	9.30	9.30	629	563	64.2	64.9	524	84582	91.5	12.8	1055	1026	.15	1.86	1.86	1.95	9.32	8.70	D
457	1941	3019.0	4.14	177	196	111	51.2	2950	3008.7	9.30	9.30	626	578	64.1	64.9	524	85527	92.0	13.0	1271	1028	.15	1.92	1.92	1.94	9.32	8.70	D
458	1950	3019.5	3.30	177	192	111	51.4	2920	3012.2	9.30	9.30	626	580	64.2	64.9	523	86471	92.5	13.1	1479	1030	.15	2.00	1.99	1.95	9.32	8.70	D
459	1957	3020.0	3.92	179	196	111	52.1	2930	3013.4	9.30	9.30	626	555	64.2	65.4	520	87313	93.0	13.2	1260	1031	.15	1.95	1.94	1.95	9.33	8.70	D
460	2007	3020.5	3.25	179	196	110	52.5	2930	3015.0	9.30	9.30	626	565	64.3	65.4	521	88362	93.5	13.4	1680	1034	.15	2.01	2.00	1.97	9.33	8.70	D
461	2016	3021.0	3.20	176	190	110	51.3	2880	3015.6	9.30	9.30	627	573	64.7	64.8	518	89364	94.0	13.5	1687	1037	.15	2.00	1.99	1.98	9.34	8.70	D
462	2024	3021.5	3.73	178	196	110	53.0	2870	3016.1	9.30	9.30	627	579	64.7	64.9	522	90244	94.5	13.7	1364	1039	.16	1.97	1.96	1.98	9.35	8.70	D
463	2034	3022.0	3.10	177	194	110	50.5	2860	3016.7	9.30	9.30	628	571	64.7	65.2	525	91315	95.0	13.8	1634	1042	.16	1.99	1.98	1.98	9.36	8.70	D
464	2043	3022.5	3.40	178	196	110	50.0	2840	3017.3	9.30	9.30	629	582	64.7	65.5	507	92316	95.5	14.0	1387	1044	.16	1.96	1.95	1.98	9.38	8.70	D
465	2058	3023.0	4.04	179	194	109	48.3	2800	3018.0	9.30	9.30	618	579	64.9	65.9	492	93157	96.0	14.1	1456	1046	.16	1.88	1.87	1.96	9.38	8.70	DX
466	2104	3023.5	4.89	181	198	107	47.0	2800	3018.4	9.30	9.30	623	561	64.9	64.5	497	93777	96.5	14.2	1368	1045	.16	1.80	1.79	1.93	9.38	8.70	D
467	2114	3024.0	2.81	201	242	108	48.5	2860	3019.0	9.30	9.30	633	572	64.9	65.5	492	94923	97.0	14.4	1820	1049	.16	1.99	1.98	1.93	9.38	8.70	D
468	2123	3024.5	3.42	234	248	107	49.3	2880	3019.6	9.30	9.30	632	560	65.1	65.2	489	95363	97.5	14.5	1510	1051	.17	1.94	1.93	1.93	9.38	8.70	D
469	2132	3025.0	3.41	234	248	108	48.9	2910	3020.1	9.30	9.30	633	564	65.0	65.6	485	96804	98.0	14.7	1404	1053	.17	1.93	1.93	1.93	9.38	8.70	D
470	2140	3025.5	3.58	234	254	108	49.6	2920	3020.5	9.30	9.30	633	565	65.1	65.5	482	97655	98.5	14.8	1365	1055	.17	1.93	1.92	1.93	9.38	8.70	D
471	2153	3026.0	2.30	231	242	107	48.1	2870	3021.3	9.30	9.30	633	568	65.3	65.7	479	99043	99.0	15.0	2684	1060	.17	2.04	2.03	1.95	9.38	8.70	D
472	2204	3026.5	2.79	231	246	107	49.9	2910	3021.8	9.30	9.30	634	580	65.3	66.0	479	100191	99.5	15.2	1820	1064	.17	2.00	2.00	1.96	9.38	8.70	D
473	2212	3027.0	3.52	233	246	110	47.5	2920	3022.4	9.30	9.30	635	562	65.1	66.7	476	101130	100	15.4	1559	1066	.17	1.91	1.90	1.96	9.38	8.70	D
474	2221	3027.5	3.43	235	252	110	47.6	2900	3022.7	9.30	9.30	636	586	65.1	66.4	478	102089	100	15.5	1429	1068	.18	1.92	1.91	1.95	9.38	8.70	D
475	2230	3028.0	3.47	239	264	110	46.7	2920	3023.3	9.30	9.30	635	566	64.8	66.5	486	103045	101	15.6	1447	1070	.18	1.91	1.90	1.94	9.38	8.70	D
476	2237	3028.5	4.21	241	256	110	48.3	2910	3023.7	9.30	9.30	637	583	64.8	66.3	487	103823	101	15.8	1144	1071	.18	1.87	1.86	1.92	9.38	8.70	D
477	2245	3029.0	3.64	241	270	110	48.5	2900	3024.1	9.30	9.30	636	589	64.9	66.4	490	104727	102	15.9	1306	1072	.18	1.91	1.91	1.91	9.38	8.70	D
478	2252	3029.5	4.16	241	260	110	48.5	2930	3024.5	9.30	9.30	637	595	65.1	67.0	480	105519	102	16.0	1215	1073	.18	1.87	1.86	1.90	9.38	8.70	D
479	2300	3030.0	4.01	237	256	110	46.2	2930	3025.0	9.30	9.30	638	584	65.2	67.0	485	106340	103	16.1	1213	1074	.18	1.86	1.85	1.88	9.38	8.70	D
480	2308	3030.5	3.43	237	258	111	47.8	2950	3025.4	9.30	9.30	637	588	65.3	66.4	487	107302	103	16.3	1763	1076	.18	1.93	1.92	1.89	9.38	8.70	D
481	2320	3031.0	2.57	234	254	110	48.0	3000	3025.9	9.30	9.30	635	572	65.0	66.4	495	108608	104	16.5	2035	1080	.19	2.01	2.00	1.91	9.38	8.70	D
482	2330	3031.5	3.08	238	256	110	49.2	3000	3026.4	9.30	9.30	635	580	65.1	66.4	499	109717	104	16.7	1728	1083	.19	1.97	1.97	1.92	9.38	8.70	D
483	2338	3032.0	3.93	243	266	111	49.8	3000	3026.8	9.30	9.30	635	579	64.7	67.1	508	110517	105	16.8	1182	1084	.19	1.91	1.90	1.92	9.38	8.70	D
484	2353	3032.5	3.78	223	298	108	46.4																					

EXLOG

283130

7

KOORCAH NO.1

Data Printed at time 08:01 Date Dec 22 '85
 Data Recorded at time 00:42 Date Dec 20 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		MW lb/gal		FLO l/min		TEMP (C)		PVT	---THIS BIT---			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT	IN	OUT		IN	OUT	REVS							m	hrs
488	0042	3034.5	3.13	204	344	105	47.9	2870	3030.1	9.30	9.40	623	538	63.6	65.4	569	115593	107	17.6	1551	1096	.20	1.94	1.93	1.93	9.38	8.70	D
489	0051	3035.0	3.12	229	346	103	48.3	2860	3030.5	9.30	9.40	622	579	63.6	65.5	578	116577	108	17.7	1622	1098	.20	1.94	1.93	1.93	9.38	8.70	D
490	0104	3035.5	2.37	214	350	103	48.6	2890	3031.1	9.30	9.40	624	531	63.6	65.1	589	117833	108	18.0	1990	1103	.20	2.03	2.02	1.95	9.38	8.70	D
491	0113	3036.0	3.41	232	340	104	47.1	2830	3031.7	9.30	9.40	623	570	63.5	65.1	592	113738	109	18.1	1470	1105	.20	1.90	1.89	1.94	9.38	8.70	D
492	0124	3036.5	2.66	219	344	104	47.3	2910	3032.5	9.30	9.40	622	563	63.5	64.7	605	119949	109	18.3	1648	1108	.21	1.98	1.97	1.95	9.37	8.70	D
493	0133	3037.0	3.52	199	348	103	46.0	2770	3032.9	9.30	9.40	624	572	63.5	64.2	597	120824	110	18.4	1453	1110	.21	1.87	1.86	1.93	9.37	8.70	D
494	0140	3037.5	4.30	214	350	103	47.0	2900	3033.1	9.30	9.40	624	578	63.5	64.4	596	121538	110	18.5	1161	1110	.21	1.83	1.82	1.91	9.38	8.70	D
495	0146	3038.0	4.99	228	344	103	46.3	2930	3033.2	9.30	9.40	623	567	63.3	64.0	599	122185	111	18.6	1001	1110	.21	1.77	1.76	1.88	9.38	8.70	D
496	0150	3038.5	7.67	226	338	103	45.7	2890	3033.4	9.30	9.40	624	572	63.4	64.1	599	122571	111	18.7	681	1107	.21	1.64	1.63	1.85	9.38	8.70	D
497	0153	3039.0	9.15	227	346	103	46.3	2890	3033.5	9.30	9.40	623	555	63.6	64.6	600	122920	112	18.8	618	1105	.21	1.59	1.58	1.88	9.38	8.70	D
498	0156	3039.5	11.2	243	328	104	45.6	2930	3033.6	9.30	9.40	623	563	63.7	64.5	600	123191	112	18.8	470	1103	.21	1.53	1.52	1.85	9.38	8.70	D
499	0200	3040.0	6.76	224	348	102	46.9	2890	3033.7	9.30	9.40	623	561	63.7	64.3	600	123635	113	18.9	784	1100	.21	1.69	1.68	1.81	9.38	8.70	D
500	0203	3040.5	8.63	233	328	104	47.6	2910	3033.9	9.30	9.40	623	584	63.7	64.2	601	124004	113	18.9	598	1098	.21	1.62	1.61	1.78	9.38	8.70	D
501	0206	3041.0	10.4	220	354	104	47.2	2910	3034.0	9.30	9.40	623	569	63.8	64.1	599	124296	114	19.0	498	1095	.21	1.57	1.56	1.75	9.39	8.70	D
502	0209	3041.5	11.2	222	356	103	46.2	2920	3034.1	9.30	9.40	620	562	63.8	64.4	601	124579	114	19.0	498	1093	.21	1.53	1.52	1.71	9.39	8.70	D
503	0213	3042.0	7.46	213	354	103	47.0	2890	3034.3	9.30	9.40	622	582	63.9	64.2	595	124982	115	19.1	583	1091	.21	1.66	1.65	1.68	9.39	8.70	D
504	0232	3042.5	5.32	235	352	107	43.7	2930	3035.0	9.30	9.40	622	615	63.7	65.3	598	125143	115	19.1	292	1088	.21	1.74	1.74	1.71	9.39	8.70	D
505	0239	3043.0	4.81	229	352	104	47.0	2930	3035.3	9.30	9.40	623	600	63.9	65.4	601	125805	116	19.2	1293	1087	.22	1.79	1.78	1.73	9.39	8.70	D
506	0246	3043.5	4.02	206	352	103	45.7	2910	3035.7	9.30	9.40	624	565	64.1	65.5	600	126601	116	19.4	1539	1088	.22	1.83	1.82	1.75	9.39	8.70	D
507	0251	3044.0	6.11	222	338	105	44.6	2880	3035.9	9.30	9.40	622	574	64.3	65.1	602	127075	117	19.4	805	1087	.22	1.70	1.69	1.73	9.39	8.70	D
508	0253	3044.5	11.5	228	350	105	43.6	2880	3036.0	9.30	9.40	621	564	64.4	65.5	598	127354	117	19.5	493	1084	.22	1.50	1.49	1.70	9.39	8.70	D
509	0255	3045.0	16.3	234	318	106	44.3	2830	3036.1	9.30	9.40	622	569	64.4	65.5	601	127546	118	19.5	304	1081	.22	1.41	1.40	1.73	9.39	8.70	D
510	0300	3045.5	6.33	228	352	107	45.0	2880	3036.4	9.30	9.40	621	570	64.6	65.0	598	128015	118	19.6	602	1079	.22	1.70	1.69	1.73	9.39	8.70	D
511	0304	3046.0	7.95	233	320	106	45.3	2830	3036.5	9.30	9.40	622	562	64.6	65.1	596	128432	119	19.6	631	1073	.22	1.63	1.62	1.70	9.39	8.70	D
512	0309	3046.5	5.24	225	344	105	45.7	2880	3037.0	9.30	9.40	622	570	64.6	65.0	599	129010	119	19.7	842	1077	.22	1.75	1.74	1.70	9.39	8.70	D
513	0312	3047.0	11.5	213	328	108	44.9	2890	3037.1	9.30	9.40	622	571	64.7	65.2	601	129281	120	19.8	524	1074	.22	1.52	1.51	1.67	9.40	8.70	D
514	0313	3047.5	20.6	232	344	107	44.9	2890	3037.2	9.30	9.40	623	566	64.7	65.2	603	129440	120	19.8	258	1071	.22	1.34	1.33	1.70	9.40	8.70	D
515	0315	3048.0	22.7	236	344	111	46.0	2830	3037.3	9.30	9.40	623	580	64.7	65.4	601	129580	121	19.8	205	1067	.22	1.34	1.33	1.67	9.40	8.70	D
516	0316	3048.5	23.8	234	342	113	44.1	2890	3037.5	9.30	9.40	622	569	64.7	65.4	596	129724	121	19.8	205	1064	.22	1.30	1.29	1.70	9.40	8.70	D
517	0322	3049.0	22.1	271	350	106	40.8	2930	3038.0	9.30	9.40	629	591	64.7	65.0	598	129878	122	19.9	253	1061	.22	1.28	1.27	1.67	9.40	8.70	D
518	0324	3049.5	28.3	236	330	104	44.3	2930	3038.1	9.30	9.40	630	563	64.7	64.8	600	129990	122	19.9	181	1057	.22	1.24	1.23	1.70	9.40	8.70	D
519	0326	3050.0	10.9	222	332	106	44.7	2970	3038.4	9.30	9.40	629	592	64.7	64.8	600	130255	123	19.9	506	1055	.22	1.53	1.52	1.67	9.40	8.70	D
520	0327	3050.5	49.6	259	312	106	44.3	2930	3038.5	9.30	9.40	630	596	64.7	64.8	599	130319	123	19.9	102	1050	.22	1.08	1.07	1.70	9.40	8.70	D
521	0328	3051.0	27.3	267	296	110	43.9	2990	3038.7	9.30	9.40	633	602	64.7	64.8	597	130436	124	20.0	174	1047	.22	1.26	1.25	1.67	9.41	8.70	D
522	0341	3051.5	6.88	247	284	109	44.0	2830	3039.9	9.20	9.20	603	596	64.7	64.6	576	130941	124	20.0	470	1046	.22	1.66	1.65	1.65	9.40	8.70	DX
523	0343	3052.0	6.78	221	342	104	43.0	2890	3040.2	9.20	9.21	619	584	64.6	63.3	585	131140	125	20.1	329	1043	.22	1.62	1.62	1.67	9.41	8.70	D
524	0410	3052.5	7.76	214	352	102	42.5	2830	3042.3	9.20	9.20	619	579	64.5	66.4	607	131553	125	20.1	467	1042	.22	1.59	1.58	1.64	9.40	8.70	D
525	0420	3053.0	4.29	223	366	105	41.9	2850	3043.0	9.20	9.20	620	552	64.8	66.3	602	132298	126	20.3	1704	1042	.23	1.76	1.76	1.66	9.39	8.70	D
526	0423	3053.5	8.54	235	360	106	46.9	2860	3043.2	9.20	9.20	619	556	64.8	66.3	606	132642	126	20.3	550	1040	.23	1.63	1.62	1.65	9.39	8.70	D
527	0427	3054.0	7.14	230	350	108	47.0	2870	3043.7	9.20	9.20	620	558	65.0	65.8	602	133091	127	20.4	639	1039	.23	1.68	1.68	1.65	9.38	8.70	D
528	0431	3054.5	7.66	216	338	108	47.2	2870	3044.5	9.20	9.20	621	567	65.1	65.4	605	133512	127	20.4	614	1037	.23	1.67	1.66	1.65	9.38	8.70	D
529	0435	3055.0	8.72	217	316	108	48.6	2860	3045.0	9.20	9.20	621	554	65.1	65.4	606	133890	128	20.5	605	1036	.23	1.65	1.64	1.65	9.37	8.70	D
530	0440	3055.5	5.94	210	348	106	49.1	2860	3045.5	9.20	9.20	622	560	65.2	65.4	604	134411	128	20.6	1415	1035	.23	1.77	1.76	1.66	9.36	8.70	D
531	0451	3056.0	2.66	196	350	106	54.5	2860	3047.6	9.20	9.20	621	571	65.2	65.3	599	135606	129	20.8	2604	1038	.23	2.09	2.08	1.65	9.35	8.70	D
532	0502	3056.5	2.86	191	348	106	50.3	2840	3050.0	9.20	9.20	621	563	65.3	65.5	580	136719	129	20.9	2062	1041	.23	2.01	2.00	1.66	9.33	8.70	D
533	0503	3057.0	2.51	184	340	107	51.0	2640	3050.6	9.20	9.20	622	549	65.3	65.5													

EX-10

283131

KOORCAH NO.1

Data Printed at time 08:05 Date Dec 22 '85
 Data Recorded at time 06:07 Date Dec 20 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	DB	PUMP	RTRNS	MV lb/gal		FLO l/Min		TEMP (C)	PVT	---THIS BIT---			EST	DKC	LK	NKB	ECD	EST				
				AVG	MAX					IN	OUT	IN	OUT			IN	OUT	REVS							m	hrs	INST	TV
538	0607	3059.5	2.77	282	438	106	51.1	2870	3055.3	9.20	9.20	61.9	552	64.8	64.9	562	143722	132	22.0	1930	1059	.25	1.04	2.03	1.66	9.28	8.70	D
539	0615	3060.0	3.64	245	433	105	51.2	2850	3055.8	9.20	9.20	61.8	566	64.7	64.5	557	144587	133	22.2	1424	1060	.25	1.96	1.94	1.66	9.28	8.70	D
540	0619	3060.5	8.23	271	425	106	51.0	2850	3056.0	9.20	9.20	61.8	557	64.7	65.1	558	144971	133	22.2	683	1058	.25	1.70	1.69	1.66	9.28	8.70	D
541	0624	3061.0	6.23	268	438	105	49.7	2860	3056.2	9.20	9.20	61.9	561	64.7	65.0	556	145477	134	22.3	794	1057	.25	1.77	1.76	1.68	9.28	8.70	D
542	0635	3061.5	14.6	260	428	116	46.8	2550	3056.5	9.20	9.20	575	544	64.7	64.9	542	145731	134	22.3	326	1055	.25	1.51	1.49	1.65	9.30	8.70	DX
543	0638	3062.0	10.2	328	373	117	51.5	2510	3057.1	9.20	9.20	580	539	64.6	64.0	548	146068	135	22.4	1061	1053	.25	1.68	1.67	1.65	9.23	8.70	D
544	0641	3062.5	12.9	331	370	110	52.5	2500	3057.4	9.20	9.20	583	577	64.4	63.0	547	146317	135	22.4	450	1050	.25	1.60	1.59	1.63	9.22	8.70	Df
545	0645	3063.0	7.79	335	370	108	51.1	2510	3057.6	9.20	9.20	573	536	64.2	64.1	548	146730	136	22.5	665	1049	.25	1.73	1.72	1.64	9.28	8.70	D
546	0648	3063.5	11.3	336	375	108	51.8	2600	3057.6	9.20	9.20	608	536	64.2	64.1	553	147021	136	22.5	529	1047	.25	1.62	1.61	1.64	9.28	8.70	D
547	0652	3064.0	7.51	322	368	108	52.4	2540	3057.8	9.20	9.20	575	584	64.1	64.5	553	147464	137	22.6	795	1045	.25	1.75	1.74	1.65	9.28	8.70	Df
548	0656	3064.5	7.29	326	368	108	53.3	2530	3057.9	9.20	9.20	584	544	64.0	64.5	555	147871	137	22.7	711	1044	.25	1.77	1.76	1.67	9.29	8.70	D
549	0700	3065.0	8.45	323	365	109	52.4	2530	3058.0	9.20	9.20	640	522	64.0	64.5	551	148245	138	22.7	667	1042	.25	1.72	1.70	1.68	9.29	8.70	Df
550	0705	3065.5	5.65	316	370	109	53.3	2570	3058.2	9.20	9.20	587	534	64.0	64.6	551	148802	138	22.8	909	1041	.25	1.85	1.84	1.71	9.29	8.70	D
551	0713	3066.0	6.09	313	390	107	51.7	2900	3058.5	9.20	9.20	617	559	64.0	64.6	547	149339	139	22.9	851	1041	.25	1.81	1.79	1.73	9.29	8.70	Df
552	0717	3066.5	6.13	244	415	103	50.1	2880	3058.6	9.20	9.20	618	559	64.0	65.1	550	149815	139	23.0	825	1040	.26	1.77	1.76	1.75	9.29	8.70	D
553	0725	3067.0	3.76	271	428	103	50.0	2870	3058.8	9.20	9.20	617	555	64.2	65.7	549	150630	140	23.1	1249	1041	.26	1.92	1.91	1.78	9.29	8.70	D
554	0734	3067.5	3.48	259	435	101	50.6	2850	3059.2	9.20	9.20	608	553	64.4	66.1	546	151532	140	23.3	1362	1042	.26	1.95	1.94	1.81	9.29	8.70	D
555	0740	3068.0	5.25	275	393	103	50.0	2860	3059.5	9.20	9.20	618	547	64.5	65.7	548	152100	141	23.3	973	1042	.26	1.82	1.81	1.82	9.30	8.70	D
556	0744	3068.5	8.39	280	385	105	49.7	2840	3059.6	9.20	9.20	618	539	64.6	66.1	547	152486	141	23.4	631	1040	.26	1.67	1.66	1.80	9.30	8.70	D
557	0746	3069.0	12.4	276	368	105	49.6	2820	3059.8	9.20	9.20	619	545	64.7	66.1	551	152730	142	23.4	414	1038	.26	1.55	1.54	1.82	9.30	8.70	D
558	0749	3069.5	10.3	271	425	105	50.4	2820	3059.9	9.20	9.20	617	551	64.8	65.7	547	153032	142	23.5	490	1036	.26	1.62	1.61	1.79	9.30	8.70	D
559	0754	3070.0	6.08	273	430	102	51.0	2840	3060.2	9.20	9.20	617	552	64.9	65.9	546	153533	143	23.6	843	1035	.26	1.78	1.77	1.79	9.30	8.70	D
560	0757	3070.5	10.1	277	373	105	49.8	2880	3060.5	9.20	9.20	614	552	65.0	65.6	548	153846	143	23.6	498	1034	.26	1.62	1.61	1.75	9.30	8.70	D
561	0805	3071.0	33.3	275	325	111	47.8	2910	3061.0	9.20	9.20	610	563	65.0	64.6	529	153970	144	23.6	165	1031	.26	1.25	1.24	1.78	9.30	8.70	Df
562	0808	3071.5	9.96	329	365	111	50.2	2900	3061.3	9.20	9.20	617	560	65.0	64.7	537	154296	144	23.7	299	1029	.26	1.64	1.63	1.76	9.30	8.70	D
563	0812	3072.0	7.93	334	360	111	49.7	2900	3061.5	9.20	9.20	613	573	64.9	64.3	542	154728	145	23.8	578	1027	.26	1.71	1.70	1.74	9.30	8.70	D
564	0816	3072.5	7.31	326	360	111	51.5	2900	3062.1	9.20	9.20	610	549	64.8	65.0	544	155169	145	23.8	789	1026	.26	1.76	1.74	1.73	9.30	8.70	D
565	0824	3073.0	3.71	319	345	110	52.7	2880	3063.6	9.20	9.20	617	571	64.7	65.7	547	156032	146	23.9	925	1027	.27	1.98	1.97	1.77	9.30	8.70	D
566	0827	3073.5	10.2	333	360	109	51.3	2900	3064.0	9.20	9.20	614	568	64.7	66.0	547	156345	146	24.0	583	1026	.27	1.64	1.63	1.74	9.30	8.70	D
567	0829	3074.0	12.3	337	365	110	52.0	2920	3064.4	9.20	9.20	618	573	64.7	66.0	547	156619	147	24.0	419	1023	.27	1.59	1.58	1.71	9.30	8.70	D
568	0832	3074.5	10.2	331	358	109	52.1	2900	3064.7	9.20	9.20	619	568	64.7	65.7	546	156911	147	24.1	503	1021	.27	1.65	1.64	1.68	9.30	8.70	D
569	0834	3075.0	12.5	342	360	110	51.4	2910	3065.1	9.20	9.20	609	570	64.8	65.7	548	157181	148	24.1	404	1019	.27	1.59	1.57	1.65	9.30	8.70	D
570	0838	3075.5	8.86	332	358	110	53.2	2910	3065.4	9.20	9.20	620	561	64.8	65.7	547	157519	148	24.2	727	1018	.27	1.71	1.70	1.65	9.30	8.70	D
571	0840	3076.0	10.7	319	350	109	50.4	2940	3065.7	9.20	9.20	621	565	64.9	66.2	543	157835	149	24.2	467	1016	.27	1.62	1.61	1.64	9.30	8.70	D
572	0843	3076.5	11.9	326	365	109	52.4	2930	3065.9	9.20	9.20	622	559	64.9	65.9	546	158101	149	24.3	423	1014	.27	1.61	1.59	1.62	9.30	8.70	D
573	0846	3077.0	9.13	326	353	109	52.8	2910	3066.2	9.20	9.20	620	552	65.0	66.4	546	158469	150	24.3	665	1012	.27	1.69	1.68	1.63	9.30	8.70	D
574	0853	3077.5	4.54	306	325	110	52.6	2900	3066.9	9.20	9.20	619	534	65.1	66.4	554	159169	150	24.4	1195	1013	.27	1.91	1.90	1.62	9.30	8.70	D
575	0858	3078.0	4.66	319	340	109	52.0	2940	3067.2	9.20	9.20	619	550	65.3	66.0	550	159810	151	24.5	933	1012	.27	1.90	1.88	1.63	9.30	8.70	D
576	0904	3078.5	6.02	323	360	110	52.8	2940	3067.5	9.20	9.20	620	546	65.3	66.0	553	160372	151	24.6	805	1012	.27	1.83	1.81	1.66	9.30	8.70	D
577	0907	3079.0	7.68	315	343	110	51.7	2920	3067.7	9.20	9.20	618	548	65.4	66.5	551	160786	152	24.7	642	1011	.27	1.74	1.72	1.68	9.31	8.70	D
578	0911	3079.5	7.90	327	345	110	53.6	2920	3068.0	9.20	9.20	619	565	65.6	65.6	550	161206	152	24.7	662	1009	.27	1.75	1.74	1.69	9.31	8.70	D
579	0923	3080.0	8.01	304	340	110	51.2	3060	3069.3	9.20	9.20	627	592	65.5	67.0	541	161539	153	24.8	212	1008	.27	1.74	1.74	1.67	9.30	8.70	DX
580	0925	3080.5	4.53	274	390	108	53.5	3070	3069.6	9.20	9.20	630	576	65.6	65.2	546	161734	153	24.8	312	1006	.28	1.92	1.92	1.65	9.31	8.70	D
581	0932	3081.0	4.13	276	395	107	53.3	3030	3070.5	9.20	9.20	630	570	65.4	66.5	551	162508	154	24.9	1842	1006	.28	1.94	1.93	1.68	9.30	8.70	D
582	0937	3081.5	6.31	270	433	107	53.0	3050	3071.1	9.20	9.20	630	578	65.5	67.1	546	163028	154	25.0	892	1006	.28	1.81	1.79	1.70	9.30	8.70	D
583	0943	3082.0	4.60	258	398	107	52.8	2960	3072.1	9.20	9.20	621	570	65.7	66.5	551	163700	155	2									

EXLOG

283132

KOORCAH NO.1

Data Printed at time 08:09 Date Dec 22 '85
Data Recorded at time 13:13 Date Dec 20 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	RTRNS		M/lb/gal		FLO/ MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	DKC	NK	NKB	ECD	EST		
				AVG	MAX				AVG	AVG	PRE	DEPTH	IN	OUT	IN	OUT		IN	OUT	IN							OUT	REVS
588	1010	3034.5	9.44	290	388	109	52.7	2940	3075.8	9.23	9.20	622	576	66.0	66.4	539	166609	157	25.6	487	1004	.28	1.68	1.67	1.82	9.33	8.70	D
589	1014	3085.0	6.93	291	408	109	52.1	2930	3076.5	9.23	9.23	616	569	66.0	66.9	541	167055	158	25.6	689	1003	.28	1.77	1.76	1.81	9.30	8.70	D
590	1020	3085.5	5.50	268	400	109	52.7	2940	3077.3	9.20	9.20	621	567	66.1	66.7	537	167643	158	25.7	861	1003	.28	1.85	1.84	1.81	9.29	8.70	D
591	1024	3086.3	7.77	270	383	109	53.4	2930	3077.6	9.23	9.20	615	561	66.1	67.2	539	168058	159	25.8	675	1002	.29	1.75	1.74	1.80	9.29	8.70	D
592	1025	3086.5	7.55	277	383	108	53.4	2930	3077.7	9.20	9.20	612	562	66.1	66.8	524	168212	159	25.8	618	999	.29	1.76	1.75	1.79	9.30	8.70	D
593	1035	3087.3	2.99	287	435	107	53.3	2940	3078.6	9.20	9.20	616	578	66.1	67.3	533	169271	160	26.0	2068	1001	.29	2.05	2.03	1.82	9.29	8.70	D
594	1051	3088.0	2.90	242	365	107	55.0	2970	3080.2	9.20	9.20	624	559	66.4	67.5	533	170954	161	26.2	1606	1004	.29	2.08	2.07	1.89	9.29	8.70	D
595	1109	3088.5	1.99	257	400	107	55.0	3020	3082.3	9.20	9.20	628	560	66.4	66.6	533	172912	161	26.5	3102	1010	.29	2.20	2.19	1.86	9.29	8.70	D
596	1125	3089.0	1.92	256	425	105	53.7	2920	3083.5	9.20	9.20	615	545	66.4	67.1	530	174531	162	26.8	2612	1014	.30	2.19	2.18	1.89	9.28	8.70	D
597	1136	3089.5	2.68	235	420	105	53.9	2910	3084.4	9.20	9.20	619	552	66.3	66.8	524	175700	162	27.0	1820	1017	.30	2.09	2.07	1.92	9.28	8.70	D
598	1201	3090.0	2.31	245	435	106	52.7	2950	3086.8	9.20	9.20	618	577	66.1	65.4	518	177376	163	27.2	2931	1022	.30	2.17	2.15	1.97	9.28	8.70	D
599	1207	3090.5	1.29	258	400	112	50.6	2930	3087.1	9.20	9.20	622	570	66.1	66.2	518	177999	163	27.3	2435	1022	.30	2.12	2.11	1.96	9.28	8.70	D
600	1219	3091.0	2.54	254	433	109	53.0	2900	3087.8	9.20	9.20	622	569	65.9	66.2	522	179329	164	27.5	2359	1025	.30	2.10	2.09	1.99	9.28	8.70	D
601	1234	3091.5	1.88	258	438	109	52.3	2940	3088.4	9.20	9.20	621	569	65.9	66.9	524	180978	164	27.8	2411	1029	.31	2.19	2.18	2.03	9.28	8.70	D
602	1251	3092.0	2.44	266	435	109	52.4	2500	3088.8	9.20	9.20	521	578	65.9	66.4	513	182397	165	28.0	2324	1033	.31	2.12	2.11	2.07	9.21	8.70	D
603	1256	3092.5	2.51	265	415	109	51.3	2710	3089.0	9.20	9.20	613	538	65.8	66.0	518	183001	165	28.1	2315	1033	.31	2.11	2.10	2.05	9.28	8.70	D
604	1303	3093.0	3.90	243	435	108	49.2	2750	3089.3	9.20	9.20	608	550	65.6	65.8	525	183762	166	28.2	1099	1033	.31	1.92	1.91	2.02	9.28	8.70	D
605	1317	3093.5	2.21	253	433	108	48.2	2730	3089.8	9.20	9.20	601	552	65.5	66.1	525	185235	166	28.4	1824	1037	.31	2.08	2.07	2.02	9.28	8.70	D
606	1323	3094.0	2.75	244	440	108	49.7	2700	3090.1	9.20	9.20	606	535	65.4	66.0	526	186415	167	28.6	1814	1039	.32	2.03	2.02	2.02	9.28	8.70	D
607	1340	3094.5	2.34	271	440	108	47.3	2720	3090.6	9.20	9.20	608	538	65.4	66.1	532	187801	167	28.8	1764	1042	.32	2.05	2.04	2.03	9.28	8.70	D
608	1356	3095.0	1.96	256	440	109	47.2	2730	3091.2	9.20	9.20	600	536	65.2	65.7	535	189475	168	29.1	2433	1047	.32	2.10	2.09	2.05	9.28	8.70	D
609	1408	3095.5	2.34	255	430	108	48.7	2740	3091.6	9.20	9.20	610	545	65.2	65.6	535	190774	168	29.3	1999	1050	.32	2.07	2.06	2.06	9.28	8.70	D
610	1413	3096.0	3.09	227	425	108	46.3	2750	3092.0	9.20	9.20	614	526	65.1	65.8	533	191837	169	29.5	2016	1052	.32	1.95	1.93	2.04	9.29	8.70	D
611	1431	3096.5	2.96	245	435	108	47.5	2950	3092.8	9.20	9.20	619	562	64.8	65.3	528	192935	169	29.6	1632	1053	.33	1.98	1.97	2.02	9.28	8.70	D
612	1441	3097.0	2.98	257	418	110	48.9	2950	3093.3	9.20	9.20	619	548	64.3	65.2	532	194035	170	29.8	1714	1055	.33	2.00	1.99	2.01	9.28	8.70	D
613	1455	3097.5	2.19	241	433	109	49.3	2960	3093.9	9.20	9.20	625	552	64.5	65.7	533	195589	170	30.0	2536	1059	.33	2.10	2.08	2.03	9.28	8.70	D
614	1507	3098.0	2.51	267	433	109	47.9	2960	3094.3	9.20	9.20	622	553	64.6	65.1	539	196823	171	30.2	1906	1061	.33	2.04	2.02	2.03	9.28	8.70	D
615	1521	3098.5	2.17	250	435	109	48.4	2950	3094.9	9.20	9.20	624	554	64.7	65.5	535	198325	171	30.4	2198	1065	.34	2.09	2.08	2.04	9.28	8.70	D
616	1530	3099.0	3.16	264	435	109	47.3	2960	3095.4	9.20	9.20	616	553	64.6	65.2	544	199351	172	30.6	1598	1066	.34	1.96	1.95	2.03	9.28	8.70	D
617	1547	3099.5	2.74	253	428	109	48.3	2830	3095.8	9.20	9.20	622	552	64.8	65.8	530	200179	172	30.7	1524	1068	.34	2.01	1.99	2.00	9.28	8.70	DX
618	1552	3100.0	2.72	249	435	107	47.3	2900	3096.0	9.20	9.20	616	544	64.7	65.1	533	200511	173	30.8	1727	1066	.34	2.03	2.02	2.03	9.28	8.70	D
619	1602	3100.5	2.92	262	435	106	49.4	2890	3096.3	9.20	9.20	616	546	64.3	65.2	536	201591	173	31.0	1476	1067	.34	2.00	1.99	2.03	9.28	8.70	D
620	1611	3101.0	3.62	267	438	107	48.9	2900	3096.7	9.20	9.20	618	539	64.2	65.3	533	202540	174	31.1	1530	1069	.34	1.93	1.92	2.01	9.28	8.70	D
621	1625	3101.5	2.04	241	435	108	48.1	2910	3097.4	9.20	9.20	619	554	64.2	65.1	536	203991	174	31.3	2067	1072	.35	2.10	2.09	2.02	9.28	8.70	D
622	1634	3102.0	3.07	227	435	108	48.4	2920	3097.7	9.20	9.20	619	548	64.3	65.7	533	205019	175	31.5	1940	1074	.35	1.98	1.97	2.01	9.28	8.70	D
623	1643	3102.5	3.22	236	423	109	49.1	2850	3098.1	9.20	9.20	615	553	64.5	65.5	536	205969	175	31.6	1426	1074	.35	1.98	1.96	2.00	9.28	8.70	D
624	1655	3103.0	2.49	259	433	109	50.3	2890	3098.4	9.20	9.20	620	546	64.6	65.9	532	207271	176	31.8	1761	1077	.35	2.07	2.06	2.01	9.28	8.70	D
625	1705	3103.5	3.17	273	430	109	49.3	2920	3098.9	9.20	9.20	619	538	64.8	66.5	535	208340	176	32.0	1690	1079	.35	1.99	1.97	2.00	9.28	8.70	D
626	1714	3104.0	3.15	258	435	109	49.6	2900	3099.4	9.20	9.20	619	541	64.9	65.7	533	209342	177	32.1	1759	1080	.35	1.99	1.97	2.00	9.28	8.70	D
627	1725	3104.5	2.74	256	423	108	49.9	2930	3100.2	9.20	9.20	620	551	65.2	65.4	536	210572	177	32.3	1867	1082	.36	2.04	2.02	2.00	9.28	8.70	D
628	1733	3105.0	3.89	271	433	108	49.7	2910	3100.6	9.20	9.20	620	546	65.3	65.8	536	211389	178	32.5	1307	1083	.36	1.93	1.91	1.98	9.28	8.70	D
629	1746	3105.5	2.36	281	435	108	49.1	2920	3101.3	9.20	9.20	620	544	65.3	65.9	534	212813	178	32.7	2331	1086	.36	2.07	2.06	1.99	9.28	8.70	D
630	1755	3106.0	3.03	243	423	109	47.5	2880	3101.6	9.20	9.20	616	555	65.6	65.8	536	213838	179	32.8	1675	1087	.36	1.98	1.96	1.99	9.28	8.70	D
631	1807	3106.5	2.72	242	431	109	49.0	2880	3102.2	9.20	9.20	616	535	65.7	66.2	536	215096	179	33.0	1761	1089	.36	2.03	2.01	1.99	9.28	8.70	D
632	1820	3107.0	2.05	268	415	109	47.5	2850	3102.8	9.20	9.20	612	544	65.8	65.9	540	216518	180	33.2	2203	1092	.37	2.10	2.08	2.01	9.28	8.70	D
633	1829	3107.5	3.21	243	428	110	48.6	2890	3103.3	9.20	9																	

ENLOG

KOORCAH NO.1

Data Printed at time 08:13 Date Dec 22 '85
Data Recorded at time 19:28 Date Dec 20 '85

F#	TIME	DEPTH	ROP	TORQUE		RPM	JOB	PUMP	M V lb/gal		FLD I/MIN		TEMP (C)		PVT	-----THIS BIT-----			EST	DKC	NK	NKB	ECD	EST				
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT		REVS	m	hrs							INST	RUN	TVI	FM
638	1923	3110.0	2.41	258	440	112	49.9	2860	3105.8	9.20	9.20	613	526	65.7	65.8	527	222940	183	34.2	2202	1101	.38	2.09	2.07	1.99	9.28	8.70	D
639	1942	3110.5	2.15	269	438	111	49.8	2920	3106.6	9.20	9.20	617	544	65.7	65.9	529	224541	183	34.4	2893	1105	.38	2.12	2.10	2.01	9.28	8.70	D
640	1951	3111.0	2.90	261	435	113	50.7	2930	3106.8	9.20	9.20	620	528	65.8	66.2	527	225603	184	34.6	2095	1106	.38	2.04	2.03	2.02	9.28	8.70	D
641	2005	3111.5	2.20	253	435	113	51.3	2920	3107.6	9.20	9.20	621	547	66.0	66.2	528	227191	184	34.8	1923	1109	.38	2.15	2.13	2.04	9.28	8.70	D
642	2022	3112.0	1.78	245	438	112	51.7	2920	3108.2	9.20	9.20	614	549	66.1	66.6	527	229007	185	35.1	2666	1114	.39	2.21	2.19	2.08	9.28	8.70	D
643	2033	3112.5	2.75	249	430	113	50.5	2920	3108.7	9.20	9.20	617	555	66.3	66.7	529	230231	185	35.3	1914	1115	.39	2.06	2.04	2.08	9.28	8.70	D
644	2045	3113.0	2.40	270	433	112	50.1	2880	3109.6	9.20	9.20	620	589	66.5	65.7	520	231639	186	35.5	2082	1118	.39	2.09	2.07	2.08	9.28	8.70	D
645	2055	3113.5	3.02	267	435	113	50.0	2830	3110.0	9.20	9.20	614	599	66.5	66.6	520	232742	186	35.7	1700	1120	.39	2.02	2.00	2.06	9.28	8.70	D
646	2109	3114.0	2.13	261	435	112	50.1	2890	3110.6	9.20	9.20	620	615	66.5	66.7	519	234313	187	35.9	2127	1123	.40	2.13	2.11	2.07	9.28	8.70	D
647	2121	3114.5	2.57	253	435	111	51.2	2870	3111.0	9.20	9.20	620	604	66.6	66.7	520	235607	187	36.1	1837	1125	.40	2.08	2.06	2.07	9.28	8.70	D
648	2137	3115.0	1.87	245	438	111	51.1	2880	3111.7	9.20	9.20	613	620	66.8	66.6	518	237408	188	36.3	3079	1129	.40	2.18	2.16	2.09	9.28	8.70	D
649	2149	3115.5	2.47	260	435	111	50.6	2880	3112.2	9.20	9.20	618	612	66.8	66.9	519	238741	188	36.5	2075	1131	.40	2.09	2.07	2.09	9.28	8.70	D
650	2205	3116.0	1.86	237	435	111	50.3	2870	3112.8	9.20	9.20	619	616	66.8	67.0	518	240545	189	36.8	2539	1136	.41	2.17	2.15	2.10	9.28	8.70	D
651	2219	3116.5	2.26	264	435	112	50.1	2900	3113.3	9.20	9.20	617	598	66.9	66.7	515	242102	189	37.0	2454	1139	.41	2.11	2.09	2.10	9.27	8.70	D
652	2233	3117.0	2.08	285	433	112	51.0	2890	3113.9	9.20	9.20	614	615	66.9	67.0	519	243633	190	37.3	2820	1142	.41	2.15	2.13	2.10	9.27	8.70	D
653	2252	3117.5	1.51	245	430	111	51.1	2910	3114.7	9.21	9.21	619	611	67.1	67.5	514	245839	190	37.6	3231	1147	.41	2.25	2.23	2.13	9.27	8.70	D
654	2307	3118.0	1.93	262	433	111	50.4	2940	3115.3	9.30	9.30	613	610	67.3	67.2	516	247404	191	37.8	2436	1143	.42	2.16	2.14	2.14	9.27	8.70	D
655	2320	3118.5	2.03	234	433	105	41.8	2860	3115.6	9.30	9.30	614	595	67.3	66.5	512	247917	192	37.9	2585	1150	.42	2.14	2.12	2.13	9.27	8.70	D
656	2330	3119.0	3.24	250	433	101	50.1	2700	3115.8	9.30	9.30	610	579	66.9	67.8	504	248815	192	38.1	832	1151	.42	1.97	1.95	2.10	9.27	8.70	D
657	2353	3119.5	1.31	250	438	101	52.5	2850	3116.7	9.30	9.30	614	583	66.8	68.2	508	251129	192	38.4	2370	1158	.42	2.28	2.26	2.13	9.29	8.70	D
Date Dec 21 '85																												
658	0007	3120.0	2.22	256	440	100	52.9	2800	3117.2	9.30	9.30	613	582	67.3	68.3	505	252534	193	38.7	2353	1161	.43	2.11	2.10	2.13	9.31	8.70	D
659	0021	3120.5	2.22	260	435	101	51.7	2820	3117.6	9.30	9.30	617	606	67.4	68.0	506	253830	193	38.9	2239	1163	.43	2.09	2.08	2.12	9.32	8.70	D
660	0034	3121.0	2.28	255	440	99	51.4	2800	3118.0	9.40	9.30	617	604	67.4	68.3	507	255132	194	39.1	1959	1166	.43	2.07	2.06	2.11	9.33	8.70	D
661	0050	3121.5	1.81	264	440	100	51.1	2820	3118.5	9.40	9.30	618	589	67.8	68.0	506	256758	194	39.4	2362	1170	.43	2.14	2.12	2.11	9.35	8.70	D
662	0105	3122.0	2.01	250	440	98	51.4	2860	3119.1	9.40	9.30	618	577	67.9	68.8	504	258270	195	39.6	2565	1173	.43	2.10	2.09	2.11	9.37	8.70	D
663	0123	3122.5	1.67	253	440	98	51.9	2820	3119.4	9.40	9.30	620	578	68.2	68.3	502	260014	195	39.9	4167	1178	.44	2.16	2.15	2.11	9.38	8.70	D
664	0139	3123.0	1.93	247	440	100	51.8	2850	3120.0	9.40	9.30	618	599	68.3	68.7	497	261607	196	40.2	2839	1182	.44	2.12	2.10	2.11	9.40	8.70	D
665	0154	3123.5	1.98	258	448	99	51.2	2880	3120.5	9.40	9.30	619	589	68.4	68.7	494	263070	196	40.4	2629	1185	.44	2.10	2.08	2.11	9.42	8.70	D
666	0207	3124.0	2.32	275	440	97	51.4	2850	3121.0	9.40	9.30	620	611	68.3	68.9	494	264385	197	40.7	2265	1188	.44	2.04	2.03	2.09	9.43	8.70	D
667	0219	3124.5	2.35	235	443	98	51.4	2830	3121.5	9.40	9.30	620	584	68.4	68.4	491	265523	197	40.9	2142	1189	.45	2.04	2.02	2.08	9.44	8.70	D
668	0231	3125.0	2.58	256	445	100	51.7	2870	3121.8	9.40	9.30	618	591	68.4	69.1	489	266724	198	41.1	2028	1191	.45	2.02	2.00	2.06	9.46	8.70	D
669	0239	3125.5	3.42	253	400	102	50.7	2870	3122.2	9.40	9.30	621	589	68.5	69.3	487	267590	198	41.2	1440	1192	.45	1.92	1.90	2.02	9.46	8.70	D
670	0250	3126.0	2.94	246	430	101	50.1	2880	3122.4	9.40	9.30	620	580	68.2	68.3	487	268655	199	41.4	1733	1193	.45	1.95	1.94	1.99	9.48	8.70	D
671	0300	3126.5	2.69	242	440	102	48.3	2900	3122.7	9.40	9.30	622	609	68.2	69.0	487	269737	199	41.5	1804	1195	.45	1.97	1.95	1.98	9.48	8.70	D
672	0311	3127.0	3.04	275	455	100	49.0	2880	3123.1	9.40	9.30	621	593	68.5	68.0	443	270781	200	41.7	1541	1196	.45	1.93	1.91	1.95	9.48	8.70	D
673	0330	3127.5	5.48	288	440	102	48.0	2890	3123.4	9.40	9.30	615	574	68.6	68.8	443	271359	200	41.8	1007	1196	.46	1.75	1.73	1.91	9.47	8.70	DK
674	0334	3128.0	7.11	270	440	103	46.0	2880	3123.5	9.40	9.30	616	598	68.4	68.3	438	271774	201	41.9	1958	1194	.46	1.65	1.63	1.95	9.48	8.70	D
675	0340	3128.6	4.85	295	450	103	46.7	2880	3123.8	9.40	9.30	615	578	67.5	68.0	432	272453	201	42.0	740	1194	.46	1.76	1.75	1.91	9.48	8.70	D
676	0342	3129.0	16.7	312	458	105	46.4	2860	3123.8	9.40	9.30	616	594	67.5	68.0	432	272611	202	42.0	303	1192	.46	1.40	1.39	1.94	9.48	8.70	D
677	0345	3129.5	12.0	314	448	105	46.2	2860	3123.9	9.40	9.30	617	601	67.4	68.6	431	272869	202	42.1	353	1190	.46	1.50	1.48	1.91	9.48	8.70	D
678	0351	3130.0	15.1	281	375	108	42.7	2910	3124.1	9.40	9.30	618	594	67.6	68.5	431	273020	203	42.1	329	1188	.46	1.40	1.39	1.94	9.48	8.70	D
679	0354	3130.5	10.7	319	445	109	42.2	2870	3124.3	9.40	9.30	617	597	67.6	68.5	430	273321	203	42.1	605	1186	.46	1.50	1.48	1.91	9.49	8.70	D
680	0356	3131.0	5.12	312	443	101	44.0	2880	3124.3	9.40	9.30	614	603	67.6	67.9	429	273477	204	42.2	815	1184	.46	1.76	1.76	1.90	9.49	8.70	D
681	0403	3131.5	3.98	294	455	96	44.3	2850	3124.7	9.40	9.30	617	595	67.5	68.5	433	274224	204	42.3	1349	1184	.46	1.77	1.76	1.87	9.49	8.70	D
682	0407	3132.0	8.90	335	458	92	43.7	2850	3124.8	9.40	9.30	617	596	67.5	68.3	430	274476	205	42.3	591	1182	.46	1.52	1.51	1.90	9.49	8.70	D
683	0417	3132.5	3.09	280	458	82	44.1	2350	3125.4	9.40	9.30	615	592	67.7	68.3	426	275367											

KOORIKAH NO.1

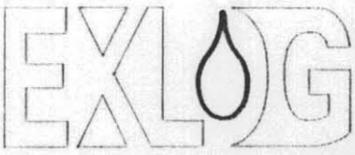
Data Printed at time 08:17 Date Dec 22 '85
Data Recorded at time 04:35 Date Dec 21 '85

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM AVG	DB AVG	PUMP PRES	RTRIS		M7 lb/gal		FLOI/MIN		TEMP (C) LI OJT	PVT	-----THIS BIT----			---COST---		EST TV	KX	AK	AKB	ECD	EST FM PR	
				AVG	MAX				DEPTH	IN	OUT	IN	OUT	IN			OUT	REVS	m	hrs	INST							RUN
687	3435	3134.5	6.38	250	450	97	43.9	2933	3126.4	9.30	9.33	615	589	67.7	68.4	427	276933	237	42.8	1335	1179	.46	1.64	1.62	1.83	9.48	8.73	D
688	3439	3135.0	9.66	335	453	102	48.0	2993	3126.5	9.30	9.33	619	578	67.7	68.6	426	277233	238	42.8	479	1177	.45	1.57	1.56	1.83	9.48	8.73	D
689	3440	3135.5	24.2	336	435	108	47.9	2993	3126.5	9.30	9.33	616	593	67.7	68.6	425	277343	238	42.8	291	1175	.46	1.31	1.30	1.83	9.49	8.73	D
690	3443	3136.0	13.0	334	443	104	48.1	2933	3126.8	9.30	9.33	614	633	67.7	68.5	428	277611	239	42.9	950	1173	.46	1.49	1.47	1.83	9.49	8.73	D
691	3452	3136.5	6.63	327	440	101	48.1	2353	3127.0	9.30	9.33	614	597	67.7	67.6	422	277999	239	42.9	1391	1172	.47	1.58	1.67	1.83	9.49	8.73	D
692	3457	3137.0	5.34	294	438	100	48.4	2353	3127.4	9.30	9.33	614	573	67.4	67.9	421	273517	210	43.0	969	1171	.47	1.72	1.71	1.77	9.49	8.73	D
693	3506	3137.5	3.30	279	443	101	48.2	2343	3128.3	9.30	9.30	615	579	67.3	67.9	423	279450	210	43.2	1579	1172	.47	1.89	1.88	1.78	9.49	8.73	D
694	3513	3138.0	14.3	321	445	101	39.0	2913	3128.8	9.30	9.30	619	597	67.4	66.9	423	279669	211	43.2	423	1173	.47	1.36	1.35	1.77	9.48	8.73	D
695	3526	3138.5	3.87	311	448	102	46.6	2903	3130.3	9.30	9.30	618	631	67.0	67.8	423	283498	211	43.3	755	1170	.47	1.83	1.82	1.77	9.46	8.73	D
696	3532	3139.0	5.62	323	453	105	46.1	2903	3130.6	9.30	9.30	619	612	66.9	68.1	419	281029	212	43.4	321	1169	.47	1.73	1.71	1.74	9.46	8.73	D
697	3537	3139.5	5.44	298	453	103	47.9	2923	3131.0	9.30	9.30	621	589	67.0	68.2	413	281519	212	43.5	354	1169	.47	1.75	1.74	1.72	9.46	8.73	D
698	3543	3140.0	5.44	333	450	101	47.7	2923	3131.5	9.30	9.30	618	596	67.1	68.2	415	282162	213	43.6	1043	1168	.47	1.74	1.73	1.71	9.45	8.73	D
699	3547	3140.5	6.99	310	458	102	47.9	2933	3132.0	9.30	9.30	614	575	67.1	68.4	419	282634	213	43.7	746	1167	.47	1.67	1.66	1.68	9.45	8.73	D
700	3553	3141.0	9.53	346	458	100	47.1	2913	3132.2	9.30	9.30	614	633	67.1	68.4	416	282929	214	43.7	651	1166	.47	1.57	1.55	1.65	9.44	8.73	D
701	3555	3141.6	12.8	369	463	96	47.8	2993	3132.3	9.30	9.30	621	635	67.2	68.1	415	283234	214	43.8	443	1165	.47	1.48	1.46	1.62	9.44	8.73	D
702	3602	3142.0	3.85	342	460	98	47.5	2913	3133.0	9.30	9.30	624	611	67.3	68.1	413	283330	215	43.9	762	1164	.47	1.84	1.82	1.64	9.43	8.73	D
703	3607	3142.5	5.95	290	455	100	47.9	2933	3133.6	9.30	9.30	623	594	67.4	68.0	413	284337	215	44.0	798	1163	.48	1.72	1.70	1.66	9.43	8.73	D
704	3610	3143.0	9.32	315	450	101	47.0	2933	3133.9	9.30	9.30	624	639	67.4	68.1	412	284657	216	44.0	546	1162	.48	1.58	1.56	1.63	9.42	8.73	D
705	3616	3143.5	5.44	323	453	99	47.9	2973	3134.6	9.30	9.30	623	597	67.4	68.0	417	285235	216	44.1	1104	1161	.48	1.75	1.73	1.64	9.42	8.73	D
706	3619	3144.0	9.53	341	460	95	46.1	2973	3135.1	9.30	9.30	618	633	67.4	68.0	415	285511	217	44.2	529	1160	.48	1.55	1.53	1.62	9.41	8.73	D
707	3622	3144.5	13.5	355	460	96	44.7	2963	3135.8	9.30	9.30	618	594	67.4	67.8	416	285735	217	44.2	386	1158	.48	1.43	1.42	1.59	9.41	8.73	D
708	3659	3145.0	6.36	322	453	96	46.0	3043	3138.4	9.30	9.30	628	635	67.5	69.8	408	286266	218	44.3	3	1158	.48	1.68	1.66	1.63	9.38	8.73	D
709	3702	3145.5	6.49	310	445	103	46.0	2723	3138.7	9.30	9.30	622	593	67.8	71.0	404	286597	218	44.4	361	1156	.48	1.61	1.59	1.60	9.38	8.73	D
710	3723	3146.0	1.49	243	455	104	49.2	2953	3140.9	9.30	9.30	617	579	68.4	69.2	407	286733	219	44.7	7937	1161	.48	2.13	2.16	1.60	9.37	8.73	D
711	3740	3146.5	1.66	259	448	104	49.0	2933	3142.7	9.30	9.30	617	583	68.0	68.9	406	290535	219	45.0	2732	1165	.49	2.15	2.13	1.60	9.37	8.73	D
712	3809	3147.1	1.27	243	453	104	48.3	2893	3144.8	9.30	9.30	596	590	68.4	68.3	399	292536	220	45.3	3597	1171	.49	2.22	2.20	1.60	9.36	8.73	D
713	3810	3147.5	1.10	258	453	104	48.3	2923	3144.8	9.30	9.30	613	597	68.4	68.3	393	292636	220	45.3	3597	1168	.49	2.26	2.24	1.60	9.36	8.73	D
714	3840	3148.0	1.57	252	448	104	48.0	2923	3145.4	9.30	9.30	619	594	67.4	67.8	395	295144	221	45.7	2229	1174	.49	2.15	2.13	1.60	9.36	8.73	D
715	3911	3148.5	.87	341	454	102	48.6	2833	3146.1	9.30	9.30	619	591	67.5	67.8	386	298434	221	45.2	4991	1183	.50	2.33	2.31	1.60	9.36	8.73	D
716	1032	3149.0	.51	334	438	98	48.0	2930	3148.0	9.30	9.30	613	577	67.6	67.8	393	304866	222	47.3	3	1203	.51	2.47	2.45	1.60	9.36	8.73	D

+ Pull out of hole at 3149m to run wireline logs.

| Total depth for Koorikah No.1.

ii. Drilling Data Plots

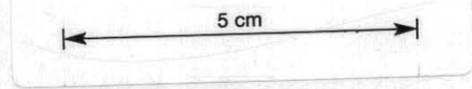


KOORKAH NO. 1

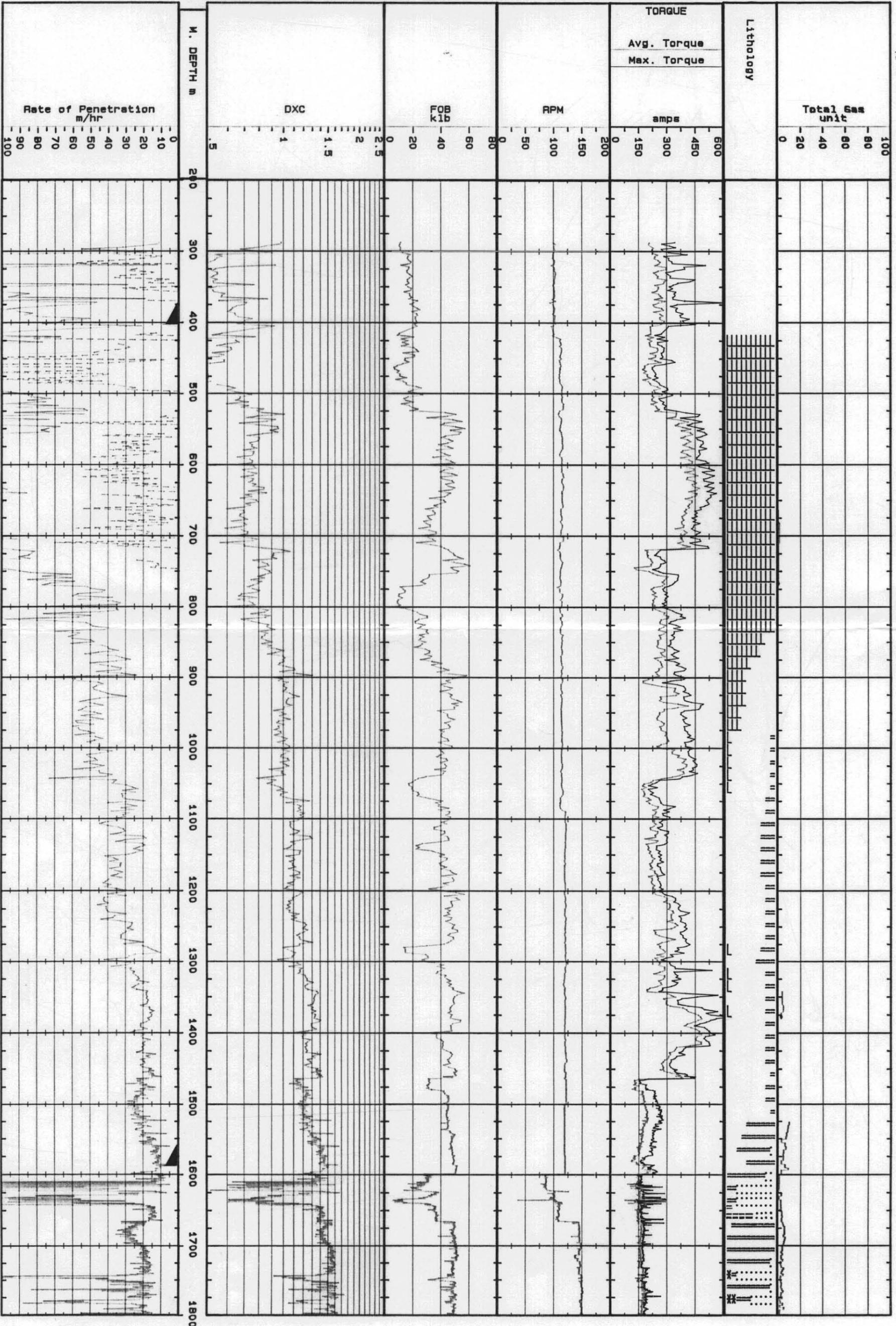
Drilling Data Plot

Date Plotted : Dec 23rd 1965

Scale 1 m : 5000 m

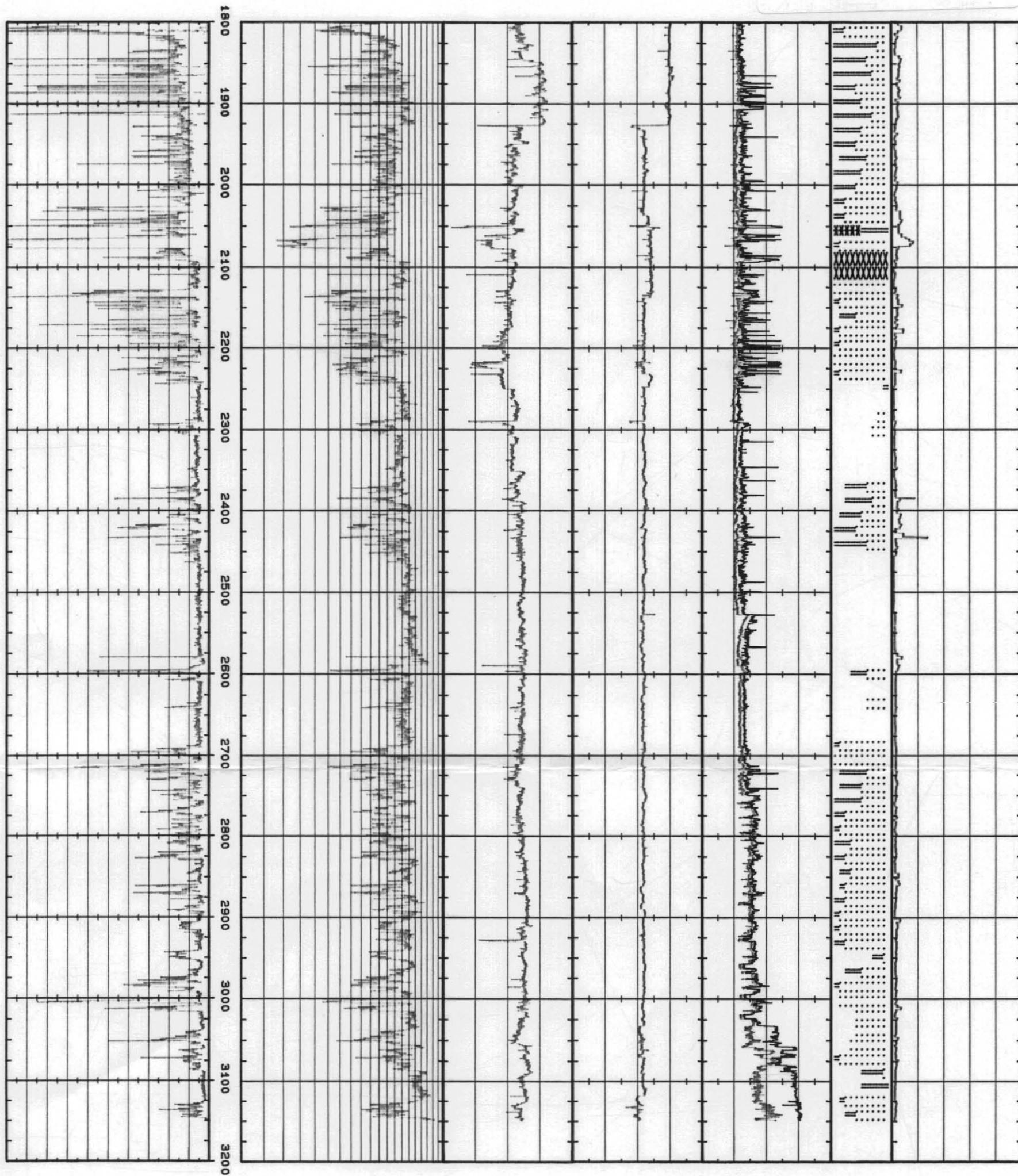


283136



5 cm

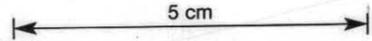
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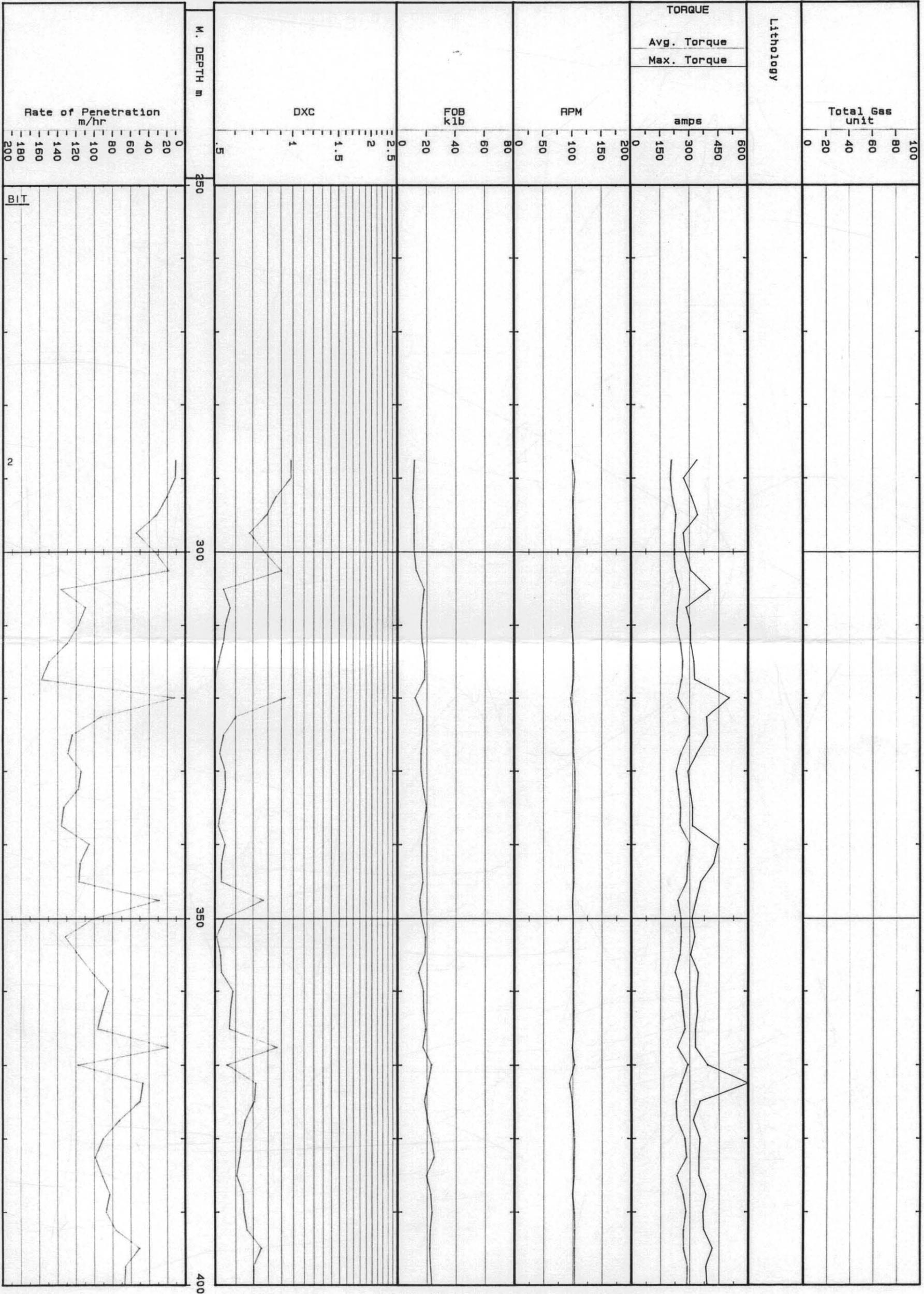
KOORKAH NO. 1

Drilling Data Plot



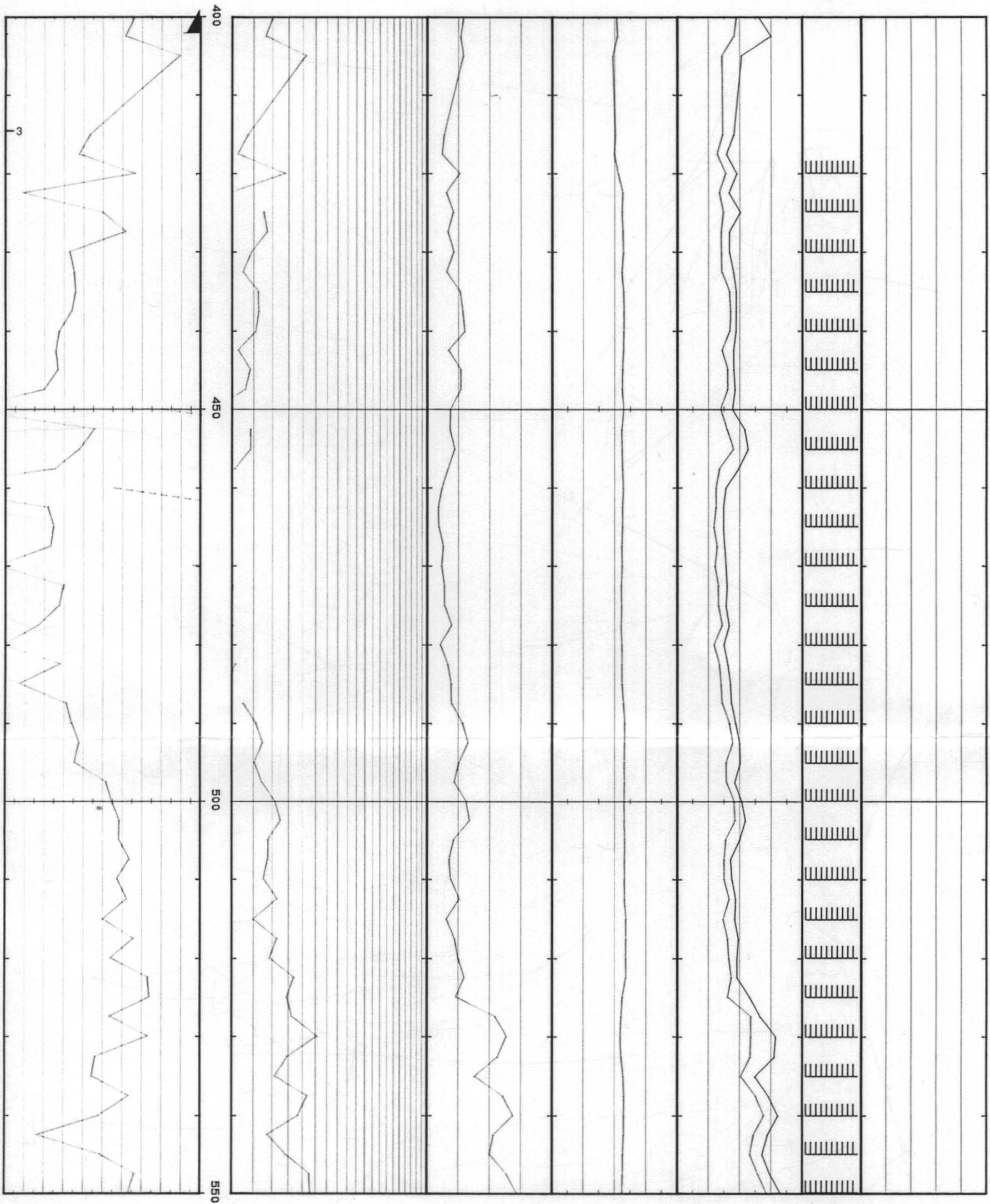
Date Plotted : Dec 21st 1985

Scale 1 m : 500 m



203138

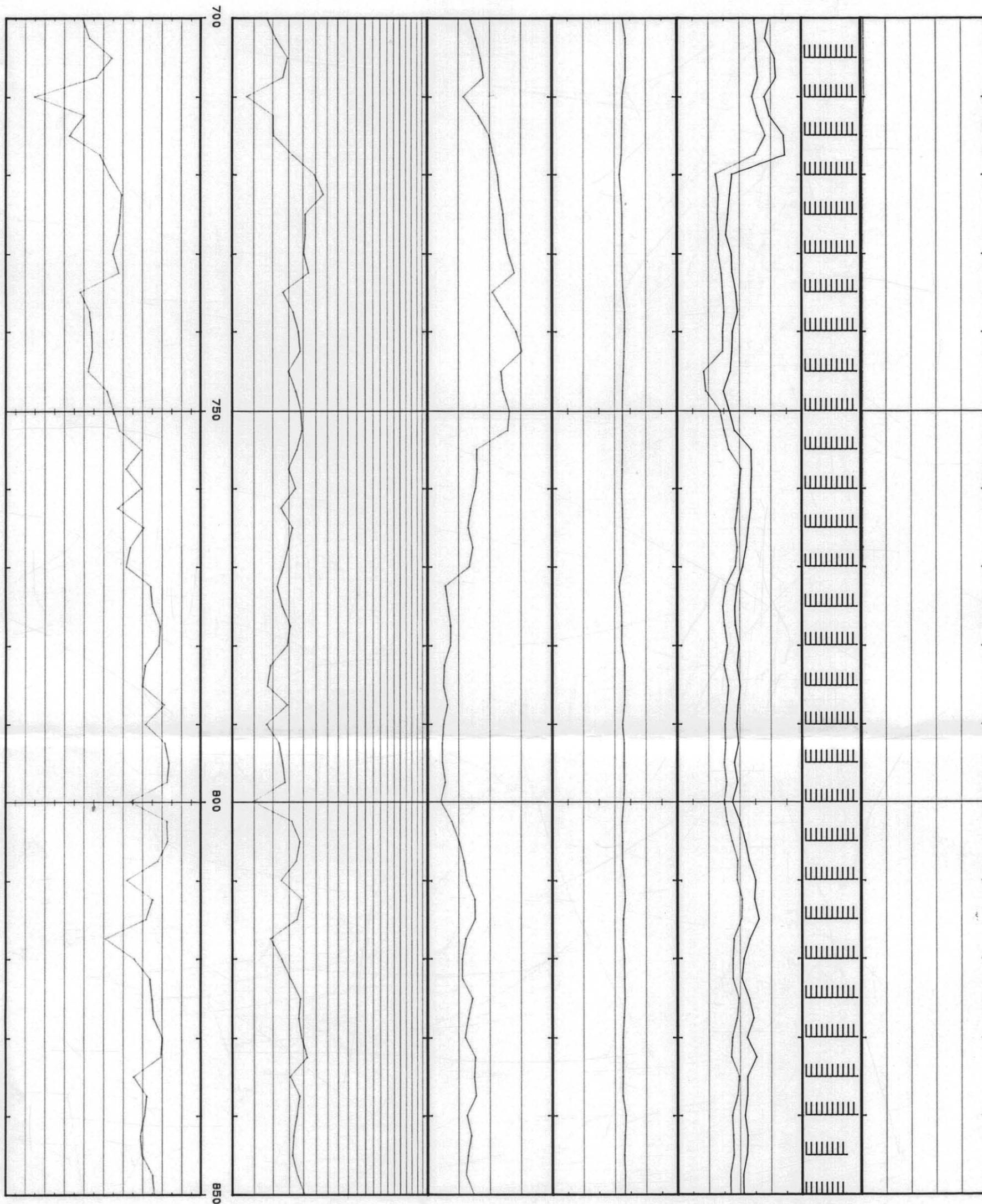
5 cm



283139

5 cm

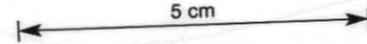
283141





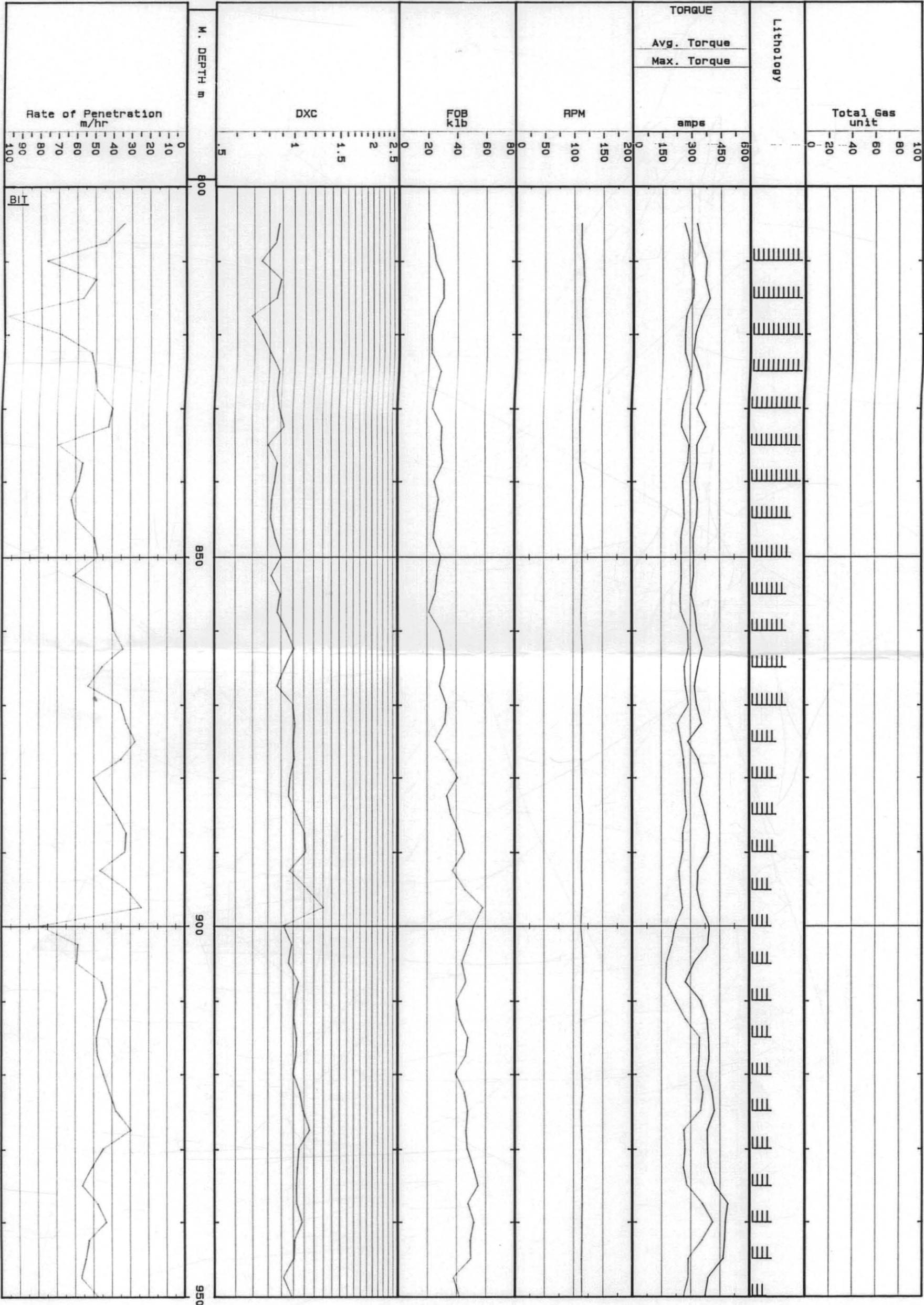
KOORKAH NO. 1

Drilling Data Plot

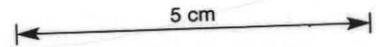


Date Plotted : Dec 21st 1985

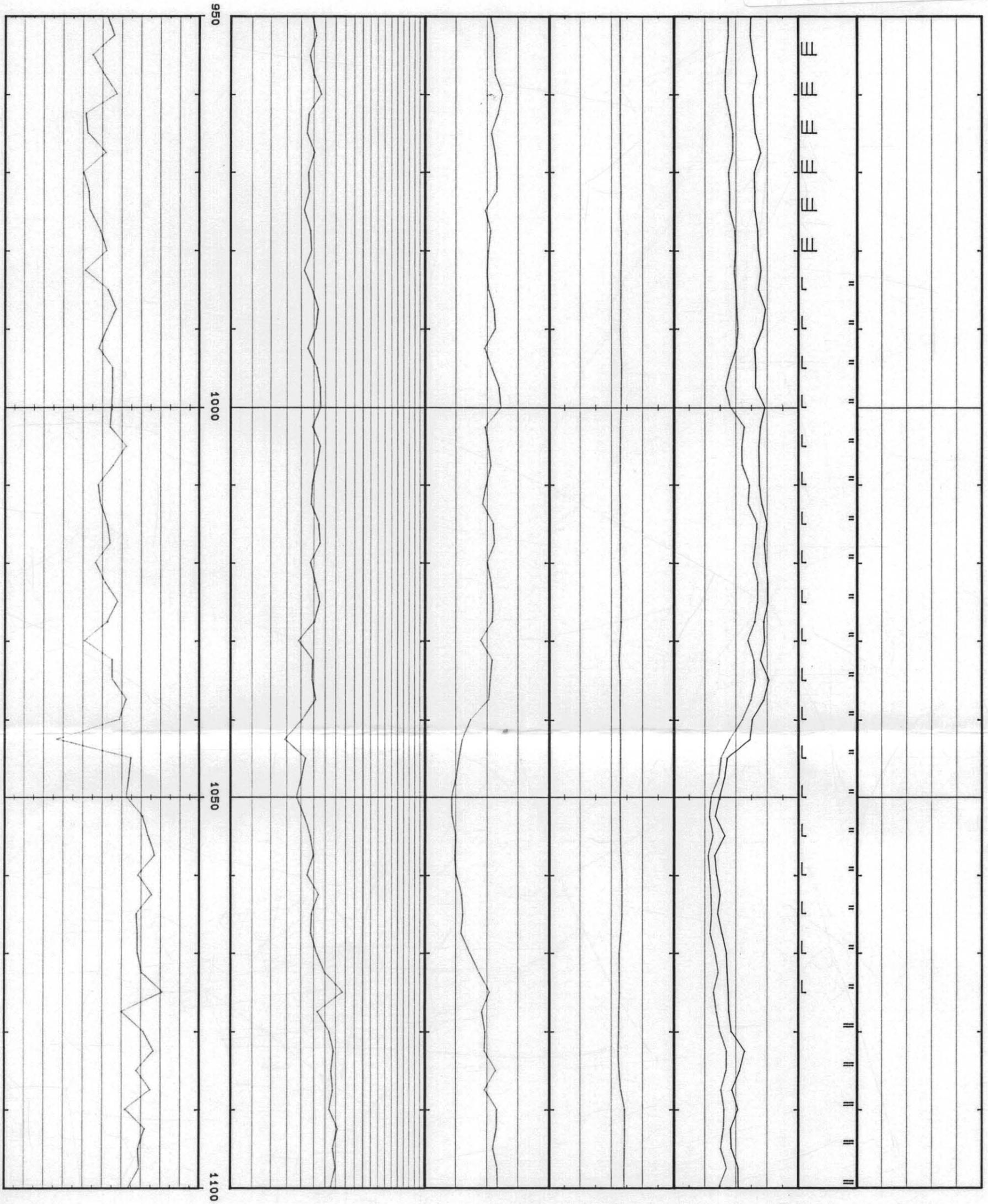
Scale 1 m : 500 m



283142

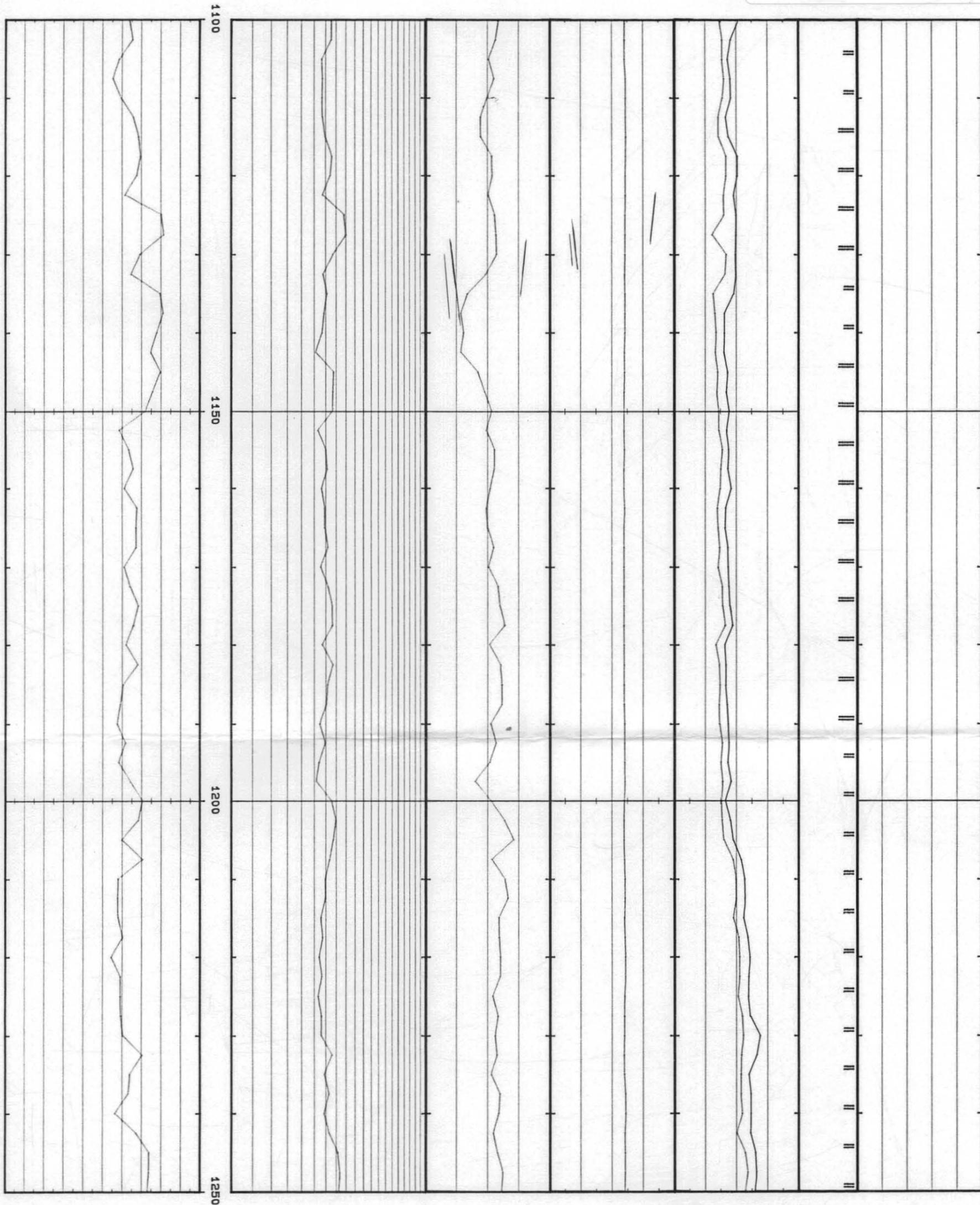


283143



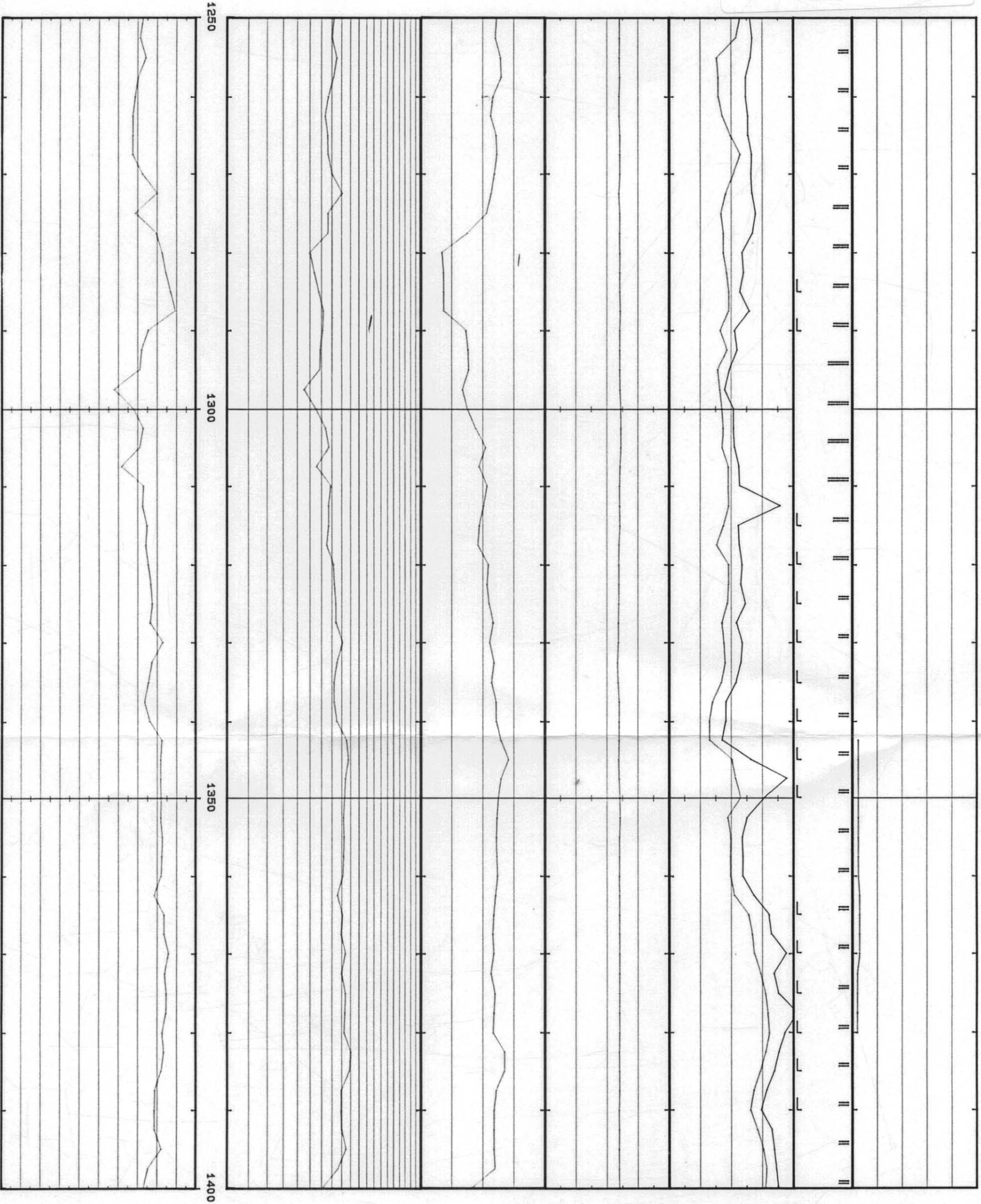
5 cm

283144



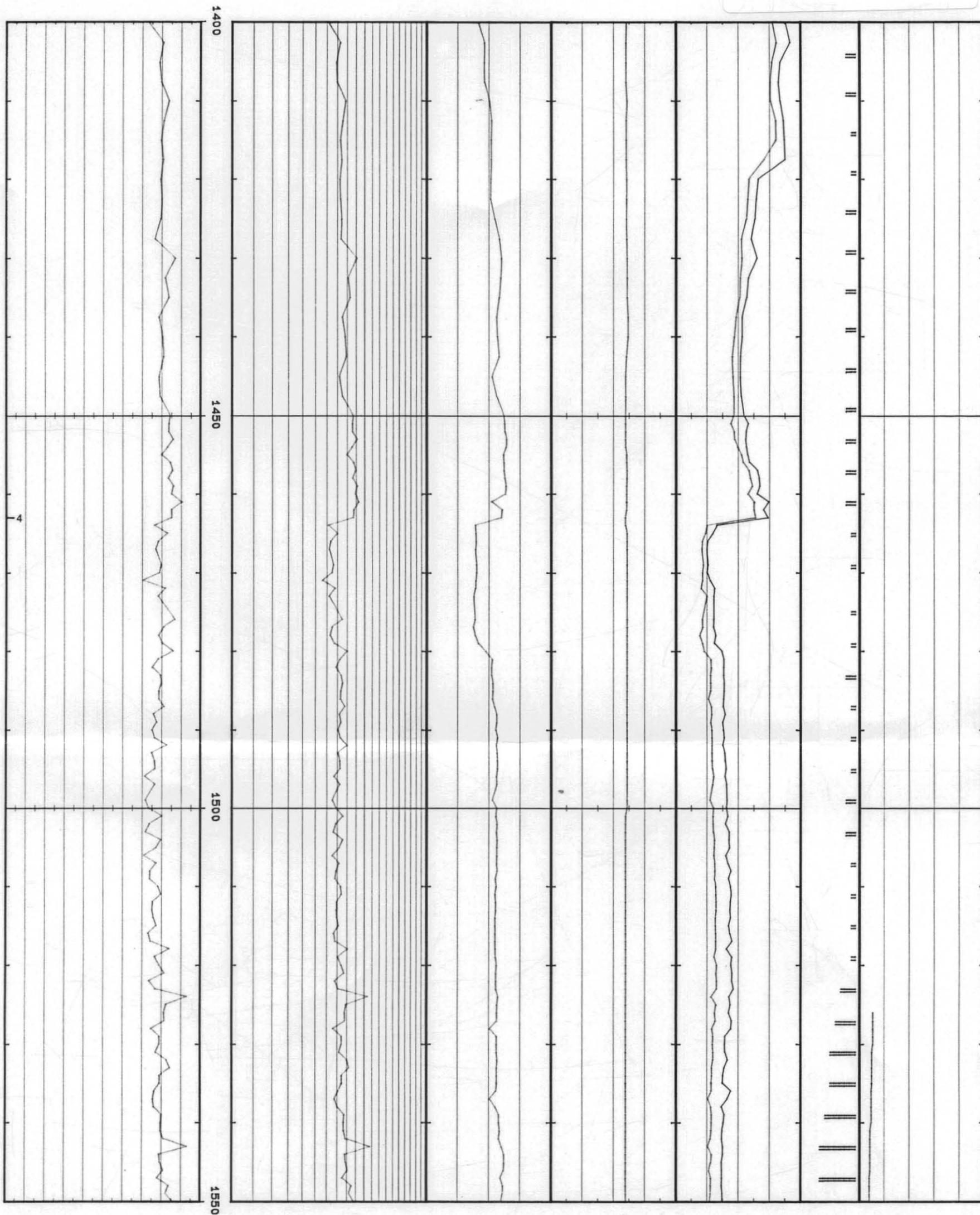
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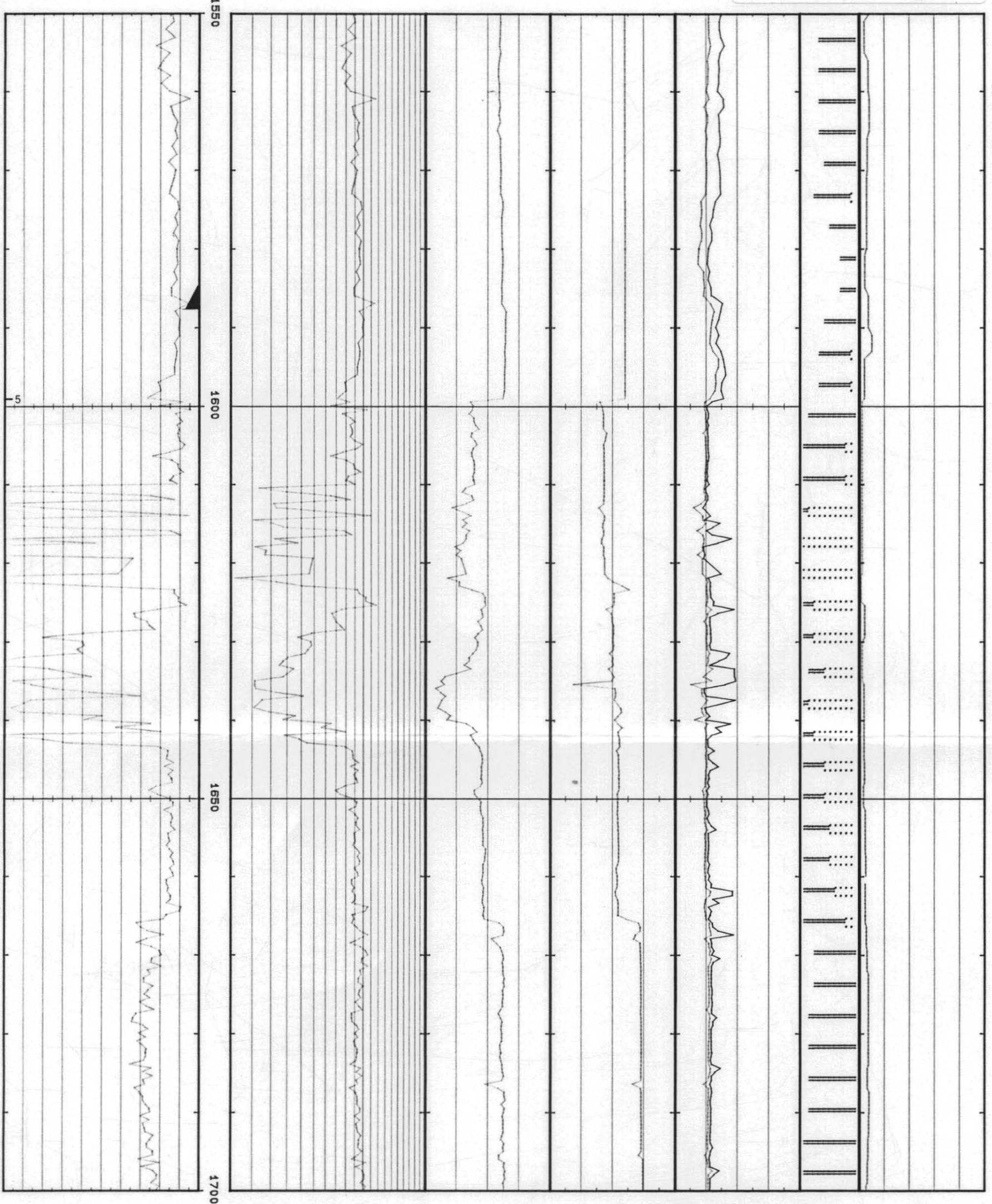
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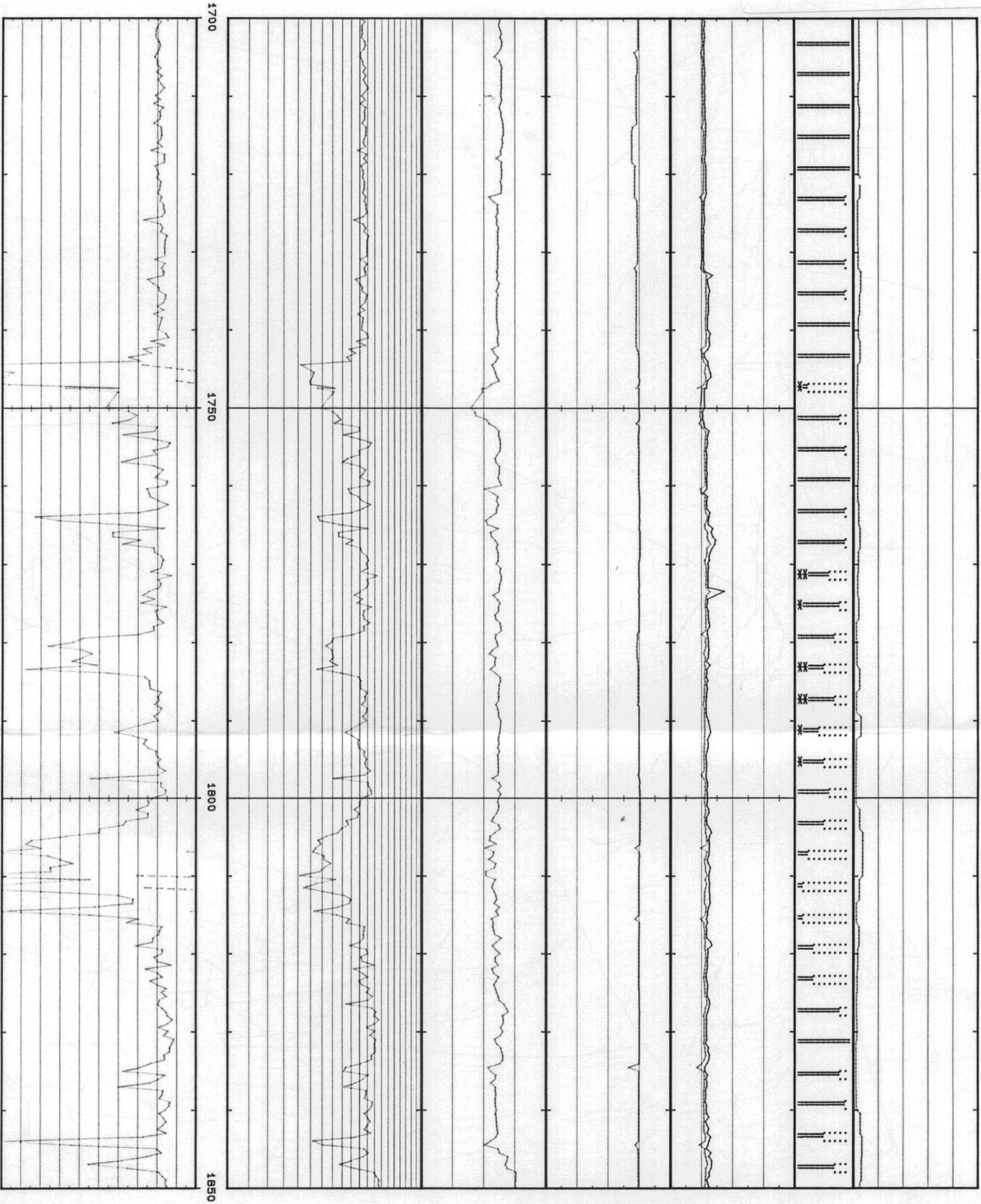
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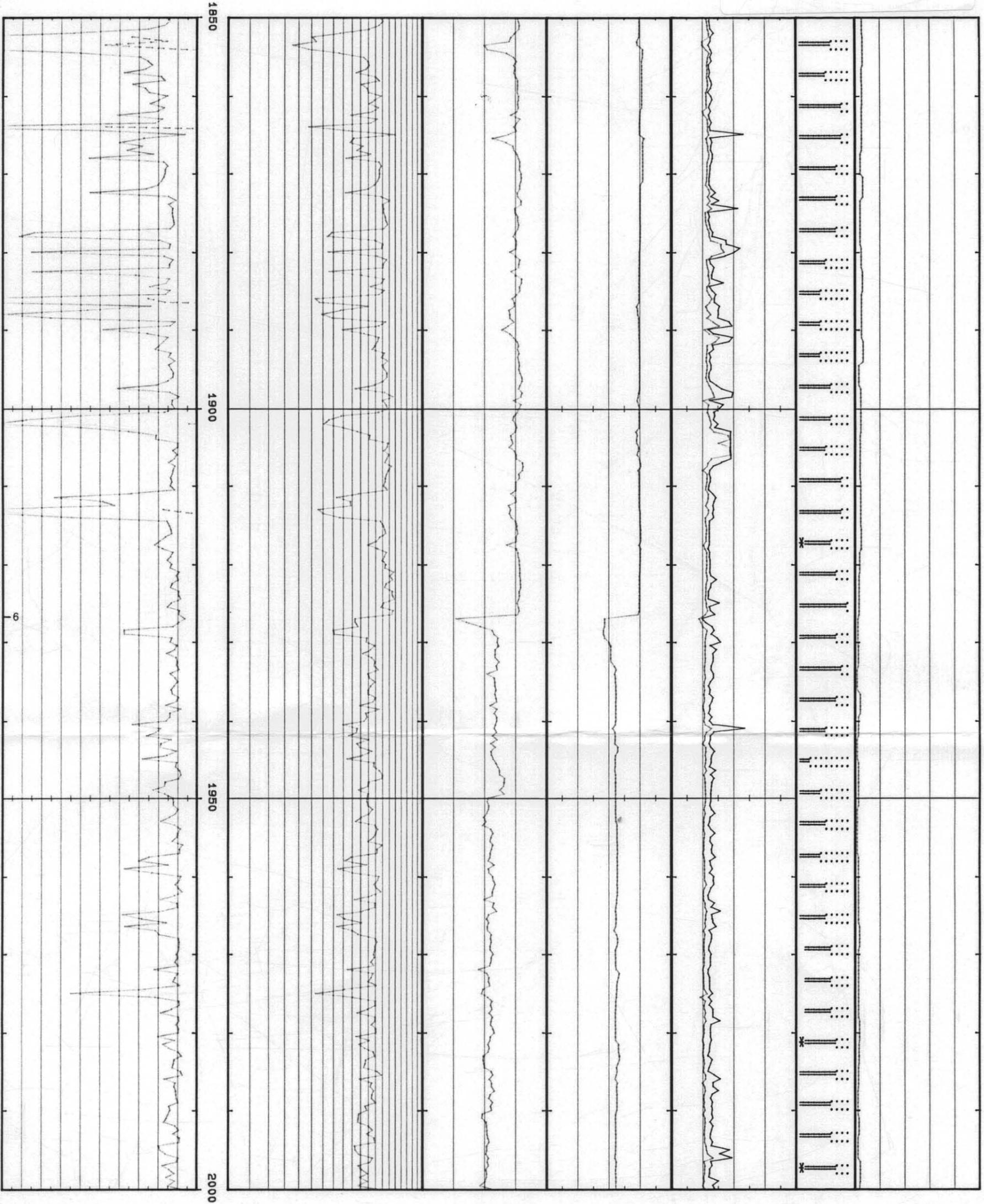
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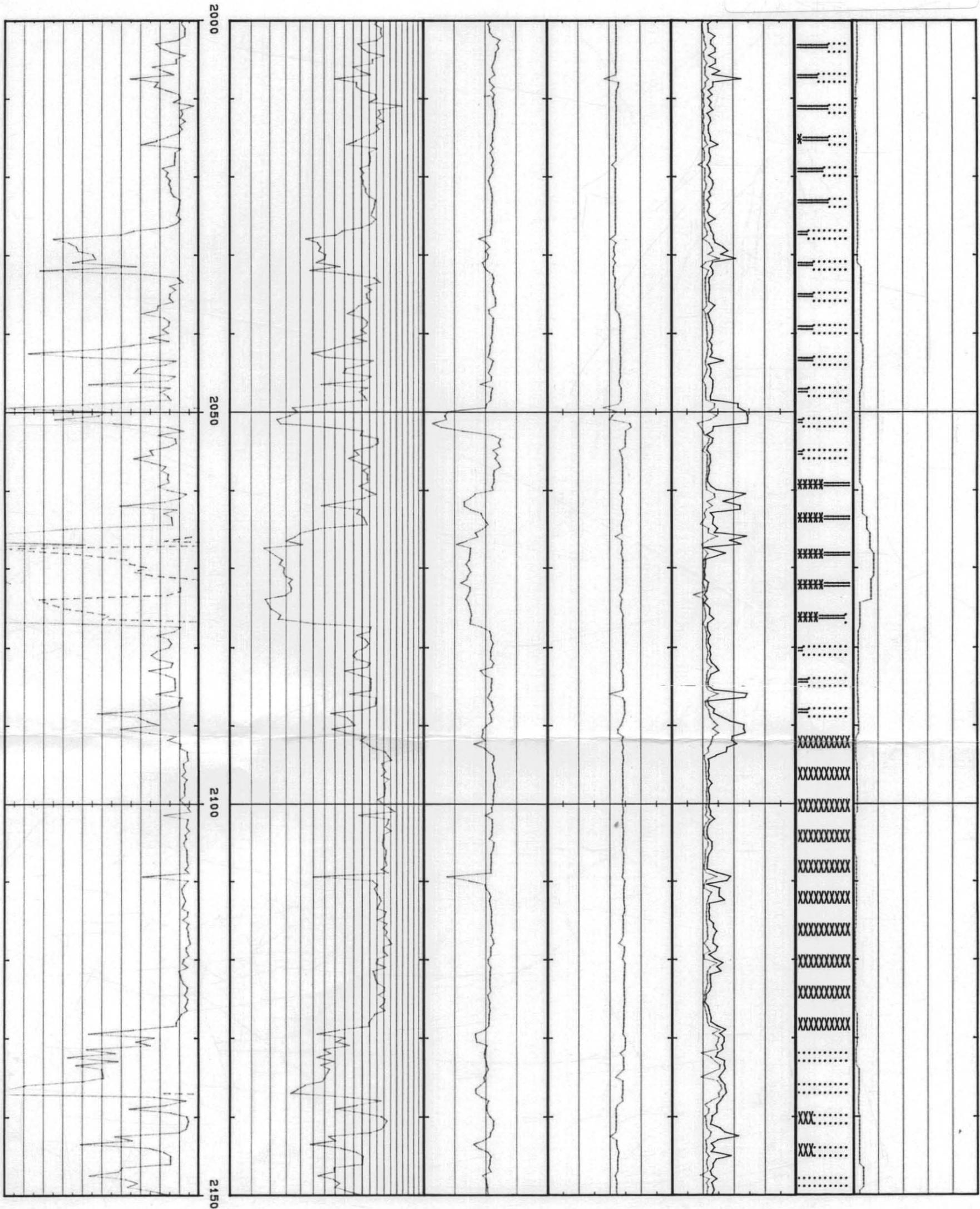
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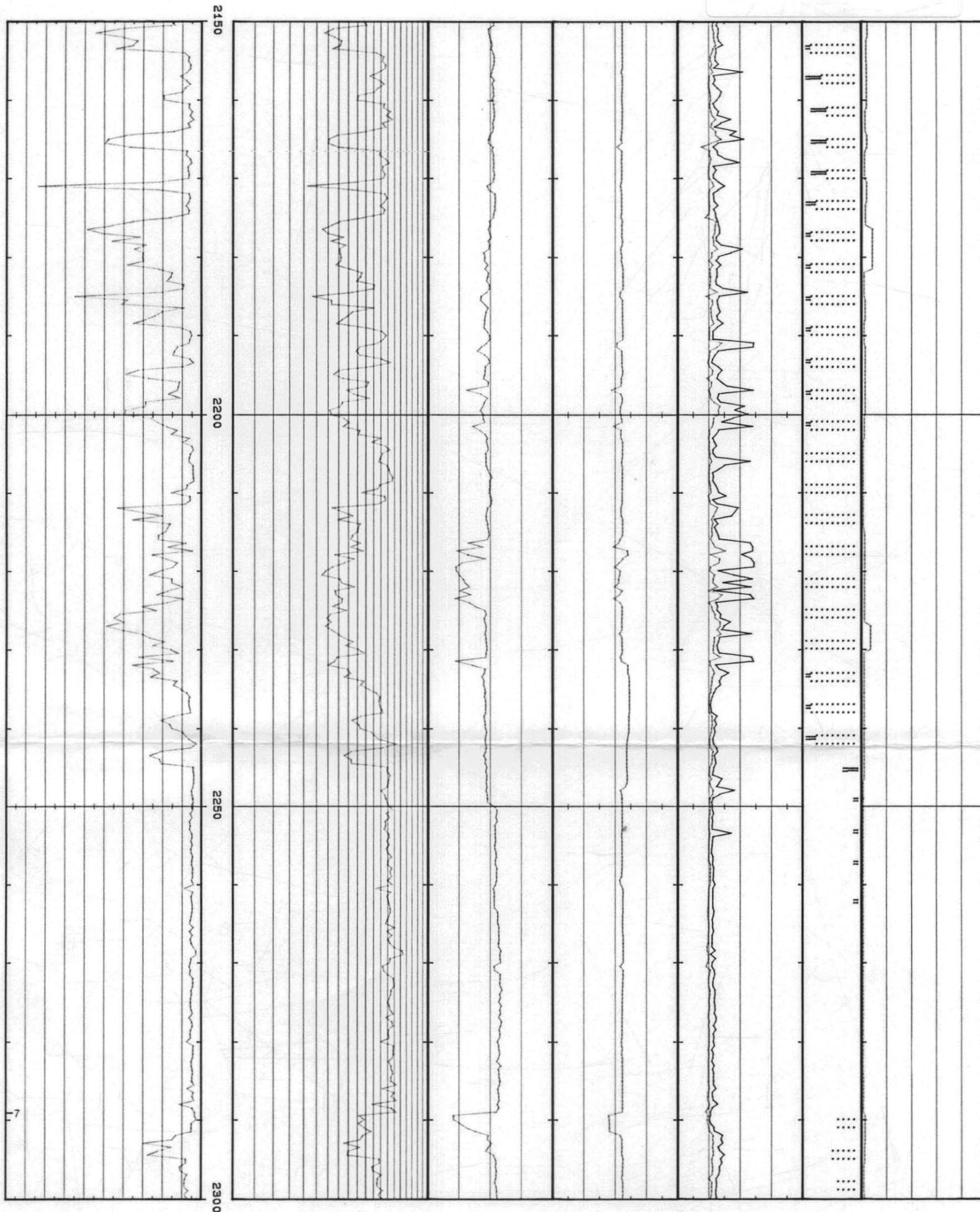
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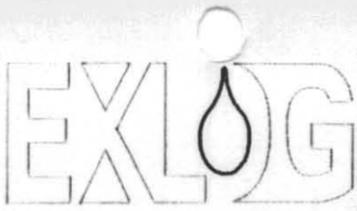
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5 cm

283151





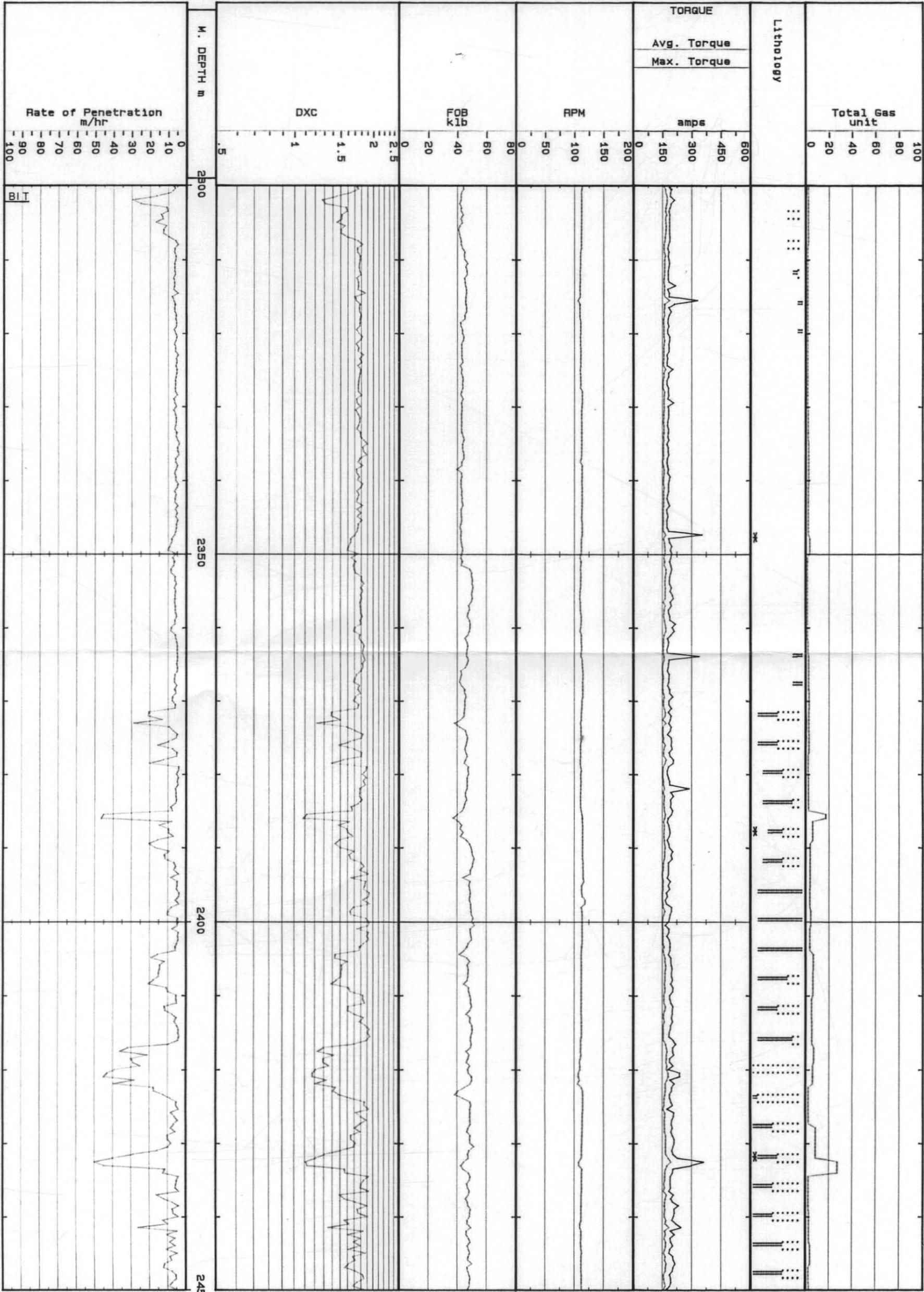
KOORKAH NO. 1

Drilling Data Plot

5 cm

Date Plotted : Dec 21st 1985

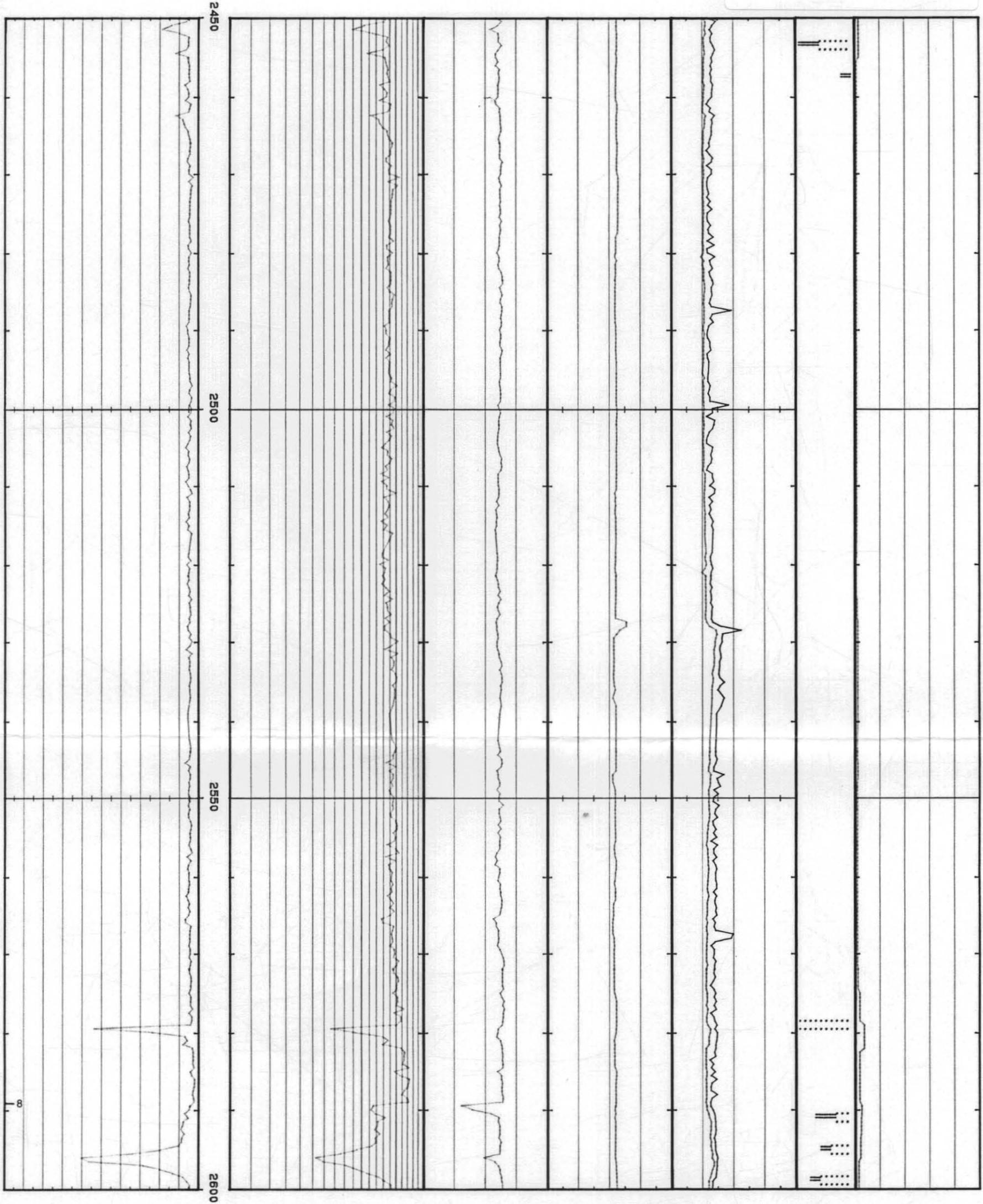
Scale 1 m : 500 m



283152

5 cm

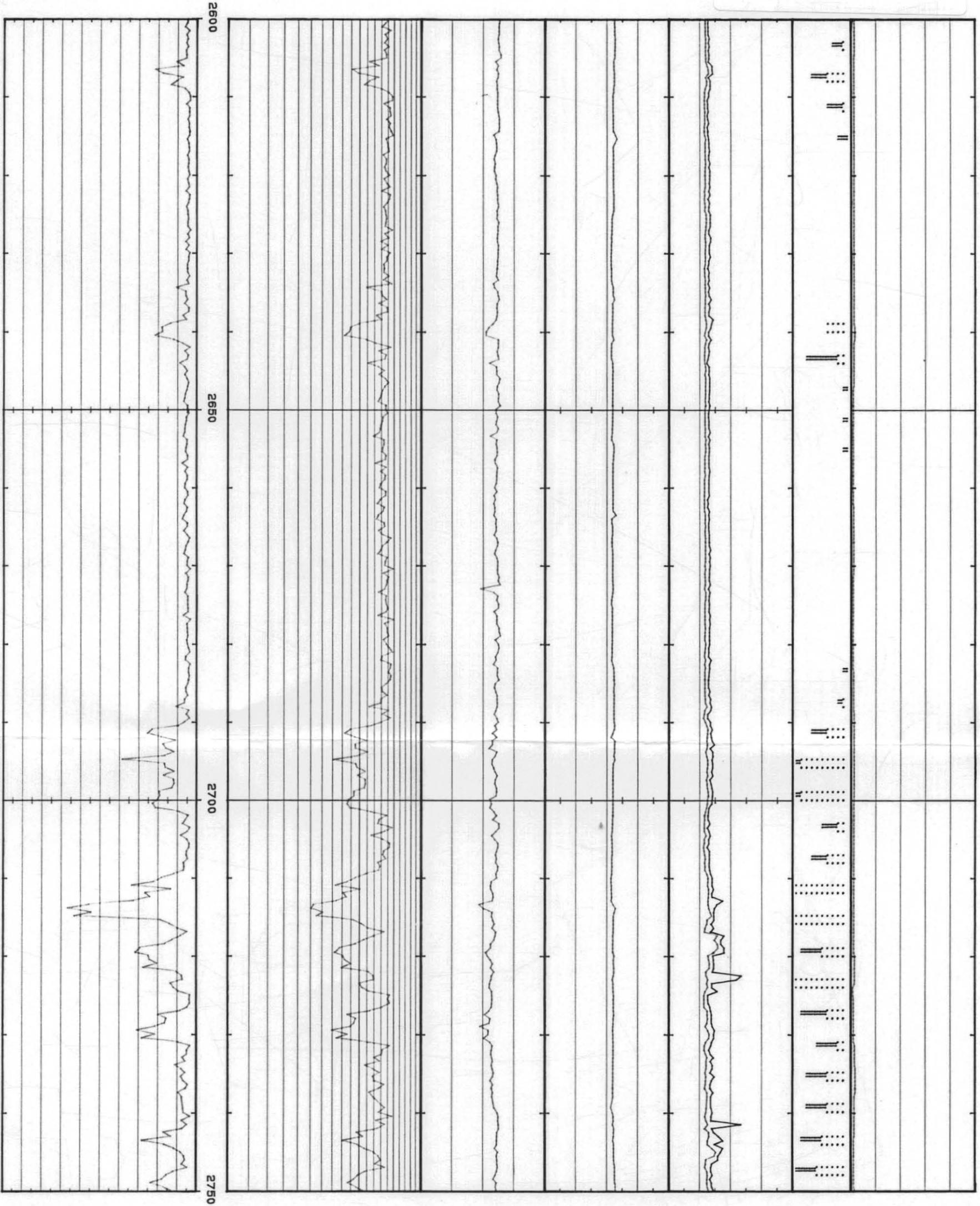
283153



8

5 cm

283154

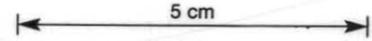




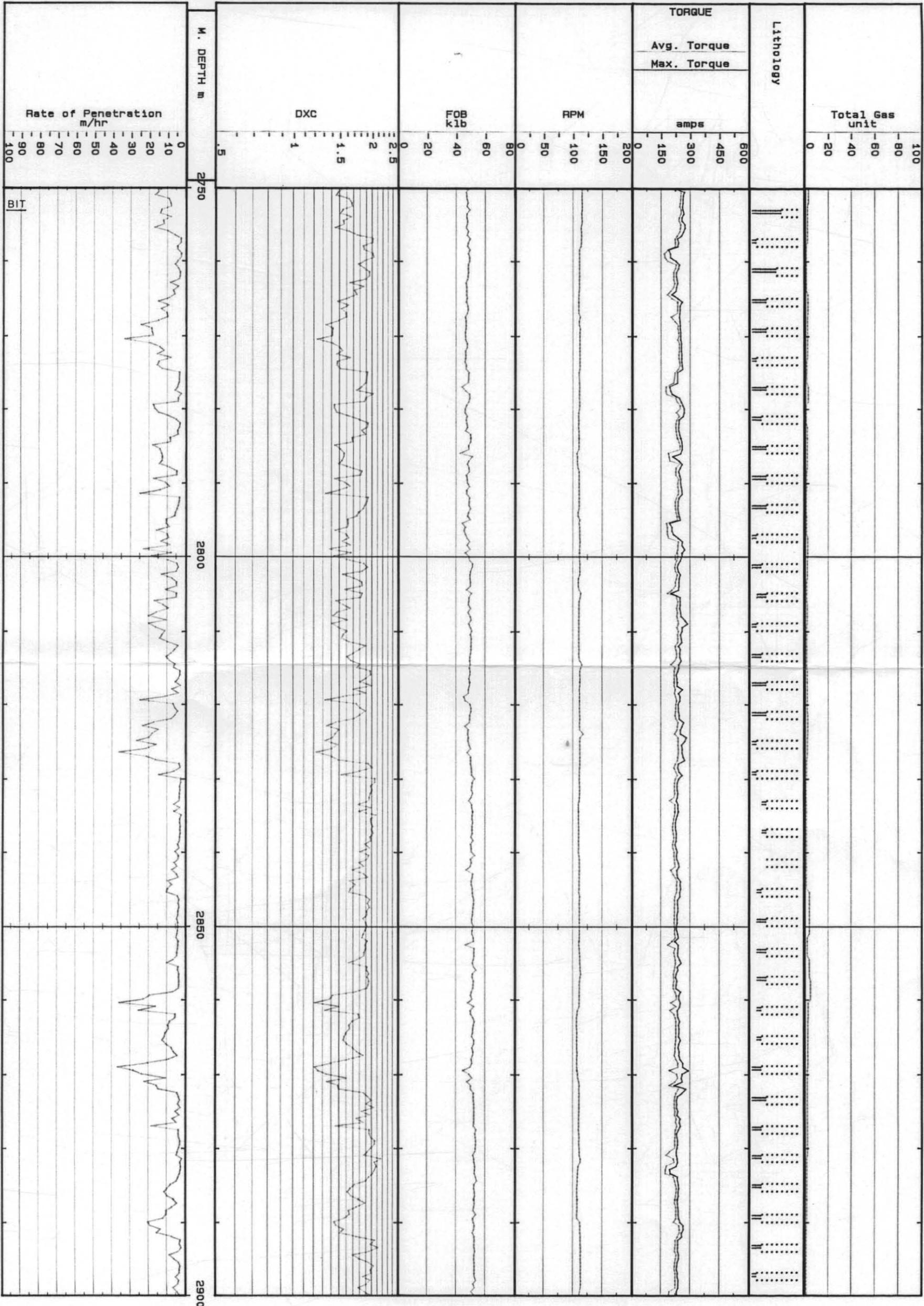
KOORAKAH NO. 1

Drilling Data Plot

Date Plotted : Dec 22nd 1985



Scale 1 m : 500 m



283155

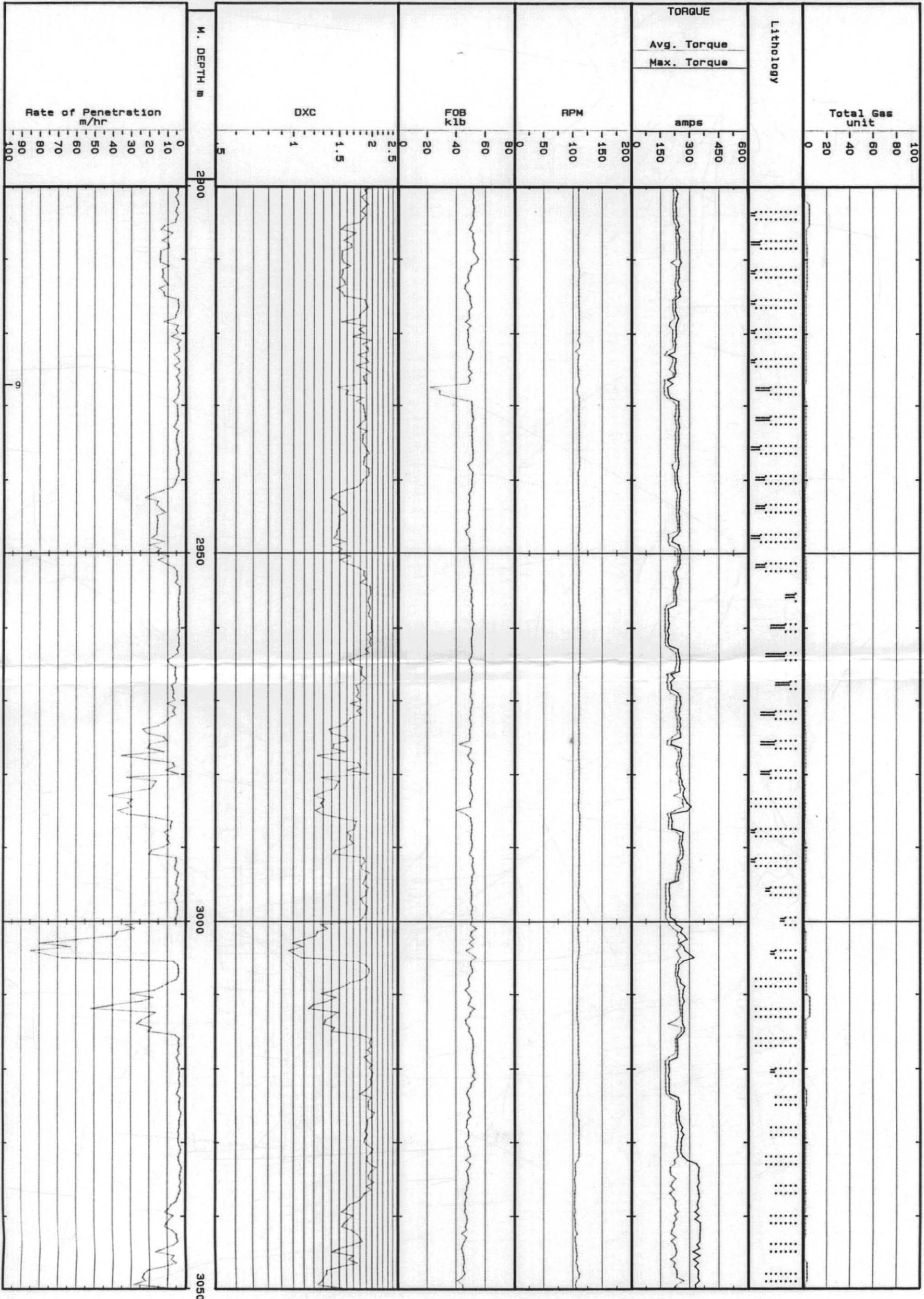
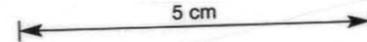


KOORKAH NO. 1

Drilling Data Plot

Date Plotted : Dec 22nd 1985

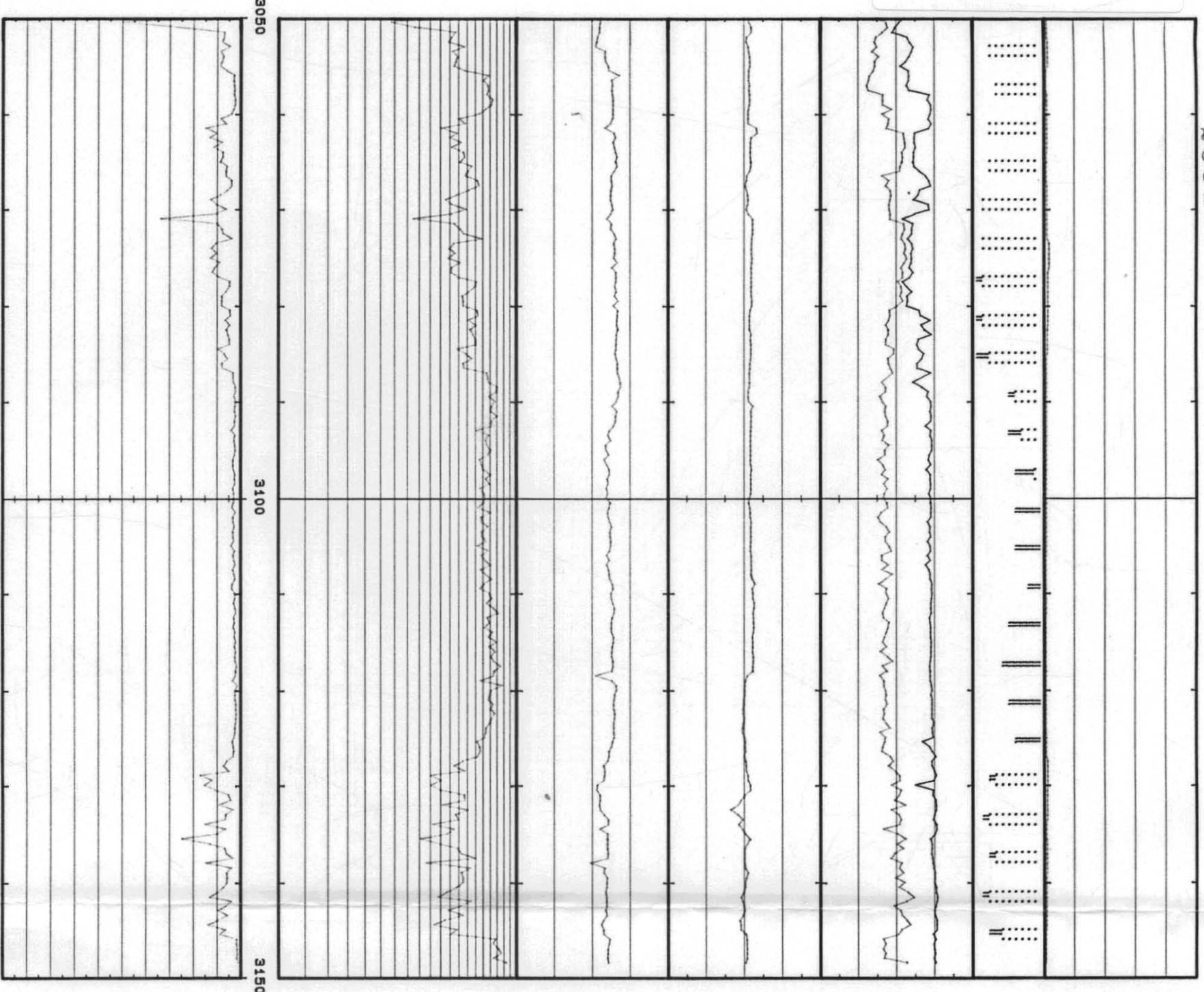
Scale 1 m : 500 m



283156

5 cm

283157



APPENDIX E.

1. HYDRAULICS ANALYSES
2. MORNING GEOLOGICAL-ENGINEERING
REPORTS
3. WEEKLY GEOLOGICAL-ENGINEERING
REPORTS

1. HYDRAULICS ANALYSES



FOURKOH No. 1 Dec 85 Time: 04:47

NB#3 : 835m : 2 Dec '85.

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 8.00 cP
 YIELD POINT 11.00 lb/cft²
 POWER LAW k .8323
 POWER LAW n .5070
 DEPTH 835.00 m
 VERTICAL DEPTH 834.90 m
 DEPTH OF RETURNS 805.73 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.15 lb/gal
 ACTIVE SURFACE MUD VOLUME 500 bbl
 FLOW RATE 903 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2880 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 12, 16, 16, 16

CALCULATED RESULTS:

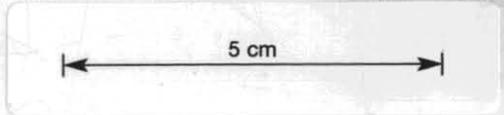
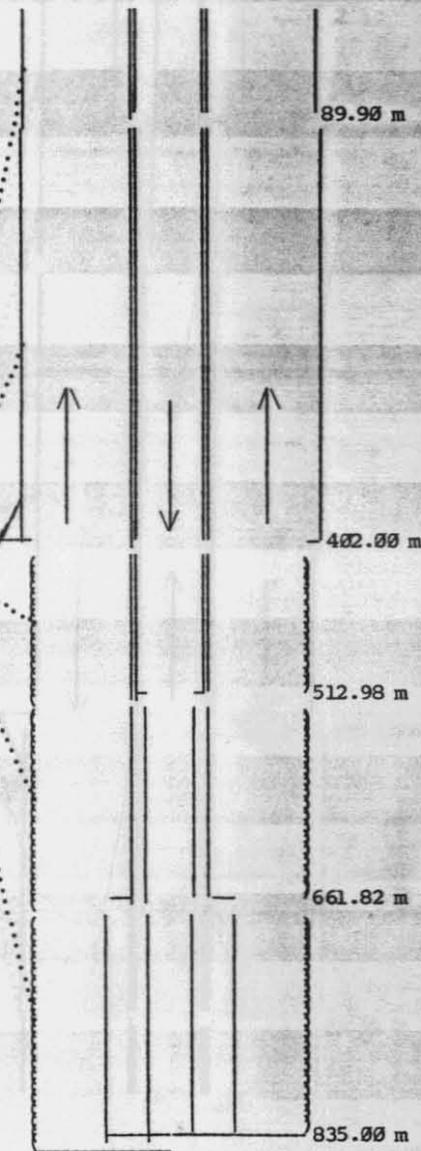
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	67.8	176.8	LAMINAR	.2
89.61	402.00	312.10	19.124/ 5.000	65.0	175.1	LAMINAR	.8
401.73	512.98	110.98	17.500/ 5.000	78.7	182.9	LAMINAR	.4
512.98	661.82	148.84	17.500/ 5.000	78.7	182.9	LAMINAR	.5
661.72	835.00	173.18	17.500/ 8.000	91.4	202.6	LAMINAR	.9

Annulus Diam	Pipe j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
19.124	6.375	5.000	4.276
17.500	6.375	5.000	4.276
17.500	6.375	5.000	3.000
17.500	8.000	8.000	2.875

MUD HYDROSTATIC 8.83 lb/gal
 FLOW CONTRIBUTION .02 lb/gal
 CUTTINGS CONTRIBUTION .74 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.59 lb/gal

SURFACE PRESSURE LOSS 89 psi NOZZLE VELOCITY 414.2 ft/sec
 PIPEBORE PRESSURE LOSS 819 psi HYDRAULIC POWER 738.5 hp
 ANNULAR PRESSURE LOSS 3 psi JET IMPACT FORCE 1771.8 lbs
 BIT PRESSURE LOSS 1402 psi % OF PRESS LOSS AT BIT 61
 TOTAL CALC. PRESS LOSS 2313 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 182 s.p.m.
1) Pipe Capacity	1626	39	328	1.8
2) Pipe Displacement	2141	51	432	2.4
3) Total Annulus	33203	791	6694	36.8 ← LAG
4) Mud in active pits	20979	500	4230	23.2
Circulation (1) + (3)	34829	829	7022	38.6
Hole Volume (1)+(2)+(3)	36970	880	7454	40.9
Total Mud Circulation	55808	1329	11252	61.8



WOBKOH No 3
Date: 3 Dec 85 Time: 04:20

NB#3: 3 Dec 85: 1205 m.

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 8.00 cP
 YIELD POINT 10.00 lb/cft²
 POWER LAW k .6818
 POWER LAW n .5305
 DEPTH 1205.00 m
 VERTICAL DEPTH 1204.92 m
 DEPTH OF RETURNS 1195.96 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.00 lb/gal
 ACTIVE SURFACE MUD VOLUME 587 bbl
 FLOW RATE 897 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2920 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 12, 16, 16, 16

CALCULATED RESULTS:

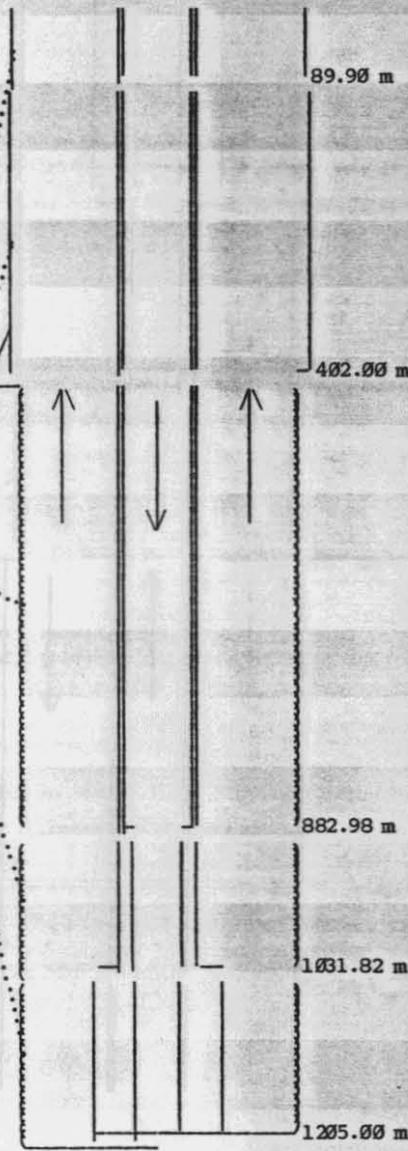
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	67.3	163.1	LAMINAR	.2
89.61	402.00	312.10	19.124/ 5.000	64.5	161.4	LAMINAR	.7
401.73	882.98	480.98	17.500/ 5.000	78.2	169.0	LAMINAR	1.4
882.70	1031.8	148.84	17.500/ 5.000	78.2	169.0	LAMINAR	.4
1031.7	1205.0	173.18	17.500/ 8.000	90.8	188.4	LAMINAR	.8

Annulus Diam	Pipe j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
19.124	6.375	5.000	4.276
17.500	6.375	5.000	4.276
17.500	6.375	5.000	3.000
17.500	8.000	8.000	2.875

MUD HYDROSTATIC 8.93 lb/gal
 FLOW CONTRIBUTION .02 lb/gal
 CUTTINGS CONTRIBUTION .16 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.11 lb/gal

SURFACE PRESSURE LOSS 87 psi NOZZLE VELOCITY 411.4 ft/sec
 PIPEBORE PRESSURE LOSS 963 psi HYDRAULIC POWER 711.8 hp
 ANNULAR PRESSURE LOSS 3 psi JET IMPACT FORCE 1719.1 lbs
 BIT PRESSURE LOSS 1360 psi % OF PRESS LOSS AT BIT 56
 TOTAL CALC. PRESS LOSS 2413 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 181 s.p.m.
1) Pipe Capacity	2532	60	510	2.8
2) Pipe Displacement	2513	60	507	2.8
3) Total Annulus	47093	1121	9494	52.5 ← IAG
4) Mud in active pits	24633	587	4966	27.5
Circulation (1) + (3)	49624	1182	10005	55.3
Hole Volume (1)+(2)+(3)	52137	1241	10512	58.1
Total Mud Circulation	74257	1768	14971	82.8



5 cm

EXLOG

KORKAH No.1
DATE: 4 Dec 85 Time: 04:34

NB#3: 1426m: 4 Dec '85.

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 7.00 cP
 YIELD POINT 11.00 lb/cft²
 POWER LAW k .9668
 POWER LAW n .4739
 DEPTH 1426.00 m
 VERTICAL DEPTH 1425.80 m
 DEPTH OF RETURNS 1410.00 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.20 lb/gal
 ACTIVE SURFACE MUD VOLUME 566 bbl
 FLOW RATE 846 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2880 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 12, 16, 16, 16

CALCULATED RESULTS:

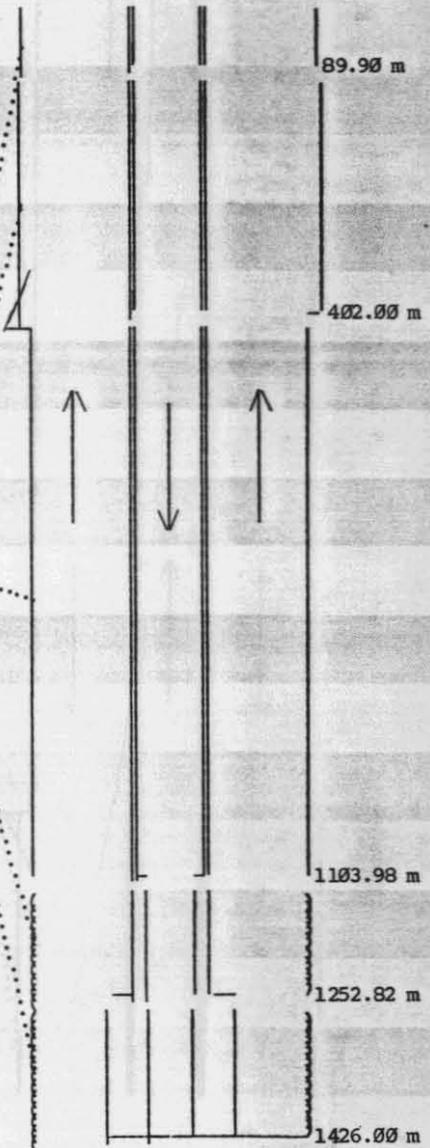
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	63.5	183.3	LAMINAR	.2
89.61	402.00	312.10	19.124/ 5.000	60.9	181.7	LAMINAR	.8
401.73	1104.0	701.98	17.500/ 5.000	73.7	189.1	LAMINAR	2.4
1103.7	1252.8	148.84	17.500/ 5.000	73.7	189.1	LAMINAR	.5
1252.7	1426.0	173.18	17.500/ 8.000	85.6	207.7	LAMINAR	1.0

Annulus Diam	Pipe j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
19.124	6.375	5.000	4.276
17.500	6.375	5.000	4.276
17.500	6.375	5.000	3.000
17.500	8.000	8.000	2.875

MUD HYDROSTATIC 9.10 lb/gal
 FLOW CONTRIBUTION .02 lb/gal
 CUTTINGS CONTRIBUTION .24 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.35 lb/gal

SURFACE PRESSURE LOSS 79 psi NOZZLE VELOCITY 388.0 ft/sec
 PIPEBORE PRESSURE LOSS 881 psi HYDRAULIC POWER 610.5 hp
 ANNULAR PRESSURE LOSS 5 psi JET IMPACT FORCE 1563.2 lbs
 BIT PRESSURE LOSS 1237 psi % OF PRESS LOSS AT BIT 56
 TOTAL CALC. PRESS LOSS 2202 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 171 s.p.m.
1) Pipe Capacity	3073	73	619	3.6
2) Pipe Displacement	2735	65	551	3.2
3) Total Annulus	55389	1319	11167	65.5 ← LAG
4) Mud in active pits	23776	566	4794	28.1
Circulation (1) + (3)	58462	1392	11787	69.1
Hole Volume (1)+(2)+(3)	61196	1457	12338	72.3
Total Mud Circulation	82238	1958	16580	97.2



5 cm

KOORKAH No.1
Date : 5 Dec 85 Time : 04:33

NB# 4: 1599m: 5 Dec '85.

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	11.00	cP
YIELD POINT	17.00	lb/cft ²
POWER LAW k	1.4662	
POWER LAW n	.4780	
DEPTH	1599.00	m
VERTICAL DEPTH	1598.74	m
DEPTH OF RETURNS	1590.78	m
CUTTINGS BULK DENSITY	2.50	spc grv
MUD DENSITY	9.30	lb/gal
ACTIVE SURFACE MUD VOLUME	483	bbbl
FLOW RATE	852	gal/min
BOOSTER FLOW	0	gal/min
PUMP PRESSURE	2850	psi
PUMP gal/stk	4.96	gal/stk
BIT NOZZLES	13, 16, 16, 16	

CALCULATED RESULTS:

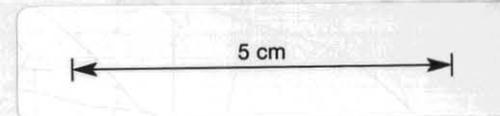
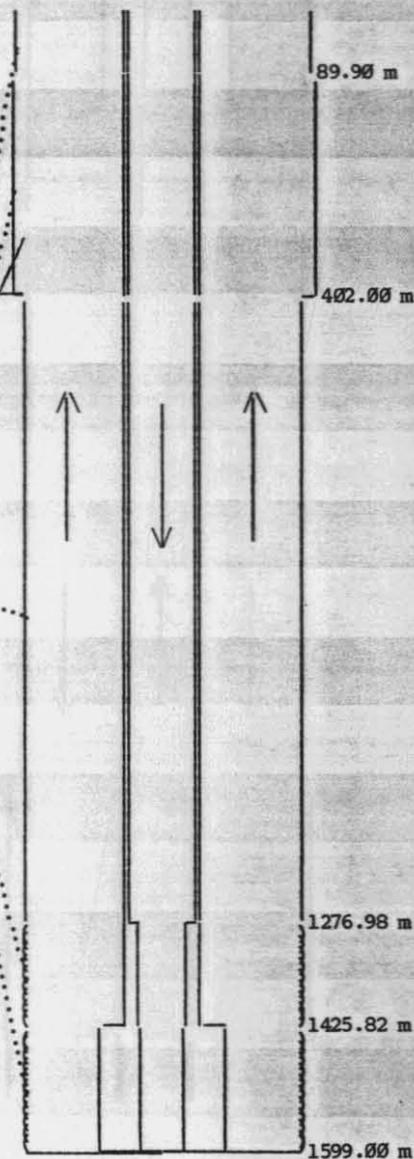
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	63.9	241.0	LAMINAR	.4
89.61	402.00	312.10	19.124/ 5.000	61.3	238.9	LAMINAR	1.2
401.73	1277.0	874.98	17.500/ 5.000	74.2	248.7	LAMINAR	4.6
1276.8	1425.8	148.84	17.500/ 5.000	74.2	248.7	LAMINAR	.8
1425.5	1599.0	173.18	17.500/ 8.000	86.2	273.5	LAMINAR	1.5

Annulus Diam	Pipe		
	j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
19.124	6.375	5.000	4.276
17.500	6.375	5.000	4.276
17.500	6.375	5.000	3.000
17.500	8.000	8.000	2.875

MUD HYDROSTATIC	9.25	lb/gal
FLOW CONTRIBUTION	.03	lb/gal
CUTTINGS CONTRIBUTION	.11	lb/gal
EQUIVALENT CIRCULATING DENSITY	9.39	lb/gal

SURFACE PRESSURE LOSS	81	psi	NOZZLE VELOCITY	380.4	ft/sec
PIPEBORE PRESSURE LOSS	1097	psi	HYDRAULIC POWER	597.1	hp
ANNULAR PRESSURE LOSS	8	psi	JET IMPACT FORCE	1559.9	lbs
BIT PRESSURE LOSS	1201	psi	% OF PRESS LOSS AT BIT	50	
TOTAL CALC. PRESS LOSS	2388	psi			

VOLUMES:	gal	bbbl	Strokes	Minutes @ 172 s.p.m.
1) Pipe Capacity	3496	83	705	4.1
2) Pipe Displacement	2908	69	586	3.4
3) Total Annulus	61883	1473	12476	72.6 ← LAG
4) Mud in active pits	20282	483	4009	23.8
Circulation (1) + (3)	65379	1557	13181	76.7
Hole Volume (1)+(2)+(3)	68288	1626	13768	80.1
Total Mud Circulation	85661	2040	17270	100.5



NB#5: 1621m: 9 December '85.

KOORCAH No. 1
Date: 9 Dec 85 Time: 04:43

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 13.00 cP
 YIELD POINT 35.00 lb/cft²
 POWER LAW k 5.6893
 POWER LAW n .3458
 DEPTH 1619.00 m
 VERTICAL DEPTH 1618.90 m
 DEPTH OF RETURNS 1603.60 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 8.70 lb/gal
 ACTIVE SURFACE MUD VOLUME 468 bbl
 FLOW RATE 620 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2420 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 15, 13, 13

CALCULATED RESULTS:

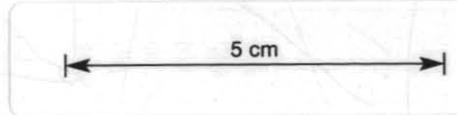
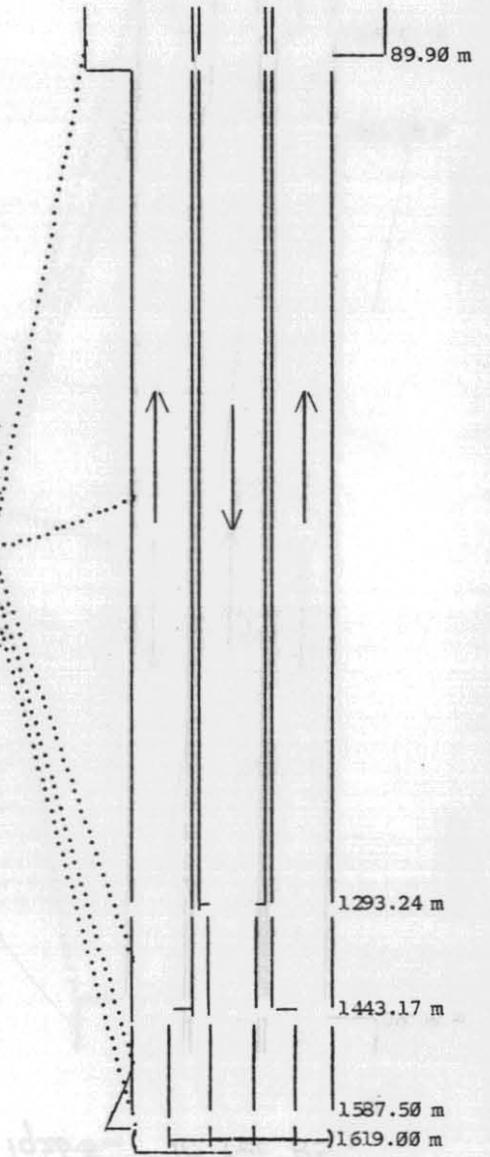
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	46.5	444.5	LAMINAR	.9
89.61	1293.2	1203.3	12.415/ 5.000	117.7	509.3	LAMINAR	42.5
1293.0	1443.2	149.93	12.415/ 5.000	117.7	509.3	LAMINAR	5.3
1442.9	1587.5	144.33	12.415/ 8.000	168.6	570.6	LAMINAR	11.5
1587.4	1619.0	31.50	12.250/ 8.000	176.6	575.2	LAMINAR	2.7

Annulus Diam	Pipe		i.d.
	j.d.	o.d.	
18.750	6.375	5.000	4.276
12.415	6.375	5.000	4.276
12.415	6.375	5.000	3.000
12.415	8.000	8.000	2.875
12.250	8.000	8.000	2.875

MUD HYDROSTATIC 8.62 lb/gal
 FLOW CONTRIBUTION .23 lb/gal
 CUTTINGS CONTRIBUTION .20 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.05 lb/gal

SURFACE PRESSURE LOSS 42 psi NOZZLE VELOCITY 460.7 ft/sec
 PIPEBORE PRESSURE LOSS 603 psi HYDRAULIC POWER 596.2 hp
 ANNULAR PRESSURE LOSS 63 psi JET IMPACT FORCE 1286.1 lbs
 BIT PRESSURE LOSS 1648 psi % OF PRESS LOSS AT BIT 70
 TOTAL CALC. PRESS LOSS 2356 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	3540	84	714	5.7
2) Pipe Displacement	2947	70	594	4.8
3) Total Annulus	28985	690	5844	46.8 ← LAG
4) Mud in active pits	19673	468	3966	31.7
Circulation (1) + (3)	32525	774	6558	52.5
Hole Volume (1)+(2)+(3)	35472	845	7152	57.2
Total Mud Circulation	52198	1243	10524	84.2



KOORKAH No.1
Date : 10 Dec 85 Time : 04:35

NB# 5: 1926.5m: 10 Dec '85.

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 12.00 cP
YIELD POINT 7.00 lb/cft²
POWER LAW k .2432
POWER LAW n .7063
DEPTH 1926.50 m
VERTICAL DEPTH 1926.30 m
DEPTH OF RETURNS 1925.00 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 8.80 lb/gal
ACTIVE SURFACE MUD VOLUME 421 bbl
FLOW RATE 675 gal/min
BOOSTER FLOW 0 gal/min
PUMP PRESSURE 2830 psi
PUMP gal/stk 4.96 gal/stk
BIT NOZZLES 15, 13, 13

CALCULATED RESULTS:

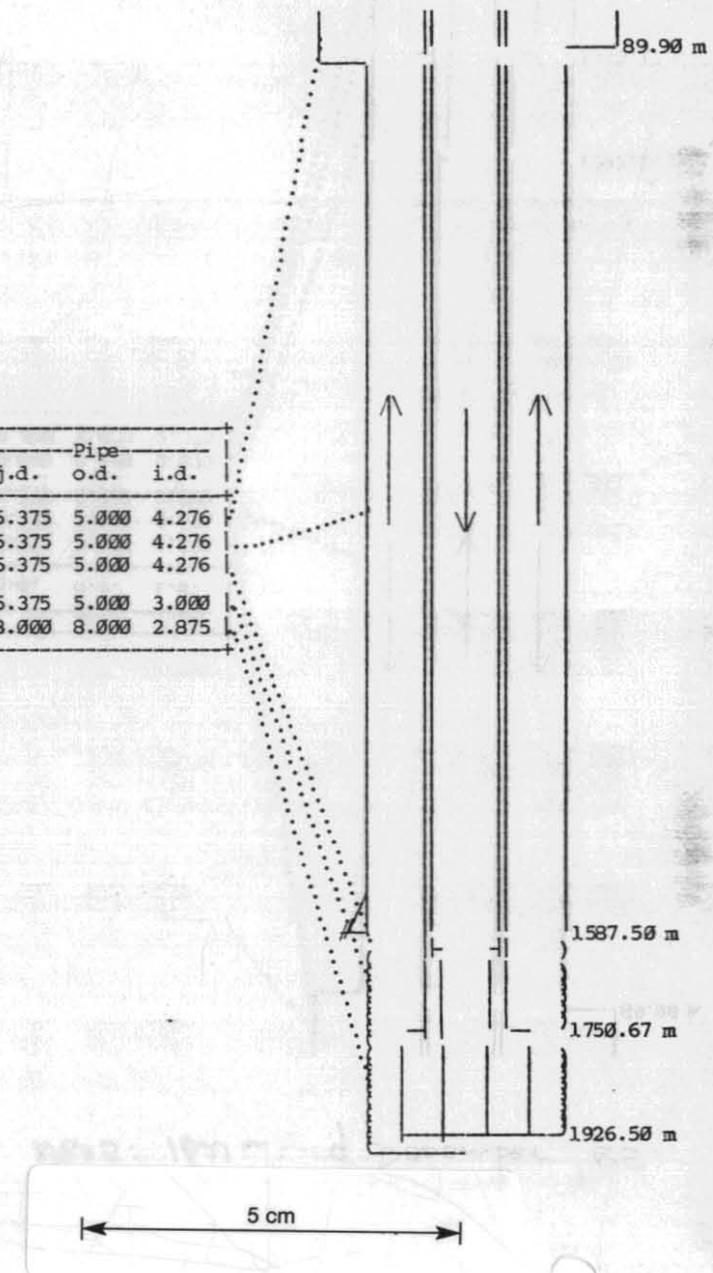
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/	5.000	50.7	105.9	LAMINAR .1
89.61	1587.5	1497.6	12.415/	5.000	128.1	150.0	LAMINAR 8.3
1587.4	1600.7	13.24	12.250/	5.000	132.3	151.9	LAMINAR .1
1600.5	1750.7	149.93	12.250/	5.000	132.3	151.9	LAMINAR .9
1750.5	1926.5	175.83	12.250/	8.000	192.2	204.8	LAMINAR 3.3

Annulus Diam	Pipe		i.d.
	j.d.	o.d.	
18.750	6.375	5.000	4.276
12.415	6.375	5.000	4.276
12.250	6.375	5.000	4.276
12.250	6.375	5.000	3.000
12.250	8.000	8.000	2.875

MUD HYDROSTATIC 8.79 lb/gal
FLOW CONTRIBUTION .04 lb/gal
CUTTINGS CONTRIBUTION .02 lb/gal
EQUIVALENT CIRCULATING DENSITY 8.85 lb/gal

SURFACE PRESSURE LOSS 50 psi NOZZLE VELOCITY 501.5 ft/sec
PIPEBORE PRESSURE LOSS 991 psi HYDRAULIC POWER 778.3 hp
ANNULAR PRESSURE LOSS 13 psi JET IMPACT FORCE 1541.9 lbs
BIT PRESSURE LOSS 1976 psi % OF PRESS LOSS AT BIT 65
TOTAL CALC. PRESS LOSS 3030 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 136 s.p.m.
1) Pipe Capacity	4293	102	865	6.4
2) Pipe Displacement	3256	78	656	4.8
3) Total Annulus	34100	812	6875	50.5 ← LAG
4) Mud in active pits	17695	421	3567	26.2
Circulation (1) + (3)	38393	914	7740	56.9
Hole Volume (1)+(2)+(3)	41648	992	8397	61.7
Total Mud Circulation	56087	1335	11308	83.1
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0485			
Corrected Annulus	35963	856	7251	53.3 ← LAG
Corrected Hole	43511	1036	8772	64.5



HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	19.00 cP
YIELD POINT	10.00 lb/cft ²
POWER LAW k	.3266
POWER LAW n	.7270
DEPTH	2100.28 m
VERTICAL DEPTH	2100.25 m
DEPTH OF RETURNS	2092.23 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	8.90 lb/gal
ACTIVE SURFACE MUD VOLUME	336 bbl
FLOW RATE	544 gal/min
BOOSTER FLOW	0 gal/min
PUMP PRESSURE	2210 psi
PUMP gal/stk	4.96 gal/stk
BIT NOZZLES	13, 13, 13

CALCULATED RESULTS:

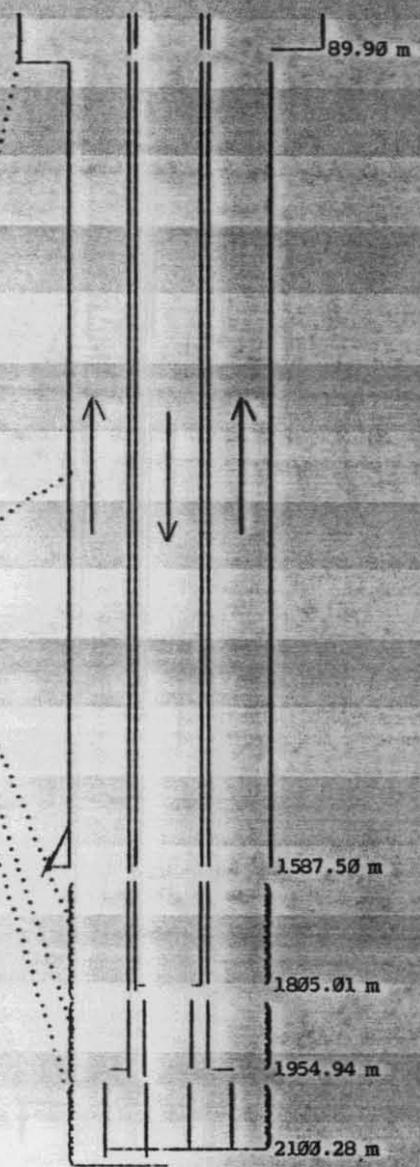
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	43.8	136.9	LAMINAR	.1
89.61	1587.5	1497.6	12.415/ 5.000	103.2	197.0	LAMINAR	10.3
1587.4	1805.0	217.51	12.250/ 5.000	106.6	199.6	LAMINAR	1.6
1804.7	1954.9	149.93	12.250/ 5.000	106.6	199.6	LAMINAR	1.1
1954.7	2100.3	145.34	12.250/ 8.000	154.9	272.7	LAMINAR	3.4

Annulus Diam	Pipe j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
12.415	6.375	5.000	4.276
12.250	6.375	5.000	4.276
12.250	6.375	5.000	3.000
12.250	8.000	8.000	2.875

MUD HYDROSTATIC	8.87 lb/gal
FLOW CONTRIBUTION	.05 lb/gal
CUTTINGS CONTRIBUTION	.08 lb/gal
EQUIVALENT CIRCULATING DENSITY	8.99 lb/gal

SURFACE PRESSURE LOSS	34 psi	NOZZLE VELOCITY	448.7 ft/sec
PIPEBORE PRESSURE LOSS	806 psi	HYDRAULIC POWER	507.8 hp
ANNULAR PRESSURE LOSS	16 psi	JET IMPACT FORCE	1124.3 lbs
BIT PRESSURE LOSS	1600 psi	% OF PRESS LOSS AT BIT	65
TOTAL CALC. PRESS LOSS	2456 psi		

VOLUMES:	gal	bbl	Strokes	Minutes @ 110 s.p.m.
1) Pipe Capacity	4759	113	959	8.7
2) Pipe Displacement	3233	77	652	5.9
3) Total Annulus	37147	884	7489	68.3 ← LAG
4) Mud in active pits	14116	336	2846	26.0
Circulation (1) + (3)	41906	993	8449	77.0
Hole Volume (1)+(2)+(3)	45139	1075	9101	83.0
Total Mud Circulation	56022	1334	11295	103.0
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.3166			
Corrected Annulus	37343	901	7630	69.6 ← LAG
Corrected Hole	45835	1091	9241	84.3



5 cm



KOORKAH No. 1
Date: 12 Dec 85 Time: 04:47

283167

8.

HYDRAULICS CALCULATIONS

Bit # 6 2263m 24th Dec. 85

PLASTIC VISCOSITY 18.00 cP
YIELD POINT 9.00 lb/cft²
POWER LAW k .2859
POWER LAW n .7370
DEPTH 2261.40 m
VERTICAL DEPTH 2261.38 m
DEPTH OF RETURNS 2254.45 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 9.00 lb/gal
ACTIVE SURFACE MUD VOLUME 364 bbl
FLOW RATE 622 gal/min
BOOSTER FLOW 0 gal/min
PUMP PRESSURE 2970 psi
PUMP gal/stk 4.96 gal/stk
BIT NOZZLES 13, 13, 13

CALCULATED RESULTS:

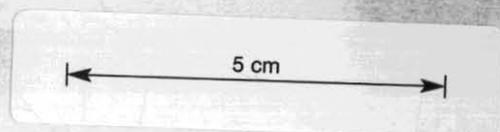
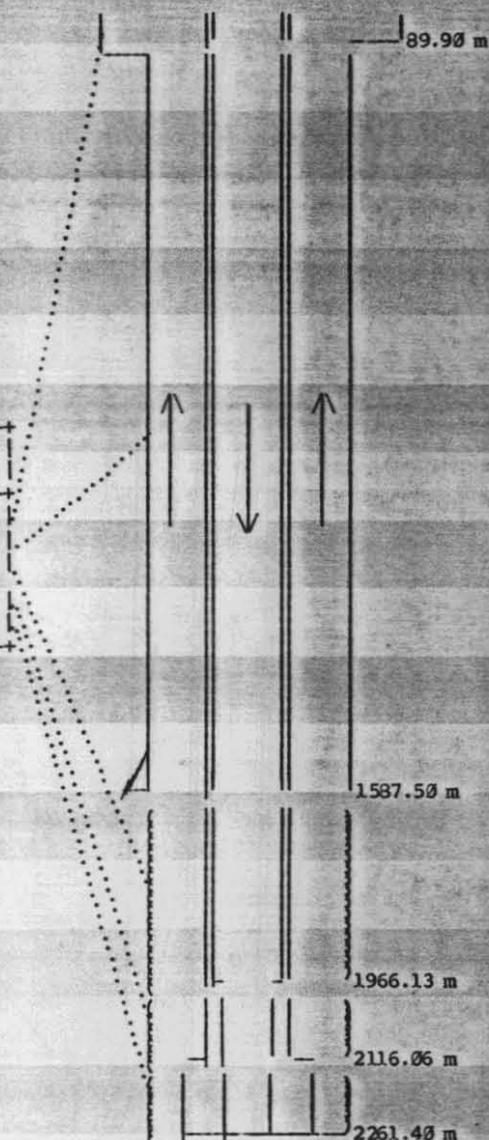
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	46.7	124.4	LAMINAR	.1
89.61	1587.5	1497.6	12.415/ 5.000	118.1	180.4	LAMINAR	10.2
1587.4	1966.1	378.63	12.250/ 5.000	121.9	182.8	LAMINAR	2.8
1966.0	2116.1	149.93	12.250/ 5.000	121.9	182.8	LAMINAR	1.1
2115.9	2261.4	145.34	12.250/ 8.000	177.1	251.5	LAMINAR	3.5

Annulus Diam	j.d.	Pipe o.d.	i.d.
18.750	6.375	5.000	4.276
12.415	6.375	5.000	4.276
12.250	6.375	5.000	4.276
12.250	6.375	5.000	3.000
12.250	8.000	8.000	2.875

MUD HYDROSTATIC 8.97 lb/gal
FLOW CONTRIBUTION .05 lb/gal
CUTTINGS CONTRIBUTION .06 lb/gal
EQUIVALENT CIRCULATING DENSITY 9.08 lb/gal

SURFACE PRESSURE LOSS 44 psi NOZZLE VELOCITY 513.2 ft/sec
PIPEBORE PRESSURE LOSS 1352 psi HYDRAULIC POWER 768.0 hp
ANNULAR PRESSURE LOSS 18 psi JET IMPACT FORCE 1486.9 lbs
BIT PRESSURE LOSS 2116 psi % OF PRESS LOSS AT BIT 66
TOTAL CALC. PRESS LOSS 3230 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	5153	123	1039	8.3
2) Pipe Displacement	3395	81	684	5.5
3) Total Annulus	39827	948	8030	64.3 ← LAG
4) Mud in active pits	15301	364	3035	24.6
Circulation (1) + (3)	44900	1071	9069	72.3
Hole Volume (1)+(2)+(3)	48375	1152	9753	77.8
Total Mud Circulation	60281	1435	12153	96.9
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0832			
Corrected Annulus	43435	1034	8757	69.8 ← LAG
Corrected Hole	51984	1238	10481	83.6



KOORKAH No.1

Date : 13 Dec 85 Time : 04:32

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	15.00 cP
YIELD POINT	13.00 lb/cft ²
POWER LAW k	.6145
POWER LAW n	.6189
DEPTH	2340.30 m
VERTICAL DEPTH	2340.30 m
DEPTH OF RETURNS	2333.79 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	9.10 lb/gal
ACTIVE SURFACE MUD VOLUME	482 bbl
FLOW RATE	620 gal/min
BOOSTER FLOW	0 gal/min
PUMP PRESSURE	2950 psi
PUMP gal/stk	4.96 gal/stk
BIT NOZZLES	13, 13, 13

CALCULATED RESULTS.

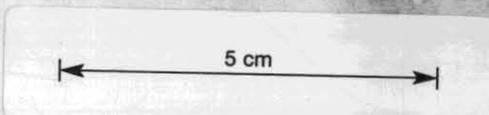
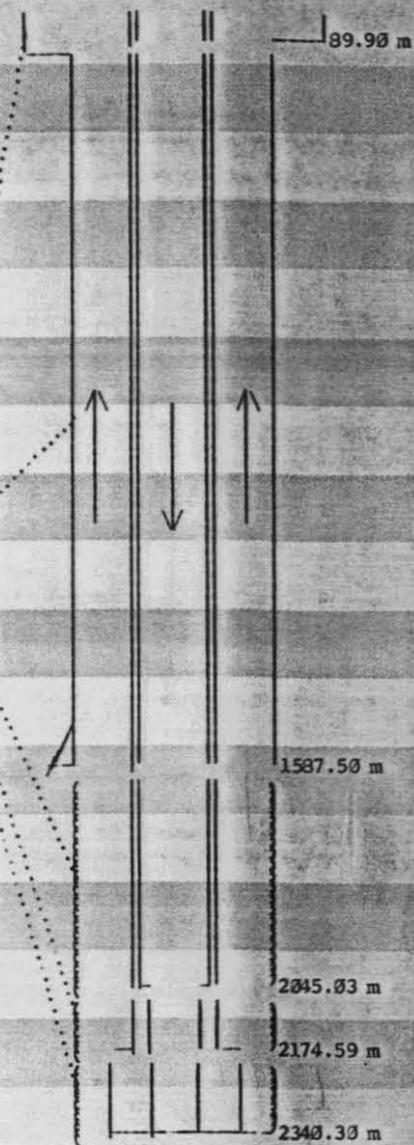
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO.	CRIT VELO	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	18.750/ 5.000	46.5	177.1	LAMINAR	.2
89.61	1587.5	1497.6	12.415/ 5.000	117.7	235.8	LAMINAR	14.7
1587.4	2045.0	457.53	12.250/ 5.000	121.5	238.3	LAMINAR	4.8
2044.9	2174.6	129.56	12.250/ 5.000	121.5	238.3	LAMINAR	1.3
2174.4	2340.3	165.71	12.250/ 8.000	176.6	304.7	LAMINAR	5.1

Annulus	Pipe		
Diam	j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
12.415	6.375	5.000	4.276
12.250	6.375	5.000	4.276
12.250	6.375	5.000	3.000
12.250	8.000	8.000	2.850

MUD HYDROSTATIC	9.07 lb/gal
FLOW CONTRIBUTION	.07 lb/gal
CUTTINGS CONTRIBUTION	.06 lb/gal
EQUIVALENT CIRCULATING DENSITY	9.20 lb/gal

SURFACE PRESSURE LOSS	44 psi	NOZZLE VELOCITY	511.5 ft/sec
PIPEBORE PRESSURE LOSS	979 psi	HYDRAULIC POWER	769.0 hp
ANNULAR PRESSURE LOSS	26 psi	JET IMPACT FORCE	1493.8 lbs
BIT PRESSURE LOSS	2126 psi	% OF PRESS LOSS AT BIT	67
TOTAL CALC. PRESS LOSS	3175 psi		

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
(1) Pipe Capacity	5341	127	1077	8.6
(2) Pipe Displacement	3584	85	722	5.8
(3) Total Annulus	41035	977	8273	66.2 <- LAG
(4) Mud in active pits	20240	482	4081	32.6
Circulation (1) + (3)	46376	1104	9350	74.8
Hole Volume (1)+(2)+(3)	49960	1193	10073	80.6
Total Mud Circulation	66616	1586	13431	107.4
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0002			
Corrected Annulus	44756	1066	9023	72.2 <- LAG
Corrected Hole	53680	1278	10823	86.6



WORMHOLE No.1
Date : 14 Dec 85 Time : 04:54

NS#7 2481m 14th Dec 85

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 14.00 cP
YIELD POINT 9.00 lb/cft²
POWER LAW k .3338
POWER LAW n .6859
DEPTH 2480.72 m
VERTICAL DEPTH 2480.70 m
DEPTH OF RETURNS 2474.08 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 9.10 lb/gal
ACTIVE SURFACE MUD VOLUME 460 bbl
FLOW RATE 620 gal/min
BOOSTER FLOW 0 gal/min
PUMP PRESSURE 2950 psi
PUMP gal/stk 4.96 gal/stk
BIT NOZZLES 13, 13, 13

CALCULATED RESULTS:

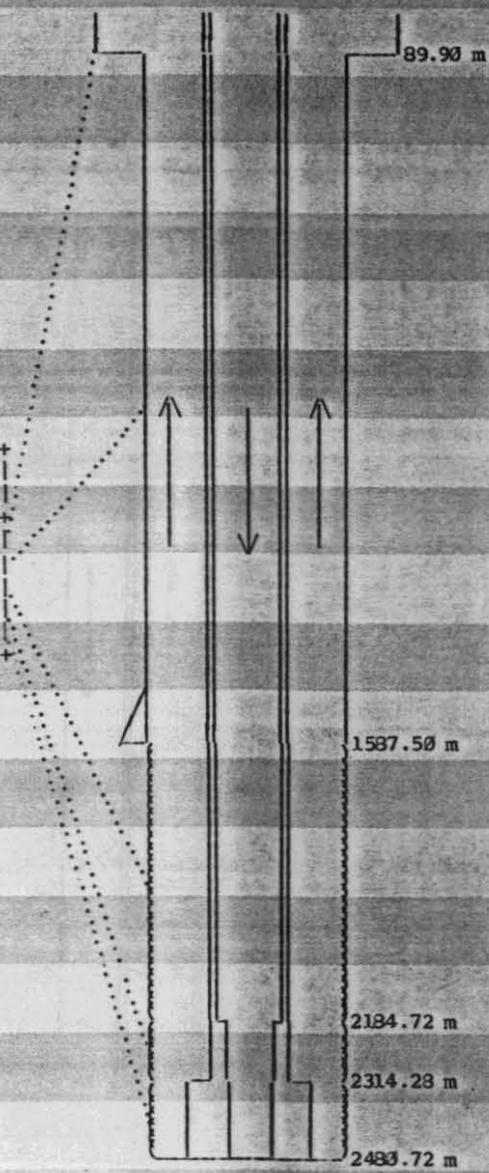
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO.	CRIT VELO	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	13.750 / 5.000	46.5	127.2	LAMINAR	.1
89.61	1587.5	1497.6	12.415 / 5.000	117.7	177.5	LAMINAR	10.0
1587.4	2134.7	597.22	12.250 / 5.000	121.5	179.6	LAMINAR	4.3
2134.5	2314.3	129.56	12.250 / 5.000	121.5	179.6	LAMINAR	.9
2314.0	2480.7	166.44	12.250 / 8.000	176.6	239.0	LAMINAR	3.7

Annulus		Pipe	
Diam	j.d.	o.d.	i.d.
18.750	6.375	5.000	4.276
12.415	6.375	5.000	4.276
12.250	6.375	5.000	4.276
12.250	6.375	5.000	3.000
12.250	8.000	8.000	2.850

MUD HYDROSTATIC 9.08 lb/gal
FLOW CONTRIBUTION .05 lb/gal
CUTTINGS CONTRIBUTION .06 lb/gal
EQUIVALENT CIRCULATING DENSITY 9.18 lb/gal

SURFACE PRESSURE LOSS 44 psi NOZZLE VELOCITY 511.5 ft/sec
PIPEBORE PRESSURE LOSS 1037 psi HYDRAULIC POWER 769.0 hp
ANNULAR PRESSURE LOSS 19 psi JET IMPACT FORCE 1493.8 lbs
BIT PRESSURE LOSS 2126 psi % OF PRESS LOSS AT BIT 66
TOTAL CALC. PRESS LOSS 3226 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	5634	135	1146	9.2
2) Pipe Displacement	3729	89	752	6.0
3) Total Annulus	43367	1033	8743	69.9 <- LAG
4) Mud in active pits	19299	460	3891	31.1
Circulation (1) + (3)	49051	1163	9039	79.1
Hole Volume (1)+(2)+(3)	52780	1257	10641	85.1
Total Mud Circulation	68350	1627	13780	110.2
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0916			
Corrected Annulus	47861	1140	9649	77.2 <- LAG
Corrected Hole	57274	1364	11547	92.4



5 cm

PLASTIC VISCOSITY 9.00 cP
 YIELD POINT 14.00 lb/cft²
 POWER LAW k 1.2164
 POWER LAW n .4764
 DEPTH 2583.20 m
 VERTICAL DEPTH 2582.04 m
 DEPTH OF RETURNS 2576.99 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.10 lb/gal
 ACTIVE SURFACE MUD VOLUME 329 bbl
 FLOW RATE 620 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2950 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 13, 13, 13

CALCULATED RESULTS:

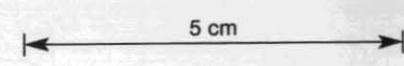
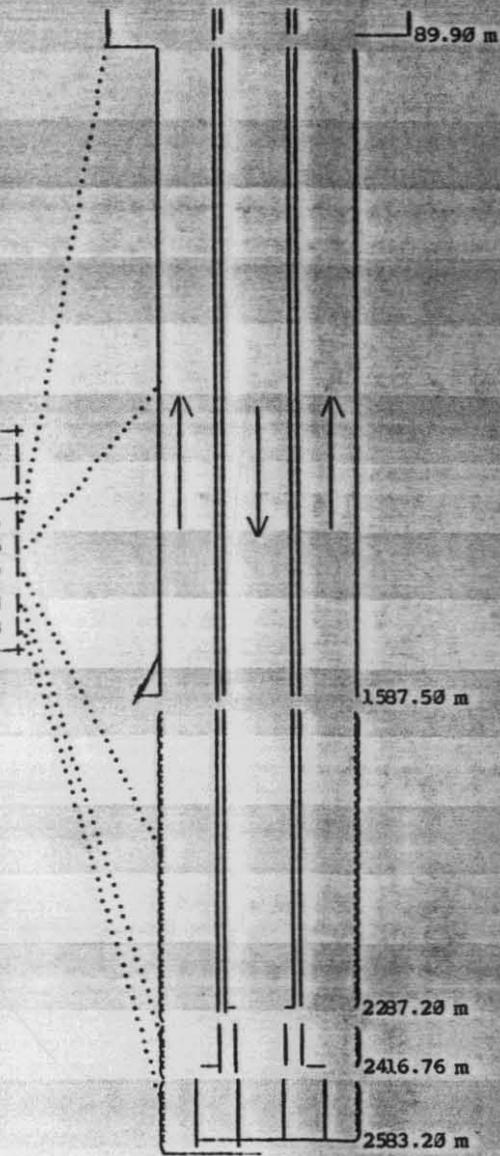
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO.	CRIT VELO	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	18.750/ 5.000	46.5	215.6	LAMINAR	.3
89.61	1587.5	1497.6	12.347/ 5.000	119.2	264.5	LAMINAR	18.2
1587.4	2287.2	699.70	12.250/ 5.000	121.5	265.6	LAMINAR	8.7
2286.9	2416.8	129.56	12.250/ 5.000	121.5	265.6	LAMINAR	1.6
2416.8	2583.2	166.44	12.250/ 8.000	176.6	315.8	LAMINAR	5.4

Annulus Diam	Pipe		
	j.d.	o.d.	i.d.
18.750	6.250	5.000	4.276
12.347	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813

MUD HYDROSTATIC 9.08 lb/gal
 FLOW CONTRIBUTION .08 lb/gal
 CUTTINGS CONTRIBUTION .05 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.21 lb/gal

SURFACE PRESSURE LOSS 43 psi NOZZLE VELOCITY 511.5 ft/sec
 PIPEBORE PRESSURE LOSS 831 psi HYDRAULIC POWER 768.9 hp
 ANNULAR PRESSURE LOSS 34 psi JET IMPACT FORCE 1493.7 lbs
 BIT PRESSURE LOSS 2126 psi % OF PRESS LOSS AT BIT 70
 TOTAL CALC. PRESS LOSS 3034 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	5930	141	1196	9.6
2) Pipe Displacement	3823	91	767	6.1
3) Total Annulus	44984	1071	9069	72.6 ← LAG
4) Mud in active pits	13831	329	2788	22.3
Circulation (1) + (3)	50913	1212	10265	82.1
Hole Volume (1)+(2)+(3)	54716	1303	11032	88.3
Total Mud Circulation	64744	1542	13053	104.4
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0916			
Corrected Annulus	49647	1182	10010	80.1 ← LAG
Corrected Hole	59380	1414	11972	95.8



NOORKAH NO. 1
Date : 16 Dec 85 Time : 04:46

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 13.00 cP
YIELD POINT 15.00 lb/cft²
POWER LAW k .9392
POWER LAW n .5502
DEPTH 2609.61 m
VERTICAL DEPTH 2609.61 m
DEPTH OF RETURNS 2602.25 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 9.20 lb/gal
ACTIVE SURFACE MUD VOLUME 460 bbl
FLOW RATE 620 gal/min
BOOSTER FLOW 0 gal/min
PUMP PRESSURE 2900 psi
PUMP gal/stk 4.96 gal/stk
BIT NOZZLES 13, 13, 13, 9

CALCULATED RESULTS.

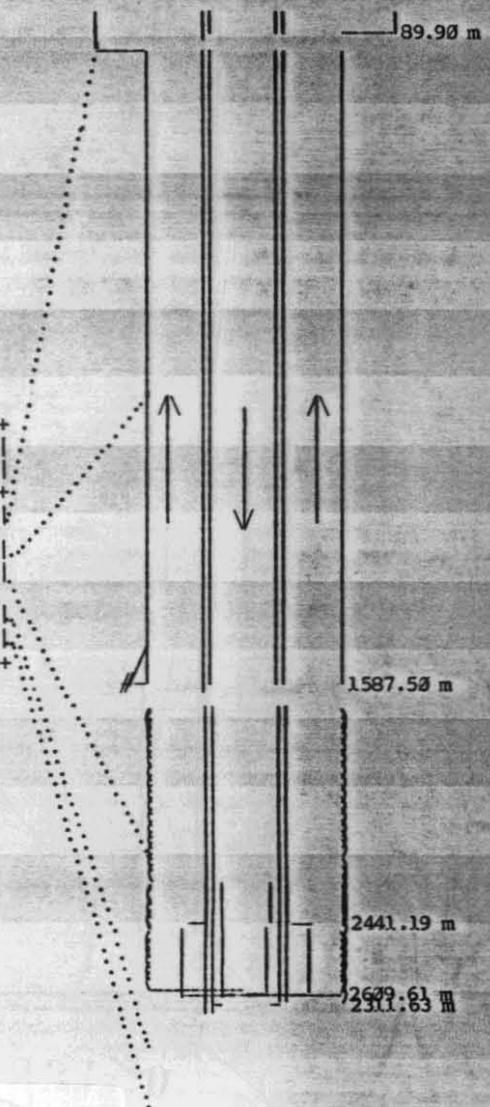
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750/ 5.000	46.5	207.5	LAMINAR	.2
89.61	1587.5	1497.6	12.340/ 5.000	119.4	265.8	LAMINAR	18.2
1587.4	2311.6	724.13	12.250/ 5.000	121.5	267.1	LAMINAR	9.3
2311.6	2441.2	129.56	12.250/ 5.000	121.5	267.1	LAMINAR	1.6
2441.1	2609.6	168.42	12.250/ 8.000	176.6	329.2	LAMINAR	5.8

MUD HYDROSTATIC 9.17 lb/gal
FLOW CONTRIBUTION .08 lb/gal
CUTTINGS CONTRIBUTION .06 lb/gal
EQUIVALENT CIRCULATING DENSITY 9.31 lb/gal

SURFACE PRESSURE LOSS 43 psi NOZZLE VELOCITY 441.1 ft/sec
PIPEBORE PRESSURE LOSS 993 psi HYDRAULIC POWER 578.0 hp
ANNULAR PRESSURE LOSS 35 psi JET IMPACT FORCE 1302.2 lbs
BIT PRESSURE LOSS 1598 psi % OF PRESS LOSS AT BIT 60
TOTAL CALC. PRESS LOSS 2669 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	5992	143	1203	9.7
2) Pipe Displacement	3842	91	775	6.2
3) Total Annulus	45379	1083	9149	73.2 ← LAG
4) Mud in active pits	19337	460	3899	31.2
Circulation (1) + (3)	51370	1223	10357	82.9
Hole Volume (1)+(2)+(3)	55212	1315	11132	89.1
Total Mud Circulation	70707	1684	14255	114.0
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0020			
Corrected Annulus	45481	1083	9170	73.4 ← LAG
Corrected Hole	55315	1317	11152	89.2

Annulus Diam	Pipe j.d.	o.d.	i.d.
18.750	6.250	5.000	4.276
12.340	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813



5 cm

KOORKAH NO.1
Date : 17 Dec 85 Time : 04:40

WB #8
17/12/85
2738m (8983')

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 15.00 cP
YIELD POINT 13.00 lb/cft²
POWER LAW k .6145
POWER LAW n .6189
DEPTH 2734.62 m
VERTICAL DEPTH 2734.59 m
DEPTH OF RETURNS 2725.62 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 9.20 lb/gal
ACTIVE SURFACE MUD VOLUME 420 bbl
FLOW RATE 645 gal/min
BOOSTER FLOW 0 gal/min
PUMP PRESSURE 2990 psi
PUMP gal/stk 4.96 gal/stk
BIT NOZZLES 13, 13, 13, 9

CALCULATED RESULTS

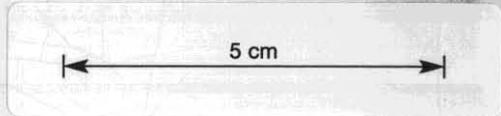
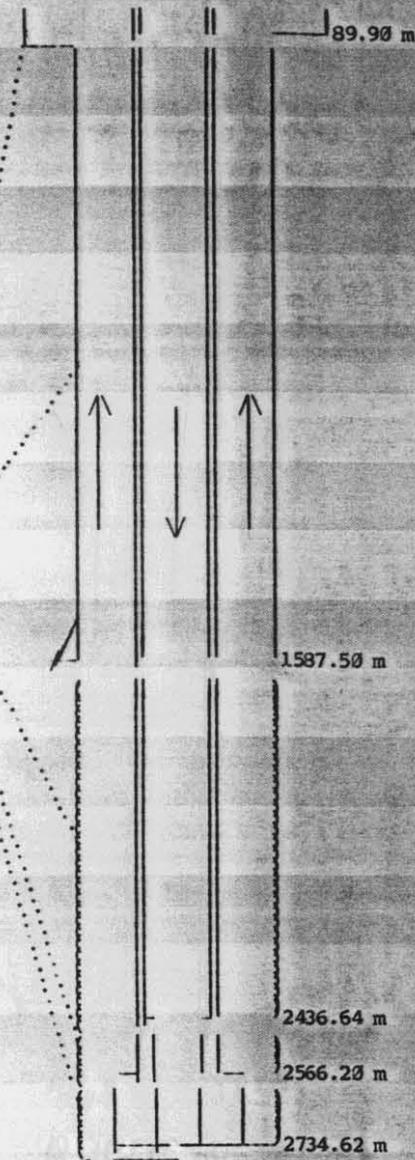
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO.	CRIT VELO	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	13.750/ 5.000	48.4	175.7	LAMINAR	.2
89.61	1587.5	1497.6	12.340/ 5.000	124.2	235.1	LAMINAR	15.4
1587.4	2436.6	849.14	12.250/ 5.000	126.4	236.4	LAMINAR	9.0
2436.6	2566.2	129.56	12.250/ 5.000	126.4	236.4	LAMINAR	1.4
2566.1	2734.6	168.42	12.250/ 8.000	183.7	302.3	LAMINAR	5.3

Annulus Diam	Pipe		i.d.
	j.d.	o.d.	
18.750	6.250	5.000	4.276
12.340	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813

MUD HYDROSTATIC 9.17 lb/gal
FLOW CONTRIBUTION .07 lb/gal
CUTTINGS CONTRIBUTION .07 lb/gal
EQUIVALENT CIRCULATING DENSITY 9.31 lb/gal

SURFACE PRESSURE LOSS 46 psi NOZZLE VELOCITY 458.8 ft/sec
PIPEBORE PRESSURE LOSS 1186 psi HYDRAULIC POWER 650.8 hp
ANNULAR PRESSURE LOSS 31 psi JET IMPACT FORCE 1409.3 lbs
BIT PRESSURE LOSS 1729 psi % OF PRESS LOSS AT BIT 58
TOTAL CALC. PRESS LOSS 2994 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 130 s.p.m.
1) Pipe Capacity	6298	150	1270	9.8
2) Pipe Displacement	3966	94	800	6.1
3) Total Annulus	47460	1130	9568	73.6 ← LAG
4) Mud in active pits	17640	420	3556	27.3
Circulation (1) + (3)	53757	1280	10838	83.3
Hole Volume (1)+(2)+(3)	57723	1374	11638	89.5
Total Mud Circulation	71397	1700	14395	110.7



KOORKAH NO.1
Date : 18 Dec 85 Time : 04:45

18th Dec 85
NB#8 2873m.

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 19.00 cP
YIELD POINT 12.00 lb/cft²
POWER LAW k .4396
POWER LAW n .6897
DEPTH 2872.77 m
VERTICAL DEPTH 2872.75 m
DEPTH OF RETURNS 2859.61 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 9.20 lb/gal
ACTIVE SURFACE MUD VOLUME 307 bbl
FLOW RATE 635 gal/min
BOOSTER FLOW 0 gal/min
PUMP PRESSURE 3020 psi
PUMP gal/stk 4.96 gal/stk
BIT NOZZLES 13, 13, 13, 9

CALCULATED RESULTS:

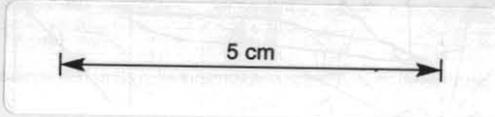
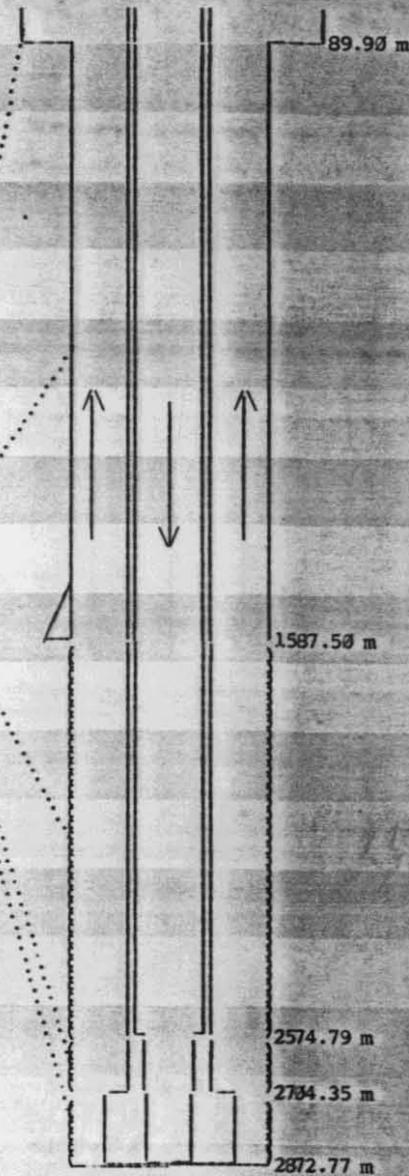
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. ft/min	CRIT VELO ft/min	FLOW REGIME	PRESS LOSS psi
0.00	89.90	89.90	18.750 / 5.000	47.7	156.7	LAMINAR	.1
89.61	1587.5	1497.6	12.340 / 5.000	122.3	220.4	LAMINAR	13.9
1587.4	2574.8	987.29	12.250 / 5.000	124.4	221.8	LAMINAR	9.5
2574.6	2704.4	129.56	12.250 / 5.000	124.4	221.8	LAMINAR	1.2
2704.2	2872.8	168.42	12.250 / 8.000	180.8	295.9	LAMINAR	5.1

Annulus Diam	Pipe		
	j.d.	o.d.	i.d.
18.750	6.250	5.000	4.276
12.340	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813

MUD HYDROSTATIC 9.16 lb/gal
FLOW CONTRIBUTION .06 lb/gal
CUTTINGS CONTRIBUTION .10 lb/gal
EQUIVALENT CIRCULATING DENSITY 9.31 lb/gal

SURFACE PRESSURE LOSS 45 psi NOZZLE VELOCITY 451.7 ft/sec
PIPEBORE PRESSURE LOSS 1327 psi HYDRAULIC POWER 621.0 hp
ANNULAR PRESSURE LOSS 30 psi JET IMPACT FORCE 1366.0 lbs
BIT PRESSURE LOSS 1676 psi % OF PRESS LOSS AT BIT 54
TOTAL CALC. PRESS LOSS 3078 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 120 s.p.m.
1) Pipe Capacity	6636	158	1338	10.5
2) Pipe Displacement	4103	98	827	6.5
3) Total Annulus	49760	1185	10032	78.4 ← LAG
4) Mud in active pits	12886	307	2598	20.3
Circulation (1) + (3)	56395	1343	11370	88.8
Hole Volume (1)+(2)+(3)	60498	1440	12197	95.3
Total Mud Circulation	69281	1653	13968	109.1



KOORKAH NO 1

Date : 19 Dec 85 Time : 04 44

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 19.00 cP
 YIELD POINT 12.00 lb/cft²
 POWER LAW k .4396
 POWER LAW n .6897
 DEPTH 2936.33 m
 VERTICAL DEPTH 2936.31 m
 DEPTH OF RETURNS 2929.92 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.20 lb/gal
 ACTIVE SURFACE MUD VOLUME 379 bbl
 FLOW RATE 620 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2830 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 12, 12, 12, 9

CALCULATED RESULTS:

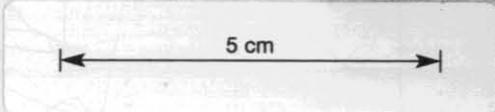
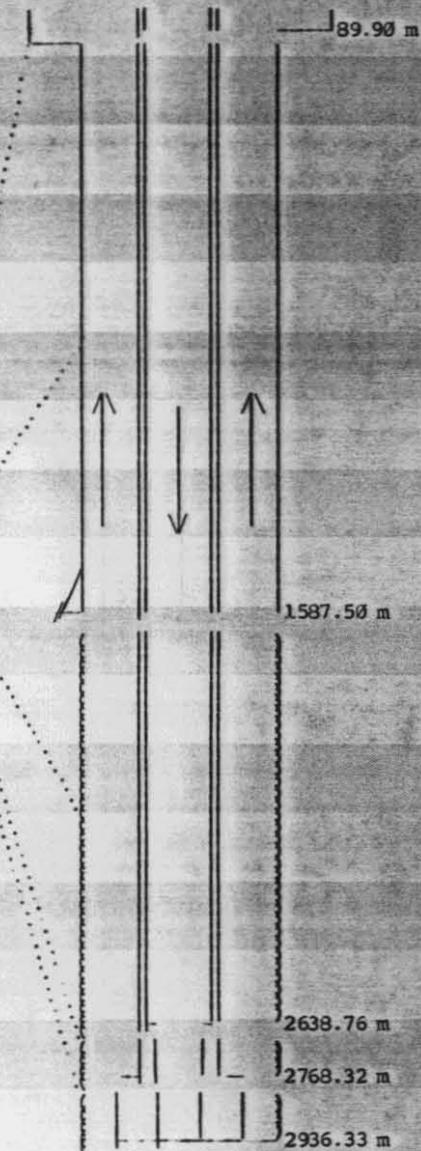
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO.	CRIT VELO	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	18.750/ 5.000	46.5	156.7	LAMINAR	.1
89.61	1587.5	1497.6	12.340/ 5.000	119.4	220.4	LAMINAR	13.7
1587.4	2638.8	1051.3	12.250/ 5.000	121.5	221.8	LAMINAR	10.0
2638.7	2768.3	129.56	12.250/ 5.000	121.5	221.8	LAMINAR	1.2
2768.2	2936.3	168.01	12.250/ 8.000	176.6	295.9	LAMINAR	5.0

Annulus	Pipe		
Diam	j.d.	o.d.	i.d.
18.750	6.250	5.000	4.276
12.340	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813

MUD HYDROSTATIC 9.18 lb/gal
 FLOW CONTRIBUTION .06 lb/gal
 CUTTINGS CONTRIBUTION .05 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.29 lb/gal

SURFACE PRESSURE LOSS 43 psi NOZZLE VELOCITY 535.5 ft/sec
 PIPEBORE PRESSURE LOSS 1294 psi HYDRAULIC POWER 759.4 hp
 ANULAR PRESSURE LOSS 30 psi JET IMPACT FORCE 1492.6 lbs
 BIT PRESSURE LOSS 2099 psi % OF PRESS LOSS AT BIT 61
 TOTAL CALC. PRESS LOSS 3466 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
(1) Pipe Capacity	6792	162	1369	11.0
(2) Pipe Displacement	4163	99	839	6.7
(3) Total Annulus	50820	1210	10246	82.0 <- LAG
(4) Mud in active pits	15914	379	3208	25.7
Circulation (1) + (3)	57612	1372	11615	92.9
Hold Volume (1)+(2)+(3)	61775	1471	12455	99.6
Total Mud Circulation	73526	1751	14824	118.6



KOORKAH NO.1

Date 20 Dec 85 Time 04:28

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 20.00 cP
 YIELD POINT 13.00 lb/cft²
 POWER LAW k .4860
 POWER LAW n .6835
 DEPTH 3053.71 m
 VERTICAL DEPTH 3053.63 m
 DEPTH OF RETURNS 3043.51 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.20 lb/gal
 ACTIVE SURFACE MUD VOLUME 636 bbl
 FLOW RATE 620 gal/min
 BOOSTER FLOW 3 gal/min
 PUMP PRESSURE 2860 psi
 PUMP gal/stk 4.96 gal/stk
 BIT NOZZLES 12, 12, 12, 9

CALCULATED RESULTS:

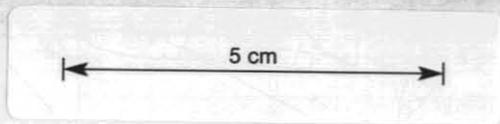
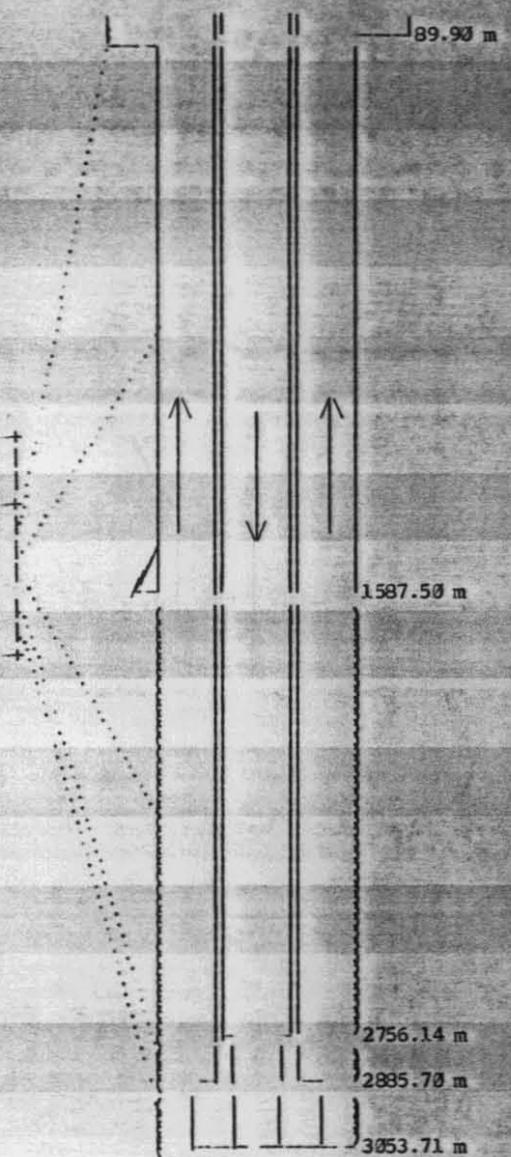
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO	CRIT VELO	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	18.750/ 5.000	46.5	167.2	LAMINAR	.2
89.61	1587.5	1497.6	12.340/ 5.000	119.4	234.0	LAMINAR	14.9
1587.4	2756.1	1168.6	12.250/ 5.000	121.5	235.6	LAMINAR	12.0
2756.0	2885.7	129.56	12.250/ 5.000	121.5	235.6	LAMINAR	1.3
2885.5	3053.7	168.01	12.250/ 8.000	176.6	313.0	LAMINAR	5.4

Annulus	Pipe		
Diam	j.d.	o.d.	i.d.
18.750	6.250	5.000	4.276
12.340	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813

MUD HYDROSTATIC 9.17 lb/gal
 FLOW CONTRIBUTION .36 lb/gal
 CUTTINGS CONTRIBUTION .07 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.30 lb/gal

SURFACE PRESSURE LOSS 43 psi NOZZLE VELOCITY 505.5 ft/sec
 PIPEBORE PRESSURE LOSS 1343 psi HYDRAULIC POWER 759.3 hp
 ANNULAR PRESSURE LOSS 34 psi JET IMPACT FORCE 1492.5 lbs
 BIT PRESSURE LOSS 2099 psi % OF PRESS LOSS AT BIT 60
 TOTAL CALC. PRESS LOSS 3519 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	7079	169	1427	11.4
2) Pipe Displacement	4279	132	863	6.9
3) Total Annulus	52774	1257	10640	85.1 <- LAG
4) Mud in active pits	25456	636	5132	41.1
Circulation (1) + (3)	59353	1425	12367	96.5
Hole Volume (1)+(2)+(3)	64132	1527	12933	103.4
Total Mud Circulation	35309	2031	17199	137.6
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.3490			
Corrected Annulus	55708	1326	11231	89.9 <- LAG
Corrected Hole	67366	1597	13521	108.2



KOORKAH NO.1

Date : 21 Dec 85 Time : 04:26

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	15.00 cP
YIELD POINT	11.00 lb/cft ²
POWER LAW k	4507
POWER LAW n	.6571
DEPTH	3133.23 m
VERTICAL DEPTH	3133.17 m
DEPTH OF RETURNS	3125.72 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	9.30 lb/gal
ACTIVE SURFACE MUD VOLUME	425 bbl
FLOW RATE	620 gal/min
BOOSTER FLOW	0 gal/min
PUMP PRESSURE	2370 psi
PUMP gal/stk	4.96 gal/stk
BIT NOZZLES	12, 12, 12, 9

CALCULATED RESULTS

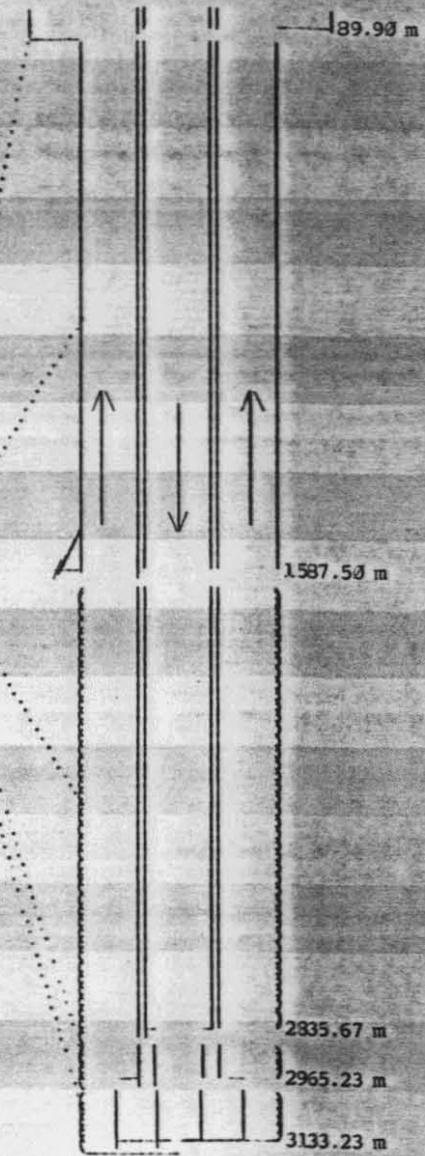
FROM	TO	LENGTH	ANNULUS/PIPE	ANN VELO.	CRIT VELO.	FLOW	PRESS LOSS
m	m	m	in	ft/min	ft/min	REGIME	psi
0.00	89.90	89.90	18.750 / 5.000	46.5	149.1	LAMINAR	.1
89.61	1587.5	1497.6	12.340 / 5.000	119.4	204.8	LAMINAR	12.6
1587.4	2335.7	1248.2	12.250 / 5.000	121.5	206.3	LAMINAR	10.8
2335.6	2965.2	129.56	12.250 / 5.000	121.5	206.3	LAMINAR	1.1
2965.1	3133.2	168.01	12.250 / 8.000	176.6	269.4	LAMINAR	4.5

Annulus	Pipe		
Diam	j.d.	o.d.	i.d.
18.750	6.250	5.000	4.276
12.340	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.000
12.250	8.000	8.000	2.813

MUD HYDROSTATIC	9.23 lb/gal
FLOW CONTRIBUTION	.05 lb/gal
CUTTINGS CONTRIBUTION	.05 lb/gal
EQUIVALENT CIRCULATING DENSITY	9.38 lb/gal

SURFACE PRESSURE LOSS	44 psi	NOZZLE VELOCITY	505.5 ft/sec
PIPEBORE PRESSURE LOSS	1256 psi	HYDRAULIC POWER	767.7 hp
ANNULAR PRESSURE LOSS	29 psi	JET IMPACT FORCE	1508.8 lbs
BIT PRESSURE LOSS	21.22 psi	% OF PRESS LOSS AT BIT	61
TOTAL CALC. PRESS LOSS	3451 psi		

VOLUMES:	gal	bbl	Strokes	Minutes @ 125 s.p.m.
1) Pipe Capacity	7274	173	1466	11.7
2) Pipe Displacement	4353	104	879	7.0
3) Total Annulus	54098	1288	13907	87.3 ← LAG
4) Mud in active pits	17942	425	3597	28.8
Circulation (1) + (3)	61372	1461	12373	99.0
Hole Volume (1)+(2)+(3)	65730	1565	13252	106.0
Total Mud Circulation	79213	1886	15970	127.8
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	1.0490			
Corrected Annulus	57106	1360	11513	92.1 ← LAG
Corrected Hole	63737	1637	13353	113.9



5 cm

2. MORNING GEOLOGICAL-ENGINEERING REPORTS

GEMDAS LOGGING REPORT NO. 1

COMPANY AMOCO AUST. WELL Koor-kah No.1
 DATE 28 Nov. 1985 TIME 0500 hrs
 DEPTH 192 m / 629 ft. LAST REPORT DEPTH -
 RIG OPERATIONS Preparing to run 30" casing
 REPORT BY Gary Hodge REPORT RECEIVED BY J. Guillon (OPERATOR)

DRILLING REPORT

Bit No.: 1 Type: _____ Size: 26" + 36" H0 Jets: 3x14 / 4x20
 On Bit: Footage: 102 m / 334' Hours: 3.1 ROP: 32.9 m/hr / 108 ft/hr WOB: 0-5 klb RPM: 30-70
 Pump Press: 1200 psi SPM: 200 Torque: 1.1-1.6 TBR: 11,000 CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: Seawater Mud Density Out: _____ ECD: _____ PV/YP: _____
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: 420 bbl Annular Volume: 400 bbl Tubing Volume: _____ Displaced Volume: _____
 Carbide Lag—Calculated Lag: _____ Flowrate: 995 gpm.
 Drillpipe Annular Vel (Max. Dia. Sec.): _____ Drillpipe Annular Vel (Open Hole): _____
 Drill Collar Annular Vel (Open Hole): 19 ft/min Critical Vel: _____
 Pressure Loss System: Calc: 640 psi Pressure Loss Bit: 275 psi % Pressure Loss: 23
 Nozzel Vel: 190 ft/sec Jet Impact Force: 838 lbs HHP: 161

PRESSURE PARAMETERS

Drilling Exponent: _____ Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: _____ @ _____
 Other Gas: _____
 Fill: _____ Tight Hole: _____
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: _____ Min. Estimated Fracture Pressure (Open Hole): _____
 Estimated Pore Pressure: _____ Min. Estimated Pore Pressure (Open Hole): _____ @ _____
 Max. Estimated Pore Pressure (Open Hole): _____ @ _____ Estimated Fracture Pressure at TD: _____

Comments: Spud Koor-kah No.1 at 1512 hrs 27 Nov '85. Water depth 67.7 m (222') RKB - Sea floor 89.9 m (295'). 36" hole drilled to 192 m, using seawater and 50 bbl hi-vis slugs on every con; Fill hole with mud - pull out to run 30" casing

Survey at 629' (192 m) 1°; Open hole: 3550 slks.
Annulus: 3390 slks

Surface HHP: 697.

GEMDAS LOGGING REPORT NO. 2

COMPANY AMOCO AUST. WELL Koorak No.1
 DATE 29 Nov '85. TIME 0500 hrs
 DEPTH 300m 984 ft LAST REPORT DEPTH 192m - 629'
 RIG OPERATIONS Drilling 26" hole section - no returns.
 REPORT BY Gary Hodge REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: 2 Type: Smith DST Size: 26" Jets: 24, 24, 24
 On Bit: Footage: 108m/354' Hours: 3.3 ROP: 32.7m/hr/107 fph WOB: 5-10 RPM: 75-100
 Pump Press: 1870 psi SPM: 201 Torque: 1.6-2.3 TBR: 16,000 CP I: \$ 93 CP B: \$ 285

HYDRAULICS REPORT

Mud Density In: Seawater Mud Density Out: - ECD: - PV/YP: -
 Gels: - Salinity: - PPM Cl Solids: - %
 Hole Volume: 497 bbl Annular Volume: 455 bbl Tubing Volume: 8 bbl Displaced Volume: 34 bbl
 Carbide Lag—Calculated Lag: - Flowrate: 996 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 32 ft/min (28") Drillpipe Annular Vel (Open Hole): 28" Csg 32 ft/min
 Drill Collar Annular Vel (Open Hole): 40 ft/min Critical Vel: -
 Pressure Loss System: Cak: 910 psi Pressure Loss Bit: 440 psi % Pressure Loss: 24
 Nozzel Vel: 241 ft/sec Jet Impact Force: 1047 lbs HHP: 254

PRESSURE PARAMETERS

Drilling Exponent: 0.68 at 54 m/hr Flowline Temperature: -
 Shale Density: - Shale Factor: -
 Background Gas: - Max. Formation Gas: - @ - Trip Gas: - @ -
 Other Gas: -
 Fill: - Tight Hole: -
 Cavings: Est %: - Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: - Min. Estimated Fracture Pressure (Open Hole): -
 Estimated Pore Pressure: - Min. Estimated Pore Pressure (Open Hole): - @ -
 Max. Estimated Pore Pressure (Open Hole): - @ - Estimated Fracture Pressure at TD: -

Comments: 30" casing set at 190m - 624';
Cement drilled from 188.7m, drill ahead with 26" hole.

Surface HHP = 1087 / 0.48 per sq in of bit.

Hole: 4210 strokes
Annulus: 3850 "



GEMDAS LOGGING REPORT NO. 3

COMPANY AMOCO AUST. WELL Koorkah No.1
 DATE 30 Nov '85. TIME 0500 hrs
 DEPTH 414.5m - 1360' LAST REPORT DEPTH 300m - 984'
 RIG OPERATIONS Setting 20" casing.
 REPORT BY Gary Hodge. REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: 2 Type: Smith DSI Size: 26" Jets: 3x24
 On Bit: Footage: 222.5/731 Hours: 6.3 ROP: 35.3m/hr/116 WOB: 5-20 RPM: 75-110
 Pump Press: 2000 SPM: 201 Torque: 1.6-4.4 TBR: 33,000 CP I: \$ - CP B: \$ -

HYDRAULICS REPORT

Mud Density In: Seawater Mud Density Out: _____ ECD: _____ PV/YP: -
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: 742 bbl Annular Volume: 690 bbl Tubing Volume: 15 bbl Displaced Volume: 37 bbl
 Carbide Lag—Calculated Lag: - Flowrate: 998 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 32 ft/min Drillpipe Annular Vel (Open Hole): 38 ft/min
 Drill Collar Annular Vel (Open Hole): 40 " Critical Vel: -
 Pressure Loss System: Calc: 955 Pressure Loss Bit: 445 % Pressure Loss: 22
 Nozzel Vel: 242 ft/sec Jet Impact Force: 1061 lbs. HHP: 258

PRESSURE PARAMETERS

Drilling Exponent: 0.75 at 50m/hr Flowline Temperature: -
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: _____ @ _____
 Other Gas: _____
 Fill: Nil Tight Hole: Nil
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: _____ Min. Estimated Fracture Pressure (Open Hole): _____
 Estimated Pore Pressure: _____ Min. Estimated Pore Pressure (Open Hole): _____ @ _____
 Max. Estimated Pore Pressure (Open Hole): _____ @ _____ Estimated Fracture Pressure at TD: _____

Comments: Drill 26" hole to 405m (1330') Surveys at 245m and 405m
(802', 1330') - 0.75 and 0.5 deg. resp. Pull to shoe, run in, ream and
wash from 363-405m (1192-1330') - drill to 414.5m (1360'), spot
600 bbl of 9.0 ppg mud, pull to 183m (600'), run in to 414.5m, no
fill; Pull out of hole;

Run 20" csg and cement. Hblc : 6280 stks
Surf. HP: 1165 - 0.49/sq in of bit. Annuls: 5840 "

GEMDAS LOGGING REPORT NO. 4

COMPANY AMOCO AUST WELL Koorkah No.1
 DATE 1 DEC. 1985 TIME 0500 hrs
 DEPTH 414.5m 1360' LAST REPORT DEPTH 414.5m - 1360'
 RIG OPERATIONS Run in to drill 17 1/2" hole section
 REPORT BY Gary Hodae. REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: 3 Type: _____ Size: 17 1/2" Jets: 12, 16, 16, 16
 On Bit: Footage: _____ Hours: _____ ROP: _____ WOB: _____ RPM: _____
 Pump Press: _____ SPM: _____ Torque: _____ TBR: _____ CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: _____ Mud Density Out: _____ ECD: _____ PV/YP: _____
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: ≈ 505 bbl Annular Volume: 453 bbl Tubing Volume: _____ Displaced Volume: _____
 Carbide Lag—Calculated Lag: _____ Flowrate: _____
 Drillpipe Annular Vel (Max. Dia. Sec.): _____ Drillpipe Annular Vel (Open Hole): _____
 Drill Collar Annular Vel (Open Hole): _____ Critical Vel: _____
 Pressure Loss System: _____ Pressure Loss Bit: _____ % Pressure Loss: _____
 Nozzel Vel: _____ Jet Impact Force: _____ HHP: _____

PRESSURE PARAMETERS

Drilling Exponent: _____ Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: _____ @ _____
 Other Gas: _____
 Fill: _____ Tight Hole: _____
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: _____ Min. Estimated Fracture Pressure (Open Hole): _____
 Estimated Pore Pressure: _____ Min. Estimated Pore Pressure (Open Hole): _____ @ _____
 Max. Estimated Pore Pressure (Open Hole): _____ @ _____ Estimated Fracture Pressure at TD: _____

Comments: 20" casing set at 402m - 1319'
Run BOP stack, riser and nipple up - test BOP ok.
Run in with NB+3 to drill cement, shoe and 17 1/2" hole;
Annulus: 3835 stks.
Hole: 4270 " .

GEMDAS LOGGING REPORT NO. 5

COMPANY AMOCO AUSTR. WELL Koorak No. 1
 DATE 2 December 1985 TIME 0500 hrs
 DEPTH 840m, 2756' LAST REPORT DEPTH 414.5m - 1360'
 RIG OPERATIONS Drilling 17.5" hole section -
 REPORT BY Gary Hodge. REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: 3 Type: Smith SDS-C Size: 17 1/2" Jets: 12, 16, 16, 16
 On Bit: Footage: 425 m Hours: 4:7 ROP: Avg: 90.4 m/hr WOB: 25-30 RPM: _____
 Pump Press: 2880 psi SPM: 182 Torque: 2.0-3.0 TBR: 36000 CP I: \$ 80 CP B: \$ 85

HYDRAULICS REPORT

Mud Density In: 9.1 ppg Mud Density Out: 9.1 ppg ECD: 9.5 ppg PV/YP: 8/11
 Gels: 10/23 Salinity: 1100 PPM Cl Solids: 5 %
 Hole Volume: 888 bbl Annular Volume: 797 bbl Tubing Volume: 39 bbl Displaced Volume: 51 bbl
 Carbide Lag - Calculated Lag: _____ Flowrate: 903 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 68 ft/min Drillpipe Annular Vel (Open Hole): 79 ft/min
 Drill Collar Annular Vel (Open Hole): 91 " Critical Vel: 203 "
 Pressure Loss System: Cal 2315 psi Pressure Loss Bit: 1400 psi % Pressure Loss: 49
 Nozzel Vel: 414 ft/sec Jet Impact Force: 1772 lbs HHP: 739

PRESSURE PARAMETERS

Drilling Exponent: 0.87 at 56 m/hr Flowline Temperature: Sensor removed.
 Shale Density: _____ Shale Factor: _____
 Background Gas: 0-2v Max. Formation Gas: 2v @ _____ Trip Gas: _____ @ _____
 Other Gas: Gas trap removed from 770m.
 Fill: _____ Tight Hole: 30 k/b on wiper trip.
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 11.2 ppg / 2.0 ppg Min. Estimated Fracture Pressure (Open Hole): 13.2 ppg
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ _____
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ _____ Estimated Fracture Pressure at TD: 14 ppg

Comments: Run in NB#3 - drill casing shoe, cement, leak-off test in cement at 403m (1323') and in formation at 417m (1368') to 13.2 ppg. Drill ahead - surveys at 559m & 716m (1834', 2348'), both 0.25 degrees. Formation more argillaceous from 650m, circulate hole clean on survey at 716m, flowline blocked at 771m - wiper trip to clean it out. Circulate at 516m, 700m & 771m to clean hole.

Surface HHP: 1517 Hole: 7520 stks
 HHP/bit area: 3.07/sy in Annulus: 6750 stks

GEMDAS LOGGING REPORT NO. 6

COMPANY AMOCO AUST WELL Koorak No.1
 DATE 3 December 1985 TIME 0500 hrs
 DEPTH 1205m - 3954' LAST REPORT DEPTH 840m: 2756'
 RIG OPERATIONS Drilling 17.5" hole section - Claystone.
 REPORT BY Gary Hodge REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: 3 Type: Smith SDS-C Size: 17 1/2" Jets: 12, 16, 16, 16
 On Bit: Footage: 790m/ Hours: 14.6 ROP: 54.1m/hr: 178'/hr WOB: 30-55 RPM: 120
 Pump Press: 2930 psi SPM: 181 Torque: 2.0-2.5 TBR: 106,000 CP I: \$ 122 CP B: \$ 111

HYDRAULICS REPORT

Mud Density In: 9.0 ppg Mud Density Out: 9.1 ppg ECD: 9.2 ppg PV/YP: 8/10
 Gels: 9/44 Salinity: 8200 PPM Cl Solids: 7 %
 Hole Volume: 1241 bbl Annular Volume: 1121 bbl Tubing Volume: 60 bbl Displaced Volume: 60 bbl
 Carbide Lag—Calculated Lag: - Flowrate: 897 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 67 ft/min Drillpipe Annular Vel (Open Hole): 78 ft/min
 Drill Collar Annular Vel (Open Hole): 90 " Critical Vel: 188 "
 Pressure Loss System: Calc. 2415 psi Pressure Loss Bit: 1360 psi % Pressure Loss: 46
 Nozzel Vel: 411 ft/sec Jet Impact Force: 1719 lbs HHP: 712 Bit

PRESSURE PARAMETERS

Drilling Exponent: 1.17 at 40 m/hr Flowline Temperature: Sensor bypassed.
 Shale Density: - Shale Factor: -
 Background Gas: - Max. Formation Gas: - @ - Trip Gas: - @ -
 Other Gas: Gas trap bypassed due to gumbo
 Fill: - Tight Hole: To 20 klb on connections
 Cavings: Est %: Minor Average Size: Small

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 10.4 ppg / 1.4 ppg Min. Estimated Fracture Pressure (Open Hole): 13.2 ppg (417m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ Estimated Fracture Pressure at TD: 13-14 ppg

Comments: (65 ft/min in 20" casing) (67 ft/min in riser)
Deviation at 871m and 1042m - 0.75 & 1.5 degrees resp.
Shakers gumboed-up at 1008m and 1205m; clear white circulating.

*Gas to 30v before shakers clogged - gas trap removed.

Surface HHP: 1533 Hole: 10510 stks - Annulus: 9495 stks.
 HHP/Area of bit: 2.96/sq in of bit



GEMDAS LOGGING REPORT NO. 7

COMPANY AMOCO AUST. WELL Koorak No. 1
 DATE 4 December 1985 TIME 0500 hrs
 DEPTH 1430m: 4691' LAST REPORT DEPTH 1205m - 3954'
 RIG OPERATIONS Drilling 17.5" hole section: Claystone.
 REPORT BY Gary Lodge REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: 3 Type: Smith SDS-C Size: 17 1/2" Jets: 12, 16, 16, 16
 On Bit: Footage: 106m Hours: 24.7 ROP: 41 m/hr: 135' / hr WOB: 45-50 RPM: 120
 Pump Press: 2880 psi SPM: 171 Torque: 2.3-4.9 TBR: 178,000 CP I: \$ 398 CP B: \$ 137

HYDRAULICS REPORT

Mud Density In: 9.2 ppg Mud Density Out: 9.3 ppg ECD: 9.4 ppg PV/YP: 7/11
 Gels: 8/23 Salinity: 6100 PPM Cl Solids: 7.5 %
 Hole Volume: 1462 bbl Annular Volume: 1323 bbl Tubing Volume: 73 bbl Displaced Volume: 65 bbl
 Carbide Lag—Calculated Lag: - Flowrate: 846 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 64 ft/min Drillpipe Annular Vel (Open Hole): 74 ft/min
 Drill Collar Annular Vel (Open Hole): 86 " Critical Vel: 208 "
 Pressure Loss System: Calc 2200 psi Pressure Loss Bit: 1240 psi % Pressure Loss: 43
 Nozzel Vel: 388 ft/sec Jet Impact Force: 1563 lbs HHP: 611

PRESSURE PARAMETERS

Drilling Exponent: 1.38 at 14 m/hr Flowline Temperature: -
 Shale Density: - Shale Factor: -
 Background Gas: 5v Max. Formation Gas: 6v @ 1370m Trip Gas: - @
 Other Gas: Gas trap out of mud stream due to gumbo
 Fill: Nil Tight Hole: To 80 klbs on wiper trip at 1289m.
 Cavings: Est %: Minor Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 10.3 ppg / 1.1 ppg Min. Estimated Fracture Pressure (Open Hole): 13.2 ppg (417m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ -
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ - Estimated Fracture Pressure at TD: 13-14 ppg.

Comments: Circulate a clear gumbo at 1271.5m and 1398m. Wiper trip at 1289m, drag to 80 klbs on first six stands; pull to 387m and circulate, run in, no fill; drill ahead.
Surveys at 1205m and 1361m - 0.75° and 1.5° resp.
(Frac. 13.2 ppg.) In 20" CSG: 61 ft/min.
Gas readings: 1350 - 1380 m only Bit ft: 3333 ft.

Surface HHP: 1422 Hole: 12380 stks.
 HHP at Bit: 2.54 / sq in of bit. Annulus: 11200 stks.

GEMDAS LOGGING REPORT NO. 8

COMPANY AMOCO AUSTR. WELL Koorak No.1
 DATE 5 December TIME 0500 hrs
 DEPTH 1599m - 5246' LAST REPORT DEPTH 1430m - 4691'
 RIG OPERATIONS Circulating out a drilling break at 1599m.
 REPORT BY Gary Hodge REPORT RECEIVED BY J. Guillery (OPERATOR)

DRILLING REPORT

Bit No.: 4 Type: Smith SDS-C Size: 17.5" Jets: 13, 16, 16, 16
 On Bit: Footage: 136m, 446' Hours: 8.4 ROP: 16.2m/hr: 53 ft/hr WOB: 50 klb RPM: 120
 Pump Press: 2850 psi SPM: 172 Torque: 1.7-2.1 TBR: 60,000 CP I: \$ 187 CP B: \$ 395

HYDRAULICS REPORT

Mud Density In: 9.3 ppg Mud Density Out: 9.3 ppg ECD: 9.4 ppg PV/YP: 11/17
 Gels: 15/33 Salinity: 5000 PPM Cl Solids: 8 %
 Hole Volume: 1626 bbl Annular Volume: 1473 bbl Tubing Volume: 83 bbl Displaced Volume: 69 bbl
 Carbide Lag - Calculated Lag: - Flowrate: 852 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 64 ft/min Drillpipe Annular Vel (Open Hole): 74 ft/min
 Drill Collar Annular Vel (Open Hole): 86 " Critical Vel: 274 "
 Pressure Loss System: Calc. 2390 psi Pressure Loss Bit: 1200 psi % Pressure Loss: 42
 Nozzel Vel: 380 ft/sec Jet Impact Force: 1560 lbs HHP: 597

PRESSURE PARAMETERS

Drilling Exponent: 1.42 at 13 m/hr Flowline Temperature: 55°C
 Shale Density: - Shale Factor: -
 Background Gas: 8v Max. Formation Gas: 10 @ 1597-99m Trip Gas: - @ -
 Other Gas: Nil - no connection gas.
 Fill: Nil Tight Hole: To 90klb on trip out at 1463m.
 Cavings: Est %: Minor Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 10.3 ppg / 1.0 ppg Min. Estimated Fracture Pressure (Open Hole): 13.2 ppg (147m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ -
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ - Estimated Fracture Pressure at TD: 13.3 - 14.3 ppg

Comments: Drill to 1463m - circulate returns, pull out of hole, drag to 90 klb on trip out (stand #4) - drag on stands 1-1p.
Run in NB #4 - ream & wash 1448-1463m - no fill. Bit balling up in several places, lift off bottom to clean.
Dev at 1463m - 0°; Bit cond: T6 B2 G4 (1/2").
(Frac: 13.3 - siltstone & clay, 14.3 in sandstone)

Surface HHP: 1447
 Bit HHP = 2.48 / sq in of bit

Note: 13770 stks
 Annulus: 12480 stks

GEMDAS LOGGING REPORT NO. 9

COMPANY AMOCO AUST. WELL Koorkah No.1
 DATE 6 December 1985. TIME 0500hrs
 DEPTH 1599m - 5246' LAST REPORT DEPTH 1599m - 5246'
 RIG OPERATIONS Reaming 17 1/2" hole - wireline log held-up.
 REPORT BY Gary Hodge REPORT RECEIVED BY J. Guillory (OPERATOR)

DRILLING REPORT

Bit No.: No drilling Type: _____ Size: _____ Jets: _____
 On Bit: Footage: _____ Hours: _____ ROP: _____ WOB: _____ RPM: _____
 Pump Press: 2720psi SPM: 172 Torque: _____ TBR: _____ CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: 9.3 ppg Mud Density Out: _____ ECD: _____ PV/YP: _____
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: 1626 bbl Annular Volume: 1473 bbl Tubing Volume: 83 bbl Displaced Volume: 69 bbl
 Carbide Lag—Calculated Lag: _____ Flowrate: 850 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 64 ft/min Drillpipe Annular Vel (Open Hole): 74 ft/min
 Drill Collar Annular Vel (Open Hole): 86 " Critical Vel: (61 in 20" csg)
 Pressure Loss System: _____ Pressure Loss Bit: _____ % Pressure Loss: _____
 Nozzel Vel: _____ Jet Impact Force: _____ HHP: _____

PRESSURE PARAMETERS

Drilling Exponent: No drilling last 24 hours. Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: 38v @ 1599m
 Other Gas: _____
 Fill: - Tight Hole: To 60 k/b on wiper trip at 1599m.
 Cavings: Est %: 10-20% Average Size: Blocky; 25x25x10 mm.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 10.3 / 1.0 ppg Min. Estimated Fracture Pressure (Open Hole): 13.2 ppg
 Estimated Pore Pressure: 8.7 " Min. Estimated Pore Pressure (Open Hole): 8.7 " @ _____
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ _____ Estimated Fracture Pressure at TD: 13.3-14.3 ppg

Comments: Drill to 1599m - circulate out drill-break (1597-1599m) - circulate and condition mud. Pull to casing shoe, drag to 60 k/b. Run in hole - circulate - trip gas, 38v. Pull out - drag to 40 k/b. Run wireline log - would not go past 1234m - run in drillstring to 1217m and ream hole.

Ream at 172 spm / 850 gpm / 2720 psi

GEMDAS LOGGING REPORT NO. 10

COMPANY AMOCO AUST WELL Koorkah No.1
 DATE 7 December 1985 TIME 0500 hrs
 DEPTH 1599m - 5246' LAST REPORT DEPTH 1599m - 5246'
 RIG OPERATIONS Preparing to pull out of hole after wiper trip.
 REPORT BY Gary Hodge REPORT RECEIVED BY G. Cowan (OPERATOR)

DRILLING REPORT

Bit No.: 4 Type: Smith SDS-c Size: 17 1/2" Jets: _____
 On Bit: Footage: _____ Hours: _____ ROP: _____ WOB: _____ RPM: _____
 Pump Press: _____ SPM: _____ Torque: _____ TBR: _____ CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: _____ Mud Density Out: _____ ECD: _____ PV/YP: _____
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: _____ Annular Volume: _____ Tubing Volume: _____ Displaced Volume: _____
 Carbide Lag—Calculated Lag: _____ Flowrate: _____
 Drillpipe Annular Vel (Max. Dia. Sec.): _____ Drillpipe Annular Vel (Open Hole): _____
 Drill Collar Annular Vel (Open Hole): _____ Critical Vel: _____
 Pressure Loss System: _____ Pressure Loss Bit: _____ % Pressure Loss: _____
 Nozzel Vel: _____ Jet Impact Force: _____ HHP: _____

PRESSURE PARAMETERS

Drilling Exponent: No drilling last 24 hours. Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: 20v @ 1599m.
 Other Gas: _____
 Fill: _____ Tight Hole: Minor - 20kb on trip out before logs.
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: _____ Min. Estimated Fracture Pressure (Open Hole): 13.2 ppg
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ _____
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ _____ Estimated Fracture Pressure at TD: _____

Comments: Ream hole from 1217 - 1599m - circulate 2 high-vis pills;
Pull out of hole - drag to 20kb only.

Run ISF-BHC-GR-SP-Cal log.

Run in for wiper trip - circulate returns from bottom -
Trip gas 20v.

Begin trip out at 0500 hrs.

GEMDAS LOGGING REPORT NO. 11

COMPANY AMOCO AUST. WELL Koorak No.1
 DATE 8 December 1985 TIME 0500 hrs
 DEPTH 1599m - 5246' LAST REPORT DEPTH 1599m - 5246'
 RIG OPERATIONS Cemented casing
 REPORT BY Gary Hoage REPORT RECEIVED BY G. Cowan (OPERATOR)

DRILLING REPORT

Bit No.: _____ Type: _____ Size: _____ Jets: _____
 On Bit: Footage: _____ Hours: _____ ROP: _____ WOB: _____ RPM: _____
 Pump Press: _____ SPM: _____ Torque: _____ TBR: _____ CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: _____ Mud Density Out: _____ ECD: _____ PV/YP: _____
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: _____ Annular Volume: _____ Tubing Volume: _____ Displaced Volume: _____
 Carbide Lag—Calculated Lag: _____ Flowrate: _____
 Drillpipe Annular Vel (Max. Dia. Sec.): _____ Drillpipe Annular Vel (Open Hole): _____
 Drill Collar Annular Vel (Open Hole): _____ Critical Vel: _____
 Pressure Loss System: _____ Pressure Loss Bit: _____ % Pressure Loss: _____
 Nozzel Vel: _____ Jet Impact Force: _____ HHP: _____

PRESSURE PARAMETERS

Drilling Exponent: No drilling last 24 hours Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: _____ @ _____
 Other Gas: _____
 Fill: Nil Tight Hole: _____
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: _____ Min. Estimated Fracture Pressure (Open Hole): _____
 Estimated Pore Pressure: _____ Min. Estimated Pore Pressure (Open Hole): _____ @ _____
 Max. Estimated Pore Pressure (Open Hole): _____ @ _____ Estimated Fracture Pressure at TD: _____

Comments: Run wiper trip. Pull out of hole - no drag.
Run 13.375" casing - replace hanger - casing set at 1587.4m
(5208').
Cement casing.

GEMDAS LOGGING REPORT NO. 12

COMPANY AMOCO AUST. WELL Koorak No.1
 DATE 9 December 1985. TIME 0500
 DEPTH 1621.5 m - 5320' LAST REPORT DEPTH 1599m - 5246'
 RIG OPERATIONS Circulating out drill-break at 1621.5m.
 REPORT BY Gary Hodge REPORT RECEIVED BY G. Cowan (OPERATOR)

DRILLING REPORT

Bit No.: 5 Type: Smith SDGH Size: 12.25" Jets: 13, 13, 15.
 On Bit: Footage: 22.5m/74' Hours: 1.4 ROP: 16.1m/hr: 53 WOB: 20-30 RPM: 85
 Pump Press: 2420psi SPM: 125 Torque: 0.6-0.7 TBR: 12000 CP I: \$ 51 CP B: \$ 815

HYDRAULICS REPORT

Mud Density In: 8.7 ppg Mud Density Out: 8.8 ppg ECD: 8.9 ppg PV/YF: 13/35
 Gels: 13/34 Salinity: 700 PPM Cl Solids: 3.5 %
 Hole Volume: 845 bbl Annular Volume: 690 bbl Tubing Volume: 84 bbl Displaced Volume: 70 bbl
 Carbide Lag—Calculated Lag: - Flowrate: 620 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Casing): 118 ft/min
 Drill Collar Annular Vel (Open Hole): 177 " Critical Vel: 575 "
 Pressure Loss System: Calc 2355 psi Pressure Loss Bit: 1650 psi % Pressure Loss: 68
 Nozzel Vel: 461 ft/sec Jet Impact Force: 1286 lbs HHP: 596

PRESSURE PARAMETERS

Drilling Exponent: 0.96 at 42 m/hr Flowline Temperature: 38.5 °C
 Shale Density: - Shale Factor: -
 Background Gas: 2v Max. Formation Gas: @ Trip Gas: - @
 Other Gas: Nil - no connection gases.
 Fill: - Tight Hole: -
 Cavings: Est %: - Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 15.9 ppg / 7.2 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600.5m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ Estimated Fracture Pressure at TD: 16 ppg

Comments: Cement casing - test BOP stack etc.
Run in NB #5 - tag cement at 5119' - 1560m. Drill float, shoe and cement to 1588m (5210') - leak-off test. (1.3 hrs)
Drill new formation to 5251' - 1600.5m - leak-off test - frac. press. of 16.0 ppg EMD. - Drill ahead.

Surface HHP: 875 Hole: 7150 strokes
 Bit HHP/Area: 5.06 / sq in of bit. Annulus: 5845 strokes.



GEMDAS LOGGING REPORT NO. 13

COMPANY AMOCO Aust. WELL Koorak No. 1
 DATE 10 December '85. TIME 0500
 DEPTH 1926.5m - 6321' LAST REPORT DEPTH 1621.5m - 5320'
 RIG OPERATIONS Pull out of hole at 1926.5m.
 REPORT BY Gary Hodge REPORT RECEIVED BY G. Cowan (OPERATOR)

DRILLING REPORT

Bit No.: 5 Type: Smith SDSH Size: 12.25" Jets: 13, 13, 15
 On Bit: Footage: 327.5m/1074' Hours: 15.7 ROP: 20.9m/hr / 69'/hr. WOB: 55-65 RPM: 150
 Pump Press: 2830 psi SPM: 136 Torque: 150-280 TBR: 134000 CP I: \$ 482 CP B: \$ 278

HYDRAULICS REPORT

Mud Density In: 8.8 ppg Mud Density Out: 8.9 ppg ECD: 9.1 ppg PV/YP: 12/7
 Gels: 4/26 Salinity: 500 PPM Cl Solids: 4 %
 Hole Volume: 992 bbl Annular Volume: 812 bbl Tubing Volume: 661 Displaced Volume: 661
 Carbide Lag—Calculated Lag: 360 strokes at 1723m. Flowrate: 675 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 51 ft/min Drillpipe Annular Vel (Open Hole): 132 ft/min
 Drill Collar Annular Vel (Open Hole): 192 " Critical Vel: 205 "
 Pressure Loss System: Calc. 3030 psi Pressure Loss Bit: 1975 psi % Pressure Loss: 70
 Nozzle Vel: 502 ft/sec Jet Impact Force: 1542 lbs HHP: 778

PRESSURE PARAMETERS

Drilling Exponent: 1.96 at 9 m/hr Flowline Temperature: 58 °C
 Shale Density: - Shale Factor: -
 Background Gas: 5v Max. Formation Gas: 9v @ 1810m Trip Gas: Nil @
 Other Gas: Nil
 Fill: - Tight Hole: To 20-25 klb on some connections
 Cavings: Est %: Nil Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 14.8 ppg / 6.0 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ Estimated Fracture Pressure at TD: 16.0 ppg

Comments: Circ. Returns at 1621.5m & 1749m - no slows. Flow check all drill breaks. Drag to 20-25 klbs on some connections. Drill to 1926.5m (6321') - circulate returns, POOH. Lithology - Sandstone + silt stone - interbedded.

Fracture pressure in sands: 15-18 ppg.

Surface HHP: 1115 Hok: 8400 strokes: Connected 8770 stks
HHP/Area of bit: 6.6 /sq in. Annuls: 6875 strokes: " 7250 stks

GEMDAS LOGGING REPORT NO. 14

COMPANY AMOCO AUSTR. WELL Koorah No.1
 DATE 11 December 1985. TIME 0500 hrs
 DEPTH 2100 m - 6890' LAST REPORT DEPTH 1926.5 m - 6321'
 RIG OPERATIONS Drilling Ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY G. Cowan (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 6 Type: SMITH F2 Size: 12.25" Jets: 3 x 13
 On Bit: Footage: 173.5 Hours: 12.2 ROP: Av. 14 m/hr 46' WOB: 40-45 RPM: 120
 Pump Press: 2210 psi SPM: 110 Torque: 150-0450 TBR: 81,000 CP I: \$ 662 CP B: \$ 443

HYDRAULICS REPORT

Mud Density In: 8.9 ppg Mud Density Out: 8.9⁺ ppg ECD: 9.0 ppg PV/YP: 19/10
 Gels: 3/22 Salinity: 750 PPM Cl Solids: 5 %
 Hole Volume: 1075 bbls Annular Volume: 884 bbls Tubing Volume: 113 bbls Displaced Volume: 77 bbls
 Carbide Lag—Calculated Lag: 200 strokes @ 2000 m Flowrate: 546 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 41 ft/min Drillpipe Annular Vel (Open Hole): 106 ft/min
 Drill Collar Annular Vel (Open Hole): 155 ft/min Critical Vel: 273 ft/min
 Pressure Loss System: Calc. 2456 psi Pressure Loss Bit: 1600 psi % Pressure Loss: 72
 Nozzel Vel: 449 ft/sec Jet Impact Force: 1124 lbs HHP: 508

PRESSURE PARAMETERS

Drilling Exponent: 1.54 @ 15 m/hr Flowline Temperature: 53.9 °C
 Shale Density: — Shale Factor: —
 Background Gas: 3-5 units Max. Formation Gas: 16 @ 2071 Trip Gas: 3 units @ 1926.5 m
 Other Gas: N₂ @ 6321 ft.
 Fill: — Tight Hole: 10-20 klb @ 2101 m 6873'
 Cavings: Est %: Nil Average Size: —

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 14.8 ppg / 6.0 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600m)
 Estimated Pore Pressure: 8.7 Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ —
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ — Estimated Fracture Pressure at TD: 18 ppg

Comments: Condition of Bit #5 T7, B7, G2 Survey 1° N40W
R-I.H with NR#6 Smith F2. Ream & wash 4 singles to bottom
Major drill break at 2027 - 2031 m Circulate returns No show.
Drill break 2065 - 2076 m ROP up to 450-500' / hr. Lithology coal / siltstone.

Surface HHP	704	Hole	9101	strokes	Corrected	9241	Strokes
HHP/Area of bit	4.3	Annulus	7489	strokes	Corrected	7630	Strokes

GEMDAS LOGGING REPORT NO. 15

COMPANY Amoco Aust. WELL Koorak No.1.
 DATE 12th December 1985 TIME 0500 hrs.
 DEPTH 2262 m - 7421' LAST REPORT DEPTH 2100 m - 6890'
 RIG OPERATIONS Drilling Ahead.
 REPORT BY Anthony Fell REPORT RECEIVED BY G. Cowan (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 6 Type: SMITH F2 Size: 12.25" Jets: 3 x 13
 On Bit: Footage: 336.5m 1101' Hours: 28.8 ROP: 11.6m/hr 38ft/hr WOB: 40-45 RPM: 110-120
 Pump Press: 2970 psi SPM: 125 Torque: 150-400 TBR: 195500 CP I: \$ 1081 CP B: \$ 482

HYDRAULICS REPORT

Mud Density In: 9.0 ppg Mud Density Out: 9.1 ppg ECD: 9.09 ppg PV/YP: 18/9
 Gels: 3/14 Salinity: 550 PPM Cl Solids: 6.75 %
 Hole Volume: 1152 bbls Annular Volume: 948 bbls Tubing Volume: 123 bbls Displaced Volume: 81 bbls
 Carbide Lag—Calculated Lag: 700 strokes @ 2213m (7260') Flowrate: 622 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 47 ft/min Drillpipe Annular Vel (Open Hole): 122 ft/min
 Drill Collar Annular Vel (Open Hole): 177 ft/min Critical Vel: 252 ft/min
 Pressure Loss System: Circ. 3230 psi Pressure Loss Bit: 2116 psi % Pressure Loss: 71
 Nozzel Vel: 513 ft/sec Jet Impact Force: 1487 lbs HHP: 768

PRESSURE PARAMETERS

Drilling Exponent: 1.70 @ 8 m/hr 26 Flowline Temperature: 54.4 °C
 Shale Density: — Shale Factor: —
 Background Gas: 2 units Max. Formation Gas: 8.5 units @ 2182m 7159' Trip Gas: — @ —
 Other Gas: Nil
 Fill: — Tight Hole: —
 Cavings: Est %: 10% Average Size: Sand size.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 13.9 ppg | 4.9 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ T.D. Estimated Fracture Pressure at TD: 16.9 ppg

Comments: Drill break 2129 - 2134.5m (6985 - 7003') CR. No. Show.
Survey taken at 2175m (7136') Deviation 1/2° S22W

Fracture Pressure at T.D for a Siltstone.

Surface HHP : 1077 Hole strokes 9753 ; Corrected strokes 10491

HHP / Area of bit: 6.5 Annulus strokes 8030 ; Corrected strokes 8757



GEMDAS LOGGING REPORT NO. 16

COMPANY Amaco Aust. WELL KOORNAH No.1.
 DATE 13th December 1985 TIME 0500
 DEPTH 2344m (7690') LAST REPORT DEPTH 2262m - 7421'
 RIG OPERATIONS Drilling Ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY G. Conner (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 7 Type: SMITH F2 Size: 12.25" Jets: 3 X 13
 On Bit: Footage: 55m (180') Hours: 7.9 ROP: 7m/hr, 23ft/hr WOB: 40-45 RPM: 110-112
 Pump Press: 2950 psi SPM: 125 Torque: 155-200 TBR: 50900 CP I: \$ 785 CP B: \$ 1068

HYDRAULICS REPORT

Mud Density In: 9.1+ Mud Density Out: 9.1+ ECD: 9.2 PV/YP: 15/13
 Gels: 9/19 Salinity: 500 PPM Cl Solids: 7.5 %
 Hole Volume: 1190 bbl Annular Volume: 977 bbl Tubing Volume: 127 bbl Displaced Volume: 85 bbl
 Carbide Lag—Calculated Lag: 700 strokes at 2213 (7260') Flowrate: 620 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.6 ft/min Critical Vel: 304.7 ft/min
 Pressure Loss System: (Calc.) 3175 psi Pressure Loss Bit: 2126 p.s.i. % Pressure Loss: 72
 Nozzel Vel: 511.5 ft/sec Jet Impact Force: 1493.8 lbs HHP: 769

PRESSURE PARAMETERS

Drilling Exponent: 1.75 at 6m/hr Flowline Temperature: 59.1°C
 Shale Density: — Shale Factor: —
 Background Gas: 1.5 Units Max. Formation Gas: N.A @ — Trip Gas: 2 Units @ 2289m (7510')
 Other Gas: —
 Fill: — Tight Hole: On trip out at 2188m (7180') 20 klb, 2169m (7118') 45-50 klb
 Cavings: Est %: 10 Average Size: Sand size, 2141m (7025') 50-60 klb

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 13.8 ppg / 4.7 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ T.D. Estimated Fracture Pressure at TD: 17.5 ppg

Comments: P.O.O.H. at 2289m (7510'). Bit condition T2, B5, C8
Deviation at 2289m (7510') = 3/4°
Drill ahead through claystone.

Fracture pressure at T.D. for a claystone.

Surface HHP : 1067 Hole strokes 10073; Corrected strokes 10823

HHP/Area of bit : 6.5 Annulus strokes 8273; Corrected strokes 9023



GEMDAS LOGGING REPORT NO. 17

COMPANY Amoco Australia WELL Koorah # 1
 DATE 14/12/85 TIME 05:00
 DEPTH 2481m (8140') LAST REPORT DEPTH 2344m (7690')
 RIG OPERATIONS Drill Ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY M. Moss (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 7 Type: SMITH F2 Size: 12.25" Jets: 3x13
 On Bit: Footage: 192m (630') Hours: 27.8 ROP: 6.9m (22.5')/hr WOB: 45-50 RPM: 110-115
 Pump Press: 2950psi SPM: 125 Torque: 140-220 TBR: 184700 CP I: \$ 1180 CP B: \$ 820

HYDRAULICS REPORT

Mud Density In: 9.1⁺ Mud Density Out: 9.0⁺ ECD: 9.18 ppg PV/YP: 14/19
 Gels: 13/34 Salinity: 480 PPM Cl Solids: 6.0 %
 Hole Volume: 1257 bbl Annular Volume: 1053 bbl Tubing Volume: 135 bbl Displaced Volume: 89 bbl
 Carbide Lag—Calculated Lag: 856 strokes at 2331m (7667') Flowrate: 620 G.P.M.
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.6 ft/min Critical Vel: 239.0 ft/min
 Pressure Loss System: (Cal) 3226psi Pressure Loss Bit: 2126psi % Pressure Loss: 72
 Nozzel Vel: 511.5 ft/sec Jet Impact Force: 1493.8 lbs HHP: 769.0 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.79 at 5m/hr Flowline Temperature: 62.4°C
 Shale Density: - Shale Factor: -
 Background Gas: 2 Units Max. Formation Gas: 27 Units @ 2434m (7985') Trip Gas: - @
 Other Gas: -
 Fill: - Tight Hole: -
 Cavings: Est %: 10% Average Size: Sand sized

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 13.54 ppg / 4.44 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ T.D Estimated Fracture Pressure at TD: 17.0 ppg

Comments: Circulate returns from drillbreak at 2422.5m (7948')
Drilling through claystone / siltstone with minor interbedded sandstone
Fracture pressure in sand at 2425m (7956') = 16.3 ppg.
 Surface H.H.P. 11017 Hole strokes 10641 Corrected strokes 11547
 H.H.P / Area of bit: 6.5 Annulus strokes 8743, Corrected strokes 9649



GEMDAS LOGGING REPORT NO. 18

COMPANY Amoco Australia WELL Koorah # 1
 DATE 15th Sept. 1985 TIME 05:00
 DEPTH 2584m (8478') LAST REPORT DEPTH 2481m (8140')
 RIG OPERATIONS Drilling ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY M. Moss (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 7 Type: SMITH F2 Size: 12.25" Jets: 3x13
 On Bit: Footage: 295m (968') Hours: 48.4 ROP: 20ft/hr, 6m/hr WOB: 50 RPM: 105-115
 Pump Press: 2950psi SPM: 125 Torque: 100-225 TBR: 337948 CP I: \$ 1912 CP B: \$ 842

HYDRAULICS REPORT

Mud Density In: 9.1⁺ ppg Mud Density Out: 9.1 ppg ECD: 9.21 ppg PV/YP: 9/14
 Gels: 15/28 Salinity: 510 PPM Cl Solids: 6.5 %
 Hole Volume: 1303 bbl Annular Volume: 1071 bbl Tubing Volume: 141 bbl Displaced Volume: 916 bbl
 Carbide Lag—Calculated Lag: 856 strokes at 2337 (7667') Flowrate: 620 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.6 ft/min Critical Vel: 315.8 ft/min
 Pressure Loss System: Cal. 3034 psi Pressure Loss Bit: 2126 psi % Pressure Loss: 72
 Nozzel Vel: 511.5 ft/sec Jet Impact Force: 1493.7 lbs HHP: 768.9

PRESSURE PARAMETERS

Drilling Exponent: 1.92 at 4.5 m/hr Flowline Temperature: 61.5°C
 Shale Density: - Shale Factor: -
 Background Gas: 1 Unit Max. Formation Gas: - @ - Trip Gas: - @ -
 Other Gas: -
 Fill: - Tight Hole: -
 Cavings: Est %: Negligible Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 13.37 ppg / 427 ppg Min. Estimated Fracture Pressure (Open Hole): 160 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ -
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 17.7 ppg

Comments: Drill ahead through claystone.
Deviation $\frac{3}{4}^{\circ}$ at 2498m. (8195')

Surface H.H.P.: 1067 Hole strokes 11032 Corrected strokes 11972
 H.H.P./Area of bit: 6.5 Annulus strokes 9069 Corrected strokes 10010



GEMDAS LOGGING REPORT NO. 19

COMPANY Amoco Australia WELL Koorah # 1
 DATE 16th Dec. 1985 TIME 05:00
 DEPTH 2611m (8566') LAST REPORT DEPTH 2584m (8478')
 RIG OPERATIONS Drilling ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY M. Moss (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 8 Type: SMITH F2 Size: 12.25" Jets: 13,13,13,9
 On Bit: Footage: 22m (72') Hours: 3.1 ROP: 7m/hr (23ft/hr) WOB: 50 RPM: 110
 Pump Press: 2800psi SPM: 125 Torque: 175-220 TBR: 19800 CP I: \$ 1124 CP B: \$ 1819

HYDRAULICS REPORT

Mud Density In: 9.2 ppg Mud Density Out: 9.1 ppg ECD: 9.31 ppg PV/YP: 13/15
 Gels: 16/27 Salinity: 550 PPM Cl Solids: 6.75 %
 Hole Volume: 1315 bbl Annular Volume: 1080 bbl Tubing Volume: 143 bbl Displaced Volume: 91 bbl
 Carbide Lag—Calculated Lag: 100 strokes at 2585m (7879') Flowrate: 620 g.p.m.
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 177 ft/min Critical Vel: 329 ft/min
 Pressure Loss System: 2669 psi Pressure Loss Bit: 1598 psi % Pressure Loss: 57
 Nozzle Vel: 441 ft/sec Jet Impact Force: 1302 lbs HHP: 578

PRESSURE PARAMETERS

Drilling Exponent: 1.87 at 5.2m/hr (17ft/hr) Flowline Temperature: 57°C
 Shale Density: - Shale Factor: -
 Background Gas: 3 Units Max. Formation Gas: 7 Units @ 2579m (8461') Trip Gas: 5 Units @ 2589m (8494')
 Other Gas: -
 Fill: None Tight Hole: -
 Cavings: Est %: - Average Size: -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 13.36 / 4.16 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ T.D. Estimated Fracture Pressure at TD: 18.0 ppg

Comments: P.O.O.H at 2589m (8494'). Bit condition T1, B5 C4
Deviation at 2589m = 1 1/4°

Drilling ahead through claystone and interbedded siliceous sandstone / siltstone.

Surface H.H.P: 1013 , Hole strokes 11132 , Corrected strokes 11152

HHP/Area of bit: 4.9 , Annulus strokes 9149 , Corrected strokes 9170



GEMDAS LOGGING REPORT NO. 20

COMPANY Amoco Australia WELL Koorah #1
 DATE 17 Dec. 1985 TIME 05:00
 DEPTH 2738m (8983') LAST REPORT DEPTH 2584m (8478')
 RIG OPERATIONS Drilling ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY M. Moss (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 8 Type: SMITH F2 Size: 12.25" Jets: 3x13,9
 On Bit: Footage: 149m (489') Hours: 23.1 ROP: 6.5m/hr, 21ft/hr WOB: 42-50 RPM: 110
 Pump Press: 2990 SPM: 130 Torque: 170-220 TBR: 151000 CP I: \$ 1000 CP B: \$ 950

HYDRAULICS REPORT

Mud Density In: 9.2⁺ ppg Mud Density Out: 9.1⁺ ppg ECD: 9.31 ppg PV/YP: 15/13
 Gels: 12/20 Salinity: 460 PPM Cl Solids: 7.25 %
 Hole Volume: 1374 bbl Annular Volume: 1130 bbl Tubing Volume: 150 bbl Displaced Volume: 946 bbl
 Carbide Lag—Calculated Lag: 100 strokes 2734' (8968') Flowrate: 645 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 48.4 ft/min Drillpipe Annular Vel (Open Hole): 126.4 ft/min
 Drill Collar Annular Vel (Open Hole): 183.7 ft/min Critical Vel: 302.3 ft/min
 Pressure Loss System: Calc. 2994 psi Pressure Loss Bit: 1729 psi % Pressure Loss: 58
 Nozzel Vel: 458.8 ft/sec Jet Impact Force: 1409.3 lbs HHP: 650.8

PRESSURE PARAMETERS

Drilling Exponent: 0.99-2.05 Flowline Temperature: 62.1°C
 Shale Density: - Shale Factor: -
 Background Gas: 2 Units Max. Formation Gas: - @ - Trip Gas: - @ -
 Other Gas: -
 Fill: - Tight Hole: -
 Cavings: Est %: 10 Average Size: 3x3x1 mm

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 13.17 / 3.97 ppg Min. Estimated Fracture Pressure (Open Hole): 16 ppg (1600m)
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ -
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ T.D. Estimated Fracture Pressure at TD: 17.82 ppg

Comments: Drill ahead through claystone interbedded with sandstone
Circulate returns from drilling break at 2713m (8901 ft)
Estimate fracture pressure of sandstone = 16.5 ppg.

Surface HHP: 1125 , Hole strokes 11638 , Corrected strokes 11738
 HHP/Area of bit: 5.5 Annular strokes 9568 , Corrected strokes 9668



GEMDAS LOGGING REPORT NO. 21

COMPANY Amoco Australia WELL Koorkah #1.
 DATE 18 Dec 1985 TIME 05:00
 DEPTH 2874m 9429' LAST REPORT DEPTH 2738m - 8983'
 RIG OPERATIONS Drilling ahead
 REPORT BY Anthony Fell REPORT RECEIVED BY M. Moss (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 8 Type: SMITH F2 Size: 12 1/4" Jets: 3x13 1x9
 On Bit: Footage: 285m/935' Hours: 42.5 ROP: 6.7m/hr 22ft/hr WOB: 46-52 RPM: 110
 Pump Press: 3020psi SPM: 125 Torque: 110-300 TBR: 278900 CP I: \$ 915 CP B: \$ 840

HYDRAULICS REPORT

Mud Density In: 9.2+ ppg Mud Density Out: 9.2+ ppg ECD: 9.31 ppg PV/YP: 19/12
 Gels: 12/22 Salinity: 950 PPM Cl Solids: 7.5 %
 Hole Volume: 1440 bbl Annular Volume: 1185 bbl Tubing Volume: 158 bbl Displaced Volume: 98 bbl
 Carbide Lag—Calculated Lag: 100 strokes @ 2870 (9419') Flowrate: 635 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 47.7 ft/min Drillpipe Annular Vel (Open Hole): 124.4 ft/min
 Drill Collar Annular Vel (Open Hole): 180.8 ft/min Critical Vel: 295.9 ft/min
 Pressure Loss System: 3078 psi Pressure Loss Bit: 1676 psi % Pressure Loss: 55
 Nozzle Vel: 452 ft/sec Jet Impact Force: 1366 lbs HHP: 621

PRESSURE PARAMETERS

Drilling Exponent: 1.88 @ 4.3m/hr 14ft/hr Flowline Temperature: 65°C
 Shale Density: — Shale Factor: —
 Background Gas: 2u Max. Formation Gas: 4u @ 2848m Trip Gas: — @
 Other Gas: —
 Fill: — Tight Hole: —
 Cavings: Est %: 10 Average Size: 3x2x1 mm

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.98 / 3.78 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg @ 1600m
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 16.791 ppg

Comments: Survey @ 2776m was 3/4° S60E

Drill ahead through sandstone which is moderately cemented with minor interbedded siltstone. A trend shift to the left in the Dec has occurred from 2600m. This is probably due to an unconformity at this depth. Pore pressure indicators indicate a normal regime
 Surface HHP: 1118 Hole Stroke 12197 CORRECTED 12297
 HHP/AREA of bit 5.27 Annulus Stroke 10032 CORRECTED 10132



GEMDAS LOGGING REPORT NO. 22

COMPANY Amoco Australia WELL KOORAH #1
 DATE 19TH DEC 1985 TIME 05-00
 DEPTH 2938m 9639ft LAST REPORT DEPTH 2874m 9429'
 RIG OPERATIONS DRILLING AHEAD
 REPORT BY ANTHONY FELL REPORT RECEIVED BY M. Moss (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 9 Type: SMITH F2 Size: 12.25" Jets: 3x12 1x9
 On Bit: Footage: 11m 36ft Hours: 2.2 ROP: 5m/hr/16ft/hr WOB: 50KLB RPM: 110
 Pump Press: 2830psi SPM: 121 Torque: 228 TBR: 14530 CP I: \$ 1188 CP B: \$ 4246

HYDRAULICS REPORT

Mud Density In: 9.2 ppg Mud Density Out: 9.2 ppg ECD: 9.29 ppg PV/YP: 19/12
 Gels: 12/22 Salinity: 950 PPM Cl Solids: 7.5 %
 Hole Volume: 1417 bbl Annular Volume: 1210 bbl Tubing Volume: 162 bbl Displaced Volume: 99 bbl
 Carbide Lag—Calculated Lag: 120 strokes @ 2900m/19514' Flowrate: 620 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.6 ft/min Critical Vel: 295.9 ft/min
 Pressure Loss System: calc 3466 psi Pressure Loss Bit: 2099 psi % Pressure Loss: 61
 Nozzle Vel: 505.5 ft/sec Jet Impact Force: 1492.6 lbs HHP: 759

PRESSURE PARAMETERS

Drilling Exponent: 1.88 @ 4.4m/hr 14.3ft/hr Flowline Temperature: 56°C
 Shale Density: — Shale Factor: —
 Background Gas: 2 units Max. Formation Gas: 55u @ 2860m Trip Gas: 14u @ 2927m
 Other Gas: —
 Fill: — Tight Hole: —
 Cavings: Est %: 10 Average Size: 3x2x1 mm

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.9 ppg / 3.70 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg @ 1600m
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 17.00 ppg

Comments: POOH @ 2927m TO LOOK FOR WASHOUT. WASHOUTS FOUND IN X OVER SUB AND A DRILL PIPE PIN. DRILLING AHEAD IN SANDSTONE

SURFACE HHP 1023 HOLE STROKES 12455 CORRECTED 12575
 HHP/AREA OF BIT 6.44 ANNULUS STROKES 10246 CORRECTED 10366



GEMDAS LOGGING REPORT NO. 23

COMPANY AMOCO AUSTRALIA WELL KOORKAH #1
 DATE DEC 20TH 1985 TIME 05:00
 DEPTH ~~3057m~~ 10030' LAST REPORT DEPTH 2938m 9639ft
 RIG OPERATIONS DRILLING AHEAD THROUGH SANDSTONE
 REPORT BY ANTHONY FELL REPORT RECEIVED BY M. MOSS (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 9 Type: SMITH F2 Size: 12.25" Jets: 3x12, 1x9
 On Bit: Footage: 130m 429' Hours: 21 ROP: 6.2m/hr 20ft/hr WOB: 49 RPM: 106
 Pump Press: 2860 psi SPM: 120 Torque: 180-600 TBR: 136600 CP I: \$ 1974 CP B: \$ 1039

HYDRAULICS REPORT

Mud Density In: 9.2 ppg Mud Density Out: 9.2 ppg ECD: 9.3 ppg PV/YP: 20/13
 Gels: 8/20 Salinity: 1900 PPM Cl Solids: 7.2 %
 Hole Volume: 1527 bbls Annular Volume: 1257 bbls Tubing Volume: 169 bbls Displaced Volume: 102 bbls
 Carbide Lag—Calculated Lag: 600 strokes @ 3014m / 988' Flowrate: 620 gal/min
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.5 ft/min Critical Vel: 313 ft/min
 Pressure Loss System: 3519 ^{CALC} psi Pressure Loss Bit: 2099 psi % Pressure Loss: 60
 Nozzle Vel: 505.5 ft/sec Jet Impact Force: 1492.5 lbs HHP: 759.0

PRESSURE PARAMETERS

Drilling Exponent: 1.68 @ 714 m/hr 23 ft/hr Flowline Temperature: 65 °C
 Shale Density: — Shale Factor: —
 Background Gas: 2 m Max. Formation Gas: 6m @ 3012m / 988' Trip Gas: — @ —
 Other Gas: —
 Fill: — Tight Hole: —
 Cavings: Est %: 10 Average Size: 3x2x1 mm

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.8 ppg / 3.61 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg @ 1600m
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 17.2 ppg

Comments: CIRCULATE RETURNS @ 2985m / 9793', NO SHOW.
SURVEY RUN @ 2985m / 9793' 10 deg N73E.
AFTER THE CONNECTION AT 3032m / 9947' THERE HAS
BEEN HIGH TORQUE. HOWEVER THERE HAS BEEN NO CHANGE
IN THE LITHOLOGY FROM SANDSTONE.

SURFACE HHP 1023 HOLE STROKES 12930 CORRECTED 13530
 HHP / AREA of BIT 6.44 ANNULUS STROKES 10640 CORRECTED 11240



GEMDAS LOGGING REPORT NO. 24

COMPANY AMOCO AUST WELL KOORKAH #1
 DATE DEC 21st 1985 TIME 0500
 DEPTH 3137m 10292ft LAST REPORT DEPTH 3057m 10030'
 RIG OPERATIONS DRILLING AHEAD
 REPORT BY ANTHONY FELL REPORT RECEIVED BY M. MOSS (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 9 Type: SMFH F2 Size: 12-25 Jets: 3x12 1x9
 On Bit: Footage: 21m/690ft Hours: 43 hrs ROP: 4.9m/hr 16ft/hr WOB: 45-51 kllb RPM: 110
 Pump Press: 2870 psi SPM: 119 Torque: 200-480 TBR: 278900 CP I: \$ 716 CP B: \$ 1172

HYDRAULICS REPORT

Mud Density In: 9.3 ppg Mud Density Out: 9.3 ppg ECD: 9.38 ppg PV/YF: 15/11
 Gels: 10/23 Salinity: 2000 PPM Cl Solids: 7.2 %
 Hole Volume: 1565 bbls Annular Volume: 1288 bbls Tubing Volume: 173 bbls Displaced Volume: 104 bbls
 Carbide Lag—Calculated Lag: 400 strokes @ 3120m Flowrate: 620 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.6 ft/min Critical Vel: 269 ft/min
 Pressure Loss System: calc 3451 psi Pressure Loss Bit: 2122 psi % Pressure Loss: 61
 Nozzel Vel: 505.5 ft/sec Jet Impact Force: 1509 lbs HHP: 768

PRESSURE PARAMETERS

Drilling Exponent: 2.03 @ 2.43m/hr 8ft/hr Flowline Temperature: 68°C
 Shale Density: — Shale Factor: —
 Background Gas: 1.5u Max. Formation Gas: 3.5u @ 3074m Trip Gas: — @
 Other Gas: —
 Fill: — Tight Hole: —
 Cavings: Est %: 10 Average Size: 4x2x1 mm

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.7 ppg / 3.4 ppg Min. Estimated Fracture Pressure (Open Hole): 16.00 ppg @ 1600m
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 16.95 @ 3126
FOR SILTSTONE

Comments: TORQUE HAS CONTINUED TO REMAIN HIGH. CONSTANT
MONITORING OF THE CUTTINGS SHOWS THAT THE AMOUNT
OF METAL SHAVINGS IS BEGINNING TO INCREASE.
DRILLING AHEAD THROUGH SILTSTONE AND CLAYSTONE

Surface HHP 1038 HOLE STROKES 15970 CORRECTED 16370
 HHP/AREA of BIT 6.5 ANNULUS STROKES 10907 CORRECTED 11307



GEMDAS LOGGING REPORT NO. 25

COMPANY AMOCO AUST WELL KOORKAH #1
 DATE DEC 22ND 1985 TIME 05.00
 DEPTH 3149m 10331ft LAST REPORT DEPTH 3137m 10292ft
 RIG OPERATIONS RUN WIRELINE LOGS
 REPORT BY ANTHONY FELL REPORT RECEIVED BY M. MOSS (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 9 Type: SMITH F2 Size: 12.25 Jets: 3x12 1x9
 On Bit: Footage: 222m 728ft Hours: 47.7 ROP: 4.7m/hr 15.4ft/hr WOB: 45-50kN RPM: 100-115
 Pump Press: 2860 SPM: 120 Torque: 100-600 TBR: 307500 CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: 9.3ppg Mud Density Out: 9.3ppg ECD: 9.38ppg PV/YP: 16/13
 Gels: 12/25 Salinity: 2200 PPM Cl Solids: 7.5 %
 Hole Volume: 1575 bbls Annular Volume: 1298 bbls Tubing Volume: 178 bbls Displaced Volume: 109 bbls
 Carbide Lag—Calculated Lag: 400 strokes @ 3120m Flowrate: 620 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 ft/min Drillpipe Annular Vel (Open Hole): 121.5 ft/min
 Drill Collar Annular Vel (Open Hole): 176.6 ft/min Critical Vel: 269 ft/min
 Pressure Loss System: calc 345/psi Pressure Loss Bit: 2122 psi % Pressure Loss: 61
 Nozzel Vel: 505 ft/sec Jet Impact Force: 1509 lbs HHP: 768

PRESSURE PARAMETERS

Drilling Exponent: 2.03 @ 2.43 m/hr 8 ft/hr Flowline Temperature: 68°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 1m Max. Formation Gas: 1.5u @ 3145m Trip Gas: 0 @ 3149m
 Other Gas: _____
 Fill: NO FILL Tight Hole: — MINOR OVERPULL
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.7ppg 13.4ppg Min. Estimated Fracture Pressure (Open Hole): 16.0ppg @ 1600m
 Estimated Pore Pressure: 8.7ppg Min. Estimated Pore Pressure (Open Hole): 8.7ppg @
 Max. Estimated Pore Pressure (Open Hole): 8.7ppg @ TD Estimated Fracture Pressure at TD: 16.95ppg FOR SANDSTONE

Comments: DRILLED TO 10331ft 3149m IN SANDSTONE AND
MINOR SILTSTONE. 10 STAND WIPER TRIP, NO FILL,
CIRCULATE BOTTOMS UP, DROP MULTI SHOT, POOH, RUN
WIRELINE LOGS

SURFACE HHP 1038 HOLE STROKES 16000 CORRECTED 16400
HHP / AREA of BIT 6.5 ANNULUS STROKES 11000 CORRECTED 11400



GEMDAS LOGGING REPORT NO. 26

COMPANY AMOCO AUST WELL KOORKAH #1
 DATE DEC 23RD 1985 TIME 0500
 DEPTH 3149m 10331ft LAST REPORT DEPTH 3149m 10331ft.
 RIG OPERATIONS PREPARING TO SET CEMENT PLUGS
 REPORT BY ANTHONY FELL REPORT RECEIVED BY M. MOSS (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: _____ Type: _____ Size: _____ Jets: _____
 On Bit: Footage: _____ Hours: _____ ROP: _____ WOB: _____ RPM: _____
 Pump Press: _____ SPM: _____ Torque: _____ TBR: _____ CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: 9.3 Mud Density Out: _____ ECD: _____ PV/YP: _____
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: _____ Annular Volume: _____ Tubing Volume: _____ Displaced Volume: _____
 Carbide Lag—Calculated Lag: _____ Flowrate: _____
 Drillpipe Annular Vel (Max. Dia. Sec.): _____ Drillpipe Annular Vel (Open Hole): _____
 Drill Collar Annular Vel (Open Hole): _____ Critical Vel: _____
 Pressure Loss System: _____ Pressure Loss Bit: _____ % Pressure Loss: _____
 Nozzel Vel: _____ Jet Impact Force: _____ HHP: _____

PRESSURE PARAMETERS

Drilling Exponent: _____ Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: _____ @ _____
 Other Gas: _____
 Fill: _____ Tight Hole: _____
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.7 ppg / 13.4 ppg Min. Estimated Fracture Pressure (Open Hole): 16.0 ppg @ 1600m
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 @
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 16.95 ppg

Comments: RAN E LOSS 1 SF - BHC - GR - MSFL - SP - CAL
over interval 3154m - 1589m 2 DL - CNL - GR
(10347' - 5213') HDT
EST
WST

3. WEEKLY GEOLOGICAL-ENGINEERING REPORTS



**EXPLORATION
LOGGING
OF AUSTRALIA INC.**
The liability of members is limited
Inc. in Nevada, U.S.A.

43 Planet St.
Carlisle
West Australia 6101

Phone: (09) 361 4437, 361 4963
Telex: AA 92372

GEOLOGICAL-ENGINEERING REPORT No.1

27th Nov - 5th Dec 1985

Koorkah No.1 / AMOCO AUSTRALIA

Spud - 1599m

EXLOG UNIT 216 / DIAMOND M "EPOCH"

Spud - 5246ft

Report by : A.Fell, G.Hodge, D.New

OPERATION SUMMARY

Koorkah No.1 was spudded at 1512 hrs on the 27th November 1985. The water depth was 67.6m and rotary table to sea-bed was 89.9m.

The 36" section was drilled to 192m with a 26" bit run in tandem with a 36" hole-opener. The deviation at 192m was 1 degree. No fill was encountered on a wiper trip prior to running the 30" casing, which was set at 190m.

NB#2 was run in and drilled the casing shoe. The 26" hole was drilled to 405m where a wiper trip was made. Fill was encountered at 363m on the trip in and the hole was reamed and washed to 405m and then deepened to 414.5m. The hole was filled with 9.0 ppg mud and no fill was encountered after a wiper trip to 183m. The 20" casing was run and set at 402m.

After installing and testing the BOP stack NB#3 was run in and drilled the casing shoe and cement in 0.8 hours. A leak-off test at 416m gave a formation break-down pressure equivalent to a mud density of 13.2ppg. Surveys at 559 and 716m were 0.25 degrees. The formation became more argillaceous from 650m and the hole was circulated clean at 716m. The flowline was completely blocked at 771m and a wiper trip was run while clearing the flowline. After circulating the hole at several points on the trip in drilling recommenced and the penetration rate was controlled. The deviation at 871m was 0.75 degrees. The hole had to be circulated at 1008m, 1041m, 1205m, 1272m, 1276m and 1398m due to problems with gumbo clay. A wiper trip at 1289m gave drag to 80klb on the first 6 stands and the hole was circulated at 387m. There was no fill on the trip in. The bit was pulled at 1463m with up to 90klb of drag occurring on the fourth stand. Deviation surveys at 1042m, 1205m, 1361m and 1463m were 1.5, 0.75, 1.5 and 0 degrees respectively.

NB#4 was run in and the interval 1448 - 1463m was washed and reamed, there was no fill. The bit had to be lifted off bottom several times during this bit run to stop the bit balling up. A drill-break occurred at 1597m, from 12 to 25m/hr. Returns were circulated at 1599m and the bit was pulled, this being the 13.375" casing point. Drag to 60klb occurred on a wiper trip to the 20" casing shoe. The hole was circulated at 1599m and the trip gas was 38u. The bit was pulled with drag to 40klb.

GEOLOGICAL-ENGINEERING REPORT No.1 cont'd

A wireline ISF-BHC-GR-Cal log was then run but would not go below 1234m so the drill-string was run in to 1217m to clean the hole.

The rig operation at 2400hrs 5th December 1985 was beginning to ream the hole section where the wireline tool was held up.

Lithology Summary : Koorkah No.1

Depth (m) Interval	Lithology	ROP (m/hr)		GAS (units)	
		max	avg	max	avg
415 - 650	Calcarenite	250	120		
650 - 740	Calcarenite, calcilutite	200	120		
770 - 840	Calcilutite	120	50		
840 - 950	Calcilutite, claystone	100	50		
950 - 1530	Claystone, siltstone, minor limestone	60	25		
1530 - 1599	Siltstone, claystone, minor sandstone	28	15	11	6

The presence of gumbo clay below 700m resulted in the Exlog gas trap being removed from the shakers, so no gas values are available from 740 - 1340m and 1380 - 1530m.

PORE PRESSURE

No abnormal formation pore pressure indicators were recorded in this interval, the estimated formation pressure was 8.6 - 8.7ppg. The mud density while drilling was 8.8 - 9.3ppg.

HOLE CONDITION

Hole problems in this interval consisted of drag on trips, to a maximum of 90klb on the trip at 1463m, and the need to ream the hole prior to running the wireline tool. All hole problems were related to the soft nature of the formation, which lead to the flowline being blocked several times during drilling. The maximum hole deviation was 1.5 degrees at 1042m and 1361m.

BIT DATA

Table #1

BIT#	SIZE inch	TYPE	JETS	DEPTH	DEPTH	BIT	BIT	AVG	WOB	RPM	TORQUE	BIT	CONDITION T B G
				IN m	OUT m	DIST m	TIME hrs	ROP m/hr	klbs	kft-lb avg - max	REVS		
NB1	26	Smith DGJ with 36 Hole opener	3x14 4x20	90	192	102	3.1	32.9	0 - 5	30 - 70	1.1 - 1.6	12000	
NB2	26	Smith DSJ	3x24	192	414.5	222.5	6.3	35.3	5 - 20	70 - 110	1.6 - 4.4	33000	
NB3	17.5	Smith SDS-C	12,3x16	414.5	1463	1048.5	26.6	39.4	10 - 55	110 - 120	2.6 - 5.6	192000	6 2 4
NB4	17.5	Smith SDS-C	13,3x16	1463	1599	136	8.4	16.2	30 - 50	120	1.5 - 2.7	60000	

HYDRAULICS DATA

Table #2

BIT#	SIZE	START	JETS	FLOW	SPM	PUMP	MUD	ECD	PV/YP	ANNULAR VELOCITIES ft/m				JET	BIT	HHP	IMPACT
		DEPTH m		IN gpm		PRESS psi				WT. ppg					riser		pipe
NB1	26	90	3x14	995	201	1200	Seawater					19		190	275/23	161	838
			4x20														
NB2	26	192	3x24	998	201	2000	Seawater				38	40		242	445/22	258	1061
NB3	17.5	414.5	12,3x16	897	181	2930	9.0	9.2	8/10	67	78	90	188	411	1360/46	712	1719
NB4	17.5	1463	13,3x16	852	172	2850	9.3	9.4	11/17	64	74	86	274	380	1200/42	597	1560



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Inc. in Nevada, U.S.A.

43 Planet St.
Carlisle
West Australia 6101

Phone: (09) 361 4437, 361 4963
Telex: AA 92372

GEOLOGICAL-ENGINEERING REPORT No.2

6th -12th Dec 1985

Koorkah No.1 / AMOCO AUSTRALIA

1599m - 2315m

EXLOG UNIT 21.6 / DIAMOND M "EPOCH"

5246ft - 7595ft

Report by : A.Fell, G.Hodge, D.New

OPERATION SUMMARY

The wiper trip cleaned up the hole and the logging run was completed. The following suite was run over the interval 1602 - 403m. ISF-BHC-GR-SP-CAL. A trouble free wiper trip was then made and the 13.375" casing run and cemented with the shoe at 1587.5m.

NB#5 was run in and drilled to 1600.5m where a Formation Integrity Test was carried out. This gave a fracture pressure of 16.04ppg EMV. Drilling continued to 1621.5m where a drill break was circulated. Drilling continued to 1749m where another drilling break was circulated up. Tight hole was encountered on the connection at 1778.5m. The tight spot was worked with up to 90 klb drag. A survey was taken at 1834.5m, deviation was 0.75 degrees. Returns were circulated up at 1926.5m, a survey taken, and then the bit was pulled due to low ROP. Deviation was 1 degree.

NB#6 was run in without problem with the last four singles being washed to bottom as a precautionary measure. Trip gas was 3 units. Several drilling breaks occurred down to 2031m. At this depth returns were circulated. At 2051m a very carbonaceous siltstone was entered. This resulted in very high erratic torque. From 2065 - 2076m the ROP averaged 1.25m/hr. At 2092m a micro-porphyrific intrusive igneous sill was entered. This drilled at 7-10m/hr to 2128.5m where a sand was entered. Returns were circulated at 2134.5m. A survey was taken at 2175m, deviation was 0.5 degrees. After flow checking a drill break at 2216m, high erratic torque was encountered to 2224m. At 2245m a claystone was entered and the ROP slowed down to 4 - 6 m/hr. At 2289m bottoms up were circulated, a survey dropped (dev = 0.75deg) and the bit pulled. Overpull of 20-60klb was recorded from 2141m to 2188m on the trip out.

NB#7 was run in, with no hole problems. Trip gas was 2 units.

Current operations at 24:00hrs 12/12/85 : drilling ahead with NB#7.

GEOLOGICAL-ENGINEERING REPORT No.2 cont'd

Lithology Summary : Koorkah No.1

Depth (m) Interval	Lithology	ROP (m/hr)		GAS (units)	
		max	avg	max	avg
1599 - 1639	Siltstone, claystone, minor sandstone	28	15	11	6
1639 - 1643	Sandstone with interbedded siltstone	130	70	4	1
1643 - 1744	Siltstone with minor claystone	30	25	9	4
1744 - 2392	Siltstone with interbedded sandstone and minor coal	150	20	5	3
2392 - 2132	Igneous (Dolerite)	15	4	2	1
2132 - 2246	Sandstone and siltstone	50	12	11	3
2246 - 2315	Claystone with minor siltstone	8	5	1	0.5

FORMATION FRACTURE GRADIENT

An FIT was carried out at 1630.5m using an 8.7 ppg mud. A surface pressure of 2330 psi was recorded at leak-off giving a fracture pressure of 16.34 ppg EMV.

PORE PRESSURE

No abnormal formation pore pressure indicators were recorded in this interval, the estimated formation pressure was 8.7ppg. The mud density ranged from 8.3 - 9.1 ppg.

HOLE CONDITION

Hole problems over this interval were restricted to occasional high and erratic torque at lithological boundaries. There was minor tight hole on the trip out at 2289m. This was probably caused by the balled up stabilizer passing through near, in-gauge hole sections at 2141m, 2169m and 2188m.

BIT DATA

283210

Table #1

BIT#	SIZE inch	TYPE	JETS	DEPTH	DEPTH	BIT	BIT	AVG	WOB	RPM	TORQUE	BIT	CONDITION		
				IN m	OUT m	DIST m	TIME hrs	ROP m/hr	klbs	avg - max amps	REVS	T	B	G	
NB5	12.25	Smith SDGH	15,13,13	1599	1926.5	327.5	15.7	20.9	20 - 65	85 - 150	150 - 280	134000	7	7	2
NB6	12.25	Smith F2	3x13	1926.5	2289.0	362.5	33.7	10.8	40 - 45	110 - 120	160 - 560	228600	2	5	8
NB7	12.25	Smith F2	3x13	2289.0											

HYDRAULICS DATA

Table #2

BIT#	SIZE	START DEPTH m	JETS	FLOW	SPM	PUMP	MUD	ECD	PV/YP	ANNULAR VELOCITIES ft/m				JET	BIT	HHP	IMPACT
				IN gpm		PRESS psi	WT. ppg			riser	pipe	collar	crit	ft/sc	VEL psi/ %	PRESS hp	FORCE lbs
NB5	12.25	1599	13 13 15	675	136	2830	8.8	9.1	12/7	51	132	192	205	502	1975/70	778	1542
NB6	12.25	1926.5	3x13	622	125	2970	8.9	9.0	18/9	47	122	177	252	513	2116/71	768	1487
NB7	12.25	2289.0	3x13														

Casing/Cementing

Table #3

Hole		Casing				Cement		Slurry density	Remarks
Depth M	Size inches	Depth M	OD/ID inches	# jts	Weight ppf	# sx	Type		
1599.0	17.5	1587.5	13.37/ 12.35	124	68/72	2400	Class "G" with 2.5% gel, 0.5% CFR-2 and 0.16% HR-5	12.8ppg	Lead slurry
						500	Class "G" with 0.5% CFR-2, 0.2% HR-5	15.8ppg	Tail slurry



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43 Planet St.
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GEOLOGICAL-ENGINEERING REPORT No 3

13th -19th Dec 1985

Koorkah No.1 / AMOCO AUSTRALIA

2315 - 3033m

EXLOG UNIT 216 / DIAMOND M "EPOCH"

7595 - 9950ft

Report by : A.Fell, G.Hodge, D.New

OPERATION SUMMARY

NB#7 drilled ahead through claystone. Several minor drill breaks occurred in sands and coals but no shows were observed. Negative flow checks were carried out at 2373.5m, 2378.5m, 2418m, 2435m and 2580.5m, and returns circulated at 2422.5m. At 2498m a directional survey was run giving a deviation of 0.75 deg, N28E. After a slight drilling break from 2579.5 - 2580.5m the ROP slowed to 2 m/hr in sandstone. A survey was dropped (dev = 1.25 deg, N16E) and the bit pulled, without circulating returns. The trip out was uneventful except for occasional minor overpull.

NB#8 was run in without any problems. Trip gas was 5 units. Drilling continued through claystones with minor drilling breaks in sandstones. Negative flow checks were carried out at 2596m, 2640.5m and 2691.5m. A drilling break from 2708.5m was flow checked at 2710m and drilled to 2713m, where returns were circulated. No shows were observed so drilling continued with further minor drill breaks at 2727m, 2859m and 2870m. All were flow checked with no flow being recorded. A directional survey was run at 2776m (dev = 0.75 deg S60E). At 2926m it was observed that the pump pressure was falling. Four stands were pulled and a washed pin was found. The bit was run to bottom and drilling continued to 2927m but full pump pressure could still not be attained. The bit was pulled with a washout found in the cross-over sub. Returns were not circulated before pulling the bit and there was only minor drag on the trip out.

NB#9 was run in and the trip gas was 14 units. Flow checks at 2942m, 2975m, 2982.5m and 3002m were negative, returns were circulated at 2985m. A survey at 2985m was 1 degree (N73E).

The operation at 2400 hrs 19th December 1985 was drilling ahead through sandstone.

GEOLOGICAL - ENGINEERING REPORT No.3 cont'd

Lithology Summary : Koorkah No.1

Depth (m) Interval	Lithology	ROP (m/hr)		GAS (units)	
		max	avg	max	avg
2315 - 2372	Claystone, siltstone, minor sandstone and coal	10	7	3.5	2
2372 - 2488	Sandstone, siltstone, minor claystone and coal	40	10	27	4
2488 - 2580	Claystone	7	5	3.5	2
2580 - 2612	Sandstone, siltstone, claystone	50	10	5	3
2612 - 2690	Claystone, minor siltstone and sandstone	20	7	2.5	2
2690 - 2952	Interbedded sandstone, siltstone and minor claystone	60	10	5.5	2.5
2952 - 2980	Claystone, siltstone, sandstone	30	7	2.5	2
2980 - 3033	Sandstone with minor interbedded claystone	60	4	6.0	2

PORE PRESSURE

No abnormal formation pore pressure indicators were recorded in this interval, the estimated formation pressure was 8.7ppg. The mud density used while drilling was 9.0 - 9.3ppg.

HOLE CONDITION

The only hole problems over this interval was minor drag on trips, to a maximum of 50klb on the trip out at 2927m, the drag being at approximately 2190 - 2180m. Carbides indicate an average open hole diameter of 12.8 inches.

APPENDIX F. FORMATION EVALUATION LOG

