PARAMOUNT RESOURCES LTD.

DAILY DRILLING REPORT

FOR 24 HR PERIOD ENDING 98-Dec-21 00:00
Yr - Mon - Day - Time

WELL NAME PARAMOUNT et AL NETLA LOCATION M - 23

Day 6 Depth 823 Metres last 24 hr 54 Rotating hrs 6

Activity at report time

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT

Wt 915 Vis 70 WL 19 Gels Solids 2.5 % PV 9 YP 1.4 pH

Oil 93 % Sand 0.005 % Cake 2 PPMCL 200,000 PPMCa 115,555

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT WT	BIT RPM	DEPTH OUT m	m DRLD TODAY	CUM m. DRLD	Rot hrs TODAY	CUM. Rot hr	m/hr	Dull Cond. T	B	G
1	222	PEND.	144966	4000	160	779	10	280	1.50	52.25	5.35	3	1	1
2	222	REED	MB3190	6000	MTR.	823	44	324	4.25	4.25	10.35	1	1	1

CIRCULATION RECORD

BIT NO.	JETS - mm 1	2	3	PUMP STROKE	SPM	LINER	m³/MIN	ANN. VEL. DP	DC	JET VEL.	HHP	SURF. PRESS. kPa
1	10.3	10.3	10.3	203	83	165	1.0044	14	44	67		4800
2	11.1	11.1	11.1	203	105	165	1.24	17.2	54.3	71.2		8000

DEVIATION SURVEYS

2 °	at	501 m	3 1/3 °	at	758 m
2 5/8 °	at	560 m	3 1/2 °	at	771 m
3 1/5 °	at	673 m	3 3/8 °	at	780 m
3 1/2 °	at	730 m	3 1/4 °	at	790 m

MUD & CHEMICALS ADDED

BOTTOM HOLE ASSEMBLY

TOOL	ID mm	OD mm	LENGTH m	WEIGHT daN
BIT		222	0.25	
MUD MOTOR	N/A	170	7.17	
FLOAT SUB	58	164	0.71	
MONEL D. C.	83	160	9.37	
PULSER SUB	83	158	1.17	
MONEL D. C.	83	162	9.19	
X. O. SUB	82	153	0.36	
16 - DRILL COLLARS	58	159	147.7	
X. O. SUB	60	153	0.78	

TIME ANALYSIS

OPERATION	TODAY	CUM.
1. Drilling	5.75	
2. Trips	8.75	
3. Rig Service	0.50	
4. Deviation Surveys	4.25	
5. Ream & Cond. Hole		
6. Mix & Cond. Mud		
7. Circulation	1.00	
8. Rig Repair SLIP & CUT	1.00	
9. Run Casing & Cement		
10. Fishing		
11. Logging		
12. Coring		
13. Formation Testing		
14. Waiting on:		
15. Nipple Up & Test BOPS		
16. Drilling Out		
17. Lost Circ.		
18. Laying Down DP & BOP's		
19. Plug & Abandon		
20. Rig up - Tear out		
21. HANDLE TOOLS	2.75	
TOTAL		

COSTS

DAILY	$31,490
CUMMULATIVE	$418,087

SUPERVISOR AL IRONSIDE .
PHONE : 1-600-700-5042

HIGHWOOD WELLSITE SERVICES INC.
DAILY GEOLOGICAL WELL REPORT
1998-12-23

Paramount et al Retlaw 11-23

Report To:	PAUL COLLENS	Report From:	JEFF BOULTER
		Telephone:	1600 700 5042
Spud Date:	December 17	Days from Spud:	6
Gd. Elevation:	273.1	K.B. Elevation:	279.8
Depth @ 6:00:	1045 m	Formation:	Fort Simpson
Status @ 8:00:	Running in hole		
24 hr Progress:	91 m	Average ROP:	7 m/hr

OPERATIONS SUMMARY - Last 24 Hours

Directional drilled to 1045.0 m, bit played out, pull out of hole, pick up new bit and mud motor, run in hole

SURVEYS

1026.28 md / 3.0 Inc / 193.8 Az / 1025.67 TVD / 24.21 m N / -3.24 E / 1.62 Dog leg

MUD PROPERTIES

Type:	Invert
Density:	920 kg/m³
Viscosity:	58 s/L
Water Loss:	10 cm³/30 min
pH:	
Filter Cake:	mm

SAMPLE TOPS

Formation	Sample Depth	TVD	Subsea	Prognosis Subsea	Change
Scatter	113.0	113.0		162.5	
Garbutt	245.0	245.0		136.8	
Banff	297.0	297.0		34.8	
Exshaw	487.0	487.0		-207.2	
Kotcho	502.0	502.0		-221.2	
Tetcho	867.0	867.0		-598.2	
Kakisa	942.0	942.0		-690.2	

FORECAST ACTIVITIES

Run in hole and directional drill ahead

Section 1 (Const Build/Turn)

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Values to be applied Build	Turn	Dleg	T Face
978.8	0.90	254.89	978.2	12.1	25.7	-2.8	0.1	-30.0	0.5	78.0
1000.0	0.97	233.69	999.4	12.4	25.6	-3.1	0.1	-30.0	0.5	78.9
1040.0	1.10	193.69	1039.4	12.5	25.0	-3.5	0.1	-30.0	0.6	80.2

Section 2 (Const Build/Turn)

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Values to be applied Build	Turn	Dleg	T Face
1058.7	1.17	175.00	1058.1	12.4	24.6	-3.6	1.0	0.0	1.0	0.0
1080.0	1.88	175.00	1079.4	12.2	24.1	-3.5	1.0	0.0	1.0	0.0

Section 3 (Hold Section)

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Values to be applied Build	Turn	Dleg	T Face
1083.7	2.00	175.00	1083.1	12.1	24.0	-3.5	0.0	0.0	0.0	0.0
1120.0	2.00	175.00	1119.4	11.5	22.7	-3.4	0.0	0.0	0.0	0.0
1160.0	2.00	175.00	1159.4	10.8	21.3	-3.3	0.0	0.0	0.0	0.0
1200.0	2.00	175.00	1199.3	10.3	19.9	-3.1	0.0	0.0	0.0	0.0
1240.0	2.00	175.00	1239.3	9.6	18.5	-3.0	0.0	0.0	0.0	0.0
1280.0	2.00	175.00	1279.3	9.0	17.1	-2.9	0.0	0.0	0.0	0.0
1320.0	2.00	175.00	1319.3	8.4	15.7	-2.8	0.0	0.0	0.0	0.0
1360.0	2.00	175.00	1359.2	7.8	14.3	-2.7	0.0	0.0	0.0	0.0
1400.0	2.00	175.00	1399.2	7.1	13.0	-2.5	0.0	0.0	0.0	0.0
1440.0	2.00	175.00	1439.2	6.5	11.6	-2.4	0.0	0.0	0.0	0.0
1480.0	2.00	175.00	1479.2	5.9	10.2	-2.3	0.0	0.0	0.0	0.0
1520.0	2.00	175.00	1519.1	5.3	8.8	-2.2	0.0	0.0	0.0	0.0
1560.0	2.00	175.00	1559.1	4.6	7.4	-2.0	0.0	0.0	0.0	0.0
1600.0	2.00	175.00	1599.1	4.0	6.0	-1.9	0.0	0.0	0.0	0.0
1640.0	2.00	175.00	1639.1	3.4	4.6	-1.8	0.0	0.0	0.0	0.0
1680.0	2.00	175.00	1679.0	2.8	3.2	-1.7	0.0	0.0	0.0	0.0
1720.0	2.00	175.00	1719.0	2.1	1.8	-1.6	0.0	0.0	0.0	0.0

Section 4 (Const Build/Turn)

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Values to be applied Build	Turn	Dleg	T Face
1726.0	2.00	175.00	1725.0	2.0	1.6	-1.5	-1.0	0.0	1.0	180.0
1760.0	0.87	175.00	1759.0	1.6	0.8	-1.5	-1.0	0.0	1.0	180.0

Section 5 (Hold Section)

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Values to be applied Build	Turn	Dleg	T Face
1786.0	0.00	175.00	1785.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0
1800.0	0.00	175.00	1799.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0
1840.0	0.00	175.00	1839.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0
1880.0	0.00	175.00	1879.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0
1920.0	0.00	175.00	1919.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0
1960.0	0.00	175.00	1959.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0
1997.0	0.00	175.00	1996.0	1.6	0.6	-1.5	0.0	0.0	0.0	0.0

HIGHWOOD
WELLSITE SERVICES INC.
41 Riverview Circle
COCHRANE, Alberta (403) 932-2916

COMPOSITE WELL HISTORY
DRILLING TIME
LITHOLOGY LOG

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: Paramount et al Netla M-23
FIELD:
PROVINCE: NorthWest Ter.
LOCATION: M-23 60 Deg 50' 123 Deg 00'

COORDINATES:
ELEVATIONS: GD 273.1 m LOG MEASURED FROM KB
[redacted] m ABOVE GROUND
WELL TYPE: Gas Exploration TOTAL DEPTH:
SPUD DATE: December 17,1998 T.D. DATE:
LICENCE No.: WID 1841 AFE No.: 17168

CONTRACTOR: Precision Drilling
MUD TYPE: Invert
MUD UP @: 500.0m
SAMPLES: 5 meter intervals
Paramount: 500.0 - Total Depth
N.E.B. : 500.0 - Total Depth
DSTs:

CORES:

OPEN HOLE LOGS:

SUPERVISION
GEOLOGICAL: JEFF BOULTER DRILLING: AL IRONSIDE

CASING DEPTH
SURFACE: 499 m
INTERMEDIATE: 1840 m
MAIN: m

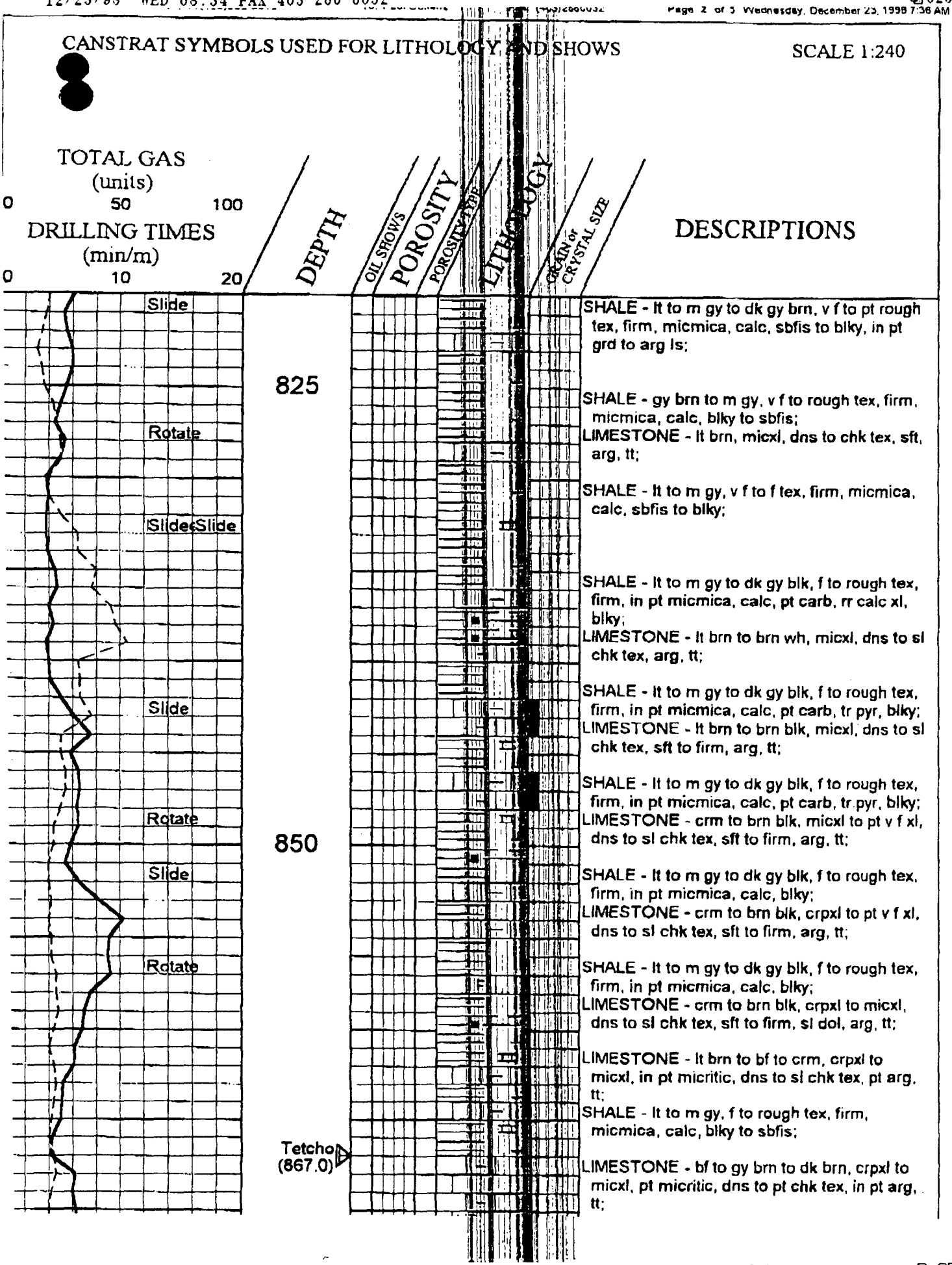
CASING SIZE
SURFACE: 20.42 mm
INTERMEDIATE: 177 mm
MAIN: mm

HOLE SIZE
SURFACE: 339.73 mm
INTERMEDIATE: 222 mm
MAIN: mm

REMARKS:

CANSTRAT SYMBOLS USED FOR LITHOLOGY AND SHOWS

SCALE 1:240



SHALE - lt to m gy to dk gy brn, v f to pt rough tex, firm, micmica, calc, sbfis to blky, in pt grd to arg ls;

SHALE - gy brn to m gy, v f to rough tex, firm, micmica, calc, blky to sbfis;
LIMESTONE - lt brn, micxl, dns to chk tex, sft, arg, tt;

SHALE - lt to m gy, v f to f tex, firm, micmica, calc, sbfis to blky;

SHALE - lt to m gy to dk gy blk, f to rough tex, firm, in pt micmica, calc, pt carb, rr calc xl, blky;
LIMESTONE - lt brn to brn wh, micxl, dns to sl chk tex, arg, tt;

SHALE - lt to m gy to dk gy blk, f to rough tex, firm, in pt micmica, calc, pt carb, tr pyr, blky;
LIMESTONE - lt brn to brn blk, micxl, dns to sl chk tex, sft to firm, arg, tt;

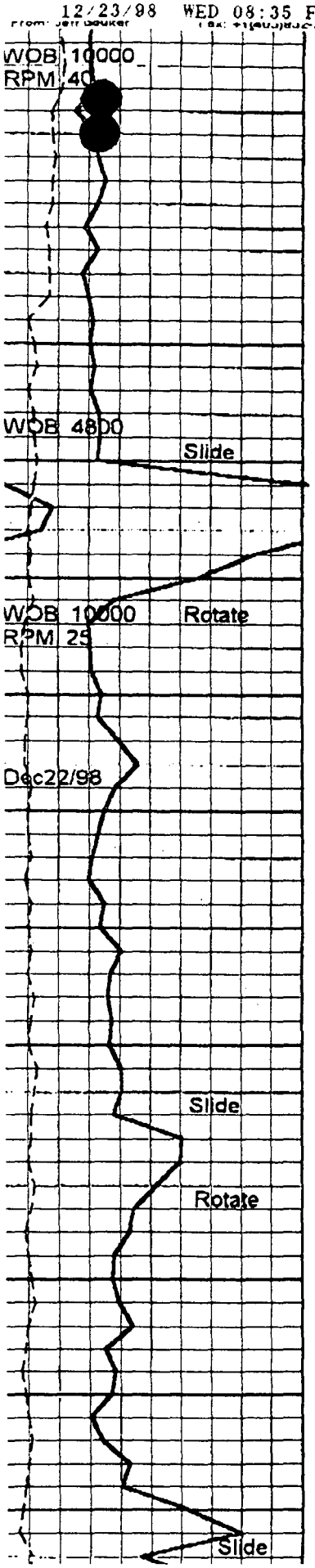
SHALE - lt to m gy to dk gy blk, f to rough tex, firm, in pt micmica, calc, pt carb, tr pyr, blky;
LIMESTONE - crm to brn blk, micxl to pt v f xl, dns to sl chk tex, sft to firm, arg, tt;

SHALE - lt to m gy to dk gy blk, f to rough tex, firm, in pt micmica, calc, blky;
LIMESTONE - crm to brn blk, crpxl to pt v f xl, dns to sl chk tex, sft to firm, arg, tt;

SHALE - lt to m gy to dk gy blk, f to rough tex, firm, in pt micmica, calc, blky;
LIMESTONE - crm to brn blk, crpxl to micxl, dns to sl chk tex, sft to firm, sl dol, arg, tt;

LIMESTONE - lt brn to bf to crm, crpxl to micxl, in pt micritic, dns to sl chk tex, pt arg, tt;
SHALE - lt to m gy, f to rough tex, firm, micmica, calc, blky to sbfis;

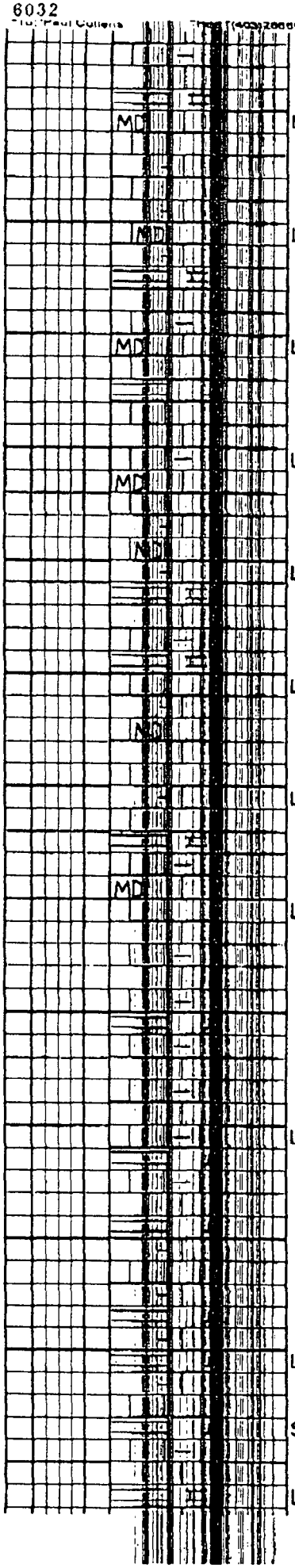
LIMESTONE - bf to gy brn to dk brn, crpxl to micxl, pt micritic, dns to pt chk tex, in pt arg, tt;



875

900

925



crpxl, chk to uns tex, fri to no, pt arg, tt;

LIMESTONE - bf to gy brn to dk brn, crpxl to micxl, pt micritic, dns to pt chk tex, hd to fri, in pt arg, tt;

LIMESTONE - lt brn to crm, tan, crpxl to micxl, in pt micritic, dns to pt chk tex, hd to pt fri, sl arg, mnr sh strg, n visible por;

LIMESTONE - crm to mottle brn offwhite, pt tan, crpxl to micxl, pt micritic, dns to sl chk tex, hd to fri, arg, tt;

LIMESTONE - m to dk brn gy, brn, crpxl to occ micxl, micritic, dns tex, hd, arg, tt;

LIMESTONE - m to dk brn gy, brn, crpxl to occ micxl, micritic, dns tex, hd, arg, tt, mnr sh strg;

LIMESTONE - m to dk brn gy, offwhite to lt brn, crpxl to occ micxl, micritic, dns to chk tex, hd to pt fri, arg, tt;

LIMESTONE - tan to lt brn, crpxl, micritic, dns tex, hd, pt arg, tt;

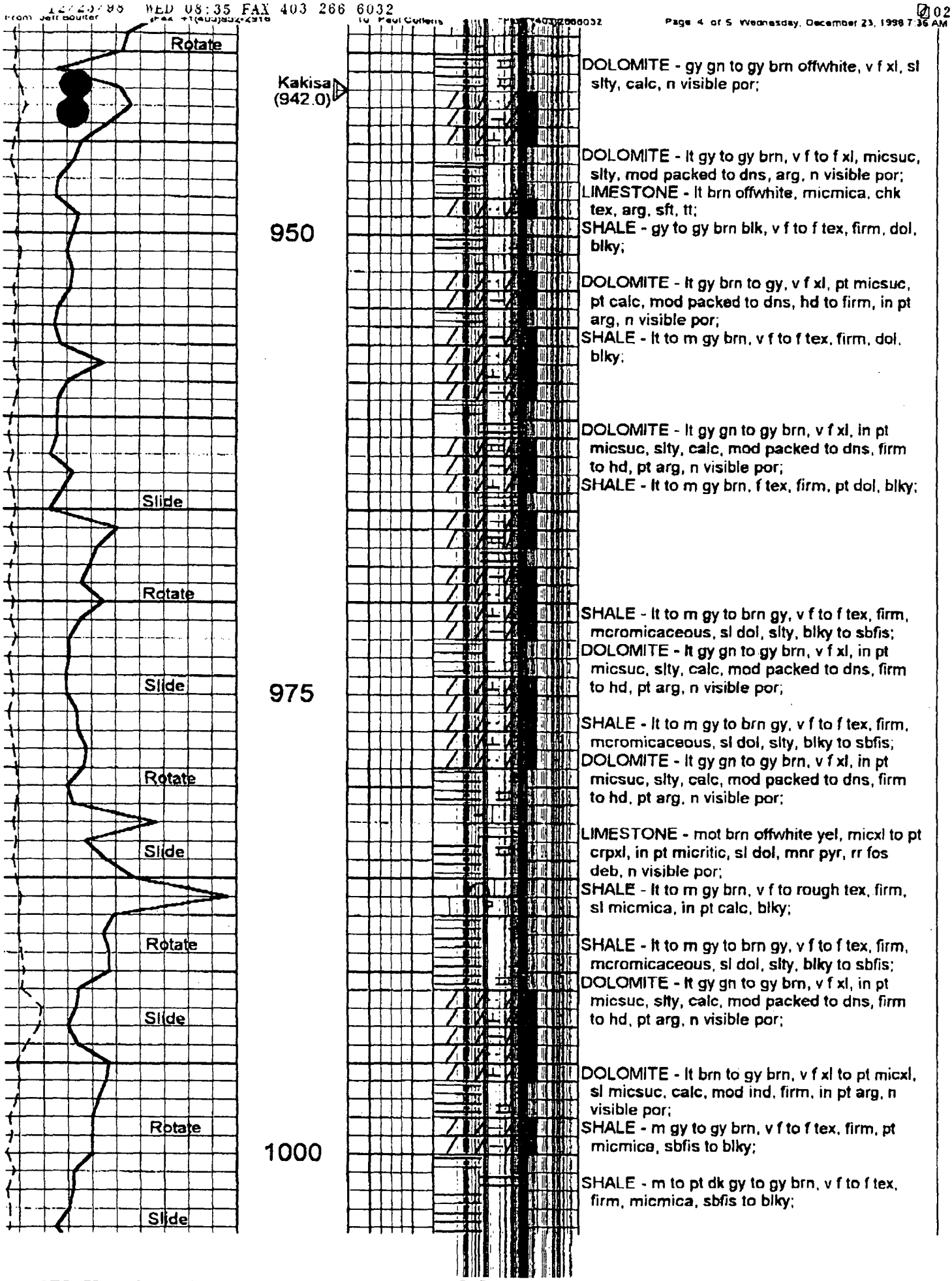
LIMESTONE - tan to lt brn to brn offwhite, crpxl to pt micxl, micritic, dns to sl chk tex, hd to pt fri, pt arg, tt;

LIMESTONE - m to dk gy brn to tan to brn offwhite, crpxl to occ micxl, micritic, dns to sl chk tex, hd to fri, pt arg, tt, mnr calc sh strg;

LIMESTONE - m brn gy to tan to offwhite, crpxl to micxl, micritic, dns tex, hd to pt fri, arg, tt;

SHALE - m to dk brn gy, f tex, firm to hd, calc, blky;

LIMESTONE - m to dk brn gy, crpxl, micritic,



DOLOMITE - gy gn to gy brn offwhite, v f xl, sl slty, calc, n visible por;

DOLOMITE - lt gy to gy brn, v f to f xl, micsuc, slty, mod packed to dns, arg, n visible por;
LIMESTONE - lt brn offwhite, micmica, chk tex, arg, sft, tt;
SHALE - gy to gy brn blk, v f to f tex, firm, dol, blky;

DOLOMITE - lt gy brn to gy, v f xl, pt micsuc, pt calc, mod packed to dns, hd to firm, in pt arg, n visible por;
SHALE - lt to m gy brn, v f to f tex, firm, dol, blky;

DOLOMITE - lt gy gn to gy brn, v f xl, in pt micsuc, slty, calc, mod packed to dns, firm to hd, pt arg, n visible por;
SHALE - lt to m gy brn, f tex, firm, pt dol, blky;

SHALE - lt to m gy to brn gy, v f to f tex, firm, micromicaceous, sl dol, slty, blky to sbfis;
DOLOMITE - lt gy gn to gy brn, v f xl, in pt micsuc, slty, calc, mod packed to dns, firm to hd, pt arg, n visible por;

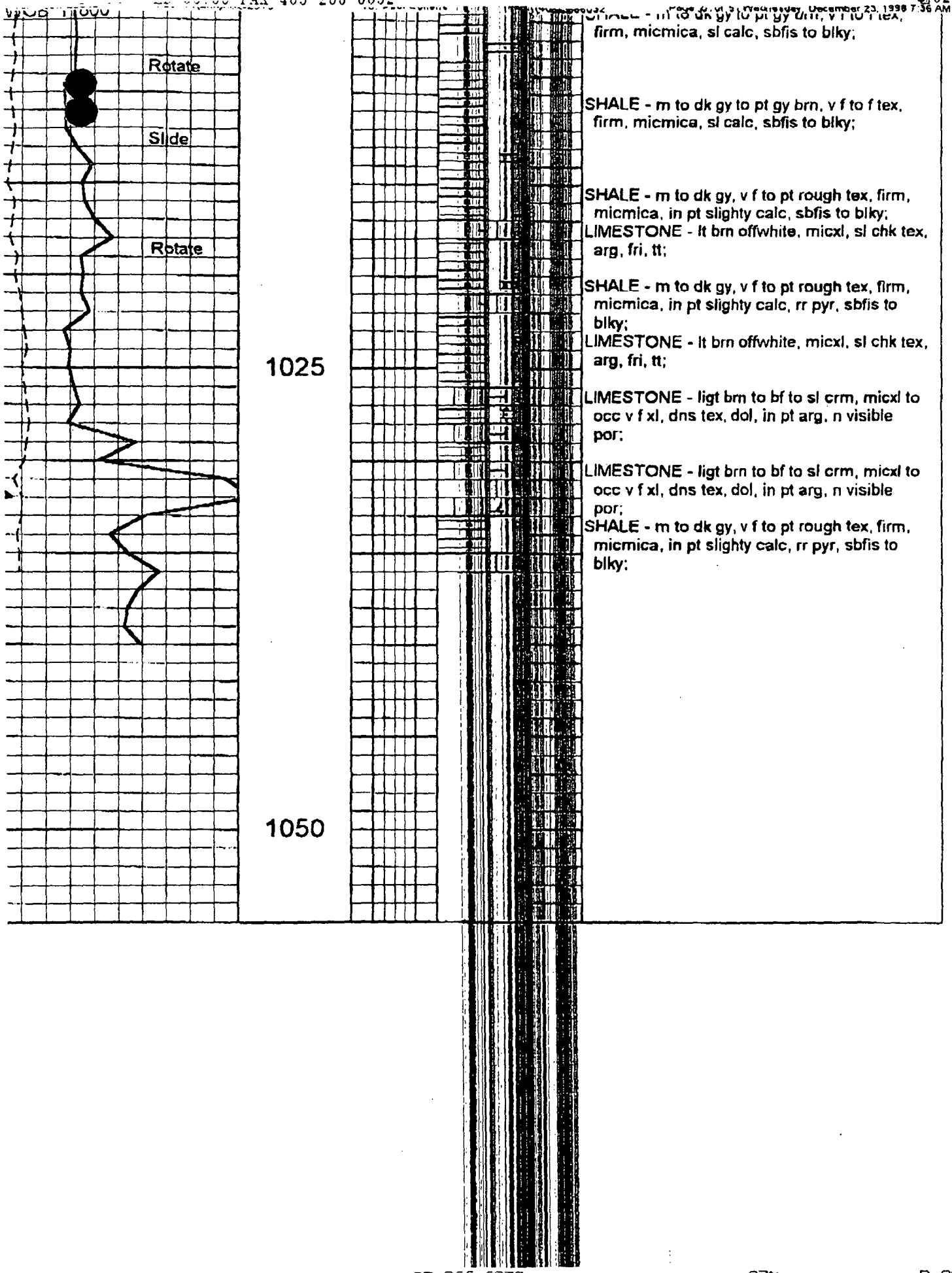
SHALE - lt to m gy to brn gy, v f to f tex, firm, micromicaceous, sl dol, slty, blky to sbfis;
DOLOMITE - lt gy gn to gy brn, v f xl, in pt micsuc, slty, calc, mod packed to dns, firm to hd, pt arg, n visible por;

LIMESTONE - mot brn offwhite yel, micxl to pt crpxl, in pt micritic, sl dol, mnr pyr, rr fos deb, n visible por;
SHALE - lt to m gy brn, v f to rough tex, firm, sl micmica, in pt calc, blky;

SHALE - lt to m gy to brn gy, v f to f tex, firm, micromicaceous, sl dol, slty, blky to sbfis;
DOLOMITE - lt gy gn to gy brn, v f xl, in pt micsuc, slty, calc, mod packed to dns, firm to hd, pt arg, n visible por;

DOLOMITE - lt brn to gy brn, v f xl to pt micxl, sl micsuc, calc, mod ind, firm, in pt arg, n visible por;
SHALE - m gy to gy brn, v f to f tex, firm, pt micmica, sbfis to blky;

SHALE - m to pt dk gy to gy brn, v f to f tex, firm, micmica, sbfis to blky;



SHALE - m to dk gy to pt gy brn, v f to f tex, firm, micmica, sl calc, sbfis to blky;

SHALE - m to dk gy, v f to pt rough tex, firm, micmica, in pt slighty calc, sbfis to blky;
LIMESTONE - lt brn offwhite, micxl, sl chk tex, arg, fri, tt;

SHALE - m to dk gy, v f to pt rough tex, firm, micmica, in pt slighty calc, rr pyr, sbfis to blky;
LIMESTONE - lt brn offwhite, micxl, sl chk tex, arg, fri, tt;

LIMESTONE - ligt brn to bf to sl crm, micxl to occ v f xl, dns tex, dol, in pt arg, n visible por;

LIMESTONE - ligt brn to bf to sl crm, micxl to occ v f xl, dns tex, dol, in pt arg, n visible por;
SHALE - m to dk gy, v f to pt rough tex, firm, micmica, in pt slighty calc, rr pyr, sbfis to blky;