JOHN HANCOCK 22-27-64 (Gustafson)

HORIZON WELL LOGGING

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COMPANY	ENERFIN RESOURCES NORTHWEST
WELL	J.H. 22-27-64 (Gustafson)
LOCATION	1979 S & 2450 E Fine corner Sec 27 T6N R4W W B &M
ELEVATION	GL 992' KB 1002'
FIELD	Wildcat
COUNTY	Columbia, Oregon
SPUD DATE	October 20, 1998
LOGGING DATES	Oct. 20 to Oct. 27, 1998
OPERATOR	Enerfin Resources Northwest
GEOLOGIST	Dave Huggins
DRILL REP	Rob Luke-Production Specialistes
CONTRACTOR	Taylor Drilling Inc
RIG	#3
MUD COMPANY	GEO Drilling Fluids
MUD TYPE	Gel/Polymer/Chrl
LOGGING GEOLOGIST	Jim Eastes, Joe Galzio
BIT SIZE	9 875 in to 497'
	6 25 in to 2011'
CASING	12 00 in to 20'
	7 00 in to 496'

Calibration in actual units

ABBREVIATIONS

CO	Circulate Out
LAT	Logged after Trip
CG	Connection Gas
WG	Wiper Gas
TG	Trip Gas
SG	Survey Gas
NR	No Returns
NB	New Bit
WR	Wiper Run
CORE INTERVAL	
MGR	1000-2004 full scale
PP	Pump pressure
SPM	Strokes per minute

SYMBOLS

PEBBLES +2mm
SAND
SANDSTONE
SILTSTONE
MUDSTONE
SHALE
MARL
CLAY
DOLOSTONE
DOLOSTONE
LIMESTONE
VOLCANICS
TUFF
BASALT

DRILL RATE

SPM
300
MGR
LOGK

LITH

MINERAL

Fluorescence
Calcite
Dolomite
Pyrite
Glauconite
Chert
Mica
Carbonate

GASES

DITCH GAS
OFFSCALE
CUTTINGS GAS
OFFSCALE

0% 40 80 90

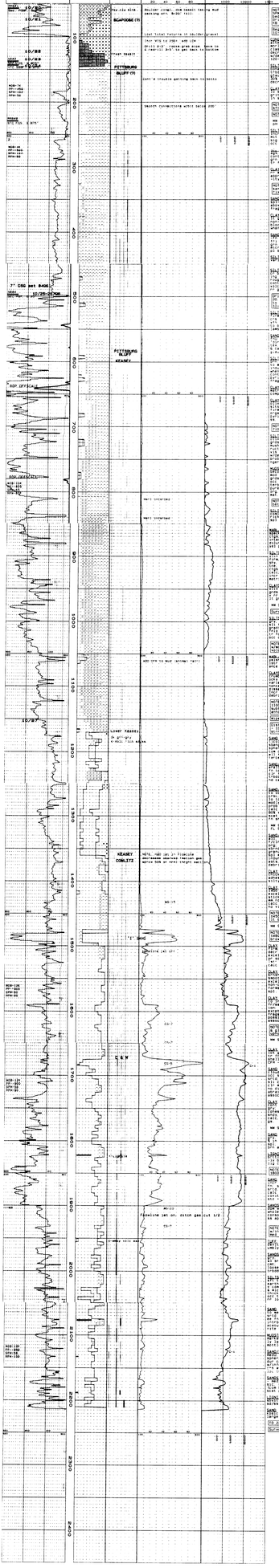
CHROMATOGRAPH

METHANE
ETHANE
PROPANE
BUTANE
PENTANE

1000 10000 100K

REMARKS

DESCRIPTIONS
SURVEYS
MUD CHECKS
MISCELLANEOUS



NOTE: See equip calibrated to 1000 psi, 1000 psi, 1000 psi, 1000 psi, all points based on 1000 psi full scale

Depth logging 7/50 14 40

CONLITZ 1m grn. weathered, mod. hard, sub blky, sl. calc. cement, sl. glauc, sl. micaceous, sl. tuffaceous, sl. carbonaceous, sl. pyritic, sl. fine sand, sl. silty, sl. sandy, sl. micro-xln calcite, sl. tr. lt. brn. oil stain, sl. fluor, sl. cut, sl. slow cut

SILTSTONE med gry, firm, carb., sandy, sl. micaceous, sl. glauc, micro-xln calcite, sl. tuffaceous, sl. pyritic, sl. fine sand, sl. tr. lt. brn. oil stain, sl. fluor, sl. cut

CLAY med-dkr brn, v. blocky, firm, sl. micaceous, sl. silty, sl. pyritic, sl. glauc, sl. carb, sl. tr. lt. brn. oil stain

NOTE: Lost steam in mixture 1411 1420

NOTE: POH & JOG (Fault?) 1420

MW 8.9 Vis 105 PV 8 YP 16 pH 10.5

SILTSTONE lt. med-dkr gry, v. hard, sub blky, sl. calc. cement, sl. micaceous, sl. glauc, sl. tuffaceous, sl. pyritic, sl. carb, sl. fine sand, sl. tr. lt. brn. oil stain, sl. fluor, sl. cut

MUD LOGS: Lost steam in mixture 1411 1420 Lost circ. 1420 - 1430 Gain 20 bbls 1430 - 1440 Lost circ. 1440 - 1450 Gain 20 bbls 1450 - 1460 Lost circ. 1460 - 1470 Gain 20 bbls 1470 -