EPOCH WELL LOGGING, INC.

Bakersfield, CA (805) 397-7472
Ventura, CA (805) 658-7708
Anchorage, AK (907) 561-2474

COMPANY	NAHAMA & WEAGANT ENERGY CO.
WELL	Columbia County ~~STEELHEAD~~ 43-33-75
FIELD	MIST
LOCATION	899' west and 1537' North from the SE corner of Sec. 33, T7N, R5W
COUNTY, STATE	Columbia, Oregon
API WELL INDEX NO.	[illegible]
ELEVATION	[illegible] GL. [illegible] KB.
DATES	[illegible] TO [illegible]
DEPTHS	[illegible] TO [illegible]
SPUD DATE	[illegible]
DRILLING CONTRACTOR	Taylor Drilling; RIG # [illegible]
COMPANY GEOLOGIST	[illegible]
COMPANY DRILLING SUP.	[illegible]
MUD COMPANY	[illegible]
MUD TYPE	[illegible]
LOGGING UNIT #	[illegible]
LOGGING GEOLOGISTS	[illegible]

ABBREVIATIONS

NB	NEW BIT (MILL TOOTH/INSERT)	MW	MUD WEIGHT
PDC	PC DIAMOND CUTTER	VIS	FUNNEL VISCOSITY
RRB	RERUN BIT	PV	PLASTIC VISCOSITY
RTB	RETIP BIT	YP	YIELD POINT
CB	CORE BIT	FL	FLUID LOSS
TG	TRIP GAS	CL	PPM CHLORIDE ION
SG	SURVEY GAS	Rm	MUD RESISTIVITY
WG	WIPER GAS	Rmf	FILTRATE RESISTIVITY
CG	CONNECTION GAS	LAT	LOGGED AFTER TRIP
KG	KELLY CUT GAS	LAS	LOGGED AFTER SURVEY
WOB	WEIGHT ON BIT	NR	NO RETURNS
RPM	ROTARY REV/MIN	PR	POOR RETURNS
PP	PUMP PRESSURE	LCM	LOST CIRC. MATERIAL
SPM	STROKES/MIN	CO	CIRCULATE OUT

CASING RECORD

16" Cond	TO	[illegible]
9 5/8"	TO	500'

HOLE SIZE

[illegible]	TO	521'
8 1/2"	TO	[illegible]

SAND · SANDSTONE · SHALE · SILTSTONE · CLAYSTONE · CLAY · DIATOMITE · CONGLOMERATE · LIMESTONE · DOLOSTONE · VOLCANICS · BASALT · TUFF · FOSSIL · MICA · LIGNITE · GLAUCONITE · PYRITE · Marl

PENETRATION | ANALYSIS OF RETURNS | REMARKS

DRILL RATE (FT/HR) drilling data — DEPTH — LITHOLOGY — OIL (TRACE, STRONG TRACE, SHOW, STRONG SHOW) — GAS — UNITS: DITCH — TOTAL GAS; CUTTINGS GAS; CALIBRATION 100 units = 2% methane by volume — CHROMATOGRAPH — PPM: METHANE, C-1; ETHANE, C-2; PROPANE, C-3; BUTANES, C-4; PENTANES, C-5

LITHOLOGIC DESCRIPTION
MUD PROPERTIES
SURVEYS, OTHER TEST DATA

Modifiers in Accessory Mineral Column are referenced to the count of a mineral in a standard sample tray:
Rare.........1-5 counts
Occasional...5-10 counts
Common.......10+ counts
Abundant.....present thru entire sample

All colors referenced to GSA Rock Color Chart.
All survey, connection and wiper gases reported as units above background; trip gas reported as maximum units recorded.
All gas detection equipment calibrated to SPWLA standards.