SPOCK

WELL LOGGING, INC.

COMPANY	ARCO OIL and GAS CO.
WELL	JOHNSTON # 64-15-6S
FIELD	Mist
LOCATION	1320'N and 972'W from the SE corner of Section 15, T6S-R5W
COUNTY, STATE	Columbia, Oregon
API WELL INDEX NO.	
ELEVATION	599'G.L. 589'K.B.
DATES	FROM 5-21-81 TD 5-25-81
DEPTHS	FROM 4474.0' TD 2970'+A.
SPUD DATE	5-21-81
DRILLING CONTRACTOR	Paul Graham, Rig #1
MUD COMPANY	Loaded
LOGGING GEOLOGISTS	John Day Jim Easton

ABBREVIATIONS

NR	BIT	MW	MUD WEIGHT
RRB	RERUN BIT	VIS	FUNNEL VISCOSITY
RTB	RE-TIP BIT	PV	PLASTIC VISCOSITY
CB	CORE BIT	YP	YIELD POINT
DST	DRILL STEM	WL	FILTRATE (cc/30 min)
S.G.	SURVEY GAS	CL	PPM CHLORIDE ION
W.G.	WIPER GAS	PH	MUD RESISTIVITY
C.G.	CONNECTION GAS	RMF	FILTRATE RESISTIVITY
WOB	WEIGHT ON BIT	LAT	LOGGED AFTER TRIP
RPM	ROTARY REV/MIN	NR	NO RETURNS
SPP	PUMP PRESSURE	FR	FOUL RETURNS
MW	STROKES/MIN	MUD TYPE	Lime Mud

CASING RECORD

	AT	
	AT	
	AT	
	AT	

HOLE SIZE

0 SURF	AT	2017'A.D.
0 SURF	AT	2017'A.Dev.
	AT	
	AT	
	AT	

SAND/SANDSTONE	CLAY	LIMESTONE	TUFF	LIGNITE
SHALE	DIATOMITE	DOLOMITE	FOSSIL	GLAUCONITE
SILTSTONE	CONGLOMERATE	BASALT	MICA	PYRITE

OIL BASED OR LIVE OIL IN UNWASHED CUTTINGS AND PERCENT STAINED AND FLUORESCENCE OF WASHED SAMPLES.

PENETRATION — ANALYSIS OF RETURNS — REMARKS

PENETRATION

MIN. PER FT.
DRILL RATE (FT/HR)
drilling data

ANALYSIS OF RETURNS

DEPTH

LITHOLOGIC DESCRIPTION
MUD PROPERTIES
SURVEYS, OTHER TEST DATA

GAS — UNITS

DITCH — TOTAL GAS
CUTTINGS GAS
CALIBRATION

CHROMATOGRAPH — PPM

METHANE, C-1
ETHANE, C-2
PROPANE, C-3
BUTANES, C-4
PENTANES, C-5

REMARKS

Notes: All samples 100ppm unless otherwise noted.
Lithology: All colors referenced to the GSA Rock Color Chart.
Notes: Modifiers in Accessory Mineral Column are referenced to the number of cuttings present. Example: Qtz-3 = 3 cuttings
Qtz-5 = 5 cuttings
Pyrite-1 = 1 cuttings
Pyrite-2 = 2 cuttings
Pyrite-3 = 3 cuttings
Pyrite-4 = 4 cuttings
Pyrite-5 = 5 cuttings
Pyrite-6 = 6 cuttings
Pyrite-7 = 7 cuttings
Pyrite-8 = 8 cuttings
Pyrite-9 = 9 cuttings
Pyrite-10 = 10 cuttings
Pyrite-11 = 11 cuttings
Pyrite-12 = 12 cuttings
Pyrite-13 = 13 cuttings
Pyrite-14 = 14 cuttings
Pyrite-15 = 15 cuttings
Pyrite-16 = 16 cuttings
Pyrite-17 = 17 cuttings
Pyrite-18 = 18 cuttings
Pyrite-19 = 19 cuttings
Pyrite-20 = 20 cuttings
Pyrite-21 = 21 cuttings
Pyrite-22 = 22 cuttings
Pyrite-23 = 23 cuttings
Pyrite-24 = 24 cuttings
Pyrite-25 = 25 cuttings
Pyrite-26 = 26 cuttings
Pyrite-27 = 27 cuttings
Pyrite-28 = 28 cuttings
Pyrite-29 = 29 cuttings
Pyrite-30 = 30 cuttings
Pyrite-31 = 31 cuttings
Pyrite-32 = 32 cuttings
Pyrite-33 = 33 cuttings
Pyrite-34 = 34 cuttings
Pyrite-35 = 35 cuttings
Pyrite-36 = 36 cuttings
Pyrite-37 = 37 cuttings
Pyrite-38 = 38 cuttings
Pyrite-39 = 39 cuttings
Pyrite-40 = 40 cuttings
Pyrite-41 = 41 cuttings
Pyrite-42 = 42 cuttings
Pyrite-43 = 43 cuttings
Pyrite-44 = 44 cuttings
Pyrite-45 = 45 cuttings
Pyrite-46 = 46 cuttings
Pyrite-47 = 47 cuttings
Pyrite-48 = 48 cuttings
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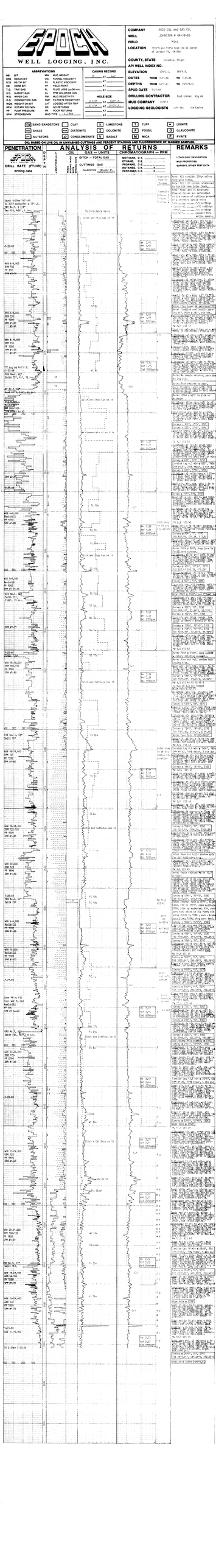
Pyrite-86 = 86 cuttings
Pyrite-87 = 87 cuttings
Pyrite-88 = 88 cuttings
Pyrite-89 = 89 cuttings
Pyrite-90 = 90 cuttings
Pyrite-91 = 91 cuttings
Pyrite-92 = 92 cuttings
Pyrite-93 = 93 cuttings
Pyrite-94 = 94 cuttings
Pyrite-95 = 95 cuttings
Pyrite-96 = 96 cuttings
Pyrite-97 = 97 cuttings
Pyrite-98 = 98 cuttings
Pyrite-99 = 99 cuttings
Pyrite-100 = 100 cuttings


No Detectable Gases
Siltst and Clst Gas on TG
Siltst and Cuttings Gas on TG
Siltst and Clst Gas on TG
Siltst and Cuttings Gas on TG
Siltst and Cuttings Gas on TG
Siltst and Cuttings