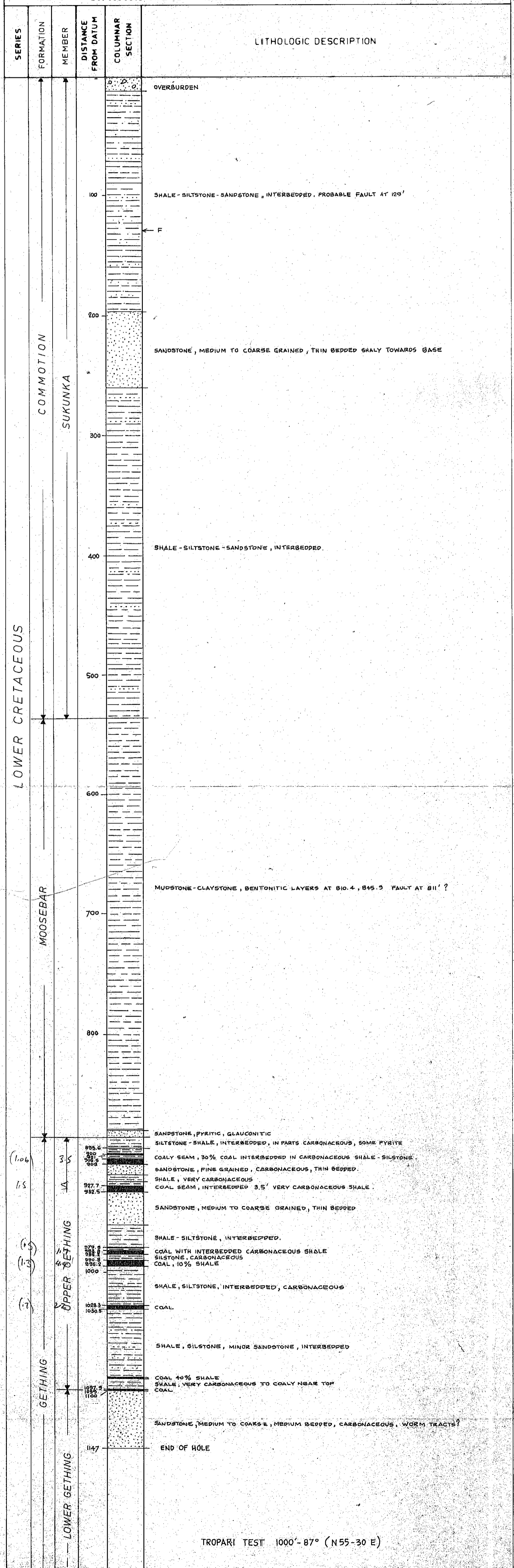


STRATIGRAPHIC LOG
OF
DDH T-14

VERTICAL SCALE 1"=50'

PR-BULLMOOSE 71 (3) C.

PROJECT <u>Bullmoose</u>	LOCATION <u>Sukunka River</u>
HOLE NO <u>T-14</u> CORE SIZE <u>NQ</u>	DATUM <u>Collar</u>
CO-ORDINATES <u>11100.0 N 102850.0 E</u>	DATE STARTED <u>Oct. 19, 1971</u>
COLLAR ELEVATION <u>4480</u>	DATE FINISHED <u>Oct. 25, 1971</u>
HOLE ANGLE <u>-90'</u> TOTAL DEPTH <u>1147</u>	LOGGED BY <u>R.E. Hindson</u>



LOWER CRETACEOUS

COMMOTION

SUKUNKA

MOOSEBAR

UPPER GETHING

GETHING

LOWER GETHING

(1.06)
1/5
(1.3)
(1.7)

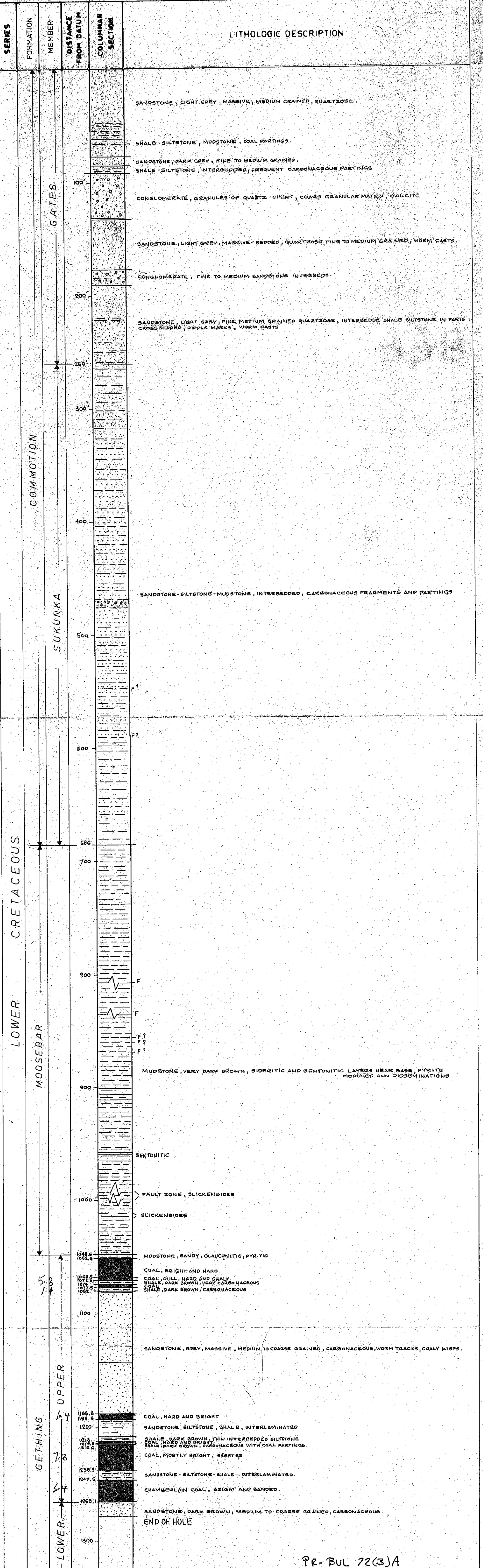
TROPARI TEST 1000'-87° (N55-30 E)

STRATIGRAPHIC LOG

OF
DDH T-16

VERTICAL SCALE 1" = 50'

PROJECT	Bullmoose	LOCATION	Sukunka River
HOLE NO	T-16 CORE SIZE	DATUM	Collar
CO-ORDINATES	27580.0N 99480.0E	DATE STARTED	Aug. 13, 1972
COLLAR ELEVATION	5545.0	DATE FINISHED	August 20, 1972
HOLE ANGLE	-90°	TOTAL DEPTH	1278'
		LOGGED BY	R. S. Verjosa



STRATIGRAPHIC LOG
OF
DDH T-17

VERTICAL SCALE 1" = 50'

PROJECT Bullmoose
HOLE NO T-17 CORE SIZE NQ
CO-ORDINATES 28470.0 N 101600.0 E
COLLAR ELEVATION 5145.0
HOLE ANGLE -90° TOTAL DEPTH 408

LOCATION Sukunka River
DATUM Collar
DATE STARTED Aug. 22, 1972
DATE FINISHED Aug. 25, 1972
LOGGED BY R.S. Vergosa

SERIES	FORMATION	MEMBER	DISTANCE FROM DATUM	COLUMNAR SECTION	LITHOLOGIC DESCRIPTION
LOWER CRETACEOUS	MOOSEBAR		100'		MUDSTONE, DARK GREY TO DARK BROWN, SOME SIDERITIC AND BENTONITIC LAYERS, PYRITE
			200'		
			246.5		MUDSTONE, DARK GREY, SANDY, GLAUCONITIC, PYRITE
			248.15		COAL, BIRD SEAM, HARD DULL-BRIGHT, CARBONACEOUS AND PYRITIC.
			255.7		
			258.6		SANDSTONE, MEDIUM TO COARSE GRAINED, WORM TRACTS, CARBONACEOUS
					SANDSTONE
			300'		SANDSTONE, DARK GREY FINE TO MEDIUM GRAINED, COALY WISPS.
			342		COAL, SKETTER SEAM, HARD, DULL-BRIGHT, VERY CARBONACEOUS SHALE.
			345		COAL, CHAMBERLAIN SEAM, HARD, DULL BRIGHT.
353.4		SANDSTONE, GREY, FINE TO MEDIUM GRAINED, CARBONACEOUS AND COALY SHALE			
354.8		SANDSTONE, GREY, FINE TO MEDIUM GRAINED, IN PARTS CARBONACEOUS, CARBONACEOUS AND COALY SHALE			
357.8					
			400'		END OF HOLE

TROPARI TEST AT 400' DIP 84°, AZIMUTH 210°

STRATIGRAPHIC LOG
OF
DDH T-18

VERTICAL SCALE 1" = 50'

PROJECT Bullmoose
HOLE NO: T-18 CORE SIZE
CO-ORDINATES 30080.0 N 98740.0 E
COLLAR ELEVATION: 4945.0
HOLE ANGLE -90° TOTAL DEPTH 488'

LOCATION: Sukunka River
DATUM: Collar
DATE STARTED Aug. 27, 1972
DATE FINISHED Aug. 29, 1972
LOGGED BY: R. S. Verjosa

SERIES	FORMATION	MEMBER	DISTANCE FROM DATUM	COLUMNAR SECTION	LITHOLOGIC DESCRIPTION	
LOWER CRETACEOUS	COMMOTION	SUKUNKA	53'		OVERBURDEN	
			67'		MUDSTONE, SANDSTONE, SILTSTONE, INTERBEDDED	
	MOOSEBAR			100'		MUDSTONE, DARK GREY TO DARK BROWN, SILTY TO SANDY, SIDERITIC AND BENTONITIC LAYERS UP TO 6" THICK, COMMONLY PYRITIC AT LOWER HALF
				200'	S S S S, PY	
					S, PY SLICK S, PY	
					F S F	
					F S B	
				334 337		MUDSTONE, DARK GREY, SANDY, GLAUCOMITIC, PYRITIC COAL, BIRD SEAM, GENERALLY HARD AND BRIGHT
				344 347		CARBONACEOUS SHALE, COARSE SANDSTONE
				400'		SANDSTONE, MEDIUM COARSE GRAINED
GETHING	UPPER		426.2 429		SANDSTONE, SHALE, INTERBEDDED, IN PARTS PYRITIC, SOME COALY PARTINGS SHALE, VERY DARK BROWN, COALY AND CARBONACEOUS COAL, SKEETER SEAM.	
			454		SANDSTONE, SILTSTONE, SHALE, INTERLAMINATED.	
	LOWER		467.7 469.4		COAL, CHAMBERLAIN SEAM, HARD BRIGHT TO DULL. SHALE, DARK BROWN, VERY CARBONACEOUS, COALY PARTINGS	
			488		SANDSTONE, MEDIUM COARSE GRAINED, CARBONACEOUS END OF HOLE	

TROPARI TEST 480' DIP=87°; AZIMUTH =307°

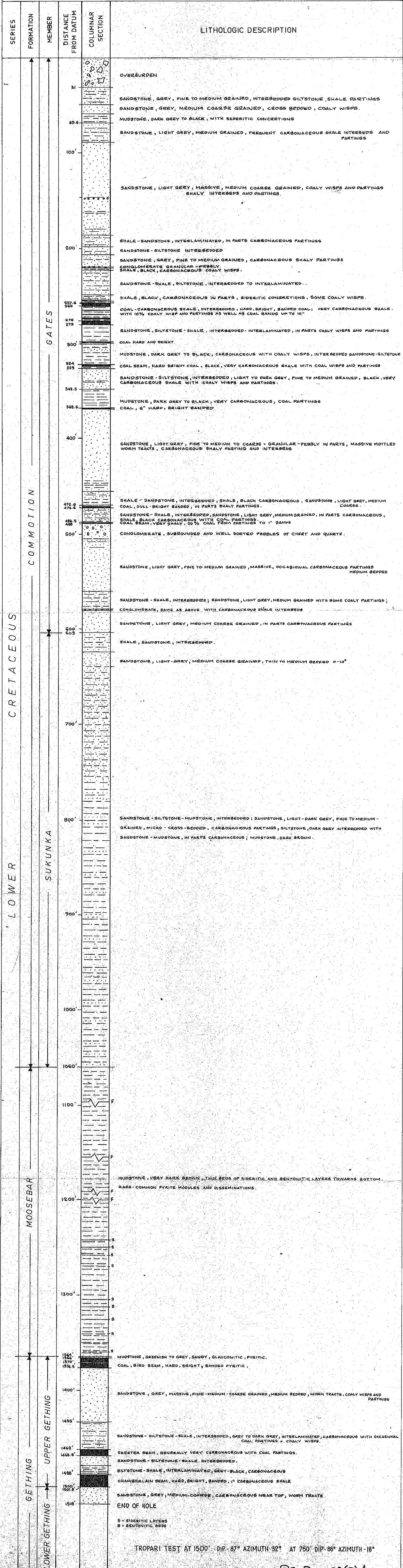
S = SIDERITIC
B = BENTONITIC
F = FAULT

PR-BUL 72(3)A

STRATIGRAPHIC LOG
OF
DDH. T-19

VERTICAL SCALE 1"=50'

PROJECT Bullmoose LOCATION Sukunka River
 HOLE NO T-19 CORE SIZE NA DATUM Collar
 CO-ORDINATES 31950.0 N 95640.0 E DATE STARTED Aug. 31, 1972
 COLLAR ELEVATION 5565 DATE FINISHED Sept. 11, 1972
 HOLE ANGLE -90° TOTAL DEPTH 1518 LOGGED BY R. S. Vergosa



CRETACEOUS

LOWER

MOOSEBAR

GETHING

UPPER GETHING

LOWER GETHING

COMMOTION

GATES

SUKUNKA

TROPARI TEST AT 1500' DIP- 87° AZIMUTH- 32° AT 750' DIP- 88° AZIMUTH- 18°

PR-BUL 72(3) A

ROKE

OIL ENTERPRISES LTD. CALGARY ALBERTA

GAMMA RAY NEUTRON LOG

FILE NO. _____ COMPANY ZACH CORPORATION

WELL T16

TYPE _____ LOCATION BILLINGS PROJECT

PROV. M FIELD _____

PROV. BRITISH COLUMBIA

Permanent Datum 6300.00 LEGEL Elev. Above Perm. Datum _____

Log Measured from 6300.00 LEGEL Elev. Above Perm. Datum _____

Well Depth Measured from _____

Run No. 01E

Date _____

First Reading 1.266

Last Reading 0.000

Footage Logged 1.887

Depth Recorder 1.283

Depth Driller 1.283

Casing Bore _____

Casing Driller WATER

Liquid Level _____

Min. Diam. 3.125 (100)

Operating Time 3 HRS

Truck No. 20

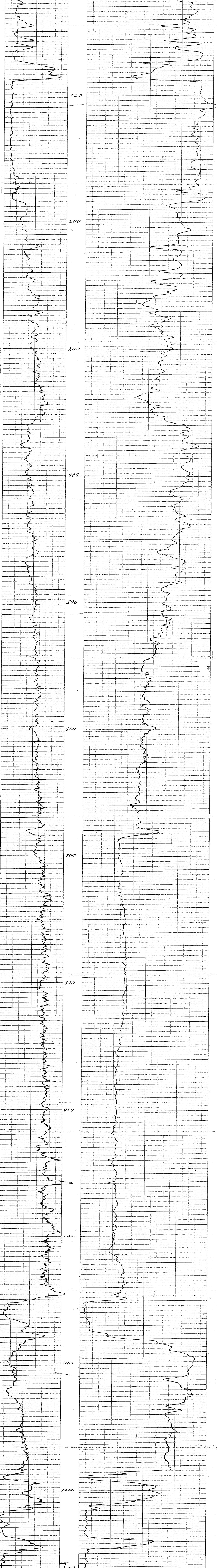
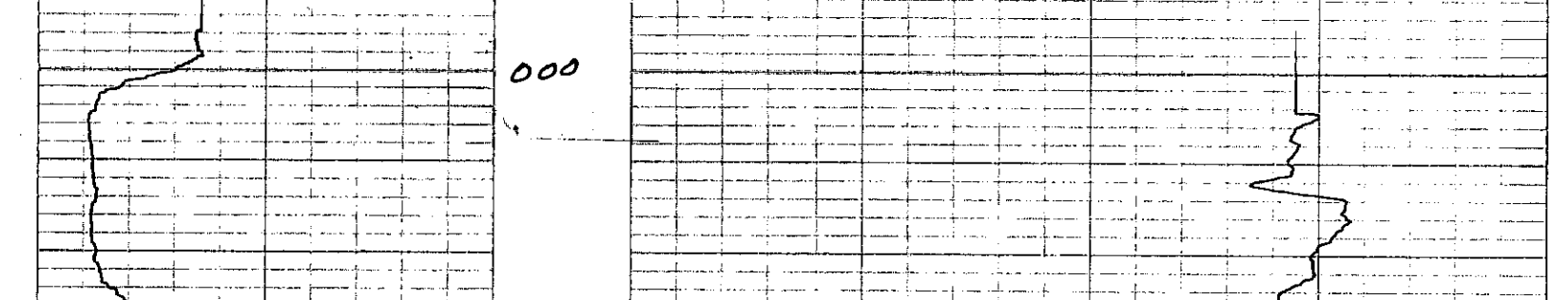
Recorded By WATERSON Witnessed By VERZOSA

475

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	<u>ONE</u>	RUN NO.	<u>ONE</u>
TOOL MODEL NO.		LOG. TYPE	<u>NEUTRON/NEUTRON</u>
DIAMETER	<u>1 1/8</u>	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	<u>1 1/8</u>
TYPE	<u>GEIGER</u>	DETECTOR MODEL NO.	
LENGTH	<u>18 INCH</u>	TYPE	<u>PROPORTIONAL</u>
DISTANCE TO N. SOURCE	<u>8.55 FT</u>	LENGTH	<u>6 INCH</u>
		SOURCE MODEL NO.	<u>MRC-N-SS-W</u>
		SERIAL NO.	<u>006</u>
GENERAL		SPACING	
HOIST TRUCK NO.	<u>20</u>	TYPE	<u>AmBe</u>
INSTRUMENT TRUCK NO.		STRENGTH	<u>6.94 x 10⁶ N/S</u>
TOOL SERIAL NO.	<u>66R274A 74</u>		

LOGGING DATA													
RUN NO.	GENERAL DEPTHS		SPEED FT/MIN	T.C. SEC.	SENS. SETTINGS	GAMMA RAY		API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS. SETTINGS	NEUTRON		API N. UNITS PER LOG DIV.
	FROM	TO				DIV. L OR R	ZERO DIV. L OR R				DIV. L OR R	API N. UNITS PER LOG DIV.	
<u>1</u>	<u>000</u>	<u>1266</u>	<u>12</u>	<u>4</u>	<u>17</u>	<u>06</u>	<u>10</u>	<u>4</u>	<u>23</u>	<u>14</u>	<u>30</u>	<u>30</u>	<u>30</u>

REMARKS



22-BULLMOOSE 72(3)A

ROKE

SIDEWALL DENSLOG

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO. COMPANY **TECH CORPORATION**

WELL **T 16**

LOCATION **BULLMOOSE PROJECT**

FIELD

PROVINCE **BRITISH COLUMBIA**

Permanent Datum **GROUND LEVEL** Elev. _____

Log Measured from **GROUND LEVEL** Ft. Above Perm. Datum _____

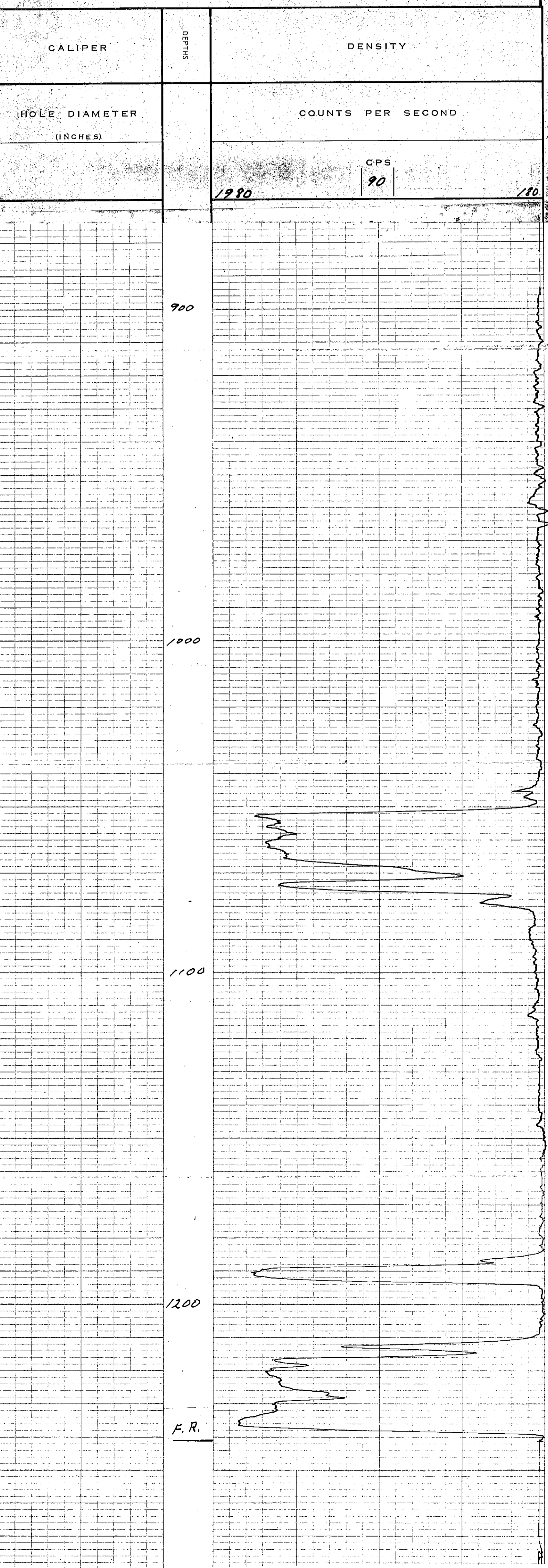
Well Depths Measured from _____

Run No.	04E
Date	9 SEPT. 73.
First Reading	900
Last Reading	1241
Footage Logged	341
Depth Reached	1245
Depth Driller	1280
Casing Role	
Casing Driller	
Fluid Type	WATER
Liquid Level	
Min. Diam.	3 INCH (NO)
Operating Time	3 HRS.
Truck No.	20

Recorded By **PETERSON** Witnessed By **VERTIOSA**

475

REMARKS



FILE NO. COMPANY **TECK CORPORATION**
 WELL **T-19**
 LOCATION **BULLMOOSE PROJECT**
 FIELD

PROVINCE **BRITISH COLUMBIA**
 FORMATION **ROUND BAY**
 LITHOLOGY **BIG FLOOR**
 LITHOLOGY **BIG FLOOR**

Run. No. **045**
 Date **11/27/72**
 First Reading **1517**
 Last Reading **0000**
 Exposure Logged **1517**

Depth Finished **1518**
 Depth Driller **2718**
 Change Rate **WATER/AMP**
 Fluid Type **3 inch (403)**
 Min. Days **4 HRS**
 Run @ 95 **20**
 Operating Time **4 HRS**
 Log No. **20**

Recorded By **STREBEN**
 Checked By

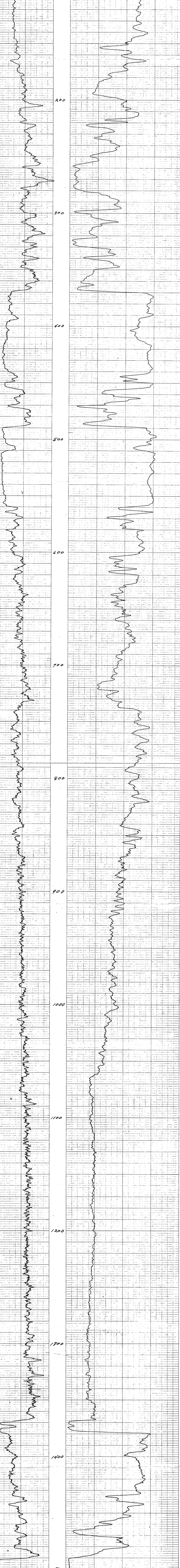
EQUIPMENT DATA

GAMMA RAY				NEUTRON			
RUN NO.	ONE			RUN NO.	ONE		
TOOL MODEL NO.	1 1/2			TOOL MODEL NO.	1 1/2		
DIAMETER	GEIGER			DIAMETER	PROPORTIONAL		
DETECTOR MODEL NO.	18 INCH			DETECTOR MODEL NO.	6 INCH		
TYPE	8.55 FT.			TYPE	MRC-N-SS-W		
LENGTH				LENGTH	18 INCH		
DISTANCE TO N. SOURCE				SOURCE MODEL NO.	588		
GENERAL				GENERAL			
HOIST TRUCK NO.	20			SPACING	18 INCH		
INSTRUMENT TRUCK NO.	CCN274A 74			TYPE	AmBe		
TOOL SERIAL NO.				STRENGTH	6.94 X 10⁻⁴		

LOGGING DATA

GENERAL				GAMMA RAY				NEUTRON			
RUN NO.	DEPTH FROM	DEPTH TO	SPEED FT/MIN	T.C. SEC	SENS. SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T.C. SEC	SENS. SETTINGS	ZERO DIV. L OR R	API R. UNITS PER LOG DIV.
1	0000	1517	12	4	17	02	10 API	4	23	16	300 CPS

REMARKS **LOGGED THROUGH DRILL STEM**



11-60020055 72(3)A

ROKE

SIDEWALL DENSITOG

OIL ENTERPRISES LTD. CALGARY ALBERTA T2C 3P

FILE NO. COMPANY **TECK CORPORATION**

WELL **7-1-9**

LOCATION **BILLIMORE PROJECT**

PROVINCES **BRITISH COLUMBIA**

Other Services:

PROVINCIAL DENSITY CORRECTION FROM **1.5** FT ABOVE PERM. SURFACE

LOG NO. **041E**

DATE **11 SEPT 72**

LOGGERS **W. J. B. / J. M. G.**

LOGGING COMPANY **W. J. B. / J. M. G.**

LOGGING ADDRESS **1527**

LOGGING PHONE **1518**

LOGGING CITY **WARTEN/AB**

LOGGING STATE **3 1/2" - 1 1/4"**

LOGGING OPERATOR **W. J. B.**

LOGGING TRUCK NO. **20**

LOGGING OPERATOR **PETERSON**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

LOGGING OPERATOR **W. J. B.**

Remarks: **LOGGED THROUGH DRILL ROD**

CALIPER	DENSITY

HOLE DIAMETER INCHES	COUNTS PER SECOND

1260

000

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500 F.R.