PR-EMG 72(1)A

CONFIDENTIAL

UTAH MINES LTD.
MINERAL EXPLORATION
SUITE 412, 510 W. HASTINGS STREET • VANCOUVER 2, B. C., CANADA
(604) 682-3761

INITIAL
C.G.C.
C.C.
D.C.G.C. ✓
D.C.C.
ACCTS.
C.M.B.
C.I.
C.A.
R. T.
C.P.E.
NRC

Our File: Carbon Creek

FEB 20 '73 AM

19th February, 1973.

2198

DEPT. OF MINES
PETROLEUM RESOURCES

Mr. R. Rutherford,
Department of Mines
And Petroleum Resources,
Victoria, British Columbia.

Dear Sir:

RE: COAL LICENCES NOS. 1648 to 1790 INCLUSIVE
PEACE RIVER LAND DISTRICT

Two reports covering work done by Utah on coal licence blocks in the Carbon Creek area, Peace River Land District are attached.

These reports by D.S. Fullerton are entitled:

1. Carbon Creek Coal Basin
   Summary Report -
   1972 Field Season.
2. East Mount Gething Project
   Report on Exploration Activities
   1972 Field Season.

These 'reports are submitted to support application for licence renewal and the request for a rebate on fees paid.

Very truly yours,

E.S. Rugg,
Exploration Manager
For Canada And-Alaska.

ESR/mw
Attachments
CC R.O. Wheaton

PR-EAST MT. GETHING 72(1)

EAST MOUNT GETHING PROJECT

REPORT ON EXPLORATION ACTIVITIES

1972 FIELD SEASON

CONFIDENTIAL

UTAH MINES LTD.
EXPLORATION DEPARTMENT
412-510 WEST HASTINGS STREET
VANCOUVER 2., B.C.
CANADA

SUBMITTED TO: E.S. RUGG

BY: D.S. 'FULLERTON

DATE: 8TH JANUARY, 1973.

CONTENTS

ILLUSTRATIONS

REPORT ON EXPLORATION ACTIVITIES
EAST MOUNT GETHING PROJECT
1972

ABSTRACT

During September of 1972, Utah Mines Ltd., a wholly owned subsidiary of Utah International Inc., conducted a coal exploration program in the East Mount Gething area of northeastern British Columbia. The area covered in this initial exploration phase consisted of twenty-eight coal licenses, Nos. 1651 to 1678.

The East Mount Gething project got underway 1st September, 1972, upon arrival by tugboat and barge to Dunlevy Landing from Utah's completed 1972 Carbon Creek exploration project. Camp materials and personnel were mobilized from Dunlevy Landing via helicopter, southward across Williston Reservoir to the project area. Camp facilities to accomodate ten men were constructed on a hilltop southeast of Table Creek in the northern part of coal licence no. 1665.

Utah's original program called for the construction of approximately eight miles of access roads into the exploration area. These plans, amended prior to our activity in the area, were altered to a helicopter supported project.' A B-l helicopter was retained full-time to service the camp and provide transportation to drillsites.'

Several days of geologic reconnaissance traversing to examine outcrops of the Gething Formations were 'completed to familiarize ourselves with the local structure and stratigraphy. The major streams were walked in order to measure bedrock attitude 'and examine any coal exposures.

Drilling operations (Canadian Longyear, 'drilling contractor) commenced on 12th September, 1972 and was completed 26th September, 1972. Two HQ (2½") core holes ware drilled in the area; 72-1 was completed to a total depth of 607 feet and 72-2 completed to 867 feet.

Approximately 900 feet of the Lower Cretaceous Gething Formation was cored in the East Mount Gething area. These sediments, of fluvial-deltaic origin, consist of alternating sequences of fine grain sandstones, siltstones, mudstones and thin coal seams. The stratigraphic section of the Gething Formation, seen-in core. hole 72-1, began in sediments approximately 500 feet below the base of the overlying Moosebar Formation. Core hole 72-2 spudded into the Gething Formation approximately 250 feet below the base of the overlying Moosebar Formation.

Correlation of strata, seen in Utah's core holes in the East Mount Gething area, can be made with Gething Formation sections measured in the Peace River Canyon by the Geological Survey of Canada. Identified coal seams with correlative seam names from the Peace River Canyon sections, Utah's coal sample numbers and coal thicknesses are shown on the attached geophysical logs.

INTRODUCTION

This report reviews the initial exploration program conducted by Utah Mines Ltd., a wholly owned subsidiary of Utah International Inc., in the Peace River Canyon area of northeastern British Columbia. The area covered in this exploration study consists of twenty-eight coal licences Nos. 1651 to 1678 inclusive.

A presentation of geological data is reviewed resulting from Utah's 1972 exploration'investigation on the potential of metallurgical coal resources on a part of a large synclinal area underlain by the coal-bearing Gething Formation, The exploration program had the following objectives:

1. To gain, by diamond core drilling, a further understanding of the coal-bearing Gething Formation in the Peace River Canyon area.
2. To obtain unweathered coal samples suitable for laboratory and washability studies.
3. To determine the agglomerating properties of the coal.
4. To define the economic potential for future coal mine development.

PROPERTY

The East Mount Gething property consists of a total of twenty-eight coal licences Nos. 1651 to 1678 as shown on Fig. 1; These licences were acquired through negotiated agreement in late 1970.

Details as to the ownership and interests concerning the licences are not contained in this report. Utah Mines Ltd. is the owner of the licences at this time and has all available information concerning working agreements.

LOCATION AND ACCESS

The East Mount Gething area lies adjacent to the Williston Reservoir in northeastern British Columbia approximately 80 miles due west of Fort St. John and approximately 480 miles due north of Vancouver. An all weather paved road extends from both Dawson Creek and Fort St. John to within two miles of the southeast corner of the coal licenced property. An existing exploration road in the southeast section of the licenced area from the vicinity of W.A.C. Bennett Dam to Gaylord Creek is also present.

The initial exploration work took place in the central part of the licenced block (fig. 1). Utah's original program called for the construction of approximately eight miles of access road into the area connecting with the existing road in the southeast sector of the block. The plans, amended prior to our activity in the area, were altered to a helicopter supported project. A B-l helicopter was retained full-time to service the camp and provide transportation to drillsites and public road access.

1972 FIELD SEASON

LOGISTICS.

The East Mount Gething camp, (with facilities to accomodate ten men), was built on a hilltop southeast of Table Creek in the northeast quarter of Coal licence No. 1665 (fig. 1). . Camp materials and men were mobolized from Dunlevy Landing to the campsite by helicopter.

Drillsite 72-1 was located about 500 feet north of'the campsite. The "44" diamond drill was dismantled on a barge which was stationed at the mouth of Table Creak, thus eliminating any over-water flight and possibilé loss of equipment in Williston Reservoir. The heavy components were lifted from the barge to the drillsite using a Sikorsky 58T helicopter. Camp facilities and drill assembly was completed on 12th September and drilling commenced.

Drillsite 72-2, located about two miles southeast of the camp, was prepared

during the drilling of 72-l. The drill was lifted to the second drillsite by a Bell 212 helicopter. All drill assembly and camp materials were demobolized on 29th September using a Sikosky 55T helicopter. A B-l helicopter was retained full time to service the camp and provide access to the drillsites and public. road transportation.

GEOLOGY

The geology of the Peace River Canyon area is not described in detail in this report. Numerous excellent descriptions of the various rock formations are contained in the literature. However, a few comments with regard to both the general stratigraphy and structure follow.

STRATIGRAPHY

The exposed bedrock in and near the Peace River Canyon consists mostly of Lower Cretaceous Formations. Studies by noted scientists have shown the difficulty of stratigraphic relationships for these sediments by the numerous alternative nomenclature systems proposed. Some of thes systems are illustrated on Table I. The nomenclature of Stott, 1971, has been used in this report.

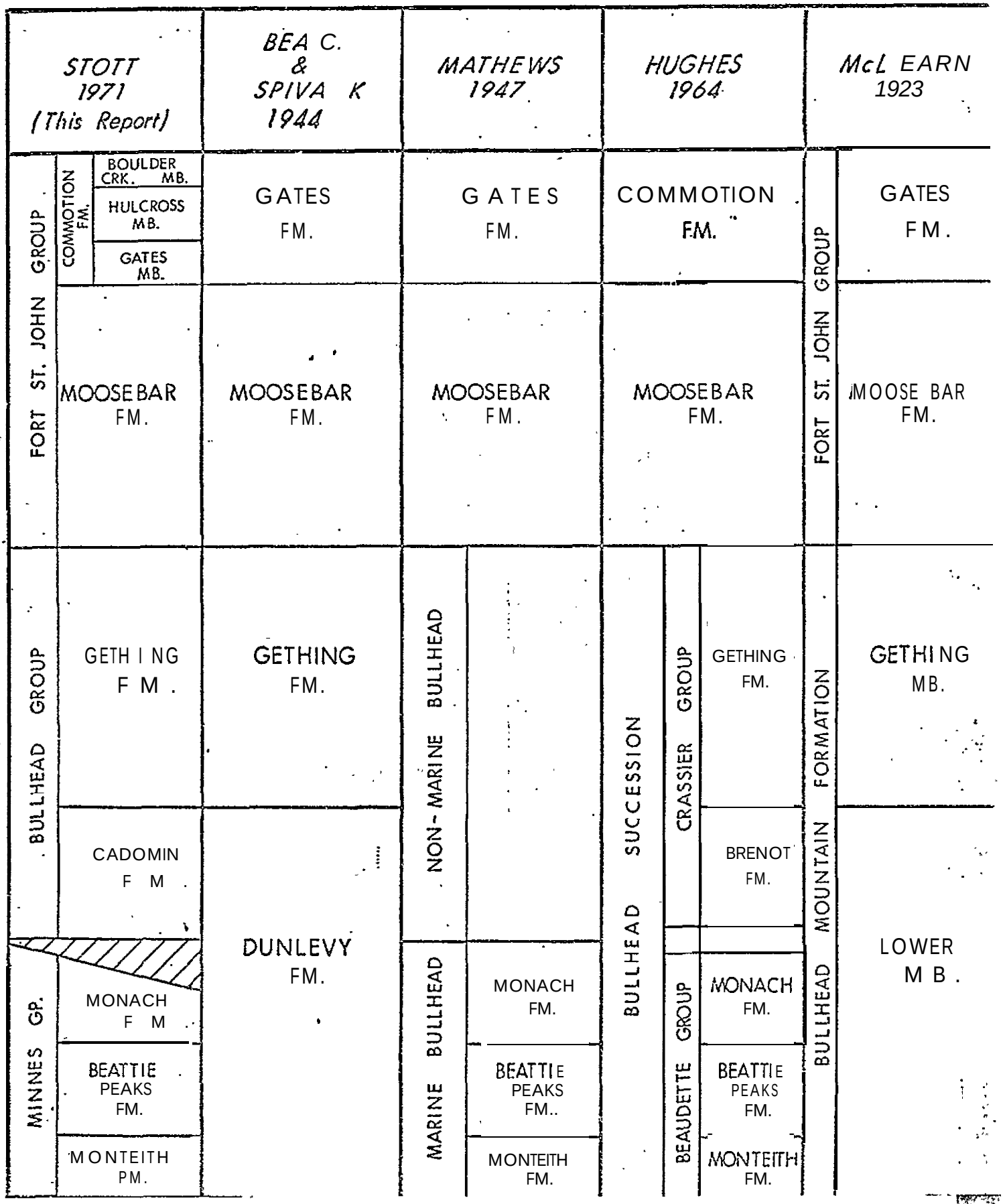
Cadomin Formation

The Cadomin Formation is the oldest formation occurring in the East Mount Gething area. The Cadomin Formation consists mainly of a succession of massive, crossbedded, coarse-grained; grey to brown weathering, conglomeratic sandstones and fine conglomeratic beds. Interbedded with these are thin beds of buff-weathering, soft, fine-grained sandstone, dark carbonaceous shales, and thin coaly seams. Some beds consist entirely of conglomerate with sub-rounded pebbles of dark chert, white quarts, and quartzite strongly cemented in a matrix of coarse to medium-grained sandstone.

Coarse sandstones of Cadomin Formation grade laterally into interbedded coal, sandstone, and shale of the Gething Formation. The two formations are, therefore, in part lateral equivalents, -although in general the Cadomin underlies the Gething.

LOWER CRETACEOUS FORMATIONAL NOMENCLATURE

PEACE RIVER CANYON AREA



Gething Formation

The Gething Formation directly overlies the Cadomin Formation. In general, the Gething Formation consists of interbedded musdtones, coals, siltsones, and sandstones. (See lithologic logs in pocket 1 and 2). The sandstones are usually in thin units and the frequent repetitions of these units are a characteristic feature of the Gething. The thickness of the Gething Formation in the Peace River Canyon is believed to be approximately 1,600 feet to 1,800 feet. A detailed description of the Gething Formation of the Peace River Canyon area has been published by Stott, 1969. It is the coal beds of the Gething Formation that are the objective of the coal. exploration activities being carried out in the Peace River area. These coal beds, vary in thickness from a few inches up to ten to fifteen feet with isolated. occurrences being reported of greater thicknesses.

Moosebar Formation

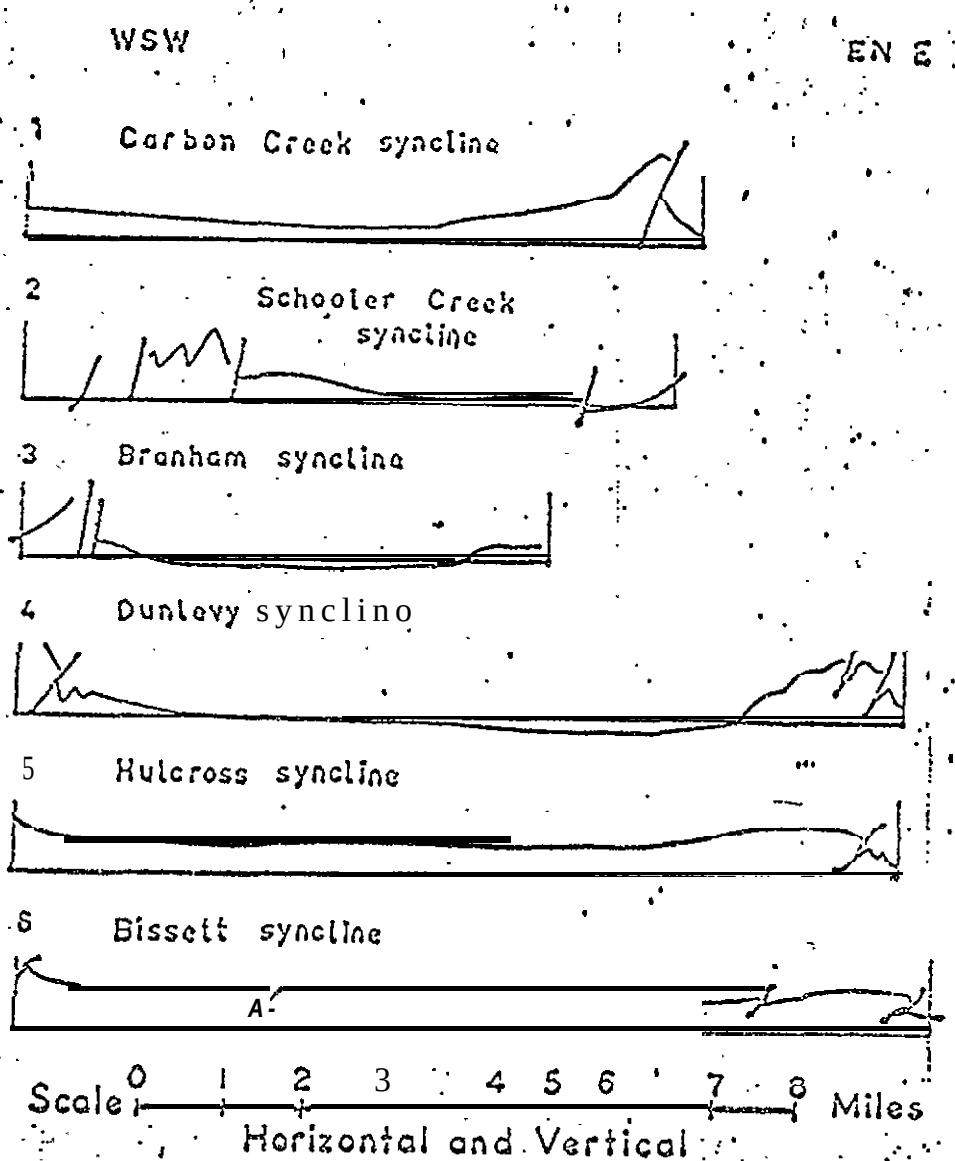
The Moosebar Foramtion directly overlies the Gething Formation. The Moosebar Formation has been removed by erosion from the East Mount Gething area, but is present approximately three miles southward from the properties southern boundary.

The formation consists of a monotonous sequence of dark grey to black friable shale. In places, thin layers of clayed ironstone occur and a few thin sandstone lenses are present in the upper part of the formation. The formation has been measured at 1,336 feet by Beach and Spivak, 1944, on Track Creek.

STRUCTURE

The East *Mount* Gething coal licences lie within the foothills structural belt of the Rocky Mountains. The structural belt extends from the United States border to the Yukon along the east side of the Rocky Mountains. It is characterized by a series of anticlines, synclines and west-dipping thrust faults. The intensity of deformation varies from one area to another and the Peace River area is characterized by a particular structural style. This structural pattern has been well illustrated by Hughes, 1967, (fig. 2) with detailed discussions by Irish, 1969, and Fitzgerald, 1968. Essentially, the Peace River area consists of a large relatively broad syncline between sharply faulted anticlines. (See Fig. 3.).

FIGURE 2



Structural Styles, Peace River Area (Hughes 1967)

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In Figure 3, a prominent anticline is shown on the west side of the East Mount Gething block, while on the east side of the map, west dip is dominent. The axis of Dunlevy Syncline is shown by the heavy dashed line through the property. The East Mount Gething property occupies part of the western flank of the Dunlevy Syncline, south of the Williston Reservoir. Geological field work has confirmed the gentle dipping of the syncline which is illustrated in cross sections A-B and C-D, fig. 3.

RESULTS OF EXPLORATION - 1972

GENERAL DISCUSSION

The presence of coal in the Peace River area was first recognized by Alexander McKenzie in 1793. This coal was referred to in several reports by the Geological Survey in Canada, and British Columbia Department of Mines between 1793 and 1922. In 1922, a detailed description of the coal occurences of the Peace River Canyon was made by McLearn. McLearn reported at least five coal seams to exceed 4.0 feet in thickness and three to exceed 5.9 feet in thickness. These three seams, exceeding a 5.0 foot thickness, are referred-to as the Trojan, Grant and Murray seams. The Trojan seam is described as lying approximately 120 feet below the top of the Cething Formation. The Grant and the Murray seams occur over 1,000 feet lower-in the Gething Formation.

The East Mount Gething exploration programme was directed toward the evaluation of the Gething Formation and the economic potential of these seams.

RESULTS

Geologic field traverses were performed in the East Mount Gething area to examine bedrock exposures in the streams draining the area. These examinations confirmed the gentle eastward dip of the Gething Formation in the exploration area, but failed in observing any coal exposures.

Two HQ (2½") diamond drill holes, (drilling contracted to Canadian Longyear), totaling 1,474 feet were completed in the East Mount Gething property. The results of these core holes follows. Strip logs and geophysical logs from the core holes ark found in Pockets 1 and 2.

Core Hole - EMG 72-1
Coal Licence - C.L. 1665
Location - 2,500 FWLX 850 FNL of Section
Elevation - 3,450 feet est.
Total Depth - 607 feet.

COAL SAMPLE	BED NAME	THICKNESS	DEPTH
1	GALLOWAY-MILLIGAN	1.9	49.2
2	?	2.0	124.1
3	?	1.7	168.6
4	LOUISE	5.7	175.3
5	?	1.0	191.4
6	FERRO-POINT	1.0	203.8'
7	?	1.3	285.3
8	?	1.0	303.0

Cork Hole - EMG 72-2
Coal Licence - C.L. 1671
Location - 1,250 FEL X 1,200 FSL of Section
Elevation - 3,450 feet est.
Total Depth - 867 feet.

COAL SAMPLE	BED NAME	THICKNESS	DEPTH
1	?	1.3	97.0
2	?	1.0	122.5
3	LITTLE MOGUL	2.4	227.4
4	GALLOWAY-MILLIGAN	3.8	378.4
5	LOUISE	5.2	503.3
6	?	1.0	513.5
7	FERRO POINT	1.0	537:o
8	?	1.1	632.4
9	?	1.8	676.1

Approximately 900 feet of the Gething Formation section was cored in the East Mount Gething block. These sediments of fluvial-deltaic origin consist of alternating sequences of fine grained sandstones, siltstones, mudstones and thin coal seams. (Se lithologic logs Pockets 1 and 2).

Excellent correlation exists between core holes 72-1 and 72-2, (see fig. 4). Correlation of the section drilled in the East Mount Gething block with sections measured in the Peace River Canyon indicates (fig. 4) that the upper most stratigraphic section of the Gething Formation present in the East Mount Gething is approximately 250 feet below the base of the overlying Moosebar Formation.

The stratigraphic section seen in EMG 72-1 began in the Gething Formation approximately 500 feet below the base of the overlying Moosebar Formation while EMG 72-2 began about 250 feet below the Moosebar.

COAL

Numerous thin coal seams were found to be present in the 900 feet of Gething Formation cored in the East Mount Gething block. Thicknesses ranged from a few inches to 5.7 feet. The Louise seam maintained a thickness greater than 5.0 feet, being 5.7 feet in EMG 72-l and 5.2 feet in EMG 72-2. This seam, however, has shale splits which attributes to the high ash content shown in Table I and II, samples 4 and 5 respectively.

ASSAYS

All cored coal samples 1.0 feet thick and greater were analyzed for their various properties. The head analyses for the cored coal samples tested from the East Mount Gething area are summarized on Tables II and III. The samples were submitted to Utah International Inc., laboratories in Palo Alto, California for Free Swelling Indices and thence forwarded to Utah's *Navajo* mine laboratories for proximate natural and dry basis analysis.

COSTS

The following statement covers expenditures by Utah Mines Ltd. for coal exploration (through 31st October, 1972) in the East Mount Gething licence area of the Peace River District.

ITEM	TOTAL COST
1. Drilling - 1,474 feet	$21,164.00
2. Barge and Tug Services - Mobilization	$ 1,663.00

for: TABLES 2 AND 3

HEAD ANALYSIS
- COAL FROM D.H. 72-1 (page 11)
- COAL FROM D.H. 72-2 (page 12)

Refer to:

PR - EAST MT. GETHING 72(4)A
CONFIDENTIAL ANALYSIS FILE
pages 11 and 12

ITEM		TOTAL COST
3. Labour		
	Salaries for geologists	$ 1,980.00
4. Expense Accounts		
	Travel expenses to and from exploration area	$ 430.00
5. Aircraft Charter		
	Helicopter	$22,567.00
6. Project Preparation		
	Slashing of camp and drill sites	$ 1,986.00
7. Supplies		$ 46.00
8, Camp Cost		$ 460.00
9. Customs Brokerage		
	Fees on Coal Samples	$ 150.00
10. Laboratory Work		
	Sample Preparation and Analytic Work	$ 3,480.00
11. Probe Rental		$ 596.00
		$54,387.00

CONCLUSIONS AND RECOMMENDATIONS

The initial exploration of the East Mount Gething property in the Peace River area indicates a poor potential for the development of an economic mining venture producing a sufficient quantity of metallurgical grade coking coal from the upper part of the Gething Formation. No coal seams were encountered greater than six feet thick. While only limited drilling has been carried out, insufficient reserves are indicated to support a large scale mining venture.,

It is recommended that additional exploration be carried out in this area to further evaluate the presently untested lower part of the Gething Formation to define its economic potential.

REFERENCES

Beach, H.H., and Spivak, J., 1944 Dunlevy-Portage Mountain map area, British Columbia, G.S.C. Paper 44-19.

Fitzgerald, E.L 1968, Structure of British Columbia Foothills, Canada,. AAPG Bull V. 52-4.

Hughes, J.E., 1967, Geology of the Pine Valley, Mount Wabi to Solitude: Mountain, Northwestern B.C., B.C. Department of Mines And Petrol& Resources, Bull. 52.

Irish, E.J.W., 1969, Halfway River Map-Area, B.C., G.S.C. Can., Paper 69-11.

McLean, F.H., Peace River Canyon Coal Area, B.C., G.S.C., Sum. Report. 1922, Ft. B.

Stott, D.F., 1969, The Gething Formation of the Peace River Canyon, British Columbia, G.S.C. Paper 68-28.

Stott, D.F.; 1971, Lower Cretaceous Bullhead Group Between Bullmoose Mountain and Tetsa River, N.E.B.C. G.S.C. Open File Report.

122°30' W 122°25' W 122°20' W 122°15' W

10' 05' 56°00'

WILLISTON RESERVOIR

Peace River

Gravel Hill Creek

Dunlevy Lake

Rainbow Rocks

Farrell Creek

Chinaman Lake

BUTLER RIDGE

Cabin Creek

Danish Creek

Elizabeth Creek

Peace River Canyon

Ferro Pt.

Gaylard Creek

Gething Creek

MT. GETHING
5980'

W.A.C. BENNETT DAM

INSERT

EXPLANATION

- UTAH MINES LTD.
- EXISTING ACCESS ROAD
- HELICOPTER PAD
- DRILL SITE 1972
- CAMP SITE 1972

94 B/1 d + c

PR-EMG 72(2)A

COAL - BRITISH COLUMBIA

EAST MT. GETHING

Fig. 1

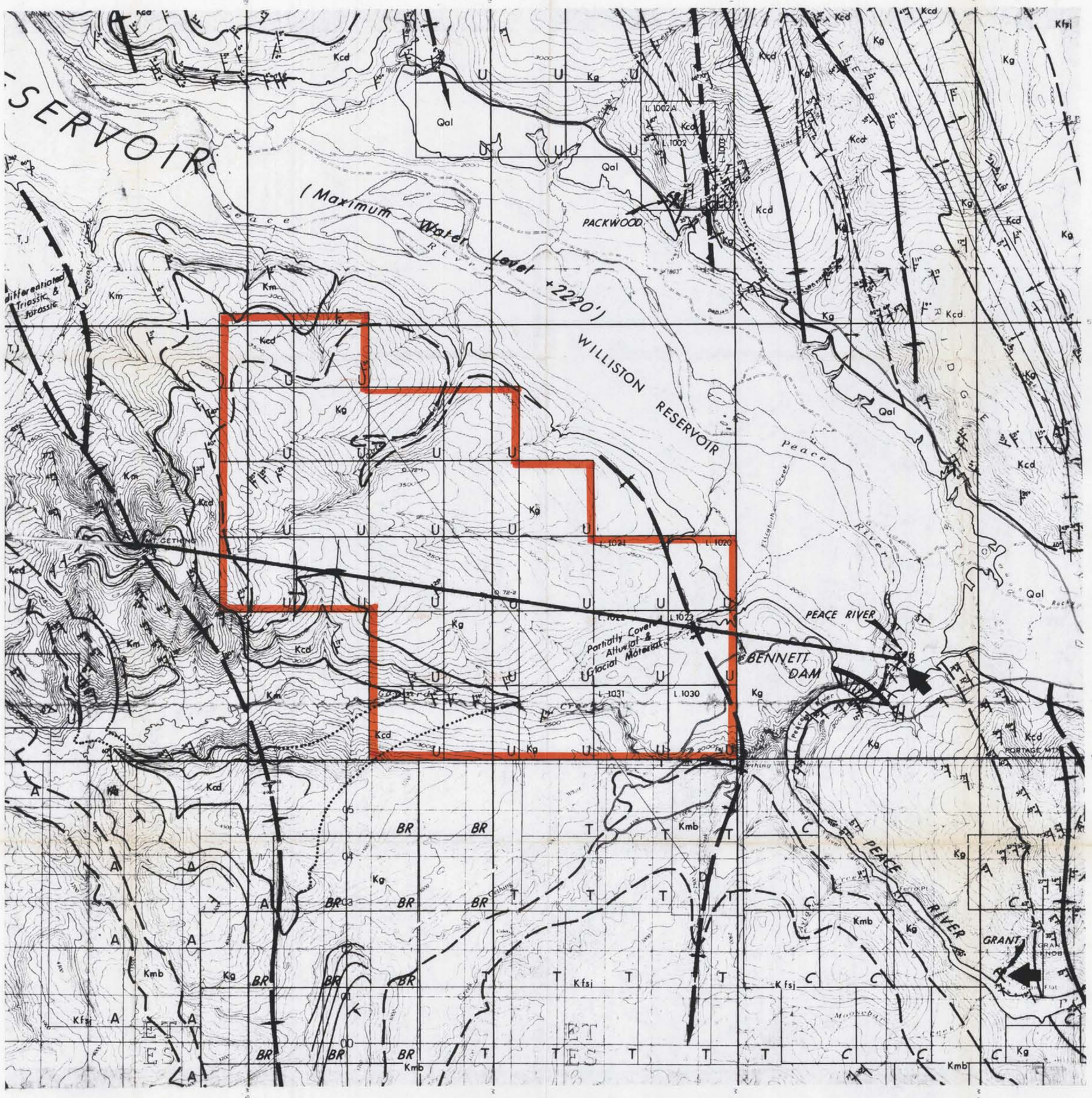
UTAH MINES LTD.
MINERAL EXPLORATION & DEVELOPMENT DEPT.
510 WEST HASTINGS ST.
VANCOUVER 2, B.C.

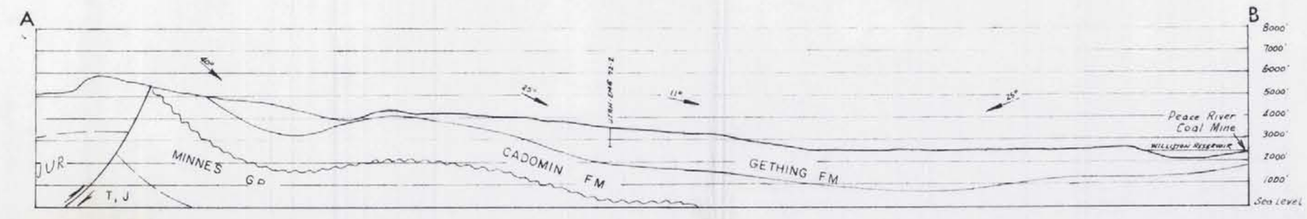
DATE: Sept., 1972 BY: D.S.F.

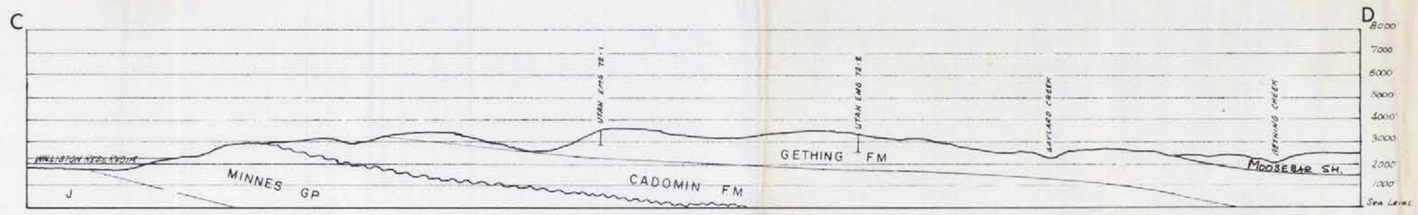
SCALE: 1:50,000

1 1/2 0 1 mile

516







LEGEND

- Formation Boundary
- Anticline
- Syncline
- Thrust Fault
- Strike & Dip - Published
- Strike & Dip - Measured
- Coal Mine (Abandoned)
- Coal Occurence Greater Than 5' Other Than Trojan Seam.
- Drill Hole
- Roads - Existing

- T — TEXACAL - HOGAN COAL LICENCES
- A — AMAX COAL LICENCES
- U — UTAH MINES LTD COAL LICENCES
- C — CINNABAR PEAK COAL LICENCES
- BR — BRAMEDA COAL LICENCES

UPPER CRET.	RECENT	Qal	Stream Alluvium
		UNCONFORMITY	
LOWER CRETACEOUS	FORT ST. JOHN GP.	Kdu	Sandstone & Conglomerate — Dunvegan Formation
		Kfsj	Fort St. John Group Undivided
		Kmb	Moosebar Shale
	BULLHEAD GP.	Kg	Coal, Sandstone & Mudstone — Gething Formation
		Kcd	Sandstones, Shales & Conglomerates — Cadomin Formation
		UNCONFORMITY	
	MINNES GP.	Km	Sandstones, Shales & Minor Coals — Minnes Group Undivided
		UNCONFORMITY	

PR-EMG 72(2)A
Fig. 3

UTAH MINES LTD
MINERAL EXPLORATION & DEVELOPMENT DEPT.
412 - 510 WEST HASTINGS ST.
VANCOUVER 2, BRITISH COLUMBIA

PEACE RIVER AREA

GEOLOGICAL MAP OF THE EAST MT. GETHING BLOCK

December, 1972

SCALE: 1:50,000

1 1/2 0 1 Mile

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MOOSEBAR FORMATION

EAST MT. GETHING AREA

GETHING CREEK

AYLARD CREEK

MOOSEBAR CREEK

JOHNSON & COALBED CREEKS

LOWER MOOSECALL CREEK

CONTACT POINT

KING CREEK

UTAH MINES LTD. EMG. 72-2

Gamma Log Resistivity Log

UTAH MINES LTD. EMG. 72-1

Gamma Log Resistivity Log

NORTH SHORE

WEST BANK

WEST BANK

EAST BANK

DAM SITE #2

MOUNT JOHNSON

SUPERIOR

TROJAN

LITTLE MOGUL

MOGUL

MILLIGAN

CASTLE POINT

WENDY

LOUISE

FERRO POINT

FALLS

TITAN

QUENTIN

INDEX

GRANT

RIVERSIDE

KNIGHT

TWIN SEAMS

BORING

MURRAY

GRANT – KING

MURRAY – "48"

CADOMIN FORMATION

LEGEND

Coal seam with thickness in inches 23

Covered interval . . . . . .

This chart has been modified and amplified from data by McLearn (1923), McLean and Kindle (1950), B.C. Hydro drilling in 1958, and Stott (1968) and (1969).

Most coal seams less than 12 inches thick have been omitted.

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PEACE RIVER AREA

Fig. 4 Correlation of Coal Seams

EAST MT. GETHING PROJECT

100 0 100 200 300

VERTICAL SCALE IN FEET

DEC. 1972

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UTAH CONSTRUCTION & MINING CO.

DRILL & CORE LOG

HOLE NO. EMG 72-1
LOG BY: D.O. Birkholz
DATE: Sept. 14, 1972

ELEV.: 3450±
N:
E:

HOLE SIZE: HQ (2½")
AIR ☐ WATER ☑
T.D. 607 P.D.

HOLE NO. EMG 72-1
PROJECT: EAST MT. GETHING
LEASE: 1665
SEC. [redacted] T. R.

% REC.	DEPTH	STRIP LOG	THICK	SAMPLE NO.	GRAV.	LITHOLOGY	ANALYSIS

10 M
20
30 M
40
50 1.9 1
60 M
70
80
90 M
100
110 M
120
2.0 2
130
0.4
140
150
Fractured, oxidized 2'
160 M
170 1.7 3
5.7 4
180 M
190 1.0 5
200 M 1.0 6
210 M
220 M
240 M
0.1
250
260
270
280 M
1.3 7
290 M
300 M 1.0 8
310
320 M
330
340 miner frac.
350 1.9 Bony
360 M
370 0.3
380 M
390
400
410 M
420
0.3
440
M 0.7
450 M
460 frac. w/ qtz + py.
470
480 M
490 1.0
500
510
520 M
530 0.5
0.4
540 M 0.3
550 M
0.6
560
0.6
0.3
570 Bony
580 M
590
600
610 TOTAL DEPTH 607'

LEGEND

- Conglomerate
- Sandstone
- Siltstone
- Shale or mudstone
- Carbonaceous Shale
- Coal

HOLE NO.

PR-EMG 72(3)A

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UTAH CONSTRUCTION & MINING CO.

DRILL & CORE LOG

HOLE NO. EMB 72-2

LOG BY: D.S Fullerton

DATE: Sept 1972

ELEV: 3450'±

N:

E:

HOLE SIZE: H9 (6½)

AIR ☐ WATER ☒

T.D. 867 PB:

HOLE NO. EMB 72-2

PROJECT: Ebert NM Gretting

LEASE: 1671

SEC. ¼ R.

% REC.	DEPTH	STRIP LOG	THICK	SAMPLE NO.	CORE

LITHOLOGY | ANALYSIS

0-67 Talcous, blocked drift, gravel, etc.

LEGEND

- Conglomerate
- Sandstone
- Siltstone
- Shale or mudstone
- Carbonaceous Shale
- Coal

0
20
40
60
80
100 1.8' 1
120 1.4 2
140 .7
160
180 .3
200
220 2.9 3
240 .3
260 .5
280 .6
300
320
340 .7
360 .4
380 3.8 4
400 .7
420 .4
440 1.4 .3
460
480 .1
500 .5 .3 5
520 1.2 6
540 .5 1.2 7
560
580 .3
600 .8
620 .9
640 1.1 8
660
680 1.8 .9 9
700 .1

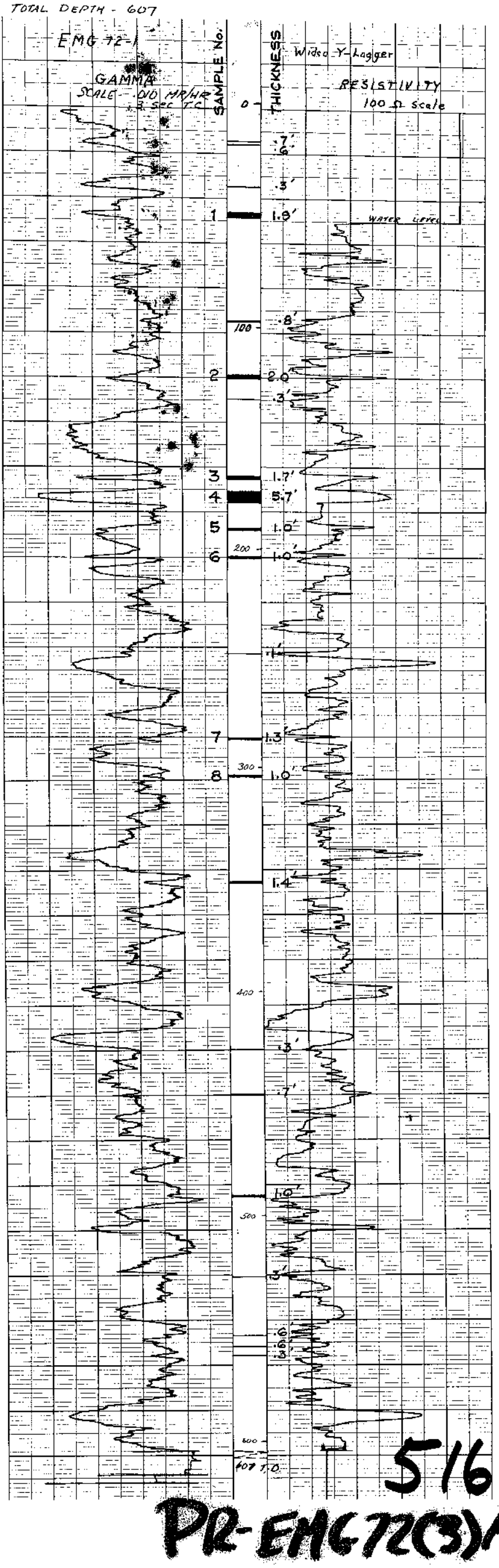
PROPERTY- EAST MT. GETHING HOLE NO. 72-1

COAL LICENCE - C.L. 1665

LOCATION- R500'W.L X 850' N.L. of SEC.

ELEV. - 3450'est.

TOTAL DEPTH - 607



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PR-EMG 72(3)A

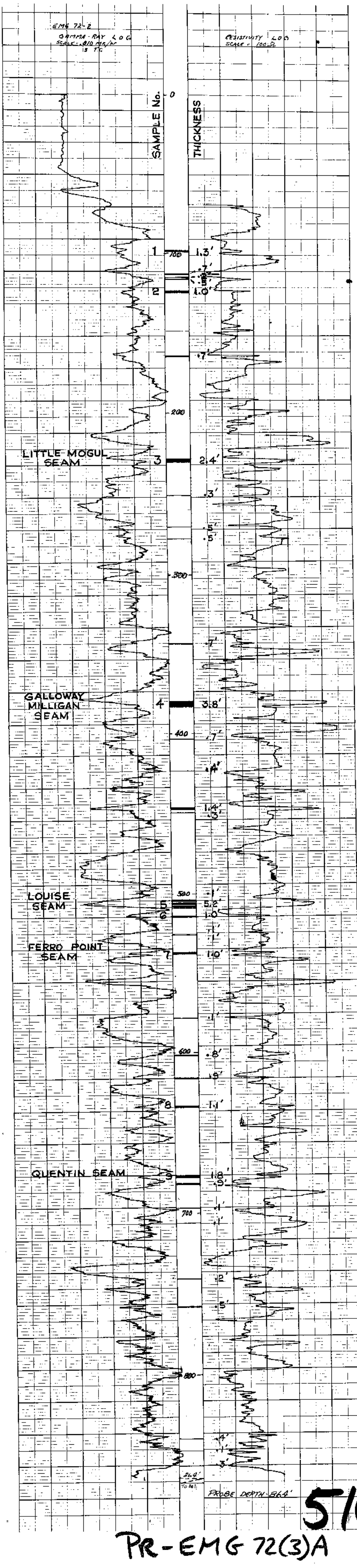
PROPERTY - EAST MT. GETHING HOLE NO. 72-2

COAL LICENCE - C.L. 1671

LOCATION - 1250' E.L. X 1200' S.L. of Sec.

ELEV. - 3450' est.

TOTAL DEPTH - 867



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PR-EMG 72(3)A

PR - EAST MT. GETHING 72(4)A

NOTE: COAL ANALYSIS DATA WAS REMOVED FROM OPEN FILE - 72(1)A

EAST MOUNT GETHING PROJECT
REPORT ON EXPLORATION ACTIVITIES
1972 FIELD SE&S-ON

CONFIDENTIAL

SUBMITTED TO: E.S. RUGG

BY: D.S. FULLERTON

DATE: 8TH JANUARY, 1973.

CARBON CREEK - EAST MT. GETHING

HEAD ANALYSES

Hole: EMG 72-1
Location : 3450 FC. WL x 850 NL of Section
Elevation : 3450 Ft. (est.)
Licence NO. CL 1665

Sample NO.	Footage	No. of Feet	Lab. Assay FSI	Natural Basis — Navajo Mine Assay % H2O	% Ash	% S	% VM	% FC	Btu	Dry Basis — Navajo Mine Assay % Ash	% S	% VM	% FC	Btu
1	49.2-51.1 *	G.M. 1.9	1 1/2	1.60	16.79	.99	22.12	59.49	12167	17.08	1.01	22.50	60.52	12377
2	124.1-126.1	? 2.0	2 1/2	1.88	14.47	.93	23.00	60.65	12656	14.75	1.00	23.44	61.81	12898
3	168.6-170.3	? 1.7	2 1/2	1.78	12.71	1.03	26.12	58.39	12522	13.96	1.05	26.59	59.45	12749
4	175.3-181.0	L. 5:7	2	1.69	25.74	.75	22.81	49.76	10634	26.18.	.76	23.20	SO.62	10187
5	191.4-192.4	? 1.0	2	1.21	26.27	.75	22.98	49.54	10935	26.59	.76	23.26	50.15	11069
6	203.8-204.8	F.P. 1.0	2	2.12	1.57	.80	21.81	74.50	14570	1.60	.82	22.23	76.11	14586
7	285.3-286.6	? 1.3	2	1.66	17.36	1.03	25.54	65.44	13799	17.48	1.05	25.97	66.54	14032
8	303.0-304.0	? 1. . 0	8 1/2	1 55	13.54	1.14	27.02	57.89	12667	13.75	1.16	27.45	58.80	13333

*NOTE: SEAM NAME
G.M. - GALLOWAY-MILLIGAN
L. - LOUISE
F.P. - FEW.0 POINT

TABLE II

CARBON CREEK - EAST MT. GETHING

HEAD ANALYSES

Hole: EMG 72-2
Location: 1250 Ft. ELX 1200 Ft. SL of Section
Elevation: 3450 Ft.
Licence NO. CL 1671

Sample NO.	Footage	*	NO. of Feet	Lab. Assay FSI	Natural Basis — Navajo Mine Assay % H_2O	% Ash	% S	% VM	% FC	Btu	Dry Basis — Navajo Mine Assay % Ash	% S	% VM	% FC	Btu
1	97.7- 99.0	?	1.3	6 1/2	**1.81**	11.67	2.89	25.63	**60.89**	13'036	11.89	**2.94**	26.10	62.01	13276
2	122.5-123.5	?	1.0	4 1/2	1.65	10.77	.91	25.41,	**'61.97**	13217	10.97	.93	25.69	63.14	13466
3	227.4-229.8	L.M.	2.4	2	?.15	13.37	1.12	26.40	58.08	12328	13.66	1.14	26.96	59.36	12599
4	378.4-382.2	G.M.	3.8	2	**1.93**	**11.96**	.80	20.19	65.92	12930	12.20	.82	20.59	67.22	13184
5	503.3-508.5	L.	5.2	2	1.67	29.43	.54	21.35	47.54	9997	29.93	.55	21.72	48.35	10167
6	513.5-514.5	?	1.0	3	1.35	15.98	1.22	31.52	'51.12	11458	16.20	1.24	31.96	51.84	11618
7	537.0-538.0	F.P.	1.0	2	1.93	5.40	.94	22.05	70.62	14083	5.51	.96	22.48	72.01	14360
a	632.4-633.5	?	1.1	4	1.48	17.62	1.02	23.21	57.69	121.42	17.88	1.04	23.56	58.56'	12324
9	676.1-677.9	?	1.8	9	1.21	1.1.56	2.37	24.33	60.90	13297	11.70	2.40	26.65	01.65	13460

* NOTE: SEAM NAME

L.N. - LITTLE MOGUL
G.M. - GALLOWAY-MILLIGAN
L. - LOUISE
F.P. - FERRO POINT

TABLE III