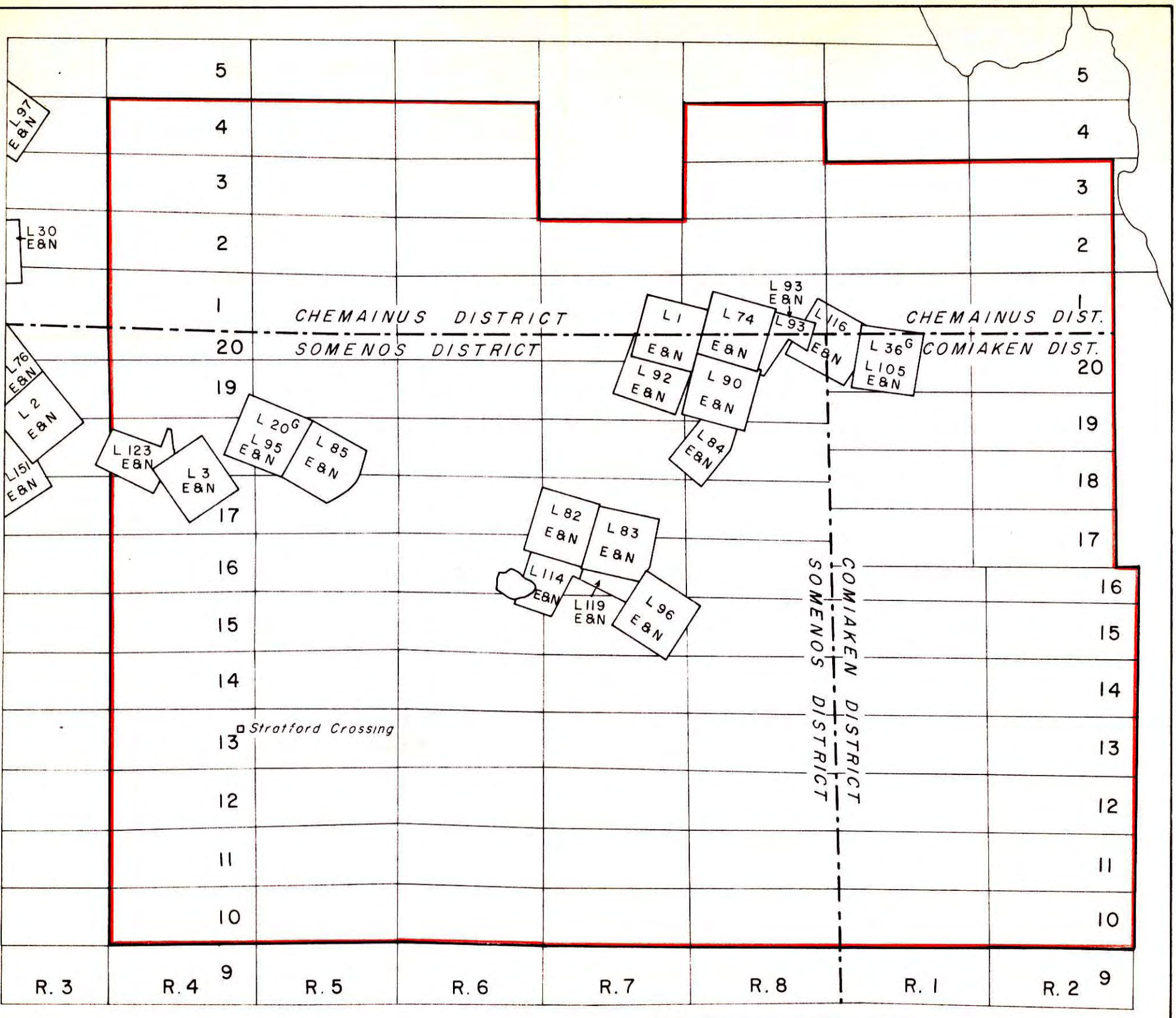

PROPERTY FILE 92B096 005624

Canadian Pacific
OIL AND GAS LIMITED
MINING DIVISION

Plate No. 1

CHEMAINUS, SOMENOS and COMIAKEN DISTRICTS SHOWING AREA (Outlined in red) WITHIN WHICH MINERALS ARE COMMITTED TO CANPAC MINERALS LTD.

DATE - DEC., 1969
CONT INT -
AUTHOR - H.G.R.
APPROVAL BY -
SCALE - 1" = 1/2 MILE
FILE No. -

MOUNT RICHARDS PROJECT

Diamond Drill Log - Hole 71-1

LOCATION: 39 + 95 N, 81 + 95 W
AZIMUTH: 32°
COLLAR ELEVATION: 725'
DIP AT COLLAR: -45°
CASING: 20' BW, 20' AW

STARTED: March 17, 1971
COMPLETED: March 22, 1971
CORE SIZE: AQ
DEPTH: 450'
DRILLED BY: Connors Drilling Ltd.
LOGGED BY: JYW

0'-20.5'	No Core.
20.5'-246.5'	Diorite-gabbro; c.g. mosaic white feldspar, dark grey-green hornblende, etc. Core is solid, recovery close to 100%. Reduction in grain size to m.g. becomes noticeable at 216', rock changing gradually to a porphyritic type, with 1/16" to 1/8" feldspar phenocrysts. The texture of the c.g. portion is gabbroic, the m.g. material being diorite.
246.5'-450'	Dacite (?), light grey, finely and evenly banded. Foliation at 75° to C.A. Pyrite disseminated throughout--about 1% overall, finely crystalline. Knots of epidote appear at rare intervals. Phenocrysts of hornblende (?) (1/16") are randomly distributed but common. Between 309' and 316' several chloritic sections with 5%-10% pyrite. Rock generally consists of quartz and feldspar. Zones of 10% py at 429' - 429.5', 431.5'-433'.
450'	END OF HOLE

The rock type is remarkably uniform from the gabbro contact down. No cpy observed, no strongly sheared zones.

MOUNT RICHARDS PROJECT

Diamond Drill Log - Hole 71-2

LOCATION: 21 + 82 N, 67 + 95 W

AZIMUTH: 32°

COLLAR ELEVATION: 705'

DIP AT COLLAR: -45°

DIP AT 225': -46°

DIP AT 721': -45°

CASING: 10' BW, 30' AW

STARTED: March 23, 1971.

COMPLETED: April 2, 1971

CORE SIZE: AQ

DEPTH: 744'

DRILLED BY: Connors Drilling Ltd.

LOGGED BY: JYW

(a) SUMMARY LOG

0'-58' Diorite, porhyritic, with abundant 1/10" feldspar phenocrysts.

58'-744' Andesite, variably porphyritic, the phenocrysts generally being epidote. Narrow silicified zones frequent. Pyrite generally 1% of the rock, with concentrations of up to 15% over sections less than 1' in width. Chalcopyrite specks noted in two very short sections.

(b) ANALYSES

FROM	TO	WIDTH	%Cu.
709.6'	711.6'	2.0'	0.45

(c) DETAILED LOG

0'-8' Casing.

8'-58' Diorite, m.g., peppered throughout with 1/10" feldspar phenocrysts. Vague foliation to 51' then pronounced at 55° to C.A. Well-foliated section has scattered tiny pyrite crystals. 11' core lost 16'-52'; 3.5' core lost 47'-51'; 1.5' core lost 54'-58'.

58'-102' Andesite, medium grey to dull green, with abundant apple-green phenocrysts (epidote) generally 1/16" in diameter and also forming lenticles and knots of crystals along with feldspar. 1/32" pyrite crystals peppered throughout, often elongated along foliation. Pyrite makes up 1% of rock.

102'-117' Andesite, silicified, tending in composition towards dacite. Colour generally dull green. 5% pyrite. 10.8' core lost, 103'-115'.

117'-120' Andesite, chloritic, sheared. 1% pyrite. Core crumbly.

2.....

397'-405' Andesite, chloritic, soft, breaks on many curving slickensides. Scattered quartz stringers, confused foliation. Pyrite 2%, patchy. From 401' core forms buttons, breaking on slip planes at 80° to C.A.

405'-427' Andesite, with epidote, as before. Foliation at 70° to C.A. 1% pyrite.

427'-436' Andesite, with many eyes and lenticles of quartz. Pyrite about 7%. Sheared at 90° to C.A.

441'-497' Andesite with abundant epidote phenocrysts (1/16"). Foliation 70° to C.A. Pyrite less than 1%. Epidote concentration increases to 65' then declines gradually.

497'-500' Andesite, silicified, gradationaly with above. Very finely crystalline. Few epidote phenocrysts. Pyrite less than 1%.

500'-569' Andesite, with epidote, as before. Pyrite less than 1%, except in 3" white quartz veinlets at 524' where 5% pyrite, and again at 524.5' in 1" veinlet. Foliation poorly defined, grain size coarser than before. From 529' rapid increase in size of feldspars to 1/16". By 532' andesite is "normal" again, i.e., heavily spotted with epidote. 100% core recovery.

569'-570.5' Andesite, with quartz stringers; chloritic, sheared. 2% pyrite.

570.5'-582' Andesite, with epidote, as before. No apparent foliation. Pyrite less than 1%.

582'-585' Andesite, sheared, chloritic. Siliceous band at 584.5' carries 4% pyrite.

585'-631' Andesite, poorly foliated, heavily peppered with epidote. 2½" pod of epidote-quartz-feldspar at 615'.

631'-640' Andesite, finer, with less epidote than above. Foliation at 75° to C.A., pyrite 1%-2%.

640'-653' Andesite, with epidote, as before, but also with frequent thin bands of quartz-feldspar.

653'-659' Quartz with much intermingled andesite and calcite. Chloritic banding contorted. Pyrite 1%.

659'-666' Andesite, with good foliation at 70° to C.A. In top 2" two specks of chalco pyrite. Pyrite disseminated throughout 2% pyrite, tr. chalco pyrite.

666'-667.5' Andesite, chloritic, sheared, soft.

667.5'-744' Andesite, with abundant 1/16" epidote phenocrysts, epidote knots, quartz eyes. 1% pyrite.

4..... .

120'-128' Andesite, with epidote, as before. Foliation at 45° - 60° to C.A. 1%-2% pyrite. 5' lost core.

128'-138' Andesite, silicified. Largely quartz and feldspar, with 2% disseminated pyrite. 9' lost core.

138'-147' Andesite, sheared. Foliation at 40° to C.A. 1% pyrite. 8' lost core.

147'-175' Andesite, with epidote, 1% pyrite, as before. 23' lost core. Core broken up small.

175'-217' Andesite, with epidote, 1% pyrite as before. Scattered ½" knots of epidote and feldspar. Foliation at 45° to C.A. 35' lost core.

217'-232' Andesite, sheared, chloritic. Foliation steepens, becomes 0° to C.A. at 221'. Generally at 30° - 40° to C.A. 1% pyrite. 1' lost core.

232'-316' Andesite, with epidote, as before. Epidote phenocrysts variably abundant. 1% pyrite. At 310.5', 3" section with quartz eyes, 10% pyrite. 12.5' lost core.

316'-324' Andesite, as before, but less epidote and more quartz eyes. Pyrite generally 1%. Quartz-calcite veinlets at 255 (5") and 358 (2"), both barren except for pyrite at the margins. Lower contact of 5" veinlets is strongly sheared for ½". 4" section at 362' with abundant quartz eyes. 15% pyrite. 7" section at 364' strongly sheared. Chloritised, with stringers containing 10%-15% pyrite and quartz eyes. Foliation at 50° to C.A. 6' core lost, 334'-350'; 4' core lost 350'-365'.

366'-370' Andesite, chloritic, sheared. Foliation at 45° to C.A.

370'-377' Andesite, silicified. Foliation at 40° to C.A. 5' lost core.

377'-388' Andesite, as before. Foliation at 40° to C.A. At 386', 1" heavily chloritised zone. Strongly sheared 386'-388'. Pyrite generally 1%.

388'-392' Quartz, with ragged patches of andesite. 5% pyrite, in quartz and andesite. 1.4' lost core.

392'-393.5' Andesite, sheared at 65° to C.A., chloritic, decayed.

393.5'-395' Andesite, apparently without epidote. 2% disseminated pyrite, occasional quartz-carbonate blob.

395'-397' Quartz, white, barren, with occasional inclusions of andesite carrying 2% pyrite. 1.8' lost core, 395'-400'.

3.....

667.5'-744' (continuted).

709.6'-711.6'	heavily mineralised zone.
709.6'-710.8'	80% pyrite, tr. cpy.
711.0'-711.1'	80% pyrite.

744' END OF HOLE

MOUNT RICHARDS PROJECT

Diamond Drill Log - Hole 71-3

LOCATION: 4 + 60 S, 52 + 00 W
AZIMUTH: 32°
COLLAR ELEVATION: 955'
DIP AT COLLAR: -45°
DIP AT 258': -42°
CASING: 6' BW, 10' AW

STARTED: April 4, 1971.
COMPLETED: April 6, 1971.
CORE SIZE: AQ
DEPTH: 251'
DRILLED BY: Connors Drilling Ltd.
LOGGED BY: JYW/HGR

0-10	Casing.
10-19	Andesite, porphyritic, with abundant 1/16" phenocrysts of epidote. Coarser than most andesite. 17.5' - 17.8'. Grey acidic dyke, with irregular contacts. Andesite appears to be a tuff or fine agglomerate. Epidote occasionally forms round blobs to ½". At 14', one blob contains pyrite and traces of malachite. Pyrite crystals throughout section, less than 1%.
19-42.5	Andesite, sheared at 35-40° to C.A., chloritised, much quartz -carbonate replacement, to 50% in places. Foliation confused 34-35'.
42.5-66	Dacite - like andesite but paler, with epidote as before. Appears dioritic in spots.
66-164.5	Andesite, sheared at 50° to C.A., chloritised, finely banded dark green and white. 83-83.5 epidote and quartz. Epidote elsewhere in ragged patches; occasional quartz veins.
164.5-178	Andesite tuff or fine agglomerate (?)--lighter in colour than sheared material, with abundant epidote and augite? phenocrysts. Appears to be a coarse pillow lava.
178-201.5	Andesite, sheared as before. 198'-201' well mineralised: 30% sulphides 65% chlorite.
201.5-203	Quartz - porphyry - sharp contacts.
203-204	Andesite, 1% pyrite, less than 1% cpy.
204-243	Quartz porphyry dyke, with occasional sheared sections.
243-251	Andesite - Scoriaceous flow material?
251	END OF HOLE

ANALYSES

FROM	TO	WIDTH	%Cu.
198.0'	201.0'	3.0'	3.06

MOUNT RICHARDS PROJECT

Diamond Drill Log - Hole 71-4

LOCATION: 14 + 00 S, 32 + 00 W	STARTED: April 7, 1971
AZIMUTH: 32°	COMPLETED: April 10, 1971
COLLAR ELEVATION: 635'	CORE SIZE: AQ
DIP AT COLLAR: -45°	DEPTH: 302'
DIP AT 302': -46°	DRILLED BY: Connors Drilling Ltd.
CASING: 4' BW, 10' AW	LOGGED BY: HGR/JYW

0'-4'	Casing - 1' core, gabbro, porplyritic, ore speck of cpy.
4'-42'	Diorite-Gabbro, porphyritic, with feldspar phenocrysts and rosettes, hypidiomorphic. Texture dioritic. Occasional biotite (?) phenocrysts lower contact somewhat sheared, chloritic.
42'-61'	Diorite, sheared at 45°---to Core axis, leached, vuggy appearance, limonite stained, chloritic, some secondary calcite. No sign of sulphides.
61'-90.5'	Diorite, porphyritic, with rosettes of feldspar up to 1" in diameter. (Brenton rosette porphyry (Clapp).) Lower contact zone finer 90'-90.5'.
90.5'-133.4'	Diorite-gabbro, porphyritic, as above.
133.4'-148	Andesite, dark grey green, streaked white-grey, occasional quartz veins to 3/4" at 70° to C.A. These contain scattered crystals of chalcopyrite. Minute crystals of chalcopyrite in quartz streaks in andesite, but very scarce.
148'-150'	Diorite, porphyritic.
150'-161.5'	Andesite, sheared, with occasional ½" quartz veins. No sulphides observed.
161.5-171'	Diorite, porphyritic. Upper contact gradational. 3/4" quartz vein with chalcopyrite, at 45° to C.A. at 167'.
171'-175'	Andesite, sheared; contacts with diorite vague.
175'-200'	Diorite, porphyritic, with occasional rosettes of feldspar just above 9" chilled zone of lower contact.
200'-206.5'	Andesite, sheared at 80° to C.A., occasional ½" quartz veins. No cpy.

2.....

206.5'-302' Diorite, porphyritic. Some sections paler, look bleached, sporadic occurrence of feldspar rosettes.

302' END OF HOLE

ANALYSES

FROM	TO	WIDTH	%Cu.
133.4'	137.0'	3.6'	0.08
146.5'	148.0'	1.5'	0.12