



REPORT ON
GEOLOGY, GEOPHYSICS, AND
DIAMOND DRILLING
FITZWATER GROUP
(Fitz, Water, Lat, Port and
Starboard Claims; Aud and Aud 2 Fr.)
Alberni, Victoria Mining Divisions, B.C.
NTS 92F/2 49°03'N Lat. 124°38'W Long.
for
CREW MINERALS INC. / TP RESOURCES LTD.
February 29, 1988
T. Neale, BSc. T.M. Naciuk, BSc.
Volume III of V

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

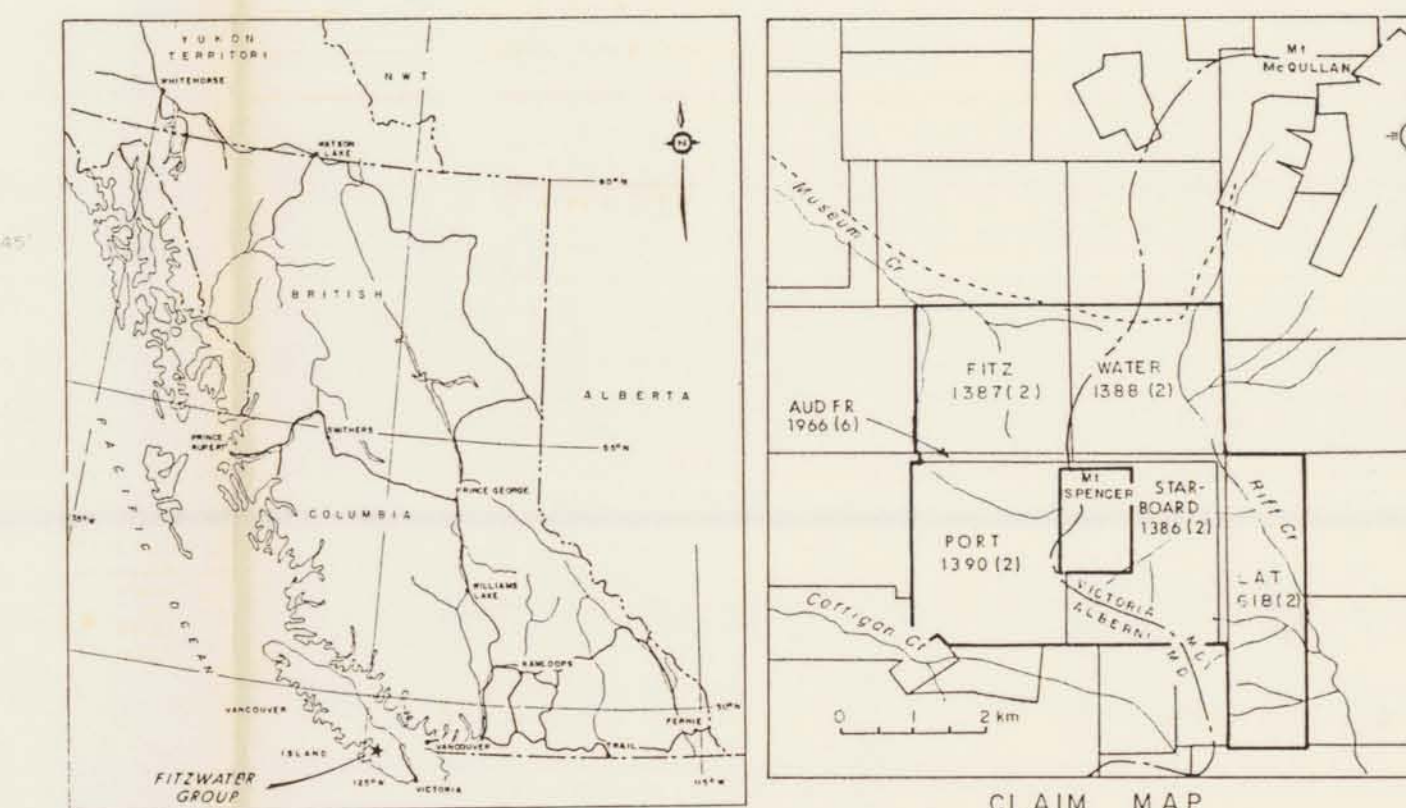
16,731

part 4 of 6



APPENDIX VII

FIGURES 5 to 7 - GEOLOGY



LEGEND

GENERAL LITHOLOGIES

JURASSIC	Stratigraphic Correlation
9 Granodiorite	Island Intrusions
TRIASSIC	
Vancouver Group	
6 Dark green to black massive to pillowed and pillow breccia basalts. Local calcite angulites; commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.	Karmutsen Formation
a) Intratransformal(?) Bryozoon limestone horizon.	
PALEOZOIC	
Sicker Group	
5 Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron carbonate and quartz stockwork veining (commonly host to pyrite-chalcocopyrite-sphalerite + arsenopyrite + pyrrhotite + galena mineralization).	Buttle Lake Formation
2 Bedded dark green lapilli tuffs to fine-grained tuffs.	Myra Formation
Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron carbonate-filled angulites common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcocopyrite.	Nitinat Formation

SYMBOLS

— — — — —	Geological contact (approximate, assumed)
— — — — —	Shear zone boundary
— — — — —	Fault, showing dip
▲ 20175	Anomalous rock sample with result
— — — — —	Bedding
— — — — —	Foliation (vertical)
— — — — —	Grid line
● FITZ-1, 2-87	Collar of diamond drill hole(s)
— — — — —	Trench
— — — — —	Road
— — — — —	Claim boundary with LCP

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0 200 400 600 800 1000 m

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PROPERTY PLAN, GEOLOGY
AND GRID LOCATION MAP
FITZWATER PROJECT

VICTORIA AND ALBERNI MINING DIVISIONS

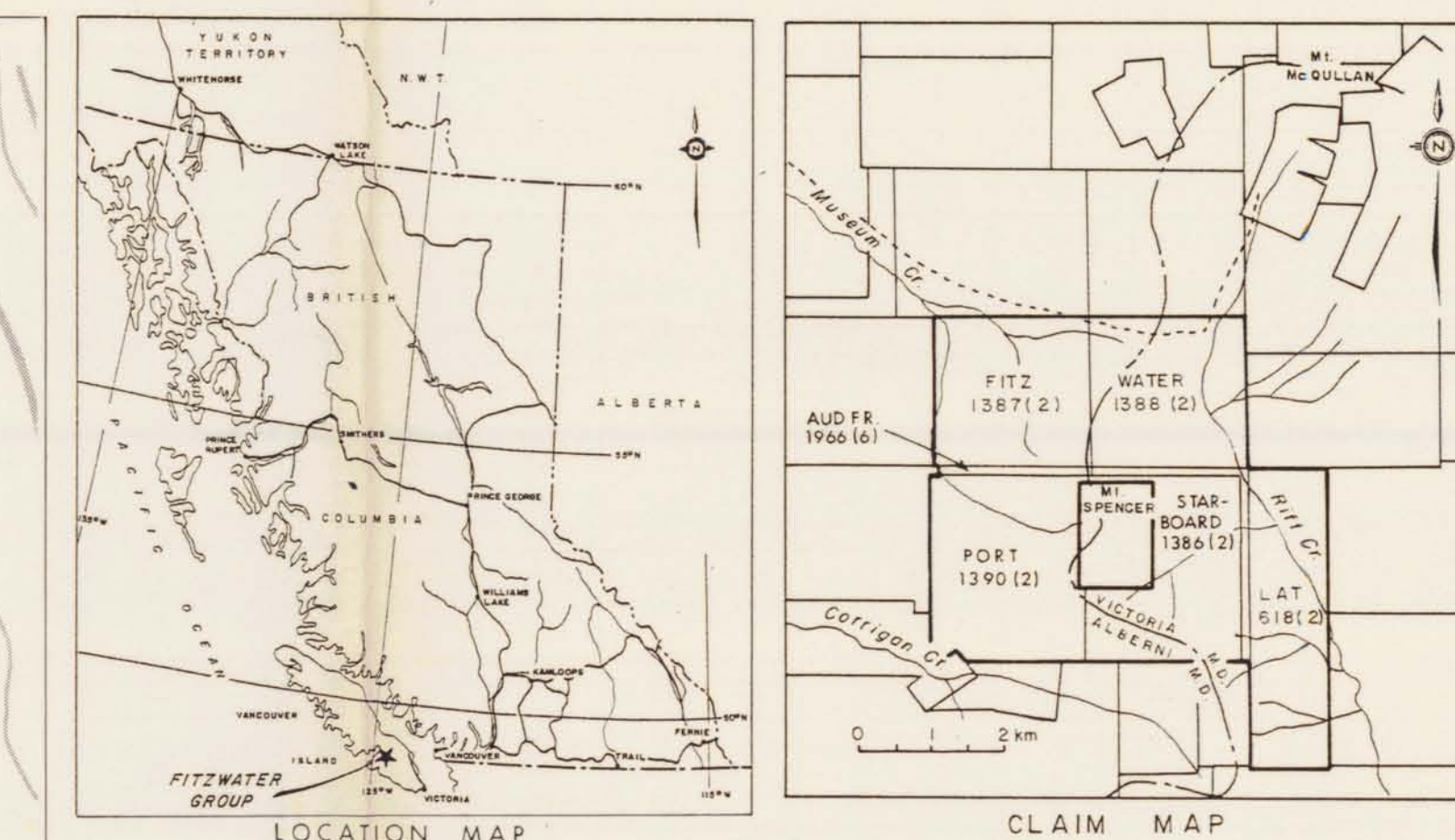
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Scale: 1:10,000	Drawn: J.S.
Drawing No: 5	Date: FEBRUARY 1988.

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PRELIMINARY RECONNAISSANCE TYPE MAPPING

SCALE 1:10,000



LEGEND LITHOLOGIES

- JURASSIC**
- 9 Intrusives
- a) Hornblende feldspar porphyry (Jurassic?)
 - b) Diorite
 - c) Felsic Dyke
 - d) Pyroxene porphyry (Bonanza Group?)
- TRIASSIC**
- 6 Karmutsen Formation
- Dark green to black massive to pillowed and pillow breccia basalt. Local calcite angulites; commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.
- a) Massive Basalt
 - b) Pillow Basalt
 - c) Agglomeratic tuff, agglomerate
 - d) Lapilli tuff, lapillistone
 - e) Bedded tuff, massive tuff
- PALEOZOIC**
- Sicker Group
- 5 Butte Lake Formation
- Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron carbonate and quartz stockwork veining (commonly host to pyrite-chalcopyrite-sphalerite + arsenopyrite + pyrrhotite + galena mineralization).
- a) Massive crystalline limestone
 - b) Crinoidal limestone
 - c) Argillaceous limestone, argillite
 - d) Sedimentary breccia
 - e) Chert
 - f) Siltstone
- 2 Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron carbonate-filled amygdalites common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcopyrite.
- a) Agglomeratic tuff, agglomerate
 - b) Lapilli tuff, lapillistone
 - c) Bedded tuff, massive tuff
 - d) Massive diabasic basalt
 - e) Massive pyroxene phryic flow
 - f) Massive amygdaloidal pyroxene phryic flow
 - g) Pillow basalt
 - h) Flow breccia
- A) Ankeritic alteration (commonly shear related)

SYMBOLS

- 20170 ▲ Rock sample location (in place)
- 20149 x Rock sample location (float)
- 20133 o Silt sample location
- Lithological boundary
- Bedding: inclined, vertical
- Shearing and/or foliation: inclined, vertical
- Quartz vein: inclined, vertical
- Fault (dip direction indicated)
- Shear zone
- Outcrop (with lithological designation)
- Diamond drill hole (with horizontal projection of hole)

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ASSESSMENT REPORT

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0 50 100 150 200 m
NTS 92 F / 2

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GEOLGY
SOUTH SHEET
FITZWATER PROJECT
VICTORIA AND ALBERNI MINING DIVISIONS

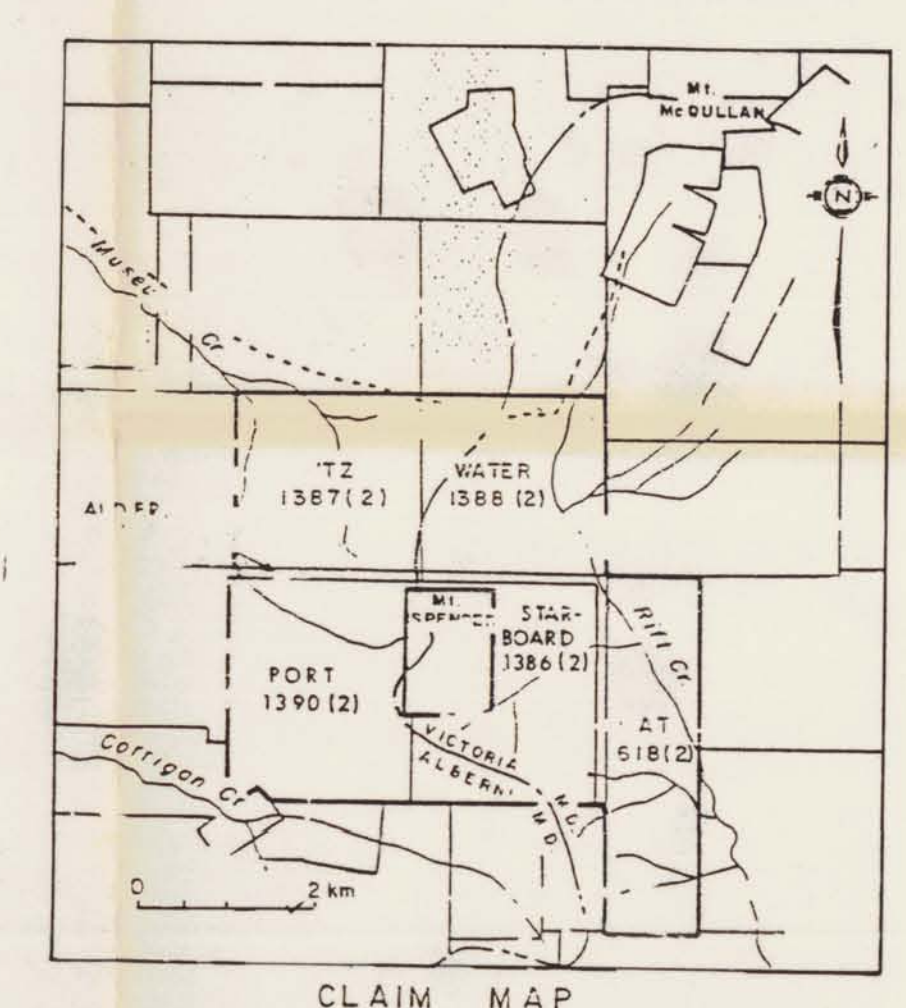
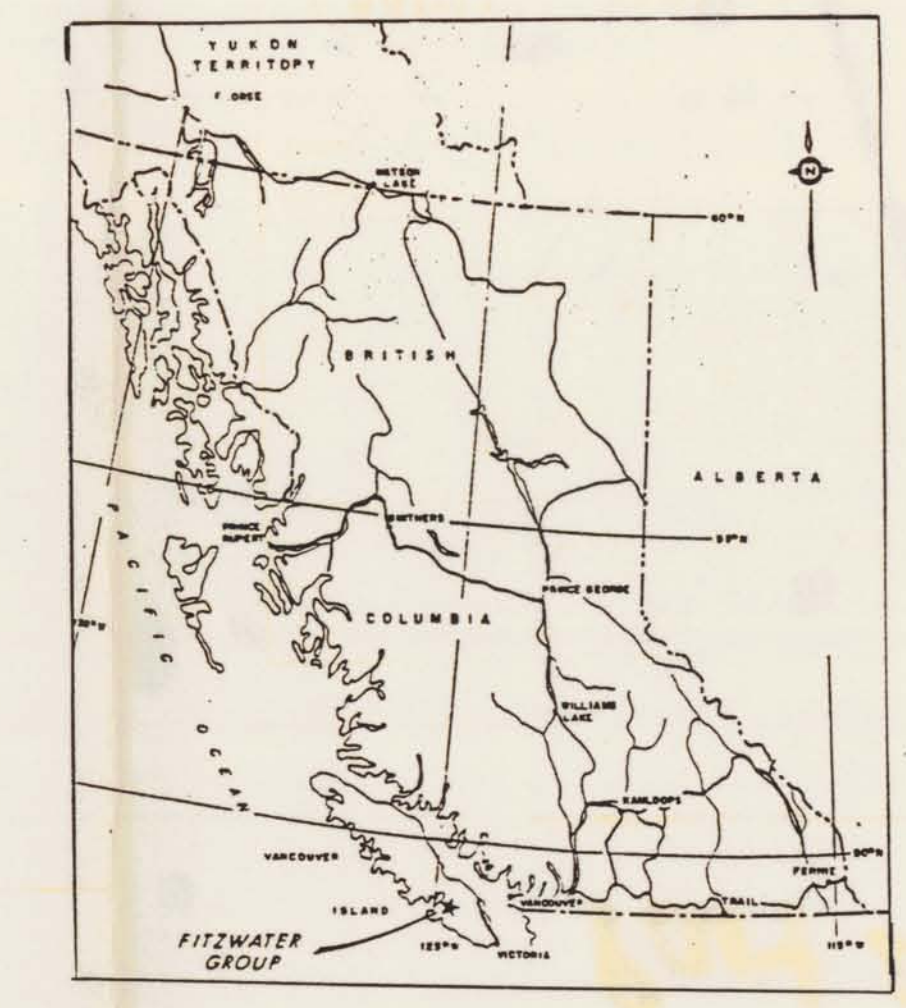
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Scale: 1:2500 Drawn: J. S.
Drawing No: 7 Date: FEBRUARY 1988.

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APPENDIX VIII

FIGURES 8 to 11 - SOIL GEOCHEMISTRY



LEGEND
GENERAL LITHOLOGIES

- TRIASSIC**
- 6** KARMUTSEN FORMATION
Dark green to black massive to pillow and pillow breccia basalts. Locally calcite amygdalae; commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.
- PALEOZOIC**
- 5** BUTTE LAKE FORMATION
Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron-carbonate and quartz stockwork veining (commonly host to pyrite-chalcopyrite-sphalerite-arsenopyrite-pyrrothite-galenite mineralization).
 - 1** Sicker Group
Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron-carbonate-filled amygdalae common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcopyrite throughout.

SYMBOLS

- General lithological contact
- Gold (ppb), contour intervals 80, 160, 320, 640, 1280 ppb
- Soil grid line
- Silver (ppm)

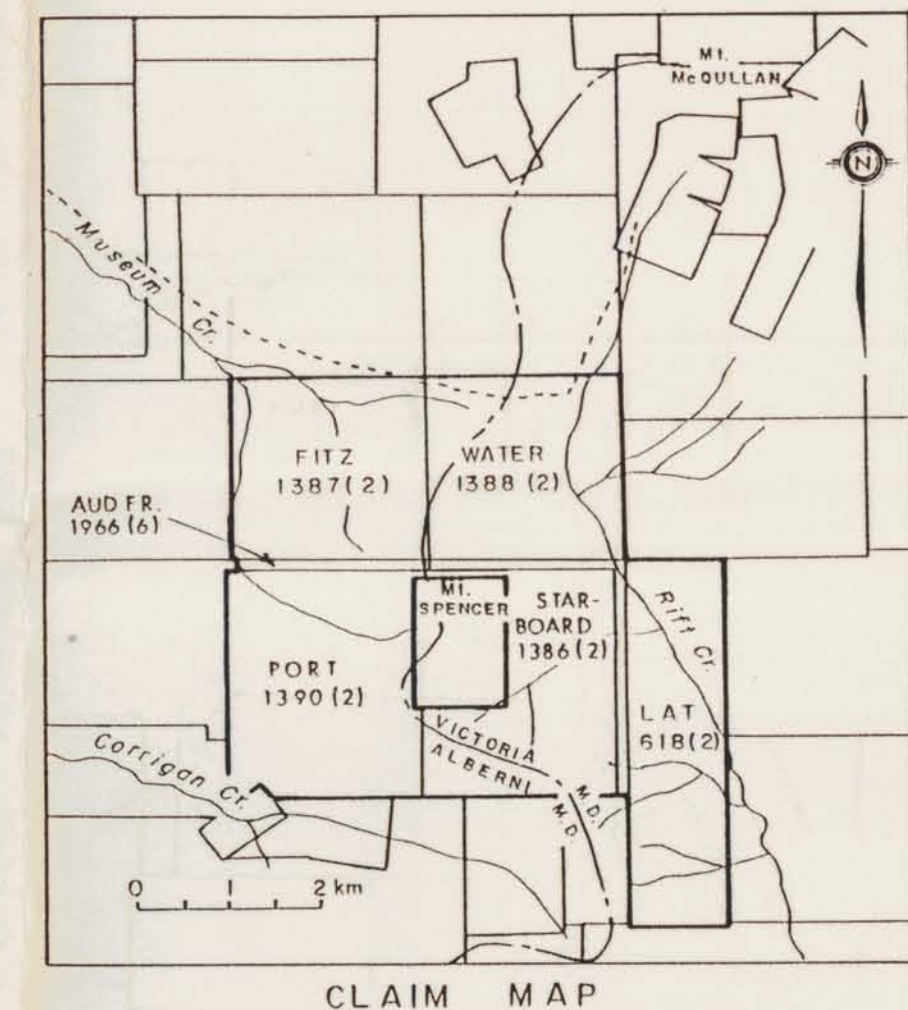
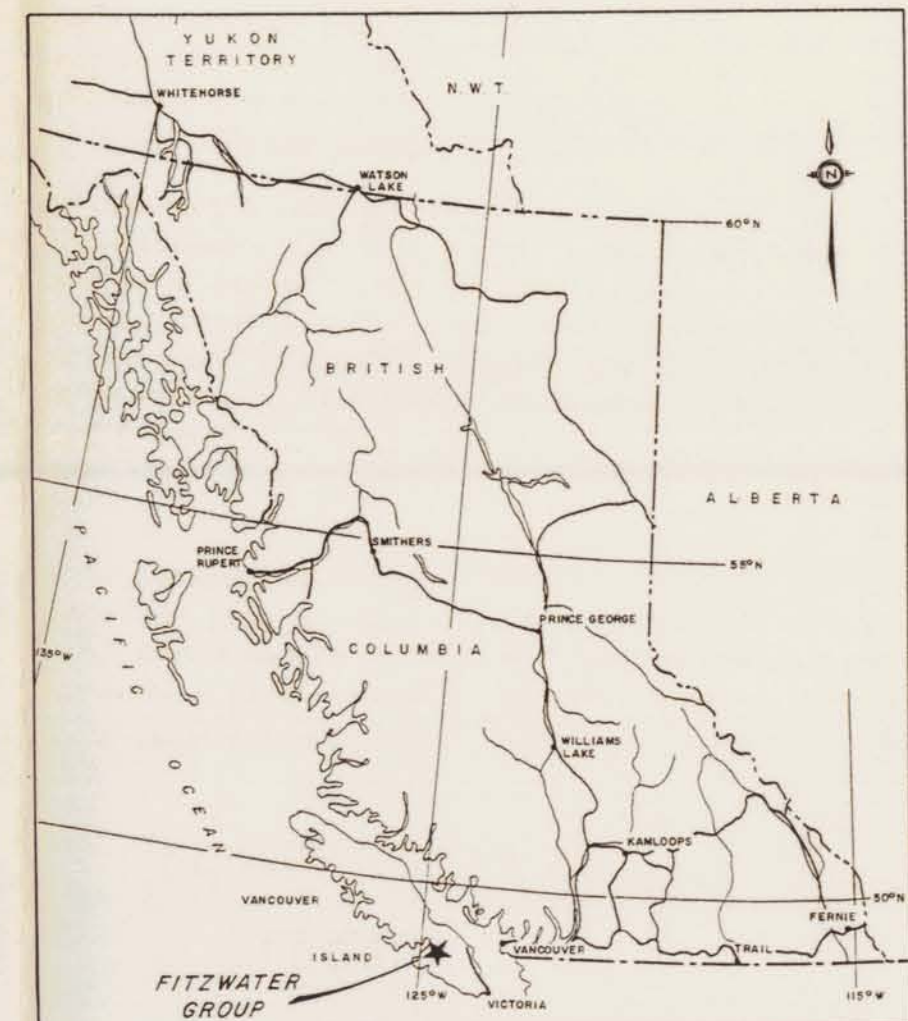
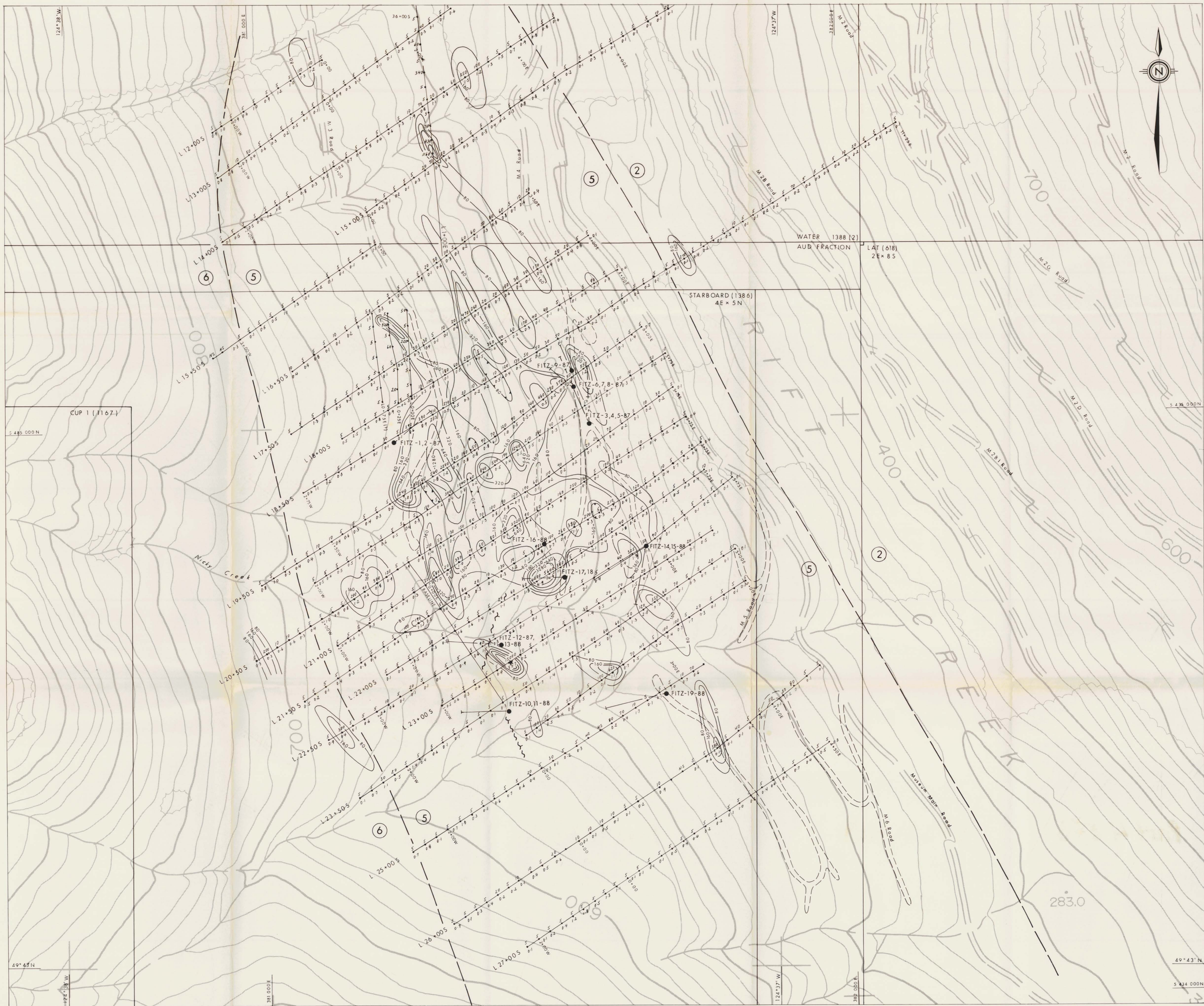
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,731

0 50 100 150 200 250 metres

Part 4 of 6

TP RESOURCES LTD. CREW MINERALS INC.	
SOIL GEOCHEMISTRY Au, Ag	
NORTH SHEET FITZWATER PROJECT	
ALBERNI AND VICTORIA MINING DIVISION, B.C.	
Project No. V 227	By: T.M.N.
Scale: 1:2500	Drawn: J.S.
Drawing No: B	Date: FEBRUARY 1988
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LEGEND

GENERAL LITHOLOGIES

- TRIASSIC**
- 6 KARMUTSEN FORMATION
Dark green to black massive to pillow and pillow breccia basalts. Locally calcite amygdules; commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.
- PALEOZOIC**
- Sicker Group
- 5 BUTTE LAKE FORMATION
Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron-carbonate and quartz stockwork veining (commonly host to pyrite-chalcocopyrite-sphalerite-arsenopyrite ± pyrrhotite ± galena mineralization).
- 2 MYRA FORMATION
Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron-carbonate-filled amygdules common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcocopyrite throughout.

SYMBOLS

- General lithological contact
- Fault (dip direction indicated)
- Gold (ppb), contour intervals 80, 160, 320, 640, 1280 ppb
- Soil grid line
- Silver (ppm)
- FITZ 13-88 Diamond drill hole collar locations

GEOLOGICAL BRANCH
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0 50 100 150 200 m
NTS 921/2

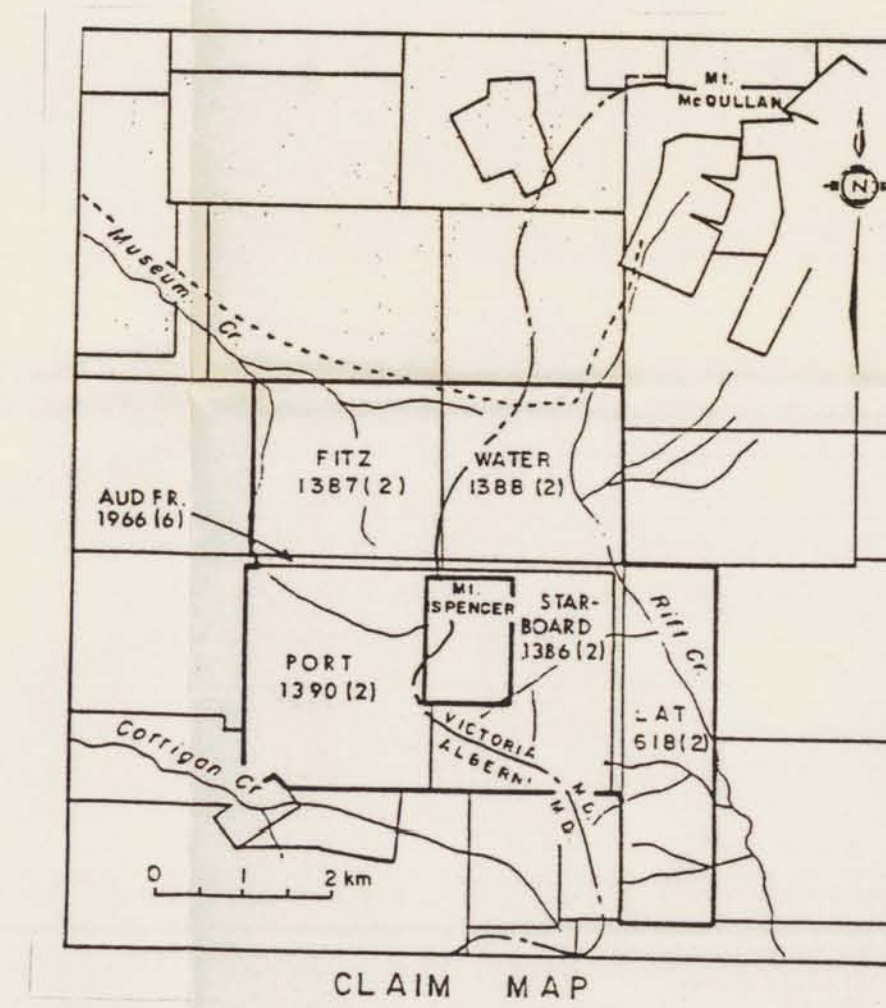
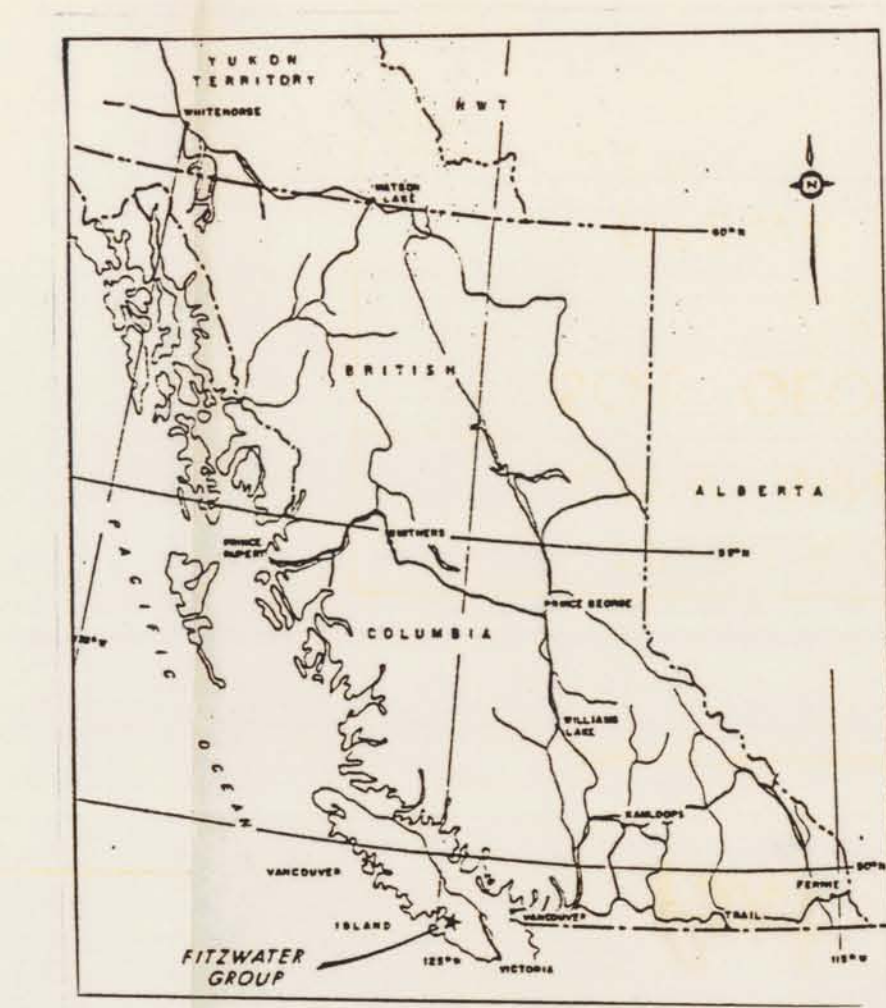
TP RESOURCES LTD.
CREW MINERALS INC.

SOIL GEOCHEMISTRY
Au, Ag
SOUTH SHEET
FITZ WATER PROJECT

VICTORIA AND ALBERNI MINING DIVISIONS

Project No:	V 227	By:	T. M. N.
Scale:	1:2500	Drawn:	J. S.
Drawing No:	9	Date:	FEBRUARY 1988.

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LEGEND

GENERAL LITHOLOGIES

- TRIASSIC**
- [6] KARMUTSEN FORMATION
Dark green to black massive to pillow and pillow breccia basalts. Locally calcite amygdular, commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.
- PALEOZOIC**
- Sicker Group
- [5] BUTTE LAKE FORMATION
Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron-carbonate and quartz stockwork veining (commonly host to pyrite-chalcocopyrite-sphalerite-arsenopyrite-spyrrhotite-gold mineralization).
- [2] MYRA FORMATION
Medium to dark grey-green interbedded massive basalt flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron-carbonate filled amygdulites common. Chlorite and amphibole porphyritic texture common. Trace disseminated pyrite and chalcocopyrite.

SYMBOLS

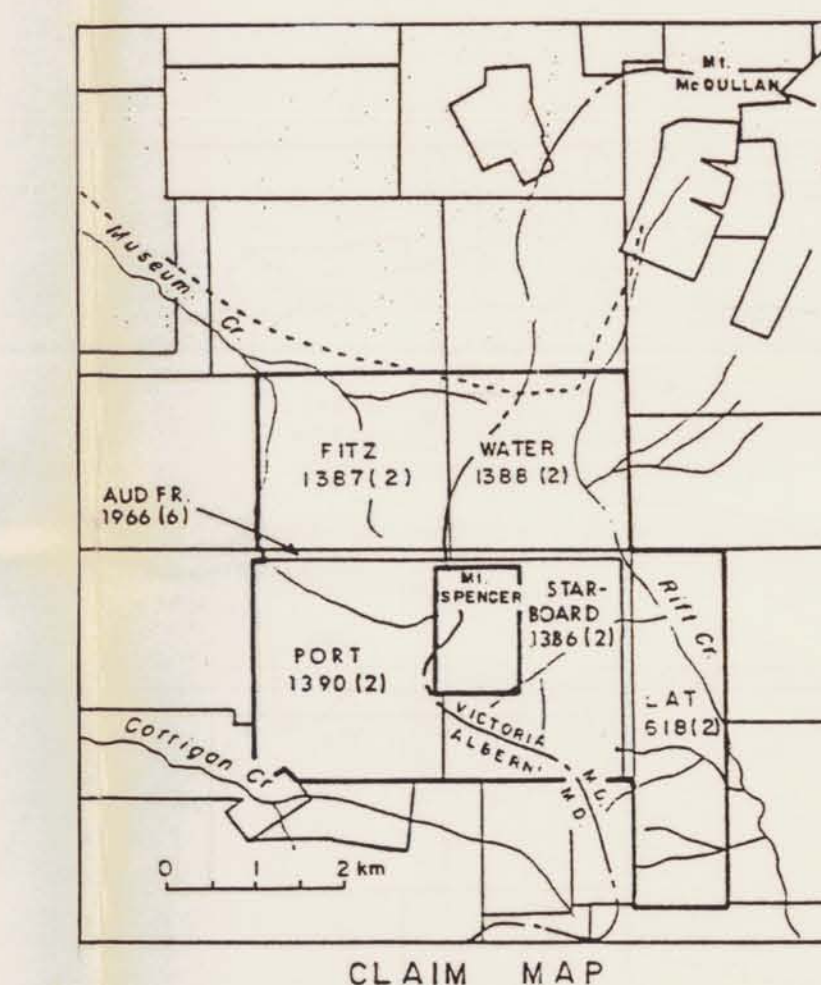
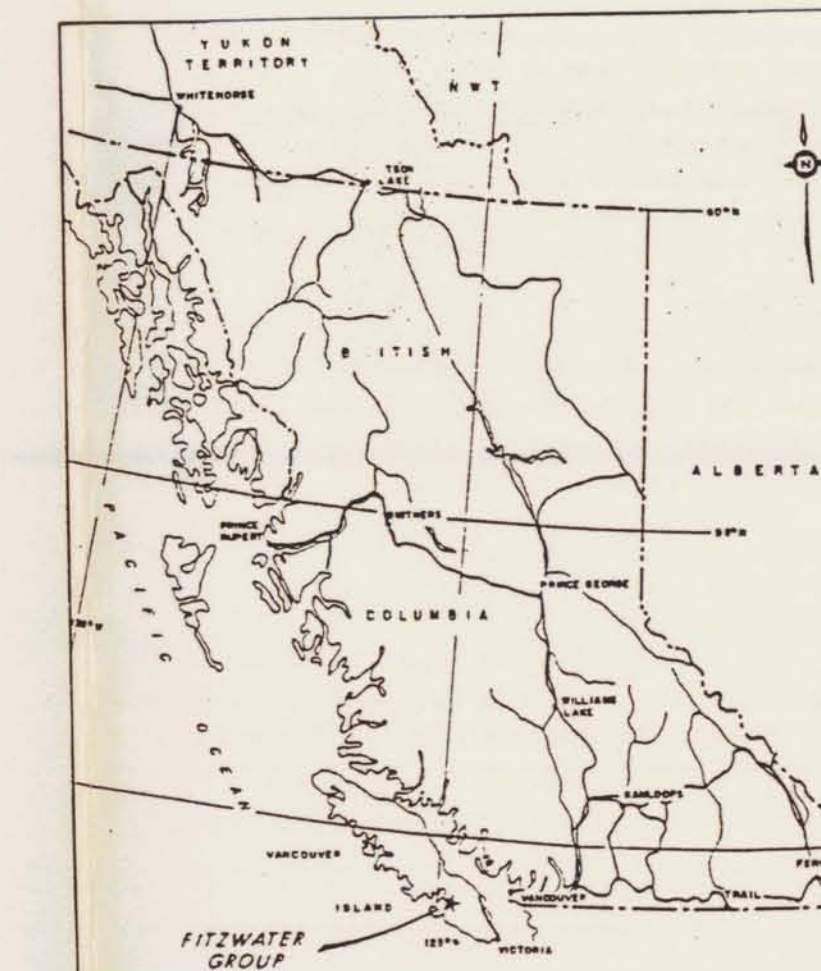
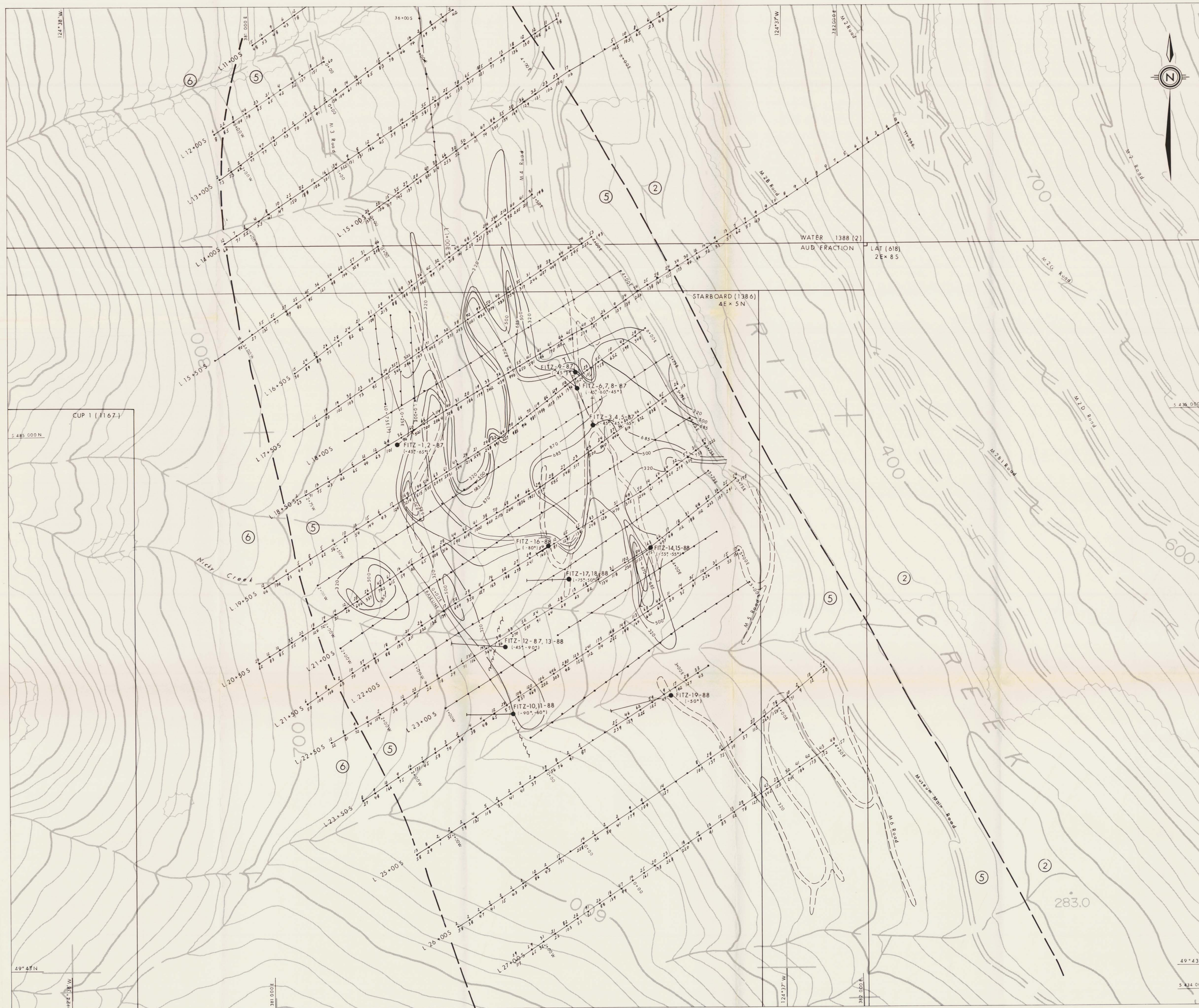
- General lithological contact
- Arsenic (ppm)
- Soil grid line
- Zinc (ppm), contour 320 ppm

GEOLOGICAL BRANCH
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TP RESOURCES LTD. CREW MINERALS INC.	
SOIL GEOCHEMISTRY As, Zn	
NORTH SHEET FITZWATER PROJECT ALBERNI AND VICTORIA MINING DIVISION, B.C.	
Project No: V 227	By: T.M.N.
Scale: 1:2500	Drawn: J.S.
Drawing No: 10	Date: FEBRUARY 1988
MPH Consulting Limited	



LEGEND

GENERAL LITHOLOGIES

TRIASSIC

- 6** KARMUTSEN FORMATION
Dark green to black massive to pillow and pillow breccia basalts. Locally calcareous amygdular, commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.

PALEOZOIC

Sicker Group

- 5** BUTTLE LAKE FORMATION
Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron-carbonate and quartz stockwork veining (commonly host to pyrite-chalcocopyrite-sphalerite-arsenopyrite-pyrrhotite-galena mineralization).

MYRA FORMATION

- 2** Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron-carbonate-filled amygdulites common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcocopyrite throughout.

SYMBOLS

- General lithological contact
- Fault (dip direction indicated)
- Arsenic (ppm)
- Soil grid line
- Zinc (ppm), contour intervals 320, 500, 685, 870 ppm
- FITZ-13-88
- Diamond drill hole collar locations

GEOLOGICAL BRANCH ASSESSMENT REPORT

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0 50 100 150 200 m
NTS 92F/2

TP RESOURCES LTD.
CREW MINERALS INC.

SOIL GEOCHEMISTRY
As, Zn
SOUTH SHEET
FITZ WATER PROJECT

VICTORIA AND ALBERNI MINING DIVISIONS

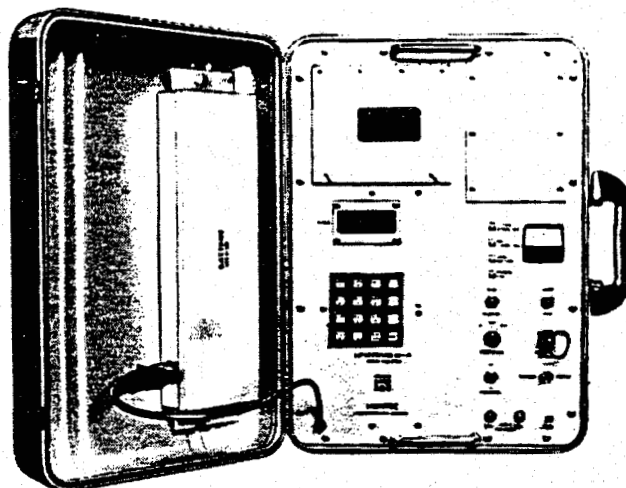
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APPENDIX IX
IP GEOPHYSICS EQUIPMENT SPECIFICATIONS

M-4 Induced Polarization Receiver



DESCRIPTION

The Hunttec M-4 is a microprocessor based receiver for time and frequency domain IP and complex resistivity measurement. It is

Easy to operate. One switch starts a measurement, of up to 29 quantities simultaneously. The optional Cassette DataLogger records them all in seconds. Calibration, gain setting and SP buckout are all automatic.

Reliable. Using advanced digital signal processing techniques, the M-4 delivers consistently accurate data even in noisy, highly conductive areas. For mechanical reliability it is packaged in a rugged aluminum case for backpack or hand carrying.

Versatile. The operator may adjust delay and integration times, operating frequency and other measurement parameters, to adapt to a wide range of survey conditions and requirements. An independent reference channel facilitates drillhole and underground work, and guarantees transmitter-receiver synchronization in high-noise conditions.

Highly accurate. With a frequency bandwidth of 100 Hz and noise-cancelling digital signal stacking, the M-4 delivers very precise results. The details are summarized in a table overleaf.

Sensitive. The same features that make the M-4 accurate allow detection of very weak signals. The Hunttec receiver requires lower transmitter power than any other, for a given set of operating conditions. Automatic correction for drifts in self-potential and gain allow long stacking times for significant signal-to-noise improvements.

Intelligent. Under the control of a powerful 16-bit microprocessor, the M-4 calibrates and tests itself between measurements. Coded error messages, flashed onto the display, inform the operator of any malfunction.

The M-4 Receiver is complemented by Hunttec's new M-4 transmitters, which offer precisely timed constant-current output and both time and frequency domain waveforms, compati-

ble with the receiver's accuracy and multi-mode measurement capabilities. The RL-2 Reference Isolator connects any IP transmitter to the receiver's reference channel. The GeoDataBase field computer reads, stores and processes data from M-4 cassettes.

Contact Hunttec for more information on the benefits offered by the M-4 product line.

FEATURES

- Time and Frequency domain IP and Complex Resistivity operation
- Simultaneous Time domain and Complex Resistivity measurement
- Automatic calibration
 - gain setting
 - SP cancellation
 - fault diagnosis
 - filter tuning
- Independent reference channel for drillhole and underground work
- 33 quantities, displayable on large 3½ digit low-temperature liquid-crystal readout
- Analogue meter for source resistance measurement
- 10⁹ ohms differential input resistance
- 8 hours continuous operation with replaceable, rechargeable nickel-cadmium battery pack (2 supplied)
- Optional Cassette DataLogger fits inside case, has read-after-write error checking. Up to 350 stations per tape.
- Conveniently packaged for backpacking or hand carrying
- 100 Hz bandwidth, fine time-resolution
- Advanced digital signal stacking
- Delivers reliable, accurate data in noisy, highly conductive areas.



hunttec
(70) LIMITED

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Ontario, Canada
M1R 5A6
Phone (416) 751-8055
Telex 06-961640
Cable: Huntor,
Toronto

SPECIFICATIONS

Inputs

Signal Channel

Range: 5×10^{-3} to 10 volts. Automatic ranging.
Overload indication
Resistance: Greater than 10^9 ohms differential
Bandwidth: 100 Hz
SP Cancellation: -5 to +5 volts (automatic)
Protection: Low-leakage diode clamps, gas discharge surge arrestors, replaceable fuses.

Reference Channel

Level: 500 mV minimum, 10 volts peak maximum, overload indication
Resistance: 2×10^9 ohms differential

Controls and Functions

Operating Controls

Keypad: 16 keys, calculator format, function associated with each key.

Reference

Registers: Keypad may be used to store up to ten $3\frac{1}{2}$ digit numeric values with floating decimal point, to represent station number, line number, operator, time, date, weather, transmitter current, etc. for recording on cassette.

Programming Controls

Sub-panel: All programming controls are on a covered sub-panel, not accessible during normal operation.

Thumbwheel

Switches: Select delay time t_D in milliseconds, chargeability window t_P in milliseconds; operating frequency; PFE frequency ratio.

Displayable Quantities

Time domain: Primary voltage; self-potential; chargeability (total or each of 10 windows of equal width); phases of odd harmonics 3 to 15; amplitudes of odd harmonics 1 to 15; cycle count; repeating display of polarization potential and total chargeability.

Freq. domain: Primary amplitude; Percent Frequency Effect; self-potential; cycle count.

Complex Resistivity: Phases of odd harmonics 3 to 15; amplitudes of odd harmonics 1 to 15; fundamental phase (with ref. input); cycle count.

Any mode: Battery voltage, Frequency error.

Outputs

Displays

Digital Display: $3\frac{1}{2}$ digit, low-temperature liquid crystal display. Indicates measurement results and diagnostic error messages.

Analogue Meter: Ohms scale for source resistance; also gives qualitative indication of signal-to-noise ratio.

Cassette DataLogger (Optional)

Description: Accommodated within M-4 chassis. If not acquired with receiver, may be retrofitted by user at any time. Two recording modes:

Partial: All sub-panel settings, measurement results, and contents of reference registers are recorded (2 seconds recording time).

Full: As in partial mode, but also recorded is one cycle of averaged signal waveform (28 seconds recording time). If external

reference is used, one cycle of reference waveform is also recorded (60 seconds recording time). Extra memory and software available to average and store the reference waveform for advanced offline resistivity computation.

Format:

ANSI/ECMA/ISO standard for saturation recording: 80 bytes/record, all data recorded in ASCII code.

Verification:

Read-after-write data verification (automatic)

Mechanical

M-4 Receiver with

battery pack:

45 cm x 33 cm x 14 cm, 10.0 kg

M-4 Receiver

with battery

pack and Cassette

DataLogger:

Dimensions as above, 11.0 kg

Replaceable

Battery pack:

33 cm x 11 cm x 4.5 cm, 3 kg

Environmental

Temperature:

Operation: -20°C to $+55^\circ\text{C}$

Storage: -40°C to $+70^\circ\text{C}$

Humidity:

Moisture-proof, operable in light drizzle.

Altitude:

-1,525 m to +4,775 m

Shock, Vibration:

Suitable for transport in bush vehicles.

OUTPUT ACCURACY AND SENSITIVITY

milliradians	volts	volts	volts	seconds	%
2 milliradians/11	1% 40Hz 2% to 80Hz	$\pm 1\%$	$\pm 1\%$	0.1%(2)	0.1%(3) full scale
0.01 milliradians	10^{-6} volts	10^{-6} volts	10^{-3} volts	10^{-3} seconds	0.001% full scale

1) Frequency domain mode: at harmonic frequencies up to 15 Hz, increases to not more than 5 milliradians at 80 Hz.

Time domain mode: at harmonic frequencies up to 7.5 Hz, increases to not more than 5 milliradians at 30 Hz.

2) of total OFF time

3) Full scale defined as 100% PFE.

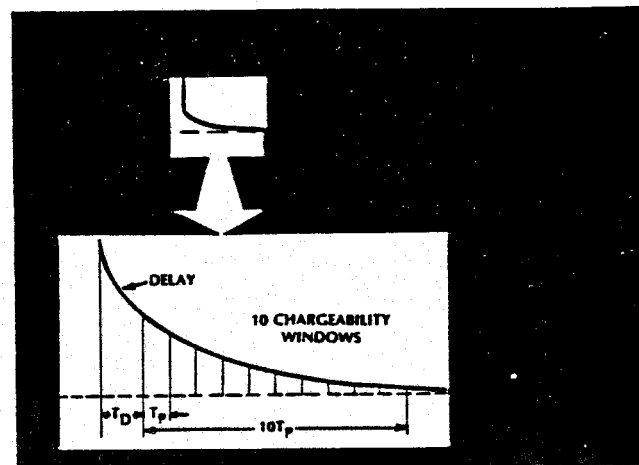
Cassette Data: recorded in ASCII, 9 digits with decimal point fixed for four decimal digits.

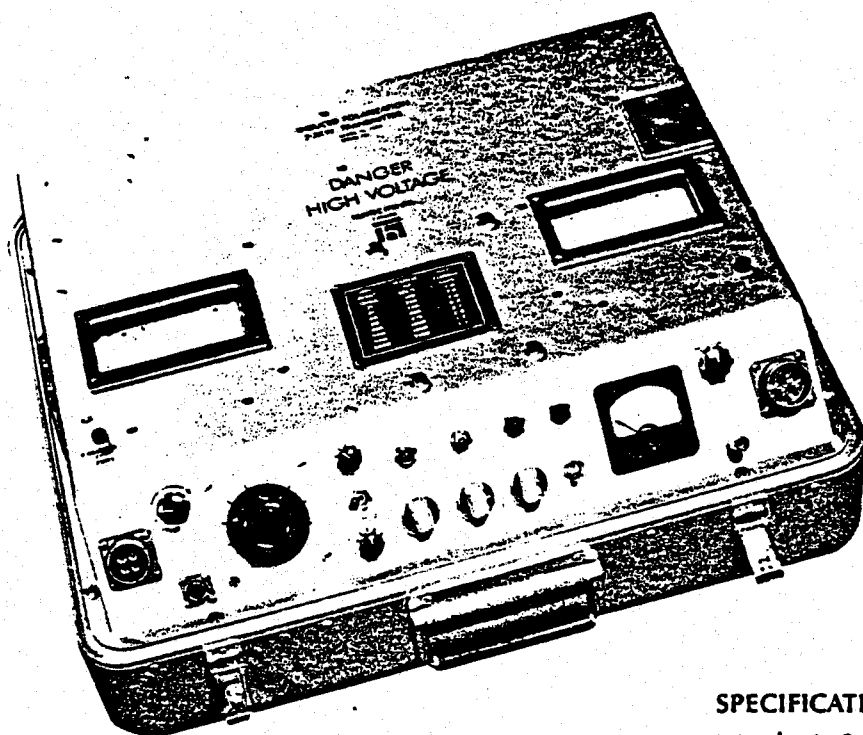
Display Data: $3\frac{1}{2}$ digits, floating decimal point

Resolution of averaged waveform limited by A/D converter to one part or 4096 x (square root of cycle count).

Resolution of reference waveform (not averaged) limited by available memory to one part in 256. Additional memory and averaging software available as option.

CHARGEABILITY WINDOWS





M-4 SERIES Induced Polarization/ Resistivity 2.5 kW Transmitter

DESCRIPTION

The HUNTEC M-4 2.5 kW Induced Polarization transmitter is designed for time domain, frequency domain (PFE) and complex resistivity applications. The unit converts primary 400 Hz ac power from an engine-alternator set to a regulated dc output current, set by the operator. Current regulation eliminates output waveform distortion due to electrode polarization effects. It is achieved in the transmitter by varying the alternator field currents. The transmitter is equipped with dummy loads to smooth out generator load variations.

FEATURES

- Solid-state switching for long life and precise timing.
- Open circuit during the "off" time ensures no counter current flow.
- Resistance measurement for load matching.
- Precision crystal controlled timing.
- Failsafe operation protects against short-circuit and overvoltage.
- Automatic regulation of output current eliminates errors due to changing polarization potential and load resistance.

SPECIFICATIONS

Mark-4 2.5 kW Transmitter

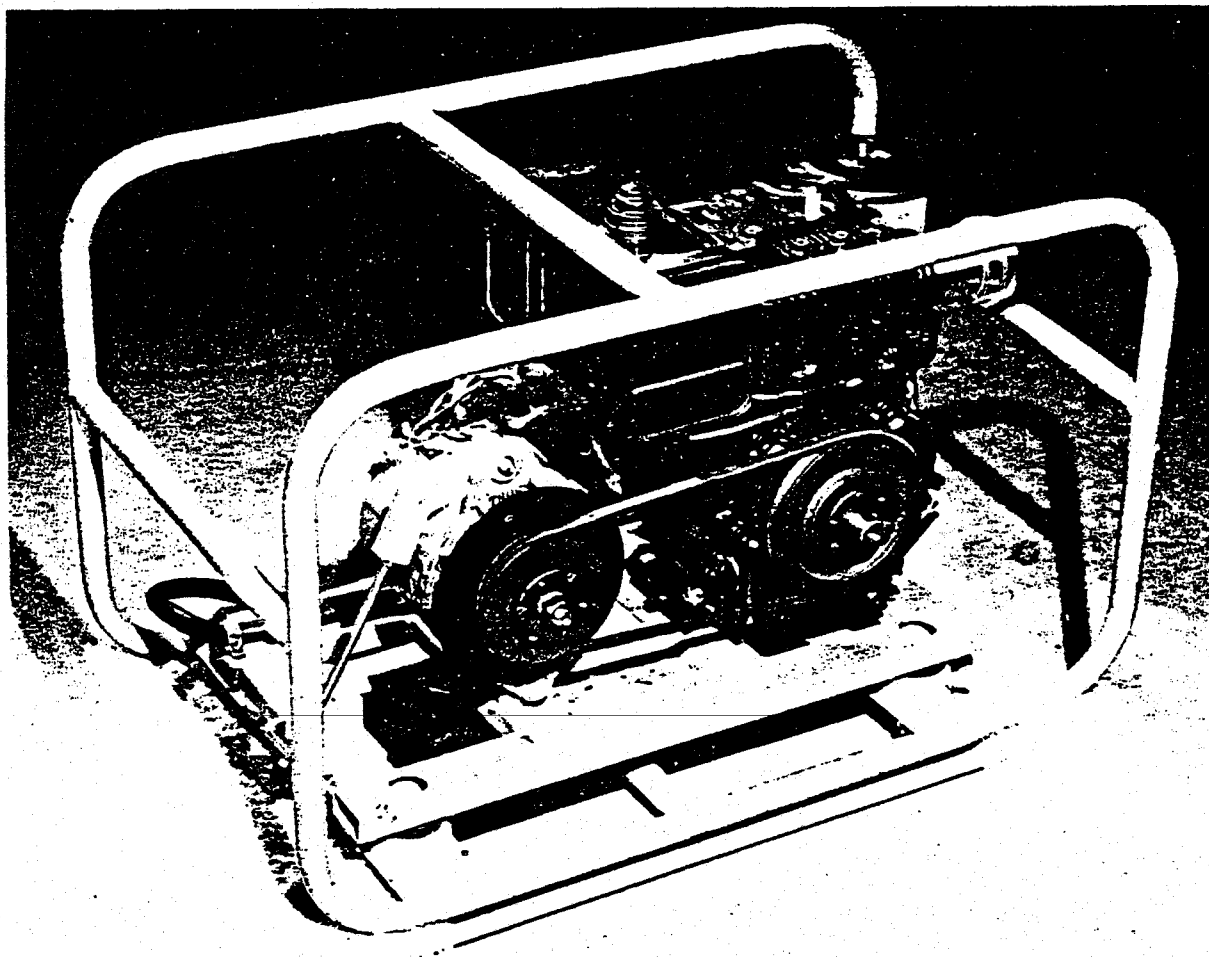
- | | |
|--|--|
| A) Power input: | 96 — 144 V line to line 3 phase 400 Hz (from Hunttec generator set) |
| B) Output: | Voltage: 150 — 2200 V dc in 8 steps
Current: 0.2 — 7 A regulated** |
| C) Current regulation: | Less than $\pm 0.1\%$ change for $\pm 10\%$ load change |
| D) Output frequency: | 0.0625 Hz to 1 Hz (time domain, complex resistivity)
0.0625 Hz to 4 Hz (frequency domain) selectable from front panel
An additional range of frequencies between 0.78 and 5.0 Hz is available and can be selected by an internal switch. |
| E) Frequency accuracy: | ± 50 ppm -30°C to $+60^{\circ}\text{C}$ |
| F) Output duty cycle:
$T_{\text{on}}/(T_{\text{on}}+T_{\text{off}})$ | 0.5 to 0.9375 in increments of 0.0625 (time domain)
0.9375 (complex resistivity)
0.75 (frequency domain) |
| G) Output current meter: | Two ranges: 0-5 A and 0-10 A |
| H) Ground resistance meter: | Two ranges: 0-10 k Ω and 0-100 k Ω |
| I) Input voltage meter: | 0-150 V |
| J) Dummy load: | Two levels: 500 W and 1.75 kW |
| K) Temperature range: | -34°C to $+50^{\circ}\text{C}$ |
| L) Size: | 53 cm x 43 cm x 29 cm |
| M) Weight: | 26 kg |

**Smaller currents are obtainable, but outside the current regulation range the transmitter voltage is regulated, not the current.



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25 HOWDEN ROAD,
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M1R 5A6
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TELEX 06-963640
CABLE HUNTOR,
TORONTO



SPECIFICATIONS

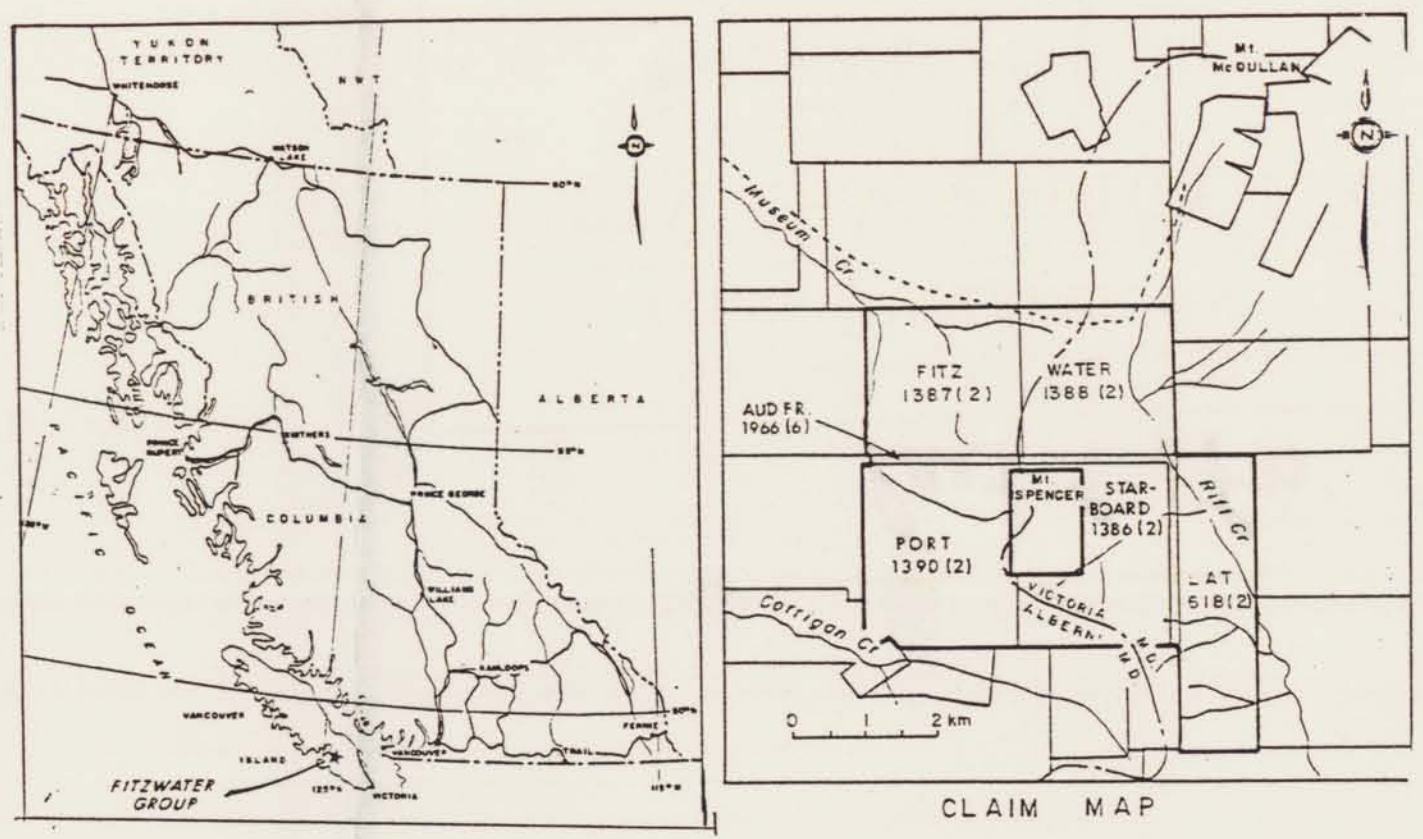
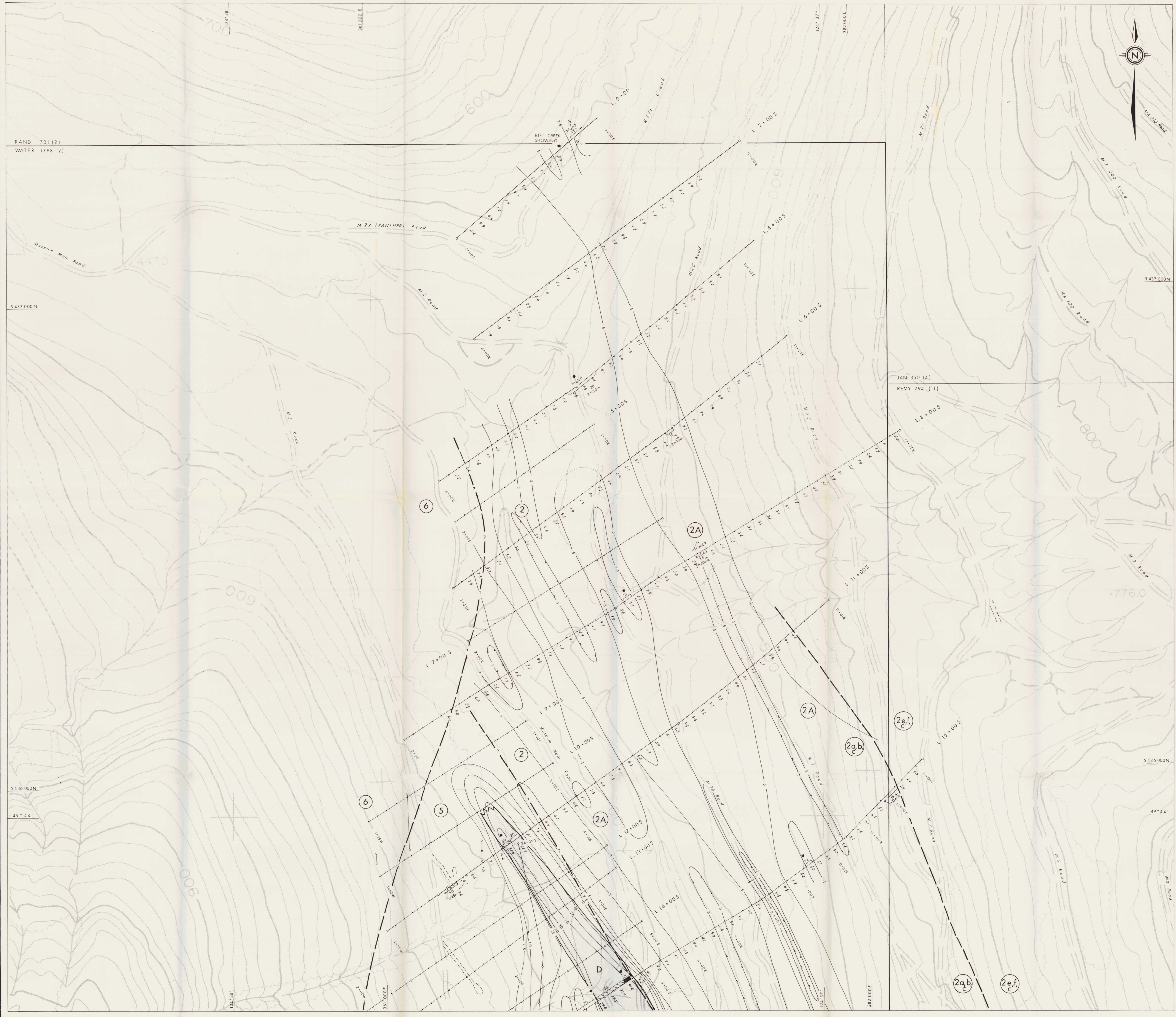
M-4 2.5 kW Engine Driven Alternator

Output:	120 V ac 400 Hz 3.5 kVA maximum
Engine:	6 kW air cooled, single cylinder four cycle piston engine with manual start
Fuel:	Regular grade gasoline, tank capacity 3.8 L to give 4 h duration
Alternator:	Delta connected heavy duty automobile type, belt driven, air cooled
Construction:	Tubular protective carrying frame with resiliently mounted engine and alternator
Size:	51 cm x 48 cm x 76 cm
Weight (dry):	61 kg



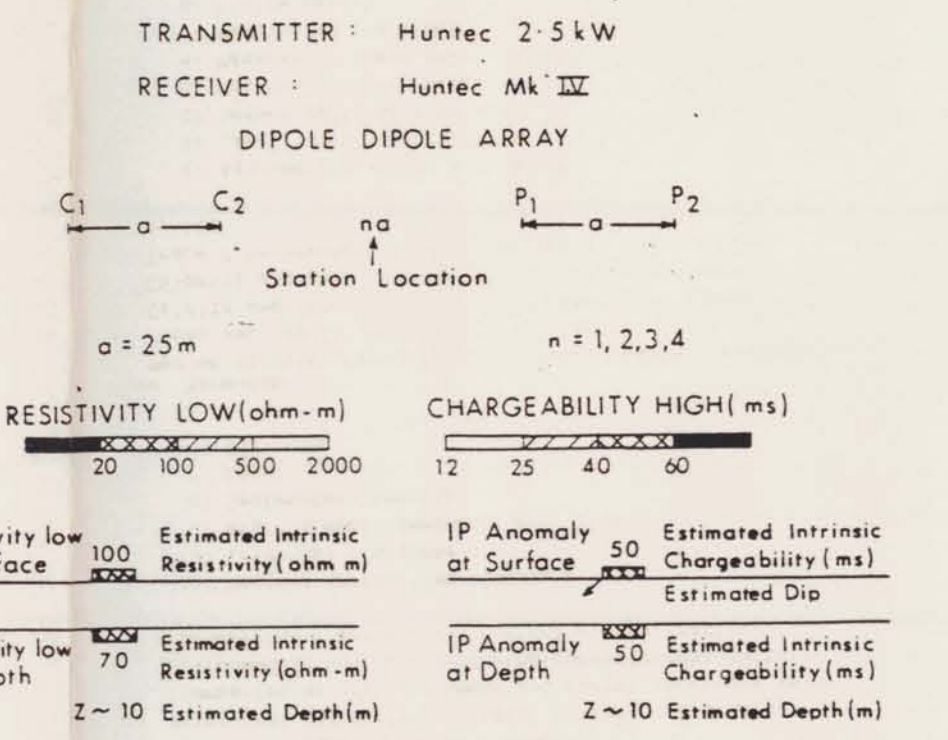
APPENDIX X

FIGURES 12 to 15 - IP/RESISTIVITY PLAN MAPS



- JURASSIC**
- Intrusives**
- a) Hornblende feldspar porphyry (Jurassic?)
 - b) Diorite
 - c) Felsic Dyke
 - d) Pyroxene porphyry (Bonanza Group?)
- TRIASSIC**
- Laramie Formation**
- Dark green to black massive to pillowed and pillow breccia basalt. Local calcite amygdales; commonly hornblende and/or feldspar porphyry. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.
- a) Massive Basalt
 - b) Pillow Basalt
 - c) Agglomeratic tuff, agglomerate
 - d) Lapilli tuff, lapillistone
 - e) Bedded tuff, massive tuff
- PALEOZOIC**
- Silurian Group**
- Beck Lake Formation**
- Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bryozoans. Local graptolite impressions and horizons. Local intense brecciation accompanied by iron carbonate and quartz stockwork veining (commonly host to pyrite-chalcopyrite-sphalerite ± arsenopyrite ± pyrrhotite ± galena mineralization).
- a) Massive crystalline limestone
 - b) Crinoidal limestone
 - c) Argillaceous limestone, argillite
 - d) Sedimentary breccia
 - e) Chert
 - f) Siltstone
- Myra Formation**
- Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron carbonate-filled amygdales common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcopyrite.
- a) Agglomeratic tuff, agglomerate
 - b) Lapilli tuff, lapillistone
 - c) Bedded tuff, massive tuff
 - d) Massive diastrophic basalt
 - e) Massive pyroxene phryic flow
 - f) Massive amorphous pyroxene phryic flow
 - g) Pillow basalt
 - h) Flow breccia
- A) Ankeritic alteration (commonly shear related)

LEGEND



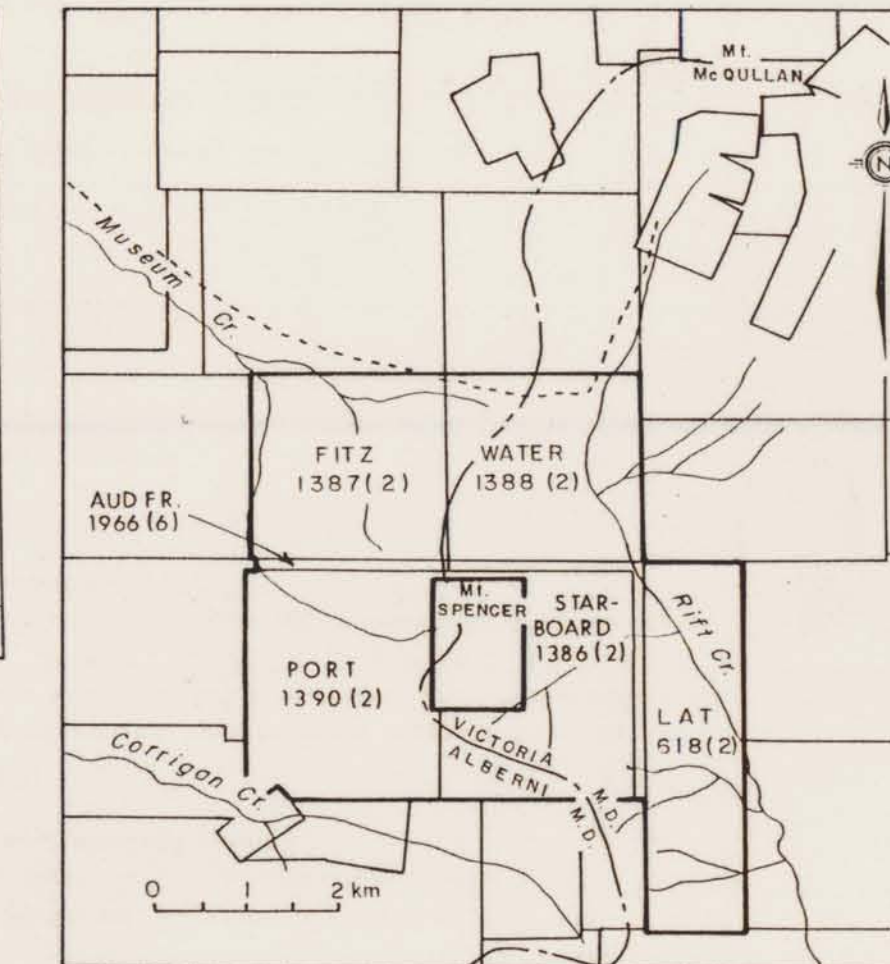
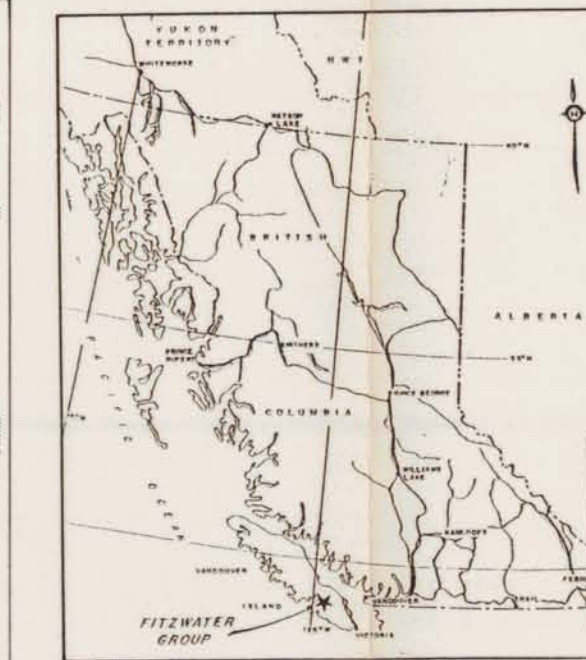
- Correlating Resistivity Low
- TOTAL CHARGEABILITY ZONES
- Anomalous zones

GEOLOGICAL BRANCH ASSESSMENT REPORT

16,731

Part 4 of 6

TP RESOURCES LTD. CREW MINERALS INC.	
TOTAL CHARGEABILITY PLAN n = 1	
NORTH SHEET FITZWATER PROJECT ALBERTA AND VICTORIA MINING DIVISION, B.C.	
Project No: V 227	By: T.M.N. K.D.L.
Scale: 1:2500	Drawn: J.S.
Drawing No: 12	Date: FEBRUARY 1988
MPH Consulting Limited	



CLAIM MAP

LEGEND

GENERAL LITHOLOGIES

TRIASSIC

- 6 KARMUTSEN FORMATION
Dark green to black massive to pillow and pillow breccia basalts. Locally calcite amygdular; commonly hornblende and/or feldspar porphyritic. Local hematite alteration. Sparse carbonate alteration. Trace disseminated pyrite throughout.

PALEOZOIC

Sicker Group

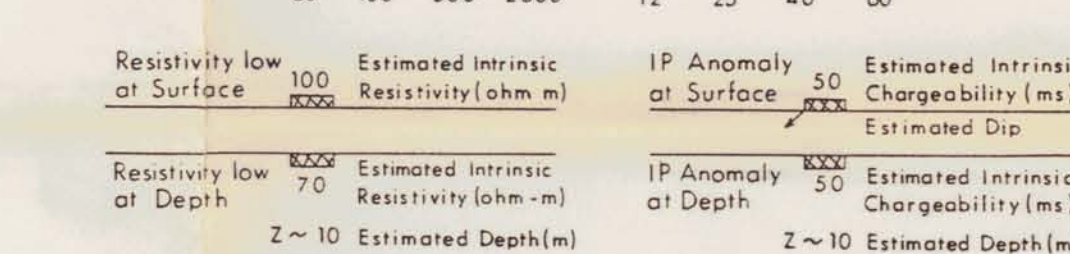
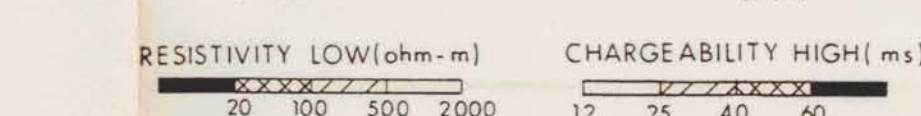
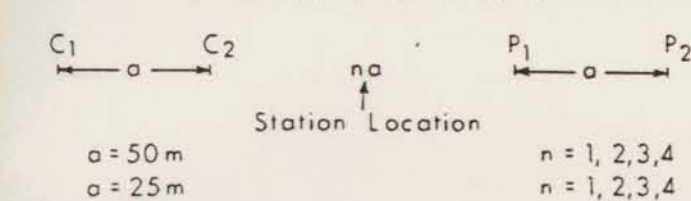
- 3 BUTTE LAKE FORMATION
Interbedded light grey bioclastic (crinoidal) limestone and medium grey to black calcareous siltstone and argillite. Local crinoidal bioherms. Local graphitic laminations and horizons. Local intense brecciation accompanied by iron-carbonate and quartz stockwork veining (commonly host to pyrite-chalcocite-sphalerite-arsenopyrite-pyrrothite-galenite mineralization).
- 2 MYRA FORMATION
Medium to dark grey-green interbedded massive basaltic flows and lapilli to agglomeratic lapilli tuffs. Calcite and iron-carbonate-filled amygdules common. Chlorite and amphibole porphyritic texture common. Trace fine-grained disseminated pyrite and chalcocite throughout.

LEGEND

TRANSMITTER : Hunter 2.5 kW

RECEIVER : Hunter Mk III

DIPLOLE DIPOLE ARRAY



* Correlating Resistivity Low

TOTAL CHARGEABILITY ZONES

Anomalous zones

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,731

0 50 100 150 200 m

Part 4 of 6

TP RESOURCES LTD.
CREW MINERALS INC.

TOTAL CHARGEABILITY PLAN

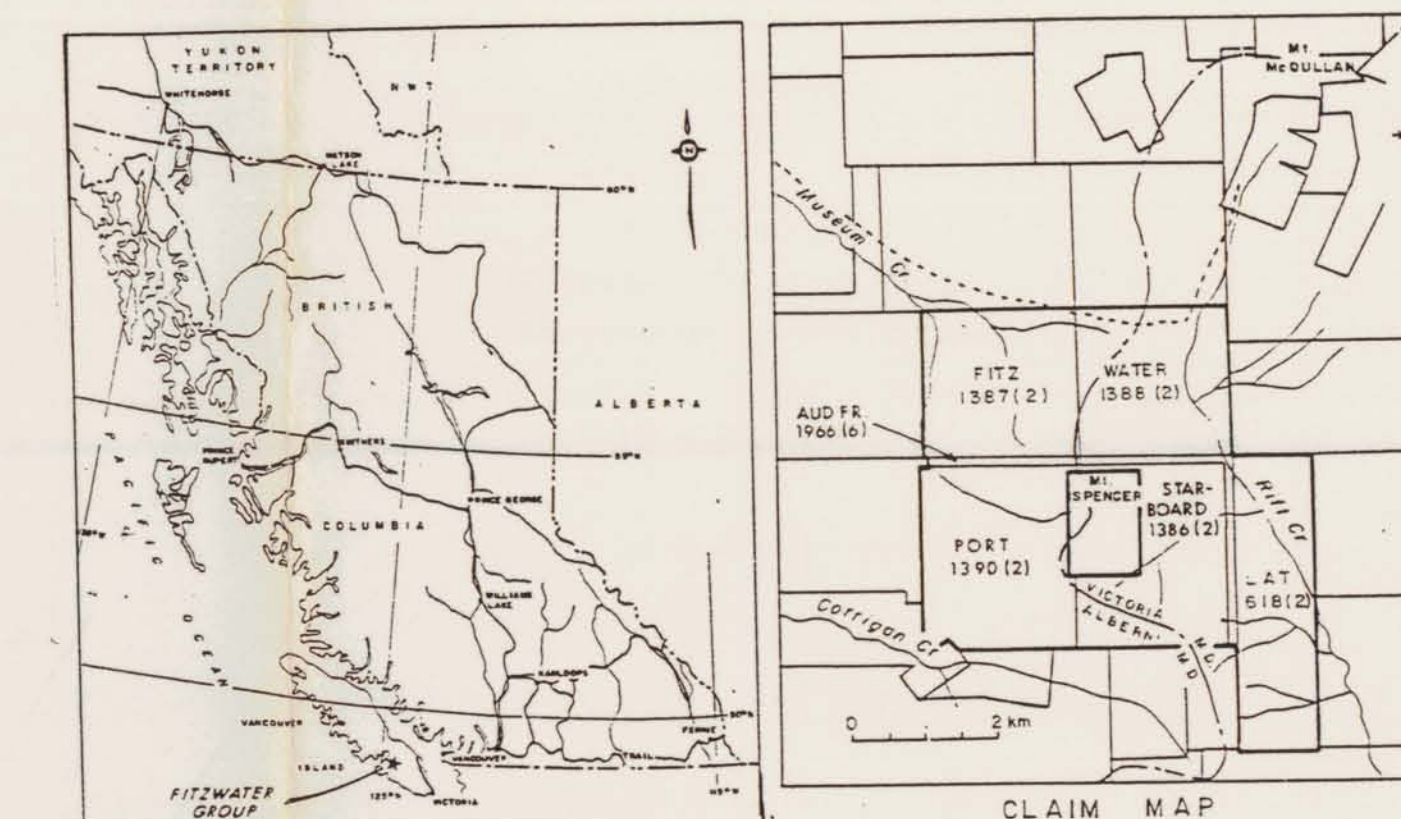
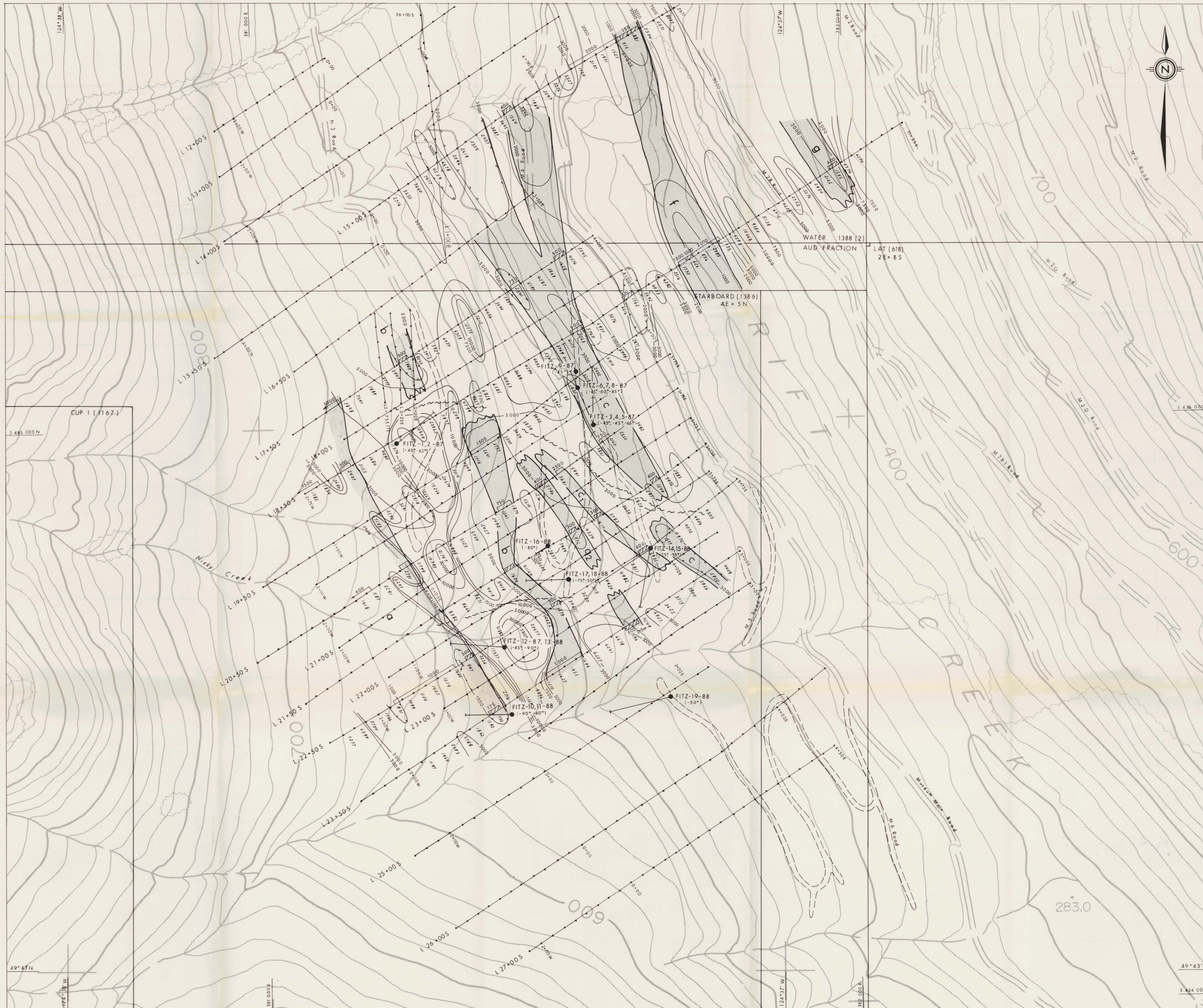
SOUTH SHEET

FITZWATER PROJECT

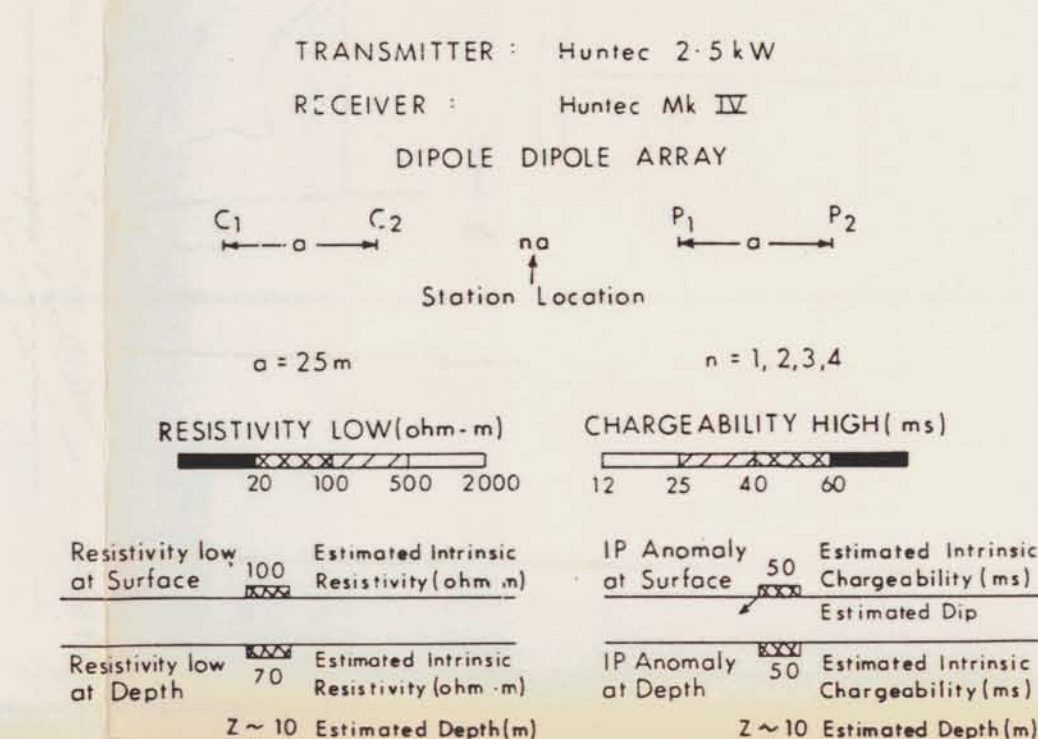
VICTORIA AND ALBERNI MINING DIVISIONS

Project No: V 227 By: T. M. N., K. D. L.
Scale: 1 : 2500 Drawn: J. S.
Drawing No: 13 Date: FEBRUARY 1988.

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LEGEND



* Correlating Resistivity Low

APPARENT RESISTIVITY LOWS

Resistivity lows

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

16,731
 Part 4 of 6
 0 50 100 150 200m
 NTS 921/2

TP RESOURCES LTD.
 CREW MINERALS INC.

APPARENT RESISTIVITY PLAN
 n = 1
 SOUTH SHEET
 FITZWATER PROJECT
 VICTORIA AND ALBERNI MINING DIVISIONS

Project No: V 227 By: T. M. N.
 Scale: 1:2500 Drawn: J. S.
 Drawing No: 14 Date: FEBRUARY 1988

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