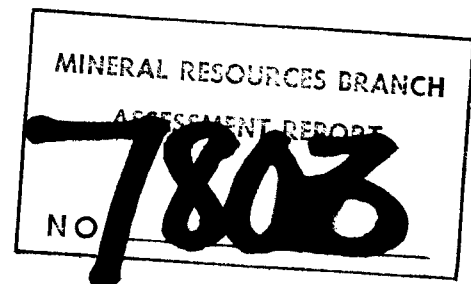
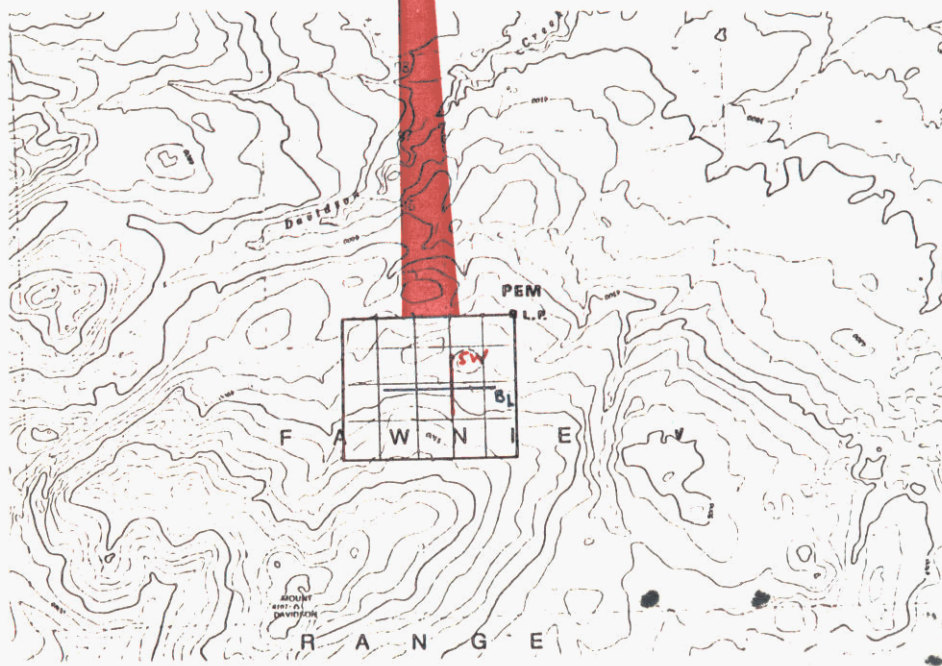
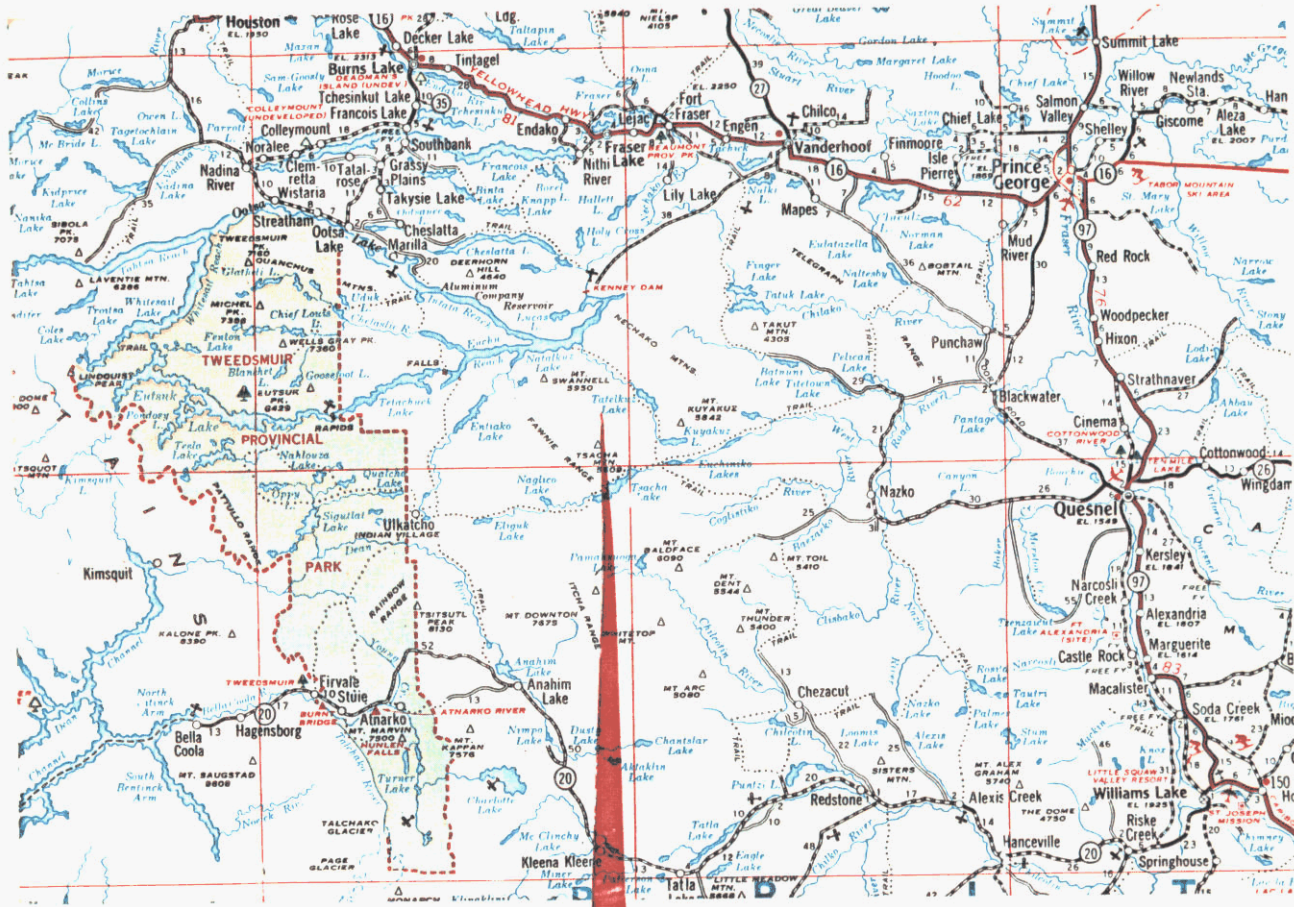


GEOPHYSICAL REPORT
On A
VECTOR PULSE ELECTROMAGNETOMETER SURVEY
GRANGES EXPLORATION AB

Mt. Davidson, Smithers area, Omineca
Mining Division, B. C.
Lat. $53^{\circ}11'N$, Long. $124^{\circ}51'W$, N.T.S. 93 F/2W
AUTHOR: Glen E. White, B.Sc., P. Eng.
Geophysicist
DATE OF WORK: Nov. 23 - Dec. 8, 1979
DATE OF REPORT: January 16, 1980





**GRANGES EXPLORATION LTD.
LOCATION AND CLAIM MAP**

Glen E. White GEOPHYSICAL CONSULTING & SERVICES LTD.

Fig 1

C O N T E N T S

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Figure 1 - Location and Claims Map

Figure 2 - VPEM Interpretation Map

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INTRODUCTION

During the winter of 1977, a program of horizontal loop pulse electromagnetometer surveying was conducted over an area of anomalous geochemical values on the PEM claim Mt. Davidson area, south of Smithers, B. C. The survey detected only a number of weak channel 1 responses. Subsequently to that time, a new technique evolved which used the same time domain system, however, the area to be covered is energized by a fixed position transmission loop. This new technique, known as vector pulse electromagnetometer surveying, was completed over the property from November 23 to December 8, 1979 with favourable results as discussed herein.

PROPERTY

The PEM claim is held by Granges Exploration AB and consists of 20 units as illustrated on Figure 1.

LOCATION AND ACCESS

The survey area is located on the northern flank of Mt. Davidson, latitude $53^{\circ}11'N$, longitude $124^{\circ}51'W$, N.T.S. 92 F/21, Omineca Mining Division, B. C.

Access to the property is by helicopter to a large clearing which contains a 14' by 16' tent floor.

PHYSIOGRAPHY

The survey area is situated on the north side of Mt. Davidson, in general between 4700 feet ASL and 5300 feet ASL. Approximately one third of the survey area lies in an old burn and is relatively open. The majority of the area is covered with spruce, balsam, fir and jack pine. Drainage from the area flows northward into Davidson Creek, a tributary of Chedakuz Creek. The property for the most part is covered with Pleistocene and recent gravels, sand, clay and till.

GENERAL GEOLOGY

The general geology of the area is shown on Preliminary Map 54-11 of the Nechako River at a scale of 1" = 4 miles. The property is indicated as underlain by Cretaceous and/or Tertiary volcanics and related tuffs and breccias. The south side of Mt. Davidson is intruded by Jurassic and/or Cretaceous acid plutonic rocks.

VECTOR PULSE ELECTROMAGNETOMETER SURVEY

The pulse electromagnetometer system is a time domain E.M. system which can be used in the standard horizontal loop mode or deep penetrating vector mode.

The primary field for the horizontal loop survey is obtained from a transmit loop 6 meters in diameter laid out horizontally on the ground and energized by a pulse of 20 amps at 24 volts with an on-off time of 10.8 ms. The receive coil is generally spaced 25 - 100 meters from the transmit loop. Both are moved simultaneously from station to station. The secondary field signal on the receive coil is sampled and averaged for 10 seconds and then stored for readout. Eight samples of the secondary field are obtained with increasing window widths during the primary field on-off time. Time synchronization is by radio link or cable.

The eight channels of secondary field information are equivalent to a wide spectrum of frequencies from approximately $2KHz$ to $16KHz$ which allows for determination of overburden effects and penetration of conductive overburden. Since the secondary field is measured directly during the primary field on-off time, the pulse method is relatively free of geometrical restrictions between the transmit and receive coil positions, such as topography, interference and coil alignment.

The primary field for the vector EM technique is obtained from a small turam type loop of 152 m (500 ft) per side which is energized with a current of some 25 amps at 24 volts. A scalar vector is obtained by determining the horizontal and vertical components of the secondary field. A right angle to this resultant vector points to the eddy current position. See Appendix for diagrams.

DISCUSSION OF RESULTS

The vector PEM conductor trends are illustrated on Figure 2. Due to the deterioration since 1977 of the survey lines, and limited survey time, no loops were able to be positioned to the south of the survey area. The responses obtained from the four loops A - C, indicate shallow southerly dipping conductors with respect to the surface profile, which is increasing in elevation southward on a slope of some 30° .

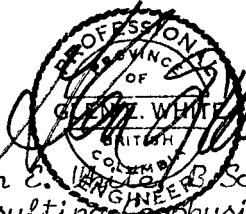
Conductor A - A' is a strong multichannel conductor on lines 9W and 13W, Figures 15 and 23. The strongest responses were obtained for conductor segment B - B' on lines 8W and 9W, loops D and B respectively. Southeast of this zone, a weaker parallel conductor trend is also indicated by both loops. Segment A' - A'' is defined by loops B and D and concludes with a strong conductor between 400S and 450S on line 500W. Loops B and D also energize a multichannel conductor at 50S on line 5W. This conductor would appear to be on a trend parallel to A - A''.

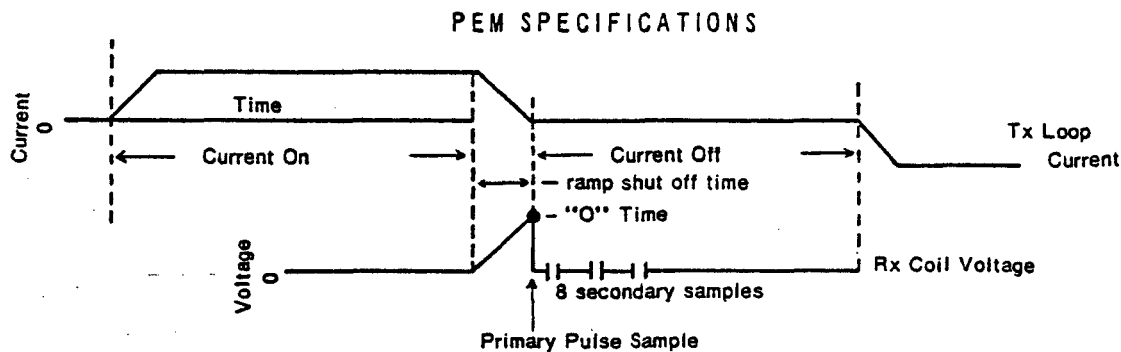
Conductor C - C' shows good midchannel conductive responses. A conductor C'' - C''' is interpreted from loop B and C data. The C''' response on line 15W shows good horizontal and vertical component variations. The vertical component responses on this property are complicated by two factors; one that the conductors appear to be dipping southward and two, that the trends are at 45° to the loop. In general, the anomalous responses appear to be shallow in the order of 50 - 75 m.

CONCLUSION AND RECOMMENDATION

The vector pulse electromagnetometer survey delineated a number of pronounced multichannel response trends which reflect a conductor depth of some 50 - 75 m. The rust area detected by the geochemical survey is at the intersection of two zones A - A' and B - B'. Particularly strong responses were obtained at 1300W - 100N, and 500W - 400S on A - A'; at 900W and 800W at 250S on B - B'; and at 1500W - 350S 1700W - 400S and 500W - 50S. These areas should be tested by diamond drilling.

Respectfully submitted,
 GLEN E. WHITE GEOPHYSICAL
 CONSULTING & SERVICES LTD.


 Glen E. White, B.Sc., P. Eng.
 Consulting Geophysicist



Current Off time: 9.4 ms
 Current on time: 10.8 ms
 Current shut off (ramp) time: 1.4 ms
 Sample times (zero to centre of sample): .15ms, .45ms, .85ms, 1.45ms, 2.45ms, 3.75ms, 5.85ms, 8.85ms.

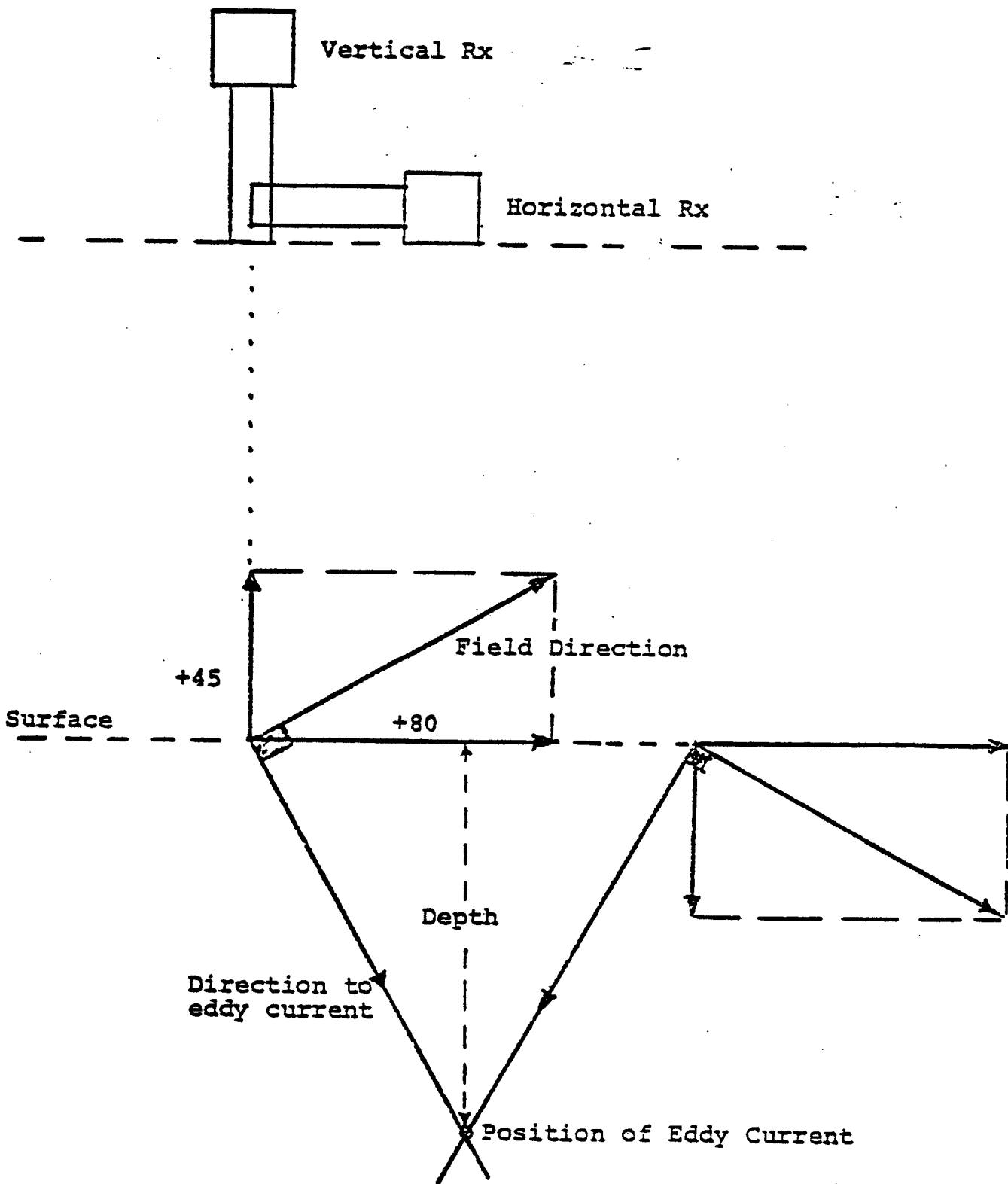
Sample width: 100 μ s
 Zero time set at drop off point of primary pulse

TRANSMITTER — Transmitter power and loop size may be increased to obtain increased penetration. Weight, portability and power capabilities of the control instrument are the limiting factors. The standard transmitter is designed to be carried by two men.

Loop diameter	- minimum 4 meters (13 feet)
Loop current	- 15 to 20 amps
Loop applied voltage	- 24 volts
Loop output	- minimum 4500 amps x meter ²
Loop weight	- 11.8 kilos (26 lb)
Control unit weight	- 10 kilos (22 lb)
Control unit dimensions	- 20.5cm x 25.5cm x 36.5cm (8" x 10" x 14.5")
Battery supply weight	- 18.1 kilos (40 lb)
Battery supply	- 2 of 12 volt, 14 to 20 ampere hour
Timing control by radio synchronization	

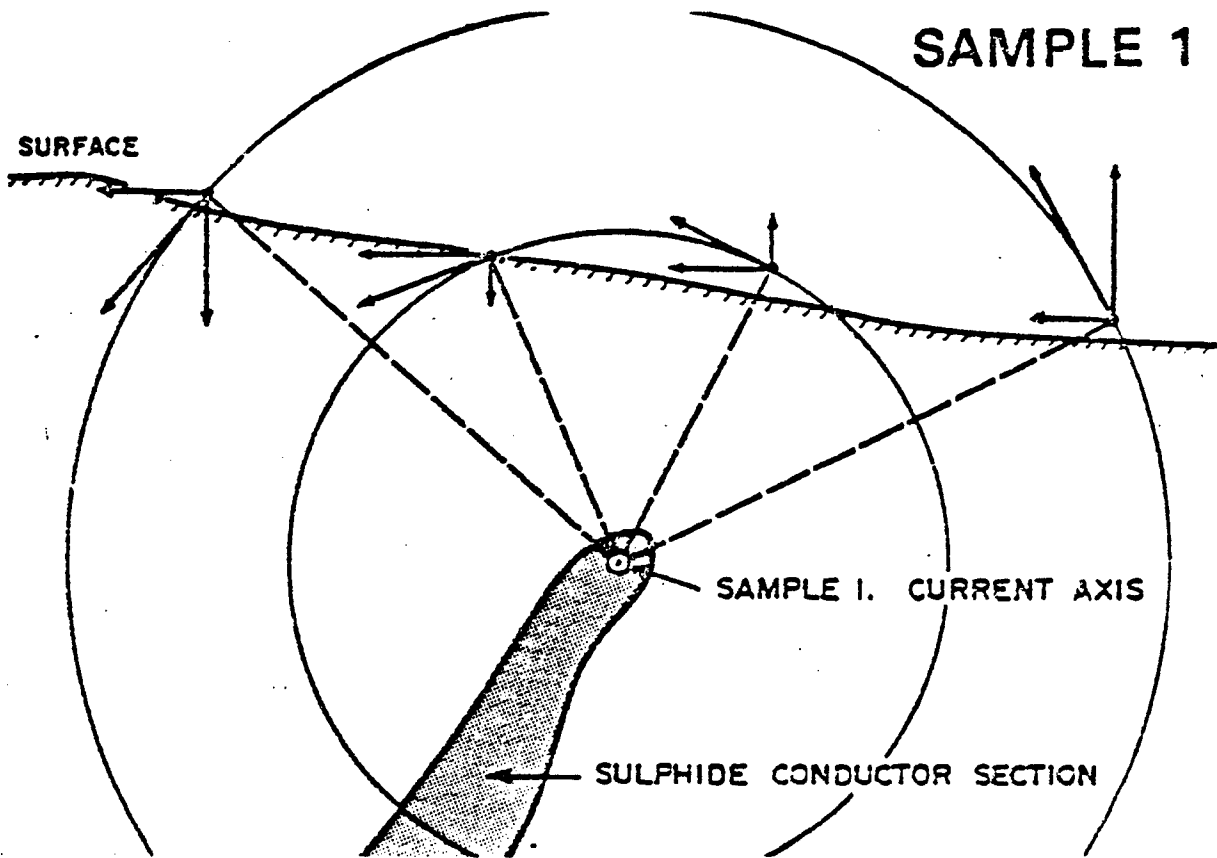
RECEIVER

- Receive coil dimensions: 55cm x 15cm (22" x 6")
- Receive coil weight: 4.5 kilos (10 lb)
- Preamplifier in coil
- Preamplifier batteries: 2 of 9 volt
- Receive coil tripod mounted
- Receiver measuring instrument dimensions: 28cm x 18cm x 21.5cm (11" x 7" x 9")
- Receiver measuring instrument weight: 6.3 kilos (14 lb)
- Timing control by radio synchronization
- Primary sample width: 100 μ s
- Primary sample can be swept through primary pulse by means of a time calibrated pot
- Zero time set at primary pulse drop-off
- Secondary samples (eight of them) width: 100 μ s
- Secondary samples time (zero to middle of sample): (1) .15ms (2) .45ms (3) .85ms (4) 1.45ms (5) 2.45ms (6) 3.75ms (7) 5.85ms (8) 8.85ms
- Automatic sampling for 5 seconds then all samples automatically stored
- Sample read out by means of meter
- Continuous sampling possible by switching function switch to "Continuous"
- Noise can be monitored by switching function switch to "Noise"
- Battery supply: 24 volt rechargeable, 2 of 12 volt Gel GC 12-15



SAMPLE 1

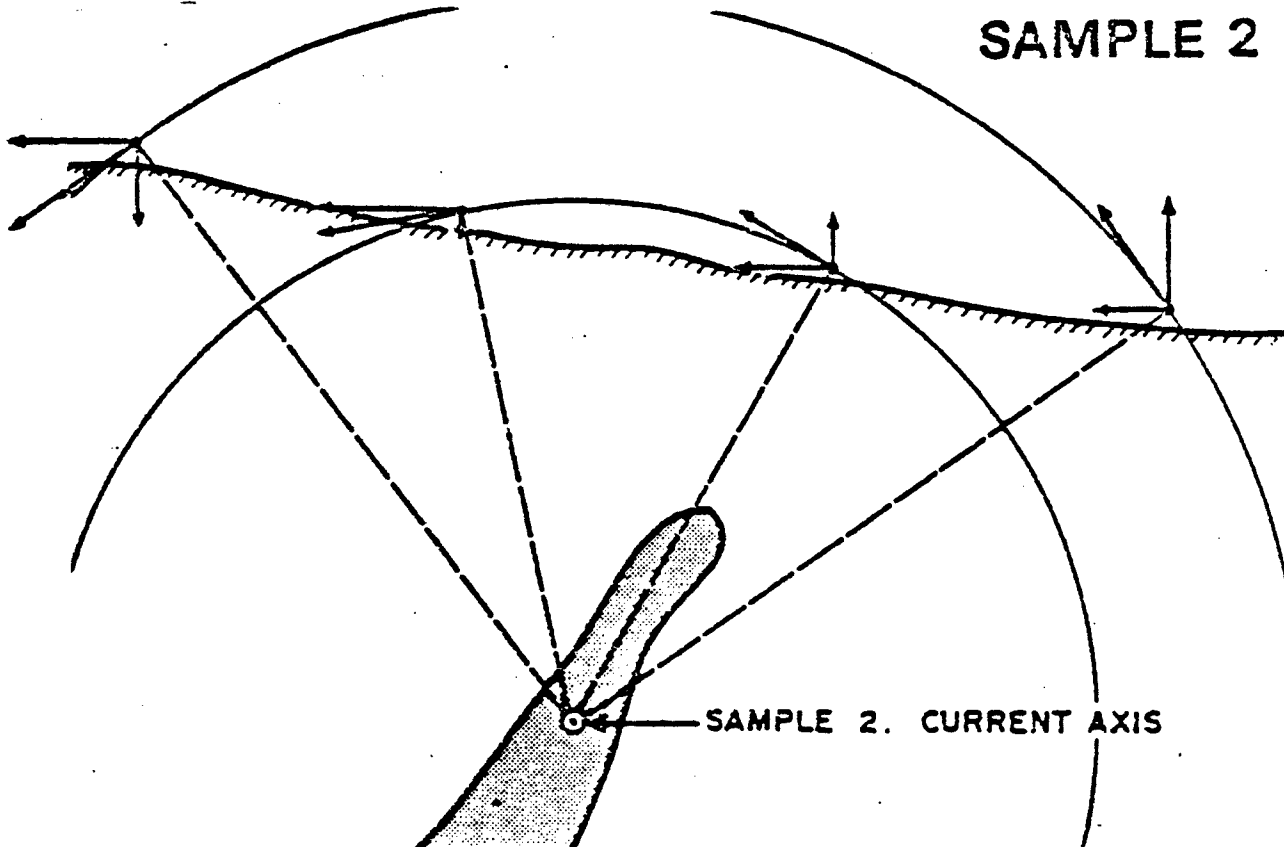
SURFACE



SAMPLE 1. CURRENT AXIS

SULPHIDE CONDUCTOR SECTION

SAMPLE 2



SAMPLE 2. CURRENT AXIS

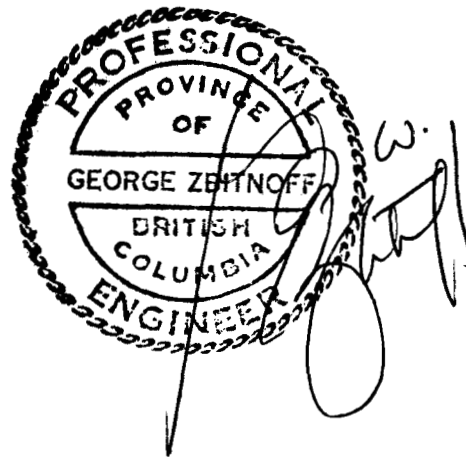
Location of the Current Path in the Conductor

COST BREAKDOWN

<u>Personnel</u>	<u>Date of Work</u>	<u>Wages</u>	<u>Total</u>
J. Allmann.....	Nov. 23 - Dec. 8/79.....	\$140/day.....	\$2240.00
B. Elrix.....	"....."	110/day.....	1760.00
Meals and accomodations.....			960.00
Vehicle and expediting.....			170.00
Instrument lease.....			1600.00
Airfare.....			320.00
Airfreight.....			225.00
Computer Processing.....			375.00
Interpretation and reports.....			850.00
			<hr/>
Total.....			<u>\$8500.00</u>

Helicopter transportation from Smithers
to the property and return.....2678.11

Total..... \$11,178.11



STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P. Eng.

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysics - Geology
University of British Columbia

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia

Associate member of Society of Exploration
Geophysicists.

Past President of B. C. Society of Mining
Geophysicists.

EXPERIENCE: Pre-Graduate experience in Geology - Geochemistry -
Geophysics with Anaconda American Brass.

Two years Mining Geophysicist with Sulmac
Exploration Ltd. and Airborne Geophysics with
Spartan Air Services Ltd.

One year Mining Geophysicist and Technical Sales
Manager in the Pacific north-west for W. P. McGill
and Associates.

Two years Mining Geophysicist and supervisor
Airborne and Ground Geophysical Divisions with
Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con Exploration
Surveys Ltd.

Nine years Consulting Geophysicist.

Active experience in all Geologic provinces of
Canada.

CHANNEL	1	2	3	4	5	6	7	8	GAIN
LINE STAT	LCCP	A	^						
11W 00	VER: -51	-95	-62	-35	-25	-12	-3	-6	0.80
	HCR: -375	-175	-62	-25	-12	-5	-2	-2	
11W 50N	VER: -100	-100	-55	-31	-20	-11	-5	-4	1.00
	HCR: -320	-140	-48	-18	-6	-2	-1	-1	
11W 100N	VER: -140	-100	-50	-24	-14	-5	-1	3	1.00
	HCR: -250	-100	-30	-9	-2	-1	-1	0	
11W 150N	VER: -110	-74	-35	-20	-13	-7	-6	-7	1.00
	HCR: -180	-65	-23	-7	-4	-1	0	0	
11W 200N	VER: -120	-65	-30	-14	-10	-3	-1	-1	1.00
	HCR: -150	-45	-15	-5	-3	-1	0	1	
11W 250N	VER: -86	-45	-20	-10	-6	-5	-2	-2	1.00
	HCR: -100	-30	-10	-3	-2	0	0	0	
11W 300N	VER: -60	-25	-10	-4	-4	-2	-1	-2	1.00
	HCR: -43	-11	-5	-1	0	0	0	0	
11W 350N	VER: -25	-11	-5	-2	-2	-1	-1	-1	1.00
	HCR: -14	-4	-2	0	0	0	0	0	
11W 400N	VER: -10	-5	-3	-1	-1	0	0	-1	1.00
	HCR: -6	-5	-5	-3	-3	-2	-1	-1	

LINE STAT	LOCP	A							
13W 400N	VER: -150	-100	-49	-22	-14	-7	-4	-3	1.00
	HCR: 70	16	1	1	1	1	0	0	
13W 350N	VER: -140	-100	-45	-23	-14	-8	-4	-5	1.00
	HCR: -95	-48	-21	-6	-3	-1	0	0	
13W 300N	VER: -150	-100	-53	-26	-15	-7	-3	-3	1.00
	HCR: -110	-58	-25	-10	-4	-1	-1	0	
13W 250N	VER: -100	-110	-60	-30	-18	-9	-3	0	1.00
	HCR: -110	-66	-30	-10	-4	-1	-1	-1	
13W 200N	VER: -114	-114	-63	-35	-27	-18	-16	-13	0.87
	HCR: -80	-51	-22	-4	1	4	3	1	
13W 150N	VER: -122	-121	-71	-42	-33	-17	-8	-5	0.57
	HCR: -298	-175	-70	-17	1	3	3	0	
13W 100N	VER: -85	-111	-91	-65	-54	-31	-14	-14	0.35
	HCR: -371	-228	-117	-57	-17	0	11	2	

LINE STAT	LCCP	A							
9W 300N	VER: -40	-20	-10	-3	-3	-2	-1	-1	1.00
	HCR: -28	-6	-4	-1	-1	0	0	-1	
9W 250N	VER: -84	-40	-17	-10	-5	-4	-2	-1	1.00
	HCR: -70	-20	-2	-2	0	0	0	0	
9W 200N	VER: -130	-75	-30	-14	-10	-14	-3	-2	1.00
	HCR: -200	-50	-16	-4	-3	-1	0	-1	
9W 150N	VER: -110	-78	-35	-18	-11	-5	-2	-2	1.00
	HCR: -160	-60	-23	-10	-4	-2	0	0	
9W 100N	VER: -140	-110	-59	-30	-10	-5	-4	-3	1.00
	HCR: -280	-100	-44	-22	-16	-16	-10	-10	
9W 50N	VER: -120	-100	-60	-32	-20	-12	-5	-4	1.00
	HCR: -260	-110	-40	-20	-15	-11	-8	-2	

CHANNEL		1	2	3	4	5	6	7	8	GAIN
9W 00S	VER:	-112	-131	-77	-45	-31	-12	-2	-8	0.80
	HOR:	-300	-125	-52	-32	-21	-13	-6	-3	
9W 50S	VER:	-81	-138	-90	-54	-18	0	-5	-7	0.55
	HCR:	-363	-181	-83	-36	-18	-7	-3	-3	
9W 100S	VER:	-133	-163	-113	-76	-50	-23	-10	-10	0.30
	HOR:	-366	-233	-116	-53	-33	-16	-23	-23	
9W 150S	VER:	-104	-166	-142	-104	-85	-47	-19	-14	0.21
	HOR:	-476	-309	-152	-71	-47	-14	-9	-9	

LINE	STAT	LGCP	B							
5W 00S	VER:	-15	-70	-59	-39	-31	-20	-10	-7	0.64
	HOR:	-15	-12	-4	-3	1	0	0	1	
5W 50S	VER:	-68	-106	-77	-51	-37	-22	-5	-6	0.58
	HCR:	-86	-113	-27	-25	-29	-44	-77	-55	
5W 100S	VER:	-96	-114	-80	-32	-10	-7	-12	-5	0.55
	HOR:	-89	-30	-10	-3	-1	5	10	5	
5W 150S	VER:	-96	-112	-80	-46	-34	-20	-10	-8	0.50
	HOR:	-60	-40	-20	10	6	6	2	2	
5W 200S	VER:	-114	-129	-85	-64	-33	-14	-8	-4	0.48
	HOR:	-41	-12	-12	6	18	2	22	22	
5W 250S	VER:	-125	-160	-112	-72	-50	-30	-12	-12	0.40
	HOR:	-125	-57	-15	5	10	10	7	0	
5W 300S	VER:	-116	-154	-116	-77	-61	-35	-16	-9	0.31
	HOR:	-119	-61	-25	-12	-9	-3	-3	-3	
5W 350S	VER:	-172	-193	-137	-151	-34	-13	0	-3	0.29
	HOR:	-151	-82	-37	0	0	10	10	6	
5W 400S	VER:	-156	-180	-136	-80	-48	-16	-4	0	0.25
	HOR:	-276	-160	-80	-40	-20	-4	0	-4	
5W 450S	VER:	-161	-209	-152	-100	-66	-28	-9	-4	0.21
	HOR:	-219	-147	-95	-52	-33	-38	-28	-19	
5W 500S	VER:	-237	-281	-212	-62	-125	0	-12	-25	0.16
	HCR:	0	0	-6	12	12	6	6	-37	

LINE	STAT	LGCP	B							
9W 50S	VER:	-19	-6	-4	-1	-1	0	0	-1	1.00
	HOR:	-6	-2	-1	0	0	0	0	0	
9W 100S	VER:	-85	-27	-11	-4	-4	-2	-1	-2	1.00
	HOR:	-29	-3	-2	0	0	0	1	0	
9W 150S	VER:	-120	-48	-20	-10	-6	-4	-1	-1	1.00
	HCR:	-95	-12	-2	0	-1	0	-1	0	
9W 200S	VER:	-140	-66	-30	-15	-11	-5	-3	-2	1.00
	HOR:	-110	-22	-3	2	2	2	2	0	
9W 250S	VER:	-150	-85	-40	-20	-13	-6	-4	-4	1.00
	HOR:	-130	-200	-41	-12	-6	-5	-2	0	
9W 300S	VER:	-160	-120	-56	-33	-22	-13	-6	-5	1.00
	HOR:	-260	-65	-16	-4	-2	-1	1	0	
9W 350S	VER:	-143	-121	-72	-37	-27	-14	-5	-2	0.69
	HOR:	-159	-57	-27	-10	-2	5	10	4	

CHANNEL		1	2	3	4	5	6	7	8	GAIN
9W 400S	VER:	-161	-153	-91	-53	-36	-20	-10	-8	0.49
	HOR:	-204	-81	-30	-6	-2	4	6	2	
9W 450S	VER:	-194	-200	-122	-69	-44	-16	-5	-2	0.36
	HOR:	-225	-97	-44	-16	-11	-5	-2	-8	
9W 500S	VER:	-206	-216	-140	-86	-63	-36	-16	-6	0.30
	HOR:	-333	-153	-73	-43	-23	-13	-6	-10	

LINE	STAT	LOOP	B							
7W 500S	VER:	-262	-329	-166	-92	-74	-40	-11	-11	0.27
	HOR:	-122	-74	-40	-11	-3	3	3	0	
7W 450S	VER:	-222	-194	-122	-83	-55	-33	-16	-8	0.36
	HOR:	-94	-44	-19	-11	-2	2	0	-2	
7W 400S	VER:	-180	-168	-102	-64	-44	-24	-11	-4	0.45
	HOR:	-222	-100	-44	-20	-8	-2	0	-2	
7W 350S	VER:	-176	-94	-50	-29	-16	-7	-8	4	0.68
	HOR:	-132	-32	-7	-1	0	0	1	0	
7W 300S	VER:	-152	-105	-58	-35	-23	-14	-7	-2	0.85
	HOR:	-129	-41	-12	-3	-2	0	0	-1	
7W 250S	VER:	-170	-100	-46	-25	-15	-8	-4	-3	1.00
	HOR:	-100	-20	-3	0	0	0	-1	-1	
7W 200S	VER:	-140	-72	-30	-19	-13	-7	-5	-4	1.00
	HOR:	-110	-22	-5	-1	0	0	-2	-2	
7W 150S	VER:	-120	-58	-24	-12	-7	-5	-3	-3	1.00
	HOR:	-74	-14	-2	2	2	2	0	1	
7W 100S	VER:	-110	-50	-21	-10	-6	-4	-2	0	1.00
	HOR:	-55	-12	-3	1	1	2	2	0	
7W 50S	VER:	-100	-40	-60	-9	-6	-4	-1	-2	1.00
	HOR:	-9	-3	-2	0	1	3	3	2	
7W 00S	VER:	-80	-31	-14	-5	-5	-3	-2	-2	1.00
	HOR:	32	6	3	0	0	0	0	0	

LINE	STAT	LOOP	B							
11W 50S	VER:	-26	-11	-4	-3	-2	-1	-1	-1	1.00
	HOR:	-4	1	1	2	1	1	1	0	
11W 100S	VER:	-68	-10	-21	-3	-3	-1	-1	-1	1.00
	HOR:	-20	-1	0	2	1	1	-1	0	
11W 150S	VER:	-100	-38	-15	-6	-5	-3	-1	-1	1.00
	HOR:	-79	-10	-1	1	1	1	-1	-1	
11W 200S	VER:	-110	-45	-20	-12	-7	-4	-2	-1	1.00
	HOR:	-83	-16	-3	0	1	1	1	-1	
11W 250S	VER:	-190	-80	-33	-18	-12	-6	-4	-3	1.00
	HOR:	-160	-25	-4	-2	-2	-1	-2	-3	
11W 300S	VER:	-220	-110	-46	-25	-16	-10	-5	-4	1.00
	HOR:	-260	-52	-12	-3	-1	0	1	0	
11W 350S	VER:	-157	-112	-56	-32	-21	-12	15	3	0.85
	HOR:	-258	-60	-15	-6	-3	-1	0	-1	
11W 400S	VER:	-200	-142	-71	-42	-30	-30	-7	-5	0.70
	HOR:	-300	-85	-28	-11	-5	0	1	1	

CHANNEL		1	2	3	4	5	6	7	8	GAIN
11W	450S	VER: -163	-134	-78	-86	-34	-19	-9	-7	0.52
		HCR: -192	-71	-28	-11	-7	-1	1	-1	
11W	500S	VER: -179	-156	-97	-58	-38	-25	-10	-7	0.39
		HCR: -246	-100	-38	-12	-10	-2	-2	0	
LINE	STAT	LOOP	B							
13W	500S	VER: -211	-185	-129	-92	-74	-40	-25	-14	0.27
		HCR: -274	-129	-70	-25	-18	-7	0	0	
13W	450S	VER: -177	-161	-127	-63	-44	-27	-11	-5	0.36
		HCR: -194	-69	-27	-16	-11	-2	0	0	
13W	400S	VER: -179	-141	-89	-56	-38	-15	-10	-7	0.39
		HCR: -176	-76	-33	-12	-7	-2	0	0	
13W	350S	VER: -167	-132	-79	-48	-20	-6	-4	-4	0.49
		HCR: -169	-44	-12	0	6	20	4	-6	
13W	300S	VER: -161	-117	-67	-41	-20	-11	-11	-11	0.62
		HCR: -9	4	3	1	0	0	-1	-3	
13W	250S	VER: -147	-107	-61	-41	-17	-7	-7	-5	0.68
		HCR: -102	-22	-7	-4	-2	1	0	0	
13W	200S	VER: -253	-139	-64	-37	-25	-15	-6	-5	0.79
		HCR: -126	-17	-2	-1	1	0	-2	0	
13W	150S	VER: -160	-82	-40	-22	-10	-4	-4	-5	1.00
		HCR: 3	1	-4	4	8	11	9	-2	
13W	100S	VER: -160	-81	-36	-22	-14	-9	-5	-3	1.00
		HCR: -57	-10	-2	0	0	0	-1	-1	
13W	50S	VER: -160	-75	-32	-19	-12	-6	-3	-3	1.00
		HCR: -10	-2	-3	0	0	0	0	0	
LINE	STAT	LOOP	C							
15W	50S	VER: -22	-10	-8	-6	-3	-3	0	-1	1.00
		HCR: -5	-4	-5	-5	2	0	0	1	
15W	100S	VER: -40	-15	-10	-4	-2	-2	-1	-1	1.00
		HCR: -23	-8	-3	-3	0	0	0	0	
15W	150S	VER: -54	-23	-12	-9	-7	-6	-3	-2	1.00
		HCR: -41	-27	-7	-6	-10	-7	-8	-1	
15W	200S	VER: -72	-37	-20	-19	-8	-2	-1	-1	1.00
		HCR: -72	-39	-21	-19	-12	-8	-2	0	
15W	250S	VER: -110	-82	-31	-28	-8	-2	0	0	1.00
		HCR: -100	-98	-62	-12	-5	-4	-1	-1	
15W	300S	VER: -140	-110	-98	-39	-50	-31	-10	1	1.00
		HCR: -145	-130	-96	-21	-6	-3	-2	0	
15W	350S	VER: -170	-130	-130	-70	-42	-21	-10	0	1.00
		HCR: -198	-170	-82	-20	-10	-10	-8	-2	
15W	400S	VER: -191	-133	-110	-83	-67	-13	-2	0	0.74
		HCR: -283	-132	-82	-10	-3	-2	0	0	
15W	450S	VER: -172	-106	-105	-63	-36	-13	3	0	0.58
		HCR: -396	-172	-48	-17	-13	-1	-1	-1	
15W	500S	VER: -200	-78	-124	-68	-24	0	-2	4	0.41
		HCR: -414	-224	-151	-178	-102	-41	-19	0	

CHANNEL	1	2	3	4	5	6	7	8	GAIN
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LINE	STAT	LOOP	C								
17W	500S	VER:	-242	-207	-114	-85	-50	-28	-10	0	0.28
		HOR:	-342	-103	-50	-10	-10	-3	-3	0	
17W	450S	VER:	-225	-193	-118	-118	-53	-25	-9	-15	0.32
		HOR:	-306	-87	-40	-12	-6	-3	-3	0	
17W	400S	VER:	-320	-223	-115	-74	-51	-46	-12	-5	0.39
		HOR:	-448	-128	-43	-17	-12	0	0	0	
17W	350S	VER:	-250	-176	-73	-51	-34	-19	-15	-1	0.52
		HOR:	-384	-103	-25	-9	-7	-1	0	-1	
17W	300S	VER:	-294	-147	-39	-29	-22	-10	-5	-1	0.68
		HOR:	-352	-76	-14	-2	0	0	0	0	
17W	250S	VER:	-207	-120	-12	-19	-13	-4	-3	0	0.82
		HOR:	-193	-26	-3	-2	0	0	-1	-3	
17W	200S	VER:	-100	-56	-8	-10	-7	-4	-2	0	1.00
		HOR:	-73	-14	-2	0	-1	-1	2	-1	
17W	150S	VER:	-59	-38	-7	-5	-5	-2	-1	-3	1.00
		HOR:	-64	-10	-1	-1	-1	1	1	1	
17W	100S	VER:	-32	-8	-3	-2	-2	0	0	-1	1.00
		HOR:	-15	-1	0	-2	1	1	1	1	
17W	50S	VER:	-19	-5	-1	-1	-2	-1	0	0	1.00
		HOR:	-6	0	1	-2	-2	1	0	1	

LINE	STAT	LOOP	C								
19W	CCS	VER:	-36	-68	-30	-18	-10	-4	-2	-1	1.00
		HOR:	-15	-10	-2	0	0	-1	0	0	
19W	50S	VER:	-98	-76	-32	-20	-13	-6	-4	-2	1.00
		HOR:	-46	-8	-2	0	0	0	-1	-1	
19W	100S	VER:	-140	-79	-38	-20	-11	-4	-4	-3	1.00
		HOR:	-62	-9	-3	-3	-2	-1	0	-2	
19W	150S	VER:	-201	-118	-51	-34	-21	-12	-4	-3	0.82
		HOR:	-101	-14	-2	-1	-1	-1	-2	0	
19W	200S	VER:	-117	-107	-57	-31	-13	-6	-3	-2	0.76
		HOR:	-131	-21	-6	-1	0	0	0	0	
19W	250S	VER:	-120	-120	-65	-33	-17	-7	-9	-9	0.63
		HOR:	-190	-42	-14	0	0	-12	-1	-3	
19W	300S	VER:	-116	-109	-60	-37	-15	-3	-1	-1	0.53
		HOR:	-154	-37	-18	-13	-1	-11	-5	-5	
19W	350S	VER:	-121	-110	-63	-38	-12	-12	-6	-4	0.47
		HOR:	-161	-40	-14	-12	2	-2	-4	0	
19W	400S	VER:	-113	-113	-73	-44	-15	-13	-5	-2	0.38
		HOR:	-152	-44	-13	-13	-5	0	-2	0	
19W	450S	VER:	-115	-125	-50	-31	-9	-6	0	0	0.32
		HOR:	-150	-31	-6	-25	9	-3	0	0	
19W	500S	VER:	-150	-135	-42	-32	0	3	0	-3	0.28
		HOR:	-114	-28	-7	-21	3	0	3	0	

CHANNEL		1	2	3	4	5	6	7	8	GAIN
7W	COS	VER: -65	-47	-13	-8	-3	-2	-1	-1	1.00
		HOR: 10	-4	-4	0	0	0	0	0	
7W	50S	VER: -86	-38	-52	-15	-4	-2	-1	0	1.00
		HOR: -8	-2	-5	0	1	3	3	2	
7W	100S	VER: -100	-49	-37	-8	-5	-1	-3	-1	1.00
		HOR: -46	-10	-16	-8	1	2	2	1	
7W	150S	VER: -110	-82	-73	-14	-2	-8	-4	-3	1.00
		HOR: -82	-23	-18	-10	0	0	2	1	
7W	200S	VER: -130	-97	-87	-28	-10	-8	-5	-3	1.00
		HOR: -100	-46	-37	-8	-6	0	0	0	
7W	250S	VER: -130	-74	-61	-32	-21	-10	-8	-2	1.00
		HOR: -98	-52	-42	-6	-5	0	-1	0	
7W	300S	VER: -98	-65	-57	-18	-16	-6	-5	-1	1.00
		HOR: -82	-47	-38	-3	-2	-1	-1	-1	
7W	350S	VER: -74	-50	-48	-16	-11	-5	-7	0	0.85
		HOR: -72	-38	-35	-2	-2	-1	0	0	
7W	400S	VER: -75	-50	-34	-13	-6	-2	-1	0	0.76
		HOR: -53	-27	-22	0	0	0	1	-1	

LINE	STAT	LOOP	D							
5W	400S	VER: -60	-60	-50	-28	-12	-3	0	0	0.63
		HOR: -101	-60	-28	-7	-4	0	0	0	
5W	350S	VER: -57	-61	-50	-53	-8	-2	0	-1	0.75
		HOR: -50	-30	-12	2	0	4	2	2	
5W	300S	VER: -31	-47	-38	-21	-17	-8	-3	-3	0.89
		HOR: -31	-19	-6	-3	-2	0	-1	-1	
5W	250S	VER: -52	-56	-40	-18	-18	-11	-2	-2	1.00
		HOR: -48	-21	-3	3	4	3	0	0	
5W	200S	VER: -54	-52	-40	-23	-14	-6	-4	-1	1.00
		HOR: -19	-5	-8	2	8	0	8	7	
5W	150S	VER: -38	-50	-38	-21	-11	-12	-3	0	1.00
		HOR: -29	-18	-5	4	3	3	0	1	
5W	100S	VER: -37	-50	-41	-17	-3	-3	-6	-2	1.00
		HOR: -37	-16	-12	-1	0	3	4	2	
5W	50S	VER: -32	-53	-42	-29	-17	-10	-2	0	1.00
		HOR: -47	-52	-32	-12	-10	-20	-32	-23	
5W	00S	VER: -9	-32	-36	-22	-16	-8	-5	-3	1.00
		HOR: -8	-7	0	0	0	0	0	0	

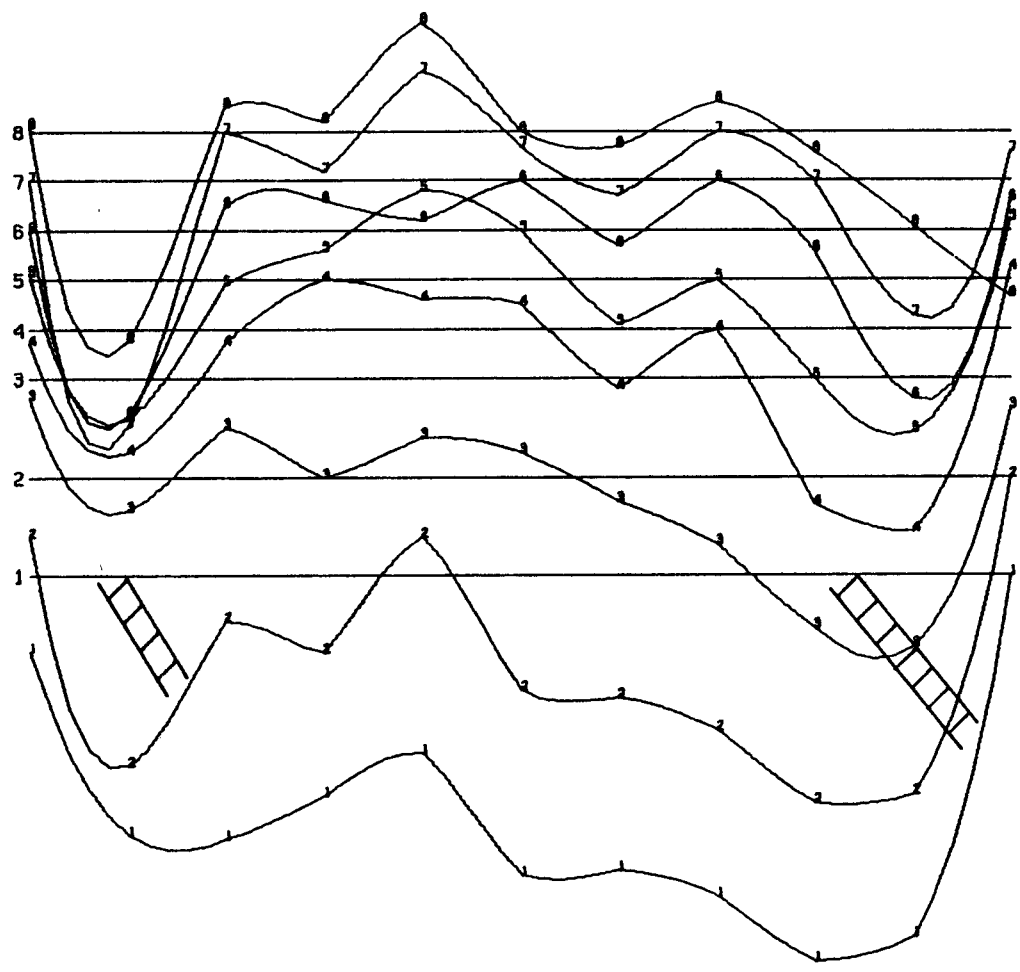
LINE	STAT	LCCP	D							
6W	COS	VER: -35	-28	-12	-4	-3	-2	-1	0	1.00
		HOR: 26	3	1	0	0	0	0	0	
6W	50S	VER: -82	-38	-48	-8	-3	-3	-1	0	1.00
		HOR: -3	-5	-3	0	1	2	2	2	
6W	100S	VER: -99	-42	-18	-8	-5	-4	-3	-1	1.00
		HOR: -42	-8	-2	-1	0	1	3	0	
6W	150S	VER: -110	-51	-21	-16	-6	-8	-5	-3	1.00
		HOR: -68	-16	-1	2	2	1	2	1	

CHANNEL		1	2	3	4	5	6	7	8	GAIN
6W 200S	VER:	-130	-63	-28	-20	-17	-9	-8	-1	1.00
	HOR:	-87	-21	-7	-6	0	0	0	-3	
6W 250S	VER:	-150	-87	-37	-32	-18	-10	-2	-1	1.00
	HOR:	-90	-28	-8	0	1	0	-1	-1	
6W 300S	VER:	-120	-76	-42	-24	-11	-8	-1	0	1.00
	HOR:	-87	-22	-6	-2	-2	0	-2	-2	
6W 350S	VER:	-136	-75	-44	-25	-16	-8	-1	-1	0.72
	HOR:	-111	-25	-6	-1	0	2	0	0	
6W 400S	VER:	-120	-74	-31	-25	-9	-3	0	-1	0.63
	HOR:	-120	-19	-3	-1	0	1	-1	-1	

LINE	STAT	LOOP	D							
8W 400S	VER:	-119	-108	-64	-50	-31	-8	-5	-5	0.57
	HOR:	-171	-61	-24	-3	0	3	5	1	
8W 350S	VER:	-126	-108	-66	-30	-26	-8	-4	-1	0.69
	HOR:	-144	-52	-23	-15	-1	2	7	4	
8W 300S	VER:	-134	-117	-56	-35	-31	-12	-2	-3	0.82
	HOR:	-219	-63	-18	-3	0	-1	1	0	
8W 250S	VER:	-140	-73	-37	-17	-12	-5	-8	-5	1.00
	HOR:	-120	-120	-32	-12	-2	-1	-2	0	
8W 200S	VER:	-135	-52	-26	-14	-7	-3	-3	-1	1.00
	HOR:	-82	-18	-5	0	2	2	3	0	
8W 150S	VER:	-99	-35	-18	-8	-3	-3	-2	-1	1.00
	HOR:	-80	-10	-4	0	-1	0	-1	0	
8W 100S	VER:	-76	-21	-9	-3	-2	-2	1	-1	1.00
	HOR:	-15	-2	-1	-1	0	-1	-1	-1	
8W 50S	VER:	-15	-3	-3	0	0	-1	0	0	1.00
	HOR:	-3	-1	0	0	-1	0	0	0	
8W COS	VER:	-8	0	-1	0	0	0	-1	-1	1.00
	HOR:	-1	0	0	1	0	1	-1	0	

0 S 50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S

LOOP B



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+ OR -
P.P.K.
SCALE

0 50 100 150 200

METRES

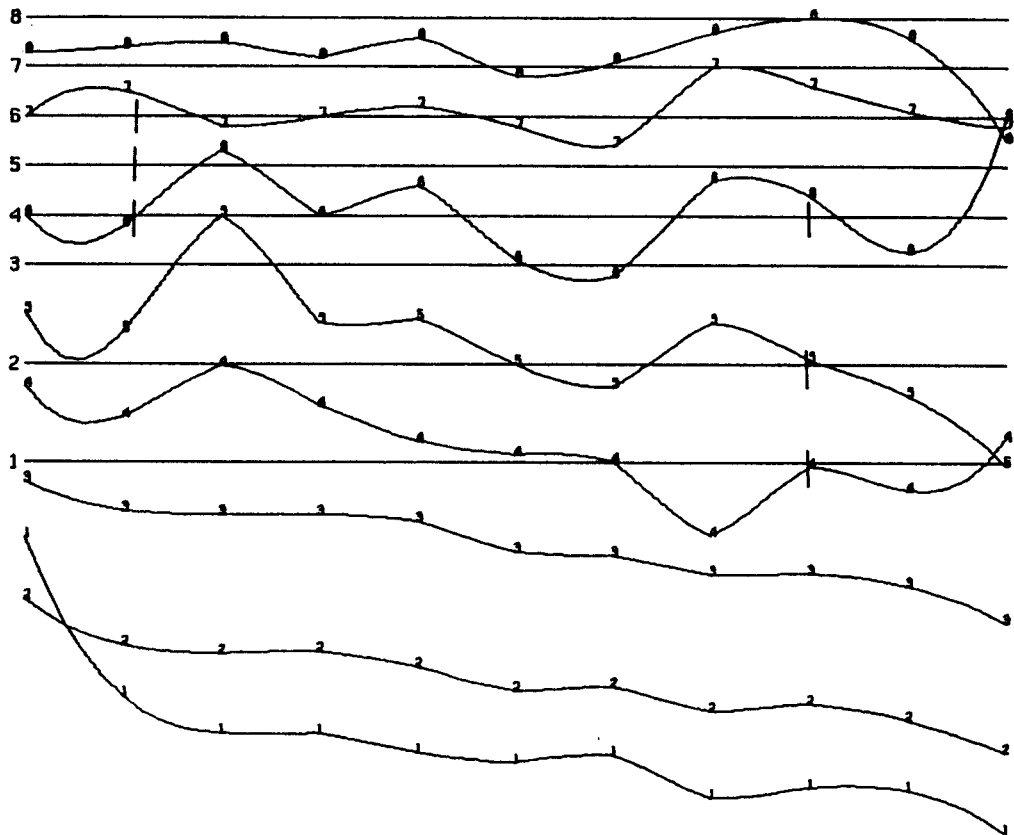
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 5W B
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
N.T.S. 93-F/2V
DATE 18 DECEMBER 1978
FIG. NO: 3

0 S 50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S

LOOP B



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+ OR -
P.P.K.
SCALE

0 50 100 150 200

METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.N.

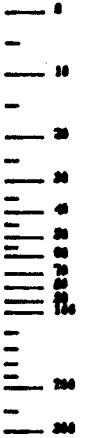
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 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 5W B

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

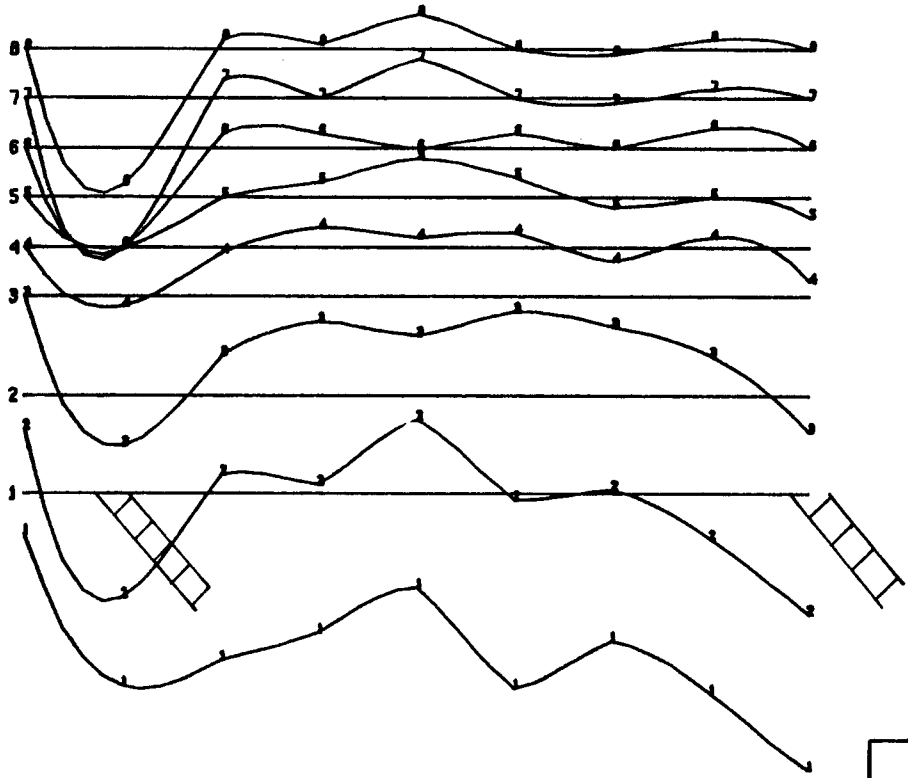
N.T.S. 93-F/2W
 DATE 10 DECEMBER 1970
 FIG. NO: 4

LOOPD

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S



• 0.01 -
P.P.S.
SCALE



METRES

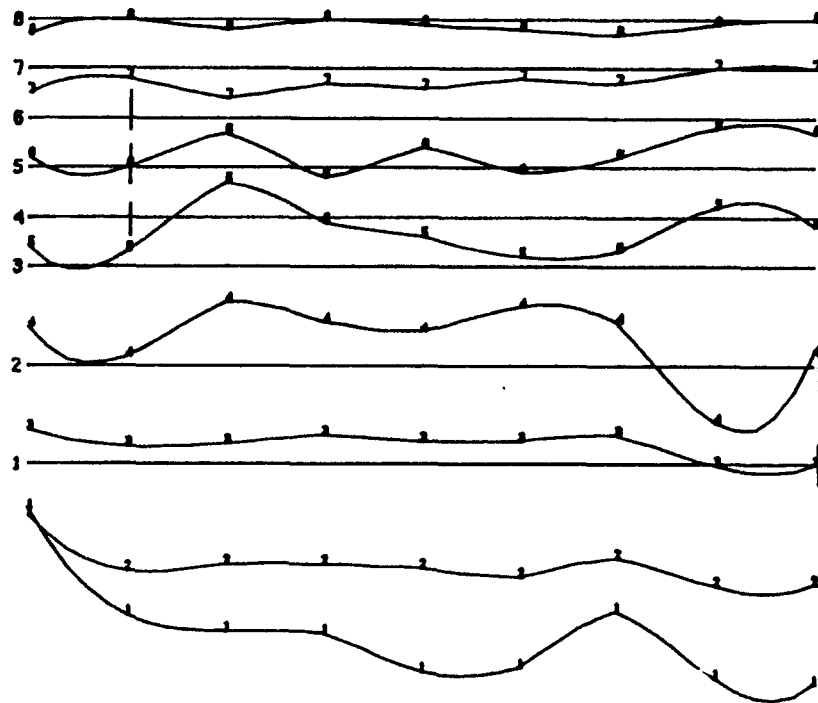
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

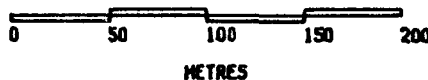
GRANGES EXPLORATION AB	
PEM CLAIM	
VECTOR PULSE ELECTROMAGNETOMETER	
HORIZONTAL COMPONENT	
LINE	SV D
GLEN E. WHITE	
GEOPHYSICAL CONSULTING & SERVICES LTD.	
N.T.S. 93-F/2V	
DATE 10 DECEMBER 1970	
FIG. NO: 5	

LOOPD

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S



• 00 -
P.P.M.
SCALE



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
PEM CLAIM

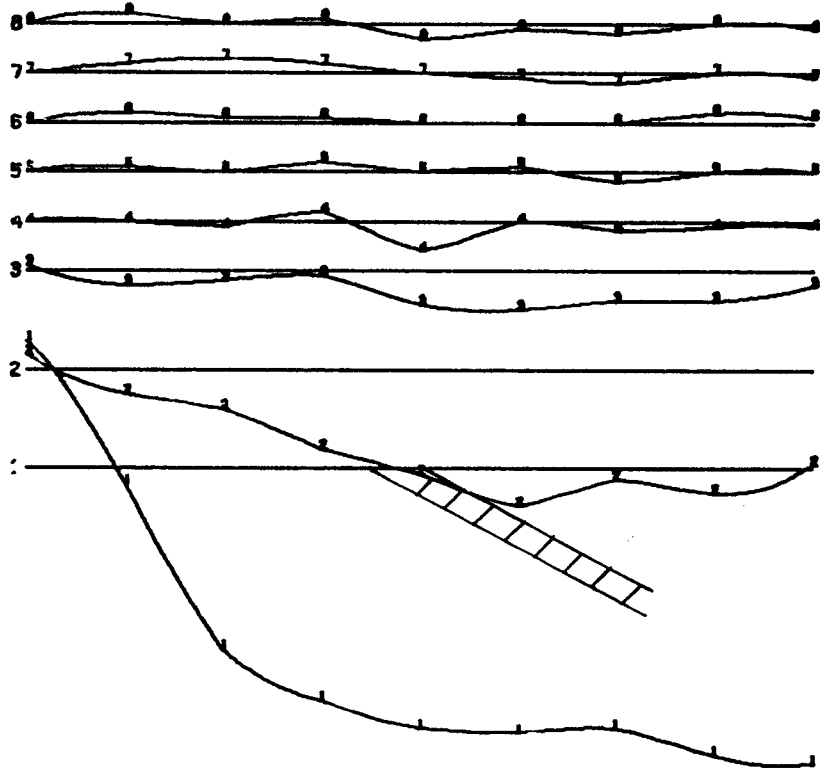
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE SW D

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 83-F/2V
DATE 10 DECEMBER 1970
FIG. NO: 6

LOOPD

0 S 30 S 100S 150S 200S 250S 300S 350S 400S



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• 10 - P.P.E. SCALE

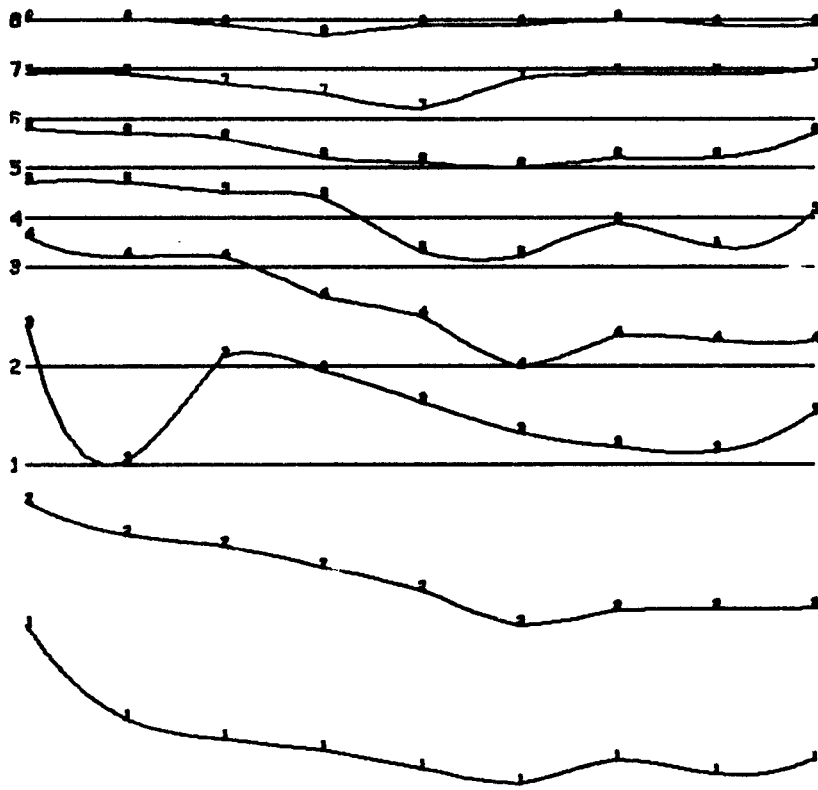


NUMBER IN THE LINE = CHANNEL NUMBER INSTRUMENT: CRONE P.E.M.

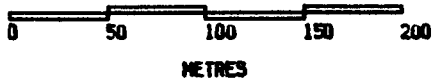
GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 HORIZONTAL COMPONENT
 LINE 6V D
 GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.
 N.T.S. 93-F/24
 DATE 18 DECEMBER 1970
 FIG. NO: 7

LOOP

5
30 S
100S
150S
200S
300S
350S
400S



0
10
20
30
40
50
60
70
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90
100
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120
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150
160
170
180
190
200
+ 0.1 -
1 P.P.M.
SCALE

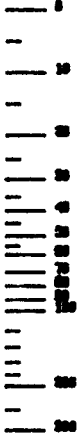
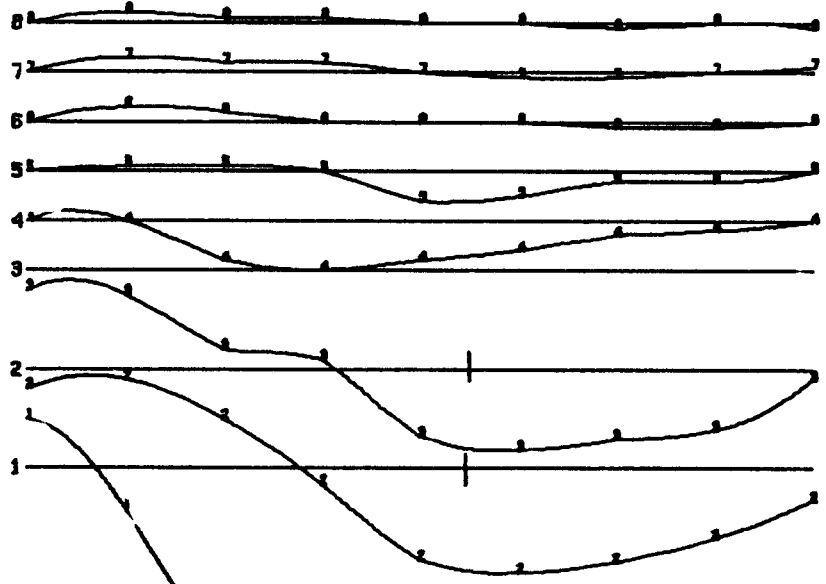


NUMBER IN THE LINE = CHANNEL NUMBER INSTRUMENT: CRONE P.E.M.

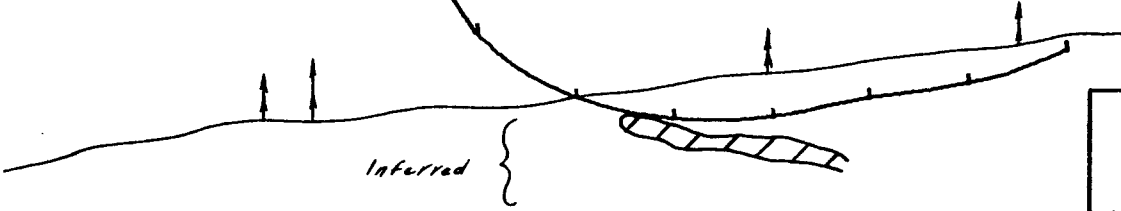
GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 6V D
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
M.T.S. 83-P/2V
DATE 18 OCTOBER 1970
FIG. NO: 8

LOOPD

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S



• OR -
P.P.K.
SCALE



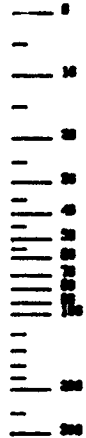
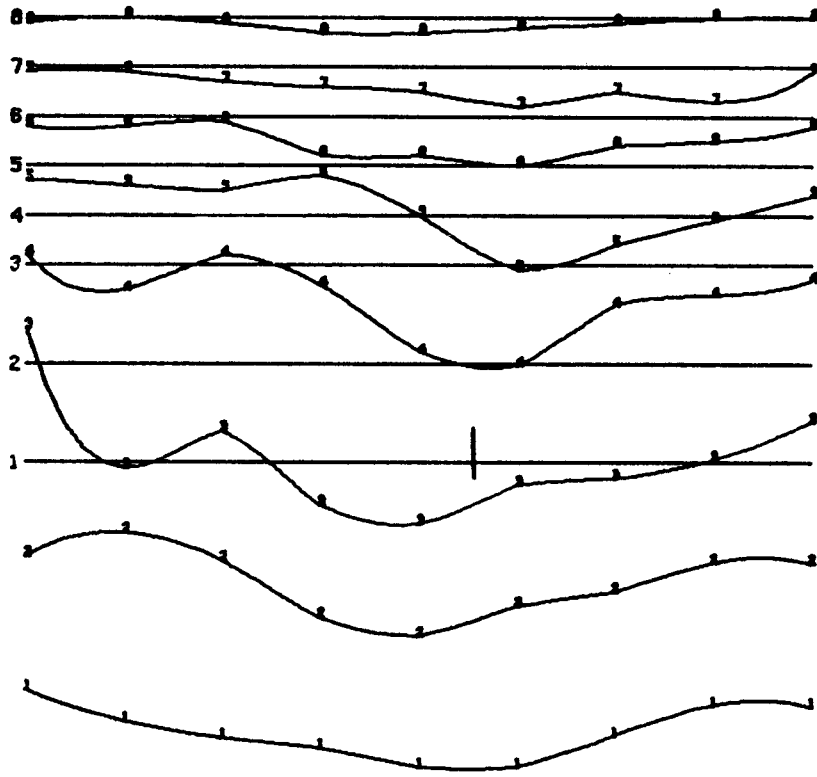
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.N.

GRANGES EXPLORATION AB	
PEM CLAIM	
VECTOR PULSE ELECTROMAGNETOMETER	
HORIZONTAL COMPONENT	
LINE	7V D
GLEN E. WHITE	
GEOPHYSICAL CONSULTING	
& SERVICES LTD.	
N.T.S. 93-F/2V	DATE 10 DECEMBER 1970
FIG. NO: 9	

LOOPD

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S



• 100 -
P.P.E.
SCALE



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.N.

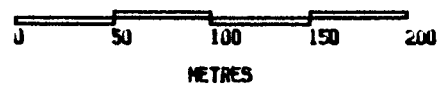
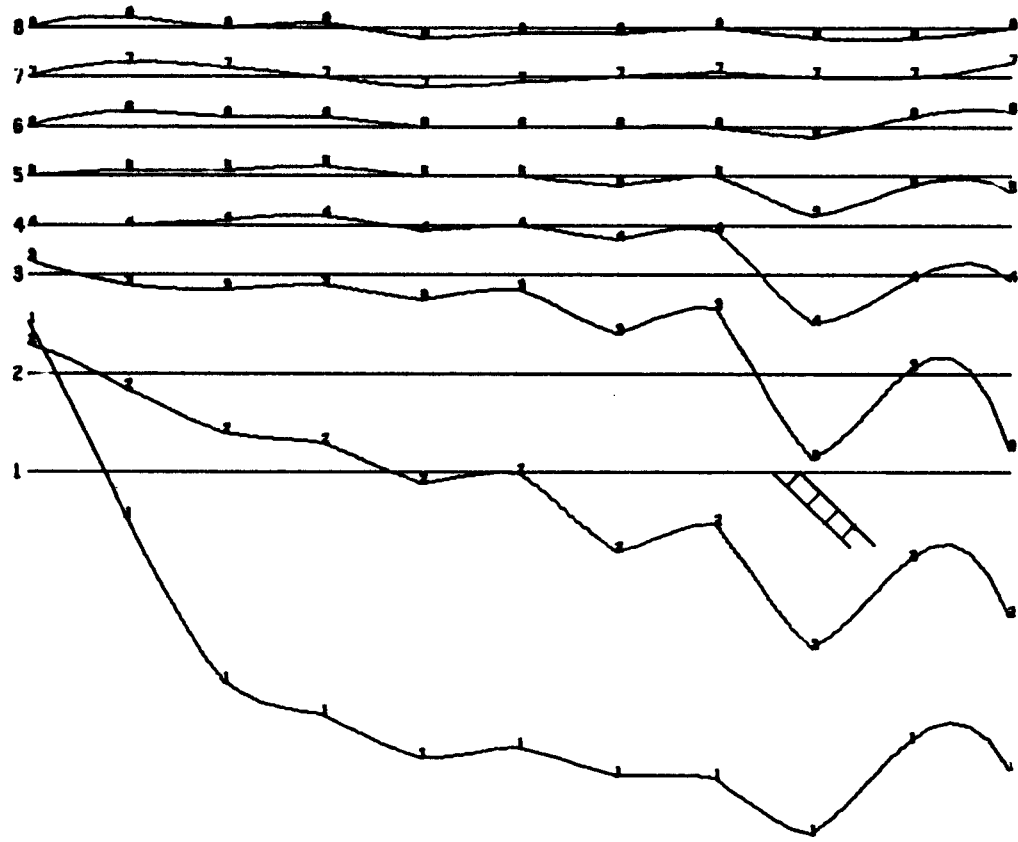
GRANGES EXPLORATION AB
 PER CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 7V 0

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

A.T.S. 93-F/24
 DATE 10 DECEMBER 1970
 FIG. NO: 10

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S 450 S 500 S

LOOPB



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.N.

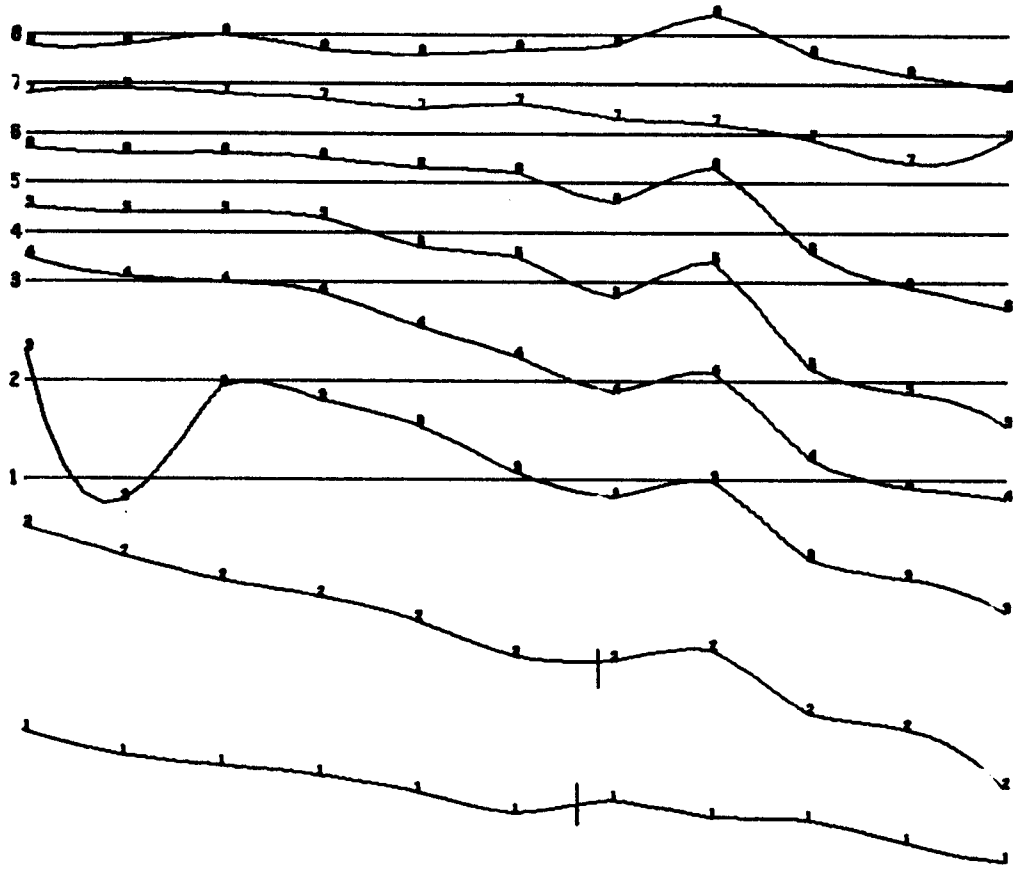
GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 HORIZONTAL COMPONENT
 LINE 7W B

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

N.T.S. 93-P/2V
 DATE 10 DECEMBER 1970
 FIG. NO: 11

0 S 50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S

LOOPS



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200
210
220
230
240
250
260
270
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300
310
320
330
340
350
360
370
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1000

• OR -
P.P.S.
SCALE

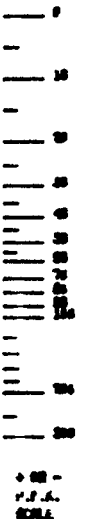
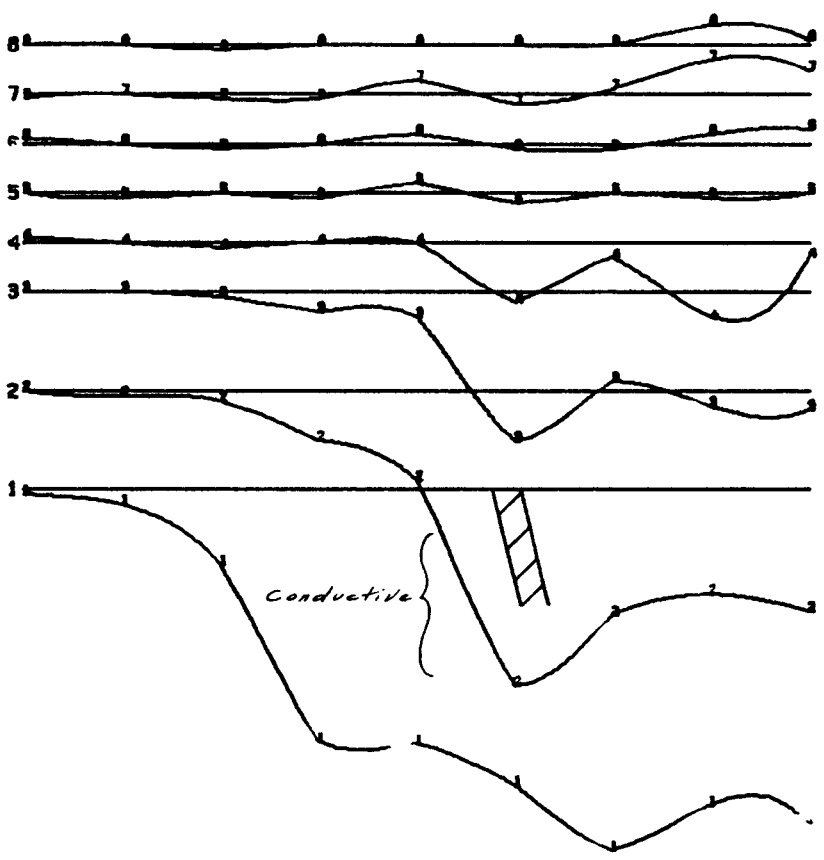
0 50 100 150 200
METRES

NUMBER IN THE LINE = CHANNEL NUMBER INSTRUMENT: CRONE P.E.N.

GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 7V B
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
N.T.S. 83-F/2V
DATE 10 DECEMBER 1976
FIG. NO. 12

LOOP

0 S 90 S 140S 150S 200S 250S 300S 350S 400S



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

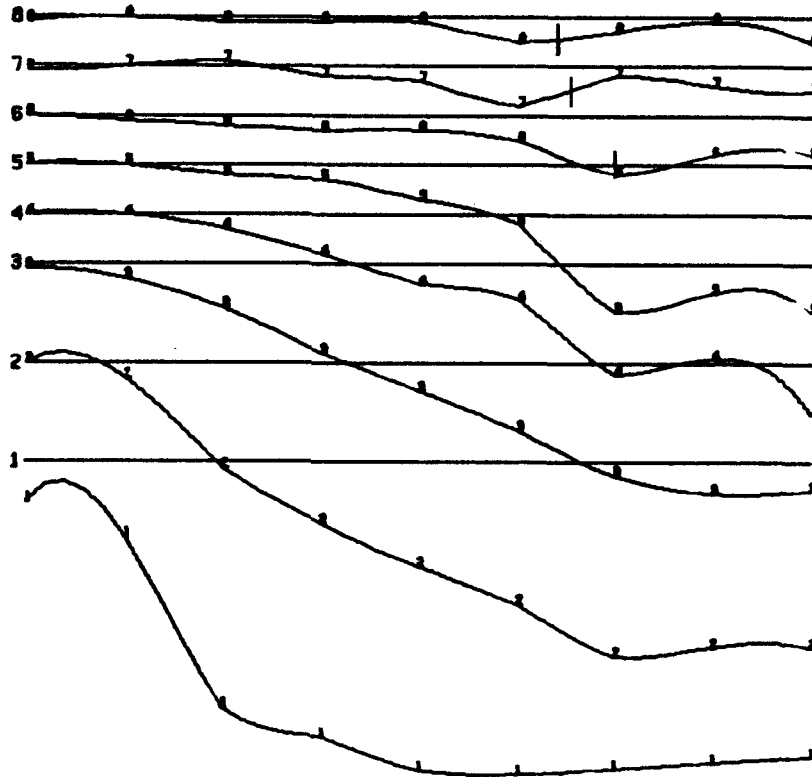
GRANGES EXPLORATION AB
 PEN CAIRN
 VECTOR PULSE ELECTROMAGNETOMETER
 HORIZONTAL COMPONENT
 LINE 8V D

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

N.T.C. 83-F/2V
 DATE 10 DECEMBER 1970
 FIG. NO: 13

LOOPD

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.N.

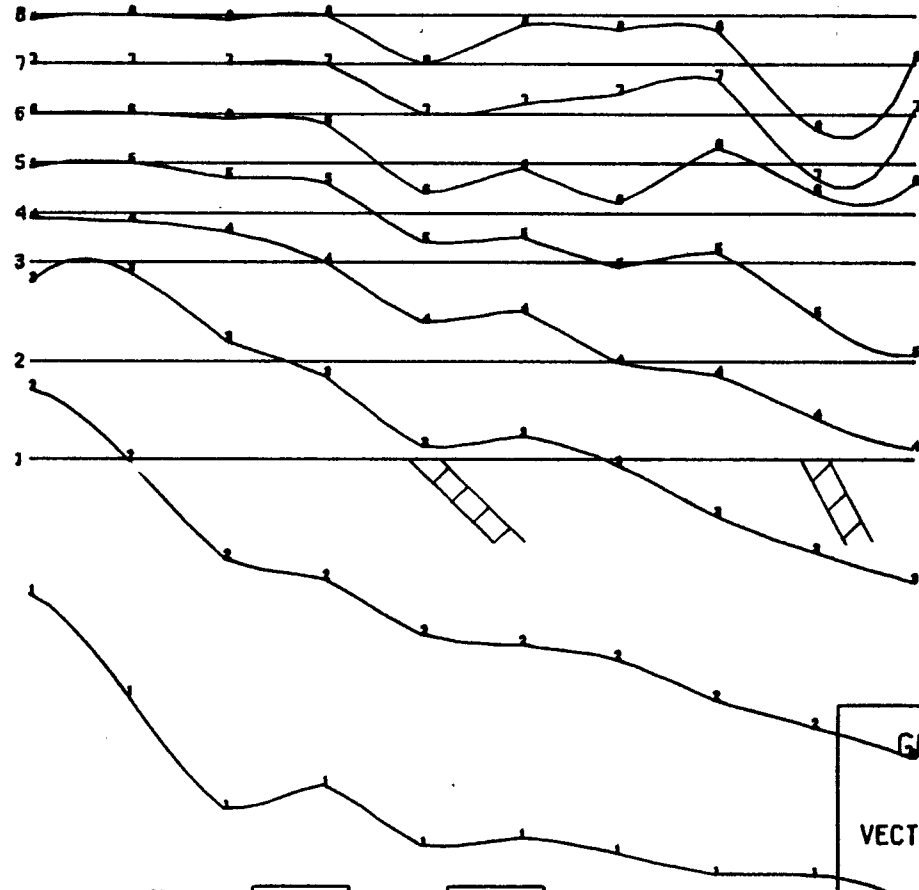
GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 8V D

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 93-F/2V
DATE 18 DECEMBER 1970
FIG. NO. 14

LOOPA

300N 250N 200N 150N 100N 50 N 0 S 50 S 100S 150S



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300
P.P.K. SCALE

0 50 100 150 200
METRES

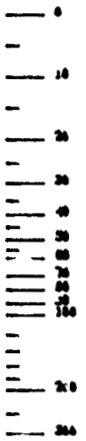
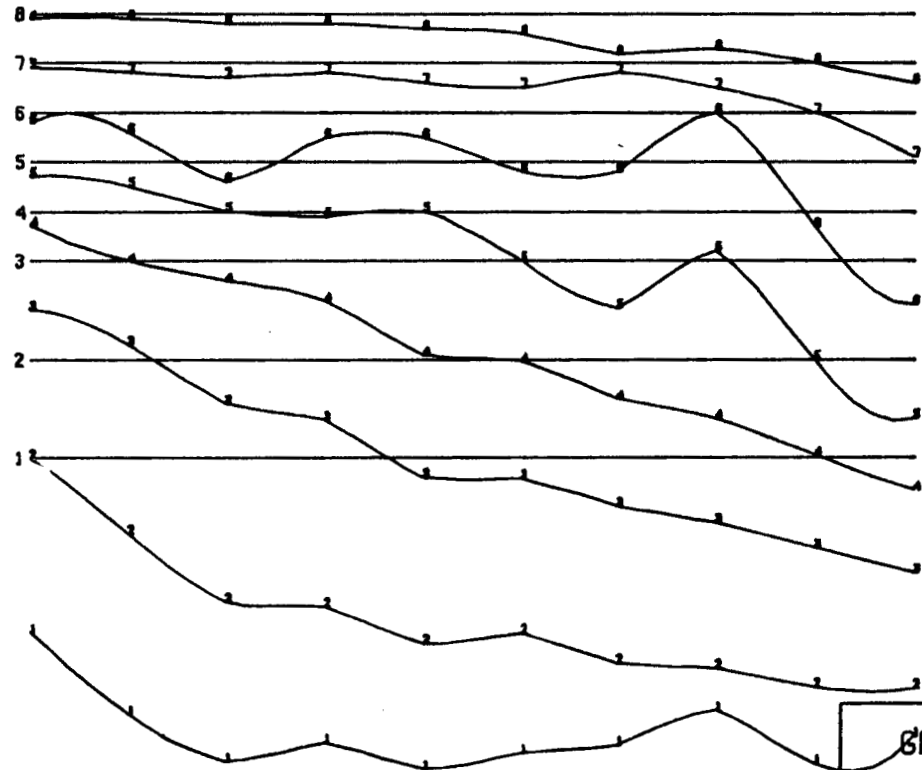
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

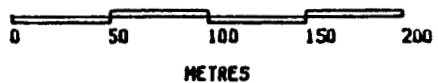
GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 9W A
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
M.T.S. 93-F/2N
DATE 10 DECEMBER 1970
FIG.NO: 15

LOOPA

300M 250M 200M 150M 100M 50 M 0 S 50 S 100S 150S



0
20
40
60
80
100
120
140
160
180
200



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

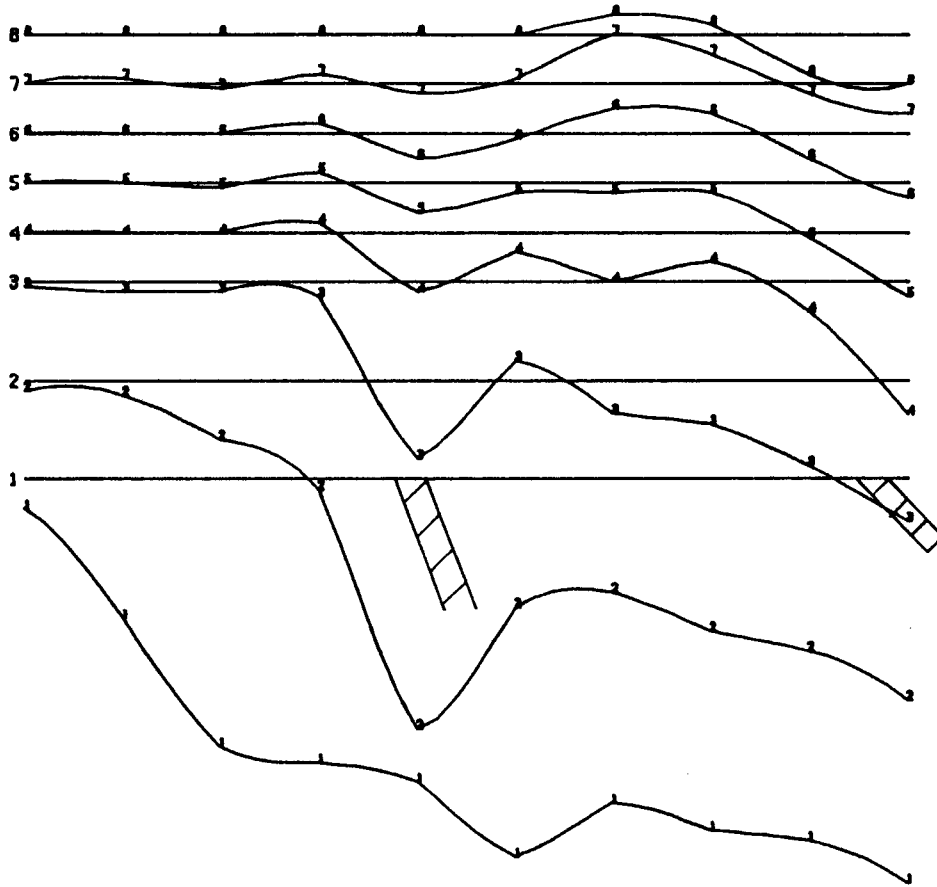
BRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 9W A

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
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N.T.S. 93-F/2V
 DATE 10 DECEMBER 1970
 FIG. NO. 16

LOOPB

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S



• OR -
P.P.K.
SCALE



METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB

PEM CLAIM

VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 9W B

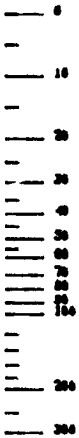
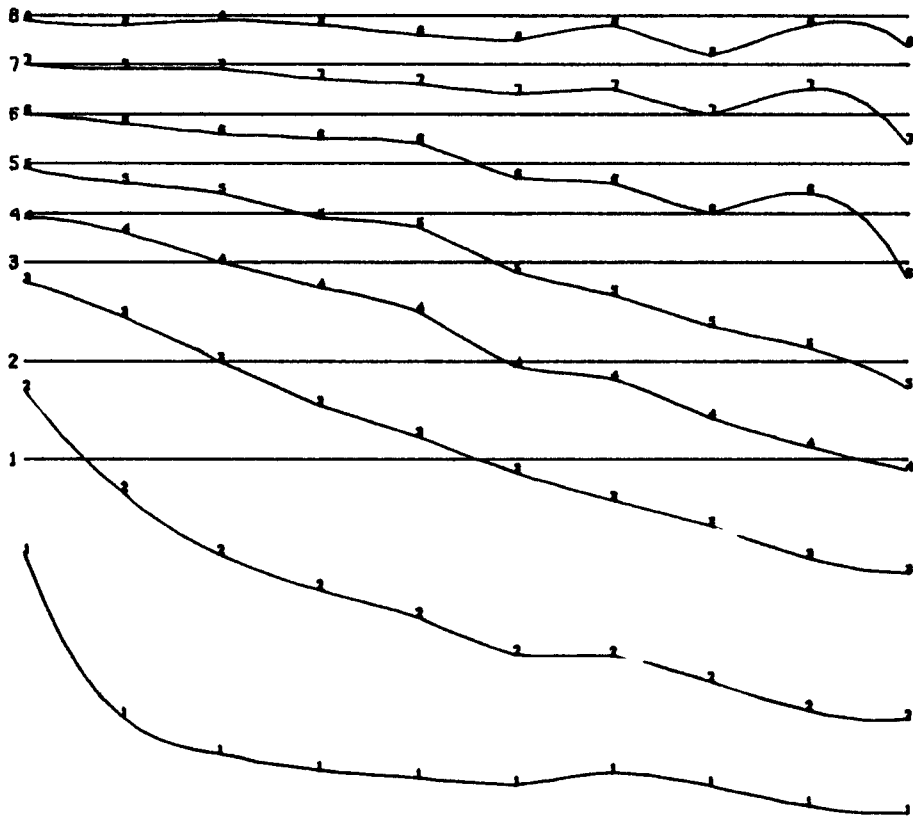
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 93-F/2V
DATE 10 DECEMBER 1970

FIG. NO: 17

LOOP B

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S



P.P.M.
SCALE

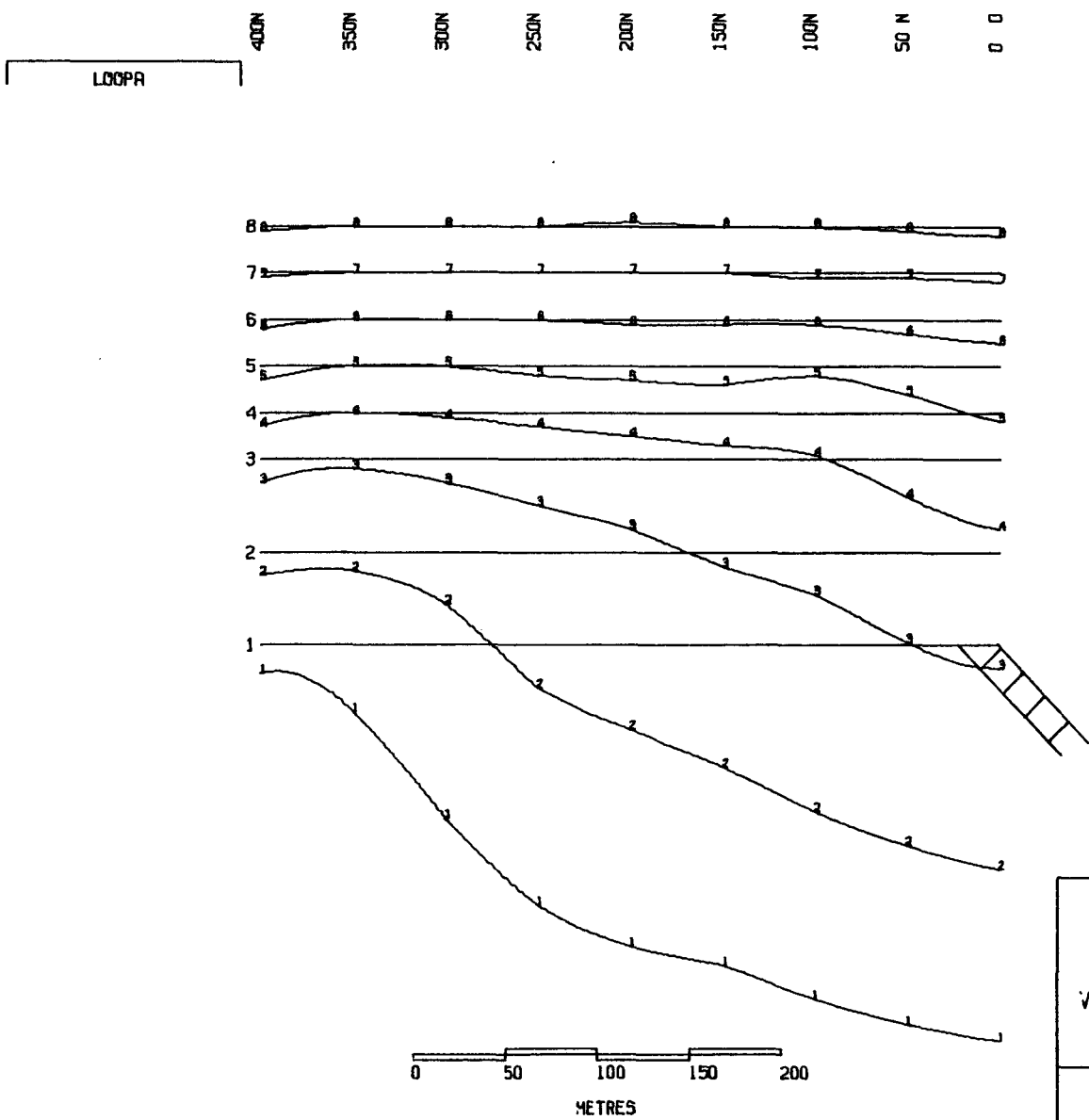


METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRANE P.E.N.

GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 9W B
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
M.T.S. 93-F/2W
DATE 10 DECEMBER 1970
FIG. NO: 18



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

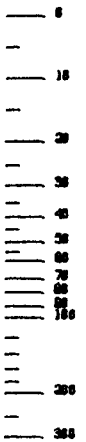
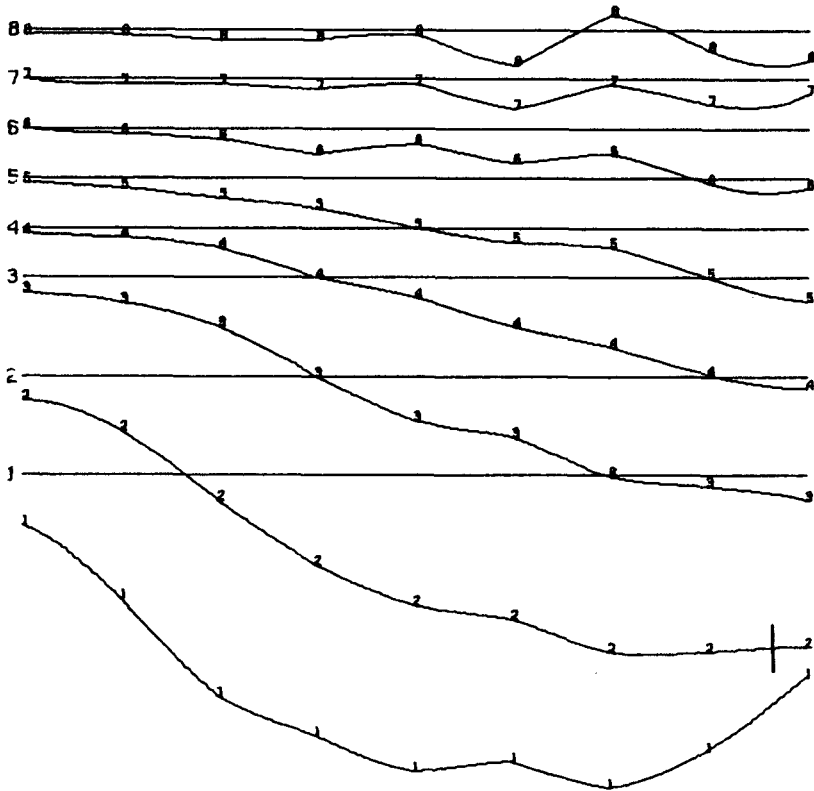
GRANGES EXPLORATION AB
PEM CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 11W A

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

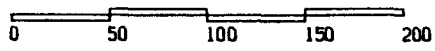
N.T.S. 93-F/2V
DATE 18 DECEMBER 1978
FIG.NO: 19

400N 350N 300N 250N 200N 150N 100N 50 N 0 0

LODPA



+ OR -
P.P.M.
SCALE



METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

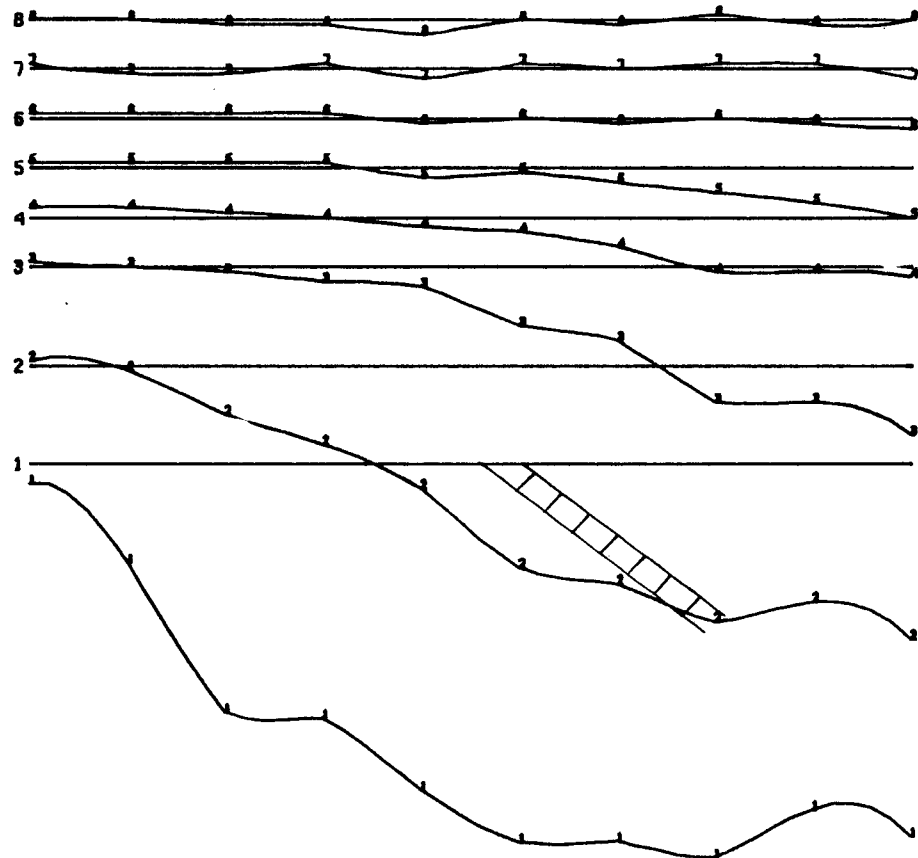
GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 11W A

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
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N.T.S. 93-F/2V
 DATE 10 DECEMBER 1979
 FIG.NO: 20

LOOP B

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S



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280
290
300
P.P.M.
SCALE

0 50 100 150 200

METRES

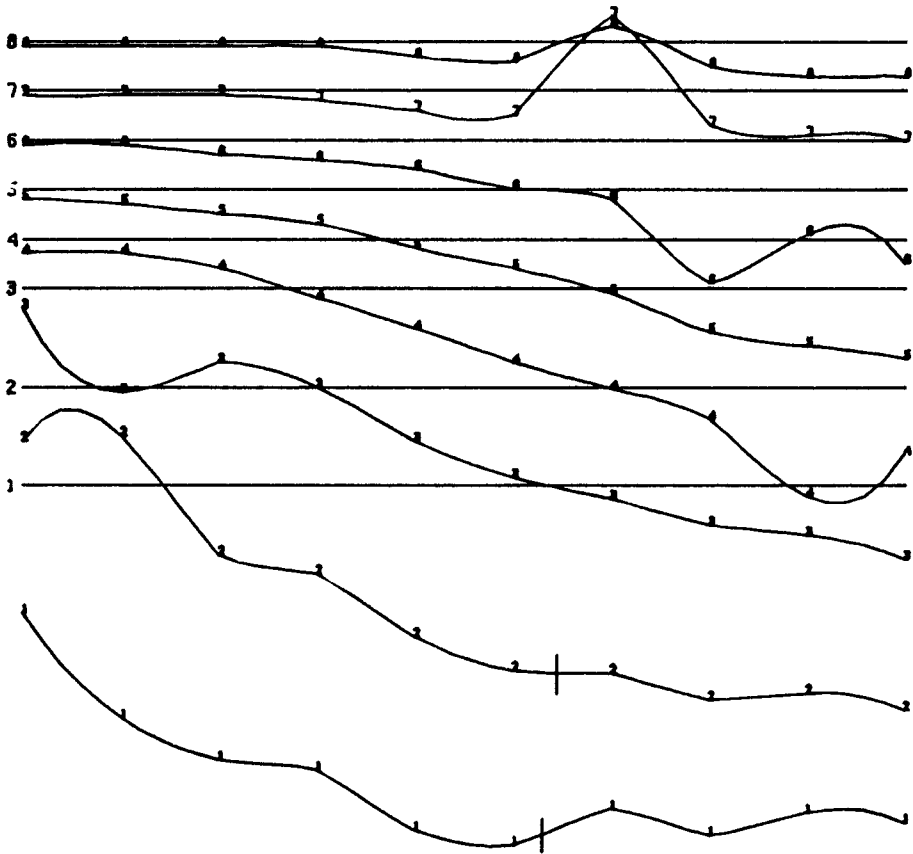
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
PEM CLM/JH
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 11V B
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
N.T.S. 93-F/24
DATE 10 DECEMBER 1979
FIG. NO: 21

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S

LOOPB



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P.P.M.
SCALE

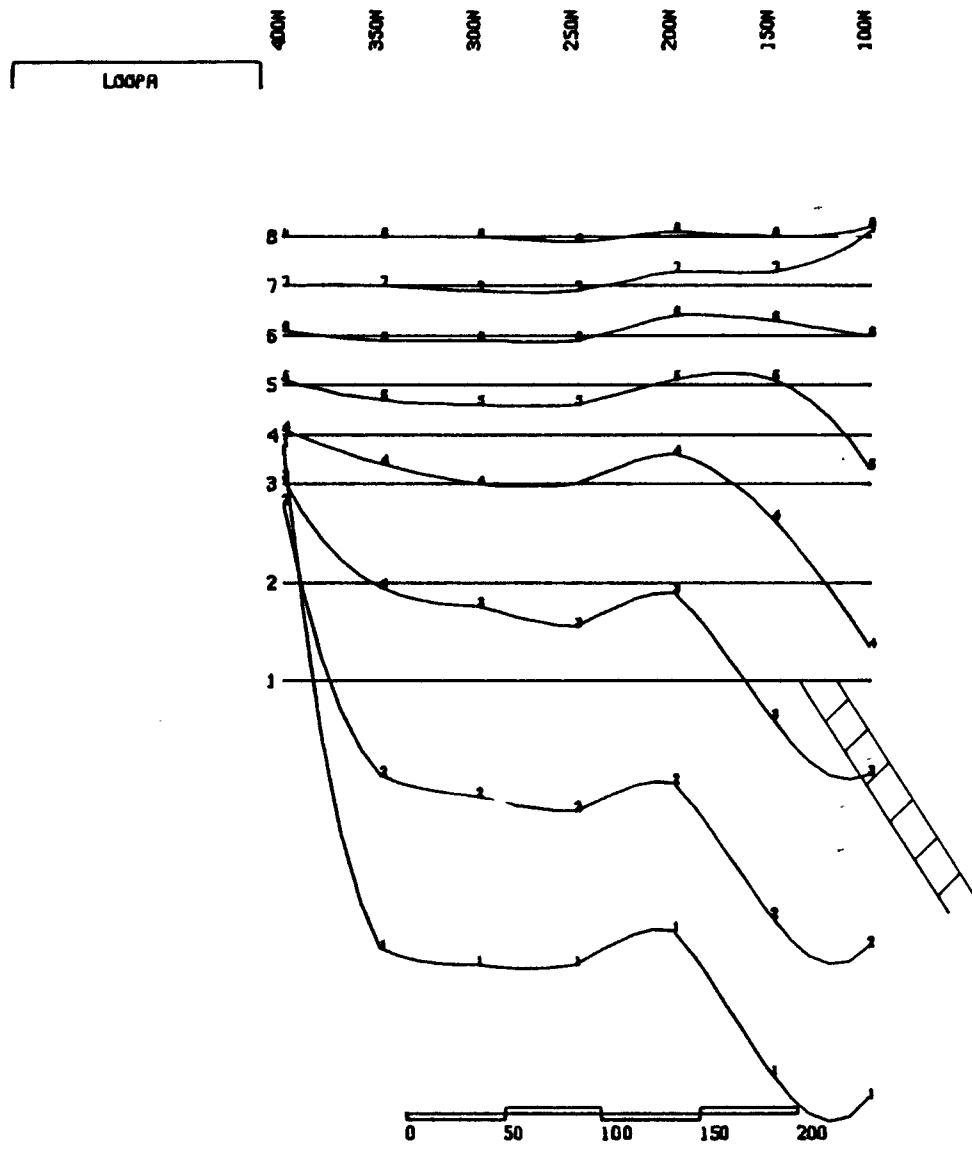
0 50 100 150 200

METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 11V B
 GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.
 N.T.S. 93-F/2V
 DATE 10 DECEMBER 1970
 FIG. NO: 22



• OR -
P.P.M.
SCALE

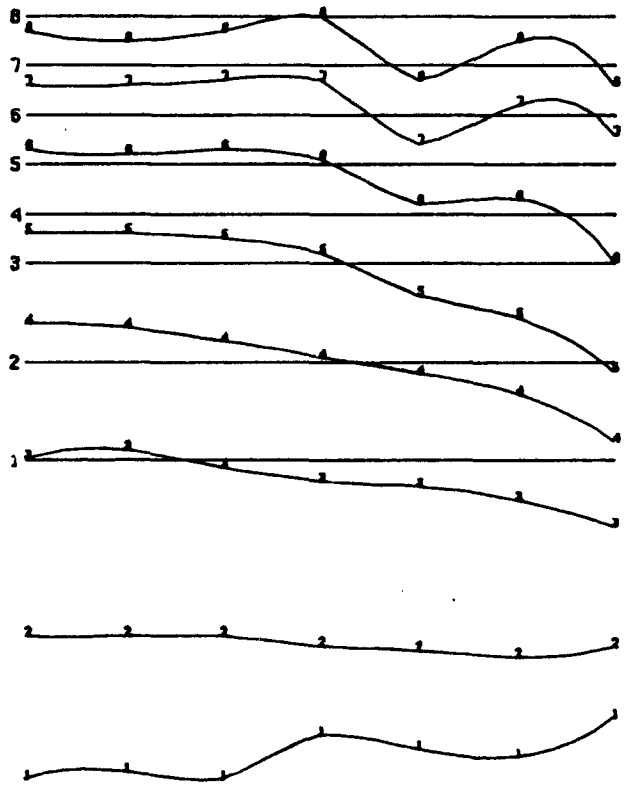
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

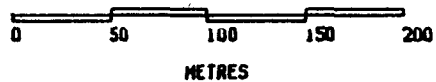
GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 HORIZONTAL COMPONENT
 LINE 13W A
 GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.
 N.T.S. 93-F/2W
 DATE 10 DECEMBER 1970
 FIG. NO. 23

LCOPH

400N
350N
300N
250N
200N
150N
100N



• 0.5 -
P.P.M.
SCALE



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

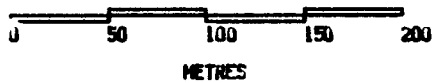
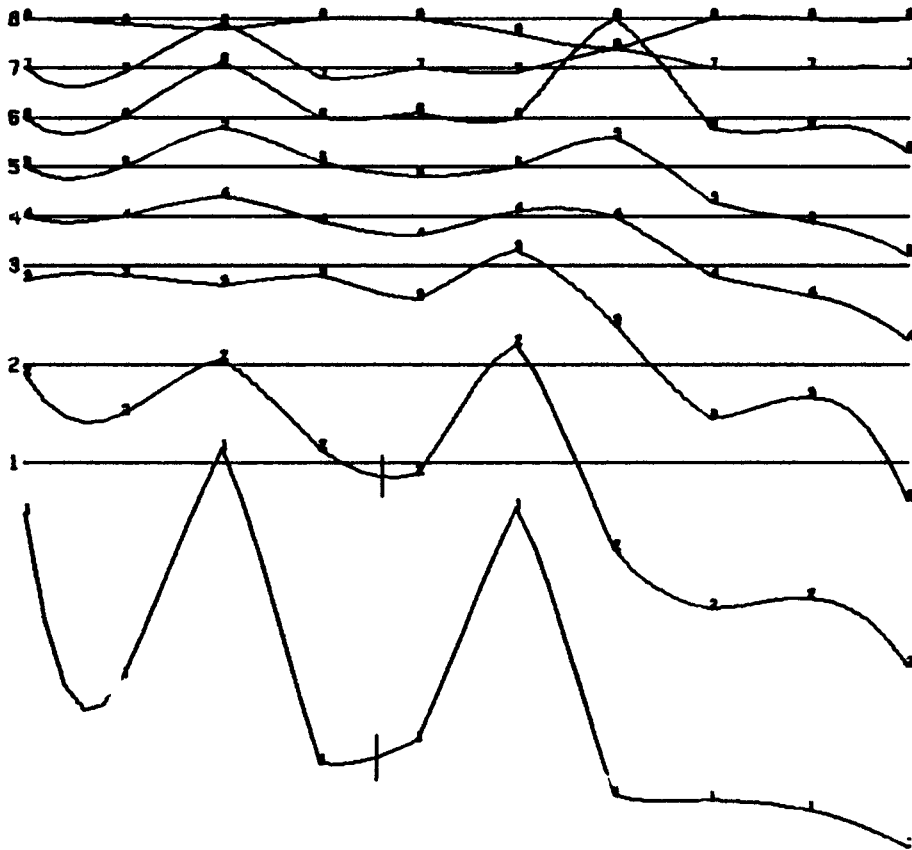
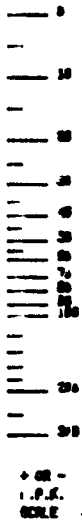
GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 13W A

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
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N.T.S. 93-F/2W
 DATE 10 DECEMBER 1970
 FIG.NO: 24

LOOP B

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S



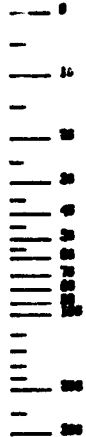
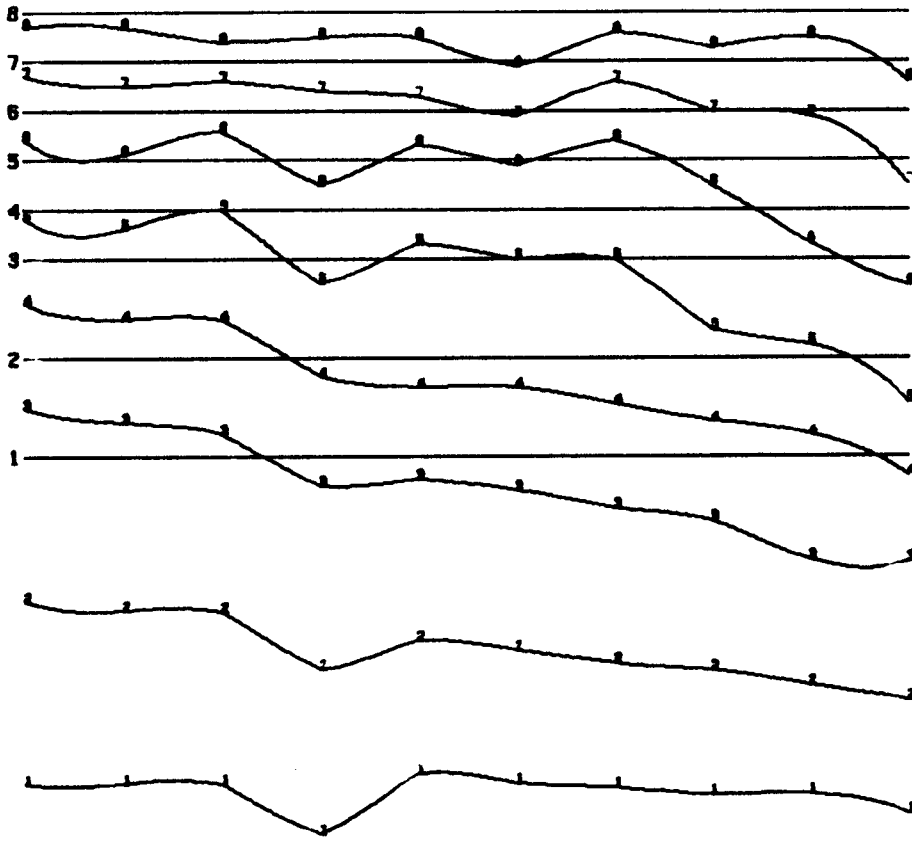
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
PER CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 13W B
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
N.T.S. 93-F/2W
DATE 10 DEC 1970
FIG. NO: 25

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S

LOOPB



• 10 -
P.P.S.
SCALE



METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.N.

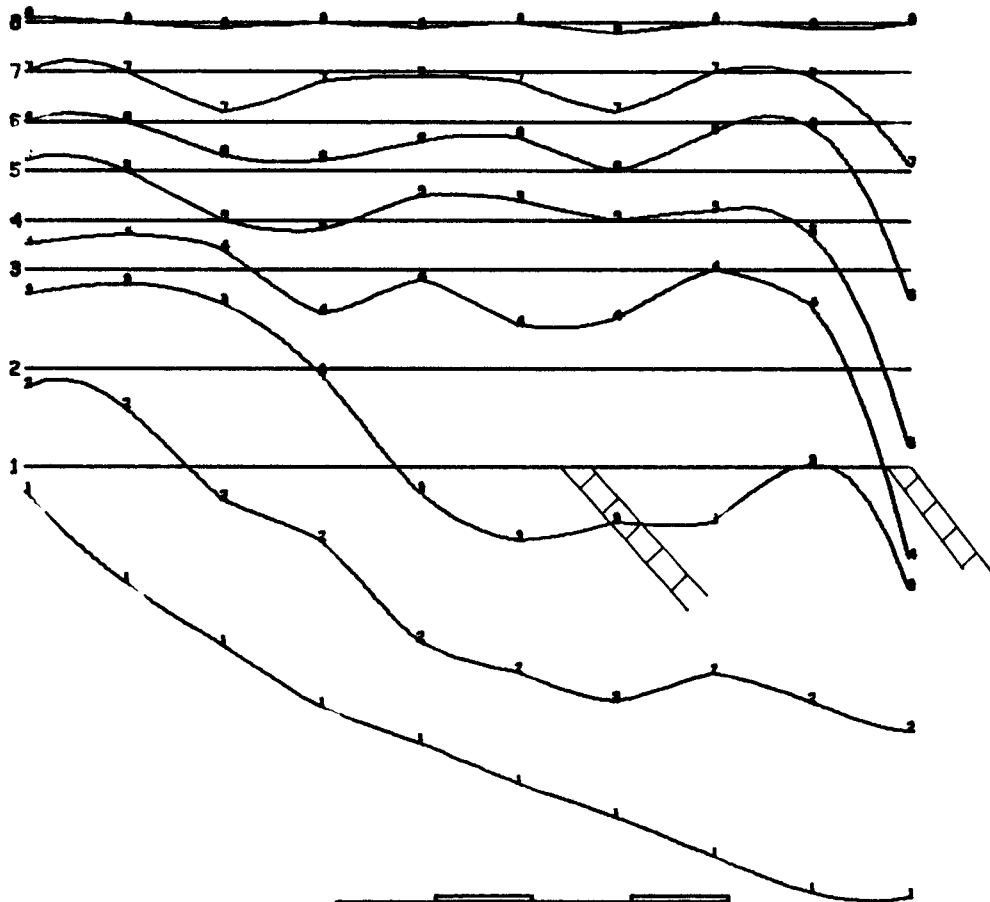
GRANGES EXPLORATION AB
 PER CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 13V B

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

N.T.S. 93-F/2V
 DATE 10 DECEMBER 1970
 FIG. NO: 26

LOOPC

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S



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0 50 100 150 200 METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.II.

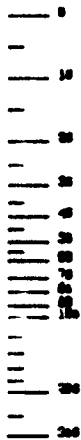
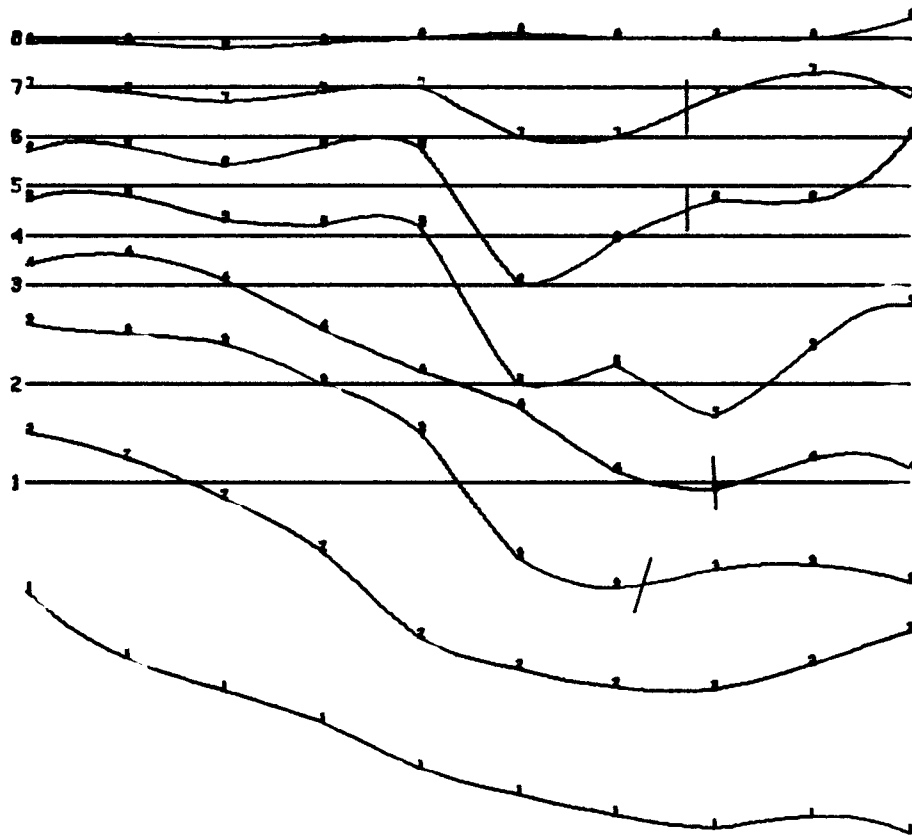
GRANGES EXPLORATION AB
 PER CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 HORIZONTAL COMPONENT
 LINE 15V C

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

N.T.S. 83-F/2V
 DATE 14 DECEMBER 1970
 FIG.NO: 27

LOOP C

50 C .00S 150S 200S 250S 300S 350S 400S 450S 500S



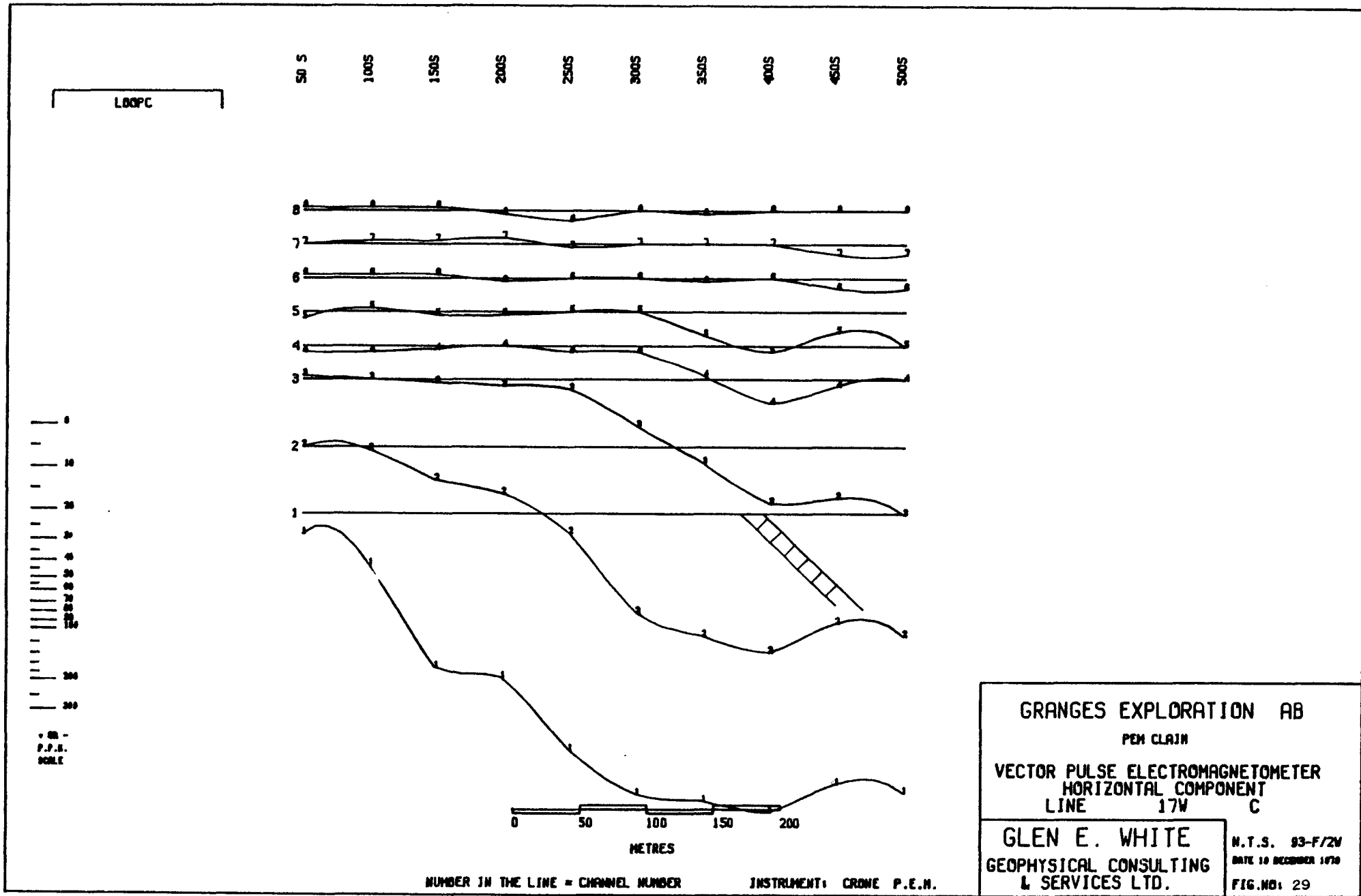
• -
P.P.S.
SCALE

0 50 100 150 200
METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
PEN CLATH
VECTOR PULSE ELECTROMETER
VERTICAL COMPONENT
LINE 15V C
GLEN E. WHITE
GEO PHYSICAL CONSULTING
& SERVICES LTD.
N.T.S. 93-F/2V
DATE 10 FEBRUARY 1970
FIG. NO: 28

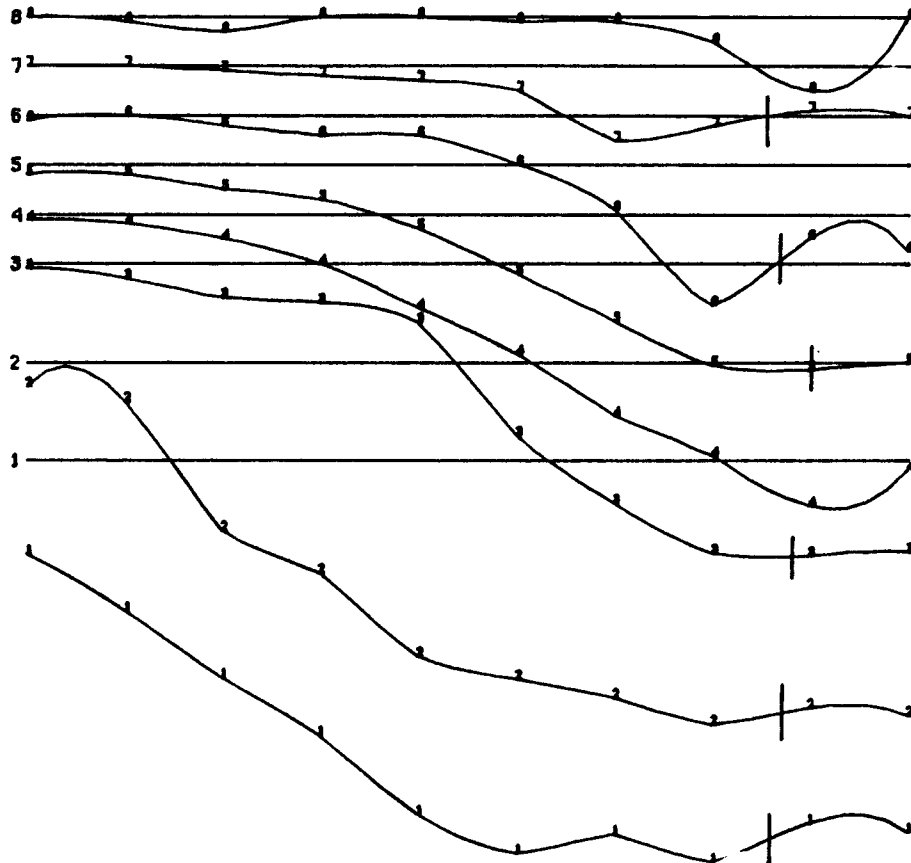


LOOPC

50 S 100S 150S 200S 250S 300S 350S 400S 450S 500S



0 10 20 30 40 50 60 70 80 90 100 200 300



0 50 100 150 200

METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB

PEM CLAIM

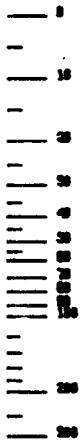
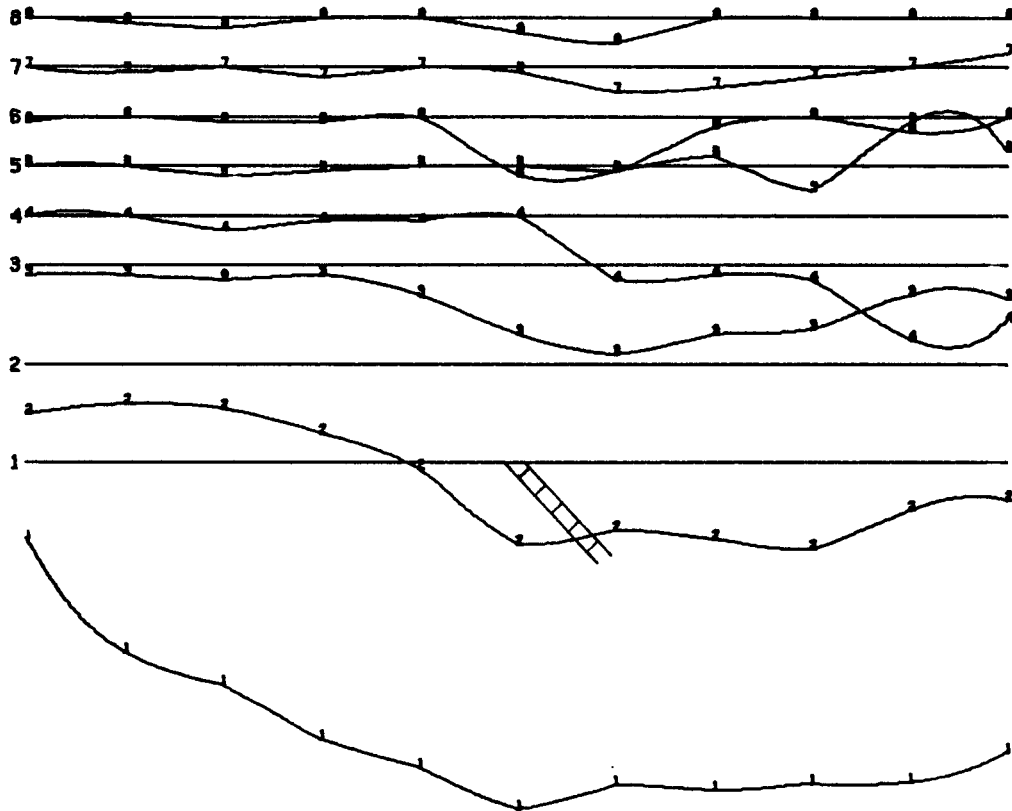
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 17W C

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 93-F/2V
DATE 10 DECEMBER 1970
FIG. NO: 30

100PC

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S 450 S 500 S



• OR -
P.P.K.
SCALE



METRES

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB

PEN CLAIM

VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 19W C

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

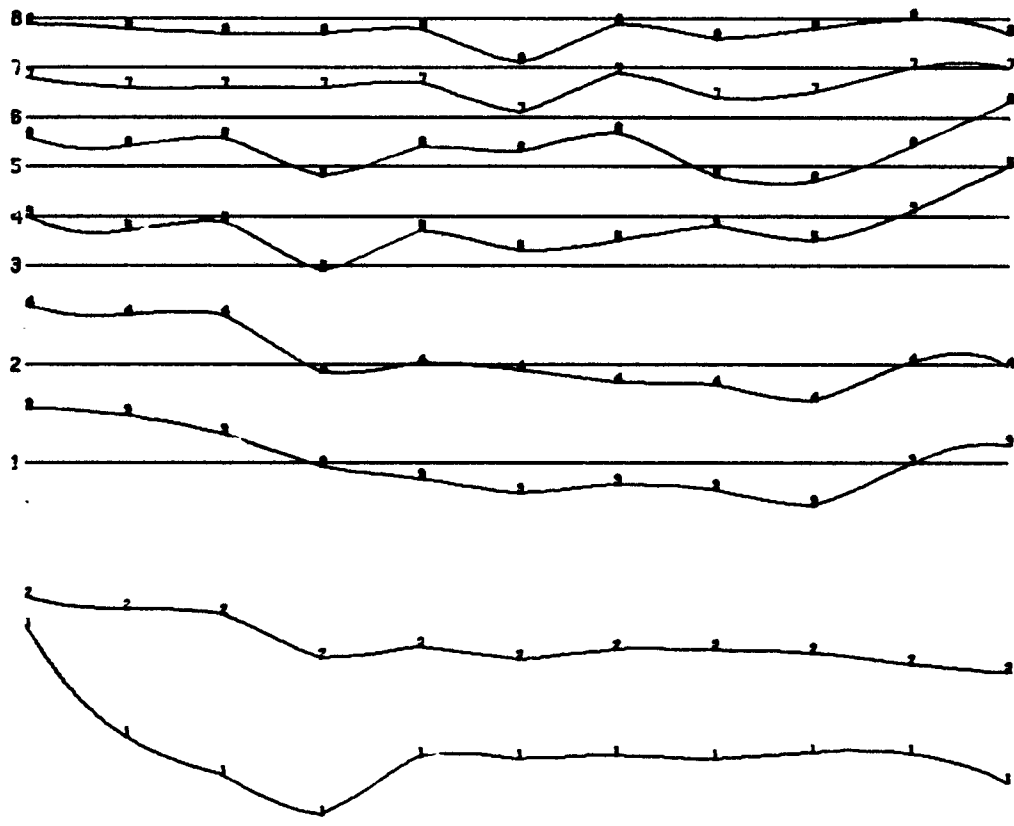
N.T.S. 93-F/2W

DATE 10 DECEMBER 1970

FIG. NO: 31

0 S 50 S 100 S 150 S 200 S 250 S 300 S 350 S 400 S 450 S 500 S

LOOPC



P.P.S.
SCALE

0 50 100 150 200

METRES

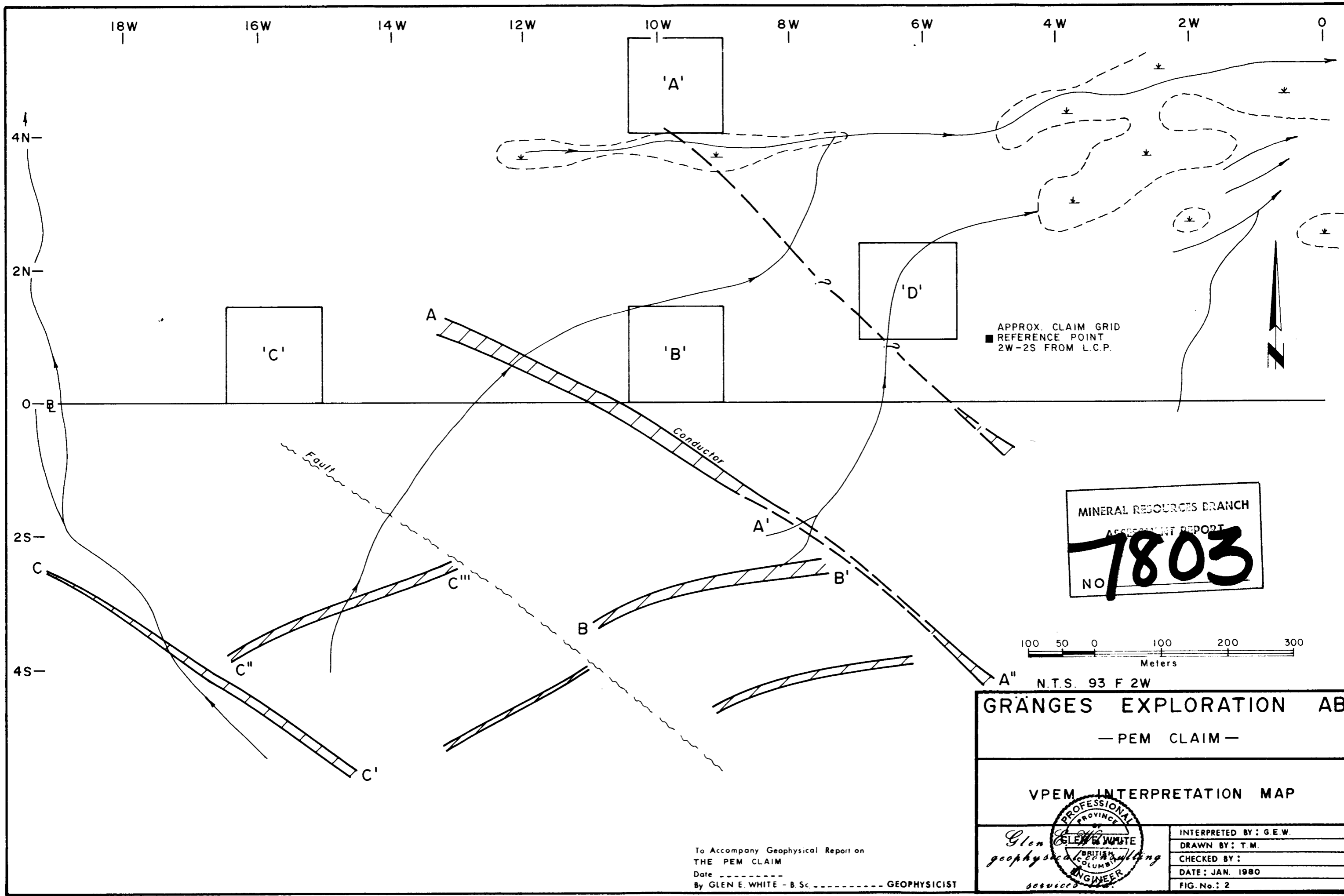
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

GRANGES EXPLORATION AB
 PEM CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 LINE 19W C

GLEN E. WHITE
 GEOPHYSICAL CONSULTING
 & SERVICES LTD.

N.T.S. 93-F/2V
 DATE 10 DECEMBER 1970
 FIG. NO: 32



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
7803
NO

100 50 0 100 200 300
Meters

N.T.S. 93 F 2W
GRANGES EXPLORATION AB
— PEM CLAIM —

VPEM INTERPRETATION MAP

Glen E. White
geophysical consulting services
BRITISH COLUMBIA
PROFESSIONAL ENGINEER

INTERPRETED BY: G.E.W.
DRAWN BY: T.M.
CHECKED BY:
DATE: JAN. 1980
FIG.No.: 2

To Accompany Geophysical Report on
THE PEM CLAIM
Date _____
By GLEN E. WHITE - B.Sc. _____ GEOPHYSICIST