

Aumo Exploration Inc.  
 c/o Mr. Stephen Wengle,  
 3rd Floor,  
 106 Adelaide Street, West,  
 Toronto, Ontario, M5H 1S2.

February 16, 1988

Dear Sirs:

Re: Proposed Diamond Drilling Programme  
on the Denton Township Property  
based on  
Results of Overburden Drilling

Summary of Overburden Drilling

A total of 25 holes, averaging about 40 feet each, were drilled. The locations of these holes are shown on the accompanying map and the individual logs are enclosed. The sampling and analytical procedure is described by Overburden Exploration Services on the attached Appendices. Similarly a complete record of analyses from the bedrock and till samples is also enclosed.

Anomalous Samples and Their Significance

Seven of 132 samples contained anomalous metal concentrations. The hole locations of these samples are designated on the accompanying plan.

Assays from these samples including one bedrock sample are as follows:

Hole	Sample No.	As	Cu	Ni	Pb	Zn (ppm)	Au(opt)	Sample Type
88-5	22024	833	2185	1239	78	3980	0.029	basal till
88-8	22044	444	113	528	50	337	0.011	basal till (weak)
88-11	22068	508	969	16	39	50	0.024	basal till (weak)
88-13	22073	492	1193	151	40	368	0.006	basal till
88-14	22080	249	267	115	78	355	0.018	basal till

							(weak)
88-14	22081	2453	271	20	73	220	0.024 bedrock
88-21	22115	217	197	49	61	70	0.076 basal till
							weak, except for Au
88-24	22125	12	19	1	40	17	0.077 till
							only Au anomalous

Arsenopyrite, chalcopyrite and sphalerite are often associated with gold mineralization in the area. Arsenopyrite is invariably associated with gold at the Holmer and Gowest deposits, the most significant occurrences in the immediate area. Chalcopyrite and sphalerite are found in narrow gold bearing quartz lode deposits in the quartz diorite intrusive to the northeast. Copper, zinc and in particular arsenic are therefore important pathfinder metals in the search for a gold source.

Gold values in the till, associated with visible particles, are the most important diagnostic feature of an anomalous sample. However, the till samples lack significant gold grain counts or high values.

Inasmuch as bedrock samples do not undergo a concentrating process, a much lower metal value is considered anomalous and may identify a drill target. Anomalous basal till samples indicate a nearby source up-ice as compared to till samples higher in the section which are derived from a more remote source.

A value of 0.024 oz. gold per ton was reported from the bedrock sample (No. 22081) of hole 88-14. Related to a high arsenic value, this gold value is definitely anomalous and identifies a drill target. The sample overlies the axis of a magnetic linear which coincides with the No. 3 gold bearing vein to the north, tested by previous drilling.

Adjacent and 100 metres to the east, a basal till sample is moderately anomalous in arsenic, copper and zinc. A VLF conductor adjoining a magnetic linear is located at the site of hole 88-13. Because of the similarity of these geophysical features to those associated with the No. 3 vein it is proposed that this anomaly be tested by diamond drilling.

Basal till members in each of holes 88-5, 88-11 and 88-21 are anomalous and appear too be related to a conductor and coincident

magnetic linear, trending northerly. Diamond drill hole 80-21, apparently lacking gold values, was drilled 100 metres north of overburden hole 88-5 which contained the strongest concentrations of arsenic, copper, nickel and zinc. The anomalous metal concentrations along the geophysical features suggests a change in the mineralogy of the conductive horizon and therefore merits additional testing by diamond drilling.

Samples in holes 88-8 and 88-24 are weakly anomalous in metal values. Because of their proximity to the property boundary and lack of coincidence to geophysical features, drilling is not proposed for this area.

#### Conclusions

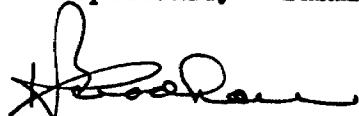
All of the anomalous samples except two are basal till members adjacent to bedrock which indicates a nearby source of the anomalous metals. Furthermore a majority of the anomalous samples are located on or adjacent to previously defined geophysical features.

The anomalous bedrock sample (hole 88-14) coincides with a magnetic linear which in turn coincides in part with the No. 3 gold bearing vein reported to be represented by a pyritized graphitic zone (Bradshaw, 1987).

It is apparent therefore, that the northerly trending geophysical features represented by iron formation units adjacent to graphitic shears may host significant gold mineralization. Evidence suggests however, that the gold mineralization may be erratic and discontinuous, requiring closely spaced diamond drilling.

The holes proposed on the accompanying map total approximately 3200 feet. It is therefore suggested that initially, a contract for 4000 feet be executed.

Respectfully submitted,



R.J. Bradshaw, P. Eng.

Geologist

## APPENDICES

### Drilling Equipment

Bradley Bros. Drilling of Timmins, Ontario provided a reverse circulation Acker drill system, mounted on a Nodwell FN160 and enclosed for all-weather operations. This is a fully hydraulic rig, and therefore provides excellent daily drilling production.

The dual-tube drill rods used by Bradley Bros Drilling measure 10 ft long by 2.75 inches (-outer rod, 1 inch inner rod), and are fed in 10 ft strokes by the Acker drill. A controlled mixture of compressed air and water is pumped down the outer annulus of the drill rod string to a tricone bit, measuring 2.94 inches in diameter, which is adapted to the rods by a 1 ft 'sub'. The bit cones are fitted with tungsten carbide buttons, the configuration of which reduces boulders and bedrock to chip size. The pressurized air-water mixture ensures that sediment/rock chip returns are brought to surface almost instantly through the 1 inch inner tube, thus enabling the geologist to accurately correlate overburden lithostratigraphy with downhole depth.

### Logging and Sampling Procedures

The returning sample slurry produced by reverse circulation is slowed down at surface by a cyclone which discharges directly into the sampling equipment. The sample passes through a 10 mesh (1.7mm) screen which collects sediment globules and coarse, multi-mineralllic rock fragments, thereby enabling the petrological details of overburden units to be noted. A small cut of the +10 mesh fraction is saved for later examination in the event of anomalous geochemical results. The 10 mesh sieve is supported over the primary sampling bucket by a larger 1 cm screen.

Sample collection by OES employs a three-bucket system. The sample slurry is directly dispensed in a plastic bag which lines a 20 litre primary bucket. Overflow decants into a second unlined bucket where the fines (silt and minor clay) are collected. To reduce the suspension of fines by turbulent churning, the decant spout is dispersed against the side of the second bucket, thereby maximizing the settling out of predominantly silt sized fines.

To maintain data control and accuracy, sampling intervals are confined to individual lithostratigraphic units, keeping overlap to a minimum. Sampling intervals generally average 2-2.5 m in thicker, sorted (glaciofluvial) units, but were reduced to a maximum of 1.5 m in till or diamicton units. In cases where drill penetration through glaciofluvial sediments produce very high volume returns, samples are reduced on-site to a representative size. Where similar high volume returns were experienced over short intervals in dense, compact till units, total samples are not reduced, but split into A and B subsamples.

Contamination controls are strictly maintained by OES personnel. All sampling equipment coming in contact with sample materials are constructed of stainless steel. To minimize sample handling and the possibility of cross-contamination, samples are captured directly into bags, thereby eliminating the step of arbitrarily 'grab' sampling from bucket to bag. Sample bags are sealed immediately and placed in metal cans on-site for shipment.

### Sample Processing

Bulk overburden samples obtained during this program were shipped to the heavy minerals laboratory of Overburden Exploration Services in Timmins, Ontario. No sample splits were taken. A flow sheet depicting OES heavy mineral concentration procedures is shown in Figure 2.

Bulk samples are first weighed (wet); the entire sample is then wet-screened through a 10 mesh (1.7mm) sieve to remove any +2mm rock fragments and sediment globules present. The remainder is passed through a classifier before release onto the specially modified Deister shaker table where the combined action of continuous water flow and controlled agitation on the riffled table surface causes the sample to partition into discrete mineral bands according to specific gravity. Heavy minerals largely consisting of hornblende, epidote, garnet, pyrite, and magnetite (ascending order) form distinct bands higher up on the table deck, all of which are captured as the table preconcentrate.

Visible gold grains coarser than 125 microns generally ride 5-10cm above the magnetite band on the shaker table, with finer gold (less than 125 microns) riding peripheral to, or within, heavy mineral bands of lower specific gravity. In monitoring the partitioning of heavy minerals under magnification, free gold grains are readily observed on the table and counted.

Table preconcentrates are subjected to a magnetic separation procedure which typically reduces the sample by another 25-30%. Only materials with the highest magnetic susceptibilities (i.e. drill steel and magnetite) are removed to yield a non-magnetic preconcentrate; pyrrhotite and most ilmenite remain.

This fraction is further refined by a heavy liquid separation (methylene iodide, S.G. 3.32) to produce the final non-magnetic heavy mineral concentrate (HMC) ready for assay.

#### Panning Procedures

HMC's noted on the shaker table to contain visible gold grains and/or significant sulphides are specially panned and examined under the binocular microscope. Individual gold grains are measured three dimensionally to calculate the expected Au ppb values based upon their apparent volume related to concentrate weight.

Visible gold grains are classified by OES according to the current industry standard as outlined in Ontario Geological Survey Open File Report 5569, but only to the extent of 'pigeon-holeing' typical grain shapes for comparative purposes.

Under this classification, "delicate", "irregular", "abraded" and "rounded" forms comprise a morphological continuum that attempts to directly relate grain shape with glacial transport distance (up-ice distance to auriferous bedrock sources). While seemingly convenient, this classification strictly assumes that originally, all free gold grains were mechanically liberated at the bedrock-ice interface, englacially transported down-ice, and

deposited by subglacial lodgement processes. The simpler the three dimensional grain shape, the greater the distance of mechanical abrasion and hence, distance to bedrock source.

In fact, this popular gold grain classification scheme fails to consider the effects of several important factors, including;

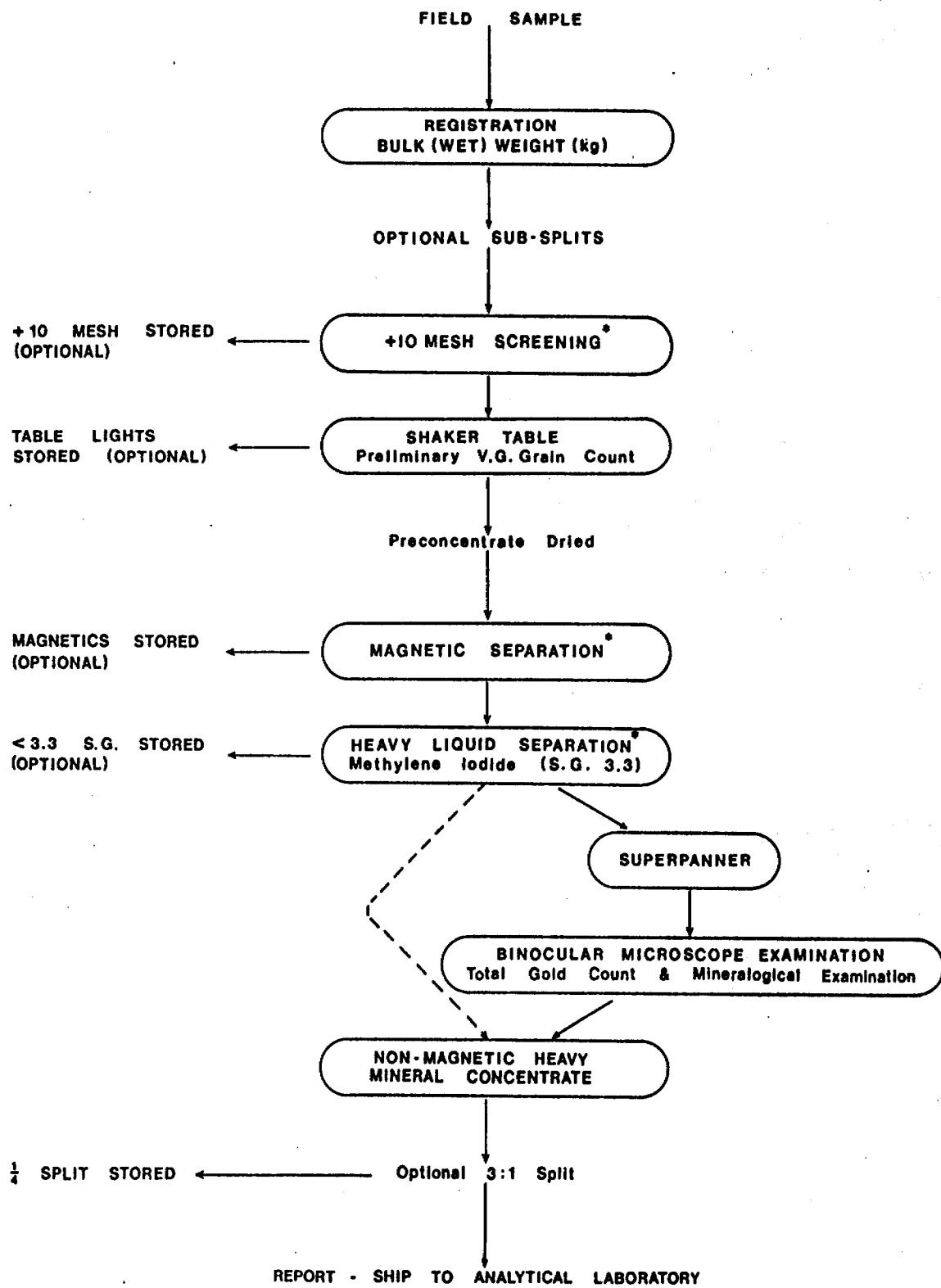
- (i) the complex diversity of sediment transport/depositional mechanisms and ice dynamics which exist in the glacial environment, and their multiple impacts upon gold grain shape;
- (ii) original gold form within rock;
- (iii) gold liberated directly from mineralized rock fragments in the overburden upon impact by the drill bit;
- (iv) possible effects of hydromorphic precipitation upon gold grain shape.

In considering the above points, the validity of the current gold grain classification scheme is suspect. DES therefore does not use nor recommend interpretation of distance to bedrock sources based upon grain shape alone.

#### Assay Methods

Non-magnetic heavy mineral concentrates and bedrock chips from the ADB88 overburden drilling program were shipped directly to Minen Laboratories, Timmins, Ontario. Both sample types were analyzed for Au (fire assay), and by inductively coupled plasma emission (ICP, 6-element package) for As, Cu, Zn, Pb, Ni and Mo.

# HEAVY MINERAL CONCENTRATION FLOW CHART



\* PROCESSING SPLITS WEIGHED AND  
RECORDED AT EACH STAGE

FIGURE



1	Kg. (wet)	1	Grams (dry)	1	1
---	-----------	---	-------------	---	---

Sample No.	Bulk	+10 Mesh	Table Feed	Table Conc.	Mags.	NonMags.	M.I.Lites	M.I.H.	Con.F.
22000	6.67	.05	6.62	68.81	7.27	61.54	39.98	21.56	307
22001	7.32	.03	7.29	41.73	9.59	32.14	13.06	19.08	382
22002	6.04	.02	6.02	33.92	10.80	23.12	7.37	15.75	362
22003	6.40	.03	6.37	37.04	8.95	28.09	11.25	16.84	378
22004	7.44	.04	7.40	31.61	8.01	23.60	10.58	13.02	568
22005	6.58	.15	6.43	32.91	8.76	24.15	9.20	14.95	430
22006	7.94	.20	7.74	40.70	10.92	29.78	15.90	13.88	556
22008	6.71	.25	6.46	72.95	5.39	67.56	47.29	20.27	319
22009	9.04	.03	9.01	72.64	7.21	65.43	48.54	16.89	533
22010	2.09	.01	2.08	15.12	1.33	13.79	9.37	4.42	471
22012	1.72	.01	1.71	19.68	1.75	17.93	12.52	5.41	316
22013	5.49	.19	5.30	43.94	4.00	39.94	25.81	14.13	375
22014	5.08	.23	4.85	44.38	4.27	40.11	27.80	12.31	394
22015	1.74	.01	1.73	12.73	1.47	11.26	7.72	3.54	489
22017	3.04	.00	3.04	49.92	2.83	47.09	33.79	13.30	229
22018	1.57	.00	1.57	11.48	1.16	10.32	6.19	4.13	380
22020	4.14	.00	4.14	41.75	3.12	38.63	25.41	13.22	313
22021	2.27	.02	2.25	26.78	1.06	25.72	21.05	4.67	482
22022	4.78	.05	4.73	44.40	3.19	41.21	28.58	12.63	375
22023	4.29	.01	4.28	46.06	4.23	41.83	27.56	14.27	300
22024	.86	.03	.83	14.79	.23	14.56	5.13	9.43	88
22026	8.57	.01	8.56	77.69	7.06	70.63	44.18	26.45	324
22027	6.19	.01	6.18	48.08	4.11	43.97	30.55	13.42	461
22028	7.90	.16	7.74	64.71	6.10	58.61	40.59	18.02	430
22029	5.36	.04	5.32	57.90	5.38	52.52	41.81	10.71	497
22030	5.29	.02	5.27	41.74	5.91	35.83	19.81	16.02	329
22032	4.68	.05	4.63	41.06	4.11	36.95	20.78	16.17	286
22033	5.90	.01	5.89	61.21	4.70	56.51	33.12	23.39	252
22034	5.50	.04	5.46	84.18	5.20	78.98	59.18	19.80	276
22035	4.78	.01	4.77	71.49	2.80	68.69	53.41	15.28	312
22036	3.88	.10	3.78	18.61	2.46	16.15	10.68	5.47	691
22037	7.59	.28	7.31	34.03	4.11	29.92	20.42	9.50	769
22038	6.56	.01	6.55	72.26	9.87	62.39	31.77	30.62	214
22039	9.44	.10	9.34	76.29	10.43	65.86	36.79	29.07	321
22040	13.66	.13	13.53	80.32	15.26	65.06	34.06	31.00	436
22042	3.85	.01	3.84	54.37	2.96	51.41	40.28	11.13	345
22043	8.82	.02	8.80	70.61	6.64	63.97	42.74	21.23	415
22044	3.63	.09	3.54	25.97	1.44	24.53	9.58	14.95	237
22046	2.49	.03	2.46	16.16	1.39	14.77	9.64	5.13	480
22047	5.00	.01	4.99	66.75	3.76	62.99	45.33	17.66	283
22048	2.77	.02	2.75	22.18	1.86	20.32	15.11	5.21	528
22049	4.79	.06	4.73	24.93	3.79	21.14	10.86	10.28	460
22050	3.71	.07	3.64	33.62	3.23	30.39	20.82	9.57	380
22052	4.03	.21	3.82	29.05	2.55	26.50	16.01	10.49	364
22053	6.02	.00	6.02	42.99	4.44	38.55	22.17	16.38	368
22054	5.21	.00	5.21	48.20	4.27	43.93	26.01	17.92	291



22129	2.98	.00	2.98	21.01	1.88	19.13	13.21	5.92	503
22130	5.73	.03	5.70	50.48	5.25	45.23	28.27	16.96	336
22131	3.85	.00	3.85	69.61	3.90	65.71	50.82	14.89	259
22132	5.15	.02	5.13	56.17	4.40	51.77	36.97	14.80	347
							Average -	16.81	381
							Standard - Deviation	35.99	144

1) M.I.H. = Final non-magnetic heavy mineral concentrate.

2) Con.F. = Concentration factor.

## OVERBURDEN EXPLORATION SERVICES LTD.

## GOLD GRAIN/MINERALOGICAL REPORT

Company: Aumo Exploration  
 Series: ADB-88

Date: Jan. 26, 1988  
 Pg. 1 of 1

Sample No.	Shape	Length	Width (microns)	Thickness	H.M.C.	Weight (grams)	Est. AU (ppb.)	Other Metallics
22005	Abraded flake.	300	250	20	14.95	592	592	15% py., unox., pred. subbed., 30% hem., 10% ilmen.
					TOTAL EST. AU -		592	
22043								5% py., unox., pred. subbed., tr. marcas. frambooids, 25% hem., 15% ilmen.
22068								95% py., unox., pred. anh., <u>massive sulphide shards</u>
22082								10% py., unox., pred. subbed., 15% hem., 10% ilmen.
22109								20% py., unox., pred. subbed., 10% hem., 2% ilmen.
22117								5% py., unox., pred. subbed., 20% hem., 10% ilmen.

## \*\*\*\* Certificate of ASSAY \*\*\*\*

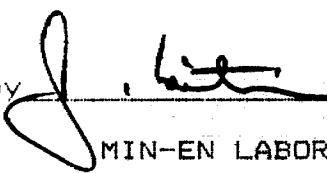
Company: OVERBURDEN EXPLORATION  
 Project: ADB-88  
 Attention:

File: 82-66/P1  
 Date: JAN 20/88  
 Type: ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON	<u>ADB88 Hole</u>
22 007	.10	0.003	-01
22 011	.01	0.001	-02
22 016	.01	0.001	-03
22 019	.03	0.001	-04
22 025	.01	0.001	-05
22 031	.01	0.001	-06
22 041	.01	0.001	-07
22 051	.01	0.001	-09
22 062	.02	0.001	-10
22 069	.01	0.001	-11
22 072	.01	0.001	-12
22 074B	.02	0.001	-13 <del>sample</del>
22 081	.81	0.024	-14
22 086	.15	0.004	-15
22 093	.01	0.001	-16
22 101	.01	0.001	-17
22 104	.01	0.001	-18
22 105	.02	0.001	-19
22 110	.08	0.002	-20
22 116	.01	0.001	-21
22 119	.01	0.001	-22
22 124	.01	0.001	-23
22 128	.01	0.001	-24
22 133	.01	0.001	-25

Certified by

  
 MIN-EN LABORATORIES LTD.

\*\*\*\* Certificate of ASSAY \*\*\*\*

Company: OVERBURDEN EXPLORATION  
Object: ADB 88  
Attention:

File: 82-132/P1  
Date: JAN 28/88  
Type: ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON	ADB-88 HOLE
22045	.16	0.005	-08
22075	.07	0.002	-13



Certified by

  
MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.***Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: VIA USA 7601067 UC

**Certificate of ASSAY**

Company: OVERBURDEN EXPLORATION

File: 82-133/P1

Project: ADB-88

Date: JAN 29/88

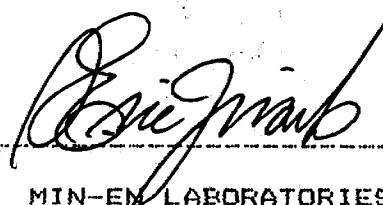
Attention:

Type: HMC

*We hereby certify the following results for samples submitted.*

Sample Number	AU G/TONNE	AU OZ/TON
22 000	1.00	0.029
22 001	.10	0.003
22 002	.08	0.002
22 003	.06	0.002
22 004	.23	0.007
22 005	2.05	0.060
22 006	.20	0.006
22 008	.05	0.001
22 009	.01	0.001
22 010	.07	0.002
22 012	.06	0.002
22 013	.05	0.001
22 014	.02	0.001
22 015	.03	0.001
22 017	.01	0.001
22 018	.04	0.001
22 020	.23	0.007
22 021	.03	0.001
22 022	.05	0.001
22 023	.22	0.006
22 024	.98	0.029
22 026	.01	0.001
22 027	.18	0.005
22 028	.15	0.004
22 029	.03	0.001
22 030	.32	0.009
22 032	.01	0.001
22 033	.01	0.001
22 034	.01	0.001
22 035	.08	0.002

Certified by



MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.***Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7N 1T2

PHONE: (604) 980-5814 OR (604) 998-4524

TELEX: VIA USA 7601067 UC

**Certificate of ASSAY**

Company: OVERBURDEN EXPLORATION

File: 82-133/P2

Project: ADB-88

Date: JAN 29/88

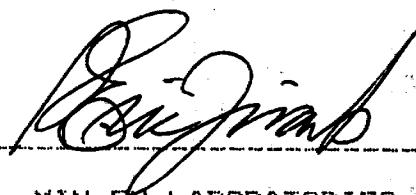
Attention:

Type: HMC

*We hereby certify the following results for samples submitted.*

Sample Number	AU G/TONNE	AU OZ/TON
22 036	.57	0.017
22 037	.11	0.003
22 038	.83	0.024
22 039	1.16	0.034
22 040	.03	0.001
22 042	.02	0.001
22 043	.22	0.006
22 044	.37	0.011
22 046	.43	0.013
22 047	.03	0.001
22 048	.54	0.016
22 049	.05	0.001
22 050	.08	0.002
22 052	.04	0.001
22 053	.08	0.002
22 054	.16	0.005
22 055	.02	0.001
22 056	.01	0.001
22 057	.02	0.001
22 058	1.44	0.042
22 059	.12	0.004
22 060	6.43	0.188
22 061	.07	0.002
22 063	.03	0.001
22 064	.11	0.003
22 065	.09	0.003
22 066	.77	0.022
22 067	.01	0.001
22 068	.81	0.024
22 070	.06	0.002

Certified by



MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.***Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: VIA USA 7601067 UC

**Certificate of ASSAY**

Company: OVERBURDEN EXPLORATION

File: 82-133/P3

Project: ADE-88

Date: JAN 29/88

Attention:

Type: HMC

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON
22 071	.06	0.002
22 073	.20	0.006
22 076	.10	0.003
22 077	.26	0.008
22 078	.10	0.003
22 079	.04	0.001
22 080	.60	0.018
22 082	1.19	0.035
22 083	.03	0.001
22 084	.45	0.013
22 085	.16	0.005
22 087	.25	0.007
22 088	.04	0.001
22 089	.10	0.003
22 090	.06	0.002
22 091	.04	0.001
22 092	.03	0.001
22 094	.03	0.001
22 095	.05	0.001
22 096	.22	0.006
22 097	.28	0.008
22 098	.09	0.003
22 099	.38	0.011
22 100	.80	0.023
22 102	.17	0.005
22 103	.02	0.001
22 106	.03	0.001
22 107	.16	0.005
22 108	.25	0.007
22 109	.08	0.002

Certified by



MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.***Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: VIA USA 7601067 UC

Certificate of ASSAY

Company: OVERBURDEN EXPLORATION

File: B2-133/P4

Project: ADB-88

Date: JAN 29/88

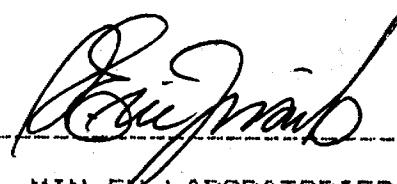
Attention:

Type: HMC

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON
22 111	.24	0.007
22 112	.63	0.018
22 113	.03	0.001
22 114	.02	0.001
22 115	2.62	0.076
22 117	.13	0.004
22 118	.12	0.004
22 120	.03	0.001
22 121	.02	0.001
22 122	.01	0.001
22 123	.08	0.002
22 125	2.63	0.077
22 126	.02	0.001
22 127	.03	0.001
22 129	1.48	0.043
22 130	.08	0.002
22 131	.08	0.002
22 132	.03	0.001

Certified by



MIN-EN LABORATORIES LTD.

COMPANY: OVERBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

ACT:F31 PAGE 1 OF 1  
FILE NO: 82-133

ATTENTION:

\$ TYPE HMC \$ DATE: JAN 29, 1988

(VALUES IN PPM)	AS	CU	MO	NI	PB	ZN	WT-GM	AGR-88 HMC
22 000	5	96	2	11	61	59	21.59	
22 001	9	73	1	27	43	26	19.01	
22 002	22	112	1	31	47	40	15.77	-01
22 003	17	348	1	13	43	34	16.85	
22 004	21	111	1	7	45	35	13.02	
22 005	7	168	1	13	42	69	14.95	
22 006	41	137	1	17	59	37	13.88	
22 008	10	124	1	35	45	49	20.33	-02
22 009	21	150	1	23	170	27	16.91	
22 010	34	221	1	18	67	81	4.40	
22 012	19	29	1	2	59	27	5.43	
22 013	13	95	1	33	37	54	14.19	-03
22 014	17	73	1	25	58	41	12.41	
22 015	21	164	1	26	51	43	3.54	
22 017	7	21	1	1	25	14	13.30	-04
22 018	19	560	1	158	87	55	4.13	
22 020	8	26	1	4	43	26	13.22	
22 021	6	42	1	7	53	25	4.68	-05
22 022	22	74	1	19	63	49	12.68	
22 023	21	125	1	21	51	51	14.32	
22 024	833	2185	3	1239	78	3980	9.44	
22 026	19	124	1	20	72	112	26.48	
22 027	22	104	1	51	41	81	13.49	-06
22 028	20	98	1	28	42	98	18.00	
22 029	29	202	1	23	63	157	10.73	
22 030	28	125	1	23	43	67	16.01	
22 032	7	16	1	1	39	17	16.19	
22 033	9	35	1	12	29	18	23.41	-07
22 034	2	51	1	36	13	78	19.84	
22 035	16	80	1	38	27	54	15.30	

RECEIVED  
29.01.88

COMPANY: OVERBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

ACT:FJ11 PAGE 1 OF 1  
FILE NO: 82-133/P2  
\* TYPE HMC \* DATE: JAN 29, 1988

ATTENTION:

(VALUES IN PPM.)	AS	CU	MO	NI	PB	ZN	WT-GM	ADB-88
22 036	13	117	1	48	70	208	5.46	
22 037	19	73	1	37	40	81	9.53	
22 038	15	35	1	1	33	43	30.70	-07
22 039	13	33	1	14	37	32	29.11	
22 040	24	53	1	11	32	57	31.00	
22 042	10	52	1	10	37	18	11.15	
22 043	21	72	1	31	59	64	21.28	-08
22 044	444	113	3	528	50	337	14.98	
22 046	109	27	1	104	43	32	5.15	
22 047	42	69	1	33	36	113	17.71	
22 048	112	125	1	35	57	76	5.21	-09
22 049	26	126	1	43	52	88	10.28	
22 050	46	149	1	93	43	100	9.55	
22 052	10	19	1	2	45	21	10.48	
22 053	11	124	1	41	37	28	16.42	
22 054	17	107	1	32	58	113	17.96	
22 055	17	67	1	21	50	84	14.70	-10
22 056	15	103	1	31	54	92	14.19	
22 057	16	95	1	13	19	27	27.34	
22 058	25	288	1	64	42	78	14.13	
22 059	25	82	1	21	37	305	24.28	
22 060	18	64	1	20	37	225	27.93	
22 061	30	116	1	97	25	21	30.78	
22 063	24	90	1	20	62	88	12.12	
22 064	12	68	1	28	25	62	24.65	-11
22 065	26	122	2	44	53	210	18.49	
22 066	10	97	1	28	45	123	16.00	
22 067	17	93	1	14	34	69	18.64	
22 068	508	969	1	16	39	50	380.57	
22 070	16	99	1	23	31	91	7.14	-12



COMPANY: OVERBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

ACT:F31) PAGE 1 OF 1

FILE NO: 82-133/P3

ATTENTION:

\* TYPE HMC \* DATE: JAN 29, 1988

(VALUES IN PPM)	AS	CU	MO	NI	PB	ZN	WT-GM	ADB-88 Hole
22 071	13	367	1	43	58	136	10.44	-12
22 073	492	1193	2	151	40	368	39.64	-13
22 076	27	77	1	1	55	26	7.95	
22 077	22	125	1	20	50	48	12.25	
22 078	30	137	1	39	56	72	12.55	-14
22 079	23	122	1	39	25	56	21.23	
22 080	249	267	1	115	78	355	3.99	
22 082	112	98	1	30	55	92	12.51	
22 083	106	73	1	13	56	73	19.44	-15
22 084	26	473	1	511	44	95	14.76	
22 085	130	170	1	36	45	39	2.11	
22 087	15	64	1	25	49	59	12.99	
22 088	35	73	6	20	46	78	25.43	
22 089	33	51	1	32	33	78	24.64	-16
22 090	44	125	1	16	56	81	17.55	
22 091	54	201	1	34	57	131	27.27	
22 092	38	103	1	40	22	46	30.53	
22 094	38	200	1	120	52	71	10.60	
22 095	21	78	1	20	32	33	33.26	
22 096	16	33	1	12	31	59	25.69	
22 097	72	106	1	14	55	53	6.13	-17
22 098	81	97	1	43	64	94	5.47	
22 099	90	236	1	962	129	34	19.39	
22 100	68	500	1	74	46	76	4.57	
22 102	11	157	1	47	39	27	16.36	-18
22 103	13	101	1	37	73	26	13.01	
22 106	32	68	1	18	27	85	13.50	
22 107	31	80	1	21	31	111	25.21	
22 108	50	67	1	78	30	38	12.91	-20
22 109	87	51	1	3	30	34	15.63	

RECEIVED  
29.01.88

COMPANY: OVERBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

ACT:F31) PAGE 1 OF 1  
FILE NO: 82-133/P4

ATTENTION:

(VALUES IN PPM)	AS	CU	MO	NI	PB	ZN	WT-GM	ADB-88
22 111	20	71	1	32	93	119	4.69	
22 112	28	100	1	56	56	92	10.74	-21
22 113	10	52	1	10	51	56	19.19	
22 114	12	59	1	13	26	40	18.82	
22 115	217	197	1	49	61	70	3.73	
22 117	7	39	1	20	21	60	40.00	-22
22 118	17	85	1	19	44	166	7.66	
22 120	16	17	1	1	41	23	13.01	
22 121	10	86	1	23	40	72	13.86	-23
22 122	24	84	1	41	54	170	10.36	
22 123	34	100	2	78	50	269	11.00	
22 125	12	19	1	1	40	17	11.48	
22 126	12	70	1	33	39	71	14.34	-24
22 127	26	83	1	37	54	75	4.94	
22 129	12	11	1	1	65	19	5.91	
22 130	6	57	1	24	37	59	17.00	-25
22 131	18	136	1	29	28	101	14.92	
22 132	20	116	1	30	31	54	14.86	

RECEIVED  
29.01.88

COMPANY: OVERBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

ACT:F311 PAGE 1 OF 1

FILE NO: 82-66

ATTENTION:

\* TYPE CHIP GEOCHEM \* DATE: JAN 20, 1988

(VALUES IN PPM)	AS	CU	MO	NI	PB	ZN	<u>ADB88 HOLE</u>
22 007	22	31	1	18	51	106	-01
22 011	6	38	1	7	16	28	-02
22 016	8	17	1	15	18	50	-03
22 019	14	130	2	327	38	61	-04
22 025	17	28	1	48	35	263	-05
22 031	13	16	1	5	22	61	-06
22 041	15	14	1	27	40	73	-07
22 051	10	2	1	4	25	69	-09
22 062	3	74	1	38	22	62	-10
22 069	14	7	1	7	30	94	-11
22 072	15	54	1	28	27	178	-12
22 074B	250	410	1	6	26	529	-13 <i>bottom</i>
22 081	2453	271	1	20	73	220	-14
22 086	37	186	1	53	62	117	-15
22 093	13	18	1	12	19	42	-16
22 101	4	24	2	19	16	56	-17
22 104	16	20	2	44	35	110	-18
22 105	52	31	1	3	10	71	-19
22 110	39	292	1	3	47	104	-20
22 116	10	38	1	3	6	11	-21
22 119	5	18	1	6	16	60	-22
22 124	10	61	1	13	15	50	-23
22 128	?	33	1	24	16	73	-24
22 133	12	27	1	17	22	99	-25

RECEIVED  
21-01-98

TO COME  
22045 - HOLE 08  
22075 - HOLE 13

COMPANY: OVERTBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

ACT:F31) PAGE 1 OF 1  
FILE NO: 82-132

ATTENTION:

(604)980-5814 DR (604)988-4524

TYPE CHIP GEOCHEM DATE: JAN 29, 1988

(VALUES IN PPM)

AS CU MO NI PB ZN

ADB-88 HOLE

22 045	49	32	2	45	49	73
22 075	7	187	1	16	45	68

-08  
-13



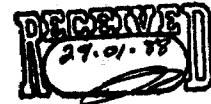
\*\*\*\* Certificate of ASSAY \*\*\*\*

Company: OVERBURDEN EXPLORATION  
 Project: ADB-88  
 Attention:

File: 82-133/P1  
 Date: JAN 29/88  
 Type: HMC

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON	ADB-88 Hole
22 000	1.00	0.029	
22 001	.10	0.003	-01
22 002	.08	0.002	
22 003	.06	0.002	
22 004	.23	0.007	
22 005	2.05	0.060	
22 006	.20	0.006	
22 008	.05	0.001	
22 009	.01	0.001	-02
22 010	.07	0.002	
22 012	.06	0.002	
22 013	.05	0.001	
22 014	.02	0.001	-03
22 015	.05	0.001	
22 017	.01	0.001	-04
22 018	.04	0.001	
22 020	.23	0.007	
22 021	.03	0.001	
22 022	.05	0.001	-05
22 023	.22	0.006	
22 024	.98	0.029	
22 026	.01	0.001	
22 027	.18	0.005	
22 028	.15	0.004	-06
22 029	.03	0.001	
22 030	.32	0.009	
22 032	.01	0.001	
22 033	.01	0.001	-07
22 034	.01	0.001	
22 035	.08	0.002	



Certified by

MIN-EN LABORATORIES LTD.

\*\*\*\* Certificate of ASSAY \*\*\*\*

Company: OVERBURDEN EXPLORATION  
 Project: ADB-88  
 Attention:

File: 82-133/P2  
 Date: JAN 29/88  
 Type: HMC

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON	ADB-88 Hole
22 036	.57	0.017	
22 037	.11	0.003	
22 038	.83	0.024	-07
22 039	1.16	0.034	
22 040	.03	0.001	
22 042	.02	0.001	
22 043	.22	0.006	-08
22 044	.37	0.011	
22 046	.43	0.013	
22 047	.03	0.001	
22 048	.54	0.016	-09
22 049	.05	0.001	
22 050	.08	0.002	
22 052	.04	0.001	
22 053	.08	0.002	
22 054	.16	0.005	
22 055	.02	0.001	
22 056	.01	0.001	-10
22 057	.02	0.001	
22 058	1.44	0.042	
22 059	.12	0.004	
22 060	6.43	0.188	
22 061	.07	0.002	
22 063	.03	0.001	
22 064	.11	0.003	
22 065	.09	0.003	-11
22 066	.77	0.022	
22 067	.01	0.001	
22 068	.81	0.024	
22 070	.06	0.002	-12



Certified by

MIN-EN LABORATORIES LTD.

\*\*\*\* Certificate of ASSAY \*\*\*\*

Company: OVERBURDEN EXPLORATION  
 Project: ADB-88  
 Attention:

File: 82-133/P3  
 Date: JAN 29/88  
 Type: HMC

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON	ADB-88 Hole
22 071	.06	0.002	-12
22 073	.20	0.006	-13
22 076	.10	0.003	
22 077	.26	0.008	
22 078	.10	0.003	-14
22 079	.04	0.001	
22 080	.60	0.018	
22 082	1.19	0.035	
22 083	.03	0.001	-15
22 084	.45	0.013	
22 085	.16	0.005	
22 087	.25	0.007	
22 088	.04	0.001	
22 089	.10	0.003	-16
22 090	.06	0.002	
22 091	.04	0.001	
22 092	.03	0.001	
22 094	.03	0.001	
22 095	.05	0.001	
22 096	.22	0.006	
22 097	.28	0.008	-17
22 098	.09	0.003	
22 099	.38	0.011	
22 100	.80	0.023	
22 102	.17	0.005	-18
22 103	.02	0.001	
22 106	.03	0.001	
22 107	.16	0.005	-20
22 108	.25	0.007	
22 109	.08	0.002	



Certified by

MIN-EN LABORATORIES LTD.

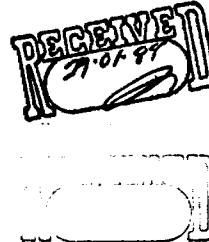
\*\*\*\* Certificate of ASSAY \*\*\*\*

Company:OVERBURDEN EXPLORATION  
Project:ADB-88  
Attention:

File:82-133/P4  
Date:JAN 29/88  
Type:HMC

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON	ADB-88
22 111	.24	0.007	
22 112	.63	0.018	
22 113	.03	0.001	-21
22 114	.02	0.001	
22 115	2.62	0.076	
22 117	.13	0.004	
22 118	.12	0.004	-22
22 120	.03	0.001	
22 121	.02	0.001	
22 122	.01	0.001	-23
22 123	.08	0.002	
22 125	2.63	0.077	
22 126	.02	0.001	-24
22 127	.03	0.001	
22 129	1.48	0.043	
22 130	.08	0.002	
22 131	.08	0.002	-25
22 132	.03	0.001	



Certified by

A handwritten signature in black ink, appearing to read "John J. Miller".

MIN-EN LABORATORIES LTD.

COMPANY: OVERBURDEN EXPLORATION  
PROJECT NO: ADB-88

MIN-EN LABS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

(ACT:F31) PAGE 1 OF 1  
FILE NO: 82-66  
\* TYPE CHIP GEOCHEM \* DATE: JAN 20, 1988

(VALUES IN PPM)	AS	CU	MD	NI	PB	ZN
22 007	22	31	1	18	51	106
22 011	6	38	1	7	16	28
22 016	8	17	1	15	18	50
22 019	14	130	2	327	38	61
22 025	17	28	1	48	35	263
22 031	13	16	1	5	22	61
22 041	15	14	1	27	40	73
22 051	10	2	1	4	25	69
22 062	3	74	1	38	22	62
22 069	14	7	1	7	30	94
22 072	15	94	1	28	27	178
22 074B	250	410	1	6	26	529
22 081	2453	271	1	20	73	220
22 086	37	186	1	53	62	117
22 093	23	18	1	12	19	42
22 101	4	24	2	19	16	56
22 104	16	20	2	44	35	110
22 105	52	31	1	3	10	71
22 110	39	292	1	3	47	104
22 116	10	38	1	3	6	11
22 119	5	18	1	6	16	60
22 124	10	61	1	13	15	50
22 128	9	33	1	24	16	73
22 133	12	27	1	17	22	99

COMPANY: OVERTURDEN EXPLORATION

PROJECT NO: ADB-88

ATTENTION: OVERTURDEN

MIN-EN LARS ICP REPORT  
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

(ACT:F31) PAGE 1 OF 1

FILE NO: 82-132

\* TYPE ROCK BEDCHEM \*

DATE: JAN 28, 1988

(VALUES IN PPM ) AS CU MO NI PB ZN

22 045	49	32	2	45	49	73
22 075	7	187	1	16	45	68

**MIN-EN LABORATORIES LTD.**

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

TELE: (604) 980-5814 OR (604) 988-4524

TELEX: VIA USA 7601067 UC

**Certificate of ASSAY**

Company: OVERBURDEN EXPLORATION

File: 82-66/P1

Project: ADB-88

Date: JAN 20/88

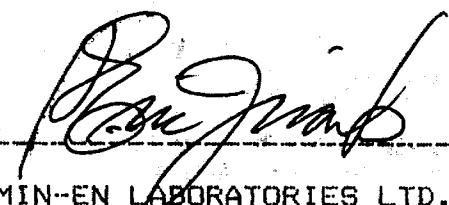
Attention:

Type: ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON
22 007	.10	0.003
22 011	.01	0.001
22 016	.01	0.001
22 019	.03	0.001
22 025	.01	0.001
22 031	.01	0.001
22 041	.01	0.001
22 051	.01	0.001
22 062	.02	0.001
22 069	.01	0.001
22 072	.01	0.001
22 074B	.02	0.001
22 081	.81	0.024
22 086	.15	0.004
22 093	.01	0.001
22 101	.01	0.001
22 104	.01	0.001
22 105	.02	0.001
22 110	.08	0.002
22 116	.01	0.001
22 119	.01	0.001
22 124	.01	0.001
22 128	.01	0.001
22 133	.01	0.001

Certified by \_\_\_\_\_

  
MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.**

*Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524

TELEX:VIA USA 7601067 UC

**Certificate of ASSAY**

Company:OVERBURDEN EXPLORATION

File:82-132/P1

Project:ADB 88

Date:JAN 28/88

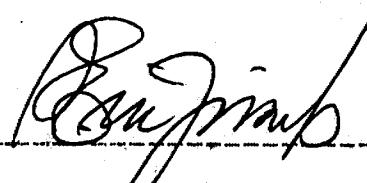
Attention:

Type:ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample Number	AU G/TONNE	AU OZ/TON
22045	.16	0.005
22075	.07	0.002

*Certified by*



MIN-EN LABORATORIES LTD.

DATE 08.01.1988

SHUT DOWN HOURS

7 TO 5

TOTAL HOURS

10

HOLE NO. ADR-88-01 LOCATION L1400E / 4+005. (Denton Twp.)

GEOLOGIST ASK DRILLER MW BIT NO./FTG. J0000001

MOVE TO HOLE BIT NO./FTG. 0+65'

DRILLING 11:30 - 3:30 / 3:30 - 3:45

MECHANICAL DOWN TIME

DRILLING PROBLEMS

OTHER 7:00 - 9:30 set up drill | 9:30 - 11:00 delay - problem w/ Heli pump  
MOVE TO NEXT HOLE 4:00 - 4:15 repair sheet on truck / 4:15 - 4:30 move +  
drain water lines.

Depth | Graphic Log | Sample No. | Descriptive Log | 1 ppm Au | 1 Cu | 1 Ni | 1 Zn | 10 ft

Depth	Graphic Log	Sample No.	Descriptive Log	1 ppm Au	1 Cu	1 Ni	1 Zn	10 ft
0'-13'			0-13' TILL (DIAMICTON)	5	96	11	59	.029
13'-20'		22000	20% soft-hard silty + gritty, light to medium grey, <0.5 cm clay balls. 10% well-rounded 2-5cm, limestone pebbles. 30% well-rounded spherical, granitic clasts. 40% rounded to subrounded mafic (volc. sedg.) pebbles + cobbles. Slow drill penetration with moderate +10 return.	9	73	27	26	.003
20'-30'		22001	13'-49': GRAVEL	22	112	31	40	.002
30'-40'		22002	Moderately compact pebble gravel. Slow drill penetration with moderate +10 return. 35% dark grey and greenish-grey, fine grained to granular, rounded to subrounded, <2.0cm mafic pebbles; 25% well-rounded spherical 0.25- >1.0cm limestone + 40% granitic material. Fine to medium sand matrix. 15/85%: matrix-clast ratio. 32% cobble rich 55% mafic vs 45% granitic material.	17	348	13	34	.002
40'-50'		22003	40% similar gravel to above. Compact - very slow drill penetration. 0.25- >2.0cm pebbles. 50% mafic / 20% limestone / 30% granitic.	21	111	7	35	.007
50'-60'		22004	49'-60.5' TILL (Basal) - MELTOUT OR LOOSEMENT	7	160	13	69	.060
60'-70'		22005	Very slow drill penetration. Compact, low +10 return. 80% light grey, fine, silty to slightly gritty, <0.5cm clay balls. 15% rounded to subrounded fine grained + granular dark greenish-grey mafic pebbles vs. 5% well-rounded, spherical, 0.25 to 0.75cm limestone + trace granitic clasts.	41	137	17	37	.006
70'-80'		22006	60.5'-65' BEDROCK	22	31	18	106	.003
80'-90'		22007	Silt-altered, dark greenish-grey, foliated to slightly granular relict sediment (Greywacke). Possibly a metaVolcanic. H=2-3 trace finely disseminated pyrite cubes. Minor thin carbonate veins. Trace barren white quartz stringers.					
90'-100'								

STOP AT 65'

- END -

CfK



OVERBURDEN EXPLORATION SERVICES LTD.

P.O. BOX 1044, 83 IROQUOIS ROAD  
TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD.**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 01/19/88

SHIFT HOURS

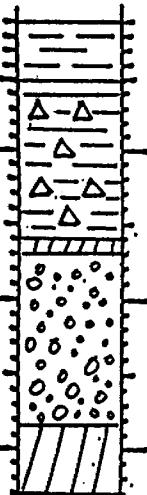
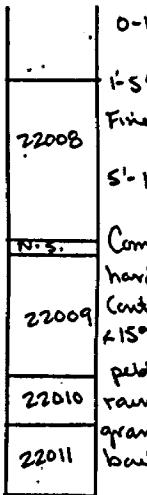
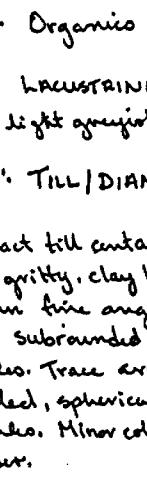
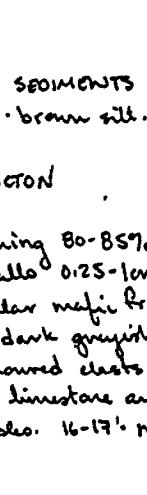
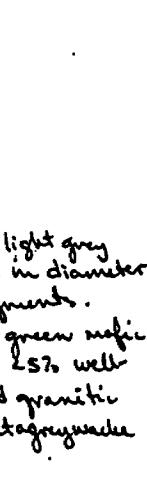
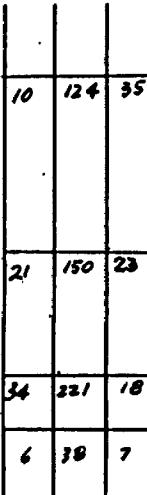
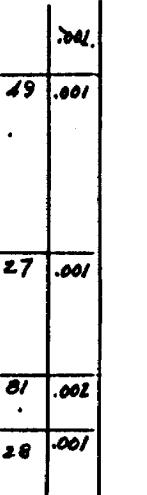
7 TO 5

TOTAL HOURS

10

HOLE NO. ADB-88-02 LOCATION L2E / S1N. 4+005 (Denton Twp)  
 GEOLOGIST AJK DRILLER MW BIT NO./FTG. J0002741  
 MOVE TO HOLE 4:00 - 4:30 BIT NO./FTG. .65" + 33' = 98'  
 DRILLING 4:30 - 5:15 / 7:30 - 9:15  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 5:15 - 5:30 : Travel out / 7:00 - 7:30 : repair water pump.  
 MOVE TO NEXT HOLE 9:15 - 9:30

Depth (m)	Graphic Log	Sample No.	Descriptive Log	1 PPM Au	1 As   Cu   Ni   Zn   opt
-----------	-------------	------------	-----------------	----------	---------------------------

        	<p><b>0'-1'</b> Organic</p> <p><b>1'-5'</b> LACUSTRINE SEDIMENTS Fine, light greyish-brown silt.</p> <p><b>5'-16'</b> TILL / DIAMICTON Compact till containing 80-85% light grey hard gritty, clay balls 0.25-1cm in diameter. Contains fine angular mafic fragments. 4-15% subrounded, dark greyish-green mafic pebbles. Trace armoured clasts. 2-5% well rounded, spherical limestone and granitic gravel. Minor cobble. 16-17% metagreywacke boulders.</p> <p><b>16'-28.5'</b> GRAVEL Compact pebble to cobbles gravel. Slow drill penetration with moderate +10 returg. Rounded to subrounded (moderate to high sphericity) 0.25 cm granules to &gt;2.0cm pebbles. 50% dark grey-green to grey fine grained mafic (acid/volcanic), 10-15% limestone, &amp; 35-40% granitic material. Diorite boulder from 21.5'-22' containing 3 to 5% finely disseminated pyrite.</p> <p><b>28.5'</b> BEDROCK Fine grained, weakly foliated, light greyish green altered felsic volcanic. Hs 4.5 to 7.5%; weakly sericitized near surface. No reaction with HCl. Trace to 0.5% finely disseminated sulphide (copper) mineralization. Contains coarser darker grey to black stringers. (Rhyolite-Dacite).</p>	<p>10</p> <p>124</p> <p>35</p> <p>49</p> <p>.001</p> <p>21</p> <p>150</p> <p>23</p> <p>27</p> <p>.001</p> <p>34</p> <p>221</p> <p>18</p> <p>81</p> <p>.002</p> <p>6</p> <p>38</p> <p>7</p> <p>28</p> <p>.001</p>	<p>.001</p> <p>.001</p> <p>.002</p> <p>.001</p>

STOP AT 33'

- ESH -

*[Signature]*



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

DATE 011988

SHIFT HOURS

7 TO 5

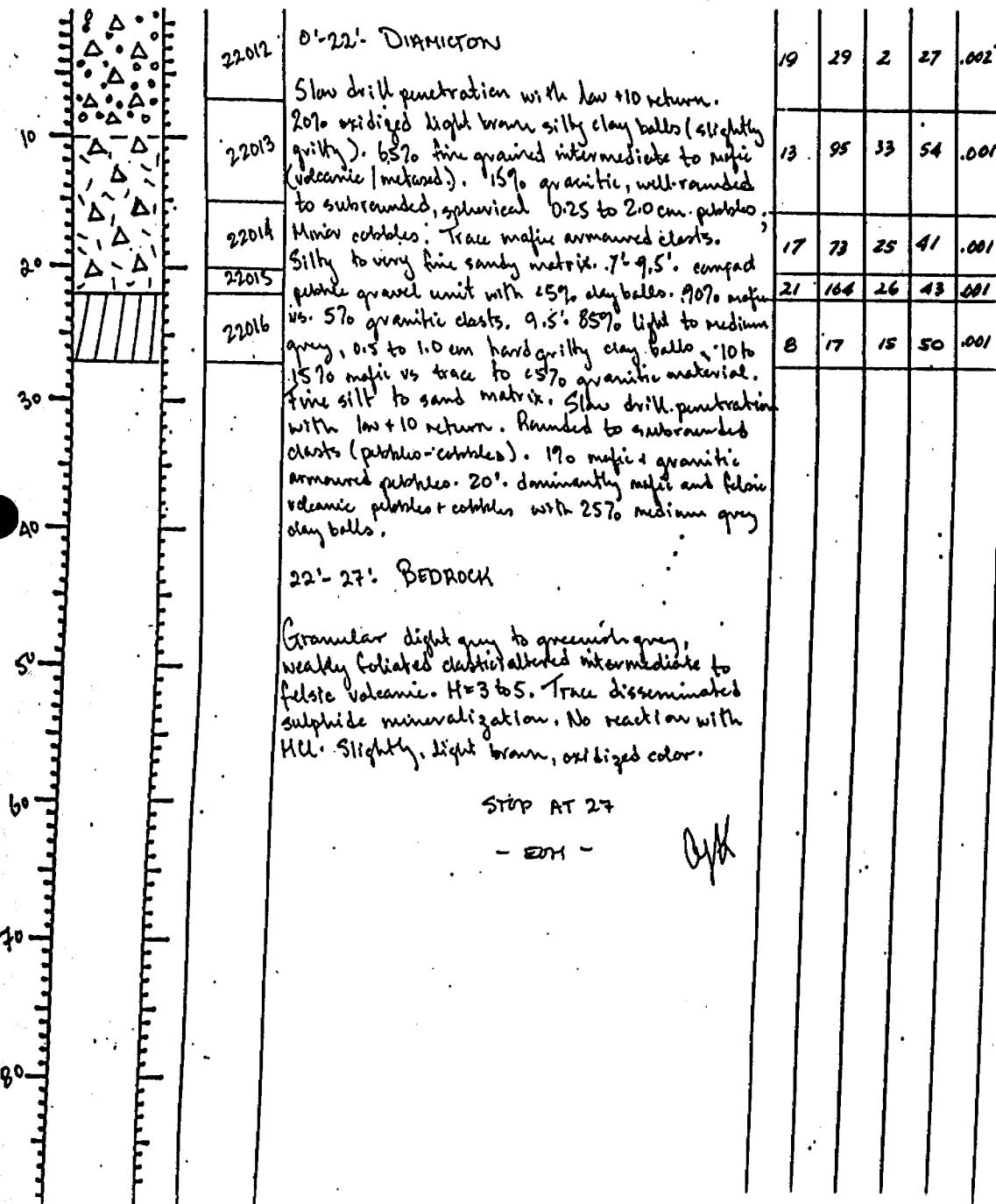
TOTAL HOURS

10

HOLE NO. A08-88-03 LOCATION 13+00E; 5M. Atodo (Denton Twp.)  
 GEOLOGIST AJK DRILLER MW BIT NO./FTG. J000-340 New Bit  
 MOVE TO HOLE 9:15 - 9:30 BIT NO./FTG. 0' + 27'  
 DRILLING 9:30 - 10:45 10:45 - 11:00 Pull Rods + More.  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE

Page 1 of 1

Depth|Graphic|Int'l Sample| Descriptive Log | ppm Au |  
 (m) | Log | No. | | As | Cu | Ni | Zn | Ag |



STOP AT 27

- END -

B.M.



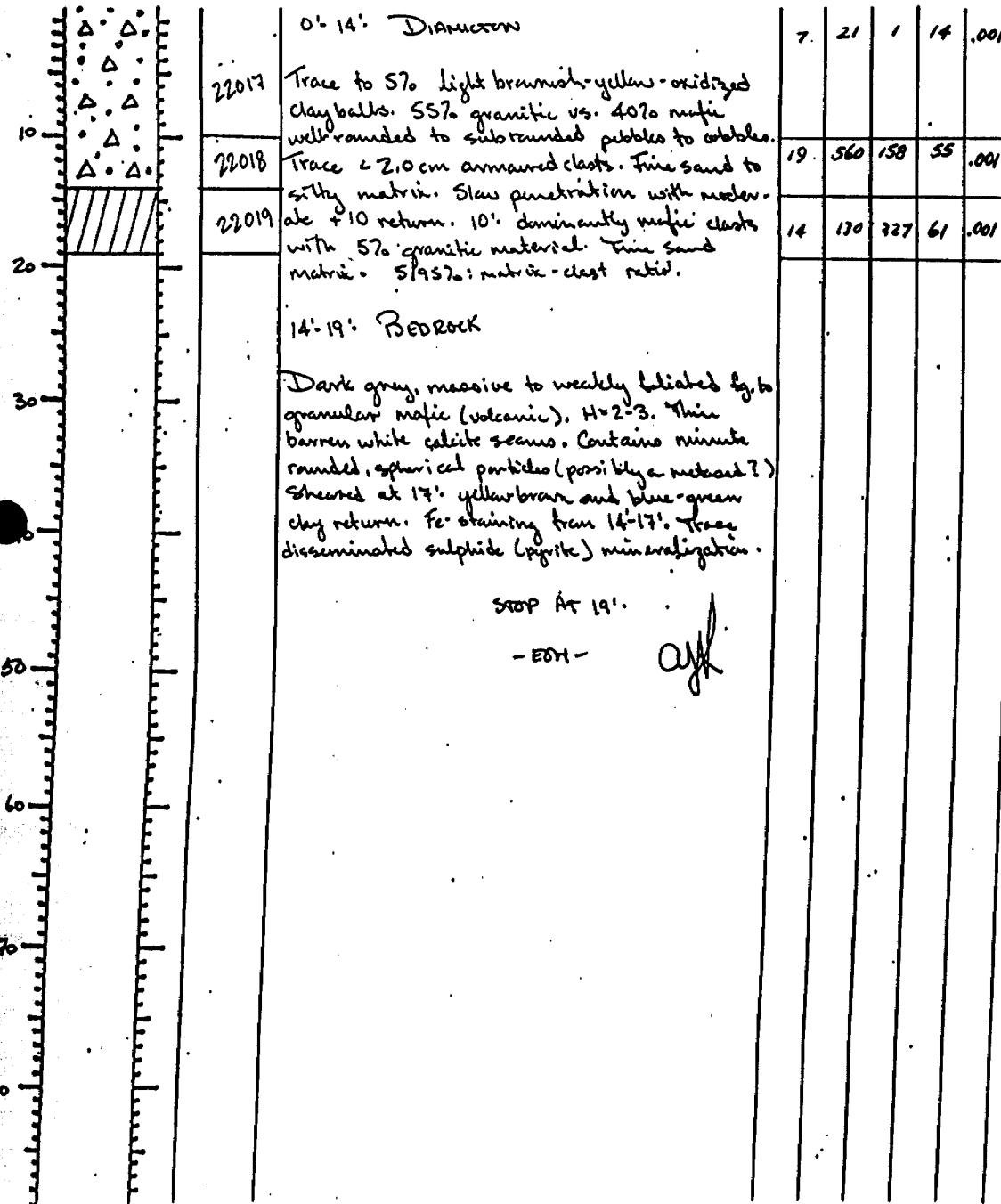
**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 01/19/88 HOLE NO. ADC-88-04 LOCATION LA+00 E [Sh. 4+00S (Denton Twp)]  
GEOLOGIST ASK DRILLER MW BIT NO./FTG. 1000-240  
MOVE TO HOLE 10145- 11:00 BIT NO./FTG. 23' + 19' 46'  
DRILLING 11:00 - 11:45  
MECHANICAL DOWN TIME  
DRILLING PROBLEMS  
OTHER  
MOVE TO NEXT HOLE 11:45 - 12:00 Pull Rigs & Move

Depth Graphic Int'l Sample# Descriptive Log 1 ppm Au  
(m) Log No. As | Cu | Ni | Zn | ppt |



STOP AT 19'.

- END -

Alf



**OVERBURDEN EXPLORATION SERVICES LTD.**  
P.O. BOX 1044, 33 IROQUOIS ROAD  
TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 01/19/88

SHIFT HOURS

270.6

TOTAL HOURS

HOLE NO. ADB-88-05 LOCATION 15+00E / 6M 400S (DENTON TWP)  
 GEOLOGIST ASW DRILLER MW BIT NO./FTD. 1000x940  
 MOVE TO HOLE 11:45 - 12:00 BIT NO./FTD. 46' + 45 = 91'  
 DRILLING 12:00 - 1:30 / 1:30 - 1:45  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 1:45 - 2:00

Depth	Graphic	Int'l	Sample	Descriptive Log	ppm	Au			
(m)	Log		No.		As	Cu	Ni	Zn	opt

			0-40'. DIRTICLAW (TILL)		8	26	4	26	.007
			2207.0	Trace to 270 soft, silty, light yellow-brown oxidized clay balls. Fine sand matrix. 80/20% matrix-decals ratio. 20% limestone, 50% granitic; 23% mafic well rounded, spherical 0.25 to cobble-sized clasts. Poorly sorted. 15' friable silty matrix. Similar lithologies as above. 23'- 28% light grey, silty clay balls vs. 5% elastic material.					
			2207.1	25'. trace clay balls - compact pebble to cobble gravel. 60% mafic vs 40% granitic clasts.	6	42	7	25	.001
			2207.2	30'. trace to ~5% clay balls. 55% mafic volcanic, 40-45% granitic material.	22	74	19	49	.001
			2207.3	37'. Trace clay balls. 65-70% intermediate to mafic volcanic, 30-35% granitic & assorted material. Trace subangular mafic armoured clasts.	21	125	21	51	.006
			2207.4	40'-45'. BEDROCK	833	2185	1239	3980	.029
			2207.5	Granular, dark greyish green, foliated metamorphism to intermediate volcanic? Strong reaction with till. H=2-3. Trace finely disseminated pyrite. Fe staining from 40'-42'.	17	28	18	263	.001
				STOP AT 45'					
				- END -					
				A.J.H.					



**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

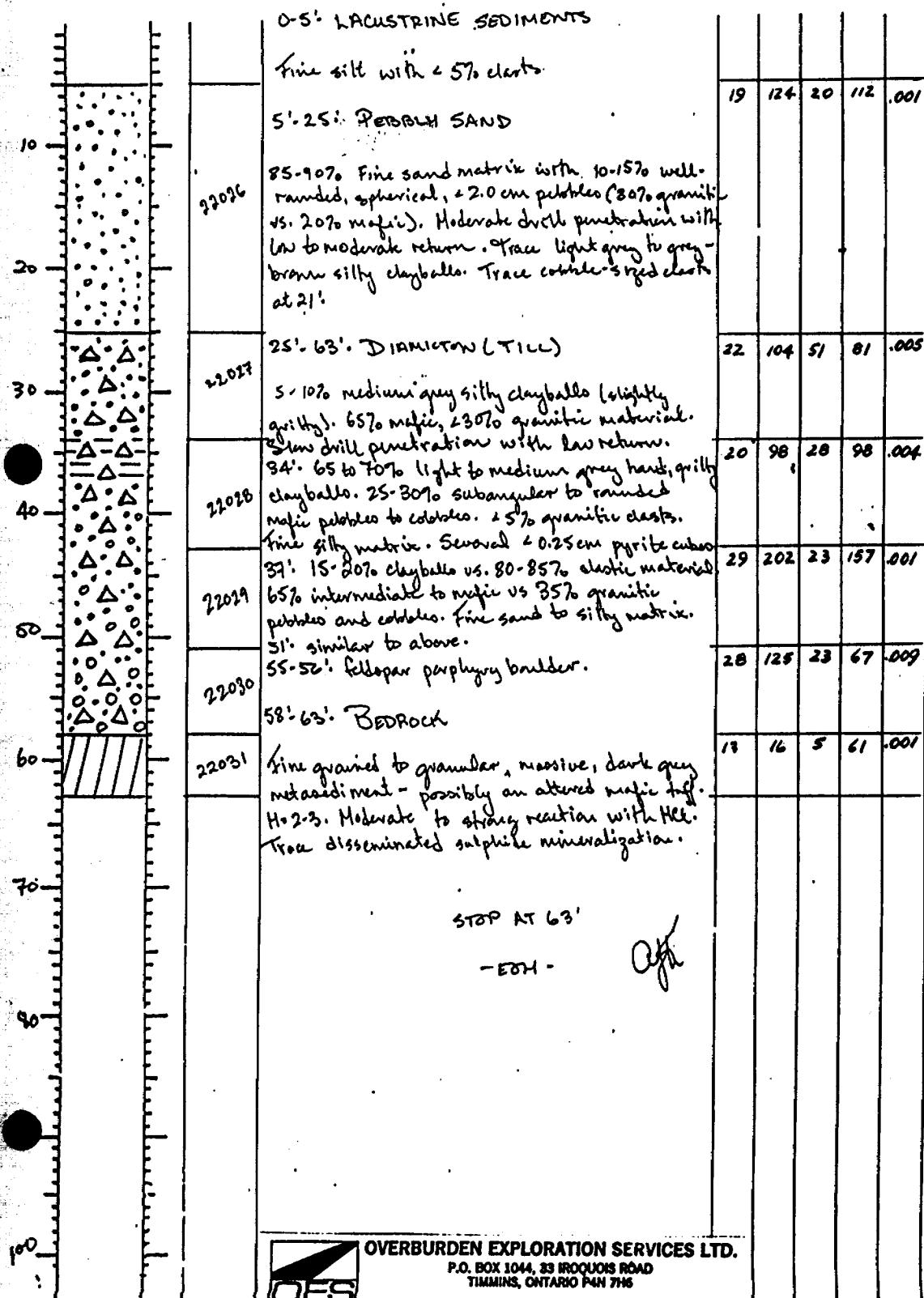
Page 1 of 1

DATE 07/01/1988

HOLE NO. A08-88-06 LOCATION 16+00 E / 5th. Acre (DENTON TWP)  
 GEOLOGIST AWK DRILLER MW BIT NO./FTG. 1000/40  
 MOVE TO HOLE 1:45-2:00 BIT NO./FTG. 91'+63=154'  
 DRILLING 2:00-4:15 / 4:15-4:30 Full Rods  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 4:30-4:45 / 4:45-5:00 Travel out.

Depth|Graphic|Int|Sample| Descriptive Log

1 ppm Au  
 | As | Cu | Ni | Zn | opt |



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 2

DATE 01/19/88

SHIFT HOURS

7 TO 5

TOTAL HOURS

10

HOLE NO. ADB-88-07 LOCATION L7E; Str. A+005 (DENTON TWP.)  
 GEOLOGIST AVK DRILLER HWD BIT NO./FTG. 1000740  
 MOVE TO HOLE A13D-A14S BIT NO./FTG. 1541+69=223  
 DRILLING 9:15-12:15 12:15-12:30 R/H/R  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 7:30-9:15 - repair water pump.  
 MOVE TO NEXT HOLE

Depth (m)	Graphic Log	Sample No.	Descriptive Log	1 ppm Au
				<u>Ag Cu Ni Zn opt</u>

			0'-9': DIAMICTON	
			22032 85-95% light yellowish-brown to light yellow-grey soft, gritty clay balls, 0.25 to 1.0cm in diameter. 5-15% clast ratio (60% granitic/40% mafic) 0.25 cm granules to cobblesized. Poorly sorted. Several 1-2.0cm subrounded armoured clasts.	
			22033 9'-23': PEBBLY SAND	
			90% fine to medium light grey sand matrix. 10% clastic material → well-rounded to sub-rounded, spherical, <2.0cm pebbles - trace cobble 25% mafic / 75% granitic composition. 11-12': strongly oxidized clay layer.	
			22034 23'-27': DIAMICTON	
			Trace to 37' clayballs. 75% angular to subrounded 0.25 to >2.0cm mafic vs. 20% limestone + granitic clasts. Trace 0.5cm armoured clasts.	
			22035 27'-35': PEBBLY SAND	
			80/20%: matrix-clast ratio. Fine light grey sand matrix. 60% mafic vs. 40% granitic well-rounded to subrounded, <2.0cm clasts.	
			22036 35'-46.5': DIAMICTON	
			Very slow drill penetration with low, silty return. Minor fine angular mafic clasts. 80% mafic vs 20% granitic + limestone pebbles, <0.5 cm. 90/10% matrix-clast ratio. 37': 90-95% cb's vs 5-10% clasts. 41': 99-100% very hard compact clay w/ trace - 1% clastic material. 42.5': similar till as at 35'.	
			46.5'-56': GRAVEL	
			75% well-rounded, spherical, 0.5 to 2.0 cm granitic pebbles. 25% subangular to rounded low-to moderate sphericity, 0.25 to >2.0cm mafic volcanic clasts. Fine light grey sand matrix with a 70/30%: matrix-clast ratio.	
			56'-61': DIAMICTON	
			75-80% soft, gritty, clay balls. 20-25% clastic material. Dominantly angular to subrounded	



**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

DATE 21/9/88

HOLE NO. ADB-88-07 LOCATION 17E 15m 4000S (DENTON TWP)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTG. 1000740  
 MOVE TO HOLE \_\_\_\_\_ BIT NO./FTG. 223'  
 DRILLING \_\_\_\_\_  
 MECHANICAL DOWN TIME \_\_\_\_\_  
 DRILLING PROBLEMS \_\_\_\_\_  
 OTHER \_\_\_\_\_  
 MOVE TO NEXT HOLE \_\_\_\_\_

Page 2 of 2

Depth (m)	Graphic Log	Sample No.	Descriptive Log	ppm As   Cu   Ni   Zn
--------------	-------------	------------	-----------------	--------------------------

61'-63.5': SANDY TILL / PEBBLY SAND

High medium sand percentage; 10% angular altered intermediate to mafic 0.25 cm fragments to cobble-sized clasts. <5% granitic + limestone pebbles. Slow drill penetration with moderate HQ return.

63.5-69': BEDROCK

Weakly foliated, medium greenish-grey, fine grained altered vit-mafic schist / possibly a metasediment? H=2-3. Very weak reaction with HCl in areas. Trace to nil pyrite mineralization. Contains trace minute, well-rounded, spherical particles / clasts.

STOP AT 69'

- END -

*[Signature]*



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 01.19.88

SHIFT HOURS

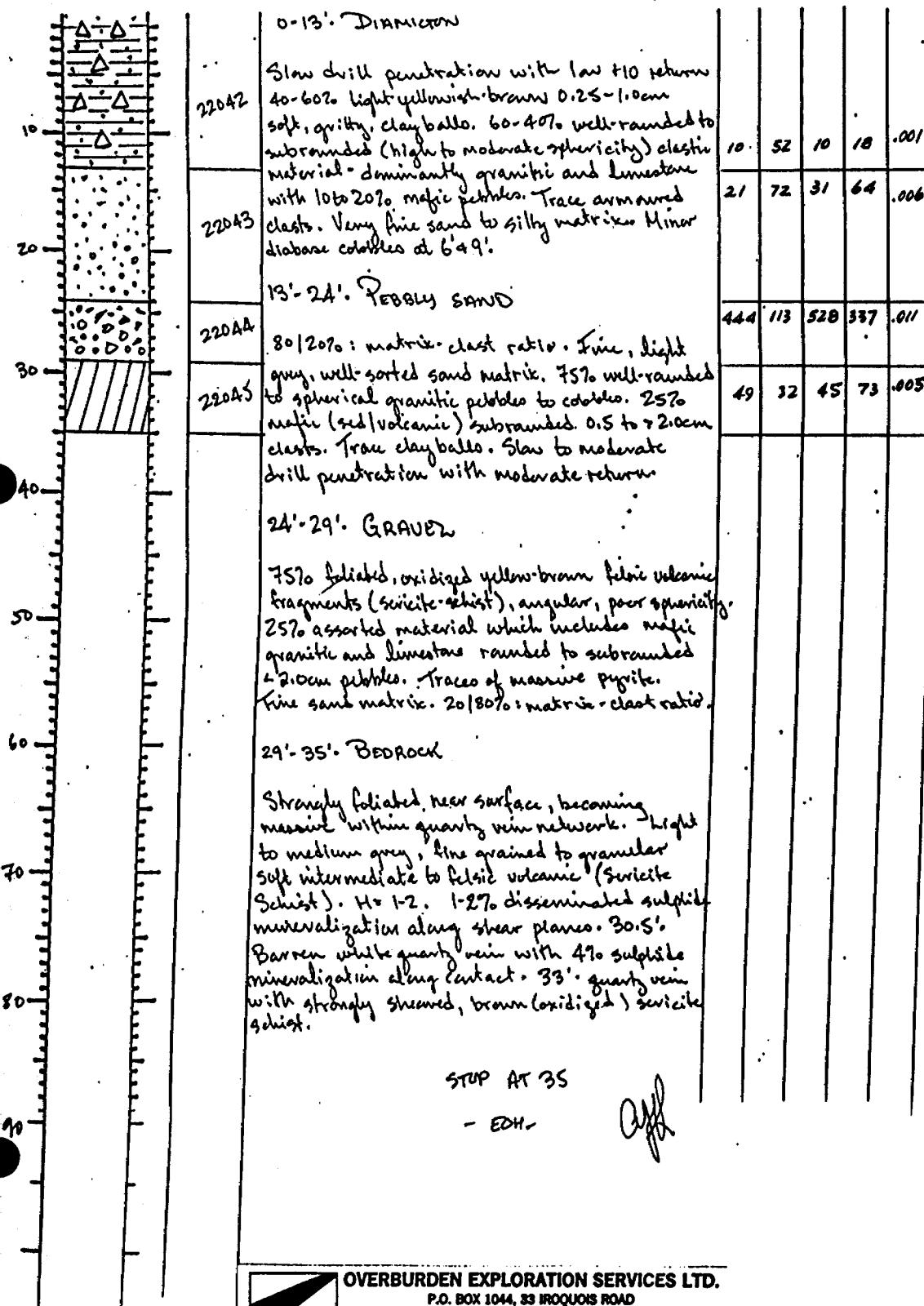
7 TO 5

TOTAL HOURS

10

HOLE NO. ADB-88-08 LOCATION BB100E / Sm 3 & 00S. (DANTON TWP)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTG. 1000608 New Bit.  
 MOVE TO HOLE 12:30 - 1:30, BIT NO./FTG. 0' + 35'  
 DRILLING 13:00 - 3:00  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 3:00 - 3:15

Depth / Graphic	Int'l Sample	Descriptive Log	1 ppm	Avg
(m)   Log     No.			1 As 1 Cu 1 Ni 1 Zn 1 opt 1	



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD.**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 01/19/88

HOLE NO. ADB-88-09 LOCATION L7+00E / Sdn. 7+00S (DENTON TWP.)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTD. H000607  
 MOVE TO HOLE 3:00-3:15 BIT NO./FTD. 35' + 30' = 73'  
 DRILLING 3:15-4:30 / 4:30-4:45 Pull Back  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 4:45-5:00

Depth (m)	Graphic Log	Int'l Sample No.	Descriptive Log	1 ppm Au	1 ppm Ag Cu Ni Zn (opt)
-----------	-------------	------------------	-----------------	----------	-------------------------

0-9'	0-9': DIAMICTIC		109	27	104	32	.013		
9'-24'	2204b: 20% yellowish-brown soft, gritty clay balls. 80% rounded granitic and mafic pebbles and cobbles.		42	69	33	113	.001		
24'-33.5'	2204c: 75% fine, bi-medium sand matrix with 25% clastic material. 60% subangular to rounded (low to moderate sphericity) intermediate to mafic pebbles. 40% well-rounded, spherical, <2.0 cm granitic and limestone clasts.		112	125	35	76	.016		
33.5'-38'	2204d: 20% light grey to greenish grey, 0.25 to 0.5 cm soft and hard, gritty, clay balls. 45-50% dark greenish grey and dark grey angular to sub-rounded mafic volcanic pebbles and cobbles. 25% to 30% granitic and limestone granules to 2 cm pebbles. 10% angular, platy, light grey, sericitic-schist fragments. Slow drill penetration with low +10 return.		26	126	43	88	.001		
38'-40'	22051: 20% light grey to greenish grey, 0.25 to 0.5 cm soft and hard, gritty, clay balls. 45-50% dark greenish grey and dark grey angular to sub-rounded mafic volcanic pebbles and cobbles. 25% to 30% granitic and limestone granules to 2 cm pebbles. 10% angular, platy, light grey, sericitic-schist fragments. Slow drill penetration with low +10 return.		16	149	93	100	.002		
40'-42'	33.5': BEDROCK		10	2	4	69	.001		
42'-80'	33.5'-38': BEDROCK  fine grained, moderately foliated, medium to dark grey, siliceous in areas, altered intermediate to felsic volcanic. Altered H <sub>2</sub> O 2-3, unaltered H <sub>2</sub> O 5 Trace finely disseminated sulphide mineralization. Within barren white calcite seams. Contains minute darker grey particles (blobs).								
STOP AT 38'									
- EDH -									



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 83 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

DATE 11/01/1988

SHIFT HOURS

7 TO 5

TOTAL HOURS

10

HOLE NO. ADB-88-10 LOCATION L6100E/Sm 7+00S (DENTON TWP)  
 GEOLOGIST RDH DRILLER MW BIT NO./FTG. 1000742 - New Bit  
 MOVE TO HOLE 7:45 - 10:45 BIT NO./FTG. 0+34  
 DRILLING 7:45 - 10:45  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 7:15 - 7:30 travel to site 7:30 - 7:45 prepare to drill  
 MOVE TO NEXT HOLE 7:45 - 1:00

Depth | Graphic Int'l Sample | Descriptive Log | ppm | Au |  
 (m) | Log | No. | . . . | As | Cu | Ni | Zn | opt |

			0'-69': DIAMICTON						
			22052						
			Compact - slow drill penetration. 70% light yellow brown, 0.25-0.75 cm soft, gritty, clay balls. 30% clastic material; 10-12% well-rounded, spherical granitic pebbles to cobbles. 18-22% subrounded, 0.5-2.0 cm mafic pebbles. Trace felsic material. Trace armoured clasts. Poorly sorted. 9-10% pebbly sand.		10	19	2	21	.001
			22053						
			10': <10%. Light grey clay balls vs. 90% clastic material; 55% granitic, 35% mafic pebbles. Trace armoured clasts. 11': trace clay balls - resembling a pebbly sand. Very slow drill penetration with low +10 return. Very fine sand to silty matrix.		11	124	11	28	.002
			22054						
			10': <10%. Light grey clay balls vs. 90% clastic material; 55% granitic, 35% mafic pebbles. Trace armoured clasts. 11': trace clay balls - resembling a pebbly sand. Very slow drill penetration with low +10 return. Very fine sand to silty matrix.		17	107	32	113	.005
			22055						
			29': 25% clayballs vs. 75% clasts - 60% subangular to rounded, 0.25 to cobble-sized. Intermediate to mafic volcanic material. 40% well-rounded, spherical granitic and limestone pebbles. 35': 95% clayballs with 5% clastic material - dominantly intermediate to mafic pebbles with trace felsic and granitic material. Fine angular fragments to rounded 1.0cm pebbles.		17	67	21	50	.001
			NO SAMPLE						
			22058	STOP AT 44'. PULL RODS TO CHANGE DRILL BIT.					
			44'-45': Diabase Boulders						
			45': 95-98% clay balls with 2-5% angular to subrounded clastic material - dominantly mafic trace granitic, limestone, and felsic volcanic pebbles. Very slow drill penetration with low to moderate +10 return. 57': similar to above with interbedded, hard, compact clay lenses void of clasts.						
			22059	64': similar to above with interbedded, hard, compact clay lenses void of clasts.					
			22060	64': medium grey clay - hard, compact with very coarse, sand-sized to 0.5cm rounded clasts, dominantly granitic in composition. Coarser fraction composed of mafic (volcanic/sedimentary) fragments.					
			22061	Very hard - compact. Slow drill penetration.					
			22062						
			69'-74': BEDROCK						
				Fine grained to weakly granular, medium greenish-grey, massive to weakly foliated metasediment (Greywacke?). H-3. Trace to 0.5% disseminated pyrite mineralization. No reaction with HCl except along thin fracture seams.					
				STOP AT 74'					
				- END -					



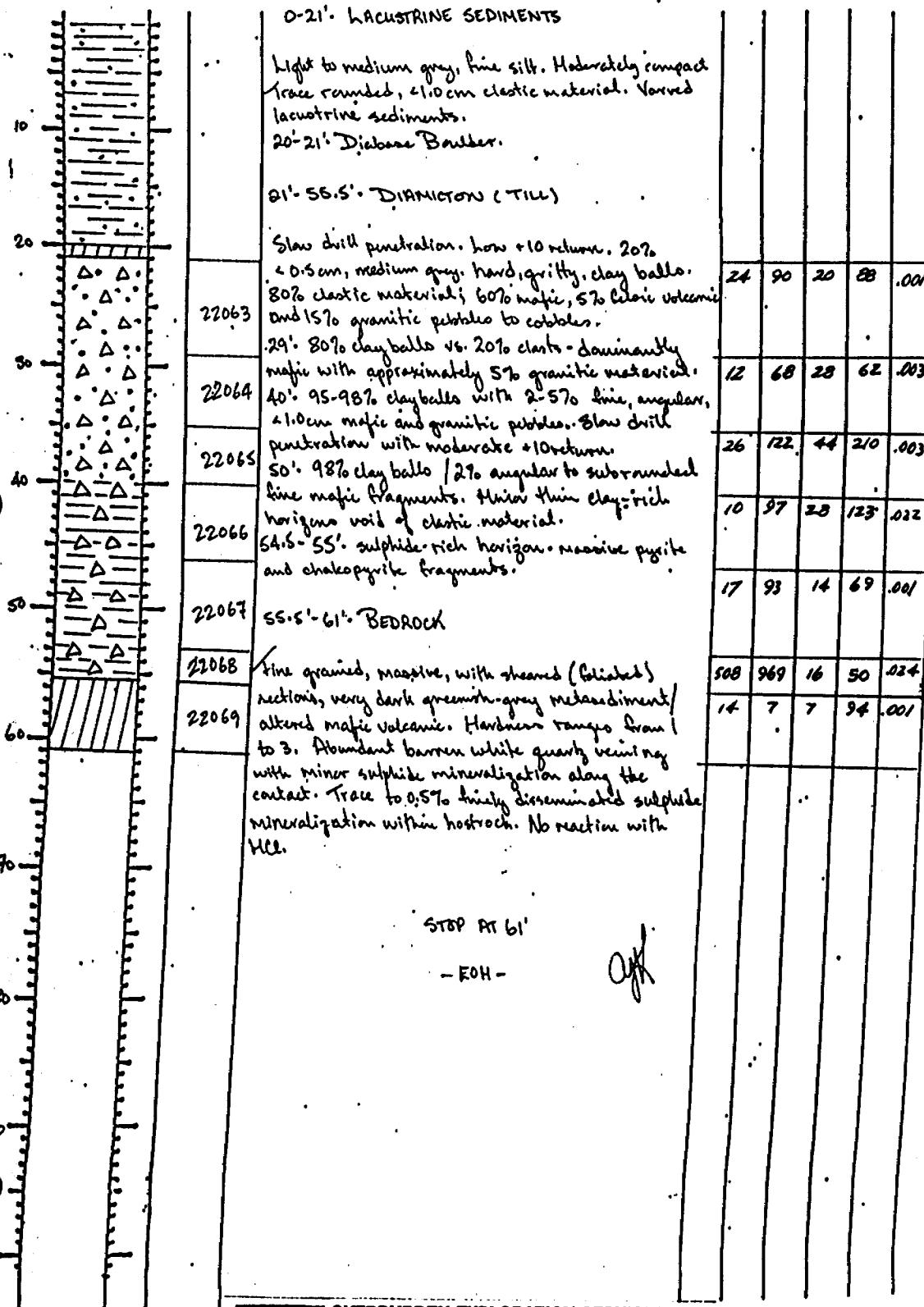
## REVERSE CIRCULATION DRILL HOLE LOG

Page 1 of 1

DATE 01/19/83  
 SHIFT HOURS 4 TO 5  
 TOTAL HOURS 10

HOLE NO. ADB-88-11 LOCATION LS+00E / Sm 7+00S (DENTON TWP.)  
 GEOLOGIST PAK DRILLER MW BIT NO./FTG. 1000-462  
 MOVE TO HOLE 12:45 - 1:00 BIT NO./FTG. 34-6' x 135'  
 DRILLING 1:15 - 3:15  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 1:00 - 1:15 : clean water tank  
 MOVE TO NEXT HOLE 3:15 - 3:30

Depth|Graphic Int|Sample | Descriptive Log | ppm Au |  
 (m) | Log | No. | . . . | As | Cu | Ni | Zn (opt)



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 1044, 23 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

## REVERSE CIRCULATION DRILL HOLE LOG

Page log 1

DATE 11.01.1983

SHIFT HOURS

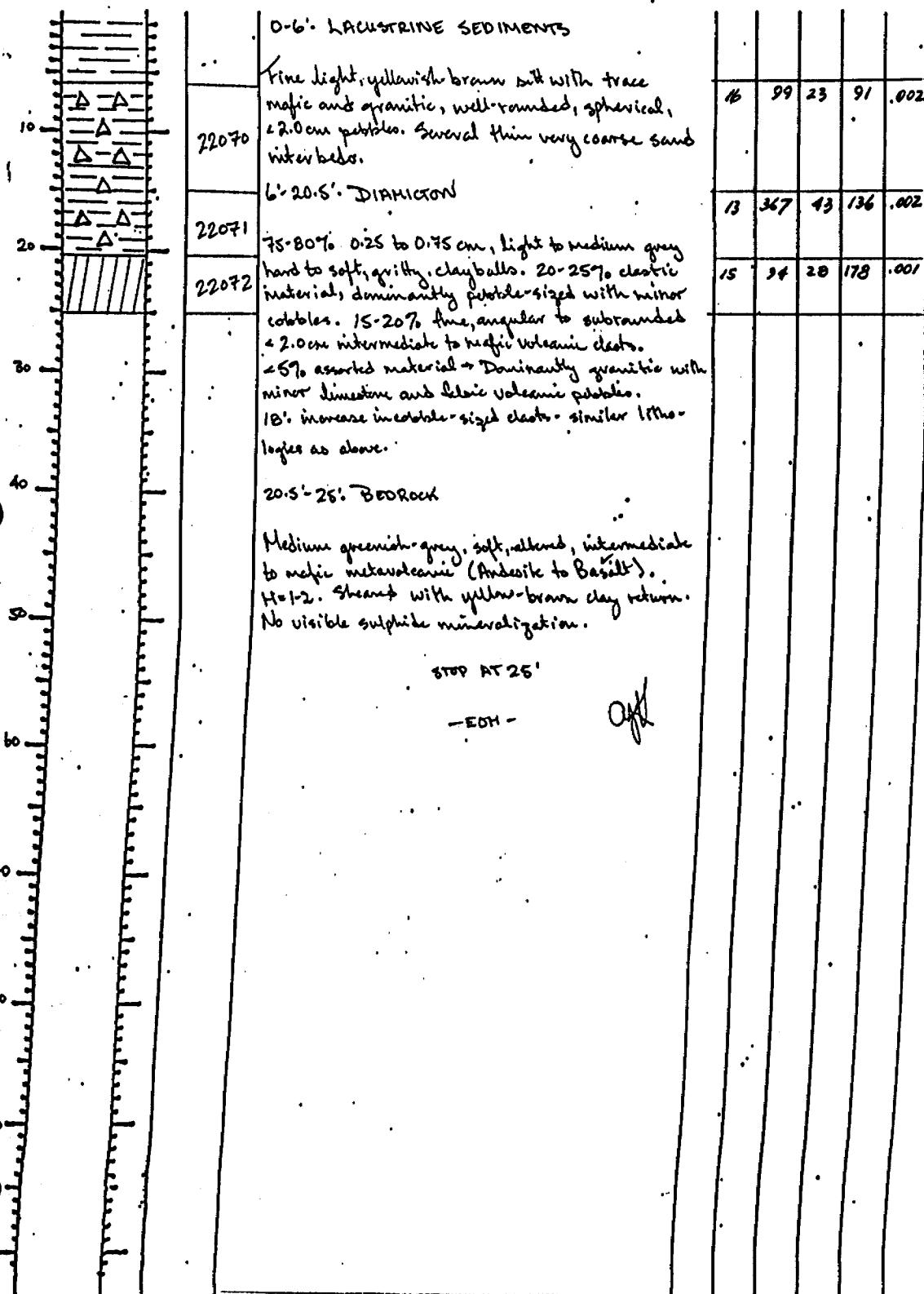
7 TO 5

TOTAL HOURS

10

HOLE NO. 108-88-12 LOCATION L4+00 E / Sdn. 7+00S (Denton Twp.)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTD. 1000ft New Bit.  
 MOVE TO HOLE 315 - 3:30. BIT NO./FTD. 0' + 25'.  
 DRILLING 3:30 - 5:00 / 5:00 - 5:15 Drain waterlines  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 5:15 - 5:30 travel out.  
 MOVE TO NEXT HOLE

Depth|Graphic|Int|Sample| Descriptive Log      ppm  
 (m) | Log | No. |    As | Cu | Ni | Zn | Au | opt |



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

## REVERSE CIRCULATION DRILL HOLE LOG

Page 1 of 1

DATE 11/19

SHIFT HOURS

7 TO 8

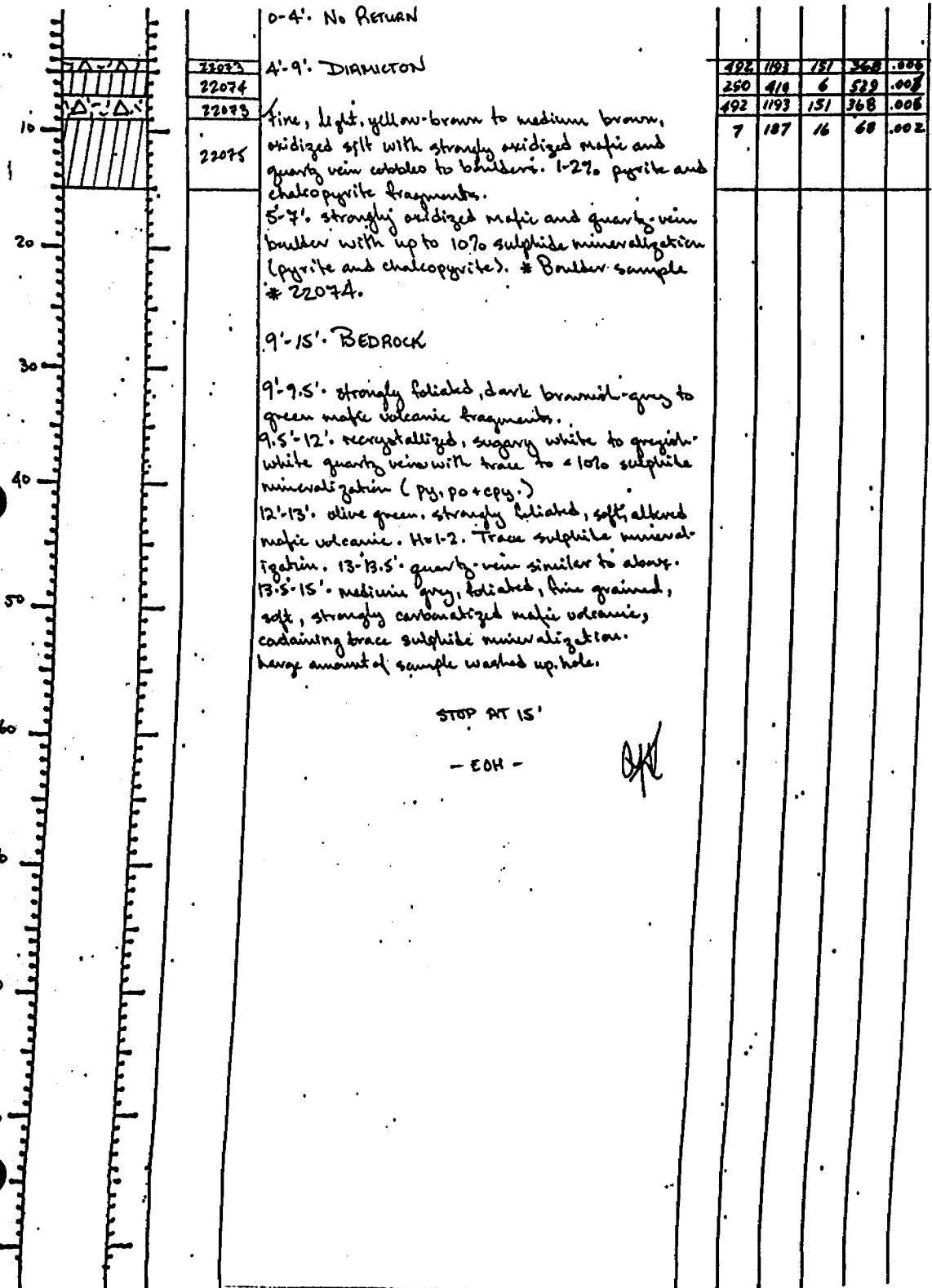
TOTAL HOURS

10

HOLE NO. 108-88-13 LOCATION 13100E / 5th 7:00S (DENTON TWP)  
 GEOLOGIST AVK DRILLER NW BIT NO./FTD. 1000605  
 MOVE TO HOLE 7:30-8:45. BIT NO./FTD. 25' / 15' = 40'  
 DRILLING 7:45-9:45  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 7:15-7:30 travel to site 1/2 hour delay - wait for water  
 MOVE TO NEXT HOLE 9:45-10:00

Depth! Graphic! Client! Sample! Descriptive Log

Depth (m)	Log	Sample No.	Descriptive Log	PPM	As	Cu	Ni	Zn	Ag	Pt



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

## REVERSE CIRCULATION DRILL HOLE LOG

Page 1 of 1

DATE 01/19/83

SHIFT HOURS  
7 TO 5TOTAL HOURS  
10

HOLE NO. AD8-88-14 LOCATION 62+00 E / 5th, 7+00 S (DEVON TWP.)  
 GEOLOGIST AJK DRILLER MW BIT NO./FTD. H000609  
 MOVE TO HOLE 9:45 10:00 BIT NO./FTD. 40° 35' = 75'  
 DRILLING 10:00 - 11:30  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 11:30 - 11:45

Depth|Graphic Int! Sample | Descriptive Log

| ppm | Au |  
|(m) | Log | No. | | As | Cu | Ni | Zn | opt |

Depth (m)	Log	No.	Description	As	Cu	Ni	Zn	opt	Au
0-9'			0-9': PEBBY SAND						
10'		22076	Fine to medium, oxidized medium brown sand with 10-15% elastic material. Dominantly medium grey intermediate to mafic, angular to subrounded, <2.0cm pebbles with minor cobble. Trace granitic and limestone clasts. Thin, dark grey clay cap at surface organic-rich. 9-10' diabase boulder.	27	77	1	26	.003	
11'		22077							
12'		22078							
13'		22079	.10'-29': DIAMICTON (TILL)						
14'		22080	Slow drill penetration with low to moderate return; compact. 95% light to medium grey 0.25 to 1.0 cm hard, gritty, clay balls. 5% elastic material, dominantly angular 0.5cm to cobble-sized mafic volcanic with trace to 1% granitic, limestone, well-round ed, >2.0cm pebbles.	23	122	39	56	.001	
15'		22081	20'-6": horizon of hard, compact clay; gritty, medium grey - void of elastic material.	249	267	115	355	.018	
16'			20.5': diameter similar to above.						
17'			27-29': 95 to 98% light to medium grey hard, gritty, clay balls with 2 to 5% elastic material - dominantly bleached in composition. (light grey, massive, angular pebbles to cobble)	2453	271	20	220	.024	
18'			Trace mafic and granitic material.						
29'-35'			29'-35': BED Rock						
36'			Fine grained, weakly foliated, light grey to greenish-grey felsic volcanic (Rhyolite).						
37'			H=5. Trace to 0.5% disseminated sulphide mineralization. Quartz-carbonate veining within sheared sections. Grades into a sericitic-schist at 32.5'. H=1, strongly foliated, light greyish-green to grey in color.						
38'			STOP AT 35'						
39'			- EOH -						



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 3044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H5

## REVERSE CIRCULATION DRILL HOLE LOG

Page 1 of 1

DATE 12 01 1988

SHIR DOURS

7 TO 5

TOTAL HOURS

10

HOLE NO. ADD-88-15 LOCATION 17°40'00"E / 51°27'00"S (DENTON TWP.)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTD. H000605  
 MOVE TO HOLE 11:35-11:45 BIT NO./FTD. 75'43" - 113'  
 DRILLING 11:45-1:15  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 1:15-1:30

Depth Graphic Int! Sample Descriptive Log | ppm Au |  
 (m) | Log | No. | | As | Cu | Ni | Zn | opt |

	0-4': Organics					
10	4'-5': LACUSTRINE SEDIMENTS fine, well-sorted, light brown sand.	112	98	30	92	.085
20	22082 5'-21': DIAMICTON  Slow drill penetration with low to moderate +10 return. 85% light grey, 0.25-0.75 cm soft to hard, gritty clay balls; 15% clastic material. dominantly assorted clasts consisting of granitic, limestone, intermediate to mafic and trace silice volcanic material. Fine sandy matrix. 16-18': Felsic volcanic boulders.	106	73	13	73	.001
30	22083 15': <10% clay balls vs. 90-95% clasts with thin interbedded sandy gravel horizons. 60% intermediate to mafic / 40% granitic and other exotic, well-rounded to subrounded, 0.5 cm to cobble-sized clasts.	26	473	511	95	.013
40	22084 22085 22086 21'-31': GRAUEN  Trace to <2% clay balls. 80% granitic / 20% intermediate to mafic volcanic clasts. Fine sand matrix with a 30/70%:matrix-clast ratio. Well-rounded, spherical to subrounded (low sphericity) 0.25cm to cobble-sized clasts.	130	170	36	39	.005
50		37	186	53	117	.004
60	31'-33': BASAL TILL  Moderately compact. 98% soft to hard 0.25-1.0 cm medium grey to dark greenish- grey clayballs. 2% clastic material. Dominant by fine angular, dark grey mafic fragments. Trace granitic and limestone pebbles.					
70	33'-38': BEDROCK  33'-34.5': strongly sheared, very dark grey to black soft, altered, mafic rock (possibly a metasediment). with 1-2%, 0.25 to 0.5 cm striated pyrite cubes. Major dark-grey clay return. 34.5': slightly harder dark grey to black with strong fer-staining (oxidized). H=2-3. Trace disseminated pyrite cubes. No reaction with HCl. 36': minor light to medium yellowish-brown oxidized fragments. Possibly a strongly oxidized mafic volcano?					
80	STOP AT 38'					
90	- EOH -					
100						



OVERBURDEN EXPLORATION SERVICES LTD.

P.O. BOX 1044, 23 IROQUOIS ROAD  
TIMMINS, ONTARIO P4N 2H6

OVERBURDEN EXPLORATION SERVICES LTD.  
REVERSE CIRCULATION DRILL HOLE LOG

Page 1 of 1

DATE 12-19-88

SHIFT HOURS

7 TO 5

TOTAL HOURS

10

HOLE NO. ADP-88-16 LOCATION L0+00 / Sdn 7+003 (DENTON TWP)  
GEOLOGIST ASK DRILLER JMW BIT NO./FTG. H000605  
MOVE TO HOLE 115-1130 BIT NO./FTG. 113' + 51' = 164'  
DRILLING 1:30 - 3:45 | 3:45 - 4:00 full floo  
MECHANICAL DOWN TIME  
DRILLING PROBLEMS  
OTHER 4:00 - 4:15 - drain water lines / 4:15 - 4:30 move  
MOVE TO NEXT HOLE 4:30 - 4:45 - travel out.

Depth|Graphic|Int'l Sample Descriptive Log

| ppm Au |  
| As | Cu | Ni | Zn | opt |

		0-2': Organic					007
		2-4': No return.					
10	22087	4'-45.5': DIAMORITE (TILL)					
	22088	Slow drill penetration with low to moderate +10 return. 95 to 98% 0.25 to 1.0 cm light gray hard, gritty, clay balls. 2-5% rounded to sub-angular, 0.5 to >2.0cm mafic pebbles. Trace to 1% granitic, limestone and felsic material. 18' similar to above.	35	73	20	78	.001
20	22089	24'-26': gravel unit with >10% clay balls vs. 90% clasts. 60% intermediate to mafic, rounded to sub-rounded, 0.5 to 2.0cm pebbles; 40% well-rounded, spherical, <2.0cm granitic and limestone clasts. 26': 40% clay balls, 10% pebble to cobble-sized clasts. 82% intermediate to mafic, 2% granitic well-round to sub-angular pebbles. 32': 85% clay balls / 15% clasts - dominantly cobbles. 9% intermediate to mafic volcanic, 3% felsic volcanic, 3% granitic material.	33	51	32	78	.003
30	22090	41'-42': Intermediate to felsic volcanic boulders.	44	125	16	81	.002
40	22091	44.5'-45': diabase boulder.	54	201	34	131	.001
50	22092	45.5'-51': BEDROCK	38	103	40	46	.001
60	22093	Altered, soft, friable, light to medium grayish-green, oxidized intermediate to mafic volcanic (Altered Basalt). H=2-3. Non carbonatized. Trace to sulphide mineralization.	23	10	12	42	.001
70		STOP AT 51'					
80		- EOH -					
90							
100							



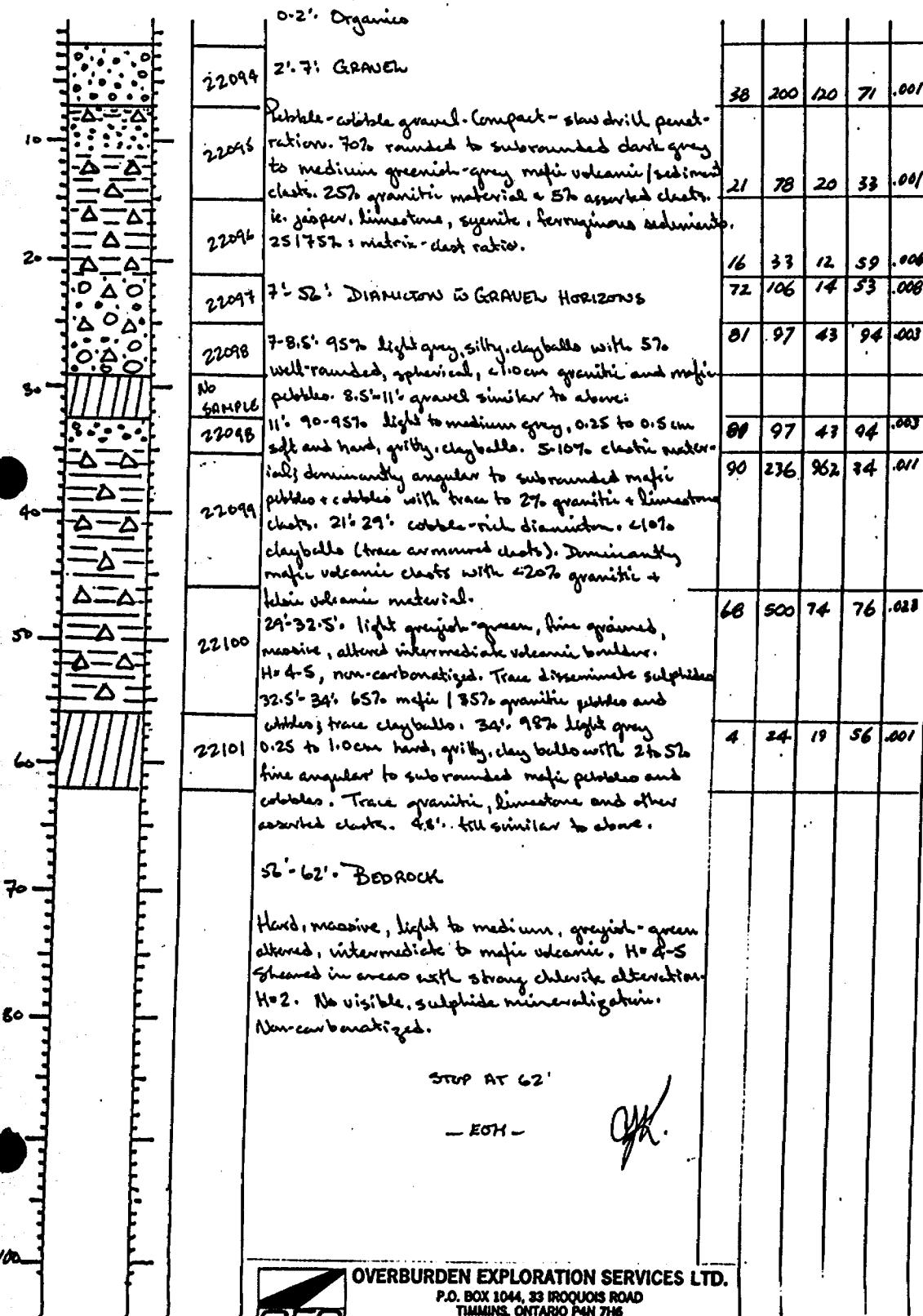
**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

DATE 19.88

HOLE NO. 100-88-17 LOCATION L0.00 / S0.9+00S (DENTON TWP.)  
 GEOLOGIST BSK DRILLER MW BIT NO./FTG. 2000-743  
 MOVE TO HOLE 2115 - 1:00 BIT NO./FTG. New Bu 0' 62'  
 DRILLING  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS 45 minute delay - wait for water  
 OTHER 3:15-3:30 : travel to site / 7:30-8:15 : thaw equipment  
 MOVE TO NEXT HOLE 11:00-13:15

Page 1 of 1

Depth|Graphic|Int|Sample| Descriptive Log | ppm | Au |  
 (m) | Log | | No. | | As | Cu | Ni | Zn | opt |



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO PAN 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

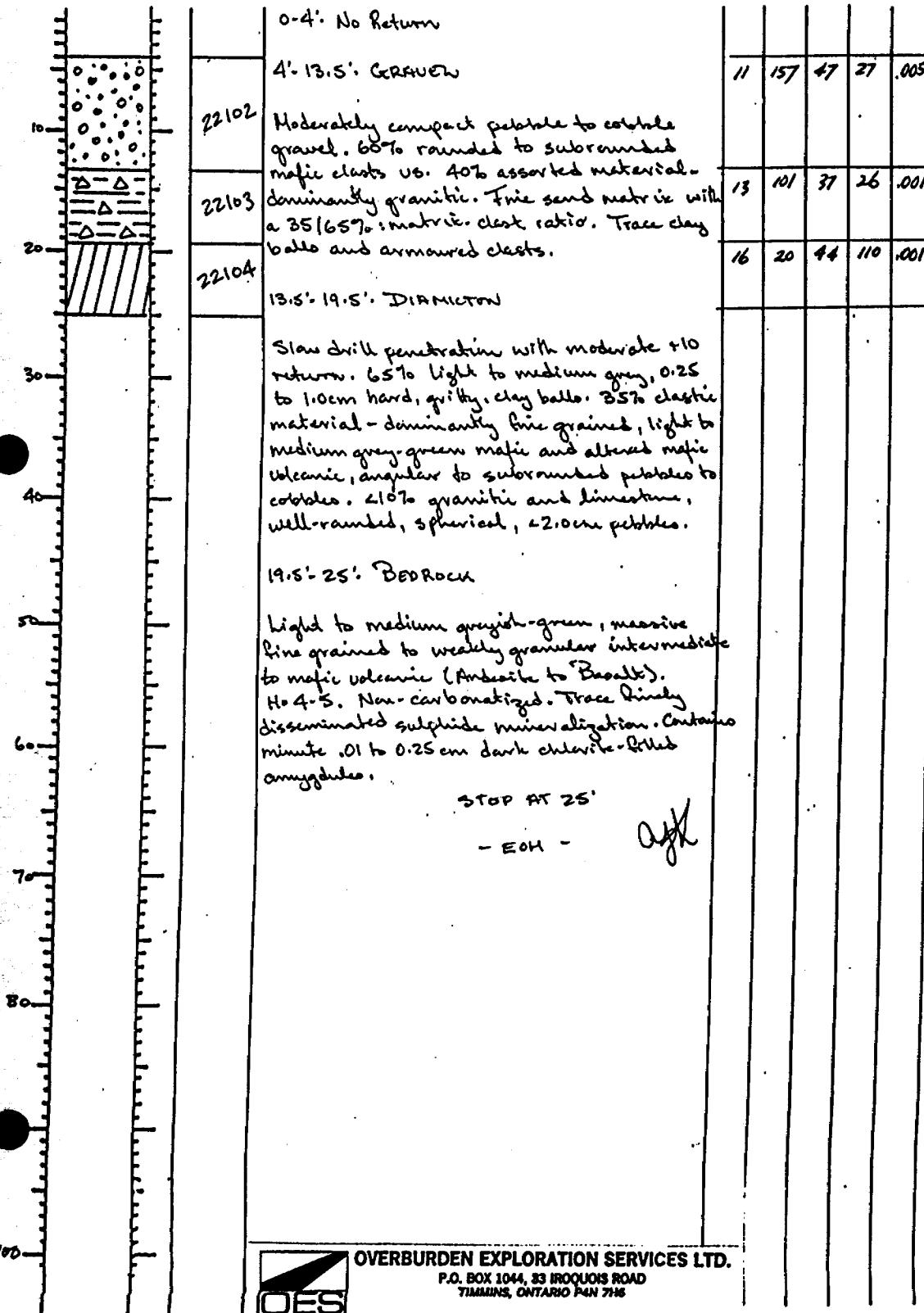
Page 1 of 1

DATE 19/88

HOLE NO. ADP-38-18 LOCATION L1400E / Sdm. 9400S (DENTON TWP)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTG. 1000343  
 MOVE TO HOLE 1:00-1:15, BIT NO./FTG. 62' + 25 = 87'  
 DRILLING 1:15 - 2:30  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 2:30 - 2:45

Depth Graphic Log Sample Descriptive Log

1 ppm  
 1 As 1 Cu 1 Ni Zn 10pt



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 23 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

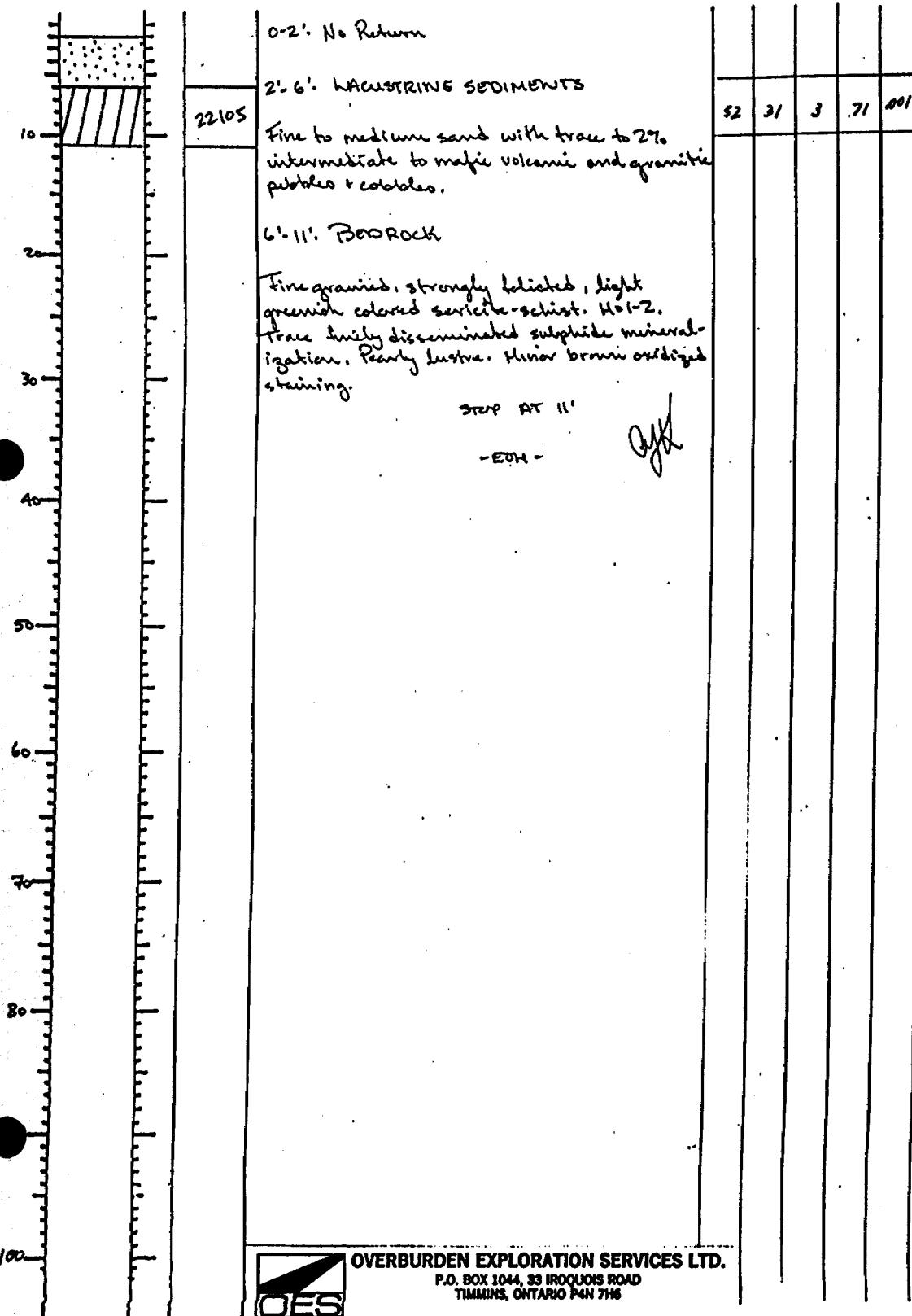
**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

DATE 11/19/88

HOLE NO. ADG-88-19 LOCATION L2+00E / Sdn. 9+00S (DENTIN TWP)  
 GEOLOGIST AK DRILLER MW BIT NO./FTG. J000743  
 MOVE TO HOLE 2:30 - 2:45 BIT NO./FTG. 89+11 = 9B'  
 DRILLING 2:45 - 3:15  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 3:15 - 3:30

Page 1 of 1

Depth|Graphic|Int'l Sample| Descriptive Log | | | | | <sup>An</sup>  
 (m) | Log | | No. | | | | | 10pt|



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

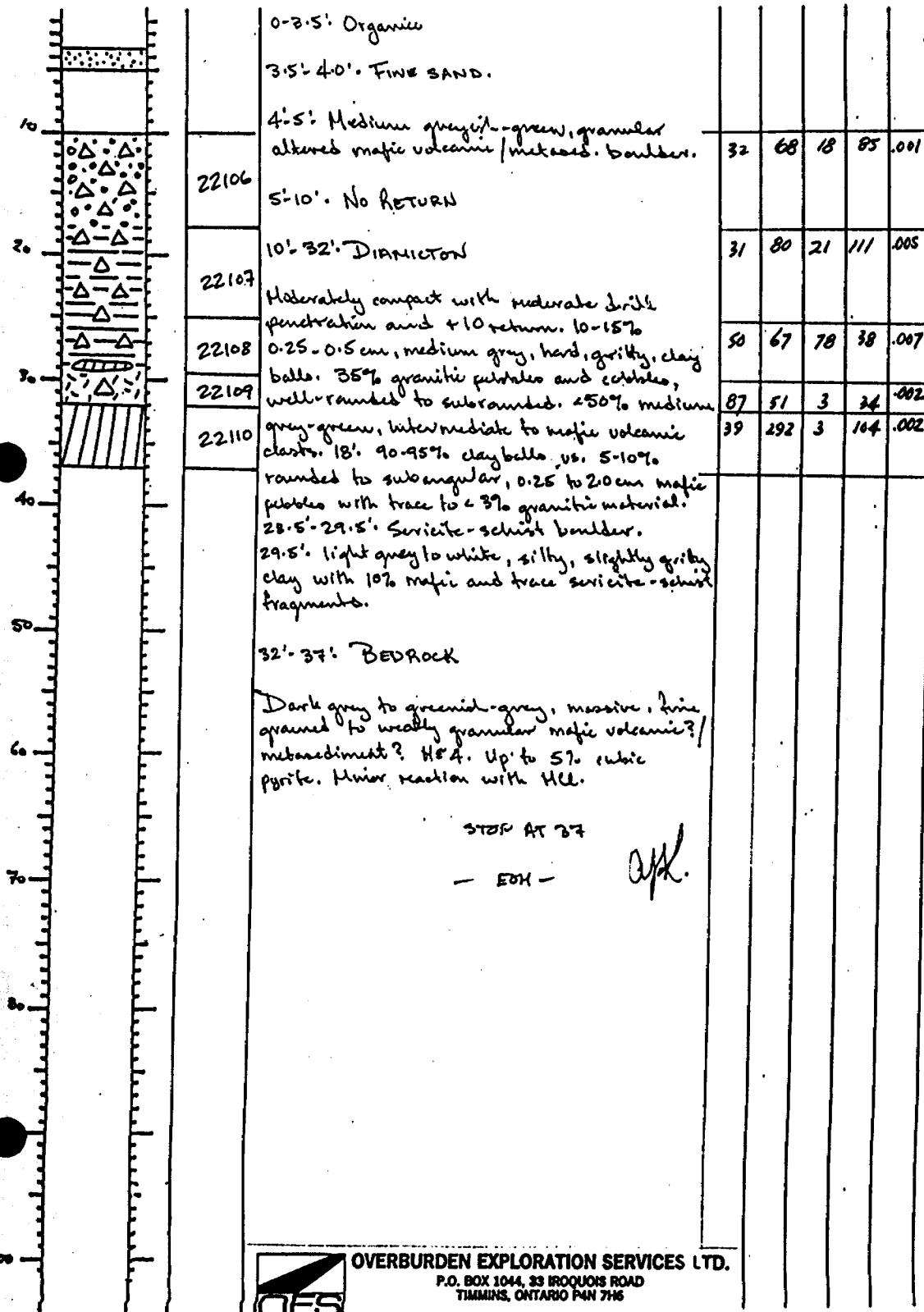
Page b(1)

DATE 10/19/88

HOLE NO. ADB-88-20 LOCATION L3000E / Sh. 9+005 (DENTON TWP.)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTG. 5000743  
 MOVE TO HOLE 3:15-3:30, BIT NO./FTG. 48' + 37' = 135'  
 DRILLING 3:30-4:45 / 4:45-5:00 Full Rolo.  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 5:00-5:15 Drain water line + pump / 5:15-5:30 travel out.  
 MOVE TO NEXT HOLE

Depth|Graphic|Int|Sample| Descriptive Log

1 ppm  
 As | Cu | Ni | Zn | lopt |



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 14-11-98

SHIFT HOURS

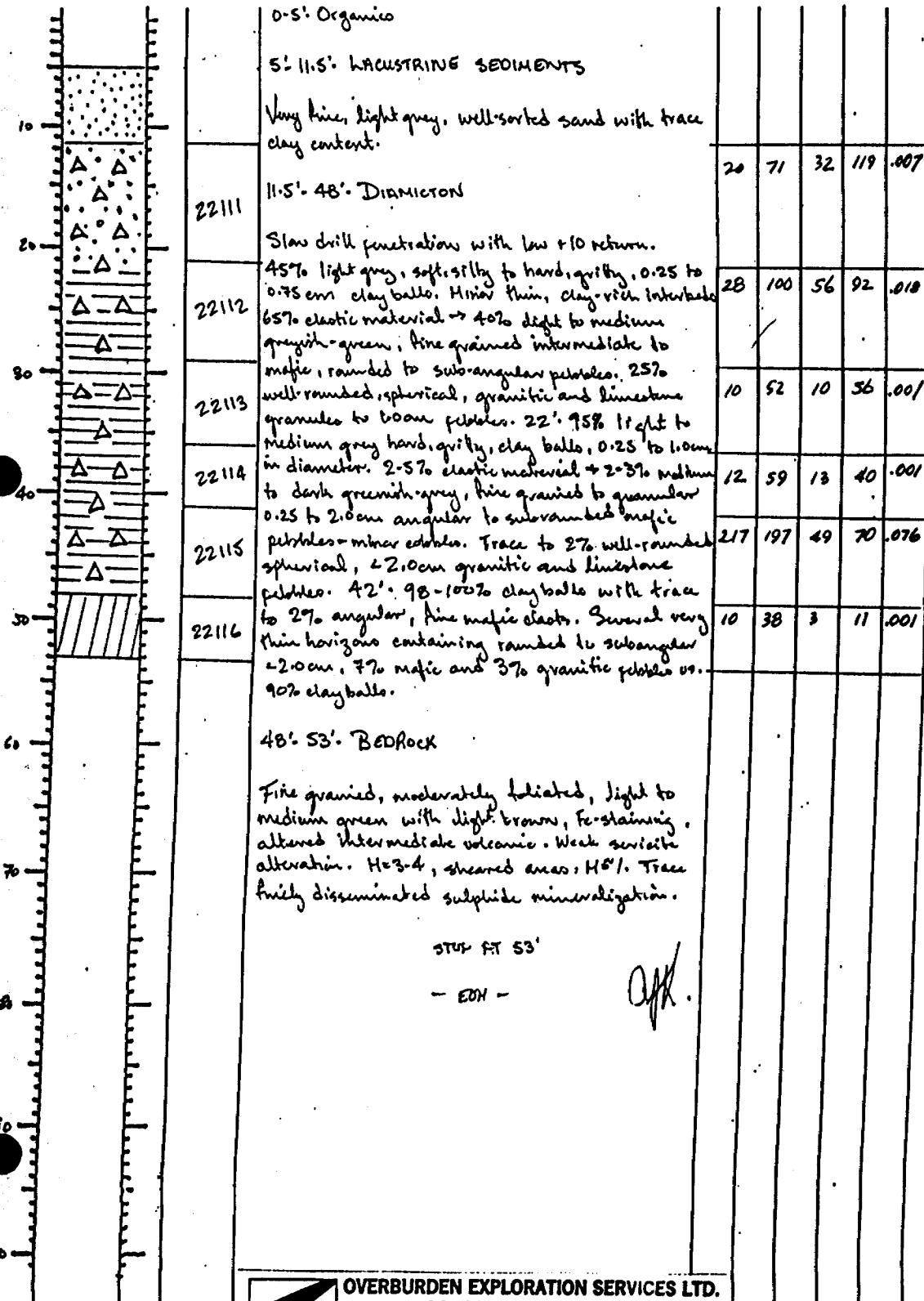
7 TO 5

TOTAL HOURS

10

HOLE NO. ADG-88-21 LOCATION L4H00E | Shn 9+00.3 (DENTON TWO)  
 GEOLOGIST PJK DRILLER KW BIT NO./FTD. D000359 - New Bit  
 MOVE TO HOLE 7:45-8:00 BIT NO./FTD. 01+53'  
 DRILLING 8:00-10:30  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 7:30-7:45 travel to site / 8:00-8:30 prepare to drill  
 MOVE TO NEXT HOLE 10:30-10:45

Depth	Graphic	Int'l Sample	Descriptive Log	PPM	Au
(m)	Log	No.		As	Cu Ni Zn
					10pt



**OVERBURDEN EXPLORATION SERVICES LTD.**  
**REVERSE CIRCULATION DRILL HOLE LOG**

Page 1 of 1

DATE 10-19-88

SHIFT HOURS

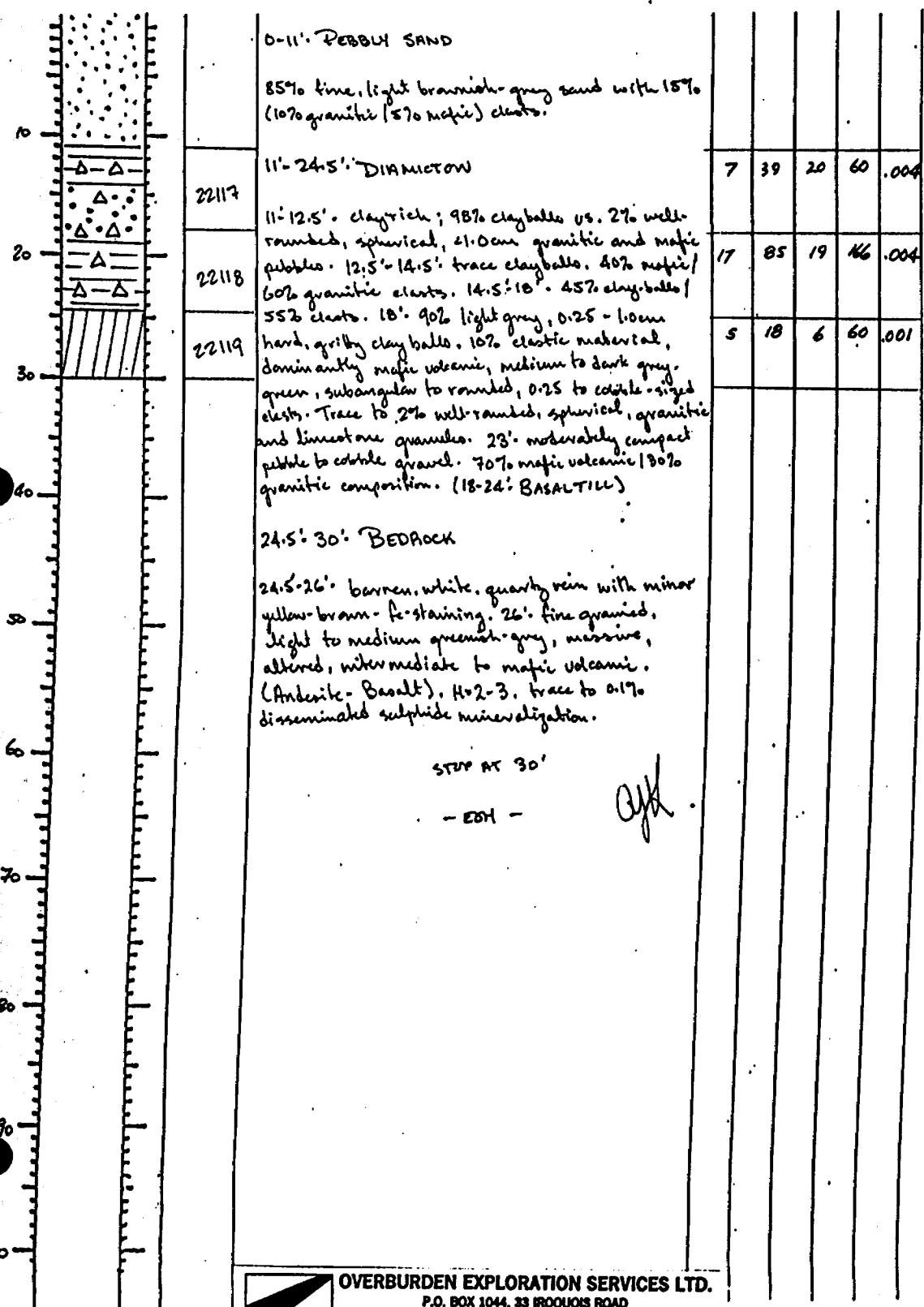
7 TO 5

TOTAL HOURS

10

HOLE NO. ADB-88-22 LOCATION L 5+00 E / Sh 9+00 S (Denton Twp)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTG. Dose 359  
 MOVE TO HOLE 10130-10145 BIT NO./FTG. 53' + 30' 83'  
 DRILLING 10145-10145  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 12:15 - 12:30

Depth (m)	Graphic Log	Int'l Sample No.	Descriptive Log	1 PPM Au	1 As 1 Cu 1 Ni 1 Zn 10pt
-----------	-------------	------------------	-----------------	----------	--------------------------



**OVERBURDEN EXPLORATION SERVICES LTD.**  
 P.O. BOX 1044, 23 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

OVERBURDEN EXPLORATION SERVICES LTD.  
REVERSE CIRCULATION DRILL HOLE LOG

Page 1 of 1

DATE 14-01-19-88

HOLE NO. ADG-88-23 LOCATION L6+00E / Sh. 9+00S (Denton Twp)

SHIFT HOURS

GEOLOGIST BJK DRILLER MW BIT NO./FTG. 1000353

7 TO 5

MOVE TO HOLE 12:15-12:30 BIT NO./FTG. 89' + 41' / 124'

TOTAL HOURS

DRILLING 12:30-2:00

10

MECHANICAL DOWN TIME

DRILLING PROBLEMS

OTHER

MOVE TO NEXT HOLE 2:00-2:15

Depth | Graphic | Int'l Sample | Descriptive Log | 1 ppm Au |  
 (m) | Log | No. | | As | Cu | Ni | Zn | opt |

		0'-34.5' DIAMICTON							
10	22120	85-90% light brownish-grey, soft, silty and gritty, 0.25-0.5cm clay balls. 10-15% well-rounded, spherical, <1.0cm elastic material. 8-9% granitic vs. 6-7% mafic pebbles.		16	17	1	23	.001	
20	22121	11.5' trace clay balls. 55% mafic / 45% granitic rounded to subrounded pebbles to cobbles. Slow drill penetration with low to moderate +10 return. Contains thin clay-rich horizons several inches in diameter. 29.5' clay-rich till (local) containing 75-80% 0.25-0.5cm. medium grey hard, gritty clay balls. 20-25% angular to sub-rounded elastic dominantly mafic volcanic with trace well-rounded, spherical, <2.0cm granitic pebbles.		10	86	23	72	.001	
30	22122			24	84	41	170	.001	
34	22123			34	100	78	269	.002	
40	22124	34.5'-41' BEDROCK		10	61	13	50	.001	
45		Medium greenish-grey, fine grained; altered massive to weakly foliated mafic volcanic (Basalt). H=3. Trace finely disseminated sulphide mineralization. Minor barren white quartz-calcite stringers.							
50		STOP AT 41'							
55		- END -							
60									
65									
70									
75									
80									
85									
90									
95									
100									



## REVERSE CIRCULATION DRILL HOLE LOG

DATE 14.01.19.88SHIFT 4 TO 5

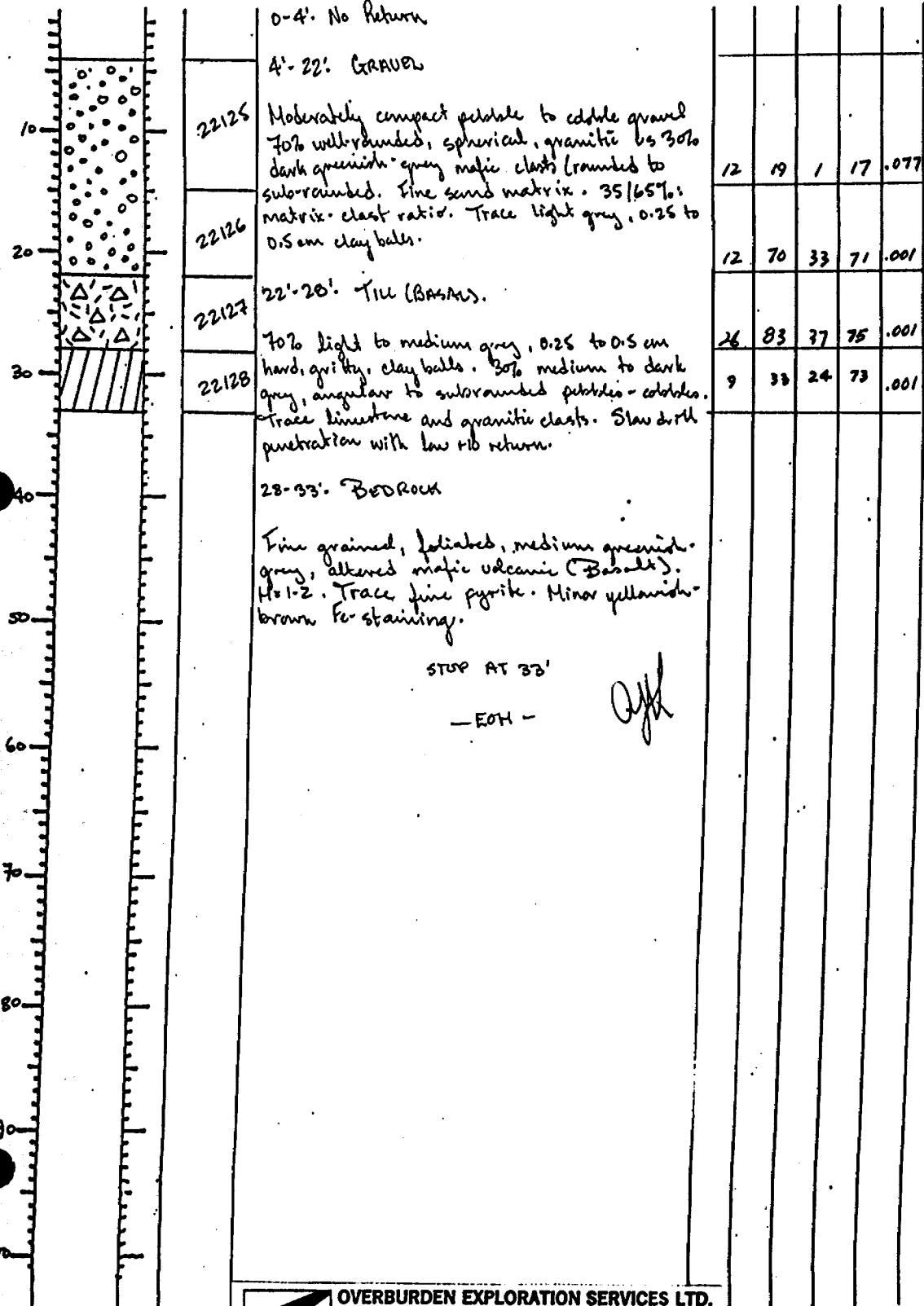
TOTAL HOURS

10

HOLE NO. ADB-88-24 LOCATION 17+00E | 50N. 9W05 (DENTON TWP.)  
 GEOLOGIST A.W. DRILLER MW BIT NO./FTD. D2000351  
 MOVE TO HOLE 2:00 - 2:15 BIT NO./FTD. 124' + 33' = 157'  
 DRILLING 2:15 - 3:30  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER  
 MOVE TO NEXT HOLE 3:30 - 3:45

Page 1 of 1

Depth|Graphic|Int'l Sample| Descriptive Log | ppm | Au |  
 (m) | Log | | No. | | 1/15 | Cu | Ni | Zn | 10pt |



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H6

**OVERBURDEN EXPLORATION SERVICES LTD**  
**REVERSE CIRCULATION DRILL HOLE LOG**

DATE 14 01 1998

SHIFT HOURS

7 TO 6

TOTAL HOURS

10

HOLE NO. ADG-88-25 LOCATION 68+00E / 5th. 9+00S (DENTON TWP.)  
 GEOLOGIST ASK DRILLER MW BIT NO./FTG. D000357'  
 MOVE TO HOLE 3:30 - 3:45 BIT NO./FTG. 157' + 43' = 200'  
 DRILLING 3:45 - 4:45 / 4:45 - 5:00 Full Rods  
 MECHANICAL DOWN TIME  
 DRILLING PROBLEMS  
 OTHER 5:00 - 5:15 drain waterlines, tank & pump.  
 MOVE TO NEXT HOLE 5:15 - 5:30 travel out.

Page 1 of 1

Depth | Graphic | Int'l Sample | Descriptive Log

1 P.M. 1/15 | Cu | Ni | Zn | Opt

Depth (m)	Graphic Log	Int'l Sample No.	Descriptive Log	1 P.M.	1/15	Cu	Ni	Zn	Opt
0-1'			0-1': Organics						
1'-17'		22129	1'-17': SANDY GRAVE						
10'			Moderately to non-compacted gritty gravel. 90% well-rounded, spherical, granitic clasts. 10% rounded, spherical, dark greenish-grey intermediate to mafic volcanic clasts.	12	11	1	65	.043	
20'	△ △	22130	55/45% matrix-clast ratio. Fine, light brownish-grey sand. Low +10 return (material washed up hole).	6	57	24	59	.002	
30'	△ △	22131	17'-30': DIAMETER						
30'	△ △	22132	25% light to medium grey, hard, gritty, clay balls. 75% elastic material - dominantly foliated to massive, medium to dark greenish grey, angular to subrounded intermediate to mafic volcanic fragments with approximately 20% granitic material. Slow drill penetration with low +10 return. Thin gravel-like lenses void of clay content.	18	136	29	101	.002	
40'		22133		20	116	30	54	.001	
50'			30'-37': GRAVE	12	27	17	99	.001	
50'			65% intermediate to mafic volcanic / 35% granitic material. Trace clay balls. Slow drill penetration. Fine sand matrix with a 40/60%: matrix-clast ratio.						
60'									
70'			37'-43': BEDROCK						
70'			Fine grained, foliated, silver grey to light greenish-grey altered rock (Serpentine Schist) H+2, trace finely disseminated sulphide mineralization. Minor brownish Fe-staining.						
80'			STOP AT 43'						
80'			- END -						
90'									
100'									



OVERBURDEN EXPLORATION SERVICES LTD.  
 P.O. BOX 1044, 33 IROQUOIS ROAD  
 TIMMINS, ONTARIO P4N 7H8



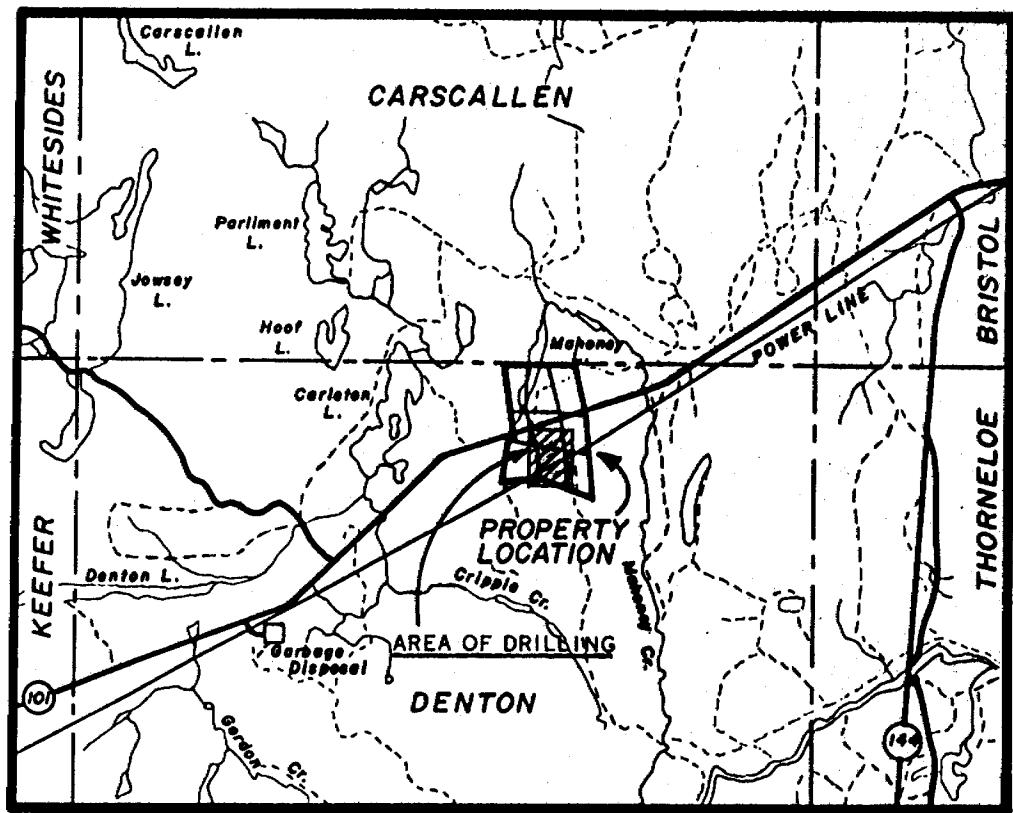
42A05SE0102 63.5483 DENTON

020

**DIAMOND DRILLING PROGRAMME  
on the property of  
AURO EXPLORATIONS INC.  
Denton Township, Ontario**

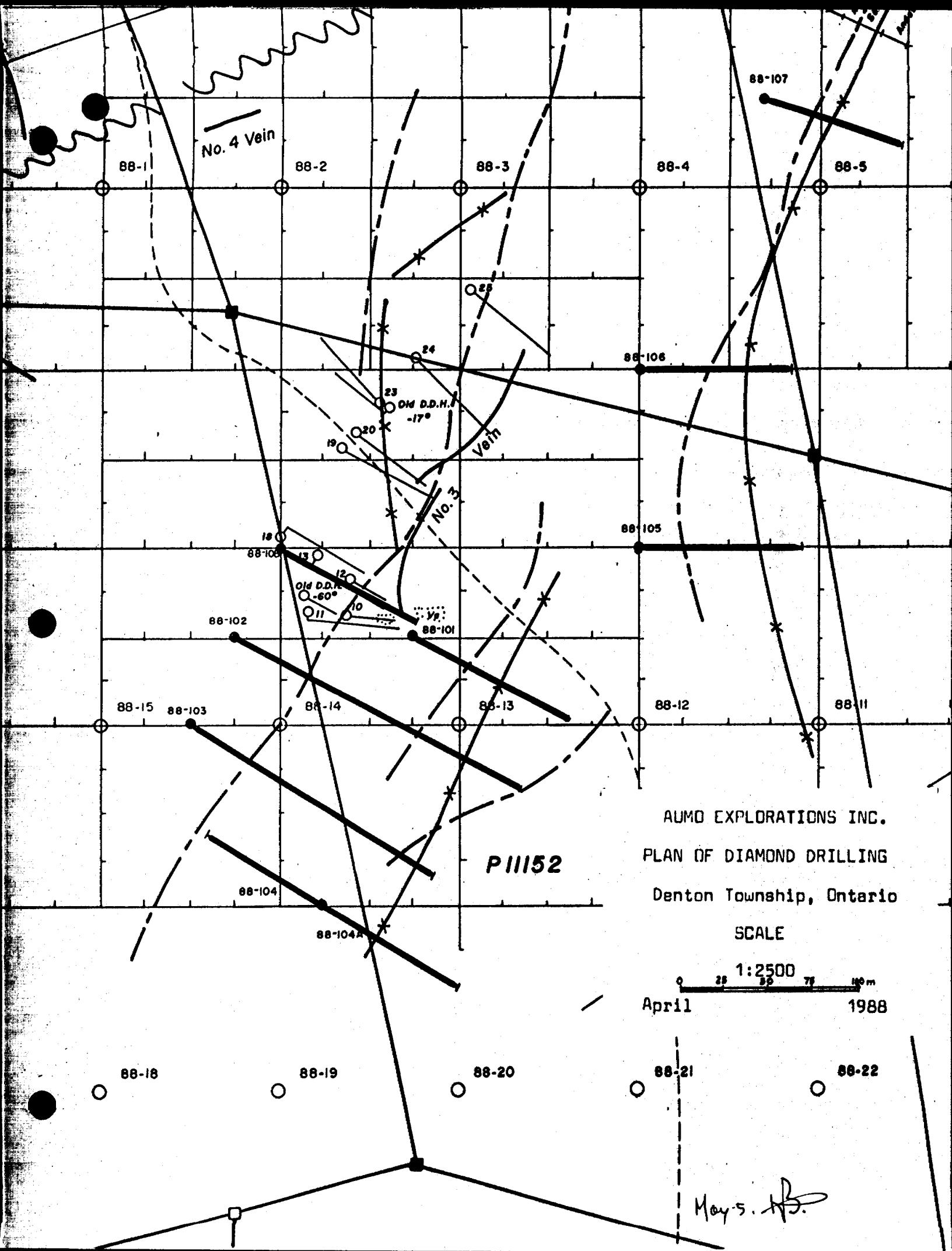
Timmins, Ontario  
May 4, 1988.

R.J. Bradshaw, P. Eng.  
Geologist



**KEY MAP**

SCALE:  
1:100,000



## INTRODUCTION

During the period March 17 to April 12, 1988 a diamond drilling programme was undertaken on a property held by Aumo Explorations Inc. in Denton Township.

The group of nine patented claims has been intensely explored over the past 65 years. About 1981 the claims were covered by magnetic and electromagnetic surveys and in 1988 a 25 hole overburden drilling programme was carried out in the south half of the property.

The diamond drilling was undertaken in the south half of the property to investigate geophysical features associated with anomalous gold values detected by the overburden drilling. Essential references include reports by the writer dated May 12, 1987 and February 16, 1988 describing the geology and previous work on the property.

A plan showing the location of the holes and sections ( Figures 1 to 7 ) of the holes accompany this report. A complete set of logs and assay results are also attached.

### SUMMARY OF 1988 DIAMOND DRILLING

<u>Hole No.</u>	<u>Location</u>	<u>Direction</u>	<u>Dip</u>	<u>Depth ft.</u>	<u>Target</u>
88-101	275E;650S	118	45	421	geophysical and overburden anomalies
88-102	174E;650S	118	45	820	as above
88-103	147E;700S	118	50	800	geophysical anomaly
88-104	225E;800S	298	50	382	geophysical anomaly
88-104A	225E;800S	118	50	450	as above
88-105	400E;600S	090	50	450	geophysical and overburden anomaly
88-106	400E;500S	090	50	420	geophysical anomaly
88-107	470E;350S	118	50	420	geophysical and overburden anomaly
88-108	200E;600S	118	45	400	site of old drilling and gold values ?

Nine holes totalling

4563 feet (1391 m)

### COSTS

The cost of the programme was substantially below budget. Costs attributed directly to the drill contractor, Norex Drilling Limited, amounted to \$18.24 per foot. Including engineering services and assaying, cost of the programme amounted to approximately \$21.15 per foot.

The diamond drill core is stored just north of highway 101 adjacent to the Malette timber road along the west boundary of the property.

### RESULTS

In general, Figures 2, 3, and 4 display two iron formation units separated mainly by felsic pyroclastics and some intrusive rocks all of which dip about 70 degrees to the west. The deeper easternmost iron

formation is associated with a narrow bed of pyritized graphite and other fine grained clastic sediments over a width of about 100 feet. Farther to the east the volcanics are dominantly intermediate to mafic, suggesting thereby that the iron formation-graphite assemblage marks the boundary between the Deloro Group to the west and the Tisdale Group to the east. The Tisdale Group is much more favourable to economic concentrations of gold.

Conformable feldspar porphyry, quite common in the drilling, lacks mineralization or gold values.

Anomalous gold values within the drill section are associated with disseminated pyrrhotite-pyrite ranging from 2 to 12 per cent in a host sometimes carbonatized, with or without quartz injections, but almost invariably sericitized and having lightly disseminated arsenopyrite.

The best intersection came from hole 88-104A which assayed 960 ppb ( 0.03 opt ) over 6.5 feet. It is suspected that this value belongs to the adjacent sample containing 4 per cent pyrrhotite and pyrite and minor arsenopyrite. Of course, values below 0.03 oz. per ton gold, although anomalous, are not ore grade.

#### CONCLUSIONS AND RECOMMENDATIONS

The range of gold values detected in the diamond drilling reflect the comparative low values encountered by the overburden drilling. Moreover the relationship of gold values to arsenopyrite mineralization and other sulphides is typical of the area.

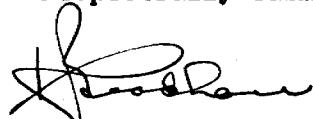
No values were found with the pyritized graphite, identified as the No. 3 vein. Old reports indicated the presence of high values in this area.

In view of concentration of drilling, low gold values, and narrow widths, no additional drilling is justified in the area drilled. Results from work planned on adjacent properties may warrant a review of the potential of the Aumo property and consideration of additional drilling. In the meantime no further work is proposed.

Timmins, Ontario,  
May 4, 1988.



Respectfully submitted,



R.J. Bradshaw, P. Eng.  
Geologist

**LEGEND AND SYMBOLS**  
**AUMO 1988 DIAMOND DRILLING PROGRAMME**

**VOLCANIC ROCKS**

- V5 Intermediate to mafic volcanics
- V7 Mafic volcanic flows
- V9 Felsic tuff
- V11 Felsic pyroclastics
- V12 Mafic pyroclastics

**FORMS OF ALTERATION**

- σ silicified
- λ sericitized
- η carbonatized

**SEDIMENTARY ROCKS**

- S2 Arkose
- S3 Greywacke
- S4 Argillite
- S5 Quartzite

**MINERALIZATION**

- Asp Arsenopyrite
- Cp Chalcopyrite
- Py Pyrite
- Po Pyrrhotite
- Sp Sphalerite

**IRON FORMATION**

- F2 Sulphide iron formation
- F3 Magnetite iron formation

**METAMORPHIC ROCKS**

- M1 Schist
- Gp Graphite

**INTRUSIVE ROCKS**

- ID Granodiorite
- 2D Diorite
- 3D Diabase
- 3 Mafic intrusive
- Fp Feldspar porphyry

**SYMBOLS**

- • • Overburden
- VLF conductor
- Axis of magnetic high
- 88-240 Overburden hole
- 88-104 Oz. per ton gold over width in feet

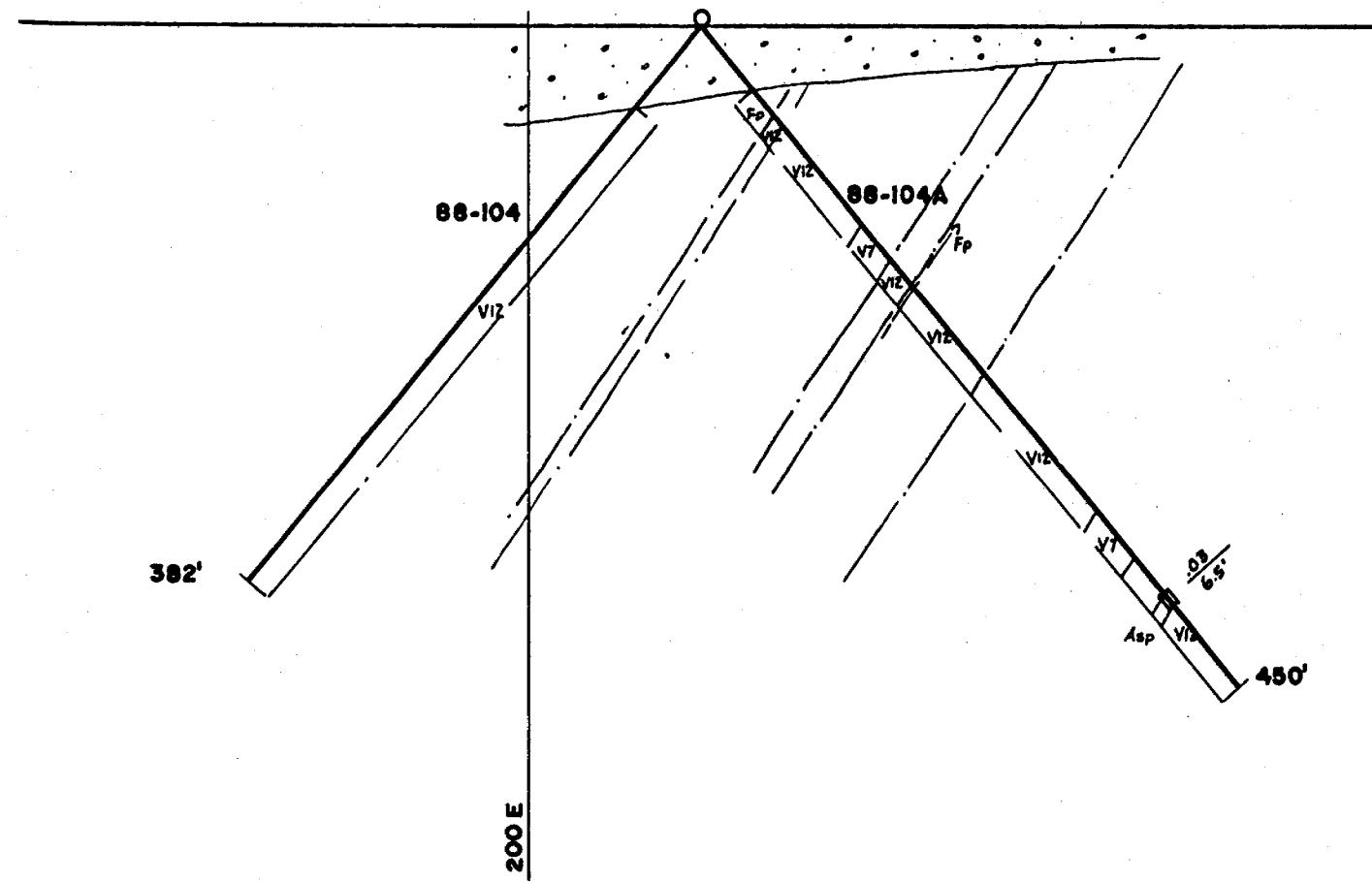


Figure 1

88-103

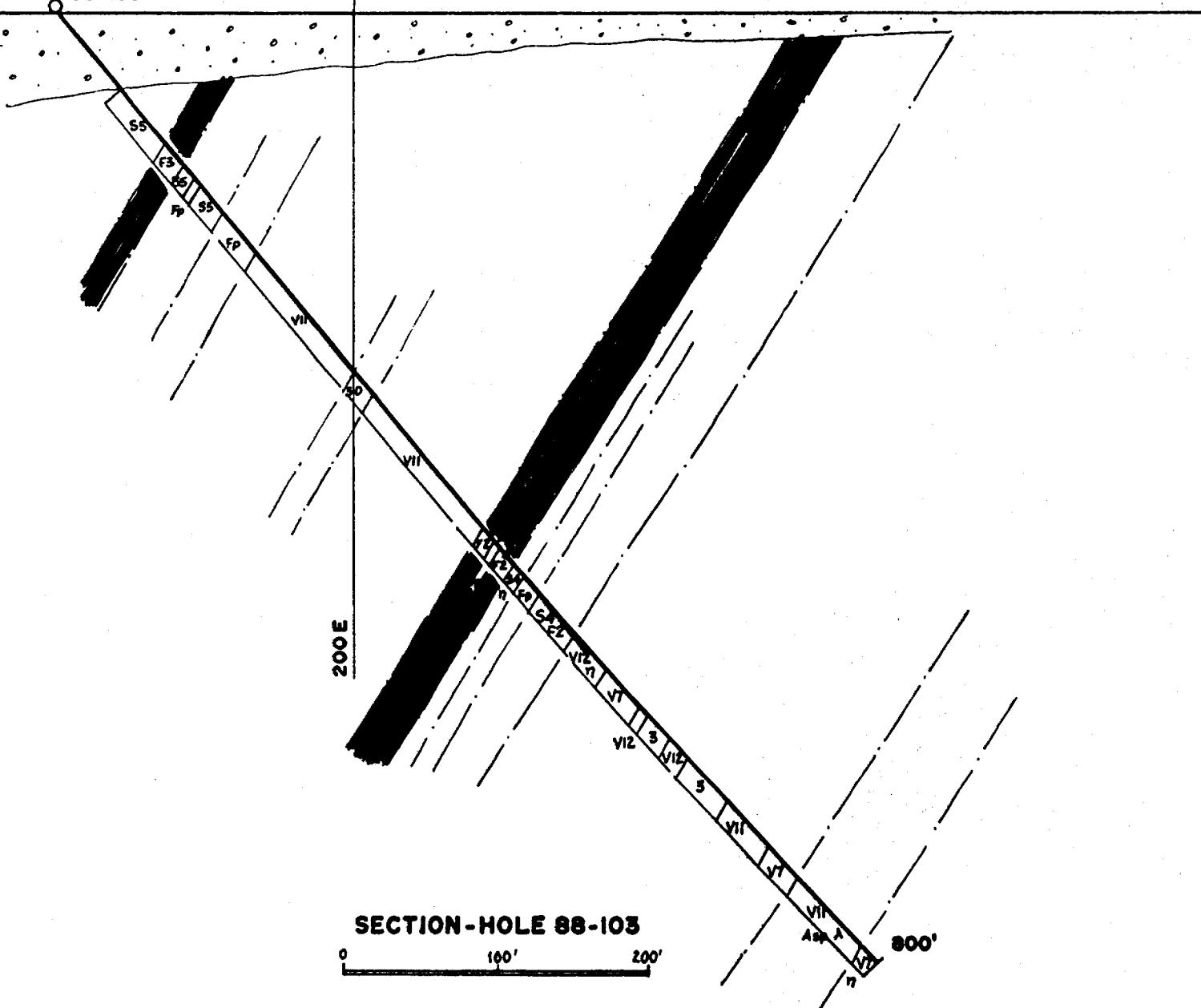


Figure 2

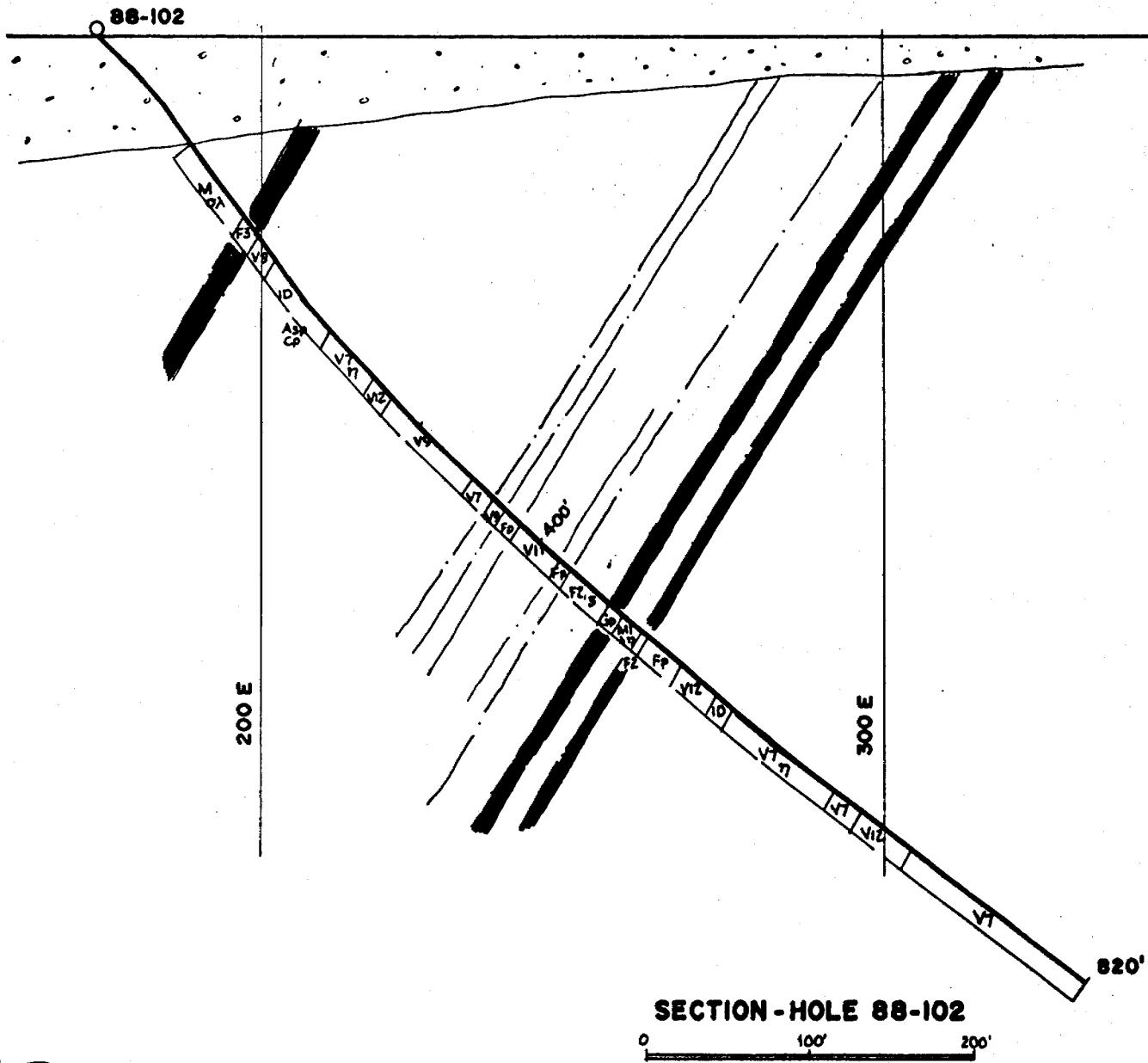
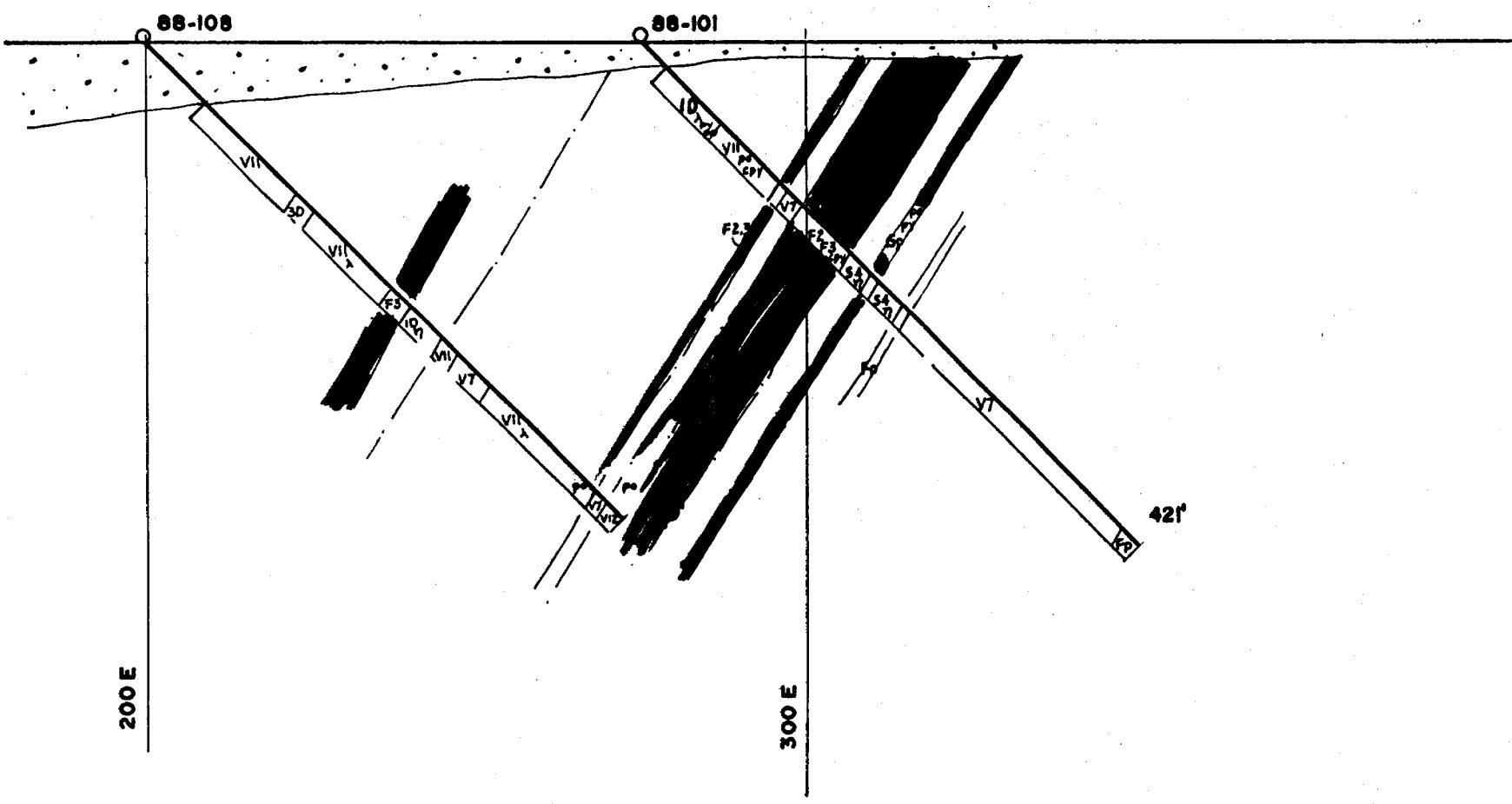
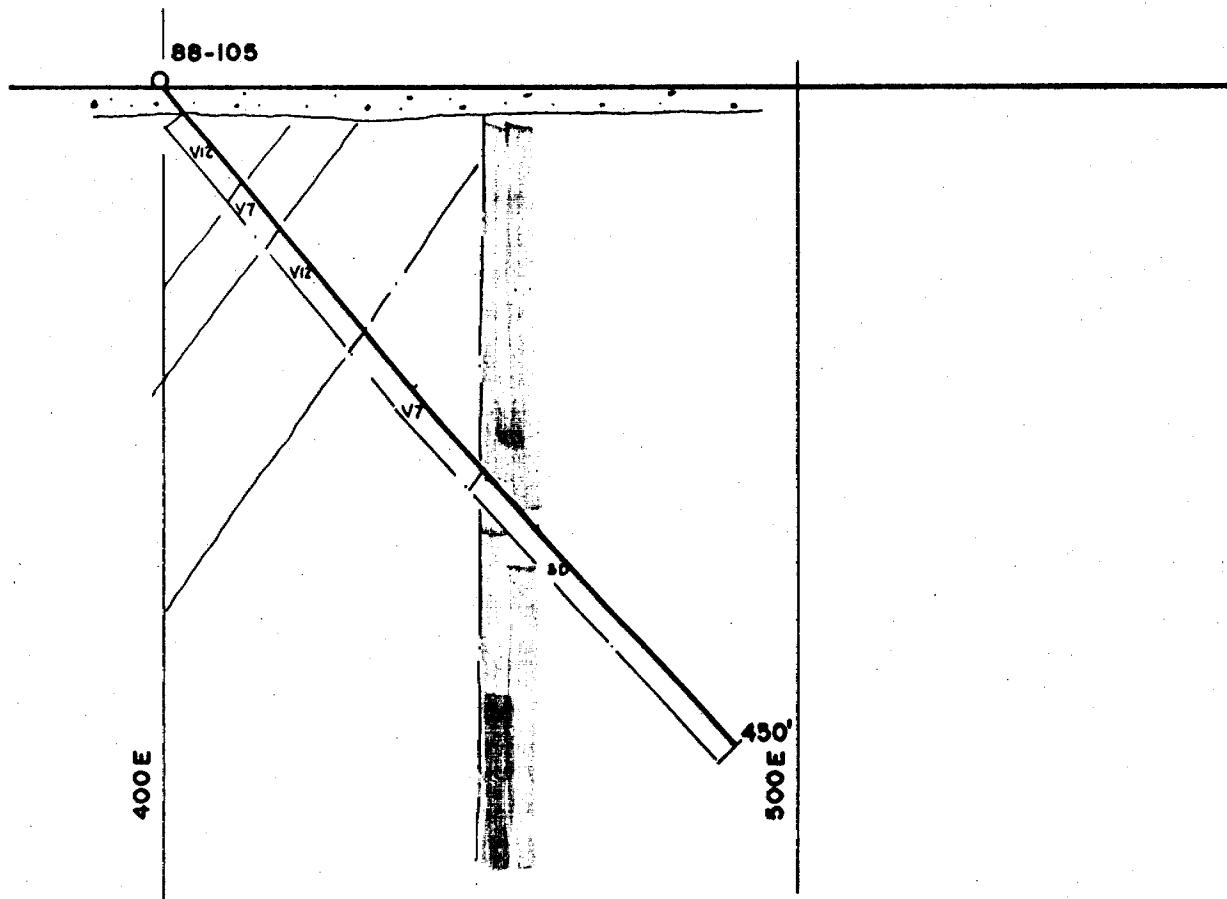


Figure 3



SECTION-HOLES 88-101, 108

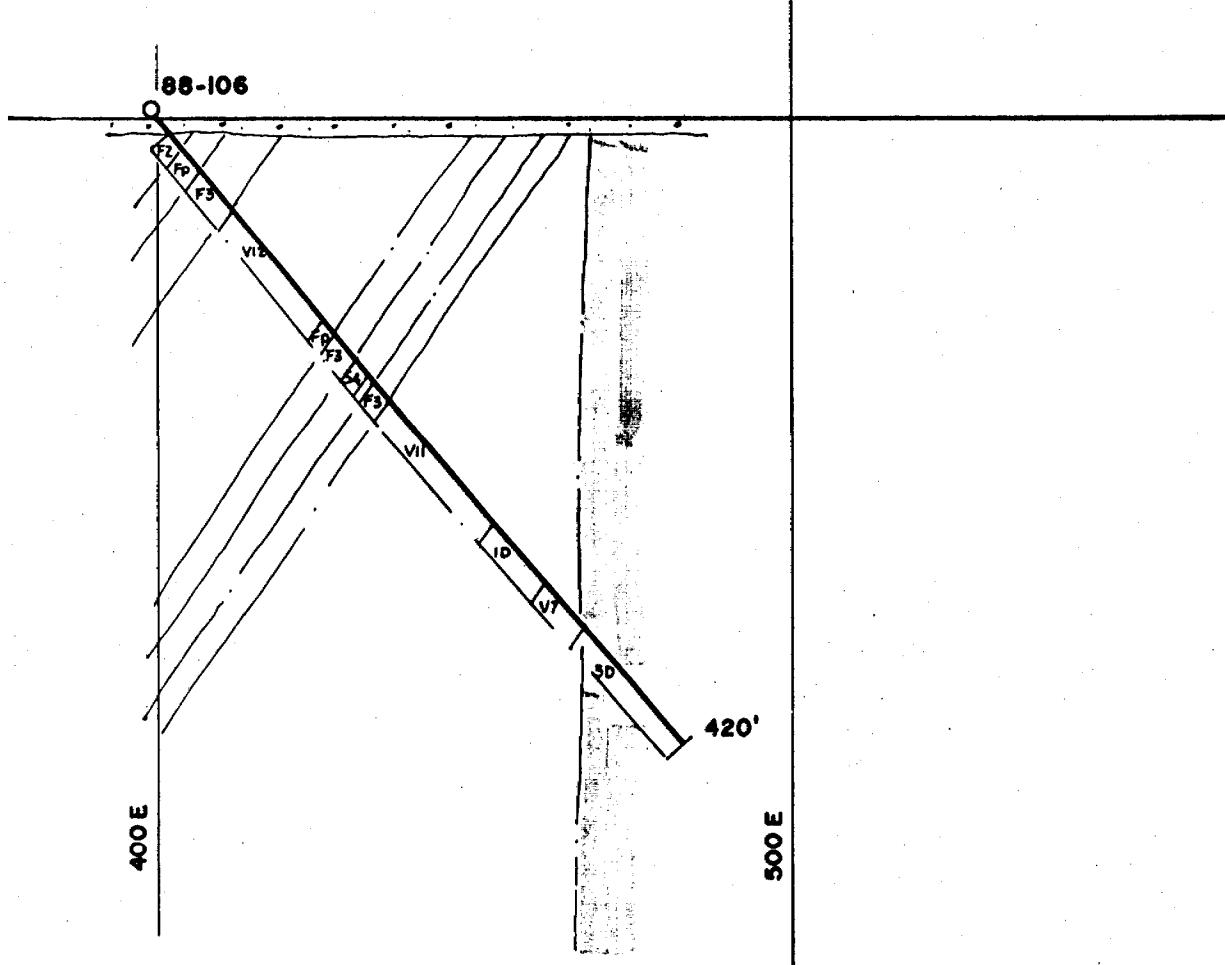
0 100' 200'



SECTION - HOLE 88-105

0 100' 200'

Figure 8

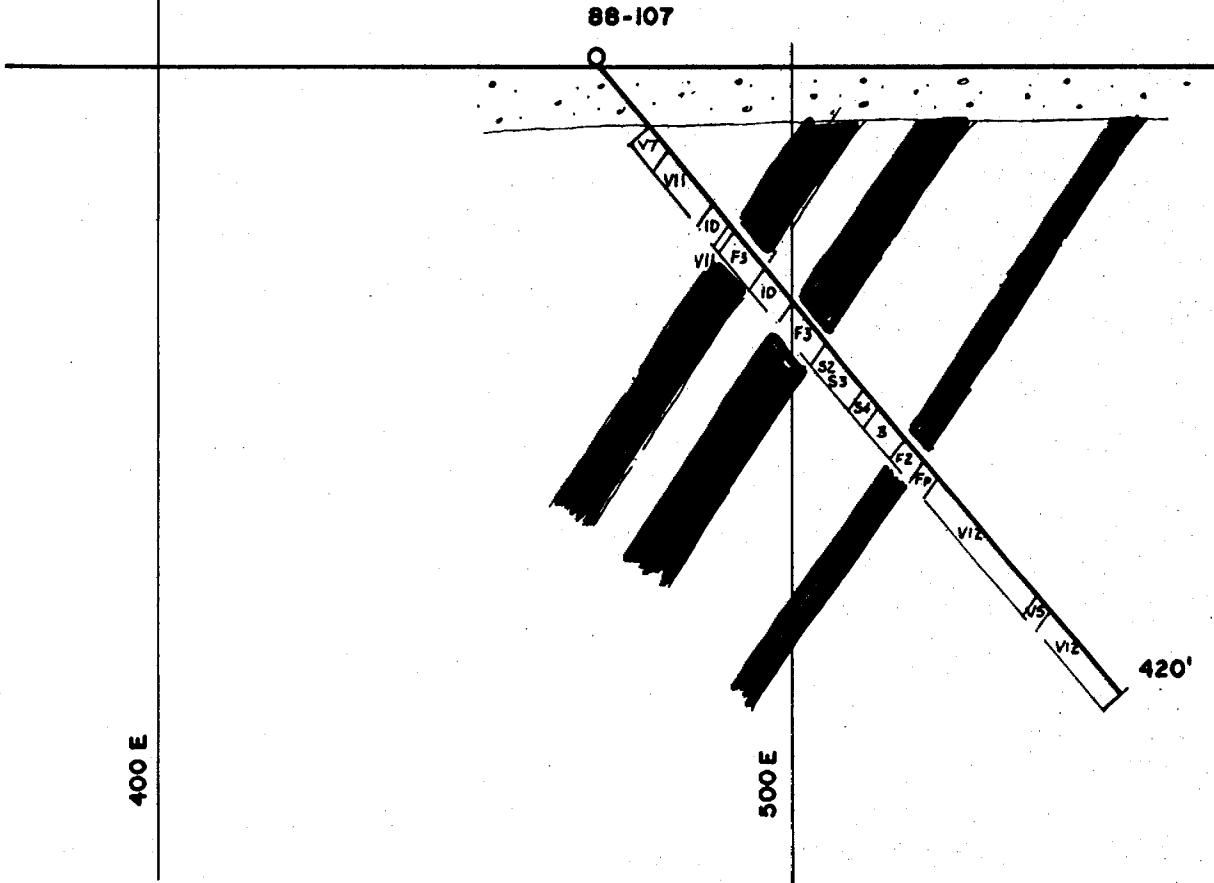


SECTION - HOLE 88-106

0 100' 200'

*[Handwritten signature]*

Figure 6



SECTION-HOLE 88-107

0 100' 200'

*[Handwritten signature]*

Figure 7

# DIAMOND DRILL RECORD

PROPERTY Aurora Exploration Inc.

HOLE NO. 88-101

TOWNSHIP Denton Tp.

PAGE NO. 1

LOCATION 275 E.; 650 S.

metric grid

CORE LOCATION property

STARTED March 17, 1988

DIRECTION Az 118°

COMPLETED March 19

DIP 45°

DIP TESTS 210 - 44°

DEPTH 421'

420' - 44°

ELEVATION

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE				
0 - 20	Casing - overburden						
20 - 66	Granodiorite; medium grey, fine grained, hard, massive to foliated with zones of white feldspar phenocrysts, occasional seams of pyrite-pyrrhotite						
	initial 2' is schistose at 60°, sericitized & cream to grey colour						
46.6	- flow structure at 60°						
52	- sericite at 60°						
54	- 1/2" patch of pyrrhotite (po)						
57.5	- 1 1/2" xenolith						
58-66	fewer & smaller xenoliths, finer grained						
66	- 1.5" gneiss str at 0-40°						
66 - 115	Felsic Volcanic: grey to green, very hard except for chlorite sections, discontinuous, f. to m. grained, comprised of flow breccia & pyroclastics						
	initial 1.5' v. f. gr. & chloritic						
74.5	1.5" of heavy pyrrhotite						

Drilled By Nerex - Timmins

Signed 

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-101

TOWNSHIP ..... PAGE NO. 2

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
83.5	1' ruggy white gtz vein			
86.4 - 91.4	v.f.gr. massive green chloritic, mafic flow; contacts at 70°			
91.4 - 115.0	tuff; numerous grey gtz fragments, poorly defined foliation at 70°			
108 - 113	2" pa, sli cpy bearing gtz str at 45°, 1% po	1-1	5.0	8
113. - 115	15% pyrrhotite, sli cpy	1-2	2.0	10
115 - 122	Iron Formation: banded chlorite, grey gtz, chert, pyrrhotite, some magnetite at 70-80°, po with some py may be irregular with sli chalcocite			
115 - 120	10% po, minor py, sli cpy	1-3	5	11
120 - 122	6" irreg white gtz str, 6% po	1-4	2	7
122 - 135	Mafic Volcanic Flow: med green, med-hard, v.f.gr. uniform, massive			
128.5 - 130.0	70% gtz str at 75°, 3% po-py	1-5	1.5	16

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE NO. 88-101 .....

TOWNSHIP .....

PAGE NO. 3 .....

LOCATION .....

CORE LOCATION .....

STARTED .....

DIRECTION .....

COMPLETED .....

DIP .....

DIP TESTS .....

ELEVATION .....

DEPTH .....

.....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Avg
135 - 174.4	Iron Formation: banded chlorite, magnetite, silica, initially; deeper chert, sericite, pyrrhotite (pn) at 75°			
138	2" massive magnetite with dark green chloritic section			
144 - 147	brown, fractured, ruggy limonite-stained with core			
151 - 157	well banded, some secondary gtz, 4% po-py	1-6	6	43
157 - 162	banded chert, sericite, gtz at 75°, 6% po-py	1-7	5	22
162 - 166	as above, 6" massive pn, 3" gtz-carb str. silicpy	1-8	4	22
166 - 171.5	banded with 20% po-py; 4" conf. grey gtz str, silicpy	1-9	5.5	32
171.5 - 174.4	1.2' conf. gtz at 70°; 20% po-py, silicpy@70°	1-10	2.9	5
174.4 - 193.9	Carbonatized Argillite; light grey, v. f. gr., soft, fairly massive, well carbonatized (HCl > CO <sub>2</sub> )			
176 - 185	gel-like texture suggests chemical sediment			
191.4 - 193.9	3" gtz str @ 45° conf. to bedding	1-11	2.5	3
193.9 - 199.5	Pyritic Graphite: carbonate, pyrrhotite, pyrite in graphite banded at 70°			

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-101

TOWNSHIP ..... PAGE NO. 4

LOCATION ..... CORE LOCATION ..... STARTED .....

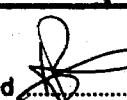
DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb			
193.9 - 200	15% po-py mostly in top half	1-12	6.1	41			
199.5 - 220	Carbonatized Argillite: med. grey, fairly massive, uniform, & very f. gr; sericitic cont. seaming, clots of tourmaline?; 2% diss. or scattered po-py						
220 - 236.3	Feldspar Porphyry: grey green, med. hard, massive, fine gr matrix with abundant feldspar phenocrysts up to 16", poorly defined flow structure at 30-45° adjacent to contacts, phenocrysts show no change in size						
226.3 - 406.7	Mafic Volcanic Flows: grey green, med. hard, massive fine to med. grained with felt-like texture in places						
228.5	1" gtz str. @ 50°						
243.	3" gtz - epidote						
279-281	irreg gtz-tourm vein, coarse tourm. with 1-13 sl sericitic, chlorite; minor grains & clots of po-py	3	4				

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-101

TOWNSHIP ..... PAGE NO. 5

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE				
288	1" qtz str @ 40°						
291.5	thin py seaming						
292-293	chlorite seaming						
313	flw contact at 50°						
320.8	2" calcite str @ 20°						
330	1.5' coarse barren qtz-calcite-tourmaline @ 245°						
334-341	at 50°-coarse barren irreg. qtz-calcite-chlorite-tourmaline						
341.5 - 342.	2" qtz-chlorite str @ 50°						
342. - 346.6	" " " @ 40°						
346.6 - 347.8	coarse qtz-carbonate str's at 30-40°						
351.5 - 360.	v.f. gr banded @ 75° sli. carbonatized sulf unit gradational with more mass. rock above & below						
360 - 406.7	sli carbonatized, rec. banded at 75°						
383	- 1" qtz str.						
387.5 - 394.5	2" barren qtz-carb. str @ 50°						
394.5 - 395.2	feldspar porphyry as above including vein lith.						
395.2	more banded						

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED



# DIAMOND DRILL RECORD

PROPERTY Aumo Exploration Inc. HOLE NO. 88-102  
 TOWNSHIP Denton Tp. PAGE NO. 1

LOCATION 6+50 South  
 1+74 East metric

CORE LOCATION Mallette Road  
 DIRECTION Az 118°  
 DIP 15°  
 DEPTH 820'

STARTED March 19, 1988  
 COMPLETED March 25  
 DIP TESTS 86° - 54°  
 410° - 42°  
 820° - 38.5°

ELEVATION

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb		
0 - 86	Casing - overburden					
86 - 137.8	Quartz leucite schist: grey-white, very hard, v.f. gr. schistose at 50°-70° with some mafic inclusions. ghosted lapilli & quartz eyes suggest derived from felsic pyroclastic.					
96 - 100	grey-green, soft, scincitic schist					
101 - 106	core ground					
108 - 111	felspar porphyry					
137.8 - 151.	Iron Formation: dark green to black, med. hard v.f. gr. banded chlorite, magnetite, & quartz, bottom contact gradational					
142.7 - 146.	30% comp. gne strs @ 60°, 2% pyrochite	2-1	3.3	8		
151. - 171	Felsic Tuff: grey-white, very hard, quartz eyes, fractured, colour zoning at 60-70°					
171 - 221	Granodiorite: grey, medium hard, v.f. to f. grained; colour is gradational as is contact zones;		-			

Drilled By Norex Drilling Ltd.

Signed

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-102 .....

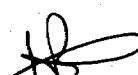
TOWNSHIP ..... PAGE NO. 2 .....

LOCATION .....	CORE LOCATION .....	STARTED .....
	DIRECTION .....	COMPLETED .....
	DIP .....	DIP TESTS .....
ELEVATION .....	DEPTH .....	.....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Auxiliary
	presence of obscure fragments, zones of feldspar phenocrysts alternate with sericitic zones at 60°; weakly carbonatized			
176. - 179.3	2-7" cont. qtz veins with tourmaline & sercite at contacts, sl. sulphides	2-2	3.3	2
179.3 - 182.5	no mineralization	2-3	3.2	15
182.5 - 186.0	schistose & sericitic at 70°; 1" qtz - cassiterite str at 70°; 4" seam of po, few cherts qtz	2-4	3.5	157
186. - 191.	porphyritic, sericitized, 1% po-py	2-5	5	21
191 - 196	slightly fractured & sericitized	2-6	5	3
196 - 201	2" po scanning; few qtz filled fractures	2-7	5	4
200 - 217	feldspar phenocrysts throughout			
221 - 260	Carbonatized Magic Volcanic: grey-green, soft, v.l. grained, massive with inclusions of semi porphyritic granodiorite; contact gradational			
224 - 230.5	granodiorite			
253.5 - 260.	"			

Drilled By .....

Signed .....



SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-102

TOWNSHIP ..... PAGE NO. 3

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb			
260 - 276	Mafic Tuff: grey-green, f. to m. grained, soft, with foliation at 60°						
276 - 343	Felsic Tuff: grey-green, f. b m.grained, hard, with foliation at 60-70°; similar to granodiorite except for more uniform foliation & smaller porphyroblasts. occasional angular lepilli; sil. go-py						
311 - 313.5	mafic volcanic						
321 - 324.5	chloritic bomb						
324.5	becoming fine grained						
343 - 361.4	Mafic Volcanic Flows: green, v.f. to f.g. med. hard, massive, uniform & grades to mat- like texture; contact marked by gt str at 50°						
361.4 - 370.4	Felsic Tuff: as above, contact sharp at 70°						
370.4 - 384.	Feldspar Porphyry: zonal white phenocrysts up to 6" in grey f.g. feldspathic matrix						
376. - 378.8	15° volcanic incl. with 5% go-py	2-8	2.8	253			

Drilled By .....

Signed .....

  
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-102

TOWNSHIP ..... PAGE NO. 1

LOCATION .....	CORE LOCATION .....	STARTED .....
.....	.....	.....
.....	.....	.....
ELEVATION .....	DEPTH .....	DIP TESTS .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE		
304 - 416.4	Felsic Pyroclastic: dark grey, hard, v.f. h.f. grained, poorly defined banding at 50-70°; some large lapilli- like structures, 1% dia po-py			Ausph	
401.5	1" fragment				
403.	5" bomb				
411 - 416.4	v.f.gr. mass. mafic flow				
416.4 - 424.	Feldspar Porphyry: as above				
421 - 454	Iron Formation: initially chloritic & tuffaceous, then with scanning of pyrrhotite & magnetite, silica increases from 436				
426 - 431	5% po scanning & pyrite crystals in chlorite/gt 2-9	5	2		
431 - 436	3% po-py as above; banding at 60°	2-10	5	3	
436 - 441	5% po, py, magnetite with irreg. grey gtz in initial 2"	2-11	5	3	
438.5 - 440	tuffaceous				
441 - 446	5% po-py with irreg grey gtz	2-12	5	7	
446.5 - 451	felsic tuff section				

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88 - 102

TOWNSHIP ..... PAGE NO. 5

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
431 - 454	4% po-py	2-13	3	4
454 - 465.9	Pyritic Graphite: black banded graphite at 70-75° with much pi-py seaming			
454 - 459	10% po-py seaming, 10% conf. gte-cash seaming	2-14	5	86
459 - 464	10% po-py minor cpx seaming at 75°	2-15	5	55
464 - 466	as above 1.8" conformable gte v. with clots of po	2-16	2	21
465.9 - 481.	Schist Carbonate Schist: grey-green, soft carbonatized & schistose at 75°			
471.2 - 476	1" gte carb sh at 80° with disseminated po, py, sphalerite; 2% po in carbonate seaming	2-17	4.8	43
481 - 486	Ironformation: sharp contact with chert at 80°; alternating chert, po-py seams, 2-6" gte carb veins @ 50-80°; 15% mafic	2-18	5.0	4
496 - 511.5	Feldspar Porphyry: as above & conformable			
491.5 - 495.8	matrix tuff			
500 - 505	few scattered phenocrysts			
507 - 508	- - -			

Drilled By .....

Signed

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-102 .....

TOWNSHIP ..... PAGE NO. 6 .....

LOCATION ..... CORE LOCATION ..... STARTED .....

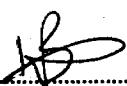
DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE			
511.5 - 539.0	Mafic Tuff: grey, v.f. to f. gr. med. hard, foliation marked by colour, elongated grains at 75°					
516 -	v.l. gr. & massive - perhaps flows					
511.5 - 514.4	3% po-py as veins & grains	2-19	2.9	4		
521 -	10" irreg. gte-crb					
520.5 -	6" irreg. gte-cash, minor po					
537.5 -	7" granodiorite					
539 - 552	Granodiorite: dark grey, hard, f to m. grained, massive, sericitized & carbonatized; sharp contact at 70°					
540.5 - 546.	4% dis. pyrohotite - pyrite	2-20	5.5	4		
546 - 551.5	4% dis. pyrohotite	2-21	5.5	5		
552 - 630.5	Carbonatized Mafic Volcanic Flow: green, medium hard, f to m. grained with mat-like texture, massive, feathery calcite dis.; contact is sharp with chlorite & calcite					

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-102

TOWNSHIP ..... PAGE NO. 7

LOCATION ..... CORE LOCATION ..... STARTED .....

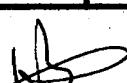
DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
554 - 6"	gta calcite			
575 - 581.7 2-2", 3-1"	gta - carb str @ 50°; 3% py-py	2-22	6.7	30
581.7 - 586. 3-2"	gta str @ 70°, sl sulphides	2-23	4.3	4
586 - 591 30% gta - carb str, sl sulphides		2-24	5.	3
591 - 596 100% barren white gta, some calcite		2-25	5	3
596 - 601 80%	" " " "	2-26	5	2
	balance is chlorite			
630.5 - 652.3	Mafic Volcanics: green to cream, soft to hard, vt-gr. includes chert beds, bombs, possible pillows, slightly carbonatized, 1% pyrrhotite			
632 - 2"	cream to brown chert @ 45°			
652.3 - 689.	Mafic Tuff: grey-green, soft, schistose at 75° 660 - 669 mafic flow with some gta & calcite veining; becoming coarser deeper; tuff interbedded with agglomerate			
689 - 820	Mafic Volcanic Flow: green, medium hard, v.t. gr, massive without structure			

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. BB-102TOWNSHIP ..... PAGE NO. 8

LOCATION ..... CORE LOCATION ..... STARTED .....

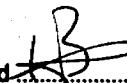
DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Accept			
707 - 727	gts - csh str at 50°						
743 - 763	displays a granular texture; tiny dark bands in a grey v. f. gr. matrix are aligned at 80°; may represent tuff unit, oblique contact						
806 - 807.4	2" of chert & carbonaceous rock with crystalline pyrite at 80°; interruption of volcanism?	2-27	1.4	168			
820	End.						

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY Auro Exploration Inc.

HOLE NO. 88-103

TOWNSHIP Denton Township, Ontario

PAGE NO. 1

LOCATION 7400 S  
1+47 E  
metric

CORE LOCATION Hallette Kood.  
DIRECTION Az. 118°  
DIP 50°  
DEPTH 800'

STARTED March 26, 1988  
COMPLETED March 28.  
DIP TESTS 74' - 50°  
400' - 43.5°  
800' - 46°

ELEVATION

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
0 - 66	Casing - overburden			
66 - 75	Chlorite, Quartz Schist: soft, green, highly broken & fragmented			
75 - 107.5	Quartzite: very hard, cream, v.f. to f. grained & banded (bedded) at 50°; sericitic postings coincide with bedding; initially, dirty & fractured then more uniform and lighter coloured			
80.3 - 81.3	chlorite schist			
82. - 82.6	Amosite after pyrite, mottly, sericitic & ruggy at 50°			
87 - 88.5	blotches & chloritic			
92 - 93.0	chloritic & ruggy			
107.5 - 124.7	Iron Formation: dark; alternating quartz, chlorite, chlorite, magnetite bands at 60°			
117-118	3% po diss.			
119 - 124.7	highly siliceous, some secondary carb. gte, 5% po	3-1	5.7	12
124.7 - 136.7	Quartzite: hard, f. to m. grained, cream coloured; sericitic marks bedding at 65°; sharp contact at 70°			

Drilled By Norex, Timmins

Signed J.S.

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-103 .....

TOWNSHIP ..... PAGE NO. 2 .....

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb		
136.7 - 142.	Feldspar Porphyry: white feldspar phenocrysts up to 4"; in dark grey feldspathic matrix; sharp contact at 65°					
142 - 165.	Quartzite: as above but darker (dirty), more feldspathic much less uniform; includes larger fragments of felsic stringers; bedding at 45-60°; upper contact sharp at 40°; lower contact obscure					
	159.8 - 161 minor undeveloped soft metallic	3-2	1.2	7		
	161 - 165 displays ghosted porphyroblasts					
165 - 199.5	Feldspar Porphyry: as above					
	173.4 - 176.5 3" irreg. glz str with clots of pi	3-3	3.1	11		
	176 - 199.5 few and smaller phenocrysts & some schistose sections are lacking phenocrysts; hybrid zone of intrusive and wallrock					
199.5-296.4	Felsic Pyroclastic: grey green, hard, variable texture includes, tuft, agglomerate & flour boulders; bedding - foliation at ± 65°; zones of roud or					

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE NO. 88-103

TOWNSHIP .....

PAGE NO. 3

LOCATION .....

CORE LOCATION .....

STARTED .....

DIRECTION .....

COMPLETED .....

DIP .....

DIP TESTS .....

ELEVATION .....

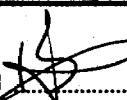
DEPTH .....

.....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	As ppb
	ovoid cream or green fragment in part recrystallized; initial 2' is green, hard, v.t.gr lacking primary structure - felsic intrusive?; bomb-like structures up to 7" may be green or grey chert			
257-259	feldspar porphyry with sharp contacts @ 45°			
296.4 - 315.0	Mafic Volcanic Flow or Diabase: green, medium hard, v.t to ungrained, massive & lacking structure; initially v.t.gr then coarse grained, contacts at 70°; conformable			
315. - 425.6	Felsic Pyroclastic: as above but darker & more chloritic 379.5 - 0" of v.t.gr chlorite & clay mineral at 50° with 5% po-py			
381-421	mainly tuff			
416 - 421	9% pyrrhotite, some pyrite, silicate in chlorite 3-4	5	27	
421 - 425.6	4", 2-1" gneisses in feldspar porphyry	4.6	10	
425	muddy fractures at 90°			

Drilled By .....

Signed

  
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. BB - 103

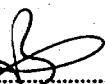
TOWNSHIP ..... PAGE NO. 4

LOCATION .....	CORE LOCATION .....	STARTED .....
.....	.....	.....
.....	.....	.....

ELEVATION .....	DEPTH .....	DIP TESTS .....
.....	.....	.....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	ANALYSIS
425.6 - 433.9	Iron Formation: interbedded chert with gte fragments, chlorite, minor gte str's & pyrrhotite			
425.6 - 433.9	20% pyrrhotite, sl. pyrite, chalcocite	3-6	8.3	18
	as cont. seams.			
433.9 - 439.5	Contorted Graphitic Argillite: black, with bedding marked by carbonate, pyrrhotite, pyrite			
433.9 - 439.5		3-7	5.6	47 ~ fold
439.5 - 455.8	Iron Formation: mainly silica & pyrrhotite at 70°			
439.5 - 444.0	20% po, sl. py, cpy	3-8	4.5	16
444 - 450.	carbonatized mafic intrusive			
450 - 455	3" massive po & some seams, bedded at 70°, some angular gte inclusions up to 1"	3-9	5.	27
455.8 - 466.3	Carbonatized Argillite or Mafic Volcanic: grey-green, f.gr. massive to schistose at 50°			
466.3 - 481.5	Felspar Porphyry: unlike previous porphyry in that phenocrysts are densely packed & ghosted; silty diab; contacts at 45 & 65° apparently conformable			

Drilled By .....

Signed 

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE NO. 80-103

TOWNSHIP .....

PAGE NO. 5

LOCATION .....

CORE LOCATION .....

STARTED .....

DIRECTION .....

COMPLETED .....

DIP .....

DIP TESTS .....

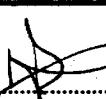
ELEVATION .....

DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE			
471-476	less than 1% disc pyrite	3-10	5	16		
481.5-514	Argillite & Iron Formation: grey-green, soft, friable marked by weak banding & mineral differentiation, carbonatized					
486-488.5	bedded chert, chlorite, gte					
487-488.5	5% po-py	3-11	1.5	63		
488.5-489.5	fine-grained pyrophyllite					
492.-495.7	massive I.F., 5% po-py with chlorite- <del>and</del> 3-12	3-12	3.7	264		
495.7-499.7	25% grey conf. gte str., 2% po-py	3-13	4.0	23		
499.7	schistose and mineralized					
503.	1" grage, carbonate marking shear-s fault					
506-514	some chert & zones of black band ooids - tourmaline?					
514 - 545.5	Carbonatized Magmatic Pyroclastic: dark green, med. hard, f. gr; zones of chloritic bombs, lapilli, ash; becoming coarser at depth					
535.8-538.8	25% irreg. white gte; 2% clts of po-py	3-14	3.0	3		
538.8 - 541.3	barren	3-15	2.5	5		

Drilled By .....

Signed



SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. BB - 103

TOWNSHIP ..... PAGE NO. 6

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	AS ppb		
541.3 - 546.3	few irreg. fractures filled with glb, po-py	3-16	S	+		
545.5 - 575.	Mafic Volcanic: v. f. gr. light green, hard, slightly carbonatized, perhaps pillowled					
559.5 - 564.5	25% irreg fracture filling glb-cash; 4% po-py, also py as clots	3-17	S	10		
575 - 582	Mafic Tuff: green, f. gr. hard, bedding at 60° with some po-py & calcite staining; slightly carbonatized					
582 - 604.2	Mafic Intrusive: light grey-green, f. to m. grained, hard, massive, uniform, mat-like textures with irreg. upper contact, slightly carbonatized					
594.5	7" boxcar white gte v. at 50°					
604.2 - 621	Mafic Volcanic Tuff: light grey-green, hard, mt to f. grained, in part massive, otherwise bedded at 70°					
605.5 - 608.0	plumper porphyry; 1"-2" gte-cash strata at upper and lower contacts					
608 - 610.2	mafic intrusive					
614 - 621	well defined coarse grained tuff					
621 - 659.5	Mafic Intrusive: as above; sharp upper contact at 70°					

Drilled By .....

Signed .....

 SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-103

TOWNSHIP ..... PAGE NO. 7

LOCATION .....	CORE LOCATION .....	STARTED .....
	DIRECTION .....	COMPLETED .....
	DIP .....	DIP TESTS .....
ELEVATION .....	DEPTH .....	

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb			
647.2 - 5"	irreg. gte - carbonate						
659.5 - 698.	Felsic Pyroclastic: v.t.gr., band, colour variable from dark green to cream (ibid) which form margin of bombs & tuff with Capilli, bedding at 65°						
698 - 726.6	Mafic Volcanic Flow Extrusive: grey-green, mtl. band, v.t. to f.gr massive, uniform without structures						
726.6 - 786.	726.6 chilled very contact against xenolith of felsic volcanic felsic Pyroclastic: includes tuff and agglomerate as above						
726.6 - 735.5	f grained banded buff						
735.5 -	massive agglomerate & more mafic						
746-751 2-2", 3"	gte. str with clots of po-py. stony	3-18	5	5			
751-756 5"	banded gte. n. at 70°, 10% sericite po-py	3-19	5	133			
	2.5' sericitized section contains less aspy, ali aspy						
769-774	mafic altered volcanic						
786 - 800.	Carbonatized Volcanic Flow: dark green, soft, f.gr. weakly carbonatized, fairly massive except for shearing cont'd to 2" gte-chlorite str at 799; 1-2% less crystalline pyrite						

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. BB-103

TOWNSHIP ..... PAGE NO. 8

LOCATION .....

CORE LOCATION .....

STARTED .....

DIRECTION .....

COMPLETED .....

DIP .....

DIP TESTS .....

ELEVATION .....

DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE				
800 End							

Drilled By .....

Signed .....

  
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY Animo Exploration Inc.

HOLE NO. BB-104

TOWNSHIP Denton Tp. Ontario

PAGE NO. 1

LOCATION 8100 S  
2125 E

CORE LOCATION Mallette road  
DIRECTION Az. 298°  
DIP 50°  
DEPTH 382'

STARTED March 30  
COMPLETED March 31, 1988  
DIP TESTS 225' - 50°

ELEVATION

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
0 - 55	Casing - overburden			
55 - 382	Intermediate to Oafic Hydroclastic: initially light grey then dark green, f.gr. hard; initially, irreg. texture and structure marked by cream coloured chert in and around lapilli; at 71 becomes more massive with fine lapilli & porphyroblasts showing foliation at 30-40°			
55-60.5	6% po-py as irreg. clots & seams	4-1	5	7
66-71	2% py-ps in irreg. fractures; in first 3' 3' wavy cavities cont. to bedding	4-2	5	4
71-76	2% py as crystals & seams	4-3	5	8
101.5	few chloritic fragments			
102 -	becoming coarser gr. with dark green & cream streaks having oblique 10° foliation			
127-130	5% po-py staining associated with chloritic zone	4-4	3.	8
131	fracture, foliation contact @ 40°			
134-136	f.gr. dyke rock at 20°			
136-149	quasi porphyritic texture; perhaps a form of granitization			

Drilled By Noxet - Timmins

Signed

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-104 .....

TOWNSHIP ..... PAGE NO. 2 .....

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

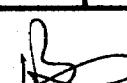
DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Avg ppb			
148 - 153	chlorite-carbonate action with 5% py-py	4-5	5	18			
161.3 - 167	3% pyrrhotite-pyrite as seams & clots	4-6	5.7	4			
167 - 174.5	3% py-py in chlorite-carbonate action	4-7	7.5	4			
181	v.f.g. unit above abuts against cgr unit below at 35°, tops down hole?						
185.5	as above except contacts offset by fault						
202.5 -	13" & 2" of v.f.g. dark brown massive diabasic rock with chrys. py						
350-382	finer grained with quartz-porphphyritic texture						
382	End.						

Drilled By .....

Signed .....

  
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY Aurora Exploration Inc. HOLE NO. B8-104A  
 TOWNSHIP Denton Township, Ontario PAGE NO. 1

LOCATION 8+00 S CORE LOCATION Mallette road STARTED March 31, 1988  
2+25 E DIRECTION Az 118° COMPLETED April 1  
metric grid DIP 50° DIP TESTS 22.5° - 50°  
 ELEVATION 450' 450° - 48°

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Reb PAB
0 - 45	Casing - overburden			
45 - 61.4	Feldspar Porphyry: grey-green, med to c. gr. hard, closely packed white feldspar phenocrysts in a green matrix; lower contact at 65°			
61.4 - 69.0	Intermediate to Mafic Pyroclastic: grey-green, hard tuffaceous sections mixed with large bombs all stretched at about 65° to c.e.			
64-69.	seamed heavy po-py at 65° at bottom; 4A-1 elsewhere 2% dis. pyrite	5	5	
69. - 136.5	Mafic Tuff: grey green, hard, f. to m.gr; lapilli and ash foliated at 65°			
94 - 96.2	gtz str. at 40° in massive nonfoliated rock			
96-98.7	sericitic, schistose at 35°, 4-1" conf. gte str., sub. 4A-2	2.7	22	
98.7-102.7	conf. gte v. with 15% po-py, silicified, aspy; 4" at bottom is secondary gte with some rugg.	4A-3	64	
102.7-107.7	5% seams of po-py in buff green sericitic rock	4A-4	5	
	sericitization continues to 114°			
116	- po-py seaming over 3" at 75°			

Drilled By Norex, Timmins

Signed .....

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 08 - 104A

TOWNSHIP ..... PAGE NO. 2

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

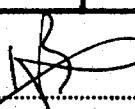
DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb		
120.9 - 122.8	15% po-py	4A-5	1.9	10		
122.8 - 128.0	<sup>local</sup> concentrations of po-py					
136.5 - 160.2	Mafic Volcanic Flows; grey-green, v.t.gr. hard, massive, nonfoliated					
	159.5 - 8" cont. quartz, calcite, chlorite					
160.2 - 177.5	Mafic Tuff: dark grey-green, f.gr. hard, foliated at 70°, calcite veining, few crystals of pyrite					
177.5 - 179.7	Feldspar Porphyry: as above					
179.7 - 237.5	Mafic Tuff & Agglomerate: green, hard, v.t to c.gr., initially massive like flows above except obscure v.t.gr. foliation, then more c.gr. with stretched lapilli and bombs at 65°					
184.5 - 189.5	25% irreg. gte-calcite-chlorite veinings	4A-6	5	7		
192. - 1"	gte-calcite str at 70°					
193. - 2"	gte-calcite chlorite str at 55°					

Drilled By .....

Signed .....

  
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-1A

TOWNSHIP ..... PAGE NO. 5

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
	209 - 216 open rugose fractures mostly cont to bedding planes			
	226 - 232 scattered irreg. black tourmaline? clots up to 1"			
237.5 - 331	Mafic Volcanic Tuff, Agglomerate & Flots; grey-green, v.f. to c.gr, hard; initially massive v.f. gr; perhaps flow or uniform tuff in contact with agglomerate above; occasional bombs in otherwise massive uniform flow-like volcanic.			
245.5 - 246.6	rusty cavity			
254 - 256	core ground			
256 - 262	irreg. qtz-calcite in chlorite	4A-7	6	5
263 - 264	" "			
276	- 70° bedding foliation			
296 - 331	tuff & agglomerate			
305 - 307	70% cont. qtz-calcite			
329.5	few tourmaline clots over 5"			
331 - 362.7	Mafic Volcanic flow or Sill; grey-green, f.t. c.gr hard, massive with coarse ghosted fault-like texture; occasional 1"-2" sections of chlorite suggests pillow or flowlet, slightly carbonatized			

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 00 - 4A

TOWNSHIP ..... PAGE NO. 4

LOCATION ..... CORE LOCATION ..... STARTED .....

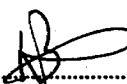
DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE		
362.7 - 450.	Mafic Tuff and Agglomerate: grey-green, v.l. to very hard, bouldered at 75°; v.f. gr. tuff beds contain chevron lepills up to 2"; variably carbonatized with calcite staining			Au 006	
366 - 367	3" clst of py-py	4A-8	1	10	
382 - 387.5	25% irreg. qtz-calcite; 2% crystalline py	4A-9	5.5	67	
397.5 - 394.0	fairly uniform chloritic tuff; 2% py-py	4A-10	6.5	960	
394. - 396.	4% py, po, aspy assoc. with 1" qtz str at 50°	4A-11	2.0	217	
396 - 399	2% py-po	4A-12	3.0	43	
411 - 416	qtz. calcite at 40°				
413 - 450	dark green chloritized, epidotized and carbonatized with carbonate forming small crystals & blades; alteration or cleavage at 50°				
416 - 421	3" qtz-calcite at 45°, 4% py-po	4A-13	5	21	
421 - 426	3% py-po	4A-14	5	32	
447	3" qtz-calcite str at 65°				
450	END				

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY Aumo Exploration Inc. HOLE NO. BB-105

TOWNSHIP Denton Tp Ontario PAGE NO. 1

LOCATION 6400 S  
4100 E

CORE LOCATION Hallatte Road  
DIRECTION Az 090°  
DIP 50°  
DEPTH 450'

STARTED April 5, 1988  
COMPLETED April 6  
DIP TESTS 225° - 48°  
450' - 46'

ELEVATION

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE		
0 - 16	Casing - overburden				
16 - 62	Intermediate to Hafic Pyroclastic: grey-green, hard agglomerate; cream white chert may form stretched fragments, thin beds, or slivers in chloritic matrix; scattered clots of pyroclite				
52.5 - 54.	barren white quartz, fluorite vein				
59. - 6"	" " "				
61.	bedding cleavage at 45°				
60.5 - 64	well bedded chert & tuff				
64 - 93.5	Hafic Volcanic Flow: grey-green, hard, v.l.gr massive without primary structure				
79.2 - 84.6	15% irreg. qtz. vein stns having bulk blanched contact zones & clots of po; few amygdalites	5-1	5.4	2	
84.6 - 87.2	barren white qtz v. little po at contacts	5-2	2.6	4	
87.2 - 92.2	10% cont qtz stns; 2% po-py in sericitic section of agglomerate	5-3	5.	14	
93.5 -	Intermediate to Hafic Agglomerate: as above				
92.2 - 97.2	scattered clots & veins of po in agglomerate	5-4	5	3	

Drilled By Norwest, Timmins

Signed   
**SHIELD GEOPHYSICS LIMITED**

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-105 .....

TOWNSHIP ..... PAGE NO. 2 .....

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb			
97.2 - 103.7	4% scattered dots & veins of ps	5-5	6.5	3			
103.7 - 106.6	mafic flow? without structure						
115 - 122	mafic flow? without structure except for local bedding plane						
131.5 - 139.	bedding marked by occ. white cherty material at 65°						
152.4	rounded & stretched lapilli up to 1.5" (3mm) in light grey tuff bedded at 65°						
143. - 144.2	5" slightly carbonaceous well pyritized shear at 50°	5-6	1.2	7			
166 - 256.3	Mafic Volcanic: dark green, hard, v.t.gr; sharp contact at 75° against chert bed; composed of pumiceous flows, pillows, bombs, tuff						
176 - 178	few scattered tourmaline? clots						
193.5	" " " assoc. with Amonitic fractures						
194.	rock is generally massive (flows)						
236.3 - 450.	Diorite: dark green, hard, med.gr, massive, except at a start where cleavage possible contact at 30°						

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED



# DIAMOND DRILL RECORD

PROPERTY Aurora Exploration Inc. HOLE NO. 88-106

TOWNSHIP Kentville Township, Ontario PAGE NO. 1

LOCATION 5100 S  
4100 E

CORE LOCATION Hackette Road

STARTED April 6

DIRECTION Az. 090°

COMPLETED April 7, 1988

DIP 50°

DIP TESTS 210' - 49°

ELEVATION

DEPTH 420'

420' - 49°

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb		
0 - 11	Casing - overburden					
11 - 21	Iron Formation: white to dark green, hard to soft, chlorite bands alternate with grey to cream colored chert at 70'; ps-py occurring with calcite in concretionary 11-16 5% ps-py as concretionary seam with chlorite	6-1	5	5		
16-21	5% ps-py "	6-2	5	12		
21 - 35	Collporox Porphyry: grey, hard, scattered white plagioclase phenocrysts in grey matrix					
21-26	3-2" gte str, ali sulphides	6-3	5	4		
26-31	20% iron gte, 1% py; last foot schistose & sericitized	6-4	5	4		
31-36	schistose, sericitized, slight sulphides	6-5	5	3		
35 - 62	Iron Formation: mainly dark green chlorite with magnetite banded with hard, grey, siliceous beds at 50-60'					
62 - 136.7	Mafic Tuff: light grey-green, hard to soft, v. fgr banding - bedding at 50° initially; several cherty beds then becomes softer					

Drilled By Nexx, Timmins

Signed

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 28-106

TOWNSHIP ..... PAGE NO. 2

LOCATION ..... CORE LOCATION ..... STARTED .....

..... DIRECTION ..... COMPLETED .....

..... DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb		
84.7	cherts of black tremolite? assoc. with epidote					
87.	- 4" gte-calcite, chlorite vein					
86-98	soft, massive, chloritic with very obscure bedding, cleavage					
91.2	- 6" gte, calcite, chlorite vein at 40°					
104	gneiss & gte stn over 2" marts shear belt					
105 - 136.7	uniform texture & lack of volcanic structures suggests argillaceous sediment; cleavage at 40°					
129.5	7" gte-chlorite vein					
136.7 - 144.	sheared feldspar porphyry: grey, soft, md. gr. shorted feldspar phenocrysts are aligned at 50° Conf. with contacts & adj bedding					
144. - 161	Iron Formation: as above but more magnetite					
159 - 160.8	10% pyrite with calcite veining at 60°	6-6	1.8	26		
162 - 162.8	chloritic gneiss along bedding planes					
161 - 170.8	Mafic Tuff or Argillite: grey-green, soft, f.gr. with cont. calcite veining at 60-65°					
167 - 168.6	sheared felsic intrusion?					

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-106

TOWNSHIP ..... PAGE NO. 3

LOCATION ..... CORE LOCATION ..... STARTED .....

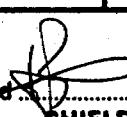
DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb		
170.8 - 176.2	Sheared silicic intrusive: grey, hard, f. to m. gr. oblique cleavage at 65°					
170.8 - 175.8	2% dia. po-py	6-7	5	23		
176.2 - 189.	Iron Formation: alternating dark green chlorite grey gneiss, veins of po, some magnetite					
186-189	3% po-py silicpy	6-8	5	15		
189 - 271.6	Felsic Pyroclastics: grey, hard, variable texture; initially scattered lapilli in a chloritic tuff matrix to 213; then well packed stretched but angular bombs of clastic material foliated at about 60°; with depth lapilli few & small					
230-232	dark f. gr. diabase					
267.3 - 272.3	3% rounded & clotted po-py	6-9	5	4		
271.6 - 312.0	Graanodiorite: grey-green, v. f. to f. gr. hard, generally massive except for foliations of sericitic at 65°; some apparent inclusions					
272 - 286	inclusions of pyroclastic wch					
286-288	inclusions of altered wch					

Drilled By .....

Signed   
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-106

TOWNSHIP ..... PAGE NO. 4

LOCATION ..... CORE LOCATION ..... STARTED .....

..... DIRECTION ..... COMPLETED .....

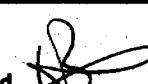
..... DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	AS ppb			
290	muddy shales at 60° over 5"						
290.5 - 293.5	aphanitic, grey siliceous inclusion with some leucosomes						
293.5 - 1/4"	muddy shales at 50°						
312.	bottom contact is sharp at 50°, v.f.gr.						
312 - 343	Intermediate to Rapa Volcanic: grey green, hard, l.gr., fairly massive & uniform except for occ. shards, bombs, flow tops of cream chert; may include pillow						
343 - 420	Diorite: dark green, f. to m. gr, hard, massive, granular						
351 - 3"	barren white gte str						
361 - 366	Dark, v.f. gr strongly magnetic dyke with sharp contacts at 35°						
382	15' barren white gte vein						
389.5 - 391	80% white gte v. at 45° with clts of py.gy	ST. CRY	6-10	1.5	22		
393 - 4"	irreg. white barren gte cherts						
398 - 4	white gte - calcite v. at 45°						
401.3	1" gte str at 45°						
420	END						

Drilled By .....

Signed .....



SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY Aurora Exploration Inc. HOLE NO. 88-107

TOWNSHIP Denton Township, Ontario PAGE NO. 1

LOCATION 3 + 50.5  
4 + 70 E

CORE LOCATION Hallette Road.  
DIRECTION Az 118°  
DIP 50°  
DEPTH 120'

STARTED April 8  
COMPLETED April 10, 1980  
DIP TESTS 210' - 50.5°  
420' - 48.5°

ELEVATION .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Appb
0 - 10	Casing - overburden			
10 - 55.5	Mafic Volcanic: v.f.gr. grey green, soft, massive rock			
40 - 40.7	felic pyroclastic			
51 - 54	Black, v.f.gr. mafic intrusive with contact paralleling core axis			
55.5 - 91	felic Pyroclastic: cream to green, hard to soft, composed mostly of large cream coloured felic bombs in a chloritic matrix, occ. large clots of pl-py in chlorite			
91 - 104.5	Mafic Intrusive: black, v.f.gr. soft, massive, 2-3% fine dia. pyrite, strongly carbonized.			
91-96	2-3% dia. pyrite	7-1	5	4
100-101	fractured & broken felic pyroclastic			
104.5 - 107.5	felic Pyroclastic:			

Drilled By .....

Signed .....

  
SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88 - 107

TOWNSHIP ..... PAGE NO. 2

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

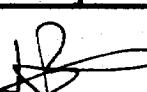
DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
107.5 - 132.6	Iron Formation: interbanded black magnetite, grey gts & green chlorite at 50°, slight sulphides 114 - 116 core ground			
132.6 - 157.2	121-126.5: feldspar porphyry apparently cont. at 60° Intermediate Intrusive: grey green, v.l. to f.gr. hard & massive; without structure except for very oblique foliation at 45°; sharp contact at 50-60° 153 seam and clots of black tourmaline'			
157.2 - 182.8	Iron Formation: as above			
	177.7-181.2 9° heavy py-py, sl. cpx	7-2	3.5	34
182.8 - 213.0	Greywacke - Arkose: f to m.gr. light grey, soft to hard, massive; mineral foliation & schistosity at 50-60° becomes better defined deeper 205-206 pyritized graphitic argillite @ 60° 206-213 arkosic, semi-calcified, weak schistosity at 60°			
213 - 226	Argillite: black, with veining of py-py, calcite at 65°			

Drilled By .....

Signed .....



SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE NO. 88-107

TOWNSHIP .....

PAGE NO. 3

LOCATION .....

CORE LOCATION .....

STARTED .....

DIRECTION .....

COMPLETED .....

DIP .....

DIP TESTS .....

ELEVATION .....

DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb
211 - 216	4% po-py mainly in black argillite	7-3	5	11
216 - 221	7% po-py	7-4	5	19
221 - 226	10% po-py	7-5	5	29
226 - 246.5	Mafic Intrusive: grey-green, f.t. m. gr. soft, massive, except for obscure ghosted pyrophyroblasts of darker mineral aligned at 62°, upper contact gradational f.r.l.gr. over several inches; bottom contact sharp at 45° shutting po			
246.5 - 261.	Iron Formation: interbedded quartz, chert, pyroclastic - pyrite at 65°			
246 - 251	20% po-py scanning	7-6	5	22
251 - 256	12% po-py local copy with white qtz	7-7	5	775
261 - 273	Felspar Pyrophyry: scattered feldspar phenocrysts in dark grey fine gr. matrix; contacts at 63°			
273 - 353	Mafic Pyroclastic: cream to dark green, hard to soft, variable texture; composed of bombs, lapilli, pillow; breccia?			

Drilled By .....

Signed

SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 88-107 .....

TOWNSHIP ..... PAGE NO. 4 .....

LOCATION ..... CORE LOCATION ..... STARTED .....

DIRECTION ..... COMPLETED .....

DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE				
	chloritized, carbonatized & epidotized, patchy po-py						
276 - 281	3% po-py; alternately strongly silicified chloritized	7-8	5	8			
308 - 310.5	gfe, calcite, chlorite vein at 50°; few chl. pyrite	7-9	2.5	4			
324.5	3" gfe · calcite str at 50°						
353 - 363	Mafic to Intermediate Tuff: f. to m. gr. soft to hard, green to grey, massive except for obscure bedding planes and silicified foliation						
356 - 361	includes distinctive grey bed with 4% dior.	7-10	5	5			
	po-py; sharp contacts at 70°						
363 - 420.	Mafic Pyroclastics: as above except smaller sized ejecta; initially f. gr. & banded at 70°; deeper ejected becomes coarser						
377.5 - 384.3	folioper pyrophyry, phenocrysts and contacts at 75° poorly defined						
384.3	includes bombs & pillows:						
420	END						

Drilled By .....

Signed .....

  
SHIELD GEOPHYSICS LIMITED

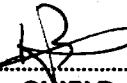
# DIAMOND DRILL RECORD

PROPERTY Auma Exploration Inc. HOLE NO. 88-108  
 TOWNSHIP Denton T.p. Ontario PAGE NO. 1

LOCATION 6100 S CORE LOCATION Mallatte road STARTED April 11  
2+00 E DIRECTION Az 118° COMPLETED April 12, 1988  
 DIP 45° DIP TESTS 200' - 45°  
 ELEVATION 900' DEPTH 400' - 41°

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE				
0 - 50	Casing - overburden						
50 - 125.5	Felsic Lapilli Tuff: light grey, very hard, initially v.f. gr. well banded at 65°; deeper med to coarse gr., more massive.						
50.5 - 51.4	dark coloured						
57 - 61	wilkered, oxidized, broken feldspar porphyry at 65°						
61 - 110.5	coarse grained						
81.2 - 82.0	gray sericitic, v. f. gr. soft dyke rock						
101	sericitic over 4"						
110.5 - 111.5	v.f. gr. darker						
111.5 - 112.5	matrix crumbled, wuggy						
112.5 - 116	v.f. gr. dark grey, felsic						
116 - 118	barren white qtz-chlorite vein						
118 - 125.5	light to dark grey, variable texture, banded at 70°						
125.5 - 141.4	Diabase or Magic Dyke: grey-green, v.f. to f.gr. with scattered porphyroblast of epidote; chilled subconformable contacts						

Drilled By Norex - Timmins

Signed   
 SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE NO. 28-108

TOWNSHIP .....

PAGE NO. 2

LOCATION .....

CORE LOCATION .....

STARTED .....

DIRECTION .....

COMPLETED .....

DIP .....

DIP TESTS .....

ELEVATION .....

DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE				
141.4 - 206	Felsic lapilli Tuff Agglomerate: c. above, v.c. grained with scattered & associated fragments						
	159 - 2" chert at 70° followed by 5" chloritic green v.t. gr. rock then 3" of banded chert or tuff						
	160-163 grey feldspar porphyry						
	163 fragments become larger with depth						
206 - 222.6	Iron Formation: dark green chloritic bands alternate with yellow associated chert bands & deeper magnetite						
	205 - 3" irreg white gte						
	219 - dominantly black magnetite						
222.6 - 247.5	Granodiorite: dark grey, hard, f.gr. with widely scattered feld phenocryst; carbonatized, HCl → CO <sub>2</sub> , upper contact at 45°						
	236.6 - 239.6 felsic agglomerate xenolith enclosed 1' length of feldspar porphyry which indicates granodiorite younger than feldspar porphyry; little pe-py an agglomerate						

Drilled By Norex: Timmins

Signed

  
 SHIELD GEOPHYSICS LIMITED

# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 288 - 108

TOWNSHIP ..... PAGE NO. 3

LOCATION ..... CORE LOCATION ..... STARTED .....

..... DIRECTION ..... COMPLETED .....

..... DIP ..... DIP TESTS .....

ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE			
	242, 243.7 2" gtz str					
247.5 - 260.8	Felsic Agglomerate: as above					
	256.4 - 4" irreg gtz-calc str.					
260.8 - 287.	Mafic Volcanic flows & pillows: dark green, v.f. to fgm, hard, massive, except for sharp textural changes suggesting flow or pillow; gash-like flow structure					
287 - 376	Granitized Felsic Pyroclastic: light to dark grey, variable texture, hard broken at 70°; fragments are stretched at 70° & partially assimilated, scattered porphyroblasts, weakly recrystallized, some mesoperite					
	301 - 305 dark grey foliated porphyry; irreg upper contact					
290 - 296	2" conf. gtz str adjacent to 2" of heavy sulphides. 8-1 recryst. porites at 60°	6	56			
	352 6" irreg gtz-calcite					
	369 pyrrhotite staining					
	366 becoming more mafic					
376 - 386.5	Mafic Volcanic: as above					

Drilled By .....

Signed .....

SHIELD GEOPHYSICS LIMITED

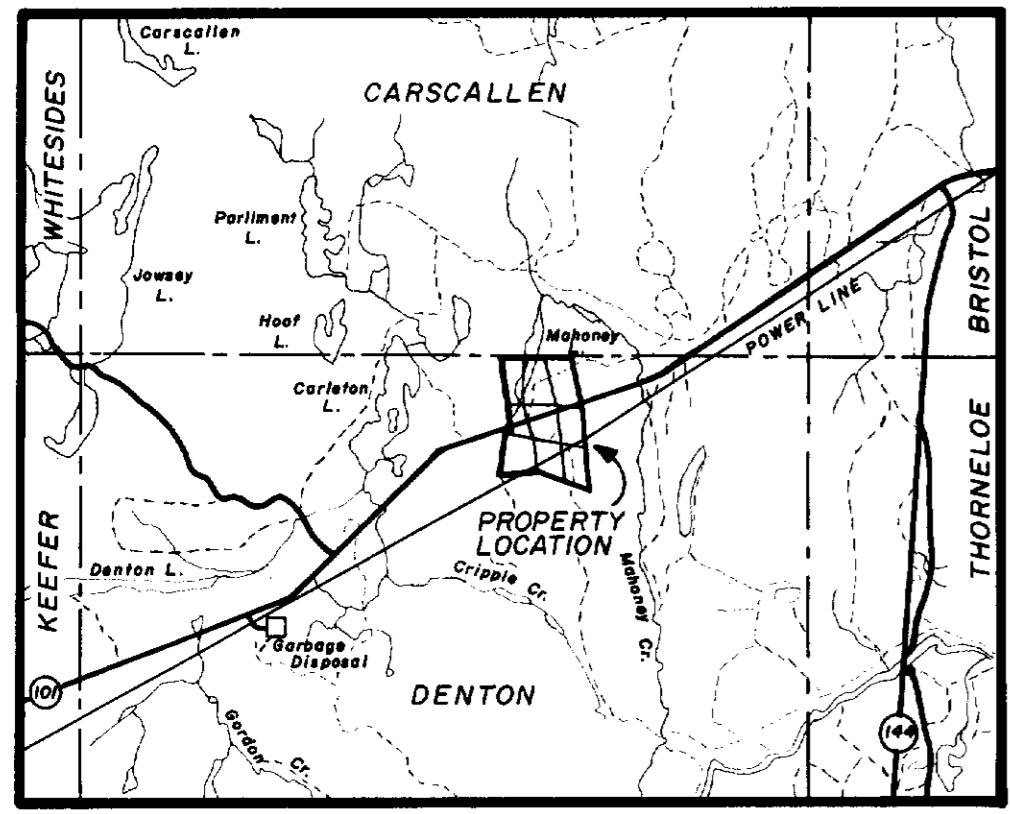
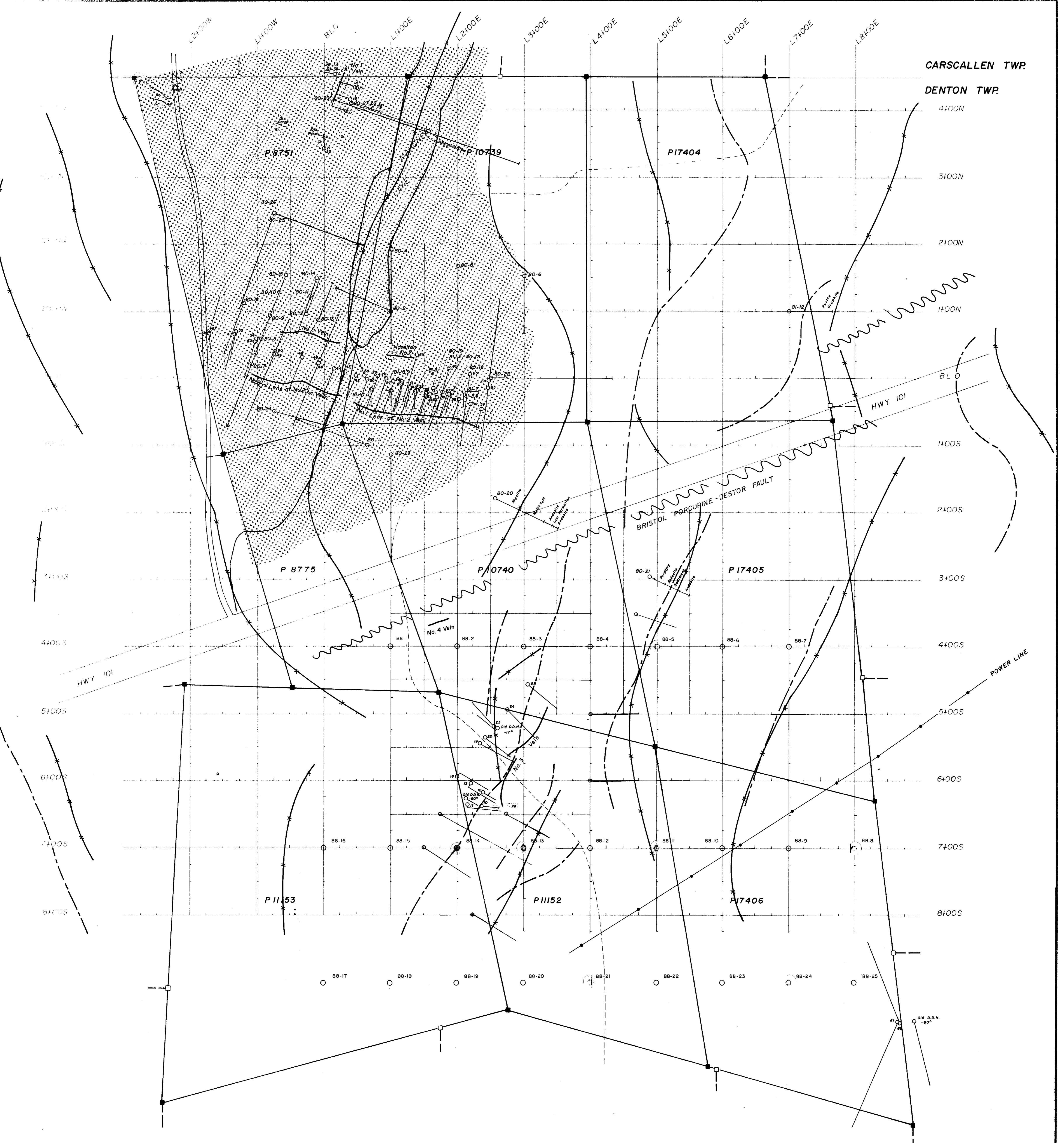
# DIAMOND DRILL RECORD

PROPERTY ..... HOLE NO. 80 - 108  
 TOWNSHIP ..... PAGE NO. 4  
 LOCATION ..... CORE LOCATION ..... STARTED .....  
 DIRECTION ..... COMPLETED .....  
 DIP ..... DIP TESTS .....  
 ELEVATION ..... DEPTH .....

DEPTH FEET/METRES	FORMATION - MINERALIZATION	SAMPLE NO.	WIDTH OF SAMPLE	Au ppb				
386.5 - 400	Mafic Lapilli Tuff: dark green, hard, variable texture, rounded lapilli up to 1"							
386 - 389.5	sericitized, carbonatized, 1-2% po, a py	8-2	3.5	331				
389.5 - 393.	2% pyrrhotite	8-3	4.5	40				
393. - 398	5% scattered pyrrhotite, crystalline py, silicpy	8-4	5.	5				
398.5 - 393.	Liddington porphyry							
100	END							

Drilled By .....

Signed   
**SHIELD GEOPHYSICS LIMITED**



KEY MAP

SCALE  
1:100,000



200

- LEGEND**
- [Dotted Pattern] Tonalite (Quartz Diorite)
  - [Drill Hole Symbol] AUMO 1944 Drilling
  - [Drill Hole Symbol] 1980-81 Drilling
  - [Open Circle] Proposed location of Overburden hole (COMPLETED)
  - [Wavy Line] Fault, inferred
  - [Solid Line with X] VLF Conductor - After Geoex 1979 map
  - [Dashed Line] Axis of Magnetic high - After Geoex 1979 map
  - [Small Circle with Number] Anomalous sample - for details see text
  - [Drill Hole Symbol] Proposed diamond drill hole 1988

OM 87-5-C-266  
63.5483

**GEOLOGICAL COMPILATION  
on the property of  
AUMO EXPLORATIONS  
INC.**

DENTON TOWNSHIP

50 0 25 50 75 100 125  
SCALE  
1:2500

October, 1986

R. J. Bradshaw



Figure 2