

GEOCHEMICAL REPORT
ON THE
TOIL MINERAL CLAIM
RECORD NO. 1285 (9)
NEW WESTMINSTER MINING DISTRICT
LAT. 49°41.25' LONG. 122°03'
N.T.S MAPSHEET 92G/9

by W. A. Howell, B.Sc.
JMT SERVICES CORP.
8827 Hudson Street
Vancouver, B.C.

owner Gordon G. Richards
6915 Lynas Lane
Richmond, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10,922

December 17, 1982

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INTRODUCTION

Prospecting along the West Harrison forest access road and around the area of Five Mile Bay on Harrison Lake revealed locally near massive pyrite zones and an area of pyritic quartz-sericite schists in intermediate to acid composition volcanic rocks. The area was staked and preliminary silt soil and rock sampling undertaken. 34 soil, 10 silt, and 39 rock chip samples were collected and analysed for one or more of gold, silver, barium, copper, lead, zinc, arsenic.

LOCATION AND ACCESS

The claim is centered on Five Mile Bay, 60 km north of Harrison Mills, along the West Harrison forest access road. It can be reached in 4 - 5 hours driving from Vancouver, approximately 160 km distant by road.

The West Harrison forest access road is driveable for the most part with 2 W.D. vehicles with a few steep rocky areas subject to difficulty depending on use and weather conditions. 4 W.D. equipped vehicles should experience no difficulty.

Five Mile Bay is the site of an abandoned logging camp. Old skid road and logged areas exist uphill behind the old camp. Dense second growth estimated to be twenty years old covers much of the hillside and old trails.

The area is generally snow-free for most of the year but suffers heavy rain fall during the winter and spring seasons.

CLAIMS

One modified grid claim totalling 20 units was staked.

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>
TOIL	1285 (9)	September 21, 1981

The registered owner of the claim is Mr. Gordon G. Richards, 6915 Lynas Lane, Richmond, B.C.

GEOLOGY

The Toil claim lies within an area underlain by Fire Lake Group volcanic and sedimentary rocks (Roddick, 1965).

The Fire Lake Group is described regionally as composed of "greenstone, slate, chlorite schist, greywacke granulite, andesite, conglomerate, quartzite, minor limestone.



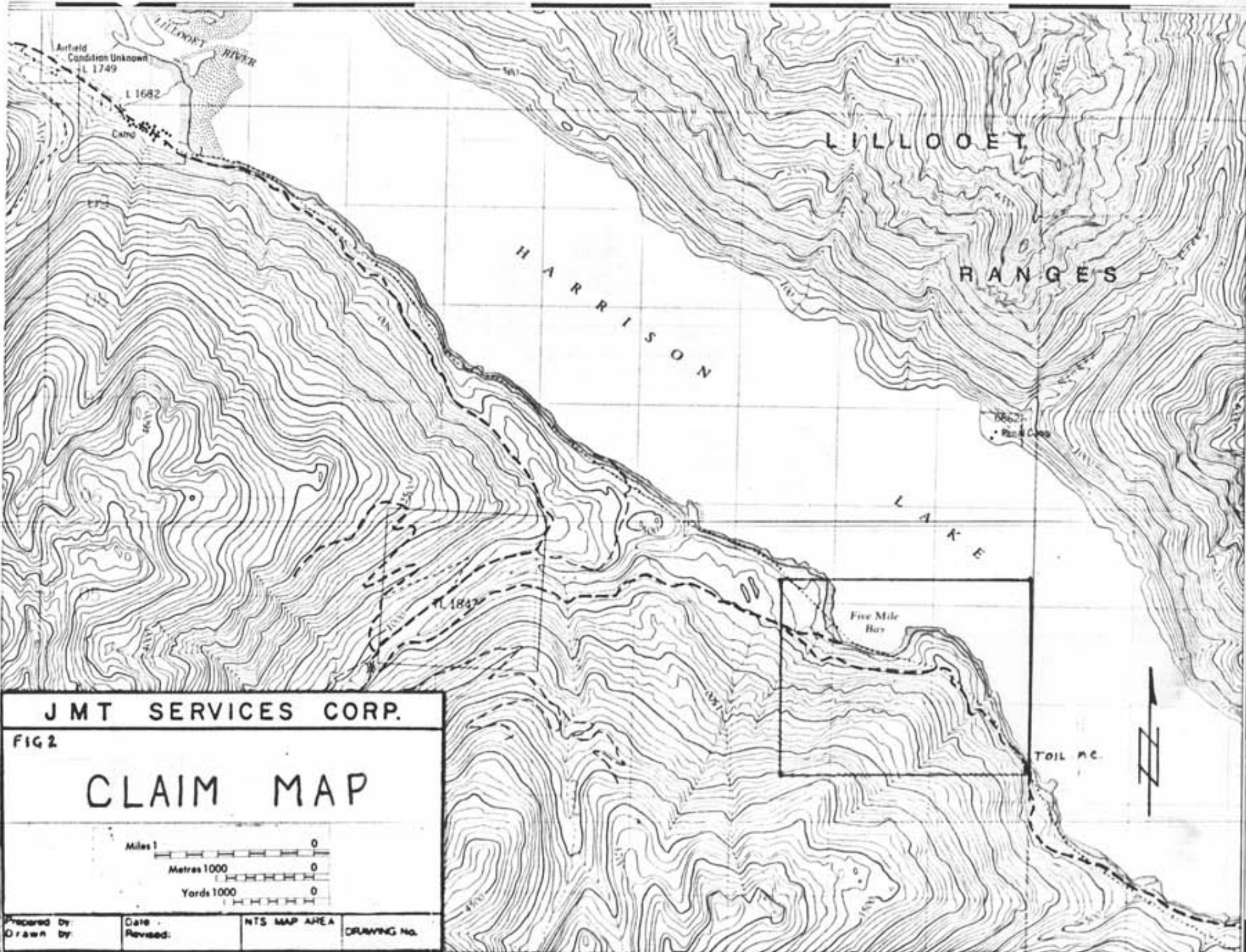
TOIL M.C.

J M T SERVICES CORP.			
Fig. 1			
PROPERTY LOCATION MAP			
SCALE			
Map 1:36	0	1:36 Miles	
Prepared by:	Date:	NTS MAP AREA	DRAWING No.
Drawn by:	Revised:	- 4 -	

10'

122°00'

49°45'
09
08
07
06
05
04
03
02
40'



JMT SERVICES CORP.
FIG 2
CLAIM MAP

Miles 1
 Metres 1000
 Yards 1000

Prepared by	Date	NTS MAP AREA	DRAWING No.
Drawn by	Revised:		

Locally the rocks are chloritic andesitic to dacitic tuffs and related sediments. quartz sericite-pyrite schists, dacitic lapilli breccia and occasional dioritic to monzonitic intrusive dykes.

GEOCHEMISTRY

A programme of preliminary sampling was carried out, primarily along the major roads traversing the property. 34 soil, 10 silt, and 39 rock chip samples were collected and selectively analysed for gold, barium, silver, arsenic, copper, lead and zinc. These form the basis for this report.

Soil samples were collected from B horizon soils wherever possible from a shallow pit excavated to a depth of usually 15 to 30 cm. The sample was collected using a stainless steel scoop or spoon and transferred to an appropriately marked gusseted kraft sample bag.

Silt samples were collected from active stream bed sediments using a stainless steel scoop or spoon and transferred to an appropriately marked gusseted kraft sample bag.

Rock chip samples were placed in appropriately marked kraft bags. All samples usually consist of 300 to 500 grams of material.

Chemical analyses were performed by Chemex Labs, 212 Brooksbank Avenue, North Vancouver, B.C. Gold determination was by Neutron Activation Analysis following a fire assay preconcentration.

Barium analysis was made using a perchloric-nitric-hydrofluoric acid extraction.

Silver, copper, lead, zinc and arsenic analyses were made using a perchloric nitric acid extraction.

The results and sample locations are presented on maps appended to this report.

RESULTS

Gold values ranged from less than 1 ppb to 730 ppb. Values greater than 10 ppb from soils or silt samples are considered anomalous.

Anomalous samples for gold appear to be restricted to the central part of the plain, south and south-west of Five Mile Bay.

Barium values ranged from 60 ppm to 1600 ppm. Values greater than 1000 are arbitrarily considered anomalous. No significant discoverable

patterns are evident from the small number of data points presently available.

Silver values ranged from .1 ppm to .9 ppm. Values greater than 1.0 ppm are usually considered anomalous. No significant discernable patterns are evident from the small number of data points presently available.

Arsenic values ranged from 5 ppm to 370 ppm. Values greater than 30 ppm are considered significant. No significant geochemical patterns are evident from the small number of data points presently available.

Copper values ranged from 7 ppm to 515 ppm. A value of 100 ppm is arbitrarily chosen as anomalous. Anomalous values for copper appear to be restricted to the central part of the claim, South and south-west of Five Mile Bay.

Lead values ranged from 1 ppm to 268 ppm. A value of 35 ppm has been arbitrarily chosen to represent a threshold anomalous value. This is considered a high value for geochemical threshold anomaly but represents the unusually high geochemical response for lead which has shown up on the Toil claim.

Anomalous values for lead appear restricted to the areas around Five Mile bay. However, the small number of data points and their distribution prevent the definition of meaningful geochemical patterns. The lead values from rocks do not reflect the values obtained from soils.

Zinc values ranged from 4 ppm to 660 ppm. A value of 250 ppm has been arbitrarily chosen as anomalous. The distribution of anomalous zinc roughly coincides with the anomalous lead distribution but meaningful correlation is difficult with a limited number of samples and a restricted distribution.

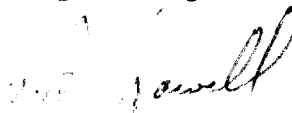
CONCLUSIONS

Anomalous concentration of gold, copper, arsenic, lead and zinc have been shown to exist on the Toil claim. Preliminary prospecting has shown host rocks to be similar to those hosting Base and Precious metal values elsewhere in the Harrison and Fire Lake volcanic rocks. The nature of the host rocks, observed mineralization and the initial geochemical response suggests a volcanogenic exhalitive environment.

RECOMMENDATIONS

Further geochemical surveys uphill from the road and in the northwest of the claim is recommended to establish the distribution of Au, Cu, Pb, Zn, As as indicated by the preliminary sampling. Geological mapping should be carried out concurrently with this programme to define the limits and extent of rock units and the quartz-sericite-pyrite schist. Geo physical methods such as E.M. techniques should be considered for the quartz sericite schist zone and favourable areas defined by the geochemical surveys.

Respectfully submitted



W. A. Howell,
Geologist

December 17, 1982

APPENDIX I

STATEMENT OF COSTS

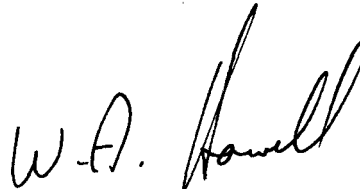
TIME		
B. Price	Aug. 23,24, Sept. 8,21 Oct. 7, 8	\$ 800.00
W. A. Howell	Aug 23, 24	400.00
D. Bennett	Aug 23, 24	200.00
Truck rental		200.00
T. R. Trades		3.47
Vancal Reproductions	88621 (share)	43.28
	88320 "	13.52
	20855 "	70.95
	90887	61.09
P.W.A.	912744	152.90
Dr. E. P. Meagher		46.20
Chemex Labs	I8113355	410.70
	I8113354	372.00
Meals	6 @ \$25.00	150.00
Camp	2 @ \$50.00	100.00
Report		<u>1,000.00</u>
		<u>\$4,024.11</u>

appendix II

STATEMENT OF QUALIFICATIONS

I, WILLIAM A. HOWELL, do hereby certify that:

1. I am a professional geologist working in British Columbia and residing at 10611 Ainsworth Crescent, Richmond, B.C. V7A 3V5
2. I am a graduate of the University of British Columbia, Bachelor of Science (Geology) 1971.
3. I have been employed in the mineral exploration industry since 1967 and have practiced my profession as a geologist since 1971.
4. I am a member of the Geological Association of Canada.
5. This report is based on my personal knowledge of the district and the mapping and sampling done on the property.

A handwritten signature in cursive script that reads "W.A. Howell". The signature is written in dark ink and is positioned to the right of the list of qualifications.

W. A. Howell, B.Sc.

A P P E N D I X I I I



CHEMEX LABS LTD.

TOIL

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE (604) 964-0221
 TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

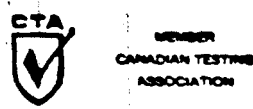
CERTIFICATE OF ANALYSIS

SEP 18 1981

TO : JMT SERVICES CORP;
 8827 HUDSON ST;
 VANCOUVER, B.C.
 V6B 4N1

CERT. # : A8113354-001-A
 INVOICE # : 18113354
 DATE : 16-SEP-81
 P.O. # : NONE
 FIVE MILE 02-230

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ba ppm	AU-NAA ppb
B-81 882	- 205	8	36	58	0.1	450	13
B-81 883	- 205	9	42	37	0.1	960	49
B-81 884	205	7	28	15	0.1	1540	49
B-81 885	205	20	6	22	0.1	100	<1
B-81 886	205	24	11	98	0.1	530	<1
B-81 887	205	7	3	32	0.1	1600	41
B-81 888	205	5	10	110	0.1	480	48
B-81 889	205	20	10	96	0.1	1480	3
B-81 890	205	30	3	75	0.1	370	3
B-81 891	205	12	25	50	0.9	560	<1
B-81 892	205	8	5	80	0.1	320	<1
B-81 893	205	9	13	70	0.1	820	1
B-81 894	205	150	23	160	0.1	940	22
B-81 895	205	43	22	200	0.1	140	11
B-81 896	205	52	30	260	0.1	110	5
B-81 897	205	318	20	22	0.1	330	31
B-81 898	205	134	75	220	0.1	340	21
B-81 899	205	26	40	98	0.1	600	43
B-81 900	205	11	3	4	0.1	1000	3
B-81 901	205	8	3	12	0.1	1000	4
B-81 903	205	11	32	160	0.1	370	19
B-81 909	205	10	3	6	0.1	320	7
81-D 1496	205	9	25	13	0.1	600	6
81-D 1497	205	12	21	49	0.1	740	2



Certified by *H. B. Bickler*



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CERTIFICATE OF ANALYSIS

SEP 13 1981

TO : JMT SERVICES CORP:
8827 HUDSON ST:
VANCOUVER, B.C.
V6B 4N1

DEPT. # 48113355-001-1
INVOICE # 48113355
DATE 13-SEP-81
P.O. # 84046
FIVE MILE 02-230

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ba ppm	AU-NAA ppm
81-B 902	201	50	220	250	0.2	370	153.
81-B 904	201	73	255	360	0.1	390	110.
81-B 905	201	84	125	400	0.1	450	29.
81-B 906	201	48	50	142	0.1	510	14.
81-B 907	201	36	38	58	0.1	422	6.
81-B 908	201	20	36	16	0.1	300	18.
81-B 910	201	16	31	32	0.1	730	13.
81-D 1498	201	19	6	64	0.1	530	<2.
81-D 1499	203	21	7	77	0.1	550	<1.
81-D 1500	201	21	7	73	0.1	600	<1.
81-D 1501	201	36	19	130	0.1	400	<1.
81-D 1502	201	52	32	49	0.1	310	3.
81-D 1503	201	71	40	70	0.1	340	6
81-D 1504	201	36	60	170	0.1	390	6
81-D 1505	201	29	68	610	0.1	540	<1.
81-D 1506	201	34	268	164	0.1	400	1.
81-D 1507	201	53	109	230	0.1	390	<1.
81-D 1508	201	95	40	160	0.1	550	730.
81-D 1509	201	27	63	115	0.1	750	77
81-D 1510	201	52	32	265	0.1	510	<1
81-D 1511	203	27	26	127	0.1	560	1
81-D 1512	201	117	105	80	0.1	550	36.
81-D 1513	201	115	60	47	0.1	600	8
81-D 1514	201	515	140	185	0.3	380	193.
81-D 1515	201	82	58	198	0.1	500	57
81-D 1516	201	65	220	308	0.1	360	40.
81-D 1517	201	32	61	160	0.1	420	9
81-D 1518	201	45	117	179	0.1	360	71.
81-D 1519	201	95	66	155	0.1	420	6.

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OCT - 5 1981

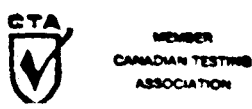
CERTIFICATE OF ANALYSIS

TO : JMT SERVICES CORP;
8827 HUDSON ST;
VANCOUVER, B.C.
V6B 4N1

CERT. # : A8113757-001-B
INVOICE # : 18113757
DATE : 30-SEP-81
P.O. # : NONE
02-230 5 MILE

Sample description	Prep code	Au NAA ppb						
81-3-970	205	<1	--	--	--	--	--	--
81-3-971	205	<1	--	--	--	--	--	--
81-3-973	205	3	--	--	--	--	--	--
81-3-974	205	5	--	--	--	--	--	--
81-8-975	205	3	--	--	--	--	--	--
81-3-976	205	5	--	--	--	--	--	--
81-3-977	205	2	--	--	--	--	--	--
81-8-978	205	3	--	--	--	--	--	--
81-3-979	205	1	--	--	--	--	--	--
<hr/>								
81-JM-585	205	<1	--	--	--	--	--	--
81-JM-589	205	<1	--	--	--	--	--	--
81-JM-598	205	7	--	--	--	--	--	--
81-JM-599	205	3	--	--	--	--	--	--
P-1020	205	6	--	--	--	--	--	--

Certified by *Hart Bichler*





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CERTIFICATE OF ANALYSIS

OCT 5 1981

TO : JMT SERVICES CORP;
8827 HUDSON ST;
VANCOUVER, B.C.
V6B 4N1

CERT. # : A8113758-001-A
INVOICE # : 18113758
DATE : 30-SEP-81
P.O. # : NONE
02-230 5 MILE

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ag ppm	AS ppm	Ba ppm
81-B-972	201	147	7	170.	0.1	14	520.
81-B-980	201	74	90.	368.	0.1	48	460.
81-JM-580	201	37	15	42.	0.1	29	280.
81-JM-581	201	41	18	98.	0.1	50	440.
81-JM-582	201	20	56.	155.	0.1	29	420.
81-JM-583	201	41	12	70.	0.1	43	360
81-JM-584	201	39	13	78.	0.2	67	320
81-JM-586	201	35	15	88.	0.3	90	380
81-JM-587	201	31	16	70.	0.3	33	340
81-JM-588	201	43	17	106.	0.2	57	120
81-JM-590	203	26	11	44.	0.3	120	240
81-JM-591	201	58	15	70.	0.1	39	220
81-JM-592	201	67	14	108.	0.1	210	220
81-JM-593	201	38	21	84.	0.1	53	400
81-JM-594	203	35	13	38.	0.1	16	540
81-JM-595	201	23	18	280.	0.1	14	440
81-JM-596	201	25	15	155.	0.1	370	420.
81-JM-597	201	35	11	110.	0.1	77	440

Certified by *Hart Buchler*

TOIL CLAIM - FIVE MILE BAY - HARRISON LAKE B.C.

Ag Ba Au As GEOCHEMISTRY

GEOLOGICAL BRANCH
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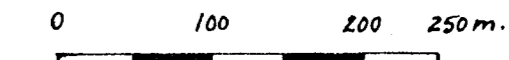
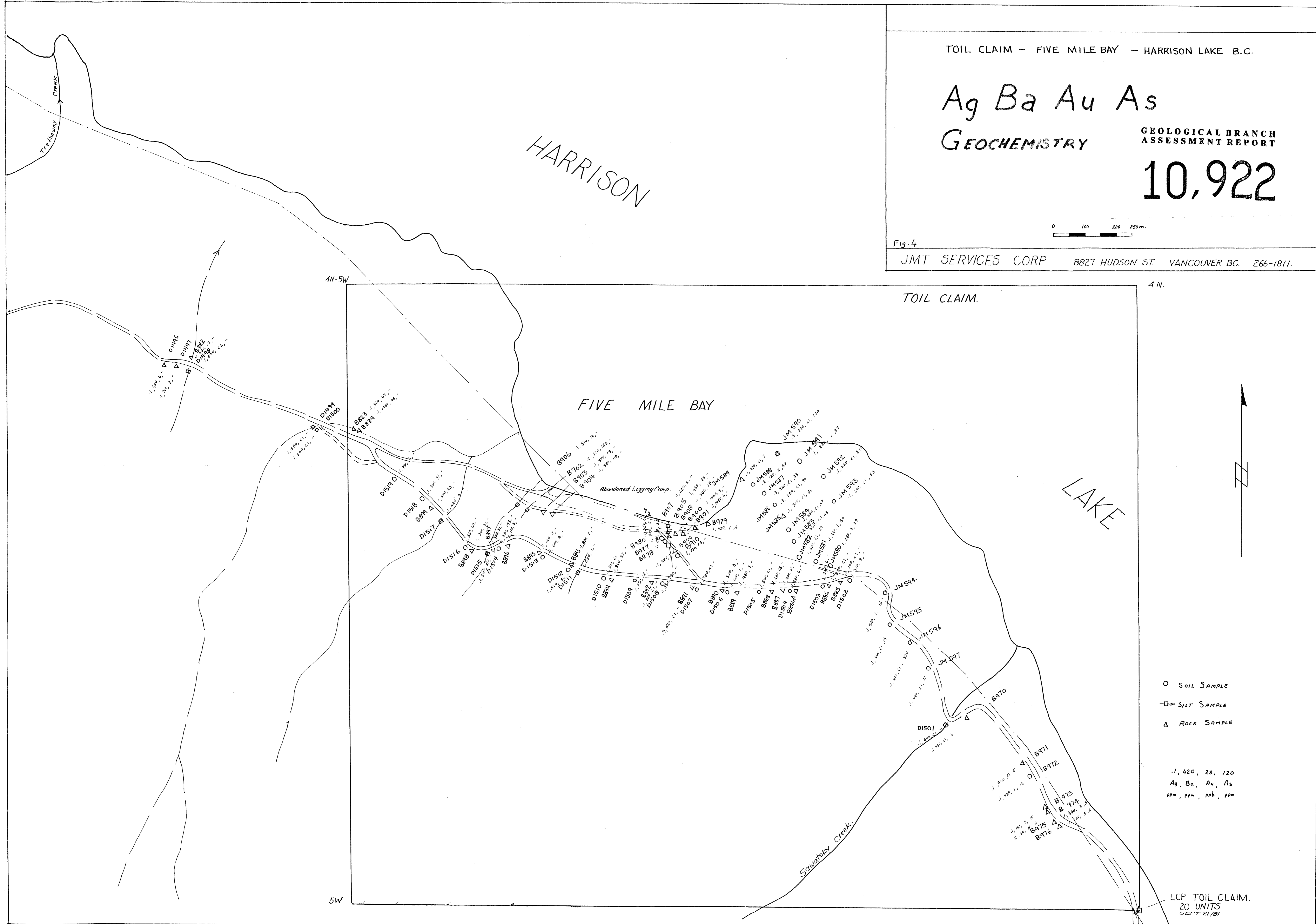


Fig. 4

JMT SERVICES CORP 8827 HUDSON ST. VANCOUVER BC. Z66-1811.



- SOIL SAMPLE
- ◻ SILT SAMPLE
- △ ROCK SAMPLE

.1, 420, 28, 120
Ag, Ba, Au, As
ppm, ppm, ppb, ppm

LCP. TOIL CLAIM.
20 UNITS
SEPT 21/81

Ag Ba Au As

Cu Pb Zn GEOCHEMISTRY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,922

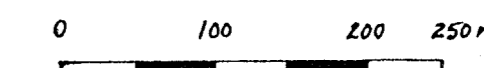
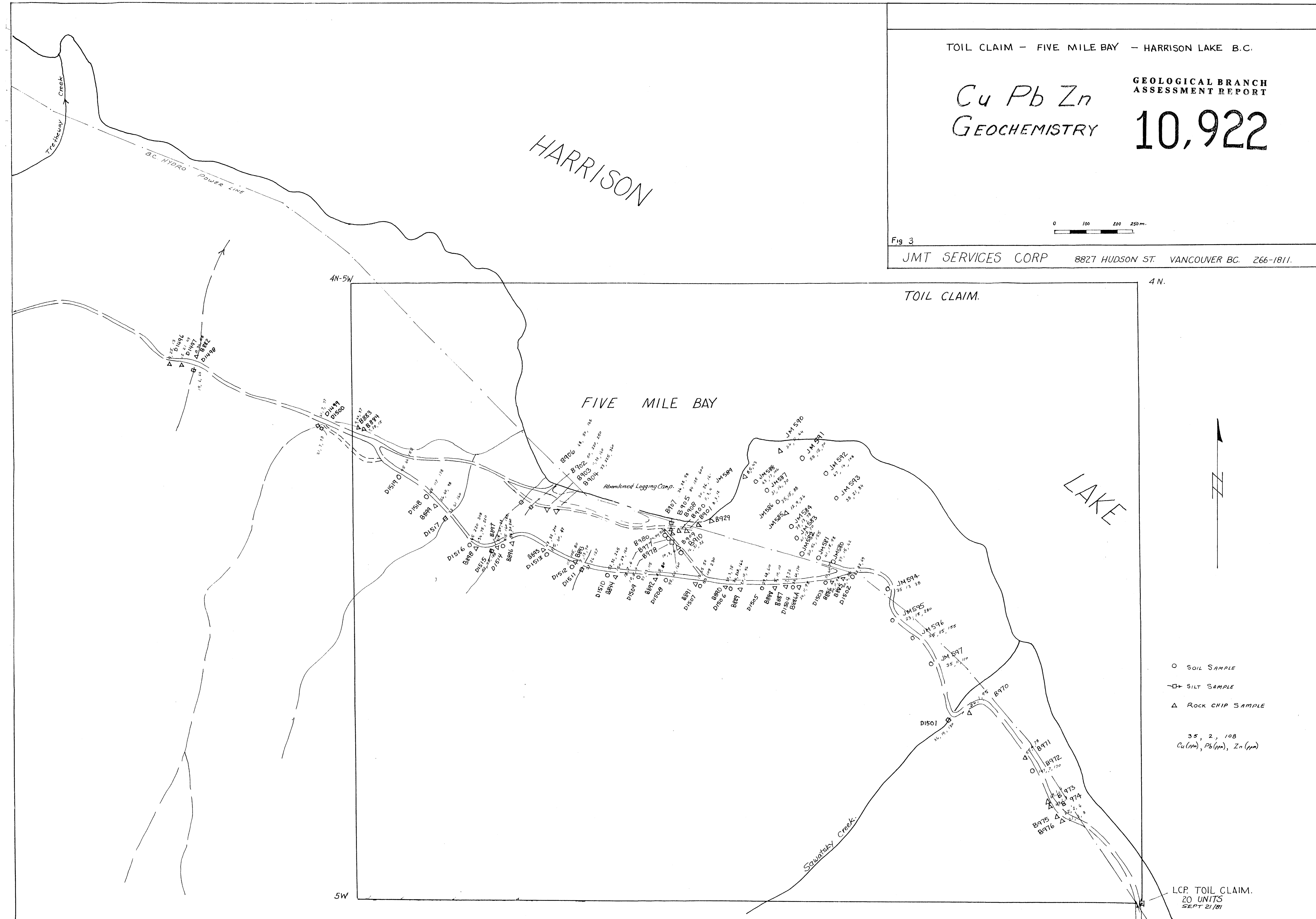


Fig 3

JMT SERVICES CORP 8827 HUDSON ST. VANCOUVER BC. Z66-1811.



- SOIL SAMPLE
 - ➔ SILT SAMPLE
 - △ ROCK CHIP SAMPLE
- 35, 2, 108
Cu (ppm), Pb (ppm), Zn (ppm)

LCP. TOIL CLAIM.
20 UNITS
SEPT 21/81