87-142-15828

ASSESSMENT REPORT

BUD CLAIM

Liard Mining Division Mess Creek Area N.T.S. 104 Let 07 1046/7W, 10W Telegraph Creek Map Area 57° 25° North, 130° 28° East 78.8' <5'

Owner: Chevron Canada Resources Limited Owner: Chevron Minurals Ltd.

Wayne Hewgill

Godfrey Walton

SUB-RECORDER PECEIVED	
MAR 1 2 1987	
M.R. #\$ VANCOUVER, B.C.	

FILMED

November 1986 GICAL BRANCH

15,828

a30/28/1

TABLE OF CONTENTS

۰.

Introduction	Į
Location and Access	1
Physiography and Climate	2
Claim Status	2
Work Summary and History	4
Regional Geology - Tectonic Setting - Stratigraphy - Intrusive Rocks	3 4 7 8
Property Geology – Lithologic Units – Alteration and Mineralization	9 9 10
Rock and Soil Geochemistry – Results	 2
Conclusions and Recommendations	12
Cost Statements	13
Statement of Qualifications	15
References	17

APPENDICES

~~··

Appendix I	Analytical Procedures	18
------------	-----------------------	----

÷

ŀ.

LIST OF FIGURES

Location Map of Bud Claims	2
Bud Claims	3
Tectonic Elements of Northwestern B.C. (Souther, 1972)	5
Telegraph Creek Map Area 104G (Souther, 1971)	6
Geology and Rock Location Map (North Half)	in pocket
Geology and Rock Location Map (South Half)	in pocket
Soil Geochemistry, Sample Locations (North Half)	in pocket
Soil Geochemistry, Sample Locations (South Half)	in pocket
Soil Geochemistry, Au, Ag, Sb, As (North Half)	in pocket
Soil Geochemistry, Au, Ag, Sb, As (South Half)	in pocket
Soil Geochemistry, Cu, Mo, Pb, Zn (North Half)	in pocket
Soil Geochemistry, Cu, Mo, Pb, Zn (South Half)	in pocket
Soil Geochemistry, Bi, Tl, Ga, Cd (North Half)	in pocket
Soil Geochemistry, Bi, Tl, Ga, Cd (South Half)	in pocket
	Bud Claims Tectonic Elements of Northwestern B.C. (Souther, 1972) Telegraph Creek Map Area 104G (Souther, 1971) Geology and Rock Location Map (North Half) Geology and Rock Location Map (South Half) Soil Geochemistry, Sample Locations (North Half) Soil Geochemistry, Sample Locations (South Half) Soil Geochemistry, Au, Ag, Sb, As (North Half) Soil Geochemistry, Au, Ag, Sb, As (South Half) Soil Geochemistry, Cu, Mo, Pb, Zn (North Half) Soil Geochemistry, Bi, Tl, Ga, Cd (North Half)

.

.

INTRODUCTION

The Bud property consisting of six claims totalling 105 units is owned by Chevron Minerals Ltd. and operated by Chevron Canada Resources Ltd. The 1986 program evaluated the property as a Muddy Lake style deposit with fault bounded Permian carbonate and Triassic volcanics.

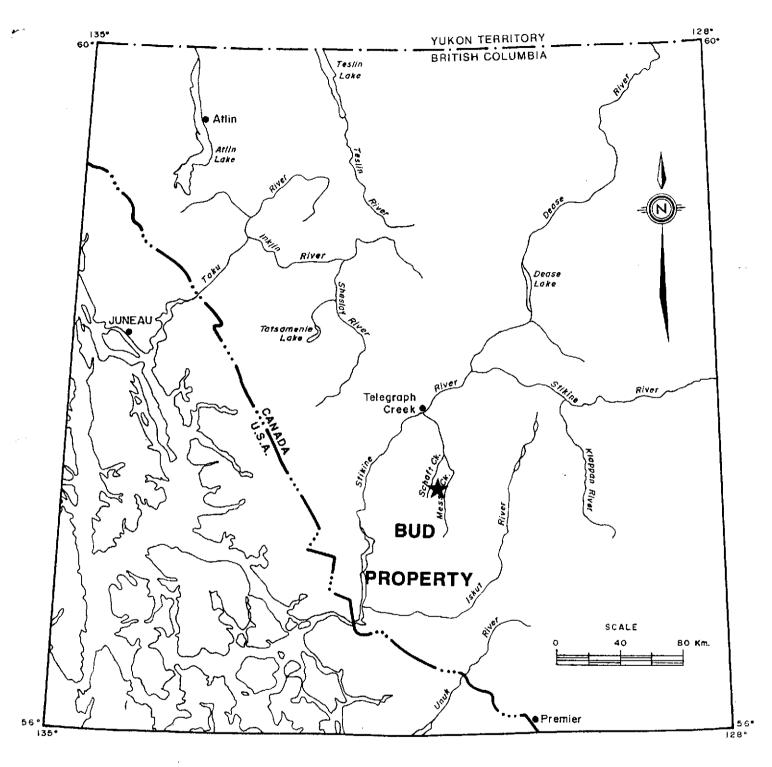
The program consisted of geologic mapping and soil sampling on a 1:10,000 scale. Geologic mapping indicates a large area of carbonate with localized areas of silica which may be silicified limestone or chert. One other area returned anomalous values in gold from quartz veins adjacent to a fault contract between Permain limestone and Triassic volcanics.

LOCATION AND ACCESS

The Bud property is located in the Liard Mining Division of northwest British Columbia. The property is located on the west side of Mess Lake, 40 kilometres south of Telegraph Creek on the Stikine River. The NTS grid reference is 104G/10,7 and the coordinates are 57° 29' north and 130° 58' east.

Access from the base camp on Loon Lake was facilitated by a Northern Mountain Bell 206 helicopter based at the camp. The nearest airstrip is at Schaft Creek, ten kilometres to the southwest of the Bud claim and is capable of handling moderately sized aircraft. The nearest road access is 35 kilometres through Raspberry Pass to the Stewart-Cassiar Highway.

- ! -





Chevron Canada Resources Limited Minerals Staff

LOCATION MAP BUD PROPERTY

FIGURE 1

PHYSIOGRAPHY AND CLIMATE

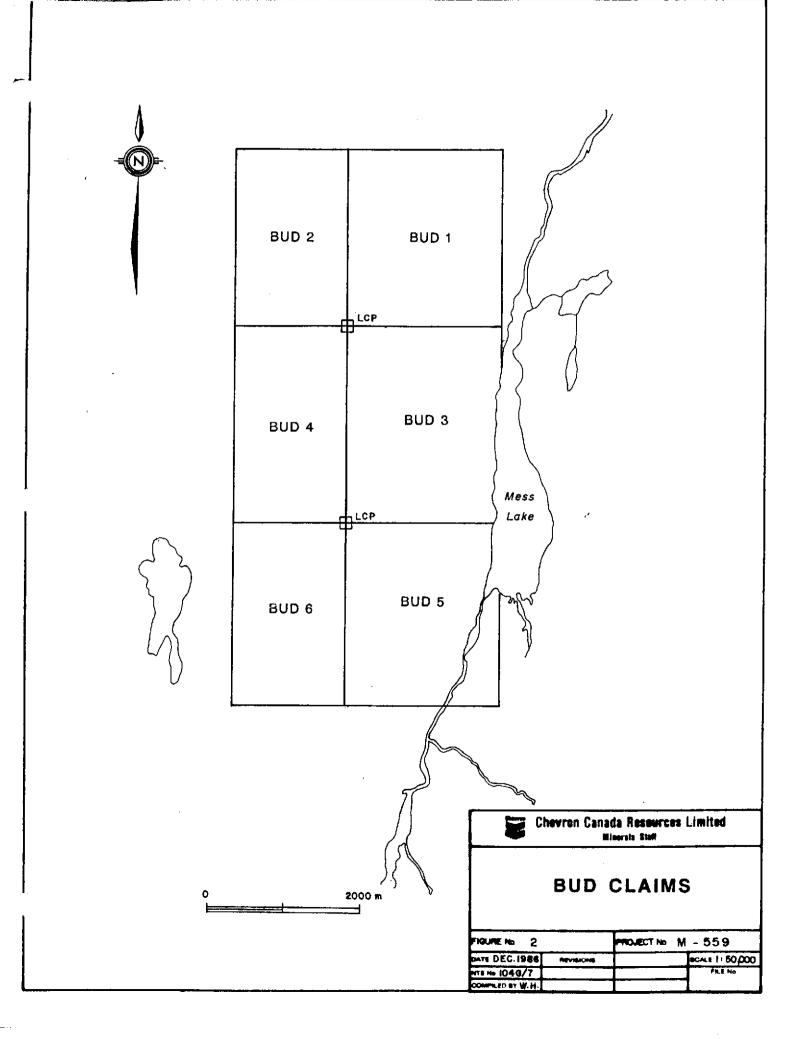
The elevation of the Bud property ranges from 2,300 feet on Mess Lake to 5,900 feet in the central portion of the property. The property is bounded by the rugged Coast Range Mountains to the west and the Edziza Plateau to the east. The property has a large plateau in the central portion surrounded by very rugged terrain. Below 4,000 feet the property is heavily forested.

Records kept at Schaft Creek indicate a mean temperature during June, July and August of 13°C with winter temperatures seldom below -30°C. Precipitation averages about 50 cm per year much of which falls as snow. Accumulated snow cover on the upper plateau last into mid-July.

CLAIM STATUS

The Bud claims are owned and operated by Chevron Canada Resources Ltd. The property was staked on March 13, 1986. The present claim status is as follows:

Claim Name	Record Number	Record Date	Expiry Date	No. of Units
Bud 1	3521	March 13, 1986	March, 1987	20
Bud 2	3522	March 13, 1986	March, 1987	15
Bud 3	3523	March 13, 1986	March, 1987	20
Bud 4	3524	March 13, 1986	March, 1987	15
Bud 5	3525	March 13, 1986	March, 1987	20
Bud 6	3526	March 13, 1986	March, 1987	15



WORK SUMMARY AND HISTORY

The Mess Creek area received considerable attention from the 1950's to late 1970's during the copper porphyry rush but little emphasis has been placed on the gold potential other than as a by-product. Newmont Mining Corporation and Silver Standard Mines conducted extensive regional exploration programs in the area with Silver Standard discovering the Schaft Creek porphyry copper deposit which has published reserves of one billion tons at 0.30% Cu, 0.034% MoS₂, 0.004 oz/t Au and 0.035 oz/t Ag (Canadian Mines Handbook, 1986).

Recent geologic work on the Mess Lake is limited to a report on the Bull and Cot claims written by Teck Explorations for Ken Cottrell. The area was explored in the 1960's as a copper porphyry target. A few old posts were located but no signs of detailed work were seen.

REGIONAL GEOLOGY

Tectonic Setting

The tectonic setting of the Telegraph Creek Map area is described in G.S.C. Paper 71-44 (Souther, 1972). The Mess Creek valley lies within the Stikine terrane (Monger, 1984) which includes the Stikine Arch composed of crystalline and metamorphic rocks. It is believed that during the Mesozoic time the Stikine Arch was relatively static and had a strong influence on Mesozoic structures and sedimentation around its margins.

The Stikine Arch is bounded on the east and northeast by the Triassic-Jurassic Whitehorse trough of volcanics and clastic sediments and on the southeast by the Jurassic Bowser Basin. The Bowser Basin is a successor basin in which marine

LEGEND

,

16. Mary

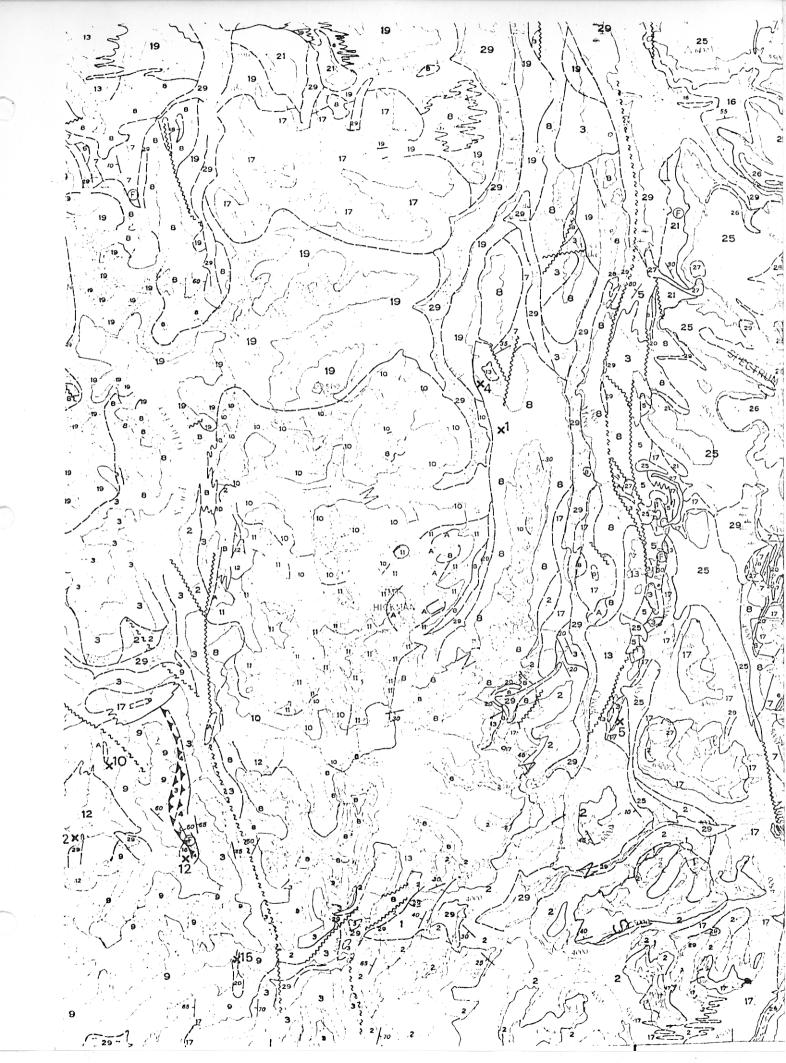
12. Cupper Canyon

	QUATERNARY PLEISTOCENE AND RECENT 29 Fluvialle gravel; sand, slit; glacial outwash, till, alpine morsine and colluvium			TIMASSIC PRE-LO	WER JUNASSIC			
	20 Iloi-spring deposit, tuis, aragonite		HICKMAN	DATHOLITH				
CENOZOIC	27 Olivine basalt, related pyroclastic rooks and loose tephra; younger than some of 29	MESOZOIC	to is 10. itombio quarta dior. amphibolite	its, bornblands-py	miner bornblende- roxme diorite, amp	guarts dierite 11, Hornblemdu, obibolite and pyroseos-bosring		
а С С С	TERTIARY AND QUATERNARY UPPER TERTIARY AND PLEISTOCENE 20 Thyoilte and dacite flows, lava domes, pyroclastic rocks and related sub- volcanie intrusions; minor basali 23 Dasait, clivine basait, dacite.related pyroclastic rocks and subvolcanie intrusions; minor rhyolite; is part younger than some 20	-	TRIASSIC UPPER TRIASSI 9 Ubditferenti 0 Augite-and related sub	atod volcania and d site flows, pyrocis rolcania intrusions	atio rocks, derived	(units 5 to 8 inclusivo) 5 voicantelastic rocks and 6, alitatone and polymictic		
	CRETACEOUS AND TERTIARY UPPER CRETACEOUS AND LOWER TERTIARY		7 dolomiciio	in-beddod siliccou Litsione, greywack	e, volcanie conglon	chort, calcarcous and nersto, and minor limestons		
1	SLOKO GROUP Light grees, purple and white rhyolite, trachyte and dacite flows, pyreclastic rocks and derived sediments		d Limestone; I	letid argillaccous i ay be in part your	limestone, calcared ager than some 7 an	ous shale and recioid al S		
ļ	22 23 22. Biotite Icucogranite, subvolcanio stocks, dykes and sills 23. Porphyritic biotite andesite, lava domes, flows and (7) sills		3 Groywacke,	siltstone, shale; m	linor conglomerate.	, tull and volcanic sandstone		
	21 SUSTUT GROUP 21 Chert-pebble conglomerate, granita-boulder conglomerate, quartzose 21 sandatone, arkose, silistone, carboanceous shalo and minor coal		MIDDLE TRIASS		le; minor calcarcos	us shale and siltstone		
İ	20 Felsite, quartz-feldspar porphyry, pyritiforous felsite, orbicular rhyolite; in part equivalent to 22		PERMIAN MIDDLE AND UF Limestono, t	PER PERMIAN hick-bedded mainl	y bioclastic limest	one; minor siltstone, chert		
ļ	19 Medium-to coarso-grained, pink blottle-hornblende quartz moszonlie	Soic						
	JURASSIC AND/OR CRETACEOUS POST-UPPER TRLASSIC PRE-TERTLARY IB Horablende diorite	PALEOZOIC	PERMIAN AND OLD Phyllite, arg greenstone, r	llaccous quartzite	, quartz-scricito s tose tuff and limes	chist, chiorite schist, long		
	T7 Granodiorite, quarta diorite; minor diorite, loucogranito and migmatite		MISSISSIPPIAN Limestone, C and phyllite	rizoidal limestone	, ferruginous lime:	stone; marcos tull, chert		
	NURASSIC MEDDLE (?) AND UPPER JUBASSIC					bably pre-Upper Jurassie		
	BOWSER GROUP Chert-puble conglomerate, grit, graywacke, subgreywacke, siltstone and shalo; may include some 13		A pre-Lower J		unite, serpentinite;	ago unicnowa, probably		
	MIDDLE JURASSIC Basalt, pillow lava, tuff-breacta, derived volcaniciastic rocks and related subvolcanic intrusions		Bedding (horizontal,	neliced, vertical,	overturned)	+111		
	LOWER AND MIDDLE JURASSIC Shale, minor elitatone, siliccous and calcareous silistone, groywacke and ironatone		Syncline	·····	•••••			
	LOVER JURASSIC Conglomerato, polymietia conglomerate; granito-bouldur conglomuratu, grit, groywacko, silisione; basalile and andesitie volcania rocks, peparites, pillow-broccis and derivud volcaniclastic rocks	Thrust (suit, teeth on hanging-wall side (defined and approximate, assumed).						
			Clacior					
				INDEX TO M	INERAL PROPER			
			1. Liard Copper	5. Bam	9. AUI	13, Ann, Su		
			7. Galore Croub	6. Gordon	10. BIK	14, 57		
			3. QC. QCA	7. Limpoke	11. JW	15. Gost		

TELEGRAPH CREEK MAP AREA 104G (SOUTHER, 1972)

4. Nube

. Poke



sedimentation continued through Jurassic time after marine sedimentation had ceased in the remainder of the area.

The most dominant structural trends in the region are the Tertiary north-south faults which produced the Mess Creek valley. The Tertiary normal fault movement occurred along the same fault surfaces as Mesozoic reverse faulting. Repeated movement along these Tertiary structures has resulted in a grabben structure of which the Mess Creek valley is the down-dropped section. The recent movement along this fault structure is recorded by the progressive overlapping of lavas from the Mount Edziza Complex.

Volcanic activity from the Mount Edziza Complex is believed to have occurred as late as a few hundred years while the latest fault movement is at least as old as the 1340 year old Arctic Lake Olivine Basalt (Souther, 1970). Warm springs occur by the southeast end of Mess Lake.

Stratigraphy

The stratigraphy in the area has been broken down into six tectonostratigraphic packages and are listed by Souther (1971) as follows:

- 1. <u>Mississippian to Middle Triassic</u> Carboniferous rocks that were deformed and regionally metamorphosed during the early to mid-Triassic, Tahltanian orogeny.
- 2. <u>Upper Triassic</u> Unmetamorphosed, moderately deformed Upper Triassic volcanic and sedimentary rocks. This package is separated from overlying strata by a disconformity representing the latest Triassic to earliest Jurassic Inklinian uplift and contemporaneous emplacement of granitic rocks (e.g. Hickman Batholith).
- 3. <u>Lower to Middle Jurassic</u> Mainly clastic sedimentary rocks derived in part from (2) above, and separated from overlying strata by a disconformity, representing the mid-Jurassic Nassian uplift.
- 4. <u>Middle to Upper Jurassic</u> Clastic sediments derived in part from 1, 2, and 3 above and separated from overlying strata by a profound angular unconformity that truncates decollement folds formed during the Columbian Orogeny.

a30/28/7

- 5. <u>Cretaceous and Tertiary</u> Acid volcanic rocks and genetically related intrusions; and a contemporaneous clastic sediment separated from overlying strata by an angular unconformity related to early Tertiary extension and block faulting.
- 6. Late Tertiary and Quaternary Lava flows and pyroclastic rocks.

Intrusive Rocks

The earliest known intrusive activity in the area is the Post-Upper Triassic to Pre-Lower Jurassic Hickman batholith which outcrops at the north end of Schaft Creek. It is crudely zoned ranging from a hypidiomorphic biotite-hornblende quartz monzonite in the centre to a more quartz rich less mafic quartz diorite towards the perimeter.

A younger group of small equidimensional plutons occur throughout the area one of which is genetically associated with the Galore Creek orebody (Allen et al, 1976). These rocks are commonly porphyritic with potash feldspar crystals up to 10 cm across in a fine grained matrix of orthoclase aegirine-augite and biotite.

A Jurassic and/or Cretaceous medium to coarse grained quartz monzonite occurs along the Mess Creek valley most notably on the steep cliffs on the west side of Mess Lake. The rock is plagioclase feldspar porphyritic with a fine grained orthoclase matrix and chloritized matic minerals. The unit is emplaced sill-like giving the cliffs an appearance of a sedimentary sequence.

Ultramafic rocks of undetermined age occur throughout the map area. Most of these occurrences are small serpentinized units associated with fault structures. Northeast of Mount Hickman is an apparently unaltered dunite to peridodite body. At its exterior margin it is altered to a fine grained dark grey rock which is believed to be a contact metamorphic zone between the Hickman Batholith and the ultramafic rocks.

a30/28/8

PROPERTY GEOLOGY

Lithologic Units

Only a small portion of the Bud property was mapped in detail during the 1986 field season. An area of limestone and silica was mapped on a 1:5,000 scale utilizing the 1986 soil grid. The eastern portion of the property was mapped using 1:31,000 airphotos with the data transferred to the 1:5,000 base map.

Souther's (1971) map indicates a northeast fault contact between the Permian sediments and Triassic volcanics. Our mapping indicates that this northeastern trend may actually represent a synform with Triassic carbonates and volcanics overlying Permian/Pennsylvanian limestones and mafic flows.

The Permian limestone is exposed on the west side of Mess Lake is massive, white and recrystalized adjacent to monzonite intrusions. Interbedded with the limestone are mafic flows 2-3 metres thick. The units are interpreted as flows rather than sills due to the lack of any alteration along the upper contacts.

The Triassic section is predominantly volcanics with some interbedded crinoidial limestone and chert. The contact between the Permian section and the Triassic volcanics is believed to be an angular unconformity due to the variation in bedding orientation in the two units.

The unit consists of phyllitic fine grained pale to dark green tuffs, lappilli tuffs and crystal tuffs. Interbedded with the tuffs are thick layers several metres thick of limestone and chert. Some question exists concerning the gneisses of the silica layers. This subject will be discussed in a later section on alteration.

The tuffs have been highly distorted locally displaying at least two phases of folding. The silica layers have fractured with the strain resulting in local brecciated areas.

Quartz monzonite sills intrude the volcanic sequence on the west side of Mess Lake. The rocks are medium-coarse grained with plagioclase phenocrysts in a matrix of pink K-spar, grey quartz and fine grained biotite. This assemblage is then in turn intruded by an andesite dyke swarm. This sequence of sill-like intrusions gives the cliffs an appearance of a sedimentary sequence.

Several possibly Tertiary feldspar porphyry dykes were also seen cross-cutting the stratigraphy. One outcrop of quartz-eye rhyolite was observed near the south end of Mess Lake.

Alteration and Mineralization

The main type of alteration studied on the Bud is the possible silicification of the limestone. Contradicting evidence exists for both a primary and secondary hydro-thermal origin for the silica.

The silica is stratabound within the carbonate section. The carbonates are often dolomitized adjacent to the silica but are otherwise unaltered. The silica is white to dark grey and massive, lacking any of the fine vugs common in silicified limestone seen elsewhere.

The presence of crinoid stem fragments within the silica zones however indicates that the silica may be silicified limestone and therefore related to a later hydrothermal event. A similar occurrence was noted northeast of Newmont Lake where the interior of crinoid fragments are carbonate but the surrounding matrix in silica.

For this to be achieved by a hydrothermal process would probably involve a slow, lowtemperature replacement that failed to pervade the crinoid stem walls. Although these areas have been deficient in gold, the presence of a silica bearing system could warrant further work.

Determination of the presence of a hydrothermal system may be possible by examining micro fossils (conodonts) in both the unaltered limestone and the silica. A change in colour in the silica can give the temperature of alteration of an active hydrothermal system (Scholle, 1979).

A large limonitic gossan occurs on the northeast corner of the property. The rocks are mostly volcanic rocks with local areas of fine grained disseminated pyrite. Low gold values were obtained within this unit and it appears to have no economic significance.

Mineralization on the Bud property occur as isolated argentiferous tetrahedrite malachite and auzurite showings and a quartz zone adjacent to a limestone volcanic fault contact which returned good gold values.

ROCK AND SOIL GEOCHEMISTRY

A total of 65 rocks, 396 soil and 41 talus samples were taken during in 1986 program. Where possible B horizon soil samples at a depth of 10-30 cm were collected with a mattock, placed in Kraft wet strength soil bags and air dried before shipment to Chemex Labs in North Vancouver. On talus slopes talus fines were collected and treated as rocks. Samples were analyzed for Au, Ag, Sb, As, Cu, Pb, Zn, Mo, Cd, Ga, Bi and Tl as outlined in Appendix B.

Results

The 1986 soil program failed to outline areas of anomalous mineralization.

An anomalous gold value was obtained from a one metre wide quartz vein adjacent to a 140° trending limestone-volcanic fault contact. The sample returned a value of 2250 ppb Au, 3.5 ppm Ag and was also anomalous in Pb, Mo and Bi.

Isloated tetrahedrite showings returned high silver values but were generally deficient in gold. A chip sample of similar material taken by Teck in 1981 on the Cot claim formerly held by Ken Cottrell assayed 223.5 g/t silver and 0.07 z/t gold (Betmanis, 1981).

CONCLUSIONS AND RECOMMENDATIONS

The Bud property remains a viable target for precious metal mineralization. The quartz vein adjacent to a carbonate-volcanic fault contact has not been fully evaluated due to precarious cliffs to the east and overburden to the west.

Evaluation of this structure might be outlined with a VLF-EM16 survey over the area. Trenching in the area would be difficult but not impossible if proper safety precautions are taken.

Bud 2

A) Personnel

		Field Day	Office Day
	E. Titley	2	
	W. Hewgill	2	1
	J. MacRae	2	
	G. Wober	2	
		8	I
	8 field days at \$150/day		\$ 1,200.00
	l office day at \$150/day		150.00
B)	Camp and food supplies		
	14 man days at \$60/man day		840.00
C)	Helicopter		
	3.8 hours at \$550/hr including fuel		2,090.00
D)	Drafting		200.00
	l day at \$150/day		300.00
E)	Geochemistry		
L)	Rock and soil analyzed for Au, Ag, As,		
	Sb, Cu, Mo, Pb, Zn, Tl, Bi, Ga and Cd		2,084.85
	TOTAL		<u>\$ 4,574.85</u>

•

COST STATEMENTS

Bud 1, 3, 4, 5, 6

A) Personnel

		Field Day	Office Day
	G. Walton	l	· 1
	E. Titley	6	
	W. Hewgill	11	5
	J. MacRae	12	
	G. Wober	9	
		39	6
	39 field days at \$150/day		\$ 5,850.00
	6 office days at \$150/day		900.00
B)	Camp and food supplies		
	39 man days at \$60/man day		2,340.00
C)	Helicopter		
	22.2 hours at \$550/hr including fuel		12,210.00
D)	Drafting		
	5 days at \$150/day		750.00
E)	Geochemistry		
	Rock and soil analyzed for Au, Ag, As, Sb, Cu, Mo, Pb, Zn, Tl, Bi, Ga and Cd		7,883.25
	TOTAL		<u>\$29,933.25</u>

STATEMENT OF QUALIFICATIONS

I, Wayne Hewgill, have worked in the mineral exploration industry since 1983. I graduated in 1985 with a B.Sc. (Majors) from the University of British Columbia. I presently work for Chevron Canada Resources Limited and have done so on a seasonal basis since 1983.

hagh

WAYNE HEWGILL

STATEMENT OF QUALIFICATIONS

I, Godfrey Walton, have worked as a geologist since 1974 in Alberta, British Columbia, Yukon, Northwest Territories and Ontario. I graduated in 1974 with a B.Sc. (Hons) degree from the University of Alberta and was awarded a M.Sc. degree from Queens University in January 1978. I have been employed by Chevron on a permanent basis since 1976.

I am a member in good standing with the Canadian Institute of Mining and Metallurgy, the Society of Exploration Geochemists and the Mineralogical Association of Canada.

I supervised and carried out the work on the BUD Claims.

welfing Weet

GODFREY WALTON

REFERENCES

Allen, D.G., Panteleyev, A and Armstrong, A.T. 1976. Galore Creek chapter in Porphyry Deposits of the Canadian Cordillera, C.I.M. Special Volume No. 15, p. 402–414.

Betmanis, A.I. (1981). Assessment Report on the Cot Claims, A.R. No. 09479.

Fox, P.E., Grove, E.W., Seraphim, R.H. and Sutherland-Brown, A., 1986. Schaft Creek chapter in Porphyry Deposits of the Canadian Cordillera, C.I.M. Special Volume No. 15, p. 219–226.

Monger, J.W.H. 1984. Cordillern Tectonics: A Canadian Perspective. Bull. Soc. Geol. France, No. 2, p. 255–278.

Northern Miner Press (1986). Canadian Mines Handbook, 1985-1986, p. 393.

Souther, J.S. 1970. Volcanism and its Relationship to Recent Crustal Movements in the Canadian Cordillera. Canadian Journal of Earth Sciences, Vol. 7, No. 2, p. 553-568.

_____ 1971. Geology and Mineral Deposits of Tulsequah Map Area; British Columbia. S.G.C. Memoir 362.

____ 1972. Telegraph Creek Map Area. G.S.C. paper 71-44.

APPENDIX C

GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

- 1. Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
- 2. A 1.00 gram portion of the sample is weighted into a calibrated test tube. The sample is digested using hot 70% HC104 and concentrated HN03. Digestion time = 2 hours.
- 3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
- 4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	-	l ppm
Molybdenum	-	l ppm
Zinc	-	l ppm
*Silver	-	0.2 ppm
*Lead	-	l ppm
*Nickel	-	l ppm
Chromium	-	5 ppm

*Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

PPM Antimony:

A 2.0 gm sample digested with conc. HCl in hot water bath. The iron is reduced to Fe $^{+2}$ state and the Sb complexed with 1⁻. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm $^+_{-}$ 0.2.

Detection limit: 0.2 ppm

PPM Arsenic:

A 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with NaBH₄ and the arsenic content determined using flameless atomic absorption.

Detection limit: 1 ppm

FIRE ASSAY METHOD - Silver & Gold

Silver and gold analyses are done by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay.

0.5 assay ton sub samples are fused in litharge, carbonate and siliceous fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The combined Ag & Au is weighed on a microbalance, parted, annealed and again weighed as Au. The difference in the two weighings is Ag.

F.A. - A.A. GOLD COMBO METHOD

For low grade samples and geochemical materials 10 gram samples are fused with the addition of 10 mg of Au-free Ag metal and cupelled. The silver bead is parted with dilute HNO3 and then treated with aqua regia. The salts are dissolved in dilute HC1 and analyzed for Au on an atomic absorption spectrophotometer to a detection of 5 ppb.

Copper, Lead, Zinc, Silver ppm:

1.0 gm sample is digested with perchloric-nitric acid (HC104-HN03) for approximately 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Copper, lead, zinc and silver are determined by atomic absorption techniques. Silver and lead are corrected for background absorption.

Detection limit: Copper, Zinc - 1 ppm Silver - 0.2 ppm Lead - 2 ppm

a11/11/27

Lead, Molybdenum, Copper:

An aliquot from an acid-preserved filtered sample is taken and digested to dryness with concentrated nitric acid. The residue is dissolved in warm perchloric acid and sufficient water is added to restore the sample to proper dilution. The concentration of each element is then determined by its atomic absorption with Varian AA-5 spectrophotometer calibrated with blanks and standard metal solutions prepared similarly. Background absorption corrections was applied to the measurement of lead. The detection limit for all elements by this method is 0.01 g/ml.

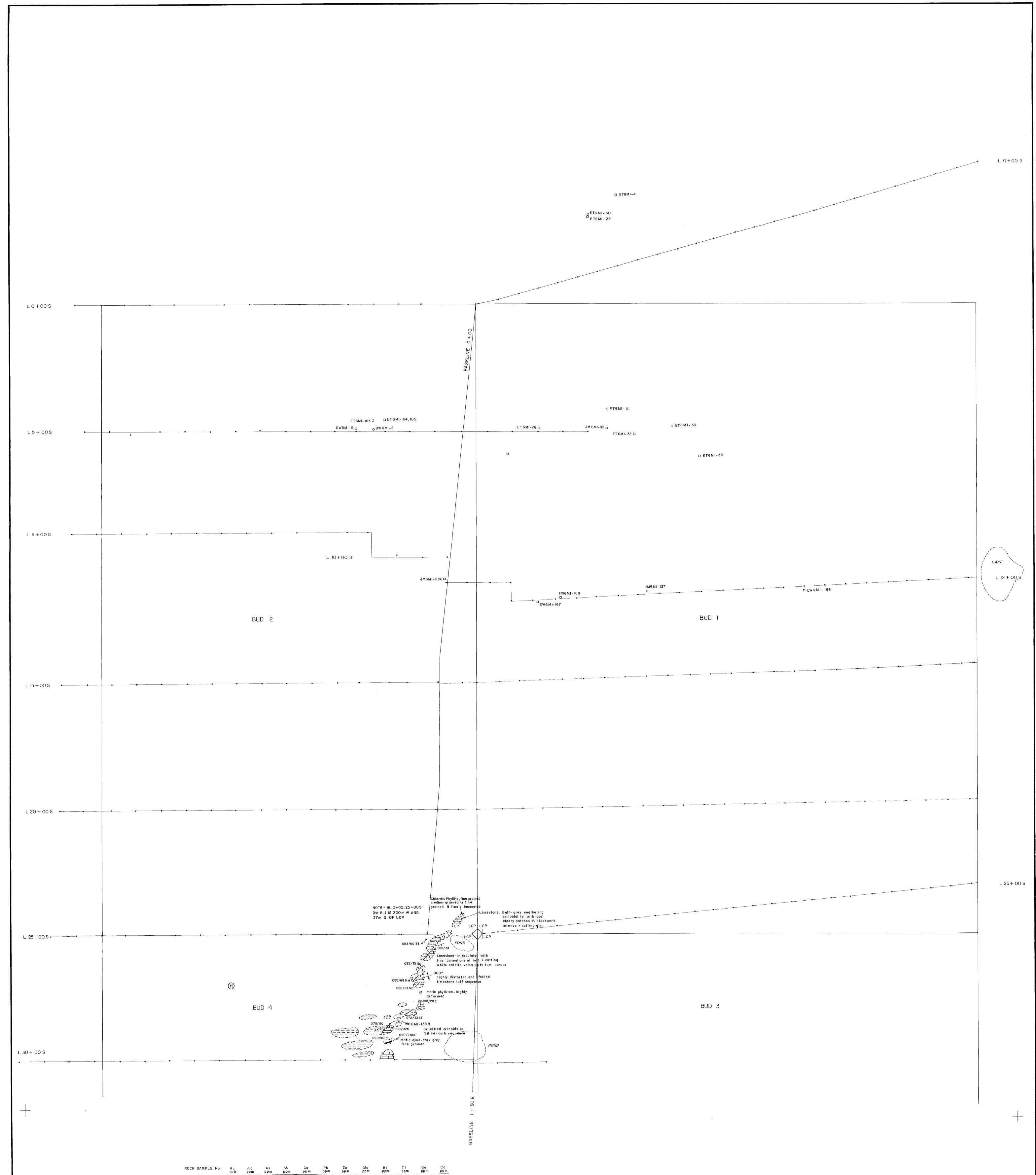
Bismuth ppm:

A 2.0 gram sample is digested with concentrated HC1 and potassium chlorate. The solution is then cooled. After the addition of K1 and the reduction of iron, the solution is extracted with M1BK aliquot 336 and analyzed via standard AA procedure, correcting for background absorption.

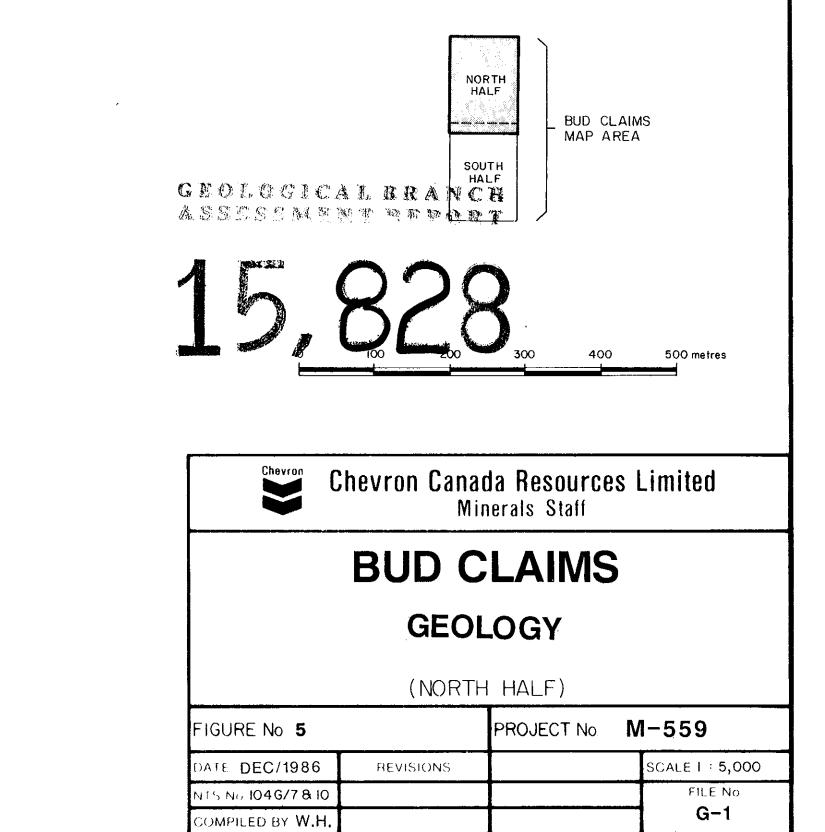
Detection limit: 0.2 ppm

Thallium and Gallium:

2 gms sample - HC104, HN03, and HF digestion - organic extraction of iodide complex and atomic absorption finish correcting for non-atomic background absorption.

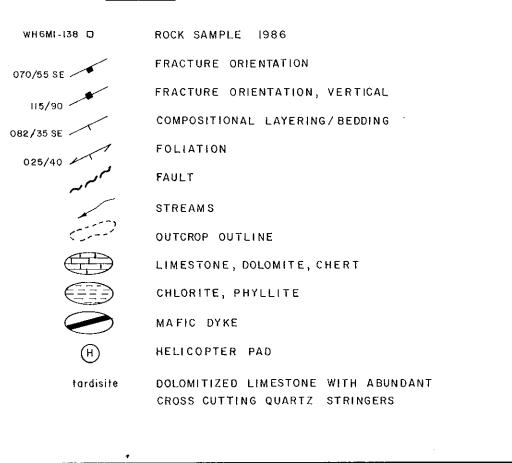


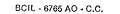
GW6MI-	8	<5	0,1	100	54	16	1	13	7	1.0	0,1	5	0.1
2	9	<5	0.1	9	6.8	9	ł	45	ł	0.1	0.2	16	0.3
ET 6 M I -	4	5	1, 8	2	0.1								
	27	25	0.2	24	0.8								
	28	5	0.6	200	1,8								
	29	5	0,3	32	0.2								
	30	5	0.3	19	0.2								
	31	5	0.2	55	0.4								
	32	20	0.3	33	0.4								
	33	5	0.7	90	0.4								
	34	5	0, 3	12	0.8								
	163	10	0_1	60	7, 2	13	I	24	I.	0.2	0,1	12	0.1
	165	90	0,1	60	6.3	9	I.	12	15	0,1	0.1	7	0.1
	166	5	0.1	2	1.4	11	I.	57	l	Q.I	0.2	20	0.1
	167	5	0,1	6	8.0	43	20	80	1	0.1	0,1	20	0.1
	168	÷ 5	0.1	4	4.0	44	12	70	l	0.1	0.1	۱6	0.1
	169	5	0,1	4	1.0	13	3	71	I	0,1	0.1	14	0,1
JM6MI-	206	5	0.1	100	0,9	5	4	50	4	0.1	0.2	16	0.1
	217	5	0,1	5	0.3	58	4	66	i	0.1	0.2	13	Q.1
	138 B	5	0.1	2	0,1	83	3	10	I	0.1	0.1	30	0.1

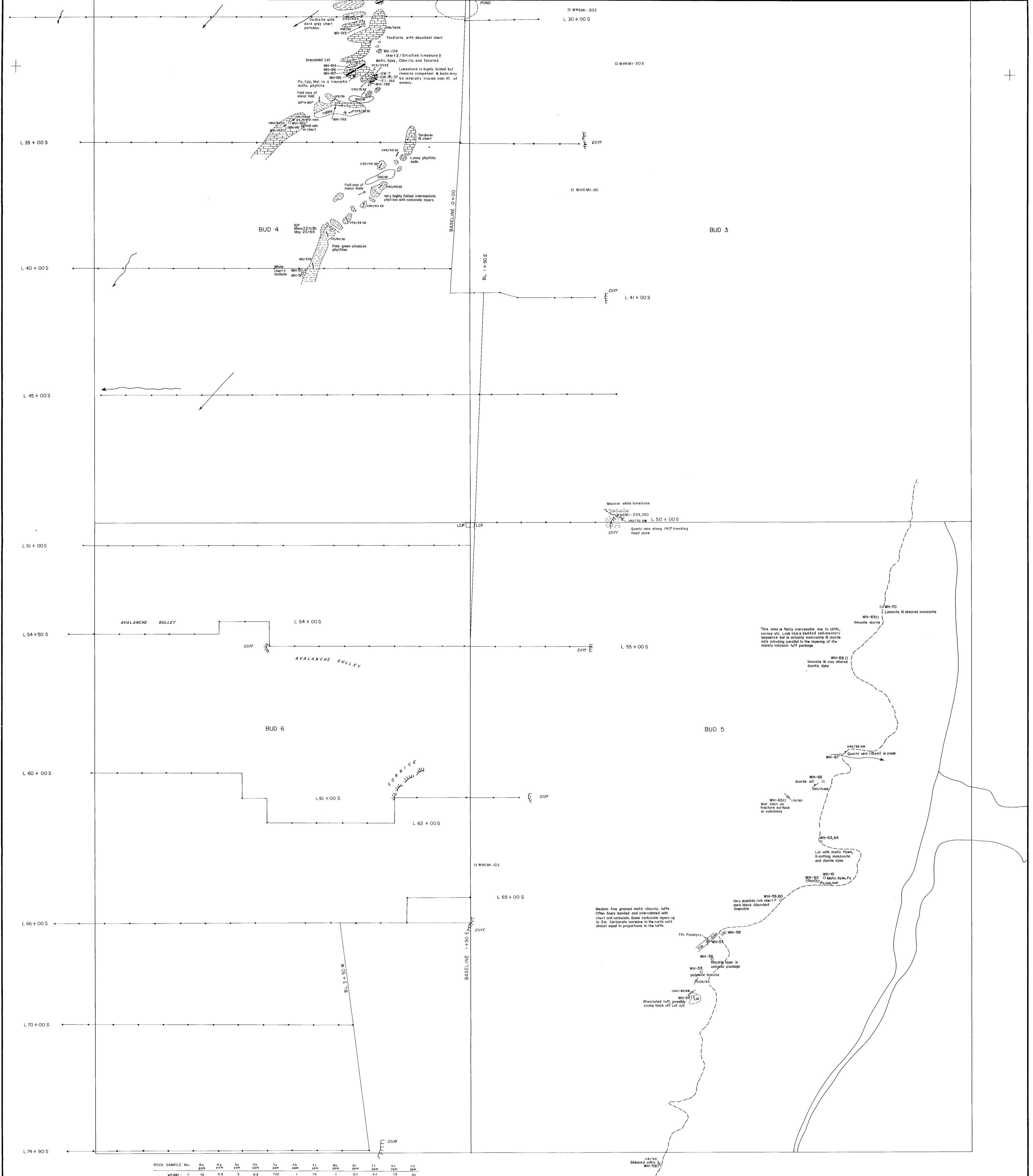


LEGEND

•

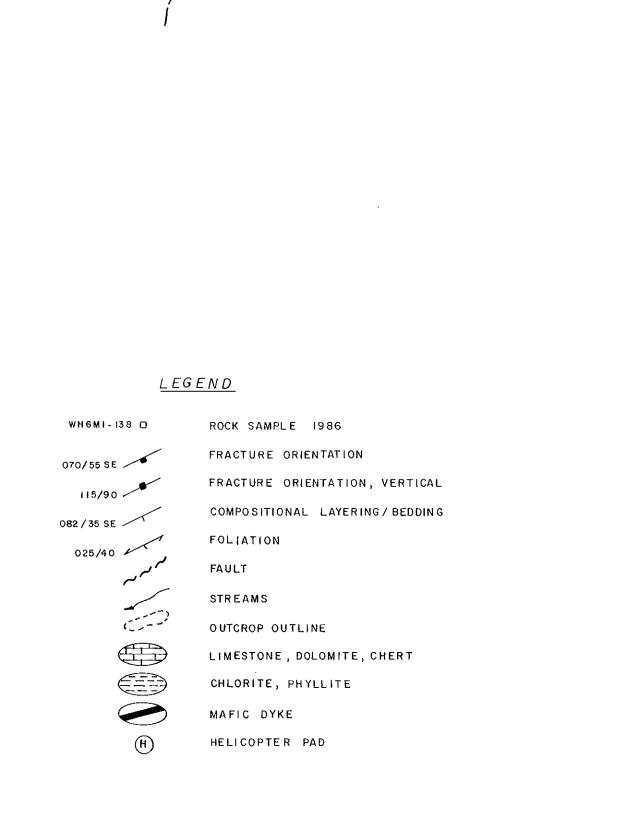


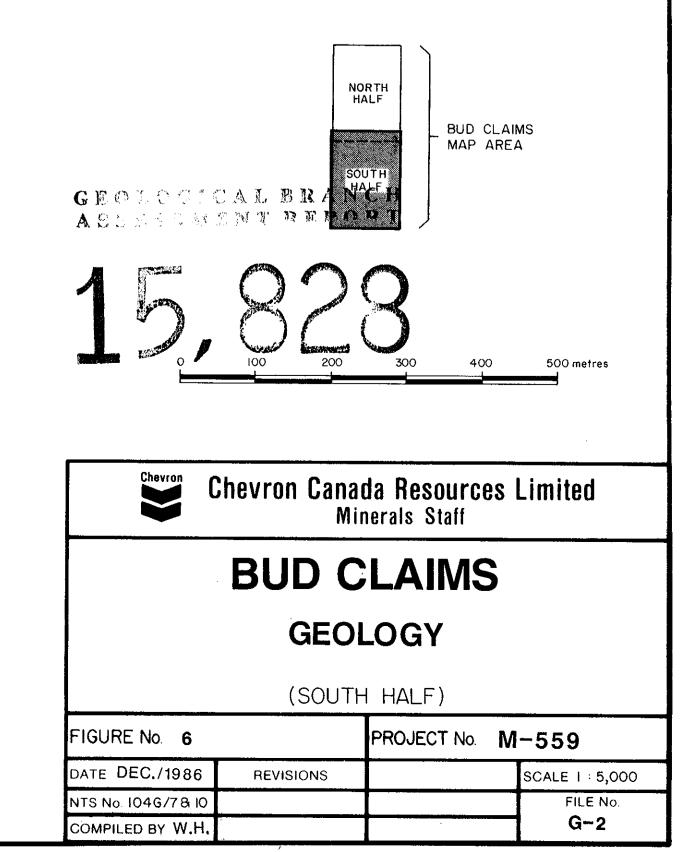


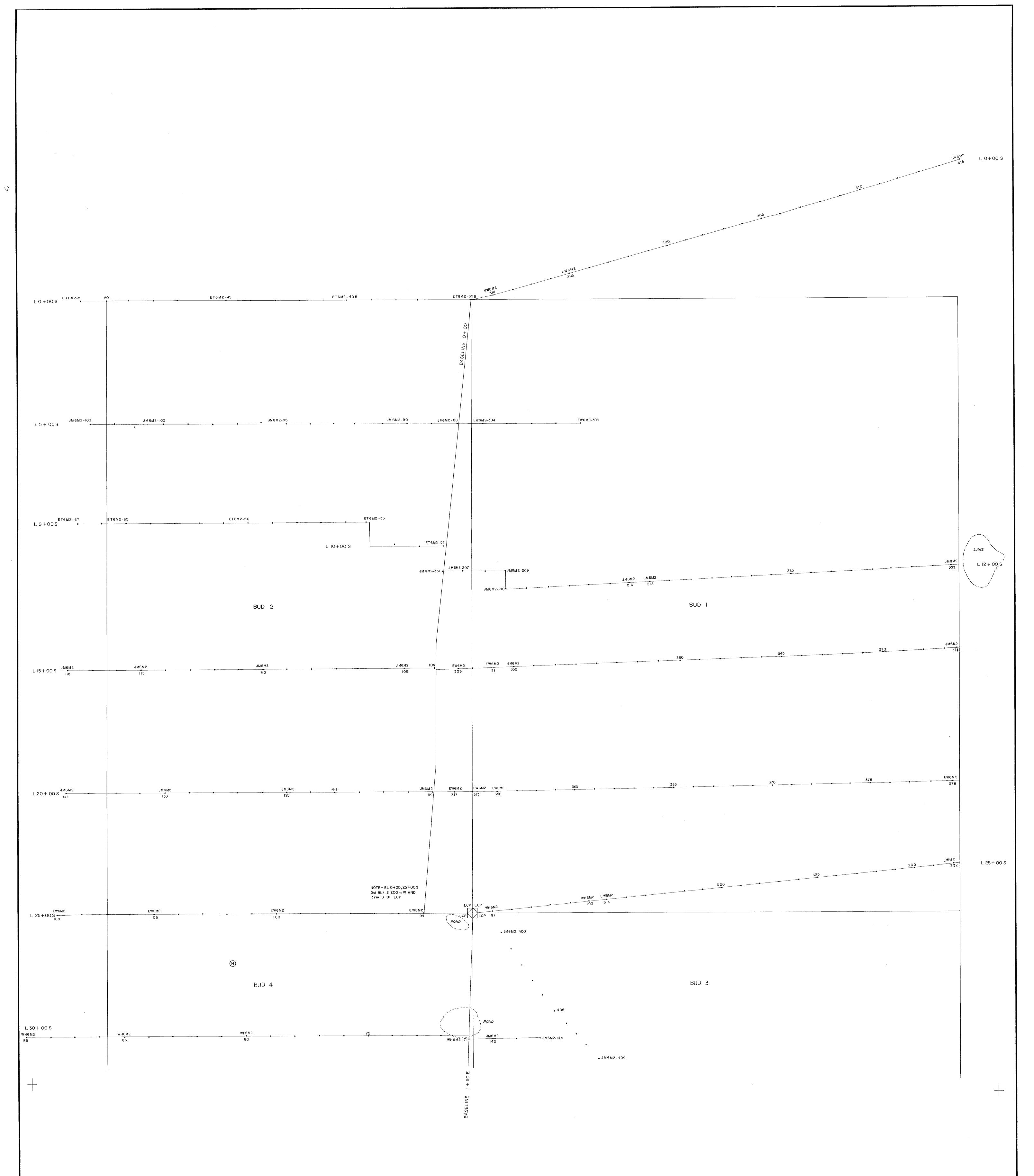


WH 6M1	- 7	<5	0 2	5	9.3	720	I I	70	1	0.1	0.1	13	0.1
	35	<5	0.1	2	1.4	6	ł	8	1	0.1	0,1	3	0.1
	36	۲5	0,9	5	0.4	2530	1	32	1	0,1	0.1	3	0,1
	37	<5	2.8	7	0.4	8270	1	61	I	0,1	0.1	7	0,1
ET6MI-	- 162	٢5	0.5	9	16.2	960	ł	22	ł	0.1	0.1	3	0.1
WH6MI	- 50	5	0.1	3	0.1								
	51	5	0,1	2	0.1								
	53	10	0.1	9	0.2	4	5	26	1	0,1	0.1	6	1.0
	54	5	0,1	3	J. O	2	10	10	I.	0.1	0.1	L	0.1
	55	5	0.1	14	0.4	51	2	56	I	0.2	0.1	6	0.1
	56	5	0.1	4	0.1	4	5	9	1	0.1	0.5	10	0.1
	57	5	0.1	3	0,1	1	3	18	i.	0.1	0,2	13	04
	58	5	0.1	2	0,1	•	2	10		0.1	0.2	13	0.1
	59	5	0.1	29	1.0	31	5	83		0,2	0.1	4	0.1
	60	5	0.3	35	0.1	64	ĩ	2	6	0.3	0,1		0.1
			0.3						9	0.2	0.2	13	
	61	5		45	0.3	35	1	34	1				0.1
	62	5	6.1	4	0,2	9300	S	10	,	0.1	0.1	l I	0.1
	63	5	0.1	4	0.1	85	1	12	2	0.1	0.1	1	0.1
	64	5	0.1	I	0.1	113	7	18		0.1	0.1	22	0.1
	65	5	1,2	2	0.2	3790	1	91	l i	0.1	0.1	22	0.1
	66	5	0.1	. 1	1.0	161	2	78	1	0.1	0.1	11	0.1
	67	5	0.3	24	0.2	1800	5	8200	i	2.8	0.I	7	29.0
	68	5	0.1	5	0,1	37	2	49	ł	0.9	0.1	19	0.1
	69	5	0.1	4	20	25	6	51	18	0.6	0.1	26	Q.I
	70	5	0.1	140	0.1	10	4	22	I I	1.2	0.7	24	0.1
	90	5	0,4	2	0,1	880	ł	28	l	0-2	0.1	3	0.1
	103	5	0.1	25	0.1	43	2	21	4	0.1	0.1	19	0.1
	139	5	0,4	2	0.1	80 0	1	10	i	0.1	0.1	4	0.1
	140	25	18.5	3	1.2	1000	I	47	4	0.1	0.1	3	0.1
	141	5	4.8	5	1.0	100.0	2	44	3	0.2	04	2	0.2
	142	5	0,2	2	0.8	275	8	14	L	1.0	0.1	3	0.1
	193	5	1.6	4	0.2	8400	1	17	1	0, 3	0.1	I	0.1
	194	5	04	3	0,1	76	I.	11	ł	0,9 ·	0,1	L	0.1
	195	10	0.8	16	0.2	2250	2	27	I	1.4	0.1	5	0.1
	196	5	0.1	4	0.1	78	I	79	ι	0.1	0.1	10	0.1
	197	5	0.1	7	0.2	30	1	14	I	0.1	0.1	2	0,2
	198	5	0.3	5	0,1	446	I	16	L	0.1	0.1	3	0.1
	199	5	0.1	1	0, 2	13	1	18	ł	0.1	04	2	04
	202	40	0.8	11.0	1.6	71	4	79	I	0.8	0.1	16	0.1
	203	5	0.1	17	0.8	17	5	100	3	0.1	04	16	0.1
	224	5	7.2	3	0.6	1000	1	22	-	0.1	0,1	í	1.2
	225	275	0.9	4	0.3	780	ł	12	ļ	0.9	0.2	I	0.1
	226	2250	3.5	6	0.4	400	42	2	33	9.5	0.1	2	0,1
	227	2250		5	0,2	345	4	16	-+	0.3	0.1	1	0,1 0,1
			0,2 0,7	3	0.2	700	4	15	,	0.9	0.1	1	0.1
	228	20				393	31	15	1			•	0.1
	229 230	125 25	1.5 0,1	2 4	0. 3 0.2	187	8	7	1	2.0 1,2	0.1 0.1	2 2	0.1
			01	4	0.2	187	8	1		1,2	0.1	2	0.

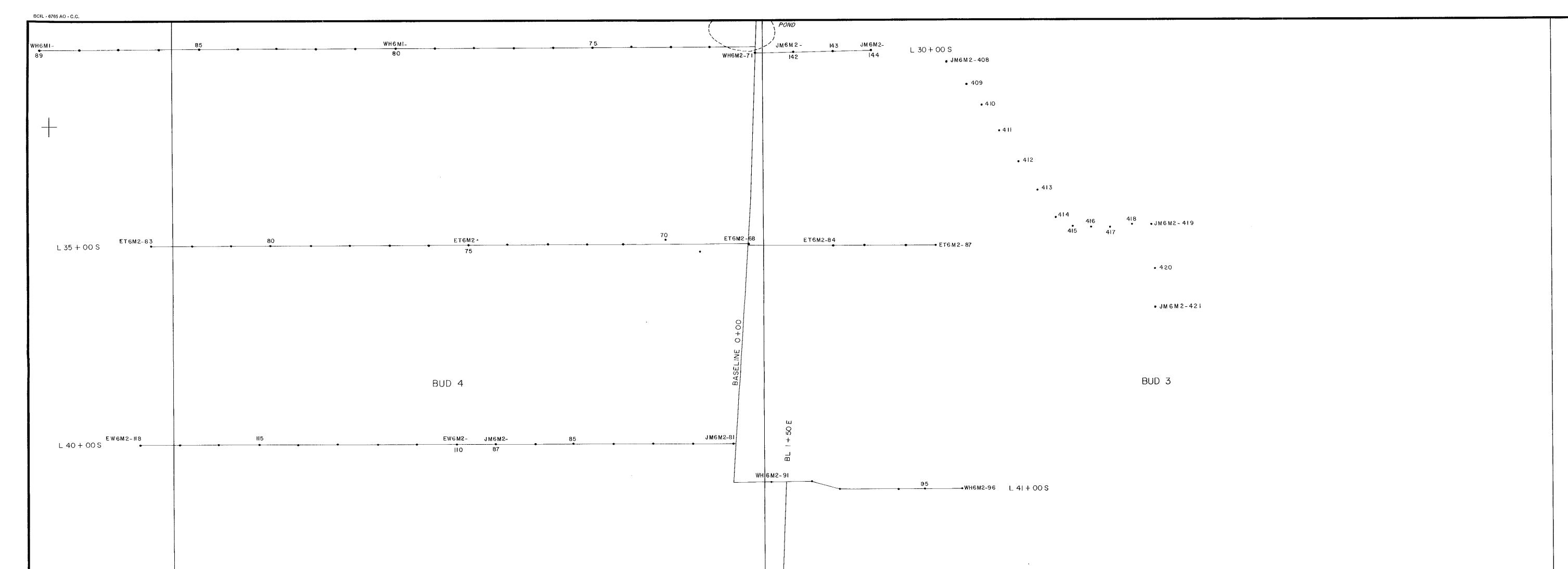
r



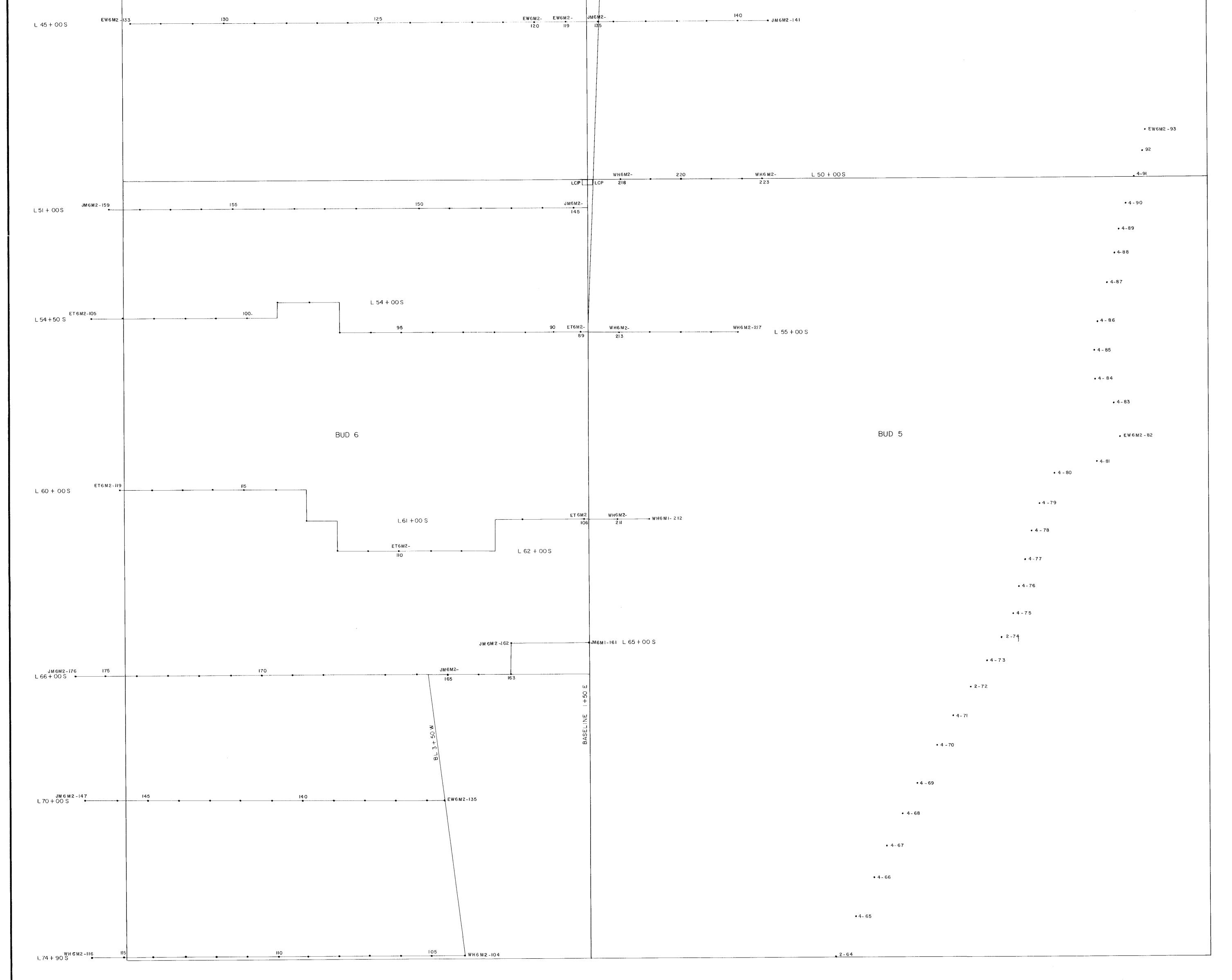




	GEOLOGICAL BR ASSESSMENT RF 1 5, 0 1 0 100 2	AONICH HALF AONICH HALFR T AONICH T AON
	Chevron Ca	nada Resources Limited Minerals Staff
	BUD	CLAIMS
		IPLE LOCATION
		RTH HALF)
	FIGURE No 7	PROJECT No. M-559
	DATE DEC/1986 REVISIONS NTS No 104G/7&10	SCALE I : 5,000 FILE No
	COMPILED BY W.H.	S-1

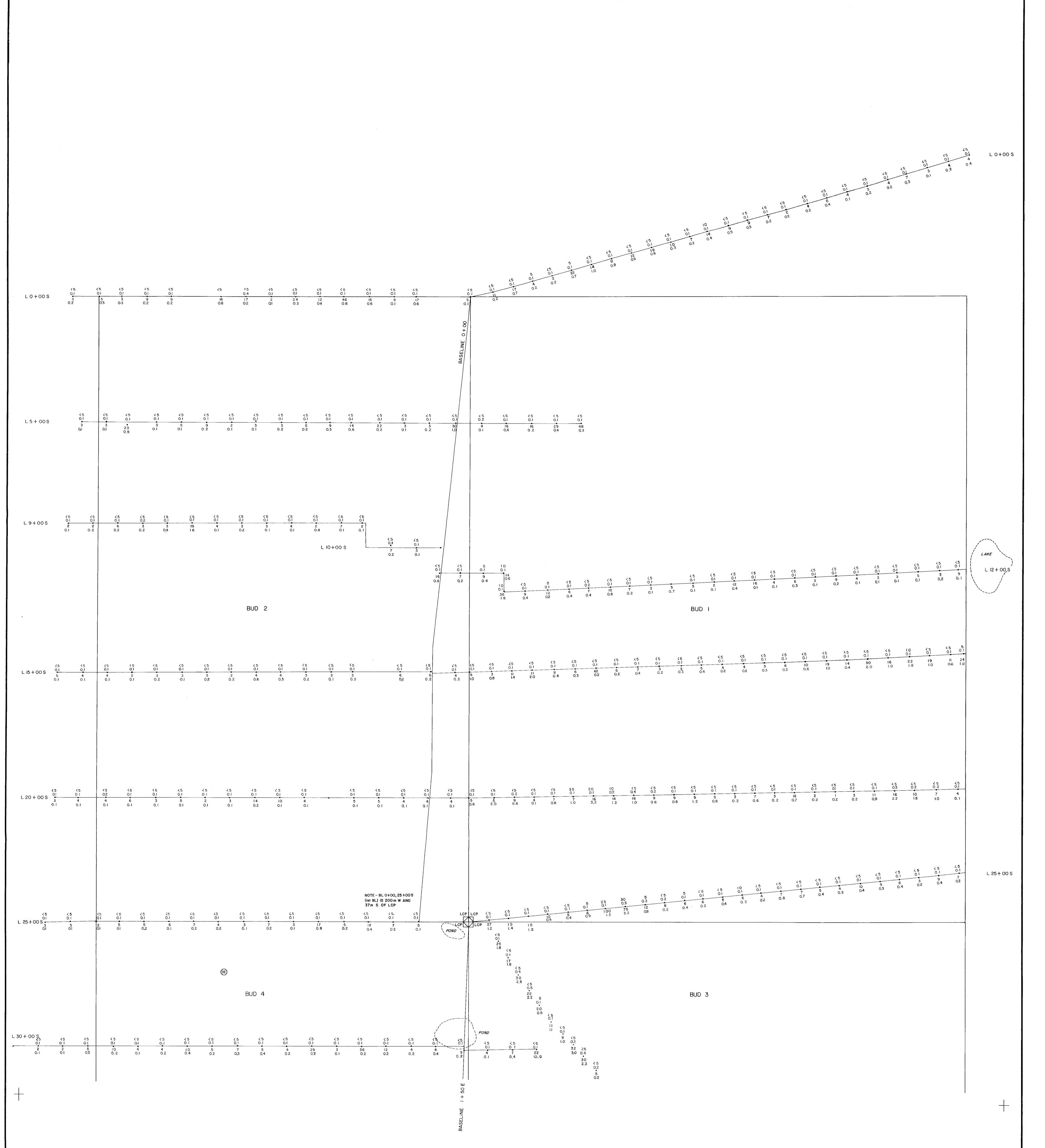


-+--



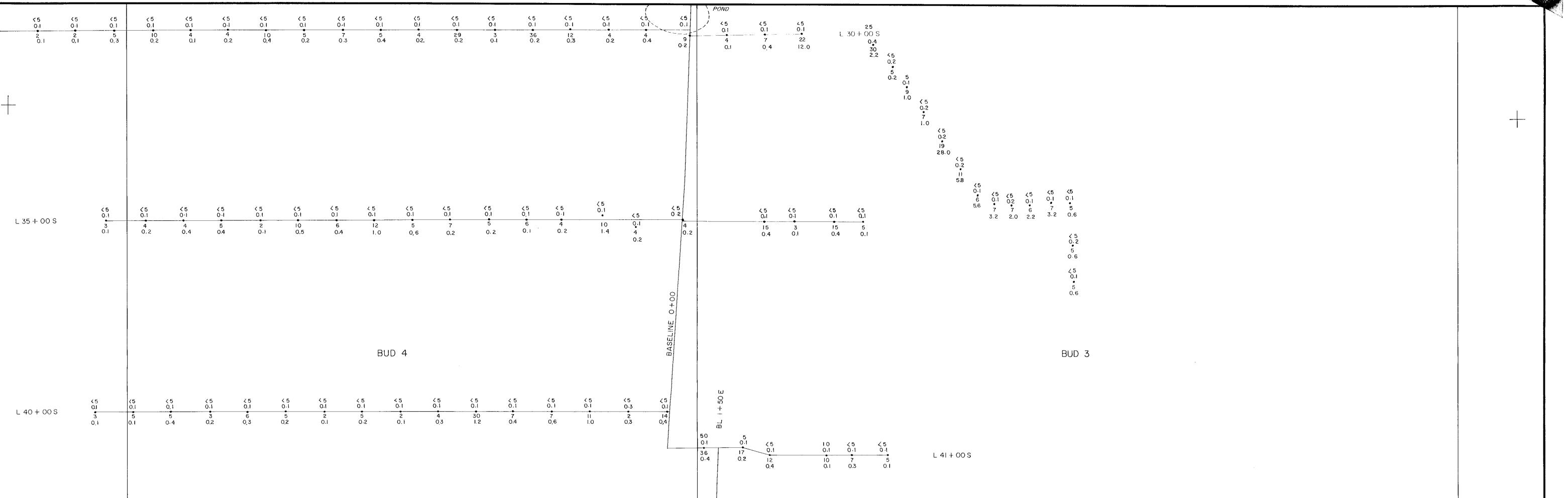
•2-63

EW6M2-62	
	GEOLOGICAL BRANNER ASSESSMENT ROUNCH 15, 020 0 100 200 300 400 500 metres
	Chevron Canada Resources Limited Minerals Staff BUD CLAIMS
	SOIL SAMPLE LOCATION
	(SOUTH HALF)
	FIGURE NO 8 PROJECT No. M-559
	DATE DEC/1986 REVISIONS SCALE 1 : 5,000
	NTS No. 104G/78 IO FILE No COMPILED BY W.H. S-2

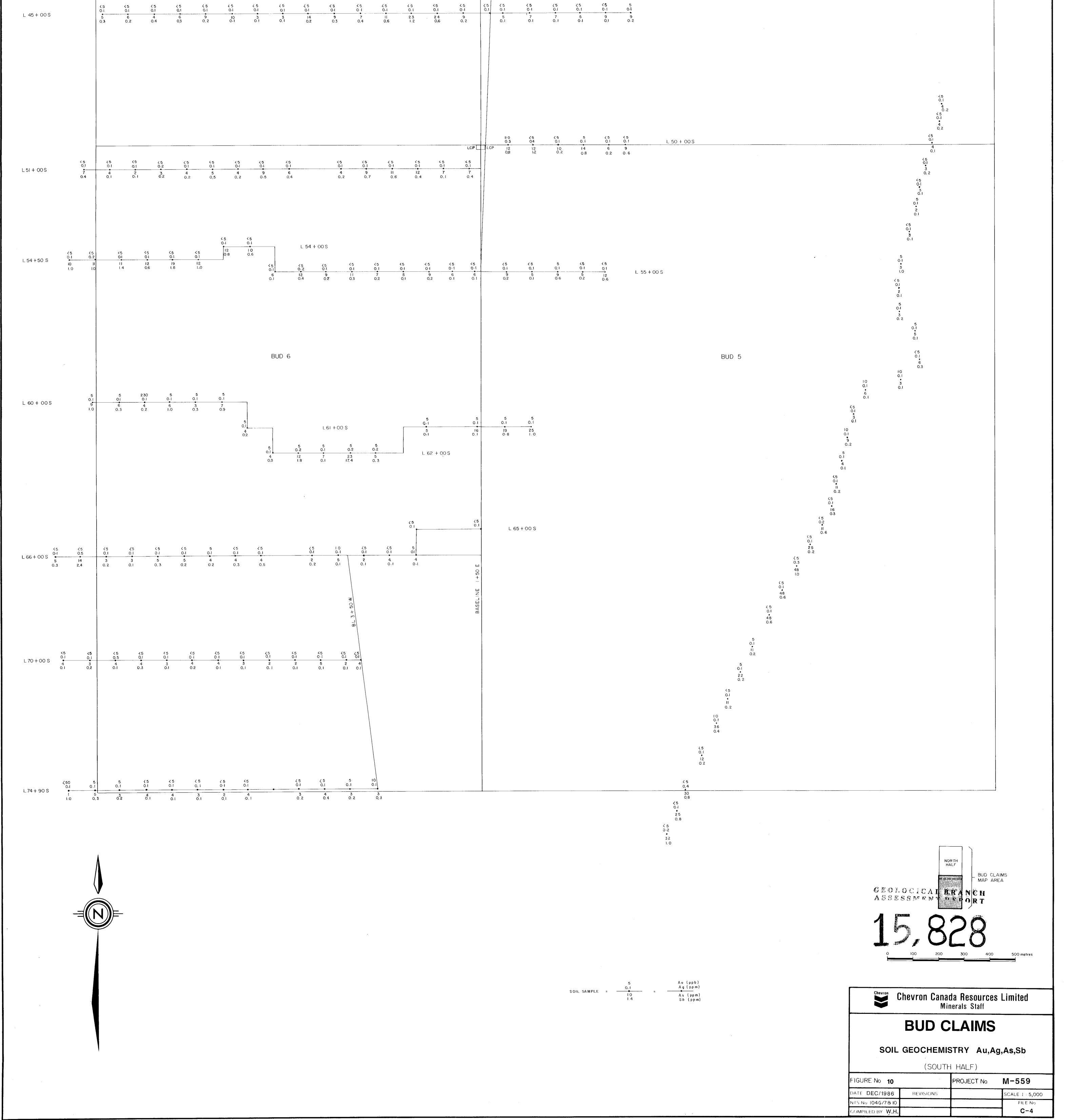


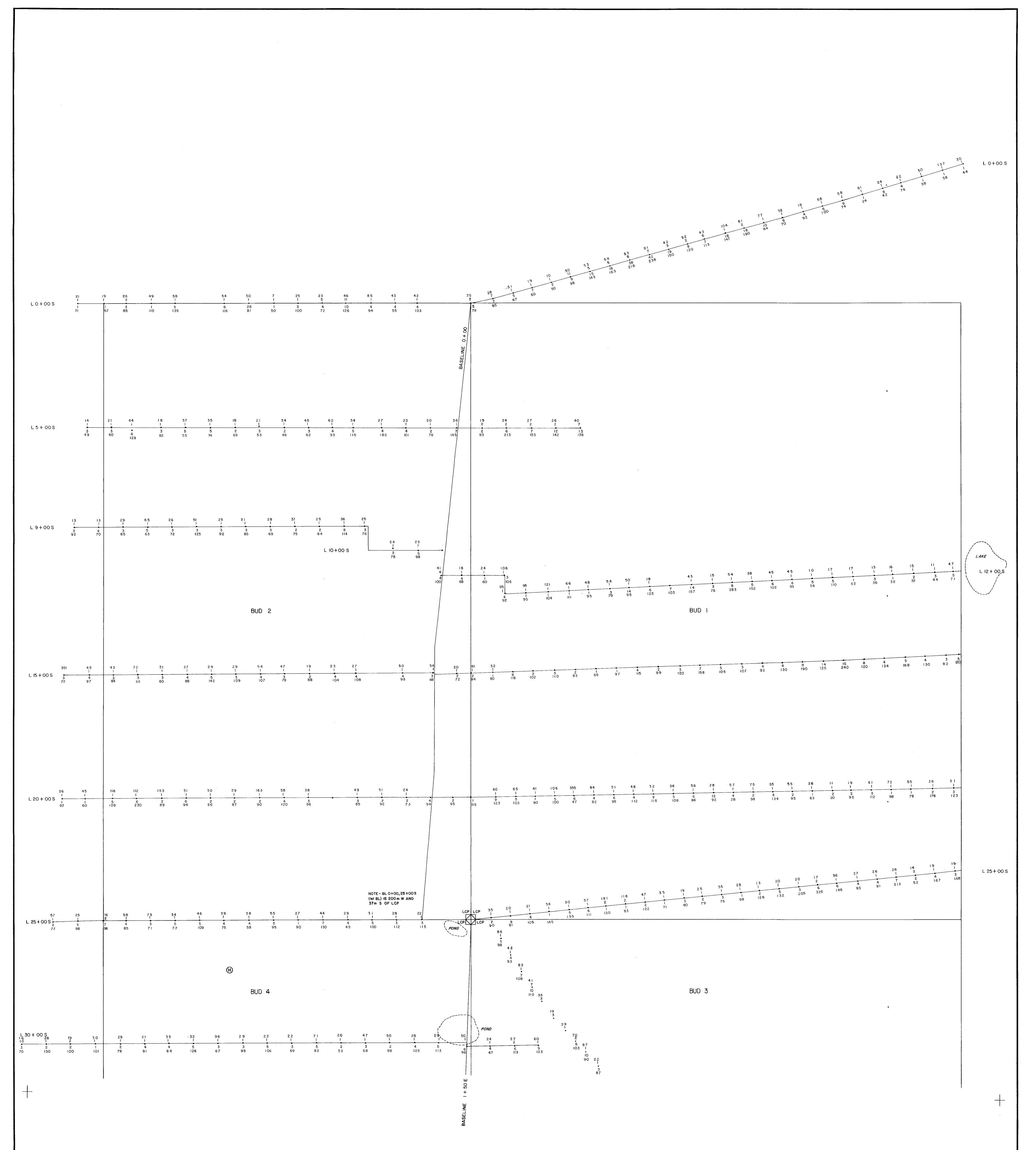
	GEOLOGICALBR ASSESSMENT PT 15,828 0 100 200 300 400 500 metres
$\frac{\text{LEGEND}}{\text{SOIL SAMPLE}} = \frac{5}{9} = \frac{\text{Au (ppb)}}{\text{Ag (ppm)}}$ $\frac{\text{As (ppm)}}{\text{Soll SAMPLE}} = \frac{1}{9} = \frac{1}{100} $	Chevron Canada Resources Limited Minerals Staff
$\frac{5}{O.l} = \frac{Au (ppb)}{Ag (ppm)}$ SOIL SAMPLE = $\frac{O.l}{Ag (ppm)}$	Chevron Canada Resources Limited Minerals Staff BUD CLAIMS SOIL GEOCHEMISTRY Au,Ag,As,Sb
	BUD CLAIMS
	BUD CLAIMS SOIL GEOCHEMISTRY Au,Ag,As,Sb
	BUD CLAIMS Soil Geochemistry Au,Ag,As,Sb (North Half)

.

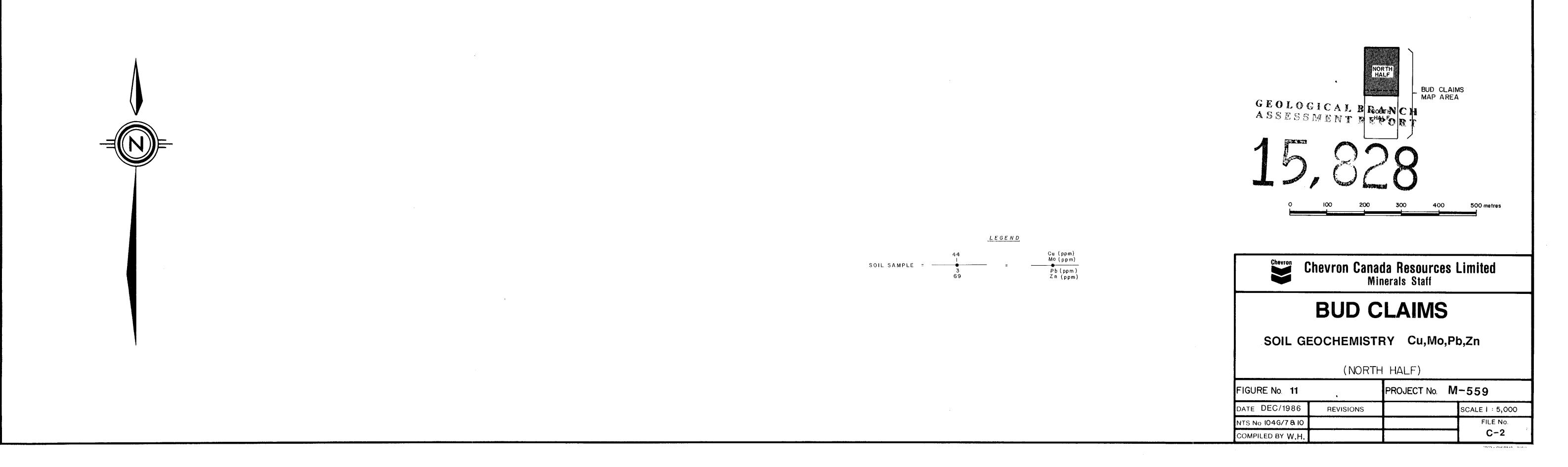


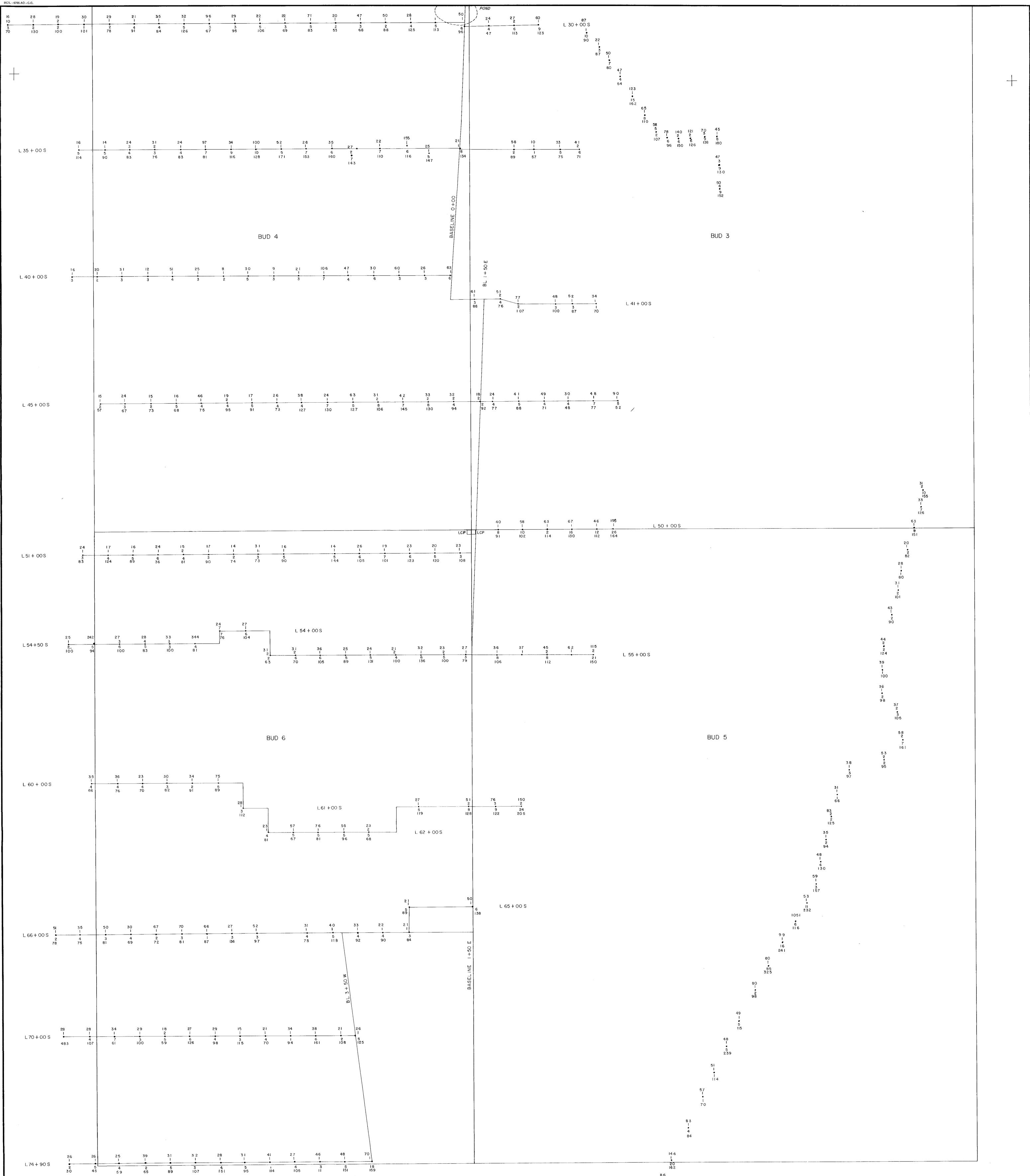
BCIL - 6765 AO - C.C.



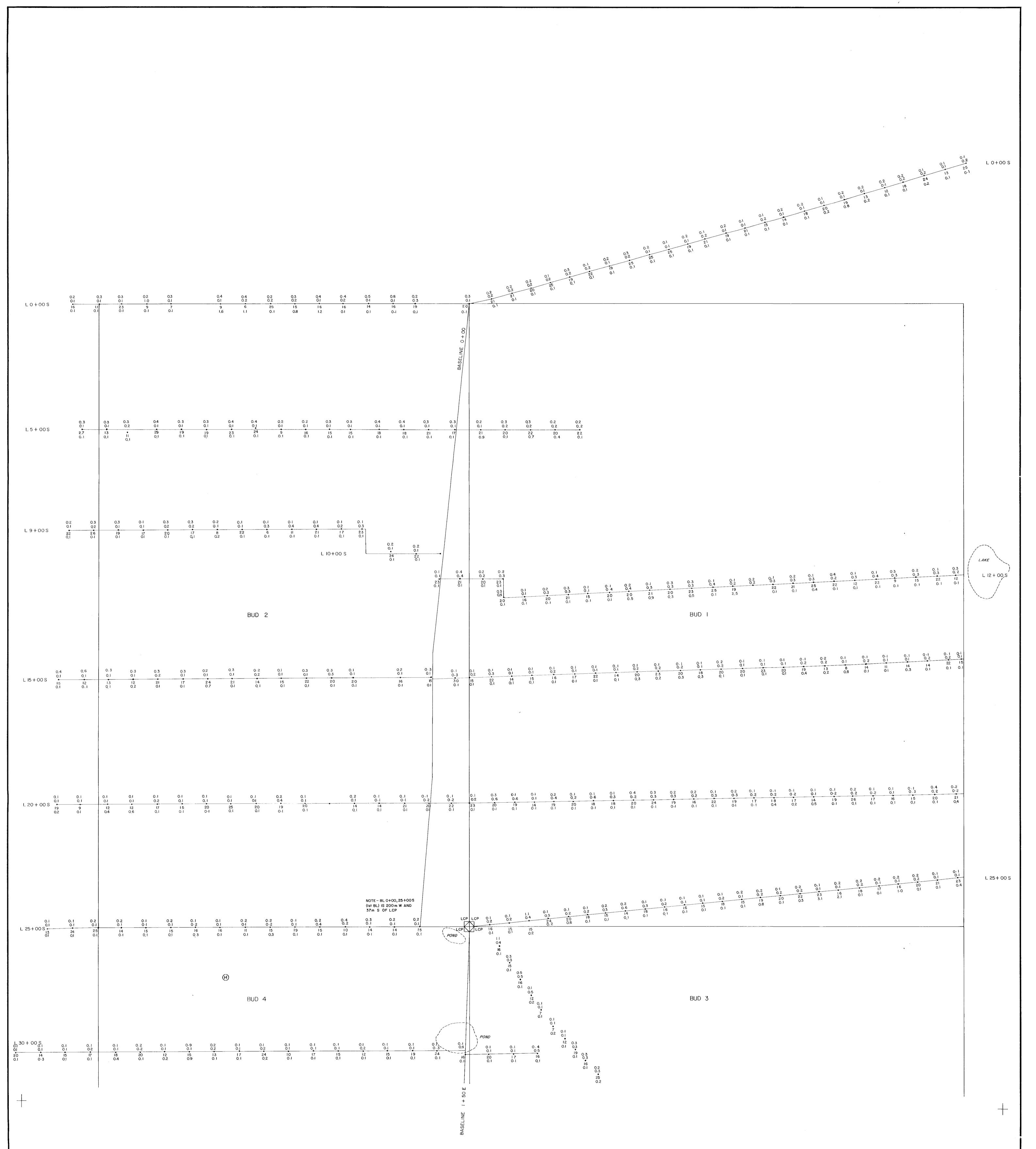


.

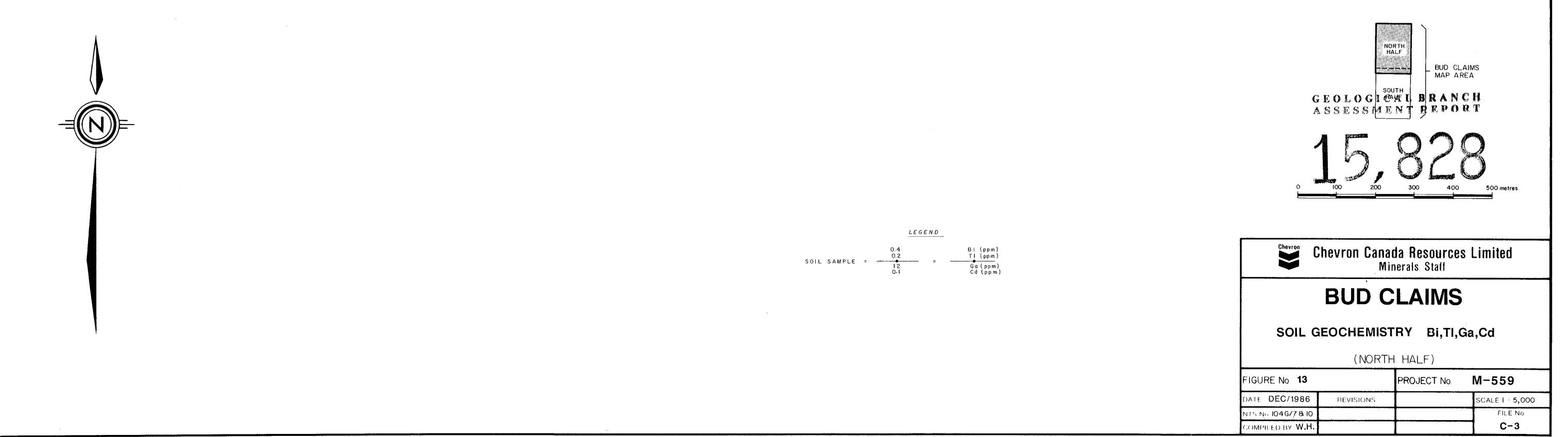




loo	GEOLOGICAL BESSOUTH ASSESSMENT REPORT 15, 828 0 100 200 300 400 500 metres
$\frac{LEGEND}{SOIL SAMPLE} = \frac{18}{70} = \frac{Cu (ppm)}{Mo (ppm)}$ $70 Zn (ppm)$	Chevron Canada Resources Limited Minerals Staff BUD CLAIMS SOIL GEOCHEMISTRY Cu,Mo,Pb,Zn
18 Cu (ppm)	BUD CLAIMS
18 Cu (ppm)	BUD CLAIMS SOIL GEOCHEMISTRY Cu,Mo,Pb,Zn
18 Cu (ppm)	BUD CLAIMS SOIL GEOCHEMISTRY Cu,Mo,Pb,Zn (SOUTH HALF)



.



010 - 02 9929 - 1108

