

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 89.05.26

ASSESSMENT REPORT 17701

MINING DIVISION: Osoyoos

PROPERTY: Gil
LOCATION: LAT 49 08 50 LONG 119 55 44
UTM 11 5447733 286412
NTS 082E04W

CLAIM(S): Gil 1-2
OPERATOR(S): Minnova
AUTHOR(S): Gilmour, W.R.
REPORT YEAR: 1988, 17 Pages

COMMODITIES

SEARCHED FOR: Tungsten, Molybdenum/Molybdenite, Arsenic, Copper, Gold

GEOLOGICAL

SUMMARY: The property is underlain by metamorphosed sedimentary and volcanic rocks of the Triassic Old Tom and Shoemaker Formations. Minor Mesozoic intrusive rocks also occur. Rock types include greenstone pyroclastic and flow rocks, argillite, calc-silicate skarns and felsic and dioritic intrusive bodies. These rocks have commonly been brecciated. Pyrite, pyrrhotite, scheelite, sphalerite, molybdenite and chalcopryrite mineralization is associated with skarn zones and argillites.

WORK

ONE: Geochemical
SOIL 171 sample(s) ;AU,AG,AS,B ,CU,PB,SB,AN
Map(s) - 4; Scale(s) - 1:5000

RELATED

REPORTS: 05573,05677,05787,06191,06557,07614,11891
MINFILE: 082ESW122

LOG NO: 0826	RD.
ACTION:	
FILE NO:	

GEOCHEMICAL
ASSESSMENT REPORT

on the

GIL PROPERTY
(GIL 1 AND 2 CLAIMS)

GILLANDERS CREEK AREA

OSOYOOS MINING DIVISION, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

NTS: 82E/4W
LATITUDE: 49° 08.5' NORTH
LONGITUDE: 119° 56' WEST
OWNERS: MINNOVA INC
CONSULTANTS: DISCOVERY CONSULTANTS
AUTHOR: W.R. GILMOUR
DATE: AUGUST 18, 1988

17,701

FILMED

**GOLD COMMISSIONER
RECEIVED and RECORDED**
AUG 22 1988
M.R. _____ \$ _____
VERNON, B.C.

TABLE OF CONTENTS

SUMMARY	Page 1
LOCATION, ACCESS, TOPOGRAPHY	Page 2
PROPERTY	Page 3
HISTORY	Page 3
GEOLOGY	Page 4
GEOCHEMICAL SURVEY	Page 5
DISCUSSIONS AND CONCLUSIONS	Page 6
REFERENCES	Page 6
STATEMENT OF COSTS	Page 7
STATEMENT OF QUALIFICATIONS	Page 8
APPENDIX 1 - GEOCHEMICAL RESULTS	Page 9

LIST OF ILLUSTRATIONS

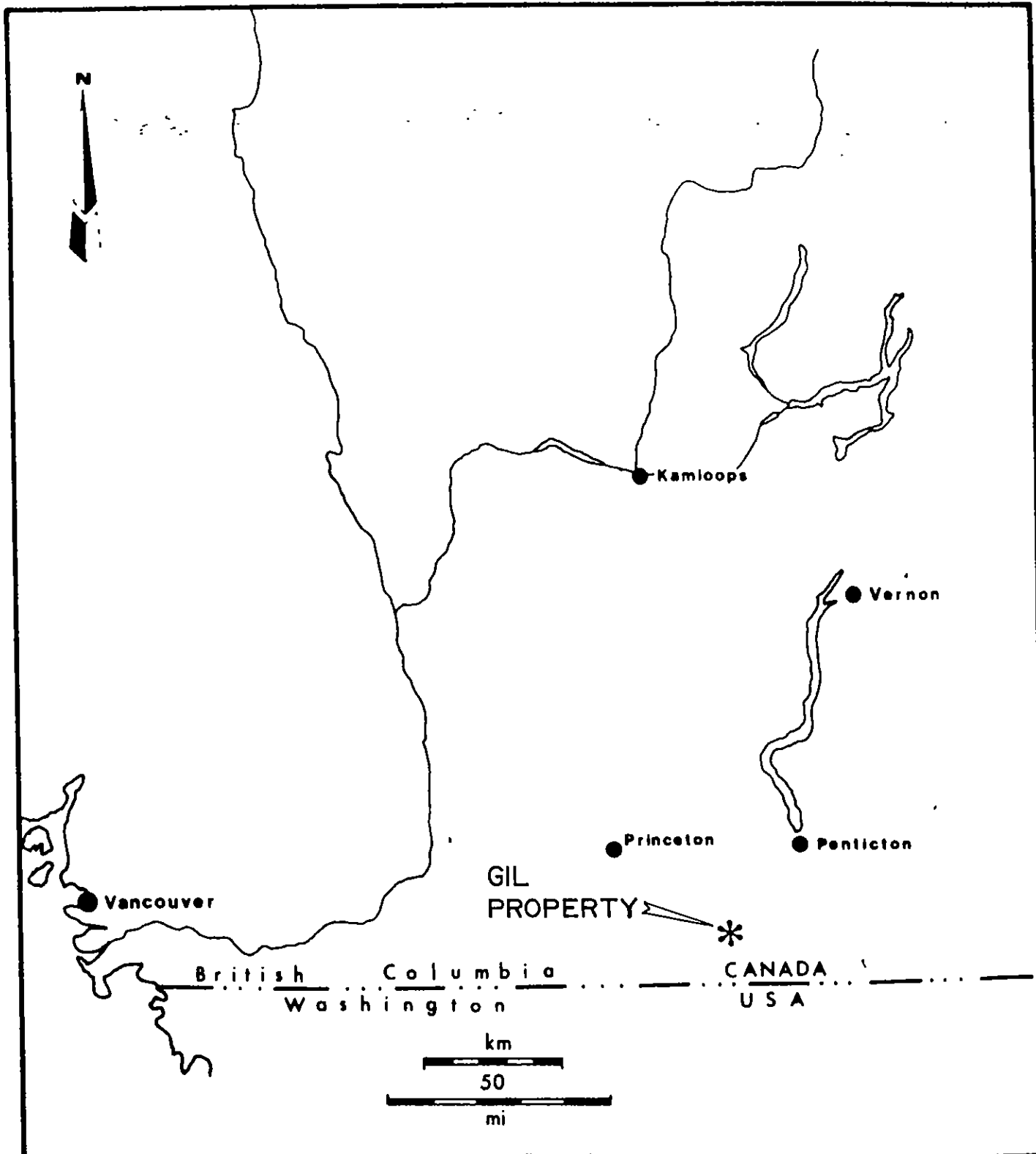
Figure 1	Location Map	Following Page 1
Figure 2	Index Map 1:50,000	Following Page 2
Figure 3	Sample Location/Number Map	In Pocket
Figure 4	Gold in Rocks 1:5,000	In Pocket
Figure 5	Arsenic in Rocks 1:5,000	In Pocket
Figure 6	Copper in Rocks 1:5,000	In Pocket

SUMMARY

The GIL property, owned by Minnova Inc, is located 10 km southwest of Keremeos, B.C. This report presents the results of exploration work carried out in 1987.

A preliminary reconnaissance rock geochemical survey, totalling 171 samples, indicated the presence of anomalous gold, arsenic and copper. Previous exploration has shown interesting tungsten and molybdenum mineralization associated with skarns.

The property exhibits exploration potential.



DISCOVERY

Consultants

MINNOVA Inc.

GIL PROPERTY

LOCATION MAP

DATE JULY / 1988

PROJECT: 282

SCALE: as shown

NTS. 82 E 4W

M.D.: OS0Y00S

FIGURE: 1

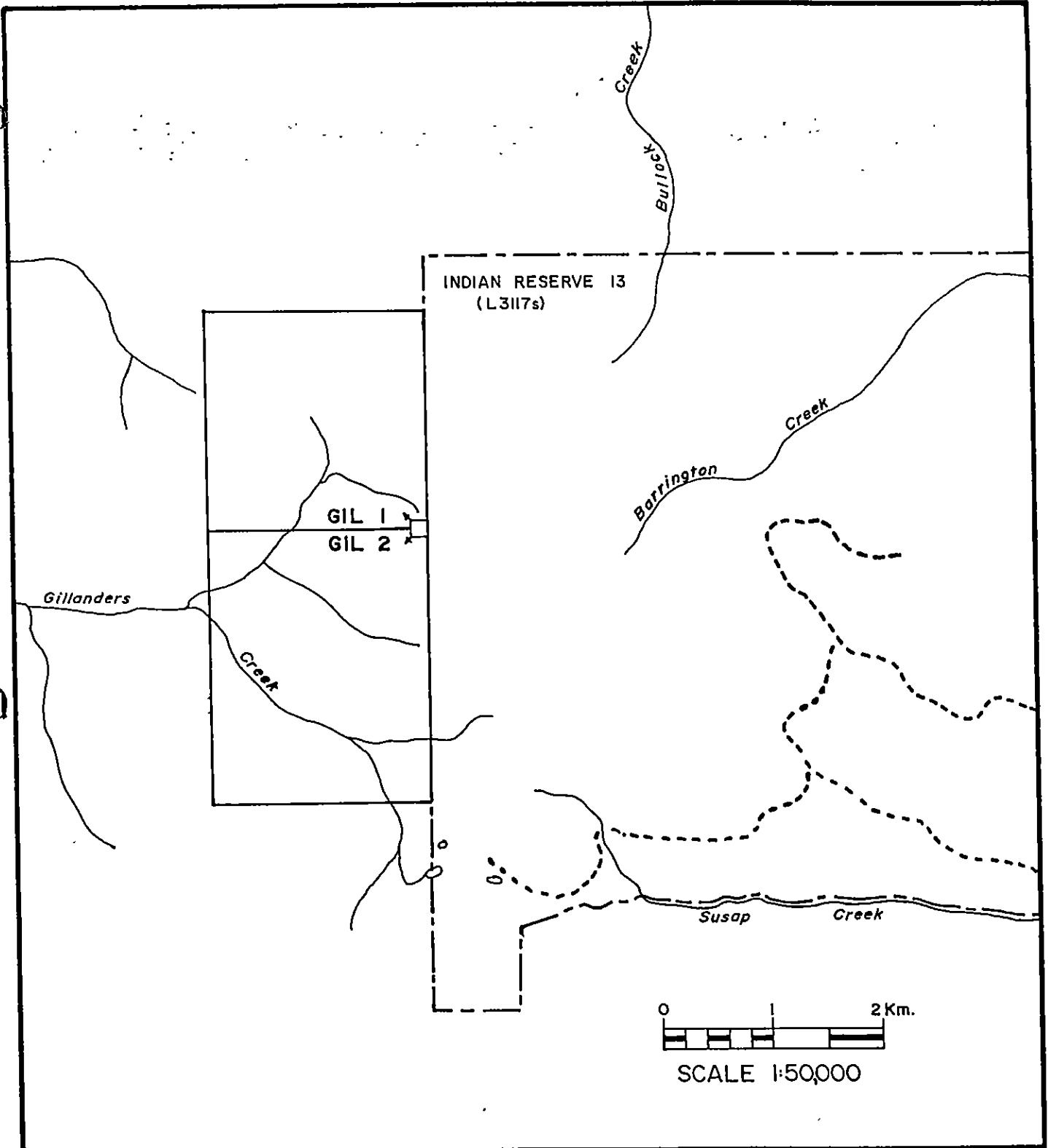
LOCATION, ACCESS, TOPOGRAPHY

The GIL property is located at the head of Gilanders Creek, 10 km south-west of Keremeos, in south-central British Columbia (Figure 1).

The National Topographic reference is 82E/04W and the coordinates of the centre of the claims are $49^{\circ} 08.5'$ north and $119^{\circ} 46'$ west. The claims are adjoined to the east by Indian Reserve 13.

Access is provided by road from Highway 3 to the east, a distance of about 30 km. The nearest major centre is Osoyoos, approximately 60 km by road to the east.

The topography is generally very steep, with slopes commonly talus covered. Elevations vary from 1350 m in Gilanders Creek to 2200 m in the eastern part of the property.



DISCOVERY

Consultants

MINNOVA Inc.

GIL PROPERTY

CLAIM MAP

DATE: JULY/88

PROJECT: 282

SCALE: 1:50,000

M.T.S.: 82-E-4/W

M.D. OSOY00S

FIGURE: 2

PROPERTY

The GIL property consists of two located 4-post claims, comprising a total of 36 units, in the Osoyoos Mining Division (Figure 2). The claims were located on May 23 and 24, 1987, and recorded on June 9, 1987.

The following table lists the pertinent information on the claims.

<u>Claim Name</u>	<u>Record Number</u>	<u>Number Units</u>	<u>Expiry Date</u>
Gil 1	2614	16	June 9, 1989
Gil 2	2615	20	June 9, 1989

The expiry dates are based on the acceptance of this assessment report.

HISTORY

The area has previously been explored for tungsten and for copper-molybdenum mineralization. The property was staked in May, 1987, to cover an area of skarn and anomalous gold in drainage sediments.

GEOLOGY

The property is underlain by metamorphosed sedimentary and volcanic rocks of the Old Tom and Shoemaker Formations of probable Permian age. Minor Mesozoic intrusive rocks also occur.

Rock types include greenstone pyroclastic and flow rocks, argillite, chert, argillite, sandstone, conglomerate, calcareous rocks, calc-silicate skarns and felsic and dioritic intrusive bodies. These rocks have commonly been brecciated.

Pyrite, pyrrhotite, scheelite, sphalerite, molybdenite and chalcopyrite mineralization is associated with skarn zones and argillites.

GEOCHEMICAL SURVEY

The type of survey undertaken was the result of the steep topography and numerous talus slopes on the property. The samples were collected along topographic contours at 50 m intervals on lines approximately 200 m apart. They were usually composed of talus fines, small rock chips and/or soils. Whenever soils were present the B horizon was sampled. All samples were collected in numbered Kraft paper bags from an average depth of 25 cm. A total of 171 samples was sent to Min-En Laboratories Ltd. in North Vancouver for analysis. The samples were ground to -80 mesh and analysed for gold by the wet/atomic absorption method and for silver, arsenic, boron, copper, lead, antimony and zinc by the I.C.P. method.

The following table summarizes the results.

	<u>Range</u>	<u>Mean</u>	<u>Anomalous</u>	
			<u>weak</u>	<u>strong</u>
Au ppb	5 - 240	14	20	50
Ag ppm	0.2 - 4.0	1.4	3.0	--
As ppm	1 - 334	31	40	80
B ppm	1 - 38	19	--	--
Cu ppm	21 - 686	192	300	450
Pb ppm	4 - 102	23	40	80
Sb ppm	1 - 14	4	--	--
Zn ppm	36 - 292	133	250	--

Anomalous values were determined by histograms. The sample numbers are shown on Figure 3. Values for gold, arsenic and copper are plotted and contoured on Figures 4 through 8. All the values are shown in Appendix 1.

DISCUSSION AND CONCLUSIONS

Rocks on the property are strongly anomalous in tungsten, arsenic, copper and gold. Combined with the presence of skarns and the location of the Hedley Camp, 25 km to the north-west, the property exhibits exploration potential.

REFERENCES

Numerous Assessment Reports are an excellent source of information on the property. They are listed as follows:

5573
5677
5787
6191
6557
7614
11891

STATEMENT OF COSTS

1.) Professional Services		
D.E. MacKenzie 5 days @ \$320 September 7 - 14, 1987	\$1600.00	
B. Kyba 1 day @ \$400 supervision	400.00	
W.R. Gilmour 2.5 days @ \$400 supervision, report writing	<u>1000.00</u>	
		\$3000.00
2.) Labour		
B. Ingleson 5 days @ \$160 September 7 - 14, 1987		800.00
3.) Transportation		
4X4 truck 5 days @ \$40/day 800 km @ \$0.35/km September 7 - 14, 1987	200.00 <u>280.00</u>	480.00
4.) Accomodation, meals		
5 days @ \$100/day September 7 - 14		500.00
5.) Geochemical analysis		
171 rock samples @ \$12/sample		2052.00
rock sample preparation, Au geochem and 7-element ICP		
6.) Maps, prints, secretarial		300.00
7.) Field supplies		<u>50.00</u>
	TOTAL	\$7162.00

STATEMENT OF QUALIFICATIONS

I. W.R. Gilmour of 13511 Sumac Lane, Vernon, B.C., V1B 1A1,

do hereby certify that:

1. I am a Consulting Geologist in mineral exploration employed by W.R. Gilmour & Associates Ltd, Vernon.
2. I have been practising my profession in British Columbia and Nevada for 18 years.
3. I am a graduate of the University of British Columbia with a Bachelor of Science degree in geology.
4. I am a Fellow of the Geological Association of Canada.
5. This report is based upon knowledge on the GIL property gained from direct supervision of exploration work on the property.



W.R. Gilmour

Vernon, B.C.

August 18, 1988

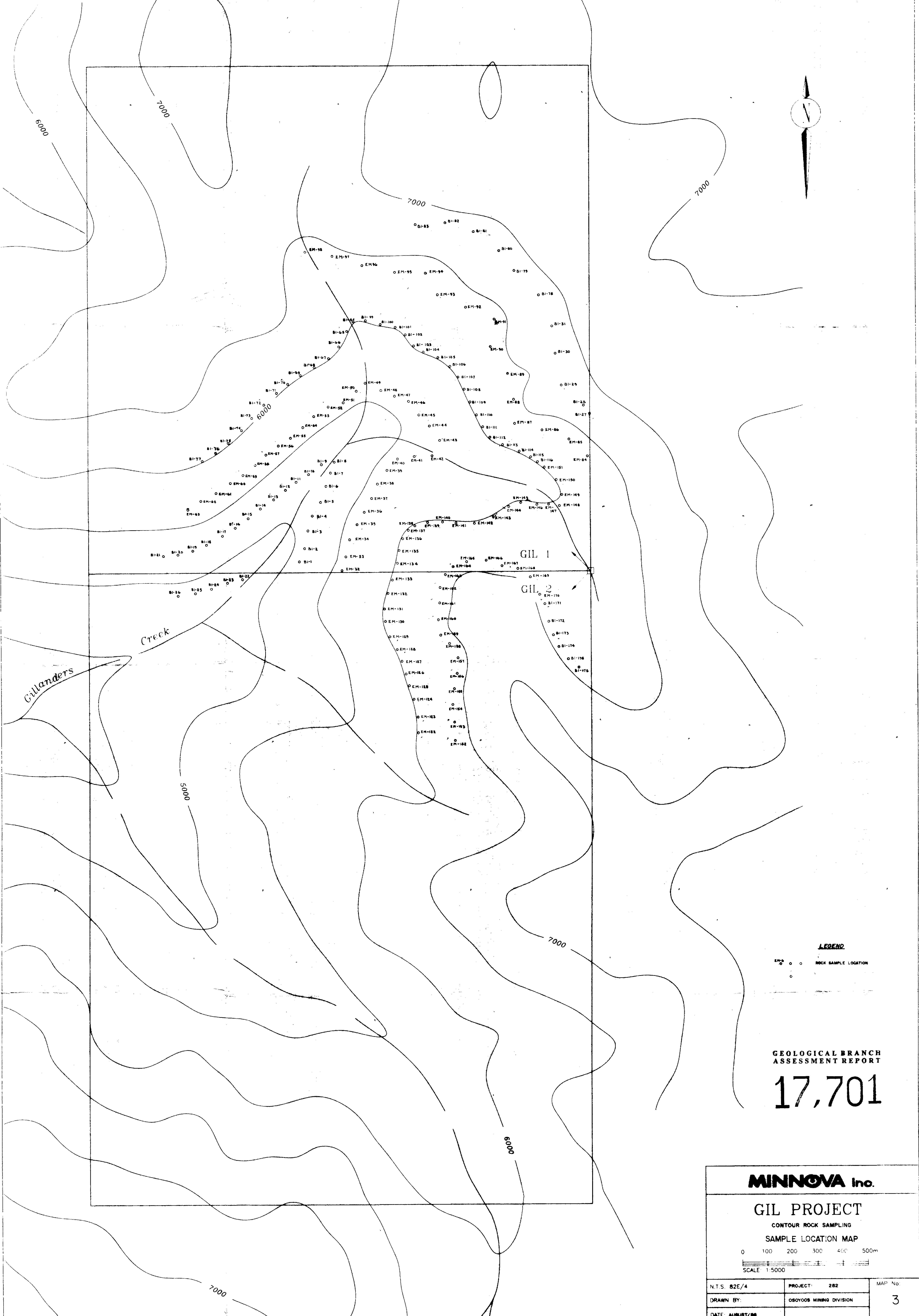
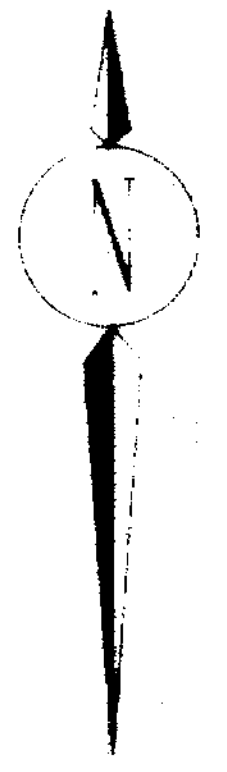
APPENDIX 1

SAMPLE ID	Au ppb	Ag ppm	As ppm	B ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm
BI-001	5	0.5	1	10	55	11	4	70
BI-002	15	0.4	1	11	28	10	3	73
BI-003	5	0.7	2	16	149	11	5	89
BI-004	5	1.1	9	16	112	16	4	87
BI-005	10	1.2	9	14	155	17	5	151
BI-006	10	0.6	13	8	103	21	2	67
BI-007	5	0.3	1	9	56	11	3	104
BI-008	5	0.3	6	7	34	13	1	106
BI-009	10	0.7	2	8	55	24	2	51
BI-010	5	1.1	17	23	278	17	5	143
BI-011	5	0.6	1	16	34	7	1	131
BI-012	240	0.9	35	20	220	11	5	143
BI-013	5	0.7	9	5	106	19	4	55
BI-014	5	0.3	11	13	61	16	4	78
BI-015	10	0.7	10	7	55	21	1	60
BI-016	5	1.5	25	20	166	31	1	160
BI-017	5	0.8	10	25	107	14	5	91
BI-018	10	1.2	13	20	143	16	5	135
BI-019	15	1.1	18	18	203	18	1	125
BI-020	10	1.5	16	24	206	24	6	134
BI-021	5	1.9	22	28	655	16	8	147
BI-022	5	1.5	25	20	173	25	1	142
BI-023	5	0.6	1	12	40	14	1	110
BI-024	10	1.4	11	16	143	18	1	96
BI-025	5	0.8	2	16	91	10	4	127
BI-026	5	1.1	8	16	144	13	1	98
BI-027	10	1.5	13	38	121	17	3	122
BI-028	70	1.6	66	33	144	27	5	138
BI-029	5	1.3	34	23	94	37	5	108
BI-030	10	1.2	112	30	128	26	7	148
BI-031	5	1.5	28	21	44	26	5	110
BI-064	5	0.7	2	11	86	24	4	60
BI-065	90	1.1	12	26	196	20	6	136
BI-066	20	1.2	31	29	156	14	1	190
BI-067	35	2.0	188	31	254	27	5	237
BI-068	5	0.8	8	25	134	13	6	147
BI-069	25	1.8	28	30	325	20	1	183
BI-070	5	1.7	16	30	234	15	7	152
BI-071	85	1.9	14	31	188	24	6	198
BI-072	5	1.2	28	25	146	17	3	127
BI-073	5	1.0	8	21	168	15	1	142
BI-074	10	1.9	33	30	468	28	4	187
BI-075	25	1.7	13	25	289	26	2	155
BI-076	5	1.7	10	23	304	28	1	144

SAMPLE ID	Au ppb	Ag ppm	As ppm	B ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm
BI-077	5	1.4	16	24	343	19	1	144
BI-078	20	1.6	12	8	96	28	2	96
BI-079	5	1.6	17	11	152	28	8	133
BI-080	5	2.3	19	8	155	58	2	121
BI-081	5	1.0	6	1	103	34	3	89
BI-082	5	2.0	49	5	170	34	5	168
BI-083	5	1.4	8	2	135	46	6	158
BI-099	50	1.7	16	21	475	11	1	128
BI-100	40	1.8	36	24	443	17	9	134
BI-101	30	1.6	14	11	170	24	2	159
BI-102	5	1.0	19	14	111	17	2	149
BI-103	5	1.3	28	28	182	10	9	292
BI-104	5	1.7	23	20	131	19	1	228
BI-105	5	2.0	17	21	176	36	1	119
BI-106	5	2.0	19	36	229	16	8	244
BI-107	5	1.2	251	19	142	23	6	176
BI-108	10	2.3	37	18	243	24	1	172
BI-109	40	3.0	23	14	487	37	1	112
BI-110	5	1.2	15	1	169	35	2	83
BI-111	5	2.0	23	9	149	69	1	137
BI-112	5	2.7	82	28	305	24	7	209
BI-113	5	3.1	16	15	153	26	8	128
BI-114	50	1.9	20	15	102	39	6	121
BI-115	10	2.6	4	18	59	27	4	93
BI-116	40	3.2	162	20	341	102	2	202
BI-171	10	0.3	19	19	57	5	2	69
BI-172	5	1.4	25	21	129	26	3	112
BI-173	5	1.2	30	14	102	24	5	80
BI-174	10	0.7	1	5	65	19	2	79
BI-175	5	1.3	161	17	115	19	6	99
BI-176	5	1.5	45	21	128	32	6	138
EM-032	5	1.3	150	20	346	24	5	114
EM-033	5	1.8	27	27	261	22	6	130
EM-034	5	2.2	31	30	290	18	8	130
EM-035	5	2.6	32	8	141	26	9	79
EM-036	10	1.6	23	24	442	25	1	147
EM-037	5	1.7	7	14	178	17	4	95
EM-038	5	0.5	1	12	52	7	2	92
EM-039	5	0.9	3	20	49	10	1	114
EM-040	5	0.8	15	18	48	14	5	88
EM-041	10	0.8	4	16	38	7	4	122
EM-042	5	1.1	18	20	55	11	3	105
EM-043	5	0.5	8	12	21	8	2	114
EM-044	5	1.0	14	20	104	11	3	171
EM-045	5	0.6	1	18	46	9	1	145
EM-046	5	1.0	7	18	94	13	3	194
EM-047	5	1.3	5	23	217	18	3	140

SAMPLE ID	Au ppb	Ag ppm	As ppm	B ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm
EM-048	5	0.8	1	15	50	13	3	205
EM-049	5	1.6	5	18	61	25	3	107
EM-050	15	1.7	14	25	380	23	7	216
EM-051	20	1.7	33	20	375	21	2	148
EM-052	15	0.6	1	13	83	10	1	141
EM-053	5	1.2	7	26	217	16	7	200
EM-054	20	1.5	44	25	225	20	5	136
EM-055	10	1.2	13	24	245	13	1	235
EM-056	75	1.6	96	24	363	25	3	132
EM-057	5	1.3	27	27	409	21	1	131
EM-058	10	1.9	28	33	302	18	1	189
EM-059	40	0.8	20	21	126	23	4	108
EM-060	5	1.8	25	27	248	17	1	129
EM-061	5	1.8	25	29	385	20	1	159
EM-062	5	0.3	6	5	69	16	2	48
EM-063	10	1.3	25	22	193	23	1	132
EM-084	5	1.8	92	14	151	66	4	244
EM-085	5	2.8	10	24	175	18	7	134
EM-086	5	1.5	25	23	153	27	9	254
EM-087	10	2.1	20	28	234	6	8	166
EM-088	5	1.8	59	26	195	39	10	214
EM-089	5	2.2	37	27	207	11	10	162
EM-090	15	1.7	32	14	495	24	2	140
EM-091	5	2.4	49	20	266	39	4	255
EM-092	5	2.2	171	19	209	27	6	262
EM-093	5	2.2	57	18	140	23	3	212
EM-094	10	0.8	16	1	87	46	3	93
EM-095	5	1.0	8	7	161	23	3	169
EM-096	5	1.6	8	6	82	31	4	185
EM-097	35	1.5	9	4	140	28	5	242
EM-098	5	1.9	7	6	186	26	1	77
EM-122	5	2.7	22	25	544	59	3	202
EM-123	10	2.5	11	26	686	38	9	148
EM-124	5	1.8	21	13	293	40	2	133
EM-125	10	2.9	57	27	634	34	2	218
EM-126	5	1.4	11	28	282	22	7	142
EM-127	5	2.7	18	11	165	31	1	112
EM-128	10	2.1	32	14	247	36	1	130
EM-129	10	1.7	18	12	184	18	7	106
EM-130	5	1.6	12	14	254	13	8	104
EM-131	5	4.0	6	26	282	13	10	147
EM-132	5	2.2	15	25	180	13	8	100
EM-133	60	1.4	13	14	151	21	1	90
EM-134	5	1.3	33	14	207	8	7	91
EM-135	5	1.2	27	9	97	16	1	84
EM-136	5	1.2	5	10	58	11	2	115
EM-137	5	0.9	6	9	75	6	1	89

SAMPLE ID	Au ppb	Ag ppm	As ppm	B ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm
EM-138	10	0.7	7	10	126	11	6	74
EM-139	5	0.6	1	11	86	4	1	69
EM-140	5	0.2	1	1	23	10	1	36
EM-141	5	0.5	1	19	72	13	2	132
EM-142	5	2.7	16	26	92	22	1	112
EM-143	5	1.4	16	21	145	19	2	97
EM-144	5	0.7	5	14	79	14	2	71
EM-145	5	0.7	13	20	88	7	2	91
EM-146	5	1.0	35	26	107	18	3	200
EM-147	5	0.9	11	15	85	11	2	82
EM-148	10	0.8	86	13	111	28	7	137
EM-149	5	0.3	31	11	39	17	5	98
EM-150	10	0.9	95	13	109	42	9	141
EM-151	120	1.4	334	15	166	64	13	190
EM-152	5	1.6	22	29	477	32	7	135
EM-153	10	1.8	130	29	499	34	9	144
EM-154	50	1.8	53	33	320	21	6	147
EM-155	5	1.1	64	35	183	11	5	135
EM-156	10	1.5	37	27	213	30	7	123
EM-157	15	1.3	8	8	324	22	4	77
EM-158	5	1.4	58	29	227	17	5	135
EM-159	40	3.1	17	28	191	23	4	127
EM-160	20	1.2	20	23	561	20	8	90
EM-161	15	1.4	14	25	505	18	7	113
EM-162	15	1.8	1	22	632	27	9	103
EM-163	10	1.4	34	23	371	41	6	140
EM-164	5	1.0	6	12	78	10	3	72
EM-165	20	1.0	4	11	61	9	4	64
EM-166	5	1.2	22	25	106	22	2	75
EM-167	5	2.0	38	30	141	25	5	114
EM-168	20	1.5	257	29	197	30	14	114
EM-169	5	1.5	27	12	116	30	5	85
EM-170	5	1.7	64	22	146	27	6	101



LEGEND

Rock Sample Location

GEOLOGICAL BRANCH ASSESSMENT REPORT

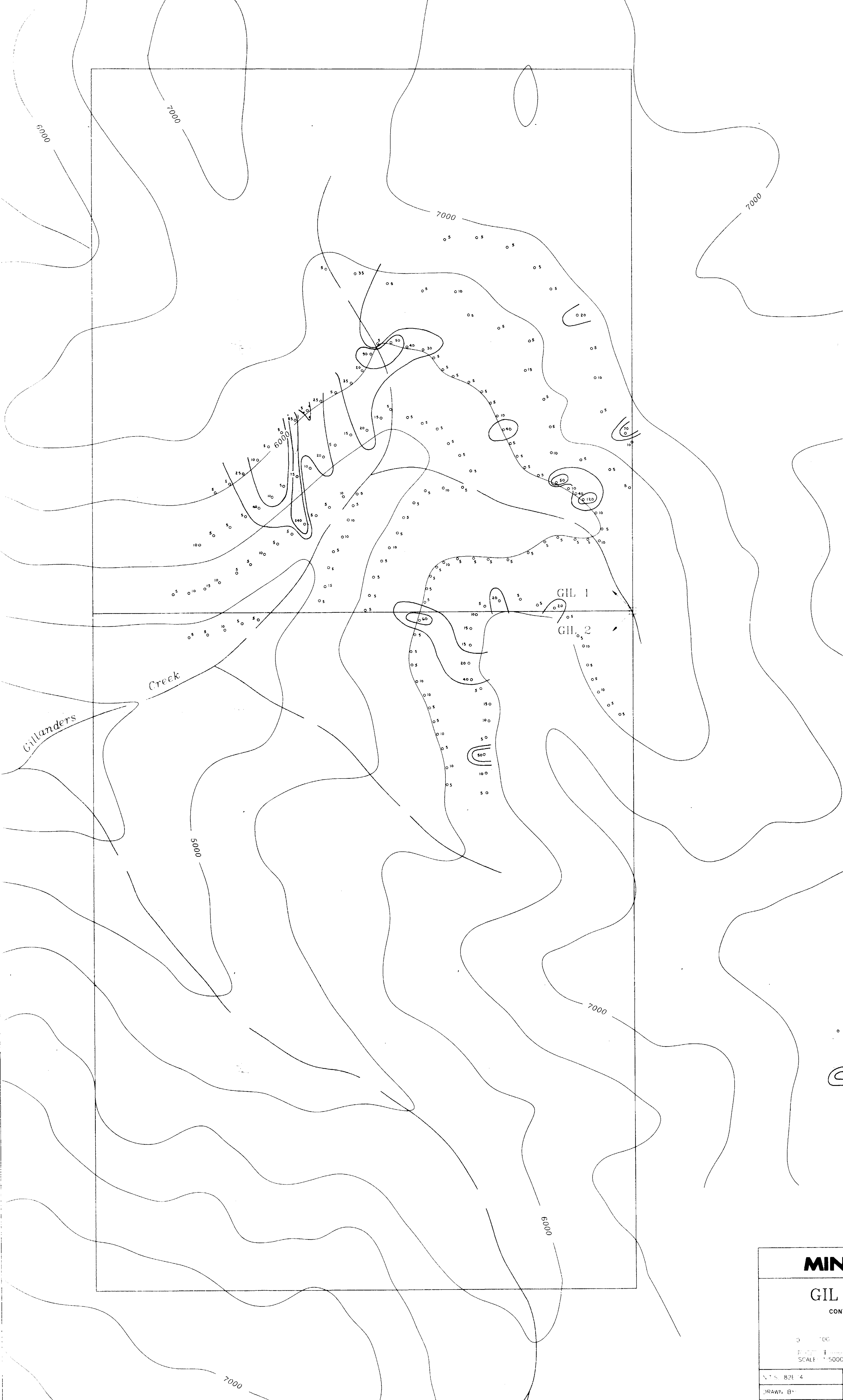
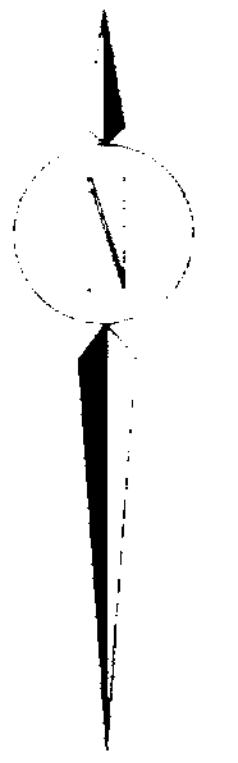
17,701

MINNOVA Inc.

GIL PROJECT
 CONTOUR ROCK SAMPLING
 SAMPLE LOCATION MAP

0 100 200 300 400 500m
 SCALE 1:5000

N.T.S. B2E/4	PROJECT: 282	MAP No:
DRAWN BY:	OSBYCOS MINING DIVISION	3
DATE: AUGUST/88		



LEGEND

- o o o ROCK SAMPLE LOCATION
- o VALUE IN PARTS PER BILLION GOLD
- CONTOUR INTERVALS
- 20 ppb Au
- 50 ppb Au

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17.701

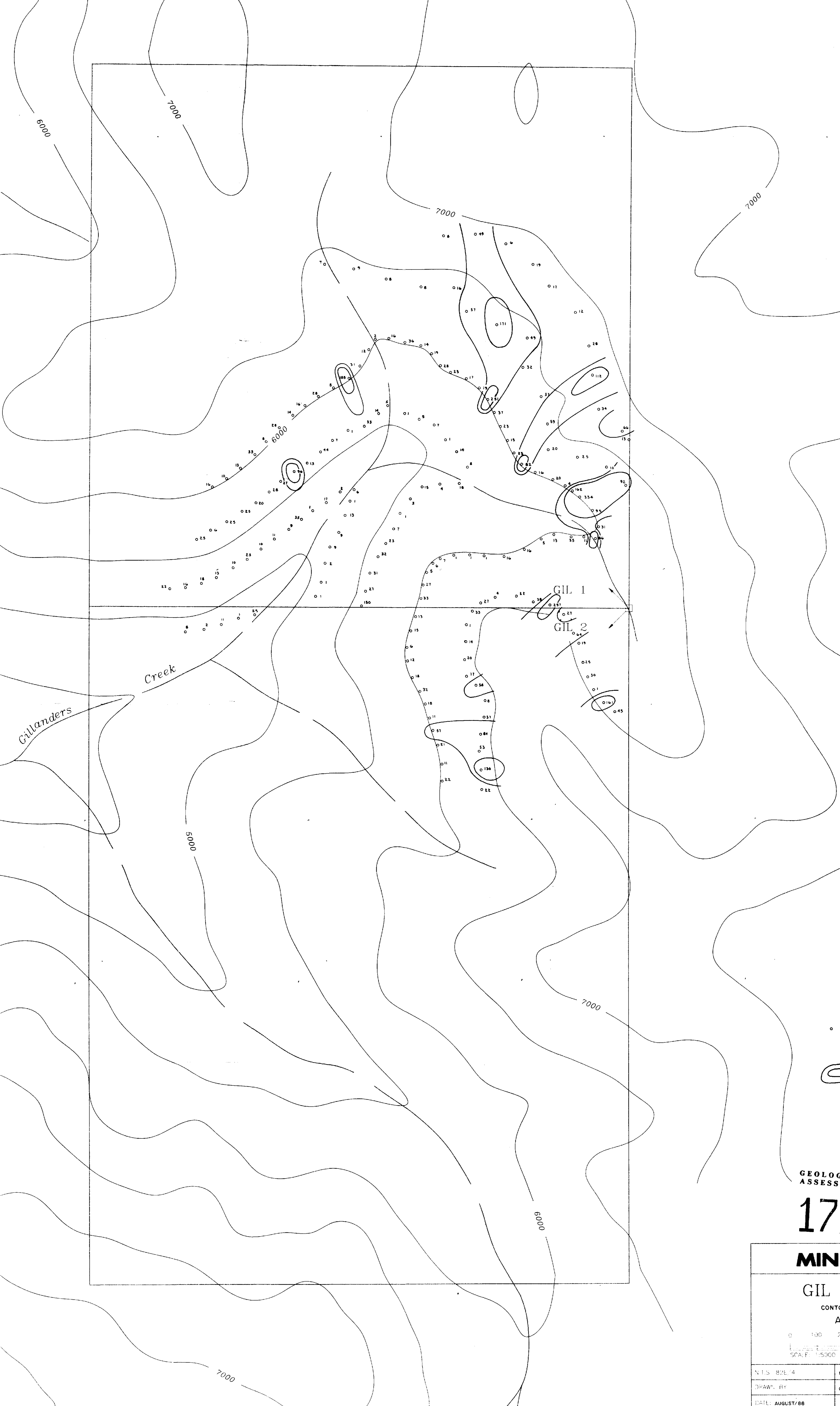
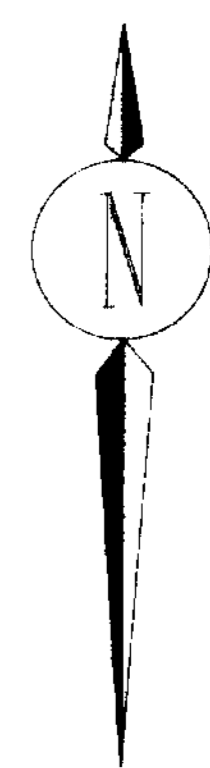
MINNOVA Inc.

GIL PROJECT

CONTOUR ROCK SAMPLING
GOLD (Au)

0 100 200 300 400 500m
SCALE 1:5000

N.T.S. 82E 4	PROJECT: 282	MAP NO.
DRAWN BY:	OSOYOOS MINING DIVISION	4
DATE: AUGUST/88		



LEGEND

- ○ ○ ROCK SAMPLE LOCATION
- ⁴⁰ VALUE IN PARTS PER MILLION ARSENIC
- CONTOUR INTERVALS
- 40 ppm As
- 80 ppm As

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,701

MINNOVA Inc.

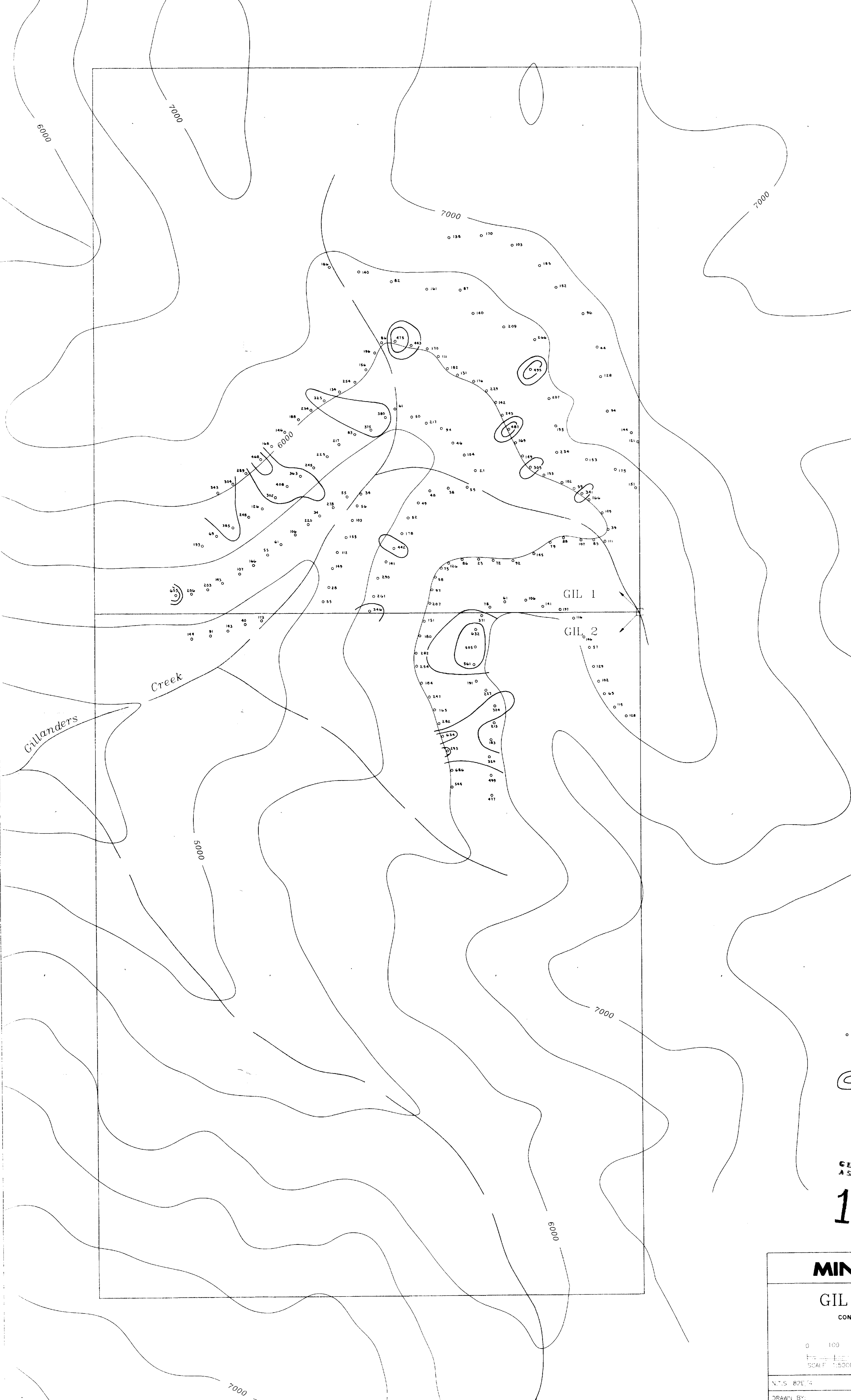
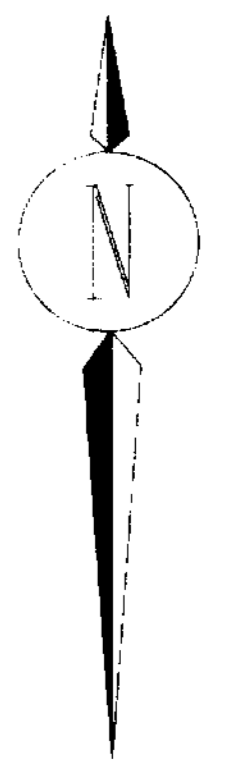
GIL PROJECT

CONTOUR ROCK SAMPLING
ARSENIC (As)

0 100 200 300 400 500m

SCALE: 1:5000

N.T.S. 82E/4	PROJECT: 282	M.A.T. 1/8"
DRAWN BY:	OSOYOOS MINING DIVISION	
DATE: AUGUST/88		



LEGEND

- ○ ○ ROCK SAMPLE LOCATION
- VALUE IN PARTS PER MILLION COPPER
- CONTOUR INTERVALS
- 300 ppm Cu
- 450 ppm Cu

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17.701

MINNOVA Inc.

GIL PROJECT

CONTOUR ROCK SAMPLING
COPPER (Cu)

0 100 200 300 400 500

SCALE: 1:5000

N.T.S. 82E/4	PROJECT: 282	MAP No:
DRAWN BY:	OSOYOOS MINING DIVISION	6
DATE: AUGUST/88		