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1990-91 EXPLORATION PROGRAM
TROUT CREEK PROJECT

Elko County, Nevada

for

CHALLENGER GOLD, INC.

5171 Ward Road, Unit 1
Wheat Ridge, Colorado 80033

by

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SUMMARY

Trout Creek is an classic epithermal, hot-spring gold prospect located in northeastern Elko County, Nevada. Challenger Gold controls 100% of the mineral rights, subject to NSR royalties, on the prospect with 73 located claims and a mineral and surface lease on 1630 acres.

Gold is present in two mineralized styles: broad areas of detectable, low-grade gold values (10-200 ppb); and narrow zones of high-grade gold (maximum value of 0.70 opt Au). Low-grade gold values occur with broad areas of silicification at Opaline Spring. High-grade gold mineralization, in association with intense silicification and brecciation, occurs at the South Silicified Zone.

Exploration methods used on the property include geologic mapping, rock and soil sampling, geophysical surveys, and reverse circulation drilling. Limited successes have been achieved in the drilling of 25 holes that total 10,494 ft. Hole TC-91-25 contains 500 ft of continuously detectable gold (average value of 60 ppb) with a maximum value of 0.013 opt Au and hole TC-88-12 contains 5 ft of 0.187 opt Au.

Because lease payments are a significant holding cost, rapid exploration is required for untested portions of known targets. Further drilling is required to test extensions of known mineralized zones. Two options are available for continued exploration; Challenger can either continue to operate or Challenger can seek a joint venture partner to explore the property.

INTRODUCTION

This report describes the gold exploration activities for 1990-91 at the Trout Creek project. This work consisted of surface geologic mapping; surface rock and soil sampling; installation of a survey grid; ground magnetic, VLF-EM, and TDEM surveys; and reverse circulation drilling. Reid (1990) discussed exploration activities for 1989.

The Trout Creek property consists of 3,090 acres in T 45 N, R 65 E in northeastern Elko County, Nevada. Access consists of 15 miles of gravel and dirt road running south-southeast from Jackpot, Nevada (Figure 1). The prospect consists of 73 located claims on BLM administered land and 1630 acres of fee minerals on private surface owned by the Salmon River Cattleman's Association (Plate 1). The fee minerals are owned by Challenger (75%) and Wilkins et al (25%). Wilkins holds a 1.25% NSR royalty on the fee land and Kennecott holds a 4% NSR royalty on the entire property, less Wilkins' royalty on the fee land. Lease payments are \$12,300 to Wilkins and \$20,000 to the Salmon River Cattleman's Association, due each August 1.

EXPLORATION HISTORY

Pre-Challenger Gold

The Trout Creek prospect was first explored by Kennecott (BP Minerals) in 1986-7 through surface sampling, mapping, and claim staking. The property was explored by Kennecott in joint venture with Abermin (Challenger's predecessor) in 1988 (Krahulec, Garbrecht, and Worth, 1988). Kennecott drilled 4,355 ft in 14 holes in 1988 and then withdrew as operator of the joint venture in 1989.

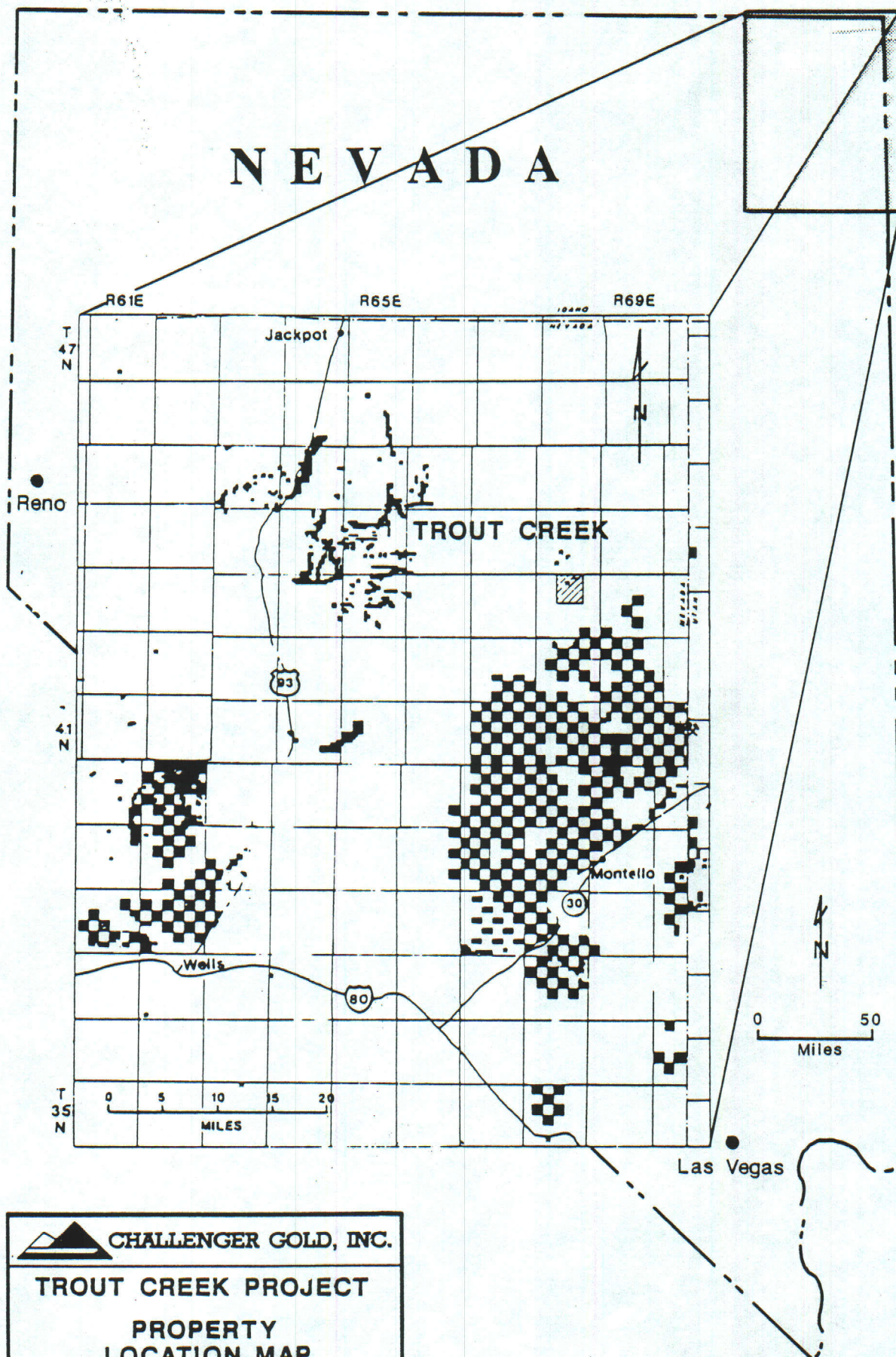
Challenger Gold

Challenger became project operator in 1989 and conducted mapping, rock and soil sampling, geophysical surveys, and reverse circulation drilling (Reid, 1990). Challenger drilled 5,279 ft in 9 holes in 1989.

During 1990, Challenger installed a survey grid, began a ground magnetic and VLF-EM survey, and took a limited number of soil and rock samples. In 1991, Challenger conducted further geophysical studies, continued with limited sampling of soils and rocks, and drilled 860 ft in two holes. Kennecott's interest in the joint venture has been diluted to a 4% NSR royalty as a result of Challenger's expenditures over the past three years.

REGIONAL GEOLOGIC SETTING

Challenger's Trout Creek property is located in the Contact mining district west of the Granite Range in the Trout Creek drainage. The Miocene Humboldt formation unconformably overlies the Jurassic Contact granodiorite and Paleozoic carbonates. This formation consists of 500-1,000 ft of interbedded conglomerate, arkose, fine-grained sediments, and



volcaniclastic sediments. Reid (1990) and Krahulec, Garbrecht, and Worth (1988) discuss the regional and local setting in greater detail.

The dominant structural features are N 10 E graben faults parallel to the Trout Creek drainage and to hot spring occurrences which extend northward into Idaho. The Contact granodiorite is elongated along an east-west structural trend and parallels an east-west mineral belt which includes the northern Independence Range gold deposits, the Jarbidge district, the Elk Mountain district, the Contact district, and the Delno district (Krahulec, Garbrecht, and Worth, 1988).

GEOLOGY

The geology and mineralization has been described previously by Reid (1990) and Krahulec, Garbrecht, and Worth (1988). Their observations are briefly summarized and are augmented by investigations made in 1990-91. A geologic map of the prospect was compiled from previous workers and with modifications is included as Plate 2.

Lithology

The oldest rock unit in the area, the Jurassic Contact pluton, has not been examined in detail, because it is believed that the intrusive rock lacks the porosity and/or permeability to host an economic gold deposit. The unit is resistant and generally forms jointed exposures of massive, coarse-grained to porphyritic granodiorite. Colors range from light grey, pinkish gray, light brown, red brown, to purplish red due to the amount of oxidized iron minerals. The rock contains plagioclase, orthoclase, quartz, hornblende, and biotite.

The Miocene Humboldt Formation is in fault contact and unconformably overlies the Contact pluton as valley fill deposits. The Humboldt is poorly indurated and infrequently outcrops. The unit, which may be greater than 1,000 ft thick, consists of fluvial and lacustrine conglomerates, arkoses, silts, volcaniclastics and ashy tuffs. Conglomerate beds in the unit contain boulders, greater than 4 ft in diameter, of granodiorite that have been previously identified as outcrops of intrusive rock. Attempts to subdivide the Humboldt have been successful locally (Reid, 1990), but the lack of exposure and structural complexities hinder property wide correlations.

Structure

The Trout Creek prospect occupies a graben structure which is perpendicular to the axis of the Contact pluton. High-angle, normal faults have placed Miocene volcaniclastics against Jurassic granodiorite. Displacement on the graben faults may exceed 1,000 ft. Later east-west-trending faults have offset the graben faults.

Jointing within the granodiorite parallels the graben faults (Plate 2). Bedding within the disrupted Humboldt units generally strikes NNE and dips at 5-25 degrees to the west.

Mineralization and Alteration

Surface hydrothermal alteration and mineralization is present at three areas on the prospect: Opaline Spring, South Silicified Zone, and Southwest Pediment. The extent of alteration is shown on Plate 2 and gold

values in rock and soil are plotted on Plates 3 and 4.

Opaline Spring. Two types of alteration are present at the Opaline Spring area. Quartz-pyrite-clay alteration is present to the southeast and is separated by a major fault from the opaline silica alteration. Quartz is present as a weak flooding of the volcanic sediment. Disseminated pyrite (<5% by volume) in the quartz-pyrite-clay zone has been oxidized to limonite and hematite near the surface.

Opaline silica occurs in a north-trending mass that is 1,600 ft long and 500 ft wide. The zone represents a sinter apron of a former hot spring system. The opalite is white, grey, and bluish grey in color. Light purple fluorite locally coats fractures in the opalite. The opalite is anomalous in Au, Ba, As, Sb, Hg, and W. Gold values of surface samples are less than 100 ppb. As pointed out by Krahulec, Garbrecht, and Worth, (1988) the Opaline Springs area contains the highest mercury (3 ppm) on the prospect, suggesting a higher level epithermal system is present at Opaline Spring. The TDEM data (see Ground Geophysics section) indicates that argillic alteration surrounds the silicification. A present day cold spring lies on the west side of the altered area, which supports the projection of a major fault to the west of the opalite mass.

Southwest Pediment. Alteration at the Southwest Pediment consists of quartz-pyrite-clay similar to the South Silicified Zone and to the alteration on the southeast side of the Opaline Spring Zone. Barite and fluorite are present locally on the Southwest Pediment. Anomalous gold in soil (Plate 4), accompanied by As and Sb in soil (Appendix B), trends northeast parallel to a mapped fault.

South Silicified Zone. The South Silicified Zone includes the area around Corner Knob, Bold Knob, Prospect Knob, and Red Knob where quartz-pyrite-clay alteration is present. Reid (1990) mapped this area at a scale of 1 in = 50 ft. The highest gold values on the property are found in the South Silicified Zone (maximum of 0.70 opt Au). Barite is common near Corner Knob and molybdenite is erratically disseminated in the altered granodiorite.

The area was extensively explored in 1988-89 (Krahulec, Garbrecht, and Worth, 1988 and Reid, 1990). No significant work was done on this area in 1990-91.

GEOCHEMISTRY

Rock

Rock samples from the grid area are shown on Plate 3 with the corresponding gold values. Samples taken in 1990 and 1991 are listed in Appendices A and B. Samples taken in 1990 were assayed by Chem Assay. Samples taken in 1991 were assayed for Au by Chem Assay and for 32-element ICP by Acme Analytical Laboratories. Detectable gold values from outcropping silicified zones are present at the Opaline Spring area, the South Silicified Zone, and the Southwest Pediment. In general, rocks anomalous in gold are also anomalous in the hot spring suite of elements.

Gold in silicified float samples is present southwest of Opaline Spring (Plate 3). Unsampld, silicified float is present to the west of Opaline Spring. The most likely source of the float is the South Silicified Zone.

Soil

Soil samples were taken from three areas in 1990-91: Opaline Spring area, an area north of the South Silicified Zone, and the Southwest Pediment (Appendices A and B). Gold values of these samples along with values from samples taken in 1988-89 are shown on Plate 4.

Gold values in soil are anomalous over mapped areas of alteration and over areas showing little evidence of bedrock mineralization (i.e. Line 8400 N near hole TC-91-24). Gold values without accompanying anomalous values of arsenic are thought to be transported and not indicative of bedrock mineralization. Drill holes spotted on the basis of geochemistry should test multi-element anomalies.

GROUND GEOPHYSICS

Because of the strong correlation between gold mineralization and intense silicification at Trout Creek, geophysics has been used as a tool for locating silicified zones and potential mineralized zones. Ground magnetic and VLF-EM surveys were initially used to help identify domains of alteration, igneous rocks, and structure. Test lines of induced polarization and time domain electromagnetic (TDEM) were both run to determine which method would best identify possible zones of silicification. The TDEM appears to offer increased depth of penetration and better lateral and depth resolution.

During December 1990 and January 1991, Kenco Minerals, Inc. conducted a ground magnetic and VLF-EM survey of the Trout Creek area (Plate 5 and Appendix C). In May and June, 1991, Kenco Minerals completed a time domain electromagnetic (TDEM) survey of the area (Plate 6 and Appendix D).

The magnetic and VLF-EM data has helped delineate structures within the Trout Creek drainage (Plate 2). TDEM appears to be successful in delineating the subsurface extent of silicification and a surrounding zone of argillic alteration at Opaline Spring. The TDEM has also delineated a major graben fault parallel to the Trout Creek drainage.

REVERSE CIRCULATION DRILLING

Drill Sample Procedures

Reverse circulation drilling at Trout Creek during 1991 consisted of two holes for a combined total of 860 ft. Ponderosa Drilling of Spokane, Washington was contracted for the drilling which began August 23 and was completed August 27. The average drilling rate was 172 ft per day using a Reich Drill Model 650 with a sliding-angle-mast and a down-hole-hammer and tricone bit. Drilling costs averaged \$10.44 per foot for the two holes. Water was injected throughout hole TC-91-24 due to the damp, clayey nature of the drill cuttings. Water flow in excess of 100 gpm was encountered in hole TC-91-25, resulting in the hammer being flooded out and the use of a tricone bit and slow penetration rates.

Drill recoveries were excellent for both holes (see drill logs in Appendix E). The drill cuttings for each 5-ft interval were split at the rig using a Gilson splitter and a rotary wet splitter. One-half of the

dry samples and one-eighth of the wet samples was sent for assay and the rest was discarded. The wet samples were collected in a Tyvex bag which effectively allowed excess water to drain through the pores of the bag. Chem Assay performed a one-assay ton fire analysis with a gravimetric finish on each sample. A pulp prepared by Chem Assay was sent to Acme Analytical Laboratories for a 32-element ICP analysis. Results are presented in Appendix F.

Drill Targets

Two separate targets were tested by the drilling in 1991. Hole TC-91-24 tested a structural zone defined by the TDEM and magnetic data and a coincident Au in soil anomaly. Hole TC-91-25 tested the Opaline Spring silicified zone and was spotted based on outcrop mapping and the TDEM survey.

Drill Results

Table 1 is a summary of the drill results for the project from 1988 to 1991. Only results from 1991 will be discussed in detail in this report.

Hole TC-91-24 encountered unaltered Humboldt Formation. Arkose and tuffaceous sediments are present from 0 to 240 ft and hematite-rich, clayey sediments occur from 240 to 360 ft. As of this date, only the top 50 ft have been assayed. No anomalous mineralization is present.

Hole TC-91-25 encountered 500 continuous ft of silicified and pyritized Humboldt with detectable amounts of gold as shown on Figure 2. Gold, which reaches a maximum value of 0.013 opt at 455-460 ft, averages 0.004 opt over the bottom 50 ft of the hole. Increasing with depth, along with the gold, are Ag, As, K, Fe, and Mo values. Decreasing with depth are Hg, Tl, Sb and W. Textures observed in the drill cuttings include multiple episodes of veining and brecciation and the replacement of calcite by silica.

GEOLOGIC MODEL

Mineralization at Trout Creek is a classic example of a hot spring, epithermal system. The system can be classified as a quartz + adularia + sericite type (Heald, Foley, and Hayba, 1987 and Berger, 1991).

A silica sinter zone with elevated Au, As, Sb, and Hg occurs at the north end of the property and feeder structures characterized by brecciation, silicification, and high gold values are found at the southeast corner of the property. Quartz replacing calcite, barite, purple fluorite, and adularia accompany the hot spring suite of elements.

CONCLUSIONS

Gold at Trout Creek is known to be present in two mineralized styles: broad areas of detectable, low-grade gold values (10-200 ppb); and discontinuous, narrow zones of high-grade gold (maximum value of 0.70 opt Au).

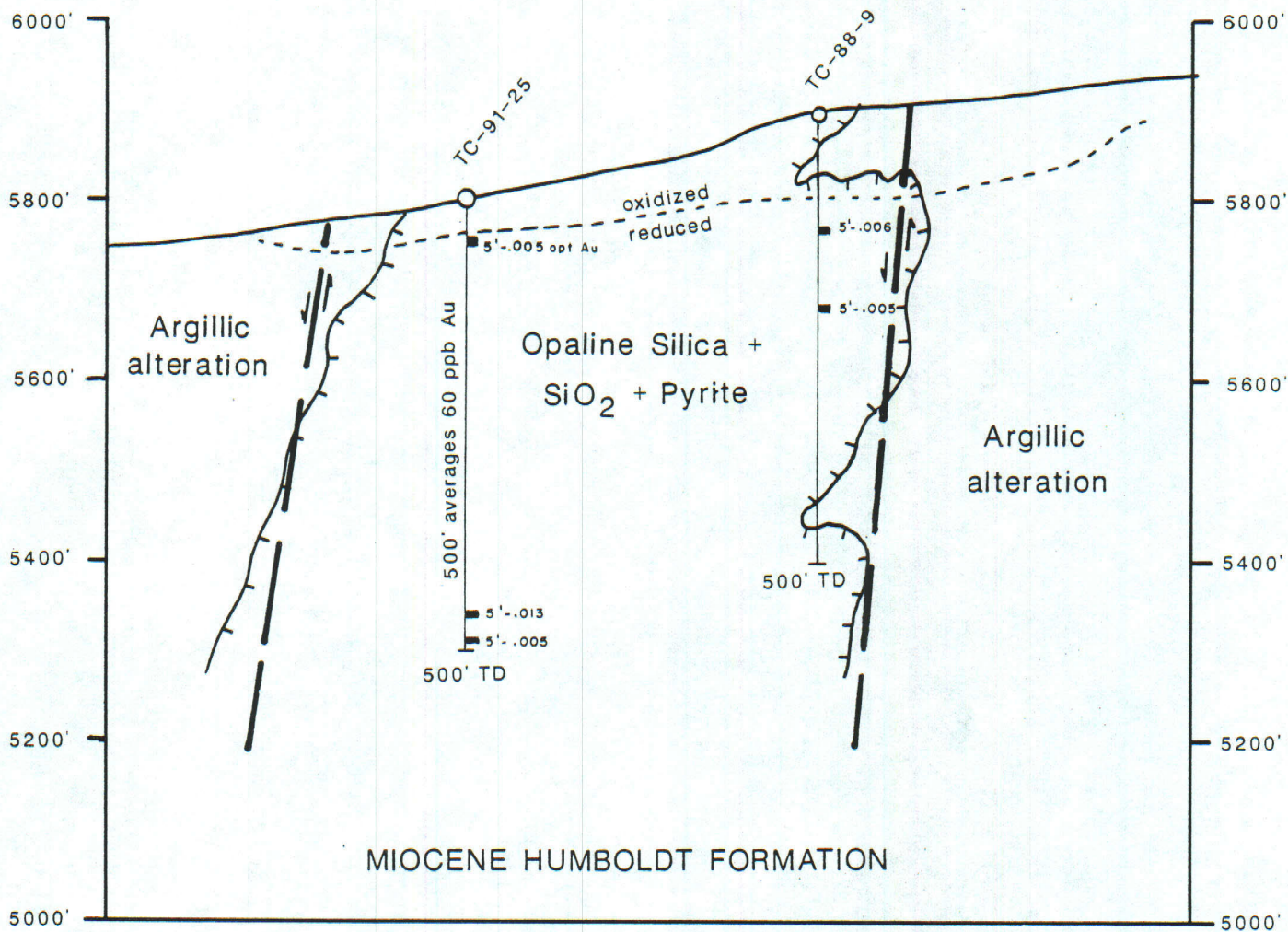
Low-grade gold values occur with broad areas of silicification at


TABLE 1

TROUT CREEK PROJECT - DRILLING SUMMARY

HOLE #	NORTH ft	EAST ft	ELEV ft	ANGLE	BEAR	DEPTH ft	AU MIN top	>.010 width	OPT Au-opt
TC-88-1	4,170	310	5,940	Vert	-----	500	105	10	0.011
TC-88-2	3,810	48	5,925	Vert	-----	440	---	---	-----
TC-88-3	3,378	100	5,970	Vert	-----	340	---	---	-----
TC-88-4	2,982	167	5,910	Vert	-----	240	---	---	-----
TC-88-5	2,777	(60)	5,860	Vert	-----	240	---	---	-----
TC-88-6	2,730	2,450	5,890	Vert	-----	380	---	---	-----
TC-88-7	2,170	(2,960)	5,800	Vert	-----	505	---	---	-----
TC-88-8	5,200	150	5,845	Vert	-----	160	---	---	-----
TC-88-9	10,300	(1,650)	5,875	Vert	-----	500	---	---	-----
TC-88-10	9,610	(1,790)	5,875	Vert	-----	180	---	---	-----
TC-88-11	10,000	(1,710)	5,870	Vert	-----	240	---	---	-----
TC-88-12	4,465	218	5,800	-60	S 60 E	340	335	5	0.187
TC-88-13	4,073	40	5,870	Vert	-----	100	---	---	-----
TC-88-14	10,600	(1,620)	5,875	Vert	-----	190	---	---	-----
TC-89-15	4,500	107	5,800	-45	S 60 E	600	400	10	0.017
TC-89-16	4,300	100	5,840	-47	S 82 E	597	382	30	0.029
TC-89-17	4,000	6	5,885	-46	S 84 E	577	2	5	0.010
TC-89-18	3,250	125	5,960	-46	S 86 E	499	---	---	-----
TC-89-19	3,050	(10)	5,900	-46	S 84 E	559	---	---	-----
TC-89-20	3,500	(150)	5,910	-46	N 35 W	798	---	---	-----
TC-89-21	2,800	0	5,860	-46	S 85 E	598	---	---	-----
TC-89-22	4,183	332	5,940	-46	S 67 E	538	---	---	-----
TC-89-23	3,732	84	5,940	-45	S 35 E	513	---	---	-----
TC-91-24	8,400	(2,800)	5,770	-45	N 90 E	360	---	---	-----
TC-91-25	10,400	(2,040)	5,800	Vert	-----	500	455	5	0.013

25 HOLES 10,494 FT



 CHALLENGER GOLD, INC.			
TROUT CREEK PROJECT			
OPALINE SPRINGS CROSS-SECTION			
DATE 9/20/91	SCALE 1" = 200'	MAP BY FWL	Figure 2

Opaline Spring and locally at the South Silicified Zone. Drill results from Hole TC-91-25 indicate that the gold values are increasing with depth at Opaline Spring. At Bold Knob, hole TC-88-1 encountered silicified rock that averages 0.003 opt over the upper 290 ft.

High-grade gold values (>0.100 opt) occur in three different geologic environments at the South Silicified Zone. All three types of high-grade gold mineralization are accompanied by intense silicification and brecciation. The environments are: (1) a high angle structure within the granodiorite; (2) a series of north-trending normal faults which juxtapose Jurassic granodiorite on the east and Humboldt sediments on the west; and (3) a zone (possibly stratigraphically controlled) within the Humboldt on the west side of the South Silicified Zone.

Untested extensions of mineralized areas are still present on the property. The highest resistivity reading from the TDEM survey is on line 108 N, north of Opaline Spring. Gold mineralization in hole TC-91-25 is increasing with depth. The broad zone of alteration and mineralization at the Southwest Pediment has only one drill hole. Drilling at the South Silicified Zone has not tested the concept of stratigraphically controlled mineralization that dips to the west.

RECOMMENDATIONS

Because annual lease payments of \$32,300 due each August 1 are a significant holding cost, rapid exploration is required for untested portions of known targets. Two options are available for continued exploration; Challenger can either continue to operate or joint venture the property.

If Challenger remains as operator, the following work program should be completed prior to July 1, 1992.

1. Complete analysis of hole TC-91-24.
2. Fill in soil samples around Opaline Spring area.
3. Drill 3 holes (1500 ft) at Opaline Spring area.
4. Drill 1 hole (500 ft) angled to the southeast near hole TC-89-22.
5. Drill 1 hole (500 ft) at the Southwest Pediment.
6. Complete reclamation of drill sites at the South Silicified zone.

With field work completed by July 31, 1992, one month will be available for a review of the results before the lease payments are due.

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APPENDIX A

1990 Rock and Soil Sample Assays

CHALLENGER GOLD, INC. - TROUT CREEK PROJECT, NEVADA - 1990 SOIL ASSAYS

Sample No.	Au(ppb)	Au(opt)	Ag(ppm)	As(ppm)	Sb(ppm)	Hg(ppm)
L26N 19W	<7	0.000	0.11	4	1	0.02
L26N 20W	7	0.000	0.08	1	1	0.02
L26N 21W	7	0.000	0.16	<1	1	0.02
L26N 22W	<7	0.000	0.12	6	3	0.02
L26N 23W	<7	0.000	0.08	6	2	0.03
L26N 24W	7	0.000	0.06	6	2	0.03
L26N 25W	7	0.000	0.13	11	4	0.03
L26N 26W	<7	0.000	0.05	52	7	0.14
L26N 27W	<7	0.000	0.12	47	3	0.10
L26N 28W	10	0.000	0.20	30	4	0.04
L26N 29W	7	0.000	0.12	13	3	0.09
L26N 30W	<7	0.000	0.10	12	3	0.26
L26N 31W	<7	0.000	0.12	6	2	0.05
L26N 32W	<7	0.000	0.12	11	5	0.07
L26N 33W	<7	0.000	0.10	9	3	0.03
L28N 22W	7	0.000	0.42	11	2	0.02
L28N 23W	7	0.000	0.07	42	7	0.03
L28N 24W	10	0.000	0.08	260	6	0.06
L28N 25W	17	0.000	0.08	76	4	0.03
L28N 26W	<7	0.000	0.11	49	6	0.02
L28N 27W	<7	0.000	0.08	11	3	0.02
L28N 28W	<7	0.000	0.05	3	2	0.02
L28N 29W	<7	0.000	0.11	4	3	0.02
L28N 30W	<7	0.000	0.07	6	4	0.02
L28N 31W	<7	0.000	0.11	11	4	0.06
L30N 23W	<7	0.000	0.03	7	2	
L30N 24W	14	0.000	0.07	9	1	0.05
L30N 25W	<7	0.000	0.51	3	1	1.50
L30N 26W	<7	0.000	0.09	10	3	1.10
L30N 27W	<7	0.000	0.02	<1	1	0.15
L30N 28W	<7	0.000	0.05	3	2	0.05
L30N 29W	7	0.000	0.08	5	3	0.06
L30N 30W	<7	0.000	0.10	10	3	0.04
L32N 26W	<7	0.000	0.04	2	2	0.09
L32N 27W	7	0.000	0.05	1	2	0.03
L32N 28W	<7	0.000	0.05	3	1	0.07
L32N 29W	<7	0.000	0.05	3	2	0.03
L32N 30W	7	0.000	0.04	1	3	0.06
L34N 28W	<7	0.000	0.07	1	1	0.04
L50N 06W	<7	0.000	0.12	4	3	0.01
L50N 07W	<7	0.000	0.08	4	2	0.01
L50N 08W	<7	0.000	0.08	2	2	0.02
L50N 09W	<7	0.000	0.06	3	2	0.02
L50N 10W	<7	0.000	0.08	4	2	0.02
L50N 11W	<7	0.000	0.21	4	3	0.03
L50N 12W	<7	0.000	0.20	5	2	0.03
L50N 13W	<7	0.000	0.06	4	2	0.04
L50N 14W	<7	0.000	0.16	5	7	0.02
L50N 15W	7	0.000	0.08	6	3	0.02

CHALLENGER GOLD, INC. - TROUT CREEK PROJECT, NEVADA - 1990 SOIL ASSAYS

Sample No.	Au(ppb)	Au(opt)	Ag(ppm)	As(ppm)	Sb(ppm)	Hg(ppm)
L50N 16W	7	0.000	0.12	3	2	0.02
L50N 17W	<7	0.000	0.10	3	2	0.02
L50N 18W	<7	0.000	0.10	2	2	0.01
L50N 19W	<7	0.000	0.09	4	2	0.02
L50N 20W	<7	0.000	0.04	2	2	0.01
L50N 21W	<7	0.000	0.08	4	2	0.01
L50N 22W	<7	0.000	0.06	4	1	0.01
L51N 22W	<7	0.000	0.08	2	2	0.02
L52N 01W	<7	0.000	0.04	2	2	0.02
L52N 02W	<7	0.000	0.09	3	2	0.01
L52N 03W	<7	0.000	0.11	2	1	0.01
L52N 04W	<7	0.000	0.09	2	1	0.01
L52N 05W	<7	0.000	0.11	4	2	0.01
L52N 06W	<7	0.000	0.09	2	2	0.01
L52N 07W	<7	0.000	0.26	4	2	0.06
L52N 08W	<7	0.000	0.07	4	3	0.02
L52N 09W	<7	0.000	0.09	<1	2	0.01
L52N 10W	<7	0.000	0.09	<1	1	0.01
L52N 11W	<7	0.000	0.08	4	2	0.02
L52N 12W	<7	0.000	0.05	3	2	0.01
L52N 13W	<7	0.000	0.13	1	<1	0.02
L52N 14W	<7	0.000	0.10	7	1	0.02
L52N 15W	<7	0.000	0.09	4	1	0.02
L52N 16W	<7	0.000	0.12	3	1	0.02
L52N 17W	<7	0.000	0.08	4	1	0.01
L52N 18W	10	0.000	0.06	3	1	0.01
L52N 19W	<7	0.000	0.08	3	1	0.01
L52N 20W	<7	0.000	0.11	<1	1	0.03
L52N 21W	<7	0.000	0.07	1	1	0.01
L52N 22W	<7	0.000	0.13	3	1	0.01
L52N 23W	<7	0.000	0.09	2	1	0.01
L52N 24W	7	0.000	0.05	<1	<1	0.01
L52N BL	<7	0.000	0.07	2	<1	0.02
L54N 01W	<7	0.000	0.08	2	1	0.01
L54N 02W	<7	0.000	0.07	1	1	0.01
L54N 03W	<7	0.000	0.18	7	<1	0.02
L54N 04W	10	0.000	0.10	5	<1	0.01
L54N 05W	<7	0.000	0.07	3	1	0.01
L54N 06W	<7	0.000	0.08	2	1	0.01
L54N 07W	7	0.000	0.05	2	1	<0.01
L54N 08W	<7	0.000	0.11	4	2	0.03
L54N 09W	<7	0.000	0.08	3	2	0.01
L54N 10W	<7	0.000	0.09	3	1	0.01
L54N 11W	<7	0.000	0.05	4	1	0.01
L54N 12W	7	0.000	0.08	4	1	0.01
L54N 13W	<7	0.000	0.09	8	1	0.02
L54N 14W	<7	0.000	0.09	5	1	0.02
L54N 15W	<7	0.000	0.12	5	1	0.02
L54N 16W	7	0.000	0.16	5	1	0.02
L54N 17W	<7	0.000	0.05	5	1	0.02
L54N 18W	<7	0.000	0.07	5	1	0.03

CHALLENGER GOLD, INC. - TROUT CREEK PROJECT, NEVADA - 1990 SOIL ASSAYS

Sample No.	Au(ppb)	Au(opt)	Ag(ppm)	As(ppm)	Sb(ppm)	Hg(ppm)
L54N 19W	<7	0.000	0.08	4	1	0.01
L54N 20W	<7	0.000	0.07	3	1	0.03
L54N 21W	<7	0.000	0.09	2	1	0.02
L54N 22W	<7	0.000	0.09	1	<1	0.10
L54N 23W	<7	0.000	0.10	4	1	0.03
L54N 24W	7	0.000	0.08	5	1	0.03
L54N 25W	<7	0.000	0.07	2	1	0.03
L54N 26W	<7	0.000	0.05	1	1	0.03
L54N 27W	<7	0.000	0.09	2	1	0.01
# of samples	109					
Maximum	17	0.000	0.51	260	7	1.50
Minimum	<7	0.000	0.02	<1	<1	0.00
Average	<7	0.000	0.10	9	2	0.05
Std Dev	<7	0.000	0.06	27	1	0.18

CHALLENGER GOLD, INC. - TROUT CREEK PROJECT, NEVADA - 1990 ROCK ASSAYS

Sample No.	Au(ppb)	Au(opt)	Ag(ppm)	As(ppm)	Sb(ppm)	Hg(ppm)
TW-90- 360	<7	0.000				
DR-TC-90-001	17	0.000	0.19	66	7	0.08
DR-TC-90-002	7	0.000	0.06	3	5	0.02
DR-TC-90-003	48	0.001	0.07	5	3	0.05
DR-TC-90-004	31	0.001	0.05	<1	1	<0.01
DR-TC-90-005	<7	0.000	0.17	2	4	0.01
DR-TC-90-006	65	0.002	1.00	87	8	0.22
DR-TC-90-007	<7	0.000	0.02	92	5	0.05
DR-TC-90-008	106	0.003	0.08	5	2	0.02
DR-TC-90-009	51	0.001	0.08	102	14	0.07
DR-TC-90-010	51	0.001	0.14	290	20	0.21
DR-TC-90-011	10	0.000	0.01	12	2	0.02
DR-TC-90-012	<7	0.000	0.40	103	5	0.02
DR-TC-90-013	7	0.000	0.12	85	7	0.02
DR-TC-90-014	31	0.001	0.39	410	43	0.94
DR-TC-90-015	<7	0.000	0.04	11	2	0.02
DR-TC-90-016	123	0.004	0.10	11	2	0.01
DR-TC-90-017	55	0.002	0.04	194	2	0.04
DR-TC-90-018	10	0.000	0.03	35	6	0.01
DR-TC-90-019	<7	0.000	0.11	44	4	0.01
DR-TC-90-020	<7	0.000	0.05	5	2	<0.01
DR-TC-90-021	7	0.000	0.08	17	15	0.01
DR-TC-90-022	<7	0.000	0.11	39	5	0.04
DR-TC-90-023	<7	0.000	0.86	15	5	0.02
DR-TC-90-024	<7	0.000	0.03	11	4	0.05
DR-TC-90-025	62	0.002	0.06	27	3	0.07
DR-TC-90-026	17	0.000	0.04	13	2	0.04
DR-TC-90-027	14	0.000	0.11	34	4	0.02
DR-TC-90-028	<7	0.000	0.04	6	<1	0.02
DR-TC-90-029	<7	0.000	0.04	35	2	0.07
DR-TC-90-030	<7	0.000	0.12	7	<1	0.09
DR-TC-90-031	<7	0.000	0.07	24	<1	0.04
DR-TC-90-032	144	0.004	0.16	27	<1	0.05
DR-TC-90-033	7	0.000	0.75	171	5	0.14
DR-TC-90-034	7	0.000	1.21	30	8	0.06
DR-TC-90-035	<7	0.000	0.13	26	1	0.04
DR-TC-90-036	209	0.006	14.00	340	8	0.16
DR-TC-90-037	17	0.000	1.38	65	4	0.50
DR-TC-90-038	<7	0.000	0.06	<1	<1	0.06
DR-TC-90-038A	<7	0.000	<0.01	13	<1	0.02
DR-TC-90-039	<7	0.000	0.15	51	3	0.06
DR-TC-90-040	7	0.000	0.04	<1	<1	0.03
DR-TC-90-041	<7	0.000	0.01	7	<1	0.02
# of samples	43	43	42	42	42	42
Maximum	209	0.006	14.00	410	43	0.94
Minimum	<7	0.000	<0.01	<1	<1	0.00
Average	26	0.001	0.54	60	5	0.08
Std Dev	44	0.001	2.13	91	7	0.16

APPENDIX B

1991 Rock and Soil Sample Assays

ELEMENT SAMPLES	Au ppb	Au opt	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mi ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
FL-91-2	14	0.000	1	55	2	100	0.1	20	6	154	3.04	67	5	2	2	211	0.7	21	2	18	34.88	0.06	8	20	0.11	959	0.01	2	0.23	0.01	0.02	87	2	1
FL-91-3	7	0.000	1	63	2	66	0.1	10	2	379	0.64	4	5	2	3	102	0.4	2	2	5	12.23	0.18	15	83	0.89	163	0.04	4	0.34	0.02	0.06	4	2	1
FL-91-4	1810	0.053	4	1154	17	81	0.6	18	13	3503	2.99	22	5	2	3	152	0.6	12	102	20	10.65	0.18	33	63	1.55	2212	0.04	7	0.89	0.07	0.68	48	2	1
FL-91-5	14	0.000	1	19	21	55	0.3	13	2	290	1.21	14	5	2	1	147	0.2	2	2	18	2.30	0.15	20	322	0.12	56	0.03	27	0.40	0.01	0.02	10	2	1
FL-91-6	51	0.001	12	63	14	8	0.1	22	5	199	3.42	168	5	2	5	58	0.2	12	2	12	0.34	0.03	43	49	0.06	160	0.01	6	0.14	0.01	0.12	47	2	1
FL-91-7	14	0.000	8	57	5	9	0.1	23	4	220	2.44	15	5	2	6	45	0.3	5	2	6	0.19	0.03	28	54	0.03	196	0.01	5	0.11	0.01	0.13	3	2	1
FL-91-8	17	0.000	2	178	2	54	0.1	12	20	819	9.31	58	13	2	4	12	1.4	7	4	41	7.15	0.10	29	147	0.04	24	0.02	3	0.36	0.01	0.01	43	2	1
FL-91-9	17	0.000	3	38	2	44	0.1	26	2	184	1.59	6	5	2	3	113	0.9	2	2	13	5.37	0.16	23	62	0.16	16	0.04	11	0.29	0.01	0.05	2	2	1
FL-91-24	14	0.000	8	9	32	29	0.4	7	2	114	0.58	3	5	2	8	73	0.8	2	4	9	0.12	0.02	39	120	0.03	486	0.01	6	0.18	0.01	0.08	2	2	1
FL-91-25	7	0.000	1	8	13	19	0.1	2	1	85	0.85	21	5	2	2	121	0.2	2	2	10	0.26	0.02	6	32	0.15	150	0.01	6	0.91	0.02	0.09	11	2	1
FL-91-26	7	0.000	2	4	6	5	0.1	3	1	70	0.70	9	5	2	2	90	0.2	2	2	8	0.11	0.01	5	55	0.03	517	0.01	5	0.88	0.01	0.07	10	2	1
FL-91-27	17	0.000	2	8	19	16	0.2	4	1	65	0.21	2	5	2	1	437	0.2	2	2	4	13.52	0.06	3	109	0.02	475	0.04	1008	0.43	0.21	0.20	30	2	1
FL-91-28	17	0.000	7	6	9	25	0.1	6	1	65	0.46	4	5	2	1	46	0.2	2	2	5	0.18	0.01	3	134	0.11	360	0.01	6	0.41	0.01	0.09	4	2	1
FL-91-29	27	0.001	2	7	11	14	0.3	11	2	105	0.40	3	5	2	1	35	0.2	2	2	6	0.20	0.01	3	240	0.01	513	0.01	2	0.07	0.01	0.03	7	2	1
FL-91-30	58	0.002	7	15	9	14	0.3	10	2	86	1.41	73	5	2	11	170	0.2	6	2	11	0.20	0.02	34	194	0.07	394	0.01	5	0.39	0.01	0.19	52	2	1

of samples 15

SAMPLES	North	East	Description
FL-91-2		Onyx	Prospect pit, limestone, grey-white, strong hematite, fractured. CaCO ₃ veining
FL-91-3		"	Prospect pit, limestone, white-lt grey, fractured
FL-91-4		"	Prospect pit, limestone, 3-4' wide shear zone, wt SiO ₂ , CaCO ₃ veining, mod hematite, green biotite
FL-91-5	Northview		Outcrop, jasperoid, red-white, silicified Paleozoic. vfg
FL-91-6		"	Outcrop, orange grey, tuff sandst, mod silic, l-3% py
FL-91-7		"	Outcrop, green grey, tuff sandst, wt silic, 1% py
FL-91-8		"	Outcrop, garnet starn, red brown, mod silic
FL-91-9		"	Outcrop, limest, dk grey, silic, l-3% diss pyrite

ELEMENT	Au	Ag	Zn	Pb	Cu	Mo	Co	Mn	Fe	As	U	Au	Th	Sr	Od	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Ma	K	V	Ti	Hg	
ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	
1112M 24V	7	1	8	13	22	0.1	7	3	135	2.00	6	13	2	13	605	0.2	2	2	11	0.37	0.09	55	14	0.19	177	0.03	8	0.86	0.07	0.24	9	2	1
1112M 22V	10	2	14	22	41	0.2	12	8	412	1.85	11	11	2	13	277	0.4	3	3	17	0.39	0.07	42	16	0.25	380	0.05	8	1.29	0.05	0.27	9	3	1
1112M 20V	7	1	18	15	61	0.3	10	6	173	1.95	2	19	2	20	301	0.4	2	4	17	1.04	0.09	57	14	0.84	216	0.04	13	3.31	0.04	0.35	12	2	1
1112M 18V	92	1	12	18	33	0.1	7	4	174	1.53	4	14	2	16	292	0.2	2	2	16	0.53	0.09	47	11	0.42	87	0.05	8	1.44	0.02	0.24	14	2	1
1112M 16V	51	1	14	13	42	0.2	7	7	308	1.97	3	5	2	15	181	0.3	2	2	25	0.59	0.06	36	15	0.42	407	0.06	14	1.68	0.04	0.27	13	3	1
1112M 14V	7	1	12	15	34	0.2	7	7	308	1.95	8	5	2	10	106	0.2	2	2	22	0.31	0.04	30	15	0.26	277	0.08	10	1.12	0.05	0.24	7	2	1
1112M 12V	24	1	10	11	35	0.2	7	6	308	1.88	7	5	2	15	131	0.3	2	2	23	0.43	0.06	34	13	0.33	193	0.06	9	1.25	0.03	0.27	9	2	1
1112M 10V	27	1	18	17	64	0.2	12	8	496	2.96	4	12	2	23	112	0.5	2	2	40	0.60	0.06	51	23	0.61	334	0.13	9	2.14	0.02	0.45	5	2	1
1110M 26V	7	1	23	17	73	0.2	16	9	646	2.49	7	6	2	11	105	0.4	2	2	28	0.69	0.05	40	20	0.64	477	0.12	21	2.78	0.03	0.49	3	2	1
1110M 24V	7	1	14	14	43	0.2	11	9	478	1.81	6	5	2	28	124	0.3	2	2	29	0.46	0.04	38	17	0.31	195	0.11	9	1.25	0.07	0.21	4	2	1
1110M 22V	7	1	20	18	73	0.2	13	8	625	2.14	8	7	2	8	100	0.8	2	3	26	0.51	0.06	35	17	0.45	444	0.10	13	2.02	0.03	0.38	2	2	1
1110M 20V	123	1	11	17	32	0.2	6	6	615	2.42	8	5	2	13	214	0.2	2	2	29	0.58	0.07	38	14	0.34	590	0.03	7	1.50	0.03	0.19	24	2	1
1110M 18V	7	1	14	18	54	0.2	11	7	311	2.21	22	7	2	6	111	0.4	5	3	24	0.80	0.03	24	16	0.47	250	0.05	16	2.19	0.03	0.27	4	3	1
1110M 16V	34	1	20	15	65	0.2	13	8	491	2.20	7	10	2	8	132	0.4	2	3	27	0.65	0.05	30	19	0.51	719	0.10	14	2.56	0.03	0.44	3	3	1
1110M 14V	7	1	13	12	37	0.2	7	5	333	1.80	11	16	2	10	125	0.2	2	2	26	0.38	0.04	26	14	0.27	399	0.09	7	1.22	0.08	0.24	7	2	1
1110M 12V	7	1	13	14	39	0.1	7	6	341	1.96	4	9	2	11	95	0.2	2	3	29	0.44	0.05	31	15	0.35	192	0.09	10	1.24	0.05	0.27	7	2	1
108M 26V	7	1	14	17	46	0.1	13	8	1067	1.66	7	5	2	13	114	0.2	2	7	21	0.51	0.05	39	15	0.37	436	0.09	12	1.69	0.05	0.27	16	2	1
108M 24V	7	1	19	17	45	0.2	14	7	494	2.40	7	5	2	12	294	0.2	2	5	26	0.44	0.06	33	17	0.35	423	0.08	13	1.58	0.07	0.33	9	2	1
108M 22V	7	1	23	11	65	0.2	14	8	570	2.34	6	5	2	13	79	0.7	5	2	29	0.54	0.05	34	20	0.52	419	0.11	12	2.33	0.03	0.42	2	2	1
108M 20V	7	1	25	9	78	0.1	16	9	535	2.57	8	5	2	10	73	0.6	3	4	29	0.64	0.05	32	22	0.66	497	0.11	18	2.99	0.03	0.54	4	2	1
108M 19V	34	1	21	13	72	0.2	13	9	486	2.49	7	5	2	10	89	0.2	2	2	27	0.62	0.04	32	21	0.64	1114	0.09	17	3.16	0.03	0.56	1	2	1
108M 16V	51	1	20	5	71	0.1	14	9	478	2.33	10	5	2	9	92	0.7	4	2	29	0.56	0.04	31	21	0.53	436	0.10	19	2.73	0.03	0.45	9	2	1
108M 14V	7	1	20	11	56	0.2	12	7	428	2.17	13	5	2	12	91	0.2	3	2	28	0.47	0.05	36	18	0.46	412	0.10	12	2.11	0.03	0.37	4	2	1
108M 12V	7	1	14	12	43	0.2	10	8	423	2.10	5	5	2	18	109	0.5	2	2	32	0.46	0.06	36	17	0.40	310	0.11	10	1.36	0.07	0.31	7	2	1
108M 26V	10	1	22	11	58	0.1	11	8	554	2.19	4	5	2	16	81	0.6	2	2	29	0.45	0.05	34	18	0.43	330	0.12	13	1.87	0.04	0.37	2	2	1
108M 24V	7	1	21	2	60	0.1	11	7	484	2.17	2	5	2	12	80	0.3	2	2	28	0.49	0.05	36	17	0.46	349	0.11	11	2.10	0.03	0.38	1	2	1
108M 22V	14	1	24	10	67	0.2	12	8	519	2.24	6	5	2	12	82	0.9	2	4	27	0.55	0.05	33	18	0.51	384	0.11	17	2.26	0.03	0.49	2	2	1
108M 20V	17	1	20	10	71	0.1	16	7	465	2.31	2	5	2	9	78	0.6	2	2	28	0.94	0.06	30	20	0.73	856	0.12	22	2.83	0.03	0.52	1	2	1
108M 18V	20	2	24	10	67	0.3	15	7	343	2.40	13	5	2	10	126	0.5	4	2	30	0.73	0.04	31	20	0.63	506	0.09	18	3.34	0.03	0.53	6	2	1
108M 16V	7	1	23	12	76	0.1	17	8	520	2.48	6	5	2	12	112	0.7	5	2	29	0.71	0.04	33	20	0.60	488	0.09	18	3.07	0.03	0.41	4	3	1
108M 14V	7	1	23	8	66	0.1	12	9	691	2.17	2	5	2	14	114	0.5	2	2	28	0.53	0.05	34	18	0.50	313	0.12	15	2.32	0.03	0.48	1	2	1
104M 26V	7	2	26	9	61	0.1	10	8	586	2.08	5	5	2	16	152	0.3	5	3	26	0.57	0.06	38	16	0.48	282	0.11	15	2.03	0.03	0.51	4	2	1
104M 24V	17	2	25	8	67	0.1	11	7	789	1.83	5	5	2	8	463	1.3	3	4	22	0.91	0.08	33	14	0.50	248	0.09	34	1.92	0.12	0.54	47	2	1
104M 22V	35	5	22	3	62	0.3	11	5	1884	1.36	11	5	2	2	1185	0.6	7	2	20	4.03	0.11	20	13	0.80	638	0.07	77	1.75	0.18	0.71	110	2	1
104M 20V	31	2	19	22	67	0.1	13	6	432	2.13	15	5	2	18	161	0.3	4	2	26	1.03	0.06	50	16	0.78	551	0.08	17	3.41	0.03	0.31	7	2	1
104M 18V	38	1	28	10	81	0.2	18	11	909	2.57	5	5	2	9	85	0.3	2	2	33	0.70	0.05	31	21	0.56	1360	0.12	19	3.38	0.03	0.55	9	2	1
104M 16V	7	1	18	10	65	0.2	13	8	465	2.14	7	5	2	9	96	0.2	4	2	26	0.54	0.04	30	18	0.51	304	0.09	14	2.54	0.03	0.43	3	2	1
104M 14V	14	2	20	13	65	0.1	14	9	518	2.49	3	5	2	15	118	0.5	2	2	31	0.72	0.05	42	19	0.56	349	0.11	14	2.60	0.02	0.45	3	2	1
102M 22V	7	1	18	14	44	0.1	16	9	605	1.78	2	5	2	12	92	0.2	2	2	28	0.46	0.05	38	18	0.37	227	0.12	10	1.70	0.05	0.31	1	2	1
102M 20V	17	1	23	9	71	0.2	14	9	570	2.24	8	5	2	11	65	0.4	6	2	31	0.46	0.06	30	20	0.46	951	0.12	15	2.51	0.03	0.40	3	2	1
102M 18V	37	1	19	11	65	0.1	14	8	474	2.10	3	5	2	10	94	0.6	3	2	28	0.63	0.04	28	25	0.48	357	0.12	16	2.55	0.03	0.41	1	2	1
102M 16V	7	1	15	12	41	0.1	9	8	508	1.72	6	5	2	11	90	0.4	4	2	26	0.37	0.04	32	15	0.31	172	0.10	12	1.31	0.05	0.28	2	2	1
102M 14V	30	1	23	11	66	0.1	11	9	472	2.32	2	5	2	17	98	0.8	2	2	27	0.27	0.05	44	13	0.77	527	0.08	15	3.16	0.02	0.42	2	2	1
103M 26V	7	1	24	13	54	0.1	13	7	451	1.96	7	5	2	11	105	0.2	4	2	27	0.59	0.05	39	16	0.39	243	0.12	12	1.92	0.04	0.28	3	3	1
103M 24V	7	1	16	15	41	0.1	10	8	500	1.72	10	5	2	10	103	0.3	3	2	26	0.33	0.05	36	15	0.29	175	0.12	11	1.28	0.06	0.26	4	2	1
103M 22V	27	2	18	6	40	0.1	9	7	367	1.57	3	5	2	14	79	0.3	4	2	27	0.25	0.05	31	15	0.29	150	0.12	16	1.15	0.13	0.27	3	2	1

ELEMENT SAMPLES	Au ppb	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mi ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Ti %	B ppm	Al %	Mg %	I %	M ppm	Tl ppm	Hg ppm	
100N 20W	7	1	18	13	48	0.3	11	8	627	1.66	11	5	2	11	93	0.4	4	2	24	0.55	0.04	30	14	0.36	226	0.08	12	1.77	0.03	0.31	2	2	1
100N 18W	7	1	24	12	64	0.1	12	8	480	1.96	5	5	2	7	91	0.2	2	2	26	0.60	0.04	27	17	0.43	294	0.10	17	2.17	0.03	0.36	1	2	1
100N 16W	7	1	18	17	60	0.1	13	9	548	2.05	3	5	2	11	80	0.2	2	2	27	0.50	0.05	33	22	0.44	269	0.11	9	2.09	0.03	0.38	1	2	1
100N 14W	7	2	17	14	54	0.1	9	6	383	1.99	3	9	2	16	175	0.2	9	3	19	0.97	0.04	45	13	0.91	388	0.09	16	3.61	0.03	0.38	10	6	2
98N 26W	7	1	24	13	48	0.1	9	8	556	1.84	8	5	2	12	92	0.5	4	2	27	0.39	0.05	34	17	0.31	230	0.12	6	1.43	0.06	0.27	3	3	1
98N 24W	7	1	23	13	59	0.1	10	8	480	1.99	14	5	2	10	122	0.4	5	2	25	0.48	0.05	32	17	0.41	354	0.09	14	1.96	0.03	0.34	3	2	1
98N 22W	7	1	17	11	50	0.1	12	8	449	1.83	12	5	2	12	108	0.5	3	2	25	0.48	0.05	32	17	0.41	265	0.10	10	1.66	0.06	0.38	2	2	1
98N 20W	34	2	19	15	53	0.2	9	7	382	1.89	24	5	2	6	122	0.5	5	2	22	0.52	0.04	28	15	0.42	472	0.05	15	1.89	0.03	0.27	5	2	1
98N 18W	7	1	26	18	71	0.1	10	7	357	1.76	14	5	2	1	192	0.5	8	2	19	0.44	0.08	37	15	0.44	189	0.04	10	2.15	0.01	0.42	6	2	1
98N 16W	10	1	15	22	45	0.1	10	6	467	1.81	9	5	2	14	147	0.7	2	3	24	0.64	0.05	49	15	0.40	224	0.06	10	2.06	0.03	0.28	16	2	1
98N 14W	7	2	13	24	55	0.1	9	8	516	2.01	6	5	2	15	86	0.6	2	4	27	0.48	0.05	39	18	0.38	226	0.13	11	1.59	0.03	0.26	1	2	1
96N 23W	7	1	20	17	67	0.1	10	10	587	2.64	5	5	2	30	71	0.2	2	2	34	0.55	0.07	42	24	0.51	306	0.15	11	2.29	0.03	0.37	1	2	1
96N 26W	7	1	21	18	69	0.2	18	9	582	2.42	8	5	2	15	122	0.8	2	3	29	0.67	0.05	39	23	0.60	427	0.11	15	2.52	0.03	0.37	4	2	1
96N 24W	7	1	15	21	57	0.1	11	8	576	2.03	11	5	2	12	146	0.7	2	5	27	0.58	0.06	35	19	0.43	425	0.09	8	1.83	0.04	0.27	18	2	1
96N 22W	14	1	17	13	66	0.1	10	9	498	2.18	17	5	2	12	100	0.4	2	2	26	0.55	0.05	32	19	0.47	455	0.09	8	2.14	0.03	0.33	3	2	1
96N 20W	7	1	22	17	63	0.1	14	9	399	2.23	19	5	2	11	113	0.3	2	3	26	0.60	0.05	36	20	0.55	340	0.08	18	2.19	0.03	0.36	2	2	1
96N 18W	7	1	16	17	63	0.1	9	6	411	2.31	21	5	2	10	134	0.3	2	2	23	0.46	0.05	40	17	0.40	278	0.07	13	1.99	0.03	0.43	2	2	1
96N 16W	14	3	16	27	47	0.1	9	9	495	2.16	16	5	2	14	117	0.2	2	8	27	0.28	0.05	41	17	0.31	146	0.09	12	1.23	0.20	0.32	7	2	1
96N 14W	7	1	13	19	38	0.1	9	8	520	1.57	4	5	2	13	83	0.4	2	3	27	0.42	0.07	39	17	0.23	149	0.13	7	0.92	0.04	0.17	2	2	1
94N 28W	7	1	20	12	67	0.1	14	9	563	2.66	12	5	2	27	78	0.3	2	2	33	0.64	0.07	50	23	0.62	360	0.16	13	2.57	0.03	0.39	2	2	1
94N 26W	7	1	20	18	56	0.1	7	9	804	2.09	8	5	2	20	108	0.4	2	2	28	0.58	0.06	42	21	0.49	378	0.10	12	2.01	0.03	0.34	5	2	1
94N 24W	7	1	19	14	47	0.1	8	11	590	1.78	11	5	2	16	135	0.5	2	2	26	0.46	0.05	35	19	0.36	295	0.09	9	1.49	0.05	0.26	7	2	1
94N 22W	14	2	23	13	70	0.1	12	9	553	2.21	14	5	2	10	122	1.3	2	4	29	0.50	0.05	29	19	0.47	374	0.09	14	2.08	0.03	0.45	3	2	1
94N 20W	17	3	21	13	56	0.1	6	7	440	2.11	23	5	2	10	109	0.6	4	2	26	0.47	0.04	30	17	0.40	359	0.08	13	1.80	0.04	0.38	4	2	1
94N 18W	24	4	21	13	56	0.1	9	7	344	2.42	43	5	2	9	112	0.2	3	2	29	0.45	0.04	29	18	0.43	262	0.09	12	1.90	0.04	0.42	3	2	1
94N 16W	7	2	13	17	44	0.1	11	14	677	1.97	11	5	2	16	129	0.8	3	2	28	0.39	0.04	34	15	0.33	182	0.10	2	1.29	0.05	0.27	5	2	1
94N 14W	27	1	10	12	51	0.1	10	7	449	2.17	5	5	2	22	106	0.6	2	2	38	0.66	0.11	53	24	0.38	288	0.16	9	1.44	0.03	0.19	1	2	1
92N 23W	7	1	26	11	69	0.1	11	8	565	2.50	2	5	2	14	76	0.3	2	2	30	0.54	0.06	39	23	0.54	326	0.13	13	2.41	0.02	0.48	1	2	1
92N 26W	14	2	21	17	59	0.1	9	9	687	2.13	8	5	2	15	85	0.2	2	2	29	0.44	0.06	34	20	0.40	315	0.12	10	1.87	0.03	0.37	4	2	1
92N 24W	7	2	19	15	61	0.1	11	9	519	2.15	14	5	2	12	117	0.5	2	4	27	0.49	0.04	32	20	0.48	351	0.09	16	2.07	0.03	0.40	1	2	1
92N 22W	7	2	21	15	53	0.1	6	6	392	1.94	17	5	2	10	172	0.4	4	2	26	0.46	0.04	27	16	0.38	277	0.08	13	1.70	0.04	0.38	3	2	1
92N 20W	17	2	20	15	73	0.1	9	9	565	2.27	25	5	2	8	112	0.8	5	2	27	0.51	0.06	27	17	0.46	702	0.09	14	1.96	0.03	0.44	24	2	1
92N 18W	7	2	22	16	72	0.1	12	9	441	2.39	32	5	2	11	120	0.2	6	2	29	0.47	0.04	32	18	0.43	285	0.09	8	2.00	0.03	0.38	4	2	1
92N 16W	7	2	26	16	87	0.1	14	9	653	2.63	5	5	2	17	75	0.8	2	4	34	0.48	0.06	39	20	0.52	275	0.13	9	2.25	0.03	0.47	1	2	1
92N 14W	7	1	15	19	38	0.1	8	7	346	1.65	2	5	2	21	149	0.2	3	2	26	0.50	0.10	48	17	0.32	130	0.13	6	1.01	0.04	0.21	5	2	1
90N 28W	38	1	20	12	63	0.1	6	8	501	2.46	7	5	2	14	69	0.2	2	2	32	0.52	0.06	39	24	0.50	299	0.15	13	2.15	0.02	0.40	1	2	1
90N 26W	7	1	22	15	53	0.1	12	9	540	2.08	6	5	2	12	101	0.6	2	2	28	0.42	0.04	35	19	0.41	250	0.12	9	1.71	0.05	0.36	4	2	1
90N 24W	7	1	18	19	50	0.2	6	10	519	1.96	12	5	2	13	109	0.2	6	2	29	0.36	0.03	31	17	0.36	240	0.12	8	1.40	0.06	0.31	2	2	1
90N 22W	17	2	17	12	46	0.1	7	7	449	1.89	30	6	2	13	129	0.2	3	3	23	0.40	0.04	28	15	0.34	165	0.08	2	1.26	0.05	0.35	5	2	1
90N 20W	20	3	19	14	44	0.2	2	6	315	2.07	46	5	2	11	160	0.4	6	4	26	0.50	0.05	27	14	0.32	217	0.06	15	1.23	0.04	0.36	19	2	1
90N 18W	7	1	28	8	72	0.1	10	9	507	2.51	12	5	2	18	71	0.5	3	2	30	0.51	0.04	35	20	0.57	310	0.12	15	2.39	0.02	0.55	1	2	1
90N 16W	7	2	22	7	69	0.1	7	10	819	2.56	9	5	2	12	115	1	4	5	34	0.55	0.06	40	18	0.53	262	0.13	10	1.99	0.03	0.40	3	2	1
90N 14W	14	1	16	15	66	0.1	9	7	404	2.56	12	5	2	25	140	0.2	6	4	31	0.50	0.07	47	23	0.82	181	0.18	12	2.68	0.03	0.37	3	3	1
88N 23W	7	1	24	7	68	0.1	14	11	578	2.39	5	5	2	18	69	0.4	2	2	29	0.60	0.06	43	21	0.55	309	0.14	17	2.50	0.03	0.49	4	2	1
88N 26W	7	2	22	8	64	0.1	14	10	519	2.24	18	5	2	15	112	0.5	4	2	30	0.55	0.05	36	21	0.50	270	0.10	13	2.08	0.03	0.39	8	3	1
88N 24W	7	2	22	13	54	0.2	12	11	501	2.07	25	5	2	13	164	0.2	7	2	30	0.46	0.05	34	19	0.39	258	0.09	12	1.54	0.04	0.32	7	3	1

ELEMENT SAMPLES	Au ppb	Mo ppb	Cu ppb	Pb ppb	Zn ppb	Ag ppb	Mi ppb	Co ppb	Mn ppb	Fe %	As ppb	U ppb	Au ppb	Th ppb	Sr ppb	Cd ppb	Sb ppb	Bi ppb	V ppb	Ca %	P %	La ppb	Cr ppb	Mg %	Ba ppb	Ti %	B ppb	Al %	K %	V ppb	Tl ppb	Hg ppb	
88N 22V	7	3	15	17	36	0.1	10	9	545	1.82	15	5	2	15	172	0.2	3	2	29	0.45	0.06	38	17	0.31	258	0.08	4	1.99	0.05	0.22	9	2	1
88N 20V	17	1	29	8	71	0.1	15	9	304	2.65	11	5	2	31	528	0.2	8	2	42	2.71	0.07	82	24	1.17	334	0.06	16	3.64	0.03	0.36	15	2	1
88N 18V	34	3	12	13	37	0.1	12	7	342	3.26	17	5	2	19	236	0.2	5	2	47	0.39	0.07	44	17	0.25	182	0.12	7	0.90	0.12	0.23	18	2	1
88N 16V	38	1	26	11	61	0.1	32	12	312	2.22	3	5	2	35	356	0.2	5	3	34	6.27	0.10	105	35	1.22	412	0.07	16	3.12	0.01	0.33	5	2	1
88N 14V	103	2	17	22	70	0.1	15	10	536	2.57	10	5	2	21	181	0.2	4	2	34	1.09	0.09	64	24	0.75	322	0.13	13	2.80	0.03	0.29	6	2	1
86N 30W	7	1	31	18	73	0.1	14	8	593	2.52	2	7	2	24	60	0.2	2	5	28	0.57	0.09	62	20	0.66	272	0.19	14	2.40	0.02	0.54	1	2	1
86N 28W	309	1	36	14	73	0.5	16	9	422	3.97	6	13	2	43	58	0.2	2	2	50	0.76	0.12	81	32	0.69	254	0.20	14	2.82	0.02	0.51	1	4	1
86N 26W	75	1	19	12	57	0.1	16	9	932	2.31	7	16	2	15	96	0.2	2	2	33	0.57	0.07	42	24	0.46	521	0.11	10	1.99	0.02	0.35	29	2	1
86N 24W	7	1	15	16	37	0.1	10	7	366	1.88	5	5	2	12	92	0.3	2	2	31	0.40	0.05	37	22	0.30	152	0.11	7	1.16	0.07	0.20	2	2	1
86N 22W	10	1	15	12	41	0.3	11	8	345	2.05	8	11	2	14	110	0.3	2	2	33	0.47	0.06	41	23	0.39	165	0.11	8	1.30	0.05	0.25	3	2	1
86N 20W	45	1	14	12	44	0.1	10	7	474	2.05	2	5	2	17	128	0.4	2	2	29	0.54	0.07	37	21	0.49	174	0.09	9	1.70	0.03	0.27	3	3	1
86N 18W	58	1	15	15	37	0.3	11	8	375	2.33	6	8	2	19	113	0.2	2	2	35	0.51	0.09	45	23	0.35	182	0.11	7	1.20	0.07	0.23	3	3	1
86N 16W	151	1	23	20	63	0.3	17	9	825	2.61	2	8	2	24	193	0.3	2	2	31	0.86	0.08	68	29	1.04	269	0.11	12	3.01	0.03	0.36	1	2	1
84N 30W	48	1	28	12	64	0.3	13	8	579	3.39	4	13	2	21	48	0.4	2	2	46	0.62	0.12	53	31	0.59	251	0.19	11	2.08	0.03	0.54	1	2	1
84N 28W	89	1	23	16	61	0.1	12	8	539	2.33	2	5	2	17	47	0.6	2	2	28	0.55	0.09	48	21	0.50	229	0.17	12	1.94	0.03	0.42	1	2	1
84N 26W	51	1	36	20	96	0.3	21	9	627	3.56	6	5	2	20	101	0.7	2	4	31	0.83	0.07	54	33	0.64	289	0.25	11	2.69	0.01	0.35	1	3	1
84N 24W	274	1	18	11	47	0.1	13	9	857	2.49	7	6	2	19	104	0.4	2	2	35	0.72	0.14	52	33	0.54	297	0.09	9	1.67	0.02	0.31	4	3	1
84N 22W	137	1	15	7	44	0.1	9	6	453	1.73	4	5	2	11	92	0.4	2	2	24	0.47	0.07	35	17	0.38	190	0.10	11	1.39	0.03	0.27	2	2	1
84N 20W	27	1	17	20	58	0.1	11	8	632	2.16	3	19	2	12	83	0.6	2	2	29	0.61	0.07	43	20	0.48	256	0.17	13	1.87	0.02	0.40	1	2	1
84N 18W	75	1	21	14	66	0.1	15	8	377	2.65	2	11	2	21	183	0.3	2	2	28	0.81	0.08	61	30	1.02	152	0.12	11	2.81	0.02	0.45	1	2	1
84N 16W	47	1	20	20	67	0.1	11	8	553	2.29	2	8	2	12	75	0.8	2	3	28	0.58	0.06	43	19	0.55	261	0.17	14	2.23	0.02	0.50	1	2	1
82N 30W	7	1	22	15	68	0.1	14	7	524	2.61	4	5	2	11	49	0.4	2	2	32	0.60	0.08	43	24	0.56	255	0.17	15	2.23	0.02	0.52	1	3	1
82N 28W	7	1	18	11	75	0.1	14	7	532	2.80	2	5	2	17	48	0.3	2	2	33	0.46	0.06	36	28	0.43	239	0.25	11	1.92	0.02	0.40	1	2	1
82N 26W	7	1	18	10	59	0.1	19	10	1750	2.81	2	6	2	34	133	0.8	2	2	42	0.71	0.14	51	37	0.62	655	0.15	9	1.85	0.03	0.49	8	2	1
82N 24W	7	1	18	30	61	0.1	15	11	799	2.47	5	5	2	37	104	0.4	2	4	46	0.66	0.17	57	42	0.38	240	0.10	4	1.15	0.04	0.25	3	2	1
82N 22W	47	1	20	17	61	0.1	14	8	601	2.25	4	5	2	26	84	0.4	2	5	33	0.58	0.09	48	23	0.50	226	0.16	7	1.79	0.02	0.34	1	2	1
82N 20W	31	1	18	19	55	0.1	16	10	453	2.26	5	8	2	19	155	0.6	2	4	30	0.61	0.08	54	42	0.65	203	0.13	8	1.94	0.04	0.37	1	2	1
82N 18W	47	1	23	24	69	0.3	17	9	451	2.74	5	5	2	51	249	0.8	2	7	34	1.58	0.11	96	34	1.31	201	0.12	10	3.15	0.01	0.32	1	2	1
82N 16W	47	1	22	21	77	0.3	17	10	619	2.76	12	5	2	19	88	0.7	2	3	37	0.63	0.05	45	29	0.60	255	0.21	13	2.32	0.02	0.35	1	2	1
80N 30W	7	1	24	13	72	0.1	15	9	619	2.47	3	5	2	15	55	0.5	2	2	31	0.54	0.07	41	23	0.55	290	0.15	9	2.25	0.03	0.47	1	2	1
80N 28W	7	1	19	16	96	0.1	17	9	820	3.33	4	5	2	18	54	0.7	2	2	37	0.52	0.07	42	31	0.48	323	0.32	9	1.91	0.02	0.44	1	2	1
80N 26W	51	1	18	20	62	0.3	13	9	500	2.36	12	5	2	24	135	0.5	2	2	26	0.84	0.05	57	31	0.93	218	0.15	13	3.08	0.06	0.27	1	2	1
80N 24W	38	1	25	17	73	0.1	16	9	648	2.33	4	5	2	11	104	0.4	2	3	31	0.50	0.06	40	24	0.52	274	0.12	10	2.37	0.02	0.46	1	2	1
80N 22W	51	1	22	28	49	0.1	18	8	333	2.45	4	5	2	21	136	0.3	2	4	30	0.80	0.12	61	52	0.76	173	0.08	3	1.88	0.03	0.29	1	2	1
80N 20W	7	1	14	18	43	0.1	12	11	534	2.74	2	6	2	22	125	0.2	2	5	49	0.58	0.13	50	44	0.39	194	0.14	2	1.15	0.04	0.25	1	2	1
80N 18W	47	1	21	14	74	0.2	25	13	581	2.89	6	5	2	22	209	0.9	2	5	33	0.93	0.11	70	33	0.96	260	0.14	9	2.57	0.02	0.48	1	2	1
80N 16W	43	1	21	18	83	0.3	18	12	403	3.37	5	5	2	23	73	0.6	2	4	47	0.60	0.14	60	34	0.68	183	0.28	11	2.26	0.02	0.31	1	3	1
78N 30W	10	1	28	17	63	0.1	15	9	465	2.87	6	5	2	28	53	0.3	2	6	40	0.59	0.10	52	25	0.54	227	0.17	10	1.95	0.03	0.45	1	2	1
78N 28W	7	1	20	17	59	0.1	15	9	665	2.38	3	5	2	19	69	0.4	2	2	33	0.57	0.08	41	27	0.48	226	0.16	10	1.79	0.03	0.38	1	2	1
78N 26W	7	1	24	13	63	0.2	18	11	1322	2.35	5	5	2	27	98	0.9	2	2	36	0.64	0.12	53	26	0.66	360	0.15	11	1.86	0.03	0.43	2	2	1
78N 24W	47	2	24	15	64	0.3	13	8	524	2.20	7	9	2	16	80	0.5	2	6	28	0.56	0.08	45	16	0.52	224	0.12	11	1.87	0.02	0.49	2	2	1
78N 22W	47	1	24	15	59	0.3	14	9	610	2.01	8	5	2	16	107	0.9	2	3	27	0.55	0.08	45	20	0.56	195	0.12	11	1.83	0.04	0.43	1	2	1
78N 20W	41	1	25	21	69	0.1	15	8	804	2.30	2	5	2	24	302	0.2	2	3	17	1.48	0.05	67	36	1.36	287	0.10	15	3.97	0.04	0.41	1	2	1
78N 18W	47	1	40	14	68	0.3	19	11	533	2.81	7	5	2	27	82	0.7	2	5	43	0.62	0.11	51	37	0.55	182	0.20	20	1.85	0.03	0.40	1	2	1
78N 16W	27	1	24	21	63	0.3	20	12	500	2.84	4	5	2	24	74	0.5	2	5	43	0.68	0.11	63	38	0.64	148	0.19	12	1.96	0.05	0.36	1	2	1
74N 30W	7	2	26	24	97	0.1	25	14	340	2.15	20	5	2	15	105	1.4	3	2	32	0.43	0.05	37	25	0.43	221	0.10	13	1.79	0.04	0.38	5	2	1

ELEMENT SAMPLES	Au ppb	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mi ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	V ppm	Tl ppm	Hg ppm	
24N 30W	8	1	21	19	85	0.1	19	9	650	2.11	27	5	2	10	76	0.2	2	2	26	0.44	0.04	36	18	0.44	266	0.08	16	2.12	0.03	0.48	5	2	1	
24N 30W	31	1	16	13	58	0.1	15	7	238	1.95	38	5	2	20	205	0.2	6	2	21	1.59	0.04	72	14	0.78	945	0.04	27	2.48	0.38	0.44	12	3	1	
24N 26W	7	1	19	20	57	0.1	12	5	278	1.48	11	5	2	14	76	0.5	4	2	20	0.29	0.04	51	15	0.27	154	0.07	10	1.20	0.07	0.28	4	3	1	
24N 24W	7	1	28	9	52	0.1	14	7	392	2.26	9	5	2	21	90	0.2	2	5	37	0.79	0.13	72	29	0.43	195	0.08	9	1.41	0.07	0.32	3	2	1	
24N 22W	7	1	26	18	74	0.1	18	10	525	2.47	10	5	2	22	113	0.2	2	2	32	0.65	0.07	47	29	0.53	285	0.11	16	2.46	0.02	0.52	2	2	1	
24N 20W	28	1	8	22	18	0.3	1	2	225	0.60	2	5	2	17	243	0.5	2	2	6	3.19	0.03	67	6	0.15	85	0.01	2	1.13	0.01	0.18	1	2	1	
22N 34W	14	1	19	26	104	0.1	29	24	1027	3.24	27	5	2	16	94	0.5	3	2	48	0.33	0.07	48	46	0.30	288	0.12	8	1.27	0.04	0.37	37	2	1	
22N 32W	7	1	22	17	84	0.1	22	13	610	2.56	20	5	2	20	96	0.2	2	2	37	0.46	0.06	47	32	0.50	315	0.12	10	2.14	0.04	0.45	5	2	1	
22N 30W	17	1	23	13	91	0.1	18	9	666	2.59	27	5	2	12	86	0.7	2	2	32	0.55	0.06	37	23	0.49	282	0.10	13	2.41	0.03	0.47	5	2	1	
22N 28W	7	1	17	11	56	0.1	17	8	385	1.91	7	5	2	13	77	0.5	2	2	27	0.33	0.04	39	19	0.33	187	0.10	10	1.31	0.07	0.28	7	2	1	
22N 26W	7	1	8	14	46	0.1	6	3	192	1.34	8	5	2	13	135	0.2	4	2	12	0.46	0.03	64	7	0.25	240	0.01	14	1.14	0.02	0.30	14	2	1	
22N 24W	14	1	20	21	74	0.1	19	9	400	2.64	14	7	2	19	140	0.2	4	2	34	0.90	0.07	71	36	0.57	453	0.05	13	2.23	0.02	0.57	5	2	1	
22N 22W	7	1	11	23	42	0.1	9	6	641	1.30	9	5	2	19	99	1	4	2	17	0.57	0.05	74	13	0.31	184	0.02	10	1.44	0.03	0.32	2	2	1	
22N 20W	7	1	15	7	57	0.2	11	7	378	2.06	7	5	2	25	92	0.4	3	2	39	0.40	0.07	53	32	0.22	106	0.13	3	0.89	0.06	0.21	2	2	1	
20N 34W	20	1	27	30	126	0.4	19	11	1296	2.02	27	5	2	17	130	1.3	2	2	26	0.46	0.06	48	22	0.36	292	0.07	14	1.51	0.04	0.48	7	2	1	
20N 32W	14	1	27	15	88	0.2	18	11	705	2.44	21	5	2	14	105	0.9	3	2	33	0.61	0.05	35	24	0.52	333	0.12	18	2.52	0.04	0.51	5	2	1	
20N 30W	24	1	10	38	60	0.1	6	5	201	1.58	18	5	2	21	152	0.2	3	2	12	0.35	0.02	89	7	0.13	492	0.01	6	1.14	0.07	0.24	15	2	1	
20N 28W	7	1	9	23	42	0.2	7	3	185	1.13	5	5	2	17	74	0.2	3	2	10	0.22	0.02	76	5	0.14	288	0.02	8	0.76	0.03	0.16	24	2	1	
20N 26W	7	1	20	20	39	0.3	10	4	272	1.14	5	5	2	12	124	0.5	2	2	15	0.44	0.06	62	10	0.24	178	0.02	8	1.14	0.03	0.24	4	2	1	
20N 24W	31	1	19	15	64	0.2	11	5	426	1.95	2	5	2	24	157	0.2	2	2	25	1.83	0.08	79	22	0.43	150	0.02	3	1.97	0.04	0.45	3	2	1	
20N 22W	79	1	15	17	50	0.2	14	7	331	1.77	7	5	2	23	173	0.3	4	2	18	0.70	0.04	90	19	0.47	93	0.02	10	2.48	0.11	0.64	3	3	1	
20N 20W	7	1	23	17	55	0.2	16	9	564	1.86	8	5	2	17	82	0.4	3	2	25	0.50	0.06	55	22	0.45	208	0.08	10	1.86	0.02	0.49	4	2	1	
18N 30W	31	1	17	25	70	0.1	14	8	325	2.34	43	5	2	14	208	0.5	3	2	23	0.50	0.03	59	18	0.42	240	0.04	15	2.06	0.08	0.54	9	4	1	
18N 31W	27	1	8	19	60	0.1	7	4	254	1.76	8	5	2	28	153	0.2	2	2	13	0.67	0.02	93	6	0.33	120	0.01	17	2.27	0.18	0.67	12	2	1	
18N 29W	7	2	11	21	66	0.1	6	4	266	1.58	20	9	2	12	103	0.4	2	2	15	0.23	0.02	55	8	0.17	201	0.04	8	0.90	0.06	0.20	10	2	1	
18N 27W	48	1	26	19	72	0.2	14	9	508	2.59	7	5	2	29	94	0.2	2	2	39	0.69	0.13	86	34	0.45	215	0.07	9	1.76	0.03	0.45	5	3	1	
18N 25W	24	1	21	20	66	0.1	12	6	427	2.09	2	10	2	23	141	0.2	2	2	29	1.17	0.11	84	27	0.43	217	0.04	8	1.90	0.02	0.48	2	2	1	
# Samples	165																																	
Maximum	309	5	40	38	126	0.5	32	24	1804	3.97	46	19	2	51	1185	1.4	9	8	50	6.27	0.17	105	52	1.36	1360	0.32	77	3.97	0.38	0.71	110	6	2	
Minimum	7	1	8	2	18	0.1	1	2	135	0.60	2	5	2	1	47	0.2	2	2	6	0.22	0.02	20	5	0.13	85	0.01	2	0.76	0.01	0.16	1	2	1	
Average	22	1	20	15	60	0.1	13	8	527	2.22	10	6	2	16	133	0.4	3	3	29	0.68	0.06	45	21	0.49	311	0.11	12	1.98	0.04	0.37	6	2	1	
Std Dev	40	1	5	5	15	0.1	4	2	229	0.46	8	3	0	7	112	0.3	1	1	7	0.62	0.03	16	8	0.20	177	0.05	7	0.64	0.04	0.11	10	0	0	

APPENDIX C

Geophysical Report by Kenco Minerals, April, 1991

INTERPRETATION
of the
GEOPHYSICAL DATA
from the
TROUT CREEK PROSPECT
ELKO COUNTY, NEVADA
for
CHALLENGER GOLD
DATA COLLECTED
December 1990 & January 1991
by
KENCO MINERALS, INC.
REPORT
by
KENCO MINERALS, INC.
April 1991

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INTRODUCTION

During December 1990 and January 1991 KENCO MINERALS, INC. conducted a geophysical survey over the Trout Creek Springs prospect for ABERMIN INC., now CHALLENGER GOLD.

The purpose of the survey was to help map the geology using geophysical methods and to determine the potential for gold mineralization. The first portion of the survey was conducted over an area with anomalous gold geochemical values.

LOGISTICS

The first portion of the survey was conducted in December 1990. The survey was completed in January 1991.

The geophysical survey consisted of 46 east west lines approximately 4500 feet long. The lines were surveyed at 50 foot intervals with total field magnetics, and two VLF stations. The response using the Seattle VLF station was measured at every station. Data from the Annapolis VLF transmitter was read at most of the stations, when Annapolis was not transmitting, the Cutler station was used. The responses of the stations is almost identical.

A base station was used to correct the magnetic data for diurnal variation. Typical variation during a day was 50 gammas, a maximum of 80. In addition 6 check stations were read each day for quality control. After base station corrections were made the check stations values were within plus or minus 5 gammas for the entire survey.

A Geometrics model 856 memory magnetometer was used as the base magnetometer. Two Scintrex IGS units (combination VLF and magnetics) were used for the survey. The Scintrex units checked within 5 gammas, the difference was corrected for based on the check stations which were surveyed every day.

Four lines, 5200N, 5600N, 7200N, and 7600N were surveyed with induced polarization. A Zonge FT25 transmitter was used with an Elliot R10A receiver. A time domain signal was used with a 2 second on pulse. A dipole-dipole electrode configuration was used with a 200 foot "a" spacing.

VLF CONVENTIONS

Collecting and plotting VLF data is often confusing. Unfortunately several recording and plotting conventions are used within the mining industry. The equipment manuals generally show how to collect the data, but do not mention the direction to face when collecting data, or the conventions to use when plotting data. For instance north tilt could be plotted up or down on the plot.

It is important to note that procedures for collecting and plotting VLF data have been "*Cast in concrete*" by many knowledgeable groups. Several papers, generally in-house have been written on the procedures to use. Unfortunately, in general the procedures and conventions vary, even within mining company geophysical groups or geophysical contractors. Keep the procedures consistent within a survey.

For this survey a Scintrex IGS VLF unit was used for the measurements. To collect data the operator rotates until the maximum horizontal field strength reads on the instrument. This can occur in two directions, either facing directly toward the chosen VLF station, or directly away from the station. The measurement can be made facing either direction, but the polarity (tilt direction) will switch. One direction must be chosen for an entire survey or the data is not possible to interpret.

In concept one could record the direction that the operator was facing, and correct the data later in the computer by flipping the signs. NOTE, this is only mentioned for completeness, do not even consider this option. One error in the field notes, or the processing and the data is bad.

The KENCO convention which was used for the survey was to face in the more northerly direction when using the Seattle station, or the more easterly direction when using Annapolis or Cutler. If the Hawaii station was used one would still face the more easterly direction.

The following is a note for those more used to surveys using the Geonics EM-16. The sensing coil in the Scintrex IGS VLF unit is mounted on the operators back, perpendicular to the way he is facing. Data has the same polarity, and similar magnitudes, when the Geonics EM-16 data is collected with the operator facing west and the Scintrex IGS unit when the operator is facing north. Likewise the signs are the same if the EM-16 is facing north, and the IGS operator is facing east.

If the left shoulder of the IGS operator is facing the same direction as the EM-16 is facing, the polarities are the same. With either unit one should note conductors in the field as the survey progresses, and record the location in a notebook.

The Frazer filter is calculated with the usual convention, Frazer filter highs are VLF conductors. Conductors are indicated by a VLF response going from high to low on the profiles. This is the convention that both Challenger Gold and Kenco Minerals use. Note, some companies use a reverse plotting convention.

The convention used for collecting and plotting VLF data is not important, however it must be consistent and the procedures recorded. Conductors will be located at the same spot, drill holes will be recommended at the same locations, structures will be interpreted the same. However, data can be misinterpreted if the same convention is not used for an entire survey, and/or the geophysicist interpreting the data is not aware of the conventions used for the survey.

DISCUSSION OF FEATURES

Selected features will be discussed individually. They are not listed by order of priority, they generally start on the north end of the grid, line 10800N, and go South. Reference

numbers are assigned to help find features referred to in the text of the report, not by priorities.

The description should be read with an open mind, several geologic explanations are often possible that would cause the same geophysical response. As more geologic information becomes available the geologic interpretation of some of the features may (likely will) change. These description should be looked at as a place to start a geologic interpretation of the geophysical data, not the end.

The selection of features to discuss is somewhat arbitrary. Each and every geophysical change cannot be discussed. A note of caution is warranted, the strongest mineralization does not always, or generally occur with the strongest geophysical response. The stronger geophysical responses are often (but certainly not always) due to post ore events.

Much of the correlation is to determine regional strikes or dips if possible.

Feature A (Line 10800N, 2750W)

Feature A is interpreted based on the slope of the magnetic response. It is the low or "valley" between areas of increasing magnetic response. The magnetic response increases on the order of 50 gammas per thousand feet both to the east and the west of feature A. It could be interpreted as a break in the "regional gradient".

It is interesting that it extends through the northern portion of the grid from line 10800N (it likely continues further to the North) to line 7200N where the increase in magnetic response to the east and west can no longer be detected.

Other narrower (shallower) magnetic responses are often superimposed on the broader response (Line 10000N, Station 1300W for example). Both responses need to be looked at separately.

One geophysical interpretation would be a flat lying unit under the entire line with an increased magnetic susceptibility. It would be the thinnest at the center, feature A, and increase in thickness to both the east and the west. It is possible to generate a computer model that closely matches the response. Unfortunately several models can be used. It is not possible to interpret a unique depth to the top, nor thickness of the body.

The source of the magnetic response is likely igneous, perhaps the Jurassic granite.

At Line 7600N the appearance of the structures changes, I still interpret it as the same structure. The magnetic increase to the east of 2900W is gradual, similar to the response further north. The response to the west is abrupt (near surface), perhaps faulted upward. Surface granitic rubble occurs in the area. A mapped fault between the Humbolt formation and the granite occurs at 2400W on Line 7800, 200 feet west of the "pick" on line 7800W. This is likely the same feature. The geologic mapping was done before the grid was put in.

The increased magnetic response on line 7600N east of the fault correlates with an increase in resistivity from 10-15 ohm meters to greater than 30 ohm-meters, interpreted as being due to the granite.

The only rock observed in the field that would have a magnetic response is the granite. The magnetic response is likely wedge shaped granite blocks, perhaps related to thrust faults.

Feature B (Line 10800N, Station 3450W)

Feature B is a magnetic break with an associated VLF conductor striking N50°W. On line 10800N it is coincident with a wash, perhaps a structural feature. It has a mapped strike length of 600 feet, it is not closed off to the north. It is terminated by structure A.

It is likely a fault with granite to the west. Granite outcrop is mapped in the area (Line 10400N, Station 3600W).

Feature C (Line 10800N, Station 900W)

Feature C is interpreted from a shift in the magnetic level of 30 gammas. It is interpreted as being the granite contact. It is a weaker response than I would expect for the contact, but is confirmed by geologic mapping.

On line 10600N the magnitude of the response is similar, but is a much more gradual change. The dip of the contact may be flattening, a more westerly dip.

Two other changes in magnetic level also occur on line 10800N, at stations 1600W and 1950W. They could be due to a further down dropping of the granite. Because of the depth

the response is subtle. A near surface change in lithology could cause a similar response.

Feature D (Line 10600N, Station 2100W)

Feature D is a strong conductor with a strike length of 1200 feet (to line 9400N) trending north south. The strength of the response varies along strike. It has no consistent magnetic correlation.

Interestingly it is coincident with the west side of a mapped siliceous zone, one also indicated on line 10200N (line A, Silica Springs).

Feature E (Line 10600N, Station 1600W)

Feature E is weaker than the feature D conductor, it appears to be mapping the east side of the siliceous zone.

Feature F (Line 10400N, Station 1300W)

Feature F is strong magnetic response striking north south. Interpretation of the strongest response, on line 10000N, indicates that the feature is dipping to the west. The magnetic response is stronger than that of the granite tertiary contact to the east on line 10800N. It could be granite, but a more mafic intrusive is also possible. It occurs in a flat area with no rock exposure.

Feature G (Line 10400N, Station 4450W)

Feature G is a break in the magnetic response. The magnetic response increases to the west. It could be a change in rock units, the amplitude of the change is similar to the contact between the granite and the tertiary formation on the east end of the lines. It could also be a fault.

Feature H (Line 10400N, Station 400W)

Feature H is a subtle break in the magnetic response, interpreted as being the granite contact based on the similarity to the response on line 10800N. However correlation from line to line should be used with caution.

Line 10200N induced polarization (Line A Silica Springs)

In November 1989 Silica Springs line A was surveyed using induced polarization and magnetics. It was close to line 10200N which was resurveyed with magnetic and VLF. The 0 (grid center) positions were not the same, the data is plotted based on the new grid.

The resistivities were extremely high over the silicified zone, greater than 100 ohm-meters. It is interesting to note that the hole that was drilled several years ago was on the edge of the high resistivity zone, it may not have tested the zone interpreted as being the siliceous zone. The drill hole was collared in siliceous rock.

An anomalous IP response occurred at depth at 3700W, likely 50 to 100 feet deep.

A VLF response matched well with the western edge of the interpreted siliceous zone, the VLF conductor on the east edge did not match as well. However VLF is looking for a more discrete conductor (fault or gouge zone), the IP is looking for a broader zone.

A low resistivity zone was mapped at depth at 3000W. The reason for the resistivity low is unknown, it could be a change in lithology, or an alteration zone. Feature A is within the low resistivity zone. Feature A may be a fault which is acting as a conduit for alteration fluids.

Feature I (Line 10000N, Station 4100W)

Feature I is a break in the magnetic response. It can be correlated for 2000 feet. The significance if any is not known.

Feature J (Line 10200N, Station 3600W)

Feature J is a northwest trending weak to moderate VLF conductor. The conductor was correlated from line to line based on a similar character, but correlation of weak VLF conductors with no corresponding magnetic signature should be used with caution.

Feature K (Line 9800N, Station 4000W)

Feature K is a northwest trending weak to moderate VLF conductor similar to feature J, however feature K does have some magnetic correlation.

One gets a feeling looking at the interpretation map that perhaps features J and K are the northeast and southwest boundaries respective of a structure. A close study of the line profiles does not support this interpretation, however the magnetic contours are interesting.

Feature L (Line 9800N, Station 1650W)

Feature L is a small magnetic feature that does not correlate to adjacent lines. Its lack of symmetry indicates that it is dipping west.

Feature M (Line 9800N, Station 3400W)

Feature M is a small magnetic feature that does not correlate to the adjacent lines. Its lack of symmetry indicates that it is dipping to the east.

Feature N (Line 9000N, Station 3450W)

Feature N is interpreted from a change in magnetic slope. It can be correlated for 5 lines (over 1000 feet) where it and feature A merge. The section between feature A and feature N disappears.

Feature O (Line 8200N, Station 1100W)

Feature O is a strong VLF conductor, on line 8200N it is centered on a magnetic high. The conductor is related to a topographic high, it may be enhanced by topography, perhaps completely due to topography.

Feature P (Line 7800N, Station 2400W)

Feature P is a VLF conductor interpreted from the Annapolis VLF data. Because of the 200 foot line spacing in general conductors using Annapolis could not be interpreted. However in some case the strong conductors could be seen.

The strike is east west. It is interesting that it intersects the north south structures in such a complex area. East west structures are difficult to map because they are parallel to the survey lines.

Feature Q (Line 8000N, Station 500W)

Feature Q is a zone of increased magnetic response. The VLF horizontal field strength increases over the zone, indicating that the area has a low resistivity. Within the feature Humbolt formation has been mapped. The low resistivity would be expected over the Humbolt formation, but not the magnetic response.

Line 7600N and 7200N Induced Polarization

The western portion of the line (west of 3000W on Line 7600N, 3400W on line 7200N) has an increased magnetic response, and a higher resistivity. The resistivity interpretation indicates that a more conductive unit occurs at depth, on the order of 100 feet. A more quantified depth estimate is possible using computer modeling, but is not justified now. The slight increase in induced polarization response near the surface is because of the lithologic change, not increased sulfides.

The center portion of the line has a low resistivity unit on the surface, with a more resistive unit at depth. The unit at depth has a lower resistivity than the granite and is likely another unit in the Humbolt formation. The resistivity on the west end is starting to increase indicating another contact.

Feature R (Line 6800N, Line 500W)

Feature R is an east west VLF conductor interpreted using data from the Annapolis VLF station.

Feature S (Line 6600N, Station 1200W)

Feature S is an interesting magnetic low with a magnetic increase or shoulders on either side. It is similar to the response seen on the orientation line 3600N, surveyed in November of 1989.

The zone was interpreted as possibly being due to alteration based on the magnetic response, and an associated low resistivity response. Line 6600N was not surveyed with resistivity.

The area has been mapped as Humbolt formation. Since outcrop occurs in the area, it should be checked closely.

Lines 5200N and 5600N Induced Polarization

The induced polarization response from both lines are very similar and will be discussed together. On the west end a thin layer of resistive rock occurs on the surface, over a conductive rock unit. Even with the shortest spacing we are starting to see through the unit, it is only a few 10's of feet thick at most. It is considerably thinner than on lines 7200N and 7600N.

No increased magnetic response occurs such as on lines 7200N and 7600N. It may be a different surface unit, more likely it is too thin to give a significant magnetic response.

Between 2800W and 3200W on both lines the resistivity increases with depth. It appears to be a discrete zone. It has no associated magnetic response.

To the east, 1800W to 400W, the surface layer has a higher resistivity (30-50 ohm-meters). By "n"=3 the effect of the deeper lower resistivity layer can be interpreted, perhaps at a depth of 100 feet. Interestingly the magnetic response increases slightly, but not as much as on lines 7200N and 7600N.

The most westerly measurement on each line was back in low resistivity rock, less than 10 ohm-meters.

Feature T (Line 4800N, Station 3000W)

Feature T is an area of increased VLF horizontal field strength response, indicating low resistivity. It is bounded on either side by a VLF conductor, as would be expected.

A magnetic low occurs on the west side of the feature. The magnetic response would likely be a deeper structure than that mapped with the VLF response.

Feature U (Line 5000N, Station 300E)

Feature U is the contact between the Humboldt formation and the granite. It has a large change here, over 100 gammas. The granite can be seen in outcrop. It is much stronger than the granite contact to the north, or on some of the lines to the south, 3400N, and south of 2600N. Perhaps if the lines had been continued to the east a stronger granitic response would have been seen.

Line 4100N Induced Polarization

Line 4100N was surveyed with induced polarization, ground magnetics, and VLF in November of 1989. (Report written in November 1989). The magnetic data is essentially the same as the more recent data on collected on lines 4000N and 4200N.

The discussion of the data that follows is taken, with a few modifications from the earlier report. We now have a slightly better understanding of the geology, and a wider data base to work with.

To the far west (west of 4500W, unit 1) the rock has a low resistivity and a low IP response.

A higher resistivity and IP response occurs between 4100W and 3200W with an increased IP response. The increased IP response is interpreted as being due to lithology rather than increased sulfides. This unit with the increased resistivity occurs on the northern lines surveyed with induced polarization (7600N, 7200N, 5600N, and 5200N). There is no increased magnetic response over the unit. The resistive unit continues to depth, at least as deep as the depth of investigation, perhaps 150 feet. To the north we could "see" through the high resistivity zone.

In the center portion of the line (stations 3200W - 1100W) both the resistivities and the I.P. response are low. AT depth another unit can be seen which has both a lower resistivity and a lower I.P. response.

To the far east (station 400E) the granite contact is indicated by the large increase in magnetic response, over 100 gammas, and a significant increase in resistivities, over 200 ohm-meters. Granite outcrops in this area.

A note of interest, the granite resistivities here are the highest measured on the prospect with the exception of the siliceous zone on line 10200N. The magnetic response is also stronger on line 4100N than over the granites on the north end of the grid. It may be a different phase of the granite, a different granite unit, or perhaps some of what I have interpreted as granite is actually a different rock unit. Thickness of cover or alteration can also change the response.

At the granite contact a different resistivity is measured at depth. The resistivities are in the range of 20 to 40 compared to several hundred in the granite, and less than 10 in the Humbolt formation. In the report of November 1989 I interpreted it as a different unit which may not outcrop. I

would still interpret it the same way, however it may be a geometric effect of the sharp boundary between the granite and the Humbolt formation. A drill hole prior to the first survey did not indicate a different rock unit. Computer modeling of the response might help resolve the problem. TDEM with its better resolution might also help. TDEM could also have a problem here, when a contact occurs with a resistivity contrast greater than 10 to 1 the currents don't always cooperate.

Line 3600N Induced Polarization

Line 3600N was surveyed with induced polarization and magnetics in November 1989. The following is essentially from the November 1989 report.

Line 3600N has a similar response to line 4100N, although the geologic section is not the same length. Each unit will only be described when different from line 4100N.

The low resistivity zone which was only seen at depth on line 4100N comes to the surface (or near surface) between 1200W and 2100W. The unit also correlates with a magnetic low. It is interesting that a magnetic high, one station anomaly, occurs on each boundary. One wonders if alteration has destroyed magnetite and redeposited it on the boundaries.

The granite to the west has a similar high resistivity to the granite on line 4100N (100-300 ohm meters), as well as the feature at the contact.

Interestingly the magnetic response does not increase significantly at the granite contact.

Features W and V (Line 3600N, stations 1150W and 1900W)

Features W and V are the edges of the low magnetic response interpreted from the IP data on line 3600N. The features can only be correlated with confidence one line to the north, line 3800N. To the south 3400N the features breakup, and correlation is not certain. On line 3200N feature W can be picked with reasonable confidence.

Geologic mapping should be used to check the correlation if possible. Some mapped sedimentary beds in the area indicate that the strike should be north east. It is a complex area.

Feature X (Line 3000N, Station 3350W)

Feature X is a subtle magnetic break associated with a strong magnetic response on some lines. It is on the west side of a hill of Humbolt formation. The feature is in the flat, boggy area. The magnetic response is on the order of 75 gammas, similar to the response of the granite. However the body is smaller so the magnetic susceptibility would be greater than the granite. The source of the strong magnetic responses is not known. The small areal extent is interesting. Both magnetic highs associated with feature X are perhaps 200 feet in diameter.

Feature Y (Line 2400N, Station 400W)

Feature Y is a strong magnetic feature (200 gammas). It is 600 feet in diameter. The source would be near surface, likely within 50 feet. The magnetic susceptibility is likely higher than the granites to the west (I did not do any computer modeling). It consists of several highs and lows. Note, a magnetic high on line 2400N, station 0 is a single point feature and is not considered as part of feature Y. It is by a road and likely due to metal on or near the road.

A weak VLF conductor occurs in the center.

Feature Z (Line 2400N, Station 1800W)

Feature Z is a strong magnetic response which occurs on a ridge top. Filed notes do not indicate any outcrop. It is near surface, likely within 50 feet. The source is unknown.

The magnetic low to the north of feature Z is likely a geometric effect of the strong magnetic response, not an area of low magnetic response.

Feature AA (Line 2000N, Station 3850W)

Feature AA is a northeast trending magnetic high. It is located on the edge of the bog. The source is unknown.

Feature AB (Line 1800N, Station 2200W)

Feature AB is a 400 foot wide magnetic high that extends off the south end of the grid. The source is not known.

GENERAL INTERPRETATION

A large variation in the magnetic response over the granite is interesting. In some areas the contact is indicated by several hundred gammas, in other areas little or no magnetic response occurs. It may be that the location of the granite is not known, much of the area is covered by alluvial material. However when conducting the survey it was noted that the west end of most of the lines ended on large granite boulders and I believe granite outcrop. More likely there is more than one composition of granite, some with a higher magnetic susceptibility, i.e. more magnetite.

A good example is on lines 4100N and 3600N. On both lines it appears that the granite contact has been crossed, both by observation of the rock, and by the large increase in resistivity. However line 3600N did not have a large magnetic increase at the contact.

Through out the survey area magnetic highs occurred, generally interpreted as being blocks of granite. Granite is mapped in many areas within the survey area. The correlation between mapped granite and the magnetic response is certainly not 100%. The mapping was done prior to surveying the grid, some of the outcrops could be plotted wrong.

One explanation, likely the best one, is that the mapped granite is only small blocks or possibly large boulders that are not large enough to generate a magnetic anomaly. Based on the granite response to the west some of the granite may only have a slight increase in magnetic response above the background response of the Humbolt formation. Also variations in magnetic susceptibility with changes in lithology, or perhaps mineralization within the Humbolt formation can change the magnetic response.

The southern part of the survey area has more local magnetic sources than the north. The character of the responses also changes but the change is hard to quantify. Based on the magnetic response both the north and the south part of the survey area have a lot of structural and magnetic features. The center portion has little activity.

The individual magnetic features were generally interpreted as being granite because no other igneous rock has been mapped in the area. However from the shape and scattered nature of the blocks it is hard to find a geologic model that will explain the scattered granite within the Humbolt formation.

I expect that some of the magnetic features are small intrusives or possibly zones of mineralization. Computer modeling would help, but most of the features are not simple bodies and modeling would not be effective. Modeling also takes time, i.e. can be expensive unless it is limited to only selected features. They can be selected based on shape, or areas of geologic interest.

The area around the silicified area, features D and E, should be looked at closely based on the geologic model of gold occurring with silicified rock. The magnetics and VLF data does define the boundaries of the silicified zone, more detailed data would be unlikely to change the interpretation. The next step here would be to drill within the silicified area to check on mineralization.

It may be possible with TDEM to better map the extent of the silicified zone, and perhaps the thickness.

The area of intersections of feature A, N, and P (line 8200N, station 2800W) should be checked closely. It is a structurally complex area based on the magnetic and the VLF interpretation. Surface faults have also been mapped in the area. More detailed mapping or geophysics could help.

CONCLUSIONS AND RECOMMENDATIONS

It is not possible to make firm recommendations based only on the geophysical data. With this report the project geologist should evaluate the project with the known geology and geochemistry.

Little would be gained by more detailed magnetics or VLF, except perhaps in some local selected areas. The area around line 8200N, station 2800W, might be one. In a few other areas boundaries could be better defined. However it is unlikely that drilling decisions would be changed, the added data might not help the program. If more geophysics is conducted on the property, selected areas should be considered for additional detail.

Some east west structures were interpreted from the Annapolis data, but because of the line spacing others were surely missed. Some selected north south magnetic and VLF lines might help identify some cross structures.

Resistivity measurements could help define areas of silicification or alteration. The resistivity data can be collected as part of an IP survey or with various electromagnetic methods including TDEM and CSAMT.

Induced polarization has the advantage that if sulfides occur with the mineralization, the IP response will map the sulfides. An increased sulfide response was mapped on line 10200N, 3500W (actually Silica Springs Line A) at depth. The significance of the response is not known. The disadvantage of IP is that in order to look deep, the electrodes must be placed a large distance apart, and much rock gets averaged into the reading. The resolution is poor. For example with our surveys using an "a" spacing of 200 feet, for the near surface reading, "n"=1, the distance between the far electrodes is 600 feet, by the deep reading, "n"=5, the electrodes are 1200 feet apart. The depth of investigation is on the order of 200 feet, we are averaging 1200 feet of lateral distance to "see" 200 feet. With large targets, or near surface targets, that is not a problem. In complex areas interpretation is difficult.

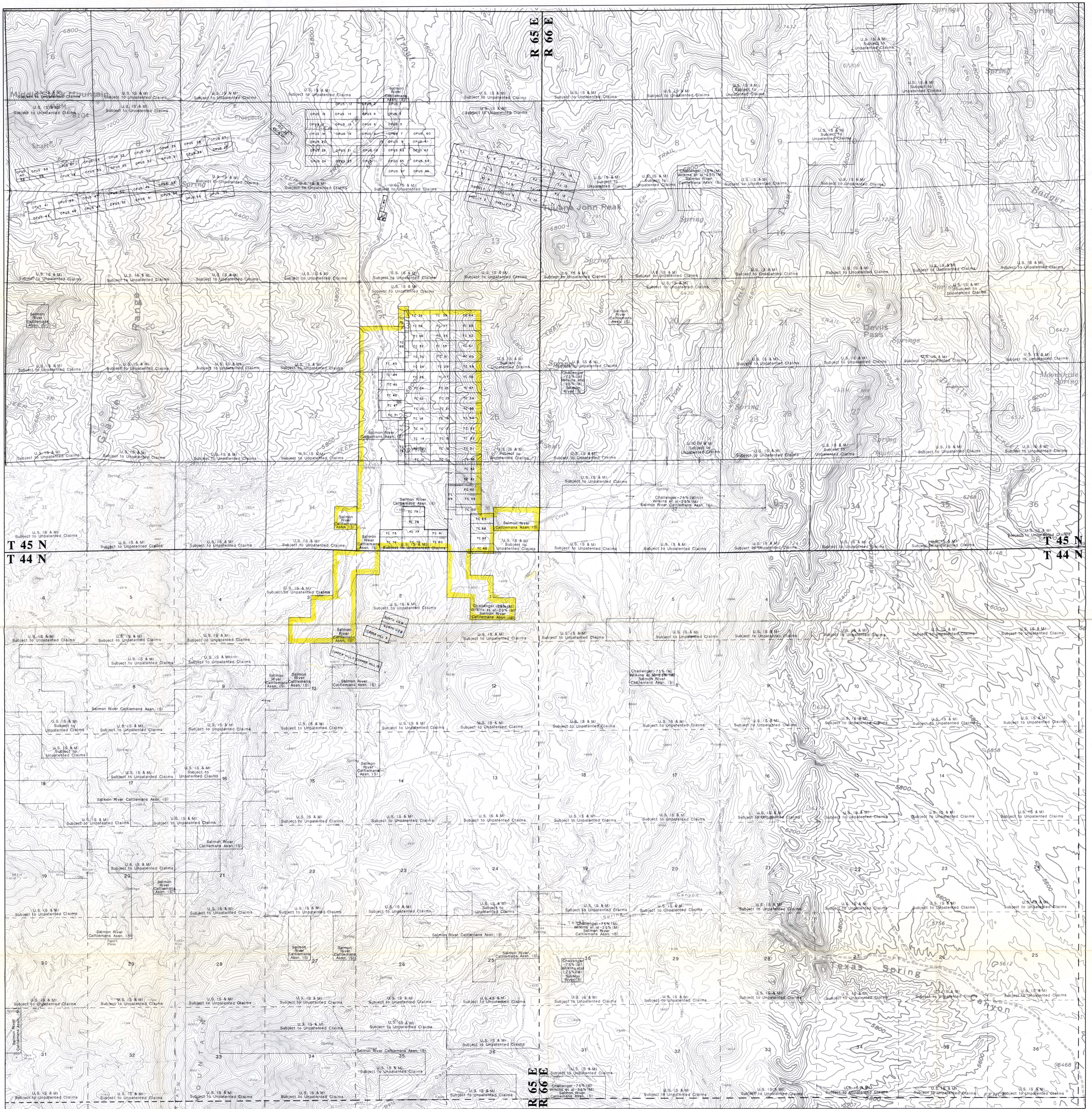
With TDEM I would suggest using a 400 foot loop for transmitting. It could be changed depending on the response. With a 400 foot loop we should be able to map to a depth of 400 to 800 feet. Of course as targets get deeper, they must be larger to be detected. It is also necessary to have a change in resistivity to map a feature.

In general when using a 400 foot loop data is collected at 400 foot intervals, it keeps the logistics simple and the line mile cost down. There is no reason not to collect data at a shorter spacing, perhaps 200 feet. With twice as many readings the survey cost would double.

Kenneth Sweet
Senior Geophysicist

Kenneth Sweet

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Littleton, Co. 80123
(303) 973-8253



EXPLANATION

MS 37 PATENTED CLAIM BOSTON LODGE
B.T. Hines
523 NW 4th Pendleton OR 97801

Salmon River Cattlemen Assn.
P.O. Box 1278 Twin Falls, Idaho 83301


Copper Hill & North View Claims
B.T. Hines
Box 99
Jack Pot NV 89825

T.J. Shelley & Shelley Millstone Claims
Michael & Kathi J. Knight
Route 1
P.O. Box 53328

Opus Claims
Great Lakes Exploration Inc.
4020 McCullough St.
Duluth MN 55804



Scale: 1"=2000'
0 2000 4000 6000 FEET

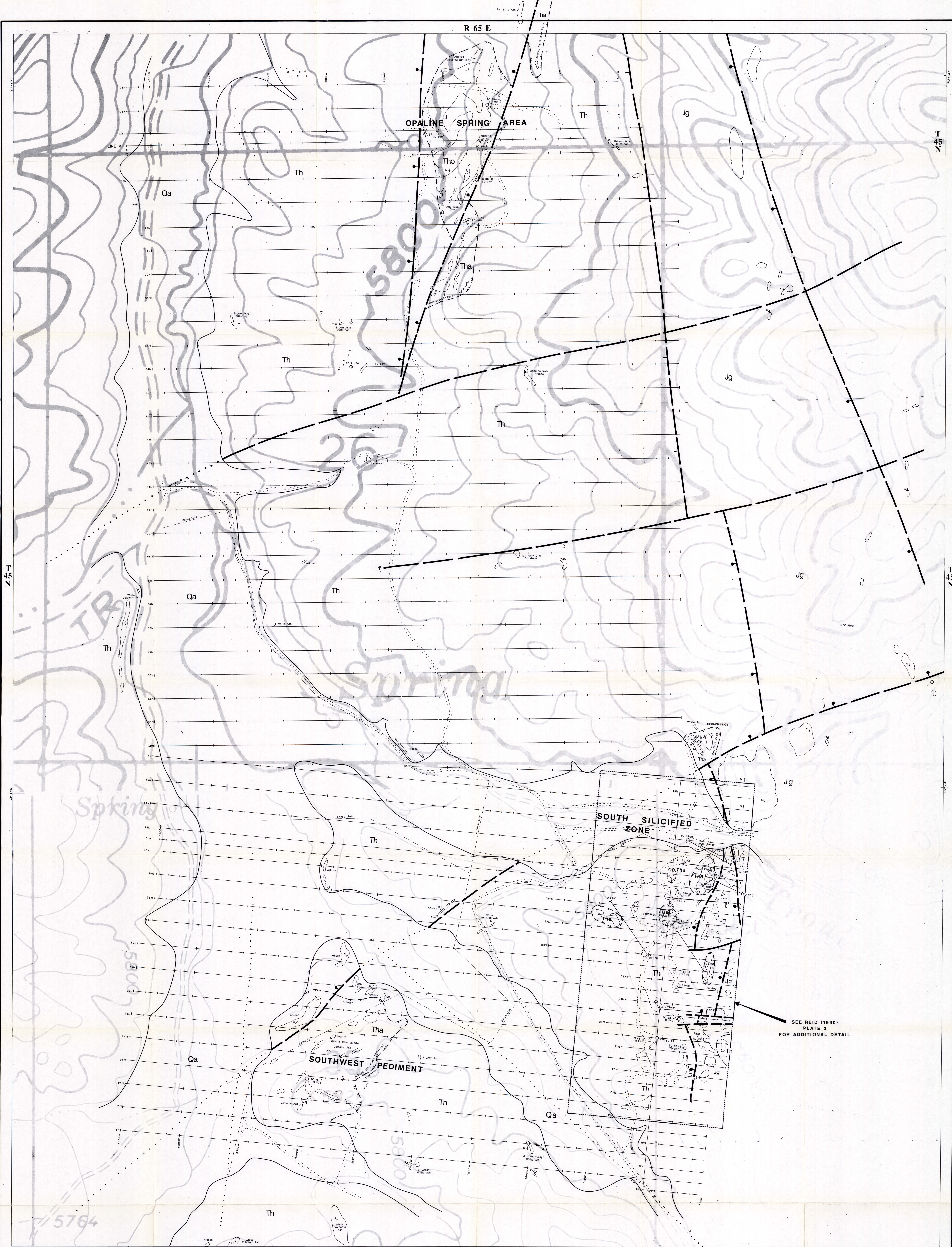
**CHALLENGER GOLD, INC.**

TROUT CREEK PROJECT
Elko County, Nevada

CLAIM MAP

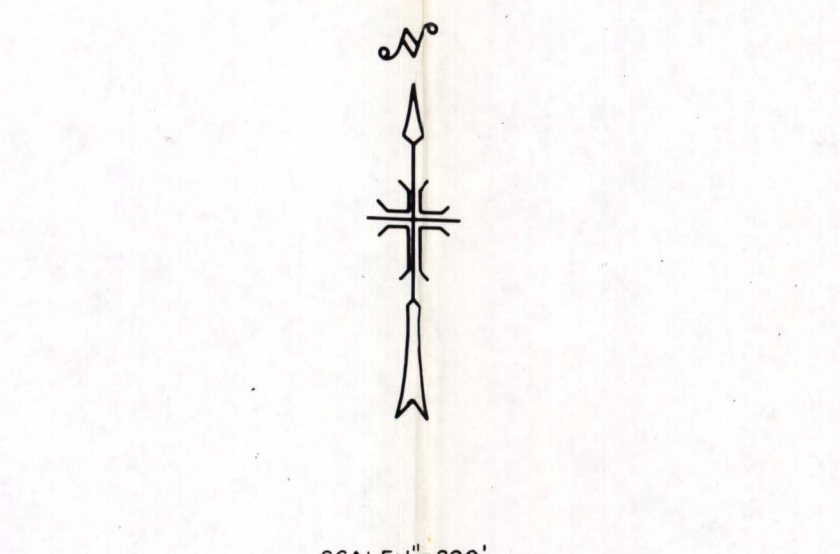
SURFACE AND MINERAL OWNERSHIP

DATE	SCALE	MAP BY	PLATE 1
March 1991	1"=2000'		



- SYMBOLS**
- Drill Hole - vertical
 - Drill Hole - inclined
 - Faults
 - Roads
 - Alteration Boundary
 - Strike & Dip of Beds
 - Strike & Dip of Joints
 - Outcrop Area
 - Boulder Conglomerate Units in Humboldt Fm

- ROCK TYPES**
- Qa Quaternary-Silt and sand along modern drainage
 - Th Miocene Humboldt Formation - Conglomerates, arkoses, volcanoclastics & ash tuffs
 - Th - Unaltered
 - Th - Opaline Silica Alteration
 - Th - SiO₂-clay-FeS₂ Alteration
 - Jg Jurassic Contact Pluton
 - Jg Massive, coarse-grained, granodiorite



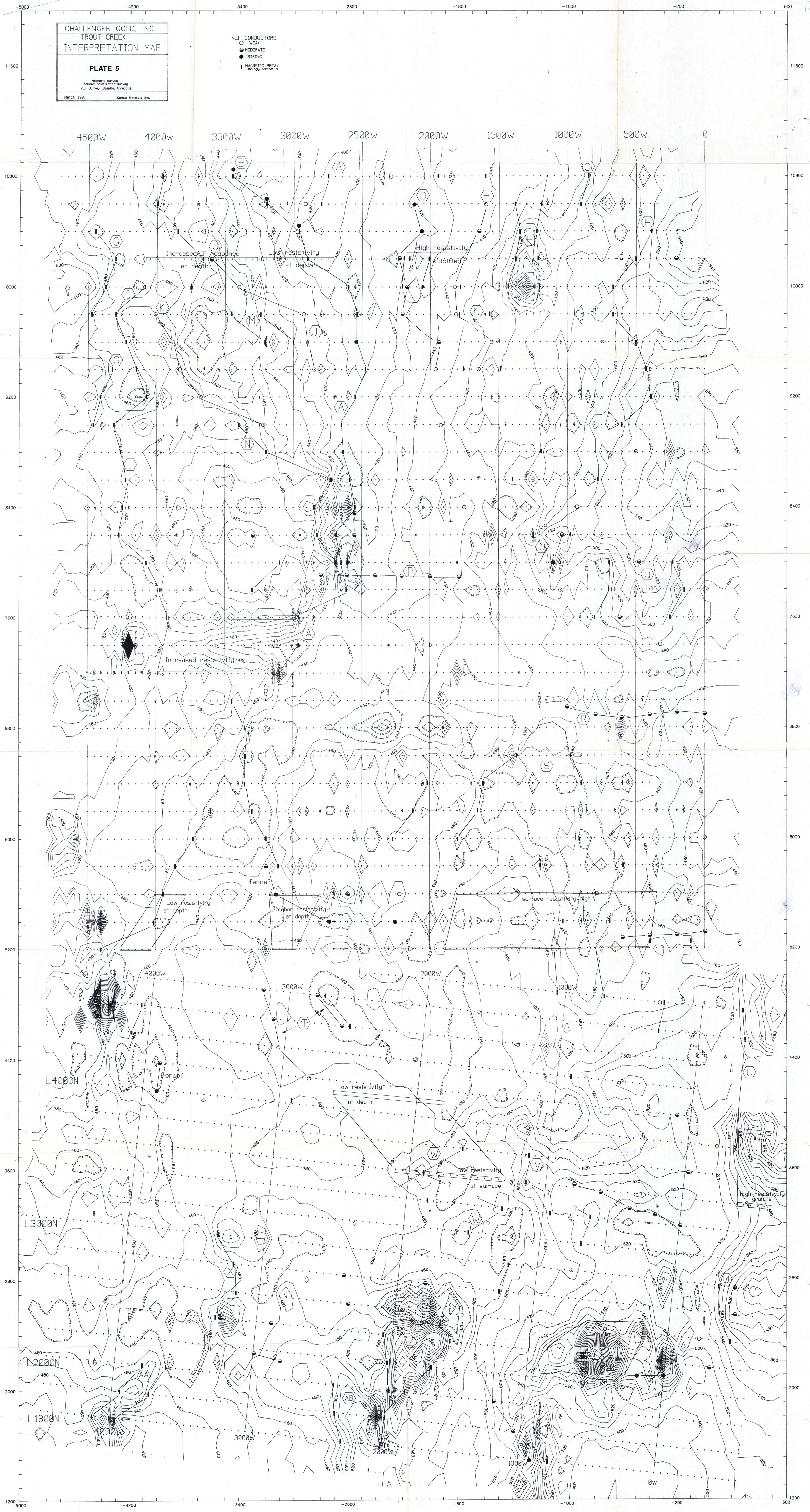
CHALLENGER GOLD, INC.
TROUT CREEK
Elko County, Nevada
GEOLOGIC MAP

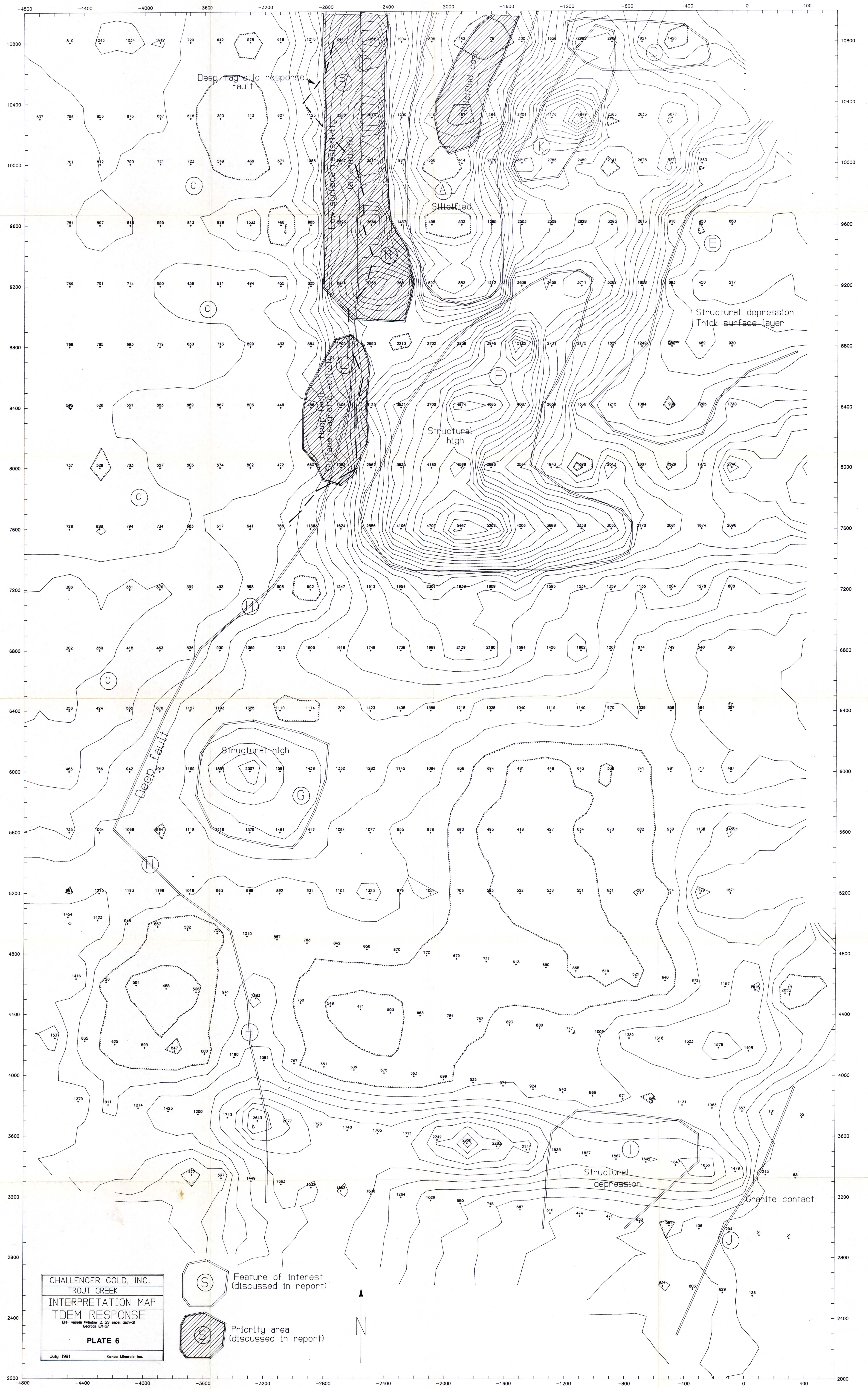
DATE 9-1991	SCALE 1"=200'	MAP BY FWL	PLATE 2
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Elko County General
Item 126

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Item 126





EIKO COUNTY GENERAL
Item 126

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