c:\properties\silverq\explbc\explbc.961

FINAL TECHNICAL REPORT

1995 - 1996 COMPILATION AND INTERPRETATION OF DATA AND METALLURGICAL PROGRAM

SILVER QUEEN PROPERTY
Grant Identification # 95/96 M-41

NTS 93L/2 E

Lat: 54° 04'N
Long: 126° 43'W

New Nadina Explorations Limited
Box 130, 330 Copper St.
Greenwood, B.C.
V0H 1J0

Linda Caron
February, 1996

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF FIGURES, cont...

LIST OF APPENDICES

1.0 INTRODUCTION

1.1 Location, Access and Terrain

The Silver Queen property is situated in central B.C., about 36 km south of Houston, and 30 km southwest of the Equity Silver Mine, on NTS map sheet 93L/2E as shown in Figure 1. Access to the property is south from Houston on the Morrice River-Owen Lake Forestry road, a good all-weather road which branches south from Highway 16 three kilometres west of Houston.

The property is situated just east of Owen Lake. Much of the property occupies a moderate southwest facing slope. Close to Owen Lake and in the southeastern portion of the property, the ground is relatively flat. Vegetation is generally heavy, with poplar, willows and heavy ground cover, and with local spruce and fir forest. Elevations range from 2,500 feet at Owen Lake, to more than 4,000 feet at the top of Tip Top Hill. Outcrop is relatively scarce and overburden exceeds 100 feet in some areas.

1.2 Property and Ownership

The property consists of 5 located and 17 crown granted mineral claims as detailed below and shown on Figure 2. All claims are owned 100% by New Nadina Explorations Limited.

Claim Name	CG/Located	Units	Record #	Expiry Date
Owen 1	4 post	16	337613	July 11/98
Owen 2	4 post	20	337614	July 10/99
Owen 3	4 post	12	337615	July 11/98
Owen 4	4 post	20	337616	July 10/99
Owen 5	2 post	1	337619	July 10/99
Silver King	CG	1	L 6547	
Tyee	CG	1	L 6548	
Silver Queen	CG	1	L 6549	
Silver Tip	CG	1	L 6550	
IXL	CG	1	L 6551	
Earl No. 1	CG	1	L 7399	
Earl No. 2	CG	1	L 7400	
Earl No. 1 Fr	CG	1	L 7401	
Earl No. 3	CG	1	L 7402	
IXL No. 3	CG	1	L 7403	
Lucy	CG	1	L 7404	
Mary	CG	1	L 7540	
Lily Fraction	CG	1	L 7541	
Mary Fraction	CG	1	L 7542	
Asta Fraction	CG	1	L 7543	
Mae No. 1	CG	1	L 7544	
Mae	CG	1	L 7545	

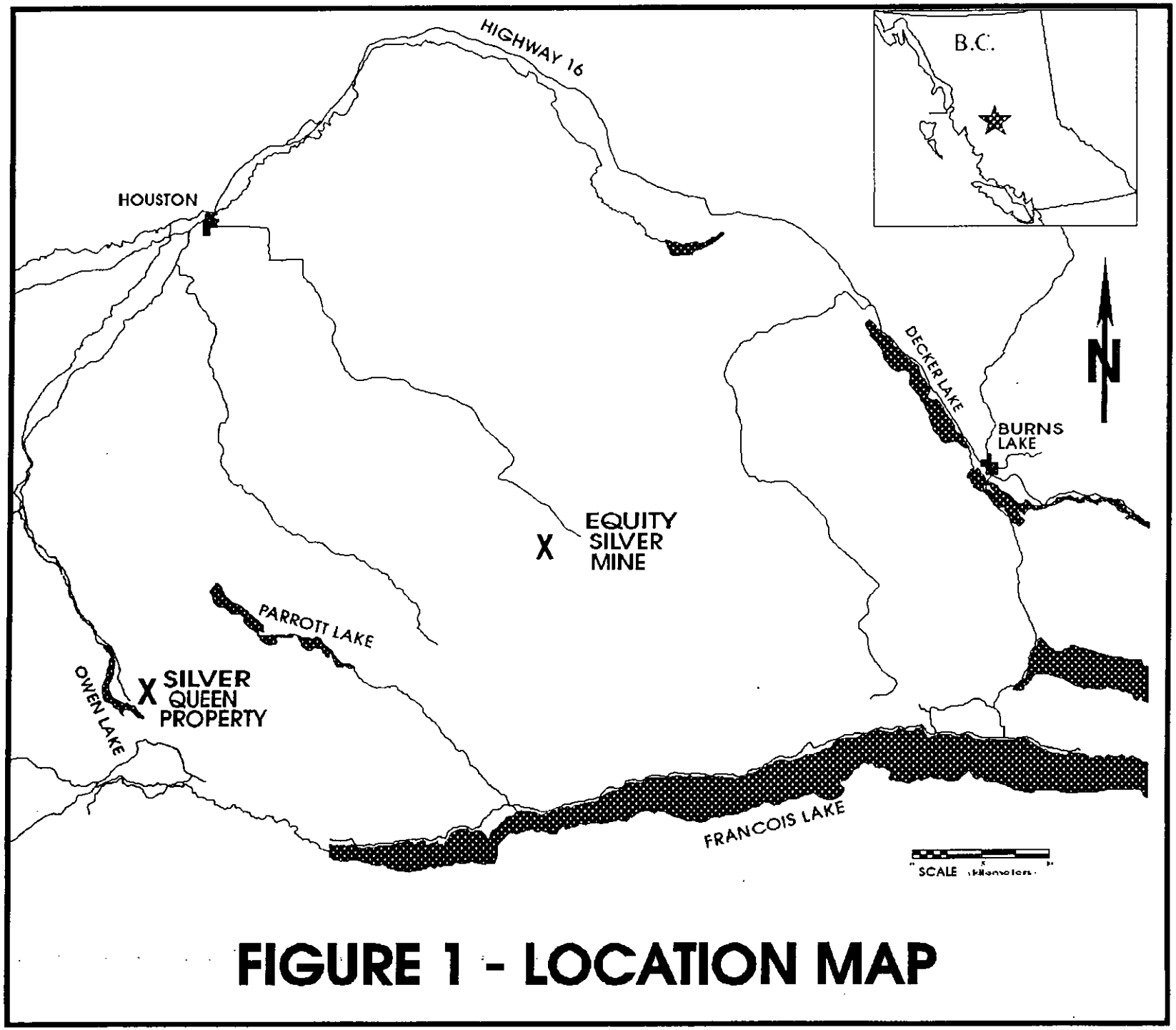


FIGURE 1 - LOCATION MAP

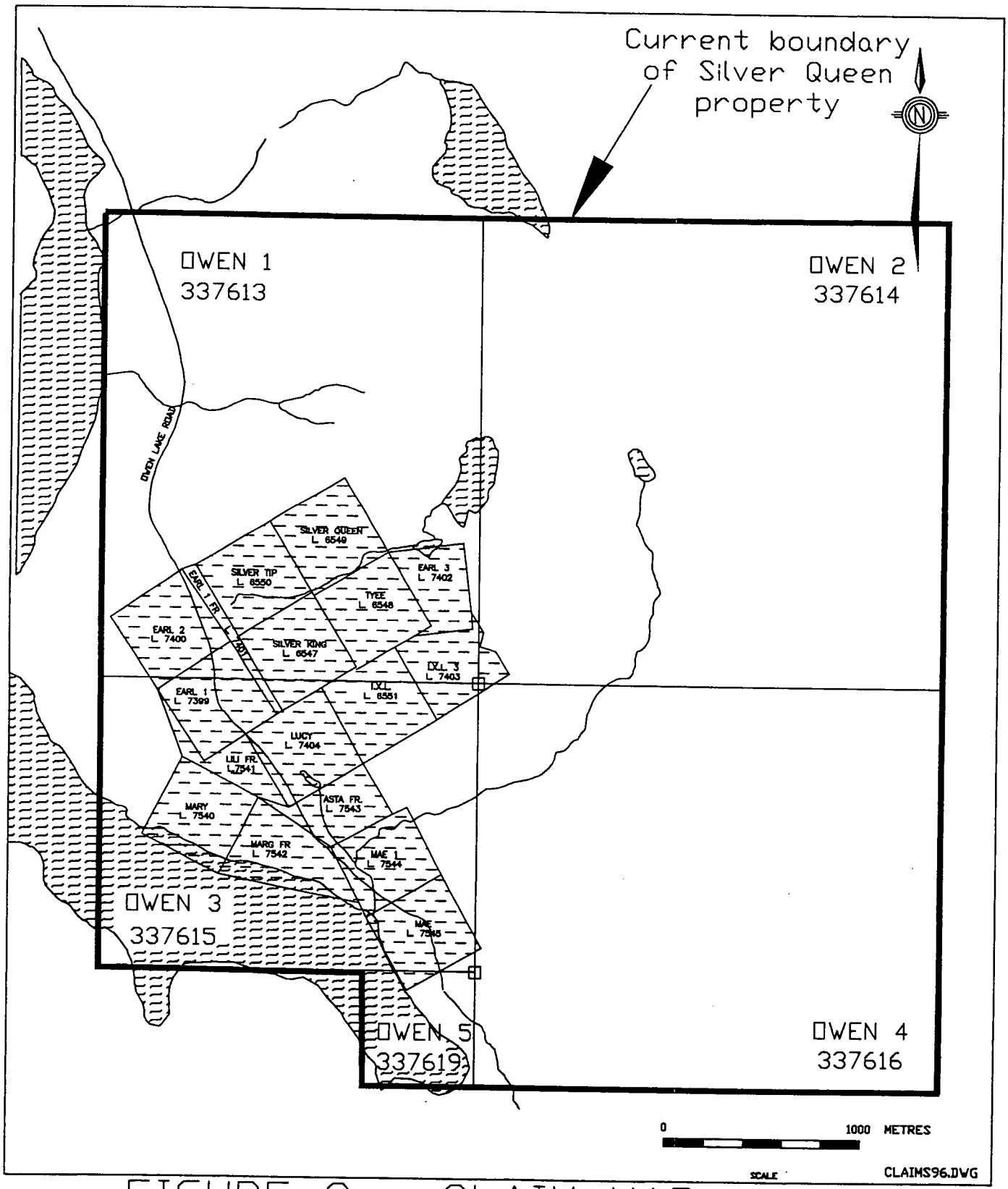


FIGURE 2 - CLAIM MAP

1.3 History

The present Silver Queen property was historically comprised of two separate properties, the Silver Queen and the Cole Lake properties which were managed separately (except for the period 1928-43), until 1985. A considerable amount of exploration and development has been done on the property. A summary of this work is presented in point form below. For simplicity, the pre-1985 history of exploration of the two properties is discussed separately.

Pre 1985 History - Silver Queen Property:

1912 - mineralization discovered, three adits driven on the Wrinch vein system

1915 - 38 tons of ore (31% Pb and 6 oz Ag) shipped from two shallow shafts

1923 - optioned to Federal Mining and Smelting Co., more than 500 ft of drifting done from the three adits

1928 - Silver Queen and Cole Lake properties acquired by Owen Lake Mining and Development Company, Cole Shaft sunk, a 3,000 ft cross-cut driven

1941 - Canadian Exploration (now Placer Development) purchased Silver Queen claims, and optioned Cole Lake property; surface and underground mapping and sampling completed

1943 - option on the Cole Lake ground dropped, work continued on Silver Queen veins until 1947

1963 - Nadina Explorations Ltd optioned Silver Queen claims; aggressive program of diamond drilling, trenching, and underground development on the No. 3 vein - traced Wrinch vein system south to the "Ruby Extension zone"

1966 - Nadina continued underground and surface work on the property

1967 - property optioned to Kennco Explorations; geological mapping, soil sampling and IP survey done; several deep holes drilled to test for porphyry copper mineralization

1968 - Nadina continued work on Silver Queen veins; soil sampling, trenching, diamond drilling and underground mapping done

1969 - BC Ministry of Energy, Mines and Petroleum Resources mapped entire property in detail, as well as the area surrounding Owen Lake. Nadina completed 4,000 ft of drifting, 51 drill holes (both underground and surface) plus airborne geophysical surveys

1970 - Northgate Explorations optioned the property from Nadina; did extensive underground check sampling, 13,500 ft of surface drilling, 1,500 ft of underground drilling and 4,200 ft of drifting and raising

1971 - Bralorne Can Fer Resources Limited and Pacific Petroleum Ltd. optioned the property, and formed the Bradina Joint Venture; feasibility study prepared by Dolmage Cambell and Associates, surface EM and IP surveys, 6,000 ft of surface drilling and 800 ft of drifting and raising done

1972 - property put into production in March, 1972, using equipment from Bralorne's recently closed gold mine in southern B.C.

1973 - operations ceased September, 1973 due to an over design of the mill and complex metallurgy. 200,000 tons of ore milled. Drill indicated reserves on the Wrinch vein system at mine closure were 577,600 tonnes averaging 3.7 g/t Au, 257 g/t Ag, 6.53% Zn, 1.49% Pb, and 0.49% Cu. During 1972-73, 47 surface holes and 68 underground holes, totalling over 20,000 ft drilled.

1974 - 5,900 ft of drilling done, JV agreement terminated

1977 - Nadina purchased Silver Queen property outright in 1977; Placer retained backin right, which hampered the involvement of larger companies in the property. Property optioned by New Frontier Petroleum Ltd, the successor company to Frontier Explorations Ltd. which held the Cole Lake property. Limited deep surface drilling done and the option dropped in 1978.

1980 - Nadina reorganized as New Nadina Explorations Ltd.; a major program of backhoe trenching done, as well as surface drilling and rehabilitation of underground workings.

1981 - rehabilitation completed, additional drifting done, and 28 underground and 4 surface drill holes drilled (a total of over 8,000 ft).

1982 - Campbell Resources did detailed re-evaluation of the Silver Queen property in 1982, completed limited metallurgical testing

1983-84 New Nadina completed 7,500 ft of surface diamond drilling in 15 holes

Pre 1985 History - Cole Lake Property:

1915 - Cole vein system staked as the Diamond Belle group

1928 - property was acquired, along with the Silver Queen property, by the Owen Lake Mining and Development Company; Cole shaft sunk

1941 - Canadian Exploration optioned property, completed mapping and sampling. Option dropped in 1943.

1967 - considerable trenching and some drilling was done on the Cole Lake veins by Frontier Explorations Ltd, who had acquired the ground in this area in 1960, and done minor work in the early 1960's

1972 - Frontier Explorations did EM survey, as well as percussion drilling and 1,500 ft of diamond drilling on George Lake Lineament Vein

1980 - backhoe trenching done by Frontier

1981 - New Frontier sold all its mining interests to Bulkley Silver Resources Ltd, who attempted to raise money to complete the Earl Adit which would intersect the Cole Vein system at depth. Insufficient funds were raised and only 100 feet of this drive was completed.

Post 1985 History

1985 - Bulkley Silver optioned the New Nadina ground to put the entire camp under one management; a max-min EM survey and 6 diamond drill holes were completed

1987 - JV formed between Pacific Houston Resources Inc (previously Houston Metals Corp, the successor to Bulkley Silver), and New Nadina. In excess of $7,500,000 was spent on exploration on the property during 1987 and 1988, including 35,000 ft of diamond drilling and 8,100 ft of tunnelling, cross-cutting, and declining; minor metallurgical work done

1988 - indicated reserves estimated at 1.7 million tons of 2.7 g/t Au, 328 g/t Ag, and 6.19% Zn; significant levels of Cd, Ga, Ge, In, Sb and Bi contained in the ore

1989 - University of British Columbia became involved under NSERC grant; Numerous studies done including geological mapping, structural studies, 2 MSc theses (mineralogy, ore reserves), 1 PhD thesis (alteration)

"in situ mining resource" determined to be:

Central area: 708,134 tons @ 0.086 opt Au, 4.78 opt Ag, 0.19% Cu, 0.82% Pb, 5.43% Zn (thickness 5.95 ft)
South area: 220,266 tons @ 0.152 opt Au, 8.15 opt Ag, 0.54% Cu, 0.89% Pb, 5.67% Zn (thickness 4.6 feet)

1990 - Pacific Houston bankrupt, New Nadina assumed the debts and purchased the claims outright from Pacific Houston. Also in 1990, an agreement was reached with Placer, whereby Placer signed over all remaining rights to the property.

1991 - New Nadina addressed site remediation through a study by consultant Tom Higgs, to develop a system of treating zinc rich mine drainage prior to release into the environment.

1992 - A tailings pond/wetland passive treatment system was implemented to treat mine drainage.

1993 - present
Ongoing water sampling by New Nadina to test mine drainage, as required by the Ministry of Environment

1995 - 1996
New Nadina Explorations abandoned the old Silver 4 claim and restaked the property as the current Owen 1 - 5 claims. An Explore BC Grant was obtained to assist in a thorough compilation project of previous data on the property, interpretation of this data and target generation based on the results. The metallurgy of the known ore was also to be addressed and further metallurgical testing to be done if warranted. This proved to be unnecessary. Sampling of water treated by the wetland option indicates that this treatment is working well, however contamination is occurring in the old mill site/waste dump areas. A significant reclamation program was undertaken to rectify this problem. This reclamation program has been filed for assessment. It is not part of the Explore BC Grant program described in this report. A combined program of satellite imagery analysis, Digital Elevation Modelling and regional aeromagnetics was done to identify regional controls for bulk tonnage mineralization. A re-evaluation of property scale geophysics was initiated to provide further control.

1.4 Description of Work Done

A contract was given to Jim Hutter of Telkwa, previously a geologist at the mine, to proceed on the compilation of previous work on the property. This compilation included digitizing assay sample plans for the underground workings, as well as digitizing grid, drill hole, topographic and survey information. Long Sections were prepared for the north and south ends of the No. 3 vein, and a reserve estimate done for the south area of the vein. Cross-sections across the No. 3 vein have been generated at 100 foot intervals, utilizing all drill and underground data.

A thorough review and evaluation of recent data by workers from UBC, as well as old property exploration records, has been done. As part of this evaluation, the detailed and representative rock sample suite on which the UBS/NSERC work was completed has been obtained. The evaluation of data has been directed at the potential for "Equity Silver type" bulk tonnage mineralization. A model for mineralization has been developed which is supported by exploration and research data on the property.

Following the data compilation and evaluation process, a regional satellite imagery analysis was conducted, along with more local digital elevation modelling and evaluation of aeromagnetics, to identify regional controls important for these bulk tonnage targets. The satellite imagery and aeromagnetic analysis was done under contract to Resource GIS and Imaging Ltd (RGI) of Vancouver.

A compilation of previous geophysical work done on the property has been initiated, and the data submitted to geophysical consultant Peter Walcott, for review in light of the bulk tonnage targets postulated from the evaluation process. No results or invoicing from this work have been received to date and hence it has not been included in the Explore BC Grant Application for payment.

Finally, a Notice of Work has been submitted for drill testing of these bulk tonnage targets in 1996.

The management, co-ordination and evaluation portions of this project were done by L. Caron, with general supervision and direction from G. Stewart.

2.0 COMPILATION AND INTERPRETATION OF DATA

2.1 Compilation of data - Jim Hutter

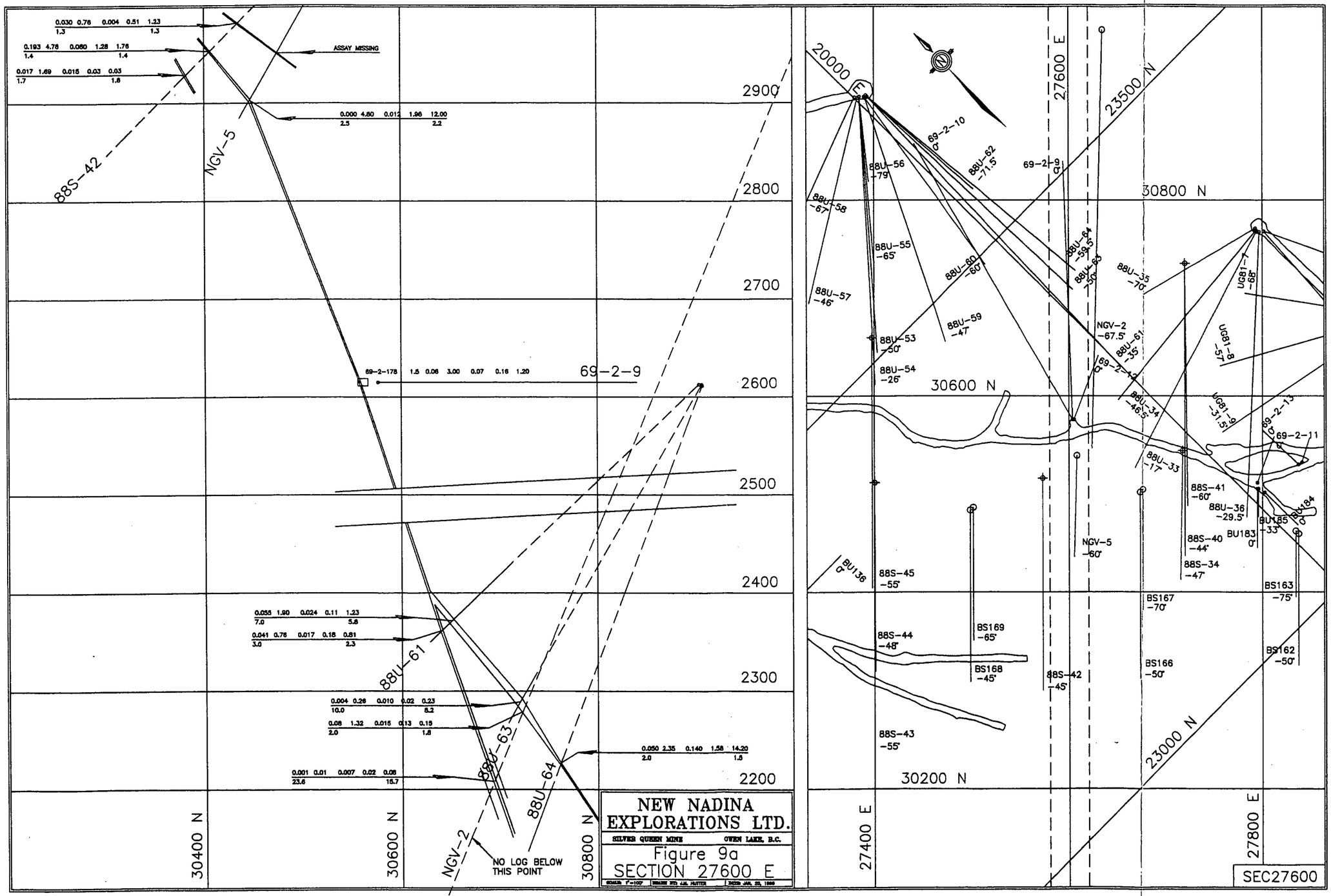
A contract was given to Jim Hutter of Telkwa, previously a geologist at the mine, to proceed on the compilation of previous work on the property, including the digitization of data where appropriate. A large number of plans and sections were generated as a result of this work, as described below. A complete listing of all information available in digital format for the Silver Queen property is given in Appendix 2. Some of the digital maps or files were compiled under previous programs, were not updated during the current compilation, and have not been included in this report, except for being listed in Appendix 2.

All underground and survey stations have been compiled (Figures 3a - 3c). All underground drill holes have been located and their positions plotted (Figures 4a - 4c). Data from the drill holes (samples, assays, drill hole co-ordinates, dip tests) has been compiled into spreadsheet format. This has not been included as part of this report as it is a voluminous listing of data. Similarly, all surface drill holes have been located and plotted (Figure 5a - 5d). Again, drill hole data has been compiled into spreadsheet format but is not included in this report.

The 1985 EM Grid has been digitized, however as this information is included later as part of the compilation of geophysical grids, it has not been shown here as a separate figure. Topographic maps have also been digitized for the entire property. As there is little valuable information for the reader in these maps, they have also been omitted in an attempt to keep the quantity of figures at a manageable number.

Sample plans have been prepared for the 2600 and 2800 levels (Figures 6a - 6d). Next, structure contours were drawn in the area of flexure of the south end of the No. 3 vein, in order to locate sections perpendicular to the strike of the vein, as shown in Figure 7.

A long section of the No. 3 vein was prepared, with grades and widths included. Two separate plots are included, one for the north and central portions of the vein, and one for the the south and central area (Figures 8a and 8b). Information pertaining to ore reserve calculations for the south end of the No. 3 vein are shown on Figure 8b. Ore reserve calculations are included in Appendix 3. Twenty-seven sections of the No. 3 vein were then completed between 27,600 E and 30,800 E (Bradina mine grid), with assay data included. An additional six sections were then constructed through the vein on the true north grid. These sections are included as Figures 9a - 9z, 9aa - 9gg, plotted at 1"=100' scale on 11X17 size paper.



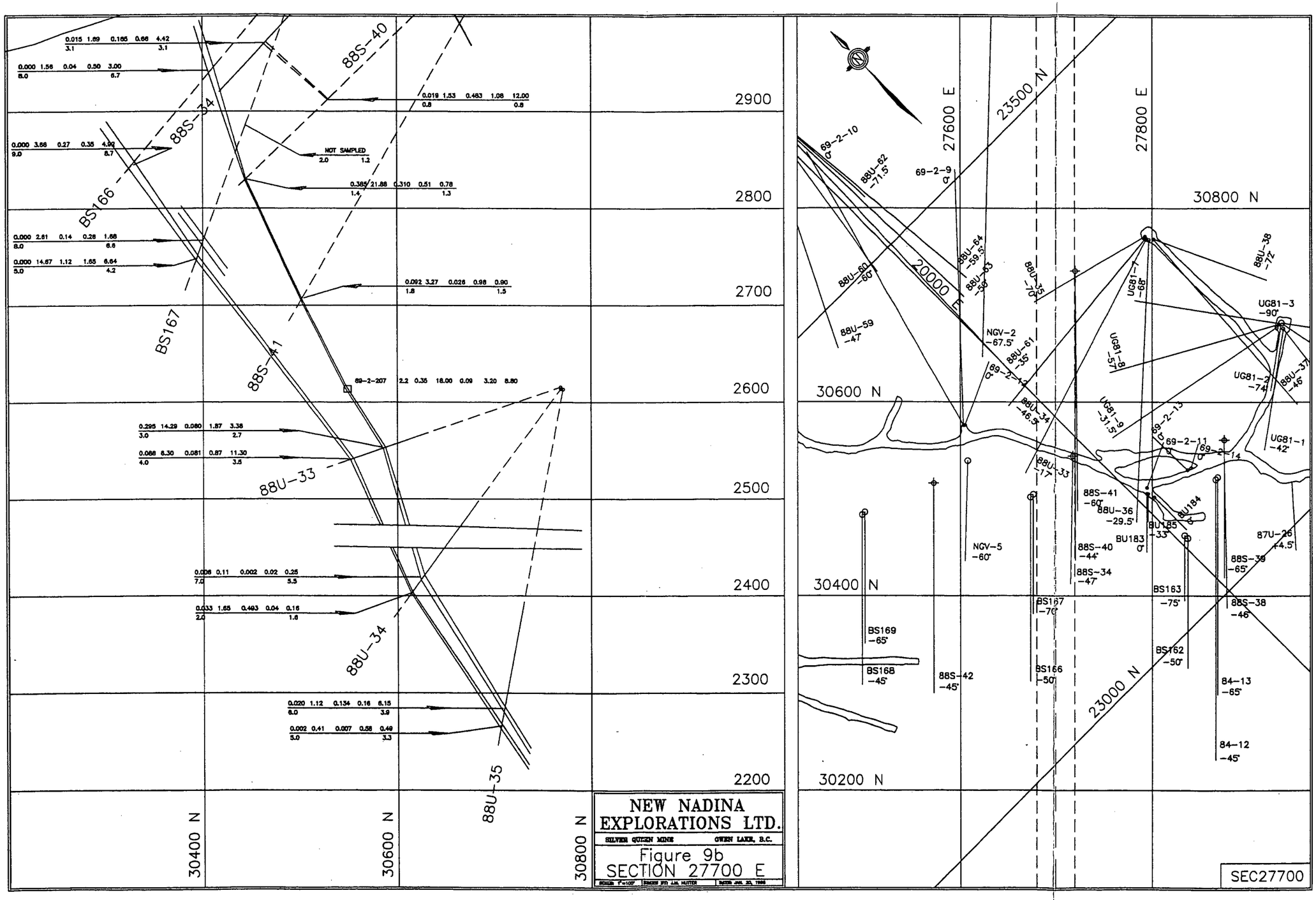
NEW NADINA EXPLORATIONS LTD.

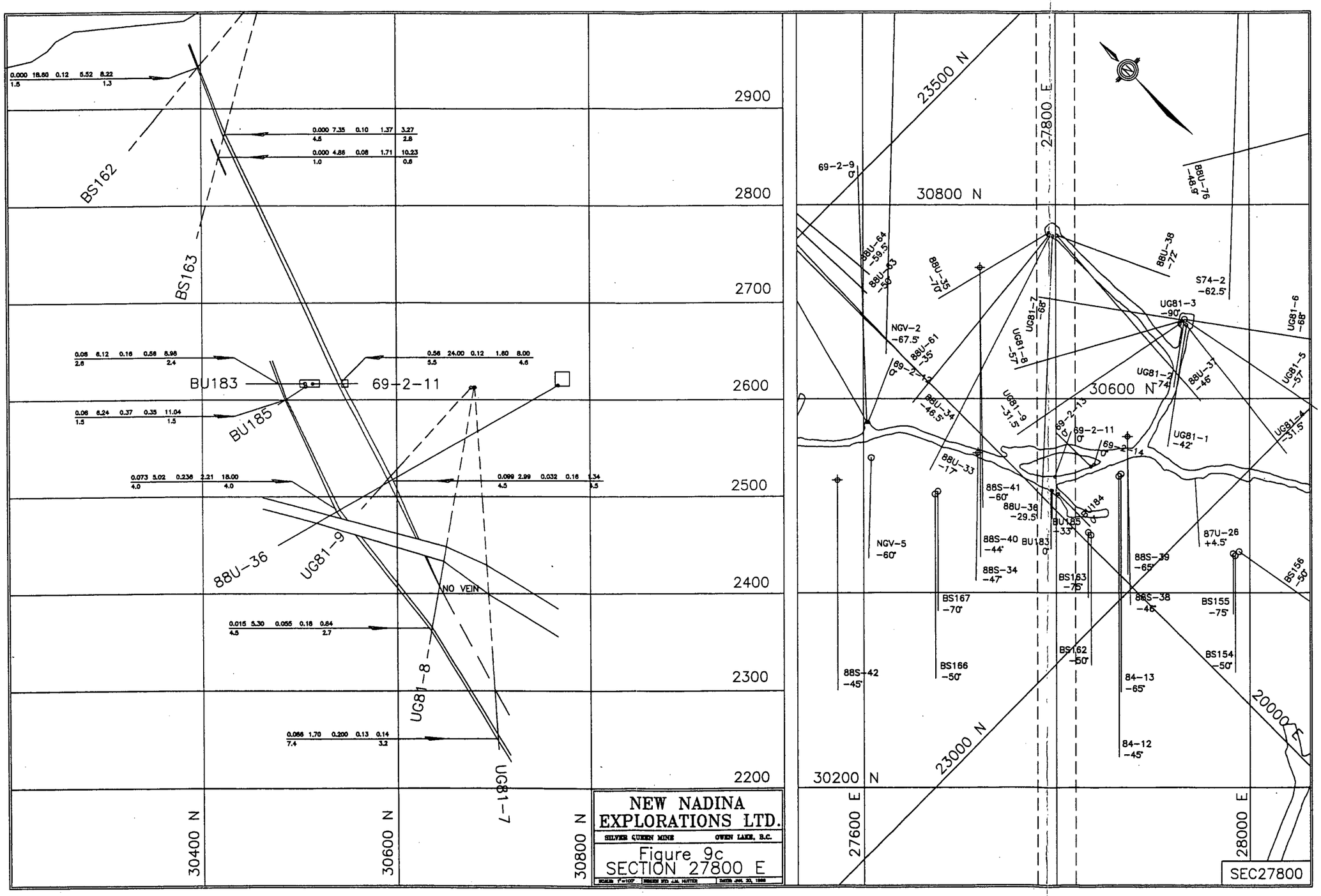
SILVER QUEEN MINE — OWEN LAKE, B.C.

Figure 9a

SECTION 27600 E

SCALE 1"=100' — DRAWN BY A.M. HUNTER — DATE JAN. 25, 1989


88S-40
88S-34
BS166
BS167
88S-41
88U-33
88U-34
88U-35
0.015 1.69 0.165 0.66 4.42
3.1 3.1
0.000 1.56 0.04 0.50 3.00
8.0 6.7
0.019 1.53 0.483 1.06 12.00
0.8 0.8
0.000 3.66 0.27 0.35 4.00
9.0 6.7
NOT SAMPLED
2.0 1.2
0.385 21.88 0.310 0.51 0.78
1.4 1.3
0.000 2.81 0.14 0.28 1.68
8.0 6.6
0.000 14.67 1.12 1.65 6.64
5.0 4.2
0.092 3.27 0.026 0.98 0.90
1.8 1.5
69-2-207 2.2 0.35 18.00 0.09 3.20 8.80
0.295 14.29 0.080 1.87 3.38
3.0 2.7
0.088 8.30 0.081 0.87 11.30
4.0 3.5
0.008 0.11 0.002 0.02 0.25
7.0 5.5
0.033 1.65 0.493 0.04 0.16
2.0 1.8
0.020 1.12 0.134 0.16 6.15
6.0 3.9
0.002 0.41 0.007 0.58 0.49
5.0 3.3
2900
2800
2700
2600
2500
2400
2300
2200
30400 N
30600 N
30800 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9b
SECTION 27700 E
27600 E
27800 E
23500 N
20000 E
23000 N
30800 N
30600 N
30400 N
30200 N
69-2-10
88U-62 -71.5°
69-2-9
88U-60 -50°
88U-59 -47°
88U-64 -59.5°
88U-63 -58°
88U-35 -70°
NGV-2 -67.5°
88U-61 -35°
69-2-12
88U-34 -46.5°
88U-33 -17°
UG81-7 -68°
UG81-8 -57°
UG81-9 -31.5°
88U-38 -72°
UG81-3 -90°
UG81-2 -74°
88U-37 -46°
69-2-13
69-2-11
69-2-14
UG81-1 -42°
88S-41 -60°
88U-36 -29.5°
BU184
BU185 -33°
BU183
87U-26 -44.5°
88S-40 -44°
88S-34 -47°
NGV-5 -60°
88S-39 -65°
BS163 -75°
88S-38 -46°
BS167 -70°
BS169 -65°
BS162 -50°
BS168 -45°
88S-42 -45°
BS166 -50°
84-13 -65°
84-12 -45°
SEC27700

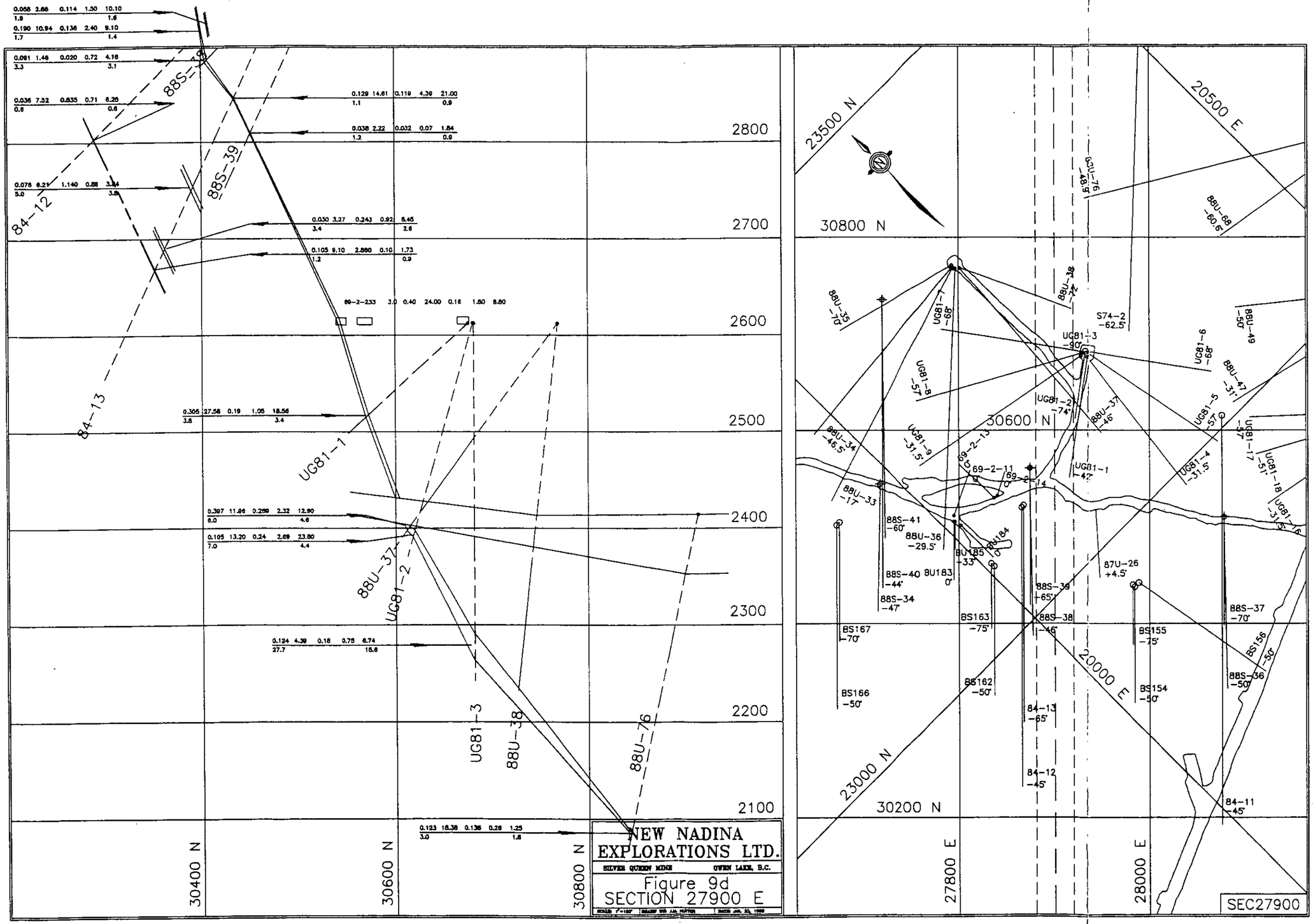


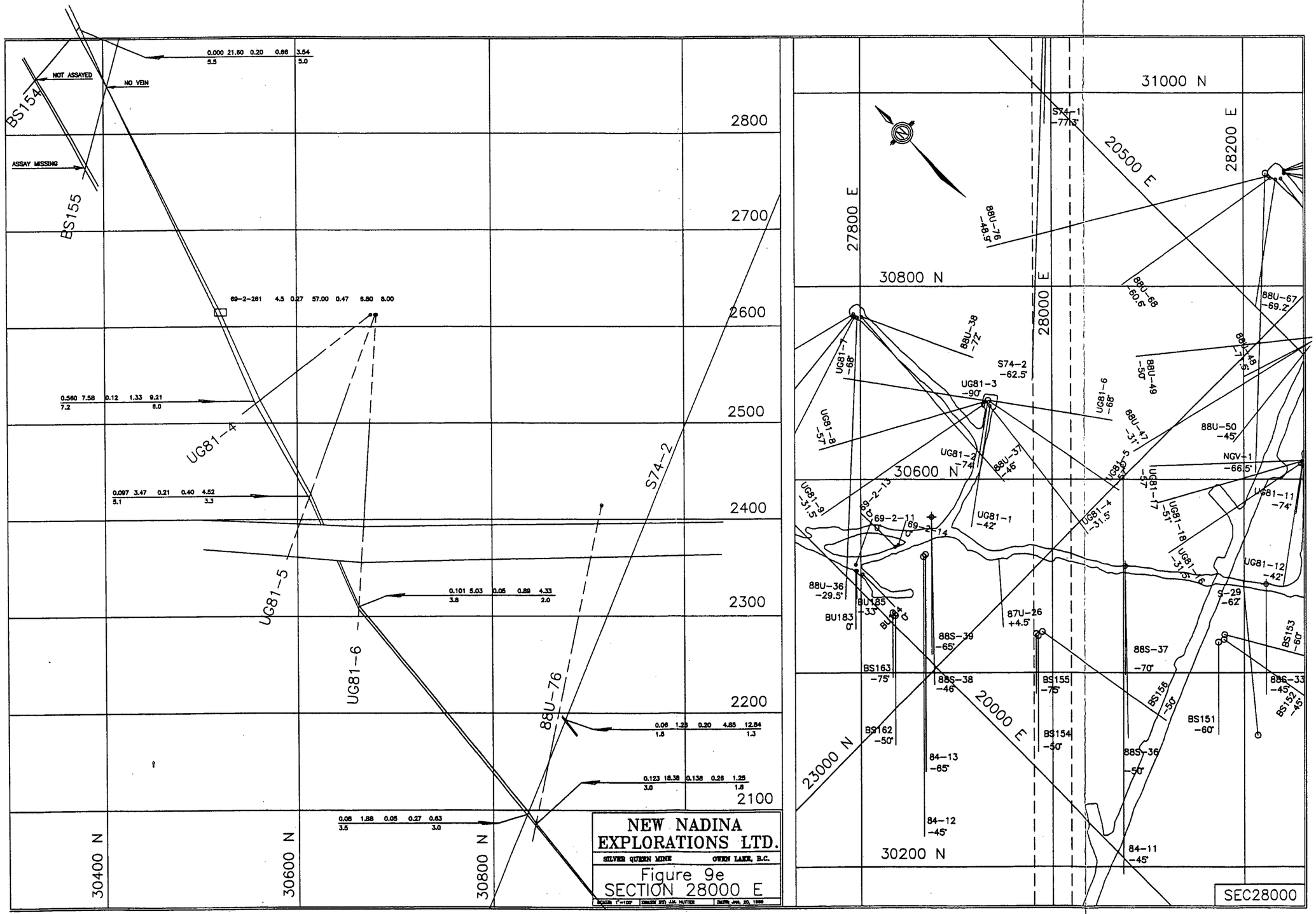
NEW NADINA EXPLORATIONS LTD.

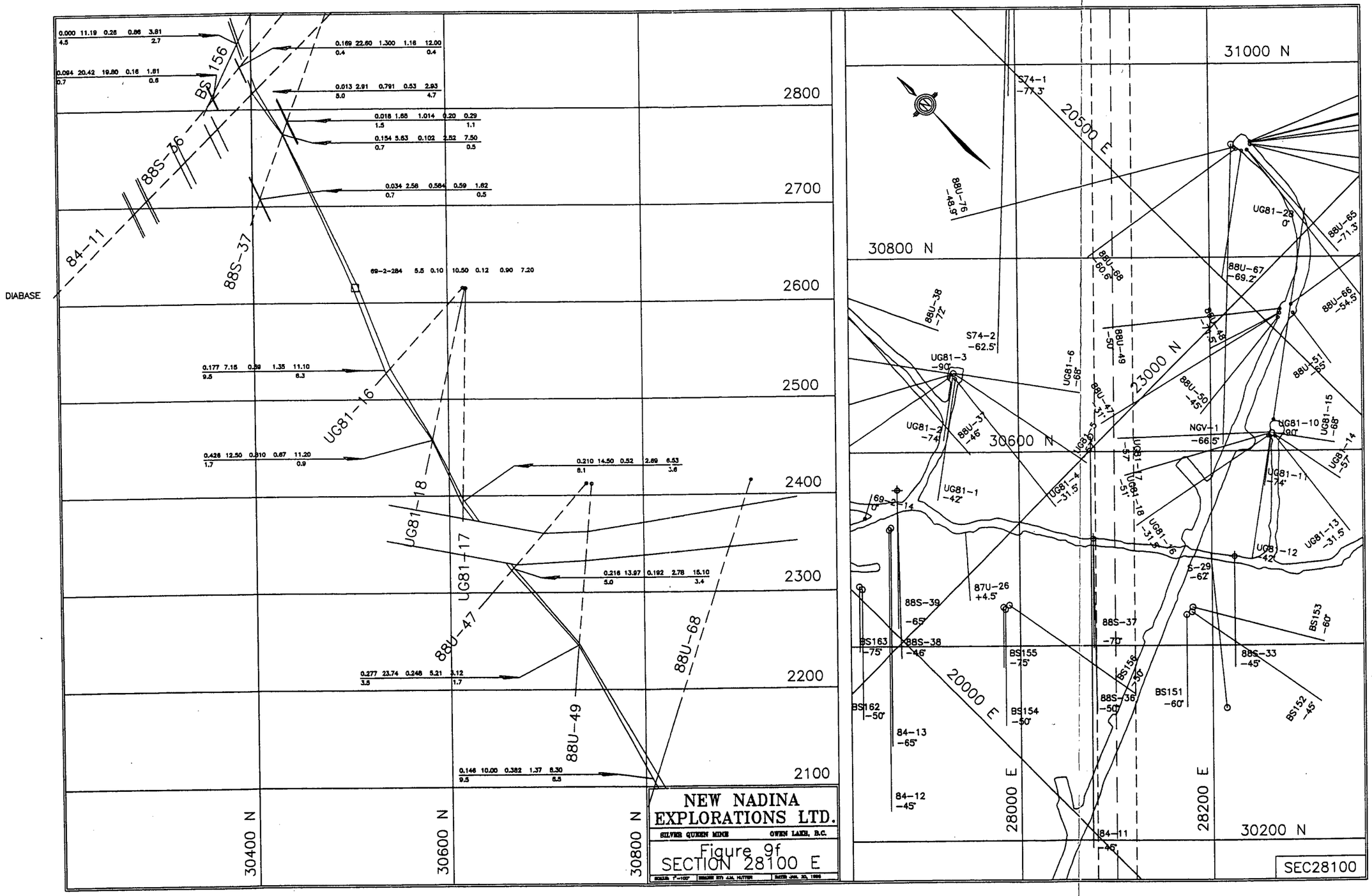
SILVER QUEEN MINE — OWEN LAKE, B.C.

Figure 9c
SECTION 27800 E

SCALE 1"=100' | DRAWN BY J.M. HUNTER | DATE JAN. 20, 1988


2800
2700
2600
2500
2400
2300
2200
2100
30400 N
30600 N
30800 N
84-12
84-13
88S-39
88S-38
UG81-1
UG81-2
UG81-3
88U-37
88U-38
88U-76
23500 N
20500 E
30800 N
30600 N
30200 N
23000 N
20000 E
27800 E
28000 E
SEC27900
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
QUEEN LAKE, B.C.
Figure 9d
SECTION 27900 E


0.000 21.60 0.20 0.66 3.54
5.5 5.0
NOT ASSAYED
NO VEIN
BS154
ASSAY MISSING
BS155
69-2-281 4.5 0.27 57.00 0.47 6.80 8.00
0.560 7.58 0.12 1.33 9.21
7.2 6.0
UG81-4
0.097 3.47 0.21 0.40 4.52
5.1 3.3
UG81-5
0.101 5.03 0.05 0.89 4.33
3.8 2.0
UG81-6
0.06 1.23 0.20 4.85 12.84
1.5 1.3
88U-76
0.123 18.38 0.138 0.26 1.25
3.0 1.5
0.06 1.88 0.05 0.27 0.63
3.5 3.0
S74-2
2800
2700
2600
2500
2400
2300
2200
2100
30400 N
30600 N
30800 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9e
SECTION 28000 E
SCALE 1"=100'
DRAWN BY J.M. HUTTER
DATE JAN. 20, 1988
31000 N
S74-1
-77.5°
20500 E
28200 E
27800 E
88U-76
-48.5°
30800 N
28000 E
88U-68
-60.5°
88U-67
-69.2°
88U-38
-72°
UG81-7
-68°
S74-2
-62.5°
88U-48
-57.5°
UG81-3
-90°
88U-49
-50°
UG81-6
-68°
UG81-8
-57°
88U-47
-31°
88U-50
-45°
NGV-1
-66.5°
UG81-2
-74°
88U-37
-46°
30600 N
UG81-5
-57°
UG81-9
-31.5°
69-2-13
69-2-11
69-2-14
UG81-1
-42°
UG81-4
-31.5°
UG81-17
-51°
UG81-18
-31.5°
UG81-11
-74°
UG81-16
-31.5°
UG81-12
-42°
88U-36
-29.5°
BU185
-33°
BU183
0°
BU184
0°
87U-26
+4.5°
S-29
-62°
88S-39
-65°
88S-37
-70°
BS153
-60°
BS163
-75°
88S-38
-46°
BS155
-75°
BS156
-50°
88S-33
-45°
BS152
-45°
20000 E
23000 N
BS151
-60°
BS162
-50°
BS154
-50°
84-13
-65°
88S-36
-50°
84-12
-45°
30200 N
84-11
-45°
SEC28000

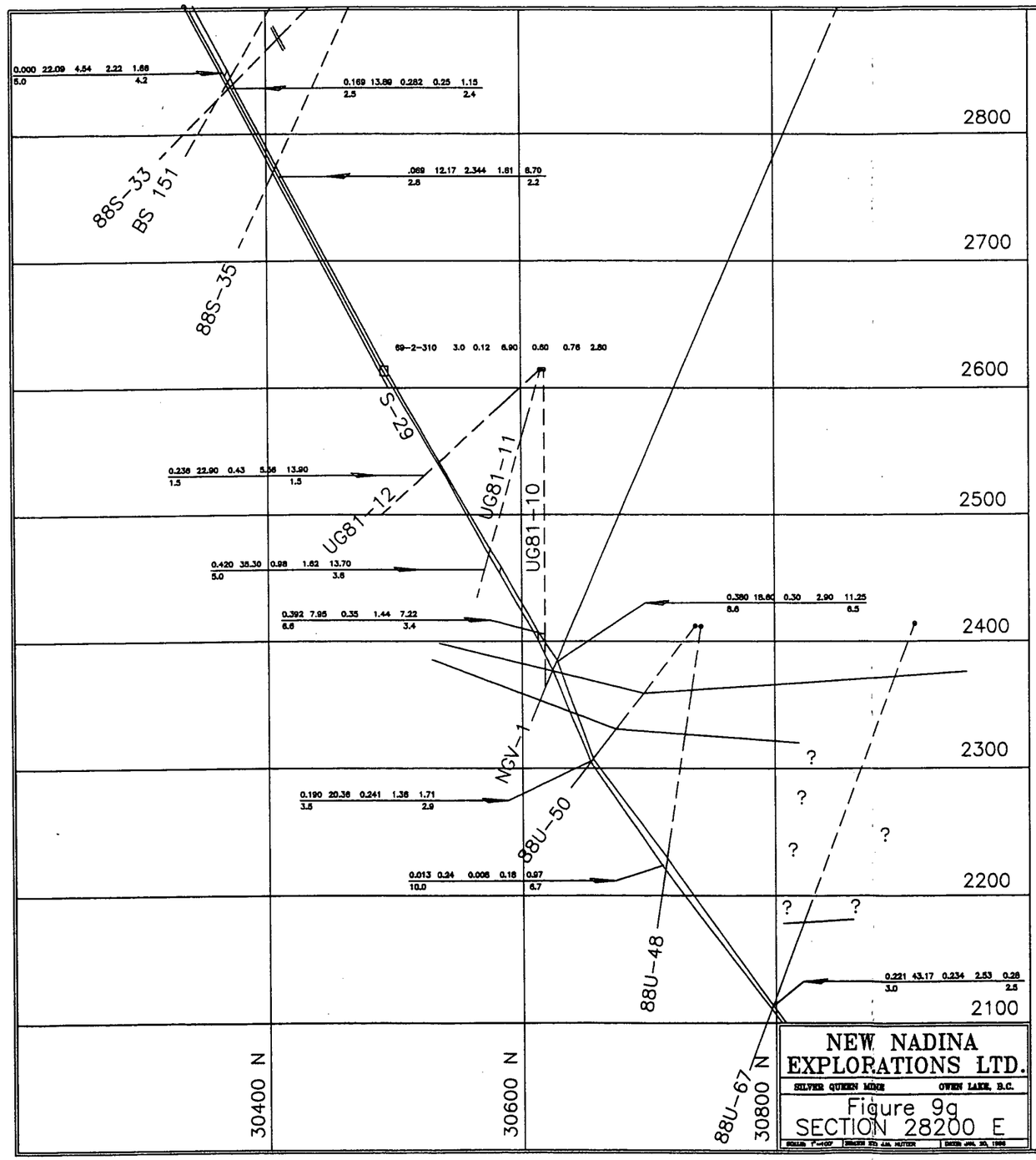


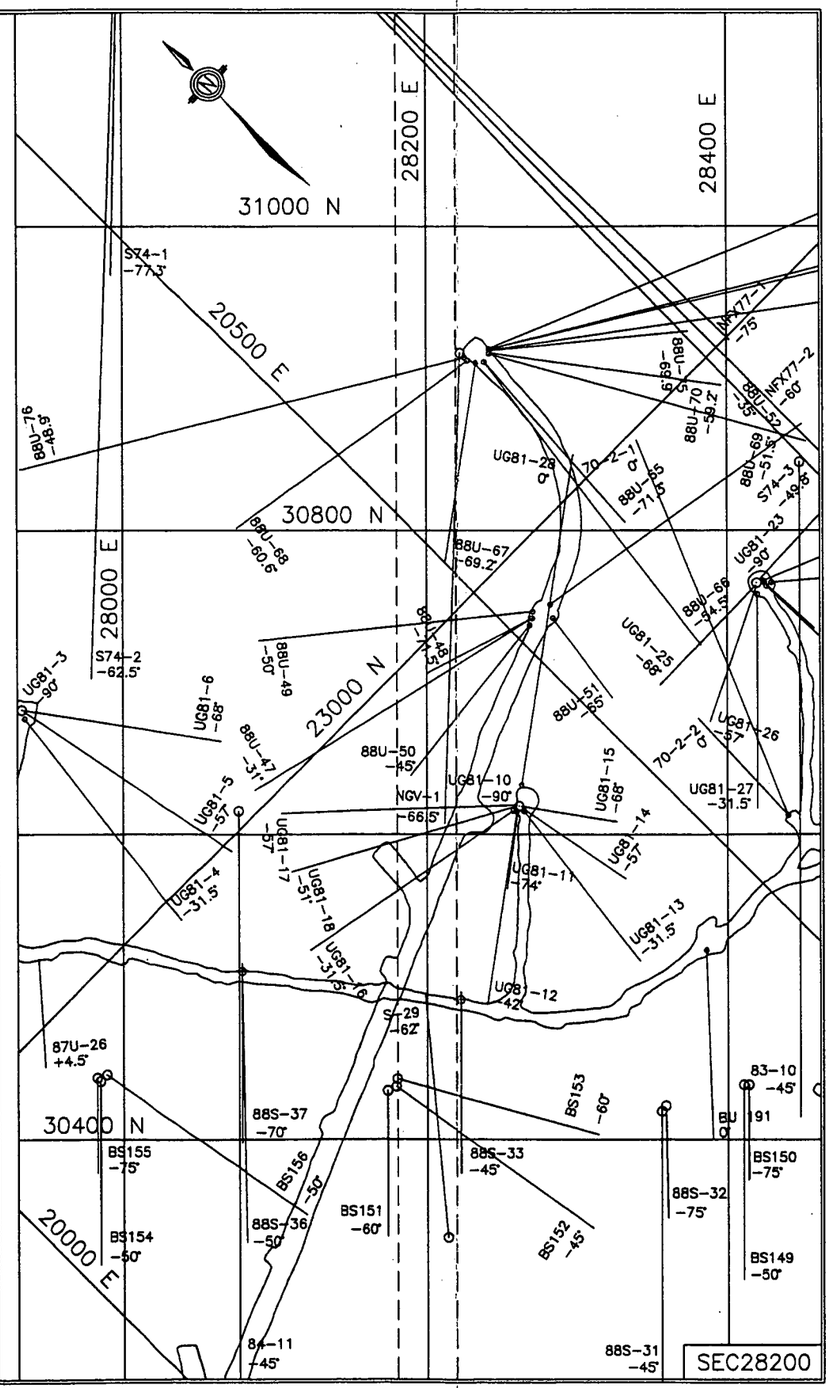
NEW NADINA EXPLORATIONS LTD.

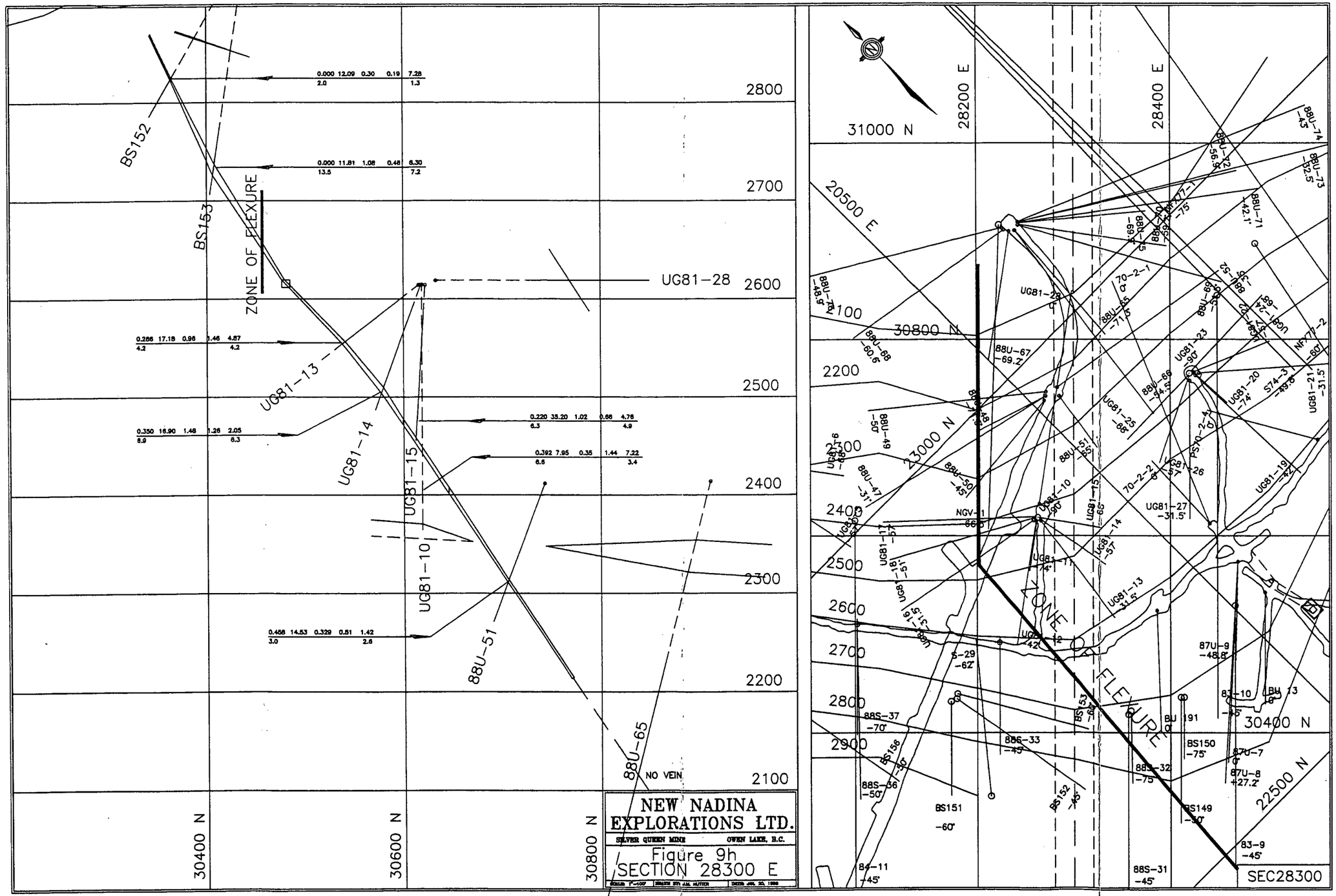
SILVER QUEEN MINE OWEN LAKE, B.C.

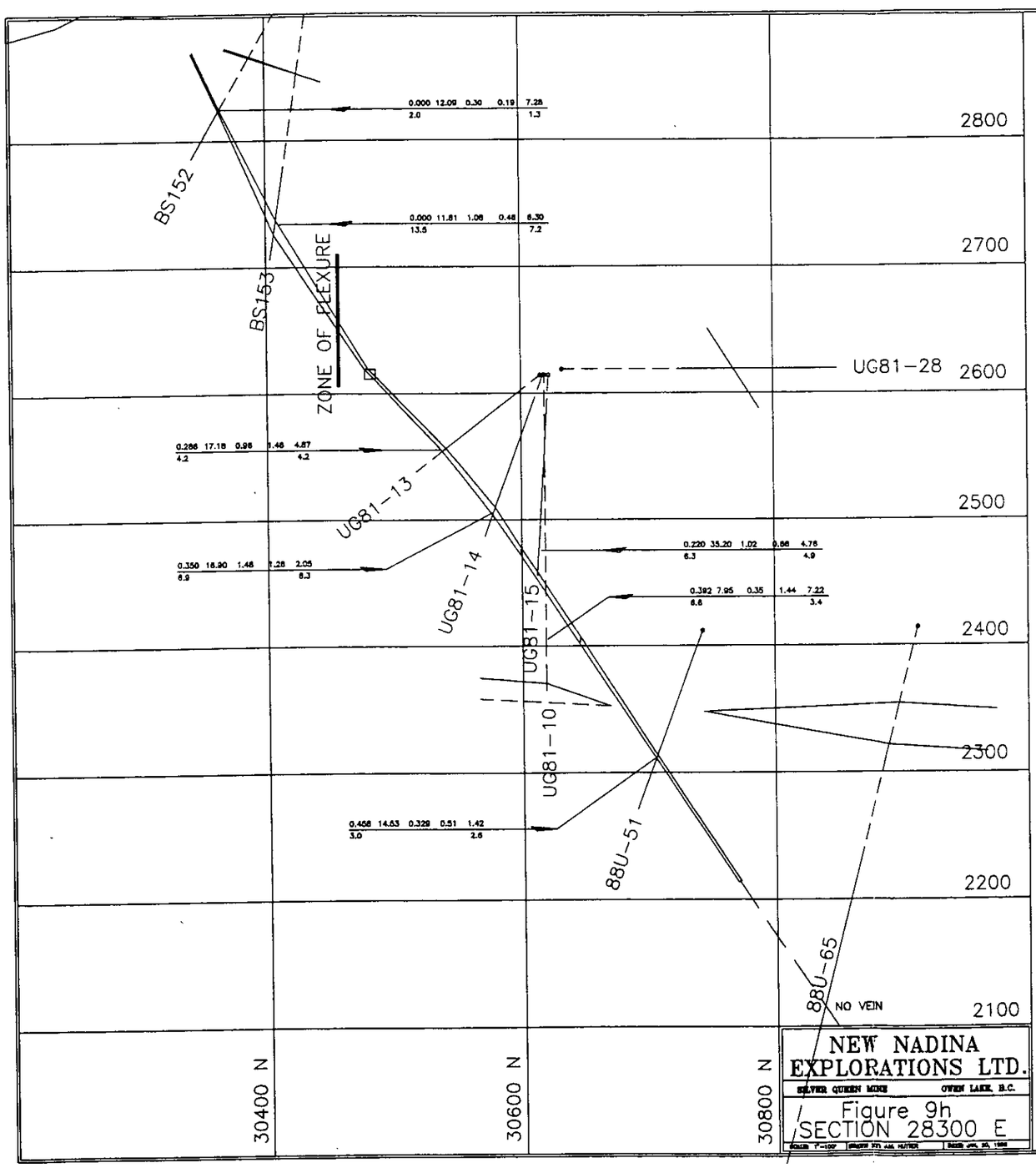
Figure 9f

SECTION 28100 E


0.000 22.09 4.54 2.22 1.88
5.0 4.2
0.169 13.89 0.282 0.25 1.15
2.5 2.4
.069 12.17 2.344 1.81 6.70
2.8 2.2
69-2-310 3.0 0.12 6.90 0.50 0.76 2.80
0.236 22.90 0.43 5.56 13.90
1.5 1.5
0.420 38.30 0.98 1.62 13.70
5.0 3.6
0.392 7.95 0.35 1.44 7.22
6.6 3.4
0.380 18.60 0.30 2.90 11.25
8.6 6.5
0.190 20.36 0.241 1.36 1.71
3.5 2.9
0.013 0.24 0.006 0.18 0.97
10.0 6.7
0.221 43.17 0.234 2.53 0.26
3.0 2.5
88S-33
BS 151
88S-35
88S-29
UG81-12
UG81-11
UG81-10
NGV-1
88U-50
88U-48
88U-67
2800
2700
2600
2500
2400
2300
2200
2100
30400 N
30600 N
30800 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9g
SECTION 28200 E

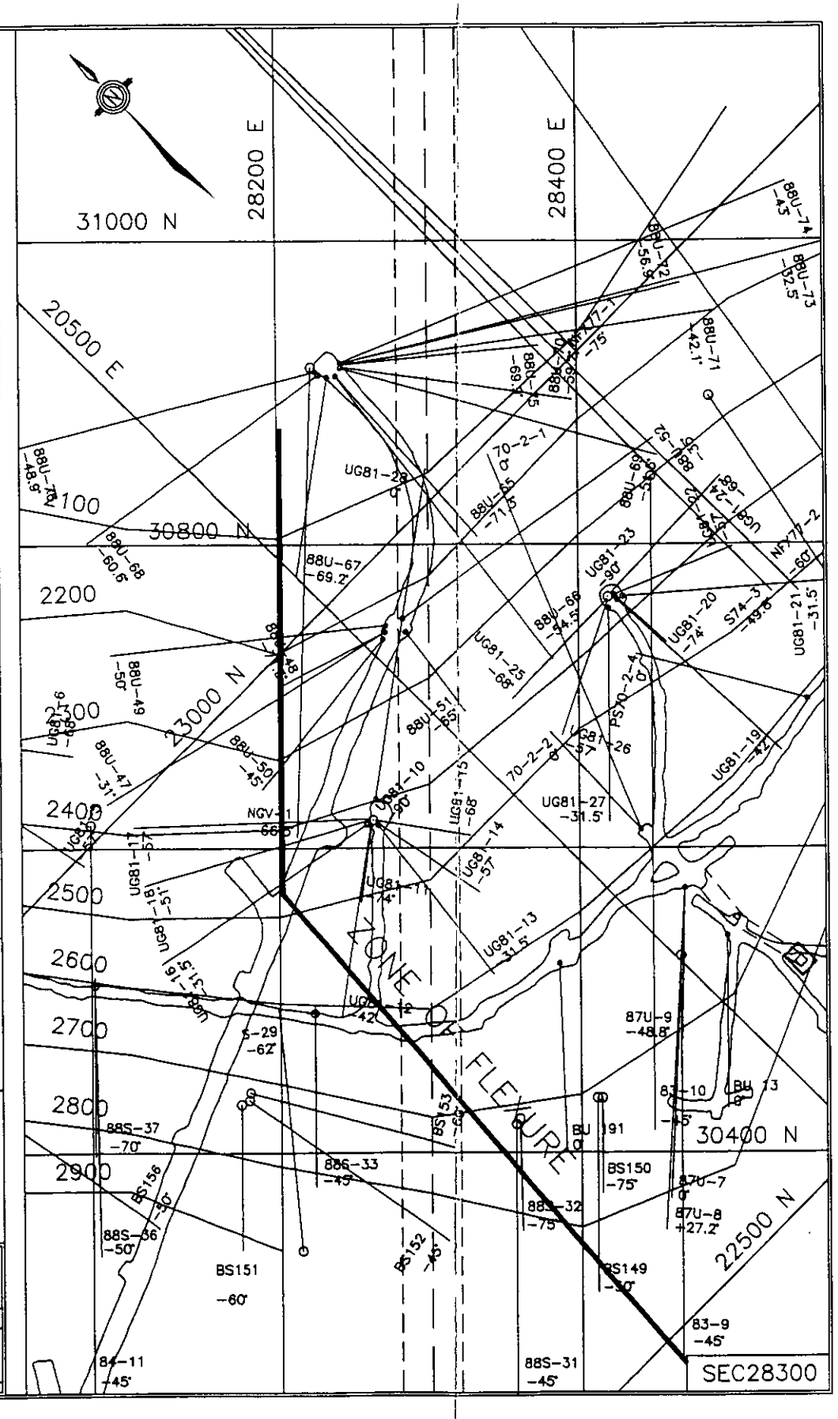

31000 N
30800 N
30400 N
23000 N
20500 E
20000 E
28000 E
28200 E
28400 E
S74-1 -72.5°
88U-68 -76.5°
88U-68 -60.5°
88U-67 -69.2°
INFX77-1 -75°
INFX77-2 -60°
88U-5 -69.5°
88U-52 -51.5°
88U-70 -59.2°
UG81-28
70-2-1
88U-55 -71.5°
S74-3 -49.5°
UG81-23 -90°
88U-56 -74.5°
UG81-25 -68°
88U-48 -74.5°
88U-49 -50°
S74-2 -62.5°
UG81-3 90°
UG81-6 -68°
88U-47 -31°
88U-51 -55°
70-2-2
UG81-26 -57°
88U-50 -45°
UG81-10 -90°
UG81-15 -68°
UG81-27 -31.5°
NGV-1 -66.5°
UG81-5 -57°
UG81-17 -57°
UG81-14 -57°
UG81-4 -31.5°
UG81-18 -51°
UG81-11 -74°
UG81-16 -31.5°
UG81-13 -31.5°
UG81-12 -42°
S-29 -62°
87U-26 +4.5°
88S-37 -70°
BS153 -60°
83-10 -45°
BU 191
BS155 -75°
BS156 -50°
88S-33 -45°
BS150 -75°
88S-32 -75°
BS154 -50°
88S-36 -50°
BS151 -60°
BS152 -45°
BS149 -50°
84-11 -45°
88S-31 -45°
SEC28200


BS152
BS153
ZONE OF FLEXURE
UG81-28
UG81-13
UG81-14
UG81-15
UG81-10
88U-51
88U-65
NO VEIN
0.000 12.09 0.30 0.19 7.28
2.0 1.3
0.000 11.81 1.08 0.48 6.30
13.5 7.2
0.286 17.18 0.96 1.46 4.87
4.2 4.2
0.350 16.90 1.48 1.28 2.05
8.9 8.3
0.220 35.20 1.02 0.66 4.76
6.3 4.9
0.392 7.95 0.35 1.44 7.22
6.6 3.4
0.466 14.53 0.329 0.51 1.42
3.0 2.6
2800
2700
2600
2500
2400
2300
2200
2100
30400 N
30600 N
30800 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9h
SECTION 28300 E
31000 N
28200 E
28400 E
20500 E
30800 N
23000 N
30400 N
22500 N
ZONE OF FLEXURE
SEC28300



NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.

Figure 9h
SECTION 28300 E



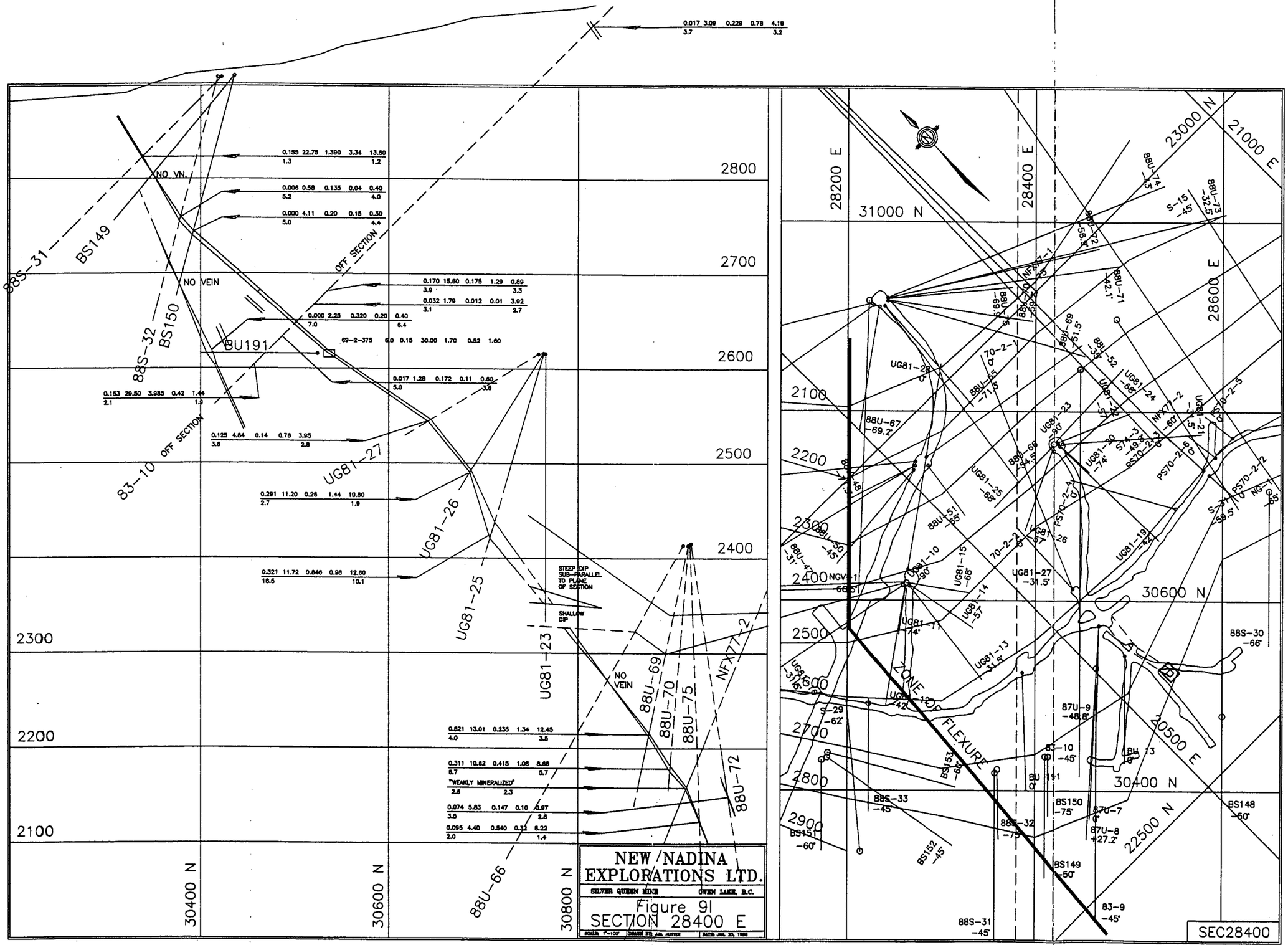
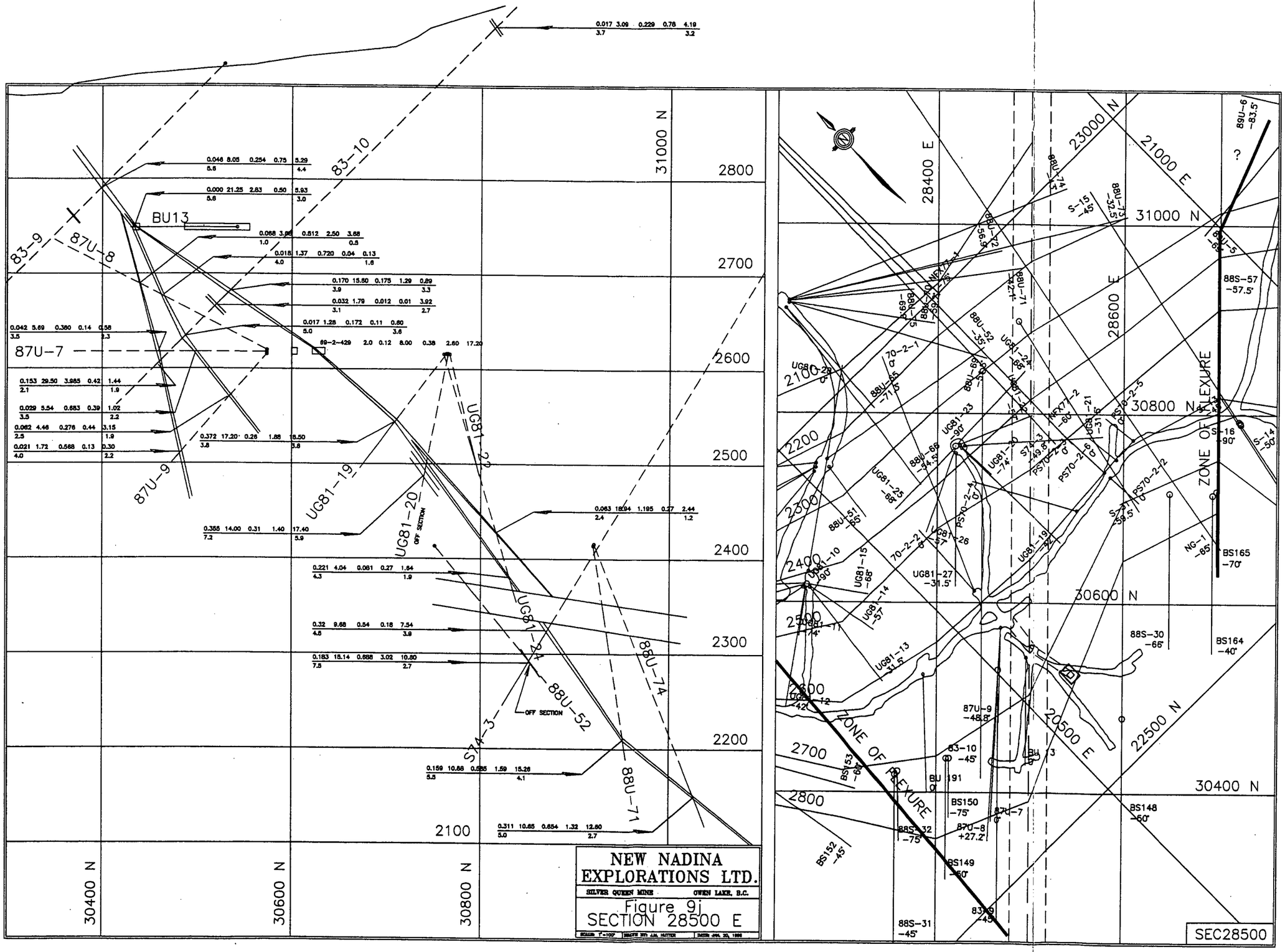
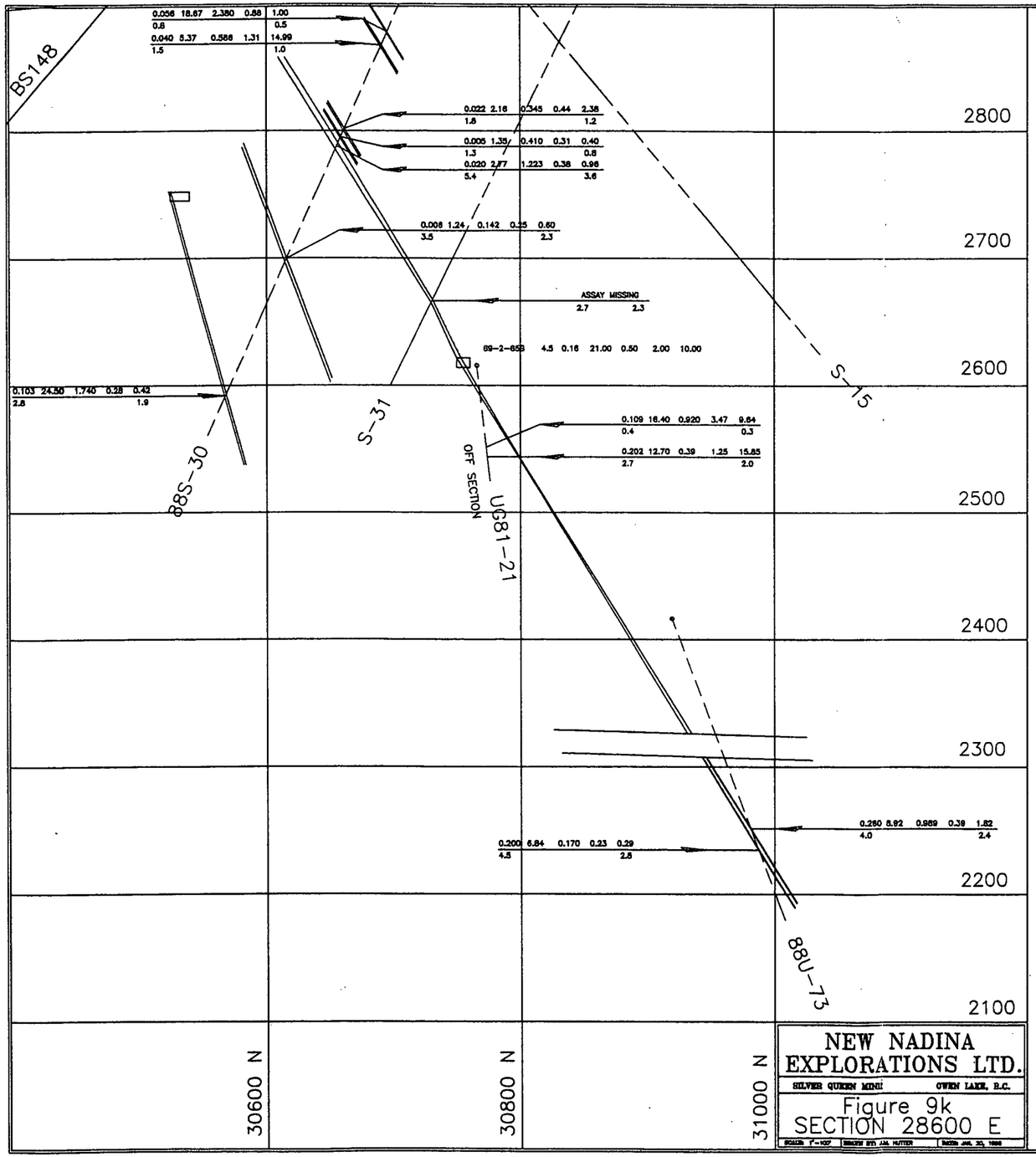
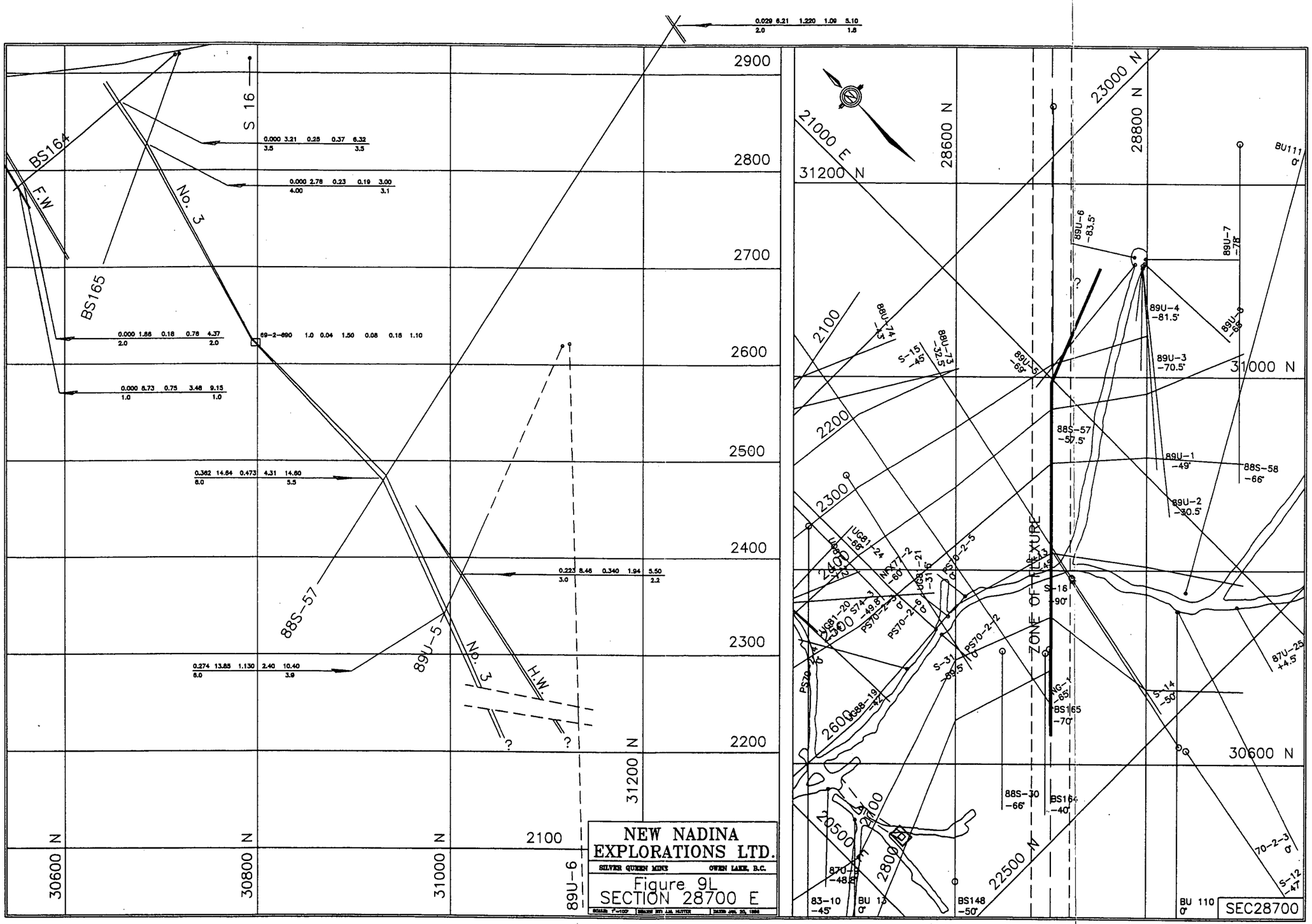
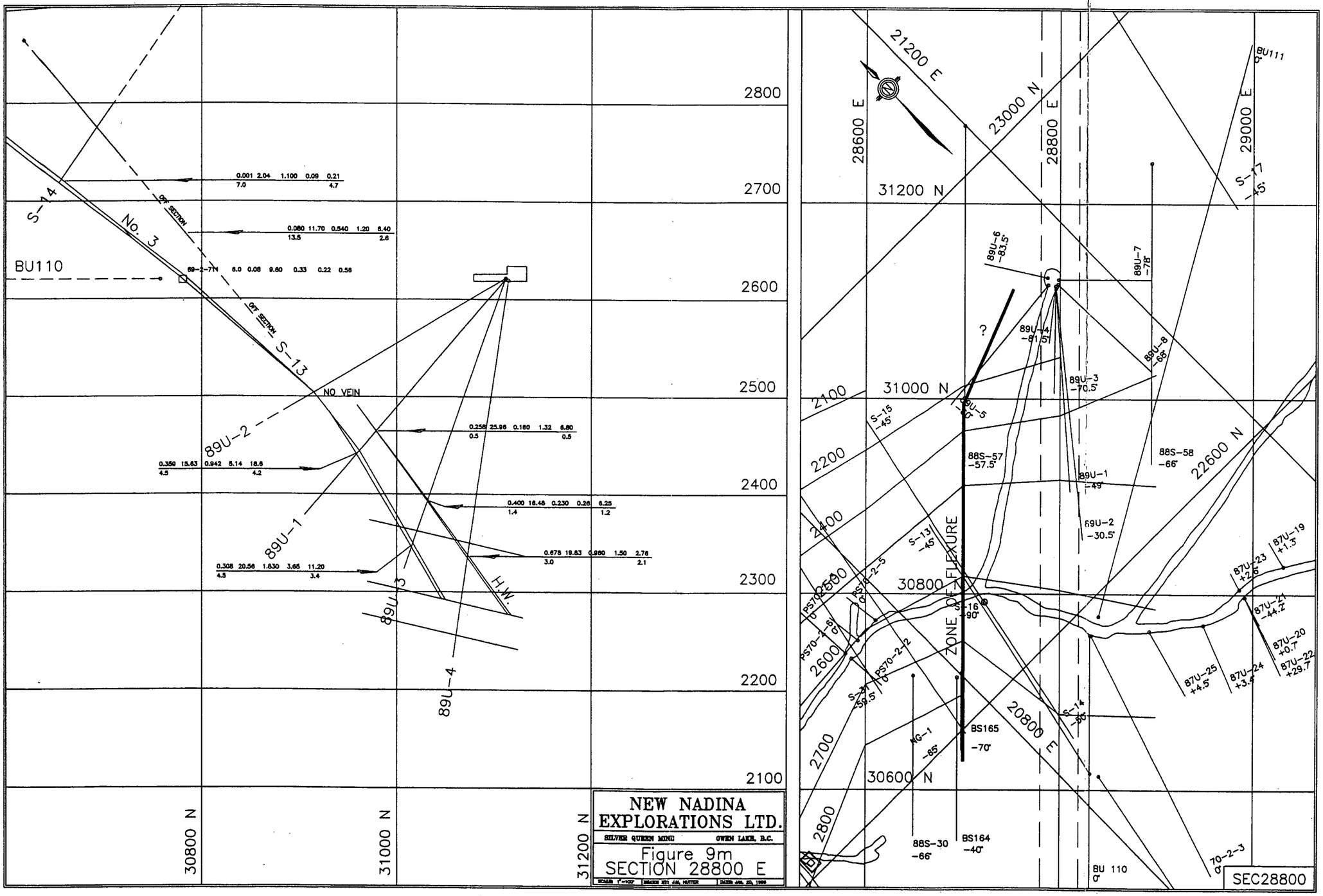


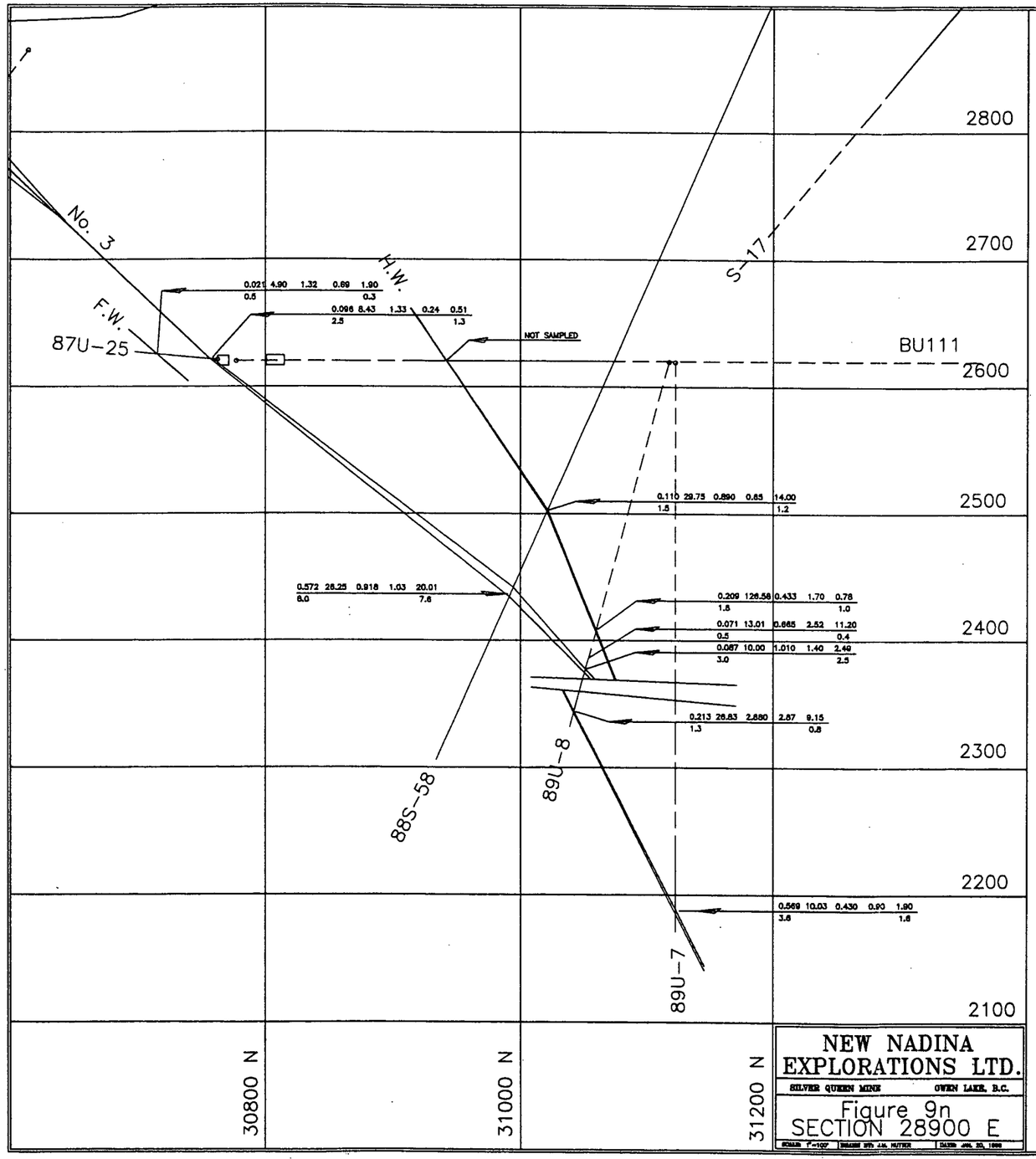
Figure 9
SECTION 28400 E

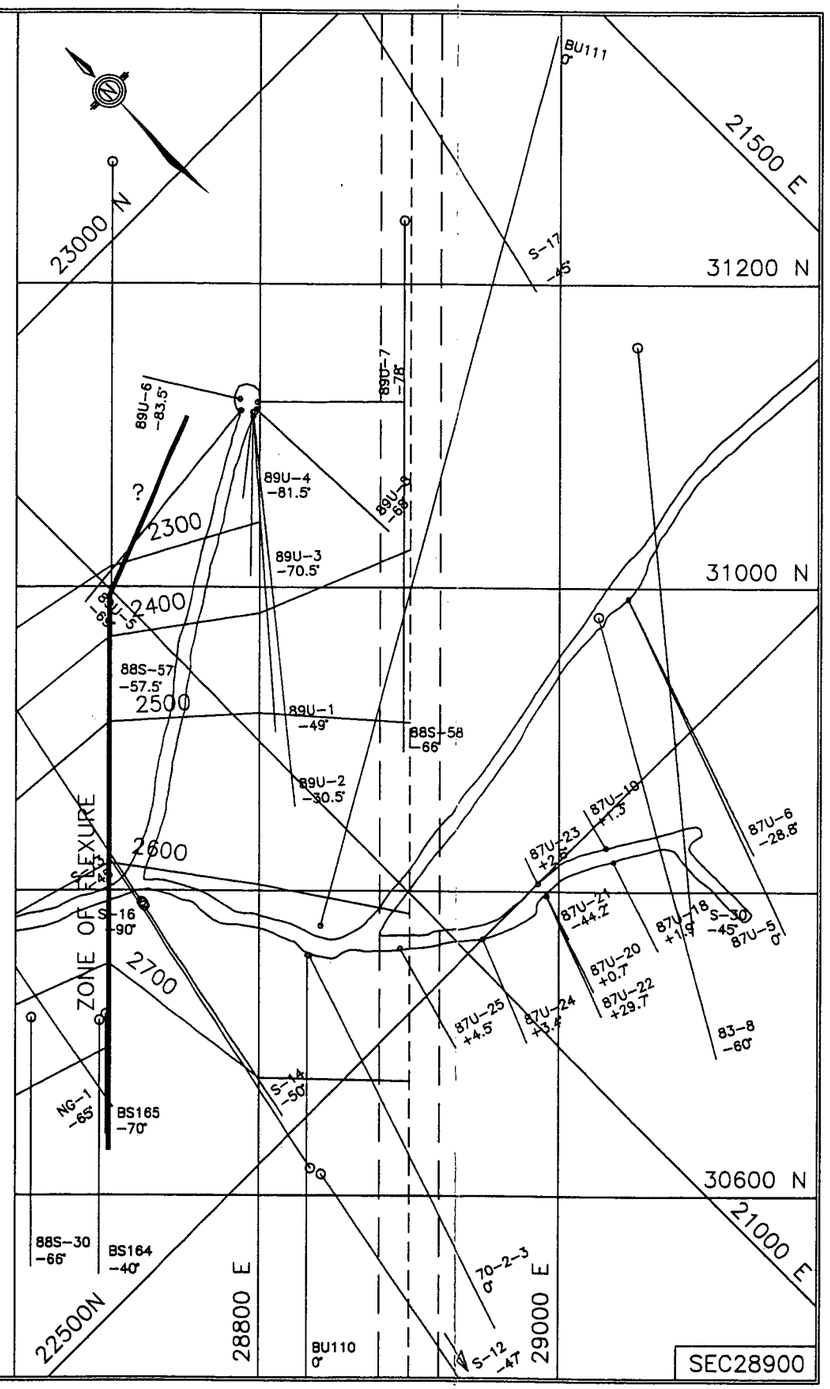

83-9
87U-8
83-10
BU13
87U-7
87U-9
UG81-19
UG81-20
UG81-22
UG81-24
88U-52
88U-74
88U-71
S74-3
OFF SECTION
31000 N
2800
2700
2600
2500
2400
2300
2200
2100
30400 N
30600 N
30800 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9j
SECTION 28500 E
28400 E
23000 N
21000 E
31000 N
28600 E
30800 N
ZONE OF FLEXURE
30600 N
20500 E
22500 N
30400 N
SEC28500

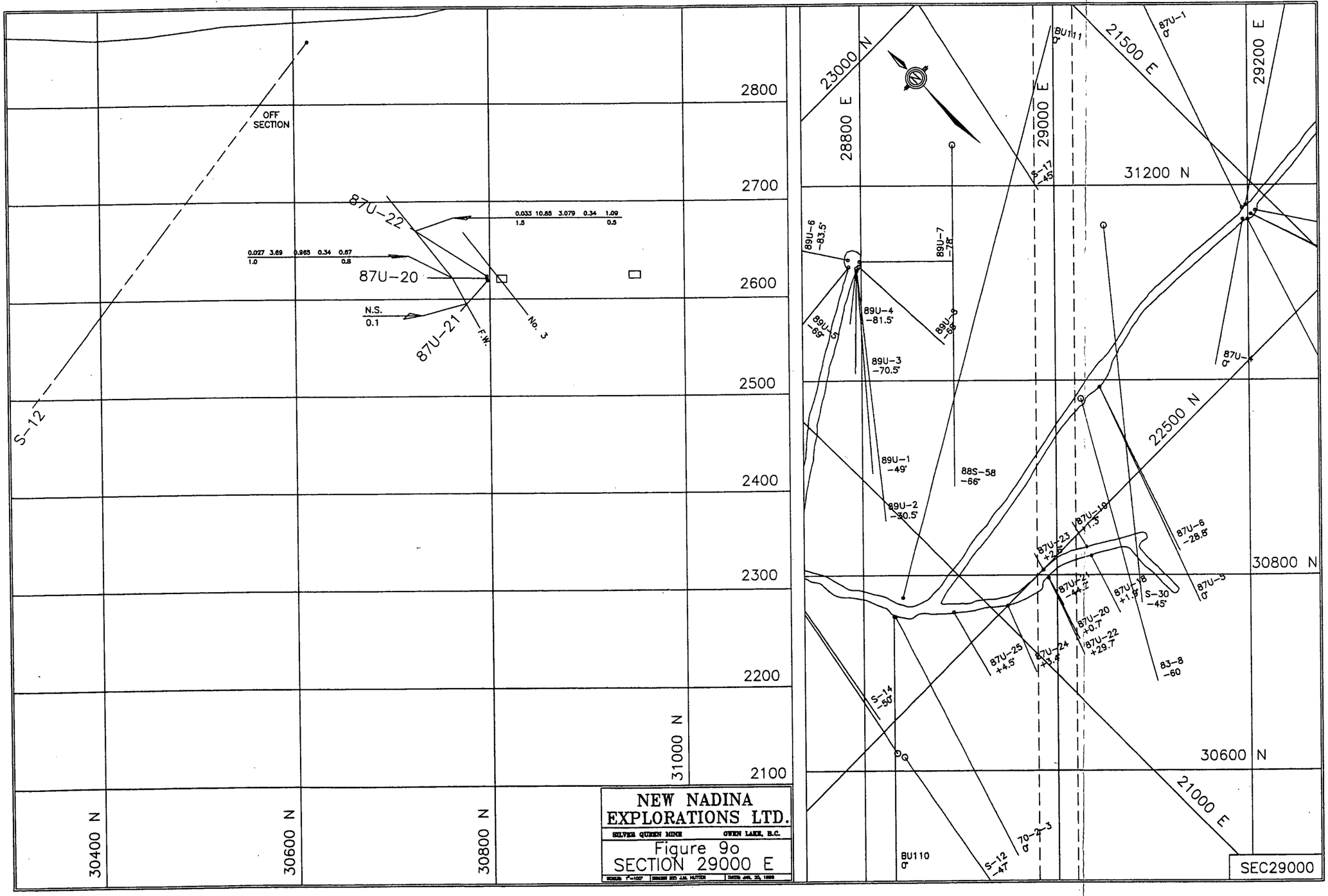

BS148
0.056 18.67 2.380 0.88 1.00
0.8 0.5
0.040 5.37 0.586 1.31 14.99
1.5 1.0
0.022 2.16 0.345 0.44 2.38
1.8 1.2
0.005 1.35 0.410 0.31 0.40
1.3 0.8
0.020 2.77 1.223 0.36 0.96
5.4 3.6
0.008 1.24 0.142 0.25 0.60
3.5 2.3
ASSAY MISSING
2.7 2.3
89-2-858 4.5 0.16 21.00 0.50 2.00 10.00
0.103 24.50 1.740 0.28 0.42
2.8 1.9
0.109 16.40 0.920 3.47 9.64
0.4 0.3
0.202 12.70 0.39 1.25 15.85
2.7 2.0
0.200 6.84 0.170 0.23 0.29
4.5 2.8
0.260 8.92 0.989 0.39 1.82
4.0 2.4
S-15
S-31
88S-30
OFF SECTION
UG81-21
88U-73
2800
2700
2600
2500
2400
2300
2200
2100
30600 N
30800 N
31000 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9k
SECTION 28600 E
28400 E
23000 N
21000 E
31000 N
88U-74 -45°
S-15 -45°
88U-3 -32.5°
88U-70 -56.9°
88U-6 -83.5°
89U-7 -78°
89U-4 -81.5°
89U-8 -68°
89U-3 -70.5°
88U-5 -60°
88S-57 -57.5°
89U-1 -49°
89U-2 -30.5°
28600 E
21000 N
88U-71 42.1°
PS77-1 -75°
88U-69 -59°
88U-52 -68°
UG81-24 -90°
UG81-23 -90°
88U-66 -74.5°
UG81-20 -74°
S14-1 -49.5°
PS70-2-8 0°
NK77-2 -60°
UG81-22 -31°
PS70-2-5 0°
S-16 -90°
ZONE OF FLEXURE
UG81-25 -68.5°
PS70-2-4 0°
PS70-2-2 0°
S-34 -59.5°
UG81-26 -74°
UG81-19 -42°
NG-1 -65°
BS165 -70°
S-14 -50°
UG81-27 -31.5°
30600 N
88S-30 -66°
BS164 -40°
2600
87U-9 -48.8°
20500 E
22500 N
28800 E
2700
BU 191 0°
83-10 -45°
BU 13 0°
30400 N
ZONE OF FLEXURE
BS150 -75°
87U-7 0°
87U-8 +27.2°
BS148 -50°
88S-32 -75°
BS149 -58°
83-9 -45°
88S-31 -45°
BU 110 0°
SEC28600

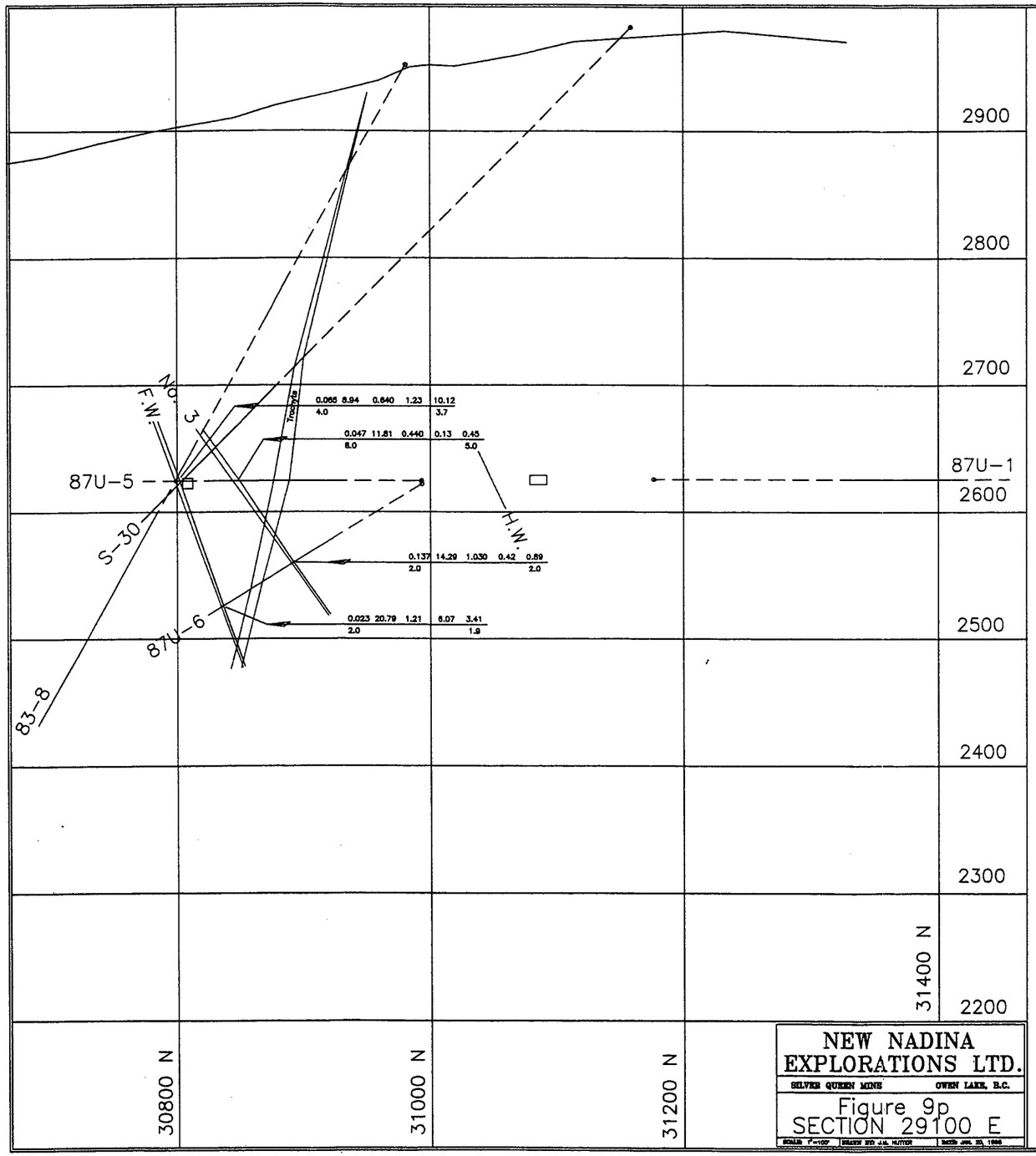

2900
2800
2700
2600
2500
2400
2300
2200
2100
30600 N
30800 N
31000 N
31200 N
S 16
BS164
F.W
BS165
No. 3
88S-57
89U-5
No. 3
H.W
89U-6
0.029 6.21 1.220 1.09 5.10
2.0 1.8
0.000 3.21 0.25 0.37 6.32
3.5 3.5
0.000 2.78 0.23 0.19 3.00
4.00 3.1
0.000 1.86 0.16 0.78 4.37
2.0 2.0
69-2-690 1.0 0.04 1.50 0.08 0.16 1.10
0.000 8.73 0.75 3.46 9.15
1.0 1.0
0.362 14.84 0.473 4.31 14.60
8.0 5.5
0.223 8.46 0.340 1.94 5.50
3.0 2.2
0.274 13.85 1.130 2.40 10.40
8.0 3.9
NEW NADINA
EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9L
SECTION 28700 E
21000 E
23000 N
28600 N
28800 N
31200 N
31000 N
30600 N
22500 N
89U-6 -83.5°
89U-7 -78°
89U-4 -81.5°
89U-3 -70.5°
89U-8 -69°
89U-5 -69°
88U-74 -43°
88U-73 -32.5°
S-15 -45°
88S-57 -57.5°
89U-1 -49°
88S-58 -66°
89U-2 -30.5°
BU111 0°
S-16 -90°
87U-25 +4.5°
S-14 -50°
BS165 -70°
S-31 -60.5°
NG-1 -65°
88S-30 -66°
BS164 -40°
70-2-3 0°
S-12 -47°
83-10 -45°
BU 12 0°
BS148 -50°
BU 110 0°
ZONE OF FRACTURE
SEC28700


2800
2700
2600
2500
2400
2300
2200
2100
30800 N
31000 N
31200 N
BU110
S-4
No. 3
OFF SECTION
S-13
NO VEIN
89U-2
89U-1
89U-3
89U-4
H.W.
0.001 2.04 1.100 0.09 0.21
7.0 4.7
0.080 11.70 0.540 1.20 8.40
13.5 2.6
89-2-??? 8.0 0.08 9.60 0.33 0.22 0.56
0.258 25.96 0.180 1.32 6.80
0.5 0.5
0.359 15.63 0.942 5.14 18.6
4.5 4.2
0.400 18.46 0.230 0.26 8.25
1.4 1.2
0.678 19.63 0.980 1.50 2.76
3.0 2.1
0.308 20.56 1.830 3.65 11.20
4.5 3.4
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE GWEN LAKE, B.C.
Figure 9m
SECTION 28800 E
21200 E
23000 N
28600 E
28800 E
29000 E
BU111
S-17 -45°
31200 N
89U-6 -83.5°
89U-7 -78°
89U-4 -81.5°
89U-8 -68°
89U-3 -70.5°
89U-5 -75°
31000 N
2100
S-15 -45°
2200
88S-57 -57.5°
88S-58 -66°
22600 N
89U-1 -49°
89U-2 -30.5°
2400
S-13 -45°
87U-19 +1.3°
87U-23 +2.6°
2500
PS70-2-5 0°
30800 N
S-16 -90°
87U-21 -44.2°
2600
PS70-2-6 0°
PS70-2-4 0°
ZONE OF FLEXURE
87U-20 +0.7°
87U-22 +29.7°
87U-25 +4.5°
87U-24 +3.6°
S-21 -59.5°
20800 E
S-14 -80°
2700
MG-1 -85°
BS165 -70°
30600 N
2800
88S-30 -66°
BS164 -40°
BU 110 0°
70-2-3 0°
SEC28800


2800
2700
2600
2500
2400
2300
2200
2100
30800 N
31000 N
31200 N
No. 3
F.W.
H.W.
87U-25
S-17
BU111
NOT SAMPLED
0.021 4.90 1.32 0.69 1.90
0.5 0.3
0.096 8.43 1.33 0.24 0.51
2.5 1.3
0.110 29.75 0.890 0.85 14.00
1.5 1.2
0.572 26.25 0.918 1.03 20.01
8.0 7.6
0.209 126.56 0.433 1.70 0.78
1.8 1.0
0.071 13.01 0.665 2.52 11.20
0.5 0.4
0.087 10.00 1.010 1.40 2.49
3.0 2.5
0.213 26.83 2.880 2.67 9.15
1.3 0.8
0.569 10.03 0.430 0.90 1.90
3.6 1.8
88S-58
89U-8
89U-7
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9n
SECTION 28900 E


23000 N
21500 E
31200 N
31000 N
30600 N
21000 E
22500N
28800 E
29000 E
BU111
S-17
-85°
89U-6
-83.5°
89U-7
-78°
89U-4
-81.5°
89U-5
-69°
89U-3
-70.5°
89U-8
-69°
88S-57
-57.5°
89U-1
-49°
88S-58
-66°
89U-2
-30.5°
ZONE OF FLEXURE
S-16
-90°
NG-1
-65°
BS165
-70°
S-14
-50°
88S-30
-66°
BS164
-40°
BU110
S-12
-47°
87U-23
+2.5°
87U-19
+1.5°
87U-6
-28.8°
87U-21
-44.2°
87U-18
+1.5°
S-30
-45°
87U-5
0°
87U-20
+0.7°
87U-22
+29.7°
87U-25
+4.5°
87U-24
+5.4°
83-8
-60°
70-2-3
0°
SEC28900

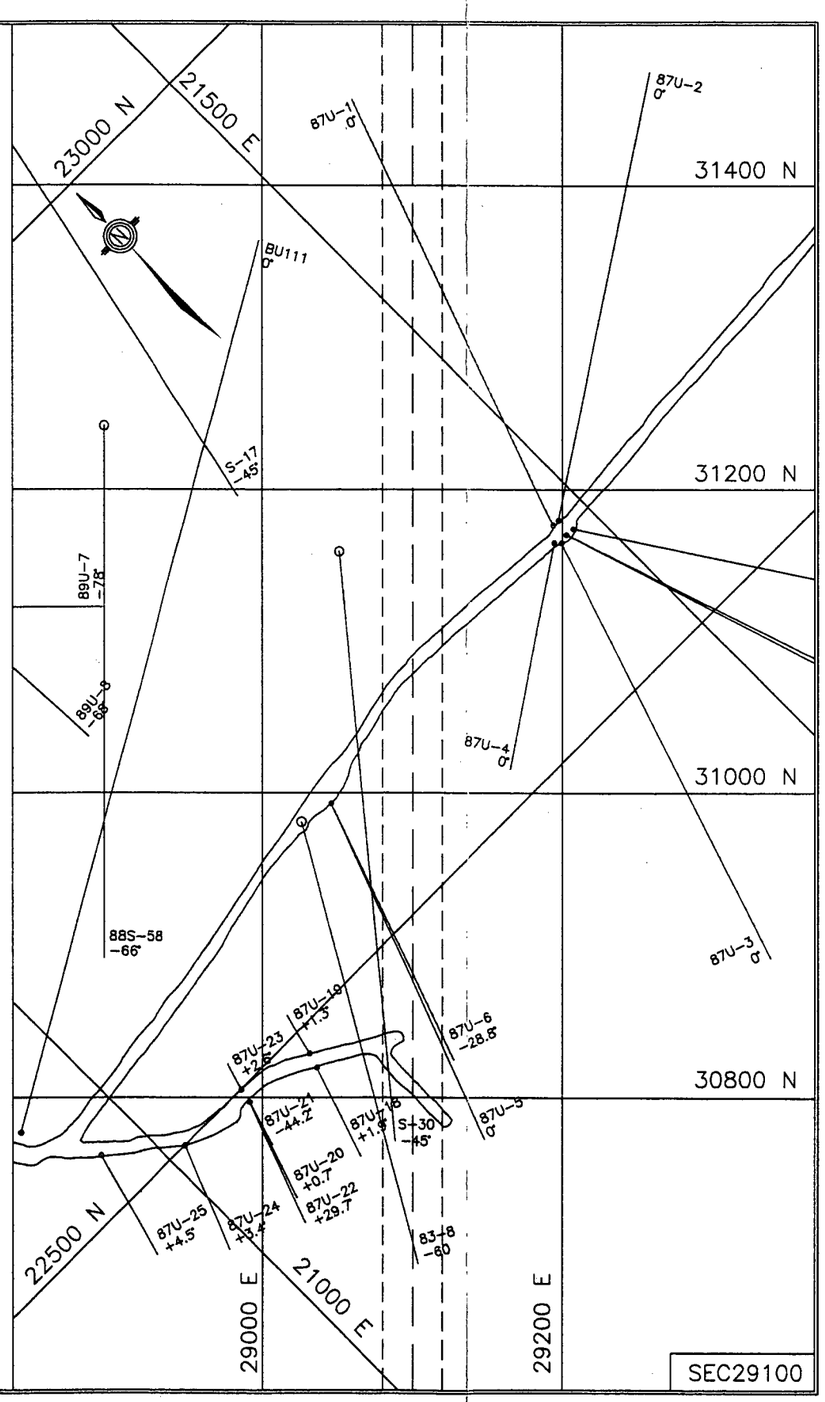

2800
2700
2600
2500
2400
2300
2200
2100
OFF SECTION
87U-22
0.033 10.85 3.079 0.34 1.09
1.5 0.5
0.027 3.69 0.965 0.34 0.57
1.0 0.8
87U-20
N.S.
0.1
87U-21
F.W.
No. 3
S-12
30400 N
30600 N
30800 N
31000 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9o
SECTION 29000 E
SCALE 1"=100'
DRAWN BY J.M. HUTTER
DATE JAN. 25, 1989
23000 N
28800 E
29000 E
21500 E
29200 E
31200 N
89U-6 -83.5°
89U-7 -78°
89U-4 -81.5°
89U-5 -69°
89U-9 -69°
89U-3 -70.5°
89U-1 -49°
88S-58 -66°
89U-2 -30.5°
87U-1
87U-19 +1.5°
87U-23 +2.5°
87U-6 -28.8°
87U-21 -44.2°
87U-18 +1.8°
S-30 -45°
87U-5
87U-20 +0.7°
87U-22 +29.7°
87U-25 +4.5°
87U-24 +13.4°
83-8 -60
S-14 -80°
22500 N
30800 N
30600 N
21000 E
BU110
S-12 -47°
70-2-3
SEC29000

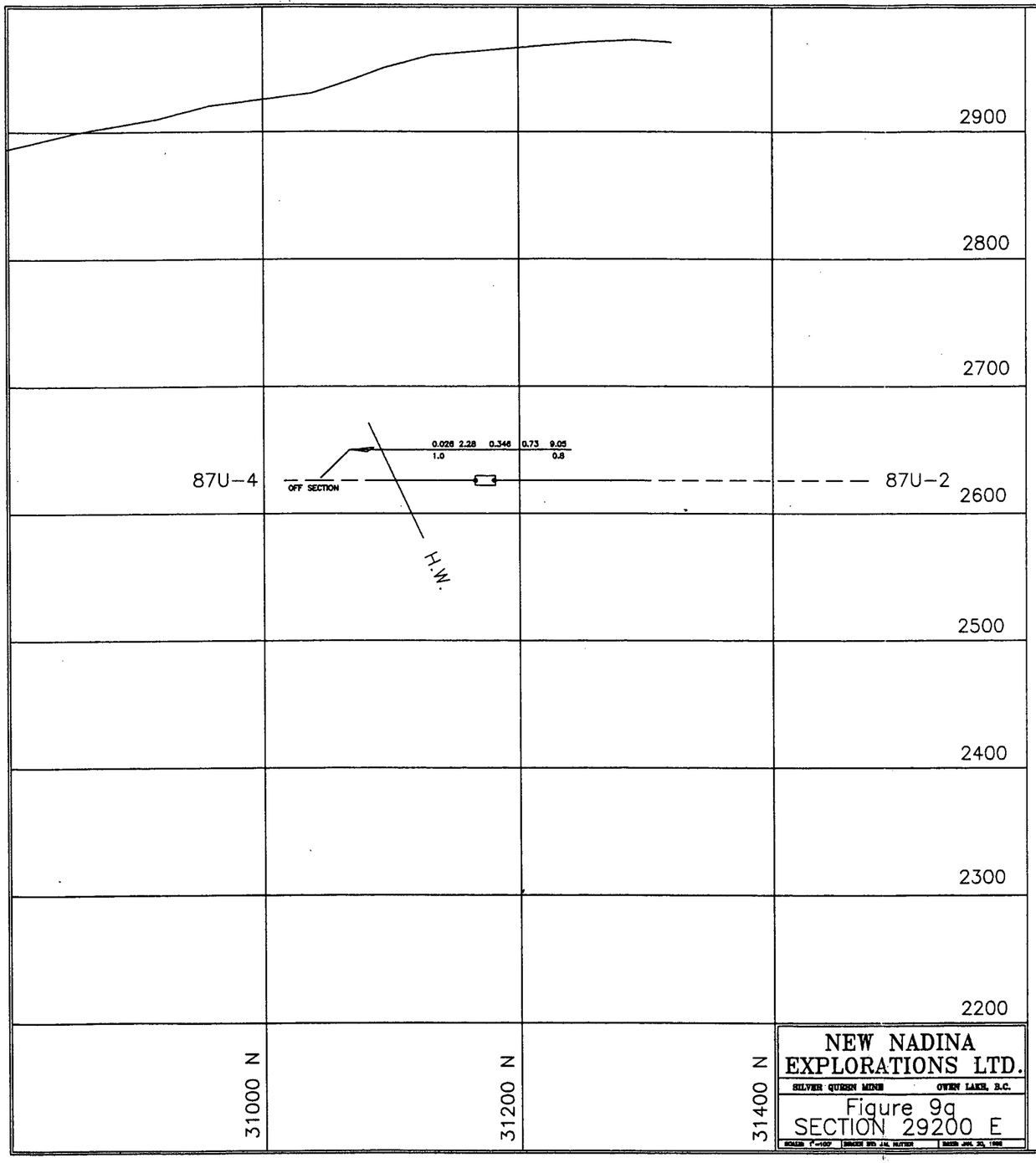


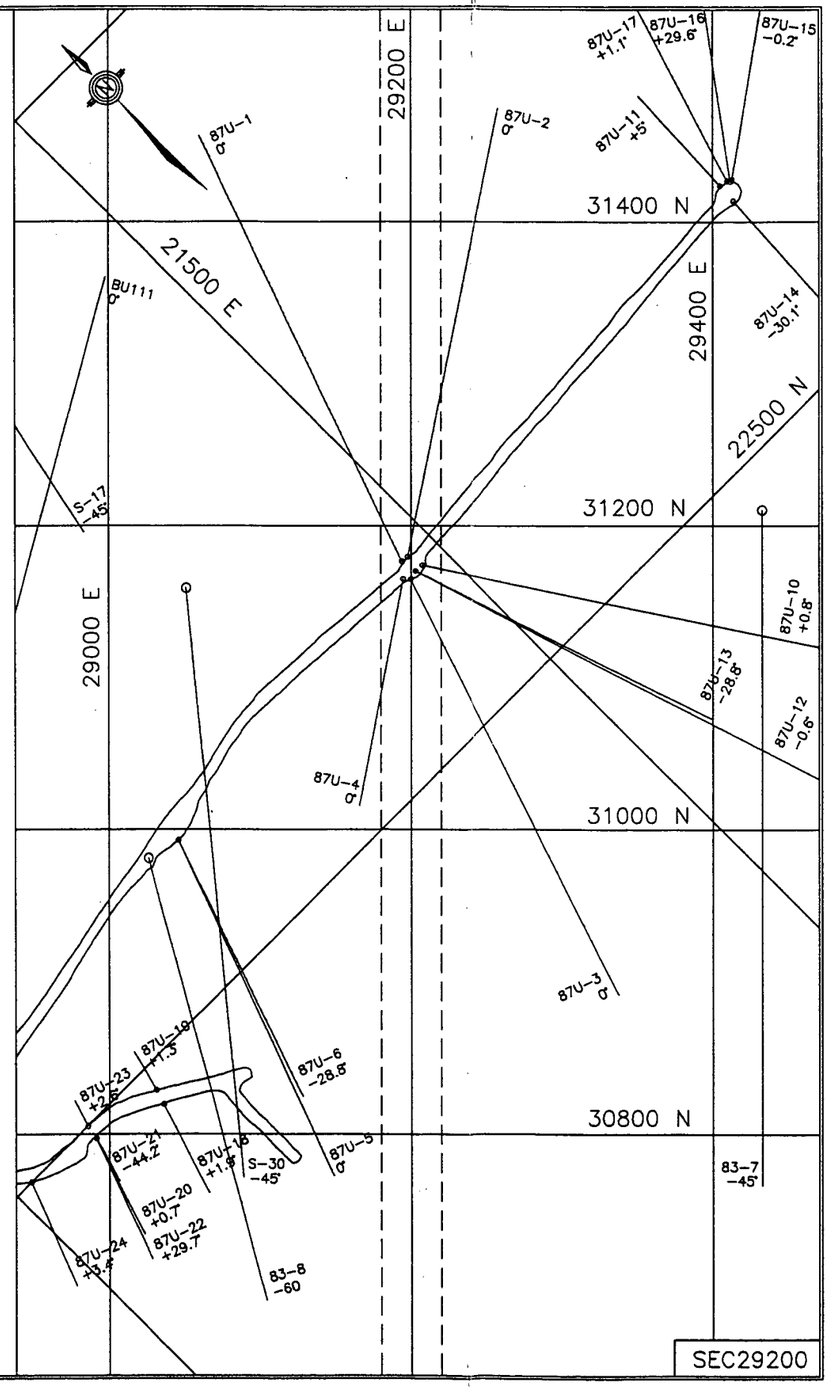
NEW NADINA EXPLORATIONS LTD.

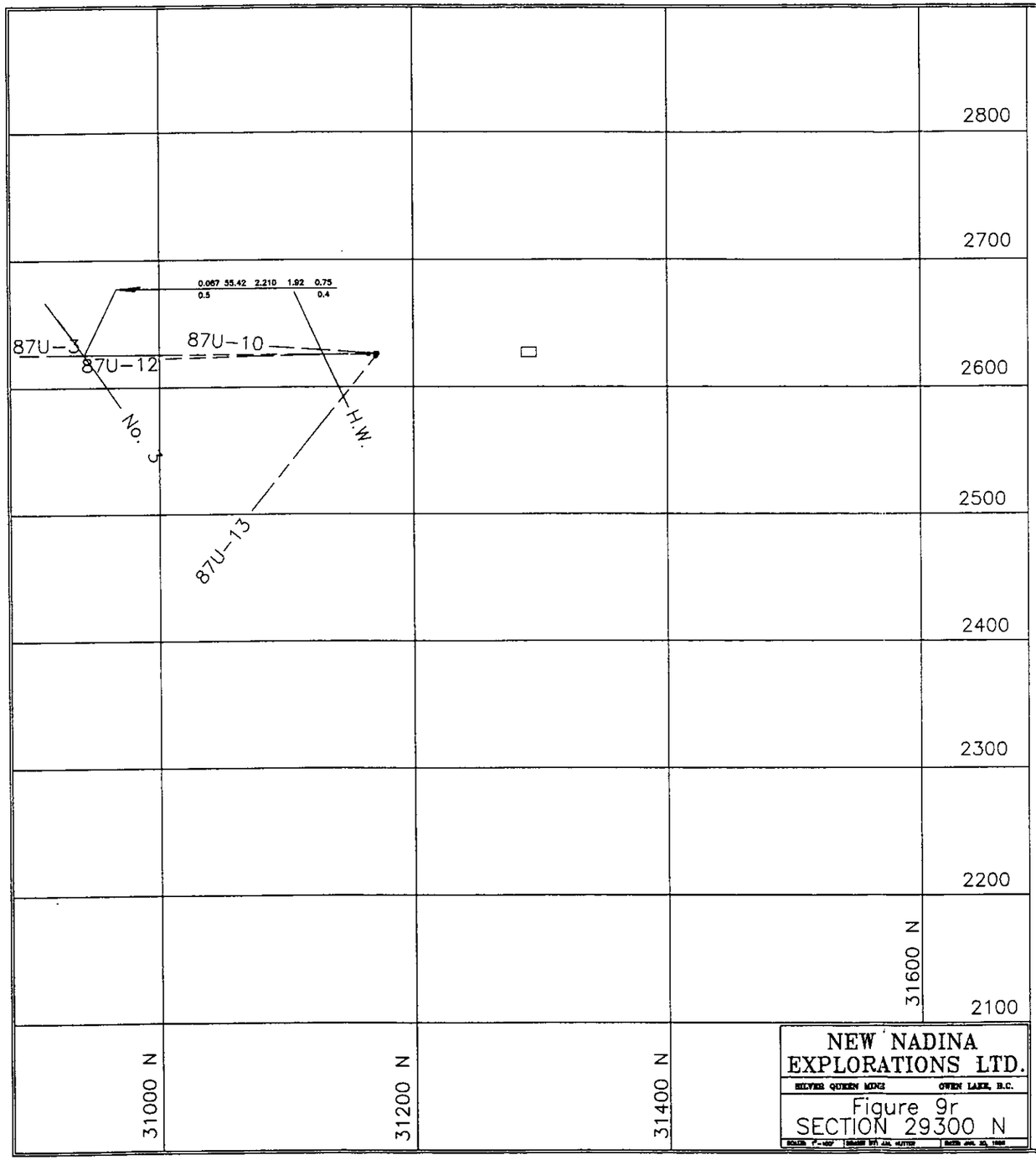
SILVER QUEEN MINE OWEN LAKE, B.C.

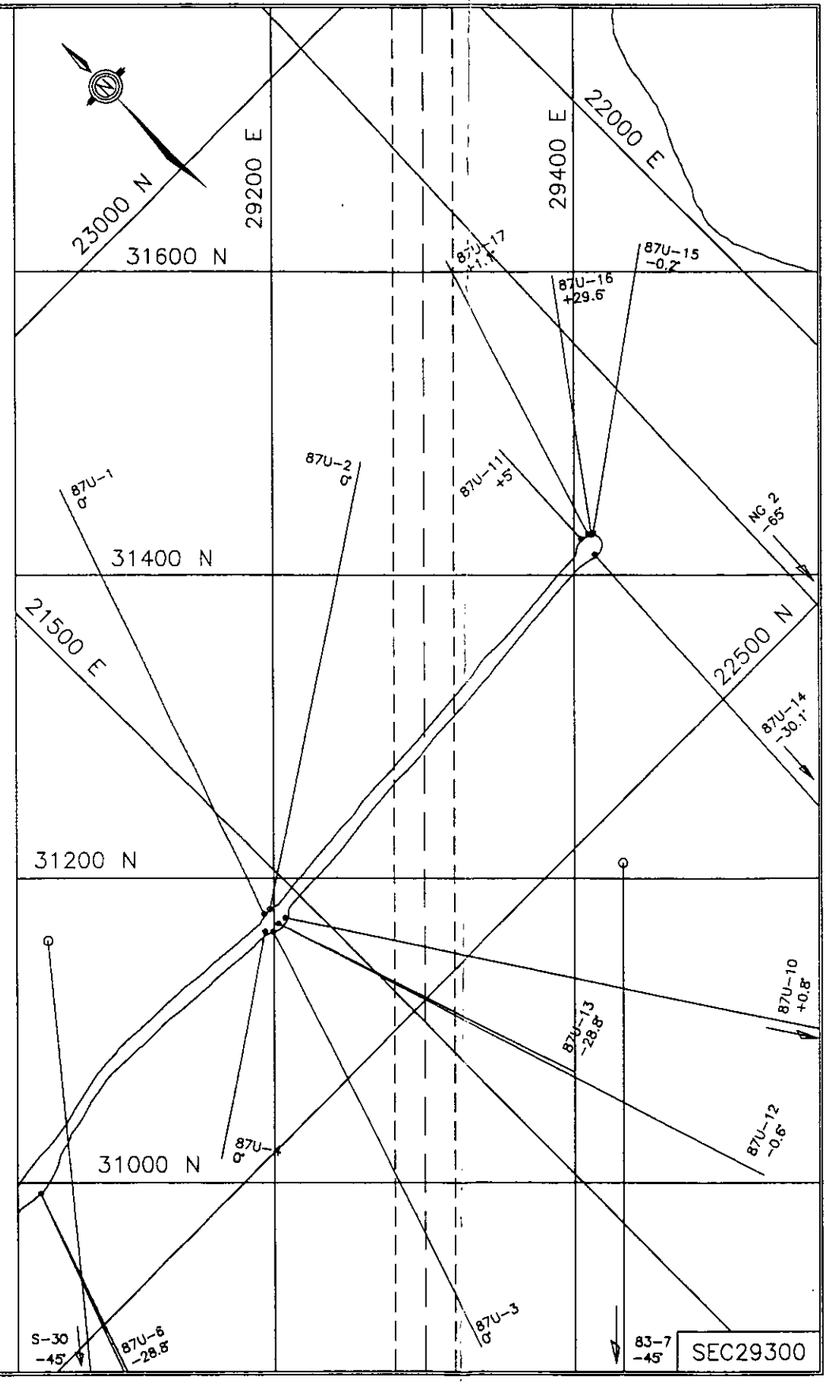
Figure 9p
SECTION 29100 E

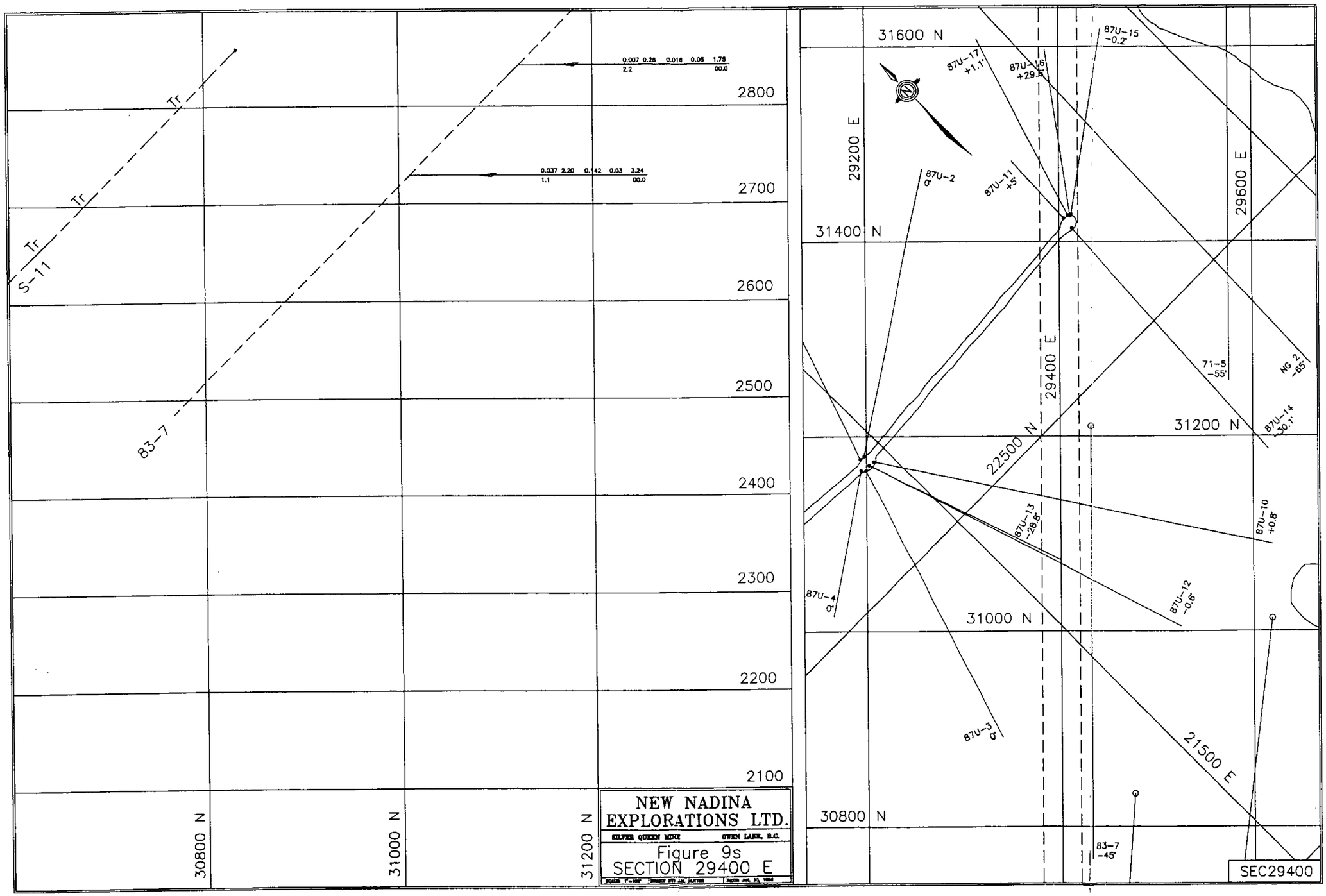


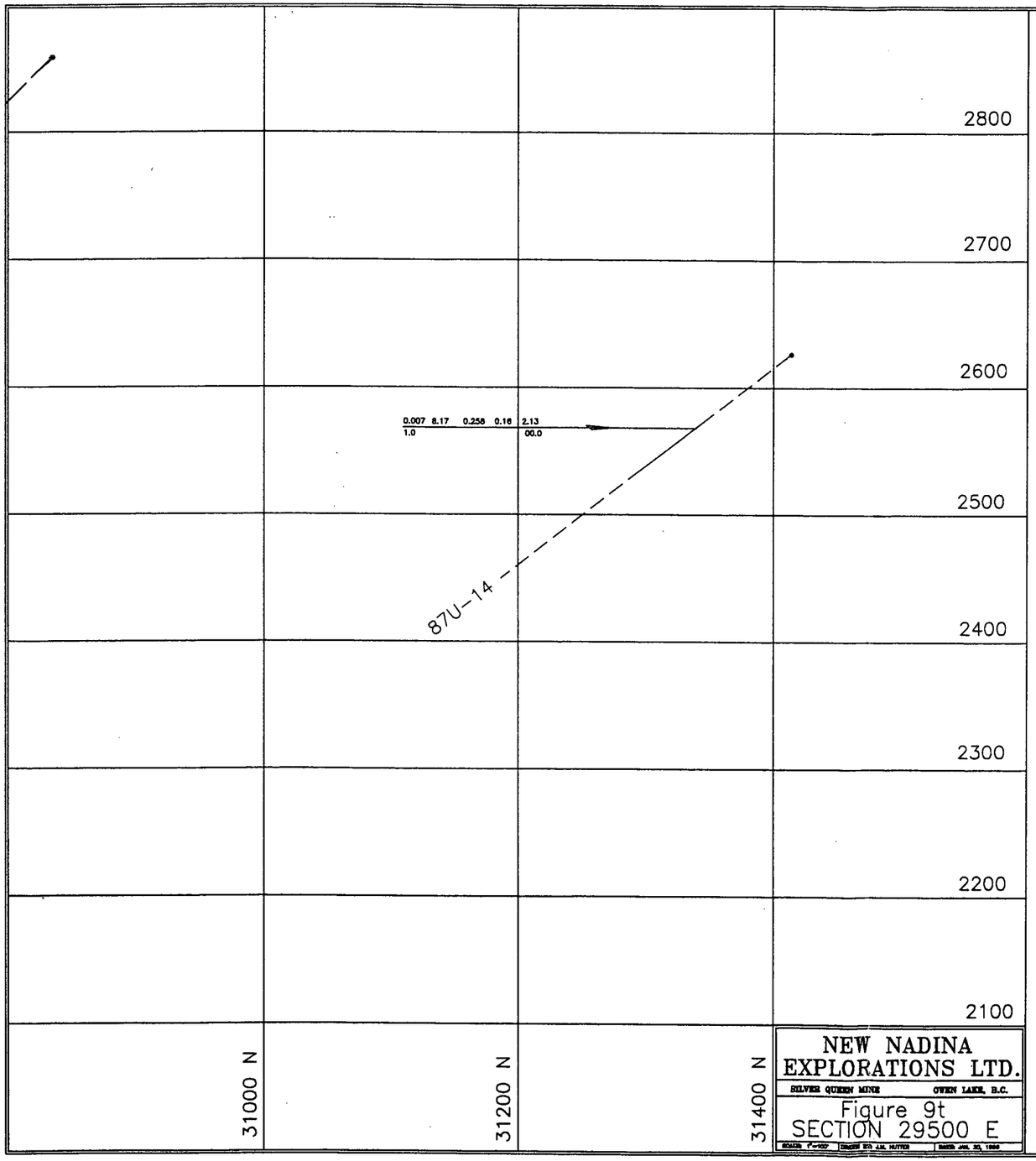

2900
2800
2700
87U-4
0.026 2.28 0.346 0.73 9.05
1.0 0.8
OFF SECTION
87U-2
2600
H.W.
2500
2400
2300
2200
31000 N
31200 N
31400 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9a
SECTION 29200 E


29200 E
87U-1
87U-2
87U-17 +1.1°
87U-16 +29.6°
87U-15 -0.2°
87U-11 +5
31400 N
21500 E
BU111
29400 E
87U-14 -30.1°
22500 N
S-17 -45°
31200 N
29000 E
87U-10 +0.8°
87U-13 -28.8°
87U-12 -0.6°
87U-4
31000 N
87U-3
87U-23 +2.8°
87U-19 +1.3°
87U-6 -28.8°
30800 N
87U-21 -44.2°
87U-18 +1.9°
S-30 -45°
87U-5
83-7 -45°
87U-20 +0.7°
87U-22 +29.7°
87U-24 +3.5°
83-8 -60
SEC29200


2800
2700
2600
2500
2400
2300
2200
2100
31600 N
0.067 55.42 2.210 1.92 0.75
0.5 0.4
87U-3
87U-10
87U-12
No. 3
H.W.
87U-13
31000 N
31200 N
31400 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9r
SECTION 29300 N


23000 N
29200 E
29400 E
22000 E
31600 N
87U-17
+1.4
87U-15
-0.2
87U-16
+29.6
87U-1
87U-2
87U-11
+5
NG 2
-65
31400 N
21500 E
22500 N
87U-14
-30.1
31200 N
87U-10
+0.8
87U-13
-28.8
87U-12
-0.6
31000 N
87U-
S-30
-45
87U-6
-28.8
87U-3
83-7
-45
SEC29300


0.007 0.28 0.016 0.05 1.75
2.2 00.0
0.037 2.20 0.142 0.03 3.24
1.1 00.0
Tr
Tr
Tr
S-11
83-7
2800
2700
2600
2500
2400
2300
2200
2100
30800 N
31000 N
31200 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
QUEEN LAKE, B.C.
Figure 9s
SECTION 29400 E
31600 N
31400 N
31200 N
31000 N
30800 N
29200 E
29400 E
29600 E
22500 N
21500 E
87U-17 +1.1°
87U-16 +29.5°
87U-15 -0.2°
87U-2 0°
87U-11 +5°
71-5 -55°
NG 2 -65°
87U-14 -30.1°
87U-13 -28.8°
87U-10 +0.8°
87U-4 0°
87U-12 -0.6°
87U-3 0°
83-7 -45°
SEC29400

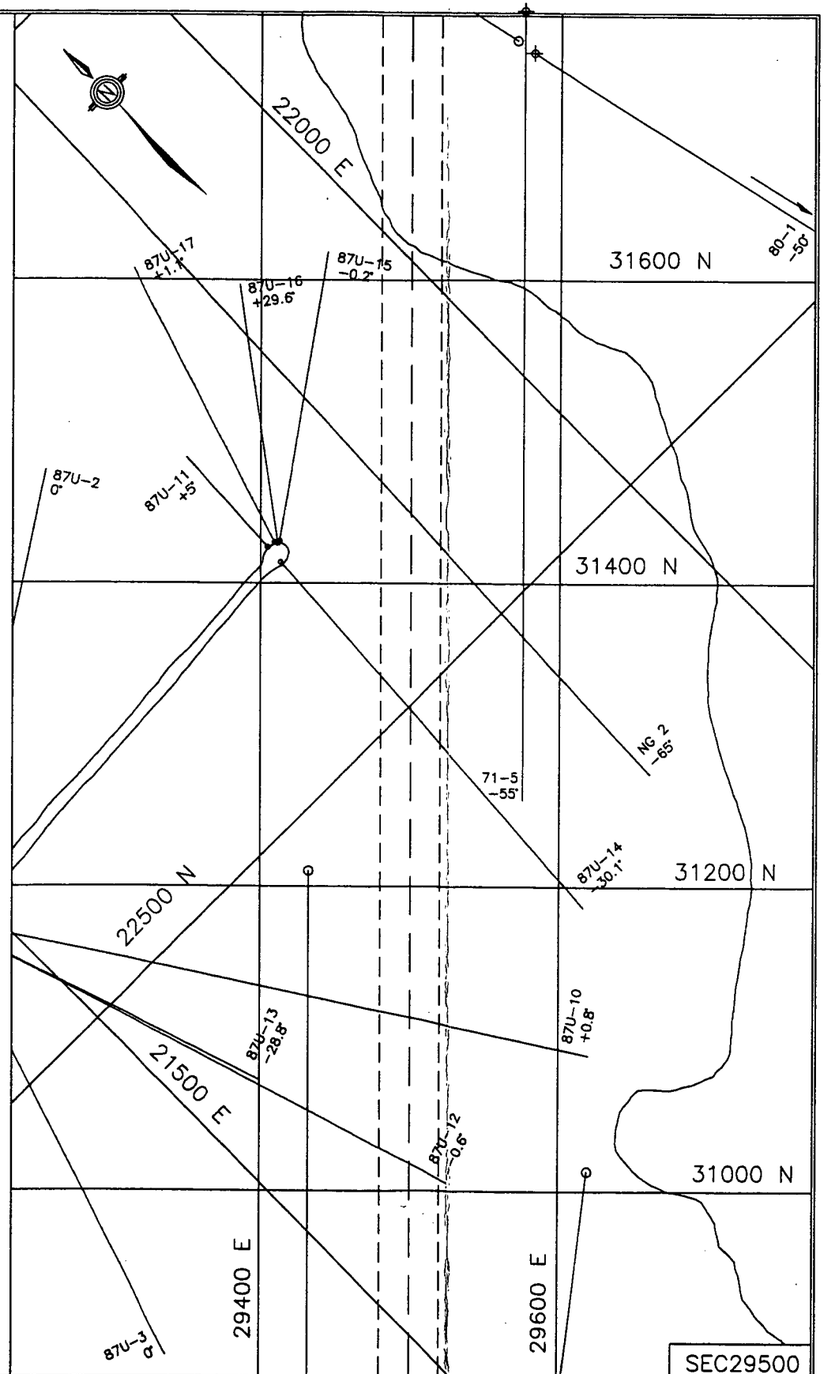


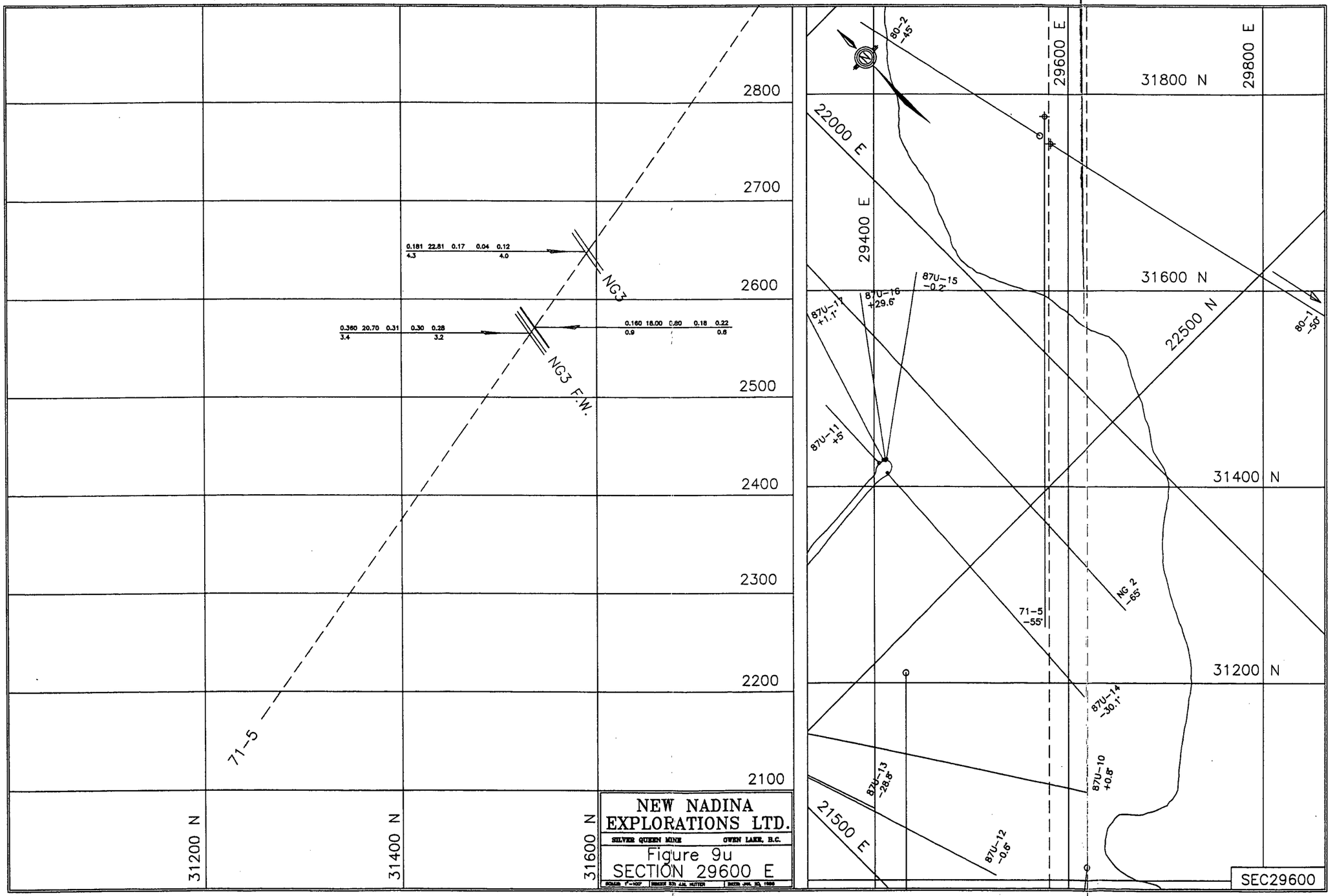
NEW NADINA EXPLORATIONS LTD.

SILVER QUEEN MINE OWEN LAKE, B.C.

Figure 9t

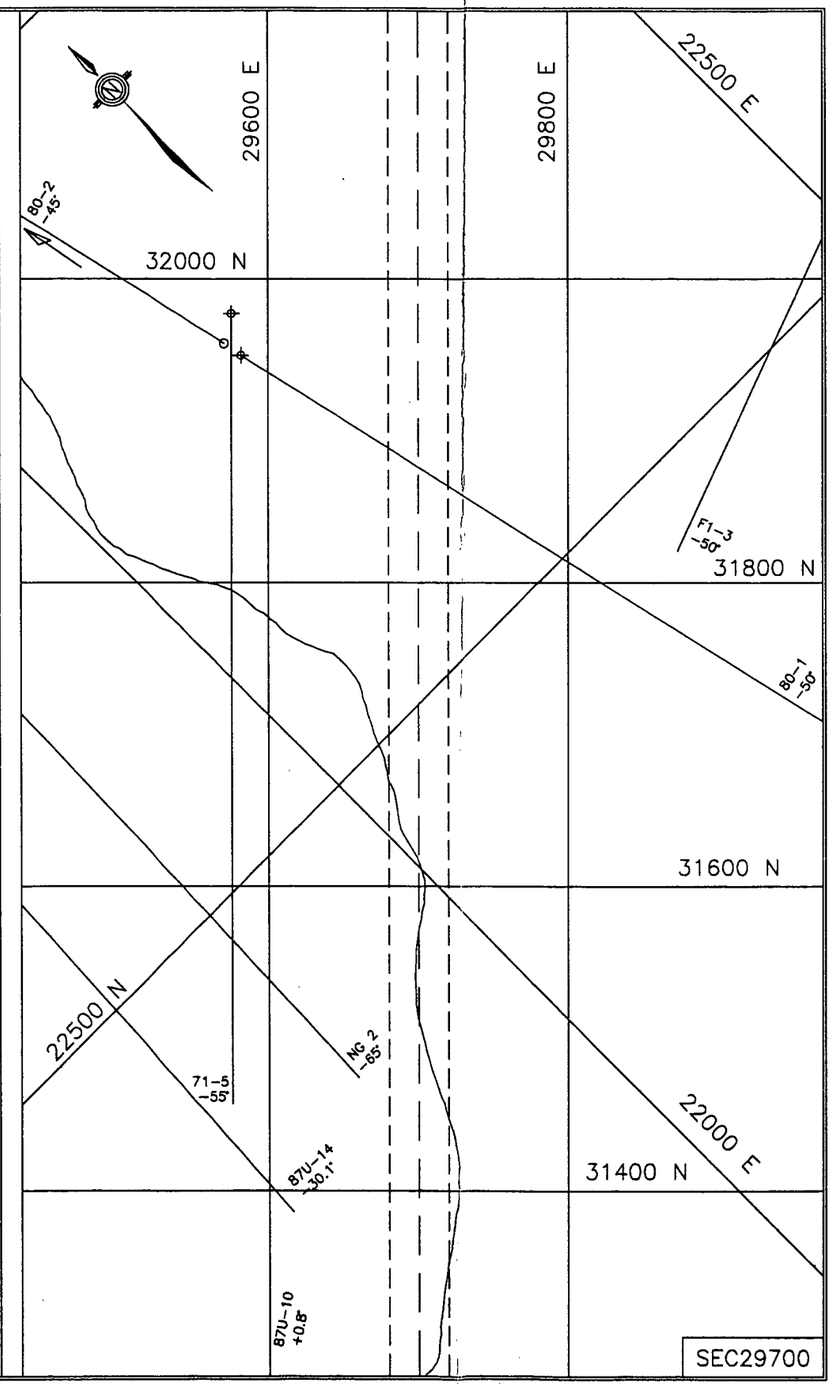
SECTION 29500 E

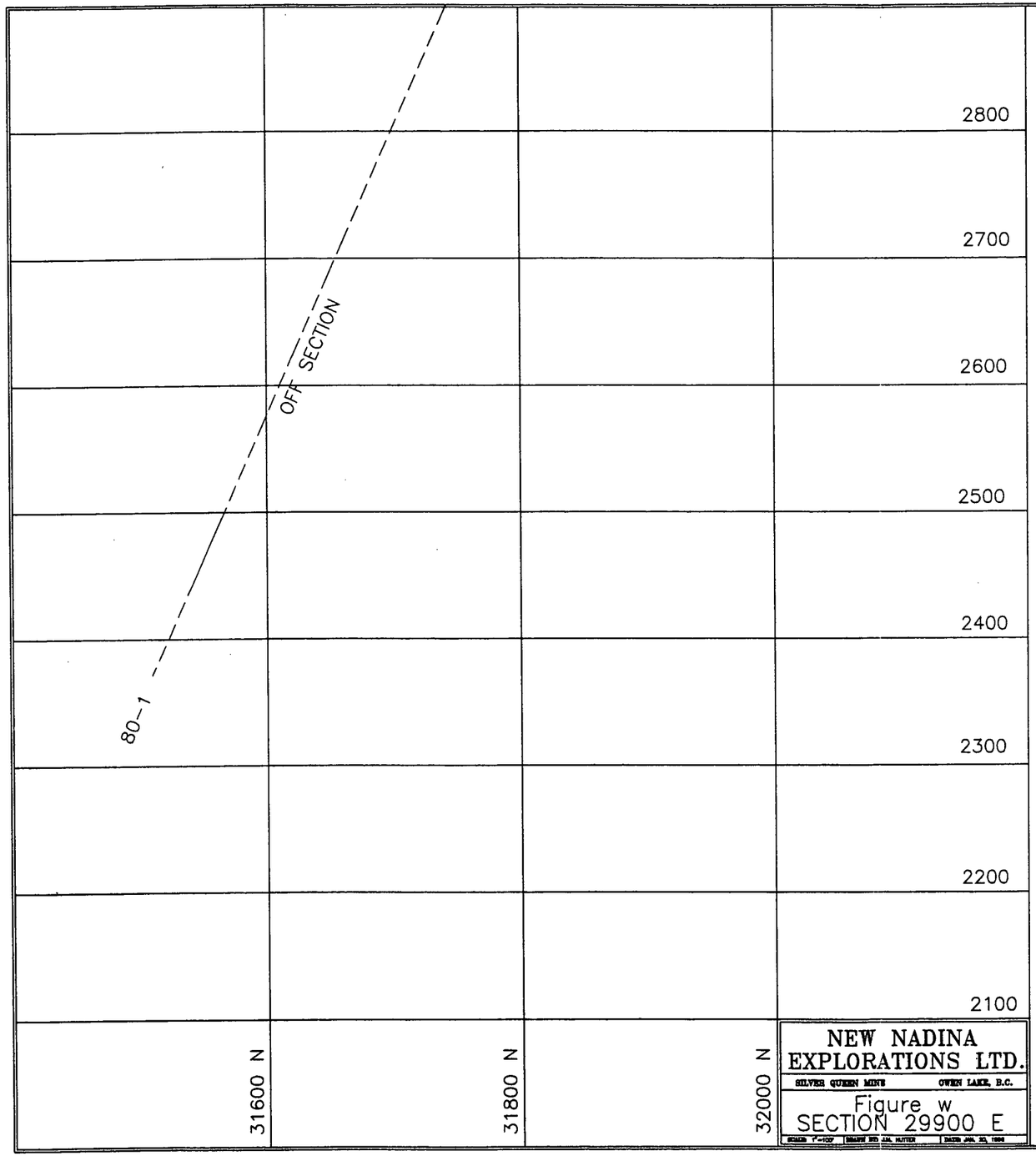


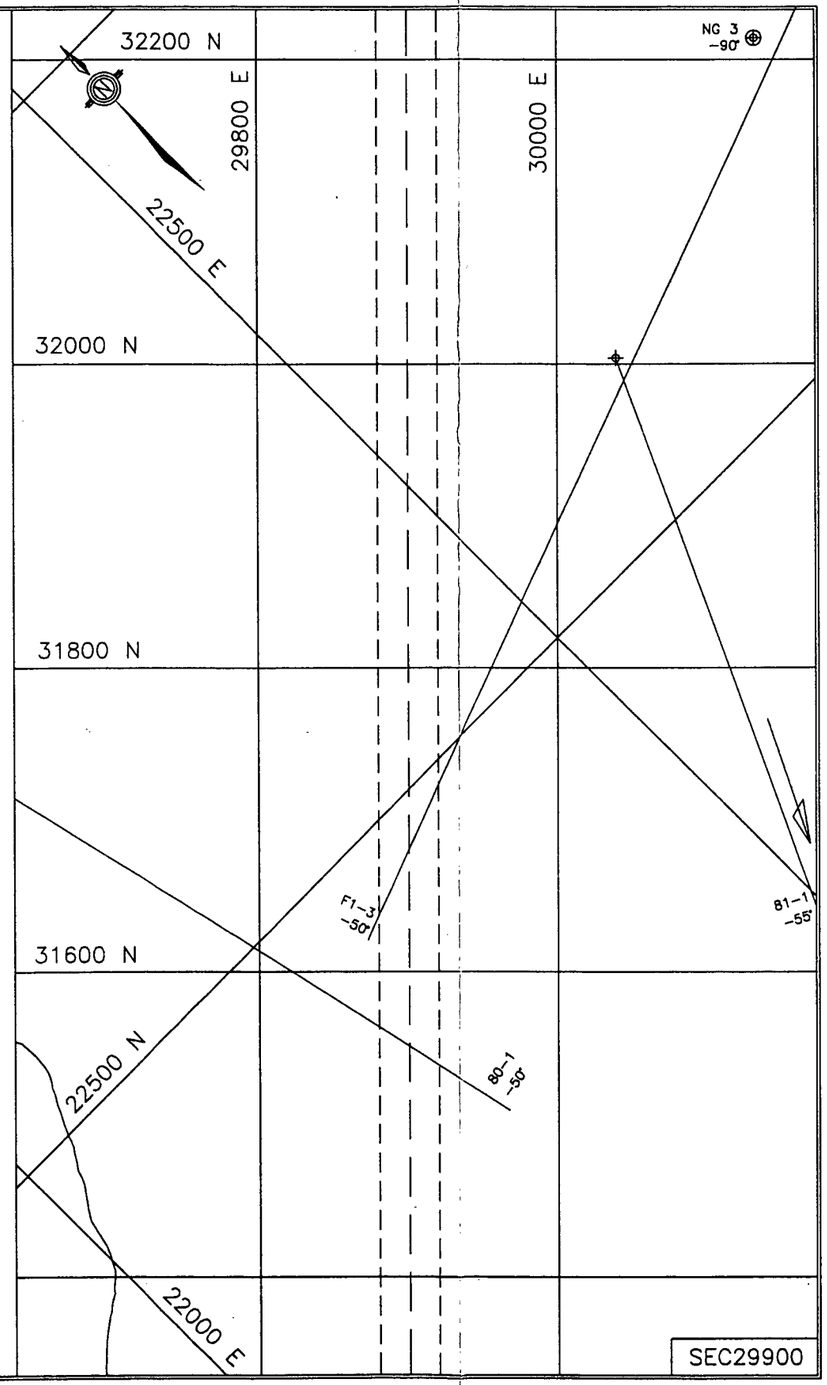

2800
2700
2600
2500
2400
2300
2200
2100
0.181 22.81 0.17 0.04 0.12
4.3 4.0
NG3
0.360 20.70 0.31 0.30 0.28
3.4 3.2
0.160 18.00 0.80 0.18 0.22
0.9 0.8
NG3 F.W.
71-5
31200 N
31400 N
31600 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9u
SECTION 29600 E
80-2 -45
29600 E
29800 E
31800 N
22000 E
29400 E
31600 N
87U-15 -0.2
87U-16 +29.6
87U-17 +1.1
22500 N
80-1 -50
87U-11 +5
31400 N
NG 2 -65
71-5 -55
31200 N
87U-14 -30.1
87U-13 -28.8
87U-10 +0.8
21500 E
87U-12 -0.6
SEC29600

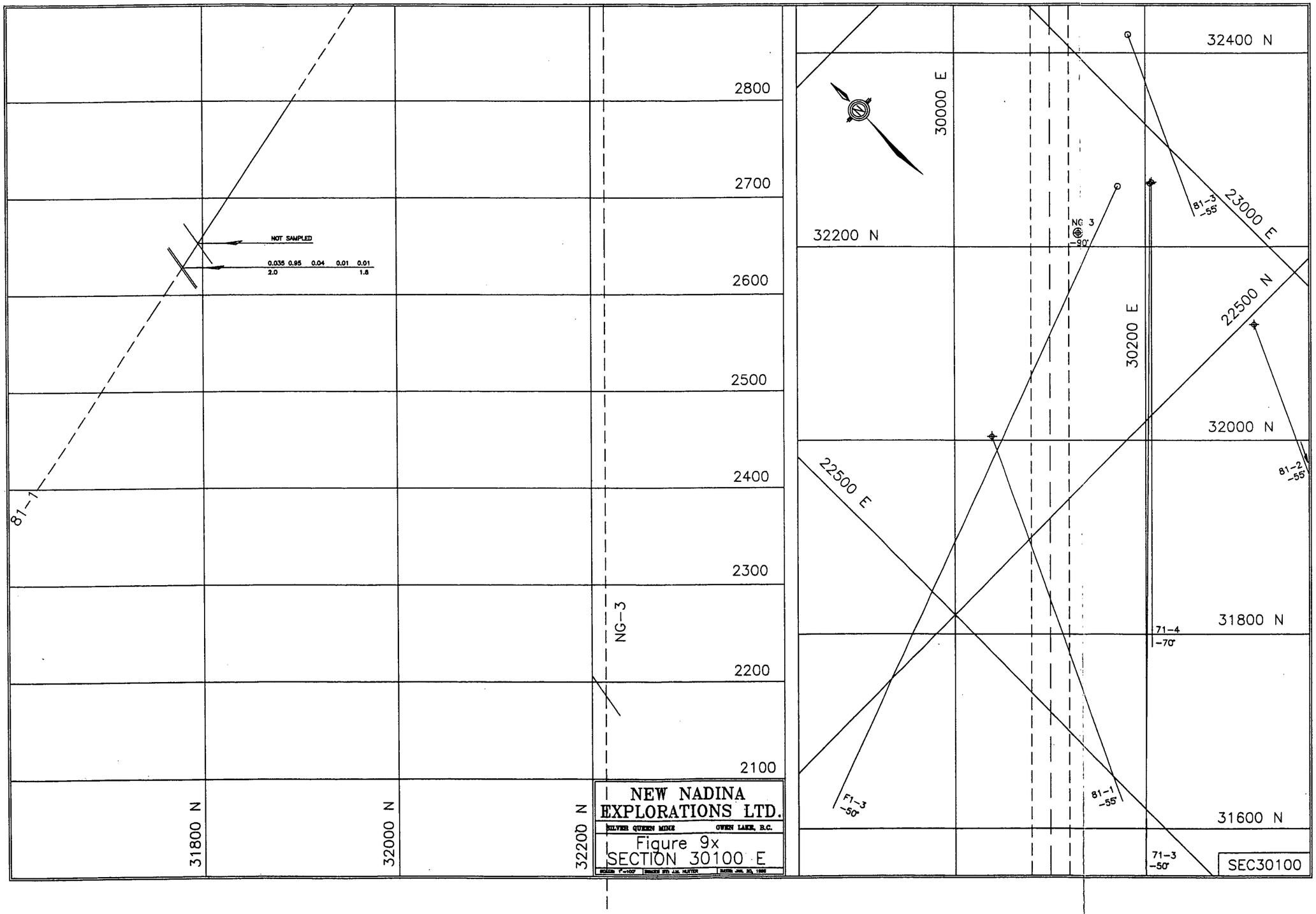
2800
2700
2600
2500
2400
2300
2200
2100
30800 N
31000 N
31200 N

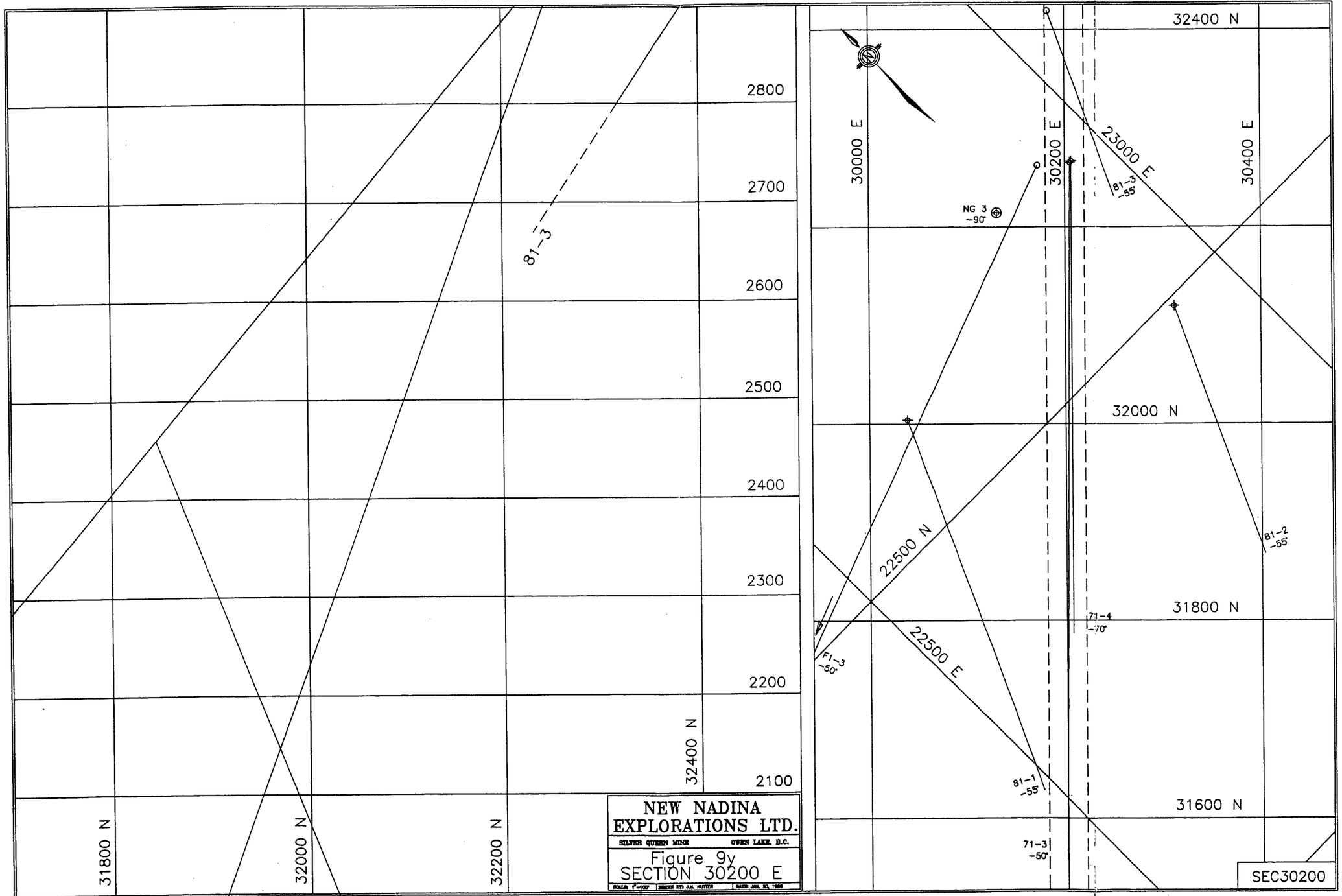
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE — OWEN LAKE, B.C.
Figure 9v
SECTION 29700 E
SCALE 1"=100' | DRAWN BY: J.M. MUTTER | DATED: JAN. 20, 1996

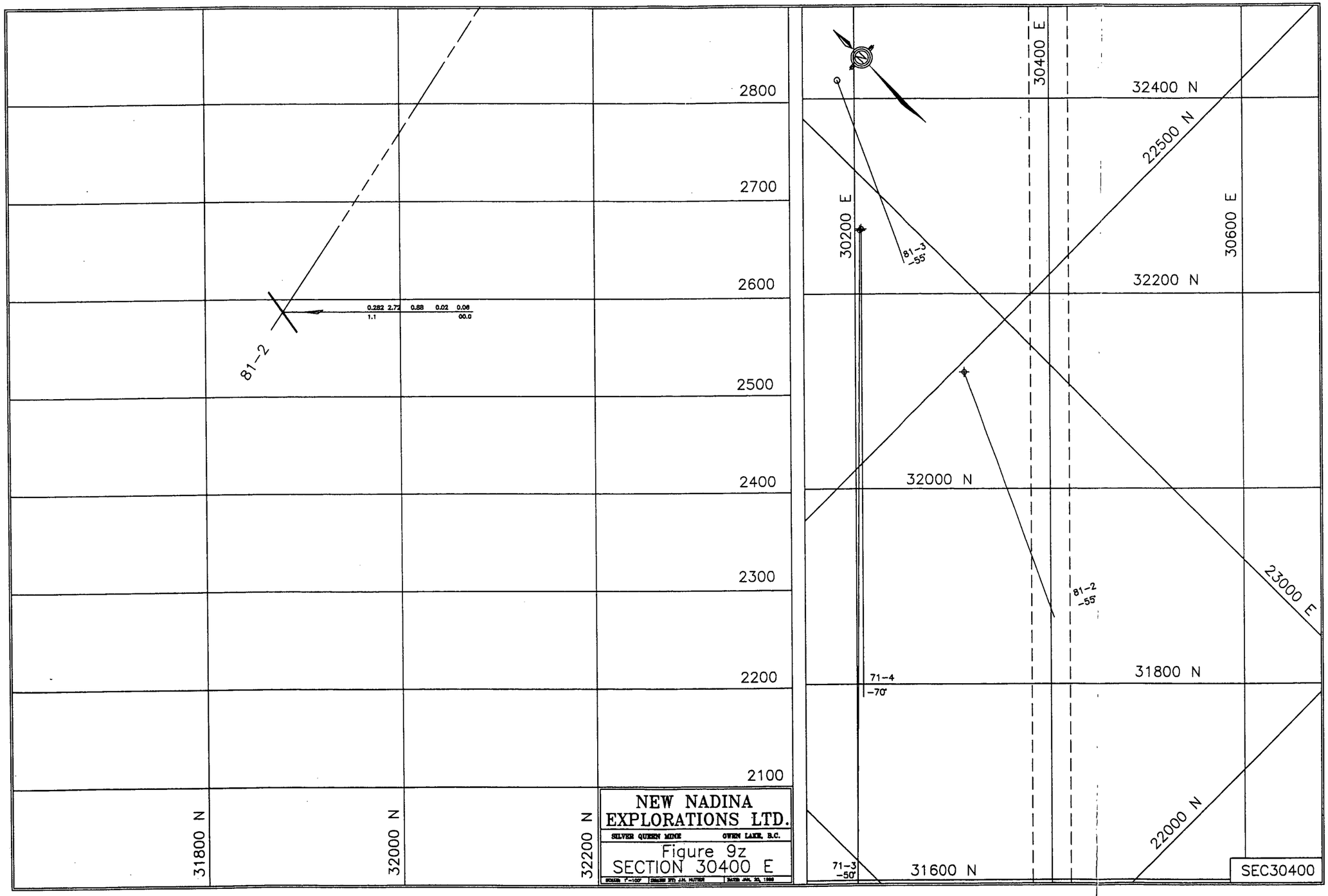



2800
2700
2600
2500
2400
2300
2200
2100
OFF SECTION
80-1
31600 N
31800 N
32000 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure w
SECTION 29900 E


32200 N
29800 E
30000 E
22500 E
32000 N
NG 3
-90°
31800 N
F1-3
-50°
81-1
-55°
31600 N
22500 N
80-1
-50°
22000 E
SEC29900


2800
2700
2600
2500
2400
2300
2200
2100
NOT SAMPLED
0.035 0.85 0.04 0.01 0.01
2.0 1.8
81-1
NG-3
31800 N
32000 N
32200 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9x
SECTION 30100 E
32400 N
30000 E
32200 N
NG 3
-90°
23000 E
81-3
-55°
30200 E
22500 N
32000 N
81-2
-55°
22500 E
71-4
-70°
31800 N
F1-3
-50°
81-1
-55°
31600 N
71-3
-50°
SEC30100


2800
2700
2600
2500
2400
2300
2200
2100
81-3
31800 N
32000 N
32200 N
32400 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9y
SECTION 30200 E
32400 N
30000 E
30200 E
30400 E
23000 E
81-3 -55°
NG 3 -90°
32000 N
81-2 -55°
22500 N
31800 N
71-4 -70°
F1-3 -50°
22500 E
81-1 -55°
31600 N
71-3 -50°
SEC30200


2800
2700
2600
2500
2400
2300
2200
2100
81-2
0.282 2.72 0.88 0.02 0.06
1.1 00.0
31800 N
32000 N
32200 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9z
SECTION 30400 E
30400 E
32400 N
22500 N
30200 E
30600 E
81-3
-55°
32200 N
32000 N
23000 E
81-2
-55°
71-4
-70°
31800 N
22000 N
71-3
-50°
31600 N
SEC30400

2800

2700

2600

2500

2400

2300

2200

2100

81-4

31800 N

32000 N

32200 N

NEW NADINA EXPLORATIONS LTD.

SILVER QUEEN MINE OWEN LAKE, B.C.

Figure 9aa

SECTION 30800 E

30600 E

30800 E

31000 E

23500 E

32400 N

32200 N

22000 N

32000 N

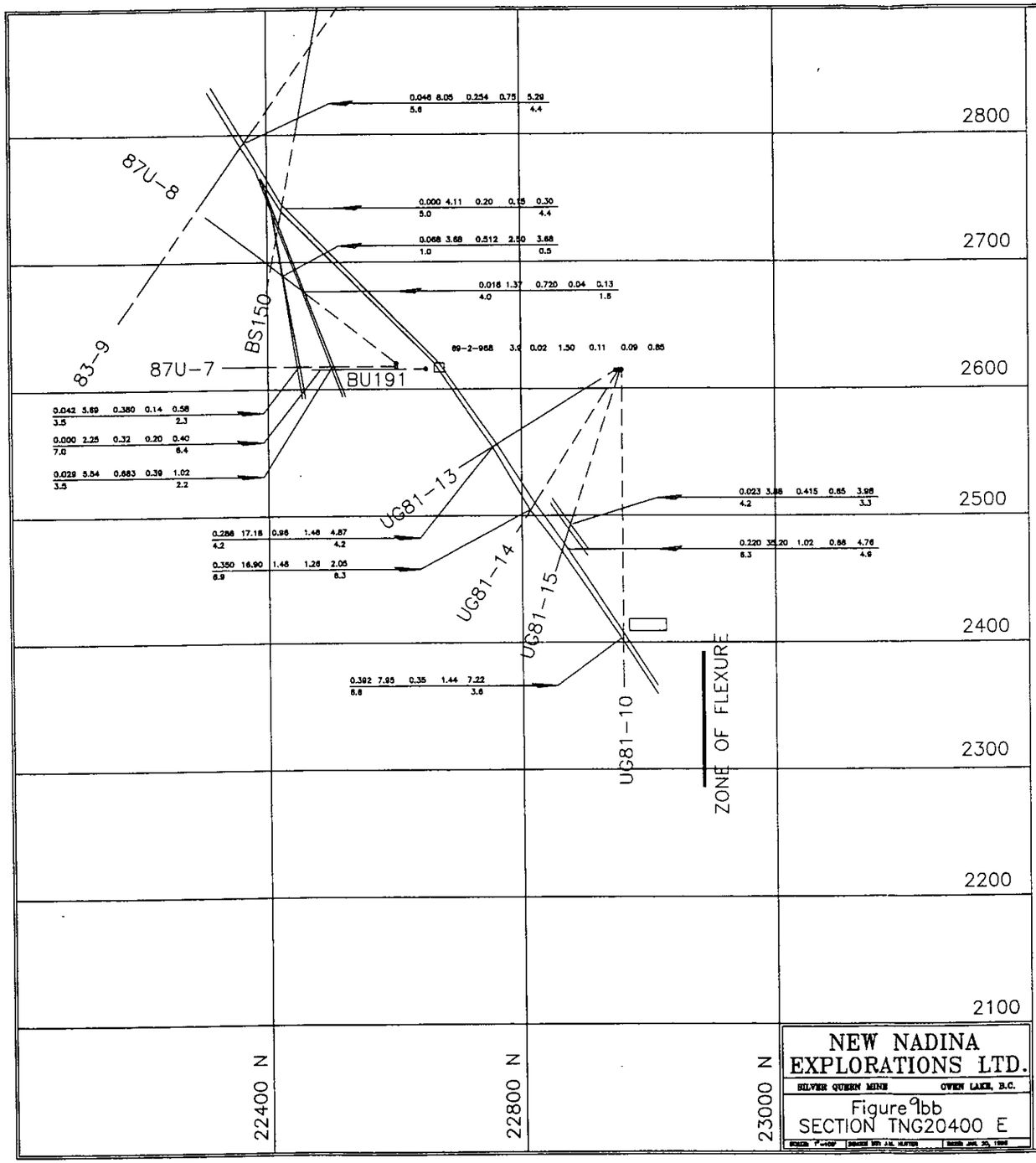
23000 E

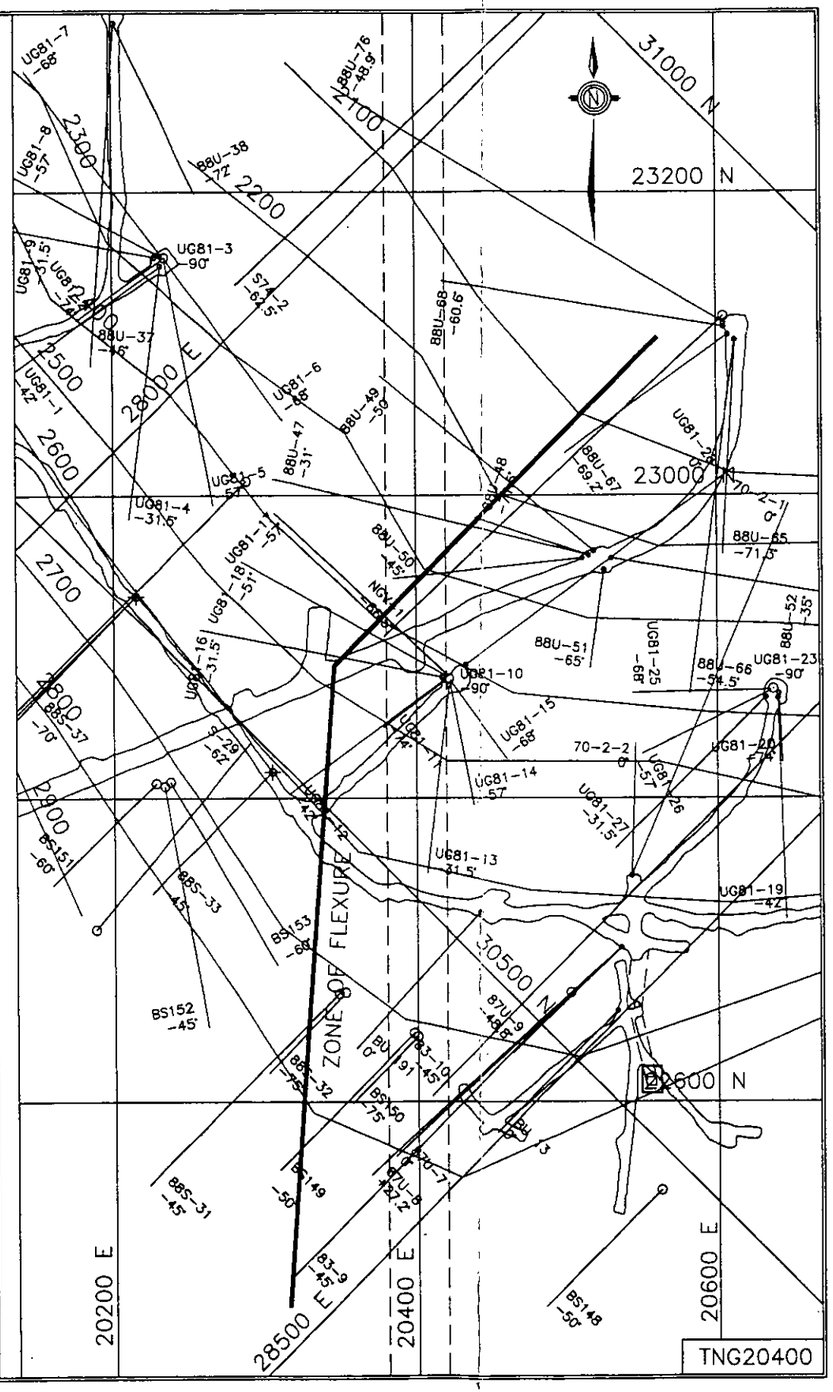
81-4 -80°

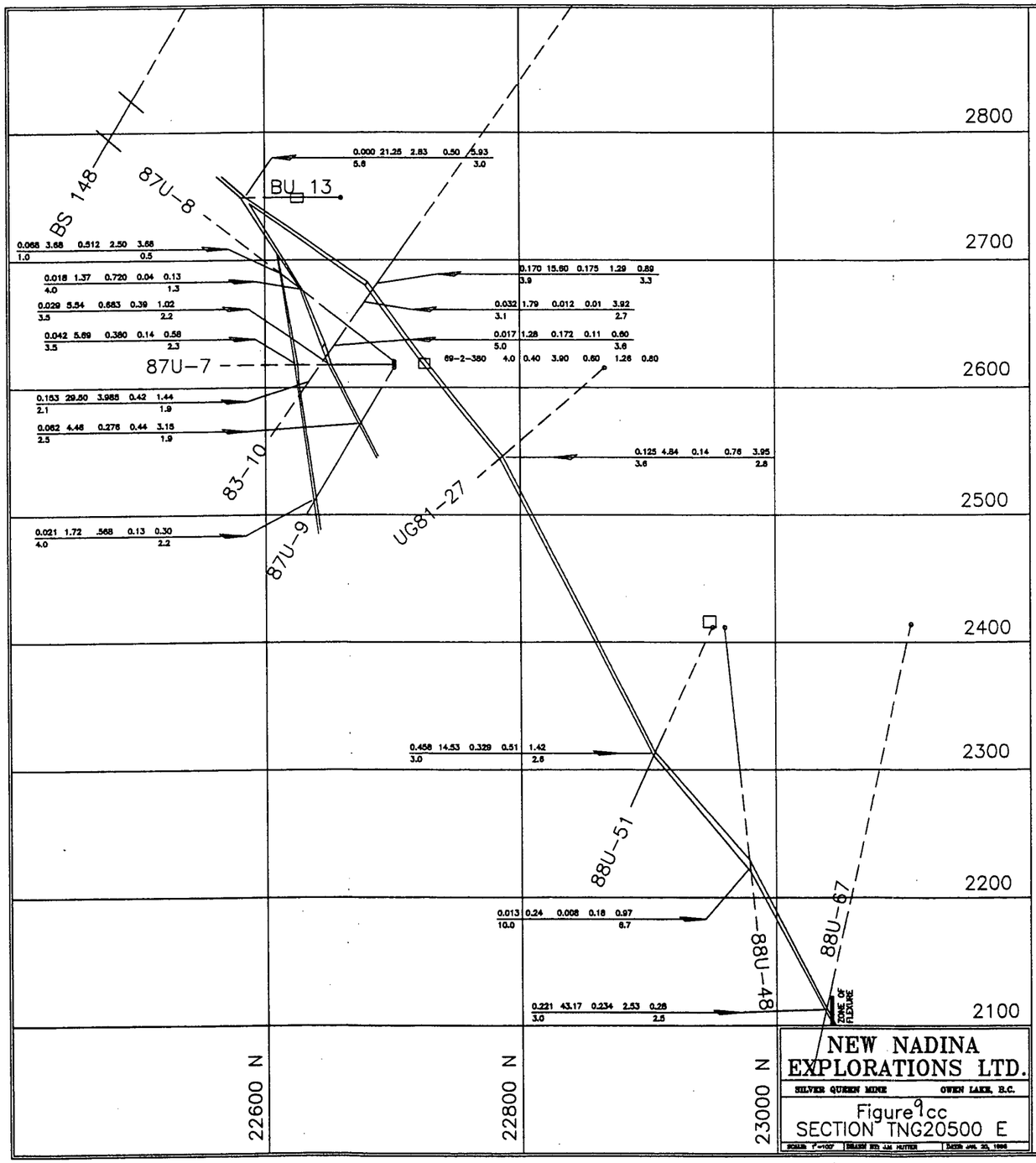
31800 N

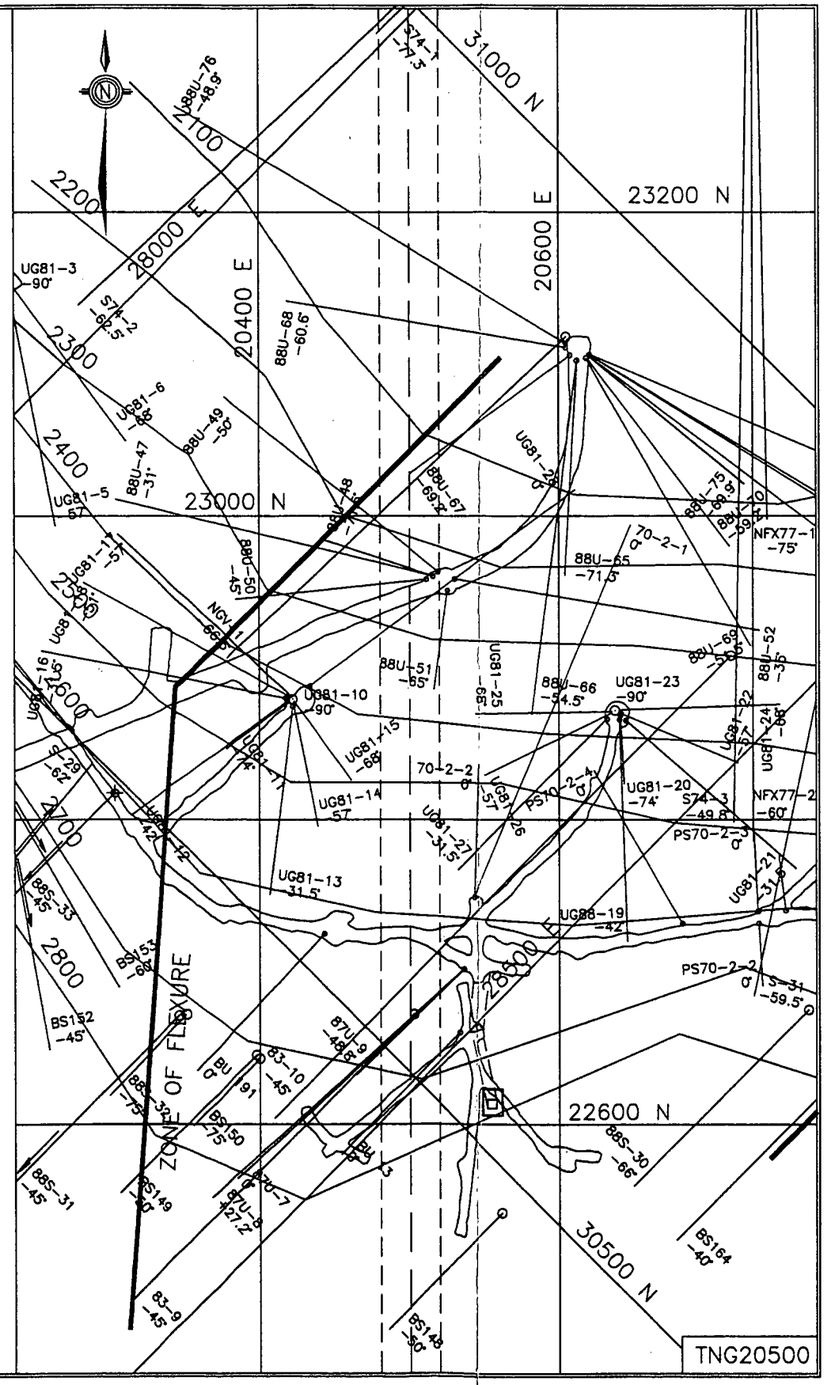
31600 N

SEC30800


87U-8
83-9
87U-7
BS150
BU191
UG81-13
UG81-14
UG81-15
UG81-10
ZONE OF FLEXURE
2800
2700
2600
2500
2400
2300
2200
2100
22400 N
22800 N
23000 N
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9bb
SECTION TNG20400 E


31000 N
23200 N
23000
30500 N
30600 N
2800 E
2500
2600
2700
2800
2900
2100
2200
2300
UG81-3
UG81-10
UG81-15
UG81-13
UG81-14
UG81-19
UG81-20
UG81-21
UG81-23
UG81-25
UG81-26
ZONE OF FLEXURE
20200 E
20400 E
20600 E
28500 E
TNG20400


2800
2700
2600
2500
2400
2300
2200
2100
22600 N
22800 N
23000 N
BS 148
87U-8
BU 13
87U-7
83-10
87U-9
UG81-27
88U-51
88U-48
88U-67
ZONE OF FLEXURE
0.000 21.25 2.83 0.50 5.93
5.8 3.0
0.068 3.68 0.512 2.50 3.66
1.0 0.5
0.018 1.37 0.720 0.04 0.13
4.0 1.3
0.029 5.54 0.683 0.39 1.02
3.5 2.2
0.042 5.69 0.380 0.14 0.58
3.5 2.3
0.170 15.60 0.175 1.29 0.89
3.9 3.3
0.032 1.79 0.012 0.01 3.92
3.1 2.7
0.017 1.28 0.172 0.11 0.60
5.0 3.6
69-2-380 4.0 0.40 3.90 0.60 1.26 0.60
0.153 29.50 3.985 0.42 1.44
2.1 1.9
0.062 4.46 0.276 0.44 3.15
2.5 1.9
0.125 4.84 0.14 0.76 3.95
3.6 2.8
0.021 1.72 .568 0.13 0.30
4.0 2.2
0.458 14.53 0.329 0.51 1.42
3.0 2.8
0.013 0.24 0.008 0.18 0.97
10.0 8.7
0.221 43.17 0.234 2.53 0.26
3.0 2.5
NEW NADINA
EXPLORATIONS LTD.
SILVER QUEEN MINE
OWEN LAKE, B.C.
Figure 9cc
SECTION TNG20500 E


31,000 N
23200 N
23000 N
22600 N
30500 N
20600 E
20400 E
28000 E
28800 E
2200
2300
2400
2500
2600
2700
2800
ZONE OF FLEXURE
N88U-76 -48.9°
574-1 -71.3
UG81-3 -90°
574-2 -58.5
88U-68 -60.6°
UG81-6 -66°
88U-49 -50°
88U-47 -31°
UG81-5 -67°
88U-48 -45°
88U-67 -69.3°
UG81-28 -0°
88U-75 -68.3°
88U-70 -59.5°
NFX77-1 -75°
70-2-1
88U-65 -71.3°
UG81-17 -57°
88U-50 -45°
NGU-1 -66°
UG81-16 -66°
88U-51 -55°
UG81-25 -65°
88U-66 -54.5°
UG81-23 -90°
88U-63 -55°
88U-52 -35°
UG81-10 -90°
UG81-15 -66°
UG81-22 -57°
UG81-24 -66°
70-2-2
UG81-14 -57°
UG81-20 -74°
574-3 -49.8°
NFX77-2 -60°
PS70-2-3
UG81-27 -31.5°
UG81-13 -31.5°
UG81-21 -31.5°
UG88-19 -42°
PS70-2-2
88S-33 -45°
BS153 -60°
BS152 -45°
87U-9 -48.6°
83-10 -45°
BU 91
88S-32 -75°
88S-30 -66°
BS150 -75°
88S-31 -45°
BS149 -40°
87U-8 -42.2°
83-9 -45°
BS164 -40°
BS148 -40°
TNG20500

2800
2700
2600
2500
2400
2300
2200
2100

2554 3.0 0.014 0.53 0.042 0.19 1.10

89-2-430 3.0 0.28 33.00 0.60 0.81 3.60

UG81-28
70-2-1

0.372 17.20 0.28 1.88 18.50
3.8 3.8

0.125 4.84 0.14 0.76 3.95
3.8 2.8

UG81-27
UG81-19

0.291 11.20 0.28 1.44 19.50
2.7 1.9

0.355 14.00 0.31 1.40 17.40
7.2 5.9

UG81-20
UG81-26

0.321 1.72 0.646 0.98 12.60
18.5 10.1

UG81-25

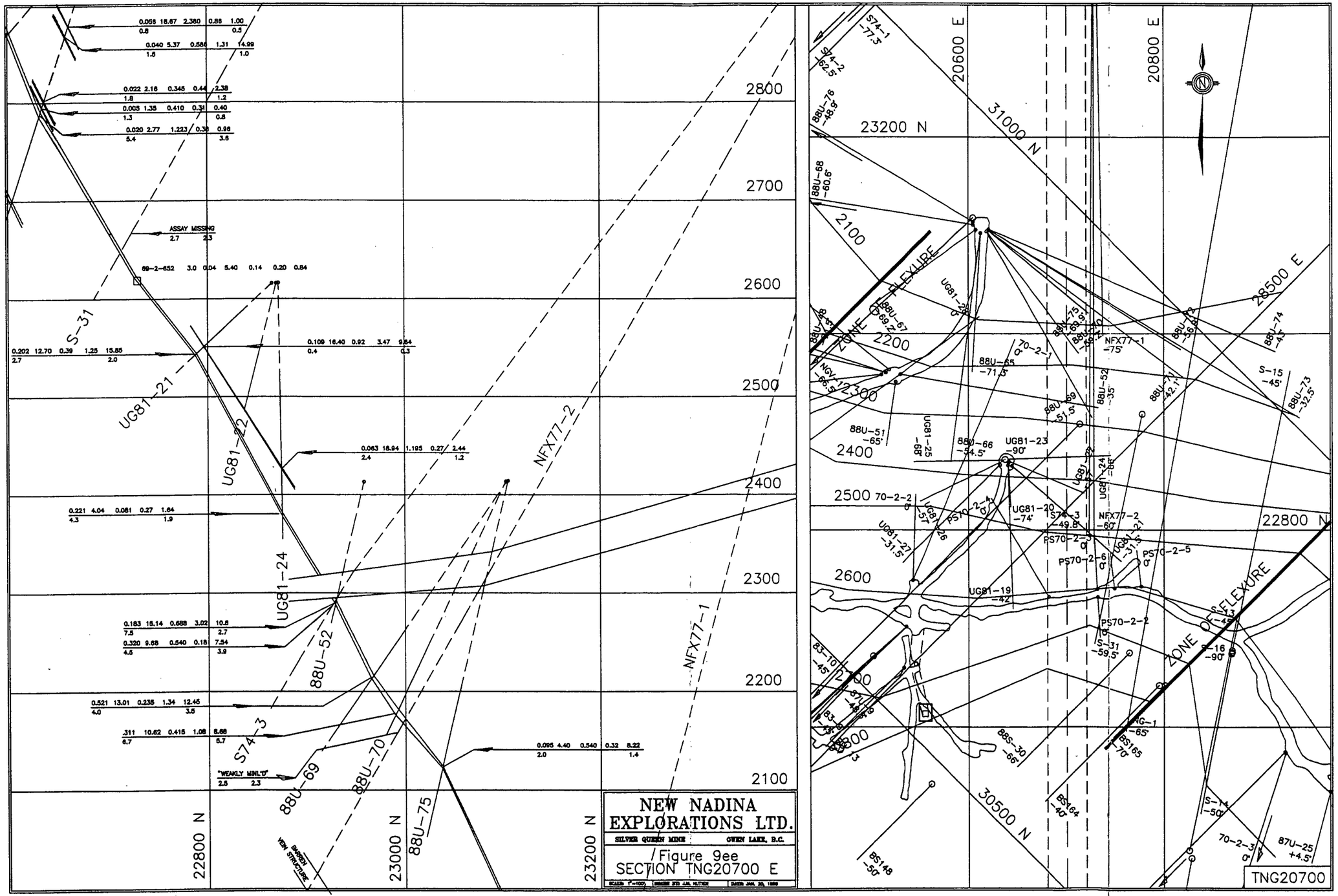
?
NO VEIN
?

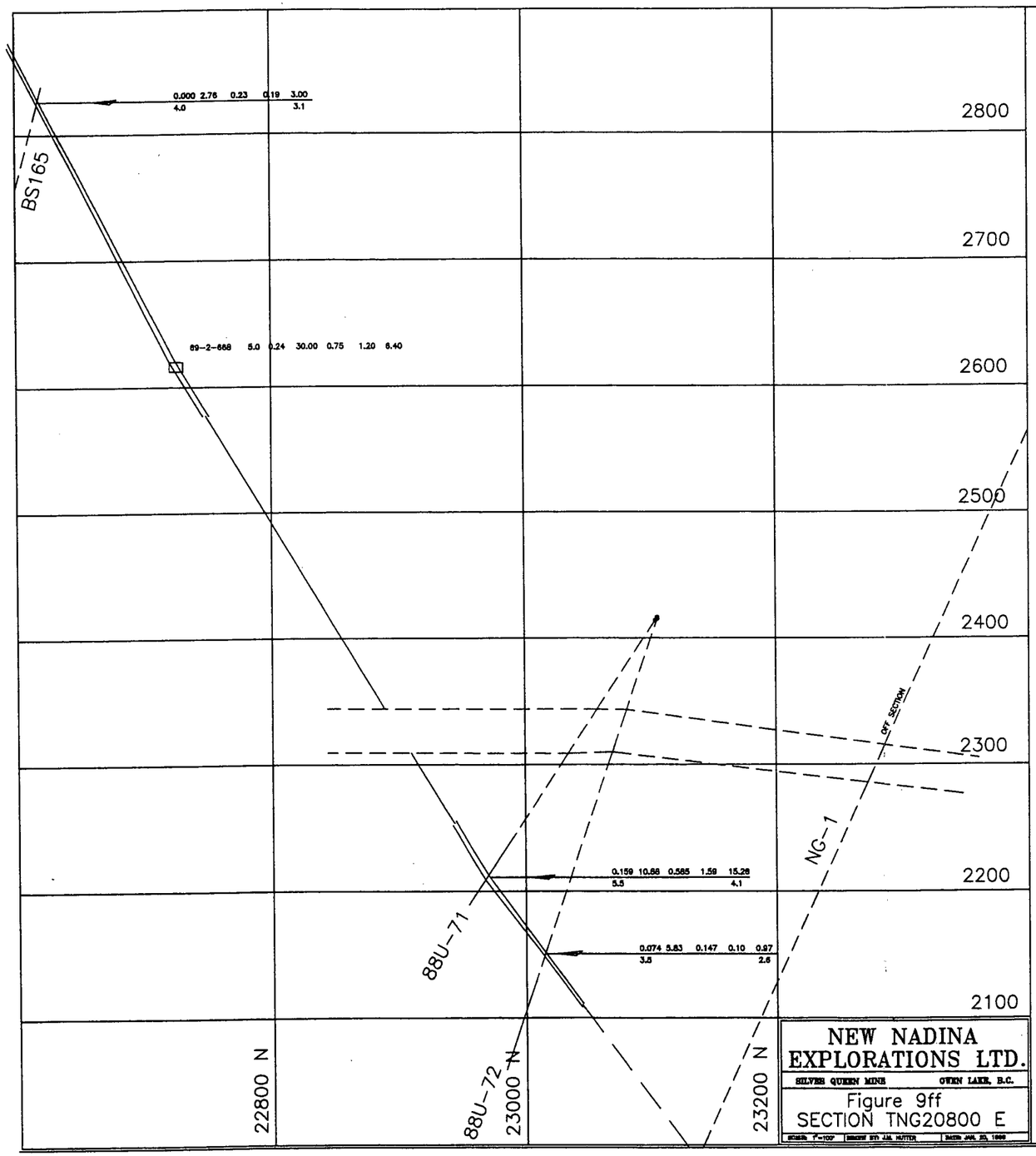
88U-66

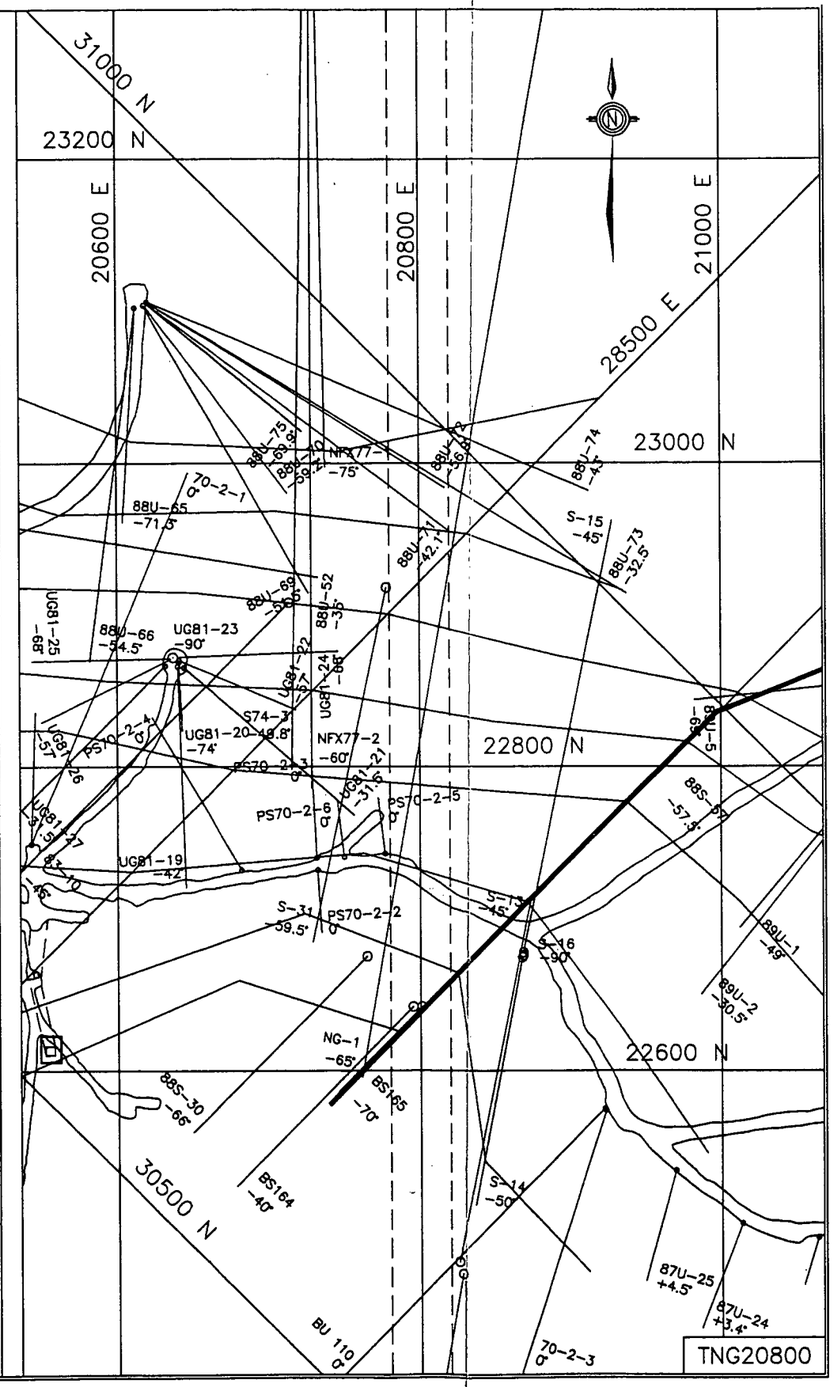
88U-65

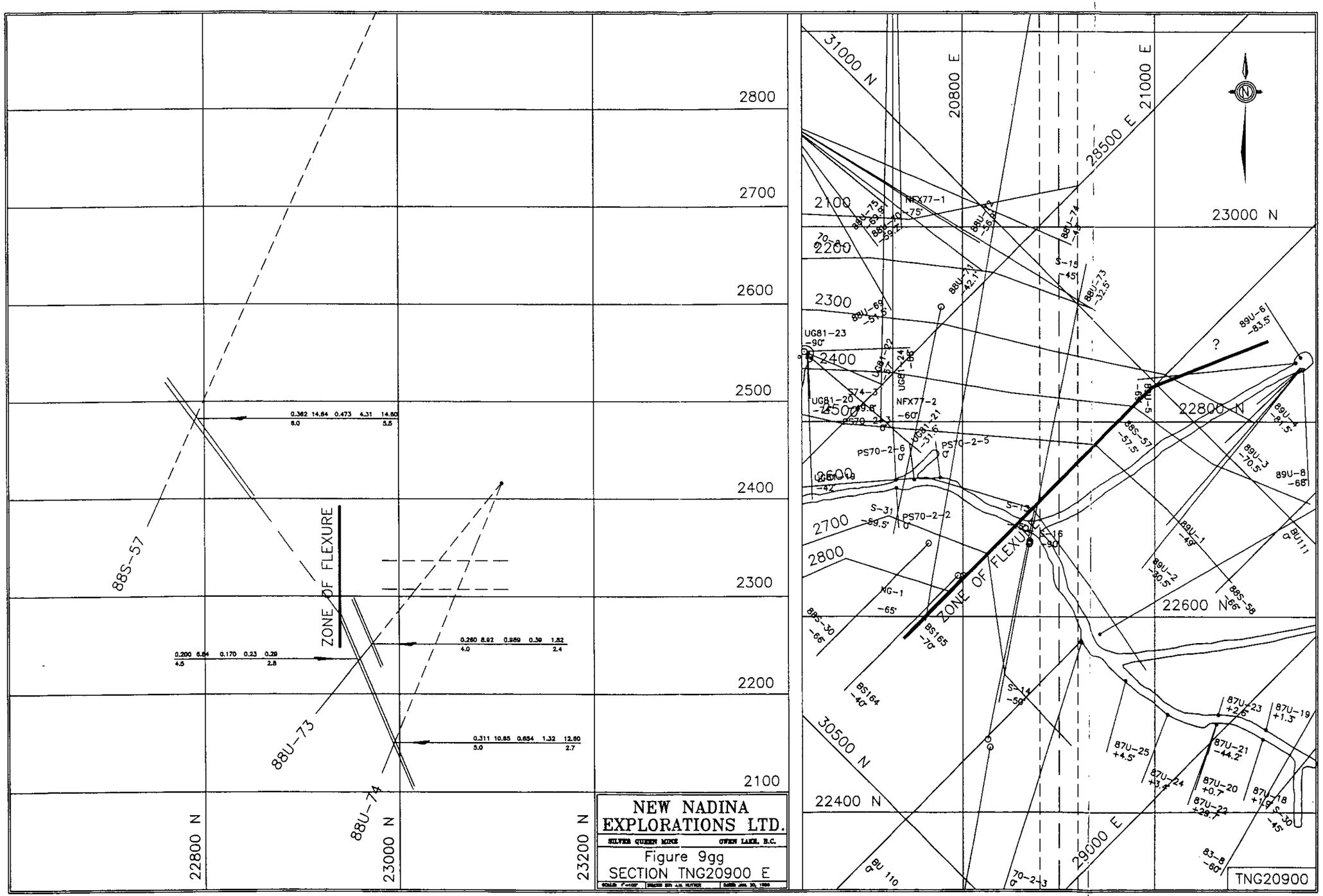
22600 N
22800 N
23000 N

NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9dd
SECTION TNG20600 E
SCALE 1"=100' DRAWN BY: J.G. HUNTER DATED: APR. 20, 1988


2800
2700
2600
2500
2400
2300
2200
2100
22800 N
23000 N
23200 N
S-31
UG81-21
UG81-22
UG81-24
88U-52
S74-3
88U-69
88U-70
88U-75
NFX77-2
NFX77-1
ASSAY MISSING
"WEAKLY MINL'D"
BARREN VEIN STRUCTURE
20600 E
20800 E
28500 E
23200 N
31000 N
22800 N
30500 N
2100
2200
2300
2400
2500
2600
2700
2800
FLEXURE
ZONE OF
S74-1
S74-2
88U-78
88U-68
88U-67
88U-65
88U-66
88U-51
88U-52
88U-69
88U-71
88U-73
88U-74
88U-75
88U-76
88U-79
NFX77-1
NGY-1
UG81-23
UG81-25
UG81-24
UG81-26
UG81-20
UG81-19
S74-3
NFX77-2
PS70-2-1
PS70-2-2
PS70-2-3
PS70-2-4
PS70-2-5
PS70-2-6
70-2-1
70-2-2
70-2-3
S-15
S-14
S-16
S-31
BS165
BS164
BS148
88S-30
87U-25
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE
QUEEN LAKE, B.C.
Figure 9ee
SECTION TNG20700 E
TNG20700


0.000 2.76 0.23 0.19 3.00
4.0 3.1
BS165
89-2-868 5.0 0.24 30.00 0.75 1.20 6.40
2800
2700
2600
2500
2400
2300
2200
2100
0.159 10.66 0.585 1.59 15.26
5.5 4.1
0.074 5.83 0.147 0.10 0.97
3.5 2.6
88U-71
88U-72
NG-1
OFF SECTION
22800 N
23000 N
23200 N
NEW NADINA
EXPLORATIONS LTD.
SILVER QUEEN MINE
QUEEN LAKE, B.C.
Figure 9ff
SECTION TNG20800 E


31000 N
23200 N
20600 E
20800 E
21000 E
28500 E
23000 N
22800 N
22600 N
30500 N
88U-75 -60.5°
88U-70 -59.5°
NFX77-1 -75°
88U-73 -36.5°
88U-74 -43°
70-2-1
88U-65 -71.5°
S-15 -45°
88U-73 -32.5°
88U-71 -42.1°
88U-69 -50.5°
88U-52 -35°
UGB1-25 -68°
88U-66 -54.5°
UGB1-23 -90°
UGB1-22 -57°
UGB1-24 -65°
S74-3
UGB1-20 -74°
NFX77-2 -60°
PS70-2-3
PS70-2-6
PS70-2-5
UGB1-21 -31.5°
UGB1-26 -57°
UGB1-27 -34.5°
PS70-2-7
UGB1-19 -42°
S-31 -59.5°
PS70-2-2
S-13 -45°
S-16 -90°
88U-1 -43°
88U-2 -30.5°
88S-97 -57.4°
88U-5 -63°
NG-1 -65°
BS165 -70°
88S-30 -66°
BS164 -40°
S-14 -50°
87U-25 +4.5°
87U-24 +3.4°
BU 110 0°
70-2-3
TNG20800


2800
2700
2600
2500
2400
2300
2200
2100
22800 N
23000 N
23200 N
88S-57
88U-73
88U-74
ZONE OF FLEXURE
0.362 14.64 0.473 4.31 14.80
8.0 5.5
0.200 6.64 0.170 0.23 0.29
4.5 2.8
0.260 8.92 0.959 0.39 1.82
4.0 2.4
0.311 10.85 0.654 1.32 12.80
5.0 2.7
NEW NADINA EXPLORATIONS LTD.
SILVER QUEEN MINE OWEN LAKE, B.C.
Figure 9gg
SECTION TNG20900 E
31000 N
20800 E
28500 E
21000 E
23000 N
22800 N
30500 N
22400 N
29000 E
22600 N
2100
2200
2300
2400
2500
2600
2700
2800
NFX77-1 -75°
NFX77-2 -60°
UG81-23 -90°
UG81-24 -65°
UG81-20 -45°
UG81-21 -31.6°
UG81-22 -57°
PS70-2-6
PS70-2-5
PS70-2-2
PS70-2-3
S74-3
S79-2
S-31 -59.5°
S-15 45°
S-16 -30°
S-14 -50°
S-30 -45°
NG-1 -65°
BS165 -70°
BS164 -40°
88U-75 -63.5°
88U-70 -59.2°
88U-72 -56.5°
88U-74 -42°
88U-71 -42.7°
88U-73 -32.5°
88U-69 -57.5°
89U-6 -83.5°
89U-4 -84.5°
89U-3 -70.5°
89U-8 -68°
89U-1 -49°
89U-2 -90.5°
88S-57 -57.5°
88S-58 -66°
88S-30 -66°
83-8 -60°
87U-23 +2.6
87U-19 +1.3
87U-25 +4.5
87U-21 -44.2
87U-24 +3.4
87U-20 +0.7
87U-22 +29.7
87U-18 +1.9
BU 110
BU111
TNG20900

2.2 Evaluation of exploration and research data

A detailed evaluation of all past data collected on the property was undertaken. The specific goal of this evaluation was to define a model for mineralization on the property which was supported by all the information available, and to use this model to define areas for further exploration, particularly for bulk tonnage type targets. As part of the evaluation process, the detailed and thorough suite of rock samples which formed the base for the recent research work by various UBC workers was obtained.

Regional mapping (Church and Barasko, 1990) shows that both the Silver Queen and Equity Silver deposits occur within the Buck Creek Basin, a large Tertiary fault-bounded depression (probable caldera). Both deposits are hosted by Cretaceous rocks exposed as windows within the Tertiary volcanics. Further support for the close relationship between Equity and Silver Queen comes from an examination of rock geochemistry. Church and Barakso (1990) completed a regional lithogeochemical sampling program. Areas of known mineralization were clearly defined by anomalous As-Ag geochemistry. An examination of this geochemistry shows that the Silver Queen area has anomalies of similar magnitude to Equity for Ag, As, Cu, Pb and Mo, and has stronger Au and Zn anomalies.

Mineralization at Equity fits a transitional porphyry-epithermal subvolcanic Au-Ag-Cu model (Pantelyev, 1996). Characteristics of such a deposit are given by Pantelyev (1996) as follows:

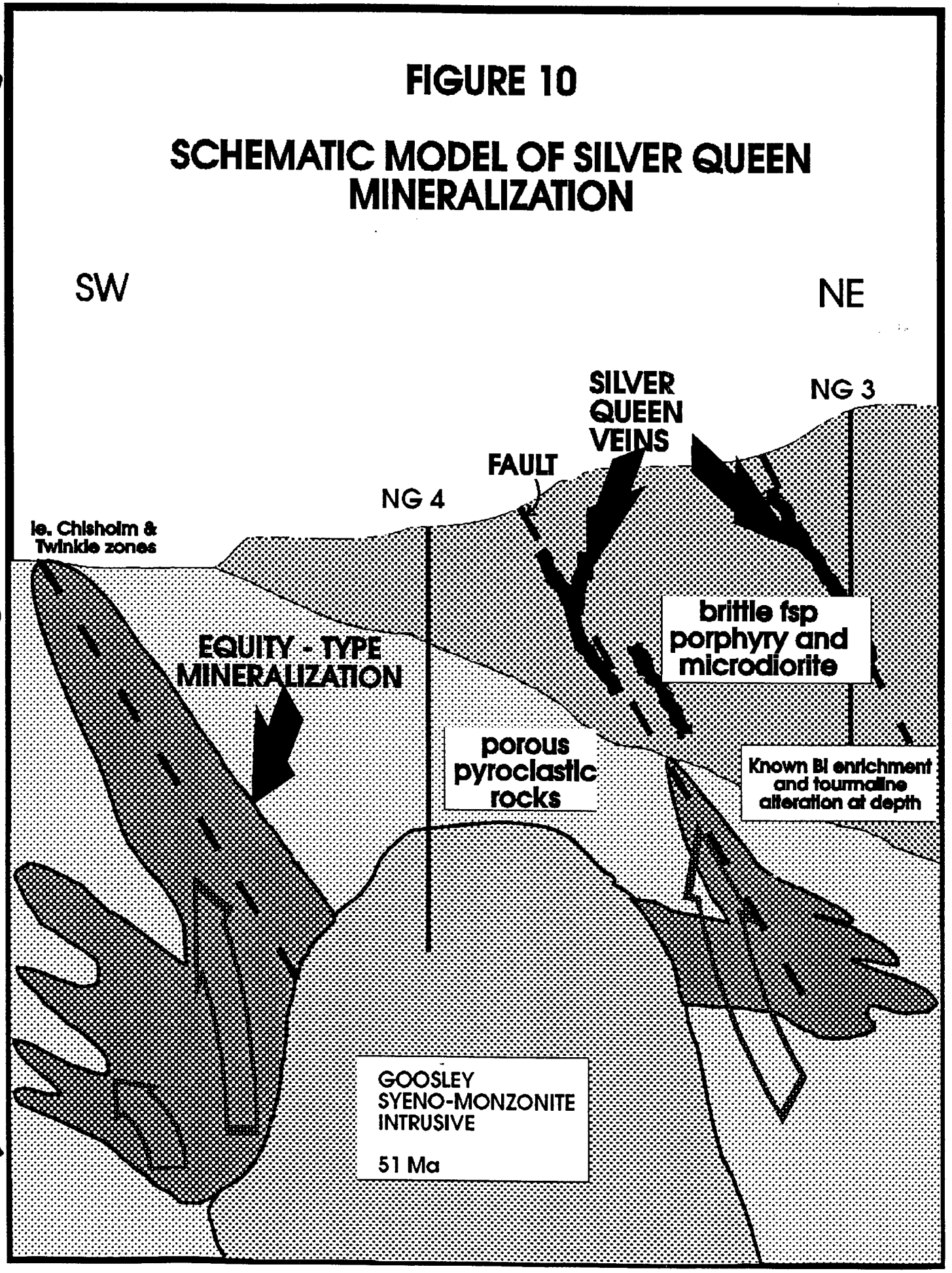
- Mineralization is intrusion related; (subeconomic) porphyry copper-molybdenum deposits can occur nearby
- The intrusions are emplaced as high-level, subvolcanic stocks; coeval volcanic rocks may, or may not, be present. Quartz-feldspar porphyry domes and flow dome complexes can be mineralized in their interior parts, but overall, they most commonly host typical epithermal vein deposits
- Cu-Au-Ag and/or Au-Ag ore is associated with polymetallic mineralization, typically with abundant As and Sb
- Pyrite is the dominant sulphide mineral. Chalcopyrite, tetrahedrite/tennantite are common, enargite is rare or absent
- Structural and lithologic permeabilities are the main ore controls
- Sulphide minerals are present in stockworks, veins, breccias and local massive replacements to disseminated zones. The ore stockworks and vein sets are composed of sulphide-bearing fractures; they contain only minor quartz
- Quartz-sericite-pyrite is the dominant alteration, mainly as a pervasive replacement of the ore hostrocks. Advanced argillic alteration forms a locally developed overprint with pervasive kaolinite and veins with quartz-alunite-(jarosite) assemblages. Higher-temperature zones contain andalusite, pyrophyllite, zunyite, diaspore and rare corundum; tourmaline is abundant in some deposits. Propylitic alteration is widespread in the hostrocks surrounding the ore zones
- Vertical zoning is evident and lateral zoning of ore metals may be developed in deposits. From shallow to greater depth there is a progression from Au, Ag with increasing Cu, Zn and Pb, locally Mo, Bi, and W and, rarely, Sn
- Mineralization is related to 'robust' high temperature and relatively high pressure fluids emanating from porphyritic intrusions. The ore solutions are highly saline, moderately oxidized and less-acidic than those in high-sulphidation epithermal deposits

Mineralization at the Silver Queen property has many of these characteristics (ie. intrusion related, polymetallic mineralization, associated epithermal veins, anomalous As-Sb, quartz-sericite-pyrite alteration, pervasive propylitic alteration, vertical and lateral mineralogical zonations) and it is felt that the Silver Queen mineralization formed by a similar process. Some specific similarities and analogies between Equity Silver and Silver Queen are detailed below.

A schematic model for mineralization at Silver Queen is shown in Figure 10. According to this model, known veins represent the top and more distal portion of a larger mineralized system at depth.

FIGURE 10

SCHEMATIC MODEL OF SILVER QUEEN MINERALIZATION



A generalized property scale map of the Silver Queen area (Figure 11), created from the original unpublished property geology map of Leitch, Hood and others (which formed the base for much of the work done on the property by the UBC workers) shows that the majority of the known Silver Queen veins are hosted in relatively brittle feldspar porphyry or microdiorite of the Upper Cretaceous Kasalka Group. Studies by Hood, 1991) and a comparison with mineralization at Equity Silver, identify that bulk tonnage type mineralization is more likely to occur in the permeable pyroclastic units, than in the more brittle rocks. As detailed above, structural and lithological permeabilities are the main ore controls for transitional porphyry-epithermal mineralization. All of the underground work at Silver Queen and about 95% of the surface drilling has been done in areas underlain by brittle rocks. Mineralization is known to be hosted in the pyroclastic rocks at Silver Queen (the Church, Owl and Chisholm veins and the Twinkle breccia zone), however exploration of these targets has been minimal and essentially no work has been done to test for "Equity type" mineralization.

Mineralogical zonation studies of the Silver Queen veins point to a heat source at depth, to the southeast of the main area of veining, with fluid movement from south to north (Hood, 1991). The age of mineralization is closely confined by pre- and post-mineral dyking at about 51 Ma, slightly younger than that at Equity (58 Ma) (Leitch, et al, 1992). A Tertiary intrusive, believed to be correlative with the Eocene Goosley intrusive (the Equity heat source), was intersected at depth in drill hole NG4, which may represent the heat source at Silver Queen. The position of such a heat source supports the location of a source postulated from mineralogical studies.

In further support of a transitional porphyry-epithermal model (Equity-type), tourmaline alteration was discovered at depth in Silver Queen drill hole NGV-6. A zonation of increased Bi at depth and at the south end of the vein system is also known at Silver Queen. Additionally, Cheng (1995) has shown an increase in alteration towards the south end of the No. 3 vein system, and towards the presumed heat source, as would be expected by such a model. Specifically this is depicted by an increase in the width of quartz-sericite-pyrite envelopes to veins, and in more widespread quartz-sericite-pyrite alteration in pyroclastic rocks.

Fluid inclusion studies from Equity and Silver Queen conclude that the Equity orebody formed at a deeper depositional environment and closer to the heat source than the Silver Queen veins (Thomson and Sinclair, 1992). Given the fact that the host rocks at Equity are the same pyroclastic rocks which occur southeast of the Silver Queen veins, and that the postulated heat source occurs in this area (hence mineralization in the southeast area of pyroclastics would be closer to the source than main area of veining), there is an excellent unexplored target here for bulk tonnage "Equity type" mineralization. Furthermore, mineralization is known to occur in these rocks but because of the past emphasis on vein exploration, these areas of mineralization have received little attention. These areas, and in particular the southern Camp vein extension and Twinkle zones, should be re-examined with the Equity model in mind.

The area of favourable geology is largely covered by deep overburden. This means that ground geochemistry and ground geophysics may be of limited use in many areas. In such areas, drill target generation will have to rely heavily on more regional techniques (ie. satellite imagery, airborne geophysics), supported with ground data from more easily tested areas. The close correlation of potassium with areas of known mineralization which is apparent from regional lithogeochemistry (Church and Barakso, 1990), suggests that airborne radiometrics (Th/K ratio) may be a very useful exploration tool, particularly in areas of little outcrop (Shives, 1995, Hoover and Pierce, 1990).

In addition to bulk tonnage potential, there is excellent potential for identifying additional reserves on the known veins, and good potential for discovery of new veins. There are significant mineralogical (and metallurgical) variations between the vein systems as well as within individual veins and it is important to consider these variations when determining tonnage potential. Although total proven, probable and possible reserves for the veins have been published at 1.7 million tons (Houston Metals Corp, Annual Report 1988), this does not take these mineralogical and metallurgical variations into consideration. An effort should be made to categorize the veins by mineralogy and to investigate response to metallurgical treatment in order to

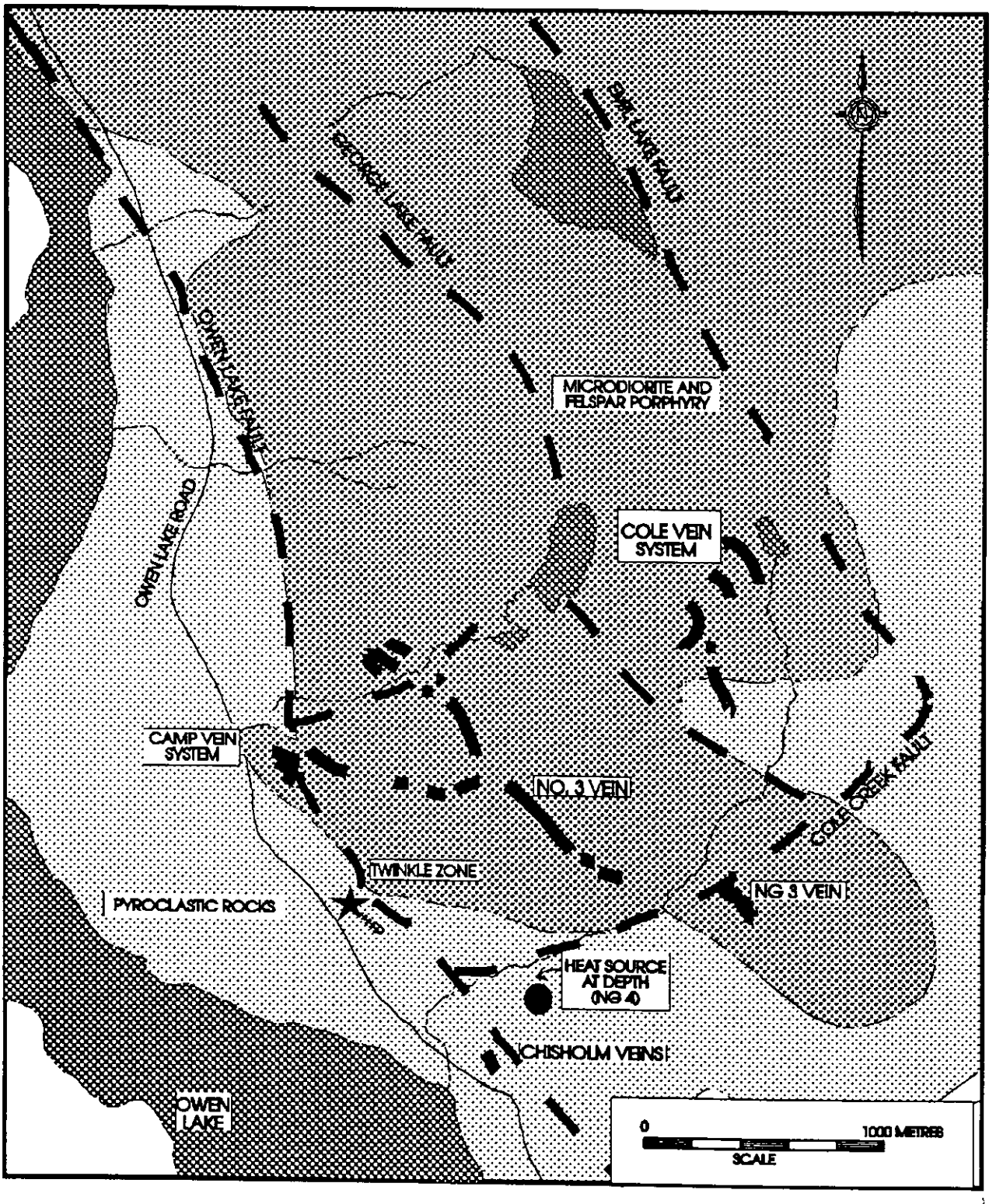


FIGURE 11
GENERAL PLAN - SILVER QUEEN PROPERTY

determine which veins or portions of veins could be treated by a common process. Following this, exploration to expand vein reserves can target areas of similar metallurgy.

A recent study of ore reserves (on the No.3 - NG3 vein system only) by Nowak (1991) showed an in situ resources, as follows:

Central Area 708,134 tons @
0.086 opt Au
4.78 opt Ag
5.43% Zn, over a thickness of 5.95 ft.

South Area 220,266 tons @
0.152 opt Au
4.78 opt Ag
5.76% Zn, over a thickness of 4.6 ft

An inferred reserve (based on drill results) of the Camp vein system is given in Minfile 93L002 (from MEMPR Open File 1992-1), although it is unclear what thickness of vein this represents or where this information originated:

Camp Vein 224,510 tons @
0.029 opt Au
24.2 opt Ag
4% Zn

No underground exploration has been done on the Camp vein system, which is characterised by a 7000 ft long EM anomaly and contains grades of up to 420 opt Ag. It has been traced by drilling over a strike length of about 900 feet, remains open in all directions, and there is good potential for expanding these reserves. It would be important to determine whether the Camp vein ore responds similarly metallurgically to the No 3 - NG 3 South area ore, as these two areas represent the known ore with greatest precious metal enrichment. It would also be prudent to drill test the southern extension of the Camp Vein system (ie. closer to the heat source) and determine whether the same increase in gold grade noted in the No. 3 vein system at the southern end occurs in the Camp Vein system. This is a particularly attractive target since the geology is known to change in this direction from brittle microdiorite, to more porous pyroclastics, suggesting good potential for bulk tonnage mineralization. In addition, mineralized material is rumoured from highways road work to occur in this area, (although this has not been sampled and the area of mineralization has since been covered), and silicification was intersected in drilling the northwestern Twinkle zone extension in this area.

2.3 Satellite Imagery, Digital Elevation Modelling, Regional Aeromagnetics

A Landsat TM scene (Sept 7, 1995) was acquired for the area. A First Principal Component image was prepared at a 1:250,000 scale in an attempt to define regional structures responsible for controlling mineralization. These images are included as Figures 12 and 13, respectively. Digital Elevation Modelling was then done using BC Government TRIM data, and the Band 7,3,1 image was draped over this to give a 3 Dimensional image of the Silver Queen - Equity Silver area (Figure 14). Regional aeromagnetic data was obtained from the government, processed and plotted overlain on topography for this same area (Figure 15). An additional plot of enhanced aeromagnetics is included as Figure 16.

The results of this program are summarized in a brief report by G. Mitchell of RGI, as detailed below.

> The Buck Creek Basin is a heavily forested region of relatively low relief with thick overburden cover. Due to the low proportion of outcrop, bedrock geology must be interpreted in large part from topographic features and geophysical survey data.

RGI has produced a set of images to aid New Nadina Explorations define mineral targets in the area. Digital topographic and Landsat data show the shape and character of the land surface and its vegetation cover and aeromagnetic data help indicate the bedrock lithology and structure. The images produced for New Nadina are listed below:

Enhanced Aeromagnetics
Magnetics overlain on Topography
Landsat TM Bands 731
Landsat First Principal Component (PCI)
3D Landsat Bands 731

Enhanced Aeromagnetics (Figure 16)
Using colour and simulating shadows and highlights to image the aeromagnetic data produces an image which contains all of the details of the aeromag data and is easy to understand. The aeromag image of the Buck Creek Basin shows the relationship between the large scale regional structures and the structures and/or lithological contacts in the area of exploration focus.

Magnetics overlain on Topography (Figure 15)
Colours representing the aeromagnetic data overlain on shadows and highlights produced using the topographic data shows the relationships between the shape of the topographic surface and the bedrock lithologic contacts and structures indicated by the aeromagnetic data.

Landsat TM Bands 7,3,1 (Figure 13)
This image shows the ground and vegetation colour in the area. Most of the image is dominated by thick forest cover or cut blocks.

Landsat First Principal Component (PCI) (Figure 12)
The maximum contrast between all the visible, near infrared and short wave infrared bands of the Landsat TM are shown in a greyscale image of the first principal component of the Landsat. This is usually the best Landsat image for structural interpretation.

3D Landsat Bands 731 (Figure 14)
The relationship between the Landsat TM and the topography is shown by overlaying the Landsat image on a 3D topographic model. The topographic relief has been exaggerated by 3 times in order to highlight subtle topographic features.

Figure 16 shows that both Silver Queen and Equity Silver are depicted by areas of low magnetic response, and that both occur at the intersection of northwest-southeast trending mag lows, with a regional northeast-southwest mag low. This regional mag low linear is believed to be important in contolling mineralization. It's gound position on the Silver Queen will be identified by the property scale geophysical compilation described in the following section, combined with a GIS layering of magnetics, satellite imagery and topography planned for the property.

2.4 Property Scale Geophysics

A compilation of all past ground and airborne geophysics was done. Various grids and surveys were input onto a common grid location map, to provide a way of tying together all available geophysical data for re-interpretation with the revised model of mineralization in mind. Past work had focused essentially exclusively on vein targets. This grid compilation map is included as Figure 17.

Copies of all the geophysical surveys were sent to consultant Peter Walcott for interpretation. Unfortunately, no results from this work have been received to date and it has not been possible to include this as part of the Explore BC Grant Program.

3.0 METALLURGICAL WORK

The initial proposal included collection of a fresh bulk sample of ore from underground, and subsequent metallurgical testing of the ore. A Notice of Work was submitted to collect this sample, and was not given approval due to outstanding environmental and reclamation issues on the property. The outstanding environmental problems were addressed at a site visit by George Stewart and consultant Tom Higgs, along with Ministry of Environment and Ministry of Energy, Mines and Petroleum Resources Staff. Action has being taken to rectify the environmental concerns and a recent Notice of Work submitted (for surface drilling) is not being impeded by this issue. During the site visit, the access to the area of proposed bulk sampling was examined and found to be impassable, and as an alternative a 200 lb sample of fresh ore was collected from the decline, from the south end of the No. 3 vein.

Initial discussions were held with the Department of Mining and Metallurgy at The University of British Columbia which suggested that they might be available to conduct thorough and detailed metallurgical testing of the ore. Complete documentation of previous testing was sent for their review and the decision was made that at this time, they would not be taking on this project. Several alternate facilities and consultants are were then investigated, and documentation sent to these parties. As a result of this, the recommendation was made (International Metallurgical, Mr. Jeffrey Austin), that sufficient testing had been done, that there are no serious metallurgical problems, and that there is no need for further testing at this time. It was recommended that work rather be directed at targeting sales based on concentrates known to be achievable from previous testing, and that additional testing only be conducted if felt beneficial at this point.

As a result of the compilation and evaluation program, and the good potential for a new type of ore to be discovered, it was felt that at this time, further work on the metallurgy of the veins was not justified. Should a bulk tonnage target be identified, the possibility of blending ores then exists which may make some of the veins more attractive targets.

One of the problems with past metallurgy has been a result of the zonation in mineralogy between and within veins. This zonation is now well understood, and will enable like veins to be classified together, and treated by common process, or blended to form a consistent product.

4.0 SUMMARY

- Compilation of previous data at the Silver Queen has been completed, and most of this information transfered to digital form. All drill holes (surface and underground) have been located, plotted and assay information compiled. Similarly, all survey information has been compiled. Underground assay sample plans have been constructed and long and cross sections for the No. 3 vein done. A compilation of geophysical grids and surveys was also done.

- A detailed evaluation of past research and exploration data on the property was done to define a model for mineralization, and from this model to generate new exploration targets.

- Silver Queen has many characteristics of an "Equity-type" transitional porphyry-epithermal subvolcanic Au-Ag-Cu model as defined by Pantelyev, 1996 (ie. intrusion related, polymetallic mineralization, associated epithermal veins, anomalous As-Sb, quartz-sericite-pyrite alteration, pervasive propylitic alteration, vertical and lateral mineralogical zonations).

- Known veins at Silver Queen are interpreted to represent the top and more distal portion of a larger mineralized system at depth. The heat source for such a system is believed to be the intrusion intersected at depth in drill hole NG-4. According to the defined model, a large prospective area for bulk tonnage mineralization is thus defined in the southern portion of the property. Little exploration has been done in this area.

- Bulk tonnage type mineralization is believed to be controlled by both lithologic and structural permeabilities. Porous pyroclastic rock in the south area of the property would make a suitable host for such mineralization.

- A program of satellite imagery and regional aeromagnetic analysis was done to identify regional or more local structures which may provide additional control to mineralization in this area, and thus better define drill targets to test for bulk tonnage mineralization.

- Both Silver Queen and Equity Silver are depicted by areas of low magnetic response. Further, both are situated on the same regional northeast-southwest trending mag low linear, at the intersection with northwest-southeast mag lows. The regional northeast-southwest linear is believed to be an important control for mineralization.

- A reinterpretation of ground and airborne geophysics done over the property has been initiated, to also provide further information relating to sturctural controls, however no results from this program have been obtained to date.

5.0 REFERENCES

Cheng, X., 1995.
A Quantitative Evaluation of Hydrothermal Alteration at Silver Queen Deposit, A Precious- and Base Metal Epithermal Vein System in Volcanic Rocks, UBC PhD Thesis, 1995.

Church, B.N., and J.J Barakso, 1990.
Geology, Lithogeochemistry, and Mineralization in the Buck Creek Area, British Columbia, MEMPR Paper 1990-2.

Faulkner, T., R. Meyers, M-L. Malott, P. Wilton and D. Melville, 1992.
1991 Producers and Potential Producers Mineral and Coal, MEMPR Open File 1992-1.

GCNL, 1988. George Cross News Letter, No. 20 (1988), January 29, 1988.

Hood, C.T.S., 1991.
Mineralogy, Paragenesis, and Mineralogical Zonation of the Silver Queen Vein System, Owen Lake, Central British Columbia, U.B.C. M.Sc. Thesis, 1991.

Hood, C.T.S., C.H.B. Leitch, and A.J. Sinclair, 1991.
Mineralogical Variation Observed at the Silver Queen Mine, Owen Lake, Central British Columbia (93L/2), MEMPR Geological Fieldwork 1990, Paper 1991-1.

Hoover, D.B. and H.A. Pierce, 1990.
Annotated Bibliography of Gamma-Ray Methods Applied to Gold Exploration, USGS Open File Report 90-203.

Leitch, C.H.B, C.T. Hood, X. Cheng, and A.J. Sinclair, 1992.
Tip Top Hill volcanics: Late Cretaceous Kasalka Group rocks hosting Eocene epithermal base- and precious-metal veins at Owen Lake, west-central British Columbia, Canadian Journal of Earth Sciences, v. 29, pp 854-864.

Pantelyev, A., 1996.
Subvolcanic Au-Ag-Cu: Transitions from porphyry to epithermal environments, in New Mineral Deposit Models of the Cordillera, 1996 Cordilleran Roundup Short Course.

Shives, R.B.K., 1995
All that scintillates is not Uranium...applications of airborne multiparameter (Gamma ray/mag/VLF) surveys to base and precious metal exploration. Abstract for talk at KEG conference, by R. Shives, Mineral Resources Division, Geological Survey of Canada, Ottawa.

Thomson, M.L. and A.J. Sinclair, 1992.
Fluid Inclusion Study of Vein Minerals from the Silver Queen Mine, Central British Columbia (93L/2), MEMPR Geological Fieldwork 1991, Paper 1992-1.

APPENDIX 1

Cost Statement

COST STATEMENT

Labour and Consultation fees

J. Hutter	Contract		$ 4,500.00
	0.5 days @ $225/day		112.50
G. Stewart	3 days @ $453.58/day		1,360.74
L. Caron	23 days @ $200/day		4,600.00
T. Parsons	10 days @ $170/day		1,700.00
		Total:	$12,273.24

Transportation and Accommodation		$ 446.00
	Total:	$ 446.00

Satellite Imagery, Digital Elevation Modelling, Regional Geophysics

Acquisition of Landsat TM scene		$ 5,350.00
Acquisition of TRIM Maps		1,287.50
Acquisition of Regional Aeromagnetic Data		270.19
Processing and Printing costs		3,232.90
	Total:	$10,140.09

Office Expenses

Copying charges (reports and maps)		$ 500.00
Telephone, fax		105.71
Misc		130.88
	Total:	$ 736.59

TOTAL EXPENSES:	$23,595.92

APPENDIX 2

Complete listing and description of digital databases for Silver Queen

É͸»
° °
° NEW NADINA EXPLORATIONS LTD. °
° SILVER QUEEN MINE, OWEN LAKE, B.C. °
° °
° J.M. Hutter January 20, 1995 °
È͸¼

FILE LIST:

Files with the extension ".doc" are ASCII text files.
Files with the extension ".dwg" were produced using Autocad Release 9.
Files with the extension ".lsp" are AutoLisp files for use in Autocad.
Files with the extension ".wk1" were produced using Lotus 123 Version 2.01.

Drawings marked "#" are source drawings for the files indented below them.
Drawings marked "*" are plotter-ready. All are D-size unless otherwise noted.
Drawings not marked are for insertion into other drawings.
Drawings which are coordinate-dependent have an insertion point of 20000,20000.

ED COM 39936 Text editor.

ED DOC 11999 Some notes about ED.
README DOC 9050 This file.

GRIDALL2.DWG Compilation of Geophysical Grids and Surveys
020SCALE DWG 2926 Scale bar for 20 Scale drawings.
040SCALE DWG 3122 Scale bar for 40 Scale drawings.
100SCALE DWG 3123 Scale bar for 100 Scale drawings.
200SCALE DWG 3123 Scale bar for 200 Scale drawings.
ASSAYL DWG 2348 Assay block with attributes for sections.
ASSAYR DWG 2348 Assay block with attributes for sections.
BLDGS DWG 17045 Camp and mine buildings.
BORD020 DWG 1790 Border for 20 Scale drawings.
BORD040 DWG 1798 Border for 40 Scale drawings.
BORD100 DWG 1790 Border for 100 Scale drawings.
BORD200 DWG 1790 Border for 200 Scale drawings.
CAMPDECL DWG 194813 Proposed Camp Vein decline.
CLAIMS DWG * 280380 1000 Scale, Claims.
COLE DWG # 1216803 Cole Lake/ George Lake topo map.
 KEYCOLE DWG * 155648 200 Scale Cole key map.
 COLE01 DWG * 367011 100 Scale Cole topo map 1.
 COLE02 DWG * 318593 100 Scale Cole topo map 2.
 COLE03 DWG * 166058 100 Scale Cole topo map 3.
 COLE04 DWG * 332613 100 Scale Cole topo map 4.
DITCH DWG 137128 Mine water diversion ditch, Scale 1:4000
DRIFTA DWG 49139 Earl Adit, 2600 level.
DRIFTB DWG 52518 Bulkley X-cut, 2600 level.
DRIFTC DWG 111310 Central drifts, 2600 level.
DRIFTD DWG 104852 2590 Decline.
DRIFTN DWG 76728 North drifts, 2600 level.
DRIFTS DWG 153030 South drifts, 2600 level.
DRIFTU DWG 78064 Upper level (2880).

EMGRID85 DWG 197550 1985 Walcott EM grid.
FRONSOIL DWG 102400 Frontier Expl'n soil grid.
GEOL01 DWG * 73348 40 Scale geology, 2600 x-cut, Nadina Expl, ca. 1967.
GEOLB DWG 67590 Geology of Bulkley X-cut near George Lake vein.
GEORSECT DWG * 8404 40 Scale long sect'n, George Lk vein UG DDH's (A-size).
GRIDMINE DWG 5919 Mine grid.
IPGRID DWG 10286 1988 Camp vein IP grid.
KENNSOIL DWG * 506634 1000 Scale Kennco soil & mag survey, 1967-68.
KEYLOCK DWG * 678233 500 Scale Lockwood topo key map.
LAKES DWG 221835 Lakes, ponds and streams.
LOCK01 DWG * 127170 100 Scale Lockwood topo map 1.
LOCK02 DWG * 63209 100 Scale Lockwood topo map 2.
LOCK03 DWG * 209259 100 Scale Lockwood topo map 3.
LOCK04 DWG * 219347 100 Scale Lockwood topo map 4.
LOCK05 DWG * 52195 100 Scale Lockwood topo maps 5 and 6.
LOCK07 DWG * 239900 100 Scale Lockwood topo map 7.
LOCK08 DWG * 313643 100 Scale Lockwood topo map 8.
LOCK09 DWG * 114377 100 Scale Lockwood topo map 9.
LOCK10 DWG * 69444 100 Scale Lockwood topo map 10.
LOCK11 DWG * 429353 100 Scale Lockwood topo map 11.
LOCK12 DWG * 89648 100 Scale Lockwood topo map 12.
LOCK13 DWG * 233252 100 Scale Lockwood topo map 13.
LOCK21 DWG * 144420 100 Scale Lockwood topo map 21.
LOCK22 DWG * 50360 100 Scale Lockwood topo map 22.
LONGSECT DWG # 327940 Long section, No. 3 vein, with ore reserves.
U-11 DWG * 227619 100 Scale, Long Section, No. 3 North & Central.
U-12 DWG * 217451 100 Scale, Long Section, No. 3 Central & South.
NORTH DWG 2232 North arrow.
ROADS DWG 176630 Roads.
SAMPLE DWG * 2077 Chip sample block with attributes.
SAMPLEC DWG 300219 Sample plan, 2600 level central.
SAMPLEN DWG 187148 Sample plan, 2600 level north.
SAMPLES DWG 305337 Sample plan, 2600 level south.
SAMPLEU DWG 263332 Sample plan, 2880 level.
SEC27600 DWG 67007 40 scale section 27600, mine grid.
SEC27700 DWG 75052 40 scale section 27700, mine grid.
SEC27800 DWG 74037 40 scale section 27800, mine grid.
SEC27900 DWG 90285 40 scale section 27900, mine grid.
SEC28000 DWG 100277 40 scale section 28000, mine grid.
SEC28100 DWG 108283 40 scale section 28100, mine grid.
SEC28200 DWG 100688 40 scale section 28200, mine grid.
SEC28300 DWG 116939 40 scale section 28300, mine grid.
SEC28400 DWG 126481 40 scale section 28400, mine grid.
SEC28500 DWG 120363 40 scale section 28500, mine grid.
SEC28600 DWG 93932 40 scale section 28600, mine grid.
SEC28700 DWG 83261 40 scale section 28700, mine grid.
SEC28800 DWG 64965 40 scale section 28800, mine grid.
SEC28900 DWG 61906 40 scale section 28900, mine grid.
SEC29000 DWG 48694 40 scale section 29000, mine grid.
SEC29100 DWG 46248 40 scale section 29100, mine grid.
SEC29200 DWG 38794 40 scale section 29200, mine grid.
SEC29300 DWG 30481 40 scale section 29300, mine grid.
SEC29400 DWG 29232 40 scale section 29400, mine grid.
SEC29500 DWG 28764 40 scale section 29500, mine grid.

SEC29600 DWG 24720 40 scale section 29600, mine grid.
SEC29700 DWG 13275 40 scale section 29700, mine grid.
SEC29900 DWG 9986 40 scale section 29900, mine grid.
SEC30100 DWG 13072 40 scale section 30100, mine grid.
SEC30200 DWG 13087 40 scale section 30200, mine grid.
SEC30400 DWG 10041 40 scale section 30400, mine grid.
SEC30800 DWG 7547 40 scale section 30800, mine grid.
STRUCTUR DWG 210432 Structure contours in area of flexure of No. 3 vein.
SURDDH DWG # 417133 Surface DDH's.
S-01 DWG * 105660 200 Scale surface DDH's, Cole Lake & George Lake.
S-02 DWG * 99875 200 Scale surface DDH's, No. 3 vein central & south.
S-03 DWG * 74781 200 Scale surface DDH's, Chisholm veins & SE.
S-04 DWG * 205580 200 Scale surface DDH's, Camp, Chisholm, No. 3 north.
SURSURV DWG 64880 Surface survey points.
SWAMP DWG 1774 Swamp symbol.
TAILINGS DWG 43111 Tailings dam.
TITLE DWG 3117 Title block.
TNG20400 DWG 111338 40 scale section 20400, true north grid.
TNG20500 DWG 104702 40 scale section 20500, true north grid.
TNG20600 DWG 89142 40 scale section 20600, true north grid.
TNG20700 DWG 92269 40 scale section 20700, true north grid.
TNG20800 DWG 63598 40 scale section 20800, true north grid.
TNG20900 DWG 49152 40 scale section 20900, true north grid.
UNDDH DWG # 666416 Underground DDH's.
U-01 DWG * 638507 200 Scale underground DDH's.
U-02 DWG * 363642 100 Scale UG DDH's, Portal veins, No. 3 north & central.
U-03 DWG * 299526 100 Scale UG DDH's, No. 3 vein south.
U-04 DWG * 232733 100 Scale UG DDH's, Bulkley crosscut.
U-05 DWG * 129202 40 Scale UG DDH's, No. 3 vein central.
U-06 DWG * 105892 40 Scale UG DDH's, No. 3 vein south-central.
U-07 DWG * 110200 40 Scale UG DDH's, No. 3 vein south.
U-08 DWG * 46319 40 Scale UG DDH's, No. 3 vein south end.
UNDSURV DWG # 672353 Survey stations on 2600 level & 2590 Decline.
U-09 DWG * 409931 100 Scale survey stns, 2600 North & Bulkley X-cut.
U-10 DWG * 451414 100 Scale survey stns, 2600 South & 2590 Decline.

3DDH LSP 877 AutoLISP routine for drawing 3D DDH's.
DDH LSP 580 AutoLISP routine for drawing 2D DDH's.
MGSEC LSP 11107 AutoLISP routine for DDH's on mine grid sections.
PDH LSP 3050 AutoLISP routine for DDH's with geology, plan view.
TCHANGE LSP 8374 AutoLISP routine for changing text properties.
TNGSEC LSP 10305 AutoLISP routine for DDH's on true north grid sections.

ASSAYS TXT 309 Template file for attribute extraction from sections.
SAMPLES TXT 225 Template file for attribute extr'n from sample plans.

3VEIN WK1 97745 Ore reserve calculations.
SURDDH1 WK1 134509 Surface DDH's before 1970, with locations & assays.
SURDDH2 WK1 176021 S-series surface DDH's 1969-70, w/ locations & assays.
SURDDH3 WK1 209931 Surface DDH's after 1973, with locations & assays.
UNDDH WK1 262725 Underground DDH's with locations & assays.
□

APPENDIX 3

Ore Reserve Calculations, No. 3 vein
J. Hutter, Feb, 1996

NEW NADINA EXPLORATIONS LTD. SILVER QUEEN MINE ORE RESERVE WORKSHEET J.M. HUTTER JANUARY 20, 1998

DDH	INTERVAL	MG EASTING	ELEV	VEIN INTENSITY	TRUE WIDTH	N.S.R.	AU *	AG	CU	PB	ZN
<< COORDINATES OF VEIN INTERSECTIONS >>					<< ADJUSTED TO 3' MINIMUM WIDTH >>						
********* SEE NOTES AT BOTTOM OF WORKSHEET *********											
SEC27600 E:											
NGV-2	983.1-1006.7	27625	2207	6	15.7	$1.15	0.001	0.01	0.007	0.02	0.06
NGV-5	185-187.5	27606	2902	94	3.0	$94.06	0.059 *	3.52	0.003	1.45	8.80
88S-42	156-157.4	27573	2952	64	3.0	$63.86	0.090	2.23	0.028	0.60	0.82
88U-61	438.5-441.5	27536	2360	26	3.0	$25.85	0.035	0.72	0.024	0.15	0.84
SEC27700 E:											
BS166	140.5-148.5	27675	2939	65	6.7	$38.24	0.026 *	1.56	0.040	0.50	3.00
BS167	177-179	27675	2865	?	1.2	NOT SAMPLED					
88S-40	405-406.4	27719	2930	157	3.0	$156.57	0.178	9.65	0.157	0.29	0.99
88S-41	467.6-468.4	27719	2705	42	3.0	$41.75	0.050	1.73	0.014	0.57	0.91
88U-33	213-216	27699	2553	230	3.0	$230.42	0.266	12.86	0.054	1.88	3.04
88U-34	265-272	27674	2416	9	5.5	$4.68	0.006	0.11	0.002	0.02	0.25
88U-35	348-354	27689	2291	59	3.9	$45.62	0.020	1.12	0.134	0.16	6.15
SEC27800 E:											
89-2-11	28.5-34	27809	2817	707	4.6	$460.97	0.560	24.00	0.120	1.50	8.00
BS162	96-97.5	27834	2942	145	3.0	$144.64	0.136 *	8.06	0.052	2.39	3.56
BS163	147-151.5	27834	2871	120	3.0	$120.25	0.116 *	6.86	0.093	1.26	3.05
UG81-7		27805	2302	0	0	HIT DYKE					
UG81-8		27803	2408	0	0						
UG81-9		27796	2518	0	0						
88U-36	197.5-202	27789	2516	109	4.5	$72.70	0.099	2.99	0.032	0.16	1.34
SEC27900 E:											
UG81-1	141.5-145.3	27918	2515	460	3.4	$405.89	0.305	27.58	0.19	1.05	18.58
UG81-2	223.6-230.6	27923	2391	369	4.4	$250.96	0.105	13.20	0.240	2.69	23.80
UG81-3	340.9-349	27933	2264	284	4.6	$185.35	0.245	8.07	0.173	0.32	8.31
84-12	169.7-171.4	27867	2914	137	3.0	$136.70	0.113	8.21	0.104	1.88	7.90
84-13	209.2-210.3	27867	2845	107	3.0	$106.76	0.056	5.39	0.109	2.00	7.94
88S-38	222.8-226.1	27874	2863	76	3.1	$73.17	0.091	1.46	0.020	0.72	4.16
88S-39	259.8-261	27874	2809	24	3.0	$24.44	0.023	0.98	0.034	0.09	1.49
88U-37	292.5-298.5	27937	2398	511	4.6	$333.35	0.397	11.96	0.269	2.32	12.60
88U-76	435.5-438.5	27946	2085	117	3.0	$116.78	0.081	11.12	0.069	0.17	0.95
SEC28000 E:											
BS154	98.5-102	27984	2907	555	5.0	$333.05	0.364 *	21.60	0.200	0.66	3.54
BS155		27964	2849	0	0						

DDH	TRUE WIDTH	AU	AG	CU	PB	ZN
<< ORIGINAL >>						
SEC27600 E:						
NGV-2	15.7	0.000	0.00	0.007	0.02	0.06
NGV-5	2.2	0.000	4.80	0.012	1.98	12.00
88S-42	1.4	0.193	4.78	0.060	1.26	1.76
88U-61	2.3	0.041	0.76	0.017	0.18	0.81
SEC27700 E:						
BS166	6.7	0.000	1.56	0.040	0.50	3.00
BS167	1.2					
88S-40	1.3	0.365	21.88	0.310	0.51	0.78
88S-41	1.5	0.022	3.27	0.026	0.98	0.90
88U-33	2.7	0.295	14.29	0.060	1.87	3.38
88U-34	5.5	0.006	0.11	0.002	0.02	0.25
88U-35	3.9	0.020	1.12	0.134	0.16	6.15
SEC27800 E:						
89-2-11	4.6	0.560	24.00	0.120	1.50	8.00
BS162	1.3	0.000	18.60	0.120	5.52	8.22
BS163	2.8	0.000	7.35	0.100	1.37	3.27
UG81-7						
UG81-8						
UG81-9						
88U-36	4.5	0.099	2.99	0.032	0.16	1.34
SEC27900 E:						
UG81-1	3.4	0.305	27.58	0.19	1.05	18.58
UG81-2	4.4	0.105	13.20	0.240	2.69	23.80
UG81-3	4.6	0.245	8.07	0.173	0.32	8.31
84-12	1.4	0.190	10.94	0.135	2.40	9.10
84-13	0.9	0.129	14.61	0.119	4.39	21.00
88S-38	3.1	0.091	1.46	0.020	0.72	4.16
88S-39	0.9	0.038	2.22	0.032	0.07	1.84
88U-37	4.6	0.397	11.96	0.269	2.32	12.60
88U-76	1.8	0.123	18.38	0.138	0.26	1.25
SEC28000 E:						
BS154	5	0.000	21.60	0.200	0.66	3.54
BS155						

DDH	AU (ASSAYED)	AG (ASSAYED)	AU (EST'D)	AG (ASSAYED)
* GOLD ASSAY ESTIMATION				
SEC27600 E:				
NGV-2			0.081	#8
NGV-5				
88S-42	0.193	4.78		
88U-61	0.041	0.76		
SEC27700 E:				
BS166			0.026	1.56
BS167				
88S-40	0.365	21.88		
88S-41	0.022	3.27		
88U-33	0.295	14.29		
88U-34	0.006	0.11		
88U-35	0.02	1.12		
SEC27800 E:				
89-2-11	0.56	24		
BS162			0.314	18.6
BS163			0.124	7.35
UG81-7				
UG81-8				
UG81-9				
88U-36	0.099	2.99		
SEC27900 E:				
UG81-1	0.305	27.58		
UG81-2	0.105	13.2		
UG81-3	0.245	8.07		
84-12	0.19	10.94		
84-13	0.129	14.61		
88S-38	0.091	1.46		
88S-39	0.038	2.22		
88U-37	0.397	11.96		
88U-76	0.123	18.38		
SEC28000 E:				
BS154			0.364	21.6
BS155				

DDH	TRUE WIDTH	AREA	DIP FACTOR	STRIKE FACTOR	TONNAGE	N.S.R.	RESERVE CLASS
<< ORE BLOCK CALCULATIONS >>							
SEC27600 E:							
NGV-2	15.7	45385	1.30	1.00	92831	$1.15	–
NGV-5	3.0	15739	1.05	1.00	4958	$94.06	6
88S-42	3.0	7235	1.30	1.00	2822	$63.86	6
88U-61	3.0	14544	1.05	1.00	4581	$25.85	–
SEC27700 E:							
BS166	6.7	14781	1.05	1.00	10384	$38.24	–
BS167	1.2	0			0	NOT SAMPLED	
88S-40	3.0	16936	1.05	1.00	5305	$156.57	4
88S-41	3.0	17360	1.10	1.00	5729	$41.75	–
88U-33	3.0	23718	1.10	1.00	7827	$230.42	3
88U-34	5.5	12312	1.18	1.00	8080	$4.68	–
88U-35	3.9	24011	1.18	1.00	11050	$45.62	–
SEC27800 E:							
89-2-11	4.6	11386	1.10	1.00	5751	$460.97	1
BS162	3.0	9629	1.10	1.00	3178	$144.64	5
BS163	3.0	8526	1.10	1.00	2154	$120.25	5
UG81-7	0	0			0	HIT DYKE	
UG81-8	0	15879			0		
UG81-9	0	8478			0		
88U-36	4.5	6007	1.10	1.00	2973	$72.70	6
SEC27900 E:							
UG81-1	3.4	16848	1.05	1.00	6015	$405.89	1
UG81-2	4.4	6707	1.13	1.00	3395	$250.96	3
UG81-3	4.6	26268	1.21	1.00	15734	$185.35	4
84-12	3.0	4692	1.10	1.00	1614	$136.70	5
84-13	3.0	2813	1.10	1.00	928	$106.76	5
88S-38	3.1	3263	1.10	1.00	1113	$73.17	6
88S-39	3.0	17093	1.10	1.00	5641	$24.44	–
88U-37	4.6	5390	1.13	1.00	2802	$333.35	2
88U-76	3.0	34429	1.30	1.00	13427	$116.78	5
SEC28000 E:							
BS154	5.0	7765	1.12	1.00	4360	$333.05	2
BS155	0	10379			0		

RESERVE CLASS	N.S.R. CUTOFF	TONNAGE	AU	AG	CU	PB	ZN	N.S.R.
<< ORE RESERVE CALCULATIONS >>								
1	$400.00	46002	0.482	25.57	1.31	1.18	14.46	$469.33
1 & 2	$300.00	131453	0.402	19.91	0.85	2.02	12.25	$388.16
1 to 3	$200.00	217135	0.350	16.71	0.73	1.73	11.23	$345.64
1 to 4	$150.00	319598	0.303	14.01	0.60	1.49	9.43	$294.29
1 to 5	$100.00	375726	0.272	13.15	0.55	1.38	8.48	$268.41
1 to 6	$50.00	442162	0.242	11.66	0.51	1.24	7.64	$239.36

NEW NADINA EXPLORATIONS LTD. SILVER QUEEN MINE ORE RESERVE WORKSHEET J.M. HUTTER JANUARY 20, 1996

********* SEE NOTES AT BOTTOM OF WORKSHEET *********

<< COORDINATES OF VEIN INTERSECTIONS >>					<<<<<<<<< ADJUSTED TO 3' MINIMUM WIDTH >>>>>>>>							<<<<<<<<<<<<< ORIGINAL >>>>>>>>>>>						<<<<<<<< * GOLD ASSAY ESTIMATION >>>>>>>:			
DDH	INTERVAL	MG EASTING	ELEV	VEIN INTENSITY	TRUE WIDTH	N.S.R	AU *	AG	CU	PB	ZN	TRUE WIDTH	AU	AG	CU	PB	ZN	AU (ASSAYED)	AG (ASSAYED)	AU (EST'D)	AG (ASSAYED)
S74-2	1115-1116.5	27984	2095	55	3.0	$54.90	0.080	1.88	0.050	0.27	0.63	3	0.080	1.88	0.050	0.27	0.63	0.08	1.88		
UG81-4	169.6-177	28027	2520	716	6.0	$358.22	0.560	7.58	0.120	1.33	9.21	6	0.560	7.58	0.120	1.33	9.21	0.56	7.58		
UG81-5	221.1-226.2	28036	2423	103	3.3	$93.63	0.097	3.47	0.210	0.40	4.52	3.3	0.097	3.47	0.210	0.40	4.52	0.097	3.47		
UG81-6	325.3-329.1	28055	2308	69	3.0	$68.70	0.067	3.35	0.033	0.59	2.69	2	0.101	5.03	0.050	0.89	4.33	0.101	5.03		
SEC28100 E:																					
BS158	149.5-154	28069	2867	169	3.0	$168.69	0.170 *	10.07	0.234	0.77	3.43	2.7	0.000	11.19	0.260	0.86	3.81			0.189	11.19
UG81-16	159.1-168.6	28139	2527	402	6.3	$191.19	0.177	7.15	0.390	1.35	11.10	6.3	0.177	7.15	0.390	1.35	11.10	0.177	7.15		
UG81-17	260-268.1	28115	2390	296	3.6	$246.76	0.210	14.50	0.520	2.69	8.53	3.6	0.210	14.50	0.520	2.69	8.53	0.21	14.5		
UG81-18	200.6-202.5	28136	2457	114	3.0	$113.67	0.135	3.99	0.265	0.24	4.11	0.9	0.426	12.50	0.610	0.67	11.20	0.426	12.5		
84-11	298.6-304.6	28080	2817	95	4.7	$80.45	0.013	2.91	0.791	0.53	2.93	4.7	0.013	2.91	0.791	0.53	2.93	0.013	2.91		
88S-36	190-190.4	28077	2843	52	3.0	$52.03	0.028	3.49	0.209	0.20	2.44	0.4	0.189	22.60	1.300	1.16	12.00	0.189	22.6		
88S-37	228.5-229.2	28077	2774	37	3.0	$37.02	0.035	1.40	0.094	0.51	1.57	0.5	0.154	5.63	0.102	2.52	7.50	0.154	5.63		
88U-47	169-174	28142	2323	309	3.4	$272.26	0.216	13.97	0.192	2.78	15.10	3.4	0.216	13.97	0.192	2.78	15.10	0.216	13.97		
88U-49	214.5-218	28133	2245	193	3.0	$192.99	0.162	13.51	0.145	2.97	2.38	1.7	0.277	23.74	0.246	5.21	3.12	0.277	23.74		
88U-68	347.5-357	28096	2104	398	6.5	$183.81	0.146	10.00	0.382	1.37	8.30	6.5	0.146	10.00	0.382	1.37	8.30	0.146	10		
SEC28200 E:																					
NGV-1	725-733.6	28213	2377	795	6.5	$366.97	0.380	18.60	0.300	2.90	11.25	6.5	0.380	18.60	0.300	2.90	11.25	0.38	18.6		
BS151	113-118	28174	2846	636	4.2	$455.86	0.373 *	22.09	4.540	2.22	1.66	4.2	0.000	22.09	4.540	2.22	1.66			0.373	22.09
UG81-10	206.7-213.3	28264	2401	318	3.4	$280.60	0.392	7.95	0.350	1.44	7.22	3.3	0.392	7.95	0.350	1.44	7.22	0.392	7.95		
UG81-11	162-167	28255	2454	617	3.6	$514.13	0.420	35.30	0.960	1.62	13.70	3.6	0.420	35.30	0.960	1.62	13.70	0.420	35.30		
UG81-12	125-126.5	28246	2530	190	3.0	$189.57	0.124	11.66	0.225	3.25	7.71	1.5	0.236	22.90	0.430	5.56	13.90	0.236	22.90		
88S-33	166.3-166.8	28223	2835	153	3.0	$152.70	0.142	11.60	0.238	0.21	0.98	2.4	0.169	13.69	0.292	0.25	1.15	0.169	13.69		
88S-35	206.5-209.3	28223	2765	195	3.0	$195.07	0.065	11.37	2.189	1.50	6.26	2.8	0.069	12.17	2.344	1.61	6.7	0.069	12.17		
88U-48	192-202	28215	2221	28	6.7	$12.73	0.013	0.24	0.008	0.18	0.97	6.7	0.013	0.24	0.008	0.18	0.97	0.013	0.24		
88U-50	148-151.5	28203	2305	234	3.0	$233.56	0.164	19.69	0.233	1.32	1.70	2.9	0.190	20.36	0.241	1.36	1.71	0.19	20.36		
88U-67	321-324	28216	2111	341	3.0	$341.00	0.189	36.18	0.197	2.15	0.42	2.5	0.221	43.17	0.234	2.53	0.28	0.221	43.17		
SEC28300 E:																					
BS152	173-175	28280	2824	92	3.0	$91.66	0.088 *	5.24	0.130	.08	3.15	1.3	0.000	12.09	0.300	.19	7.28			0.204	12.09
BS153	249-256.5	28303	2726	542	7.2	$225.74	0.199 *	11.81	1.080	0.46	6.30	7.2	0.000	11.81	1.080	0.46	6.30			0.199	11.81
UG81-13	110.6-115	28326	2554	417	4.2	$297.69	0.266	17.18	0.960	1.46	4.87	4.2	0.266	17.18	0.960	1.46	4.87	0.266	17.18		
UG81-14	124.7-131.6	28324	2504	697	6.3	$327.13	0.350	16.90	1.460	1.26	2.05	6.3	0.350	16.90	1.460	1.26	2.05	0.35	16.9		
UG81-15	147.3-153.6	28320	2472	621	4.9	$379.91	0.220	35.20	1.020	0.66	4.76	4.9	0.220	35.20	1.020	0.66	4.76	0.220	35.20		
88U-51	108-111	28313	2311	283	3.0	$282.92	0.398	12.65	0.287	0.45	1.26	2.6	0.458	14.53	0.329	0.51	1.42	0.458	14.53		
88U-65		28305	2116	0	0																
SEC28400 E:																					
BS149		28413	2805	0	0																
BS150	169-174	28413	2740	97	4.4	$66.29	0.069 *	4.11	0.200	0.15	0.30	4.4	0.000	4.11	0.200	0.15	0.30			0.069	4.11

<<<<<<<<<<<<<<<<<<<<< ORE BLOCK CALCULATIONS >>>>>>>>>>>>>>							
DDH	TRUE WIDTH	AREA	DIP FACTOR	STRIKE FACTOR	TONNAGE	N.S.R	RESERVE CLASS
S74-2	3.0	13375	1.19	1.00	4775	$54.90	6
UG81-4	6.0	15707	1.12	1.00	10555	$358.22	2
UG81-5	3.3	8045	1.12	1.00	3084	$93.63	5
UG81-6	3.0	11506	1.15	1.00	3970	$68.70	5
SEC28100 E:							
BS158	3.0	7342	1.11	1.00	2445	$168.69	4
UG81-16	6.3	13609	1.16	1.00	9945	$191.19	4
UG81-17	3.6	4378	1.16	1.00	1828	$246.76	3
UG81-18	3.0	7859	1.16	1.00	2735	$113.67	5
84-11	4.7	3716	1.11	1.00	1939	$80.45	6
88S-36	3.0	2542	1.11	1.00	846	$52.03	6
88S-37	3.0	14065	1.11	1.00	4684	$37.02	–
88U-47	3.4	3700	1.22	1.00	1536	$272.26	3
88U-49	3.0	11572	1.22	1.00	4235	$192.99	4
88U-68	6.5	21120	1.22	1.00	16748	$183.81	4
SEC28200 E:							
NGV-1	6.5	4204	1.13	1.00	3088	$366.97	2
BS151	4.2	8871	1.14	1.00	4247	$455.86	1
UG81-10	3.4	5586	1.17	1.00	2222	$280.60	3
UG81-11	3.6	5760	1.14	1.00	2364	$514.13	1
UG81-12	3.0	10858	1.14	1.00	3713	$189.57	4
88S-33	3.0	5389	1.14	1.00	1823	$152.70	4
88S-35	3.0	10895	1.14	1.00	3726	$195.07	4
88U-48	6.7	9900	1.24	1.00	8225	$12.73	–
88U-50	3.0	6251	1.13	1.00	2119	$233.56	3
88U-67	3.0	18218	1.19	1.00	6504	$341.00	2
SEC28300 E:							
BS152	3.0	7413	1.10	1.00	2446	$91.66	6
BS153	7.2	6588	1.15	1.00	5439	$225.74	3
UG81-13	4.2	8497	1.23	1.12	4916	$297.69	3
UG81-14	6.3	3151	1.23	1.27	3101	$327.13	2
UG81-15	4.9	3639	1.23	1.27	2785	$379.91	2
88U-51	3.0	7830	1.25	1.34	3935	$282.92	3
88U-65	0	12774			0		
SEC28400 E:							
BS149	0	6147			0		
BS150	4.4	5054	1.30	1.00	2891	$66.29	6

<<<<<<<<<<<<<<<<<<<<<< ORE RESERVE CALCULATIONS >>>>>>>>>>>>>>>>>								
RESERVE CLASS	N.S.R CUTOFF	TONNAGE	AU	AG	CU	PB	ZN	N.S.R

NEW MADINA EXPLORATIONS LTD. SILVER QUEEN MINE ORE RESERVE WORKSHEET J.M. HUTTER JANUARY 20, 1996

******** SEE NOTES AT BOTTOM OF WORKSHEET ********

<< COORDINATES OF VEIN INTERSECTIONS >>					<<<<<<<<< ADJUSTED TO 3' MINIMUM WIDTH >>>>>>>>							<<<<<<<<<<<<< ORIGINAL >>>>>>>>>>						<<<<<<<< * GOLD ASSAY ESTIMATION >>>>>>>:			
DDH	INTERVAL	MG EASTING	ELEV	VEIN INTENSITY	TRUE WIDTH	N.S.R	AU	* AG	CU	PB	ZN	TRUE WIDTH	AU	AG	CU	PB	ZN	AU (ASSAYED)	AG (ASSAYED)	AU (EST'D)	AG (ASSAYED)
UG81-23		28421	2350	0	0	HIT DYKE															
UG81-25	192-210.5	28364	2421	1006	10.1	$298.72	0.321	11.72	0.646	0.98	12.60	10.1	0.321	11.72	0.646	0.98	12.60	0.321	11.72		
UG81-26	147-149.7	28393	2491	198	3.0	$197.77	0.190	7.35	0.212	0.92	12.68	1.9	0.291	11.20	0.260	1.44	19.80	0.291	11.2		
UG81-27	133-136.6	28420	2545	106	3.0	$106.09	0.117	4.52	0.131	0.71	3.69	2.8	0.125	4.84	0.140	0.76	3.95	0.125	4.84		
83-10	437.1-441	28446	2660	215	3.3	$195.66	0.170	15.60	0.175	1.29	0.89	3.3	0.170	15.60	0.175	1.29	0.89	0.17	15.6		
88S-31	117.9-119.2	28359	2922	137	3.0	$137.23	0.066	9.28	0.570	1.36	5.94	1.2	0.155	22.75	1.390	3.34	13.60	0.155	22.75		
88S-32	151.7-156.9	28359	2755	16	4.0	$11.94	0.006	0.58	0.135	0.04	0.40	4	0.006	0.58	0.135	0.04	0.40	0.006	0.58		
88U-66		28301	2272	0	0																
88U-69	252-256	28395	2213	456	3.5	$391.12	0.521	13.01	0.235	1.34	12.45	3.5	0.521	13.01	0.235	1.34	12.45	0.521	13.01		
88U-70	270-278.7	28384	2176	505	5.7	$265.72	0.311	10.62	0.415	1.08	8.68	5.7	0.311	10.62	0.415	1.08	8.68	0.311	10.62		
88U-72	315-318.5	28411	2149	70	3.0	$69.76	0.064	5.05	0.127	0.09	0.84	2.6	0.074	5.83	0.147	0.10	0.97	0.074	5.83		
88U-75	309-311	28349	2122	57	3.0	$56.67	0.044	2.05	0.252	0.15	3.84	1.4	0.095	4.40	0.540	0.32	8.22	0.095	4.4		
SEC28500 E:																					
8U13	106.2-111.8	28497	2749	406	3.0	$406.13	0.359 *	21.25	2.830	0.50	5.93	3	0.000	21.25	2.830	0.50	5.93			0.359	21.25
S74-3	1023.5-1028	28478	2324	335	3.9	$257.58	0.320	9.68	0.540	0.18	7.54	3.9	0.320	9.68	0.540	0.18	7.54	0.32	9.68		
UG81-19	104-107.8	28484	2544	477	3.8	$376.41	0.372	17.20	0.260	1.88	18.50	3.8	0.372	17.20	0.260	1.88	18.50	0.372	17.2		
UG81-20	128.5-135.7	28452	2466	673	5.9	$342.03	0.355	14.00	0.310	1.40	17.40	5.9	0.355	14.00	0.310	1.40	17.40	0.355	14		
UG81-24	252.4-258.7	28497	2378	90	3.0	$89.50	0.140	2.60	0.064	0.18	1.14	1.9	0.221	4.04	0.081	0.27	1.64	0.221	4.04		
83-9	178.9-184.5	28467	2790	155	4.4	$105.57	0.046	8.05	0.254	0.75	5.29	4.4	0.046	8.05	0.254	0.75	5.29	0.046	8.05		
88U-52	210-217.5	28426	2269	237	3.0	$237.04	0.166	13.67	0.622	2.74	9.84	2.7	0.183	15.14	0.688	3.02	10.80	0.183	15.14		
88U-71	300.5-306	28468	2209	314	4.1	$230.01	0.159	10.88	0.585	1.59	15.26	4.1	0.159	10.88	0.585	1.59	15.26	0.159	10.88		
88U-74	387-392	28507	2149	261	3.0	$261.05	0.280	9.62	0.591	1.20	11.42	2.7	0.311	10.65	0.654	1.32	12.60	0.311	10.65		
SEC28600 E:																					
S-31	391.5-394.2	28594	2665	?	2.3	ASSAY MISSING						2.3	ASSAY MISSING								
UG81-21	136.8-139.5	28546	2543	176	3.0	$175.84	0.139	8.65	0.270	0.68	10.73	2	0.202	12.70	0.390	1.25	15.85	0.202	12.7		
88S-30	147.6-153	28649	2765	79	3.6	$65.50	0.020	2.77	1.223	0.36	0.96	3.6	0.020	2.77	1.223	0.36	0.96	0.02	2.77		
88U-73	335.5-340	28517	2234	135	3.0	$134.72	0.186	6.39	0.158	0.22	0.27	2.8	0.200	6.84	0.170	0.23	0.29	0.2	6.84		
SEC28700 E:																					
BS164	75-78.5	28696	2869	93	3.5	$80.01	0.054 *	3.21	0.250	0.37	8.32	3.5	0.000	3.21	0.250	0.37	8.32			0.054	3.21
BS165	98-102	28696	2824	61	3.1	$58.74	0.047 *	2.76	0.230	0.19	3.00	3.1	0.000	2.76	0.230	0.19	3.00			0.047	2.76
88S-57	644-650	28701	2479	658	5.5	$358.63	0.362	14.64	0.473	4.31	14.60	5.5	0.362	14.64	0.473	4.31	14.60	0.362	14.64		
89U-5	214-220	28687	2342	393	3.9	$302.44	0.274	13.85	1.130	2.40	10.40	3.9	0.274	13.85	1.130	2.40	10.40	0.274	13.85		
SEC28800 E:																					
S-13	272.5-286	28725	2662	139	3.0	$139.36	0.069	10.18	0.473	1.06	5.73	2.6	0.080	11.70	0.540	1.20	6.40	0.08	11.7		
S-14	250-257	28615	2719	69	4.7	$44.03	0.001	2.04	1.100	0.09	0.21	4.7	0.001	2.04	1.100	0.09	0.21	0.001	2.04		

<<<<<<<<<<<<<<<<<<<<< ORE BLOCK CALCULATIONS >>>>>>>>>>>>>>>>>>								<<<<<<<<<<<<<<<<<<<< ORE RESERVE CALCULATIONS >>>>>>>>>>								
DDH	TRUE WIDTH	AREA	DIP FACTOR	STRIKE FACTOR	TONNAGE	N.S.R	RESERVE CLASS	RESERVE CLASS	N.S.R CUTOFF	TONNAGE	AU	AG	CU	PB	ZN	N.S.R
UG81-23	0	0			0	HIT DYKE										
UG81-25	10.1	9399	1.30	1.33	16413	$298.72	3									
UG81-26	3.0	4526	1.30	1.27	2242	$197.77	4									
UG81-27	3.0	7270	1.25	1.31	3571	$106.09	5									
83-10	3.3	5880	1.50	1.12	3260	$195.66	4									
88S-31	3.0	7141	1.16	1.00	2528	$137.23	5									
88S-32	4.0	5022	1.31	1.00	2632	$11.94	-									
88U-66	0	7973			0											
88U-69	3.5	5506	1.17	1.28	2886	$391.12	2									
88U-70	5.7	3951	1.17	1.28	3375	$265.72	3									
88U-72	3.0	9534	1.23	1.39	4890	$69.76	6									
88U-75	3.0	11600	1.23	1.39	5950	$56.67	6									
SEC28500 E:																
8U13	3.0	11147	1.60	1.12	5993	$406.13	1									
S74-3	3.9	4795	1.17	1.33	2910	$257.58	3									
UG81-19	3.8	6907	1.35	1.31	4642	$376.41	2									
UG81-20	5.9	7655	1.30	1.27	7457	$342.03	2									
UG81-24	3.0	14093	1.16	1.33	6625	$89.50	6									
83-9	4.4	11254	1.22	1.25	7551	$105.57	5									
88U-52	3.0	7016	1.17	1.28	3153	$237.04	3									
88U-71	4.1	4866	1.30	1.39	3630	$230.01	3									
88U-74	3.0	44233	1.25	1.39	23056	$261.05	3									
SEC28600 E:																
S-31	2.3	0			0	ASSAY MISSING										
UG81-21	3.0	17529	1.17	1.32	8121	$175.84	4									
88S-30	3.6	16869	1.17	1.14	8100	$65.50	6									
88U-73	3.0	16379	1.12	1.39	7650	$134.72	5									
SEC28700 E:																
BS164	3.5	11305	1.17	1.00	4129	$80.01	6									
BS165	3.1	9579	1.15	1.00	3415	$58.74	6									
88S-57	5.5	20517	1.22	1.11	15281	$358.63	2									
89U-5	3.9	27479	1.10	1.11	13085	$302.44	2									
SEC28800 E:																
S-13	3.0	13621	1.62	1.00	6620	$139.36	5									
S-14	4.7	51246	1.62	1.00	39019	$44.03	-									

NEW NADINA EXPLORATIONS LTD. SILVER QUEEN MINE ORE RESERVE WORKSHEET J.M. HUTTER JANUARY 20, 1996

********* SEE NOTES AT BOTTOM OF WORKSHEET *********

<< COORDINATES OF VEIN INTERSECTIONS >>					<<<<<<<<< ADJUSTED TO 3' MINIMUM WIDTH >>>>>>>>							<<<<<<<<<<<<< ORIGINAL >>>>>>>>>>>						<<<<<<<<< GOLD ASSAY ESTIMATION >>>>>>>			
DDH	INTERVAL	MG EASTING	ELEV	VEIN INTENSITY	TRUE WIDTH	N.S.R.	AU	* AG	CU	PB	ZN	TRUE WIDTH	AU	AG	CU	PB	ZN	AU (ASSAYED)	AG (ASSAYED)	AU (EST'D)	AG (ASSAYED)
89U-1	233-237.5	28793	2441	556	4.2	$396.86	0.359	15.63	0.942	5.14	18.60	4.2	0.359	15.63	0.942	5.14	18.60	0.359	15.63		
89U-2		28817	2504	0	0																
89U-3	287-291.5	28794	2346	442	3.4	$390.36	0.308	20.56	1.830	3.65	11.20	3.4	0.308	20.56	1.830	3.65	11.20	0.308	20.56		
89U-4		28789	2265	0	0	HIT DYKE															
SEC28900 E:																					
88S59	608.5-616.5	28896	2435	1366	7.6	$547.03	0.572	26.25	0.918	1.03	20.01	7.6	0.572	26.25	0.918	1.03	20.01	0.572	26.25		
89U-7	440-443.6	28891	2185	192	3.0	$192.36	0.306	5.48	0.241	0.49	1.20	1.6	0.569	10.03	0.430	0.90	1.90	0.569	10.03		
89U-8	281.5-284.5	28871	2374	126	3.0	$125.54	0.073	8.39	0.841	1.18	2.10	2.5	0.087	10.00	1.010	1.40	2.49	0.087	10		
SEC29100 E:																					
87U-5	159-165	29115	2525	0	5.0	$0.00	0.000	0.00	0.000	0.00	0.00	5	0.000	0.00	0.000	0.00	0.00	0	0		
		29095	2559	0	3.0	$0.00	0.000	0.00	0.000	0.00	0.00	2	0.000	0.00	0.000	0.00	0.00	0	0		
		29313	2626	0	3.0	$0.00	0.000	0.00	0.000	0.00	0.00	0	0.000	0.00	0.000	0.00	0.00	0.000	0.00		
																		0	0		
																			0		

<<<<<<<<<<<<<<<<<<<<< ORE BLOCK CALCULATIONS >>>>>>>>>>>>>>								<<<<<<<<<<<<<<<<<<<<< ORE RESERVE CALCULATIONS >>>>>>>>>>>>>>>>								
DDH	TRUE WIDTH	AREA	DIP FACTOR	STRIKE FACTOR	TONNAGE	N.S.R.	RESERVE CLASS	RESERVE CLASS	N.S.R. CUTOFF	TONNAGE	AU	AG	CU	PB	ZN	N.S.R.
89U-1	4.2	8282	1.16	1.00	4035	$396.86	2									
89U-2	0	21284			0											
89U-3	3.4	12349	1.16	1.00	4870	$390.36	2									
89U-4	0	0			0	HIT DYKE										
SEC28900 E:																
88S58	7.6	19621	1.45	1.00	21622	$547.03	1									
89U-7	3.0	7442	1.13	1.00	25236	$192.36	4									
89U-8	3.0	14963	1.13	1.00	5072	$125.54	5									
SEC29100 E:																
	5.0															
	3.0															
	3.0															

********** NOTES **********

1. This worksheet refers to files LONGSECT.DWG, SEC2????.DWG and TNG20???.DWG .

2. Gold and silver assays are in ounces per short ton.
   Copper, lead and zinc assays are in percent.
   Distances are in feet.

3. Three feet has been used as a minimum mining width. Intersections having a true width of less than three feet have been diluted to three feet, using wall rock assays where available. Other dilution which would result from normal mining practices has not been considered.

4. "Vein Intensity" has been calculated to measure the strength of the vein, and has been defined as (N.S.R. x True Width)/3, using a minimum width of three feet. This has been plotted in the file LONGSECT.DWG on the layer INTENSITY.

5. A Net Smelter Return has been calculated for the reserves. This is of doubtful accuracy, but serves to categorize the reserves without giving undue weight to certain metals, particularly zinc. Prices used ($CDN) were:

Au:	$ 550.00 per oz.	x .85
Ag:	$ 7.60 per oz.	x .85
Cu:	$ 33.00 per unit	x .8
Pb:	$ 8.00 per unit	x .7
Zn:	$ 10.00 per unit	x .4

   These obviously will change over time. Anyone wishing to dispute the assigned prices or recovery factors may use use their own in the appropriate columns (G, AH and AS).

6. Reserves have been divided into classes based on the N.S.R. as follows:

Class 1:	$ 401 +
Class 2:	$ 301 – $ 400
Class 3:	$ 201 – $ 300
Class 4:	$ 151 – $ 200
Class 5:	$ 101 – $ 150
Class 6:	$ 51 – $ 100
Not considered:	Under $ 50

7. Gold assays were not available for certain holes (marked *), notably the Bradina series. Gold values for these holes were approximated by applying the average gold/silver ratio of the other drill hole assays to the silver values. This should be kept in mind as a possible source of error.

8. Ore reserve estimates are in the range AK3..AS19 of this worksheet.

APPENDIX 4

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Linda J. Caron, certify that:

1. I am an exploration geologist residing at Bubar Road (RR #2), Rock Creek, B.C.

2. I obtained a B.A.Sc. in Geological Engineering (Honours) in the Mineral Exploration Option, from the University of British Columbia (1985).

3. I graduated with an M.Sc. in Geology and Geophysics from the University of Calgary (1988).

4. I have practised my profession since 1987 and have worked in the mineral exploration industry since 1980.

5. I am currently employed by Kettle River Resources Ltd. and New Nadina Explorations Limited as an exploration geologist.