EQUINOX OPERATIONS GROUP
Geological and Mining Technical Services
A Division of Equinox Resources Ltd.

900-625 Howe Street
Vancouver, B.C., Canada V6C 2T6
Telephone (604) 684-1175

**GEOPHYSICAL REPORT
ON THE
NINA PROPERTY**

(Record No.'s 7969, 7970, 8027, 8089-8092, 8976)

SUB-RECORDER
RECEIVED
OCT 31 1989
M.R. # .... $ ....
VANCOUVER, B.C.

**OMINECA MD, B.C.
Latitude 55° 58'N
Longitude 124° 47'W
NTS 93N/15W**

OWNERS:	**Equinox Resources Ltd. Daren Resources Ltd.**
AUTHOR:	**R. Culbert, Ph.D., P.Eng.**
DATE OF WORK:	**Oct. 2-9, 1989**
DATE OF REPORT:	**October 30, 1989**

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

19,266

TABLE OF CONTENTS

FIGURES

APPENDICES

1. SUMMARY AND CONCLUSIONS

The Nina Property is comprised of seven claims and one claim fraction located north of Germansen Landing in the Omineca Limestone Belt. Zinc mineralization unusually rich in germanium had been located here in a Devonian carbonaceous limestone unit, with geochemistry and trenching having been carried out in past years.

The present work, carried out as part of joint venture between Equinox Resources Ltd. and Daren Resources Ltd., tested the use of self potential measurements in differentiating mineralization from the carbonaceous materials which were likely to affect geophysical techniques based on conductivity or chargeability.

The survey was carried out over three areas of know mineralization, using 25 metre station spacing along approximately 10 km of line. The measurements proved to be stable and repeatable, and the readings strong over sites of known mineralization.

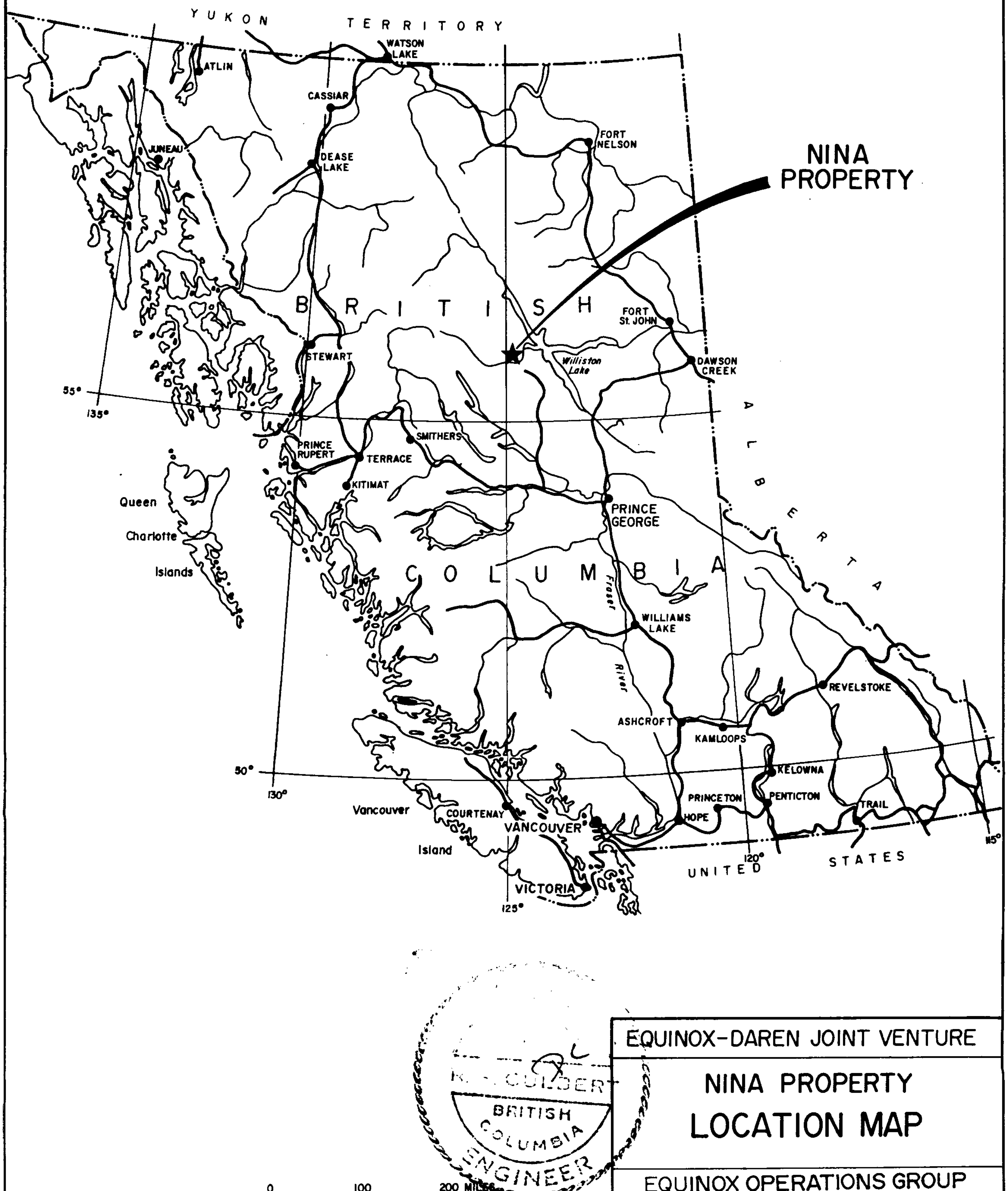
It is concluded the self potential could provide an inexpensive way to test the zinc-bearing carbonate unit for mineralized areas on the Nina Property.

2. INTRODUCTION

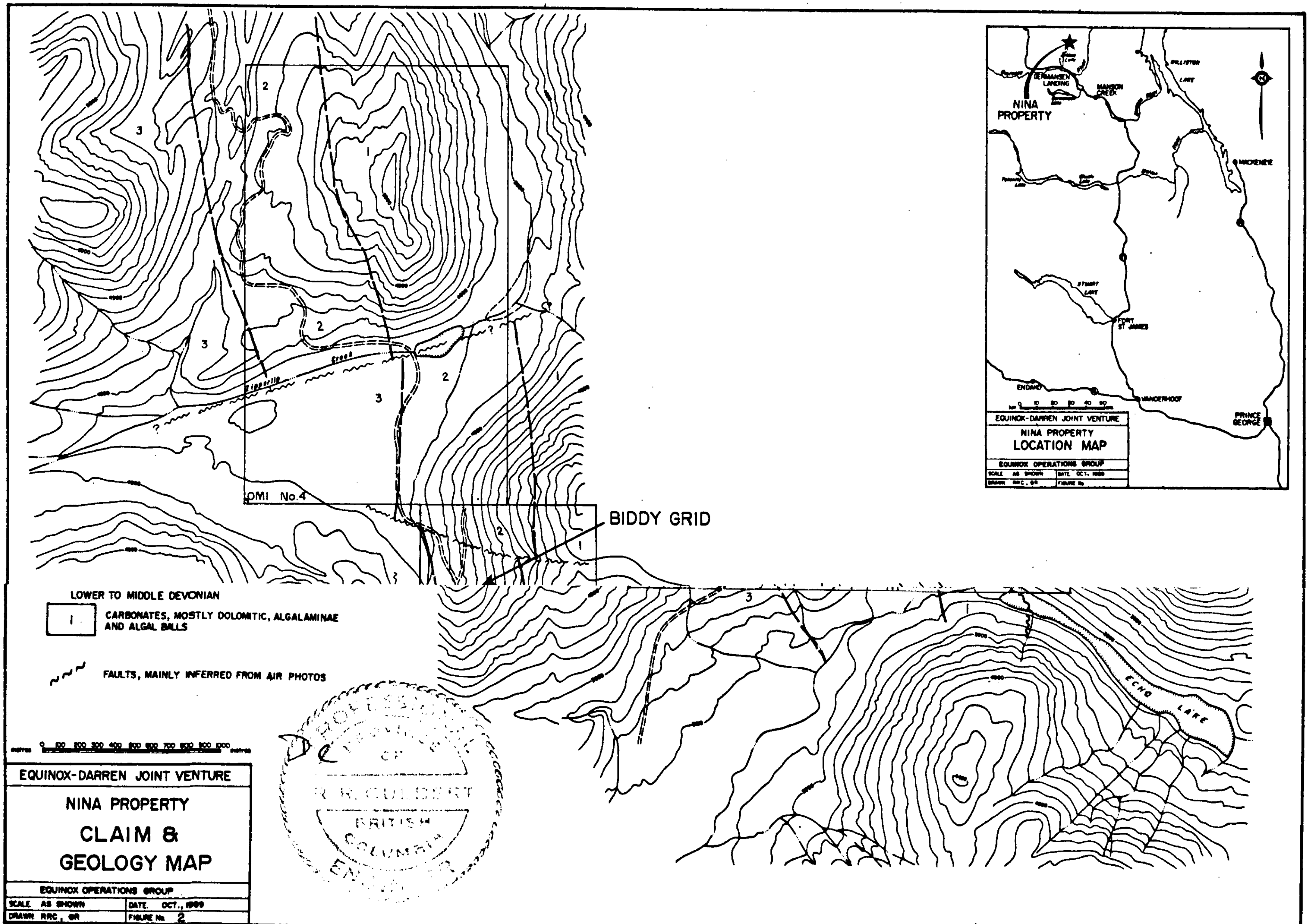
The NINA Property is comprised of seven claims and one claim fraction totalling 73 units owned by Equinox Resources Ltd. It is being explored by a joint venture between Equinox and Daren Resources Ltd. The field work described in this report was carried out between October 2nd and October 9th, 1989 by the author accompanied by geophysicist A. Rybaltowski and assistant G. Dion.

2.1 Location and Access

The NINA property is located 20 km northwest of the settlement of Germansen Landing in north-central British Columbia. The nearest town is MacKenzie, approximately 140 km to the southeast. The property is served by a 16 km jeep road which leaves the Omenica Mining Road 10 km beyond Germansen Landing. It lies within the western half of NTS mapsheet 93N/15 at latitude 55^{o} 58' North, longitude 124^{o} 47' West.



EQUINOX-DAREN JOINT VENTURE	
NINA PROPERTY LOCATION MAP	
EQUINOX OPERATIONS GROUP	
SCALE. As shown	DATE. OCT., 1989
DRAWN. L.S.M., J.W.	FIGURE No. 1.



OMI No.4
BIDDY GRID
ECHO LAKE
LOWER TO MIDDLE DEVONIAN
1 CARBONATES, MOSTLY DOLOMITIC, ALGALAMINAE AND ALGAL BALLS
FAULTS, MAINLY INFERRED FROM AIR PHOTOS
metres 0 100 200 300 400 500 600 700 800 900 1000 metres
EQUINOX-DARREN JOINT VENTURE
NINA PROPERTY
CLAIM & GEOLOGY MAP
EQUINOX OPERATIONS GROUP
SCALE AS SHOWN
DATE OCT., 1989
DRAWN RRC, GR
FIGURE No. 2
R. R. CULBERT
BRITISH COLUMBIA
NINA PROPERTY
GERMANSEN LANDING
MANSON CREEK
MACKENZIE
STUART LAKE
FORT ST JAMES
ENDAKO
VANDERHOOF
PRINCE GEORGE
EQUINOX-DARREN JOINT VENTURE
NINA PROPERTY
LOCATION MAP
EQUINOX OPERATIONS GROUP
SCALE AS SHOWN
DATE OCT. 1989
DRAWN RRC, GR
FIGURE No.

2.2 Claim Description

The property is forested, with moderately steep topography and elevations ranging from 900 to 1,500 metres. It is comprised of a grouping of seven claims and one claim fraction as follows:

CLAIM NAME	NO. OF UNITS	RECORD NUMBER	EXPIRY DATE
Nica 1	6	7969	Oct. 7/90
Nica 2	12	7970	Oct. 7/90
Nica 3	5	8976	Sept. 15/91
Omi 1	8	8089	Dec. 18/90
Omi 2	20	8090	Dec. 19/90
Omi 3	6	8727	Aug. 28/91
Omi 4	15	8091	Dec. 19/90
Omi 4 Fr.	1	8092	Dec. 19/90

2.3 History

Exploration activity in the Omineca Limestone Belt began in the 1920's. Many showings have since been found and most have been sporadically worked to the present. Much of the work prior to the early 1950's consisted of prospecting plus hand and hydraulic trenching. Although various claims were held in the vicinity of the property, no significant work was carried out until 1973 when large ground positions were acquired by Cominco, Canexplacer, Imperial Oil and others. This activity was initiated by the Geological Survey of Canada (Monger and Paterson, 1974)* following a remapping of the region. The G.S.C. work showed that mineralized carbonates located in the vicinity of Nina Lake were Middle Devonian in age rather than Permian or Cambrian (Cache Creek Group) as previously thought, and thus a more favourable host rock. With a view to the possibility of developing low grade, large tonnage open pit ore a concentrated exploration effort was undertaken by the major mining companies.

Work on the Nina Property area by Cominco Ltd included extensive geochemical sampling and geological mapping, followed by road access construction and bulldozer trenching. Additional trenching was carried

---

* Monger, J.W.H. and Paterson, J.A., (1974): Upper Paleozoic and Lower Mesozoic Rocks of the Omineca Mountains, G.S.C. Paper 74-1, pt. A, p. 19-20.

out in 1976 to better expose known showings and to determine the extent and grade of mineralization.

The trenching program was successful as far as it went. Although most trenches were backfilled to satisfy reclamation requirements, several critical to geologic are open. The Jemina showings, exposed by hand trenching, in fact, were never covered by Cominco claims and consequently omitted from the 1973-74 bulldozing program. With declining zinc prices interest was gradually lost and the claims were allowed to lapse.

Renewed interest was shown in the property in 1986 as the result of unusually high germanium values of the sphalerite. This was confirmed by a sampling program funded by the Equinox-Daren Joint Venture. The problem of defining drill targets remains, however, and was addressed in the present self potential survey.

3. GEOLOGY

The Nina Property is located near the center of the so called "Omineca Limestone Belt". This refers to a linear zone of sediments about 12 km wide and 175 km long which runs between Johansen Lake in the North and Manson Lake to the south. On the east it is bounded by a Proterozoic metamorphic complex. The western edge is covered by Triassic volcanics.

The general geology of the Nina Property area is shown on Figure 2, the main rock contacts and structural features. Nina Lake area strata form a homoclinal succession, interrupted by faulting and folding that dips westward from the high grade metamorphic axis of the Wolverine Volcanic Complex.

Mineralized showings in the vicinity of Nina Lake generally occur as semi-continuous zones within a relatively narrow part of the Middle Devonian stratigraphy. While the average grade is low (averaging 3-4% lead-zinc), locally high grade areas have developed. The sulphides are mainly stratabound but the main localizing factor is moderate scale faulting.

4. SELF POTENTIAL SURVEY

In view of the substantial overburden covering most of this property, it is not surprising that geochemical soil-sampling surveys have not been particularly successful in pinpointing drill targets. The widespread occurrence of carbaceous limestone also makes induced polarization and electromagnetic surveys of doubtful value. The decision to investigate the self potential response was based in part on the fact that it tends to be influenced less by disseminated carbon in comparison to sulphides.

An EMCO Electronics DMR-1 high impedance voltmeter was used in this survey, together with Sintrex ceramic porous pots. Three grids were established in areas of special interest, and somewhat in excess of ten kilometres of line were surveyed with readings at 25 metre spacing. The moist, organic, forest soils of the property were well suited to self potential measurements yielding stable, repeatable readings without discernable drift.

5. RESULTS AND DISCUSSION

Potential and gradient maps of the three grids are shown in Figures 3A-3C and 4A-4C respectively. Readings were stable, without apparent drift, and on the Biddy grid especially were unusually strong.

With few exceptions, anomalies were in the same general area as trenching, indicating that they were in response to that mineralized zones which had been found by other methods. Elsewhere there were some regional potential gradients, possibly as a result of the electrochemical differences between the carbonaceous limestone unit and the surrounding meta sediments.

In general, self potential appears to have worked well in this area and might be considered as an inexpensive method of testing the region underlain by the limestone unit of interest for other mineralized localities.

6. STATEMENT OF EXPENSES

Wages	R. Culbert 10 days @ $225.00	2,250.00	
	A Rybaltowski 8 days @ $250.00	2,000.00	
	assistant 7 days @ $150.00	1,050.00	
	benefits	562.50	
			5,862.50
Truck Rental 7 @ $50/day			350.00
Equipment Rental 7 @ $45/day			305.00
Field Expenses			1,325.53
Draughting and Typing			71.97
Total			7,915.00

7. STATEMENT OF QUALIFICATIONS

I, Richard R. Culbert, do hereby certify that:

1. I am a consulting geological engineer with offices at #900 - 625 Howe Street, Vancouver, B.C., V6C 2T6.

2. I am a graduate of the University of British Columbia, B.Sc. (1966), Ph.D. (1971).

3. I am a registered Professional Engineer of the Province of British Columbia.

4. I have practiced my profession as geologist and engineer since 1966.

5. I personally supervised the field work described in this report.

6. I have not received, nor do I expect to receive, any interest, direct or indirect, in the Nina Property, in the Equinox-Daren joint venture, or in the securities of either Equinox Resources Ltd. or Daren Resources Ltd.

7. I hereby consent to the publication of this report for the purposes of a prospectus or a statement of material facts or as required by securities regulatory agencies.

Dated at Vancouver, British Columbia, this 30th day of October, 1989.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. R. CULBERT

Richard R. Culbert, Ph.D., P.Eng.

APPENDIX I-FIELD DATA

Readings	are in millivolts with respect to electrode 25 metres to the north on baselines and 25 metres to the west on cross-lines.
Grid Potential	is cummulative potential in millivolts with respect to grid reference point at O+OOE, 0+OON.

BIDDY GRID

LINE	STATION	READING	GRID POTENTIAL
Baseline	500 N	61 mv	-458 mv
	475	143	-397
	450	-40	-254
	425	-79	-294
	400	22	-373
	375	32	-351
	350	0	-319
	325	-13	-319
	300	34	-332
	275	11	-298
	250	-165	-278
	225	254	-452
	200	54	-198
	175	-11	-141
	150	59	-155
	125	102	-96
	100	-113	6
	75	-84	-107
	50	104	-191
	25 N	27	-27
	0	-98	0
	25 S	-211	-98
	50	-84	-309
	75	-50	-393
	100	56	-443
	125	-61	-387
	150	230	-448
	175 S	-246	-218
	200	--	-482
500 North	100 E	-20	-271
	75	-11	-251
	50	-40	-240
	25 E	285	-200
	0	-189	-458
	25 W	196	-269
	50	5	-465
	75	-207	-470
	100	-207	-263
	125	-49	-56
	150	-5	-7
	175	134	-2
	200 W	--	-136
400 North	100 E	-6	-303
	75	-7	-297
	50	12	-290
	25 E	71	-301
	0	47	-373

BIDDY GRID-CONT.

LINE	STATION	READING	GRID POTENTIAL
400 North	25 W	-38	-420
	50	-324	-382
	75	80	-58
	100	229	-138
	125	-68	-367
	150	-169	-299
	175 W	--	-130
300 North	100 E	13	-394
	75	-64	-407
	50	13	-343
	25 E	-24	-356
	0	-82	-332
	25 W	-45	-250
	50	-72	-205
	75	51	-133
	100	233	-184
	125	51	-417
	150	-450	-468
	175	-41	-18
	200 W	--	23
200 North	125 E	-4	-401
	100	10	-397
	75	-20	-407
	50	1	-387
	25 E	-190	-338
	0	45	-198
	25 W	-212	-243
	50	-58	-31
	75	91	27
	100	-125	-64
	125	9	61
	150	-59	52
	175 W	--	111
100 North	125 E	35	-278
	100	33	-313
	75	3	-346
	50	-241	-349
	25 E	-114	-108
	0	222	6
	25 W	-307	-216
	50	97	91
	75	-136	-6
	100	77	130

BIDDY GRID-CONT.

LINE	STATION	READING	GRID POTENTIAL
100 North	125 W	--	53
0+00	100 E	22	-423
	75	-17	-445
	50	-184	-428
	25 E	-244	-244
	0	217	0
	25 W	87	-217
	50	-347	-304
	75	-73	43
	100 W	--	116
100 South	125 E	39	-296
	100	40	-335
	75	24	-375
	50	40	-399
	25 E	4	-439
	0	-37	-443
	25	-167	-406
	50 W	--	-239
200 South	200 E	23	-131
	175	-2	-154
	150	10	-152
	125	58	-162
	100	254	-220
	75	-292	-472
	50	210	-232
	25 E	40	-442
	0	--	-482

JEMINA GRID

LINE	STATION	READING	GRID POTENTIAL
Baseline	0+00	-50	0
	255	-57	-50
	50	-24	-107
	75	-24	-131
	100	0	-155
	125	-32	-155
	150	-35	-123
	175	-68	-158
	200	-16	-226
	225	10	-242
	250	30	-232
	275	31	202
	300	16	-171
	325	-28	-155
	350	-55	-183
	375	-27	-238
	400	-62	-265
	425	-64	-327
	450	-46	-341
	475	16	-431
	500	91	-415
	525	-13	-324
	550	-94	-337
	575	-165	-431
	600	6	-596
	625	6	-590
	650	20	-584
	675	15	-564
	700	51	-549
	725	54	-498
	750	63	-444
	775	22	-381
	800	-134	-359
	825	-85	-493
	850	-89	-578
	875	-136	-667
	900 S	--	-803
900 South	100 E	34	-757
	75	28	-791
	50	-4	-819
	25 E	-12	-815
	0	14	-803
	25 W	8	-817
	50	-11	-825
	75	-14	-819
	100	-135	-800
	125	-194	-665
	150	2	-471

JEMINA GRID-CONT.

LINE	STATION	READING	GRID POTENTIAL
900 South	175	-233	-437
	200 W	--	-240
800 South	100 E	16	-205
	75	40	-221
	50	40	-261
	25 E	58	-301
	0	58	-359
	25 W	15	-417
	50	38	-432
	75	57	-470
	100	20	-527
	125	50	-547
	150	-18	-597
	175	-200	-579
	200 W	--	-379
700 South	100 E	103	-178
	75	130	-281
	50	68	-411
	25 E	70	-479
	0	49	-549
	25 W	-20	-598
	50	-49	-578
	75	-106	-529
	100	231	-423
	125	-2	-654
	150	-468	-652
	175	288	-184
	200	62	-472
	225 W	--	-534

VERNON GRID

LINE	STATION	READING	GRID POTENTIAL
Baseline	0+00	-9	0
	255	-8	-9
	50	-27	-17
	75	-33	-44
	100	6	-77
	125	-12	-71
	150	-73	-83
	175	-16	-156
	200	-33	-172
	225	8	-205
	250	-11	-197
	275	-1	-208
	300	-42	-209
	325	-28	-251
	350	24	-279
	375	-67	-255
	400	47	-322
	425	36	-275
	450	-19	-239
	475	53	-258
	500	51	-205
	525	-87	-154
	550	34	-241
	575	34	-207
	600	20	-173
	625	50	-153
	650	46	-103
	675	27	-57
	700	40	-30
	725	66	10
	750	13	76
	775	24	89
	800 S	--	113
0+00	150 E	-7	27
	125	8	34
	100	-7	26
	75	16	33
	50	4	17
	25 E	13	13
	0	23	0
	25 W	0	-23
	50	-18	-23
	75	48	-5
	100	12	-53
	125	21	-65
	150 W	--	-86

VERNON GRID-CONT.

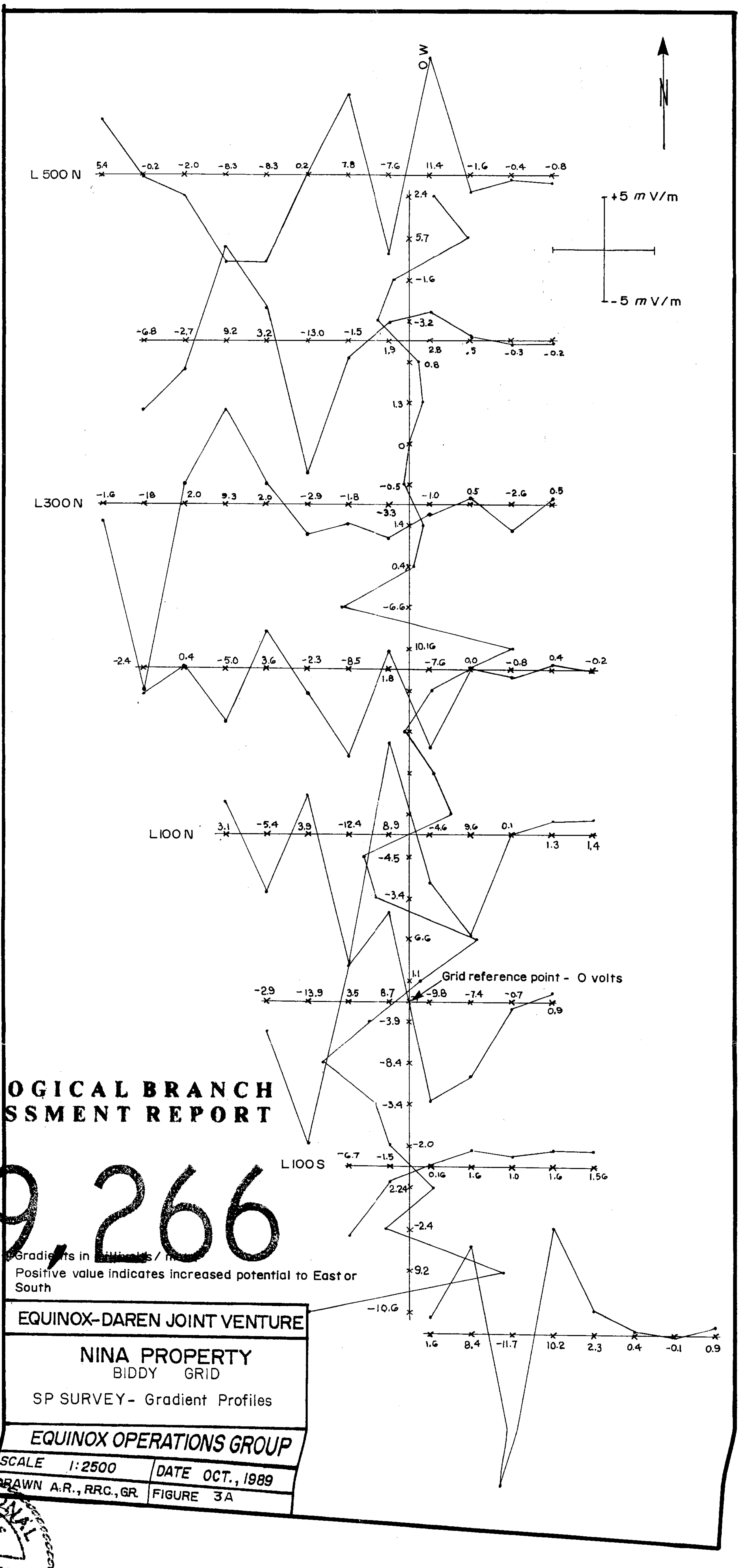
LINE	STATION	READING	GRID POTENTIAL
100 South	150 E	31	98
	125	33	67
	100	34	34
	75	38	0
	50	10	-38
	25 E	29	-48
	0	20	-77
	25 W	45	-97
	50	17	-142
	75	47	-159
	100	25	-206
	125	51	-231
	150 W	--	-282
200 South	150 E	27	-45
	125	2	-72
	100	4	-74
	75	-9	-78
	50	53	-69
	25E	50	-122
	0	66	-172
	25 W	13	-238
	50	6	-251
	75	29	-257
	100	36	-286
	125	30	-322
	150 W	--	-352
300 South	150 E	25	-105
	125	14	-130
	100	19	-144
	75	34	-163
	50	27	-197
	25 E	-15	-224
	0	46	-209
	25 W	33	-255
	50	42	-288
	75	84	-330
	100	40	-414
	125	-40	-454
	150 W	--	-414
400 South	150 E	-5	-285
	125	-52	-280
	100	22	-228
	75	-34	-228

VERNON GRID-CONT.

LINE	STATION	READING	GRID POTENTIAL
400 South	50	-5	-214
	25 E	113	-209
	0	-39	-322
	25 W	25	-283
	50	84	-308
	75	28	-392
	100	-155	-420
	175	3	-265
	150 W	--	-268
500 South	150 E	21	-206
	125	-14	-227
	100	27	-213
	75	-67	-240
	50	40	-173
	25 E	-8	-213
	0	14	-205
	25 W	34	-219
	50	4	-253
	75	12	-257
	100	25	-269
	125	-4	-294
	150 W	--	-290
600 South	150 E	30	-82
	125	46	-112
	100	22	-158
	75	-4	-180
	50	-14	-176
	25 E	-11	-163
	0	6	-173
	25 W	-13	-179
	50	23	-166
	75	38	-189
	100	14	-227
	125	44	-241
	150 W	--	-285
700 South	150 E	14	-71
	125	14	-85
	100	-28	-99
	75	-10	-71
	50	-26	-61
	25 E	5	-35
	0	25	-30

VERNON GRID-CONT.

LINE	STATION	READING	GRID POTENTIAL
700 South	25 W	10	-55
	50	1	-65
	75	11	-66
	100	-26	-77
	125	-31	-51
	150 W	--	-20
800 South	150 E	31	219
	125	15	188
	100	32	173
	75	1	141
	50	20	140
	25 E	7	120
	0	30	113
	25 W	40	83
	50	11	43
	75	3	32
	100	-7	29
	125	-74	36
	150 W	--	110



Positive value indicates increased potential to East or South

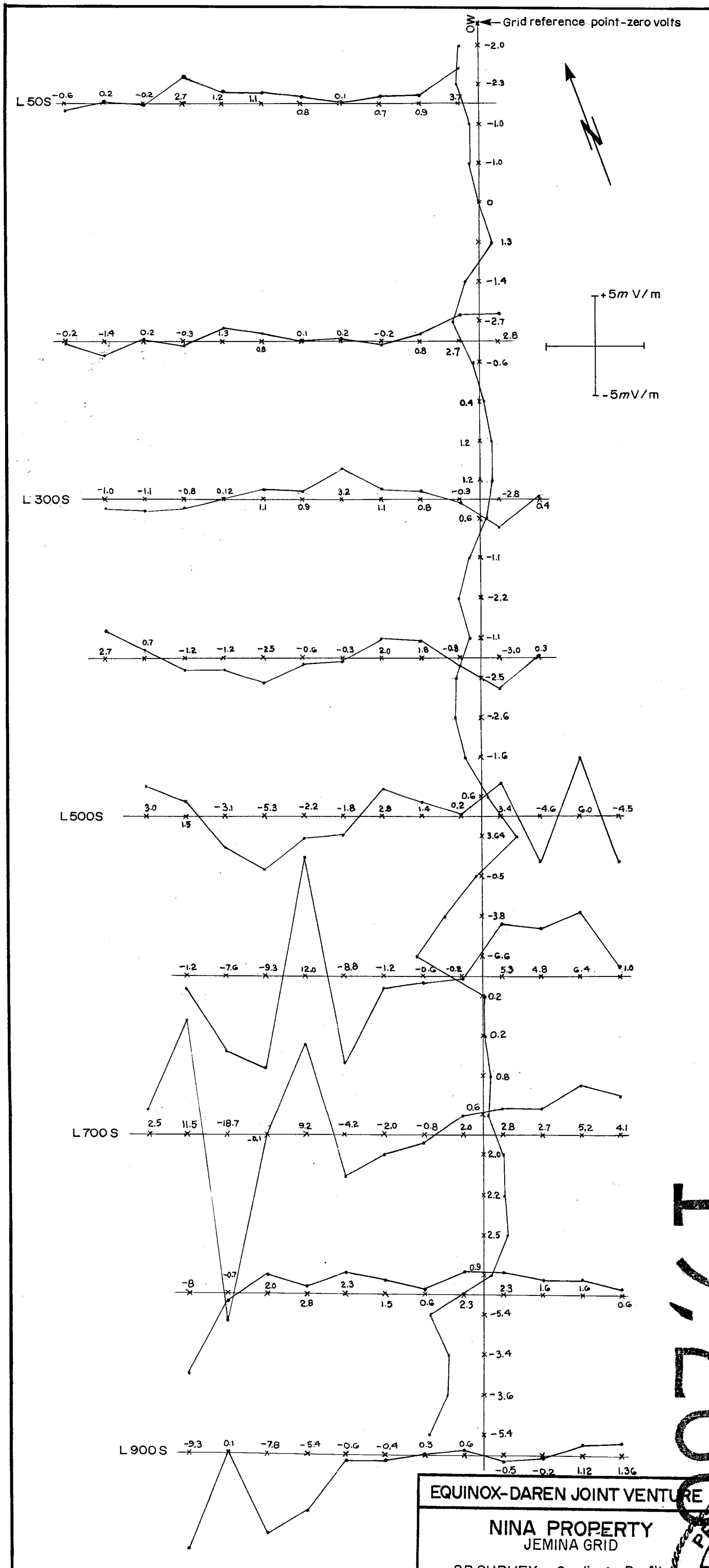
EQUINOX-DAREN JOINT VENTURE

NINA PROPERTY
BIDDY GRID

SP SURVEY- Gradient Profiles

EQUINOX OPERATIONS GROUP

SCALE 1:2500	DATE OCT., 1989
DRAWN A.R., RRC., GR.	FIGURE 3A



Gradients in millivolts/meter
Positive value indicates increased potential to East or South

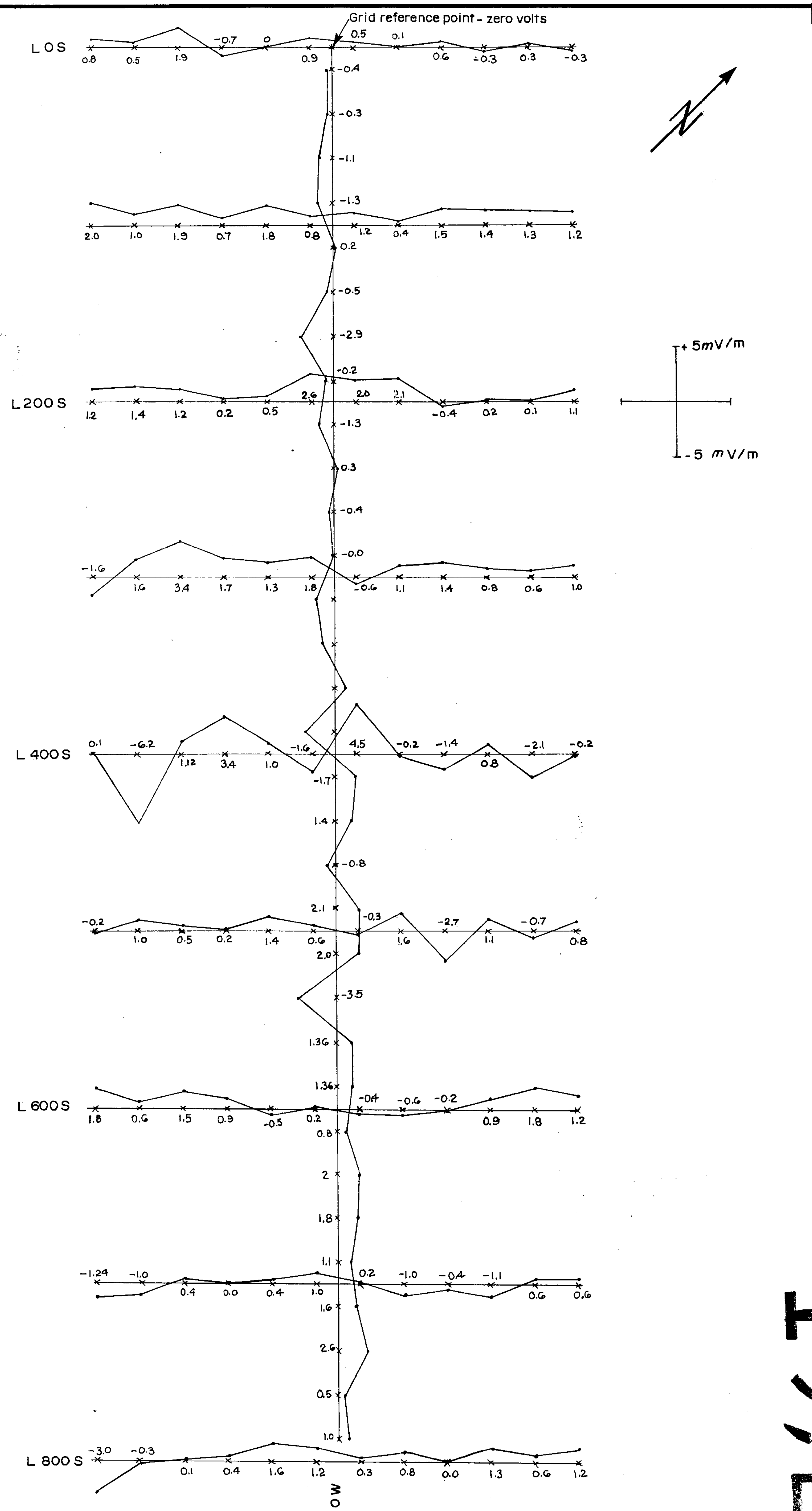
EQUINOX-DAREN JOINT VENTURE

NINA PROPERTY
JEMINA GRID

SP SURVEY - Gradient Profiles

EQUINOX OPERATIONS GROUP

SCALE 1:2500	DATE OCT., 1989
DRAWN A.R., RRC., GR.	FIGURE 3B.



Gradients in millivolts/meter

Positive value indicates increased potential to East or South

EQUINOX-DAREN JOINT VENTURE

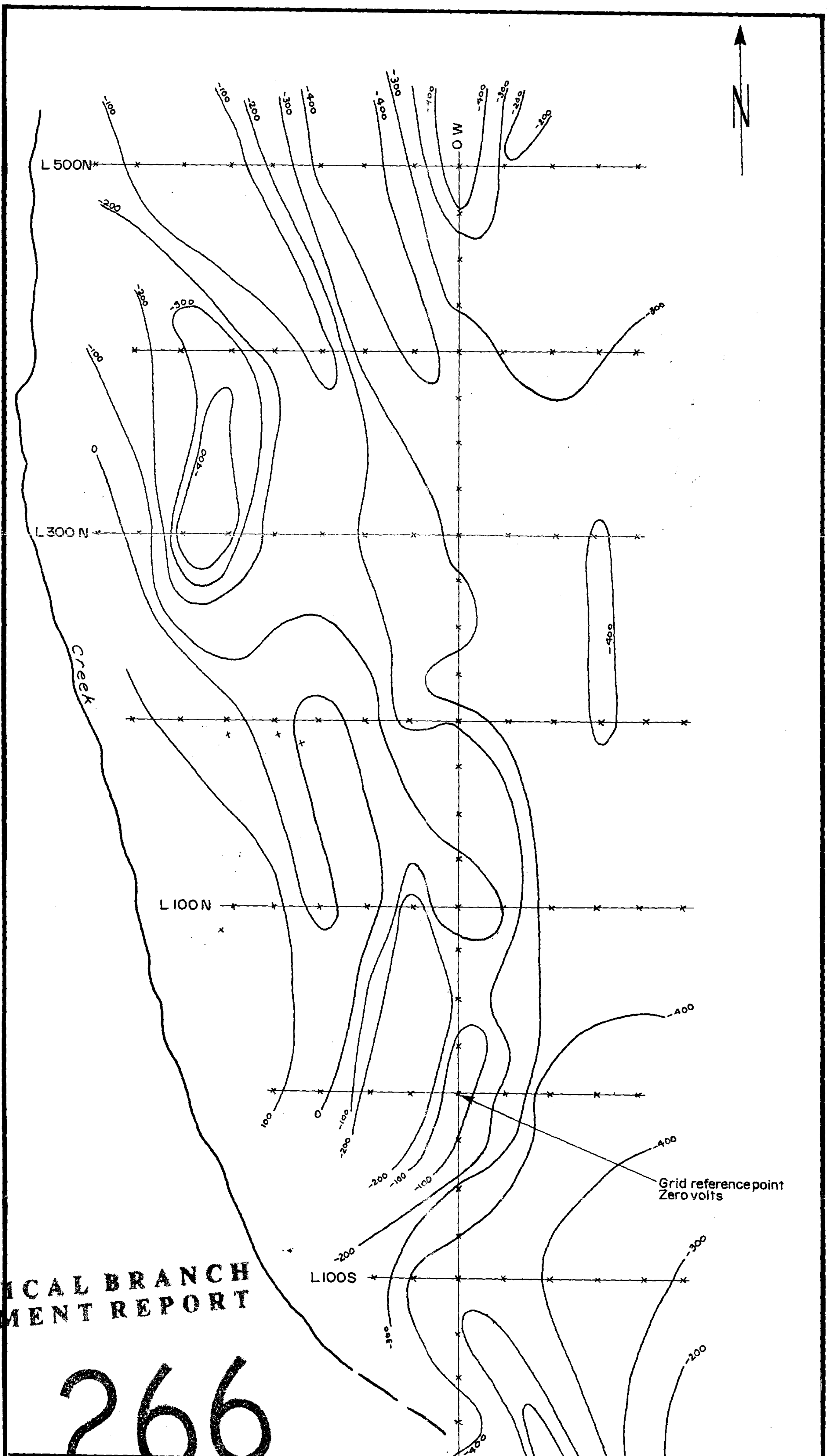
NINA PROPERTY

VERNON GRID

SP SURVEY - Gradient Profiles

EQUINOX OPERATIONS GROUP

SCALE 1:2500	DATE OCT. 1989
DRAWN A.R., RRC., GR.	FIGURE 3



EQUINOX-DAREN JOINT VENTURE

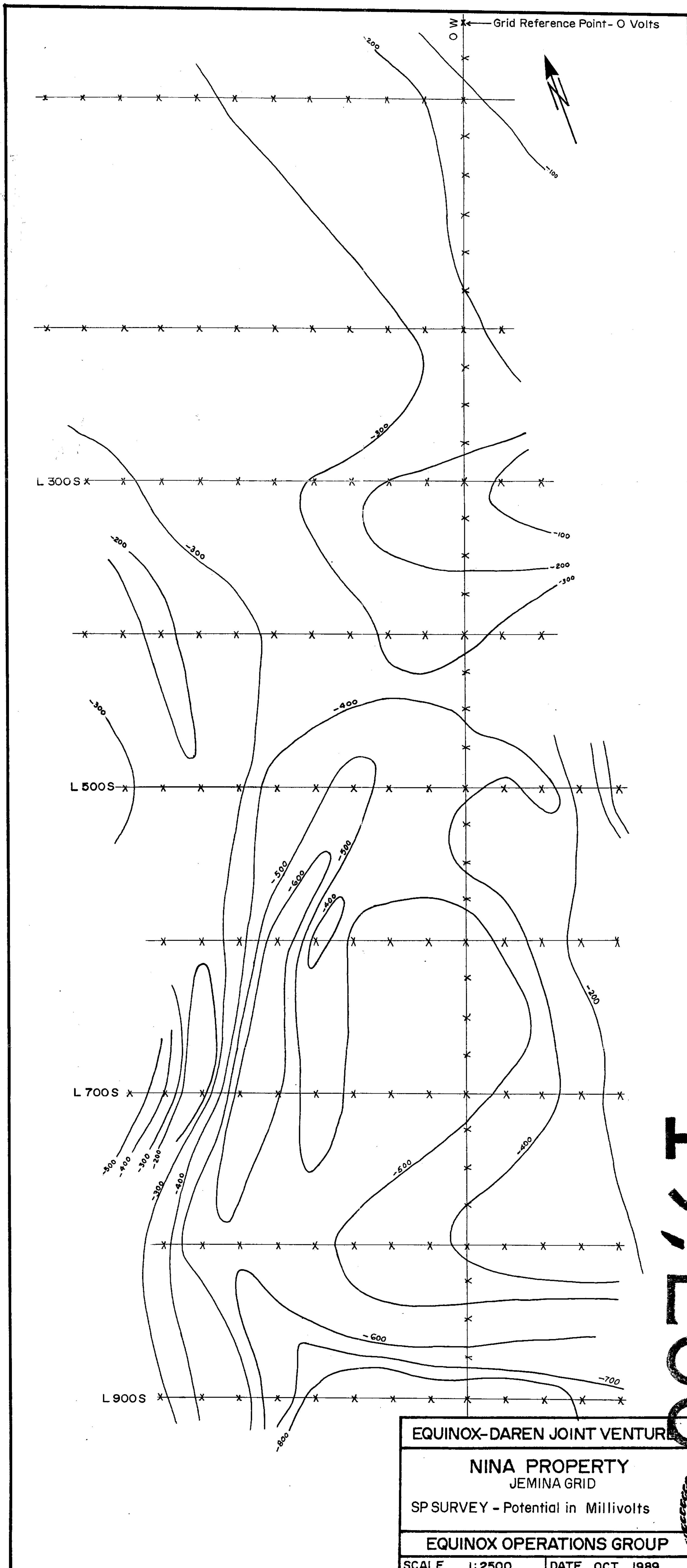
NINA PROPERTY

BIDDY GRID

SP SURVEY- Potential in millivolts

EQUINOX OPERATIONS GROUP

SCALE 1:2500	DATE OCT., 1989
DRAWN A.R., RRC., GR.	FIGURE 4A



EQUINOX-DAREN JOINT VENTURE

NINA PROPERTY
JEMINA GRID

SP SURVEY - Potential in Millivolts

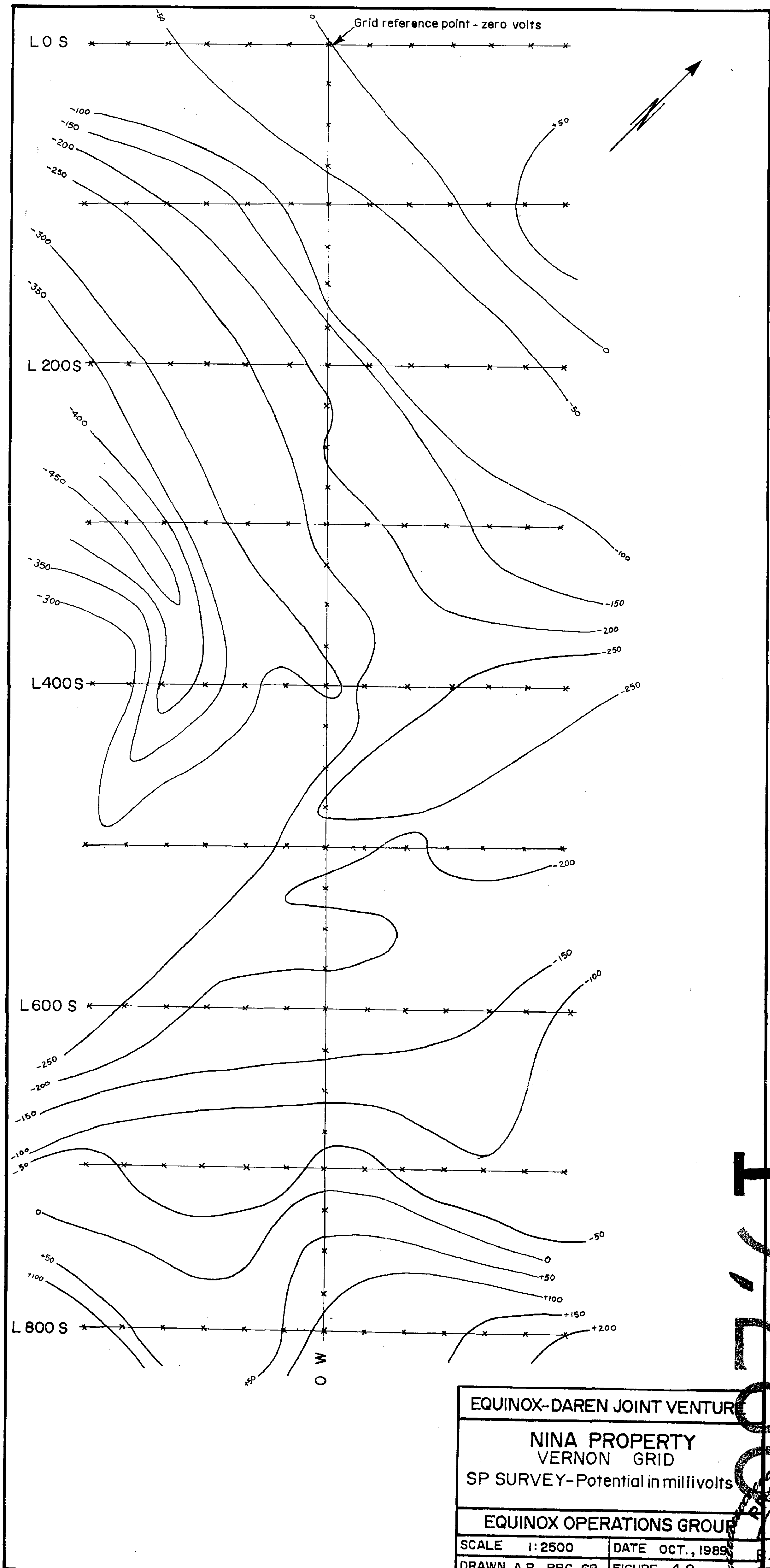
EQUINOX OPERATIONS GROUP

SCALE 1:2500	DATE OCT., 1989
DRAWN A.R., RRC., GR.	FIGURE 4B

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,266

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
R. R. CULBERT



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,266

PROFESSIONAL
PROVINCE OF
R. CULBERT
BRITISH COLUMBIA
ENGINEER