Sä Dena Hes

2001 Annual Report

Yukon Production Licence

QML - 004

Prepared by
Teck Cominco Ltd.
March 2002

TABLE OF CONTENTS

Appendices

Appendix A - Open Pit Drawings – Plan View

Appendix B - Jewel Box Mine Drawings – Plan Views

Appendix C - Burnick Mine Drawings – Plans and Sections

Appendix D - Results Summary of Revegetation Program - 2001

1.0 SUMMARY

A Joint Venture consisting of Teck Cominco Ltd. (25%), Teck Cominco Metals Ltd. (25%), and Pan-Pacific Metal Mining Corporation (50%) (a wholly owned subsidiary of Korea Zinc) purchased the Sä Dena Hes Mine from Coopers and Lybrand Ltd. the appointed Court Receiver, in March 1994. Teck Cominco Ltd. operates the mine under an Agreement with the Joint Venture Partners. Full-time security and property management is provided by Teck Cominco through on-site personnel. The mine operation continued to be maintained on a 'Temporary Closure' basis throughout 2001. In 2001 Sä Dena Hes was granted a new Yukon Quartz Mining Production Licence QML-0004 ('Production Licence'). This report is submitted in compliance with Section 13 of the Production Licence. The Production Licence requires a number of on-going records to be maintained through the year at the site that were not previously required. As a result, some of the new documentation required has now been initiated and will be available for the 2002 annual report.

2.0 PRODUCTION DATA

The mine was under 'Temporary Closure' status throughout 2001.

2.1 Ore & Waste Mined

Ore Produced ..... 0 tonnes

Waste Produced ..... 0 tonnes

2.2 Head Grades Processed

Zinc Grade ..... N. A.

Lead Grade..... N. A.

2.3 Concentrate Production

Zinc Concentrate ..... 0 tonnes

Lead Concentrate ..... 0 tonnes

2.4 Stockpiles

Ore Stockpiles ..... 0 tonnes

3.0 FORECAST MINE LIFE

Expected mine life would is approximately 4 years based on current resources. The Mineral Reserves and Resources are as follows (source - Teck Cominco Ltd. 2001 Annual Report):

Mineral Reserves

Proven ..... 0 tonnes

Zinc ..... N. A.

Lead ..... N. A.

Probable ..... 0 tonnes

Zinc ..... N. A.

Lead ..... N. A.

Mineral Resources

Indicated ..... 2,100,000 tonnes

Zinc 10.4%

Lead 2.6%

Inferred ..... 0 tonnes

Zinc ..... N. A.

Lead ..... N. A.

Notes:

- The mineral reserve and resource estimates are consistent with the classification system prescribed by the Canadian Securities Administrators in National Instrument 43-101, "Standard of Disclosure for Mineral Products". The mineral resource estimates are reported separately from and are in addition to mineral reserves. The estimates incorporate applicable assumptions (including metal prices, mining dilution, recoveries, cut-off grades and smelter and treatment charges), parameters, and methodologies deemed appropriate. Zinc reserves and resources are calculated on the basis of assumed zinc prices of US$0.45/lb – $0.55/lb.

4.0 Backfill Placed Underground

There was no backfill placed underground during 2001.

5.0 MINE PLANS

The Production Licence came into effect at the end of 2001. The licence requires submission of current mine plans and sections. As the licence just recently came into effect, there has been no technical personnel at the site in the interim that could review the on site files to determine what drawings are available. The on-site caretaker is not knowledgeable enough to be able to make this assessment. To comply with the licence requirements, the files retained off site have been reviewed and most of the required information extracted with a few exceptions as discussed below.

5.1 Open Pit Plans and Sections

There are two small open pits at the site. Both are located on Jewel Box Hill. These were mined by the previous owner. As Teck Cominco has no plans for further mining in this area, we have only limited information available off site. During the next site inspection in the spring of 2002, the on site drawing files will be reviewed to determine if there is further information available. If there is, the more detailed information will be

included in the 2002 year end report. Attached in Appendix A is a plan showing the location of the pits, their configuration and approximate dimensions. There are no sections currently available.

5.2 Underground Mine Plans

There are two separate sets of underground workings at the site. The most extensive workings are located at Jewel Box Hill and were the primary production source for the original owner. The other set of mine workings are located on the North Hill and are referred to as 'Burnick'.

5.2.1 Jewel Box

Attached in Appendix B are the following:

- Overall plan view of the mine workings including the limited development done by Teck Cominco in 1998.
- Level plans of the mine workings dated August 1992. These have not been updated to include the 1998 development work as they are provided above.

No sections are available at this time. On-site drawing files will be searched to locate section drawings and these will be included in the 2002 report if they exist.

5.2.2 Burnick

Attached in Appendix C are the following:

- Overall mine plan dated February 23, 1998 which includes development completed by Teck Cominco.
- Sections of the mine workings current as of November, 1995. These do not include the mine development completed in 1998 by Teck Cominco
- Plans and Sections of the mine workings completed by Teck Cominco in 1998.

6.0 RECLAMATION

The site was in Temporary Closure throughout the year awaiting return of economic metal prices. Site reclamation activities were related to study activity.

6.1 Reclamation Plan

During 2001, the CEAA screening of the Sä Dena Hes Mine Detailed Decommissioning & Reclamation Plan – February 2000 ('Reclamation Plan') was completed. The Production Licence requires the Plan to be up dated prior to the end of 2005 during Temporary

Closure or within two years of resumption of production. This requirement is consistent with requirements of the Type A Water Licence for the site (QZ99-045).

6.2 Reclamation Plan

The Reclamation Plan proposed Revegetation studies in Section 3.6 of the report. The Production Licence requires that the testing proposed in Section 3.6 and 3.6.2.1 be conducted.

In 2000, the initial work related to Revegetation was initiated to obtain basic information for use in designing the revegetation test work. In 2001, revegetation studies as proposed in the Reclamation Plan were initiated and the information related to this work is contained in the report 'Results Summary of Revegetation Program – 2001'. The report is attached in Appendix D.

7.0 Solid Waste Disposal

7.1 Solid Waste Disposal & Recycling

The site is in Temporary Closure with one person living on-site. All putrescible waste has been stored in animal proof containers prior to disposal.

The site generates waste oil from onsite power generation and mobile equipment. During Temporary Closure the quantity of used oil generated is limited. However, during 2001, approximately 48,000 litres of used oil were recycled through the Yukon Territorial Government program. This oil had been collected and stored at the site over a number of years.

7.2 Inventory of Wastes Placed in the Landfill

Putrescible wastes from the caretaker were disposed of in the landfill after incineration.

8.0 Wildlife Observations

Historically, records of wildlife observations have not been maintained. As a result, there are no records available for 2001. The onsite caretaker now maintains a record and these will be reported with the 2002 data.

9.0 Production Plans for 2002

The mine was in Temporary Closure throughout 2001. Metals prices were depressed throughout 2001 with no change at year end. Unless there is a substantial increase in metals prices in 2002, there are no plans to resume production in 2002.

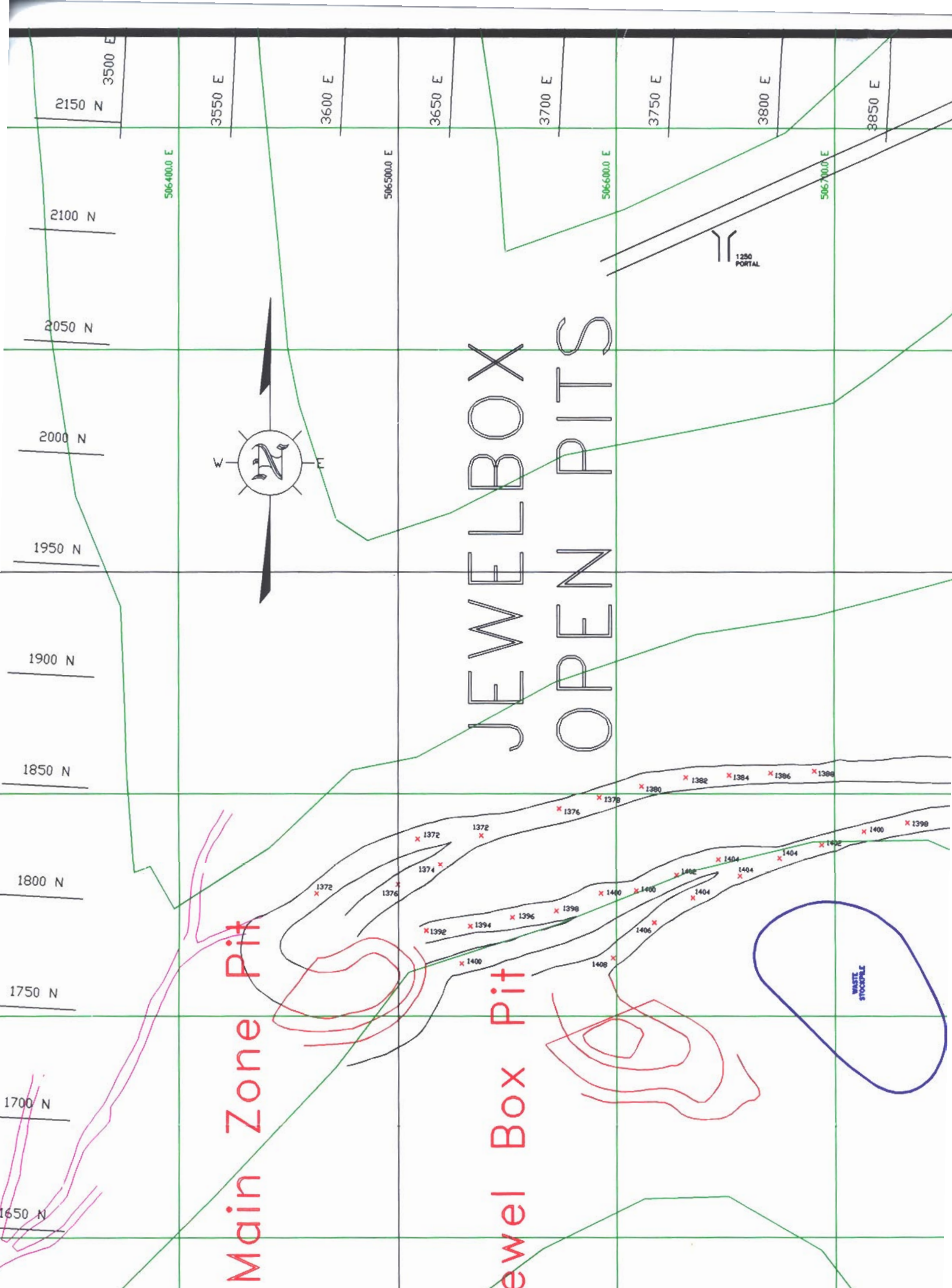
Teck Cominco Ltd. remains committed to re-open and operate the mine once metals prices return to economic levels.

Bruce J. Donald, P. Eng. (B.C.)
Reclamation Manager,
Environment and Corporate Affairs
Teck Cominco Ltd.

APPENDIX A

OPEN PIT DRAWING

PLAN VIEW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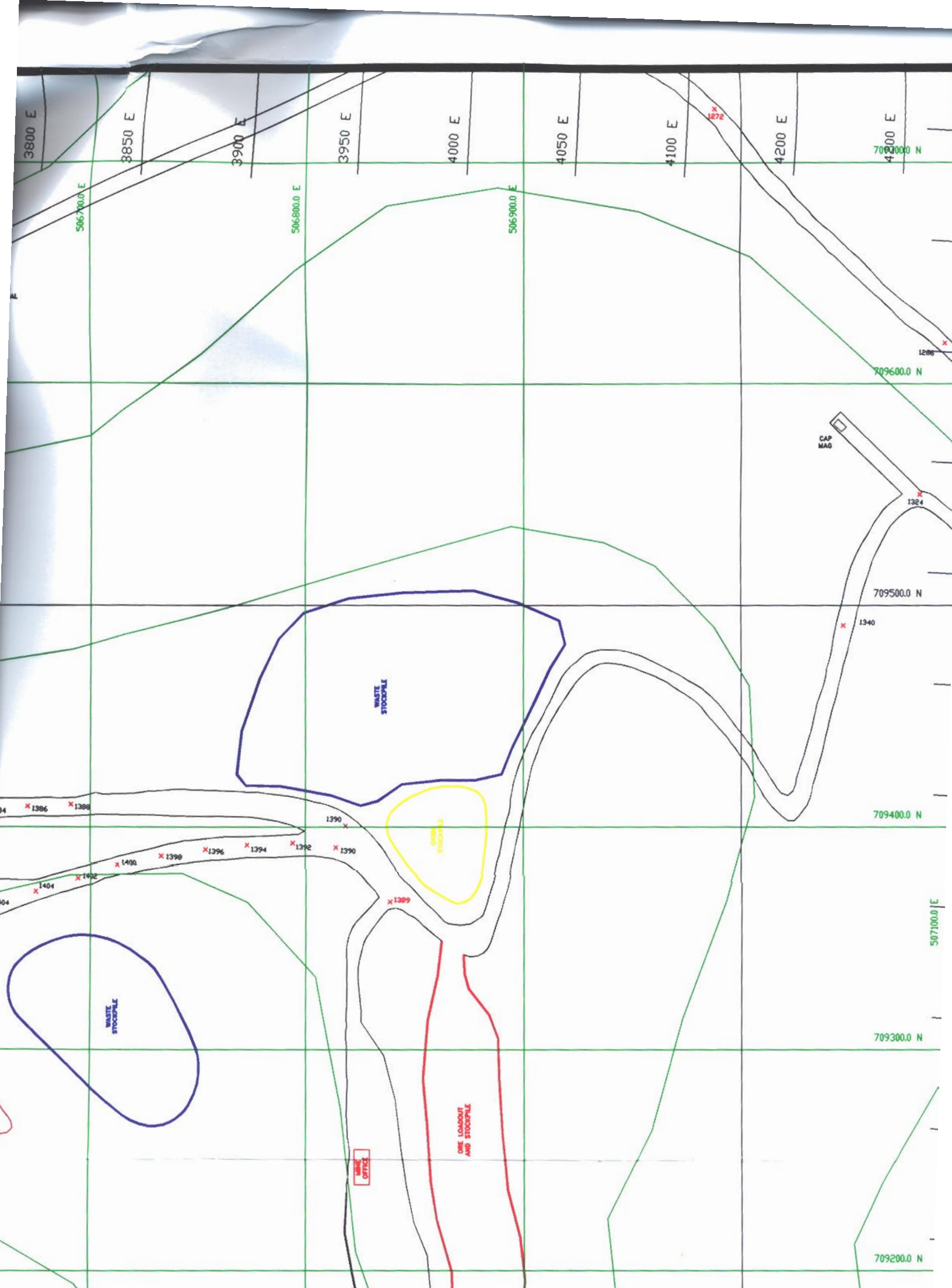
1850 N
1800 N
1750 N
1700 N
1650 N
506400.0 E
506500.0 E
506600.0 E
506700.0 E
1250 PORTAL
JEWEL BOX
OPEN PITS
N
W
E
Main Zone Pit
Jewel Box Pit
TRUCKING
WASTE
STOCKS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709700.0 N
709600.0 N
709500.0 N
709400.0 N
709300.0 N
709200.0 N
507100.0 E
1272
1286
1324
1340
1386
1388
1390
1392
1394
1396
1398
1400
1402
1404
1389
CAP MAG
WASTE STOCKPILE
WASTE STOCKPILE
ORE STOCKPILE
ORE LOADOUT AND STOCKPILE
MINE OFFICE

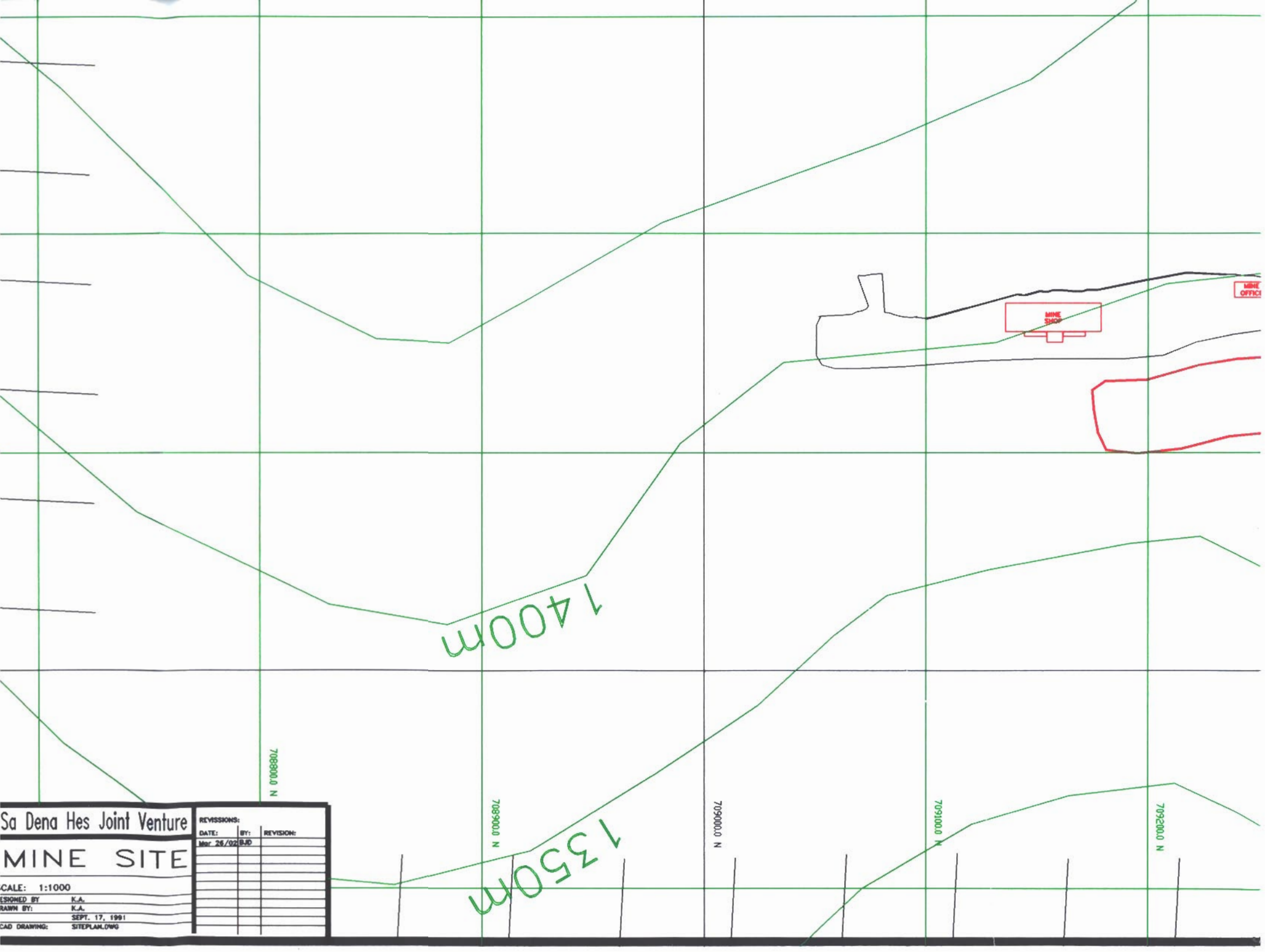
Main

Jewel B

1400m

1450m

1500m



Sa Dena Hes Joint Venture

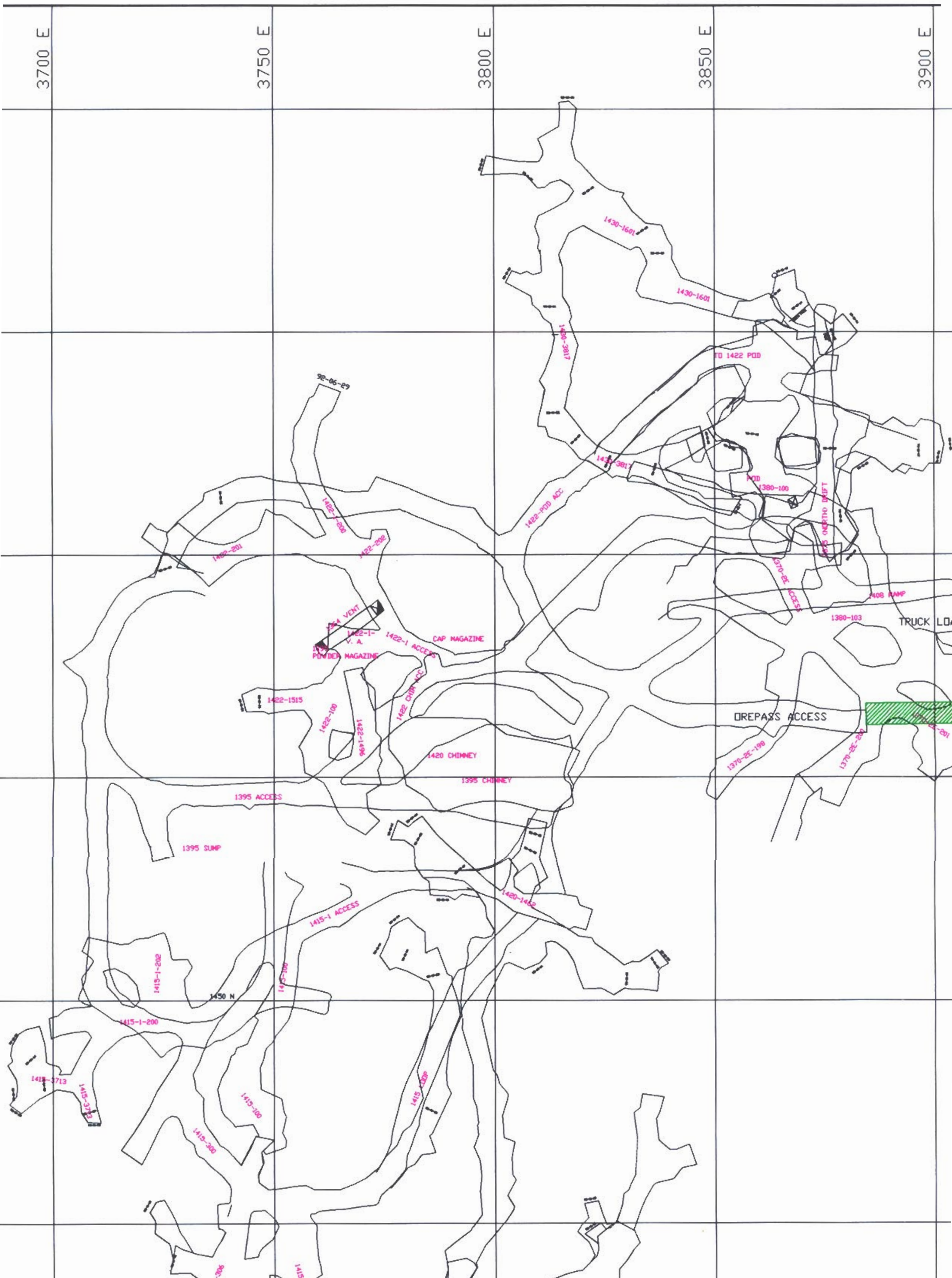
MINE SITE

SCALE: 1:1000
DESIGNED BY: K.A.
DRAWN BY: K.A.
SEPT. 17, 1991
CAD DRAWING: SITEPLAN.DWG

REVISSIONS:		
DATE:	BY:	REVISION:
Mar 26/02	BJD	

APPENDIX B
JEWEL BOX MINE DRAWINGS
PLAN VIEWS

1. **Jewelbox 1998 Mining Plan**
   - Plan of underground mine workings at Jewel Box including development done in 1998 by Teck Cominco Ltd.
2. **Jewel Box 1303 Level Plan**
   - Mine workings as of August 1, 1992
3. **Jewel Box 1370 Level Plan**
   - Mine workings as of August 1, 1992
4. **Jewel Box 1395 Level Plan**
   - Mine workings as of August 1, 1992
5. **Jewel Box 1420 Level Plan**
   - Mine workings as of August 1, 1992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3800 E
3850 E
3900 E
1430-1601
1430-1601
TO 1422 POD
92-06-29
1422-POD ACC
POD
1380-100
NORTH DRIFT
1422-1-200
1422-202
1422-201
1370-2E ACCESS
1408 RAMP
1380-103
TRUCK LO
VENT
V. A.
1422-1 ACCESS
CAP MAGAZINE
POWDER MAGAZINE
1422-1515
1422-100
1422-1496
OREPASS ACCESS
1370-2E-198
1420 CHIMNEY
1395 CHIMNEY
1395 ACCESS
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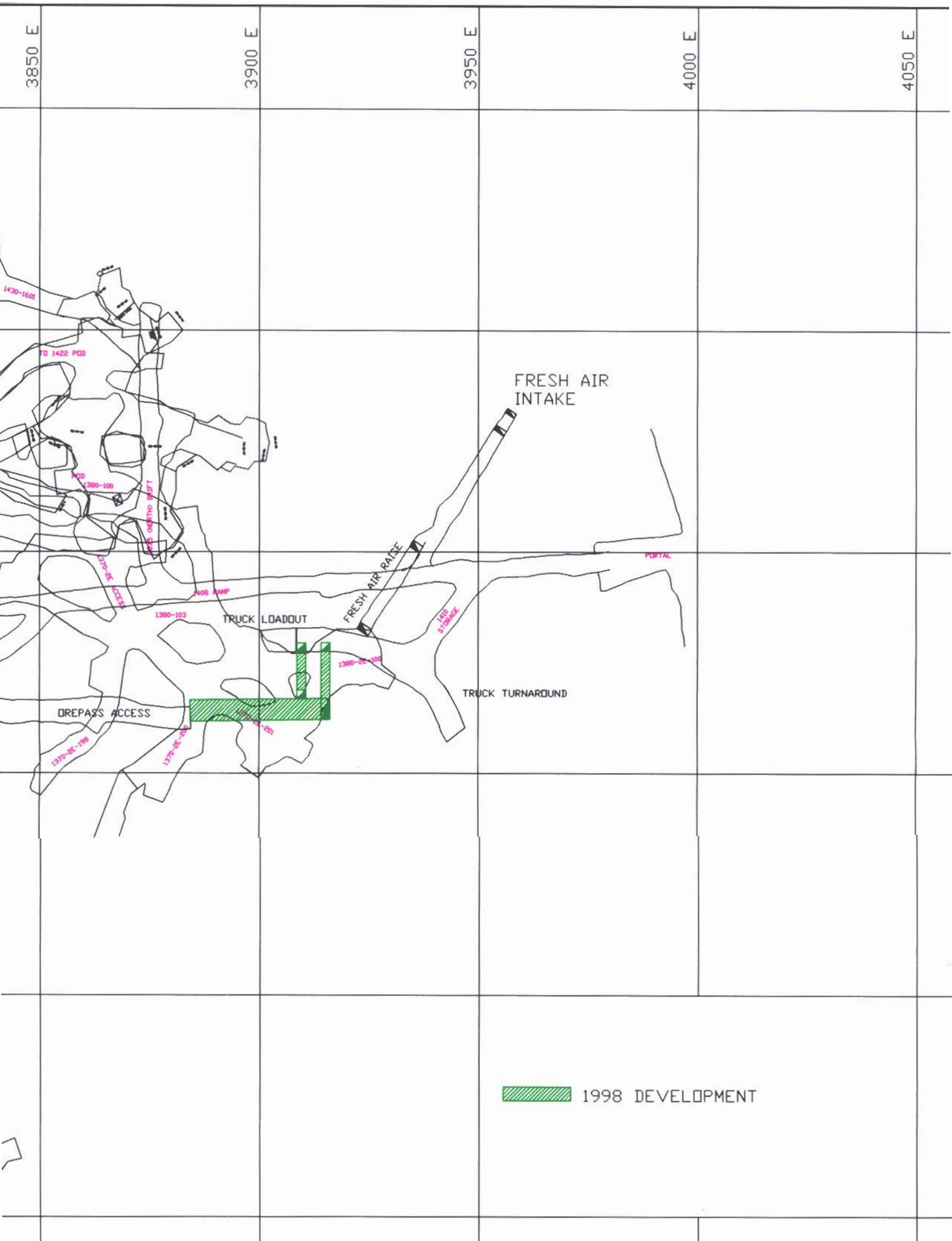
1415-100
1415-300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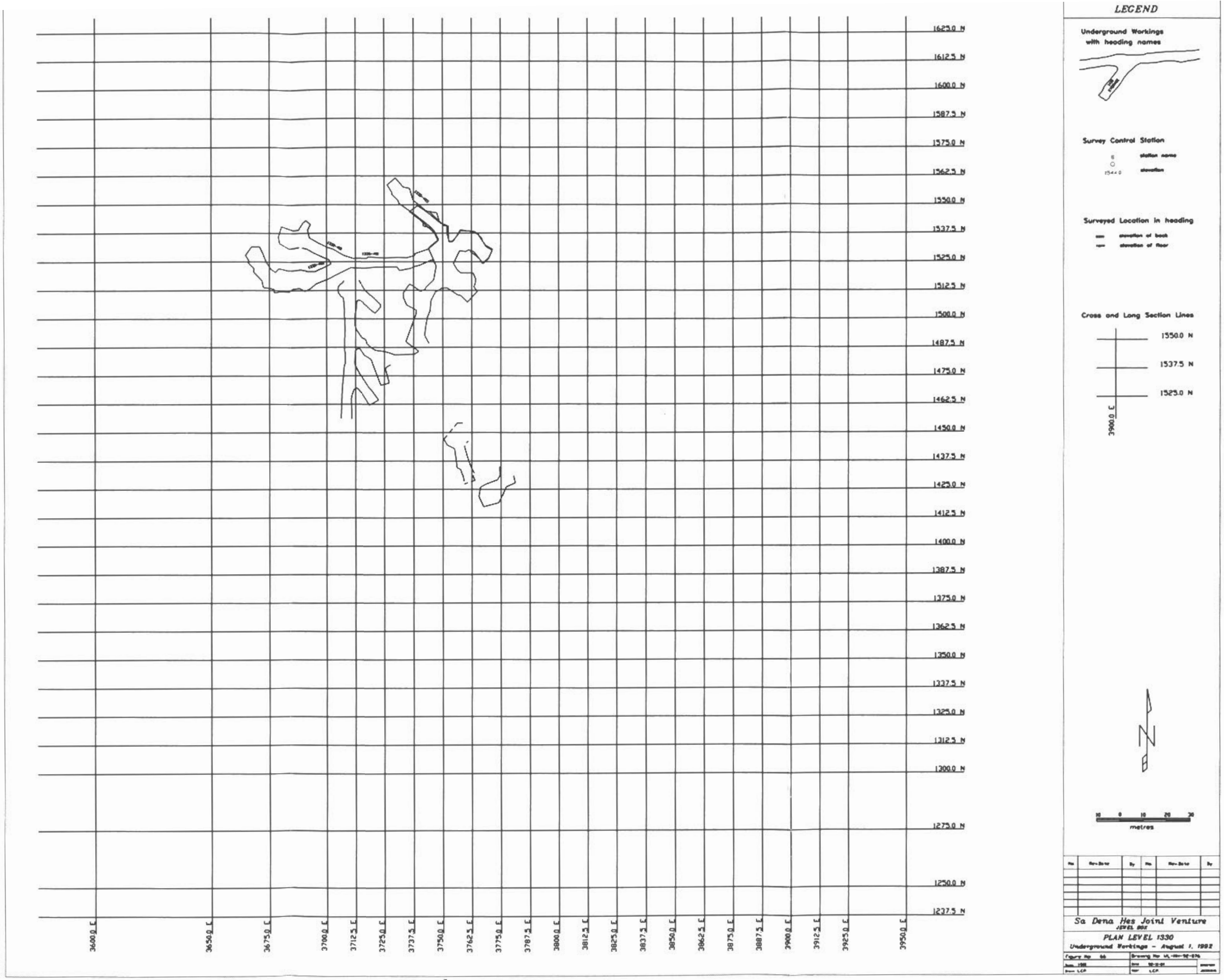
TO 1422 POD
POD
1380-100
RAISE NORTH SHAFT
1370-25 ACCESS
2408 RAMP
1380-103
TRUCK LOADOUT
FRESH AIR RAISE
FRESH AIR INTAKE
PORTAL
1410 STORAGE
1380-25-102
TRUCK TURNAROUND
OREPASS ACCESS
1370-25-201
1370-25-199
1370-25-200
1998 DEVELOPMENT


LEGEND
Underground Workings with heading names
Survey Control Station
Surveyed Location in heading
Cross and Long Section Lines
1550.0 N
1537.5 N
1525.0 N
3900.0 E
metres
Sa Dena Hes Joint Venture
PLAN LEVEL 1330
Underground Workings - August 1, 1992
1625.0 N
1612.5 N
1600.0 N
1587.5 N
1575.0 N
1562.5 N
1550.0 N
1537.5 N
1525.0 N
1512.5 N
1500.0 N
1487.5 N
1475.0 N
1462.5 N
1450.0 N
1437.5 N
1425.0 N
1412.5 N
1400.0 N
1387.5 N
1375.0 N
1362.5 N
1350.0 N
1337.5 N
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1312.5 N
1300.0 N
1275.0 N
1250.0 N
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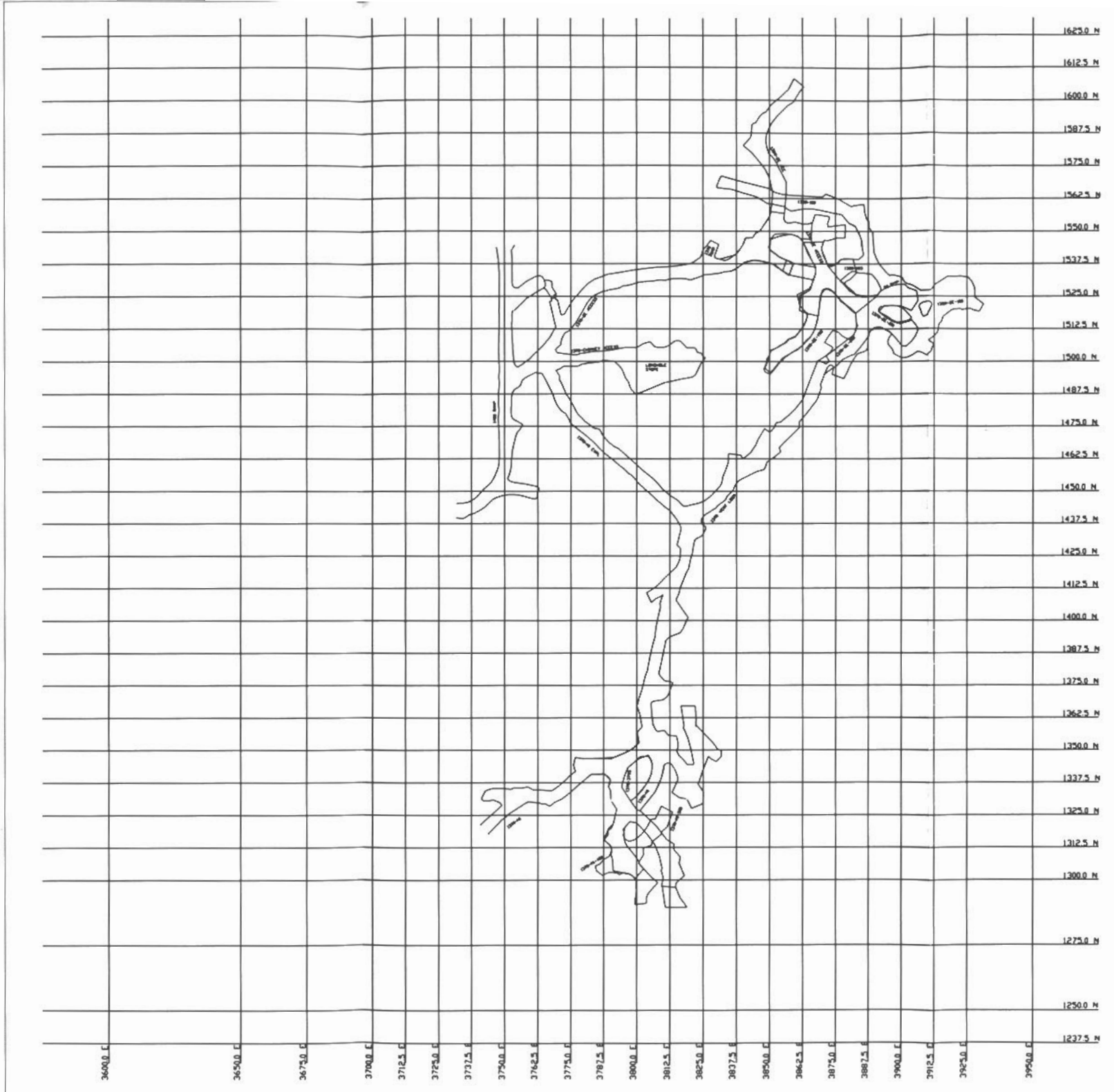


LEGEND

Underground Workings with heading names

Survey Control Station

station name

elevation

Surveyed Location in heading

elevation of back

elevation of floor

Cross and Long Section Lines

1550.0 N

1537.5 N

1525.0 N

3900.0 E

10 0 10 20 30

metres

No.	Revision	By	No.	Revision	By

Sa Dena Hes Joint Venture

JEWEL BOX

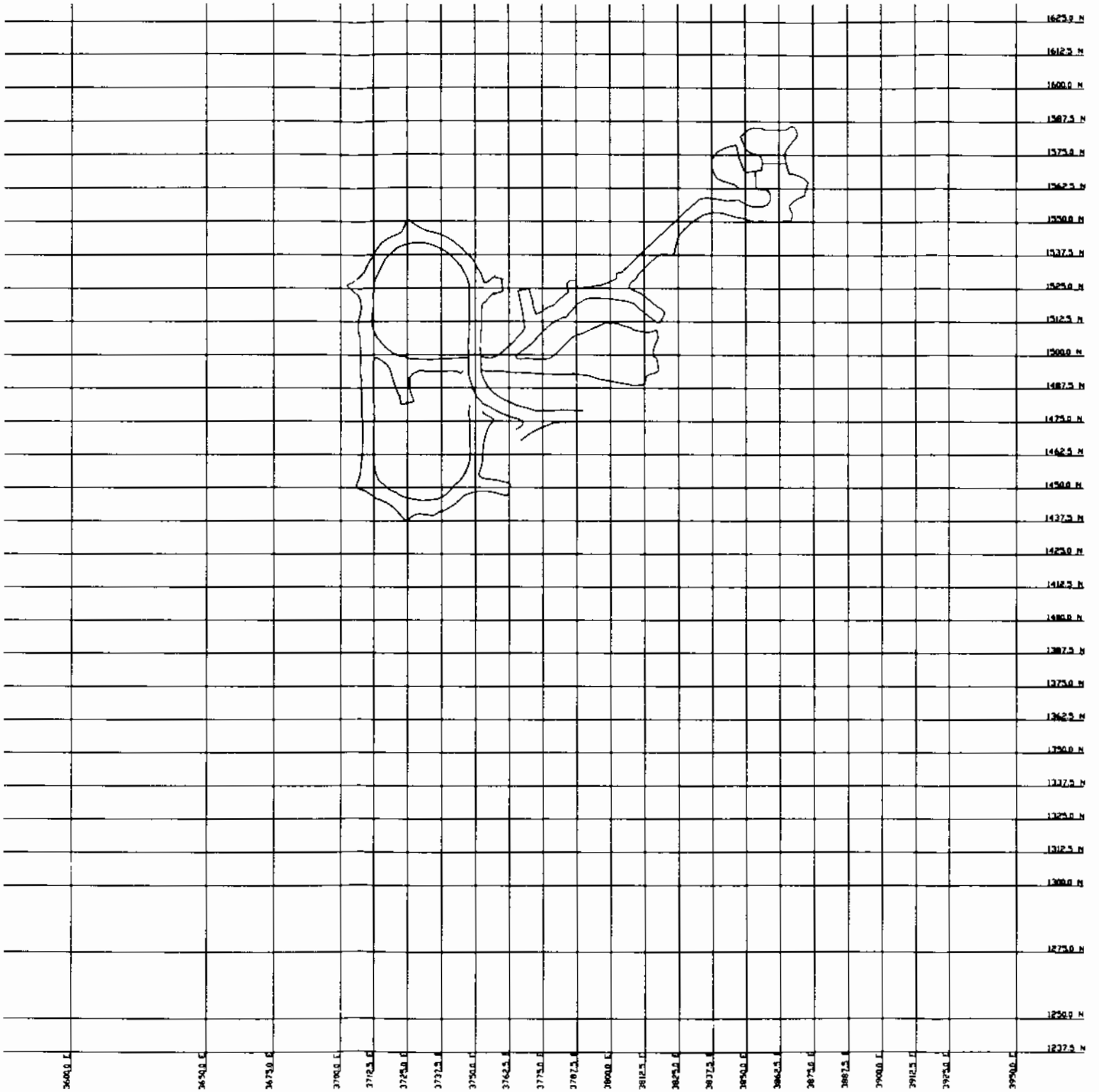
PLAN LEVEL 1370

Underground Workings - August 1, 1992

Figure No. 64 | Drawing No. 14-100-92-074

Date 1992 | Date 92-8-01 | Revision

Drawn L.C.P | Plan L.C.P | Approved



LEGEND

Underground Workings with heading names

Survey Control Station

Surveyed Location in heading

Cross and Long Section Lines

1550.0 N
1537.5 N
1525.0 N
3900.0 E

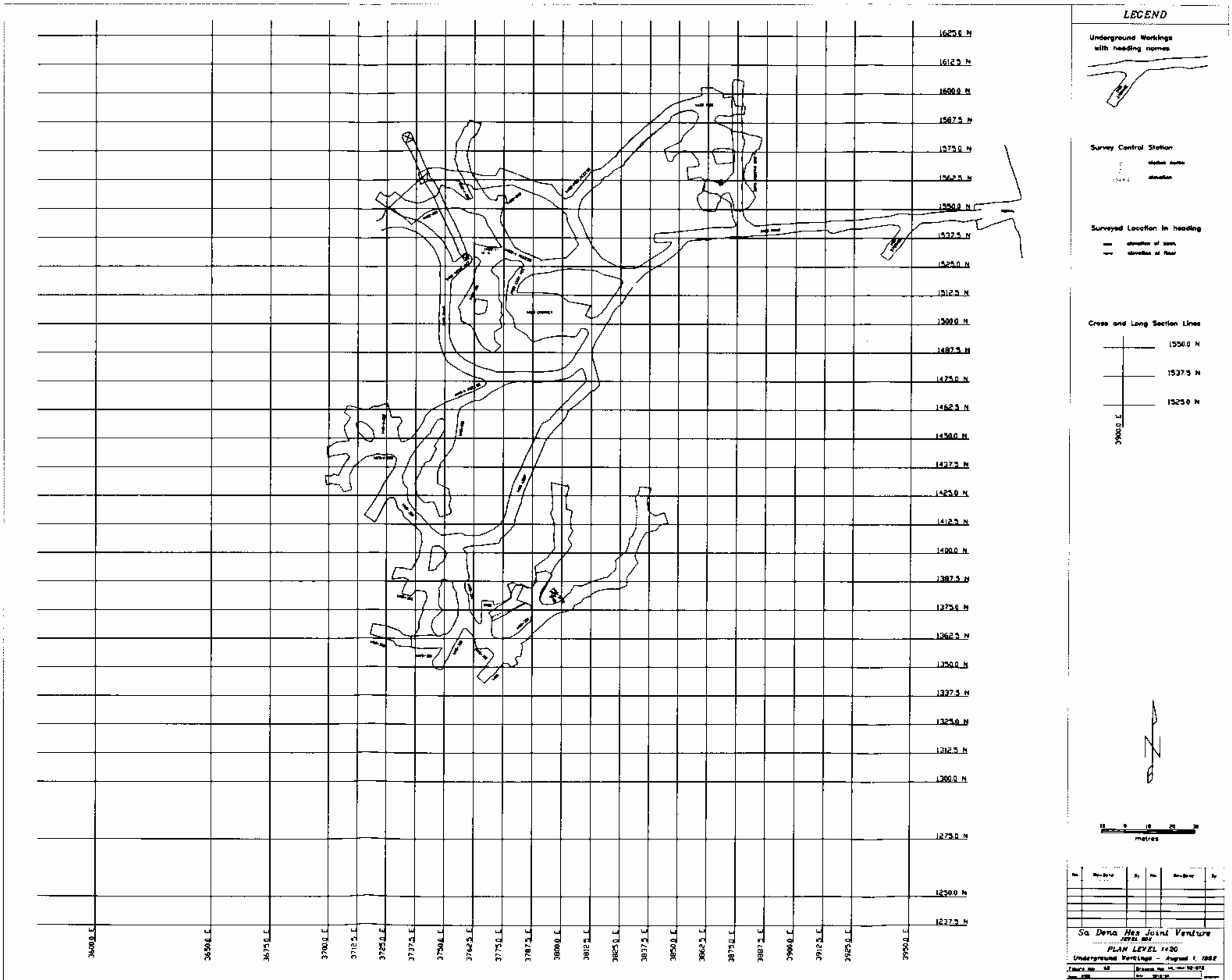
N

0 10 20 30 40
metres

Sa Dena Hes Joint Venture

PLAN LEVEL 1388

Underground Workings - August 1, 1988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Underground Workings with heading names
Survey Control Station
Surveyed Location in heading
Cross and Long Section Lines
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1537.5 N
1525.0 N
3900.0 E
metres
Sa Dena Hes Joint Venture
PLAN LEVEL 1420
Underground Workings
1625.0 N
1612.5 N
1600.0 N
1587.5 N
1575.0 N
1562.5 N
1550.0 N
1537.5 N
1525.0 N
1512.5 N
1500.0 N
1487.5 N
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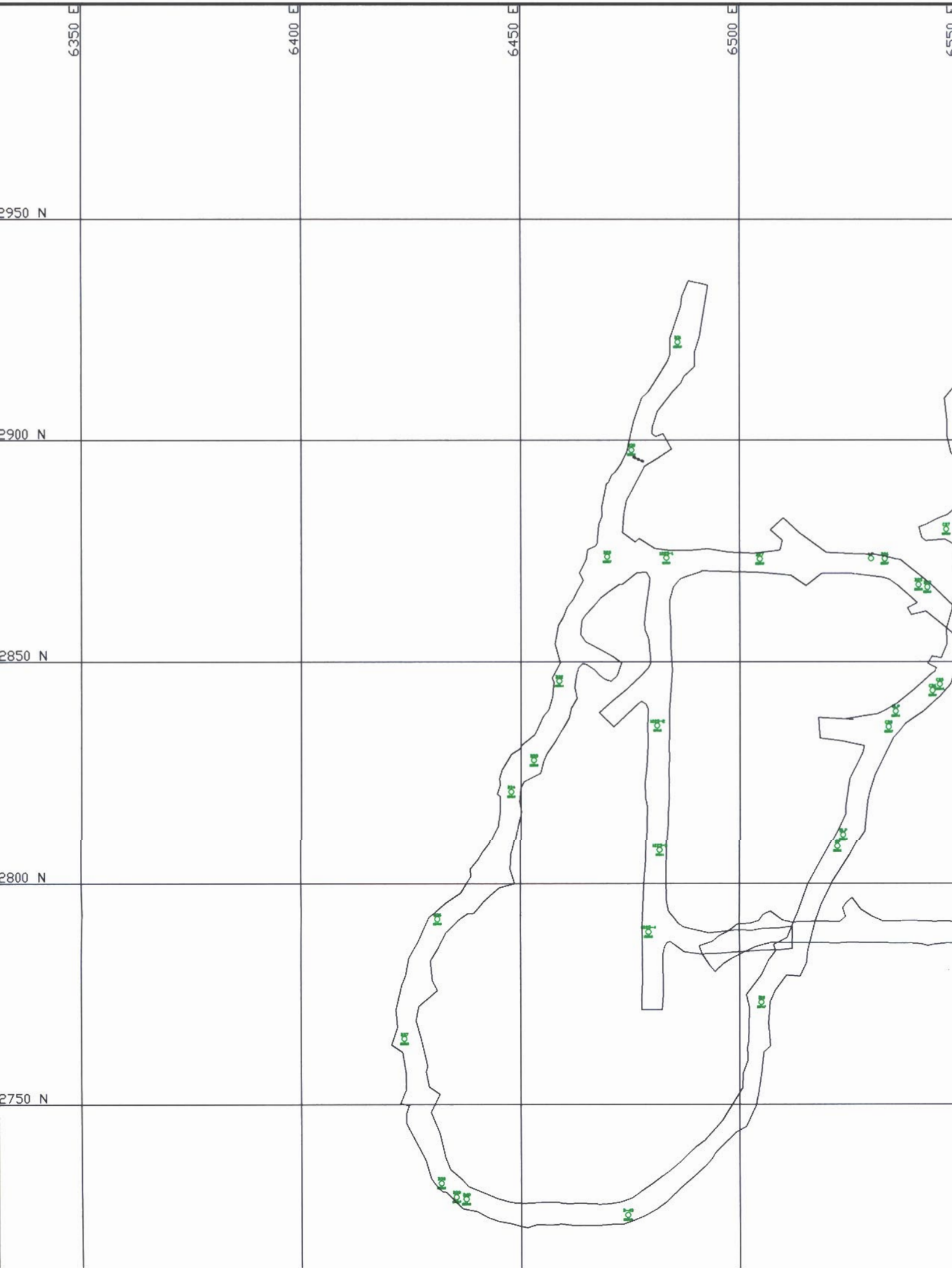
3887.5 E
3900.0 E
3912.5 E
3925.0 E
3950.0 E

APPENDIX C

BURNICK MINE DRAWINGS

PLANS AND SECTIONS

1. Burnick Plan - Current as of February 23, 1998
2. Burnick Zone – Section 2725 N
3. Burnick Zone – Section 2737.5 N
4. Burnick Zone – Section 2750 N
5. Burnick Zone – Section 2762.5 N
6. Burnick Zone – Section 2775 N
7. Burnick Zone – Section 2787.5 N
8. Burnick Zone – Section 2800 N
9. Burnick Zone – Section 2812.5 N
10. Burnick Zone – Section 2825 N
11. Burnick Zone – Section 2837.5 N
12. Burnick Zone – Section 2850 N
13. Burnick Zone – Section 2862.5 N
14. Burnick Zone – Section 2875 N
15. Burnick Zone – Section 2887.5 N
16. Burnick Zone – Section 2900 N
17. Burnick Zone – Section 2912.5 N
18. Burnick Zone – Section 2925 N
19. Burnick 1200 Level Main Haulage – Plans and Sections – 1998
20. Burnick 1225 Level Stope #5 Cross Cut – Plan and Section – 1998
21. Burnick 1225 & 1265 Levels and Ore Pass – Plans and Sections - 1998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6500 E
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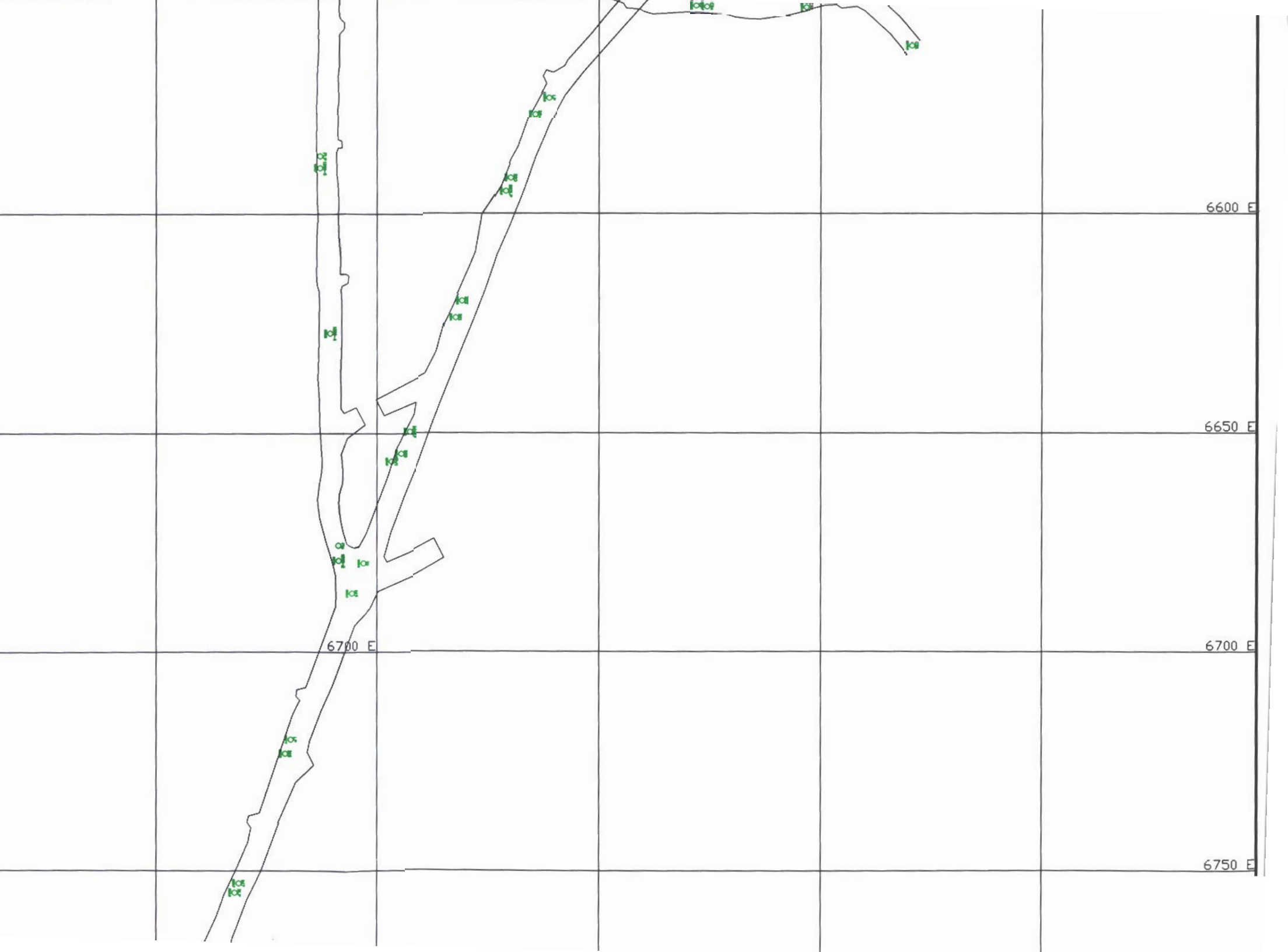
2850 N
2800 N
2750 N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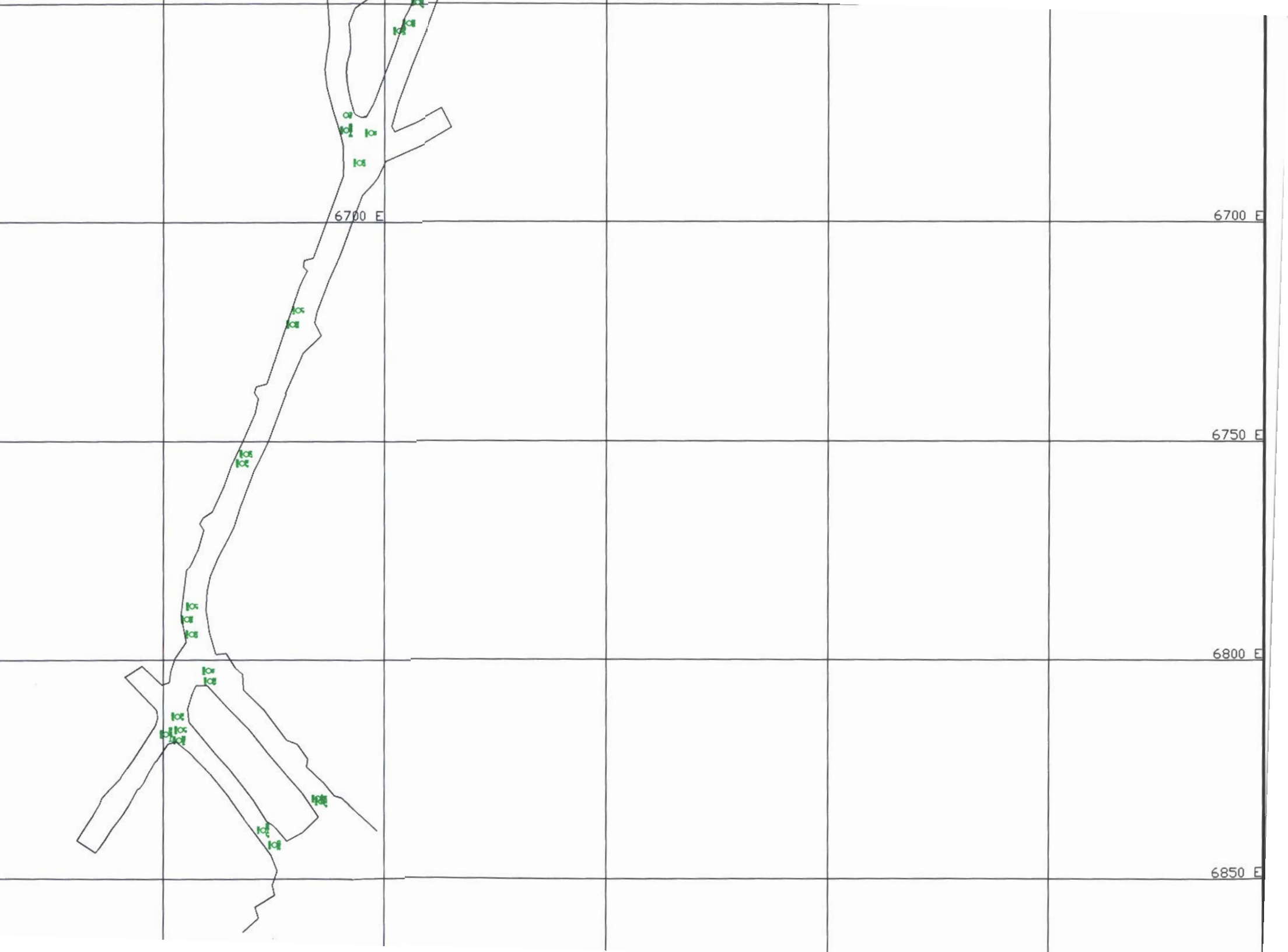
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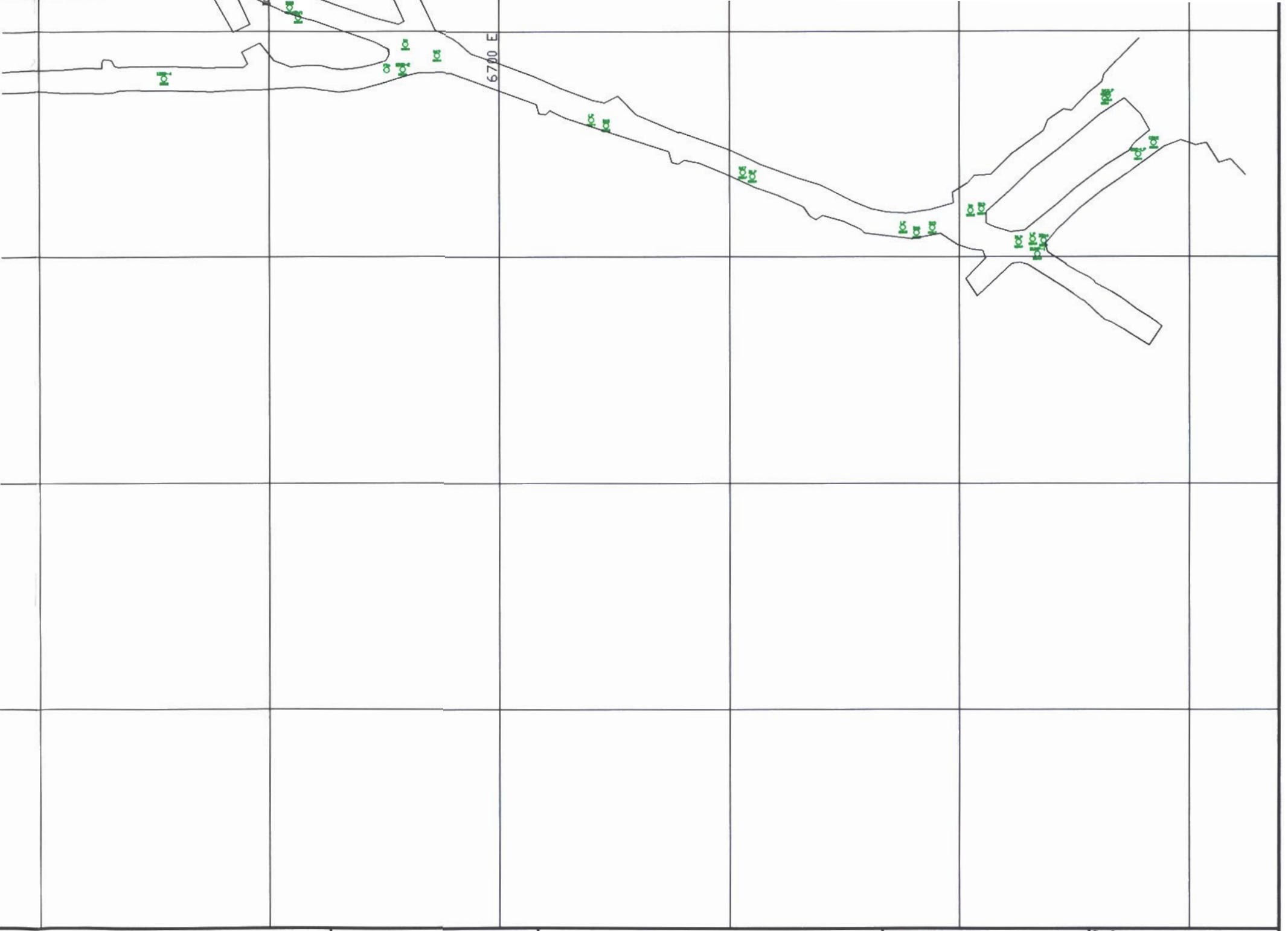


Mine Engineering

Drawn By: M.C. HANSTEAD Date: FEB 23/98

Checked By: Date:

BURNICK
500 SCALE

Cominco

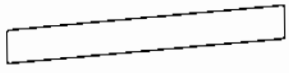
Sä Dena Hes Mine

Scale: 1:500

Drawing No. –

1400.

1300.



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10-17-95	BCA		

CESL - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2725 N

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SA DENA HES - BURNICK ZONE
SECTION 2737.5 N

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SA DENA HES - BURNICK ZONE
SECTION 2750 N

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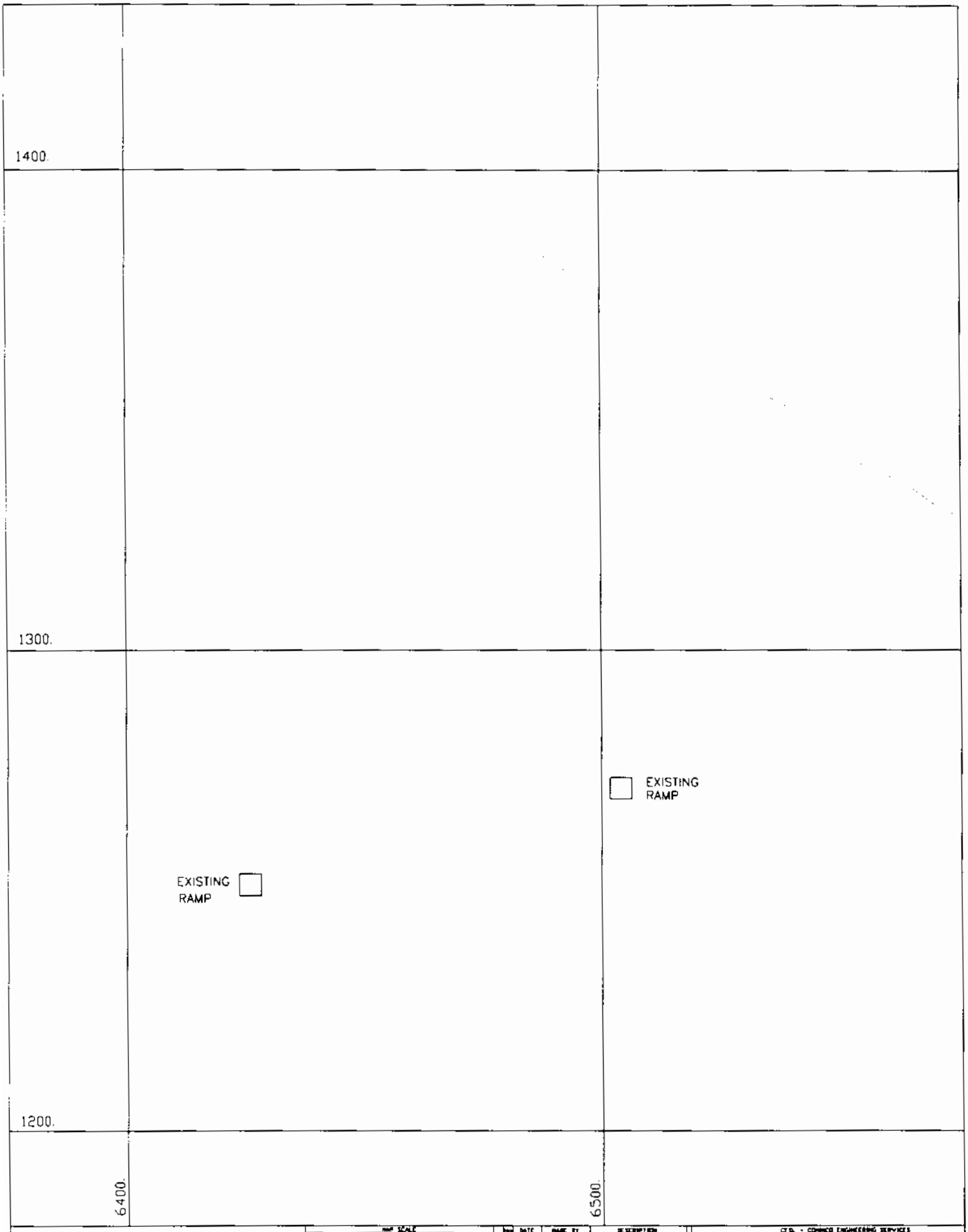

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	10-17-95	BCA			

CES - COMMERCE ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2762.5 N

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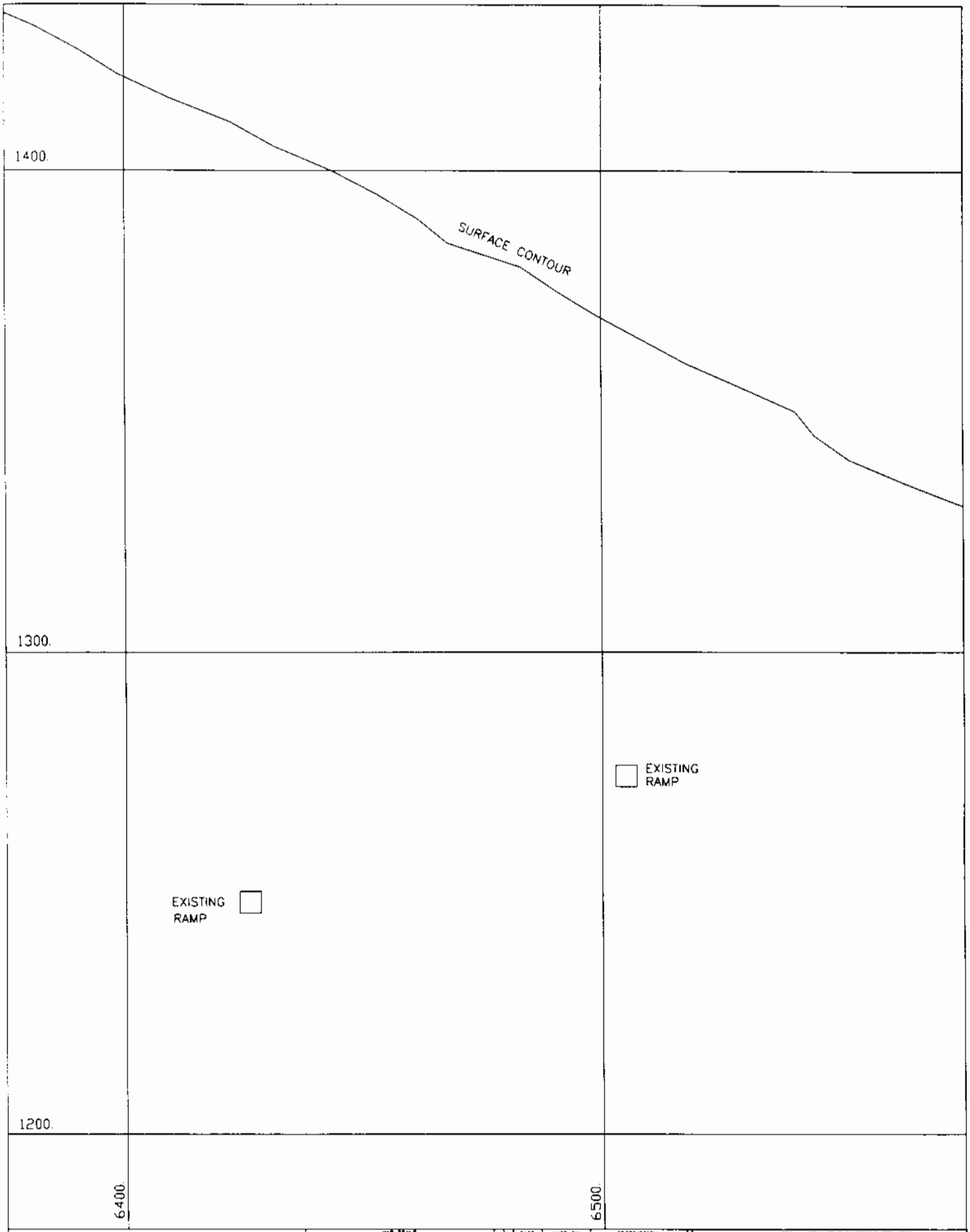

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SA DENA HES - BURNICK ZONE
SECTION 2775 N

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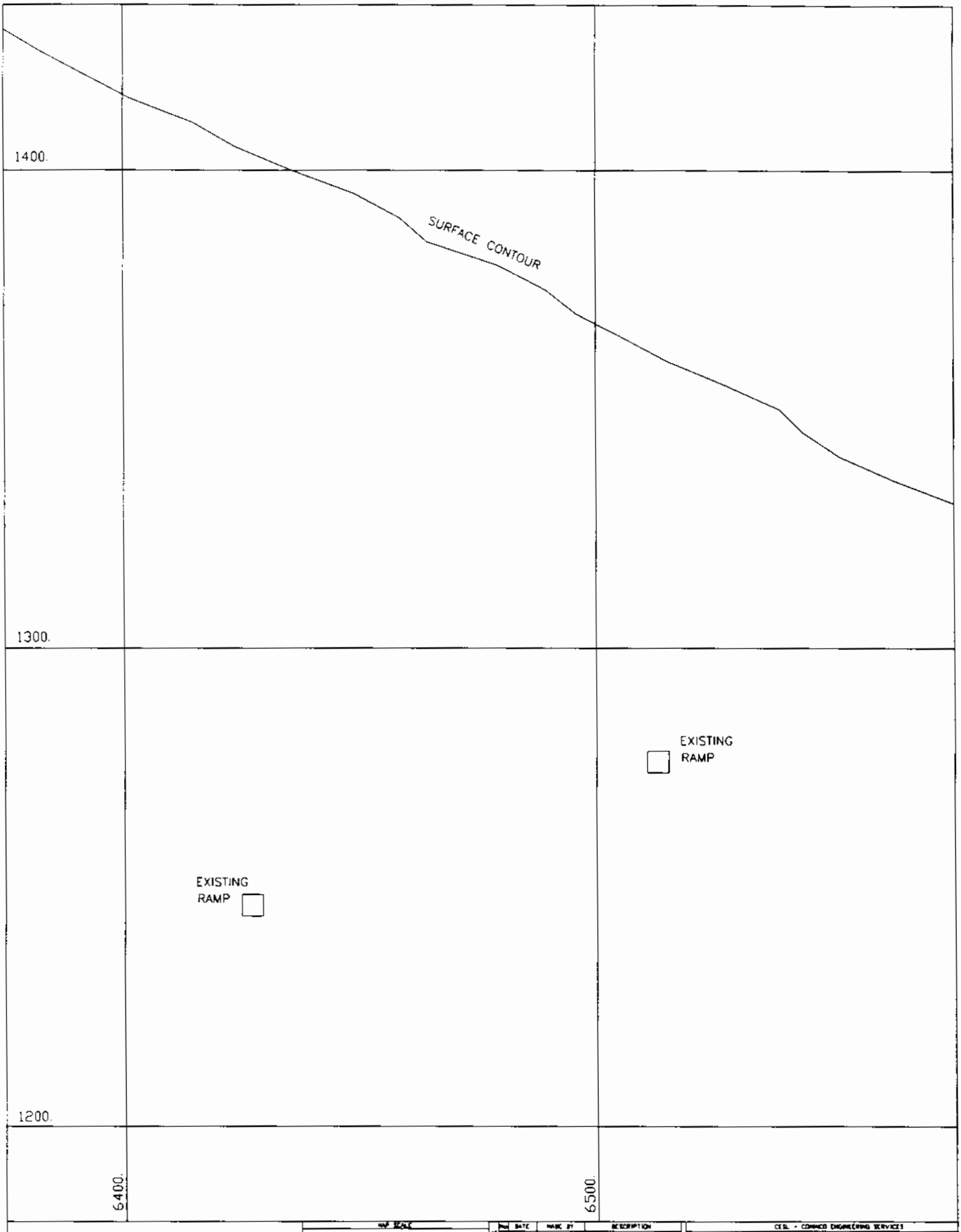

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	3			
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	5			

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CES. - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2787.5 N

MAP INDEX NUMBER	SCALE	DRAWING NUMBER
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1300.

EXISTING
RAMP

EXISTING
RAMP

1200.

6400.

6500.

MAP SCALE

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	2			
	3			
	4			
	5			

DATE	DRAWN BY	CHECKED	APPROVED
10-17-95	BCA		

DEPT. - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2800 N

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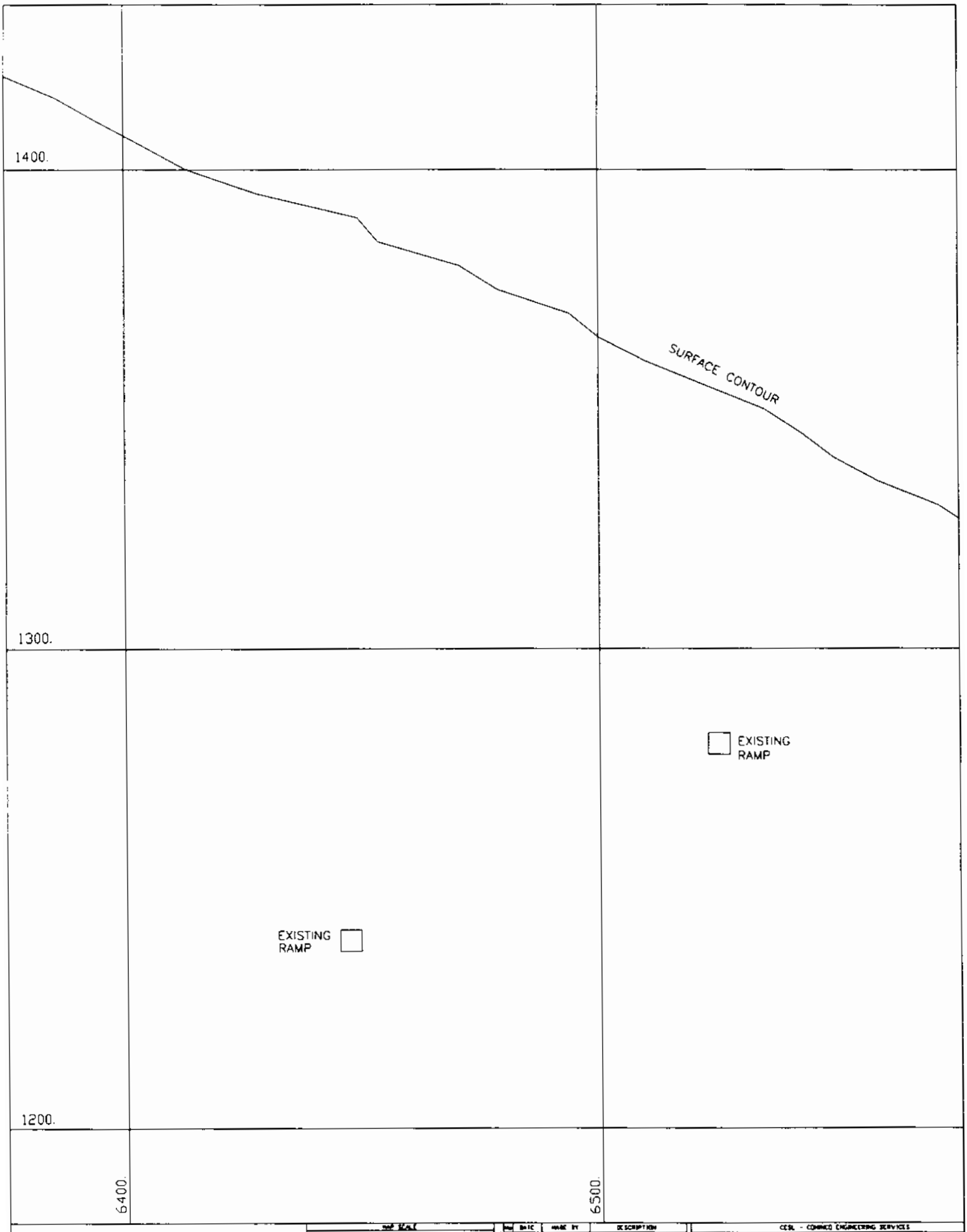

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	4			
	5			
	DATE	DRAWN BY	CHECKED	APPROVED
	10-17-95	BCA		

CCSL - CONNICO CONSULTING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2812.5 N

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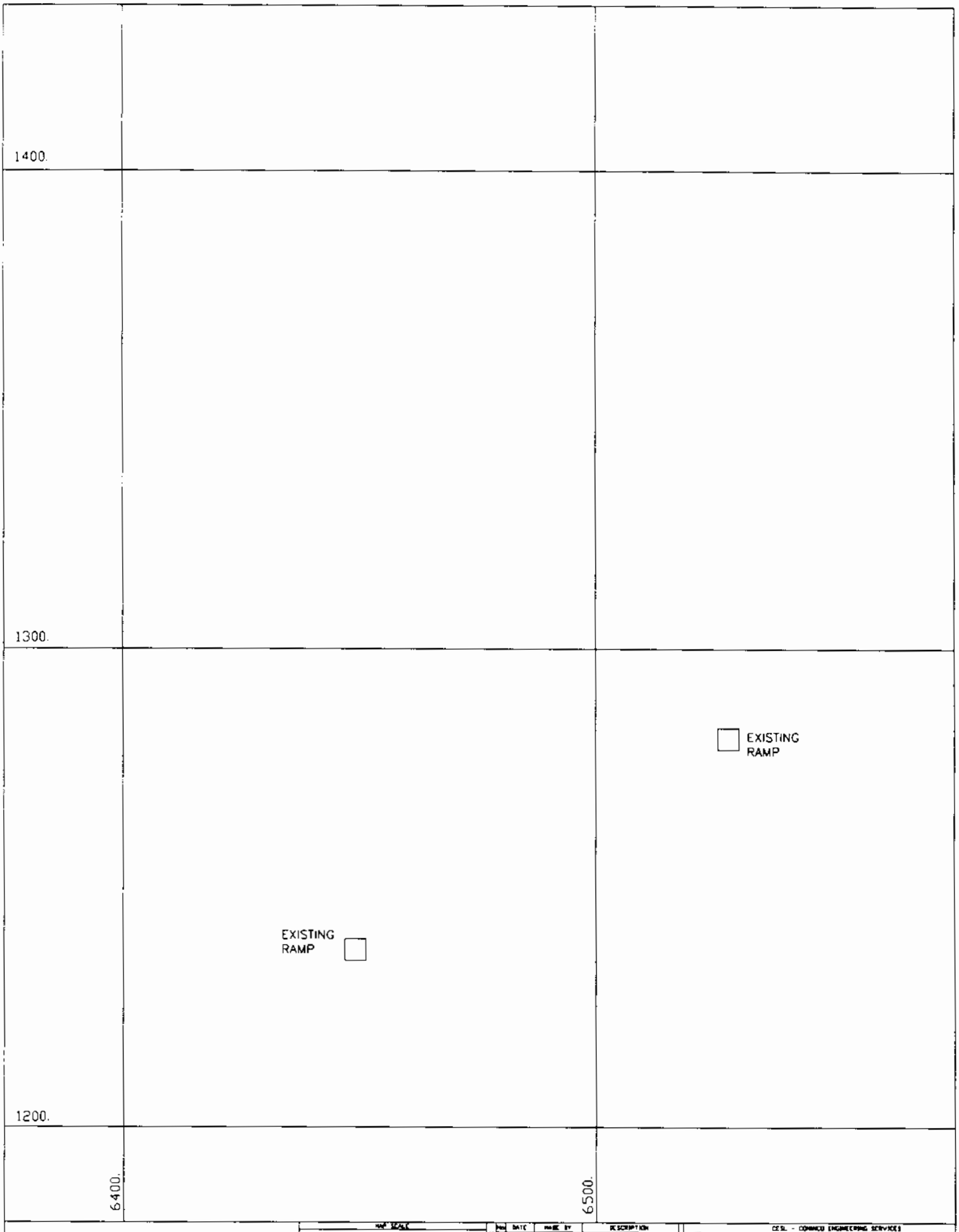

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CESL - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2825 N

MAP INDEX NUMBER	SCALE	DRAWING NUMBER
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MAP SCALE

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CESL - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2837.5 N

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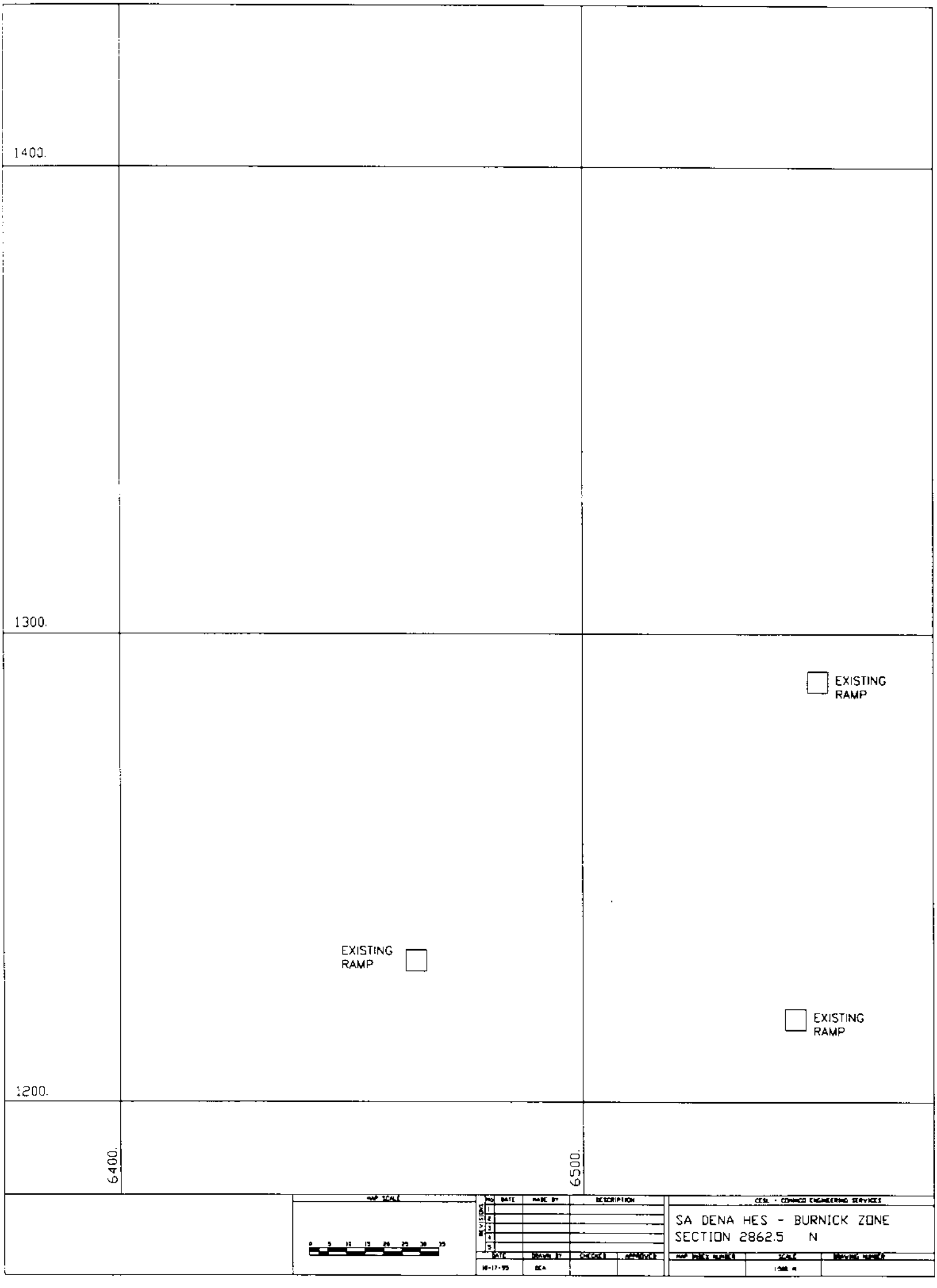

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CESL - CONNICO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2862.5 N

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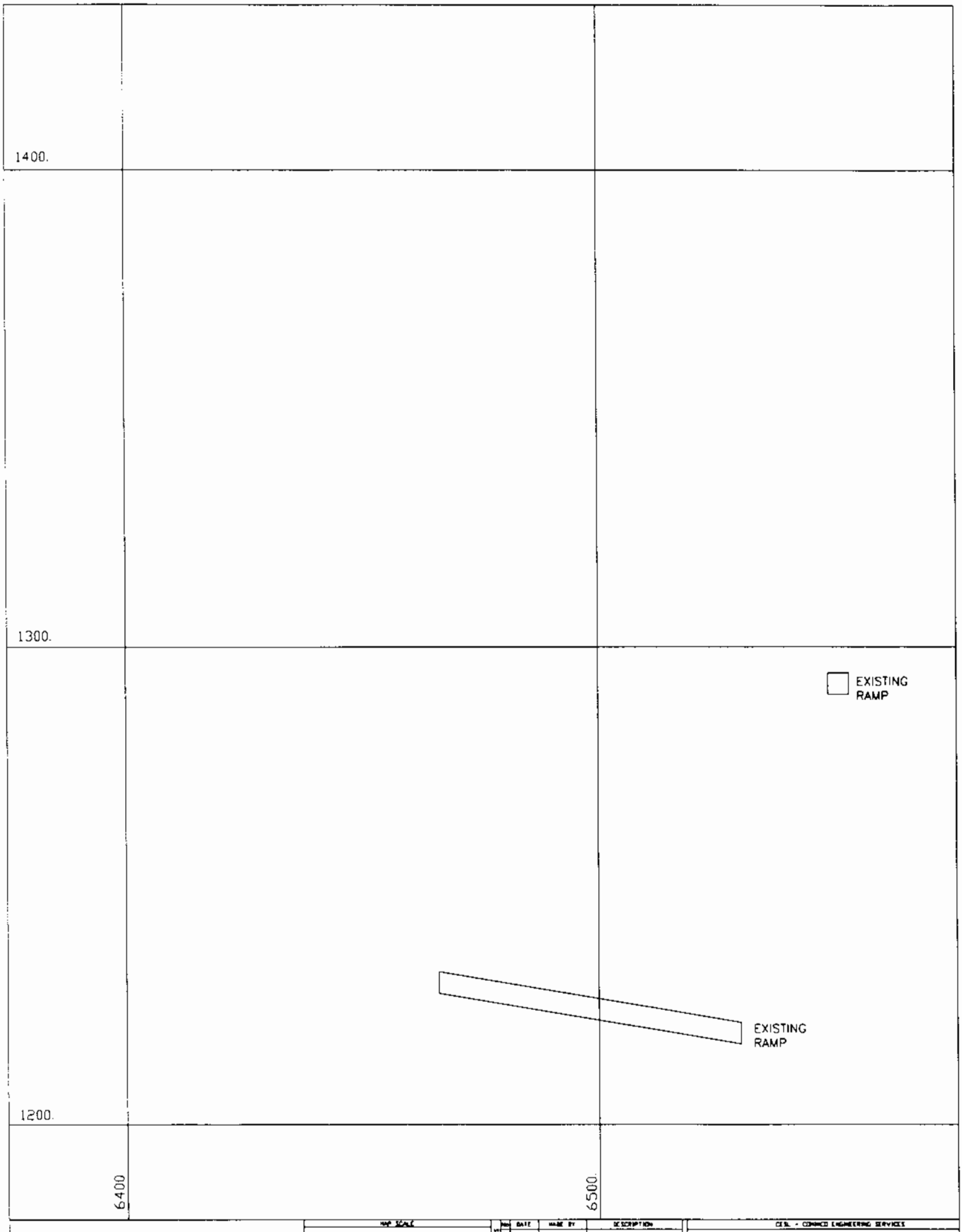

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DATE	DRAWN BY	CHECKED	APPROVED
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CES - CONNICO ENGINEERING SERVICES

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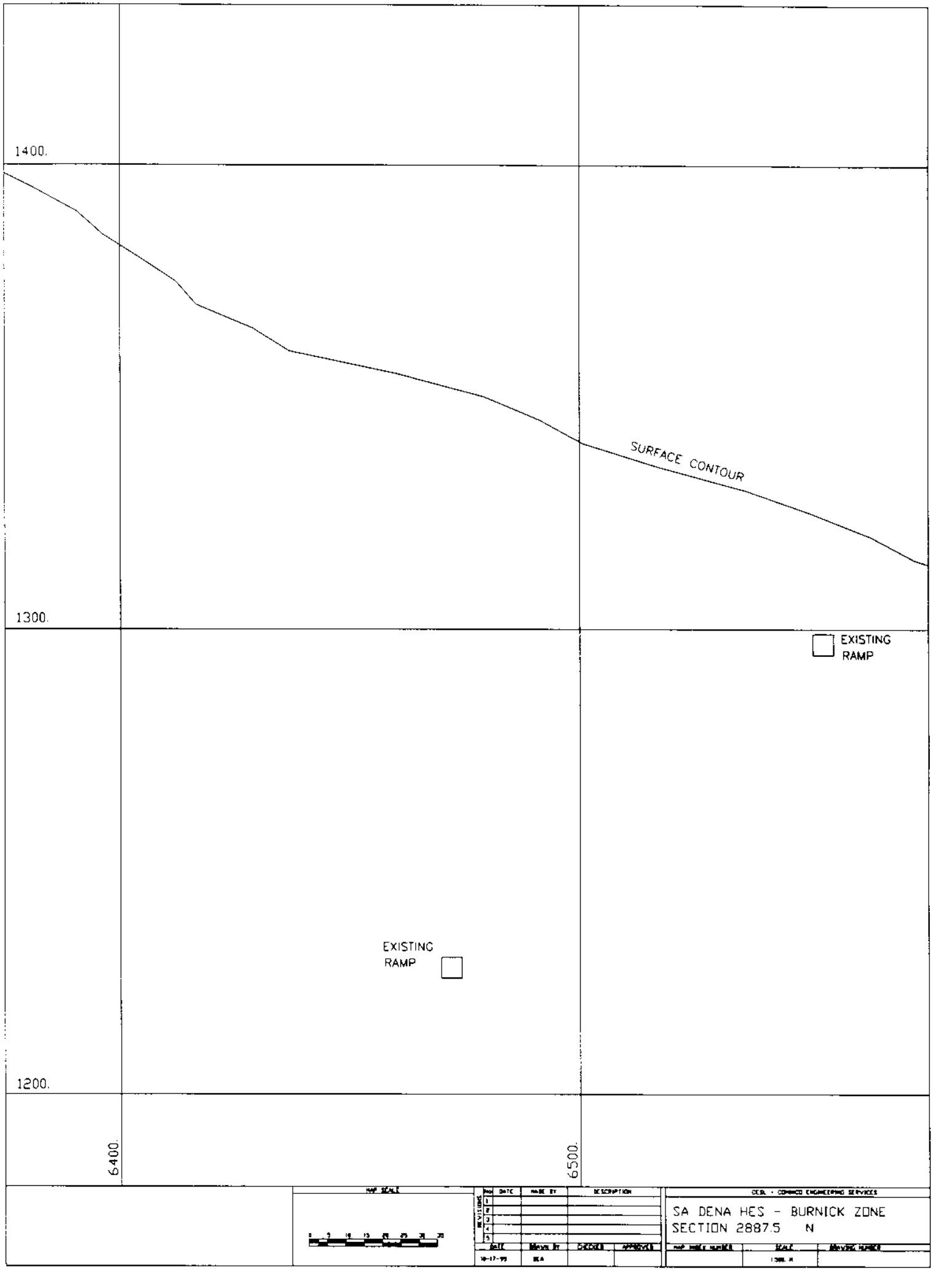

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	10-17-95	BEA		

CCRL - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2887.5 N

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1300.

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RAMP

EXISTING
RAMP

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MAP SCALE

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DATE	DRAWN BY	CHECKED	APPROVED
10-17-95	BEA		

CCSL - COMMUNITY ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2900 N

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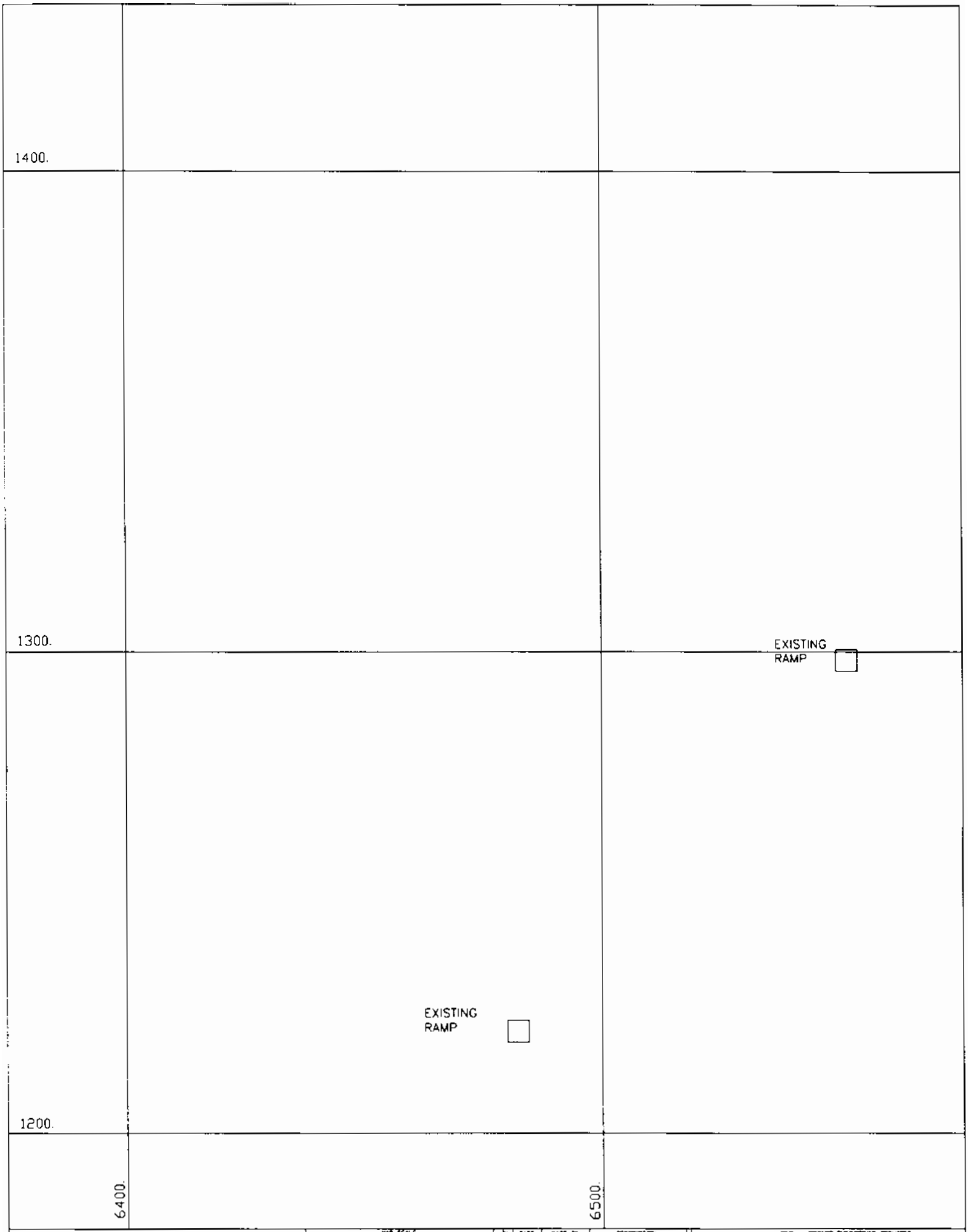

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DATE	DRAWN BY	CHECKED	APPROVED
10-17-95	BCA		

CESL - CONNICO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2912.5 N

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DATE	DRAWN BY	CHECKED	APPROVED
10-17-95	BCA		

CCRL - COMMCO ENGINEERING SERVICES

SA DENA HES - BURNICK ZONE
SECTION 2925 N

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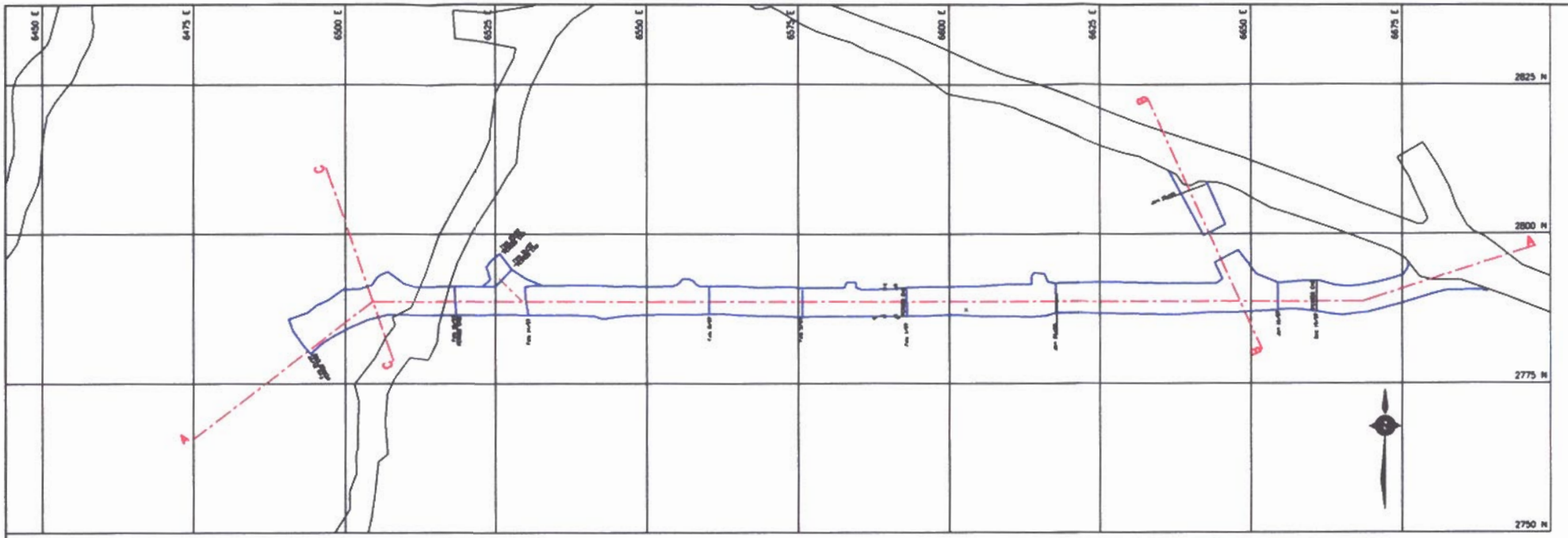
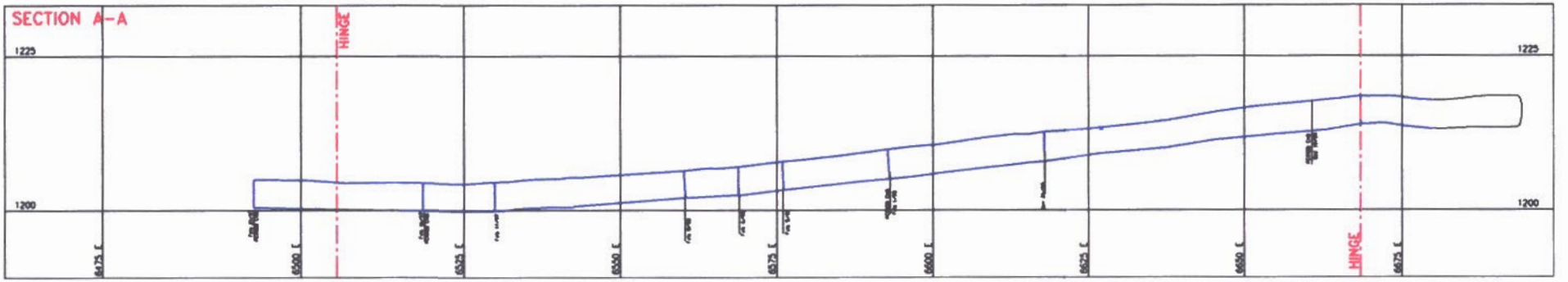
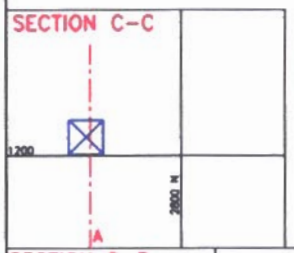
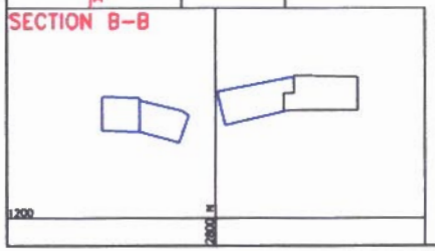






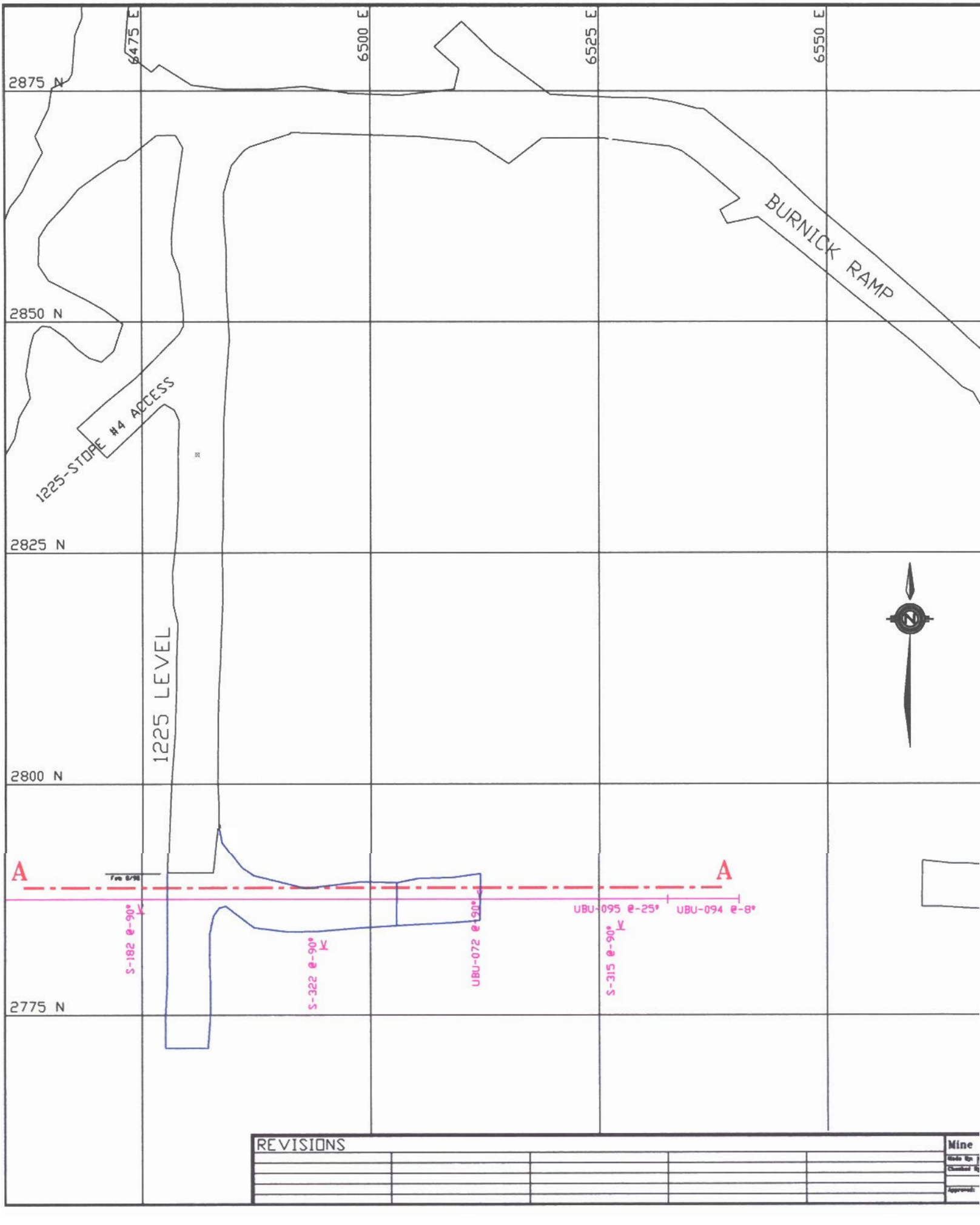


REVISIONS

Mine Engineering

BURNICK 1200 LEVEL
MAIN HAULAGE

Cominco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6500 E
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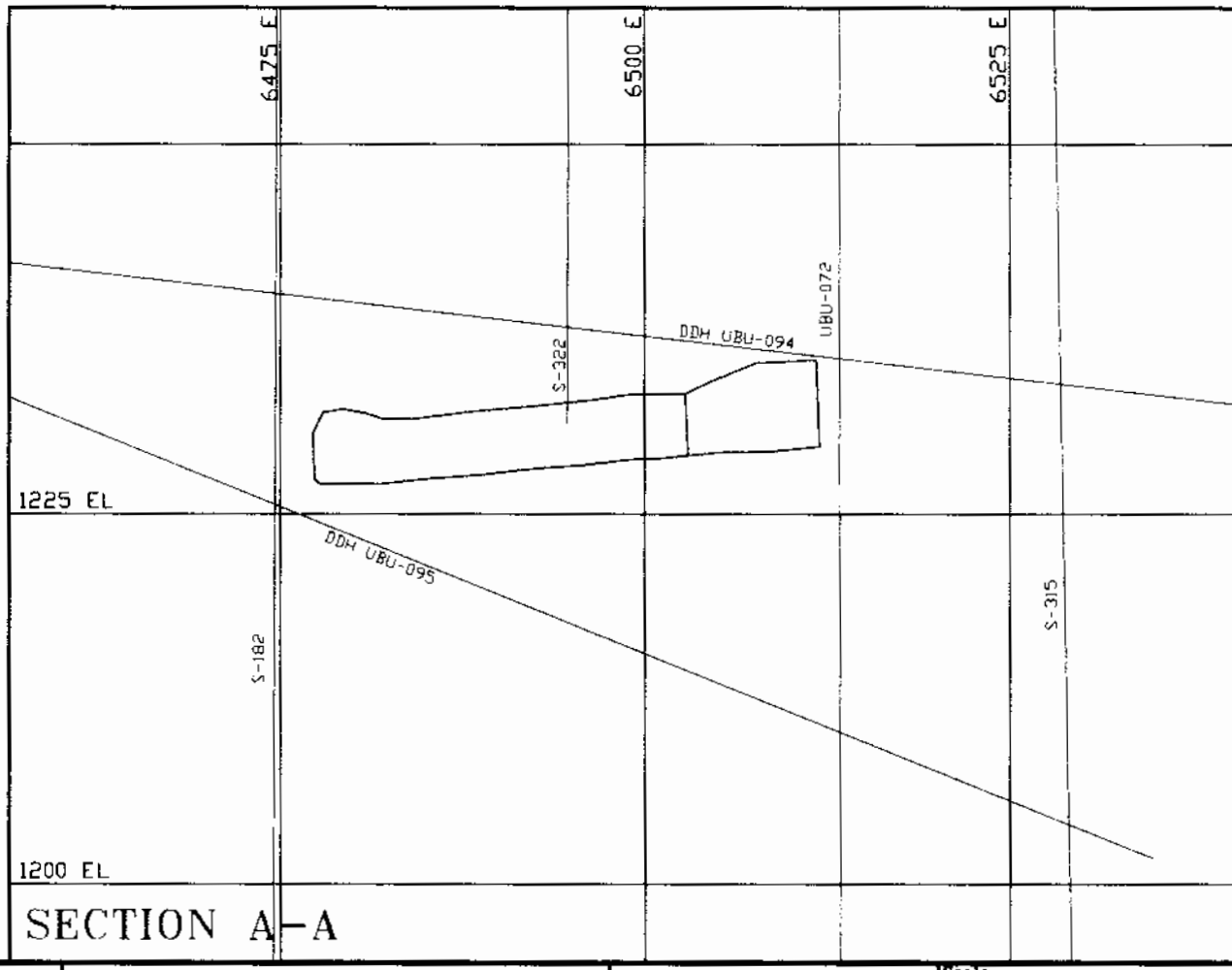
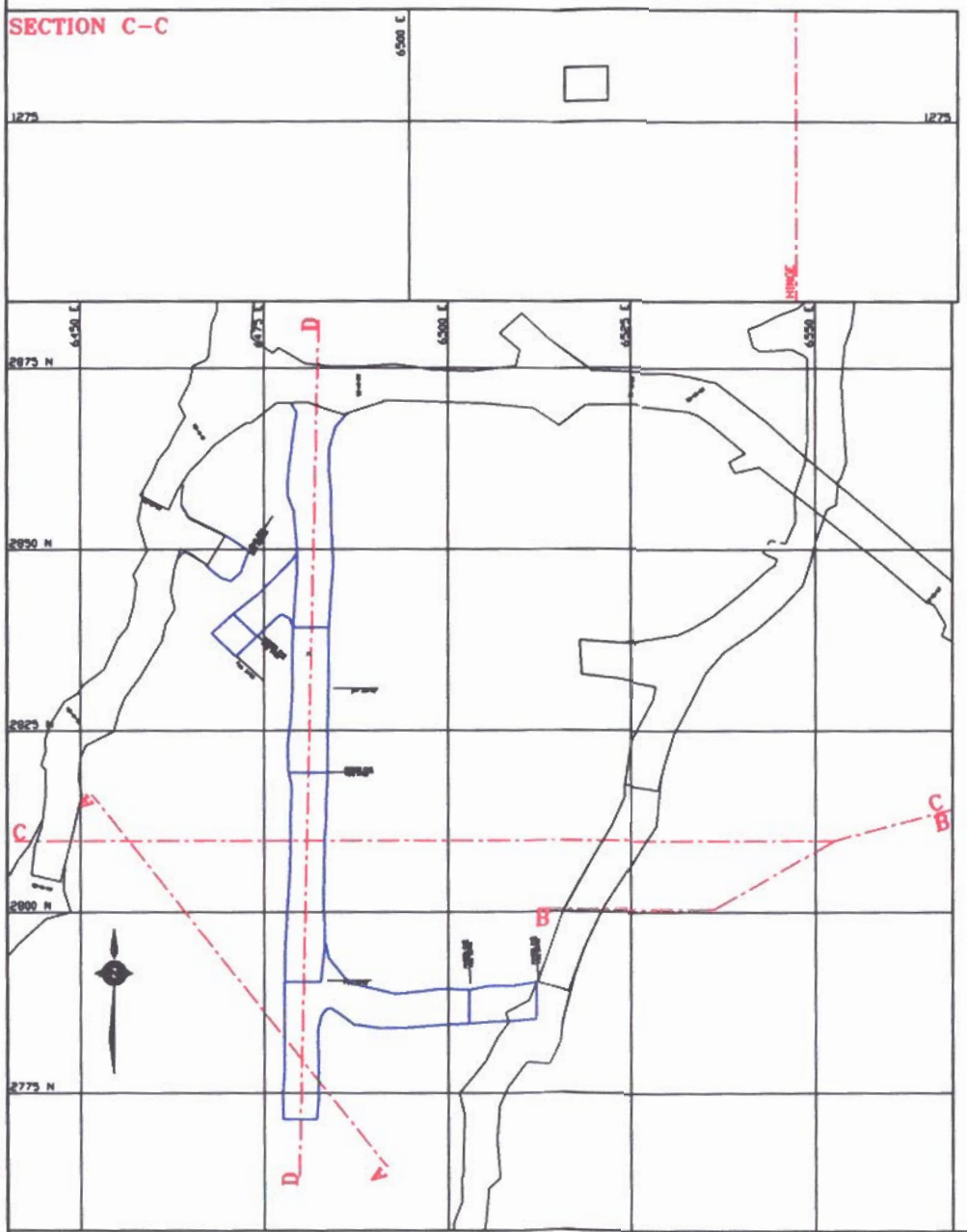
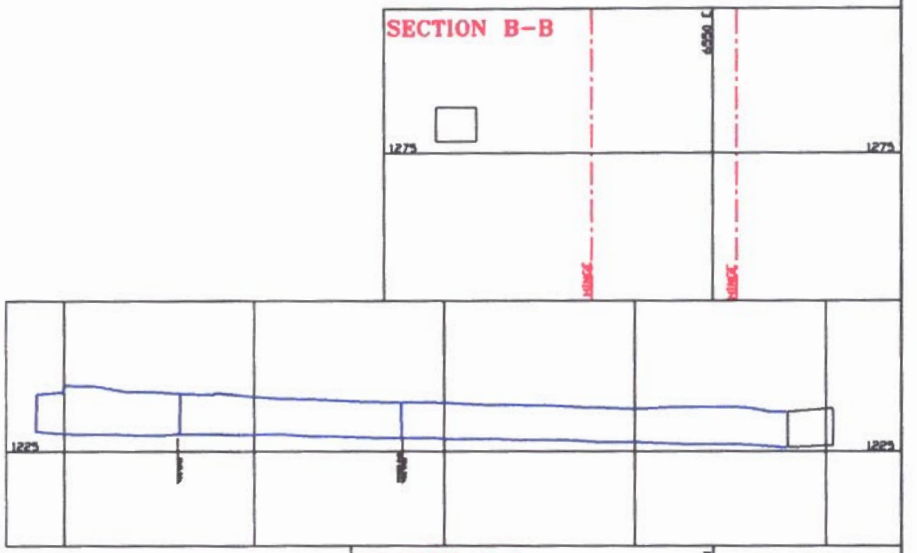
6550 E
2875 N
2850 N
2825 N
2800 N
2775 N
BURNICK RAMP
1225-STOPE #4 ACCESS
1225 LEVEL
A
A
S-182 @-90°
S-322 @-90°
UBU-072 @-90°
S-315 @-90°
UBU-095 @-25°
UBU-094 @-8°
REVISIONS
Mine

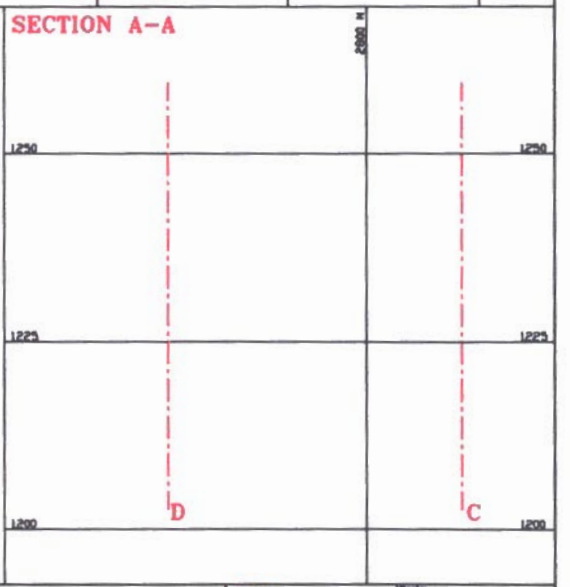


SECTION A–A

Mine Engineering Made By: M.C. HANSTEAD Date: FEB 22/98 Checked By: Date: Approved:	BURNICK 1225 LEVEL STOPE #5 X-CUT	Cominco Sä Dena Hes Mine Watson Lake, YT	Scale: 1:250 Drawing No. -







REVISIONS

BURNICK 1225 AND 1265
LEVELS AND ORE PASS

APPENDIX D

RESULTS SUMMARY OF REVEGETATION PRORGAM – 2001

teckcominco

SÄ DENA HES MINE
LAND RECLAMATION AND REVEGETATION PLAN

RESULTS SUMMARY OF

Phase II Revegetation Program - 2001

Prepared for:

Teck Cominco Ltd.
#600-200 Burrard Street
Vancouver, B.C.
V6C 3L9

February 2002

Prepared by:

ACCESS
CONSULTING
GROUP
A Registered Tradename for Access Mining Consultants Ltd.
www.accessconsulting.ca

Table of Contents

List of Figures

List of Tables

List of Plates

List of Appendices

1.0 INTRODUCTION

In February 2000, Cominco submitted a Detailed Decommissioning & Reclamation Plan (the "DDRP") for the Sä Dena Hes mine to the Yukon Territory Water Board. As part of the DDRP, a land reclamation and revegetation plan and test program was proposed with the overall goal of preparing the site for closure so that revegetation efforts would return the site to a state that existed prior to mining activities.

Figure 1 shows the general location of the mine in the Yukon.

The primary objectives of the revegetation program are to:

- Determine seed mixtures that will provide short-term soil stability while allowing the natural invasion of local plant species;
- Determine fertilizer applications optimal for sustaining the healthy growth of seeded species without inhibiting colonization by indigenous plant species;
- Investigate methods of encouraging natural plant succession on reclaimed surfaces; and
- Determine potential success rates of revegetation at test plots on different areas of the mine site, in particular the tailings management facility.

The revegetation and reclamation program for the site is being undertaken in phases, with the results of the initial program used to further define subsequent phases. The DDRP outlined a program of additional data collection and test work in order to support the overall revegetation and reclamation components of the DDRP. The program included:

Phase I:

- Completing an inventory of soils around the site necessary to provide revegetative soil covers for various mine site components;
- Nutrient testing of available soils; and
- Establish initial shrub propagation trials.

Phase II:

- Establish test plots of practical revegetation seed mixtures and document; and
- Conduct baseline metal uptake testing of local plants.

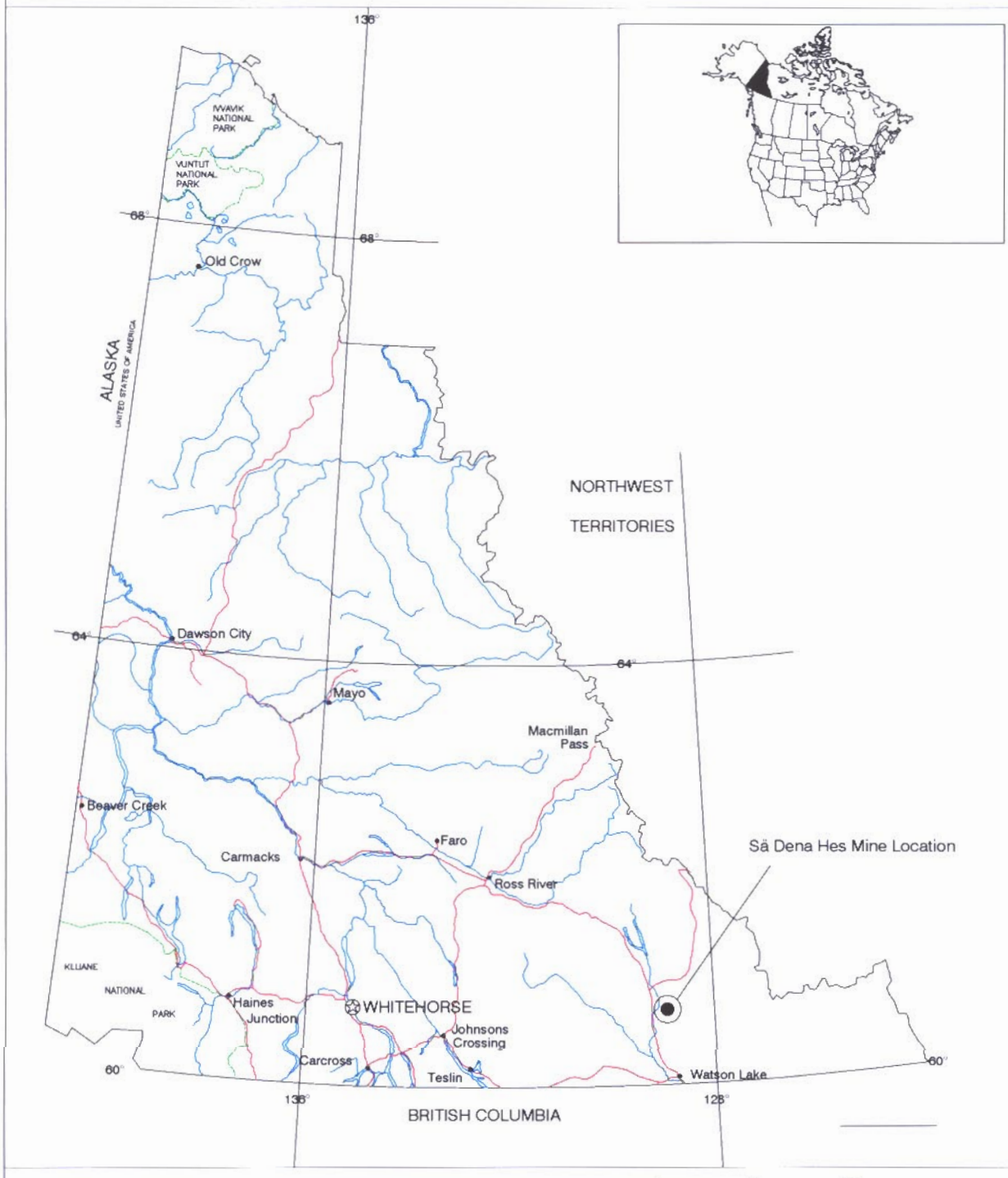
The Phase I program, conducted in 2000, completed some of the tasks identified above; specifically, the soils inventory, and nutrient testing. Test plots for shrub propagation trials were also established at two locations on the property at that time, however, recommendations resulting from the Phase I program detailed further efforts that would be required to successfully implement the DDRP and to complete the remaining revegetation program tasks listed above. Results from the Phase I program are reported in a report prepared by Access Mining Consultants in 2001 (AMCL, 2001).

2.0 OBJECTIVE

The objective of the Phase II program was to continue the reclamation and revegetation activities identified in the DDRP. As such, the Phase II program was initiated in the fall of 2001 with the activities outlined above conducted on site.

This report describes the activities, methodology, and results of the work conducted in 2001 during the second phase of the program. It includes a description of the new seed/shrub test plot establishments made on site, the results of monitoring of the shrub test plots established in 2000, and a comparison of metal concentrations in plant tissues around the mine site.

Yukon Territory



- *Populated Settlements*
- *Territorial Capital*

ACCESS MINING CONSULTANTS LTD.

teckcominco

TeckCominco Ltd. Sä Dena Hes Mine Land Reclamation & Revegetation Plan: 2001 Test Program Summary Report

General Location Map (Map of Yukon)

DRAWN BY: JEA	CHECKED BY: TR	Figure 1
DATE: 09-02-2002	SCALE 1: 6 000 000	

3.0 METHODOLOGY

3.1 2001 TEST PLOT ESTABLISHMENT

As shown in Table 1, revegetation test plots were established at seven sites at the Sä Dena Hes Mine on October 3 and 4, 2001. For the access road, borrow areas and landfill sites, plot preparation involved scarification and contouring. For the Tailings Management Facility (TMF), plot preparation involved placement of waste rock cover and soil caps at the three tailings test plots. This work was completed the previous week using waste rock hauled from the Burnick 1200 level adit and soil taken from Borrow Area B, west of the north tailings impoundment.

Table 1 Test Plot Locations and Construction Details

Site #	Location	Plot Preparation	Substrate Depth	Overall Test Plot Dimensions
1	***Access Road (km 22)***	Scarify & Recontour	-	12m x 12m
2	***Jewelbox Haul Road***	Scarify & Recontour	-	12m x 12m
3	***Landfill (Borrow Area "C")***	Scarify & Recontour	-	12m x 12m
4	***Near Landfill***	Scarify & Recontour	-	10m x 10m
5a	***Tailings Management Facility (North Dam Area)***	Place Soil Capping	200mm Soil	12m x 12m
5b			300mm Soil	12m x 12m
5c		Placement of Waste Rock cover and Soil Capping	500mm Rock & 300mm Soil	12m x 12m

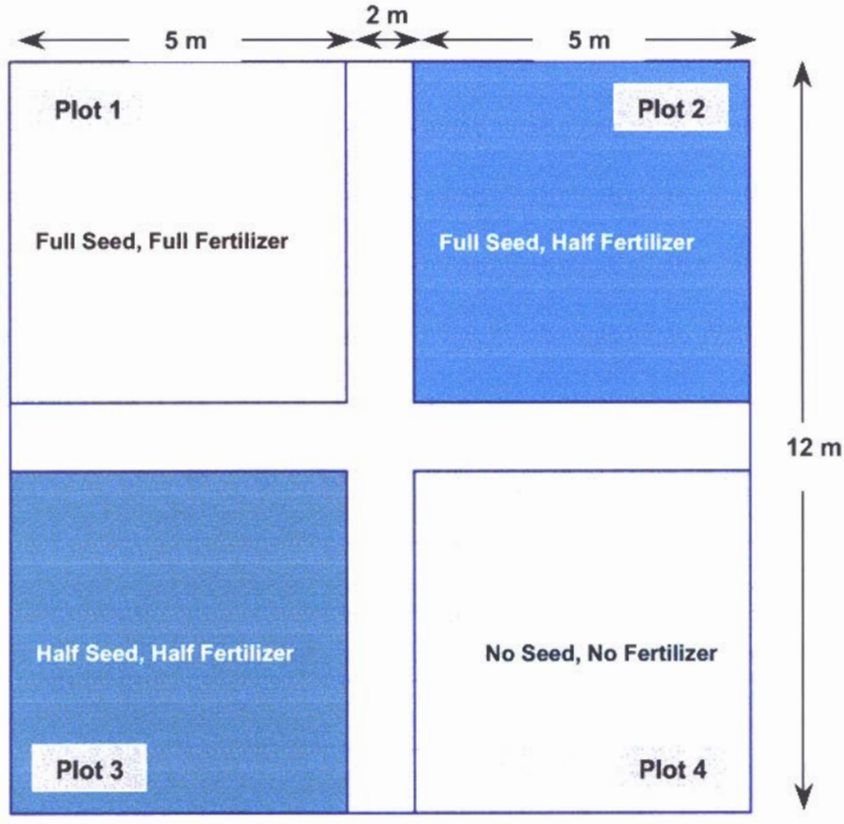
The soil at all seven test plots was contoured and scarified at the time of seeding, using a front-end loader and/or a Bobcat. Each site (except #4) consisted of four 5m X 5m test plots, separated from each other by a 2m buffer, with overall plot dimensions of 12m by 12m (see Figure 2).

The grass and legume species used in these trials are northern native varieties and described for each test plot later in the report. Theses species are cool-season perennials that start growing early in the spring; therefore benefiting from snowmelt. Seeds and fertilizer were applied using a hand-held broadcast seeder and hand-rakes.

The following treatments were applied to the four plots at each site:

- Plot 1 Full Seed, Full Fertilizer
- Plot 2 Full Seed, Half Fertilizer
- Plot 3 Half Seed, Half Fertilizer
- Plot 4 Control, No Enhancement

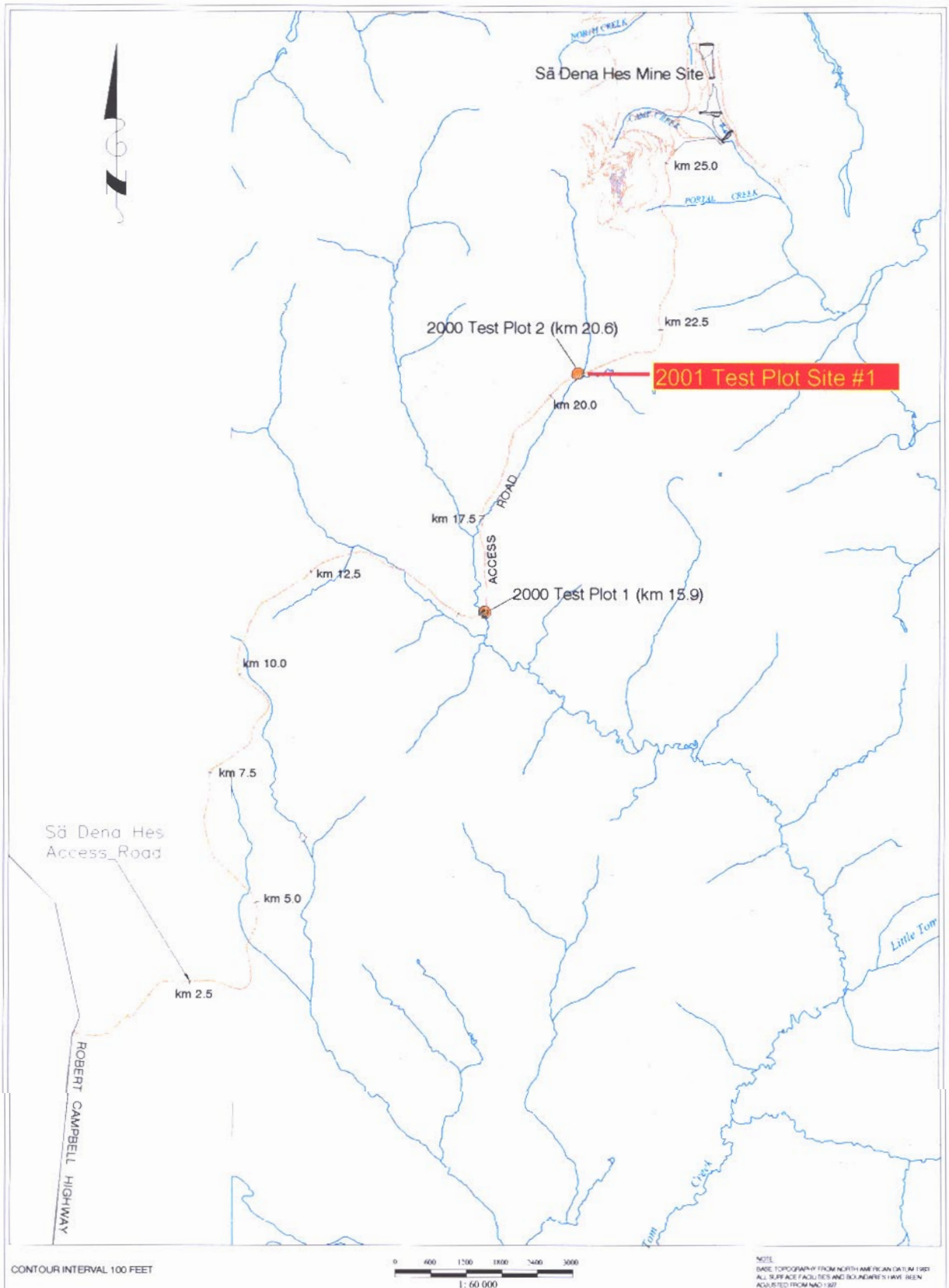
Figure 2 Typical Test Plot Layout



In addition to test plot seeding, shrubs were established at the three tailings test plots (Sites 5a, 5b, 5c). These shrubs were collected from an area to the east of the tailings impoundment and transplanted in the buffer zones between the seeded test plots.

The seed, shrub, and fertilizer treatments for each plot are discussed in the following sections.

Figures 3 and 4 show the locations of the various test plot sites.



Legend:

- Access Road
- Watercourse
- Test plot area

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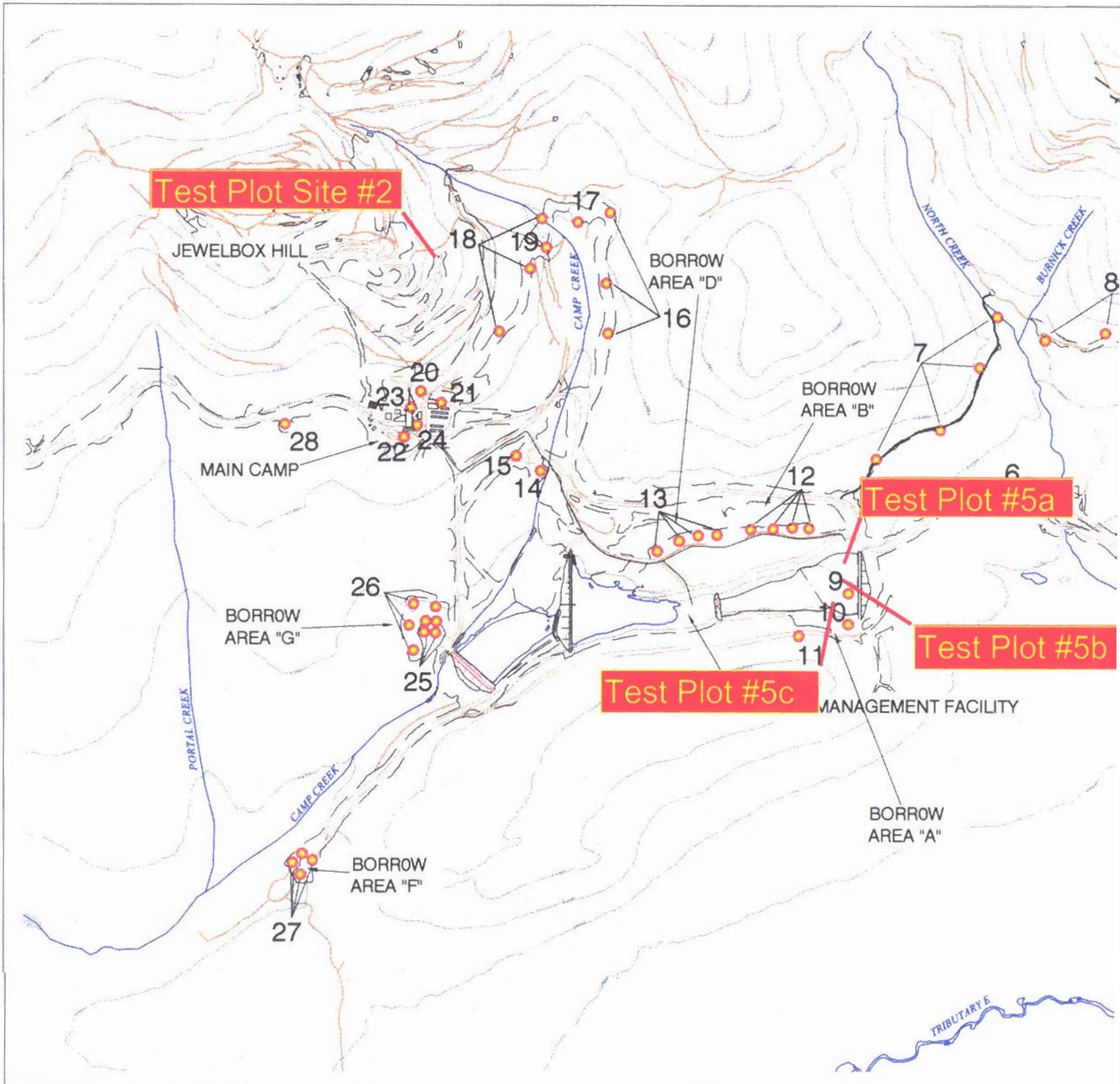
Teck Cominco Ltd. Sä Dena Hes Mine Land Reclamation & Revegetation Plan: 2001 RevegetationTest Program

Figure 3: Test PlotLocations - Mine Access Road

Drawn By: JEA	Checked By: TR
Date: 09-02-2002	Project Number: COM-01

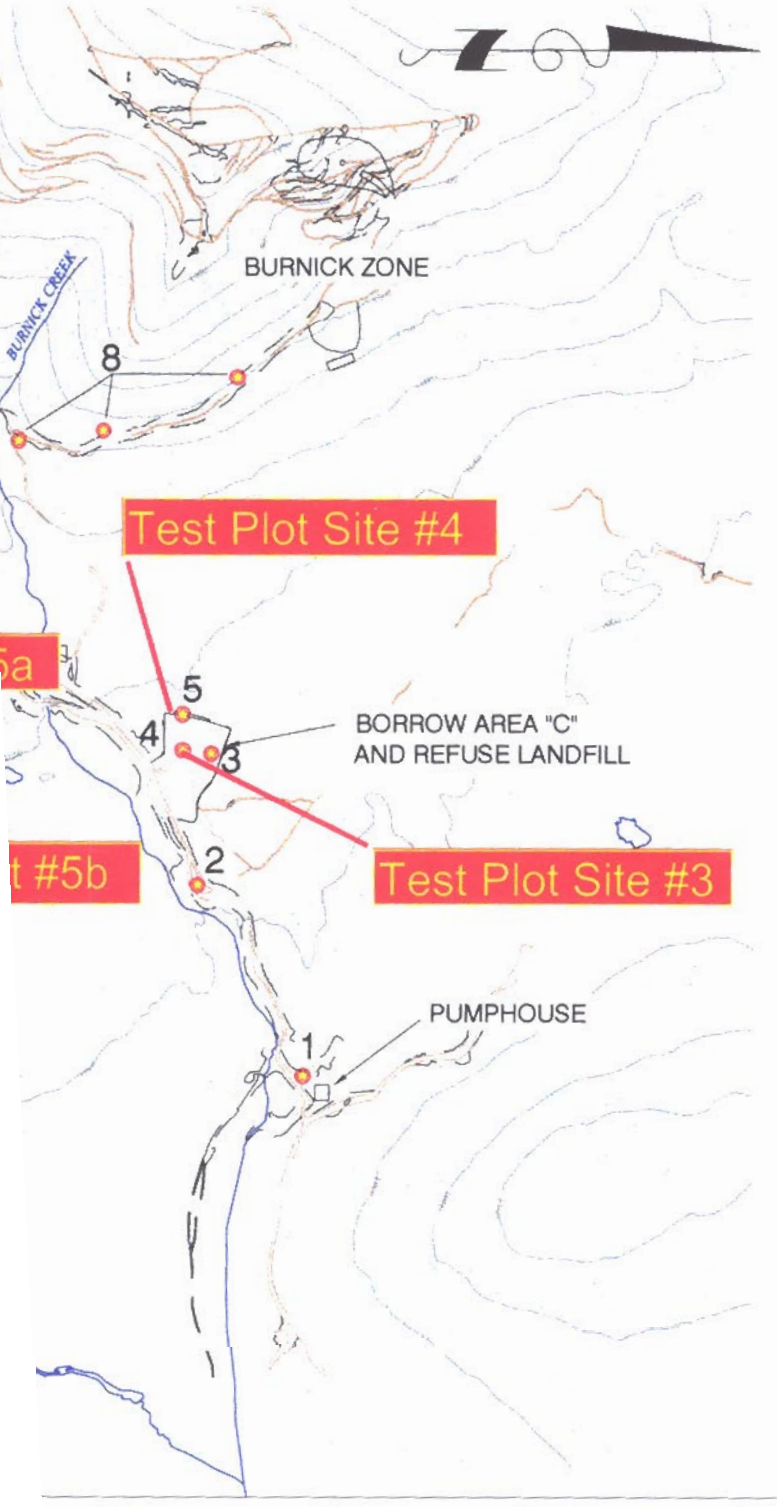
File: D:\Project\cominco\adfr\Revegprgm\Fig3.dwg layout1



Legend:

- Soil Sample Location (2000)
- Watercourse
- Road within cleared area
- Topography

Teck Cominco Ltd. Sä Dena Hes Mine Land Reclamation & Revegetation Plan: 2001 Revegetation Test Program



0 200 400 600 800 1000 metres

1:20 000

CONTOUR INTERVAL = 10m

NOTE

BASE TOPOGRAPHY FROM NORTH AMERICAN DATUM 1983
ALL SURFACE FACILITIES AND BOUNDARIES HAVE BEEN
ADJUSTED FROM NAD 1927

Figure 4:
Test Plot Locations - Mine Site / Tailings Area

Drawn By: JEA	Checked By: TR
Project Number: COM-01	Date: 07-02-2002

ACCESS MINING CONSULTANTS LTD.

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3.1.1 SITE #1: KM 20.6 MAIN ACCESS ROAD

Description

This plot is located in the basin of an old granular resource borrow area along the main access road at approximately km 20.6. This is the same borrow area that Test Plot #2 was established during the Preliminary Test Program in 2000.

Seed Species	Application Rate (kg / ha)
Agropyron violaceum (violet wheatgrass)	10
Poa alpina (alpine bluegrass)	3
Festuca ovina (sheep fescue)	3
Deschampsia caespitosa (tufted hairgrass)	2
Hedysarum alpinum / mackenzii (mix of alpine and northern bear root)	6
Total	24

Fertilizer application: 120 kg / ha 24-24-24 (24% nitrogen, 24% phosphorus, 24% potassium)

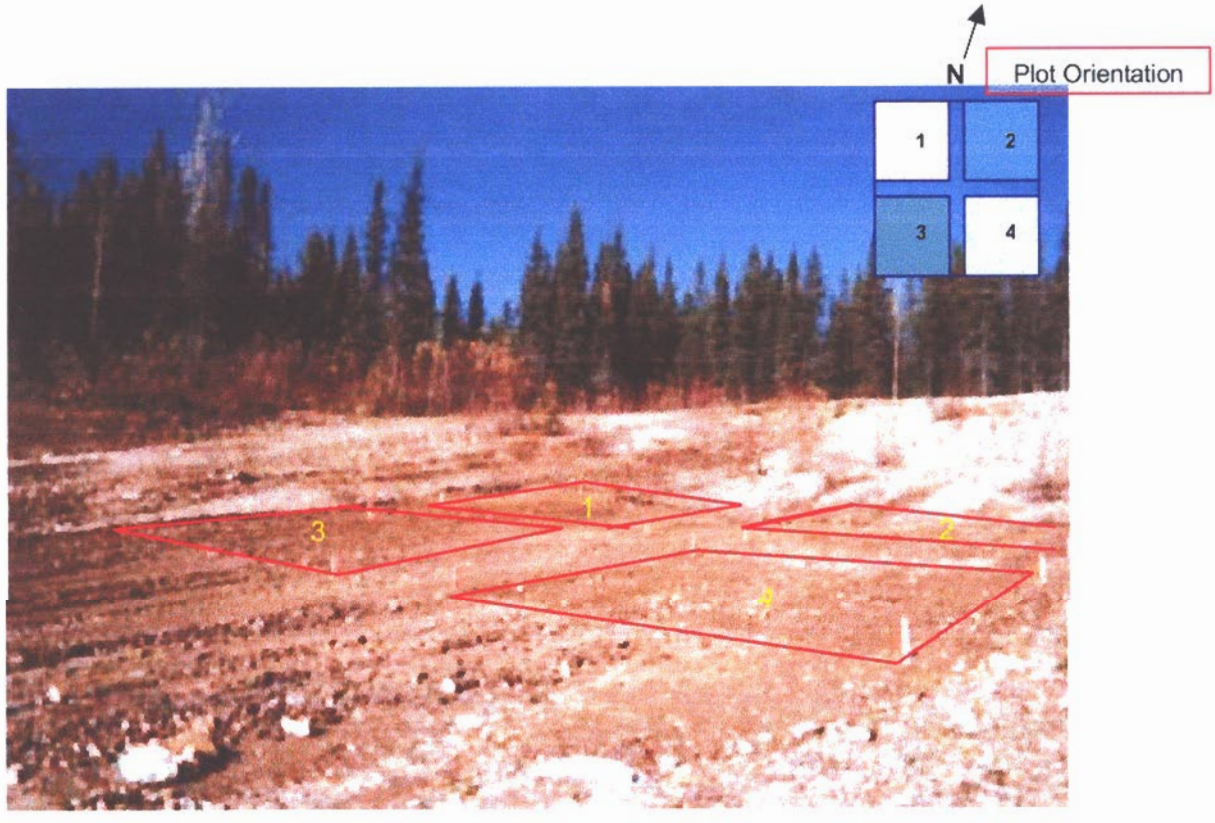

Plate 1 Seed Test Plot Site #1

3.1.2 SITE #2: JEWEL BOX HAUL ROAD NEAR TREELINE

Description

This plot is located on the outer corner of a switchback on the Jewlbox Portal haul road near the treeline with alpine area.

Seed Species	Application Rate (kg / ha)
Agropyron violaceum (violet wheatgrass)	10
Poa alpina (alpine bluegrass)	3
Festuca ovina (sheep fescue)	3
Agrostis scabra (ticklegrass)	2
Deschampsia caespitosa (tufted hairgrass)	2
Hedysarum alpinum / mackenzii (mix of alpine and northern bear root)	4
Oxytropis splendens (showy locoweed)	2
Total	26

Fertilizer application: 120 kg / ha 24-24-24 (24% nitrogen, 24% phosphorus, 24% potassium)

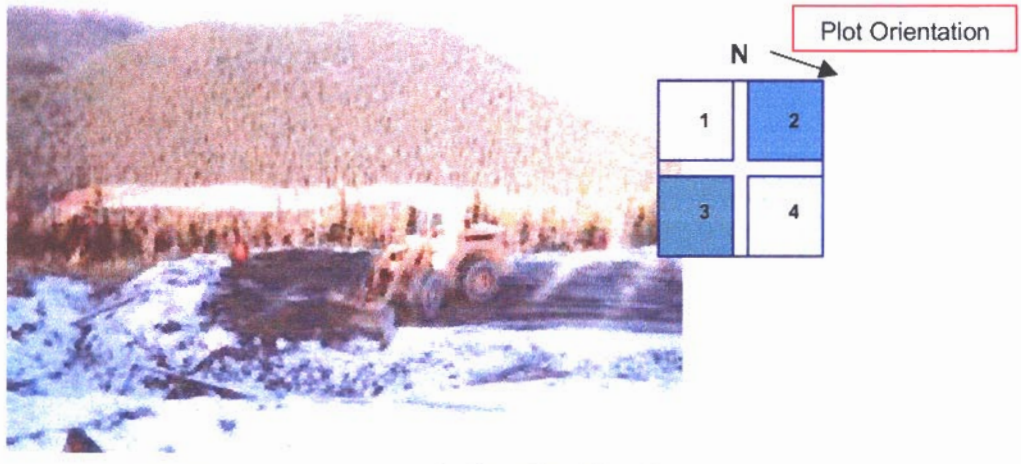

Plate 2 Preparation of Site #2 on Jewlbox Haul Road

Plate 3 Site #2 Test Plot Completion

3.1.3 SITE #3: LANDFILL – BORROW AREA 'C'

Description

This plot is located in the northwest portion of the borrow area.

Seed Species	Application Rate (kg / ha)
Agropyron violaceum (violet wheatgrass)	10
Poa glauca (glaucous bluegrass)	3
Festuca ovina (sheep fescue)	3
Agrostis scabra (ticklegrass)	2
Deschampsia caespitosa (tufted hairgrass)	2
Hedysarum alpinum / mackenzii (mix of alpine and northern bear root)	4
Oxytropis splendens (showy locoweed)	2
Total	26

Fertilizer application: 120 kg / ha 24-24-24

(24% nitrogen, 24% phosphorus, 24% potassium)

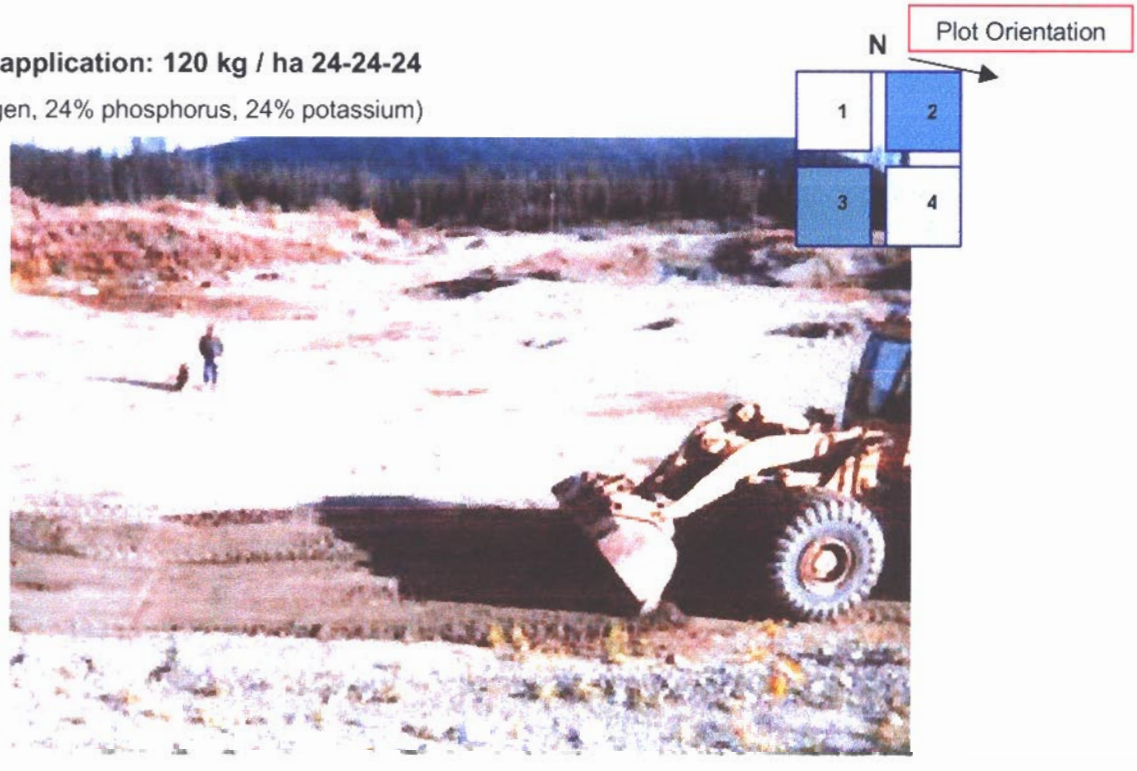

Plate 4 Site # 3 Scarification and Contouring for Plot Layout and Seeding

3.1.4 SITE #4: ADJACENT LANDFILL AREA

Site #4 is located in the northwest corner of the landfill and is a 0.1 ha plot is on a slope of about 7% with a southern aspect. It was seeded with *Agropyron violaceum* (violet wheatgrass) at a rate of 15 kg / ha, and fertilized with 24-24-24 at a rate of 150 kg / ha. (Note: No picture available)

3.1.5 SITE #5A: TMF WITH 200 MM SOIL

Description

This plot is located near the north dam of the TMF. It was prepared by placing 200 mm of the soil identified in the Phase I program as potential material for capping the TMF.

Seed Species	Application Rate (kg / ha)
Agropyron violaceum (violet wheatgrass)	10
Poa glauca (glaucous bluegrass)	3
Festuca saximontana (rocky mountain fescue)	3
Agrostis scabra (ticklegrass)	1
Deschampsia caespitosa (tufted hairgrass)	2
Hedysarum alpinum (alpine bear root)	4
Oxytropis splendens (showy locoweed)	2
Total	25

Shrub Species	Number of Plants
Ribes hudsonianum (black currant)	5
Abies lasiocarpa (alpine fir)	2
Rubus idaeus (raspberry)	1
Sorbus scopulina (mountain ash) - stem cuttings	4

Fertilizer application: 120 kg / ha 24-24-24

(24% nitrogen, 24% phosphorus, 24% potassium)

Plate 5 Machine and Manual Scarification of Site #5a

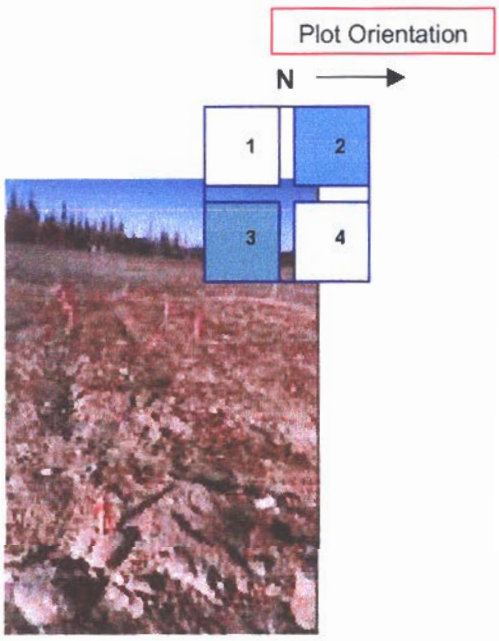

Plate 6 Completion of Site #5a

3.1.6 SITE #5B: TMF WITH 300 MM SOIL

Description

This plot is located near the north dam of the TMF and adjacent to (east of) Site #5a. It was prepared by placing 300 mm of the soil identified in the Phase I program as potential material for capping the TMF.

Seed Species	Application Rate (kg / ha)
Agropyron violaceum (violet wheatgrass)	10
Poa glauca (glaucous bluegrass)	3
Festuca saximontana (rocky mountain fescue)	3
Agrostis scabra (ticklegrass)	1
Deschampsia caespitosa (tufted hairgrass)	2
Hedysarum alpinum (alpine bear root)	4
Oxytropis splendens (showy locoweed)	2
Total	25

Shrub Species	Number of Plants
Ribes hudsonianum (black currant)	2
Abies lasiocarpa (alpine fir)	1
Rubus idaeus (raspberry)	1
Picea glauca (white spruce)	1
Salix sp. (willow)	2
Populus balsamifera (balsam poplar)	1
Alnus crispa (mountain alder)	1

Fertilizer application: 120 kg / ha 24-24-24

(24% nitrogen, 24% phosphorus, 24% potassium)

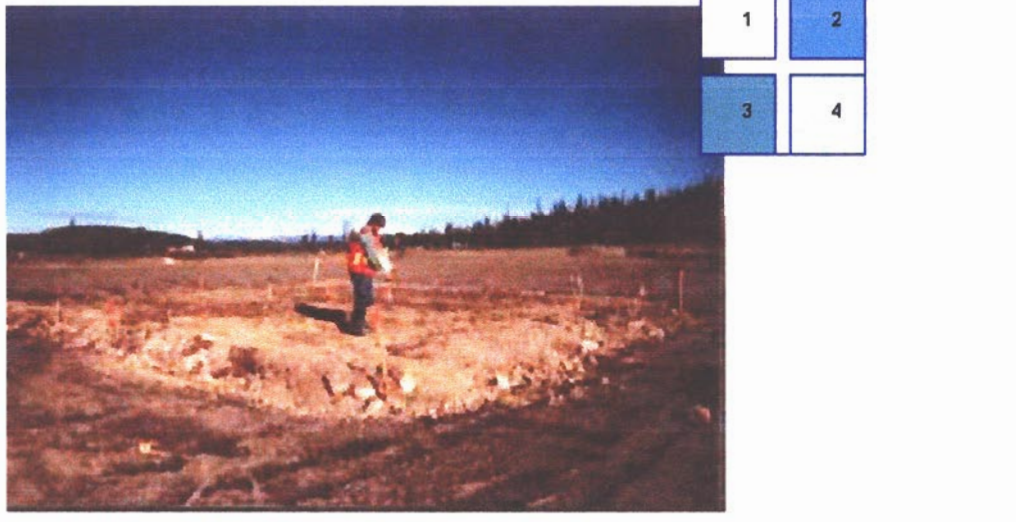

Plate 7 Manual Fertilizer Application to Site #5b

3.1.7 SITE #5C: TMF WITH 500 MM ROCK AND 300 MM SOIL

Description

This plot is located near the north dam of the TMF and approximately 100m south and east of Sites #5a and #5b. It was prepared by placing 500mm of waste rock and then 300 mm of the soil identified in the Phase I program as potential material for capping. The waste rock was required to prevent the heavy machinery from sinking in the tailings then to allow them to place the capping material.

Seed Species	Application Rate (kg / ha)
Agropyron violaceum (violet wheatgrass)	10
Poa glauca (glaucous bluegrass)	3
Festuca saximontana (rocky mountain fescue)	3
Agrostis scabra (ticklegrass)	2
Deschampsia caespitosa (tufted hairgrass)	2
Hedysarum alpinum (alpine bear root)	2
Oxytropis splendens (showy locoweed)	2
Total	24

Shrub Species	Number of Plants
Abies lasiocarpa (alpine fir)	8
Salix sp. (willow)	4

Fertilizer application: 120 kg / ha 24-24-24

(24% nitrogen, 24% phosphorus, 24% potassium)

Plate 8 Site #5c Preparation Including Access Pad Construction

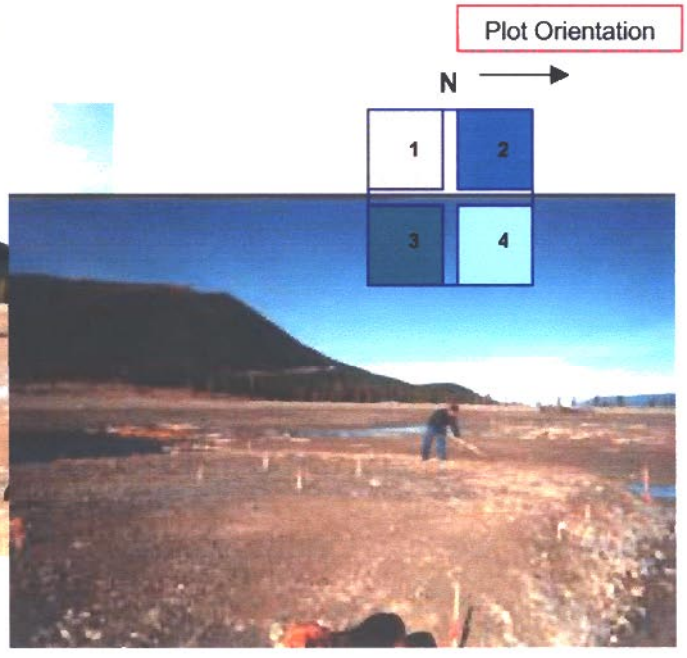

Plate 9 Manual Scarification of Site #5c

3.2 Comparison of Metal Uptake in Plants

Although there is sporadic evidence of wildlife usage of the tailings area, that will likely change over time as revegetation success establishes grasses and herbaceous plant species. As part of the revegetation test plot program a single plant species, Salix sp. (willow), was tested for metals uptake. This data, in conjunction with data collected in future years will allow an assessment of possible concerns with respect to the ingestion of the plants by grazing and/or browsing animals, particularly at the TMF.

Samples of willow leaves and shoots of existing vegetation that has naturally revegetated were collected from three locations on the Sä Dena Hes Mine property (TMF area, haul road near treeline, and millsite) and analyzed for metal content. On October 5, 2001, 10-gram plant tissue samples were gathered using aseptic technique, placed in clean plastic freezer bags and shipped to Norwest Labs on October 12, 2001. At the lab, samples were rinsed with deionized water, dried, acid-digested, and analyzed for metals by UNICP-AES (EPA Method 200.15). Results are discussed in Section 4.2 and are expressed as micrograms of element per gram of dry sample (ug/g) or parts per million.

4.0 RESULTS AND DISCUSSION

4.1 Monitoring Survey of 2000 Shrub Test Plots

The willow cutting test plots established in the fall of 2000 were inspected during the 2001 revegetation trials. These two 2m X 2m plots included:

Site	Species	Number of Plants
Access Road km 15.9	*Salix arbusculoides* (little-tree willow)	20
	Salix bebbiana (Bebb's willow)	20
Access Road km 20.6	*Salix arbusculoides* (little-tree willow)	20
	Salix glauca (blue-green willow)	20

The success of these willow-cutting trials was not easily determined because of the lateness of the season. Most of the leaves had already fallen from the newly established plants. It was, however, estimated that the survival rates were greater than 50 % at both sites. Recommendations for continued monitoring of all revegetation test plots is addressed in Section 5.0, below.

4.2 COMPARISON OF METAL UPTAKE IN PLANTS

Table 2 presents the results of the plant metals analysis. Appendix A contains the original laboratory reports.

As can be seen from the data, there is no significant difference in metals concentrations between the TMF, the Jewelbox Haulroad and the millsite. The zinc concentration at the TMF was low relative to the haul road and the millsite. The willows on the TMF had higher silicon concentrations than the others sites. The millsite also had relatively higher sodium, aluminum, and iron concentrations. The willow twigs generally had lower metal concentrations than the leaves. In addition, future sampling and analysis for metals uptake in plants will include a discrete soil sample from the root area of the plant sampled.

Table 2 Results of Willow Twigs and Leaves Metals Analysis - Sä Dena Hes Mine

			Sample Location					
			Millsite		Tailings		Haul Road	
Parameter	Units	Detection Limit	Twigs	Leaves	Twigs	Leaves	Twigs	Leaves
Aluminum	µg/g	1	71.7	287	66.7	69.5	39.2	39.9
Antimony	µg/g	2	<2	<2	2	<2	<2	<2
Arsenic	µg/g	2	3	<2	<2	3.1	<2	2
Barium	µg/g	0.05	12.8	21.1	7.23	12.4	5.78	7.5
Beryllium	µg/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/g	2	<2	<2	<2	<2	<2	<2
Cadmium	µg/g	0.05	23.9	43.9	4.29	10.4	22.4	43.8
Calcium	µg/g	1	8870	22900	6460	26100	4810	19300
Chromium	µg/g	0.1	0.4	0.5	0.3	0.2	0.3	0.3
Cobalt	µg/g	0.1	0.2	0.71	0.2	1.12	0.3	0.5
Copper	µg/g	0.1	8.08	6.75	9.49	5.62	7.73	7.98
Iron	µg/g	0.2	50.3	183	38.8	62.9	38.9	49.6
Lead	µg/g	0.5	19.5	34.9	17.3	3.3	26.8	2.1
Lithium	µg/g	0.5	<0.5	0.5	<0.5	<0.5	0.5	<0.5
Magnesium	µg/g	1	557	1290	545	1650	736	1350
Manganese	µg/g	0.05	14.6	63.9	10.9	49.8	42.6	134
Molybdenum	µg/g	1	<1	<1	<1	<1	<1	1
Nickel	µg/g	0.1	0.71	3.02	2.12	2.76	0.9	1.5
Phosphorus	µg/g	5	1230	1350	1080	549	1570	1110
Potassium	µg/g	30	4110	13500	3660	11700	5730	15900
Selenium	µg/g	2	<2	<2	<2	<2	<2	<2
Silicon	µg/g	5	71.7	135	147	180	46	144
Silver	µg/g	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sodium	µg/g	5	23	47	6.1	7.2	6	11
Strontium	µg/g	0.5	23.6	53.1	21.6	64.4	15.3	34.5
Sulphur	µg/g	20	636	2040	717	2030	924	2540
Thorium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tin	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Titanium	µg/g	0.1	2.12	9.68	1.31	1.64	1.41	0.9
Uranium	µg/g	6	<6	<6	<6	<6	<6	<6
Vanadium	µg/g	0.1	0.61	2.02	0.4	0.82	0.4	0.4
Zinc	µg/g	0.05	174	472	100	182	313	974
Zirconium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Note: Total Metal Concentration Units are in micrograms per gram (µg/g) dry weight.

5.0 CONCLUSIONS

The success of the 2001 willow-cutting trials was not easily determined because of the lateness of the season. Most of the leaves had already fallen from the newly established plants. It was, however, estimated that the survival rates were greater than 50% at both sites.

The mill area and the haul road had higher zinc concentrations than the TMF. These results were not unexpected given the background soil concentrations in these areas (see AMCL, 2001).

6.0 RECOMMENDATIONS

6.1 The propagation success rate at the test plots established in both 2000 and 2001 should be monitored during the coming growing season(s), including a qualitative assessment of plant survival and vigor and a quantitative examination of growth. This monitoring would be most successfully conducted in the month of August.

6.2 The examination of the potential for metals uptake by the plants should be continued in future monitoring exercises at the mine. Different plant varieties and species may accumulate varying concentrations of metals. In addition to controls by the plant, soil characteristics such as pH, percent organic matter, and moisture content are factors influencing uptake of metals by plant tissues. Therefore, the sampling of various plant species tissues' from the test plots, particularly on the TMF, should be conducted once the plants become established. In addition, plant sampling at undisturbed and/or unmined locations should also be conducted to form a more comprehensive picture of background plant metals concentrations and for comparison to data for the disturbed areas of the site. These data can then be examined to determine what the typical/background metal levels are, what, if any, trends exist for altered areas, and what potential there may be for impacts to wildlife browsing on these plants as reclamation and closure proceed.

7.0 REFERENCES

Access Mining Consultants Ltd., 2001. *Land Reclamation and Revegetation Plan Preliminary Test Program Summary Report - 2000.* Prepared for Cominco Ltd.

Cominco Ltd., 2000. *Sä Dena Hes Mine Detailed Decommissioning and Reclamation Plan.* Prepared by Access Mining Consultants Ltd. and SRK Ltd.

teckcominco

S Ä DENA HES MINE

LAND RECLAMATION AND REVEGETATION PLAN

RESULTS SUMMARY OF

Phase II Revegetation Program - 2001

Appendix A

Original Laboratory Report

NORWEST LABS

Control Number E 68759

Environmental Sample Information Sheet

NOTE Proper completion of this form is required in order to proceed with analysis
See reverse for your nearest Norwest location and proper sampling protocol

Billing Address:		**Report To:** X	**Copy of Report To:**		**Copy of Invoice:**
Company:	Access Mining Consultants Ltd.		Company:		
Address:	204-D Strickland Street Whitehorse, Yukon, Y1A 2J8	QA/QC Report ☐	Address:		Mail invoice to this address for approval ☐
Attention:	Travis Ritchie	Report Result:	Attention:		Report Result:
Phone:	(867) 668-6463	Fax ☐	Phone:		Fax ☐
Fax:	(867) 667-6680	Mail X	Fax:		Mail ☐
Cell:		Courier ☐	Cell:		Courier ☐
e-mail:	Travis@accessconsulting.yk.ca	e-mail X	e-mail:	143038	e-mail ☐

Information to be included on Report and Invoice

Project ID: Com-01
Project Name: Sa Dena Hes Reclamation & Revegetation Program
Project Location:
Legal Location:
PO#:
Proj. Acct. Code:
Agreement ID: ~~15180~~

RUSH Please contact the laboratory to confirm rush dates and times before submitting samples.

Upon filling out this section, client accepts that surcharges will be attached to this analysis

Required on: all analyses or as indicated ☐ or ☐

Date Required:
Signature:
Norwest Authorization:

Sample Custody (Please Print)

Sampled by: S Withers Date Oct. 05/01
Company ACG Signature
Relinquished by: T. RITCHIE
Company ACG Date Oct. 12/01
Waybill number:
Received by: V. Farnan
Company Date Oct 15/01
Processed by:
Norwest Labs Date

Special Instructions / Comments

	Sample Identification	Location	Depth	Date / Time Sampled	Matrix	Sampling Method	Number of Containers	Enter tests above (✓ relevant samples below)
1	Twigs - Mill site		–	Oct. 05/01	Plant Matter	Grab	1	✓
2	" - Tailings		–	"	"	"	1	✓
3	" - Haul Road		–	"	"	"	1	✓
4	Leaves - Mill site		–	"	"	"	1	✓
5	" - Tailings		–	"	"	"	1	✓
6	" - Haul Road		–	"	"	"	1	✓
7			–					
8			–					
9			–					
10			–					
11			–					
12			–					
13			–					
14			–					

NOTE: All hazardous samples must be labelled according to WHMIS guidelines.
Accredited by the Standards Council of Canada for specific tests

NWL008 (0-2000)

NORWEST LABS
Agri-Food & Environmental Group
Calgary Edmonton Winnipeg Lethbridge Surrey

Distribution List

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Surrey, BC. V3S 8P8
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Fax: (604) 514-3323

Bill to: Access Mining Consultants Ltd.
Report to: Access Mining Consultants Ltd.

204D Strickland Street
Whitehorse, YT, Canada
Y1A 2J8
Attn: Travis Ritchie
Sampled By:
Company:

Project
ID: COM-01
Name: Sa Sena Hes Reclamation & Revegeta
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 143038
Control Number:
Date Received: Oct 15, 2001
Date Reported: Oct 19, 2001
Report Number: 212481

Copies	Contact	Company	Address		
1	Travis Ritchie	Access Mining Consultants Ltd.	204D Strickland Street Whitehorse, YT Y1A 2J8 Phone: (867) 668-6463 Fax: (867) 667-6680 Email: travis@accessconsulting.yk.ca	Fax Email x Custom Email	Post x Pickup Courier Hand

If this report distribution is not satisfactory, please send report requirements to the address at the top of this page.

10/19/(

NORWEST LABS
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Calgary Edmonton Winnipeg Lethbridge Surrey

Sample Custody

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Fax: (604) 514-3323

Bill to: Access Mining Consultants Ltd.
Report to: Access Mining Consultants Ltd.

204D Strickland Street
Whitehorse, YT, Canada
Y1A 2J8
Attn: Travis Ritchie

Sampled By:

Project ID: COM-01
Name: Sa Sena Hes Reclamation & Revegetat
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 143038
Control Number:
Date Received: Oct 15, 2001
Date Reported: Oct 19, 2001
Report Number: 212481

Sample Disposal Date: Nov 18, 2001

All samples will be stored until this date unless other instructions are received. Please indicate other requirements below and return this form to the address or fax number on the upper right of this page.

_____ **Extend Sample Storage Until** _____ **(MM/DD/YY)**

The following charges apply to extended sample storage:

Storage for 1 to 5 samples per month	$ 10.00
Storage for 6 to 20 samples per month	$ 15.00
Storage for 21 to 50 samples per month	$ 30.00
Storage for 51 to 200 samples per month	$ 60.00
Storage for more than 200 samples per month	$ 110.00

_____ **Return Sample, collect, to the address below via:**

_____ Greyhound
_____ Loomis
_____ Purolator
_____ Other (Specify) _____

Name: _____
Company: _____
Address: _____
_____
Phone: _____
Fax: _____
Signature: _____

If no other arrangements have been made, samples will be disposed of on Nov 18, 2001.

NORWEST LABS

Agri-Food & Environmental Group
Calgary Edmonton Winnipeg Lethbridge Surrey

Analytical Report

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204D Strickland Street
Whitehorse, YT, Canada
Y1A 2J8
Attn: Travis Ritchie

Sampled By:

Project ID: COM-01
Name: Sa Sena Hes Reclamation & Reveget
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 143038
Control Number:
Date Received: Oct 15, 2001
Date Reported: Oct 19, 2001
Report Number: 212481

	NWL Number:	143038-1	143038-2	143038-3	
	Sample Date:	Oct 05, 2001	Oct 05, 2001	Oct 05, 2001	
	Sample Description:	Twigs - Millsite	Twigs - Tailings	Twigs - Haul Road	
Analyte		**Units**	**Results**	**Results**	**Results**	**Detection Limit**
Metals Strong Acid Extractable						
Aluminum	Strong Acid Extractable	ug/g	71.7	66.7	39.2	1
Antimony	Strong Acid Extractable	ug/g	<2	2.0	<2	2
Arsenic	Strong Acid Extractable	ug/g	3.0	<2	<2	2
Barium	Strong Acid Extractable	ug/g	12.8	7.23	5.78	0.05
Beryllium	Strong Acid Extractable	ug/g	<0.05	<0.05	<0.05	0.05
Bismuth	Strong Acid Extractable	ug/g	<2	<2	<2	2
Cadmium	Strong Acid Extractable	ug/g	23.9	4.29	22.4	0.05
Calcium	Strong Acid Extractable	ug/g	8870	6460	4810	1
Chromium	Strong Acid Extractable	ug/g	0.40	0.30	0.30	0.1
Cobalt	Strong Acid Extractable	ug/g	0.20	0.20	0.30	0.1
Copper	Strong Acid Extractable	ug/g	8.08	9.49	7.73	0.1
Iron	Strong Acid Extractable	ug/g	50.3	38.8	38.9	0.2
Lead	Strong Acid Extractable	ug/g	19.5	17.3	26.8	0.5
Lithium	Strong Acid Extractable	ug/g	<0.5	<0.5	0.50	0.5
Magnesium	Strong Acid Extractable	ug/g	557	545	736	1
Manganese	Strong Acid Extractable	ug/g	14.6	10.9	42.6	0.05
Molybdenum	Strong Acid Extractable	ug/g	<1	<1	<1	1
Nickel	Strong Acid Extractable	ug/g	0.71	2.12	0.90	0.1
Phosphorus	Strong Acid Extractable	ug/g	1230	1080	1570	5
Potassium	Strong Acid Extractable	ug/g	4110	3660	5730	30
Selenium	Strong Acid Extractable	ug/g	<2	<2	<2	2
Silicon	Strong Acid Extractable	ug/g	71.7	147	46	5
Silver	Strong Acid Extractable	ug/g	<0.2	<0.2	<0.2	0.2
Sodium	Strong Acid Extractable	ug/g	23	6.1	6.0	5
Strontium	Strong Acid Extractable	ug/g	23.6	21.6	15.3	0.5
Sulphur	Strong Acid Extractable	ug/g	636	717	924	20
Thorium	Strong Acid Extractable	ug/g	<0.5	<0.5	<0.5	0.5
Tin	Strong Acid Extractable	ug/g	<0.5	<0.5	<0.5	0.5
Titanium	Strong Acid Extractable	ug/g	2.12	1.31	1.41	0.1
Uranium	Strong Acid Extractable	ug/g	<6	<6	<6	6
Vanadium	Strong Acid Extractable	ug/g	0.61	0.40	0.40	0.1
Zinc	Strong Acid Extractable	ug/g	174	100	313	0.05
Zirconium	Strong Acid Extractable	ug/g	<0.5	<0.5	<0.5	0.5

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Analytical Report

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Bill to: Access Mining Consultants Ltd.
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204D Strickland Street
Whitehorse, YT, Canada
Y1A 2J8
Attn: Travis Ritchie

Sampled By:

Project ID: COM-01
Name: Sa Sena Hes Reclamation & Reveget
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 143038
Control Number:
Date Received: Oct 15, 2001
Date Reported: Oct 19, 2001
Report Number: 212481

	NWL Number:	143038-4	143038-5	143038-6	
	Sample Date:	Oct 05, 2001	Oct 05, 2001	Oct 05, 2001	
	Sample Description:	Leaves - Millsite	Leaves - Tailings	Leaves - Haul Road	
Analyte		**Units**	**Results**	**Results**	**Results**	**Detection Limit**
Metals Strong Acid Extractable						
Aluminum	Strong Acid Extractable	ug/g	287	69.5	39.9	1
Antimony	Strong Acid Extractable	ug/g	<2	<2	<2	2
Arsenic	Strong Acid Extractable	ug/g	<2	3.1	2.0	2
Barium	Strong Acid Extractable	ug/g	21.1	12.4	7.50	0.05
Beryllium	Strong Acid Extractable	ug/g	<0.05	<0.05	<0.05	0.05
Bismuth	Strong Acid Extractable	ug/g	<2	<2	<2	2
Cadmium	Strong Acid Extractable	ug/g	43.9	10.4	43.8	0.05
Calcium	Strong Acid Extractable	ug/g	22900	26100	19300	1
Chromium	Strong Acid Extractable	ug/g	0.50	0.20	0.30	0.1
Cobalt	Strong Acid Extractable	ug/g	0.71	1.12	0.50	0.1
Copper	Strong Acid Extractable	ug/g	6.75	5.62	7.98	0.1
Iron	Strong Acid Extractable	ug/g	183	62.9	49.6	0.2
Lead	Strong Acid Extractable	ug/g	34.9	3.3	2.1	0.5
Lithium	Strong Acid Extractable	ug/g	0.50	<0.5	<0.5	0.5
Magnesium	Strong Acid Extractable	ug/g	1290	1650	1350	1
Manganese	Strong Acid Extractable	ug/g	63.9	49.8	134	0.05
Molybdenum	Strong Acid Extractable	ug/g	<1	<1	1.00	1
Nickel	Strong Acid Extractable	ug/g	3.02	2.76	1.50	0.1
Phosphorus	Strong Acid Extractable	ug/g	1350	549	1110	5
Potassium	Strong Acid Extractable	ug/g	13500	11700	15900	30
Selenium	Strong Acid Extractable	ug/g	<2	<2	<2	2
Silicon	Strong Acid Extractable	ug/g	135	180	144	5
Silver	Strong Acid Extractable	ug/g	<0.2	<0.2	<0.2	0.2
Sodium	Strong Acid Extractable	ug/g	47	7.2	11	5
Strontium	Strong Acid Extractable	ug/g	53.1	64.4	34.5	0.5
Sulphur	Strong Acid Extractable	ug/g	2040	2030	2540	20
Thorium	Strong Acid Extractable	ug/g	<0.5	<0.5	<0.5	0.5
Tin	Strong Acid Extractable	ug/g	<0.5	<0.5	<0.5	0.5
Titanium	Strong Acid Extractable	ug/g	9.68	1.64	0.90	0.1
Uranium	Strong Acid Extractable	ug/g	<6	<6	<6	6
Vanadium	Strong Acid Extractable	ug/g	2.02	0.82	0.40	0.1
Zinc	Strong Acid Extractable	ug/g	472	182	974	0.05
Zirconium	Strong Acid Extractable	ug/g	<0.5	<0.5	<0.5	0.5

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Calgary Edmonton Winnipeg Lethbridge Surrey

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Analytical Report

Bill to: Access Mining Consultants Ltd.
Report to: Access Mining Consultants Ltd.

204D Strickland Street
Whitehorse, YT, Canada
Y1A 2J8
Attn: Travis Ritchie

Sampled By:

Project ID: COM-01
Name: Sa Sena Hes Reclamation & Reveget
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: **143038**
Control Number:
Date Received: Oct 15, 2001
Date Reported: Oct 19, 2001
Report Number: 212481

Approved by: _____

NORWEST LABS
Agri-Food & Environmental Group
Calgary Edmonton Winnipeg Lethbridge Surrey

#104, 19575-55 A Ave.
Surrey, BC. V3S 8P8
Phone: (604) 514-3322
Fax: (604) 514-3323

Methodology and Notes

Bill to: Access Mining Consultants Ltd.
Report to: Access Mining Consultants Ltd.

204D Strickland Street
Whitehorse, YT, Canada
Y1A 2J8
Attn: Travis Ritchie

Sampled By:

Project ID: COM-01
Name: Sa Sena Hes Reclamation & Revegeta
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 143038
Control Number:
Date Received: Oct 15, 2001
Date Reported: Oct 19, 2001
Report Number: 212481

Method of Analysis:

Test	Reference	Method	Date of Analysis	Location	Analyst
Metals SemiTrace (Strong Acid Leachable) in solids	US EPA	Metals & Trace Elements by Ultrasonic Nebulization ICP-AES, 200.15	Oct 19, 2001	Norwest Surrey	John Davidson

References:

US EPA — US Environmental Protection Agency Test Methods

Comments:

teckcominco

S Ä DENA HES MINE

LAND RECLAMATION AND REVEGETATION PLAN

RESULTS SUMMARY OF

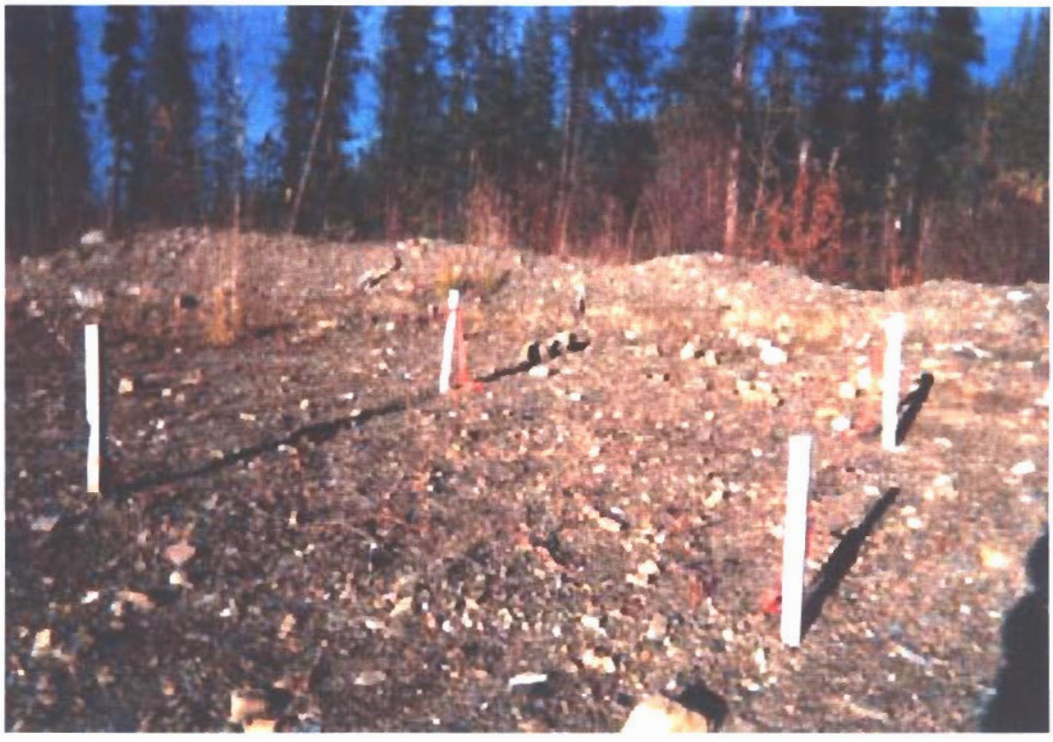
Phase II Revegetation Program - 2001

Appendix B

Additional 2001 Revegetation Program Photos

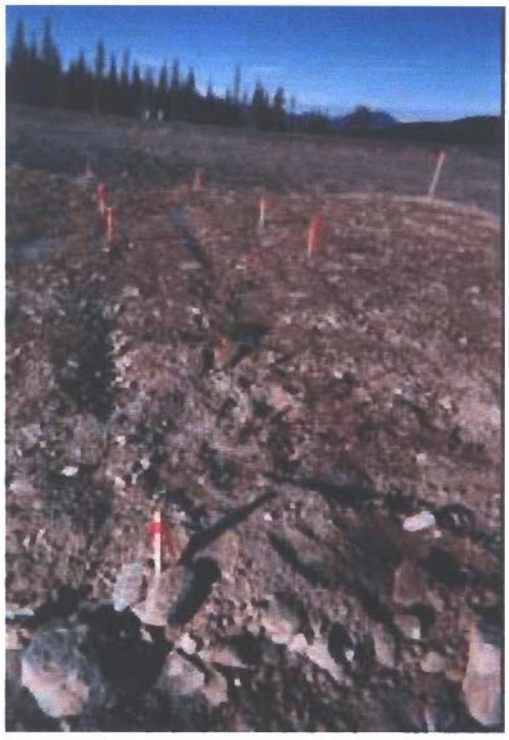
2000 Willow Cutting Test Plot @ km 20.6 of Access Road

2000 Willow Cutting Test Plot @ km 20.6 of Access Road



2000 Willow Cutting Test Plot @ km 15.9 of Access Road

2000 Willow Cutting Test Plot @ km 15.9 of Access Road (zoom)



Site #5a

Site #5b (300mm soil)

Site #5b (300mm soil)

Site #5b (300mm soil)

Site #5b (300mm soil)

Site #5a (foreground) and #5b (background)

Site #5a (background) and #5b (foreground)

Site #5a and #5b