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CONSULTING ENGINEERS

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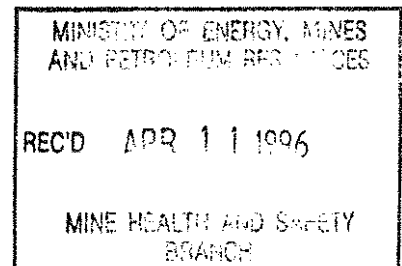
YOUR REFERENCE 1625.01
OUR REFERENCE
NUMBER 6/1175

April 4, 1996

Mr. George Headley, P. Eng.
MEMPR
Mine Review and Permitting Branch
4th Floor - 1810 Blanshard Street
Victoria, BC
V8V 1X4

Dear George,

Re: Mt. Polley Tailings Impoundment
1996 Construction



Thank you for meeting with us yesterday to discuss the construction requirements for the upcoming construction program at the Mt. Polley Tailings Impoundment. As requested, we are submitting the most recent issue of the detailed design drawings for this project. A drawing list is included as Table 1.

The tender document for the construction of the tailings impoundment is currently out for bid and the final contract will be awarded by the first week in May. Construction mobilization is anticipated in mid May with preliminary clearing and grubbing to follow shortly thereafter. It is anticipated that foundation stripping and initial borrow area development, etc. will commence early in June.

As discussed in our meeting yesterday, the construction methodology for on-going embankment raises is very similar to the method used at the Montana Tunnels Mine, which is scheduled for an additional embankment raise this summer. You may want to consider a visit to Montana during initial construction of this year's raise on the tailings beach. We would be pleased to arrange this if you can fit it into your schedule.



Association
of Consulting
Engineers
of Canada

Association
des Ingénieurs-
Conseils
du Canada



Please feel free to contact us if you have any questions or require any further assistance.

Yours very truly,
KNIGHT PIESOLD LTD.



K.J. Brouwer, P.Eng.
Director

/kjb

Attachment

cc: Malcolm Swallow, Imperial Metals Corporation (letter & Table 1 only)

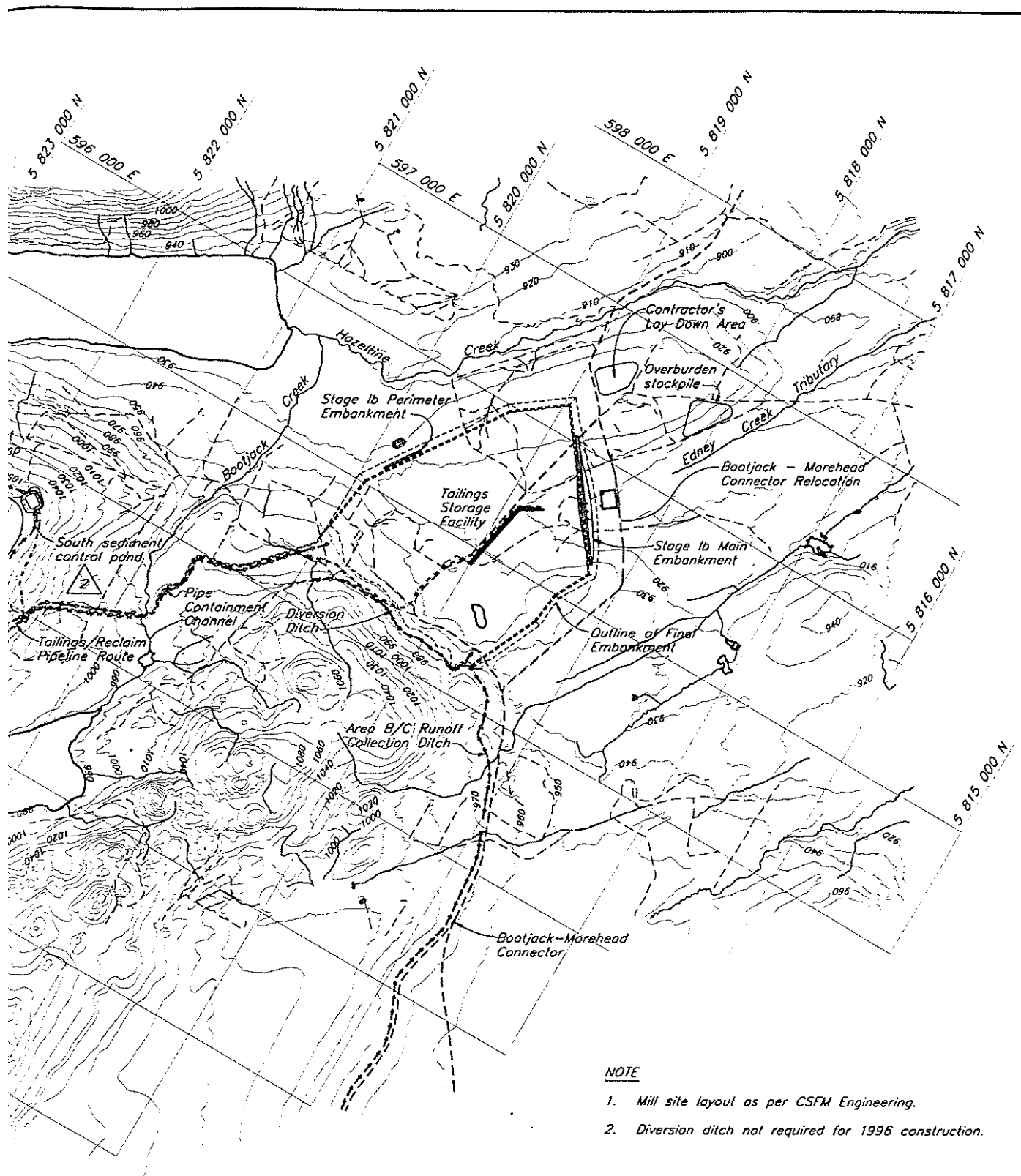


TABLE 1

MT. POLLEY PROJECT
DRAWING LIST

4-Apr-96 8:51

Drawing No.	Rev.	Title	% Complete	Date Issued	Issued
1625.200	2	Overall Site Plan	100	1-Apr-96	For Tender
1625.201	3	Tailings Storage Facility - Basin Preparation and Basin Liner	100	1-Apr-96	For Tender
1625.202	3	Tailings Storage Facility - Foundation Preparation and Basin Liner - Sections and Details	100	25-Mar-96	For Tender
1625.205	4	Tailings Storage Facility - Stage Ib Tailings Impoundment - General Arrangement	100	1-Apr-96	For Tender
1625.210	3	Tailings Storage Facility - Main and Perimeter Embankments - Plan	100	1-Apr-96	For Tender
1625.211	2	Tailings Storage Facility - Tailings Embankment - Sections and Details	100	1-Apr-96	For Tender
1625.212	0	Tailings Storage Facility - Material Specifications	100	2-Jun-95	For Tender
1625.213	3	Tailings Storage Facility - Sediment Control and Seepage Collection	100	1-Apr-96	For Tender
1625.214	4	Tailings Storage Facility - Sediment Control and Seepage Collection - Sections and Details	100	1-Apr-96	For Tender
1625.215	3	Tailings Storage Facility - Surface Water Control - Plan and Profile	100	1-Apr-96	For Tender
1625.216	2	Tailings Storage Facility - Surface Water Control - Sections and Details	100	1-Apr-96	For Tender
1625.217	1	Tailings Storage Facility - Surface Water Control - Flow Control Structures - Concrete Details	100	1-Apr-96	For Tender
1625.218	2	Tailings Storage Facility - Tailings Distribution and Reclaim System - Plan and Profile	100	1-Apr-96	For Tender
1625.219	1	Tailings Storage Facility - Tailings Distribution and Reclaim System - Sections and Details	100	22-Mar-96	For Tender
1625.220	4	Tailings Storage Facility - Instrumentation	100	1-Apr-96	For Tender
1625.221	2	Tailings Storage Facility - Instrumentation - Sections and Details	100	1-Apr-96	For Tender
1625.222	B	Tailings Storage Facility - Tailings Impoundment - Tailings and Reclaim Pipework Plan	100	1-Apr-96	For Information
1625.223	A	Tailings Storage Facility - Reclaim Pipeline Details	100	25-Mar-96	For Information
1625.224	A	Tailings Storage Facility - Tailings Distribution System - Details	100	25-Mar-96	For Information
1625.225	A	Tailings Storage Facility - Tailings Pipework Details	100	25-Mar-96	For Information
1625.226	B	Tailings Storage Facility - Booster Pump Station Details	100	1-Apr-96	For Information
1625.230	3	Drainage Plan - Mine Site	100	1-Apr-96	For Construction
1625.231	4	Drainage Plan - Mill Site	100	1-Apr-96	For Construction
1625.232	3	Drainage Plan - Sections and Details	100	1-Apr-96	For Construction



NOTE

1. Mill site layout as per CSFM Engineering.
2. Diversion ditch not required for 1996 construction.



KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

OVERALL SITE PLAN

95	MILLSITE AND CONTROL POND REVISED	
96	UPDATE OPEN PITS, WASTE DUMP, SITE DRAINAGE & ROADS	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

DESIGNED KDE/KGB

DRAWN RDT/NSD

CHECKED

APPROVED

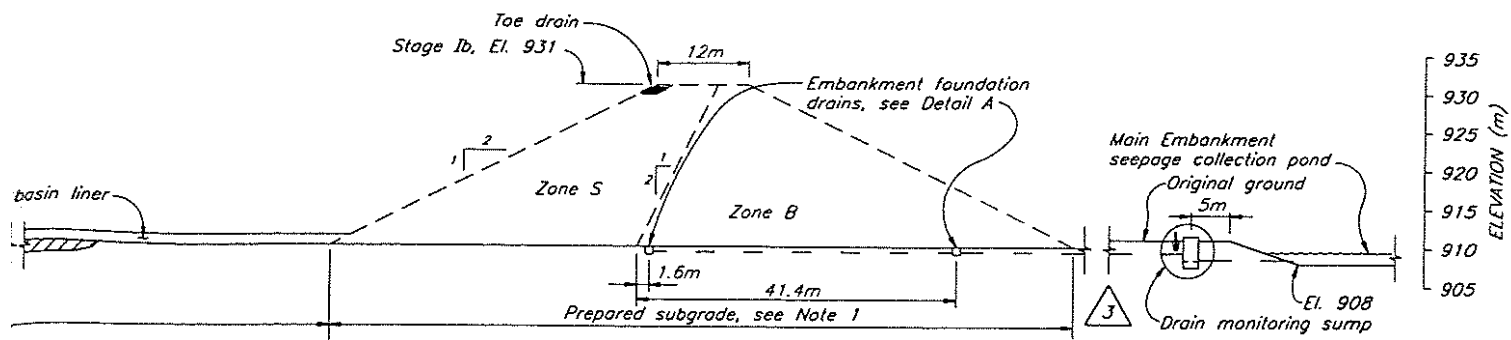
REVISIONS

DATE **JUNE 2, 1995**

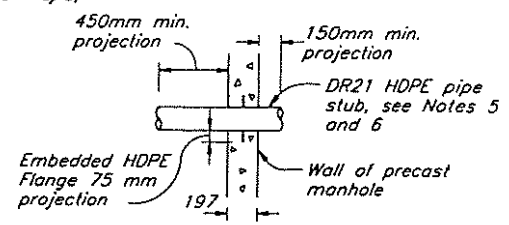
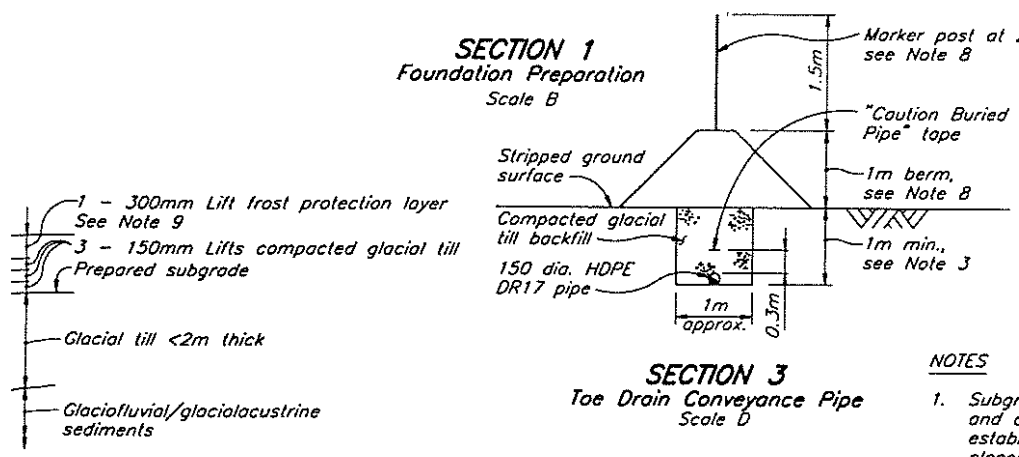
SCALE AS SHOWN

DRG. NO. **510-12-01-1625.200**

REV. **2**

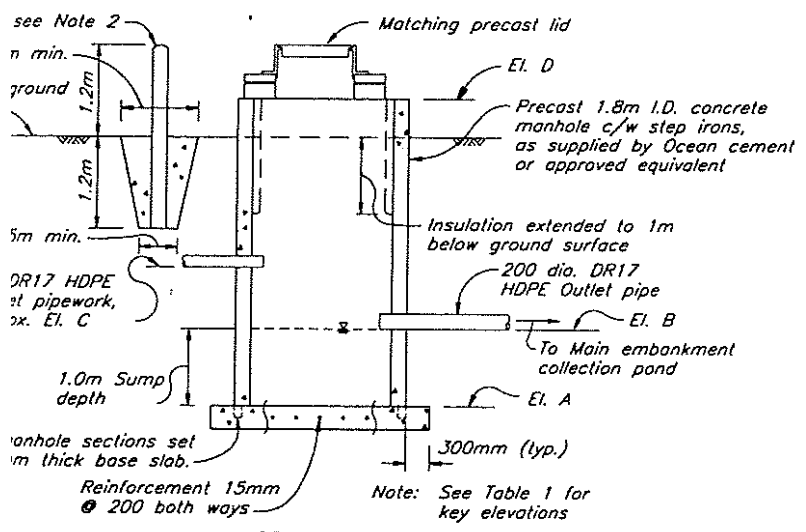


SECTION 1 Foundation Preparation Scale B

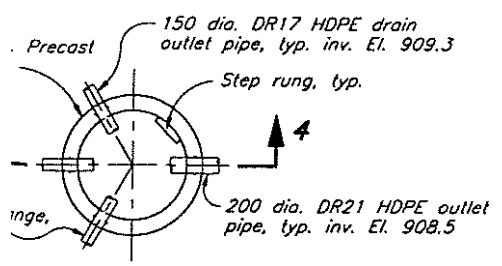


DETAIL F HDPE Stub and Flange Scale C

SECTION 3 Toe Drain Conveyance Pipe Scale D



SECTION 4 Scale D

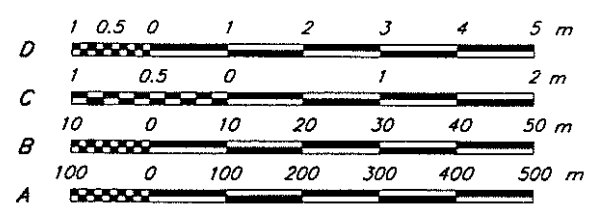


DETAIL E Drain Monitoring Sump Scale D

NOTES

1. Subgrade preparation to comprise stripping of topsoil and organics and removing saturated materials to establish a competent, bearing surface for fill placement as directed by the Engineer.
2. Three bollards required at 120', 1.0m from sump. Bollards to be 200 dia. Std. Weight steel pipe filled with concrete.
3. All pipeworks to have a minimum of 1m of cover for frost protection.
4. HDPE stubs and flanges to be cast into manhole.
5. For Main Embankment drain monitoring sump 150 dia. pipe stubs @ invert El. 909.3, 3 required. 200 dia. pipe stub @ invert El. 908.5, 1 required.
6. For Perimeter Embankment drain monitoring sump 150 dia. pipe stub, 1 required. 200 dia. pipe stub, 1 required.
7. Drain monitoring sump invert elevations shown on Table 1 may be adjusted in the field by the Engineer.
8. Buried pipework to be covered by a berm and clearly marked by a line of stakes.
9. Frost protection layer to be placed only on right abutment area of basin liner. Not required in valley bottom.
10. All perforated pipe to have drain gravel and geotextile wrap, as shown on Detail A.

Table 1		
ELEV.	MAIN EMBANKMENT	PERIMETER EMBANKMENT
A	907.5	924.5
B	908.5	925.5
C	909.3	926.5
D	911.5	930.5

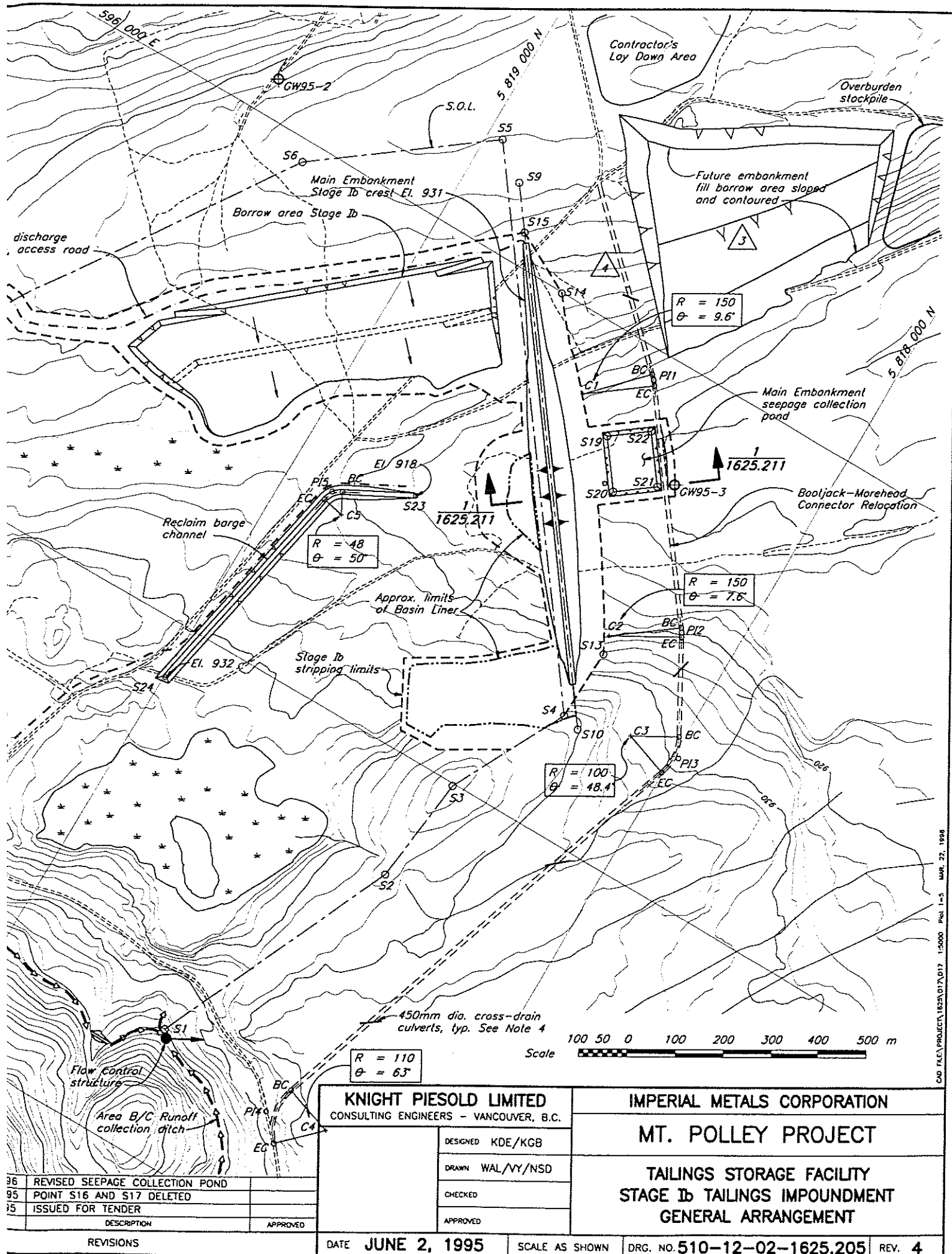


REVISIONS	DESCRIPTION	APPROVED
'96	UPDATE DRAINAGE & SEEPAGE COLLAR	
'96	REVISIONS FOR REVIEW COMMENTS	
'95	FROST LAYER REVISED AND NOTE 9 ADDED	
'95	ISSUED FOR TENDER	

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	KDE
DRAWN	RD/ND/NSD
CHECKED	
APPROVED	

IMPERIAL METALS CORPORATION	
MT. POLLEY PROJECT	
TAILINGS STORAGE FACILITY FOUNDATION PREPARATION AND BASIN LINER SECTION AND DETAILS	

DATE	JUNE 2, 1995	SCALE AS SHOWN	DRG. NO. 510-15-01-1625.202	REV. 3
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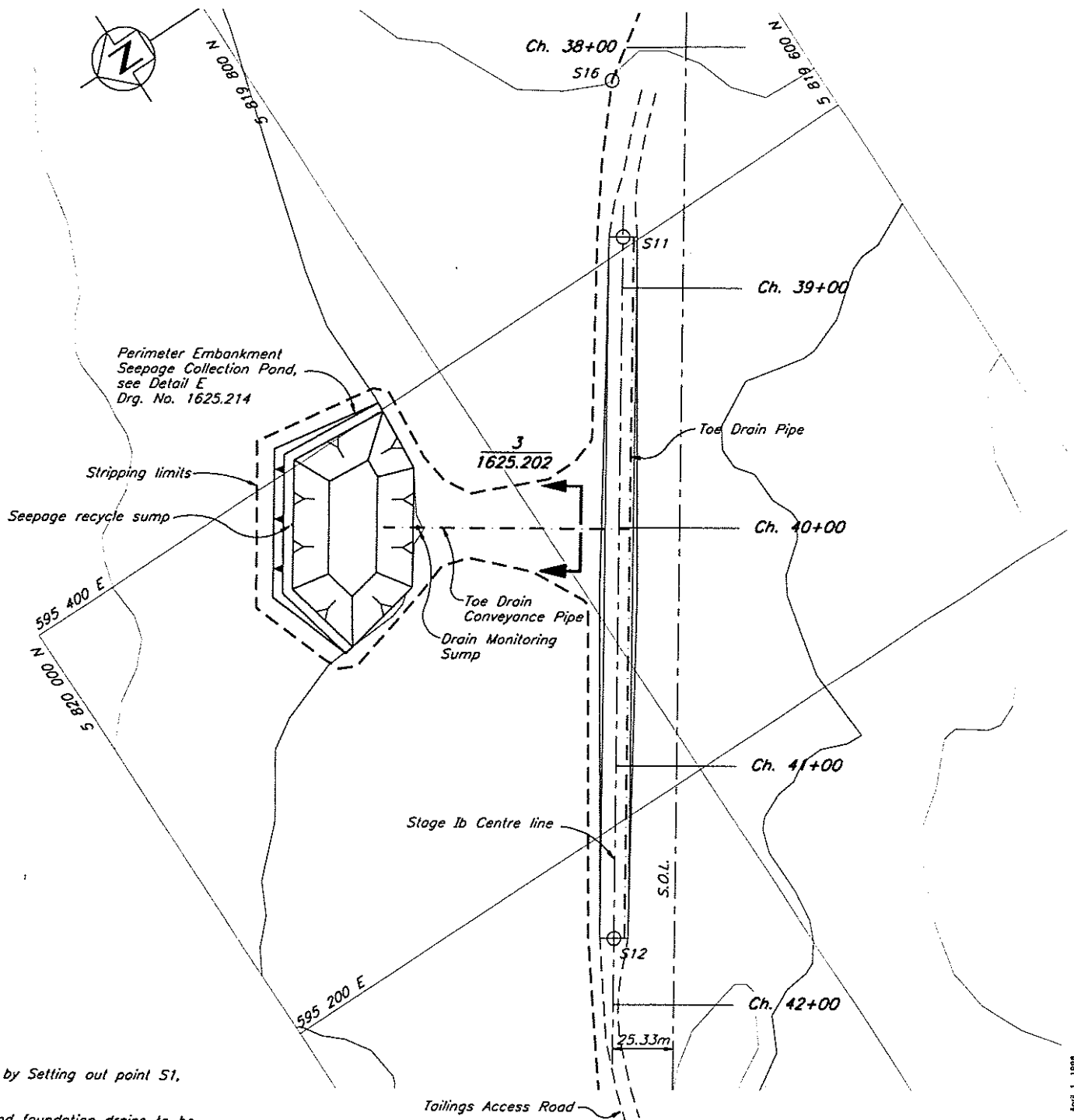
CAD FILE: PROJECT 1625.D17 1:2000 Plot 1-5 Aug. 22, 1995

96	REVISED SEEPAGE COLLECTION POND	
95	POINT S16 AND S17 DELETED	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	KDE/KGB
DRAWN	WAL/VY/NSD
CHECKED	
APPROVED	

IMPERIAL METALS CORPORATION MT. POLLEY PROJECT TAILINGS STORAGE FACILITY STAGE 1b TAILINGS IMPOUNDMENT GENERAL ARRANGEMENT	
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REVISIONS	DATE	JUNE 2, 1995	SCALE	AS SHOWN	DRG. NO.	510-12-02-1625.205	REV.	4
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Stations defined by Setting out point S1, starting at 5+00.

Embankment fill and foundation drains to be installed into the foundation as per the cross sections.

Perimeter Embankment Seepage Collection Pond to be located in the field by the Engineer.

Location of Basin Liner to be determined by exploration trenches.



PERIMETER EMBANKMENT
Scale B

25 0 50 100 m

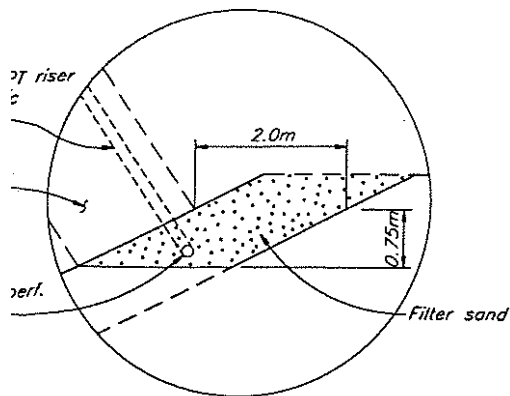
50 0 100 200 m

96	OVERFLOW CULVERTS ADDED	
96	UPDATE ROADS AND DRAINS	
95	BASIN LINER AND DRAINAGE REVISED	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	KDE
DRAWN	RDT
CHECKED	
APPROVED	

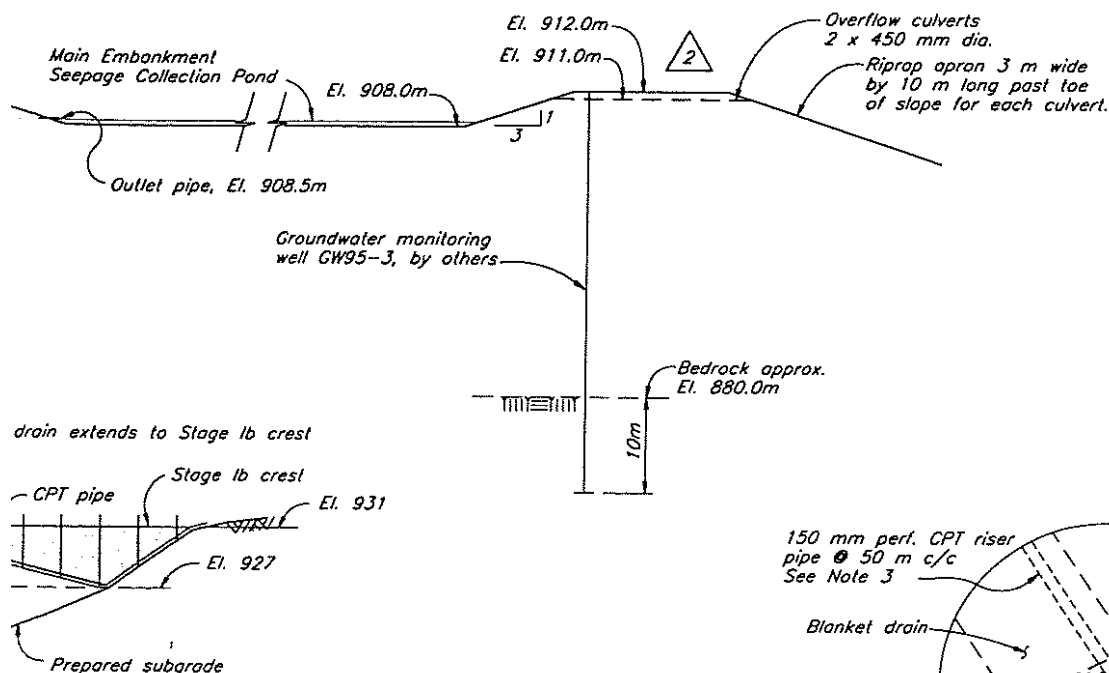
IMPERIAL METALS CORPORATION MT. POLLEY PROJECT	
TAILINGS STORAGE FACILITY MAIN AND PERIMETER EMBANKMENTS PLAN	

DATE	JUNE 2, 1995	SCALE AS SHOWN	DRG. NO. 510-14-01-1625.210	REV. 3
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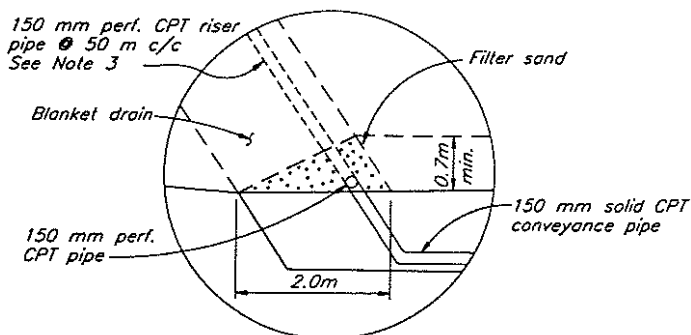
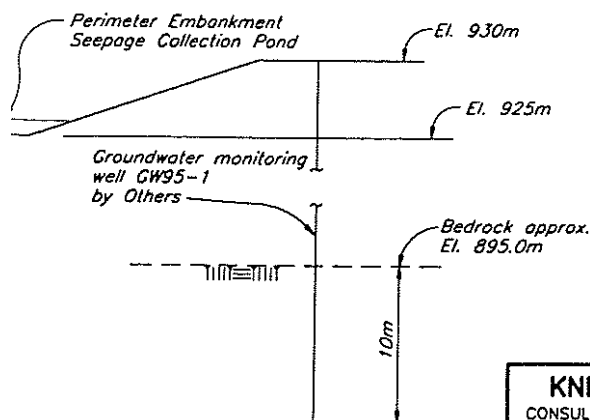


ZONE	MATERIAL TYPE	PLACEMENT AND COMPACTION REQUIREMENTS
Blanket/Toe Drain	Filter sand	Placed and spread in maximum 1.0 m thick layers. Vibratory compaction as directed by the Engineer.
Foundation Drain	Drain Gravel	Placed and compacted as shown on the drawings
S	Glacial till	Placed, moisture conditioned and spread in maximum 300 mm thick layers (after compaction). Vibratory compaction to 95% of modified proctor maximum dry density.
B	Glacial till	Placed, moisture conditioned and spread in maximum 600 mm thick layers (after compaction). Vibratory compaction to 90% of modified proctor maximum dry density.

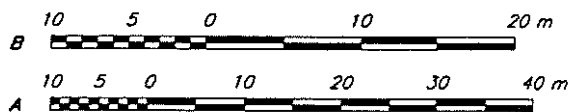
**DETAIL A
MAIN EMBANKMENT TOE DRAIN**



EMBANKMENT



**DETAIL C
PERIMETER EMBANKMENT TOE DRAIN**



NO.	DESCRIPTION	APPROVED
36	OVERFLOW CULVERTS ADDED	
96	UPDATE DRAINAGE	
95	ISSUED FOR TENDER	

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	KDE
DRAWN	WAL/YT
CHECKED	
APPROVED	

IMPERIAL METALS CORPORATION	
MT. POLLEY PROJECT	
TAILINGS STORAGE FACILITY TAILINGS EMBANKMENT SECTIONS AND DETAILS	

REVISIONS

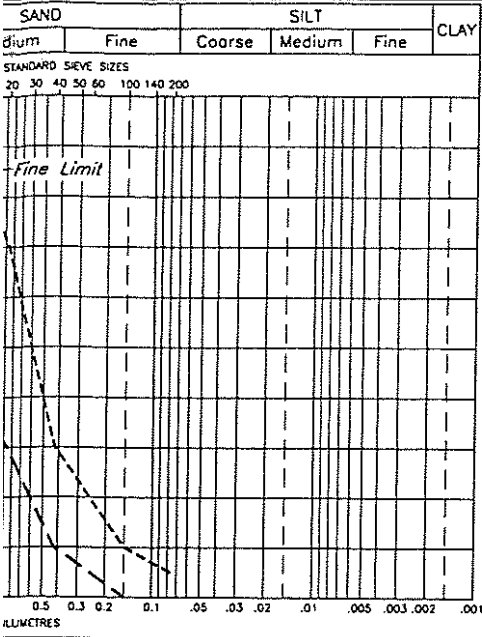
DATE **JUNE 2, 1995**

SCALE AS SHOWN

DRG. NO. **510-14-02-1625 211**

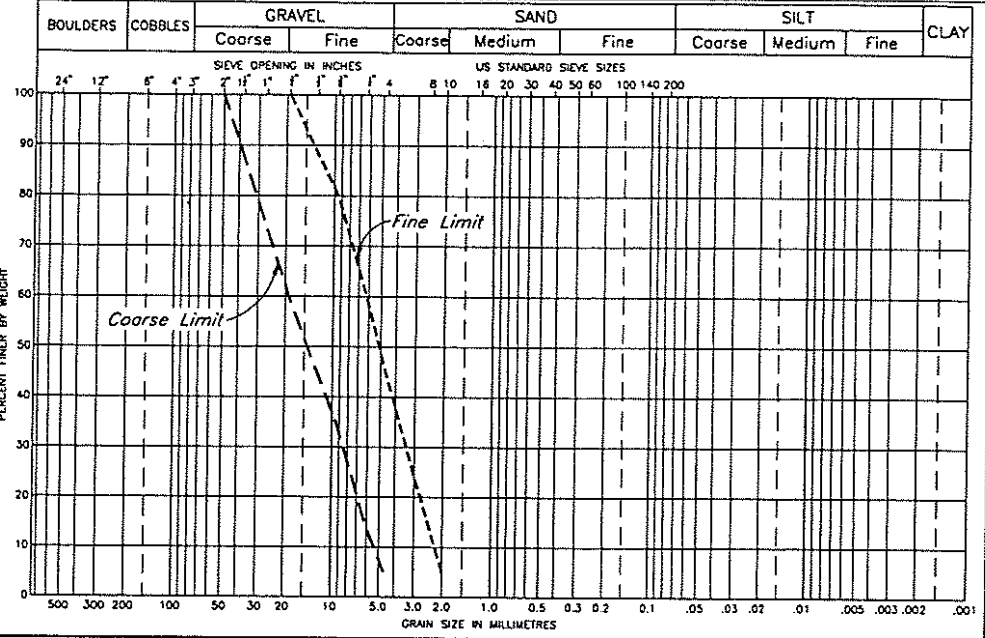
REV. **2**

SIFICATION SYSTEM

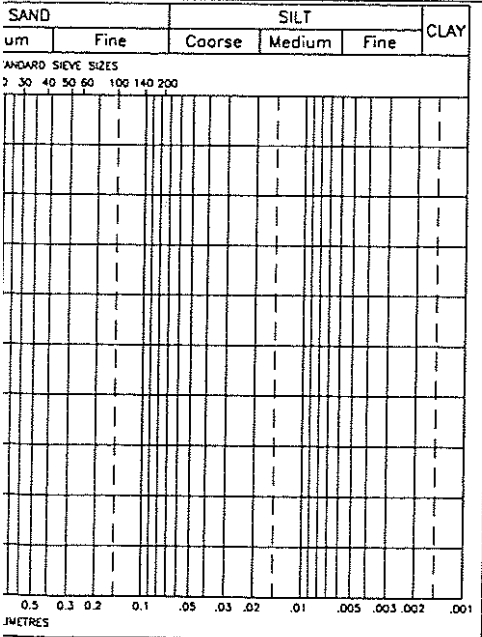


UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE - PIPE SURROUND*
MATERIAL - *DRAIN GRAVEL*

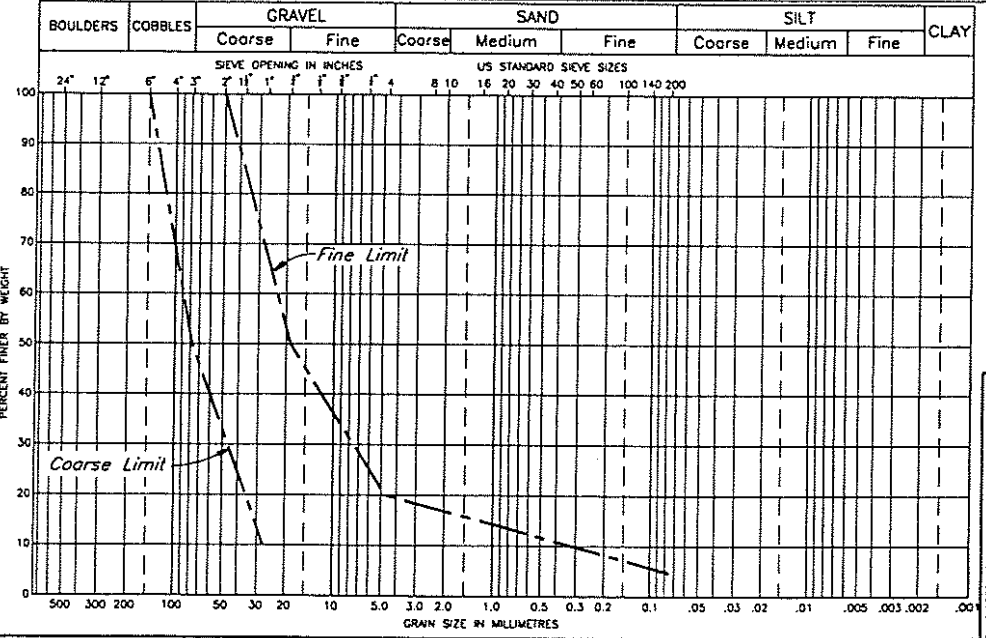


SIFICATION SYSTEM



UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE - ROAD SURFACING*
MATERIAL - *WEARING COURSE*



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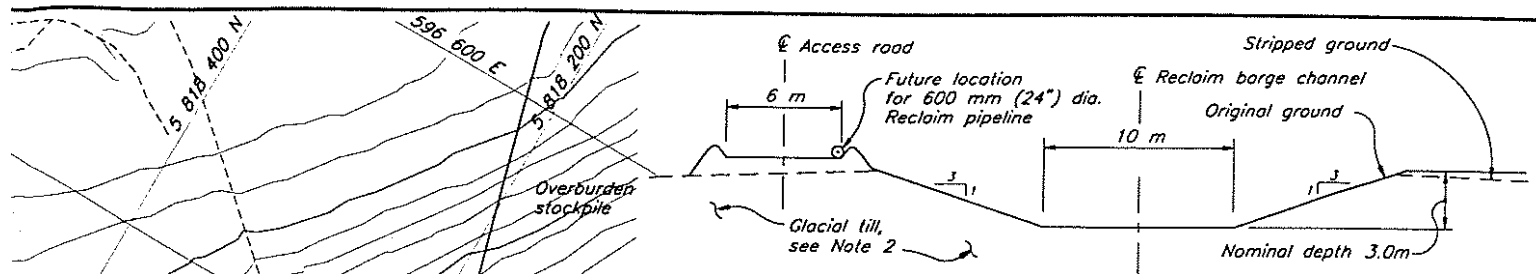
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT

TAILINGS STORAGE FACILITY
MATERIAL SPECIFICATIONS

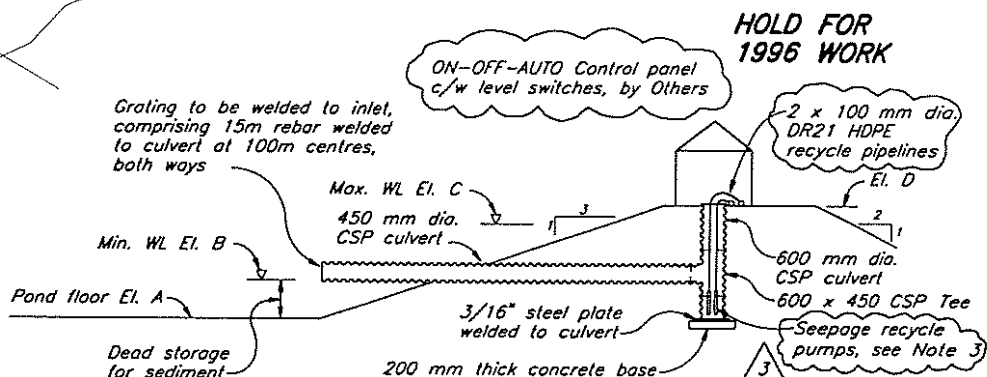
7/95 ISSUED FOR TENDER
DESCRIPTION APPROVED

DESIGNED KDE
DRAWN RDT
CHECKED
APPROVED

CAD FILE: 1425103A.DWG 1:1000 Plot 1=1 AUG 25, 1995



SECTION 3
RECLAIM BARGE CHANNEL
Scale B

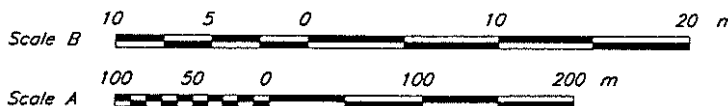


ELEVATION	MAIN EMBANKMENT	PERIMETER EMBANKMENT
A	908.0	925.0
B	908.5	926.0
C	909.5	927.5
D	911.0	930.0

DETAIL A
SEEPAGE COLLECTION AND RECYCLE SYSTEM
NTS

NOTE

1. Test pits indicate 4m thickness of till in proposed location of barge channel. Additional test pits will be required to confirm adequate thickness of till to finalize barge channel alignment.
2. Compacted glacial till shall be placed along the barge channel excavation to meet basin liner requirements as directed by the Engineer.
3. Seepage recycle pumps to be 2 - 100 mm electric submersible pumps, discharging to 2 - 100 mm pipelines extended up D/S face of tailings embankment. Pump sump to be fully enclosed with an insulated building c/w venting and I beam suitable for raising the pumps.
4. Extent of basin liner to be determined from exploration trenches.



KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

**TAILINGS STORAGE FACILITY
SEDIMENT CONTROL AND
SEEPAGE COLLECTION**

96	CULVERTS & SEEPAGE DETAILS ADDED	
96	UPDATE ROAD & DRAINAGE	
95	BASIN LINER REVISED	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

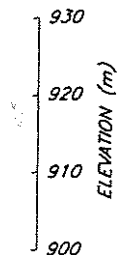
REVISIONS

DATE **JUNE 2, 1995**

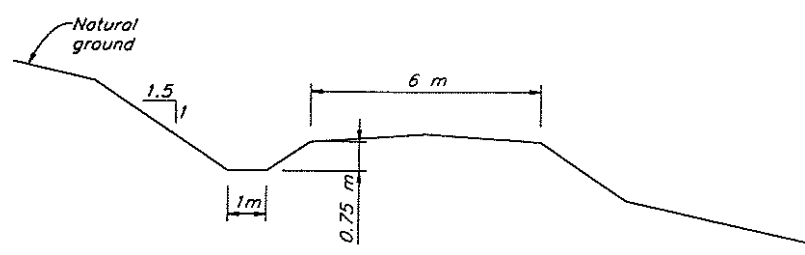
SCALE AS SHOWN

DRG. NO. **510-19-01-1625.213**

REV. **3**

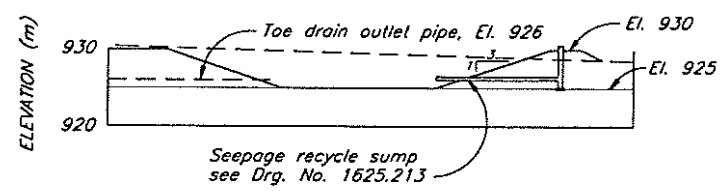


verts.
2. 1625.211



SECTION 1625.213
TYPICAL SECTION FOR BOOTJACK-MOREHEAD
CONNECTOR RELOCATION
Scale B

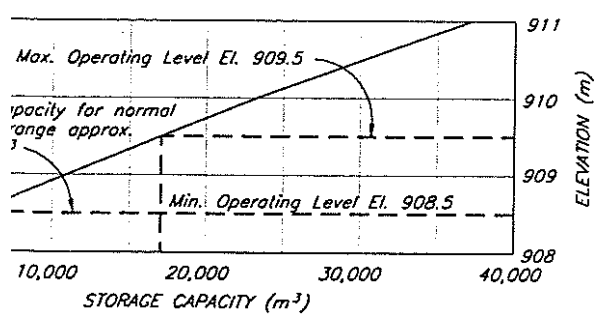
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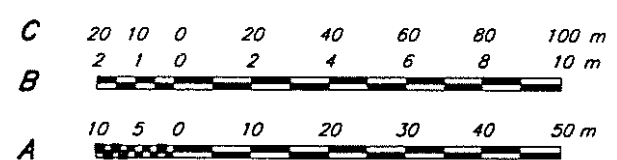
DETAIL 1625.210
PERIMETER EMBANKMENT SEEPAGE COLLECTION POND
Scale A

NOTES

1. Perimeter embankment seepage collection pond will be sized to have a min. live storage capacity of approx. 4000 m³.



**EMBANKMENT SEEPAGE COLLECTION POND
DEPTH/CAPACITY RELATIONSHIP**



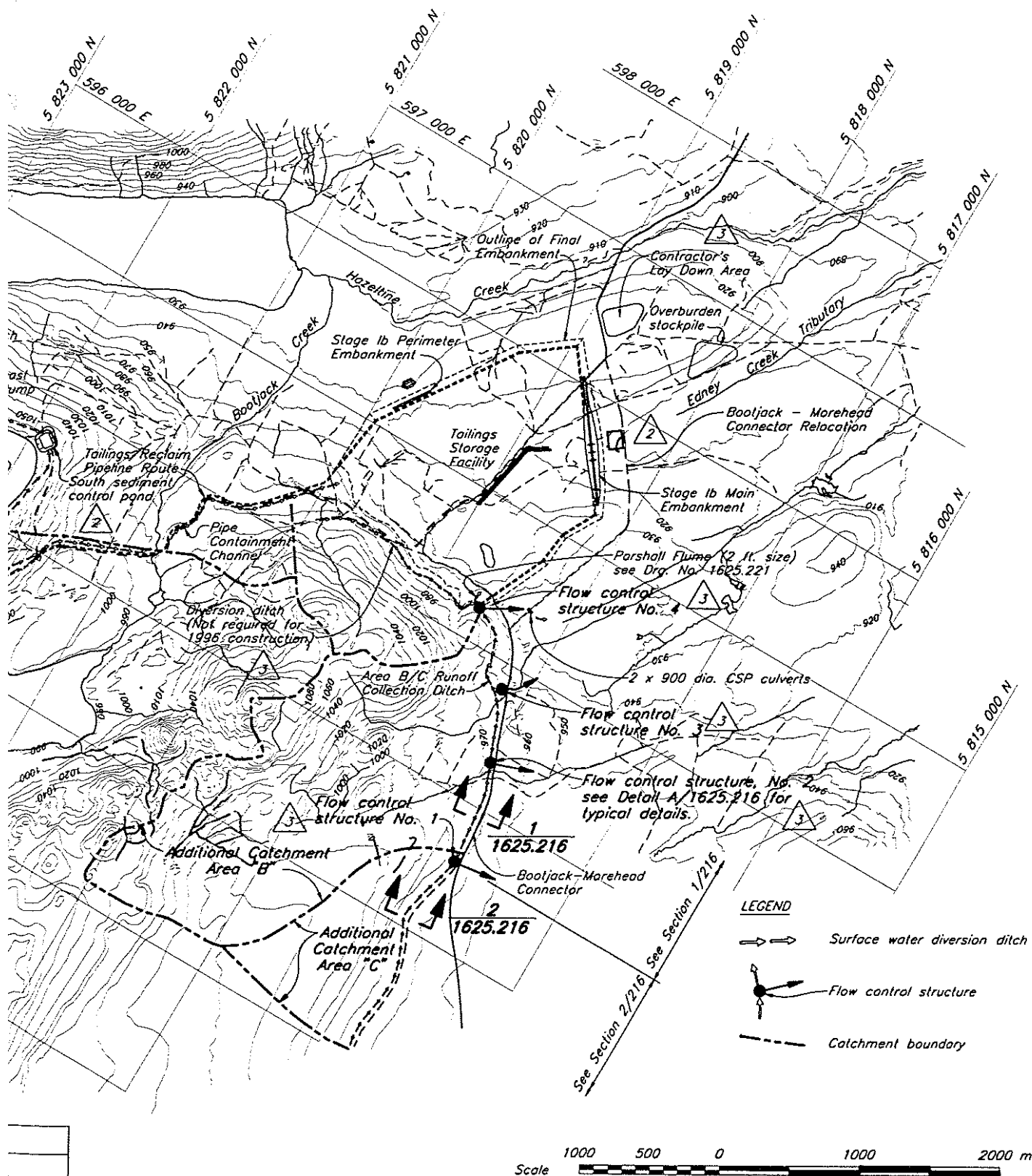
7/96	OVERFLOW CULVERTS ADDED	
1/96	UPDATE DRAINAGE AND ROAD	
5/95	ISSUED FOR CONSTRUCTION	
7/95	RIPRAP APRON ADDED	
7/95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	KDE
DRAWN	VY/NSD
CHECKED	
APPROVED	

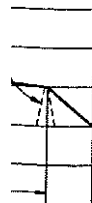
IMPERIAL METALS CORPORATION	
MT. POLLEY PROJECT	
TAILINGS STORAGE FACILITY SEDIMENT CONTROL AND SEEPAGE COLLECTION - SECTIONS AND DETAILS	

REVISIONS	DATE JUNE 2, 1995	SCALE AS SHOWN	DRG. NO. 510-19-02-1625.214	REV. 4
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CAD FILE: \PROJECT\1625\025.023 1:500 Plot 1-0.5 APRIL 1, 1996



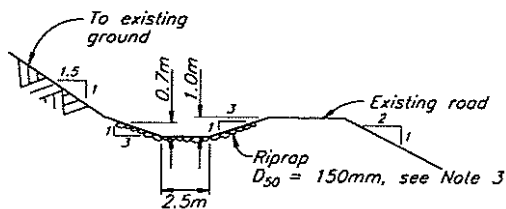
CAD FILE: PROJECT 1625.DT4.024 1-20000 Plot 1-20 APRIL 1, 1996



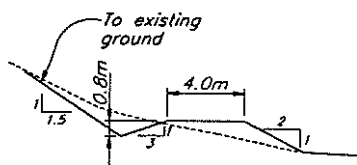
7/95	REVISED MILLSITE	
7/96	UPDATE OPEN PITS, WASTE DUMP, SITE DRAINAGE & ROADS	
7/95	SECTION LIMITS ADDED	
7/95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	MBS
DRAWN	W.A. Lahoda
CHECKED	
APPROVED	

IMPERIAL METALS CORPORATION MT. POLLEY PROJECT TAILINGS STORAGE FACILITY SURFACE WATER CONTROL PLAN AND PROFILE	
DATE	JUNE 2, 1995
SCALE	AS SHOWN
DRG. NO.	510-19-03-1625.215
REV.	3



SECTION 1625.215
Scale A



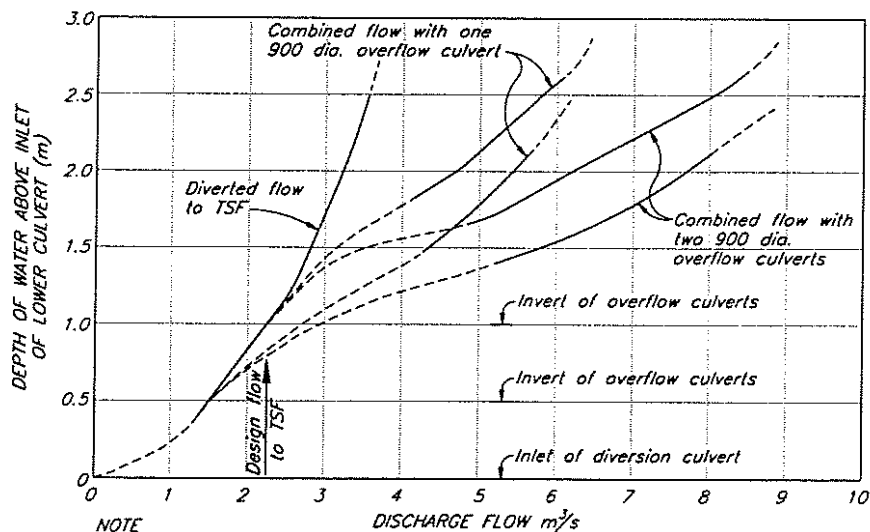
SECTION 1625.215
Scale A

NOTES

1. Detailed setting out of Area B and C runoff collection ditch and flow control structures may be adjusted by the Engineer to suit detailed topography of existing stream courses.
2. Area B and C runoff collection ditches designed for 50 yr. precipitation event peak flows.
3. Additional riprap shall be placed as directed by the Engineer based on ground conditions and local profile of ditches.
4. Flow control structures No. 1, 2 and 3 have 1 overflow culvert, No. 4 has 2 overflow culverts.
5. For flow control structure concrete or alternative details, see Drg. No. 1625.217.



DEPTH-DISCHARGE CURVES



NOTE

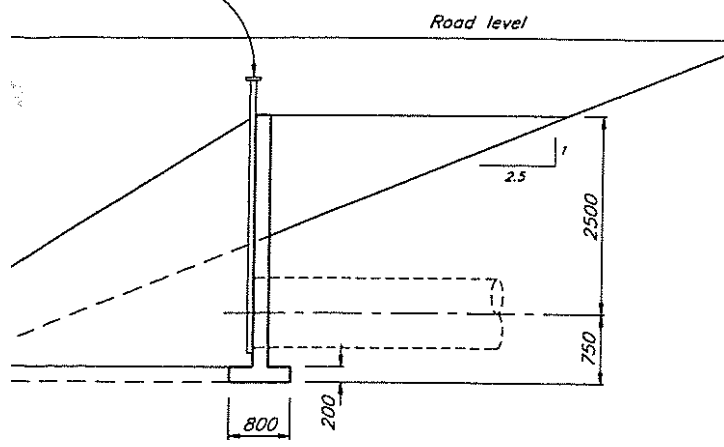
All culverts are 900 dia. (36"Ø) CMP



KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.		IMPERIAL METALS CORPORATION MT. POLLEY PROJECT	
		DESIGNED	MBS
		DRAWN	N.A. Lahoda
		CHECKED	
		APPROVED	
		TAILINGS STORAGE FACILITY SURFACE WATER CONTROL SECTIONS AND DETAILS	
DATE JUNE 2, 1995		SCALE AS SHOWN	DRG. NO. 510-19-04-1625.216
REV. 2			

96	NOTES CHANGED	
95	EXTENT OF RIPRAP DEFINED, SECTIONS REVISED	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

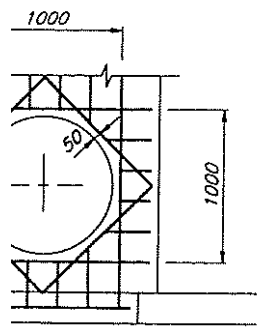
and Steel Slide
3.0 (see Note 3)



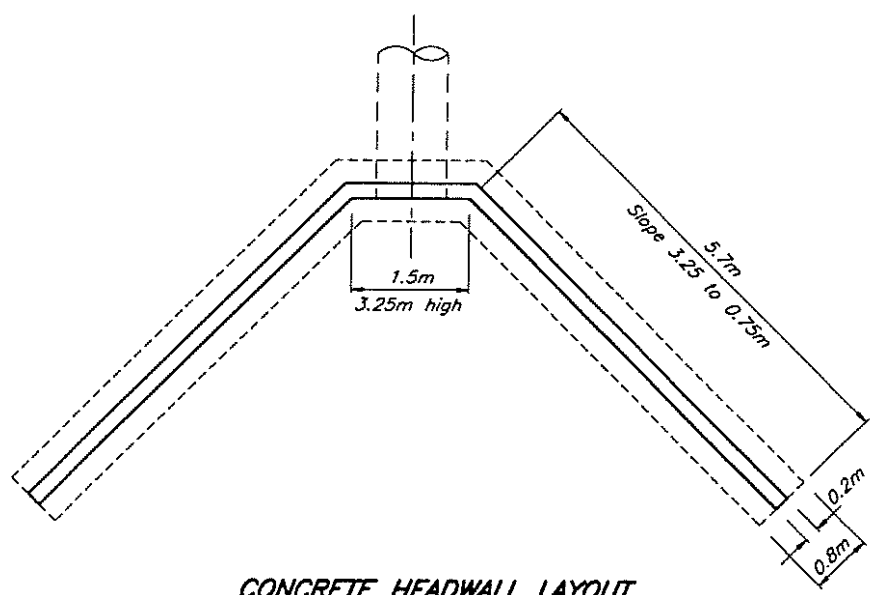
SECTION 2
Scale D

NOTES

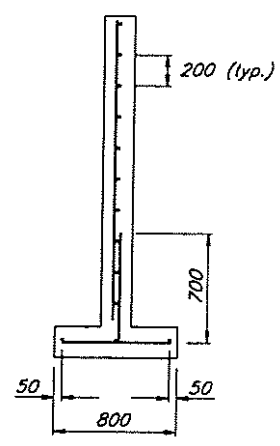
1. Flow control structures No. 1, 2 and 3 have 1 overflow culvert, No. 4 has 2 overflow culverts.
2. With the approval of the Engineer the Contractor may substitute alternatives to concrete construction including:
 - gabions
 - timber cribbing
 - concrete "lock blocks"
 - Armtec bin-wall
 - reinforced earth
 - sand bags
3. Contractor may consider Armtec Model 101C slide gate direct mounted to the culvert.



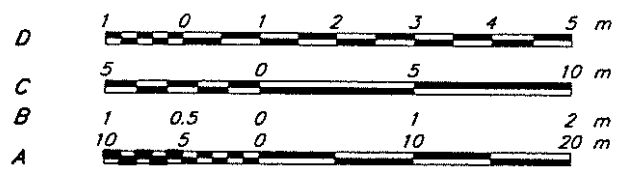
TAIL A
ING REINFORCEMENT
Scale B



CONCRETE HEADWALL LAYOUT
Scale D



WALL REINFORCEMENT
Scale B



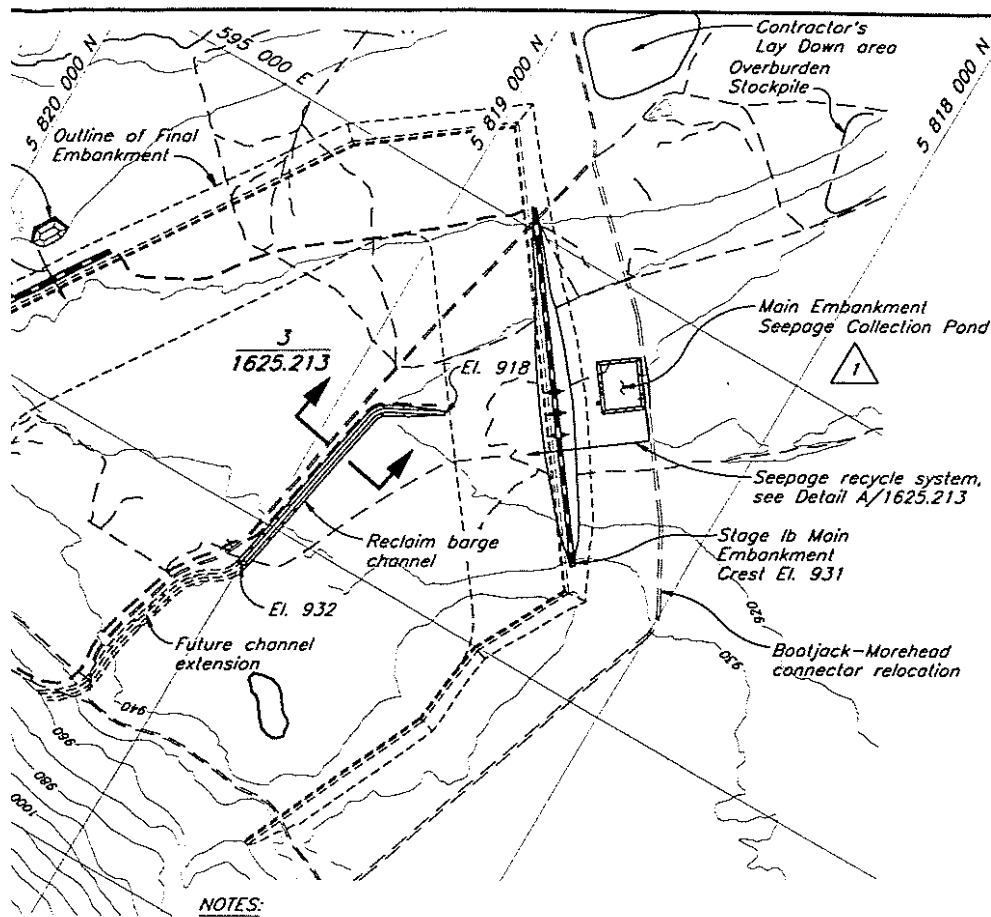
95	NOTES CHANGED	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.	
DESIGNED	MBS
DRAWN	RDY/VY
CHECKED	
APPROVED	

IMPERIAL METALS CORPORATION	
MT. POLLEY PROJECT	
TAILINGS STORAGE FACILITY SURFACE WATER CONTROL FLOW CONTROL STRUCTURES CONCRETE DETAILS	

DATE	JUNE 2, 1995	SCALE	AS SHOWN	DRG. NO.	510-19-05-1625.217	REV.	1
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CAD FILE PROJECT\1925\035\035 1:250 Plot 1=0.25 APRIL 1, 1996

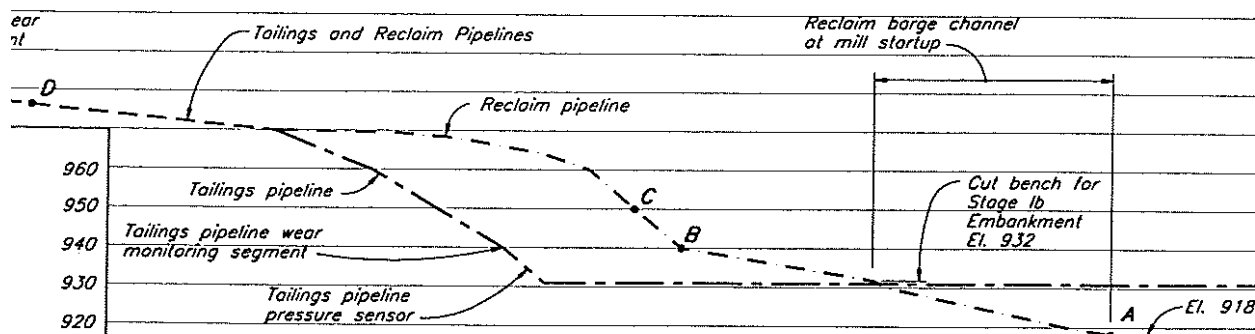


NOTES:

1. Pipe lengths and dimensions are preliminary only.
2. Pipelines assumed c/w flange joint at each 200 m.
3. Final location of cross drain culverts to be determined in the field by the Engineer.
4. Final location of Bootjack Creek crossing to be determined in the field by the Engineer.
5. Vertical exaggeration = 10 times.
6. Final locations of all mill site facilities to be determined by C.S.F.M.
7. Several short removeable lengths of flanged HDPE are to be provided in the tailings pipeline for monitoring.

SETTING OUT POINTS

Point	Northing	Easting
T1	5 822 162.499	592 716.853
TC1	5 822 212.426	592 528.348
BC	5 822 161.106	592 716.473
EC	5 822 054.012	592 642.057
PI	5 822 094.357	592 698.264
TC2	5 821 864.147	592 463.292
BC	5 821 904.766	592 434.135
EC	5 821 822.231	592 436.033
PI	5 821 862.111	592 374.711
TC3	5 821 802.714	593 016.314
BC	5 821 551.219	592 852.758
EC	5 821 517.947	592 921.933
PI	5 821 530.122	592 885.200
TC4	5 821 258.152	592 911.135
BC	5 821 495.458	592 989.786
EC	5 821 357.902	593 140.373
PI	5 821 460.320	593 095.808
TC5	5 821 034.980	593 608.059
BC	5 820 915.281	593 332.973
EC	5 820 841.176	593 379.061
PI	5 820 874.841	593 350.570
TC6	5 820 828.199	593 488.298
BC	5 820 779.748	593 431.048
EC	5 820 761.122	593 521.849
PI	5 820 734.752	593 469.130
TC7	5 820 626.968	593 588.951
BC	5 820 761.122	593 521.849
EC	5 820 724.705	593 702.739
PI	5 820 813.467	593 626.498
TC8	5 820 789.863	593 778.597
BC	5 820 724.705	593 702.739
EC	5 820 690.352	593 788.480
PI	5 820 685.206	593 736.666
TC9	5 820 626.991	593 909.389
BC	5 820 701.624	593 901.976
EC	5 820 638.300	593 983.531
PI	5 820 708.658	593 972.800
TC10	5 820 612.021	594 392.165
BC	5 820 551.708	593 996.739
EC	5 820 314.310	594 125.018
PI	5 820 410.028	594 018.349
TC11	5 820 083.239	594 494.822
BC	5 820 027.418	594 444.732
EC	5 820 008.600	594 487.469
PI	5 820 011.009	594 463.018
T2	-	-
T3	-	-



KNIGHT PIESOLD LIMITED

CONSULTING ENGINEERS - VANCOUVER, B.C.

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

TAILINGS STORAGE FACILITY TAILINGS DISTRIBUTION AND RECLAIM SYSTEM - PLAN AND PROFILE

16	MILLSITE AND CONTROL POND REVISED
36	RE-ISSUED FOR TENDER
35	ISSUED FOR TENDER

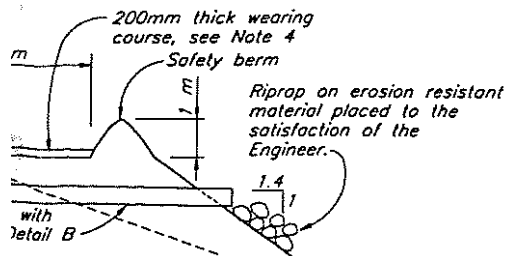
DESCRIPTION	APPROVED
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DATE JUNE 2, 1995

SCALE AS SHOWN

DRG. NO. 510-61-01-1625.218

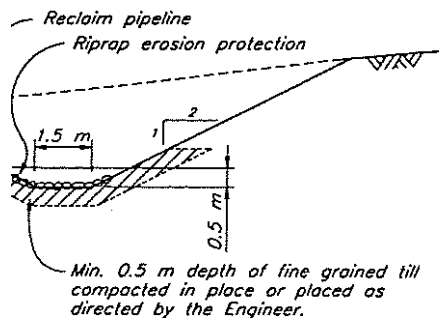
REV. 2



tion
ill backfill
place

2
1.218

TAILINGS ACCESS ROAD,
CK CREEK



218

CONTAINMENT CHANNEL,
STORAGE FACILITY

Protect the inlet of culverts from encroachment of road embankment fill materials

Construct catch basin adjacent to the inlet of cross-drain culverts

Except where ditch water converges at the culvert, install ditchblocks immediately downstream of all cross-drain culvert inlets.

Construct the crest of ditchblocks lower than the road shoulder.

Skew culvert to road centreline by 15 degrees, with a minimum slope of 2%

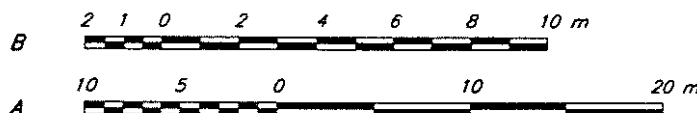
Protect the outlet of culverts from encroachment of road embankment fill materials

Protect unstable or erodible fill at culvert outlets with flumes, riprap or other erosion resistant materials

DETAIL B
TYPICAL CROSS-DRAIN CULVERT

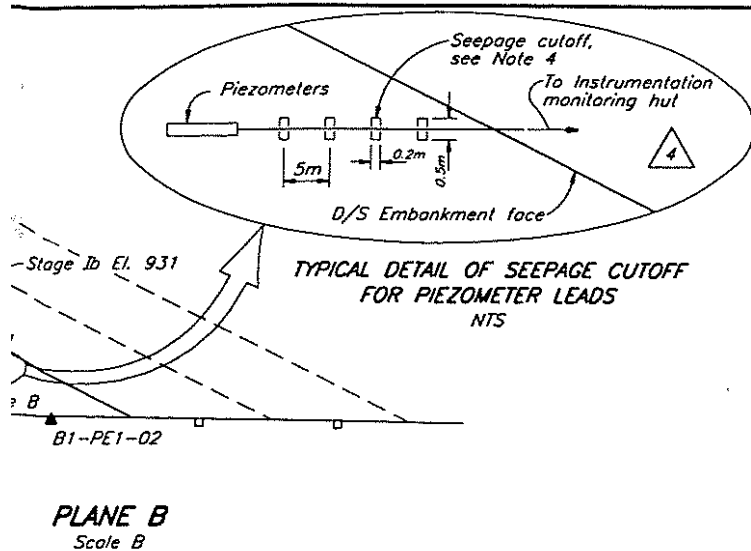
NOTE

1. Wearing course required for Tailings Access Road and Bootjack-Morehead connector relocation only.



KNIGHT PIESOLD LIMITED		IMPERIAL METALS CORPORATION	
CONSULTING ENGINEERS - VANCOUVER, B.C.		MT. POLLEY PROJECT	
	DESIGNED	MBS	TAILINGS STORAGE FACILITY TAILINGS DISTRIBUTION AND RECLAIM SYSTEM - SECTIONS AND DETAILS
	DRAWN	VY	
	CHECKED		
	APPROVED		
DATE JUNE 2, 1995		SCALE AS SHOWN	REV. 1

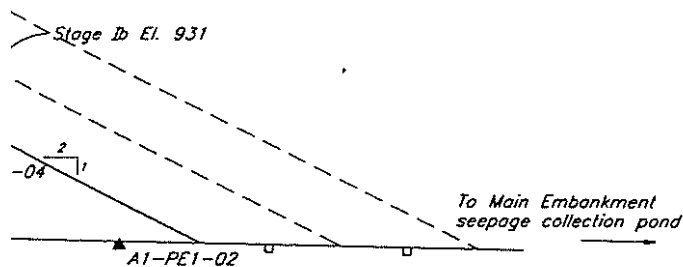
'96	RE-ISSUED FOR TENDER	
'95	ISSUED FOR TENDER	
REVISIONS		APPROVED



SUMMARY OF PIEZOMETERS LEAD LENGTHS	
PIEZOMETER No.	LEAD LENGTH (m)
A0-PE2-01	250
A1-PE1-01	175
A1-PE1-02	150
A1-PE1-03	175
A2-PE2-01	200
A2-PE2-02	200
A2-PE2-03	175
A2-PE2-04	175
A2-PE2-05	175
B0-PE2-01	350
B1-PE1-01	300
B1-PE1-02	275
B1-PE1-03	300
B2-PE2-01	325
B2-PE2-02	325
B2-PE2-03	325
B2-PE2-04	300
B2-PE2-05	325
C1-PE1-01	325
C2-PE2-01	356
C2-PE2-02	350
C2-PE2-03	325
C2-PE2-04	325
C2-PE2-05	325

NOTES

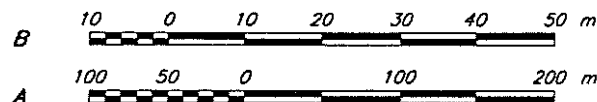
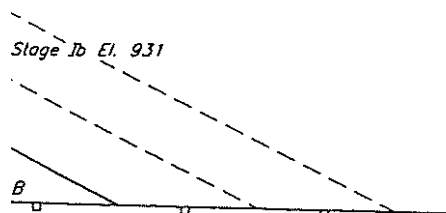
- Piezometers are vibrating type, RST model VW-2100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non-vented model VW-232 direct burial cable.
- Piezometer leads are to be extended to a prefabricated monitoring hut located downstream of the final embankment toe.
- Future survey monuments not shown. A minimum of 2 monuments will be installed for each embankment raise.
- Seepage cutoffs placed at 5m intervals with 10% bentonite added to fine grained till backfill



LEGEND

- Plane I.D. (A, B etc.)
- Area (0-Tailings, 1-Drain, 2-Embankment)
- A0-PE1-01--Number I.D.
- Pressure Rating (1-Low, 2-High)
- Type of Instrumentation (PE-Piezometer electric, SM-Survey Monument)

- A0-PE2-01 ▲ Tailings mass piezometer
- A1-PE1-01 ▲ Embankment foundation drain and toe drain piezometer
- A2-PE2-01 ▲ Embankment foundation and fill piezometer
- A2-SM-01 ◇ Embankment survey monument
- △ Future Piezometers



PLANE C Scale B

REVISIONS	DESCRIPTION	APPROVED
'96	ROAD UPDATED	
'96	REVISED SEEPAGE COLLECTION POND	
'95	BASIN GROUNDWATER DRAINS REVISED	
'95	ISSUED FOR TENDER	

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

DESIGNED GRG
DRAWN RDT/VY
CHECKED
APPROVED

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

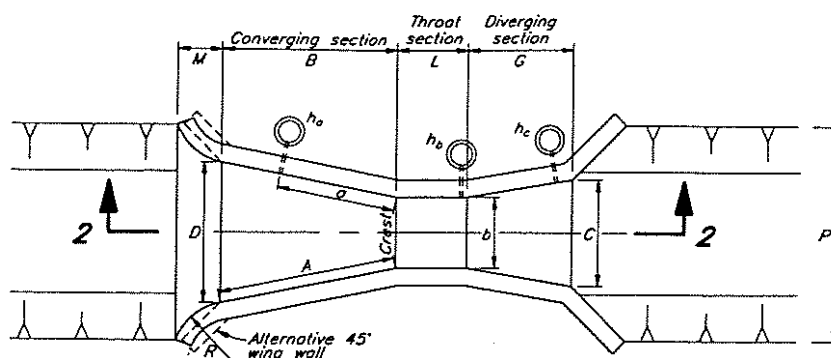
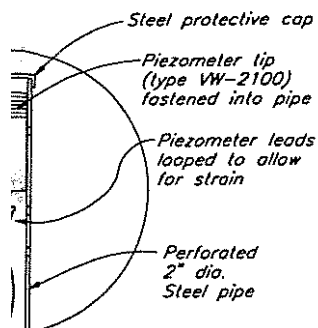
**TAILINGS STORAGE FACILITY
INSTRUMENTATION**

DATE **JUNE 2, 1995**

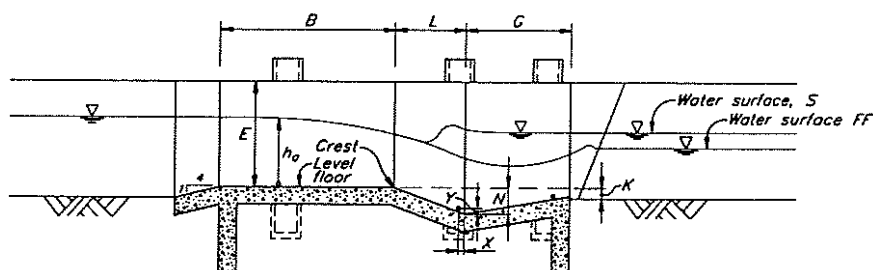
SCALE AS SHOWN

DRG. NO. **510-77-01-1625.220**

REV. **4**

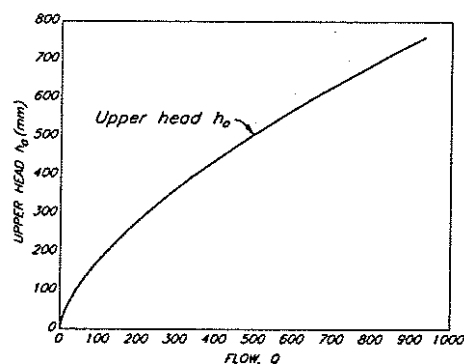


PARSHALL FLUME (2 FT. SIZE) - PLAN
DETAIL B/1625.215



SECTION 2

FLOW MEASUREMENT FOR INFLOWS TO TAILINGS STORAGE FACILITY
AREA B RUNOFF COLLECTION AND TAILINGS AREA DIVERSION DITCHES

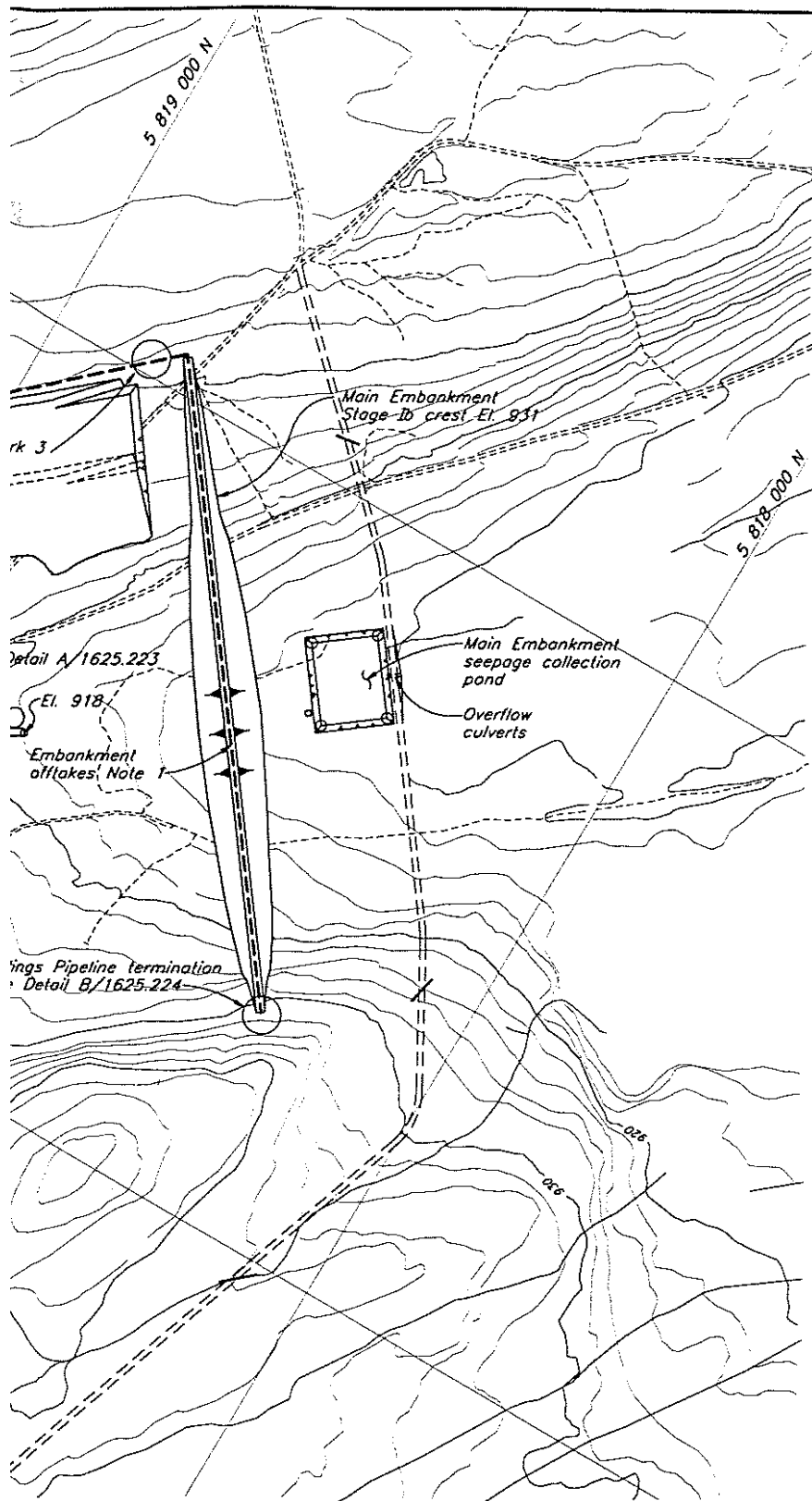


Dimensions for Parshall flume with throat width b_c of 2 feet.	
b_c	609.6
A	1524
a	1016
B	1495
C	914
D	1206
E	914
L	610
G	914
H	-
K	76
M	381
N	229
P	1854
R	508
X	51
Y	76
Z	-



KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.		IMPERIAL METALS CORPORATION	
DESIGNED KDE/MBS		MT. POLLEY PROJECT	
DRAWN VY		TAILINGS STORAGE FACILITY INSTRUMENTATION SECTIONS AND DETAILS	
CHECKED			
APPROVED			
DATE	JUNE 2, 1995	SCALE AS SHOWN	DRG. NO. 510-77-02-1625.221 REV. 2

96	NOTE ADDED	
96	GROUNDWATER DRAINS REMOVED	
95	ISSUED FOR TENDER	
	DESCRIPTION	APPROVED
REVISIONS		

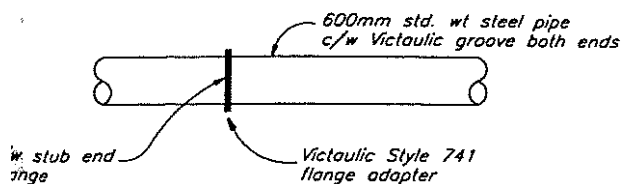


NOTES

1. 36 offtakes across embankment crest with Mark 3 at 150 m and mark 2 at 25 m, between. See Drg. No. 1625.224 for mark details.
2. All bends in tailings and reclaim pipelines are made using natural flexibility of pipe unless otherwise noted.
3. Mark 3 offtakes located at 600 m, 1200 m, 1800 m and 2100 m approximately, Mark 1 Dump Valve and Main Embankment with Mark 2 offtakes at 100 m intervals between. See Drg. No. 1625.224 for mark details.

CDD FILE: 1625.047.042 1:5000 Plot 1-5 Apr 1, 1996

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.		IMPERIAL METALS CORPORATION	
		MT. POLLEY PROJECT	
		TAILINGS STORAGE FACILITY TAILINGS IMPOUNDMENT TAILINGS AND RECLAIM PIPEWORK PLAN	
6 ISSUED FOR INFORMATION	DESIGNED	HPD	
	DRAWN	AW/RDT	
	CHECKED		
	APPROVED		
REVISIONS		DATE	APRIL 1, 1996
		SCALE AS SHOWN	ORG. NO. 1625.222
		REV.	B

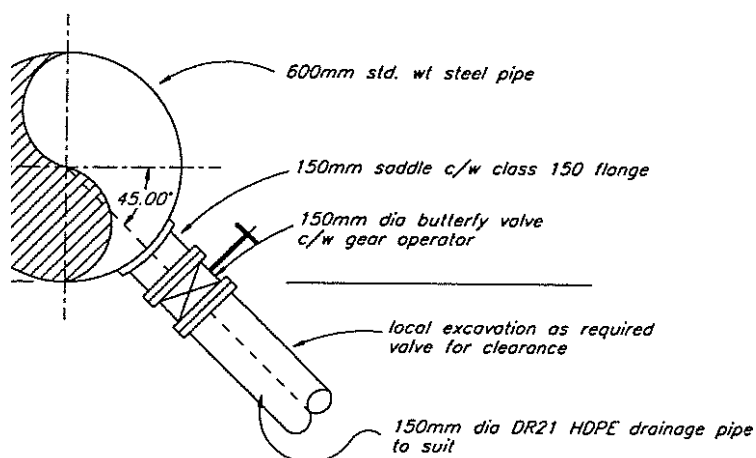


NOTES

1. Initial 600 dia. steel pipe in 6m lengths for 300m, random lengths thereafter.
2. Barge supplied and installed by Others.

DETAIL B **1625.222** **RECLAIM PIPELINE HDPE TO** **STEEL PIPE INTERCONNECTION**

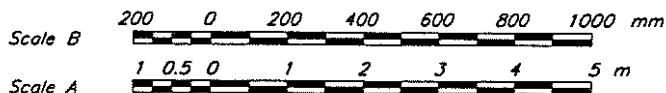
Scale a



DETAIL B

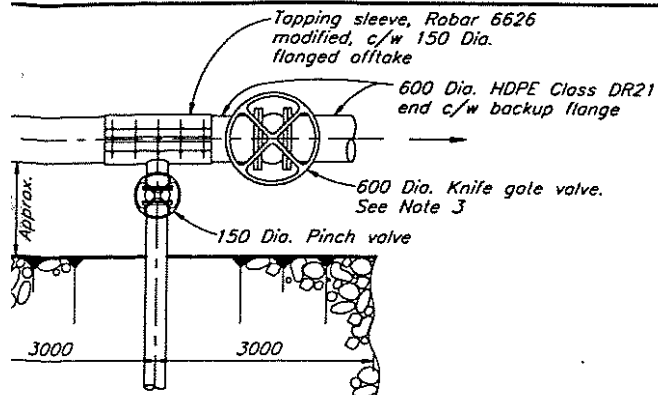
RECLAIM PIPELINE DRAINAGE OFFTAKE

Scale b



KNIGHT PIESOLD LIMITED		IMPERIAL METALS CORPORATION	
CONSULTING ENGINEERS - VANCOUVER, B.C.		MT. POLLEY PROJECT	
	DESIGNED	TAILINGS STORAGE FACILITY RECLAIM PIPELINE DETAILS	
	HPD		
	DRAWN		
	AW/RDT		
CHECKED			
APPROVED			
DATE		SCALE AS SHOWN	DRG. NO.
MARCH 25, 1996			1625.223
REV. A			

ISSUED FOR INFORMATION	DESCRIPTION	APPROVED
96		
REVISIONS		

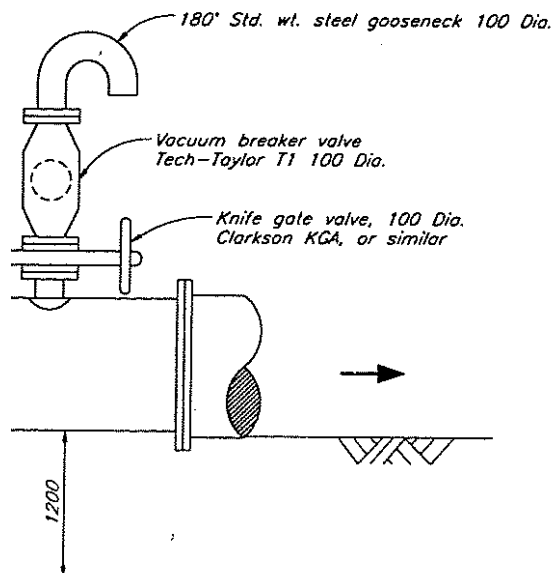


NOTES

1. Rubber lining to be Linatex PGR or approved equivalent.
2. Pipe restraint by local burial of pipeline or as otherwise required by the Engineer.
3. 600 dia. Knife Gate Valve c/w hydraulic operator. One portable hydraulic power pack to be supplied for valve operation.

TAILINGS HEADER OFFTAKE VALVE (TYPICAL) (MARK 3) (10 No)

NTS



VACUUM BREAKER VALVE ASSEMBLY (2 No)

NTS



or similar as
by the Engineer
ion protection

ISSUED FOR INFORMATION

DESCRIPTION

APPROVED

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

DESIGNED HPD

DRAWN AW/RDT

CHECKED

APPROVED

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

**TAILINGS STORAGE FACILITY
TAILINGS DISTRIBUTION SYSTEM
DETAILS**

DATE **MARCH 25, 1996**

SCALE AS SHOWN

DRG. NO.

1625.224

REV. **A**

Precast concrete box section
2400 x 1500

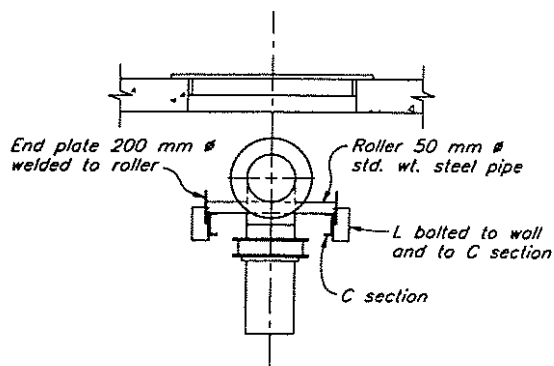
Assumed 550 mm
R 21 HDPE from Mill

Vent and overflow
not shown

To tailings
discharge

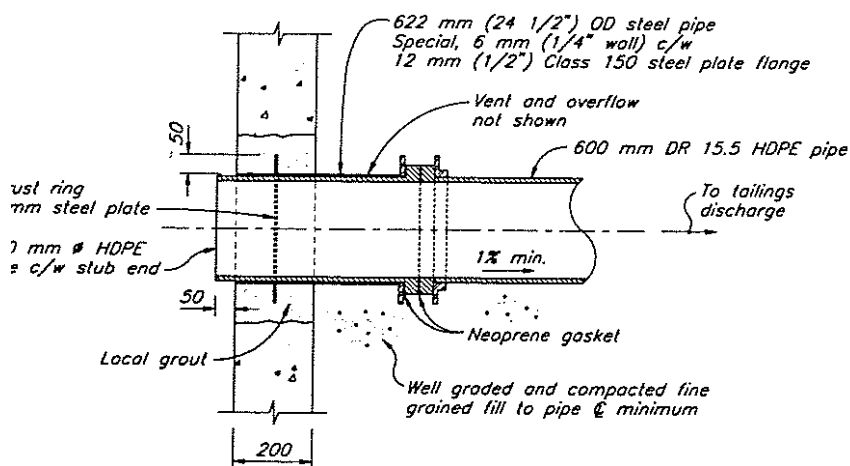
TYPICAL TAILINGS DROP BOX

NTS



SECTION 2

NTS



DETAIL A DISCHARGE PIPELINE

NTS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

**TAILINGS STORAGE FACILITY
TAILINGS PIPEWORK DETAILS**

DESIGNED HPD

DRAWN AW/RDT

CHECKED

APPROVED

'96	ISSUED FOR INFORMATION	APPROVED
	DESCRIPTION	

REVISIONS

DATE **MARCH 25, 1996**

SCALE AS SHOWN

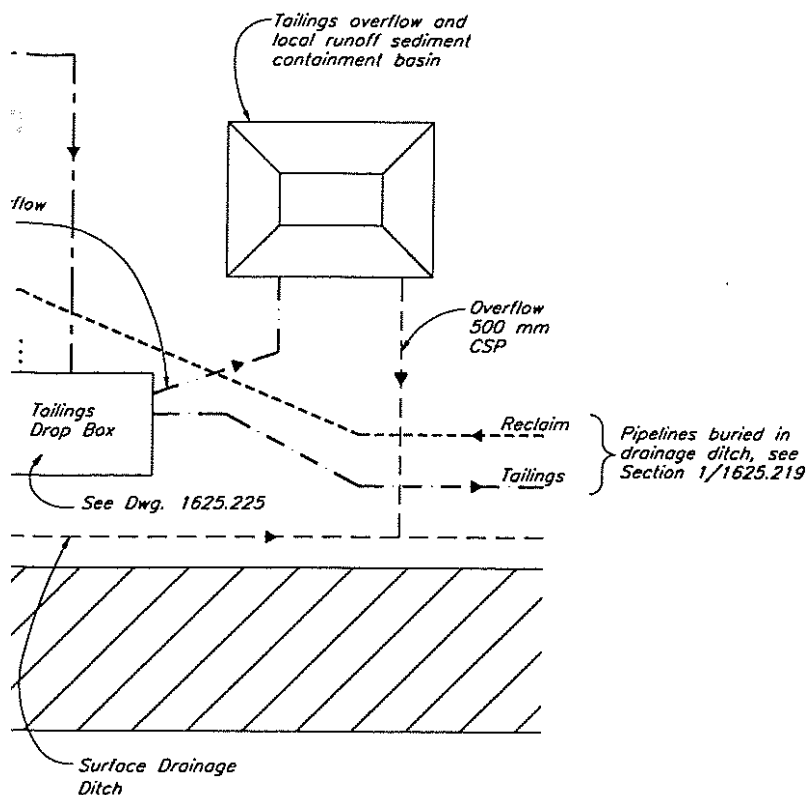
DRG. NO.

1625.225

REV. **A**

NOTES

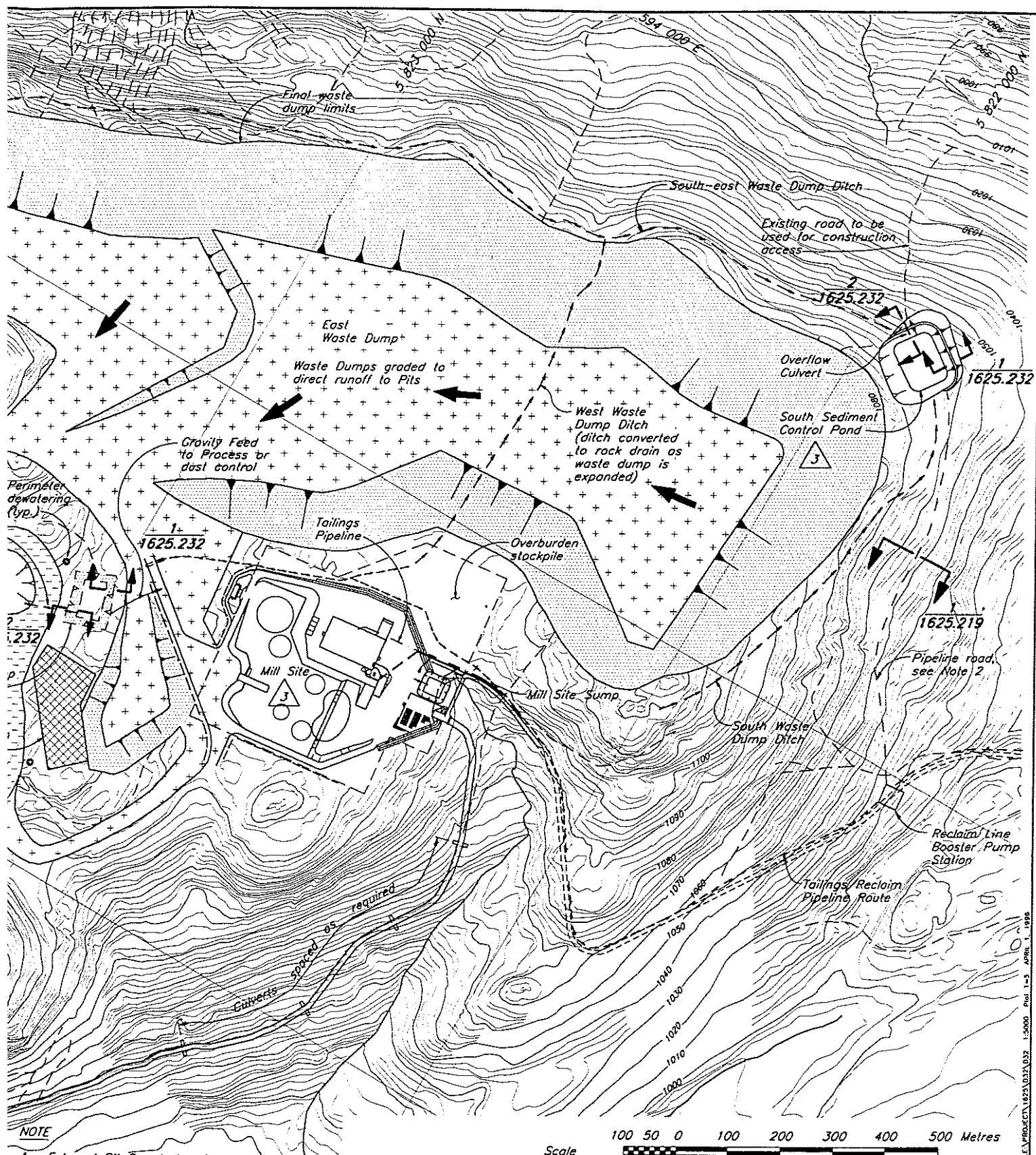
1. Booster pumpstation pumps and superstructure supplied by Others.
2. Pipework and earthworks layout and details not yet completed.



Scale 2 1 0 2 4 6 8 10 m

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.		IMPERIAL METALS CORPORATION	
		MT. POLLEY PROJECT	
		TAILINGS STORAGE FACILITY BOOSTER PUMP STATION DETAILS	
		DESIGNED	HPD
		DRAWN	AW/RDT
		CHECKED	
		APPROVED	
DATE	APRIL 1, 1996	SCALE AS SHOWN	DRG. NO. 1625.226
REV. B			

796	ISSUED FOR INFORMATION	
	DESCRIPTION	APPROVED
REVISIONS		



* SIGNATURES AND PROFESSIONAL SEAL ON REV.D ORIGINAL

KNIGHT PIESOLD LIMITED	
CONSULTING ENGINEERS - VANCOUVER, B.C.	
*	DESIGNED KDE/MM
	DRAWN RDT/VY/NSD
	CHECKED *
	APPROVED *

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT

DRAINAGE PLAN
MINE SITE

96	UPDATE DRAINAGE, MILLSITE & SOUTH SEDIMENT CONTROL POND	
96	UPDATED OPEN PITS, WASTE DUMPS, SITE DRAINAGE	
95	ISSUED FOR CONSTRUCTION	
DESCRIPTION	APPROVED	

REVISIONS

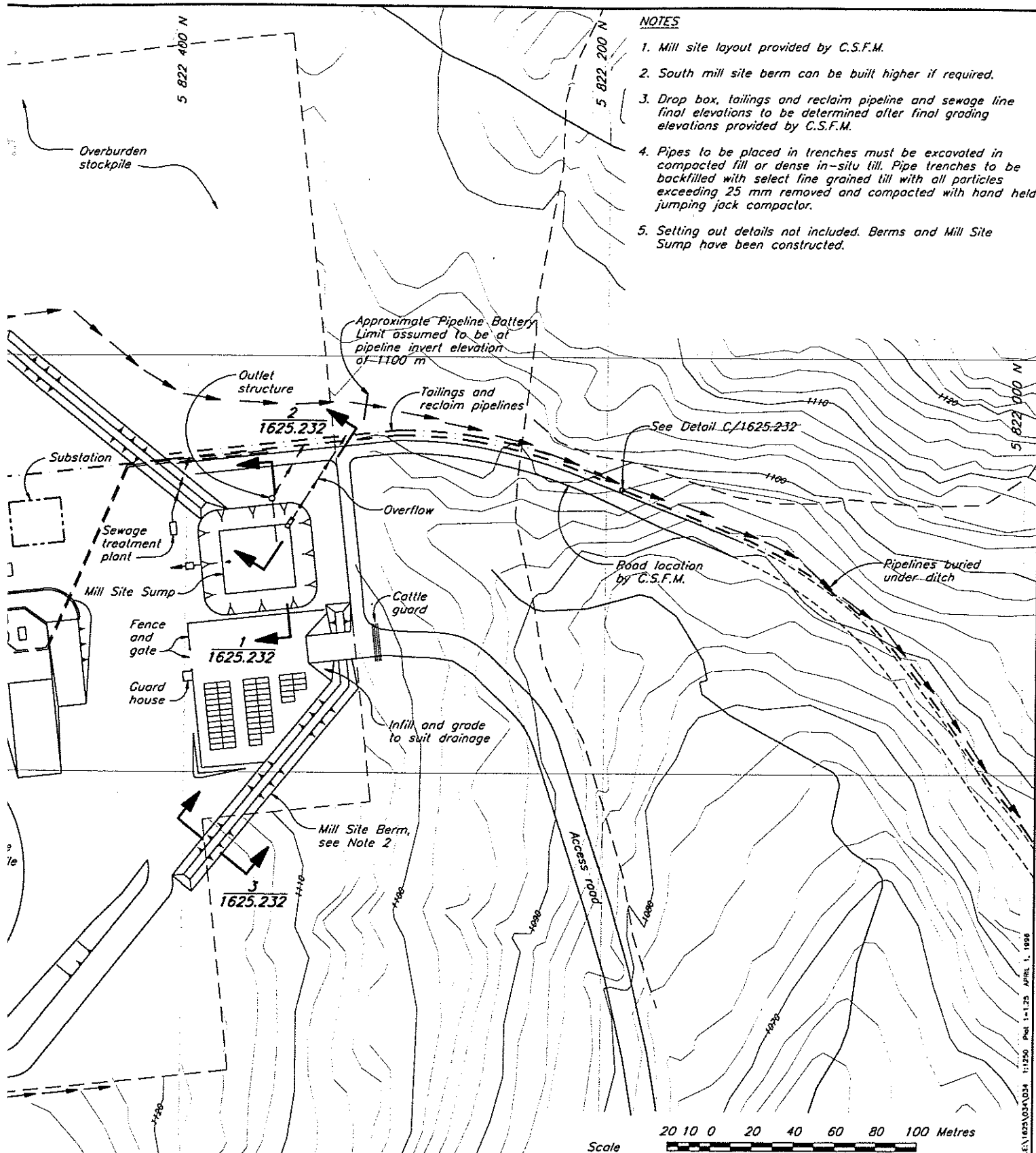
DATE AUGUST 24, 1995

SCALE AS SHOWN

DRG. NO.

1625.230

REV. 3



NOTES

1. Mill site layout provided by C.S.F.M.
2. South mill site berm can be built higher if required.
3. Drop box, tailings and reclaim pipeline and sewage line final elevations to be determined after final grading elevations provided by C.S.F.M.
4. Pipes to be placed in trenches must be excavated in compacted fill or dense in-situ till. Pipe trenches to be backfilled with select fine grained till with all particles exceeding 25 mm removed and compacted with hand held jumping jack compactor.
5. Setting out details not included. Berms and Mill Site Sump have been constructed.

* SIGNATURES AND PROFESSIONAL SEAL ON REV.0 ORIGINAL

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

**DRAINAGE PLAN
MILL SITE**

'96	MILL SITE REVISED	
'96	ADD BATTERY LIMIT	
'96	UPDATE DRAINAGE AND MILLSITE	
'96	RELOCATED OPEN PIT SUMP	
'95	ISSUED FOR CONSTRUCTION	
DESCRIPTION		APPROVED

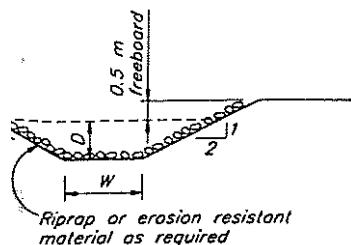
*	DESIGNED	MM/KDE
	DRAWN	VY/NSD/RDT
	CHECKED	*
	APPROVED	*

DATE **AUGUST 24, 1995**

SCALE AS SHOWN

DRG. NO. **1625.231**

REV. **4**

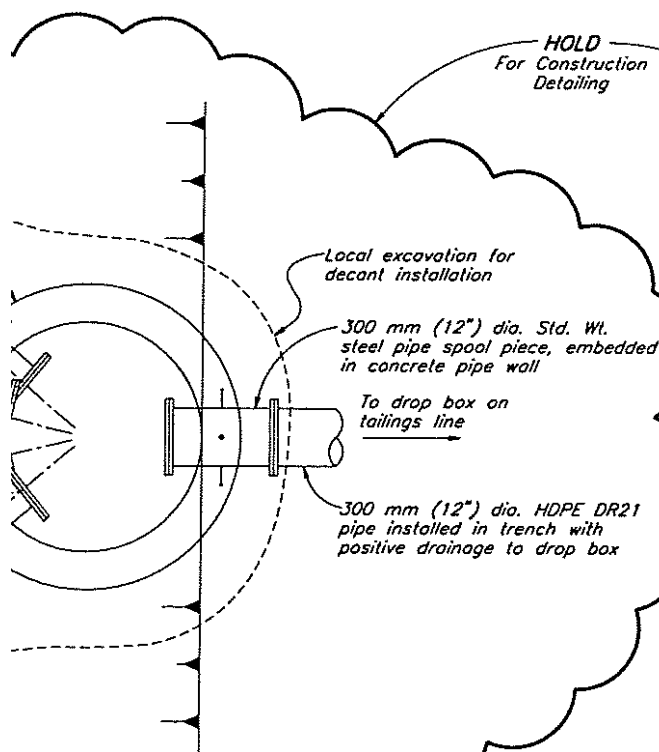


DITCH DIMENSIONS		
Ditch	W(m)	D(m)
All Mill Site Diversion Ditches	1.0	0.35
All Waste Dump Ditches	1.0	0.6

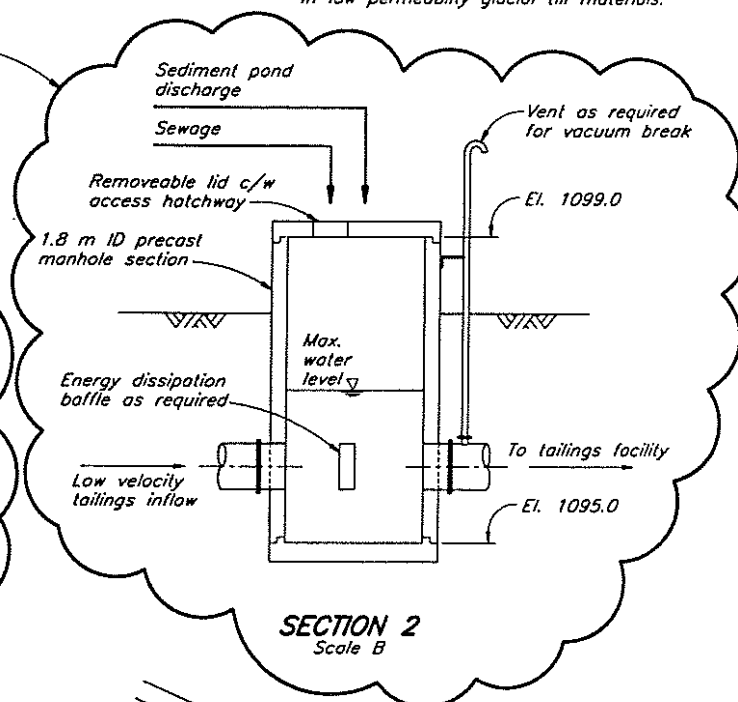
NOTES

1. Pipe elbows provided for oil skimming.
2. Sediment control berm to be constructed using suitable glacial till materials from local excavations.
3. Mill site berm to be constructed with material excavated during site preparation. All soil types can be placed in the berm, but they must be separated.
4. Mill site berm to be constructed in max. 0.5 m lifts, with compaction provided by trackwalking the surface prior to placement of the next lift.
5. Silt fence and hay bales provided for sediment control.
6. Rockfill to comprise clean coarse gravel and cobbles.
7. All pond excavations and fill sections to be completed in low permeability glacial till materials.

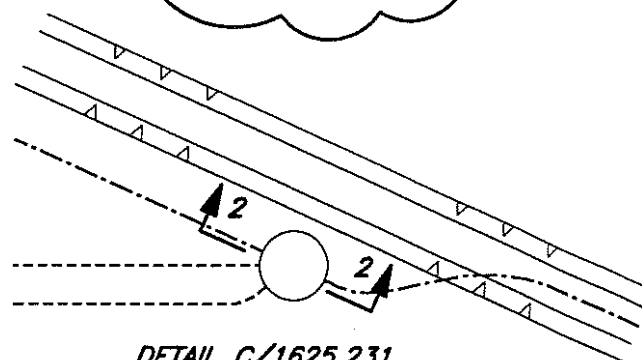
SECTION 1625.231
WASTE DITCH SECTION
Scale A



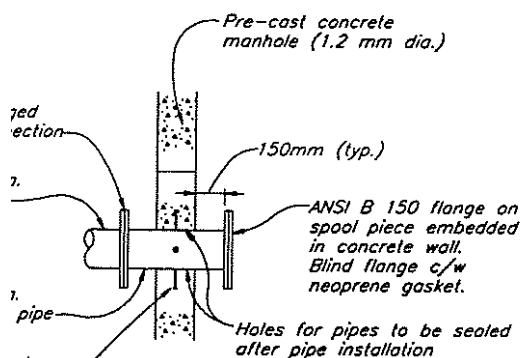
SECTION 1
Scale C



SECTION 2
Scale B



DETAIL C/1625.231
Scale A



DETAIL A
Scale C

	400	0	400	800	1200	1600	2000
C	1	0.5	0	1	2	3	4
B	2	1	0	2	4	6	8
A	2	1	0	2	4	6	8

* "SIGNATURES AND PROFESSIONAL SEAL ON REV.0 ORIGINAL"

KNIGHT PIESOLD LIMITED CONSULTING ENGINEERS - VANCOUVER, B.C.		IMPERIAL METALS CORPORATION	
*		MT. POLLEY PROJECT	
		DRAINAGE PLAN SECTIONS AND DETAILS	
DATE AUGUST 24, 1995		SCALE AS SHOWN	DRG. NO. 1625.232
REV. 3			

REVISIONS	DESCRIPTION	APPROVED
7/96	UPDATE SEDIMENT CONTROL POND	
7/96	UPDATE SEDIMENT CONTROL POND	
7/96	UPDATE DITCHES AND NOTE 3 ADDED	
7/95	ISSUED FOR CONSTRUCTION	