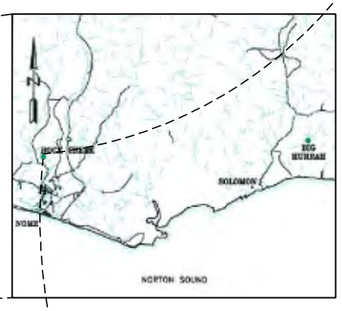
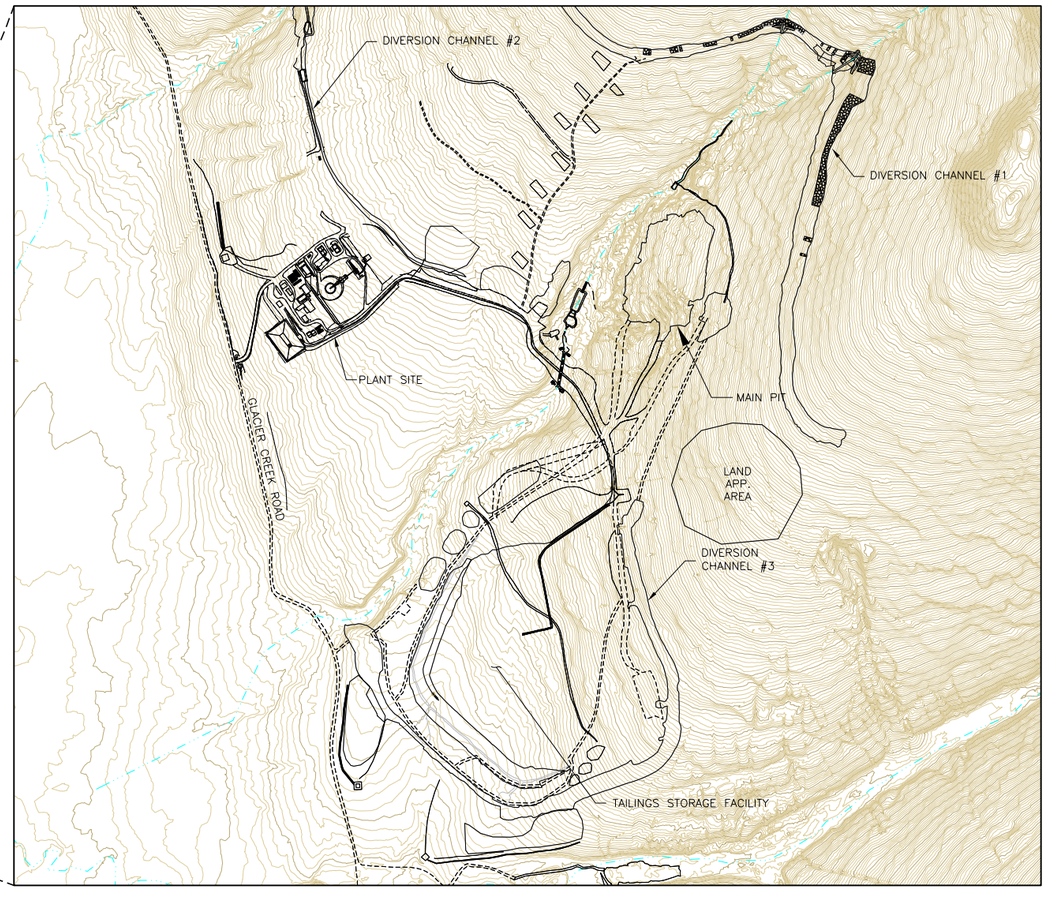
FINAL DESIGN
ROCK CREEK MINE
CLOSURE AND RECLAMATION PLAN
NOME, ALASKA

PRELIMINARY
NOT FOR CONSTRUCTION-
FOR REVIEW PURPOSES ONLY

REGIONAL MAP
NOT TO SCALE



PROJECT VICINITY MAP
NOT TO SCALE



PROJECT LOCATION MAP
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Title:
PROJECT LOCATION MAP

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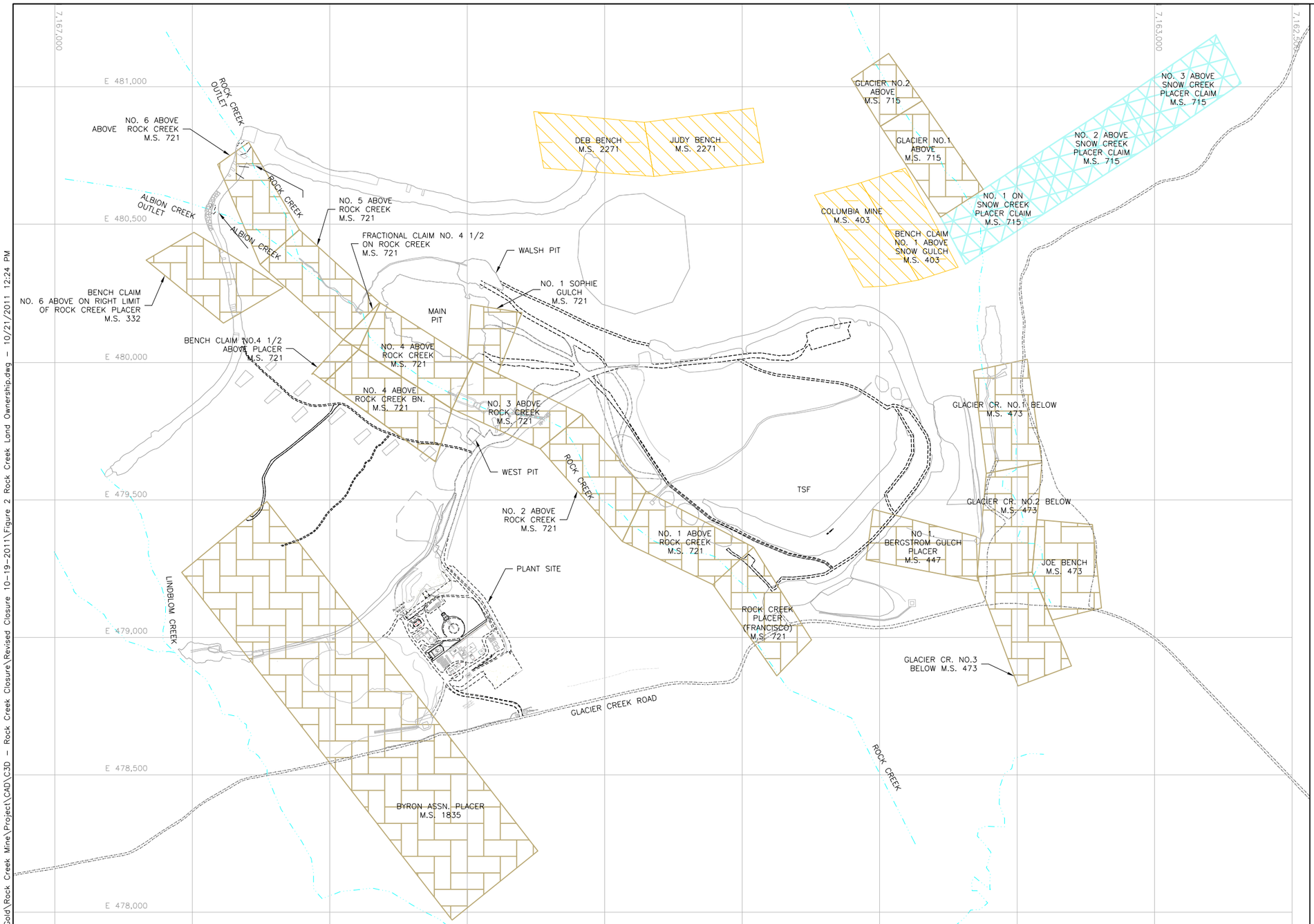
Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

Figure 1

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\1 Project Location Map.dwg – 9/27/2011 6:29 AM



LEGEND:

- EXISTING ROADS
- EXISTING DRAINAGE
- EXISTING FACILITIES
- EXISTING TAILINGS DISTRIBUTION PIPES
- EXISTING INJECTION FIELD PIPES
- AGC – SURFACE/SUBSURFACE
- KELLIHER
- SITNASUAK SURFACE/BSNC SUBSURFACE (MINERAL SURVEY)

ALL OTHER LAND: SITNASUAK SURFACE/BSNC SUBSURFACE (MINERAL SURVEY)

N

SCALE
75m 0 75m150m
SCALE IN METERS
CONTOUR INTERVAL 2m

BASE TOPOGRAPHY PROVIDED BY NOVA GOLD – 2004.

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LAND OWNERSHIP

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REVISION

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Project no.: 114-311141
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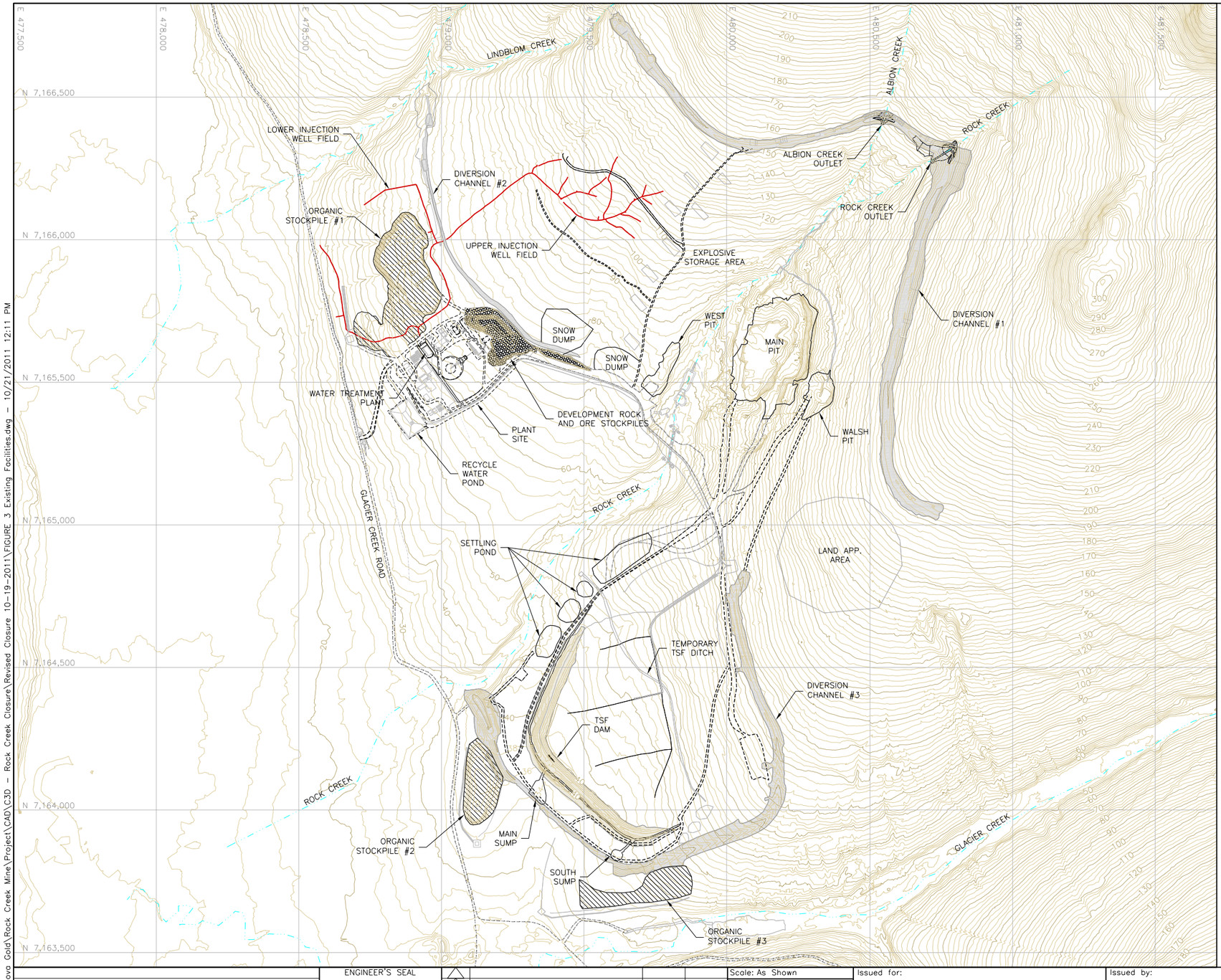
Date: 10/11

FIGURE 2

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\Figure 2 Rock Creek Land Ownership.dwg – 10/21/2011 12:24 PM



LEGEND:

- 135 — EXISTING CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- EXISTING FACILITIES
- EXISTING TAILINGS DISTRIBUTION PIPES
- EXISTING INJECTION FIELD PIPES
- ORGANIC SOIL STOCKPILE
- DEVELOPMENT ROCK AND ORE STOCKPILES
- TSF DAM
- DIVERSION CHANNEL

N

SCALE
75m 0 75m150m
SCALE IN METERS
CONTOUR INTERVAL 2m

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EXISTING FACILITIES

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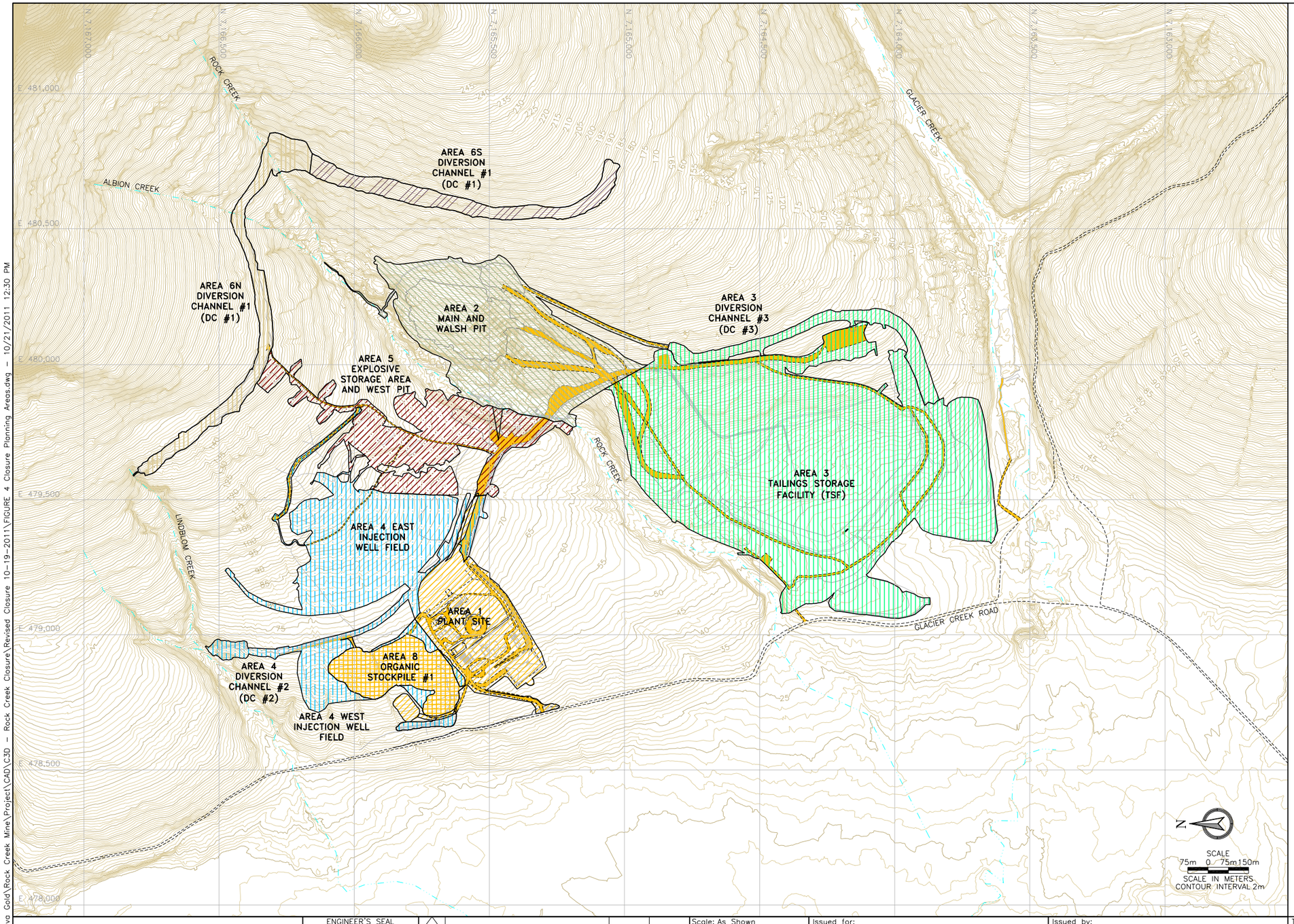
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 3

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 3 Existing Facilities.dwg – 10/21/2011 12:11 PM



LEGEND:

- 135 — EXISTING CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- AREA 1 – PLANT SITE, MONOFILL, AND DEVELOPMENT ROCK/ORE STOCKPILE
- AREA 2 – MAIN AND WALSH PIT
- AREA 3 – TSF AND DC #3
- AREA 4 – INJECTION WELL FIELD AND DC #2
- AREA 5 – EXPLOSIVE STORAGE AREA AND WEST PIT
- AREA 6N – DC#1 NORTH
- AREA 6S – DC#1 SOUTH
- AREA 7 – ROADS AND CAUSEWAY
- AREA 8 – ORGANIC STOCKPILE #1 AREA
- AREA 9 – STAGING AREA (TO BE DETERMINED)

N

SCALE
75m 0 75m150m
SCALE IN METERS
CONTOUR INTERVAL 2m

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CLOSURE PLANNING AREAS

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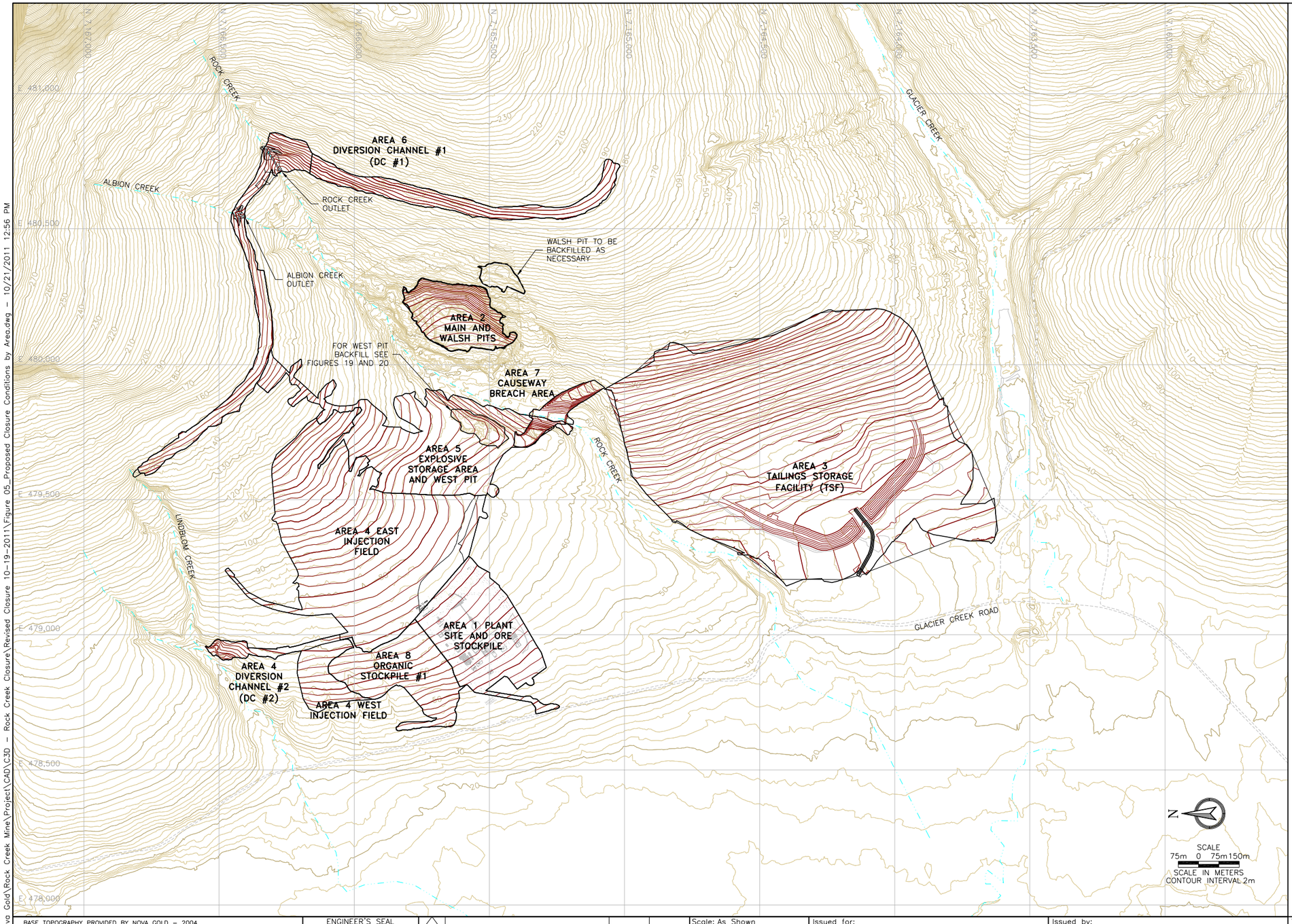
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 4

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 4 Closure Planning Areas.dwg – 10/21/2011 12:30 PM



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RIPRAP

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PROPOSED CLOSURE CONDITIONS BY AREA

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Project: ROCK CREEK MINE CLOSURE

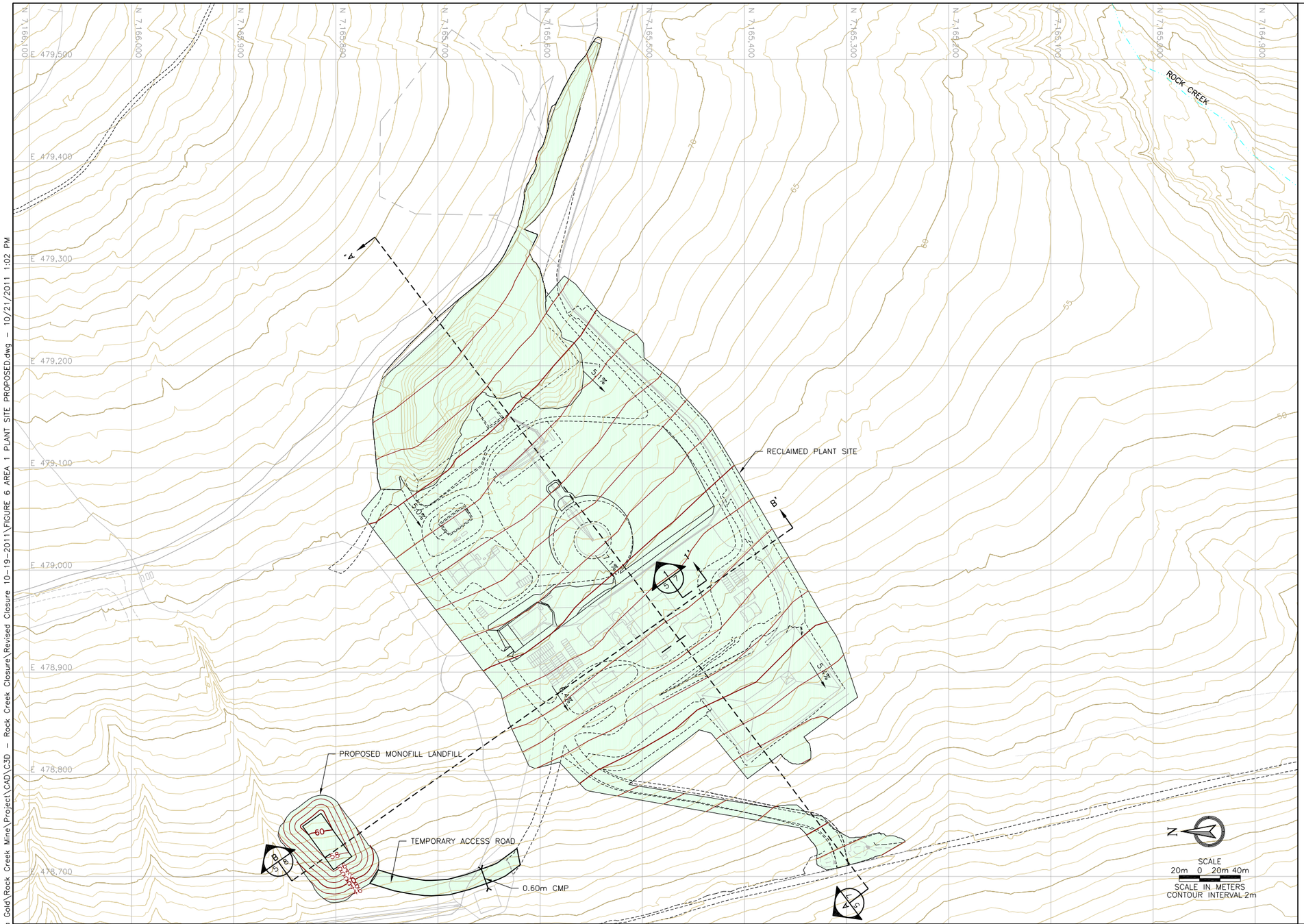
Project no.: 114-311141

Location: NOME, ALASKA

Date: 10/11

FIGURE 5

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\Figure 05_Proposed Closure Conditions by Area.dwg – 10/21/2011 12:56 PM



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RECLAIMED AREA BOUNDARY

APPROXIMATE VOLUMES – PLANT SITE CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
GRADING	7,500	15,500	8,000 (FILL)
RWP	0	12,600	12,600 (FILL)
TOPSOIL	0	48,300	48,300 (FILL)
DEVELOPMENT ROCK	237,000	0	237,000 (CUT)
INERT DEBRIS	20,000	0	20,000 (CUT)

APPROXIMATE VOLUMES – MONOFILL LANDFILL

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
INERT DEBRIS	0	20,000	20,000 (FILL)
DEVELOPMENT ROCK MONOFILL PAD	0	6,400	6,400 (FILL)
DEVELOPMENT ROCK TEMPORARY ACCESS ROAD	0	3,800	3,800 (FILL)
TOPSOIL	0	4,200	4,200 (FILL)

NOTES:

1. GRADING VOLUME IS BASED ON FINAL GRADING SURFACE.
2. TOPSOIL VOLUME IS BASED ON GRADED PLANT SITE AREA MULTIPLIED BY 0.30m AND GRADED LANDFILL AREA MULTIPLIED BY 0.60m.
3. DEVELOPMENT ROCK USED IN TEMPORARY ACCESS ROAD CONSTRUCTED WILL BE REMOVED WHEN ROAD IS DECOMMISSIONED.

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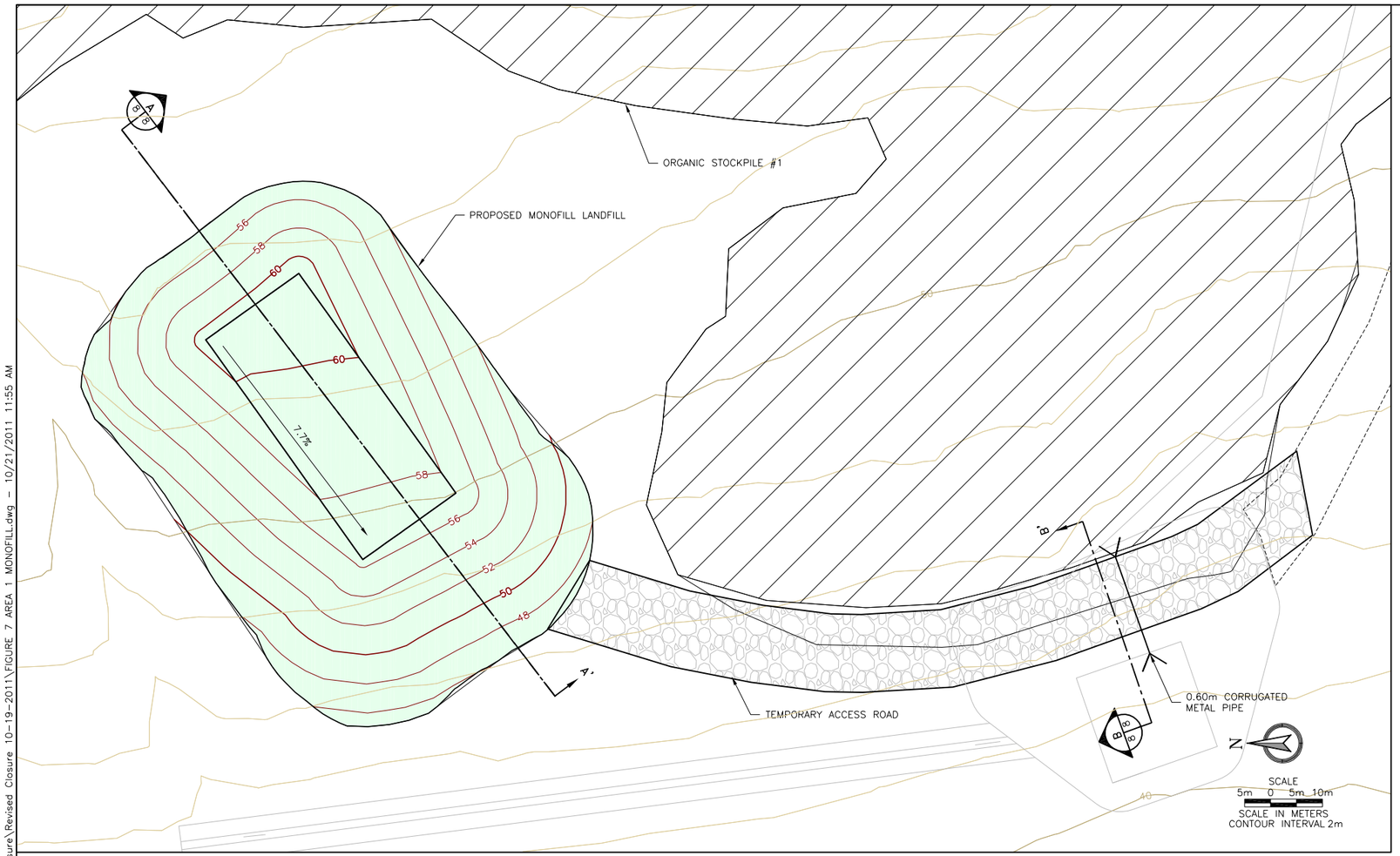
AREA 1 PLANT SITE PROPOSED CLOSURE CONDITIONS

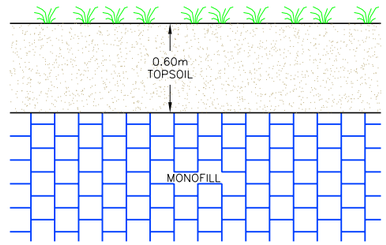
B REVISION

Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

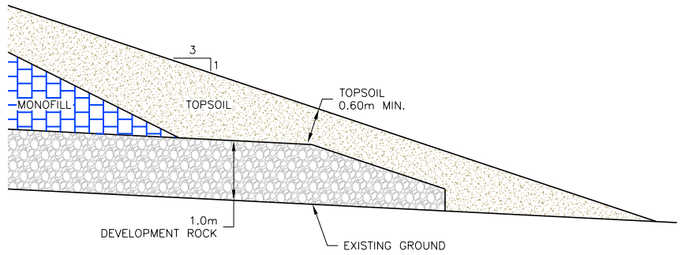
FIGURE 6

Ellis, Ryan — T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D — Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 6 AREA 1 PLANT SITE PROPOSED.dwg — 10/21/2011 1:02 PM





1/8 8 — **RECLAIMED PLANT SITE CLOSURE SECTION**
NOT TO SCALE



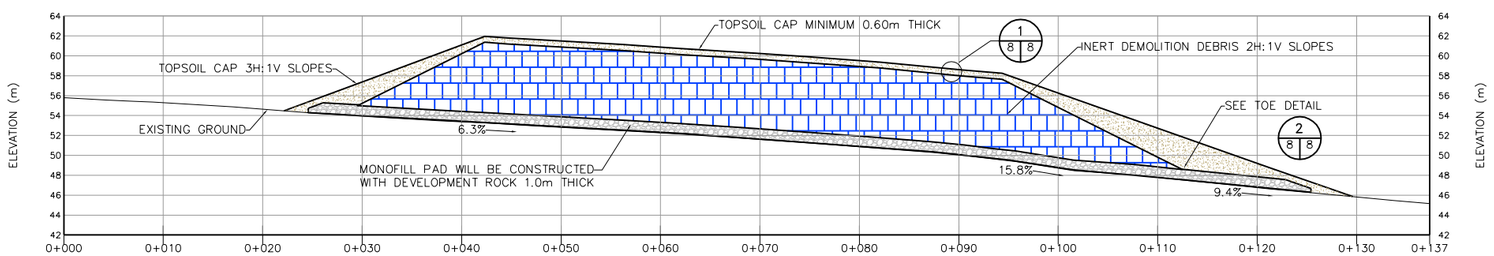
2/8 8 — **TOE DETAIL**
NOT TO SCALE

LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- ORGANIC SOIL STOCKPILE

APPROXIMATE VOLUMES – MONOFILL LANDFILL

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
INERT DEBRIS	0	20,000	20,000 (FILL)
DEVELOPMENT ROCK MONOFILL PAD	0	6,400	6,400 (FILL)
DEVELOPMENT ROCK TEMPORARY ACCESS ROAD	0	3,800	3,800 (FILL)
TOPSOIL	0	4,200	4,200 (FILL)



A/8 8 — **MONOFILL LANDFILL CROSS SECTION**
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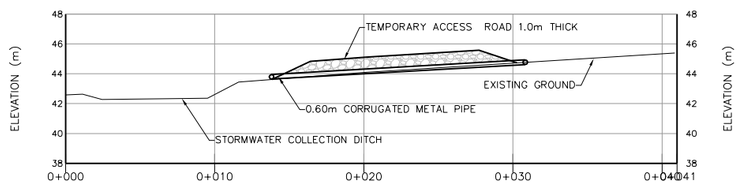

B/8 8 — **TEMPORARY ROAD TO MONOFILL LANDIFLL**
NOT TO SCALE

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Title: AREA 1 MONOFILL

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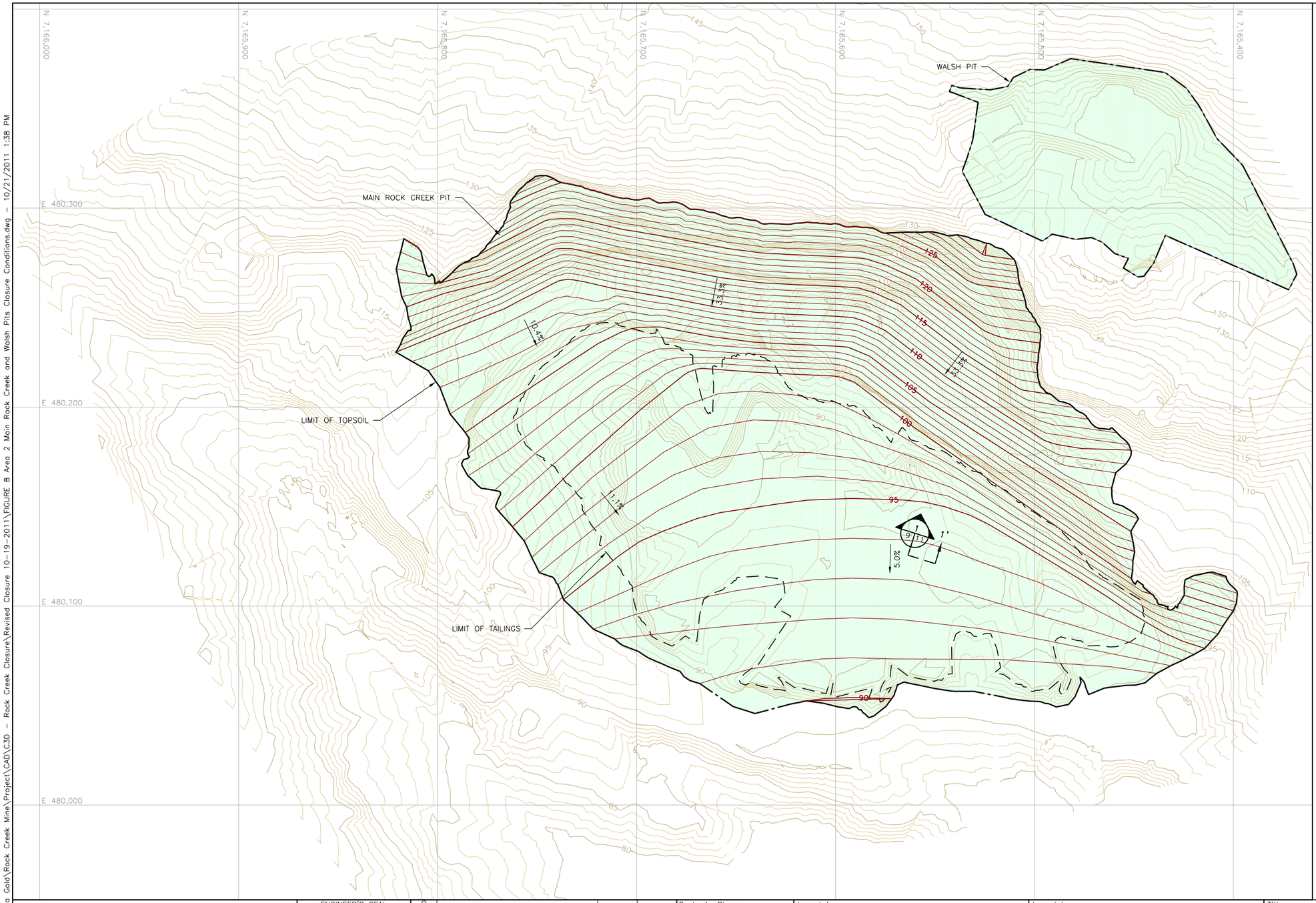
Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 7

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 7 AREA 1 MONOFILL.dwg – 10/21/2011 11:55 AM



LEGEND:

- 4125 — EXISTING CONTOURS
- **4125** — PROPOSED CONTOURS
- TAILINGS BACKFILL LIMIT
- TOPSOIL LIMIT
- PIT LIMIT
- RECLAIMED AREA BOUNDARY

NOTES:

1. VOLUMES ARE BASED ON PROPOSED GRADING.
2. WALSH PIT TO BE COVERED WITH 0.60m TOPSOIL ABOVE EXISTING CONTOURS.
3. ADDITIONAL TOPSOIL MAY BE PLACED IN WALSH PIT TO COVER DEVELOPMENT ROCK OR BACKFILL LOW AREAS AS NECESSARY.
4. RIPRAP WILL BE STOCKPILED AT DESIGNATED LOCATION IN AREA 3.

APPROXIMATE VOLUMES – PIT CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TAILINGS	0	85,100	85,100 (FILL)
DEVELOPMENT ROCK	0	230,600	230,600 (FILL)
TSF BREACH EXCESS FILL	0	25,200	25,200 (FILL)
CAUSEWAY BREACH EXCESS FILL	0	79,600	79,600 (FILL)
TOPSOIL	0	51,100	51,100 (FILL)
RECLAMATION RIPRAP EXCAVATION	10,000	0	10,000 (CUT)

N

SCALE
10m 0 10m 20m
SCALE IN METERS
CONTOUR INTERVAL 1m

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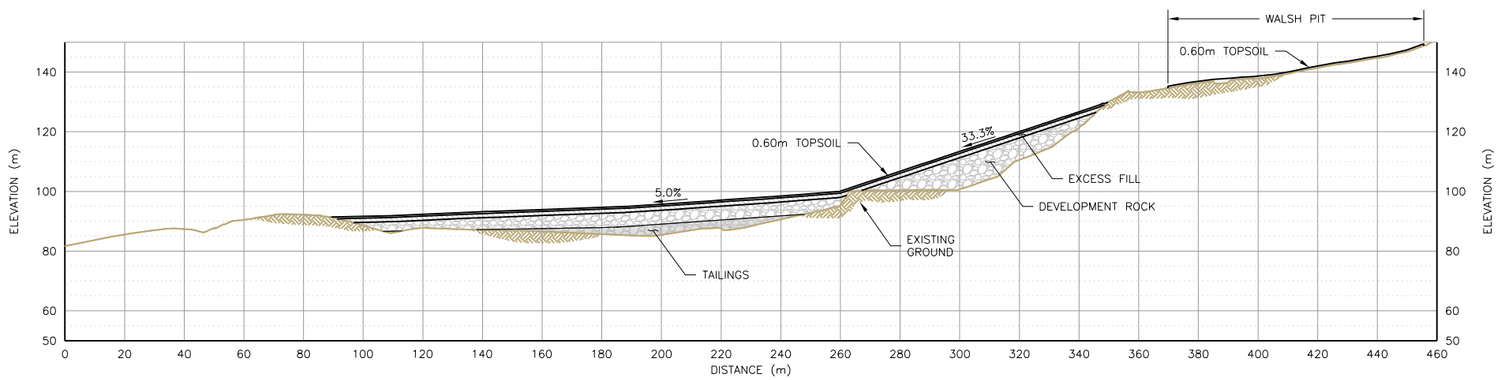
Title: AREA 2 MAIN ROCK CREEK AND WALSH PITS PROPOSED CLOSURE CONDITIONS

B REVISION

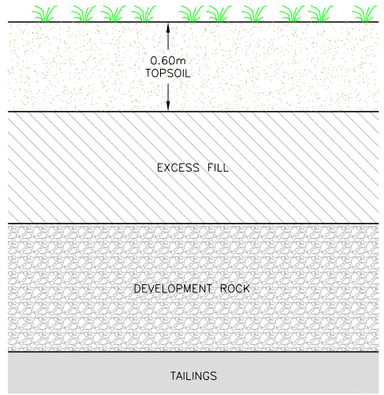
Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 8

Ellis, Ryan — T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D — Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 8 Area 2 Main Rock Creek and Walsh Pits Closure Conditions.dwg — 10/21/2011 1:38 PM



TYPICAL MAIN ROCK CREEK AND WALSH PITS CLOSURE SECTION



1/9/11 MAIN ROCK CREEK PIT CLOSURE DETAIL
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Title: AREA 2 MAIN ROCK CREEK AND WALSH PITS PROPOSED SECTIONS AND DETAIL

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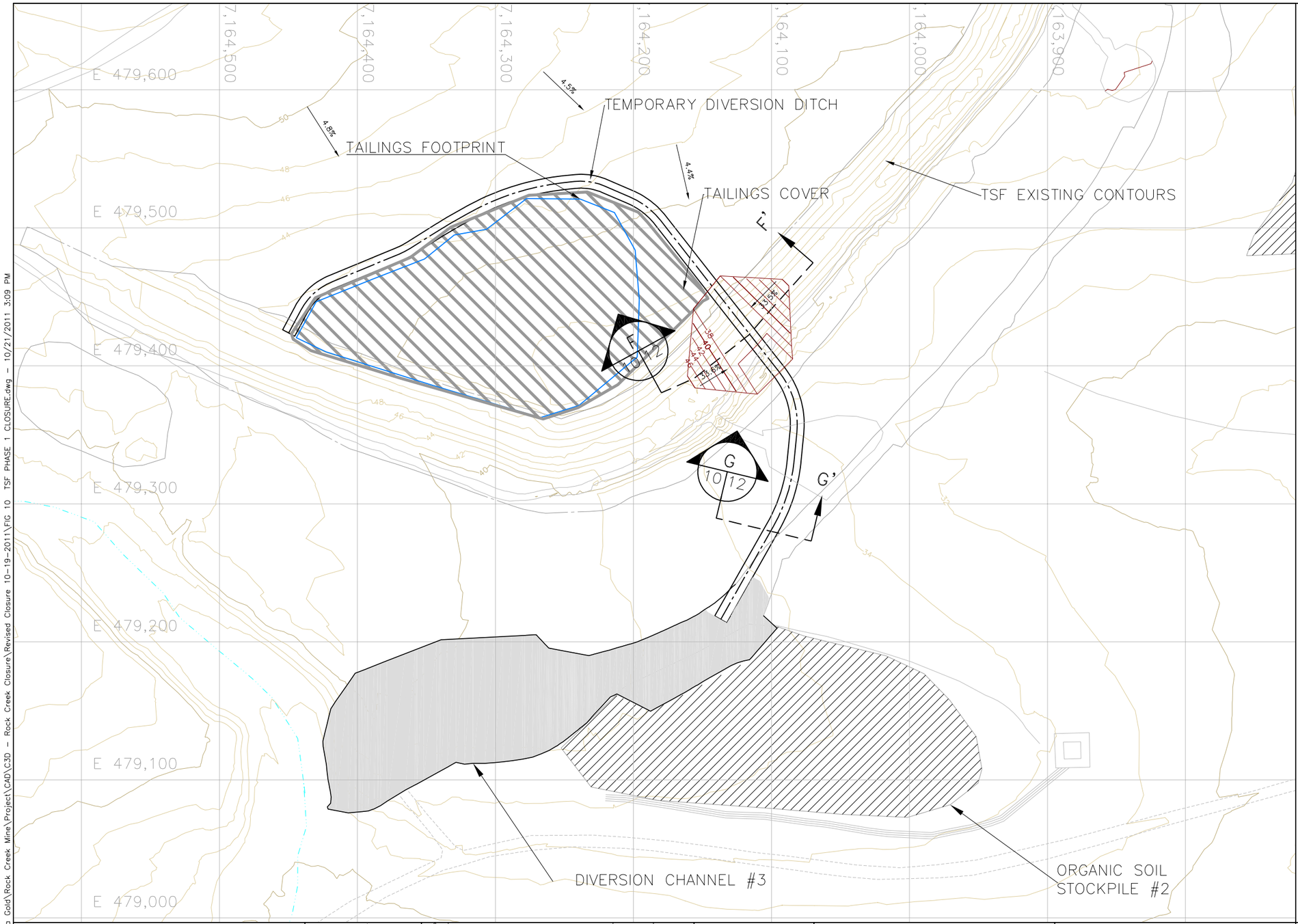
Project: ROCK CREEK MINE CLOSURE	Project no.: 114-311141	FIGURE 9
Location: NOME, ALASKA	Date: 10/11	

Ellis, Ryan — T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D — Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 9 Area 2 Main Rock Creek and Walsh Pits Sections and Details.dwg — 10/21/2011 11:49 AM



LEGEND:

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- TEMPORARY DIVERSION CHANNEL

- ORGANIC SOIL STOCKPILE
- TAILINGS COVER

NOTE:

1. GRADING WILL BE FINALIZED UPON COMPLETION OF LAND SURVEY.
2. TAILINGS COVER IS 13,400 SQUARE METERS.
3. THE SMALL PORTION OF THE TSF DAM LINER WILL BE REMOVED WITHIN THE BREACH AREA AND STORED WITHIN THE PLANT AREA UNTIL THE MONOFILL IS CONSTRUCTED.

APPROXIMATE VOLUMES – TSF CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
DAM BREACH	31,700	0	31,700 (CUT)
RIPRAP	0	3,600	3,600 (FILL)

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIG 10 TSF PHASE 1 CLOSURE.dwg – 10/21/2011 3:09 PM

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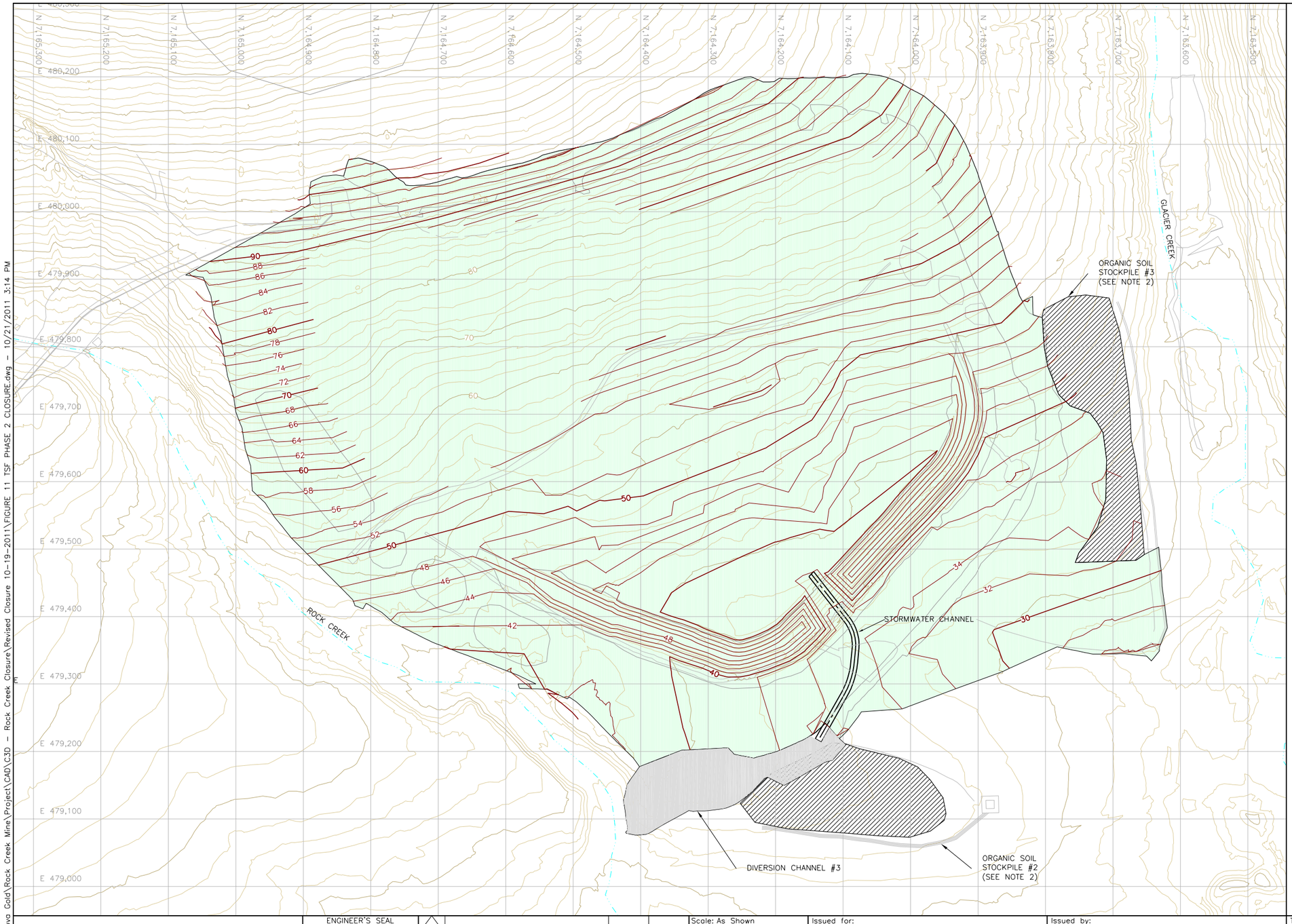
AREA 3 TSF PHASE 1
PROPOSED CLOSURE CONDITIONS

B REVISION

Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 10



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- EXISTING DRAINAGE
- STORMWATER CHANNEL
- RECLAIMED AREA BOUNDARY
- ORGANIC SOIL STOCKPILE

NOTE:

1. GRADING WILL BE FINALIZED UPON COMPLETION OF LAND SURVEY.
2. THE UPPER PORTION OF THE TSF WILL NOT BE GRADED BUT WILL BE COVERED WITH A MINIMUM OF 0.3 METER OF SOIL.

APPROXIMATE VOLUMES – TSF CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TOPSOIL	0	291,700	291,700 (FILL)
TSF GRADING	349,400	324,200	25,200 (CUT)
TAILINGS	85,100	0	85,100 (CUT)

Ellis, Ryan — T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D — Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 11 TSF PHASE 2 CLOSURE.dwg — 10/21/2011 3:14 PM

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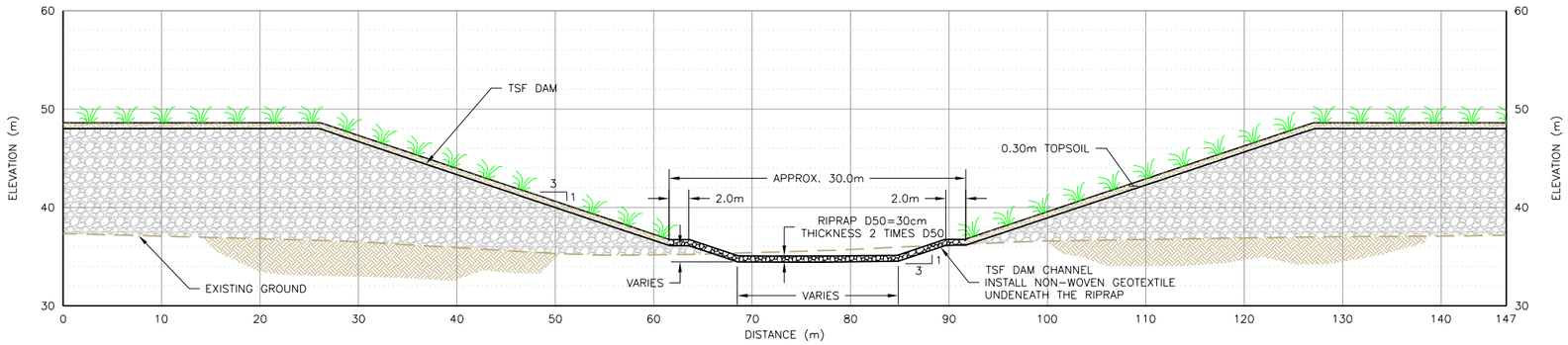
AREA 3 TSF PHASE 2 PROPOSED CLOSURE CONDITIONS

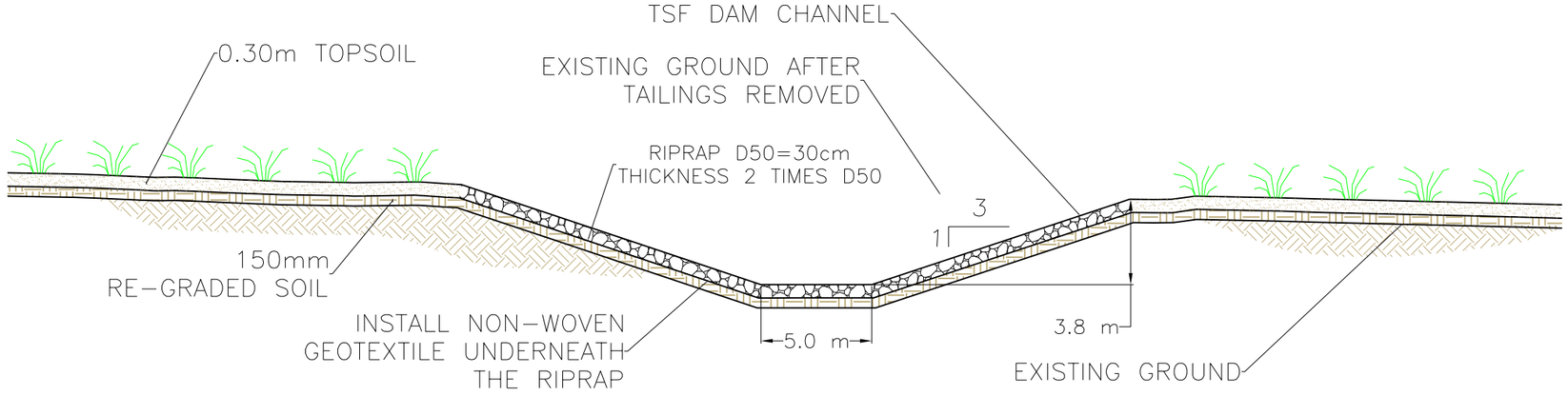
B REVISION

Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 11



F 10|12 **TSF BREACH AND CHANNEL SECTION**



G 10|12 **TSF DAM BREACH SECTION**

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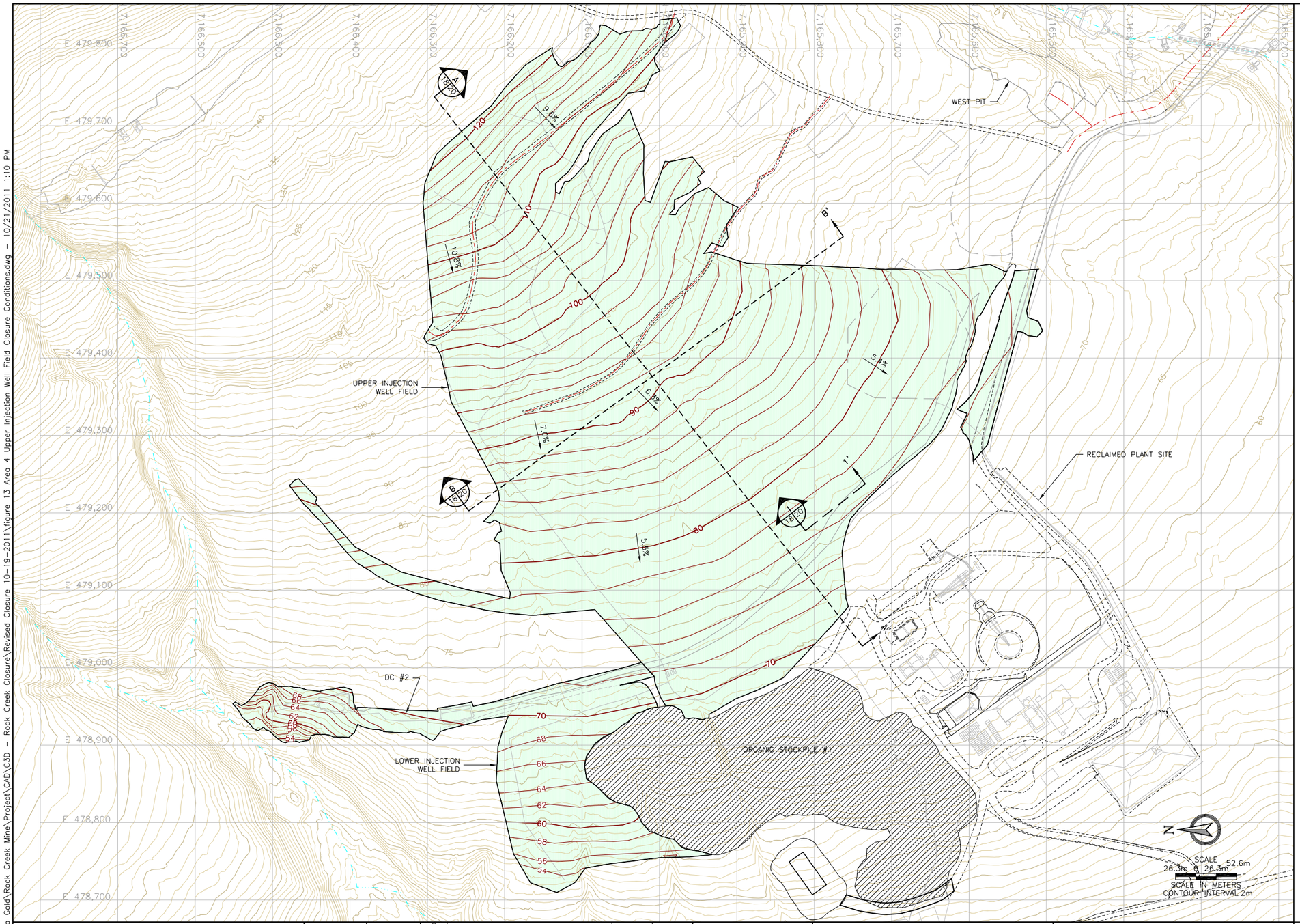
Title: AREA 3
TSF DAM BREACH
PROPOSED SECTIONS AND DETAIL

B REVISION

Project:	Project no.:
ROCK CREEK MINE CLOSURE	114-311141
Location: NOME, ALASKA	Date: 10/11

FIGURE 12

Ellis, Ryan — T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D — Rock Creek Closure\Revised Closure 10-19-2011\Figure 12 — TSF Dam Breach Sections and Detail.dwg — 10/21/2011 2:54 PM



LEGEND:

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RECLAIMED AREAS
- ORGANIC SOIL STOCKPILE

NOTES:

1. TOPSOIL VOLUME IS BASED ON GRADED AREA MULTIPLIED BY 0.30 m.
2. **TOPSOIL AND GRADING VOLUMES BASED ON TOTAL INITIAL DISTURBANCE. WINDROWS AND SURROUNDING AREAS WILL NOT BE GRADED/REVEGETATED. FINAL VOLUMES DETERMINED AFTER SURVEY IS COMPLETED.**

APPROXIMATE VOLUMES – INJECTION FIELD AND DC #2

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TOPSOIL	0	116,900	116,900 (FILL)
GRADING	20,700	30,900	10,200 (FILL)

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Title:

AREA 4 INJECTION FIELD PROPOSED CONDITIONS

B REVISION

Project: ROCK CREEK MINE CLOSURE

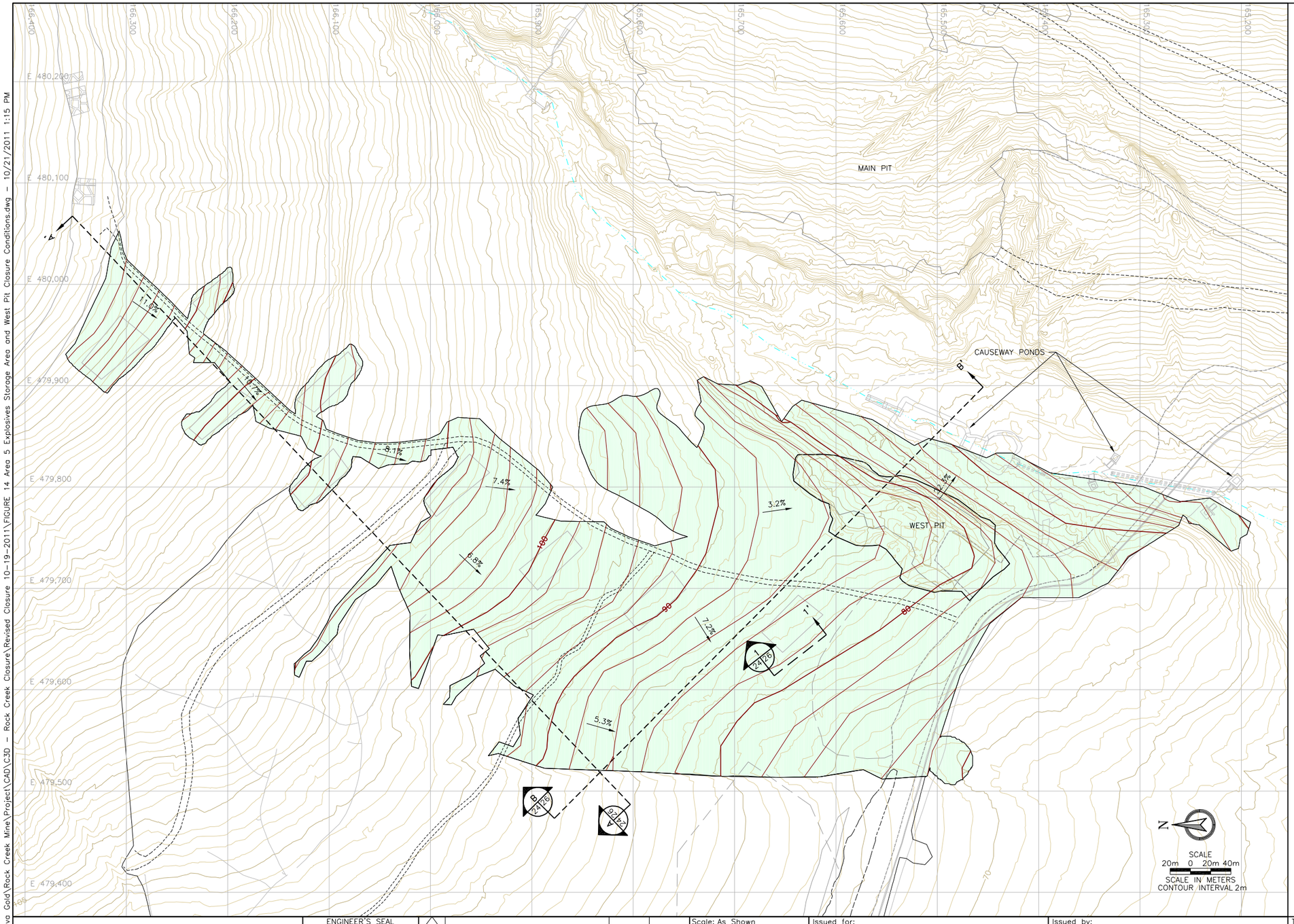
Project no.: 114-311141

Location: NOME, ALASKA

Date: 10/11

FIGURE 13

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\Figure 13 Area 4 Upper Injection Well Field Closure Conditions.dwg – 10/21/2011 1:10 PM



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RECLAIMED AREAS

NOTES:

1. TOPSOIL VOLUME IS BASED ON GROUND AREA MULTIPLIED BY 0.30m.

APPROXIMATE VOLUMES – EXPLOSIVE STORAGE AREA CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TOPSOIL	0	103,400	103,400 (FILL)
GRADING	16,500	48,300	31,800 (FILL)

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 14 Area 5 Explosives Storage Area and West Pit Closure Conditions.dwg – 10/21/2011 1:15 PM

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AREA 5 EXPLOSIVES STORAGE AND WEST PIT PROPOSED CLOSURE CONDITIONS

B REVISION

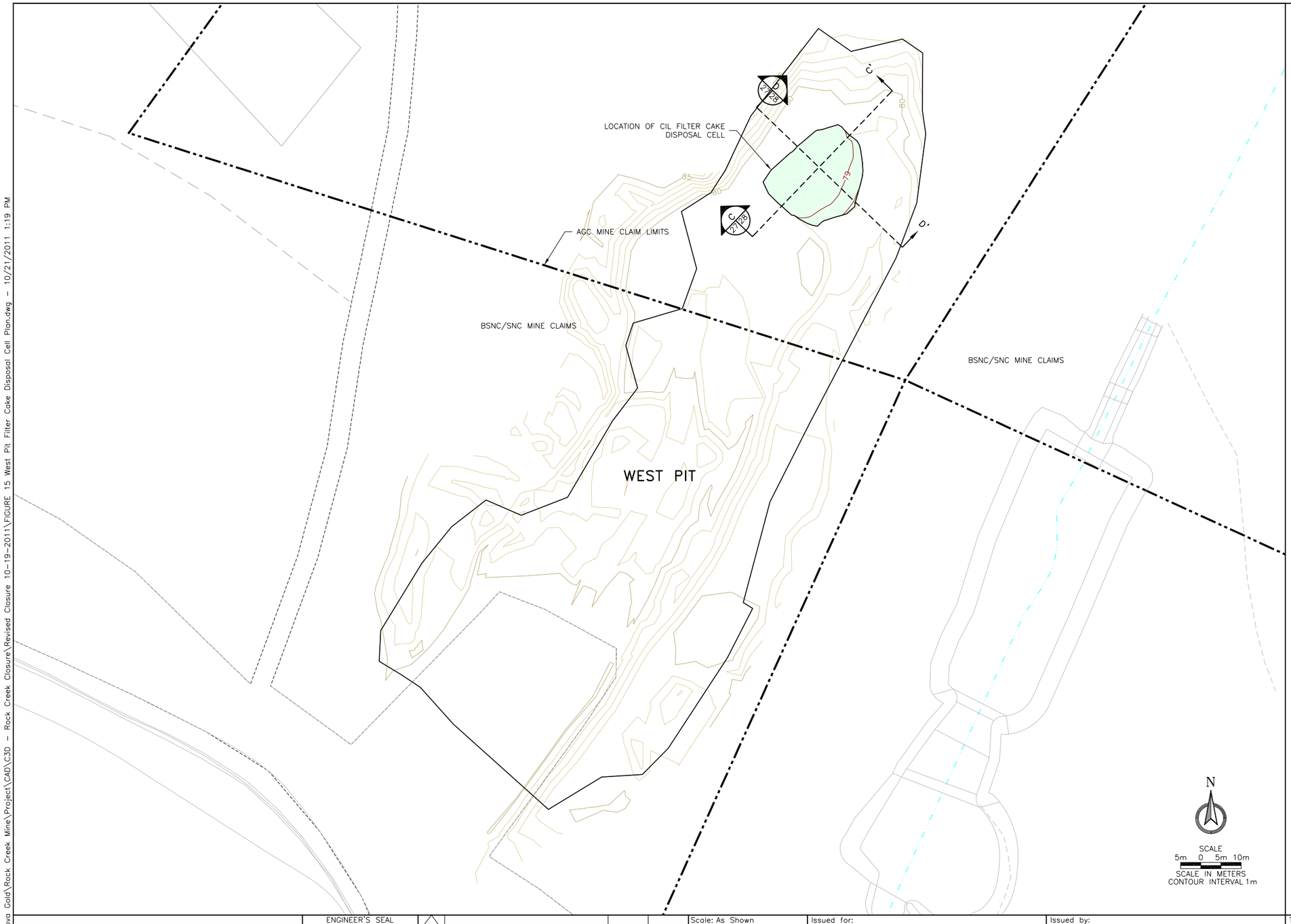
Project: ROCK CREEK MINE CLOSURE

Project no.: 114-311141

Location: NOME, ALASKA

Date: 10/11

FIGURE 14



NOTE:

1. AS BUILT FIGURES OF THE FINAL DISPOSAL BED LAYOUT AND PRUSSIAN BLUE LOCATION WILL BE SUBMITTED IN NOVEMBER 2011.

LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- MINE CLAIM LIMITS
- RECLAIMED AREAS

APPROXIMATE VOLUMES – WEST PIT FILTER CAKE DISPOSAL CELL

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
FILTER CAKE	0	500	500 (FILL)
BEDDING	0	100	100 (FILL)

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AREA 5 WEST PIT TAILINGS DISPOSAL BED

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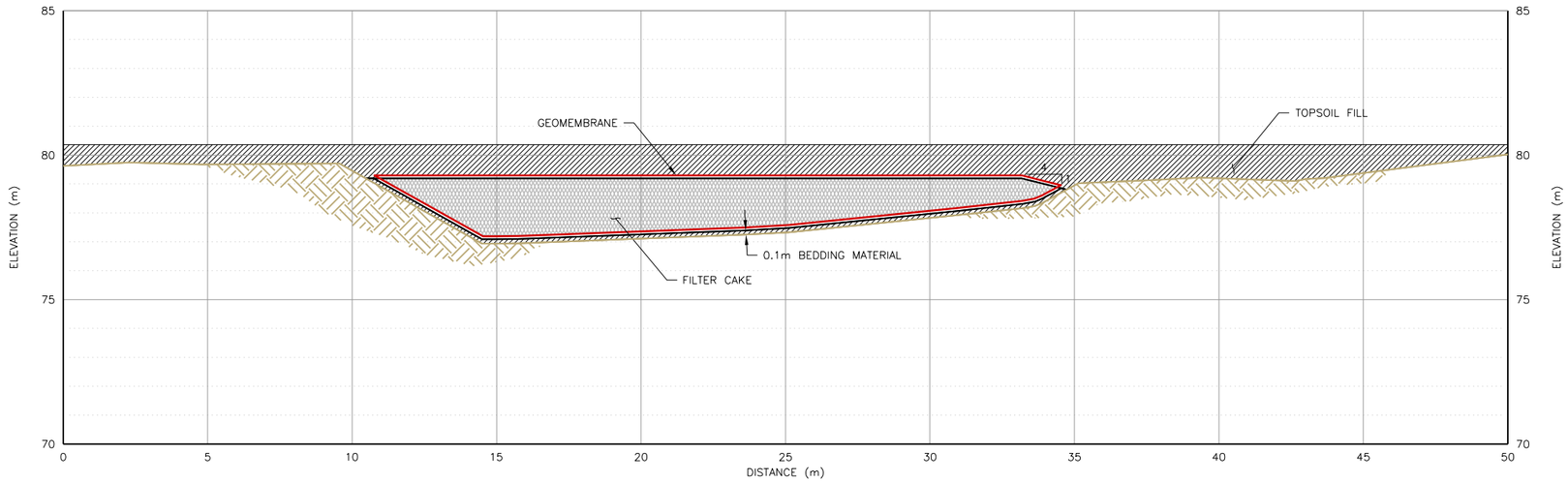
Project no.: 114-311141

Location: NOME, ALASKA

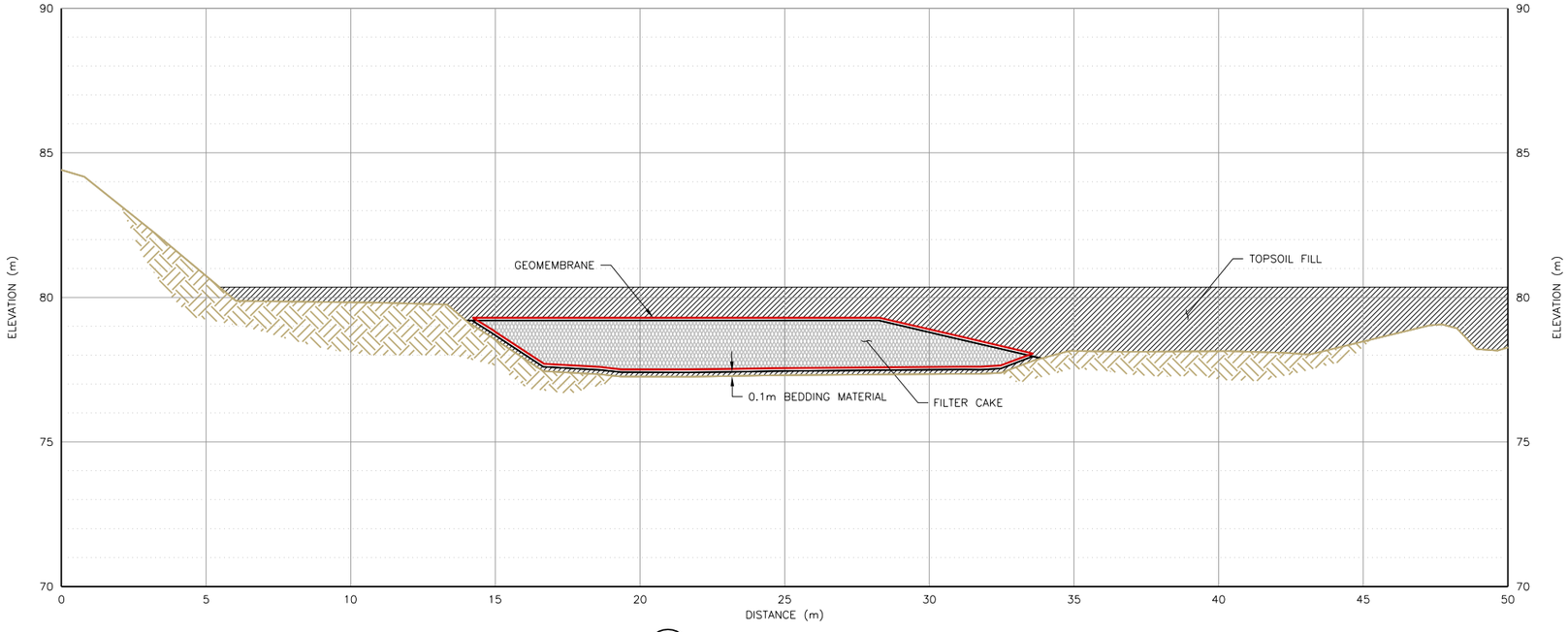
Date: 10/11

FIGURE 15

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 15 West Pit Filter Coke Disposal Cell Plan.dwg – 10/21/2011 1:19 PM



C 27/28 **WEST PIT TYPICAL SECTION**



D 27/28 **WEST PIT TYPICAL SECTION**

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B REVISION

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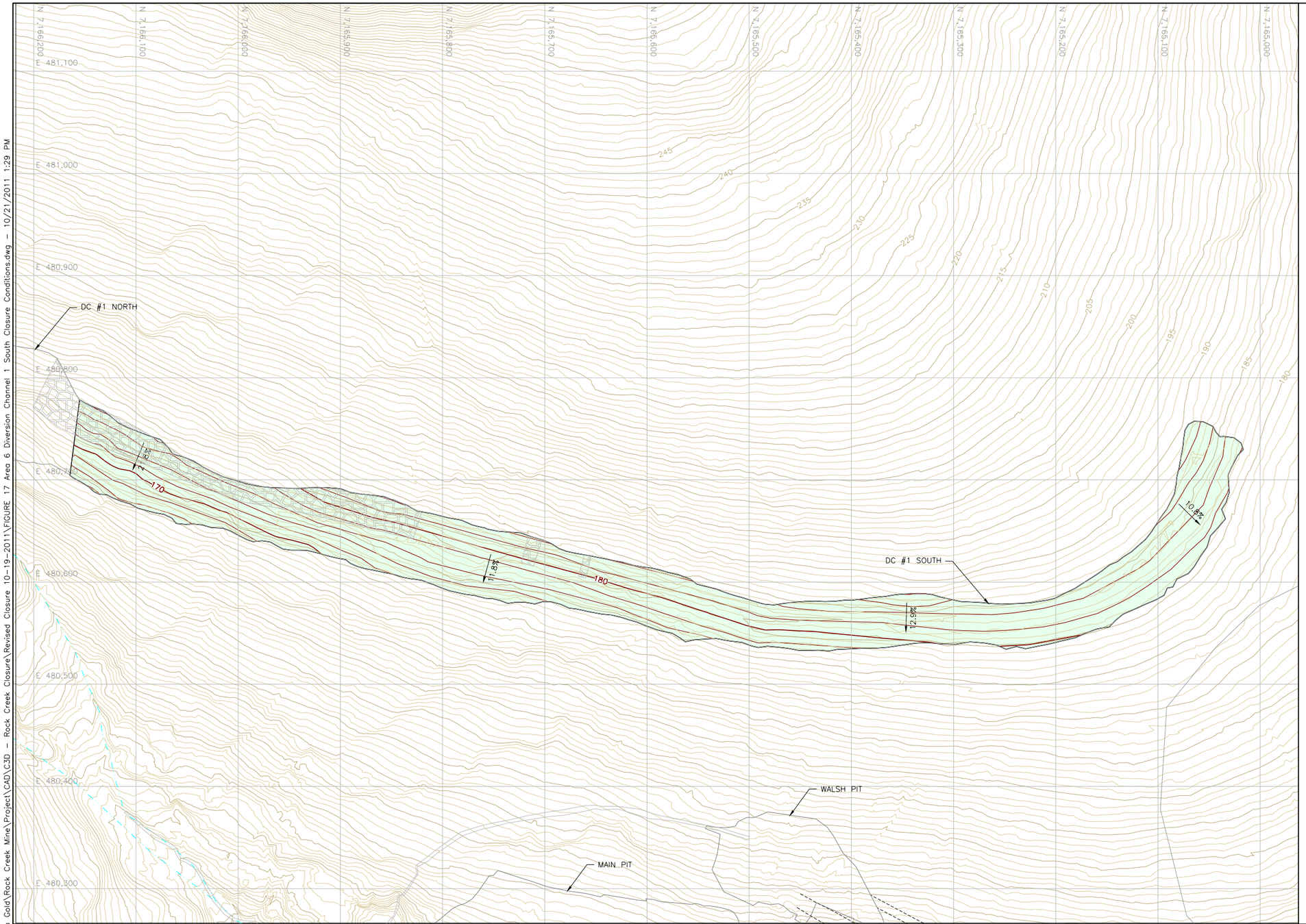
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 16

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 16 West Pit Filter Cake Disposal Cell Sections.dwg – 10/21/2011 1:20 PM



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RECLAIMED AREAS
- EXISTING RIPRAP

NOTES:

1. HDPE LINER WILL BE LONGITUDINALLY RIPPED IN PLACE. EXISTING RIPRAP WILL REMAIN IN PLACE.
2. CHANNEL BACKFILL WILL BE DERIVED FROM ADJACENT CHANNEL EMBANKMENTS AND THEREFORE IS ASSUMED TO BALANCE. ACTUAL QUANTITIES WILL BE PROVIDED UPON SITE SURVEY COMPLETION.

APPROXIMATE VOLUMES – DC #1 SOUTH CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TOPSOIL	0	20,900	20,900 (FILL)
CHANNEL BACKFILL	30,000	30,000	0

N

SCALE
20m 0 20m 40m
SCALE IN METERS
CONTOUR INTERVAL 2m

ENGINEER'S SEAL

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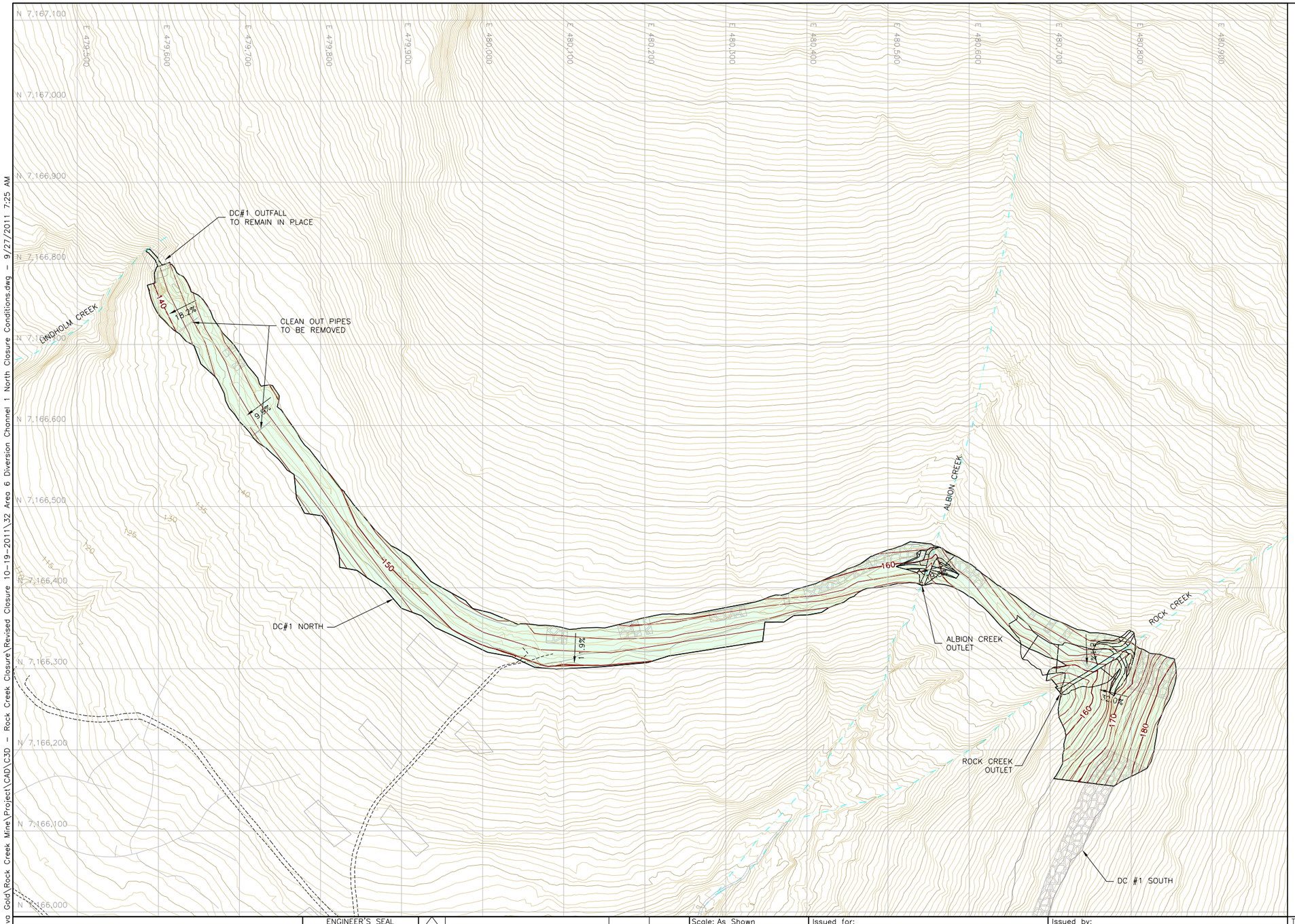
Title:
AREA 6 DIVERSION CHANNEL #1 SOUTH PROPOSED CLOSURE CONDITIONS

B REVISION

Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 17

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 17 Area 6 Diversion Channel 1 South Closure Conditions.dwg – 10/21/2011 1:29 PM



LEGEND:

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RECLAIMED AREAS
- EXISTING RIPRAP

NOTES:

1. HDPE LINER WILL BE LONGITUDINALLY RIPPED IN PLACE. EXISTING RIPRAP WILL REMAIN IN PLACE.
2. CHANNEL BACKFILL WILL BE DERIVED FROM ADJACENT CHANNEL EMBANKMENTS AND THEREFORE IS ASSUMED TO BALANCE. ACTUAL QUANTITIES WILL BE PROVIDED UPON SITE SURVEY COMPLETION.

APPROXIMATE VOLUMES – DC #1 NORTH CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TOPSOIL	0	25,300	25,300 (FILL)
CHANNEL BACKFILL	62,200	62,200	0

N

SCALE
25m 0 25m 50m
SCALE IN METERS
CONTOUR INTERVAL 2m

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AREA 6 DIVERSION CHANNEL #1 NORTH PROPOSED CONDITIONS

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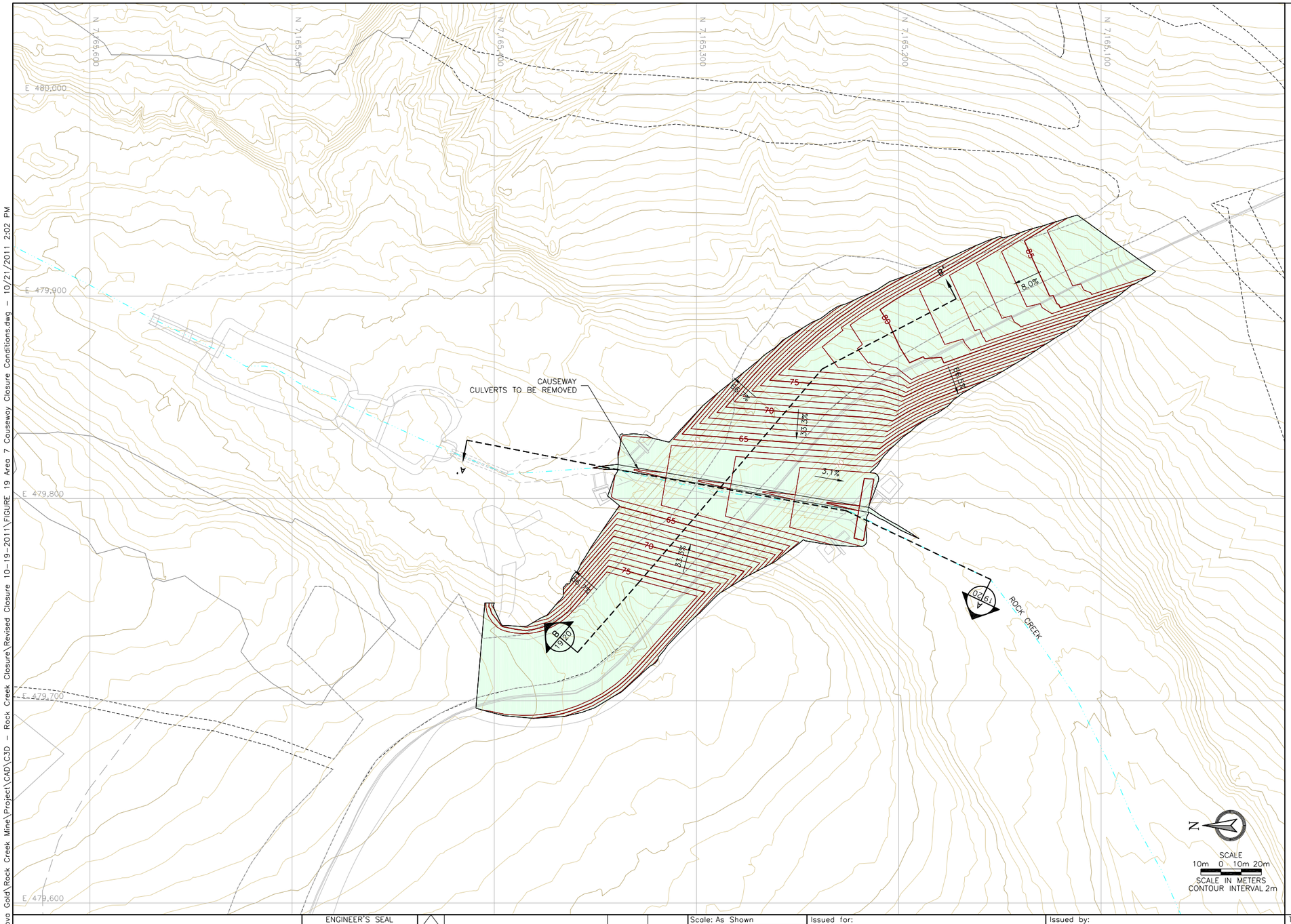
Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 18

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\32 Area 6 Diversion Channel 1 North Closure Conditions.dwg – 9/27/2011 7:25 AM



LEGEND:

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- EXISTING PIPE
- RECLAIMED AREAS

NOTE:

1. EXISTING ROAD GRADING IS APPROXIMATE FROM PROVIDED INFORMATION.
2. EXISTING STRUCTURES IN THE GENERAL AREA ARE TO BE REMOVED. THE AREA SHALL BE GRADED AND REVEGETATED AS NECESSARY.

APPROXIMATE VOLUMES – CAUSEWAY CLOSURE

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
GRADING	79,600	0	79,600 (CUT)
TOPSOIL	0	7,800	7,800 (FILL)
RIPRAP	0	100	100 (FILL)

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Title:

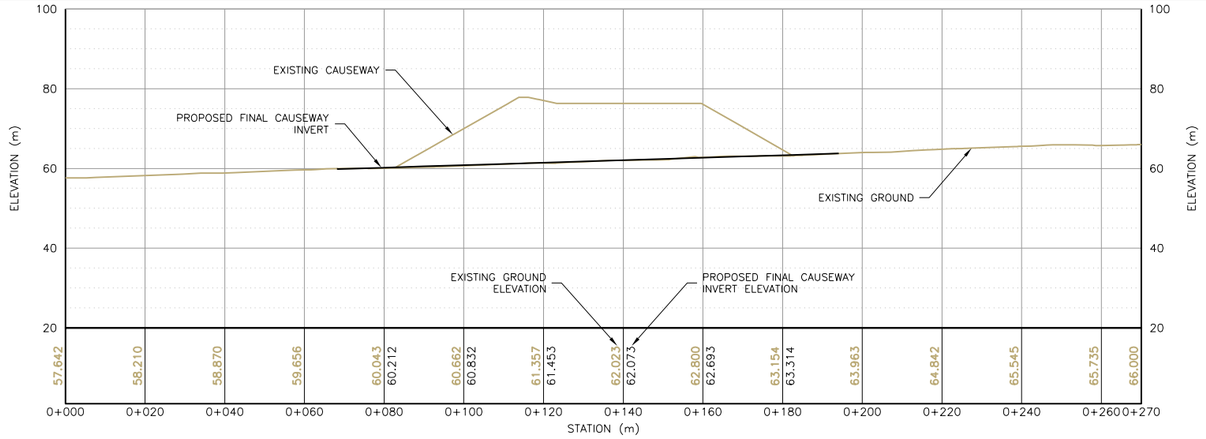
AREA 7 CAUSEWAY PROPOSED CLOSURE CONDITIONS

B REVISION

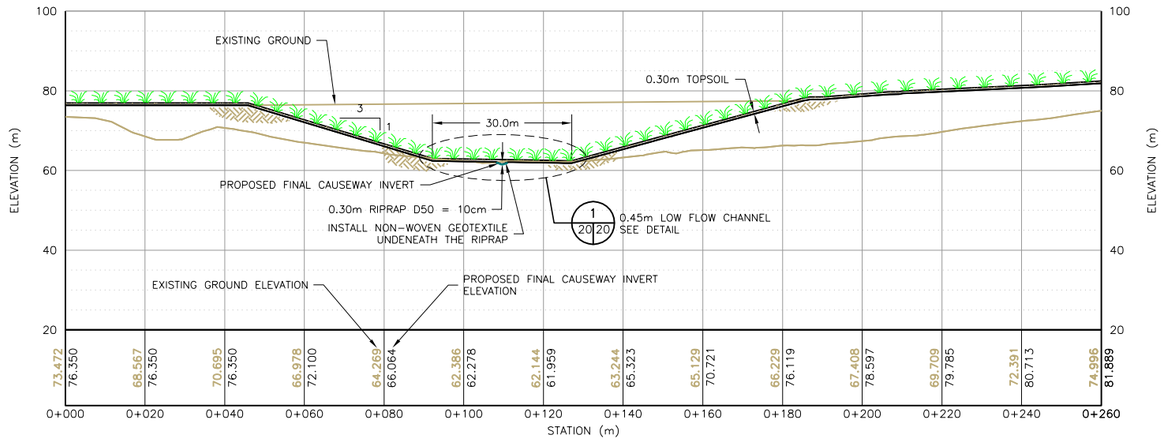
Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 19

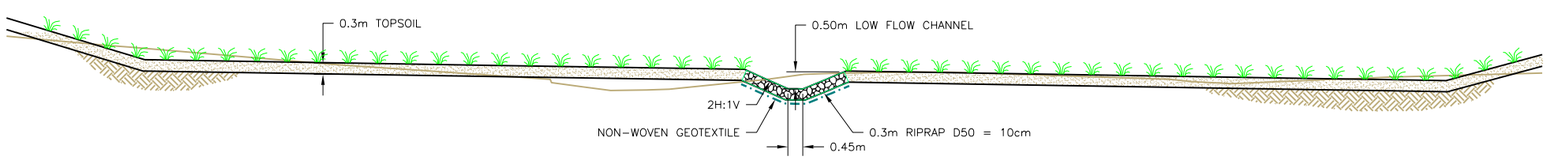
Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 19 Area 7 Causeway Closure Conditions.dwg – 10/21/2011 2:02 PM



A 19 20 **CAUSEWAY FINAL GRADING SECTION**



B 19 20 **CAUSEWAY FINAL GRADING CROSS-SECTION**



1 20 20 **CAUSEWAY TYPICAL 0.45m LOW FLOW CHANNEL**

NOTE:

1. EXISTING ROAD GRADING IS APPROXIMATE FROM PROVIDED INFORMATION.
2. EXISTING STRUCTURES IN THE GENERAL AREA ARE TO BE REMOVED. THE AREA SHALL BE GRADED AND REVEGETATED AS NECESSARY.

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Title: AREA 7 CAUSEWAY PROPOSED SECTIONS AND DETAIL

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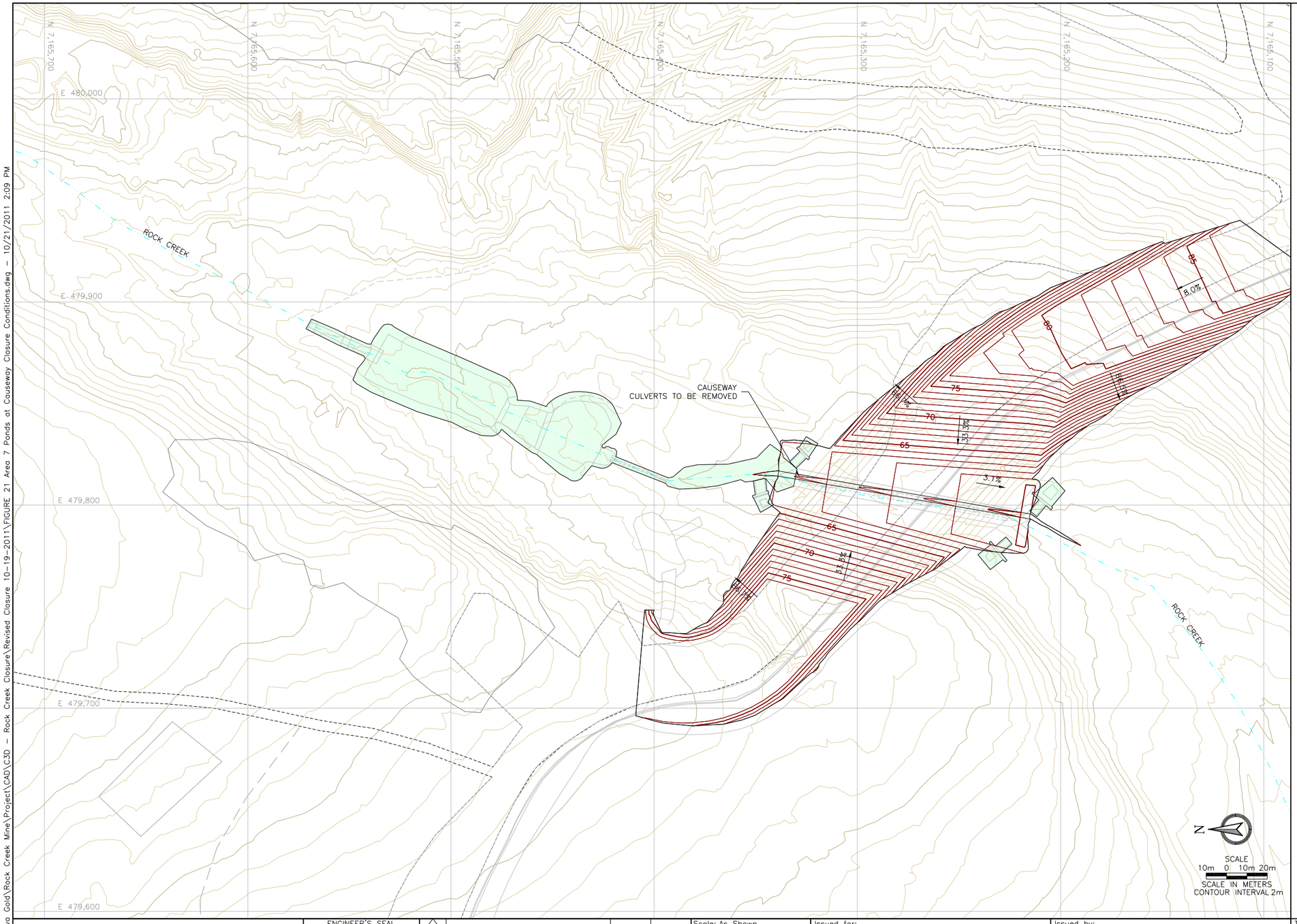
Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 20

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 20 Area 7 Causeway Section and Profile and Detail.dwg – 10/21/2011 2:07 PM



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- ======== EXISTING ROADS
- EXISTING DRAINAGE
- EXISTING PIPE
- RECLAIMED AREAS

NOTE:

1. EXISTING ROAD GRADING IS APPROXIMATE FROM PROVIDED INFORMATION.
2. EXISTING STRUCTURES IN THE GENERAL AREA ARE TO BE REMOVED. THE AREA SHALL BE GRADED AND REVEGETATED AS NECESSARY.
3. POND SURFACE ELEVATIONS ARE NOT AVAILABLE. WILL BE CONFIRMED UPON SITE SURVEY COMPLETION.

REFERENCE

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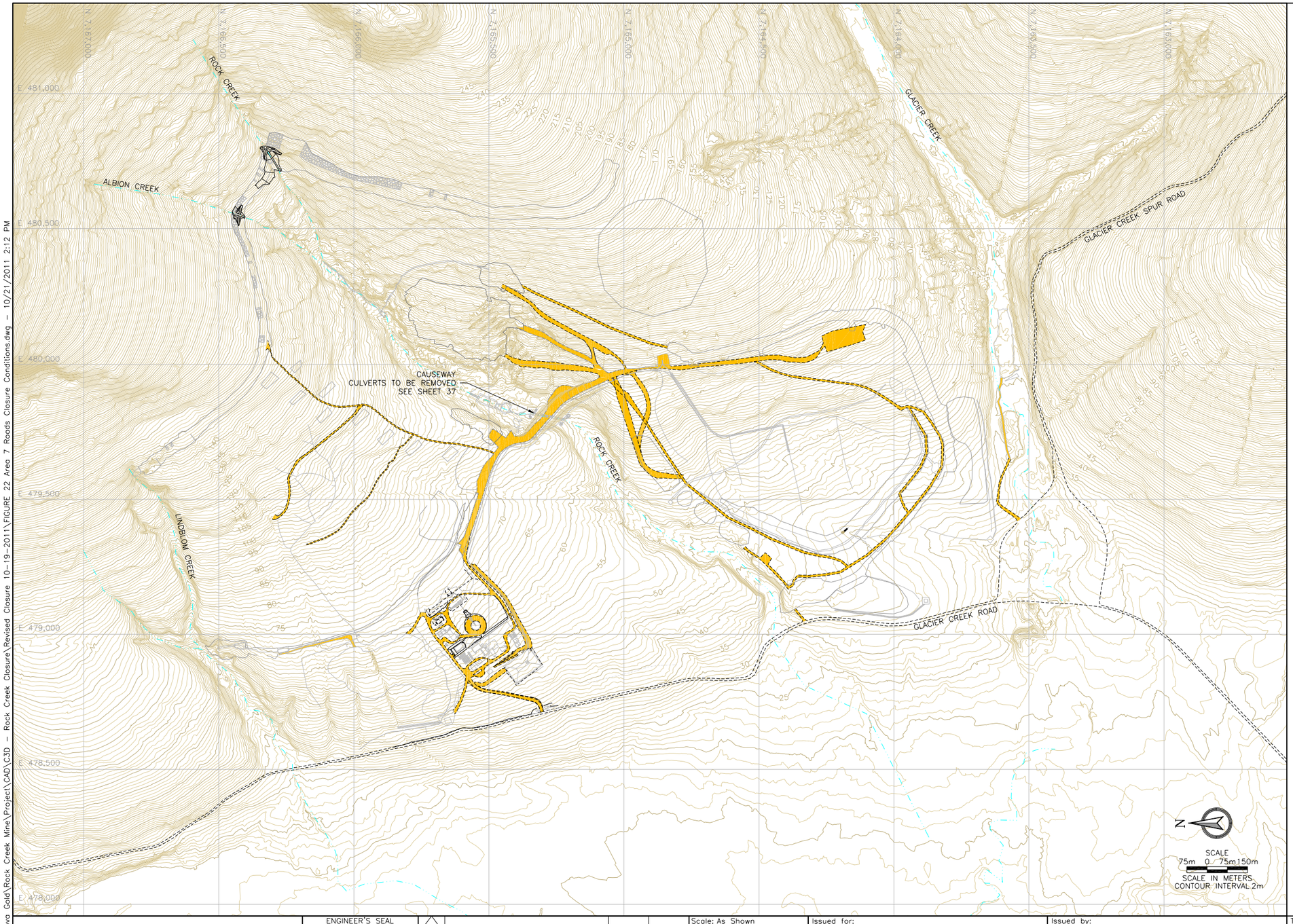
AREA 7 CAUSEWAY AND PONDS PROPOSED CLOSURE CONDITIONS

B REVISION

Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 21

Ellis, Ryan — T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D — Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 21 Area 7 Ponds at Causeway Closure Conditions.dwg — 10/21/2011 2:09 PM



LEGEND:

- 135 EXISTING CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- AREA 7 – ROADS TO BE REMOVED

NOTE:

1. ROADS CONDITION MAY VARY SEE FIGURE 23 FOR TYPICAL ROAD RECLAMATION DETAILS.

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AREA 7 ROADS PROPOSED CLOSURE CONDITIONS

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Project no.: 114-311141

Location: NOME, ALASKA

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FIGURE 22

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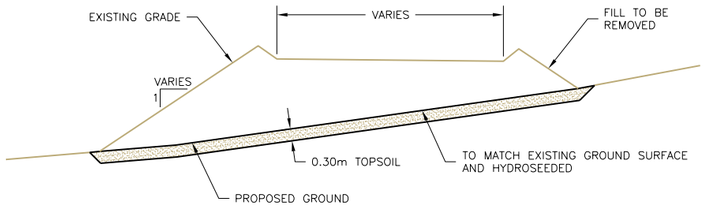
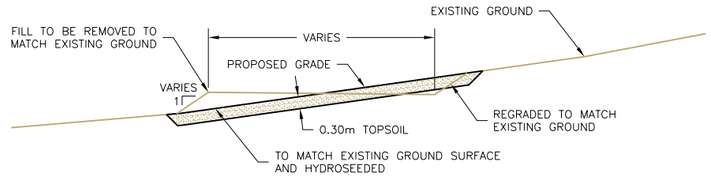
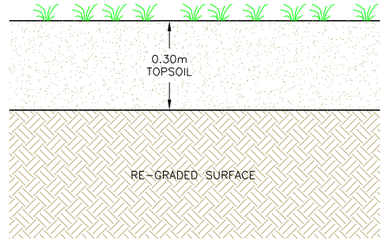


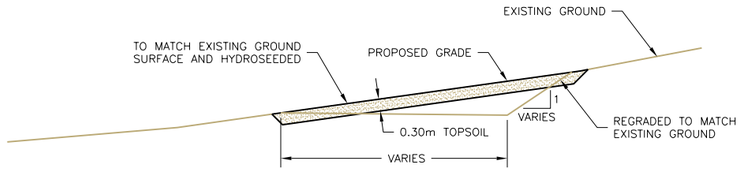
TYPICAL HAUL ROAD PROPOSED CLOSURE SECTION



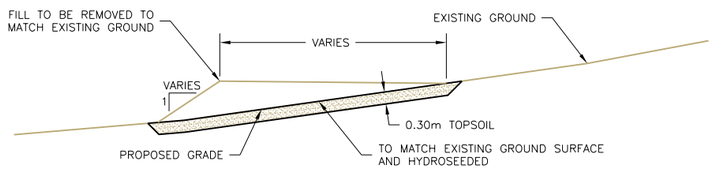
TYPICAL CUT/FILL ROAD PROPOSED CLOSURE SECTION



TYPICAL RECLAIMED ROAD SECTION
NOT TO SCALE



TYPICAL CUT ROAD PROPOSED CLOSURE SECTION



TYPICAL FILL ROAD PROPOSED CLOSURE SECTION

EXISTING VS. PROPOSED ROAD CONDITIONS
(THROUGHOUT SITE)

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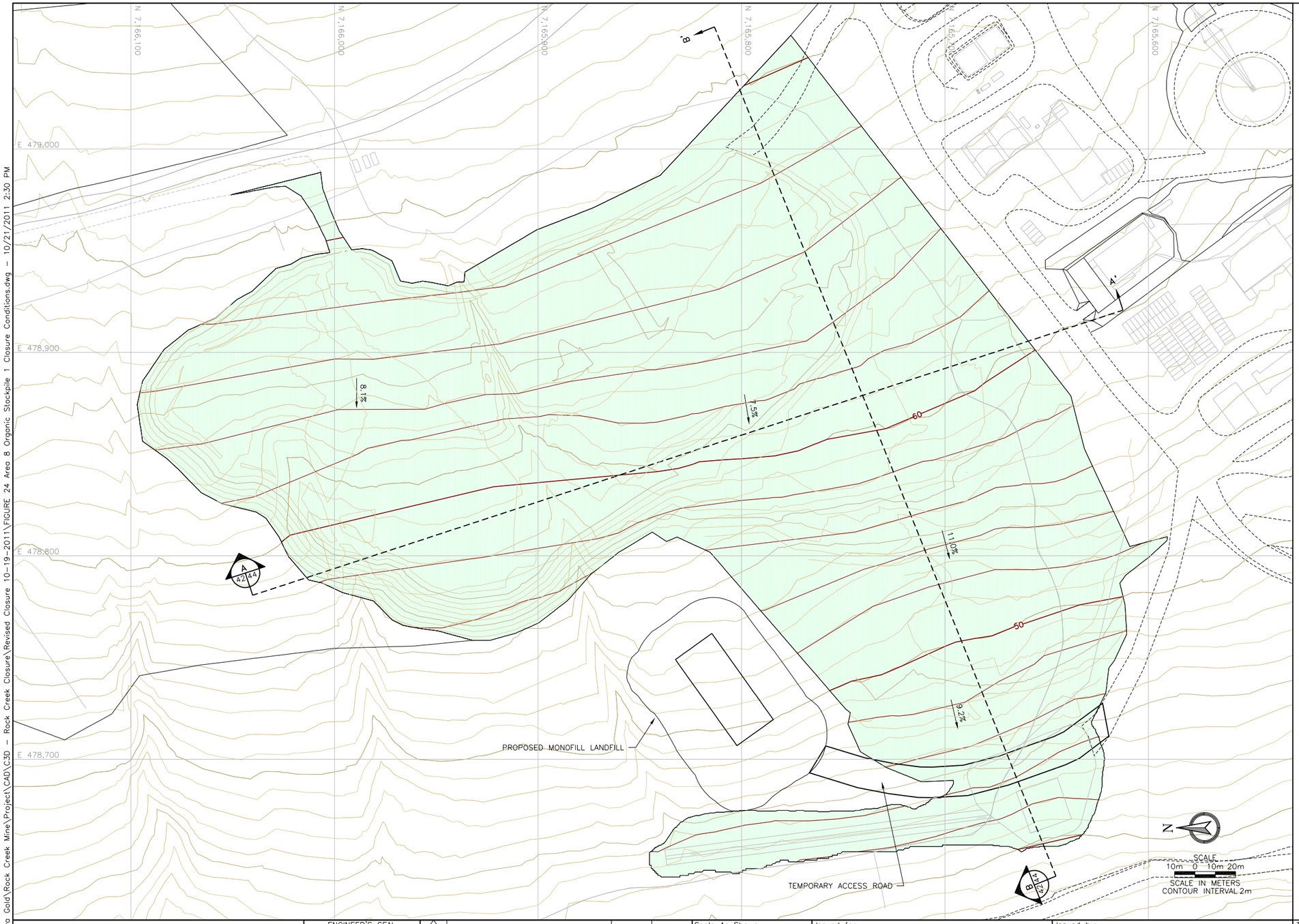
AREA 7 ROADS PROPOSED SECTIONS AND DETAIL

B REVISION

Project: ROCK CREEK MINE CLOSURE
Project no.: 114-311141
Location: NOME, ALASKA
Date: 10/11

FIGURE 23

Ellis, Ryan – T:\Clients\Nova Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 23 Area 7 Roads Sections and Details.dwg – 10/21/2011 2:15 PM



LEGEND:

- 135 — EXISTING CONTOURS
- 140 — PROPOSED CONTOURS
- EXISTING ROADS
- EXISTING DRAINAGE
- DISTURBED AREA BOUNDARY
- RECLAIMED AREAS

NOTE:

1. ORGANIC MATERIAL TO BE REMOVED AND USED FOR RECLAMATION AS TOPSOIL. AFTER REMOVAL GRADE AREA TO PROMOTE POSITIVE DRAINAGE.

APPROXIMATE VOLUMES – ORGANIC STOCKPILE NO. 1

MATERIAL	CUT (m^3)	FILL (m^3)	NET (m^3)
TOPSOIL	459,000	0	459,000 (CUT)

Ellis, Ryan – T:\Clients\Novo Gold\Rock Creek Mine\Project\CAD\C3D – Rock Creek Closure\Revised Closure 10-19-2011\FIGURE 24 Area 8 Organic Stockpile 1 Closure Conditions.dwg – 10/21/2011 2:30 PM

REFERENCE

ENGINEER'S SEAL

Rev	Description	BY	Date
B	PERMIT LEVEL	RJE	10/11
A	ISSUED FOR REVIEW	DJM	03/11

REVISIONS

Scale: As Shown

Designed by: RJE
Drawn by: RJE
Checked by: DH
Approved by: DH

Issued for:

Alaska Gold Company
A subsidiary of NovaGold Resources Inc.

Issued by:

TETRA TECH
350 Indiana Street, Suite 500
Golden, Colorado 80401
(303) 217-5700 (303) 217-5705 fax

Title:

AREA 8 ORGANIC STOCKPILE #1 PROPOSED CLOSURE CONDITIONS

B REVISION

Project: ROCK CREEK MINE CLOSURE

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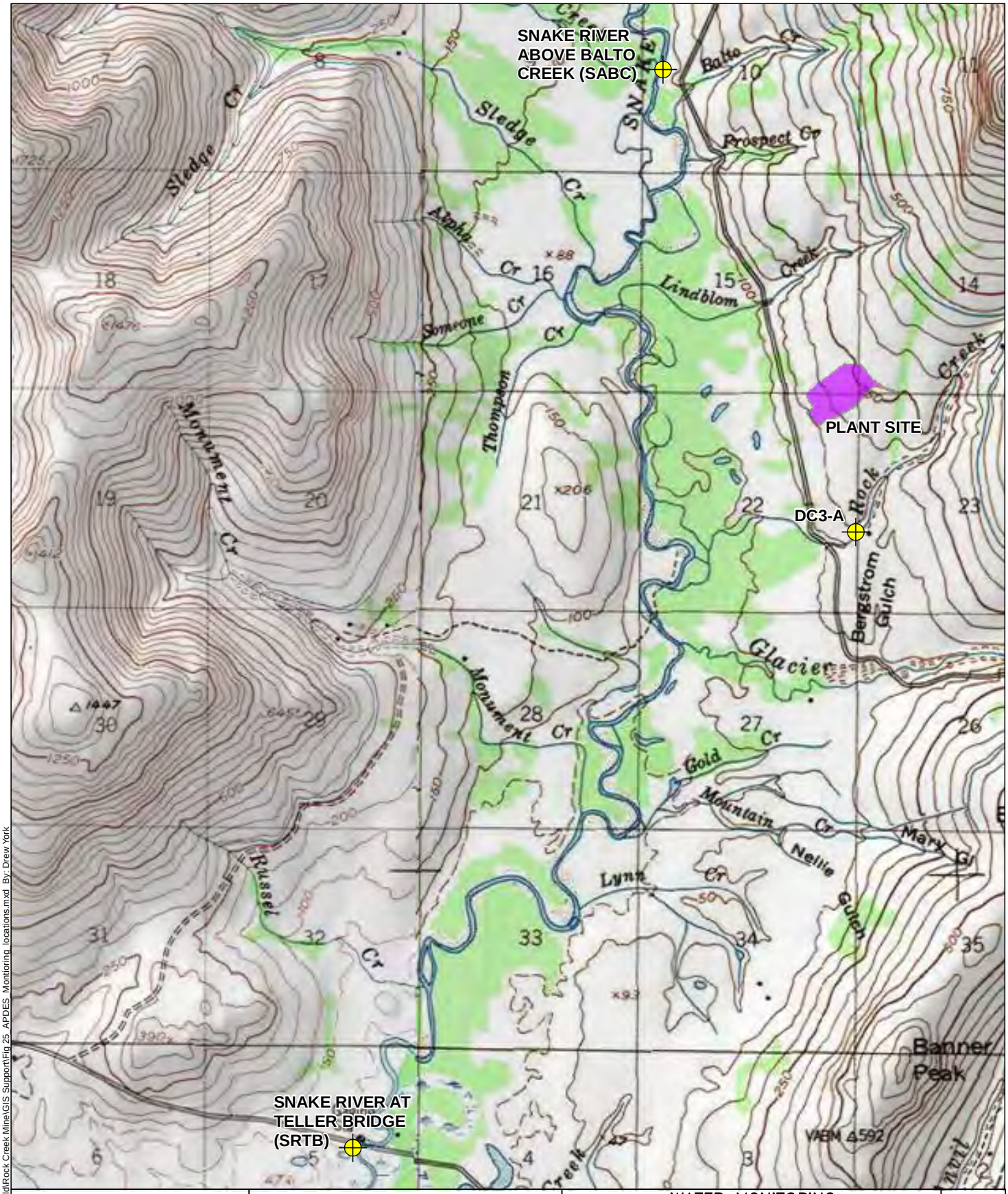
FIGURE 24



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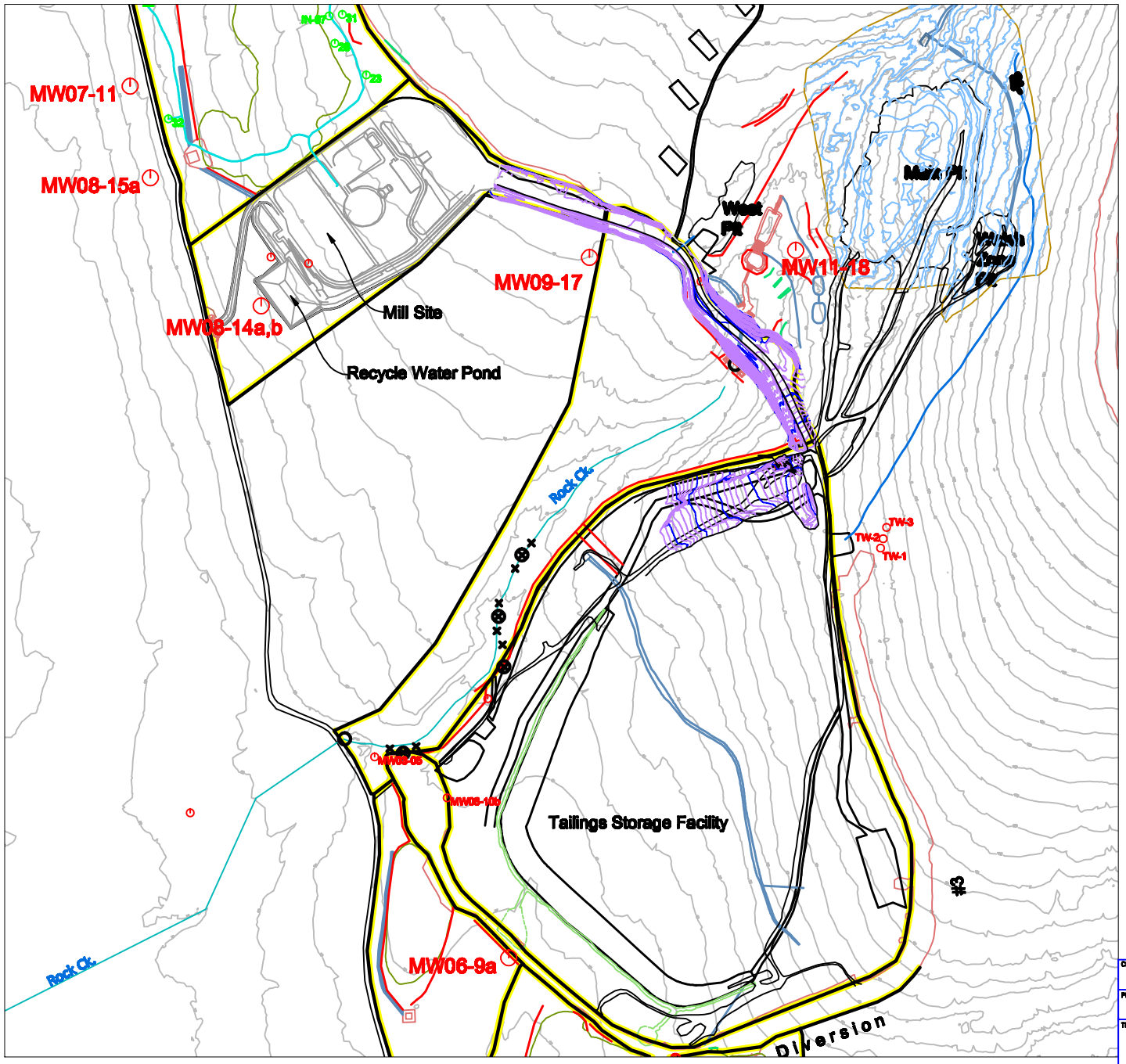
WATER MONITORING LOCATIONS ABOVE AND BELOW ROCK CREEK MINE

A REVISION

Project:	NOVA GOLD	Project No.:	310979
Location:	NOME, ALASKA	Date:	09/2011

FIGURE 25

SEPT 2011 T:\Clients\Nova Gold\Rock Creek Mine\GIS Support\Fig 25 APDES Monitoring locations.mxd By: Drew York



LEGEND:

- PRE-EXISTING GROUND SURFACE CONTOUR EL, METERS
- CONSTRUCTED ROAD CONTOURS
- EXCAVATED PIT CONTOUR EL, METERS
- EXISTING STREAM
- TEMPORARY DITCH
- EXISTING SWPPP STRUCTURE
- PIT SURVEY LIMITS
- MONITORING WELL LOCATION

Note : The location of MW11-18 is approximate, and is based on field observations. Surveyed location will be provided, and this map updated, as it becomes available.

CLIENT	ALASKA GOLD COMPANY
PROJECT	ROCK CREEK PROJECT
TITLE	FIGURE 26 ROCK CREEK MONITORING WELLS

DESIGNED BY	JGR	CHECKED BY	
DRAWN BY	JGR	APPROVED BY	
FILENAME: FIGURE 1		DRAWING No.	REV: A

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