

B3-10 Mid complex void(s) backfilling

Conceptual Mitigation Plan
Revision 1 – February 7, 2014

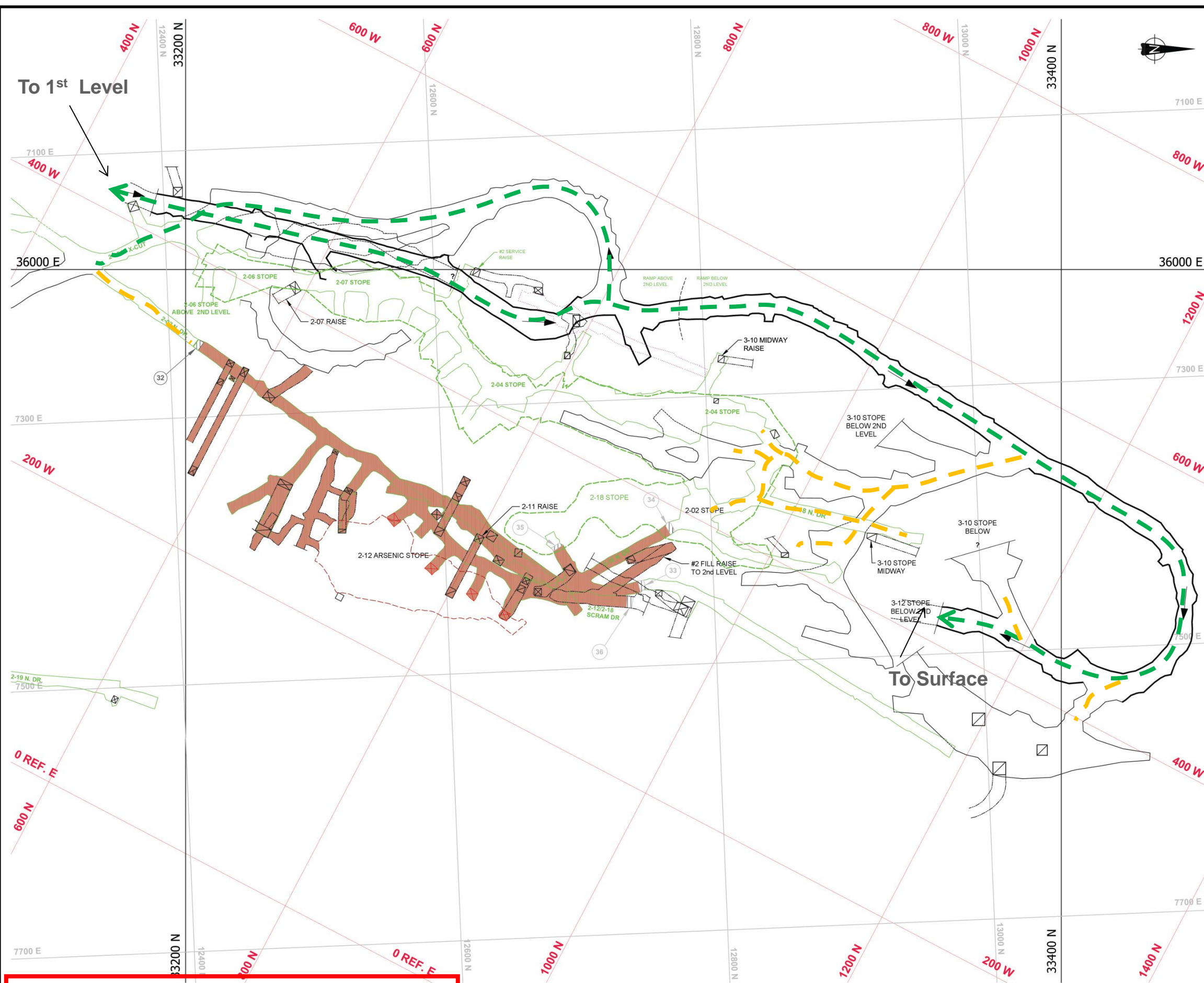


Note: Level plans shown are for illustrative purposes only, Use full size level plans and 3D digital model for planning purposes.

NOT FOR CONSTRUCTION

PROJECT		PWGSC			
		GIANT MINE INTERIM U/G STABILIZATION PROJECT YELLOWKNIFE, NWT			
TITLE		B3-10Mid Stope Complex Conceptual Mitigation Plan			
		PROJECT No.	13-1426-0010	PHASE No.	5000
DESIGN	FM	05JAN14	SCALE	N.T.S.	REV. 1
CADD	FM	05JAN14			
CHECK	DTK	24JAN14			
REVIEW	DTK	24JAN14			
				Page 1	

File: C:\Active\2013\1426\13-1426-0010 Giant Mining Support Services\7000 - MSS-007 2014 Procure\Doc070_BS-10 Mid\03_Conceptual Mitigation Plan



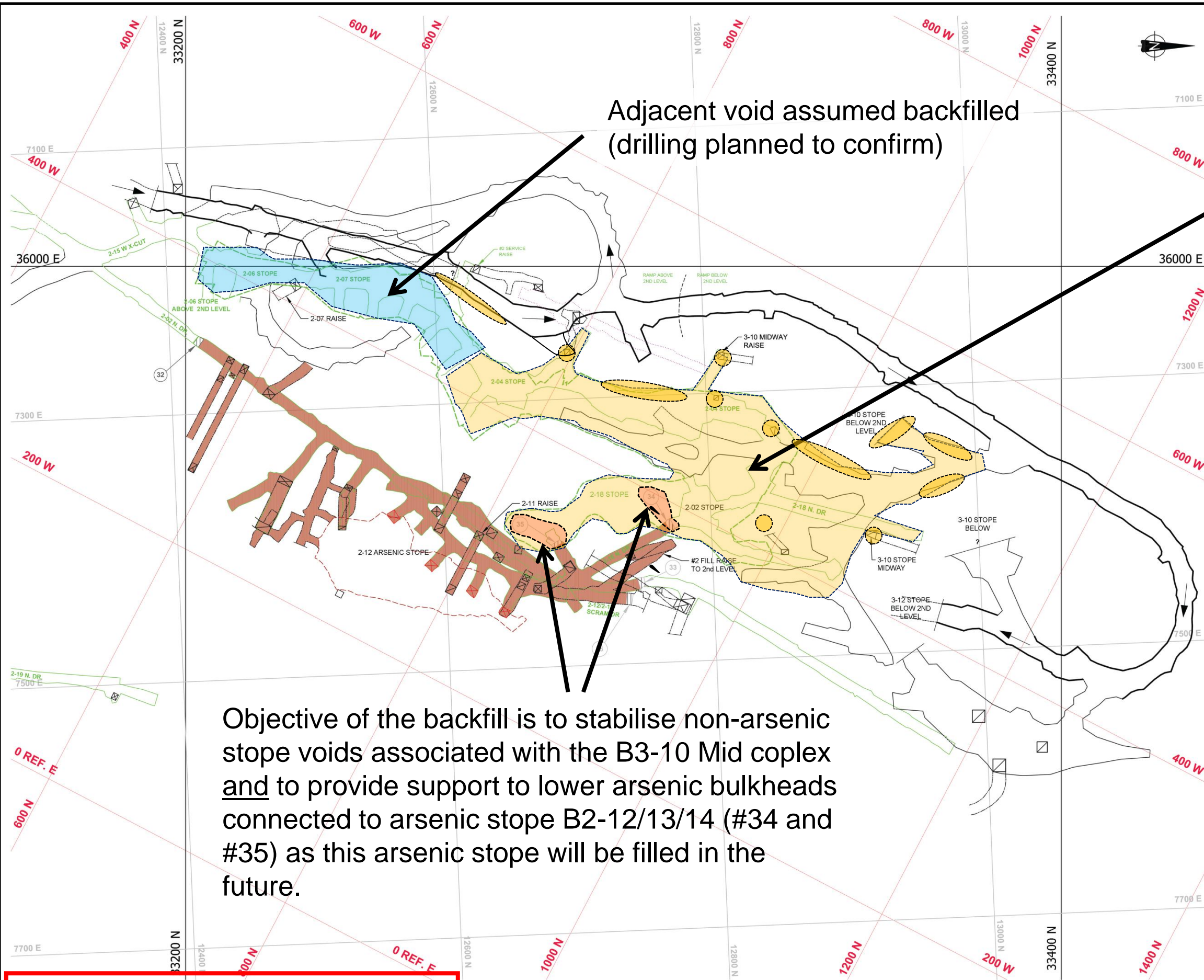
Underground Development Access - Legend

- - - DCNJV main travel way / work areas
- - - Not regularly travelled by DCNJV. Discuss entry procedures with DCNJV
- - - Hazard(s) present. Discuss entry procedures with DCNJV
- - - Major hazard(s) present. Discuss entry procedures with DCNJV

Note: Underground development access notes are for planning purposes only, Care and Maintenance Contractor Determines Safety of Access to Giant Mine Underground.

NOT FOR CONSTRUCTION

PROJECT		PWGSC GIANT MINE INTERIM U/G STABILIZATION PROJECT YELLOWKNIFE, NWT		
TITLE		B3-10 Mid Stope Complex Underground Access - 2nd Level		
PROJECT No.	13-1426-0010	PHASE No.	5000	
DESIGN	FM	05JAN14	SCALE	N.T.S. REV. 1
CADD	FM	05JAN14		
CHECK	DTK	24JAN14		
REVIEW	DTK	24JAN14		
Golder Associates			Page 2	



Target Area to be Backfilled

Consists of several interconnected partially backfilled voids.

Void volume is not tightly constrained

Connections to lower levels (3rd and 4th level) exist which could allow paste backfill to escape. These include partially filled stopes (e.g. fill not tight to moderate dipping hangingwalls), sub-vertical raises and manways, etc.

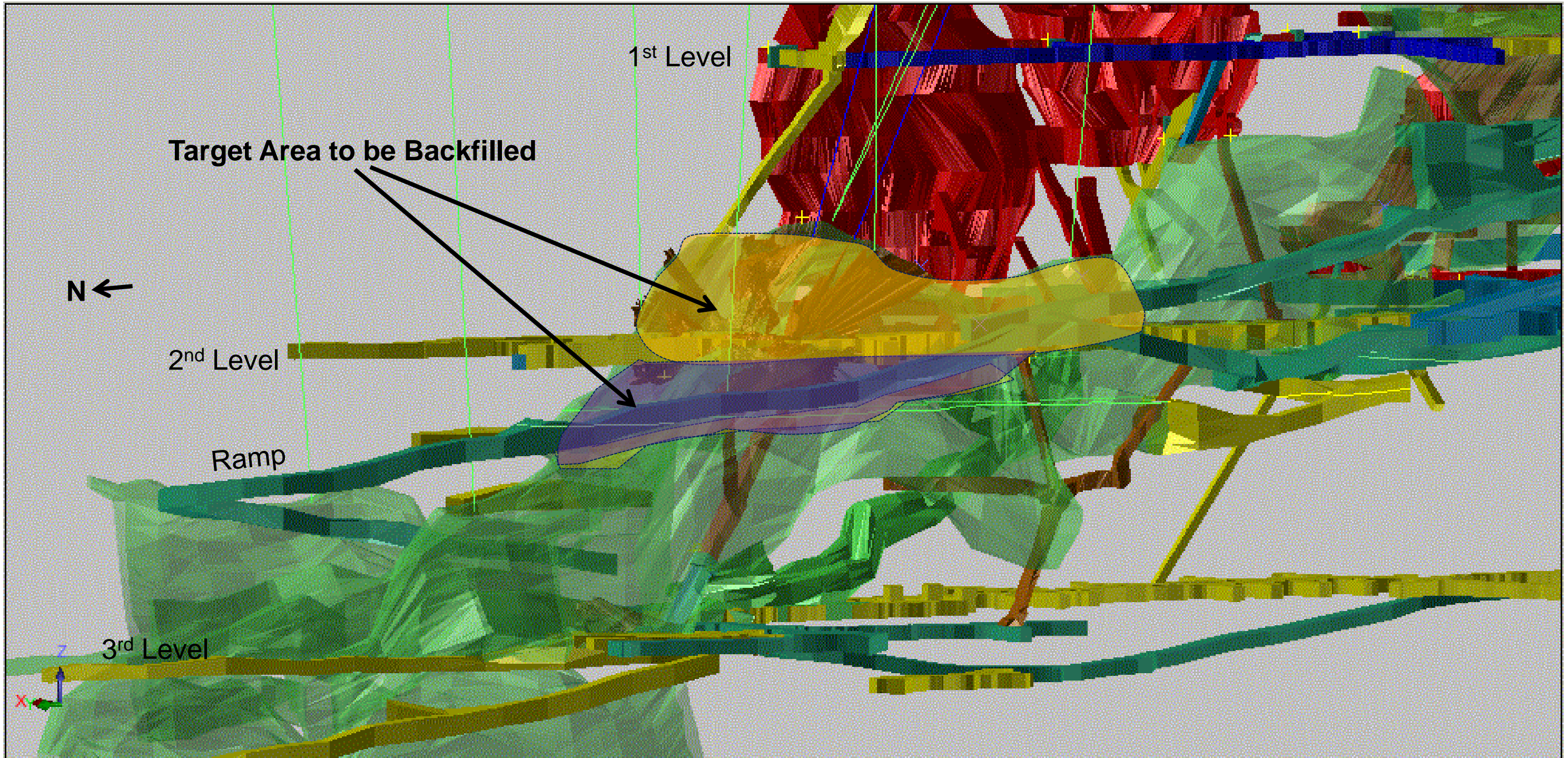
Position of possible exit voids ●

Objective of the backfill is to stabilise non-arsenic stope voids associated with the B3-10 Mid complex and to provide support to lower arsenic bulkheads connected to arsenic stope B2-12/13/14 (#34 and #35) as this arsenic stope will be filled in the future.

NOT FOR CONSTRUCTION

PROJECT		PWGSC		
GIANT MINE INTERIM U/G STABILIZATION PROJECT		YELLOWKNIFE, NWT		
TITLE				
B3-10Mid Stope Complex				
Void Volumes and Exit Points – 2nd Level				
PROJECT No. 13-1426-0010		PHASE No. 5000		
DESIGN	FM	05JAN14	SCALE	N.T.S. REV. 1
CADD	FM	05JAN14		
CHECK	DTK	24JAN14		
REVIEW	DTK	24JAN14		
Golder Associates			Page 4	

File: C:\Active\2013\1426\13-1426-0010 Giant Mining Support Services\7000 - MSS-007 2014 Procure\Doc070_B3-10 Mid\03_Conceptual Mitigation Plan




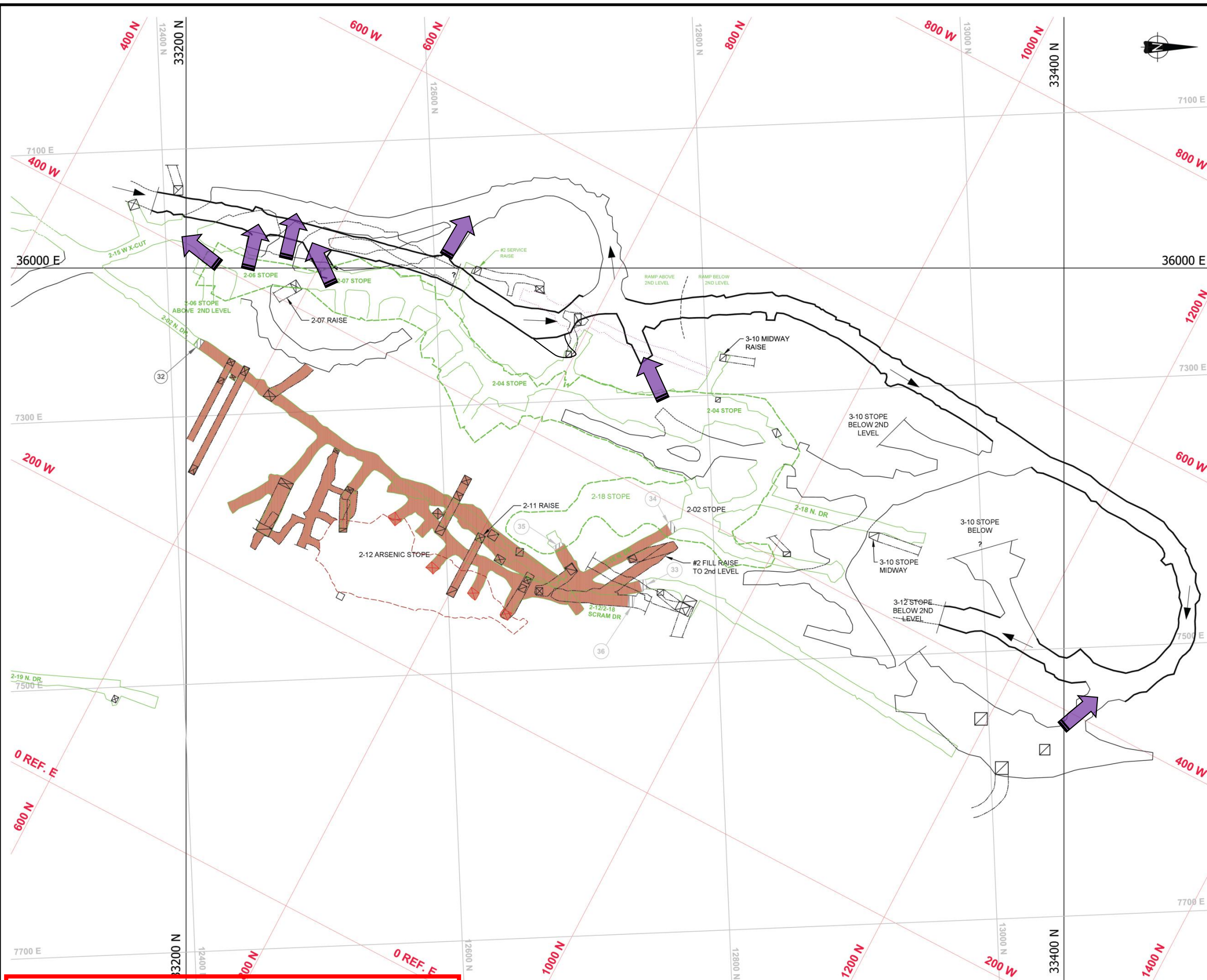
Isometric view of 3D Model – Looking East-Southeast

B3-10 Mid void volume below base of 2nd level: 6,000m³

B3-10 Mid void volume above base of 2nd level: 11,000m³

NOT FOR CONSTRUCTION

PROJECT		PWGSC		
GIANT MINE INTERIM U/G STABILIZATION PROJECT		YELLOWKNIFE, NWT		
TITLE				
B3-10Mid Stope Complex				
Void Volumes				
PROJECT No. 13-1426-0010		PHASE No. 5000		
DESIGN	FM	05JAN14	SCALE	N.T.S. REV. 1
CADD	FM	05JAN14		
CHECK	DTK	24JAN14		
REVIEW	DTK	24JAN14		
			Page 5	



Possible Paste Backfill Leakage Points To Be Monitored - Legend

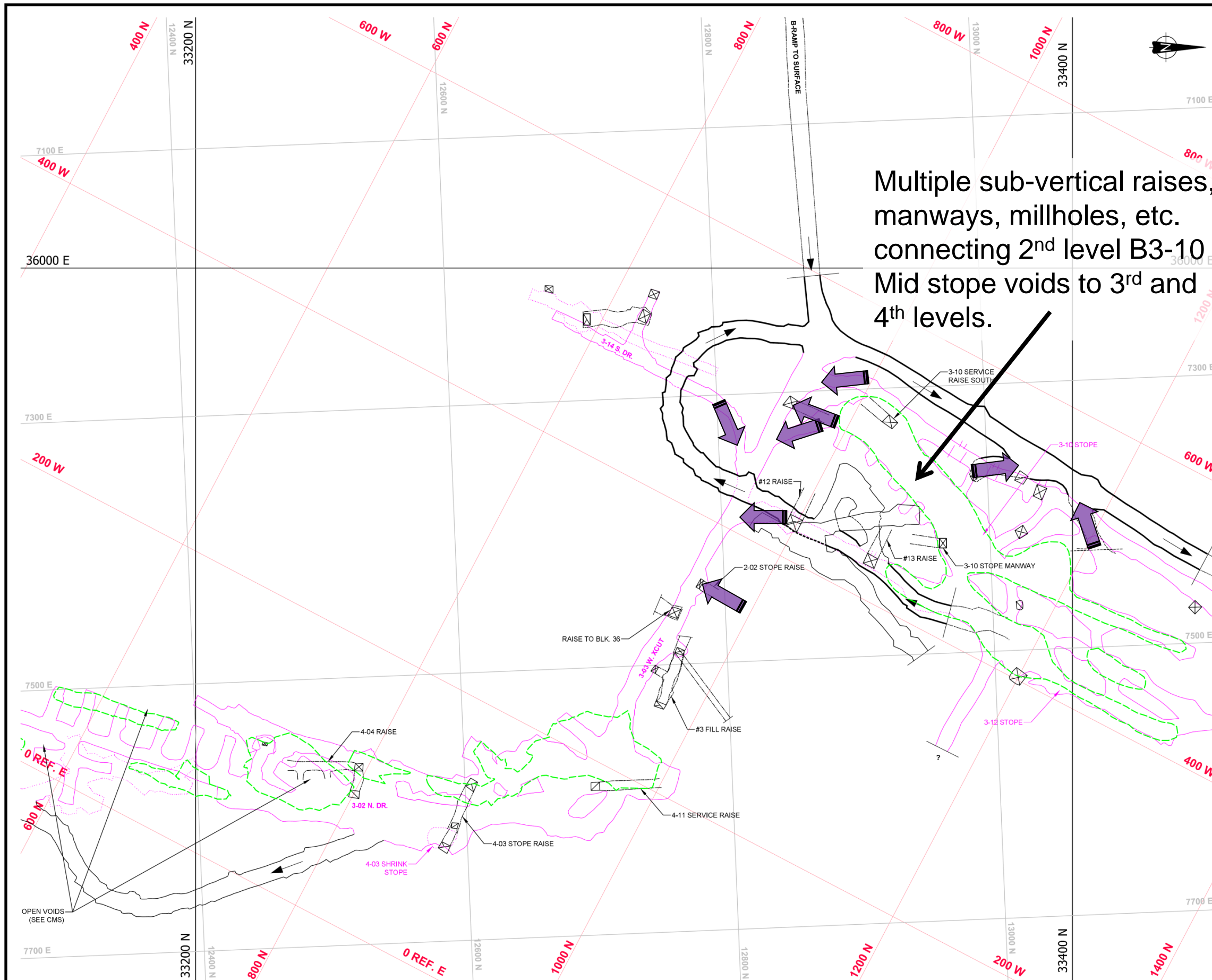
- Possible paste exit point to be monitored – man-entry
- Possible paste exit point to be monitored – no entry

Note: These points show areas where paste may flow from the targeted void to be backfilled. These exit points must be monitored. Barricades or a change in paste delivery approach in the targeted void would be required to stop the leak.

NOT FOR CONSTRUCTION



PROJECT		PWGSC		
		GIANT MINE INTERIM U/G STABILIZATION PROJECT		
		YELLOWKNIFE, NWT		
TITLE		B3-10 Mid Stope Complex		
		Possible Paste Exit Points To Be Monitored – 2nd Level		
		PROJECT No. 13-1426-0010	PHASE No. 5000	
DESIGN	FM	05JAN14	SCALE	N.T.S. REV. 1
CADD	FM	05JAN14	Page 8	
CHECK	DTK	24JAN14		
REVIEW	DTK	24JAN14		





Multiple sub-vertical raises, manways, millholes, etc. connecting 2nd level B3-10 Mid stope voids to 3rd and 4th levels.

Possible Paste Backfill Leakage Points To Be Monitored - Legend

-  Possible paste exit point to be monitored – man-entry
-  Possible paste exit point to be monitored – no entry

Note: These points show areas where paste may flow from the targeted void to be backfilled. These exit points must be monitored. Barricades or a change in paste delivery approach in the targeted void would be required to stop the leak.

NOT FOR CONSTRUCTION

PROJECT		PWGSC GIANT MINE INTERIM U/G STABILIZATION PROJECT YELLOWKNIFE, NWT		
TITLE		B3-10 Mid Stope Complex Possible Paste Exit Points To Be Monitored – 3 rd Level		
PROJECT No. 13-1426-0010		PHASE No. 5000		
DESIGN	FM	05JAN14	SCALE	N.T.S.
CADD	FM	05JAN14	REV. 1	
CHECK	DTK	24JAN14	Page 9	
REVIEW	DTK	24JAN14		

