



September 30, 2011

Director, Mineral Resources
 Department of Energy, Mines and Resources
 P.O. Box 2703
 Whitehorse, YT
 Y1A 2C6

Attention: Robert Holmes, Director, Mineral Resources

Dear Mr. Holmes:

**Re: 2010 Annual Physical Inspection , Quartz Mining Licence QML-0009
 Bellekeno Mine, Yukon**

As per Quartz Mining Licence QML-0009 Part 2 Clause 14.1 through 14.3, an Annual Physical Inspection of all engineered structures, works and installations was conducted by August 1st, 2011.

EBA, A Tetra Tech Company (EBA), was retained to complete the 2011 annual inspection of the surface engineered earth structures located throughout the Bellekeno Mine site. The mine and associated infrastructure was inspected by Senior Mining Engineer Darin Baker and Yukon P.Eng stamped by Mine Manager, Scott Smith.

Several items were identified in both the surface locations and the underground workings that required additional attention. All items identified have been completed as of September 30th, 2011 and are summarized in Table 1 and Table 2 below:

Table 1. 2011 Annual Physical Inspection of Surface Structures

Item Number	Location	Item	Date Completed
1	PAG Waste Storage Facility	Complete facility, lay remaining liner to complete berm liner anchoring trench completed for remainder of completed facility (N and W berms)	Completed for 2011 forecasted storage requirements
2	LC Bridge Abutments	Riprap along both banks do not cover geotextile near creek edge	30-Sept-2011
3	Mill Water Storage Pond	Liner anchoring trench to be completed for entire facility, to prevent wind damage to line	18-Aug-2011
4	DSTF	Crest elevation higher than design, needs to be resloped	1-Sept-2011
5	Galkeno 900 WT Pond	Liner needs to be replaced and re-installed	6-Sept-2011

Head Office

T. 604 633 4888

Alexco Resource Corp.
 200 Granville Street
 Suite 1150
 Vancouver, BC V6C 1S4

F. 604 633 4887



Table 2. 2011 Annual Physical Inspection of Underground Workings

Item Number	Location	Item	Date Completed
1	Tailings Remuck	Complete wall bolting prior to starting bench to final grade	16-Aug-2011
2	99-725 C1	Cable bolt and re-shotcrete Rt wall 10m back of fill plug	15-Sept-2011
3	99 635 C1 Sill Mat	Continue sill mat, tie in screen prior to filling	15-Sept-2011
4	99 625 South	Continue cable bracing timber sets, drill and install cable bolts	16-Aug-2011

Please find attached the required reports for the Annual Physical Inspection.

Attachment A: 2011 Annual Physical Inspection of Surface Structures
Attachment B: 2011 Annual Physical Inspection of Underground Workings
Attachment C: 2011 Underground As-Built

If you have any questions or require further details, please contact the undersigned at (867) 996-2330.

Sincerely,

ALEXCO KENO HILL MINING CORP.

Vanessa Benwood
Site Environmental Coordinator
Bellekeno Minesite

CC: Dennis Buyck, Lands Manager, FNNND
Tom Fudge, ARG
Tim Hall, ARG
Brad Thrall, ARG
Jim Harrington, AEG



ALEXCO KENO HILL MINING CORP.
QUARTZ MINING LICENCE QML-0009
2011 ANNUAL PHYSICAL INSPECTION
BELLEKENO MINE SITE
KENO HILL SILVER DISTRICT
YUKON

APPENDIX A

2011 ANNUAL PHYSICAL INSPECTION
SURFACE STRUCTURES



A TETRA TECH COMPANY

August 18, 2011

Alexco Resource Corp.
3-151 Industrial Road
Whitehorse, YT Y1A 2V3

ISSUED FOR USE
EBA FILE: W14101620
Via Email: vbenwood@alexcoresource.com

Attention: Vanessa Benwood, Site Environmental Coordinator

Subject: 2011 Annual Inspection – Surface Engineered Earth Structures
Bellekeno Minesite, Keno City, Yukon

1.0 INTRODUCTION

Alexco Resource Corporation (Alexco) retained EBA, A Tetra Tech Company (EBA), to complete the 2011 annual inspection of the surface engineered earth structures located throughout the Bellekeno Mine site (shown on Figure 1). In partial fulfilment of their Quartz Mining Licence (QML-0009) Alexco requires annual inspections of all engineered underground and surface structures. Alexco identified the following surface engineered earth structures as requiring inspection:

- Potentially acid generating (PAG) waste storage facility
- Waste rock pile
- Bellekeno 625 water treatment pond
- Lightning Creek bridge abutments
- Mill water storage pond
- Dry stacked tailings facility (DSTF)
- Galkeno 900 water treatment pond

2.0 SCOPE OF SERVICES

EBA's scope of services for the 2011 annual inspection is as follows:

- Complete a visual inspection of the surface engineered earth structures at the Bellekeno Minesite prior to August 1, 2011.
- Prepare an inspection report containing the results of the inspection, summary of the stability, integrity, and status of all inspected structures, and any recommendations for remedial actions.

3.0 SITE INSPECTION

The site inspection was completed by Mr. Justin Pigage, EIT, of EBA’s Whitehorse office on July 28, 2011. The following sections detail the results of the inspection and any resulting recommended remedial actions. Photographs of the inspected surface engineered earth structures and noted deficiencies are attached to this report.

3.1 PAG Waste Storage Facility

The PAG Waste Storage Facility is located south of the Bellekeno Mine portal, the location is shown on Figure 1. The perimeter berms of the facility appeared intact with no visible signs of instability or erosion (Photo 1). The vertical geotextile wrapped extraction culvert, waste piles, and completed liner system appeared stable (Photo 2).

At the time of the inspection construction of the PAG Waste Storage Facility was only partially completed (Photo 3). The material being stored within the facility appeared to be properly contained; construction of the facility should be completed to reduce the risk of uncontrolled release and allow for additional storage capacity.

Within the completed portion of the facility (northern half) the liner anchoring trench along the east berm appeared finished (Photo 4). Elsewhere, loose material was piled on top of the berm to hold the liner in place (Photo 5). The liner anchoring trench should be finished for the remainder of the completed facility (north and west berms).

3.2 Waste Rock Pile

The waste rock pile is located along the Bellekeno Mine haul road, north of the portal. The location is shown on Figure 1. The pile and sideslopes appeared stable at the time of the inspection (Photos 6 and 7). No remedial action is recommended for the waste rock pile at this time.

3.3 Bellekeno 625 Water Treatment Pond

The Bellekeno 625 water treatment pond is located east of the Bellekeno Mine haul road where it passes the waste rock pile. The location is shown on Figure 1. The pond and surrounding structures (vehicle barriers, walkways, and piping) appeared stable at the time of the inspection (Photo 8). The liner system appeared intact and no liner tension or bulging was observed (Photo 9). The pond berms and liner anchoring trenches appeared intact (Photo 10). No remedial action is recommended for the Bellekeno 625 water treatment pond at this time.

3.4 Lightning Creek Bridge Abutments

The Lightning Creek bridge is located on the Bellekeno Mine haul road near Keno City. The location is shown on Figure 1. The bridge abutments are constructed of earth filled timber cribbing and no indications of movement were observed at the time of the inspection (Photo 11).

Riprap placed along both banks of Lightning Creek to protect the abutments from scour does not adequately cover the underlying geotextile near the creek’s edge (Photos 12 and 13). The geotextile

beneath the riprap was exposed immediately above the water line at the time of the inspection on both the north and south banks. Additional riprap should be placed on both creek banks to cover the exposed geotextile. This work should be completed when the water level in the creek is low.

3.5 Mill Water Storage Pond

The mill water storage pond is located at the Bellekeno Mill Site approximately 1 km west of Keno City. The location is shown on Figure 1. No visible seepage was observed and the pond berms appeared stable at the time of the inspection (Photo 14). The liner system appeared intact with no loose seams, liner tension, or liner bulging observed (Photo 15).

The liner anchoring trench for the east end of the pond was not completed at the time of the inspection (Photo 16). The liner anchoring trench should be completed for the entire facility to limit the risk of damage to the liner from high winds.

3.6 Dry Stacked Tailings Facility

The dry stacked tailings facility (DSTF) is located at the Bellekeno Mill Site approximately 1 km west of Keno City. The location is shown on Figure 1. Construction of the DSTF was ongoing at the time of the inspection. The gravel drainage blanket, geosynthetic clay liner, geonet, and geotextile placed to date appeared intact under the placed tailings (Photo 17).

The tailings appear to have been placed in accordance with the design with the exception of the tallest portion of the existing pile (Photo 18). The crest elevation is higher than the design elevation; the pile should be reshaped to the design dimensions.

3.7 Galkeno 900 Water Treatment Pond

The Galkeno 900 water treatment pond is located off of the Silver Trail Highway at the north end of Christal Lake. The location is shown on Figure 1. No visible seepage was observed and the pond berms appeared stable at the time of the inspection. The liner system was not anchored properly along the south and east berms of the pond resulting in the liner falling into the pond (Photos 19 and 20). The liner system should be pulled up and held in place with a proper liner anchoring trench. This work should be completed as soon as possible to reduce the risk of damage to the liner system and berms.

4.0 CONCLUSIONS

EBA has concluded that the structures inspected pose no significant risk to the environment or human health and safety. The recommended remediation measures stated in the previous sections should be completed as soon as possible. The inspected structures should be monitored frequently and repaired as required. Additional photographs taken during the site investigation are available upon request.

5.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Alexco Resource Corporation and their agents. EBA, A Tetra Tech Company, does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Alexco Resource Corporation, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and conditions stated in EBA's General Conditions provided in Appendix A of this report.

6.0 CLOSURE

We trust this report meets your present requirements. Should you have any questions or comments, please contact the undersigned.

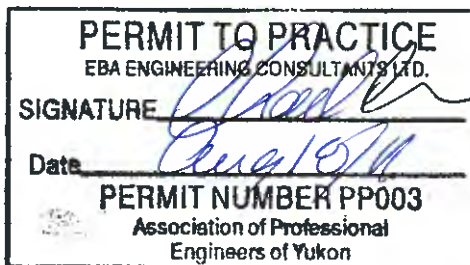
Sincerely,
EBA, A Tetra Tech Company



Justin Pigage, EIT
Geotechnical Engineer, Arctic Region
Direct Line: 867.668.2071 x244
jpigage@eba.ca

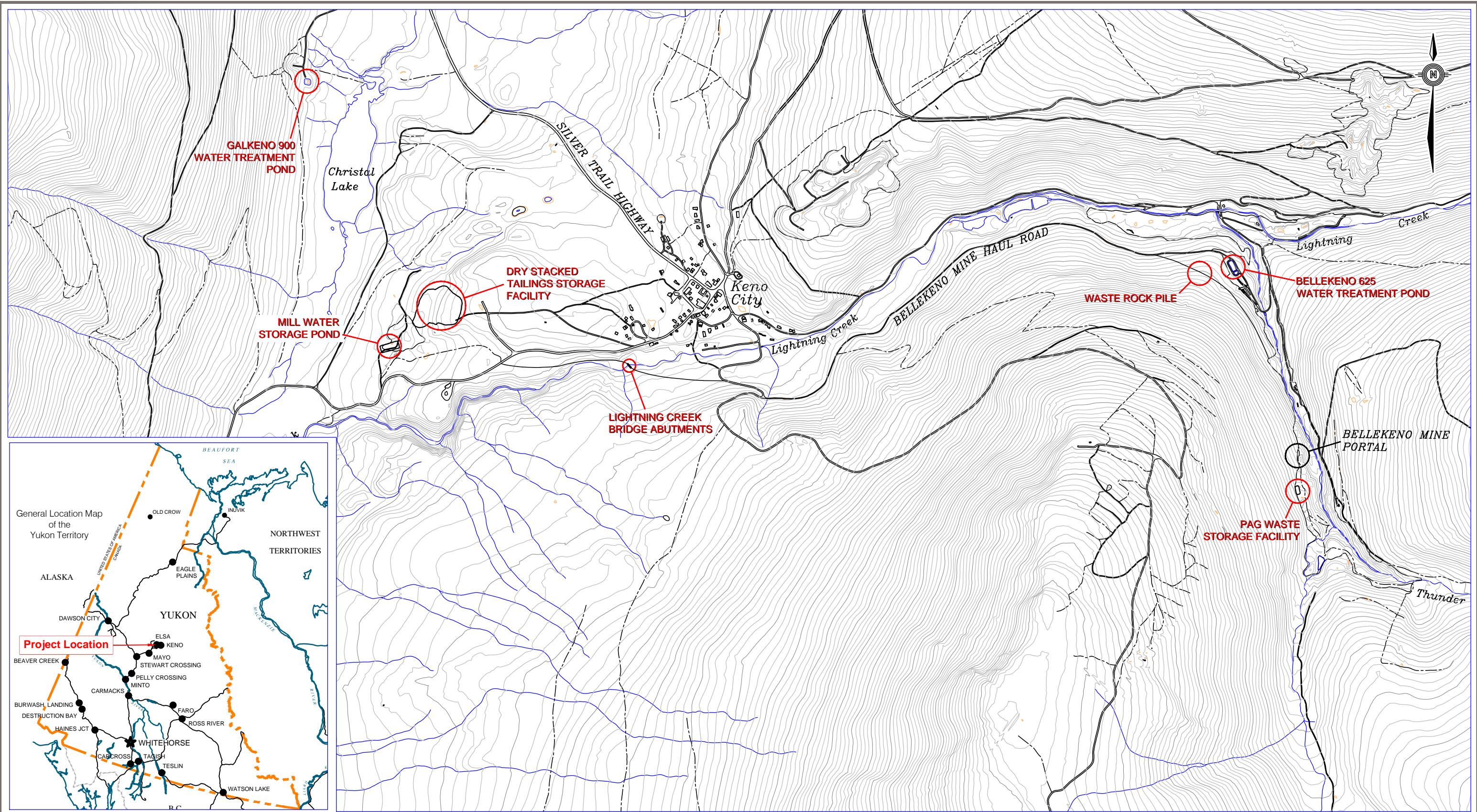


Chad Cowan, P.Eng.
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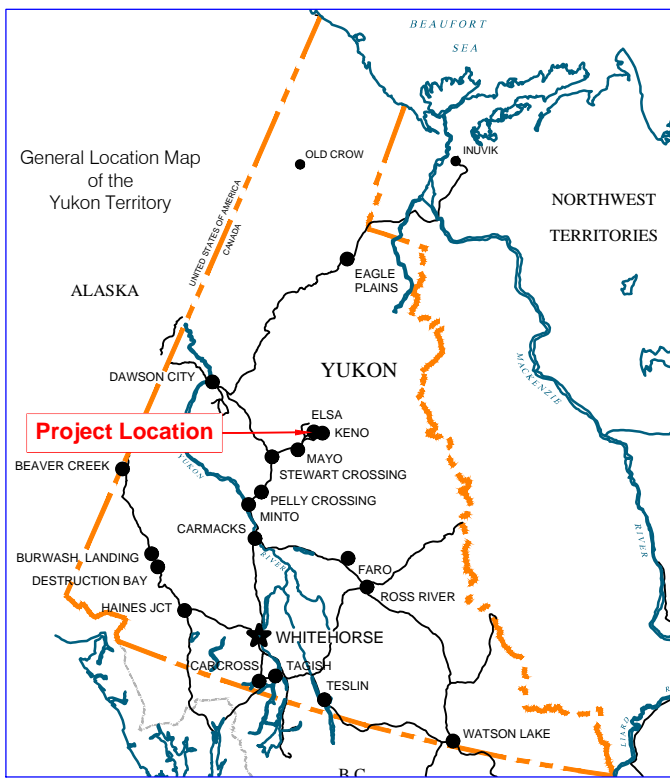


FIGURES

Figure 1 Site Plan Showing Structure Locations



Q:\Whitehorse\Data\020 Drawings\Keno\W14101620 2011 Annual Inspection\W14101620 Fig_1_Rd.dwg [FIGURE 1] August 19, 2011 - 8:21:04 am (BY: BUICK, JAMES)



0 500
Scale: 1: 15 000 (metres)

NOTES
CONTOUR INFORMATION IS BASED ON DRAWING PROVIDED BY ALEXCO RESOURCE INC.

CLIENT



**2011 ANNUAL INSPECTION
BELLEKENO MINE SITE - KENO CITY, YUKON**

**SITE PLAN SHOWING
STRUCTURE LOCATIONS**

PROJECT NO. W14101620	DWN CB	CKD JTP	REV 0
OFFICE EBA-WHSE	DATE August 16, 2011		

Figure 1

PHOTOGRAPHS



Photo 1: PAG Waste Storage Facility perimeter berm
(Facing northwest – July 28, 2011)



Photo 2: Geotextile wrapped vertical culvert, waste piles, completed portion of liner system
(Facing north – July 28, 2011)



Photo 3: Partially completed PAG Waste Storage Facility
(Facing north – July 28, 2011)



Photo 4: Liner anchoring trench along east berm
(Facing south – July 28, 2011)



Photo 5: Loose material piled on top of west berm to hold liner in place
(Facing south – July 28, 2011)



Photo 6: Bellekeno Mine haul road and waste rock pile
(Facing west – July 28, 2011)



Photo 7: Waste rock pile
(Facing south – July 28, 2011)



Photo 8: Bellekeno 625 water treatment pond and surrounding structures
(Facing north – July 28, 2011)



Photo 9: Bellekeno 625 water treatment pond liner system
(Facing south – July 28, 2011)



Photo 10: Liner anchoring trench and berm
(Facing north – July 28, 2011)



Photo 11: Lightning Creek bridge, north abutment
(Facing west – July 28, 2011)



Photo 12: Exposed geotextile on north bank of Lightning Creek requiring additional
riprap placement
(Facing north – July 28, 2011)



Photo 13: Exposed geotextile on south bank of Lightning Creek requiring additional riprap placement
(Facing east – July 28, 2011)



Photo 14: Mill water storage pond and berms appeared stable
(Facing west – July 28, 2011)



Photo 15: Typical seam in liner of mill water storage pond
(Facing east – July 28, 2011)



Photo 16: Incomplete liner anchoring trench at east end of mill water storage pond
(Facing north – July 28, 2011)



Photo 17: Gravel drainage blanket, geosynthetic clay liner, geonet, geotextile, and tailings placed within the DSTF (Facing south – July 28, 2011)



Photo 18: Existing pile crest exceeds design elevation; the pile should be reshaped to design dimensions (Facing north – July 28, 2011)



Photo 19: Galkeno 900 water treatment pond liner falling into pond
(Facing south – July 28, 2011)



Photo 20: Exposed berm and liner system falling into pond
(Facing south – July 28, 2011)

APPENDIX A

APPENDIX A EBA'S GENERAL CONDITIONS

GENERAL CONDITIONS

GEOTECHNICAL REPORT

This report incorporates and is subject to these "General Conditions".

1.0 USE OF REPORT AND OWNERSHIP

This geotechnical report pertains to a specific site, a specific development and a specific scope of work. It is not applicable to any other sites nor should it be relied upon for types of development other than that to which it refers. Any variation from the site or development would necessitate a supplementary geotechnical assessment.

This report and the recommendations contained in it are intended for the sole use of EBA's Client. EBA does not accept any responsibility for the accuracy of any of the data, the analyses or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than EBA's Client unless otherwise authorized in writing by EBA. Any unauthorized use of the report is at the sole risk of the user.

This report is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of EBA. Additional copies of the report, if required, may be obtained upon request.

2.0 ALTERNATE REPORT FORMAT

Where EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed EBA's instruments of professional service), only the signed and/or sealed versions shall be considered final and legally binding. The original signed and/or sealed version archived by EBA shall be deemed to be the original for the Project.

Both electronic file and hard copy versions of EBA's instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except EBA. EBA's instruments of professional service will be used only and exactly as submitted by EBA.

Electronic files submitted by EBA have been prepared and submitted using specific software and hardware systems. EBA makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

3.0 ENVIRONMENTAL AND REGULATORY ISSUES

Unless stipulated in the report, EBA has not been retained to investigate, address or consider and has not investigated, addressed or considered any environmental or regulatory issues associated with development on the subject site.

4.0 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems and methods employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from the system or method prevail, they are specifically mentioned.

Classification and identification of geological units are judgmental in nature as to both type and condition. EBA does not warrant conditions represented herein as exact, but infers accuracy only to the extent that is common in practice.

Where subsurface conditions encountered during development are different from those described in this report, qualified geotechnical personnel should revisit the site and review recommendations in light of the actual conditions encountered.

5.0 LOGS OF TESTHOLES

The testhole logs are a compilation of conditions and classification of soils and rocks as obtained from field observations and laboratory testing of selected samples. Soil and rock zones have been interpreted. Change from one geological zone to the other, indicated on the logs as a distinct line, can be, in fact, transitional. The extent of transition is interpretive. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

6.0 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

The stratigraphic and geological information indicated on drawings contained in this report are inferred from logs of test holes and/or soil/rock exposures. Stratigraphy is known only at the locations of the test hole or exposure. Actual geology and stratigraphy between test holes and/or exposures may vary from that shown on these drawings. Natural variations in geological conditions are inherent and are a function of the historic environment. EBA does not represent the conditions illustrated as exact but recognizes that variations will exist. Where knowledge of more precise locations of geological units is necessary, additional investigation and review may be necessary.

7.0 PROTECTION OF EXPOSED GROUND

Excavation and construction operations expose geological materials to climatic elements (freeze/thaw, wet/dry) and/or mechanical disturbance which can cause severe deterioration. Unless otherwise specifically indicated in this report, the walls and floors of excavations must be protected from the elements, particularly moisture, desiccation, frost action and construction traffic.

8.0 SUPPORT OF ADJACENT GROUND AND STRUCTURES

Unless otherwise specifically advised, support of ground and structures adjacent to the anticipated construction and preservation of adjacent ground and structures from the adverse impact of construction activity is required.

9.0 INFLUENCE OF CONSTRUCTION ACTIVITY

There is a direct correlation between construction activity and structural performance of adjacent buildings and other installations. The influence of all anticipated construction activities should be considered by the contractor, owner, architect and prime engineer in consultation with a geotechnical engineer when the final design and construction techniques are known.

10.0 OBSERVATIONS DURING CONSTRUCTION

Because of the nature of geological deposits, the judgmental nature of geotechnical engineering, as well as the potential of adverse circumstances arising from construction activity, observations during site preparation, excavation and construction should be carried out by a geotechnical engineer. These observations may then serve as the basis for confirmation and/or alteration of geotechnical recommendations or design guidelines presented herein.

11.0 DRAINAGE SYSTEMS

Where temporary or permanent drainage systems are installed within or around a structure, the systems which will be installed must protect the structure from loss of ground due to internal erosion and must be designed so as to assure continued performance of the drains. Specific design detail of such systems should be developed or reviewed by the geotechnical engineer. Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function.

12.0 BEARING CAPACITY

Design bearing capacities, loads and allowable stresses quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition assumed. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions assumed in this report in fact exist at the site.

13.0 SAMPLES

EBA will retain all soil and rock samples for 30 days after this report is issued. Further storage or transfer of samples can be made at the Client's expense upon written request, otherwise samples will be discarded.

14.0 INFORMATION PROVIDED TO EBA BY OTHERS

During the performance of the work and the preparation of the report, EBA may rely on information provided by persons other than the Client. While EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.



ALEXCO KENO HILL MINING CORP.
QUARTZ MINING LICENCE QML-0009
2011 ANNUAL PHYSICAL INSPECTION
BELLEKENO MINE SITE
KENO HILL SILVER DISTRICT
YUKON

APPENDIX B

2011 ANNUAL PHYSICAL INSPECTION
UNDERGROUND WORKINGS

Inspected Heading Name	Date	Engineer	Ground Conditions	Ground Support	Status	Action? (and/or Comments)
SW650C1N	25/07/2011	DB	good	good	OK	
SW650C1S	25/07/2011	DB	good	good	OK	
99-635 BEN	25/07/2011	DB	good	good	OK	
SW750C1N BEN	25/07/2011	DB	good	good	OK	
720-750S Longhole	25/07/2011	DB	good	good	OK	Monitor area as longholes are blasted
SW820C3	25/07/2011	DB	good	good	OK	
SW720C1P2	25/07/2011	DB	fair	fair	OK	
East Decline to SW Central Dec	25/07/2011	DB	fair	fair	OK	
SW650C1NBen	25/07/2011	DB	good	good	OK	
SW750C1S Breasting	25/07/2011	DB	good	good	OK	
SW810C1	25/07/2011	DB	good	good	OK	
SW MAIN RAMP	25/07/2011	DB	good	good	OK	
SW780 Acc	25/07/2011	DB	good	good	OK	
SW Central Incline	25/07/2011	DB	good	good	OK	
TAILINGS REMUCK-	25/07/2011	DB	good	good	OK	Complete wall bolting prior to starting bench to final grade
99-725 C1	25/07/2011	DB	Fair	Fair	OK	Cable bolt and re-shotcrete Rt wall 10m back of fill plug
650 ACCESS	25/07/2011	DB	Good	Good	OK	
SW770 Acc	25/07/2011	DB	Good	Good	OK	
SW820C3	25/07/2011	DB	Good	Good	OK	
SW Central Dec	25/07/2011	DB	Good	Good	OK	
99 635C1 SILL MAT	25/07/2011	DB	Good	Good	OK	continue sill mat, tie in screen prior to filling
SW 720C2S	25/07/2011	DB	Good	Good	OK	
99-725	25/07/2011	DB	Good	Good	OK	
99-625 South	25/07/2011	DB	Fair	Fair	OK	Continue cable bracing timber sets, drill and install cable bolts



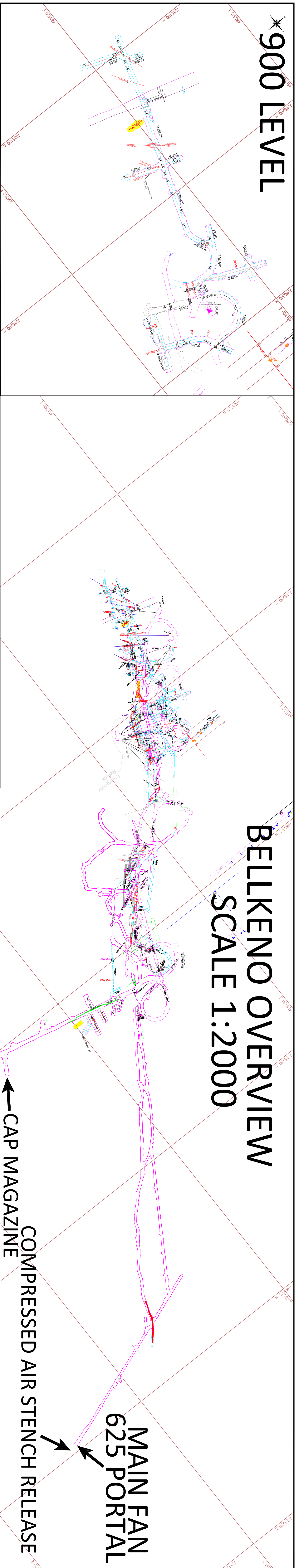


ALEXCO KENO HILL MINING CORP.
QUARTZ MINING LICENCE QML-0009
2011 ANNUAL PHYSICAL INSPECTION
BELLEKENO MINE SITE
KENO HILL SILVER DISTRICT
YUKON

APPENDIX C

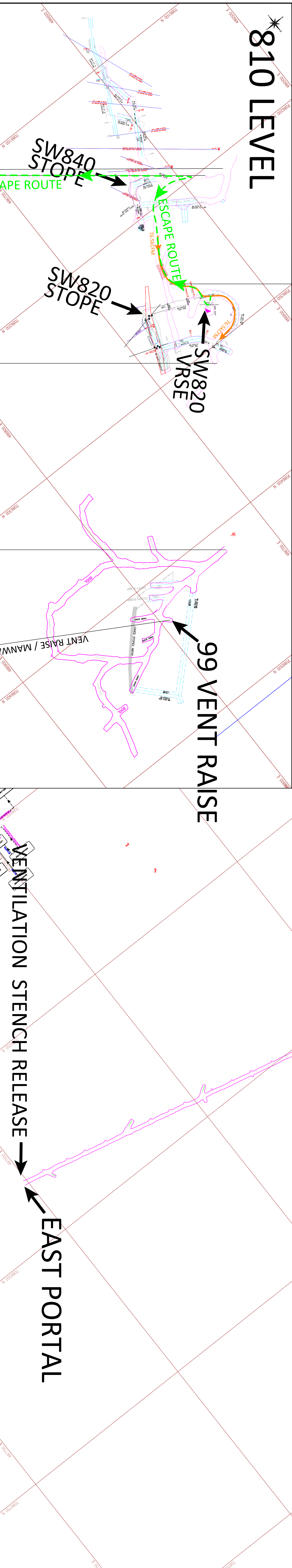
2011 UNDERGROUND AS-BUILT

*900 LEVEL

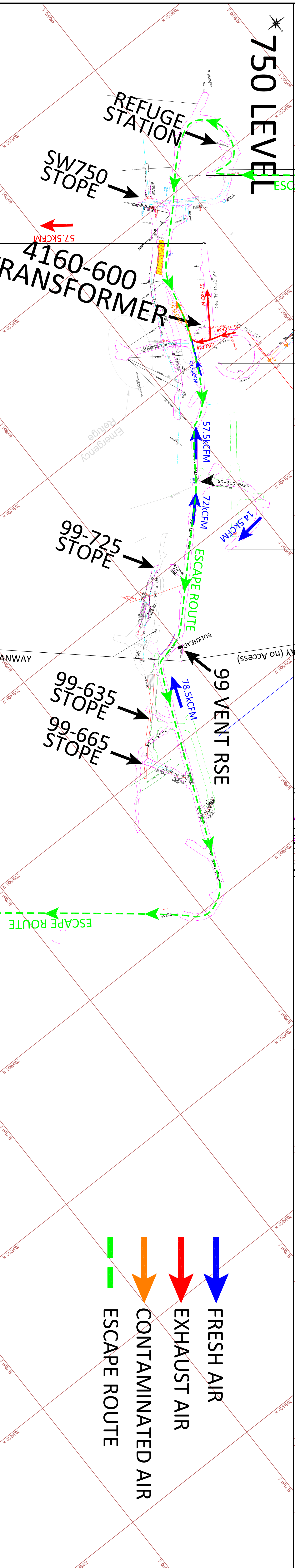


BELLKENO OVERVIEW
SCALE 1:2000

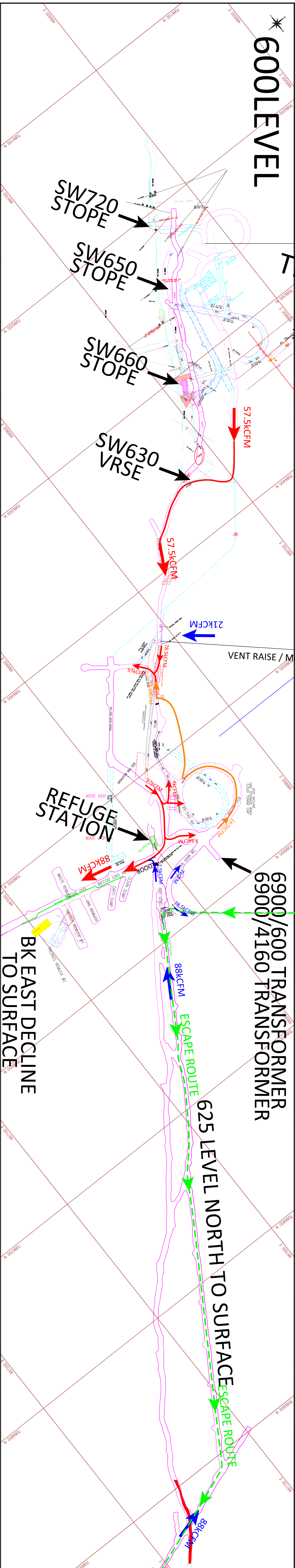
*810 LEVEL



*750 LEVEL



*600 LEVEL



- FRESH AIR
- EXHAUST AIR
- CONTAMINATED AIR
- ESCAPE ROUTE

ALEXCO
ALEXCO RESOURCE CORP
BELLKENO MINE

DEPT. SURVEY	APPROVED BY	DATE	COMMENTS
ENGINEERING			
GEOLOGY			
ALEXCO MANAGER			
PROCON SUPER			

TITLE: **Bellekeno Level Composite**

Drawn by: N. McCREGOR
Date: 23/08/2011
Scale: 1:1000
Approved: _____
Date: _____