

REPORT

2021 Annual Facility Performance Report

Coarse Coal Refuse Facilities

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Executive Summary

This report presents the 2021 annual facility performance report (AFPR) for Coarse Coal Refuse (CCR) facilities at the Teck Coal Limited's (Teck), Greenhills Operations (GHO) mine site for the period between 1 September 2020 and 31 August 2021 (the reporting period). This AFPR includes the dormant Site A Facility and the active Site B and Site E facilities.

Inspection and reporting of the Site C and Site D CCR facilities in 2021 was completed as part of the AFPR for the GHO TSF (Golder 2022). The 2021 site visit was carried out during the week of 16 August 2021 by Golder and Teck. Based on visual observations during the site visit, Site A and Site E CCR facilities appeared to be in a safe condition with no identified deficiencies that required immediate action. Erosion of CCR material on Site B CCR facility was noted at a portion of the east slope during the 2021 site visit. The erosion was repaired by GHO on 26 August 2021, including reprofiling of the haul road to redirect surface water away from the area.

Review of Key Hazards

Performance is assessed by comparing the design basis against observed performance considering both available historic data and data obtained during the reporting period.

Instability

- Site A Facility
 - Observed to be in good condition at the time of the 2021 site visit. No significant changes were noted during the inspection.
- Site B Facility
 - A portion of the spoil was observed to have been placed beyond the design. Evidence of cracking was observed. Remediation of this area was required to achieve minimum design criteria and was completed in late 2021.
- Site E Facility
 - Observed to be in good condition at the time of the 2021 site visit. No significant changes were noted during the inspection.

Erosion

- Site A and E
 - Observed to be in good condition at the time of the 2021 site visit and routine GHO inspections. No significant changes were noted during the inspection.
- Site B
 - Erosion of CCR material by heavy rain was noted during the field visit and was repaired by GHO on 26 August 2021, as discussed above.

Summary of Significant Changes

There were no significant changes in the operation and performance of the CCR facilities during the reporting period.

Significant Changes in Instrumentation or Visual Monitoring Records

No significant changes were noted during the 2021 site inspection or routine GHO visual inspections, except as noted above.

Significant Changes to Stability and/or Surface Water Control

There were no significant changes to facility stability or integrity and or control of surface water during the reporting period.

Review of Operational Documentation

GHO Standard Practices and Procedures (SP&Ps) document procedures for the operation, maintenance, and surveillance of CCR stockpiles at GHO. These cover CCR facilities but were mostly developed for the waste rock stockpiles. It is recommended that an Operations, Maintenance and Surveillance manual be developed for the CCR facilities.

Risk assessments/registers for the CCR facilities are not available and should be completed.

Recommendations

There are no Priority 1 or 2 deficiencies/recommendations. Priority 3 and 4 deficiencies and/or recommendations are presented in Table 2 in Section 5.5.

Abbreviations

Abbreviation	Definition
AFPR	Annual Facility Performance Report
CCR	Coarse Coal Refuse (also known as Coarse Refuse/Rejects; CR)
GHO	Greenhills Operations
Golder	Golder Associates Ltd. (also known as WSP Golder)
OMS	Operation, Maintenance, And Surveillance
RTFE	Responsible Tailings Facility Engineer
Teck	Teck Coal Limited
TSF	Tailings Storage Facility
TWRS	Tailings and Water Retaining Structures
VWP	Vibrating Wire Piezometer

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1.0 INTRODUCTION

At the request of Teck Coal Limited, Greenhills Operations (GHO), Golder Associates Ltd. (Golder) has completed the 2021 annual facility performance report (AFPR) for select Coarse Coal Refuse (CCR) facilities at the GHO mine site. This AFPR includes the following facilities:

- Site A Facility – Dormant
- Site B Facility – Active
- Site E Facility – Active

Facility status is defined in SP&P H1324 (Teck 2018a), as follows:

- Active - open for dumping and have received material within the last 48 hrs
- Dormant - no dumping within the last year and visual monitoring in that period has indicated no movement is occurring

Site C and Site D CCR facilities are located immediately downstream of the GHO Tailings Storage Facility (TSF). Inspection and reporting of these facilities in 2021 was completed as part of the AFPR of the GHO TSF (Golder 2022).

This AFPR consists of the following:

- A summary of site conditions and background information.
- A summary of the construction, operation, and/or maintenance activities for the reporting period.
- Site photographs and records of inspection.
- Review of:
 - operational documents
 - climate data and seismicity
 - facility performance
 - findings and recommended actions

The 2021 site visit was carried out during the week of 16 August 2021 by Golder and Teck. Photographs of the CCR facilities are presented in Appendix A and a summary of observations during the August 2021 site visit is included in Appendix B.

This report is to be read in conjunction with the Study Limitations, which follows the text.

2.0 BACKGROUND

The GHO site is an active open pit steelmaking coal mine located 14 km north of Elkford, BC. The GHO site plan is shown in Figure 1 with the CCR facilities shown in Figure 2.

The mine was started by Westar Mining Ltd. with production between 1982 and 1992, after which the site was temporarily inactive. In December 1993, mine ownership changed to a joint venture between Fording Coal Limited (Fording) and Pohang Steel Canada Ltd., and the mine was operated by Fording. The operating company changed from Fording to Elk Valley Coal Corporation in 2003 and then to Teck Coal Limited in 2008.

2.1 Overview of CCR Facilities

2.1.1 Site A Facility

The Site A Facility was the first CCR facility and was developed in 1989. The facility is located to the east of the Process Plant and the coal conveyor, and west of Greenhills Creek, as shown in Figure 2. The facility was completed to an ultimate elevation of approximately 1,740 m in 1995 and is now dormant. Cross sections of the Site A Facility are shown in Figure 4.

The initial design was completed in 1988 (Hardy 1988, 1989). The initial geometry comprised two 30 m lifts, with a 4 m wide bench between each lift and a maximum elevation of 1,740 m. The overall slope was designed at 2H:1V with inter-bench slopes at angle of repose (1.33H:1V).

In 1993, the design of the facility was modified due to a proposed change in material placement methodology (end-dumping at angle-of-repose) above elevation 1,730 m (Golder 1993). The revised geometry included a 4 m setback at elevation 1,730 m and regrading to flatter than 2H:1V.

Available geotechnical assessments noted that the foundation area at the toe of the facility was stripped during site preparation (Golder 1993) and that the facility was constructed as a bottom-up facility (Hardy 1988). It is understood that the CCR material was placed in layers of less than about 2 m thickness (Golder 1993).

The facility has a total design storage volume of approximately 2.4 million m³ (Hardy 1988) and has an approximate footprint of 126,000 m². The maximum height of the facility is around 70 m. The overall average slope angle of the Site A Facility, interpreted from 2021 LiDAR data, was 1.88H:1V (~28 degrees) with localized steeper sections up to 1.6H:1V (~32 degrees) along the south face.

CCR material was not placed at the Site A facility during the 2020/2021 reporting period.

2.1.2 Site B Facility

The Site B Facility is located to the north of the Process Plant and the Site A Facility (Figure 2). The facility began receiving CCR in 1995 (Golder 1996) and is designated as an active facility. The facility covers a footprint area of approximately 450,000 m² and is currently being advanced to a design elevation of 1,850 m. Cross sections are shown in Figure 5.

The initial design was completed in 1994 (Golder 1994) and the initial geometry comprised 15 m lifts with intermediate benches and a maximum elevation of 1,760 m. The overall slope was designed at 2H:1V with bench slopes at angle of repose (1.33H:1V). The facility was extended to the west and north with a top elevation of 1,790 m (Elk Valley Coal; EVC 2007a). Another extension to the facility with an ultimate elevation of 1,850 m was prepared in 2007 by EVC (EVC 2007a) which indicates the proposed extension was to be completed in 15 m lifts with 10 m wide intermediate benches.

The facility was developed using the bottom-up method (Golder 2013) and the initial phase of the facility was developed from 1995 to 1998, and approximately 2.6 million m³ of CCR was placed (Golder 1999). From 1998 to 2007, the facility was extended to the west and north and raised to an elevation of 1,790 m (EVC 2007a). The extension of the facility to elevation 1,850 m started in the fall of 2005 (Golder 2006) and is currently ongoing.

Golder (2013) noted that GHO started reclaiming the regraded slopes in 2001. Aerial photographs and GHO Process Plant CCR placement records indicate that reclamation of the lower slopes has been ongoing.

The facility has been developed to an elevation of about 1,830 m as of 26 August 2021 (Figure 5), with a height of around 130 m. The overall average slope angle of the facility, interpreted from 2021 LiDAR data, was around 2.15H:1V (~25 degrees) with inter-bench slopes of around 1.33H:1V (~37 degrees).

Based on comparison of the 2020 and 2021 LiDAR data, approximately 436,000 m³ of CCR was placed at the Site B Facility in the period between July 2020 and August 2021.

2.1.3 Site E Facility

The Site E Facility is an active CCR facility, located on sloping ground immediately southwest of the GHO TSF and is located between the Main and West Tailings Dams (Figure 2). Placement of CCR at the Site E Facility commenced in 2000 and is currently ongoing. The facility is being advanced to a design elevation of 1,770 m. Cross sections of the Site E Facility are shown in Figure 6.

The facility design information was inferred from available design drawings provided by Teck, and previous work by Golder (2000). Reviewed information indicates the facility comprised four phases to an ultimate elevation of 1,785 m, or a total height of 135 m. The design geometry comprised 15 m lifts with 10 m wide intermediate benches. The inter-bench slope below elevation 1,675 m was designed at 2H:1V, while upper inter-bench slopes were at angle-of-repose (1.33H:1V) in order to achieve an overall slope of 2H:1V. A 20 m wide bench was provided at elevation 1,690 m for access.

Available annual reports, GHO Process Plant CCR placement records and LiDAR data indicate the Site E Facility has been developed in four phases above elevation 1,675 m.

- Phase 1: 2000 to 2003 – Elevation 1,675 to 1,725 m
- Phase 2: 2004 to 2012 – Developed to the west of Phase 1 from elevation 1,675 to 1,725 m
- Phase 3: 2004 to 2014 – Phase 1 and 2 raised from elevation 1,725 to 1,740 m
- Phase 4: 2014 to 2021 – Currently raised to elevation 1,767 m

Material was placed using a bottom-up construction method (Golder 2001) with CCR free-dumped and bladed in approximately 2 m thick layers at angle of repose slopes (Golder 2013). The inter-bench slope below elevation 1,675 m was regraded to 2H:1V before the upper lifts were developed (Golder 2001).

The facility has been developed to an elevation of approximately 1,767 m as of 26 August 2021 (Figure 6) with a height of around 117 m. The overall average slope angle, interpreted from 2021 LiDAR data, was approximately 2.4H:1V (~23 degrees) with inter-bench slopes of 1.38H:1V (~36 degrees).

Due to its proximity to the TSF, the facility is used as a CCR source for tailings dam construction.

Based on comparison of the 2020 and 2021 LiDAR data, approximately 406,000 m³ of CCR was placed in the period between July 2020 and August 2021. Records from the 2021 construction indicate that approximately 58,000 m³ of material was removed from Site E for dam construction. It is estimated that the facility stored a total volume of 7.9 M m³ as of 26 August 2021.

2.2 Overview of Operations

Raw coal from the open pit is processed at the Process Plant to produce marketable steelmaking coal with by-product streams of CCR, and fine refuse (FR). The CCR is unsaturated and comprises 50 mm minus gravel- to sand-sized rock and coal particles. CCR is transported, dumped, and stored near the Process Plant in facilities (Sites B and E, Figure 2). FR is transported as a slurry for storage within the TSF. Approximately 900,000 m³ of CCR are produced annually (Golder 2021a).

Water management in relation to CCR facilities is included in the GHO Mine Water Management Plan (Teck 2020b). Surface water from Site A and Site B facilities drains into Greenhills Creek. GHO uses catch basins and the Greenhills Settling Pond to control total suspended solids in the Greenhills Creek prior to release to the Fording River.

2.3 Subsurface Conditions

Details of subsurface conditions prior to the development of the CCR facilities are summarized in the following subsections.

2.3.1 Site A Facility

A geotechnical investigation, comprising 6 boreholes, was completed by Hardy Associates Ltd. (Hardy) in 1988 (Hardy 1989) to assess the subsurface conditions within the footprint of the Site A Facility foundation. Foundation materials generally comprised stiff to hard, silty, sandy gravel glacial till between approximately 3.2 and 46.4 m, which overlies siltstone or sandstone bedrock. A sandy fluvial silt lens was encountered at depths of 4.7 m and 7.2 m below ground surface in two boreholes. Standard penetration test N values ranged from 20 to 130 blows per 300 mm in the glacial till. The upper 2 m of the till was assessed to be weathered. The underlying rock was variable, comprising moderately to highly weathered siltstone interbedded with sandstone. In one borehole, a strong to very strong, densely jointed, highly weathered sandstone was encountered at a depth of 3.2 m below ground surface. The investigation did not indicate that colluvium was present in the foundation.

Standpipes installed in investigation boreholes indicated a groundwater level of about 2.7 m below ground surface, near the southeast toe of the facility (Golder 1993), with deeper water depths at higher elevations (Hardy 1989).

A review of a historical aerial photograph of the site prior to development (date unknown), identified an area of pre-existing sloughing near the southeast side of the facility, indicating movement may have occurred prior to the development of the facility. Potential re-initiation of movement in this area could impact the stability of a portion of facility and thus the area is inspected during annual site visits.

2.3.2 Site B Facility

A site investigation to assess the foundation conditions underlying the Site B Facility was completed in 1994 (Golder 1994), with four boreholes drilled. The foundation materials encountered in the boreholes consisted of topsoil between 0.5 and 0.9 m thick in all boreholes, firm to stiff silt colluvium between 1.4 and 1.8 m thick with variable amounts of sand and clay, and glacial till to depths of 8.5, 14.2, and 24.1 m. The underlying bedrock consisted of siltstone and shale. No laboratory test results were available for the foundation materials encountered. Golder (1996) noted that organic and soft soils at the foundation area of the east facility toe were stripped prior to construction.

Standpipes installed in three of the boreholes indicated groundwater levels of 2.85 to 20.5 m below original ground surface from west to east (Golder 1994).

The Site B Facility has been extended to the west and north since 2008. No further field investigations are known to have been completed at the facility area since 1994.

2.3.3 Site E Facility

Subsurface conditions at the Site E Facility were inferred from previous investigations (Hardy 1980) completed for the Site D CCR Facility and the south abutment of the Main Tailings Dam. The foundation soils inferred from the borehole logs provided by Hardy (1980) consist of very stiff silty, sandy colluvium, overlying hard glacial clay till, overlying shale bedrock. The colluvium was up to 10 m thick. Borehole logs indicated the groundwater level was within the colluvium and till layers.

2.4 Site Climate Review and Seismicity

2.4.1 Climate Review

CCR materials are relatively erodible material and high intensity rainfall or rapid snow melt (high precipitation over a short period of time) is more likely to result in erosion features. As such, precipitation records can be an indicator of the expected number and extent of external erosion features on the GHO CCR facilities.

Precipitation data was provided by GHO for the 2020/2021 hydrologic reporting period (i.e., August 2020 to July 2021) with the exception of August 2020 which was infilled from the Fording River Cominco synthetic data and adjusted to the GHO Office station elevation.

Data was compared to the long-term synthetic precipitation dataset for the period 1970 to July 2020, and a summary of the recorded monthly total precipitation for the hydrologic reporting period (1 August 2020 to 31 July 2021) and the historical monthly averages at the GHO Office station location are presented in Illustration 1.

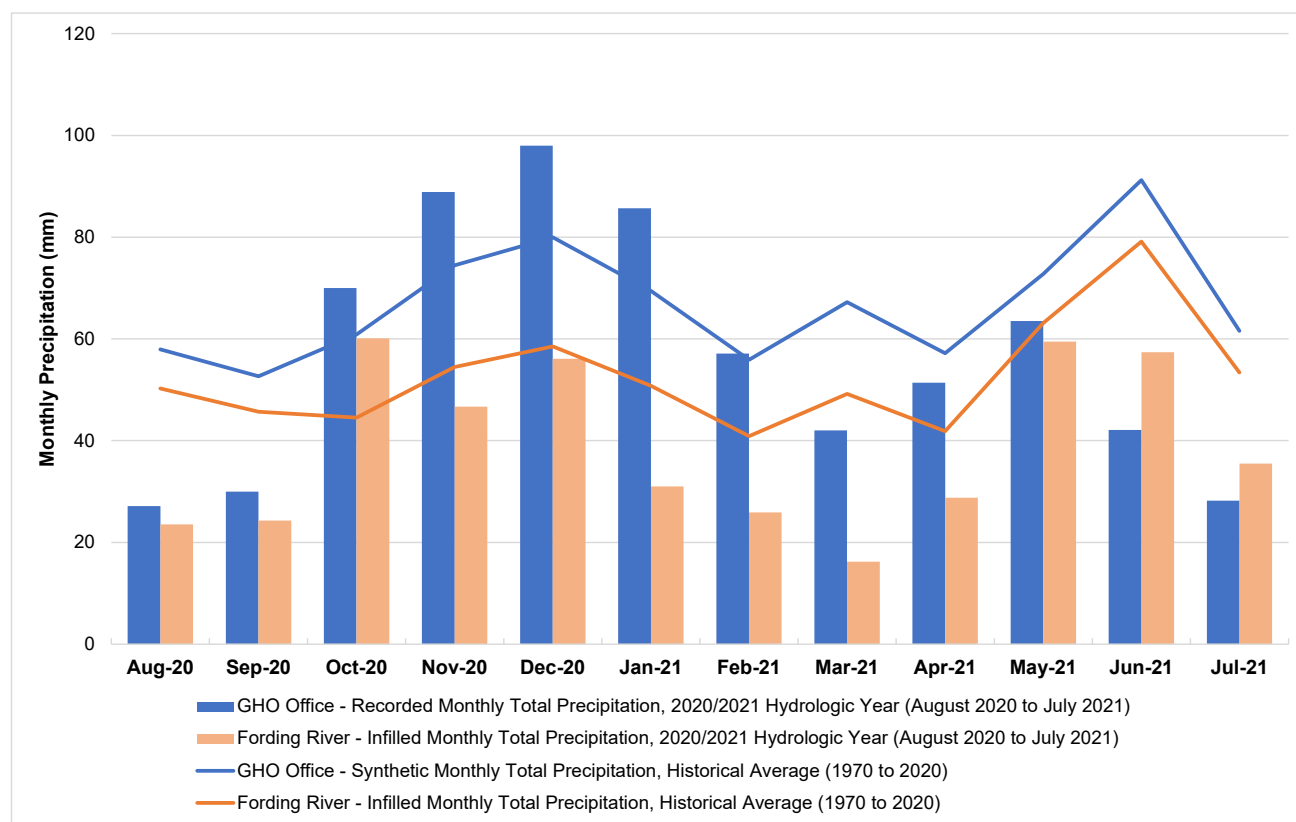


Illustration 1: Comparison between 2020/2021 Total Precipitation and Historical Average

Precipitation records from the Fording River Cominco climate station adjusted to GHO Office station elevation are presented for comparison purposes. The data indicate the following:

- Total precipitation in the reporting period (1 August 2020 to 31 July 2021) was approximately 15% lower than the GHO Office synthetic historical average for the same period (1 August to 31 July).
- Seasonal variations in total monthly precipitation in the reporting period were observed in comparison with the historical monthly averages.
 - Average monthly precipitation in fall (August 2020 to September 2020) was 48% lower when compared to the historical monthly average.
 - Average monthly precipitation in winter (October 2020 to February 2021) was 17% higher when compared to the historical monthly average.
 - Average monthly precipitation from late winter to summer (March 2020 to July 2021) was 34% lower when compared to the historical monthly average.

Results indicate lower rainfall and higher snowfall during the monitoring period than typical but within the range of historic values. The differences are not significant to the performance assessment.

2.4.2 Seismicity

Golder has developed a seismic hazard model for GHO based on historical seismicity and a review of geologic and paleo seismological features (Golder 2016). The model incorporates data from the 5th Generation Seismic Hazard Model, including nine faults and fault segments mapped in northwest Montana. The 5th Generation Seismic Hazard Model was developed by Natural Resources Canada for use in the 2015 National Building Code of Canada (NRCC 2015).

Based on Golder's understanding of foundation conditions and using the 2015 National Building Code of Canada seismic hazard calculator (NRC 2015) a peak ground acceleration for GHO was estimated for various event return periods assuming Class C soil in the facility foundations. The results of seismic probabilistic analysis from the site hazard model are presented in Table 1.

Table 1: Seismic Hazard Values

Exceedance Probability	Return Period (Years)	Peak Ground Acceleration (g)
40% in 50 years	100	0.020
10% in 50 years	475	0.063
5% in 50 years	1,000	0.097
2% in 50 years	2,475	0.158
1% in 50 years	5,000	0.222
½% in 50 years	10,000	0.300

Note: For firm ground site class "C," very dense soil and soft rock foundation, as defined by 2015 National Building Code of Canada (NRCC 2015).

3.0 FACILITY STEWARDSHIP

3.1 Key Operational Components

Key operational components of the CCR facilities are:

- Visual inspections.
- Short-range planning prepared monthly by the TWRS group.

There is no functional instrumentation at the CCR facilities. A plan to review functionality of the legacy instruments in the CCR facilities is under development by Teck.

Visual inspections of the CCR facilities are completed by GHO according to Teck's Standard Practices and Procedures (SP&Ps):

- Dormant Facilities (Site A) – Quarterly
- Active Facilities (Site B and F) – Monthly

Annual inspections of the facilities are completed by Golder and TWRS group personnel.

The CCR facilities are developed based on short range plans prepared monthly by the TWRS group. Monthly meetings are held with relevant personnel to develop the deposition strategy for the upcoming month. Deposition plans are developed and controlled based on MineSight 3D computer models and communicated to operations staff using slideshow presentations.

3.2 Key Personnel

The RTFE, since June 2021, for the CCR stockpiles is Patrick Green, P.Eng., an employee of Teck.

Work associated with appointing an Engineer of Record for the facilities was in progress at the time of this report.

3.3 Review of Operational Documentation

Procedures for the operation, maintenance, and surveillance of the CCR facilities at GHO are documented in the following GHO Standard Practices and Procedures (SP&Ps) documents:

- Dumping Procedures – SP&P H1207 (Teck 2020)
- Spoil Monitoring – SP&P H1324 (Teck 2018a)
- Temporary and Extended Access Below Spoils – SP&P H1350 (Teck 2018b)

These documents cover CCR facilities but are mostly focused on practices and procedures associated with waste rock stockpiles. It is recommended that an Operations, Maintenance and Surveillance manual be developed for the CCR facilities.

Risk assessments/registers for the CCR facilities are not available and should be completed.

The ultimate configurations of the active, Site B and E, CCR facilities, including proposed changes as a result of the planned transition to Site F, are not available. Teck should consider documenting the ultimate configuration.

4.0 PERFORMANCE REVIEW

This section presents an assessment of the safety of the CCR facilities based on field observations, background information, and data review.

4.1 Site Visit

An inspection of the CCR facilities was carried out during the week of 16 August 2021 by Mr. Andy Haynes, P.Eng., and Mr. Martyn Willan, P.Eng., both of Golder. The visit was accompanied by Mr. David Walker, P.Eng., of Teck. A close-out meeting was also held and attended by the RTFE, Mr. Patrick Green, P.Eng., of Teck.

Appendix A presents a summary of photographs taken during the August 2021 inspection. Photograph locations and directions are presented in Figure 2. A summary of observations made during the August 2021 visit are included in Appendix B.

Based on visual observations during the week of 16 August 2021, Site A and Site E CCR facilities appeared to be in a safe condition with no identified deficiencies that required immediate action. Erosion from heavy rain prior to the visit was noted at a portion of the east slope of the Site B Facility. The erosion was repaired by GHO on 26 August 2021 including reprofiling of the haul road to redirect surface water away from the area.

4.2 Failure Modes

The 2020/2021 performance is assessed in Sections 4.3 to 4.5 by comparing the design basis against observed facility performance, available data including both historic data and data from the current monitoring period relative to the following:

- **Instability** – A mechanism involving movement of a part of the facility (either entirely within the facility or including portions of the foundation materials) as a result of imbalanced forces, with possible loss of integrity of the facility.
- **Erosion of the slope face or toe** – External instability of the facility can be caused by removal of materials from the slope face or at the from rainfall, snowmelt or surface water flows.

4.3 Site A Facility

4.3.1 Summary of 2021 Operations and Maintenance Activities

The Site A Facility is dormant and no CCR material was placed or removed from the facility during the 2021 reporting period. Surveillance activities at the facility during the 2020/2021 reporting period comprised quarterly visual inspections by GHO. Maintenance, such as regrading of access roads, was routine and typical for normal operations.

4.3.2 Observed Performance

Instability

The stability of the Site A Facility was assessed for static loading conditions during the design of the facility (Golder 1993). Results indicated a minimum static factor of safety (FoS) of 1.3 for the selected critical slip surface with failure through the foundation soils and an assumed phreatic level of 1 m above ground surface.

- Slope stability analyses do not reflect current geometry or seismic loading and should be updated.

- Design criteria were developed at the time of design and are considered reasonable. However, there is no single source document and it is recommended that key design criteria/basis be formally documented in a single consolidated record.

Two vibrating wire piezometers (VWPs), SP-97-1 and SP-97-2, were installed in the Site A Facility, as shown in Figure 3, to monitor the phreatic surface within the facility. Historical data, recorded in these VWPs between 1993 and 2015, do not indicate any evidence of the CCR material being saturated. VWP data after April 2015, and throughout the 2020/2021 reporting period, were not available to assess the pore pressure conditions within the facility. Instruments should be measured.

General observations at the time of the 2021 site visit, in relation to instability, include the following:

- Minor localized depressions with ponded surface water were observed on the intermediate benches at the east and west sides of the Site A Facility (Photographs 4, 9, and 10).
- No sign of instability was observed on the slopes of the Site A Facility during the 2021 site visit (Photographs 3 to 10).
- Visual observations of the ancient/relict landslide near the southeast toe of the Site A Facility did not indicate any signs of recent movement at the time of the 2021 site visit (Photograph 7).

The results of this performance review do not indicate a risk to facility safety.

Erosion of Slope Face or Toe

General observations during GHO routine inspections and at the time of the 2021 site visit, in relation to external erosion, included minor erosion rills on unvegetated areas of the east slope of the facility (Photographs 9 and 10). No erosion of the toe of the Site A Facility was noted at the time of the 2021 site visit or routine inspections by GHO.

The results of this performance review do not indicate a risk to facility safety.

4.4 Site B Facility

4.4.1 Summary of 2021 Operations and Maintenance Activities

The Site B Facility was active in the 2021 reporting period and new CCR material was placed.

A comparison of the 2020 (15 to 26 July 2020) and 2021 (25 and 26 August 2021) LiDAR data indicates that approximately 395,000 m³ of CCR were placed at the Site B Facility in that period.

Surveillance activities at the facility during the 2021 reporting period comprised of monthly inspections carried out by the TWRS group.

Maintenance activities completed during the reporting period included the repair of an erosion feature, caused by heavy rain, at a portion of the east slope of the Site B Facility, which was identified during the 2021 site visit (Section 4.4.2). Additional maintenance, such as regrading of access roads, was routine and typical for normal operations.

4.4.2 Observed Performance

Instability

A stability assessment of the Site B Facility, under static and seismic loading, was completed in 2008 (Golder 2008). The resulting minimum FoS was 1.6 against global static failure and 1.3 against seismic-induced failure for a seismic load of 0.068 g (1-in-1,000-year seismic return event determined at the time of the 2008 study).

- Slope stability analyses do not reflect current geometry or updated seismic loading criteria (Golder 2016) and should be updated.
- Design criteria were developed at the time of design and are considered reasonable. However, there is no single source document and it is recommended that key design criteria/basis be formally documented in a single consolidated record.

Four vibrating wire piezometers (VWPs), SP-04-1B, SP-04-2B, SP-08B-NW and SP-08B-SW, are installed at the west and south sides of the facility, as shown in Figure 3. Historical data recorded in these VWPs between 1995 and 2017 (to 2014 for SP-04-1B and SP-08B-SW) indicate phreatic levels ranging between 1 m and 2.6 m above the foundation/CCR interface. Data is not available for these instruments after 2014/2017 and they should be measured.

General observations during GHO monthly inspections and at the time of the 2021 site visit, in relation to instability, include the following:

- A portion of the northeast slope of the Site B Facility, above the haul road, had been overbuilt with CCR placed beyond the design profile up to a maximum height of approximately 35 m without an intermediate bench and mid-bench cracks were noted (Photographs 20, 21, 22, and 23). In addition, dumping of CCR beyond the design limits was observed on the Site B Facility platform during the 2021 site visit (Photograph 14).
 - A stability assessment was completed (Golder 2021b) with regard to potential short-term impacts to haul road traffic. The calculated static FoS of this portion was less than 1.3 and the overbuilt portion of the northeast slope of the Site B Facility had the potential to impact traffic safety on the haul road. It was recommended that this should be regraded to achieve a minimum factor of safety of 1.3.
 - Regrading was completed by GHO outside of the reporting period and no longer presents a safety concern.
- Minor ponded surface water was noted on the intermediate benches at the west side of the facility during the 2021 site visit (Photograph 13).

The results of this performance review do not indicate a risk to facility safety.

Erosion of Slope Face or Toe

General observations at the time of the 2021 site visit, in relation to external erosion of the slope of the Site B Facility, included erosion, as a result of heavy rains (Photographs 17, 18, and 19) adjacent to the haul road. The affected area was remediated on 26 August 2021 (Photograph 19b). No erosion of the toe of the Site B Facility was noted at the time of the 2021 site visit or routine inspections by GHO.

The results of this performance review do not indicate a risk to facility safety.

4.5 Site E Facility

4.5.1 Summary of 2021 Operations and Maintenance Activities

The Site E Facility was active in the 2021 reporting period. A comparison of the 2020 (15 to 26 July 2020) and 2021 (25 and 26 August 2021) LiDAR data indicates that approximately 406,000 m³ of CCR were placed at the Site E Facility in that period. Approximately 58,000 m³ of the placed CCR was subsequently removed for dam fill as part of the 2021 dam raise.

Surveillance activities at the facility during the 2021 reporting period comprised of monthly inspections carried out by GHO. Maintenance, such as regrading of access roads, was routine and typical for normal operations.

4.5.2 Observed Performance

Instability

Stability analyses against static failure were completed as part of the design of the Site E Facility in Golder (2000). Results indicated a minimum static factor of safety (FoS) of 1.3 for selected critical slip surface with failure through the foundation soils.

- Slope stability analyses do not reflect current geometry or seismic loading and require updating.
- Design criteria were developed at the time of design and are considered reasonable. However, there is no single source document and it is recommended that key design criteria/basis be formally documented in a single consolidated record.

Two vibrating wire piezometers (VWPs), SP-04-1E and SP-04-2E, were installed in the Site B Facility, as shown in Figure 3, to monitor the phreatic surface within the facility. Historical data recorded in these piezometers indicate the ground water level was between the foundation/facility interface at SP-04-1E and 1.0 m below the interface at SP-04-2E between 2004 and 2014. Data is not available for these instruments after 2014 and should be measured.

General observations during GHO monthly inspections and at the time of the 2021 site visit include minor ponded surface water observed in localized depressions on the intermediate benches at the south side for the facility.

The results of this performance review do not indicate a risk to facility safety.

Erosion of Slope Face or Toe

General observations during GHO routine inspections and at the time of the 2021 site visit, in relation to external erosion included minor erosion rills on unvegetated areas of the south slope of the facility (Photographs 23, 32, and 33).

The results of this performance review do not indicate a risk to facility safety.

5.0 SUMMARY AND RECOMMENDATIONS

5.1 Summary of Operations and Performance

The following activities were completed during the reporting period:

- Monthly facility inspections by Teck for the Site B and E CCR Facility.
- Quarterly facility inspections by Teck for the Site A CCR Facility.
- Short-range planning prepared monthly by the TWRS group.

5.2 Summary of Significant Changes

There were no significant changes in the operation and performance of the CCR facilities during the reporting period.

5.3 Significant Changes in Instrumentation or Visual Monitoring Records

No significant changes were noted during the 2021 site inspection or routine GHO visual inspections.

5.4 Significant Changes to Stability and/or Surface Water Control

There were no significant changes to facility stability or integrity and or control of surface water during the reporting period. Local erosion was noted in Site B but was repaired promptly within the reporting period.

5.5 Current Deficiencies and Non-Conformances

Deficiencies/recommendations from this AFPR are presented in Table 2.

Table 2: 2021 Recommended Actions for CCR Facilities, A, B and E

ID Number	Facility	Deficiency	Recommendation	Priority	Recommended Deadline/Status
2021-01	All CCR Facilities	Design criteria for the CCR facilities not documented.	Consolidate design criteria and design basis information for CCR facilities into a single reference document.	4	End Q3 2022
2021-02		Slope stability analyses do not reflect current geometry or seismic loading. Pseudo static analyses for Site A and Site E facilities were not available.	Update stability of CCR facilities considering updates to seismic loading criteria and areas where foundation conditions cannot be confirmed (Recommendation 2021-06).	3	End Q4 2022
2021-03		Risk assessments not available.	Perform risk assessment for all CCR facilities.	4	End Q3 2022
2021-04		Prepare OMS.	Prepare OMS manual for CCR facilities applicable to the short remaining active stage and the dormant stage	4	End Q4 2022
2021-05		Limited piezometric data is available to confirm piezometric levels within the CCR facilities.	Confirm tip elevations and remeasure existing piezometers. Maintain if needed	3	End Q3 2022
2021-06	Site B and Site E	Foundation information at Site B Facility west and north extensions and at Site E Facility not available.	Assess available data and determine if sufficient for characterization of foundation conditions	3	End Q4 2022

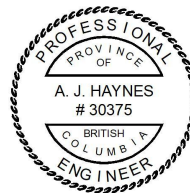
Priority Level	Description
1	A high probability or actual facility safety issue considered immediately dangerous to life, health or the environment, or a significant risk of regulatory enforcement.
2	If not corrected could likely result in facility safety issues leading to injury, environmental impact, or significant regulatory enforcement; or, a repetitive deficiency that demonstrates a systematic breakdown of procedures.
3	Single occurrences of deficiencies or non-conformances that alone would not be expected to result in facility safety issues.
4	Best Management Practice – Further improvements are necessary to meet industry best practices or reduce potential risks.

Signature Page

Golder Associates Ltd.



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Andy Haynes, P.Eng.
Principal Geotechnical Engineer

KA/MBW/AJH/hp/ar

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STUDY LIMITATIONS

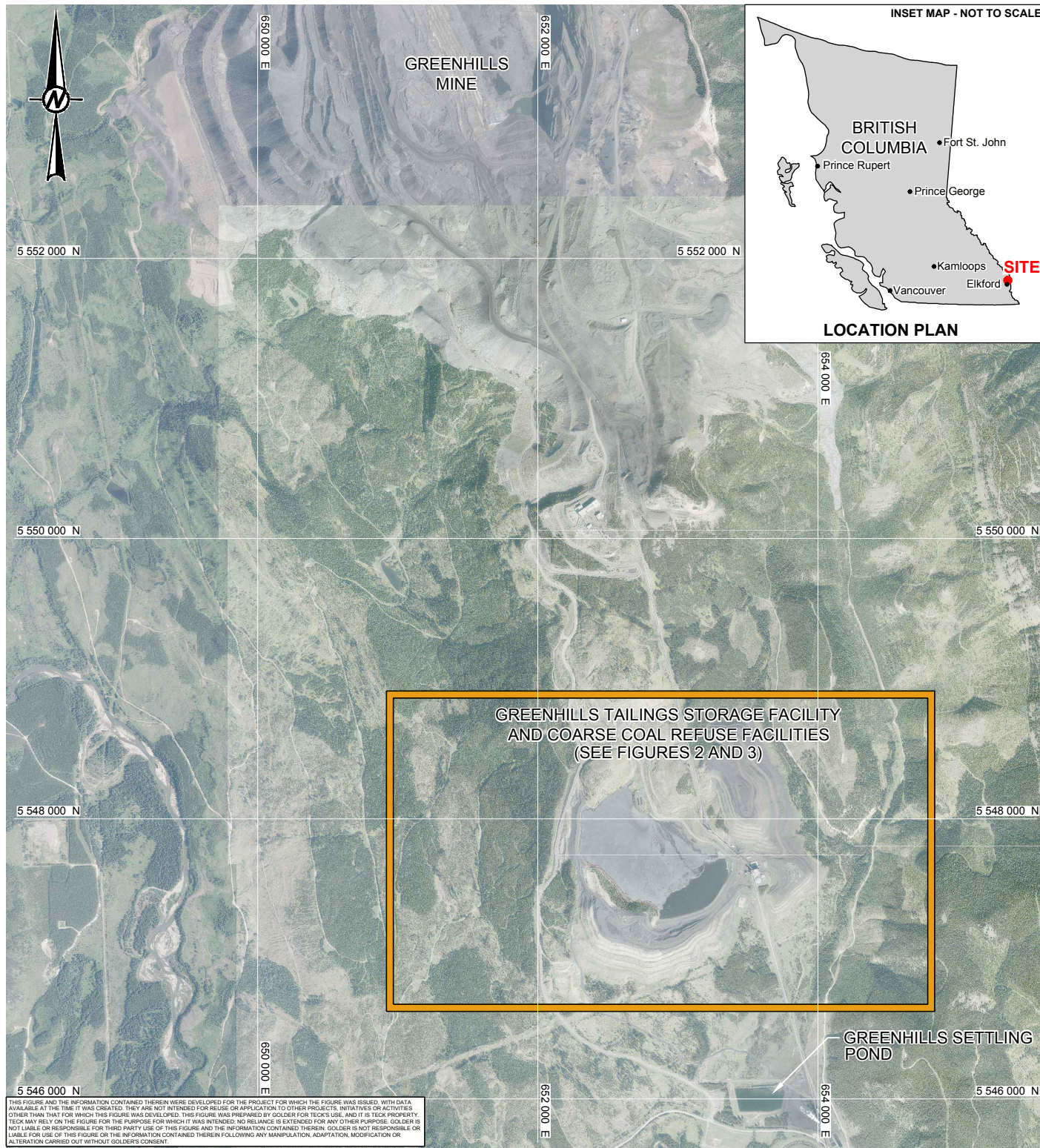
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GREENHILLS OPERATIONS
ELKFORD, B.C.

CONSULTANT



GOLDER
MEMBER OF WSP

YYYY-MM-DD 2022-03-16

DESIGNED KA

PREPARED RM

REVIEWED WM

APPROVED AJH

PROJECT

GREENHILLS COARSE COAL REFUSE FACILITIES
2021 ANNUAL FACILITY PERFORMANCE REPORT

TITLE

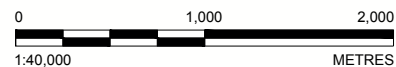
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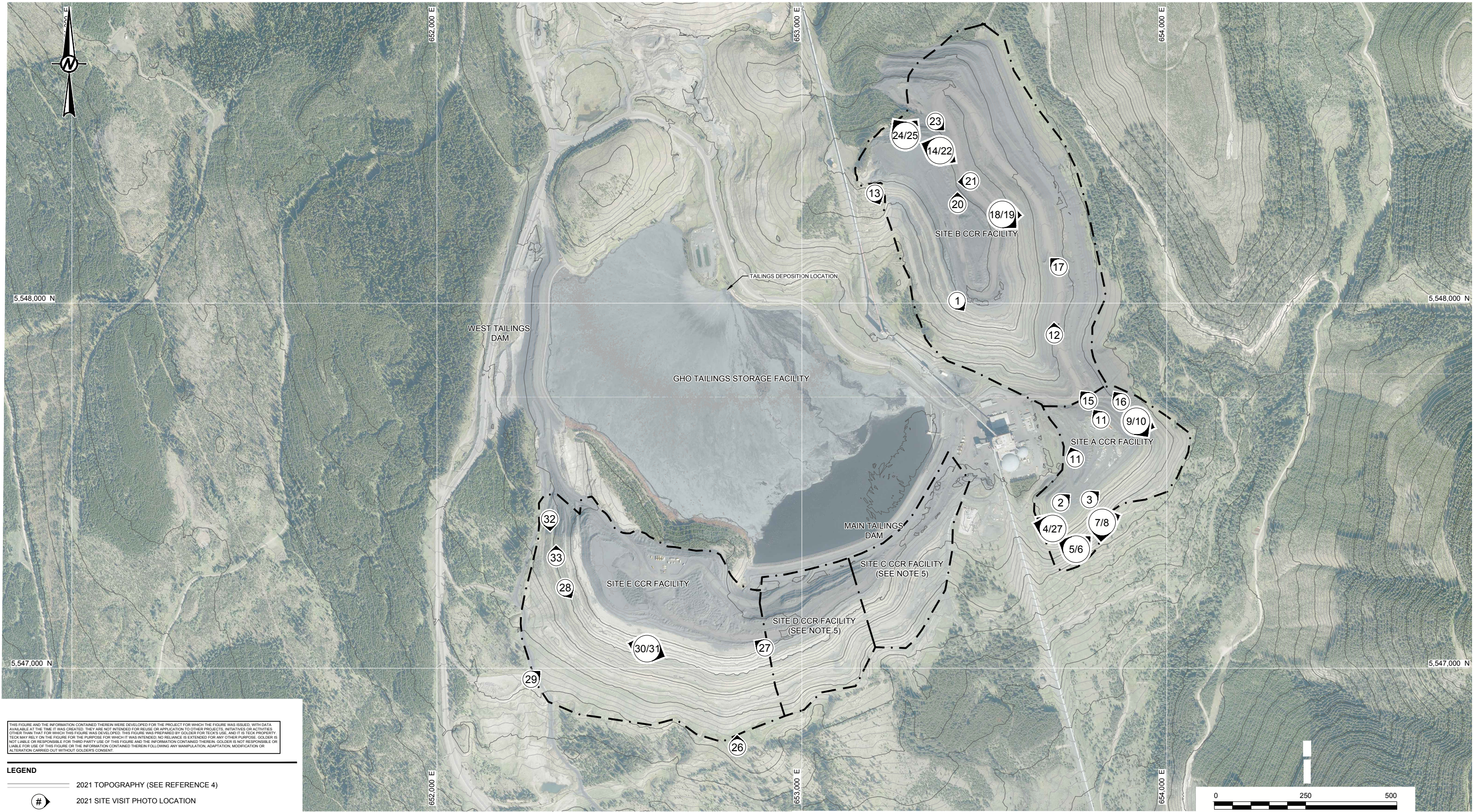
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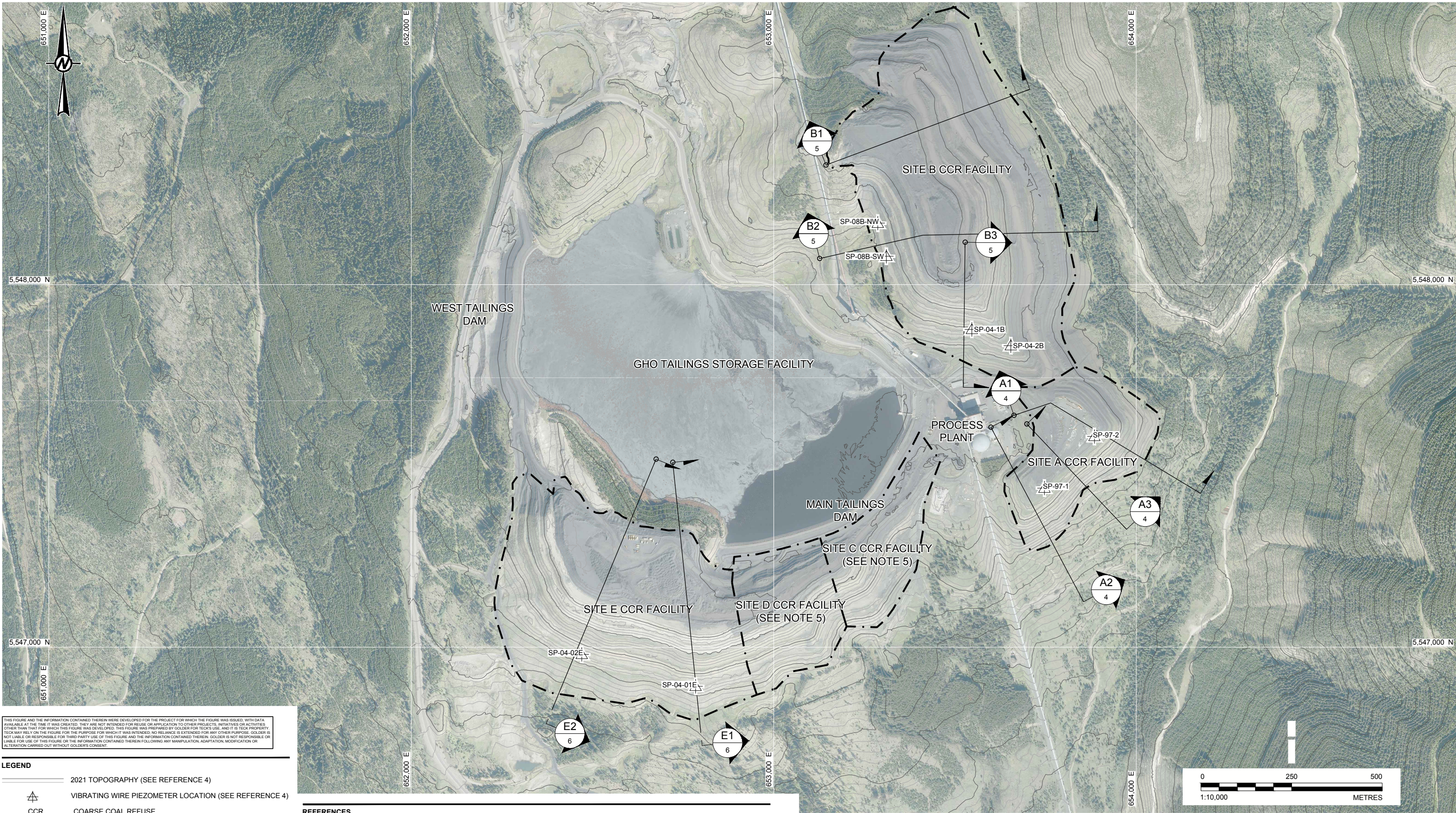
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LEGEND

- 2021 TOPOGRAPHY (SEE REFERENCE 4)
- VIBRATING WIRE PIEZOMETER LOCATION (SEE REFERENCE 4)
- CCR COARSE COAL REFUSE
- COARSE COAL REFUSE SITE BOUNDARY

NOTES

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- BATHYMETRY CONTOURS (SEE REFERENCE 1) SHOWN AT 5.0 m MAJOR AND 1.0 m MINOR INTERVAL.
- TOPOGRAPHIC CONTOURS (SEE REFERENCE 3) SHOWN AT 25.0 m MAJOR AND 5.0 m MINOR INTERVAL.
- SITE C AND SITE D CCR ARE NOT INCLUDED AND ARE REPORTED AS PART OF GHo TSF AFPR.

REFERENCES

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CONSULTANT



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PREPARED	RM
REVIEWED	WM
APPROVED	AJH

PROJECT
GREENHILLS COARSE COAL REFUSE FACILITIES
2021 ANNUAL FACILITY PERFORMANCE REPORT

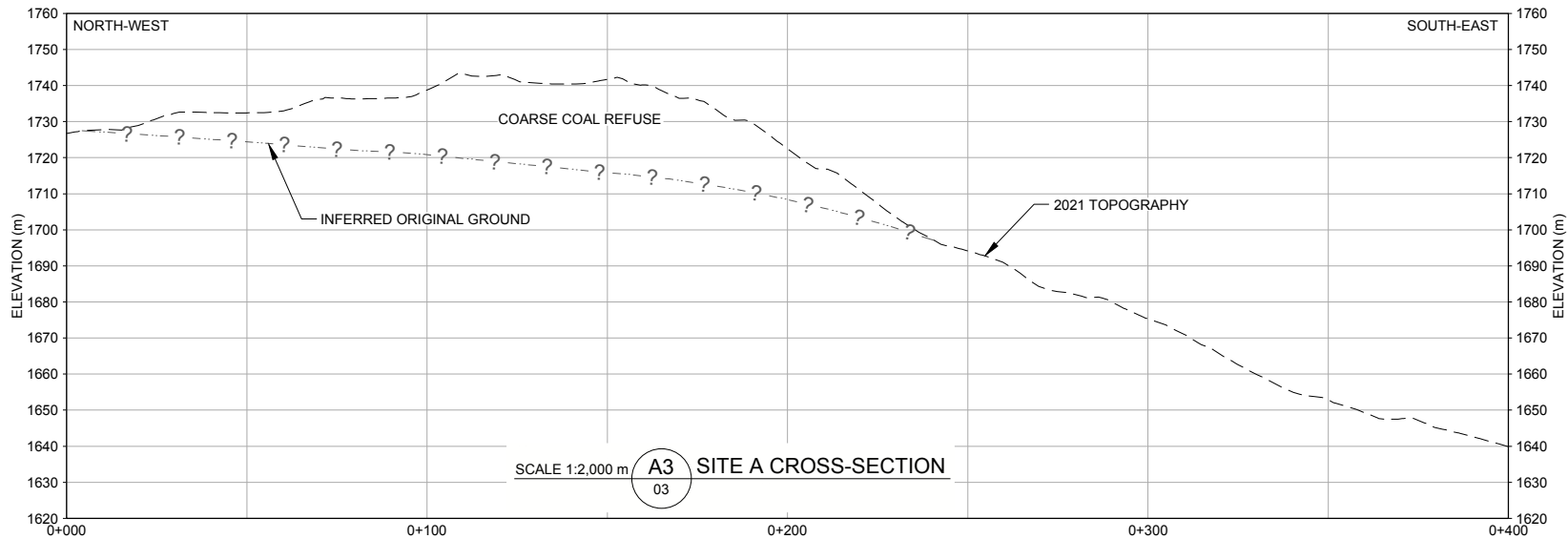
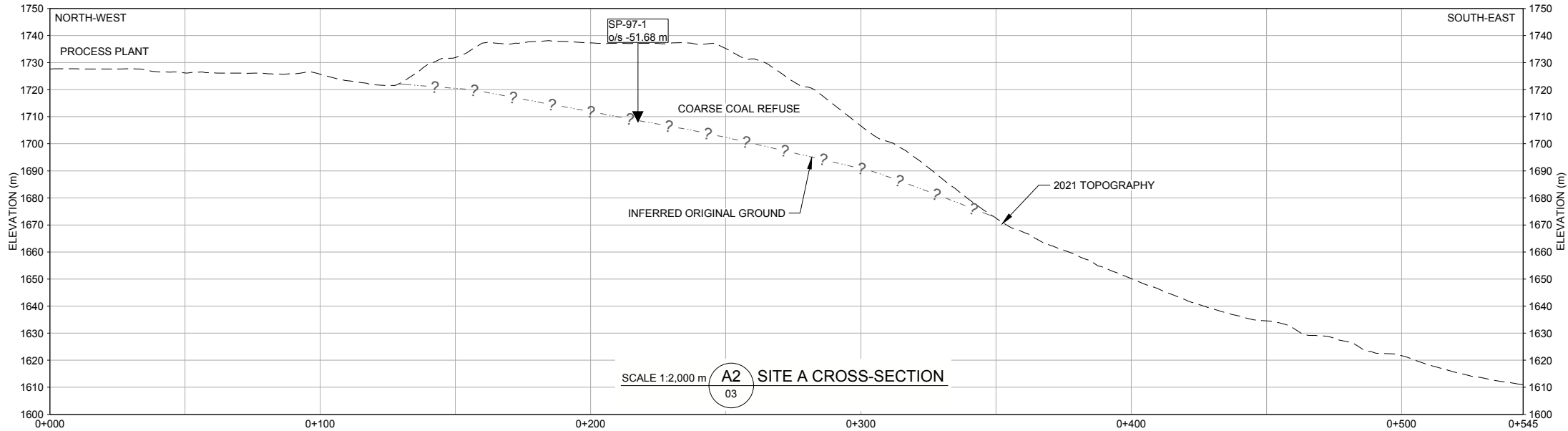
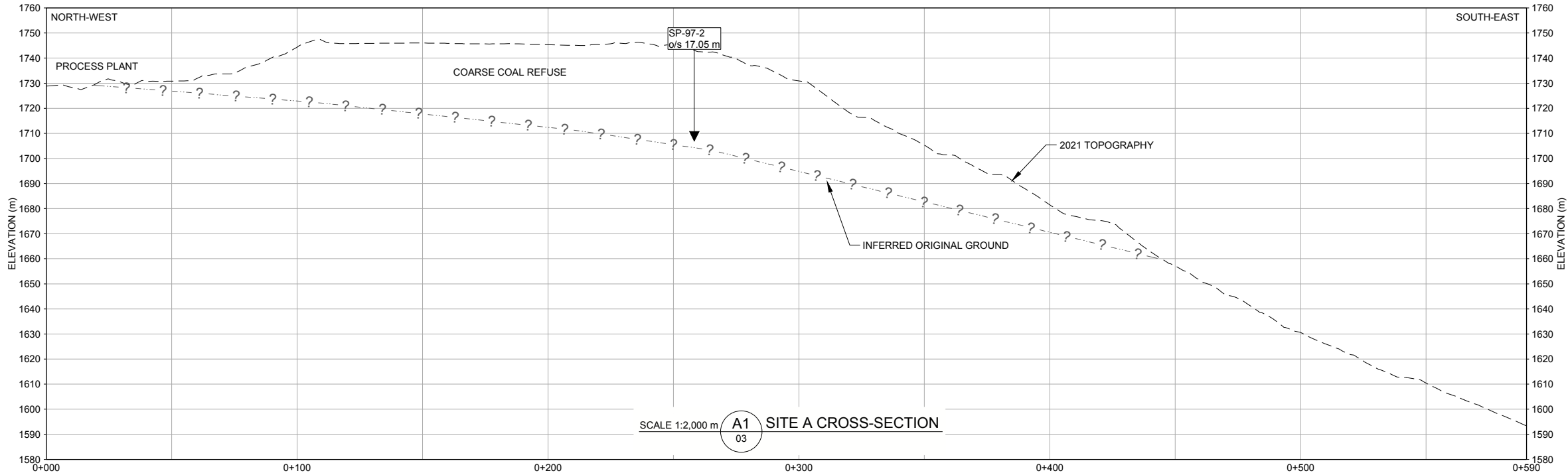
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LOCATIONS AND SECTIONS**

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LEGEND

- 2021 TOPOGRAPHY (SEE REFERENCE 1)
- ? --- ? --- INFERRED ORIGINAL GROUND (SEE REFERENCE 2)
- ▼ VIBRATING WIRE PIEZOMETER TIP ELEVATION (SEE NOTE 3, AND REFERENCE 3)

- NOTES**
- ALL UNITS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.
 - MATERIAL BOUNDARIES ARE APPROXIMATE.
 - ELEVATIONS ARE REFERENCED TO THE ELK VALLEY ELEVATION DATUM.

- REFERENCES**
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REVIEW GOLDER 2021.
 - VIBRATING WIRE PIEZOMETER TIP ELEVATIONS PROVIDED IN GREENHILLS
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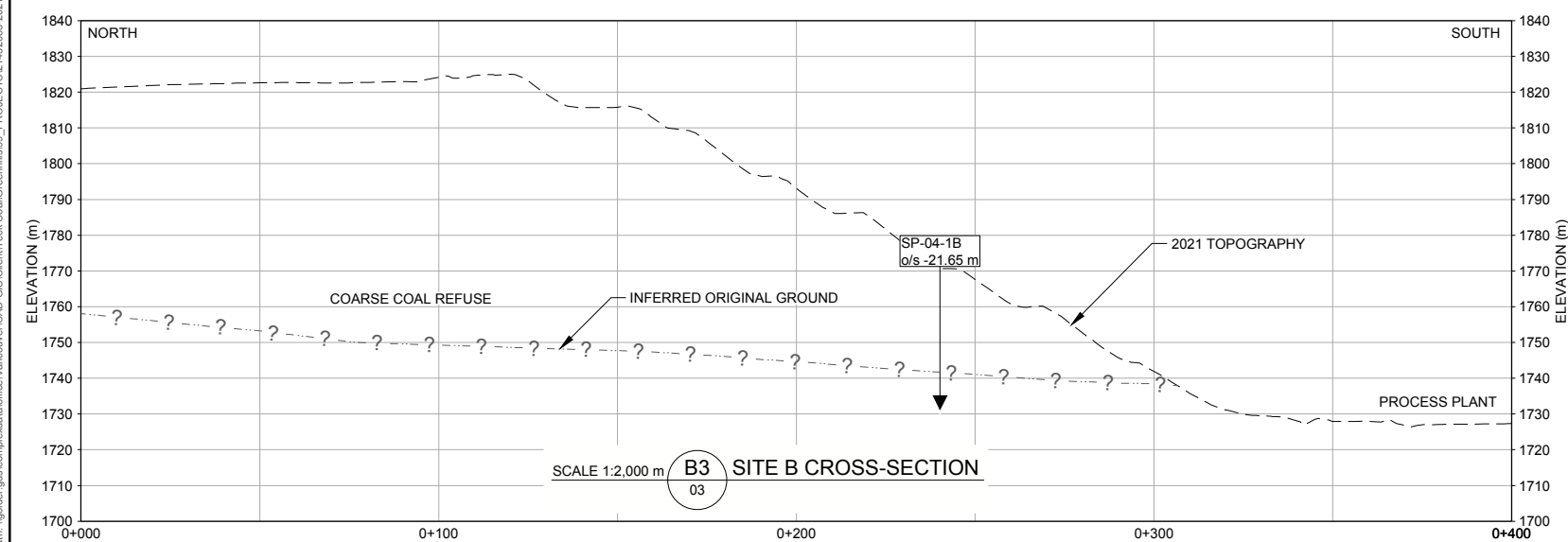
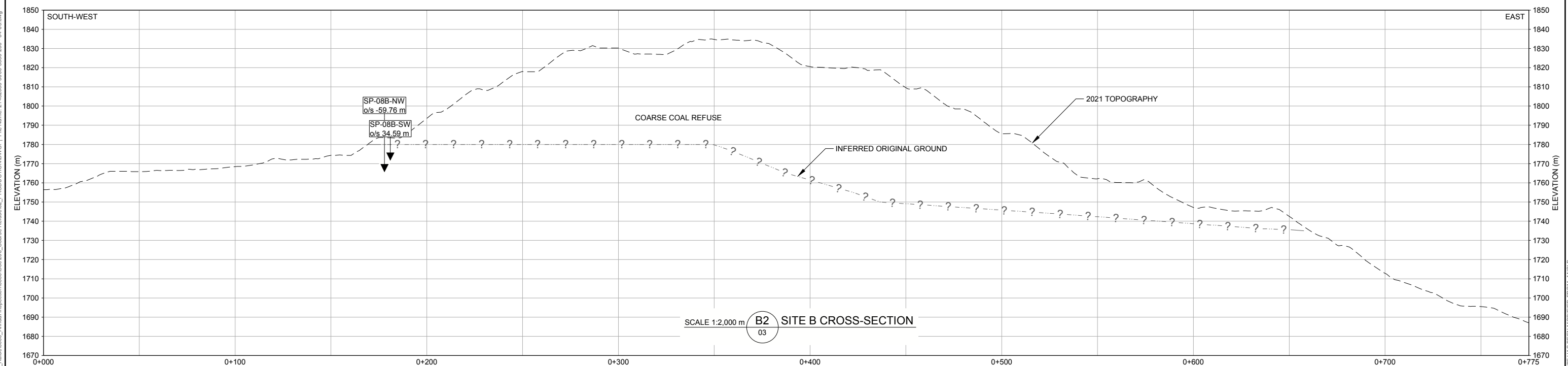
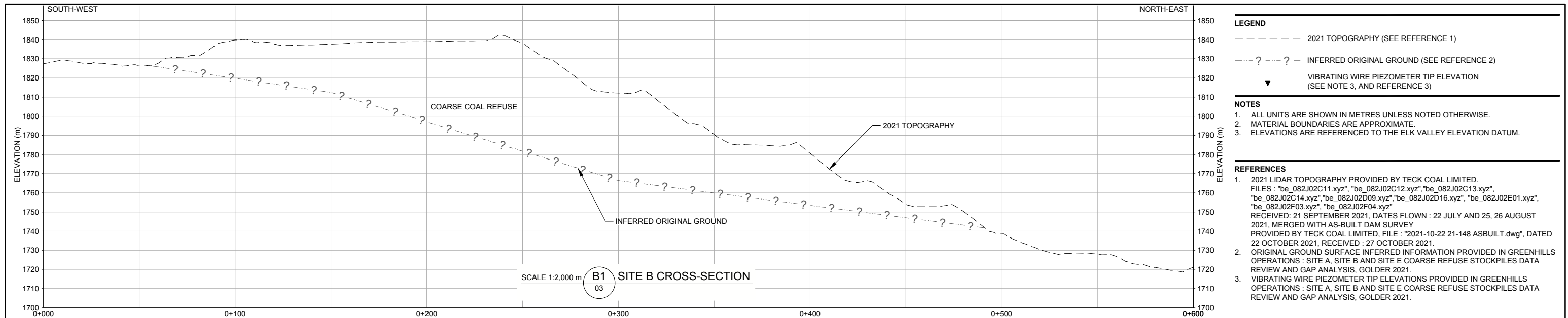
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REVIEWED	WM
APPROVED	AJH



PROJECT			
GREENHILLS COARSE COAL REFUSE FACILITIES			
2021 ANNUAL FACILITY PERFORMANCE REPORT			
TITLE			
SITE A CCR FACILITY CROSS-SECTIONS A1, A2 AND A3			
PROJECT NO.	PHASE/TASK/DOC	REV.	FIGURE
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CONSULTANT

YYYY-MM-DD 2022-03-16

DESIGNED K

PREPARED R

REVIEWED W

APPROVED A

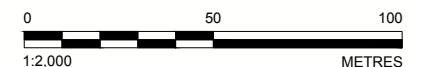
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GREENHILLS COARSE COAL REFUSE FACILITIES
2021 ANNUAL FACILITY PERFORMANCE REPORT

TITLE
SITE B CCR FACILITY CROSS-SECTIONS B1, B2 AND B3

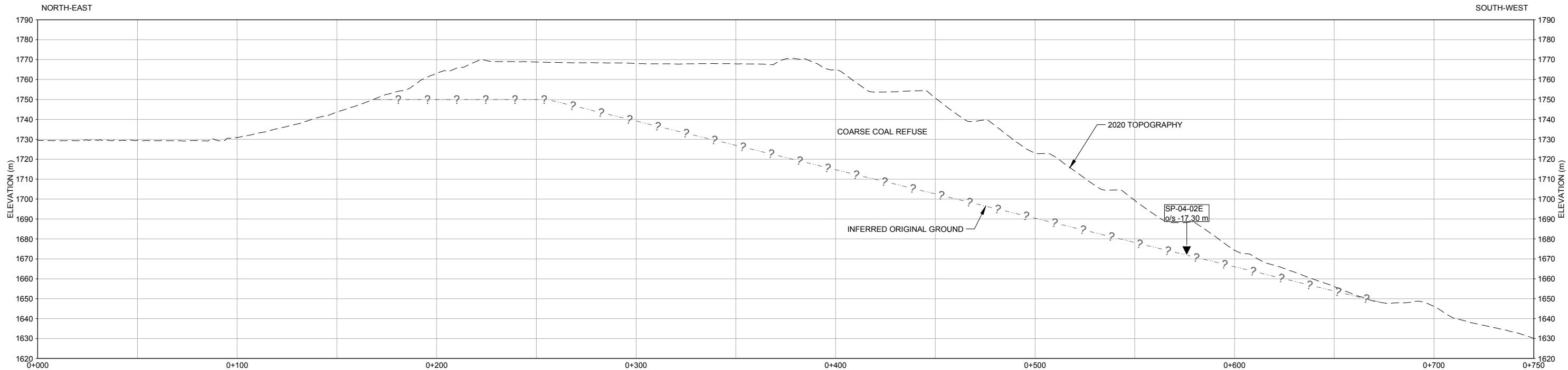
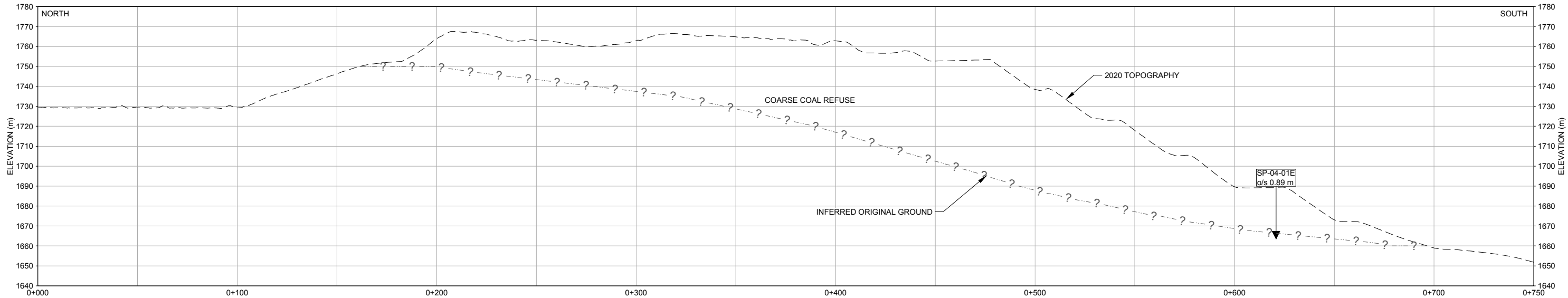
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FIGURE 5



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LEGEND

2021 TOPOGRAPHY (SEE REFERENCE 1)

----- ? ----- ? -----

ORIGINAL GROUND (SEE REFERENCE 2)

▼

VIBRATING WIRE PIEZOMETER TIP ELEVATION
(SEE NOTE 3, AND REFERENCE 3)

NOTES

1. ALL UNITS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.

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3. ELEVATIONS ARE REFERENCED TO THE ELK VALLEY ELEVATION DATUM.

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PROVIDED BY TECK COAL LIMITED, FILE : "2021-10-22 21-148 ASBUILT.dwg", DATED
22 OCTOBER 2021, RECEIVED : 27 OCTOBER 2021.

2. ORIGINAL GROUND SURFACE INFERRED INFORMATION PROVIDED IN GREENHILLS
OPERATIONS : SITE A, SITE B AND SITE E COARSE REFUSE STOCKPILES DATA
REVIEW AND GAP ANALYSIS, GOLDER 2021.

3. VIBRATING WIRE PIEZOMETER TIP ELEVATIONS PROVIDED IN GREENHILLS
OPERATIONS : SITE A, SITE B AND SITE E COARSE REFUSE STOCKPILES DATA
REVIEW AND GAP ANALYSIS, GOLDER 2021.

THIS FIGURE AND THE INFORMATION CONTAINED THEREIN WERE DEVELOPED FOR THE PROJECT FOR WHICH THE FIGURE WAS ISSUED, WITH DATA AVAILABLE AT THE TIME IT WAS CREATED. THEY ARE NOT INTENDED FOR REUSE OR APPLICATION TO OTHER PROJECTS, INITIATIVES OR ACTIVITIES OTHER THAN THAT FOR WHICH THIS FIGURE WAS DEVELOPED. THIS FIGURE WAS PREPARED BY GOLDER FOR TECK'S USE, AND IT IS TECK PROPERTY. TECK MAY RELY ON THE FIGURE FOR THE PURPOSE FOR WHICH IT WAS INTENDED; NO RELIANCE IS EXTENDED FOR ANY OTHER PURPOSE. GOLDER IS NOT LIABLE OR RESPONSIBLE FOR THIRD PARTY USE OF THIS FIGURE AND THE INFORMATION CONTAINED THEREIN. GOLDER IS NOT RESPONSIBLE OR ALTERATION CARRIED OUT WITHOUT GOLDER'S CONSENT.

CLIENT	YYYY-MM-DD	2022-03-16
TECK COAL LIMITED	DESIGNED	KA
GREENHILLS OPERATIONS	PREPARED	RM
ELKFORD, B.C.	REVIEWED	WM
CONSULTANT	APPROVED	AJH



PROJECT	PHASE/TASK/DOC	REV.	FIGURE
GREENHILLS COARSE COAL REFUSE FACILITIES	3000/3330/206	0	6
2021 ANNUAL FACILITY PERFORMANCE REPORT			
TITLE			
SITE E CCR FACILITY CROSS-SECTIONS E1 AND E2			
PROJECT NO.	PHASE/TASK/DOC	REV.	FIGURE
21452085	3000/3330/206	0	6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

APPENDIX A

2021 Site Inspection Photographs



Photograph 1: Site A CCR Facility – Overview from Site B; Looking Southeast, 17 August 2021



Photograph 2: Site A CCR Facility – Platform; Looking Northeast, 17 August 2021



Photograph 3: Site A CCR Facility – Southeast Slope; Looking Northeast, 17 August 2021



Photograph 4: Site A CCR Facility – Southwest Slope; Minor Surface Water on Intermediate Bench; Looking Northwest, 17 August 2021



Photograph 5: Site A CCR Facility – South Slope and Intermediate Benches; Looking Southwest, 17 August 2021



Photograph 6: Site A CCR Facility – Southeast Slope and Intermediate Benches; Looking Northeast, 17 August 2021



Photograph 7: Site A CCR Facility – Ancient Landslide at Southeast Toe; Looking East, 17 August 2021



Photograph 8: Site A CCR Facility – Southeast Slope and Intermediate Bench; Looking South, 17 August 2021



Photograph 9: Site A CCR Facility – East Slope with Minor Surface Water on Intermediate Bench; Looking East, 17 August 2021



Photograph 10: Site A CCR Facility – East Slope and Intermediate Benches; Looking Southeast, 17 August 2021



Photograph 11: Site B CCR Facility – Overview of South Side; Looking North, 17 August 2021



Photograph 12: Site B CCR Facility – Overview of East Side; Looking North, 17 August 2021



Photograph 13: Site B CCR Facility – Overview of West Side; Looking South, 17 August 2021



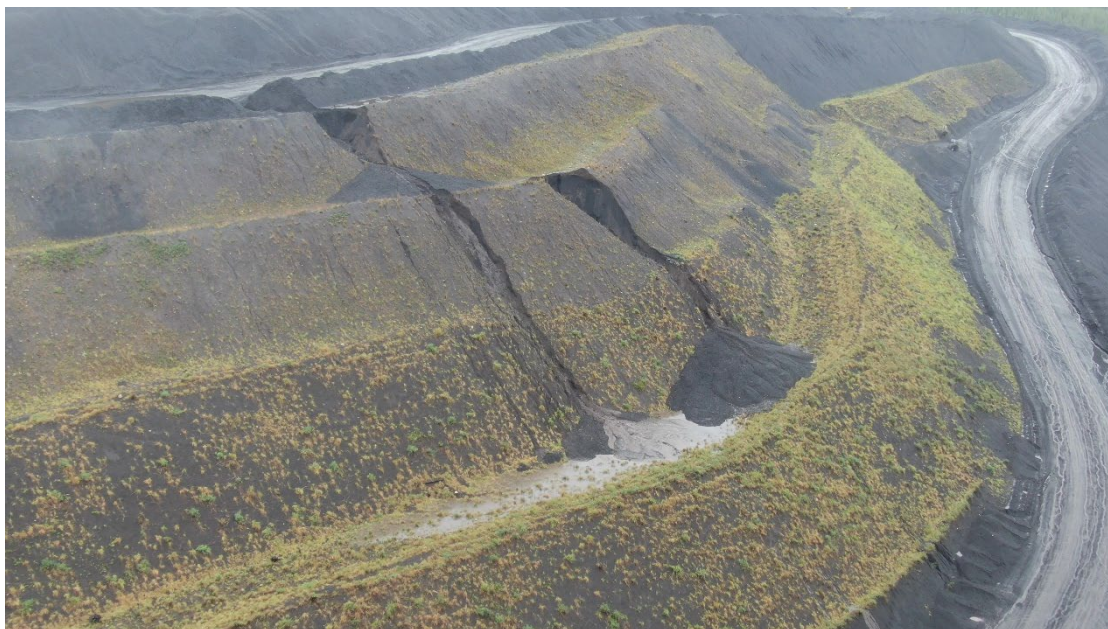
Photograph 14: Site B CCR Facility – North and East End of Platform; Looking Northwest, 17 August 2021



Photograph 15: Site B CCR Facility – Haul Road at Southeast Side of Facility; Looking North, 17 August 2021



Photograph 16: Site B CCR Facility – Lower Interbench Slopes and Toe at Southeast Side of Facility; Looking North, 17 August 2021



Photograph 17: Site B CCR Facility – Erosion of Slope and Intermediate Benches at East Side of Facility; Looking East, 17 August 2021



Photograph 18: Site B CCR Facility – Close-Up View of Erosion at East Slope; Looking East, 17 August 2021



Photograph 19a: Site B CCR Facility – Erosion of Intermediate Bench at East Side of Facility; Looking Southeast, 17 August 2021



Photograph 19b: Site B CCR Facility – Repair of Erosion on Intermediate Bench at East Side of Facility; Looking South, 19 October 2021



Photograph 20: Site B CCR Facility – Overbuilt Portion of Slope at Northeast Side of Facility; Looking East, 17 August 2021



Photograph 21: Site B CCR Facility – Surficial Cracking at Overbuilt Portion of Slope at Northeast Side of Facility; Looking East, 17 August 2021



Photograph 22: Site B CCR Facility – Haul Road at Northeast Side of Facility; Looking Southeast, 17 August 2021



Photograph 23: Site B CCR Facility – Slope at Northeast Side of Facility; Looking Southeast, 17 August 2021



Photograph 24: Site B CCR Facility – North Slope of Facility; Looking Northeast, 17 August 2021



Photograph 25: Site B CCR Facility – North Side of Facility; Looking North, 17 August 2021



Photograph 26: Site E CCR Facility – Overview; Looking North, 17 August 2021



Photograph 27: Site E CCR Facility – Platform; Looking West, 17 August 2021



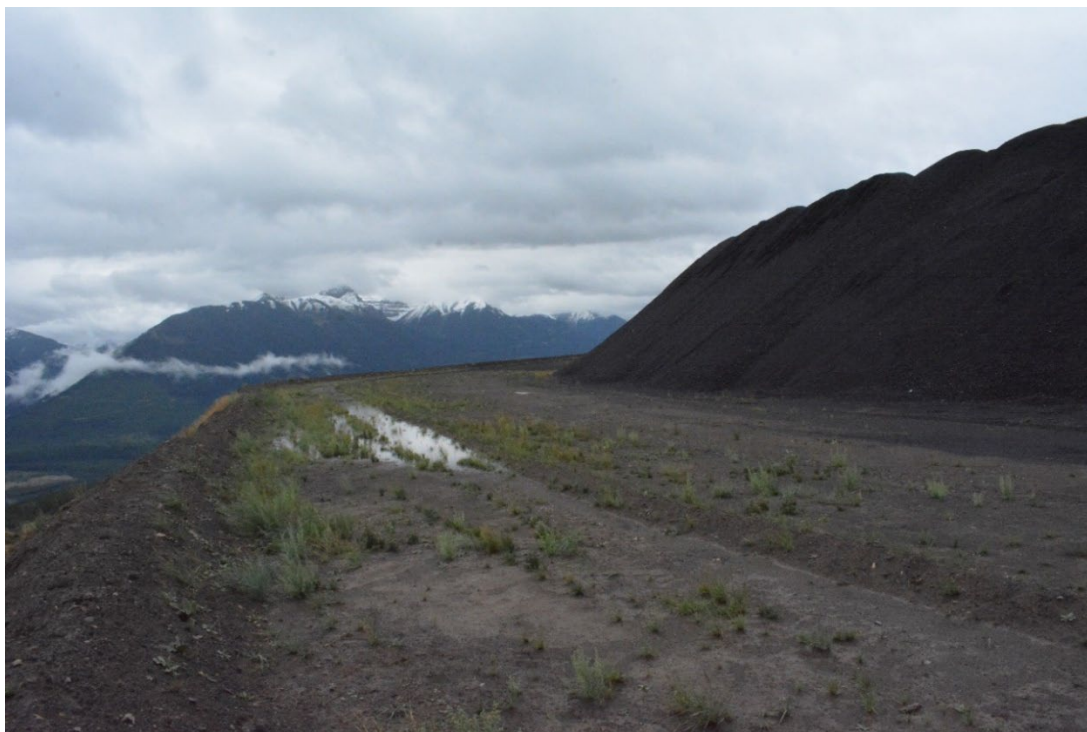
Photograph 28: Site E CCR Facility – Southwest Slope and Intermediate Benches; Looking East, 17 August 2021



Photograph 29: Site E CCR Facility – Southwest Toe; Looking Northeast, 17 August 2021



Photograph 30: Site E CCR Facility – Intermediate Bench and Interbench Slope; Looking East, 17 August 2021



Photograph 31: Site E CCR Facility – Intermediate Bench with Minor Ponded Surface Water; Looking West, 17 August 2021



Photograph 32: Site E CCR Facility – West Slope and Intermediate Benches; Looking South, 17 August 2021



Photograph 33: Site E CCR Facility – Interbench Slope at West Side of Facility; Looking North, 17 August 2021

APPENDIX B

2021 Site Inspection Records

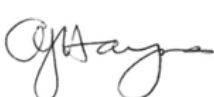
Client:	Teck Coal Limited	By:	Martyn Willan, P.Eng. and Andy Haynes, P.Eng.
Project:	GHO 2021 CCR Facilities Annual Facility Performance Report	Date:	17 August 2021
Location:	Site A CCR Facility		

GENERAL INFORMATION

Facility Type: Coarse Coal Refuse Facility

Weather Conditions:	Smoky with rain	Temp:	13°C
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INSPECTION ITEM	OBSERVATIONS/DATA	PHOTO	COMMENTS & OTHER DATA
1. PLATFORM			
1.1 Platform Elevation	1,740 m	1, 2	Platform elevation from 2021 LiDAR survey.
1.2 Surface Cracking	None Observed		
1.3 Unexpected Settlement	None Observed		
1.4 Lateral Movement	None Observed		
1.5 Other Unusual Conditions	None Observed		
2. SLOPE			
2.1 Slope Angle	1.9H:1V	3,4,5,6,7,8, 9,10	Steeper slopes on south face. Continue to monitor.
2.2 Signs of Erosion	Minor erosion rills on unvegetated areas of northeast slope		
2.3 Signs of Movement (Deformation)	None Observed		
2.4 Cracks	None Observed		
2.5 Seepage or Wet Areas	None Observed		
2.6 Vegetation Growth	Yes	3,4,5,6,7,8, 9, 10	Lower benches reclaimed.
2.7 Other Unusual Conditions	Yes	4,9,10	Minor ponded water in localized depressions on east and west intermediate benches.
3. TOE AREA			
3.1 Seepage from Stockpile	None Observed	4,6,7,8	
3.2 Signs of Erosion	None Observed		
3.3 Signs of Turbidity in Seepage Water	None Observed		
3.4 Discoloration/Staining	None Observed		
3.5 Other Unusual Conditions	None Observed		

INSPECTION ITEM	OBSERVATIONS/DATA	PHOTO	COMMENTS & OTHER DATA
4. INSTRUMENTATION			
4.1 Piezometers	No available data for the 2021 reporting period.		Two vibrating wire piezometers at the platform.
4.2 Settlement Cells	None		
4.3 Survey Monuments	None		
4.4 Accelerograph	None		
4.5 Inclinator	None		
4.6 Weirs and Flow Monitors	None		
4.7 Data Logger(s)	Yes		
4.8 Other	Yes		
5. DOCUMENTATION			
5.1 Operation, Maintenance and Surveillance (OMS) Manual Exists	SP&P H1207, SP&P H1324 SP&P H1350		Update Required.
5.1.2 Reflects Current Conditions	No		
5.1.3 Date of Last Revision/Review	SP&P H1207 (5 March 2020), SP&P H1324 (26 March 2018), SP&P H1350 (4 April 2018)		
5.2 Emergency Preparedness Plan (EPP) Exists	NA		
5.2.1 Reflects Current Conditions	NA		
5.2.2 Date of Last Revision	NA		
6. NOTES None			
Inspector's Signature		Date:	29 March 2022

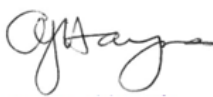
Client:	Teck Coal Limited	By:	Martyn Willan, P.Eng. and Andy Haynes, P.Eng.
Project:	GHO CCR 2021 Annual Facility Performance Report	Date:	17 August 2021
Location:	Site B CCR Facility		

GENERAL INFORMATION

Facility Type: Coarse Coal Refuse Facility

Weather Conditions:	Smoky with rain	Temp:	13°C
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INSPECTION ITEM	OBSERVATIONS/DATA	PHOTO	COMMENTS & OTHER DATA
1. PLATFORM			
1.1 Platform Elevation	1,825 to 1,840 m	12,13,14	Platform elevation from 2021 LiDAR survey.
1.2 Surface Cracking	None Observed		
1.3 Unexpected Settlement	None Observed		
1.4 Lateral Movement	None Observed		
1.5 Other Unusual Conditions		14	Overdumped CCR on north/east extent of platform.
2. SLOPE			
2.1 Slope Angle	2.15H:1V	11,12,13, 15,16,17, 20,21,22, 24,25,26	Portion of northeast slope constructed beyond design profile.
2.2 Signs of Erosion	Yes	17,18,19	Erosion gullies on east slope due to heavy rainfall.
2.3 Signs of Movement (Deformation)	None Observed		
2.4 Cracks	Yes	20, 21	Fatigue cracking at mid-height of overbuilt portion at northeast slope.
2.5 Seepage or Wet Areas	None Observed		
2.6 Vegetation Growth	Yes	11,12,13, 15,16,17, 19,22,26	Some benches vegetated.
2.7 Other Unusual Conditions	Yes	13,19	Minor ponded water on east and west intermediate benches.
3. TOE AREA			
3.1 Seepage from Stockpile	None Observed	12,13,15, 16,17, 26	
3.2 Signs of Erosion	None Observed		

INSPECTION ITEM	OBSERVATIONS/DATA	PHOTO	COMMENTS & OTHER DATA
3.3 Signs of Turbidity in Seepage Water	None Observed		
3.4 Discoloration/Staining	None Observed		
3.5 Other Unusual Conditions	None Observed		
4. INSTRUMENTATION			
4.1 Piezometers	No available data for the 2021 reporting period		Four vibrating wire piezometers at the platform.
4.2 Settlement Cells	None		
4.3 Survey Monuments	None		
4.4 Accelerograph	None		
4.5 Inclinator	None		
4.6 Weirs and Flow Monitors	None		
4.7 Data Logger(s)	Yes		
4.8 Other	Yes		
5. DOCUMENTATION			
5.1 Operation, Maintenance and Surveillance (OMS) Manual Exists	SP&P H1207 SP&P H1324 SP&P H1350		Update Required.
5.1.2 Reflects Current Conditions	No		
5.1.3 Date of Last Revision/Review	SP&P H1207 (5 March 2020), SP&P H1324 (26 March 2018), SP&P H1350 (4 April 2018)		
5.2 Emergency Preparedness Plan (EPP) Exists	NA		
5.2.1 Reflects Current Conditions	NA		
6. NOTES None			
Inspector's Signature		Date:	29 March 2022


Client:	Teck Coal Limited	By:	Martyn Willan, P.Eng. and Andy Haynes, P.Eng.
Project:	GHO 2021 CR Annual Facility Performance Review	Date:	17 August 2021
Location:	Site E CR Facility		

GENERAL INFORMATION

Facility Type: Coarse Refuse Facility

Weather Conditions:	Smoky with rain	Temp:	13°C
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INSPECTION ITEM	OBSERVATIONS/DATA	PHOTO	COMMENTS & OTHER DATA
1. PLATFORM			
1.1 Platform Elevation	1,765 to 1,768 m	27,28,29	Platform elevation from 2021 LiDAR survey.
1.2 Surface Cracking	None Observed		
1.3 Unexpected Settlement	None Observed		
1.4 Lateral Movement	None Observed		
1.5 Other Unusual Conditions	None Observed		
2. SLOPE			
2.1 Slope Angle	2.4H:1V	27,29,30,31,32,33,34	
2.2 Signs of Erosion	Yes	27, 33	Minor erosion rills on slope.
2.3 Signs of Movement (Deformation)	None Observed		
2.4 Cracks	None Observed		
2.5 Seepage or Wet Areas	None Observed		
2.6 Vegetation Growth	Yes	27,29,30,31,33	Lower benches vegetated.
2.7 Other Unusual Conditions	Yes	31,32	Minor ponded water in localized depressions on intermediate benches.
3. TOE AREA			
3.1 Seepage from Stockpile	None Observed	29, 30,33	
3.2 Signs of Erosion	None Observed		
3.3 Signs of Turbidity in Seepage Water	None Observed		
3.4 Discoloration/Staining	None Observed		
3.5 Other Unusual Conditions	None Observed		

INSPECTION ITEM	OBSERVATIONS/DATA	PHOTO	COMMENTS & OTHER DATA
4. INSTRUMENTATION			
4.1 Piezometers	No available data for 2021 reporting period		Two vibrating wire piezometers at the platform.
4.2 Settlement Cells	None		
4.3 Survey Monuments	None		
4.4 Accelerograph	None		
4.5 Inclinator	None		
4.6 Weirs and Flow Monitors	None		
4.7 Data Logger(s)	Yes		
4.8 Other	Yes		
5. DOCUMENTATION			
5.1 Operation, Maintenance and Surveillance (OMS) Manual Exists	SP&P H1207 SP&P H1324 SP&P H1350		Update Required.
5.1.2 Reflects Current Conditions	No		
5.1.3 Date of Last Revision/Review	SP&P H1207 (5 March 2020), SP&P H1324 (26 March 2018), SP&P H1350 (4 April 2018)		
5.2 Emergency Preparedness Plan (EPP) Exists	NA		
5.2.1 Reflects Current Conditions	NA		
5.2.2 Date of Last Revision	NA		
6. NOTES None			
Inspector's Signature		Date:	29 March 2022



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