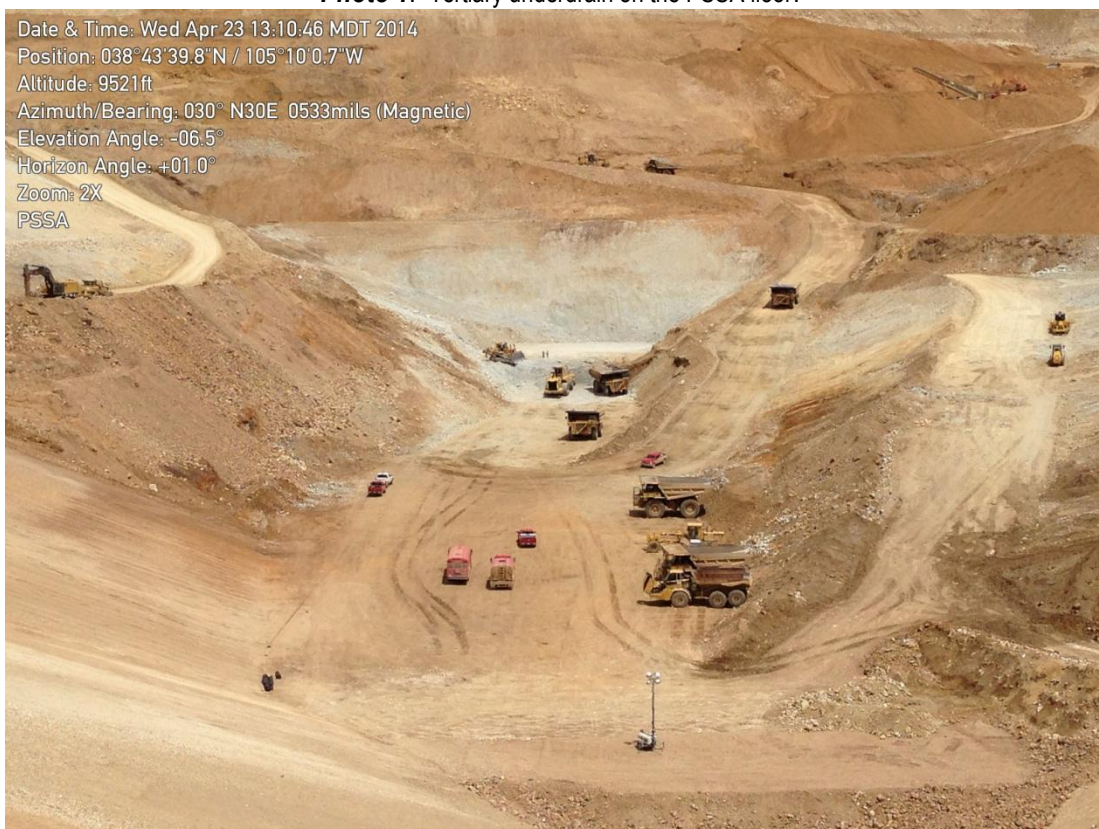


**Photographs of daily activities:**



**Photo 1:** Tertiary underdrain on the PSSA floor.



**Photo 2:** PSSA Area.





**Photo 3:** Concrete plug installation at UG #6273.



**Photo 4:** Fill placement at the Buttress fill Area

**CRIPPLE CREEK & VICTOR GOLD MINING Co.**  
**Squaw Gulch (VLF), HWY 67 Realignment Field Monitoring Summary Weekly Report**

|   |  |
|---|--|
| <b>Owner:</b> Cripple Creek & Victor Gold Mining Co.<br><b>Project:</b> Squaw Gulch (VLF), Hwy 67 Realignment<br><b>Location:</b> Cripple Creek & Victor Gold Mine, Colorado<br><b>Contractor:</b> Ames Construction Co. Inc. | <b>Project Number:</b> 74201125N0. ****. ****<br><b>Date:</b> 3 May 2014 |
|---|--|

**Reporting Period: 4.27.14 through 5.3.14**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D = Day Shift   N = Night Shift   W = Weather Day |   |   |   |   |   |   |   |

**Ambient Temperature Ranges for reporting period:**

**High:** 35°F to 62°F

**Low:** 16°F to 37°F

**Weather conditions for reporting period:**

**Cloud Cover:** Partly cloudy.

**Precipitation:** None

**Wind:** Variable

**Ames:** Continuing construction tasks for the VLF.

**Planning:** Continuing construction activities and scheduling for the VLF.

**CONSTRUCTION ACTIVITIES and PROGRESS:**

**I) Earthworks**

**A) VLF (PSSA, Phase I, Phase II)**

**Topsoil / Overburden Stripping:** No topsoil stripping occurred.

**Production drilling:** Production drilling occurred within the VLF limits.

**Production blasting:** Four (4) production blasts occurred within the VLF.

**Structural Fill:**

A Cat 992 loader placed material into Cat 777 haul trucks at the PSSA floor downslope of stations B5+00 to B6+00, A18+00, and ADR haul road stations 0+00 to 10+00. A John Deere 850 excavator loaded Cat 740 haul trucks with shot rock down slope of stations C1+00 to C3+00. Material from both locations was transported to the ADR haul road fill near stations 55+00 through 72+00 and placed as structural fill using a Cat D9 dozer. A Cat CS56B smooth drum roller compacted fill while a Cat 330 excavator equipped with a rock hammer broke apart oversize material. The structural fill was placed and compacted per project specification. A few select 740 loads were also hauled to the Rip Rap pre-screen stockpile.

Two Cat D10 dozers pushed material downslope to the ADR haul road fill area near stations 65+00 to 70+00. The dozers placed the material as structural fill in approximately 24 inch lifts and each lift was compacted by a Cat CS56B smooth drum roller per project specification.

A Cat 345 excavator loaded Cat 740 haul trucks with structural fill cut upslope of stations H6+00 to H8+00. The material was transported to the Buttress fill area near stations J0+00 to J4+00 and placed as structural fill using Cat

D9 and D10 dozers. A Cat CS56B smooth drum roller compacted fill while a Cat 330 excavator equipped with a rock hammer broke apart oversize material.

A Cat GPS D6, a GPS D8, and a D10 dozer pushed material downslope between stations E0+00 to E2+00 and C5+00 to C8+00. The material was placed as structural fill upslope from station C6+00 by a Cat GPS D8 dozer. The fill was placed and compacted per project specifications.

A Cat 345 and Cat 740 haul trucks were used to remove the clay plant reject pile. Material was placed as structural fill at stations F26+00 to F28+00 using a John Deere 1050 dozer. The fill was placed and compacted per project specifications.

A John Deere 870 excavator loaded Cat 740 haul trucks with material from the Phase 2 Storm Water Diversion Channel from approximate stations 8+00 to 14+00. A Cat GPS D6 cut and shaped the channel between approximate stations 6+00 to 10+00. The material was transported downslope of stations M22+00 to M27+00 and placed as structural fill by a Cat D8 dozer. A Cat CS56 smooth drum compacted the fill. The structural fill was placed and compacted per project specification.

A Cat 345 excavator loaded Cat 740 haul trucks with material from the ADR platform area. The material was transported to the PSSA Embankment and placed as structural fill by a Cat D8 dozer. The fill was compacted by a Cat CS56 smooth drum roller. The structural fill was placed and compacted per project specification.

A Cat 345 excavator worked on cutting and rough grading the outboard slope of Phase 2 Diversion Channel near stations 15+00 to 17+00.

A Cat smooth drum roller compacted the subgrade between stations FF10+00 and DD14+00 to DD18+00.

A Cat GPS D6 dozer cut the perimeter road to grade at stations P4+00 to P6+00.

Cat dozers cut the slopes to rough grade between stations FF10+00 and DD14+00 to DD18+00; at the area between the ½ : 1 slope and the ADR platform; from the edge of ADR haul road to the PSSA floor at ADR haul road stations 0+00 to 10+00; and downslope of stations A6+00 to A12+00, B0+00 to B6+00, C0+00 to C4+00, E0+00 to E2+00, J10+00 to J12+00, and Q3+00 to Q10+00.

A Cat 330 excavator was used to cut the slope to rough grade near stations Q0+00 to Q2+00.

A Cat 330 excavator worked on shaping and grading the access road near station Q0+00 to Q4+00.

A Cat 345 excavator placed 12-oz. non-woven geotextile fabric and D50=15" rip rap at the Phase 1 Diversion Pond spillway.

**Note:** An AMEC field professional monitored structural fill material temperatures placed within fill areas. Average structural fill temperatures were above 32°F.

#### **Clay (SLF) Processing:**

**Cameron Site:** No clay mining or processing occurred at the Cameron Site. Approximately 244,860 tons of clay / soil liner fill (SLF) material have been produced at the Cameron site. SLF produced from the operation remains stockpiled at Cameron Site for future use.

**Squaw Gulch Clay Borrow Site:** Clay mining and processing occurred at the Squaw Gulch Clay Borrow Site. Approximately, 117,500 tons of soil liner fill material has been produced at the Squaw Gulch Clay Borrow Site to date.



**Underdrain System:**

**Primary Underdrain:** No work occurred on the primary underdrain.

**Secondary Underdrain:** Approximately 130 lineal feet of secondary underdrain was constructed per design plans west of Dump 4.

**Tertiary Underdrain:** No work occurred on the tertiary underdrain.

**Tree Grubbing and Clearing, Chipping:**

A Cat 330 excavator removed trees and cleared and grubbed topsoil and deleterious material from near the Phase 2 Storm Water Diversion Ditch at approximate stations 3+00 to 6+00.

**B) Underground Workings**

- **Confirmatory Drilling**

Confirmatory drilling occurred at underground working #6446 (part of the Anaconda complex). Further remediation efforts are required.

- **Remediation**

Approximately 200 yds<sup>3</sup> of 4,000 PSI concrete was placed in underground working #U6273. Concrete physical property testing occurred and concrete cylinders were cast for laboratory determination of compressive strength. Additional remediation is required.

Underground workings #6112, #6285, #6310, #6311, #6390, and #6561 were excavated to competent rock, backfilled with structural fill per project specification, and are considered remediated.

A Cat 330 excavator began excavating working #6557. Additional remediation is required.

Timbers were found at underground working #6560 at a depth of about 5 to 7 feet. Work stopped due to equipment breakdown. Additional remediation is required.

AMES survey located 12 additional unknown surface workings located near the Phase 2 Diversion Ditch and Perimeter Road.

**II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

## CQA ACTIVITIES:

- I) **Field Activities:** Observation of construction activities during this reporting period included: Slope grading and fill placement; Ambient and fill temperature monitoring and recording; Underground working remediation and confirmatory drilling; Production drilling and blasting; Testing and sampling of SF, SLF, DCF and concrete from UG U6273; Rip rap placement at the Phase 1 pond spillway; and secondary underdrain installation.
- II) **Laboratory Activities:** Laboratory testing continued with Permeability, Particle Size Distribution, Atterberg Limits, Moisture-Density relationships, gradations, material classification, identifications, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Structural Fill sample number SF-80R
- Drain Cover Fill sample numbers DCF 76
- Soil Liner Fill sample numbers SLF 139-S and SLF-140S
- Physical properties test of concrete and cylinders were cast for compressive strength testing from underground working #6273

Note: Samples labeled with the suffix "R" are samples of Record / QA samples; those without are QC samples.

## General Project Items

**Meetings and Discussions:** The Contractor Meeting occurred on April 30, 2014 with CC&V Projects, AMEC, and Ames.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

## Miscellaneous:


- Drain cover fill processing continued.
- Rip rap processing continued.

**Deliveries:** None

**Submitted by:** Eric Lorenson **Date:** 05-05-2014

**Reviewed By:**  **Date:** 05-05-2014

Tim Burkhard  
Project Resident Manager  
Phone: 719.689.2986

**Approved By:**  **Date:** 5-7-14  
CC&V Projects Scott Burkhardt 5-7-14



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | April 27 | April 28 | April 29 | April 30 | May 1 | May 2 | May 3 |
|----------------|----------|----------|----------|----------|-------|-------|-------|
| Tim Burkhard   |          | PR       | PR       | PR       | PR    | PR    | PR    |
| Steve Rice     |          |          |          | UG       | UG    | UG    | UG    |
| Ben Melly      |          |          |          | ST       | ST    | ST    | ST    |
| Robert Redd    |          | UG       | UG       | UG       | UG    | UG    |       |
| Tyler Browning |          | ST       | ST       | ST       | ST    |       |       |
| Eric Lorensen  |          | ST       | ST       | ST       | ST    | ST    | ST    |
| Razi Molloy    |          | LT       | LT       | LT       | LT    | LT    | LT    |
| Chad Schreiner |          | ST       | ST       |          |       |       |       |
| Mike Nelson    |          |          |          |          |       | PM    |       |
| Rich Weber     |          |          |          |          |       | PL    |       |
| Don Conners    |          |          |          |          |       | PL    |       |

#### **LEGEND:**

PL = Project Lead  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer

**Photographs of daily activities:**

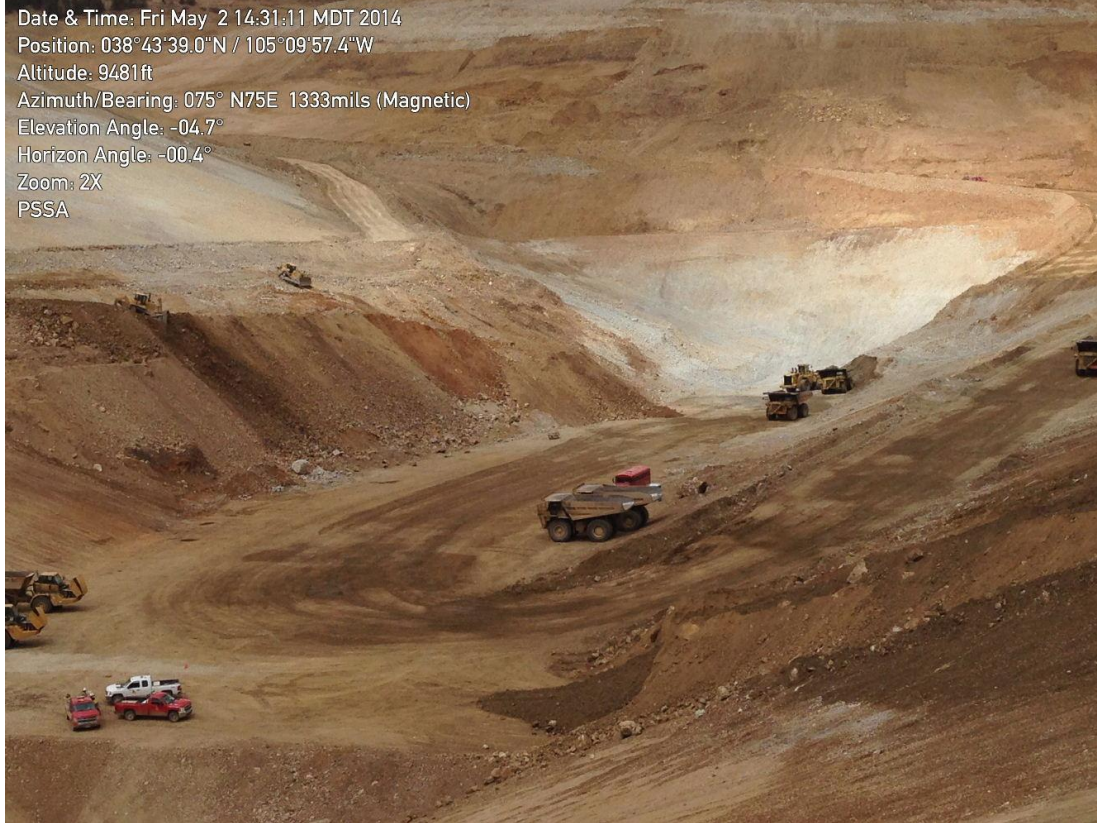


**Photo 1:** Secondary underdrain installation adjacent to Dump 4.



**Photo 2:** Fill placement, cut activities, and blasting preparation at the western VLF slope between the C and E benches.





**Photo 3:** PSSA: slope grading below the A bench and loading out cut below ADR haul road station 8+00.



**Photo 4:** Fill placement at the PSSA Embankment.

**CRIPPLE CREEK & VICTOR GOLD MINING Co.**  
**Squaw Gulch (VLF), HWY 67 Realignment Field Monitoring Summary Weekly Report**

|   |   |                          |
|---|---|--------------------------|
| <b>Owner:</b> Cripple Creek & Victor Gold Mining Co.        | <b>Project Number:</b> 74201125N0. ****. **** | <b>Date:</b> 10 May 2014 |
| <b>Project:</b> Squaw Gulch (VLF), Hwy 67 Realignment       |   |                          |
| <b>Location:</b> Cripple Creek & Victor Gold Mine, Colorado |   |                          |
| <b>Contractor:</b> Ames Construction Co. Inc.               |   |                          |

**Reporting Period: 5.4.14 through 5.10.14**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D = Day Shift   N = Night Shift   W = Weather Day |   |   |   |   |   |   |   |

**Ambient Temperature Ranges for reporting period:**

**High:** 44°F to 66°F

**Low:** 28°F to 43°F

**Weather conditions for reporting period:**

**Cloud Cover:** Partly cloudy.

**Precipitation:** None

**Wind:** Variable

**Ames:** Continuing construction tasks for the VLF.

**Planning:** Continuing construction activities and scheduling for the VLF.

**CONSTRUCTION ACTIVITIES and PROGRESS:**

**I) Earthworks**

**A) VLF (PSSA, Phase I, Phase II)**

**Topsoil / Overburden Stripping:** No topsoil stripping occurred.

**Production drilling:** Production drilling occurred within the VLF limits.

**Production blasting:** Four (4) production blasts occurred within the VLF.

**Structural Fill:**

Material was pushed to a Cat 992 loader filling Cat 777 haul trucks at the PSSA floor from Cat dozers downslope of stations A5+00 to A15+00. The material was transported to the ADR haul road fill area near stations 55+00 to 75+00 and placed as structural fill by Cat dozers. A Cat CS56B smooth drum roller compacted fill while a Cat 330 excavator equipped with a rock hammer broke apart oversize material. The structural fill was placed and compacted per project specification.

A John Deere 850 excavator loaded Cat 740 haul trucks with oversize material from the clay screening pile. The material was placed as structural fill upslope of stations F26+00 to F28+00. The structural fill was placed and compacted per project specification.

A Cat GPS D8 dozer graded upslope and downslope of stations C0+00 to C4+00. Excess material was pushed to a Cat 345 excavator that loaded out Cat 740 haul trucks from the ADR platform area. The material was transported to the PSSA Embankment and placed as structural fill by a Cat D8 dozer. The fill was compacted by a Cat CS56 smooth drum roller. The structural fill was placed and compacted per project specification. A few select loads were transported to the rip rap prescreen stockpile.



A Cat 330 excavator and a D6 GPG dozer trenched for the Low Volume Solution Collection (LVSC) riser piping in the southeast corner of the PSSA between the closure drains and the 9450' elevation bench.

A Cat 330 excavator loaded material excavated from above underground working # 6273 into Cat 740 haul trucks. The material was placed as structural fill using a Cat dozer between the ½:1 slope and ADR platform. The fill was compacted by a Cat CS56 smooth drum roller. The structural fill was placed and compacted per project specification. Fine materials were used to finish slope grades at the 9450 elevation near the ADR Platform.

A Cat CS56 smooth drum roller compacted the subgrade between stations FF+00 to FF2+00 and DD2+00 to DD7+00 as well as downslope of stations B10+00 to B12+00.

A D6 dozer was used to place cut to fill at the Phase 2 Diversion Channel near stations 8+00 to 10+00. A Cat CS56 smooth drum roller compacted the area per project specification.

Cat dozers cut the slopes to rough grade between stations H10+00 to H18+00 and F12+00 to F22+00 and downslope of stations B4+00 to B6+00, C0+00 to C4+00, G0+00 to G2+00, and A5+00 to A15+00.

The Phase 1 Diversion Channel was lined with 12-oz. non-woven geotextile fabric and D<sub>50</sub>=6" rip rap from the channel outlet of the sedimentation pond crest to approximately station 4+00.

A Cat 330 excavator and a Cat 330 excavator with a rock hammer broke apart and cut down material near station Q2+00 above the ½ :1 slope.

A Cat dozer graded material upslope at stations J1+00 to J2+00 creating an access ramp to the ADR haul road fill area. The haul road access ramp is for future Soil Liner Fill haulage from the Cameron.

**Note:** An AMEC field professional monitored structural fill material temperatures placed within fill areas. Average structural fill temperatures were above 32°F.

#### **Clay (SLF) Processing:**

**Cameron Site:** No clay mining or processing occurred at the Cameron Site. Approximately 244,860 tons of clay / soil liner fill (SLF) material have been produced at the Cameron site. SLF produced from the operation remains stockpiled at Cameron Site for future use.

**Squaw Gulch Clay Borrow Site:** Clay mining and processing occurred at the Squaw Gulch Clay Borrow Site. Approximately, 125,400 tons of soil liner fill material has been produced at the Squaw Gulch Clay Borrow Site to date.

#### **Underdrain System:**

**Primary Underdrain:** No work occurred on the primary underdrain.

**Secondary Underdrain:** No work occurred on the secondary underdrain.

**Tertiary Underdrain:** No work occurred on the tertiary underdrain.

#### **Tree Grubbing and Clearing, Chipping:**

No clearing or grubbing occurred.

#### **B) Underground Workings**

- **Confirmatory Drilling**

No confirmatory drilling occurred.

- **Remediation**

Cemented rock fill was placed in underground working #6273 (1245 yd<sup>3</sup> total) and #6274(55 yd<sup>3</sup> total). Cylinders for compressive strength testing were cast from working 6273. Additional remediation is required..

Underground workings #6083 was excavated to competent rock, backfilled with structural fill per project specification, and is considered remediated.

The concrete cap and CMP stand pipe was removed from working #6153 and was prepared for additional coarse shaft backfill. Additional remediation is required.

## **II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

### **CQA ACTIVITIES:**

---

- I) **Field Activities:** Observation of construction activities during this reporting period included: Slope grading and fill placement; Ambient and fill temperature monitoring and recording; Underground working remediation and confirmatory drilling; Production drilling and blasting; Testing and sampling of SF, SLF, DCF and concrete from UG U6273; Rip rap placement at the Phase 1 pond spillway; and secondary underdrain installation.
- II) **Laboratory Activities:** Laboratory testing continued with Permeability, Particle Size Distribution, Atterberg Limits, Moisture-Density relationships, gradations, material classification, identifications, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Structural Fill sample numbers SF-81R through SF-83R
- Drain Cover Fill sample numbers DCF 76 through DCF 78
- Soil Liner Fill sample numbers SLF 141-S through SLF-145S
- Test Samples TS-59 through TS-61 (clay from the WHEX)
- Cylinders for compressive strength testing were cast from working 6273

Note: Samples labeled with the suffix "R" are samples of Record / QA samples; those without are QC samples.





**General Project Items**

**Meetings and Discussions:** The Contractor Meeting occurred on May 7, 2014 with CC&V Projects, AMEC, and Ames.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

**Miscellaneous:**

- Drain cover fill processing continued.
- Rip rap processing continued.

**Deliveries:** None

**Submitted by:** Eric Lorensen **Date:** 05-13-2014

**Reviewed By:**  **Date:** 05-13-2014

Tim Burkhard  
Project Resident Manager  
Phone: 719.689.2986

**Approved By:**  **Date:** 5-15-14  
**CC&V Projects**



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | May 4 | May 5 | May 6 | May 7 | May 8 | May 9 | May 10 |
|----------------|-------|-------|-------|-------|-------|-------|--------|
| Tim Burkhard   |       | PR    | PR    | PR    | PR    | PR    | PR     |
| Ben Melly      |       | ST    | ST    | ST    | ST    | ST    | ST     |
| Robert Redd    |       | UG    | UG    | UG    | UG    |       |        |
| Tyler Browning |       |       | ST    | ST    | ST    | ST    | ST     |
| Eric Lorensen  |       | ST    | ST    | ST    | ST    | ST    |        |
| Razi Molloy    |       | LT    | LT    | LT    | LT    | LT    | LT     |

#### LEGEND:

PL = Project Lead  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer



**Photographs of daily activities:**



**Photo 1:** Slope grading, production drilling, and cut removal downslope of stations A7+00 to A12+00.



**Photo 2:** A Cat GPS D6 dozer shaping the trench for the Low Volume Solution Collection (LVSC) riser piping in the PSSA.





**Photo 3:** excess material removal from UG Working #6273



**Photo 4:** Fill placement at the ADR haul road fill area.



**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
Squaw Gulch (VLF), HWY 67 Realignment Field Monitoring Summary Weekly Report**

|   |   |                          |
|---|---|--------------------------|
| <b>Owner:</b> Cripple Creek & Victor Gold Mining Co.        | <b>Project Number:</b> 74201125N0. ****. **** | <b>Date:</b> 17 May 2014 |
| <b>Project:</b> Squaw Gulch (VLF), Hwy 67 Realignment       |   |                          |
| <b>Location:</b> Cripple Creek & Victor Gold Mine, Colorado |   |                          |
| <b>Contractor:</b> Ames Construction Co. Inc.               |   |                          |

**Reporting Period: 5.11.14 through 5.17.14**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | W | W | D | D | D | D |
|   | - | - | - | N | N | N | - |
| D = Day Shift   N = Night Shift   W = Weather Day |   |   |   |   |   |   |   |

**Ambient Temperature Ranges for reporting period:**

**High:** 36°F to 64°F

**Low:** 13°F to 40°F

**Weather conditions for reporting period:**

**Cloud Cover:** Partly cloudy to overcast.

**Precipitation:** Snow Monday through Thursday and rain Friday night.

**Wind:** Variable

**Ames:** Continuing construction tasks for the VLF.

**Planning:** Continuing construction activities and scheduling for the VLF.

**CONSTRUCTION ACTIVITIES and PROGRESS:**

**I) Earthworks**

**A) VLF (PSSA, Phase I, Phase II)**

**Topsoil / Overburden Stripping:** No topsoil stripping occurred.

**Production drilling:** Production drilling occurred within the VLF limits.

**Production blasting:** Three (3) production blasts occurred within the VLF.

**Structural Fill:**

Material was pushed to a Cat 992 loader filling Cat 777 haul trucks at the PSSA floor from Cat dozers downslope of stations A5+00 to A10+00. The material was transported to the ADR haul road fill area near stations 55+00 to 65+00 and placed as structural fill using a D10 dozer. A Cat CS563 smooth drum roller compacted fill while a Cat 330 excavator equipped with a rock hammer broke apart oversize material. The structural fill was placed and compacted per project specification.

A Cat 980 loader and Cat 740 haul trucks were used to remove undersized material from the rip rap plant area. The material was transported and placed as structural fill near stations 60+00 to 65+00 at the ADR haul road fill area using a Cat D9 dozer. A Cat CS563 smooth drum roller compacted fill. The structural fill was placed and compacted per project specification.

A Cat GPS D8 dozer graded upslope and downslope of stations C0+00 to C4+00. Excess material was pushed to a Cat 980 loader and a John Deere 850 excavator that loaded out Cat 740 haul trucks from the ADR platform area. The material was transported to the PSSA Embankment and placed as structural fill by a Cat D8 dozer and near stations 55+00 to 60+00 at the ADR haul road fill area using a Cat D10 dozer. The fill was compacted by a Cat

CS56 smooth drum roller. The structural fill was placed and compacted per project specification. A few select loads were transported to the rip rap prescreen stockpile.

Cat dozers pushed material downslope from Dump 4 above the ADR Haul Road fill area near stations 70+00 to 75+00. Excess material was placed as structural fill near station K34+00. The structural fill was placed and compacted per project specification.

A Cat D6 GPG dozer regarded the trench for the Low Volume Solution Collection (LVSC) riser piping in the southeast corner of the PSSA between the closure drains and the 9450' elevation bench.

A Cat GPS D6 placed cut to fill downslope of station D11+00. Structural fill was placed in 3 foot minus lifts and compacted using a Cat CS56B smooth drum roller per project specification.

Cat dozers cut the slopes to rough grade downslope of stations FF6+00 to FF8+00, B4+00 to B8+00, C0+00 to C5+00, and A21+00.

Cat 330 excavators with rock hammers and buckets broke apart and cut the slopes to rough grade near stations A+00 to A2+00, upslope of stations DD10+00 to DD12+00, and downslope of stations C2+00, FF6+00 to FF8+00, and B4+00 to B8+00.

A Cat dozer graded material upslope at stations J1+00 to J2+00 creating an access ramp to the ADR haul road fill area. The haul road access ramp is for future Soil Liner Fill (SLF) haulage from the Cameron.

**Note:** An AMEC field professional monitored structural fill material temperatures placed within fill areas. Average structural fill temperatures were above 32°F and snow was removed prior to fill placement.

#### **Clay (SLF) Processing:**

**Cameron Site:** No clay mining or processing occurred at the Cameron Site. Approximately 244,860 tons of clay / soil liner fill (SLF) material have been produced at the Cameron site. SLF produced from the operation remains stockpiled at Cameron Site for future use.

**Squaw Gulch Clay Borrow Site:** Clay mining and processing did not occur at the Squaw Gulch Clay Borrow Site due to wet conditions. Approximately, 125,400 tons of soil liner fill material has been produced at the Squaw Gulch Clay Borrow Site to date.

#### **Underdrain System:**

**Primary Underdrain:** No work occurred on the primary underdrain.

**Secondary Underdrain:** Excavators worked on trenching in the PSSA for secondary underdrain below station A14+50.

**Tertiary Underdrain:** No work occurred on the tertiary underdrain.

#### **Tree Grubbing and Clearing, Chipping:**

Clearing and grubbing occurred in the Phase 2 channel alignment east of the Phase 2 pond.

### **B) Underground Workings**

#### **• Confirmatory Drilling**

Fourteen (14) geophysical confirmation index points were drilled within the PSSA floor to investigate anomalies in geophysical findings. No voids were found. All drill holes were grouted.

Confirmation drilling occurred at underground working #6280. The working was partially remediated previously. Additional remediation is required.



Confirmation drilling occurred at underground working #6557. The working was partially remediated (excavated and backfilled per project specification). Additional remediation is required.

- **Remediation**

Structural fill was placed in UG #6273. The fill was placed and compacted per project specification. Additional backfilling is required.

Timbers were found at underground working #6089 approximately 10 feet in depth from the surface and an adit was also found trending northeast. The site will require confirmatory drilling.

Exploratory excavating was conducted near underground working #6312. The working was not located. The exploration excavations were backfilled and compacted per project specifications. Further exploration is required.

Underground workings numbers 6088, 6090, 6091, 6141, 6306, 6558, 6560, 6565, 6566, 6567, 6568, 6569, 6570, 6571, and 6572 were excavated to competent rock, backfilled with structural fill per project specification, and are considered remediated.

## **II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

## CQA ACTIVITIES:

---

- I) **Field Activities:** Observation of construction activities during this reporting period included: Slope grading and fill placement; Ambient and fill temperature monitoring and recording; Underground working remediation and confirmatory drilling; Production drilling and blasting; Testing and sampling of DCF; and secondary underdrain trenching.
- II) **Laboratory Activities:** Laboratory testing continued with Permeability, Particle Size Distribution, Atterberg Limits, Moisture-Density relationships, gradations, material classification, identifications, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample numbers DCF 79 and DCF 80

Note: Samples labeled with the suffix "R" are samples of Record / QA samples; those without are QC samples.

### General Project Items

**Meetings and Discussions:** The Contractor Meeting occurred on May 14, 2014 with CC&V Projects, AMEC, and Ames.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

### **Miscellaneous:**

- Drain cover fill processing continued.
- Rip rap processing continued.
- Geophysical surveying was conducted in the PSSA.

**Deliveries:** None

**Submitted by:** Eric Lorenson **Date:** 05-20-2014

**Reviewed By:**  **Date:** 05-20-2014  
Tim Burkhard  
Project Resident Manager  
Phone: 719.689.2986

**Approved By:**  **Date:** 5/21/14  
CC&V Projects 



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | May 11 | May 12 | May 13 | May 14 | May 15 | May 16 | May 17 |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| Tim Burkhard   |        | PR     | PR     | PR     | PR     | PR     | PR     |
| Ben Melly      |        |        |        | ST     | ST     | ST     | ST     |
| Robert Redd    |        | UG     | UG     | UG     | UG     | UG     |        |
| Tyler Browning |        | ST     | ST     | ST     | ST     |        | ST     |
| Eric Lorensen  |        |        | ST     | ST     | ST     | ST     | ST     |
| Razi Molloy    |        | LT     | LT     | LT     | LT     | LT     | LT     |
| Chris Buckman  |        | GS     | GS     | GS     | GS     | GS     | GS     |
| Chad Schreiner |        |        | GS     | GS     | GS     | GS     |        |

#### LEGEND:

PL = Project Lead  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer

**Photographs of daily activities:**

Date & Time: Fri May 16 14:28:50 MDT 2014  
 Position: 038° 43' 50.4" N / 105° 09' 45.3" W  
 Altitude: 9462ft  
 Azimuth/Bearing: 250° S70W 4444mils (Magnetic)  
 Elevation Angle: -05.5°  
 Horizon Angle: -00.2°  
 Zoom: 2X  
 PSSA secondary underdrain



**Photo 1:** Trenching for secondary underdrain below station A14+00 in the PSSA.



**Photo 2:** Fill placement at PSSA embankment fill area.



Date & Time: Sat May 17 15:12:42 MDT 2014  
 Position: 038°44'8.6"N / 105°09'32.6"W  
 Altitude: 10101ft  
 Azimuth/Bearing: 211° S31W 3751mils (Magnetic)  
 Elevation Angle: +01.0°  
 Horizon Angle: -02.7°  
 Zoom: 2X  
 near station K34+00



**Photo 3:** Fill compaction near station K34+00.



**Photo 4:** Cut removal below stations A5+00 to A10+00 on the PSSA floor.



**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
Squaw Gulch (VLF), HWY 67 Realignment Field Monitoring Summary Weekly Report**

|   |   |
|---|---|
| <b>Owner:</b> Cripple Creek & Victor Gold Mining Co.<br><b>Project:</b> Squaw Gulch (VLF), Hwy 67 Realignment<br><b>Location:</b> Cripple Creek & Victor Gold Mine, Colorado<br><b>Contractor:</b> Ames Construction Co. Inc. | <b>Project Number:</b> 74201125N0. ****. ****<br><b>Date:</b> 24 May 2014 |
|---|---|

**Reporting Period: 5.18.14 through 5.24.14**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | D | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D = Day Shift   N = Night Shift   W = Weather Day |   |   |   |   |   |   |   |

**Ambient Temperature Ranges for reporting period:**

**High:** 59°F to 67°F

**Low:** 35°F to 41°F

**Weather conditions for reporting period:**

**Cloud Cover:** Partly cloudy to overcast.

**Precipitation:** Afternoon rain showers Wednesday and Thursday.

**Wind:** Variable

**Ames:** Continuing construction tasks for the VLF.

**Planning:** Continuing construction activities and scheduling for the VLF.

**CONSTRUCTION ACTIVITIES and PROGRESS:**

**I) Earthworks**

**A) VLF (PSSA, Phase I, Phase II)**

**Topsoil / Overburden Stripping:** Topsoil stripping occurred in the Phase 2 Diversion Channel East of the Phase 2 Pond. The material was hauled to the Area 34 stockpile.

**Tree Grubbing and Clearing, Chipping:**

Clearing and grubbing occurred in the Phase 2 channel alignment east of the Phase 2 pond.

**Production drilling:** Production drilling occurred within the VLF limits.

**Production blasting:** Two (2) production blasts occurred within the VLF.

**Structural Fill:**

A Cat 992 loader filled Cat 777 haul trucks with material from the PSSA floor below ADR haul road stations 5+00 to 10+00 and at the rip rap undersized material stockpile. A John Deere 850 excavator loaded Cat 740 haul trucks with material near ADR haul road station 15+00. The material from all areas was transported to the ADR haul road fill area near stations 65+00 to 70+00 and placed as structural fill by a D9 dozer. The fill was compacted with a Cat smooth drum roller. The structural fill was placed and compacted per project specification.

A Cat 980 loader and a John Deere 870 excavator loaded Cat 740 haul trucks with material from the southern end of the PSSA floor and from the ADR haul road between stations 0+00 to 15+00 and upslope of A21+00.. The material was transported to the ADR haul road fill area near stations 70+00 to 75+00 and placed as structural fill by a Cat dozer. The fill was compacted with a Cat smooth drum roller. The structural fill was placed and compacted per project specification.

A John Deere 850 excavator loaded Cat 740 haul trucks with material at the Phase 2 Diversion Channel. The material was placed as structural fill near Diversion Channel stations 22+00 to 24+00. The structural fill was placed and compacted per project specification.

A Cat dozers pushed material downslope from Dump 4 and placed it as structural fill near stations M22+00 to M26+00. The structural fill was placed and compacted per project specification.

A Cat 312 excavator and a D6 GPG dozer re-graded the trench for the Low Volume Solution Collection (LVSC) riser piping in the southeast corner of the PSSA between the closure drains and the 9450' elevation bench. The trench was also compacted to finish subgrade.

A Cat GPS D8 dozer cut the slope to rough grade downslope of stations C3+00 through C4+00. The material was pushed to stations A2+00 to A6+00 where a John Deere 850 excavator loaded Cat 740 haul trucks with the material. The material was transported to the rip rap prescreen area.

A Hitachi 200 excavator loaded out oversized processed material from the clay plant into Cat 740 haul trucks. The material was transported to near stations F26+00 to F28+00 where it was placed as structural fill. The material was placed and compacted per project specifications.

The southern ADR platform floor and side-slopes were compacted to finished grade and a surface acceptance was performed prior to transporting Soil Liner Fill (SLF) in Cat 740 haul trucks from the Squaw Gulch processed clay stockpile to the ADR platform. The SLF was stockpiled for future subsequent SLF placement and compaction. See the attached subgrade surface acceptance map for further location details.

A Cat D10 dozer pushed material downslope from Dump 4 and placed it as structural fill near ADR haul road stations 65+00 to 70+00. The structural fill was placed and compacted per project specification.

A Cat GPS D7 dozer and a Cat 345 hammer hoe cut the slope to rough grade and broke oversized material in the subgrade between station B8+00 to B16+00 and DD4+00 to DD12+00.

A Cat 330 excavator scaled the northern end of the ½:1 slope.

A Cat GPS D6 dozer worked on grading the west perimeter road near station Q2+00 to Q0+00.

Cat 740 haul trucks end dumped several loads of fine material for finish grading of the PSSA floor.

Slope grading and contouring occurred at various locations below elevation 9450 within the PSSA 2H: 1V slopes. Excess cut was transported out of the PSSA and into designated fill areas.

A Cat 330 excavator scaled the northern end of the ½:1 slope.

A Cat GPS D6 dozer worked on grading the west perimeter road near station Q2+00 to Q0+00.

#### **Clay (SLF) Processing:**

**Cameron Site:** No clay mining or processing occurred at the Cameron Site. Approximately 244,860 tons of clay / soil liner fill (SLF) material have been produced at the Cameron site. SLF produced from the operation remains stockpiled at Cameron Site for future use.

**Squaw Gulch Clay Borrow Site:** Clay mining and processing occurred at the Squaw Gulch Clay Borrow Site. Approximately, 133,100 tons of soil liner fill material has been produced at the Squaw Gulch Clay Borrow Site to date.

**Underdrain System:**

**Primary Underdrain:** Approximately 190 feet of primary underdrain was installed in the northern end of the PSSA floor in general accordance with approved project plans and specification.

**Secondary Underdrain:** Approximately 390 feet of secondary underdrain was installed above and tied into the primary underdrain on the north end of the PSSA.

**Tertiary Underdrain:** No work occurred on the tertiary underdrain.

**B) Underground Workings**

Confirmatory drilling occurred at Underground workings #6557 and #6280. Following the drilling, the workings were blasted, shot rock was removed, and then backfilled with structural fill according to project specifications. Working #6280 is considered remediated; working #6557 requires additional backfill before remediation is complete.

**II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

**CQA ACTIVITIES:**

---

- I) **Field Activities:** Observation of construction activities during this reporting period included: Slope grading and fill placement; Underground working remediation and confirmatory drilling; Production drilling and blasting; Sampling and testing of WHEX Clay, DCF and SLF; Final subgrade acceptance certification at the ADR platform; and Primary and Secondary underdrain installation.
- II) **Laboratory Activities:** Laboratory testing continued with Permeability, Particle Size Distribution, Atterberg Limits, Moisture-Density relationships, gradations, material classification, identifications, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample numbers DCF 81 through DCF 83.
- Soil Liner Fill sample numbers SLF 146S through SLF 149S
- Test Sample TS-62 (clay) from the WHEX Pit.

**General Project Items**

**Meetings and Discussions:** The Contractor Meeting occurred on May 21, 2014 with CC&V Projects, AMEC, and Ames.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

**Miscellaneous:**

- Drain cover fill processing continued.
- Rip rap processing continued.
- Geophysical surveying was conducted in the PSSA.
- A dozer was finish grading at the Water stand pond.

**Deliveries:** None

**Submitted by:** Eric Lorensen

**Date:** 05-26-2014





Submitted by: Eric Lorensen

Date: 05-26-2014

Reviewed By: 

Date: 05-26-2014

Tim Burkhard  
Project Resident Manager  
Phone: 719.689.2986

Approved By:   
CC&V Projects

Date: 6/2/14



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | May 18 | May 19 | May 20 | May 21 | May 22 | May 23 | May 24 |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| Tim Burkhard   |        | PR     | PR     | PR     | PR     | PR     |        |
| Steve Rice     |        |        | UG     | UG     | UG     | UG     |        |
| Ben Melly      |        | ST     | ST     | ST     | ST     | ST     |        |
| Robert Redd    |        | UG     | UG     | UG     | UG     |        |        |
| Tyler Browning | GS     | ST     | ST     |        |        |        |        |
| Eric Lorensen  |        | ST     | ST     | ST     | ST     | ST     |        |
| Razi Molloy    |        | LT     | LT     | LT     | LT     | LT     |        |
| Chris Buckman  | GS     | GS     | GS     | GS     | GS     | GS     | GS     |
| Matt Hartz     |        |        | GS     | GS     | GS     | GS     | GS     |
| Chad Schreiner |        |        | GS     | GS     | GS     | GS     | GS     |
| Andrea Meduna  |        |        |        | PE     |        |        |        |

#### LEGEND:

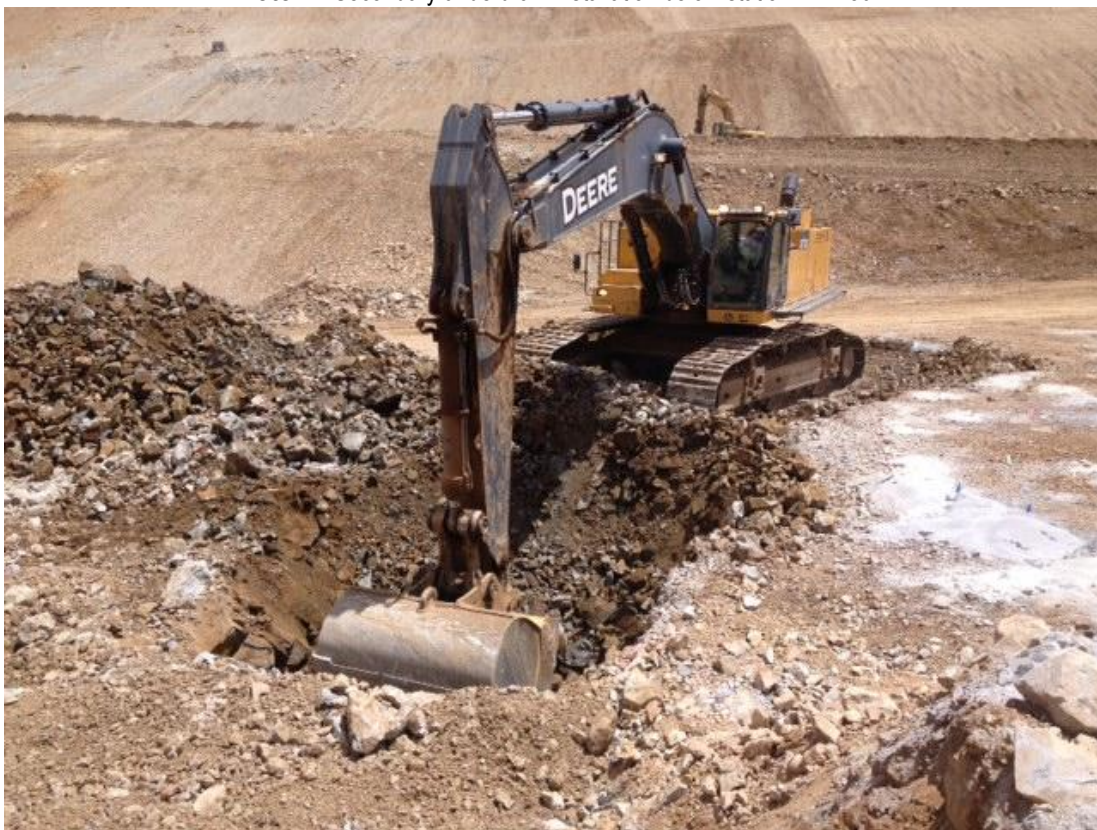
PL = Project Lead  
 PE = Project Engineer  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer



**Photographs of daily activities:**



**Photo 1:** Secondary underdrain installation below station A14+50.



**Photo 2:** Excavating the shot rock from underground working #6280 on the PSSA floor.





**Photo 3:** Primary underdrain installation on the north PSSA floor









**Photo 4:** PSSA overview.

X:\Reporting\CAD-Weekly Acceptance Maps\Weekly Figure Map.dwg--5/31/2014 7:37 AM




## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |

|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|



|   |  |     |             |     |         |
|---|--|-----|-------------|-----|---------|
|  |  |     |             |     |         |
| DESIGNED BY   |  | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY  |  | RBR | APPROVED BY | ALM | 5/24/14 |
| CADD FILENAME   |  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP  |  |     | 1           | 0   |         |



**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (Colorado)  
Squaw Gulch (VLF) & HWY 67 Realignment Monitoring Weekly Report**

|                    |  |                        |              |
|--------------------|--|------------------------|--------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0   |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | May 31, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |              |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |              |

**Reporting Period: 5.25.14 through 5.31.14**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                   | H | H | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      H=Holiday |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:  |
|--|--|
| Highs: 59°F to 71°F                    | <b>Cloud Cover:</b> Partly cloudy to overcast                              |
| Lows: 39°F to 44°F                     | <b>Precipitation:</b> Afternoon rain showers<br>Wednesday through Saturday |
|  | <b>Wind:</b> Variable  |

**Ames:** Continuing construction tasks for the VLF.

**Planning:** Continuing construction activities and scheduling for the VLF.

### **CONSTRUCTION ACTIVITIES and PROGRESS:**

#### **I) Earthworks**

##### **A) VLF (PSSA, Phase I, Phase II)**

**Topsoil / Overburden Stripping:** Topsoil stripping occurred in the Phase 2 Diversion Channel East of the Phase 2 Pond; the material was hauled to the Area 34 topsoil stockpile.

**Tree Grubbing and Clearing, Chipping:**

Clearing or grubbing was performed in the Phase 2 Diversion Channel East of the Phase 2 Pond.

**Production drilling:** Production drilling was performed throughout the week within the VLF limits.

**Production blasting:** One (1) production blast occurred within the VLF.

**Structural Fill:**

A John Deere 850 excavator, assisted by a Cat GPS D6 dozer, loaded Cat 740 haul trucks with material between approximate stations A2+00 to A16+00. The material was transported to the Buttress fill area upslope of stations J6+00 to J14+00 where it was placed as structural fill by a Cat D9 dozer. Cat dozers also graded the slopes above the Buttress fill area (Dump 4 and the Ball Mill platform) pushing excess material to the fill area as structural fill placement. All structural fill was placed and compacted per project specifications.



A Cat D10 dozer cut the slope to rough grade downslope of stations F21+00 to F18+00. Excess material was placed as structural fill between stations F18+00 to F14+00. A Cat CS56 smooth drum roller was used to compact the placed fill. The structural fill was placed and compacted per project specifications.

A Cat 330 excavator loaded tandem trucks with stockpiled material at the floor of the PSSA below stations A2+00 to A5+00. The material was hauled to the northern half of the PSSA floor and placed as structural fill. The structural fill was placed and compacted per project specifications.

The southern half of the PSSA floor was compacted to finished grade and a subgrade inspection was performed followed by its acceptance. See the attached subgrade acceptance map for further location details.

Cat dozers performed cut to fill the Ball Mill site access road crossing at the eastern Phase 2 boundary at the top of the ADR haul road. The structural fill was placed and compacted per project specifications.

Slope grading and contouring occurred at various locations below elevation 9,450' on the PSSA slopes. Excess cut was stockpiled at the toe of the slope for later removal.

A Cat dozer and excavator cleared out loose material from the closure drain area and prepared the subgrade for concrete collar placement. Ames also worked on prefabrication of the reinforcing steel for the concrete collars. Work was temporarily halted in the Closure Drain area due to the accumulation of surface runoff into the sump of the drain from afternoon rain showers during the week.

Cat dozers placed cut to fill near station A0+00 to A2+00. Structural fill was placed and compacted per project specifications.

Slope grading and contouring work was performed at various locations below elevation 9,450' within the PSSA 2.5H: 1V slopes. Excess cut was stockpiled temporarily or later removal.

Cat excavators with rock hammers performed slope re-contouring of finished subgrade and broke oversized material in the subgrade downslope of stations A6+00 to A8+00.

The Low Volume Solution Collection (LVSC) riser pipe trench was completed to finished subgrade elevations on the southeast corner of the PSSA slope.

A Cat CS56 smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

A Cat GPS D6 dozer rough graded in the Phase 2 Diversion Channel alignment near stations 24+00 to 28+00.

#### **Clay (SLF) Processing:**

**Cameron Site:** No clay mining or processing occurred at the Cameron Site. Approximately 244,860 tons of clay/soil liner fill (SLF) material has been produced at the Cameron site. SLF produced from the operation remains stockpiled at the Cameron Site for future use.

**Squaw Gulch Clay Borrow Site:** Clay mining and processing occurred at the Squaw Gulch Clay Borrow Site. Approximately, 136,000 tons of soil liner fill material has been produced at this site to date.

### **Underdrain System:**

**Primary Underdrain:** No work was performed on the Primary Underdrain.

**Secondary Underdrain:** Approximately 40 feet of Secondary Underdrain was installed near station A6+00 and tied into existing underdrain.

**Tertiary Underdrain:** No work was performed on the Tertiary Underdrain.

## **B) Underground Workings**

Underground working #6557 was backfilled per project specifications and is considered remediated.

Underground working #6446 was blasted. Additional remediation is required.

Confirmatory drilling was conducted at underground workings UG #6119 and UG #6621. Voids were encountered during drilling activities. These workings will require further remediation.

Confirmatory drilling was conducted at underground working UG #6089. No voids were encountered during drilling activities. The site was blasted, shot rock removed, and backfilled according to project specifications. The working is considered remediated.

Underground working #6279 was excavated to competent rock, backfilled according to project specifications, and is considered remediated.

## **II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

### **CQA ACTIVITIES:**

---

I) **Field Activities:** Observation of construction activities during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling; production drilling and blasting; sampling and testing of DCF and SLF material; final subgrade acceptance certification of the southern half of the PSSA floor; and Secondary Underdrain installation.

II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, identifications, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample number DCF 84.
- Soil Liner Fill sample numbers SLF 150S and SLF 151S.

### **General Project Items**

#### **Meetings and Discussions:**

- The weekly Contractor Meeting occurred on May 28, 2014 with CC&V Projects, AMEC, and Ames.
- A VLF surface acceptance certification and liner construction coordination meeting was held between AMEC, Ames, and CC&V on May 29, 2014.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

**Miscellaneous:**

- Drain Cover Fill processing continued
- Riprap processing continued
- Geophysical surveying continued in the PSSA with the underground working investigation
- Clay was stockpiled at the Water Stand Pond after a subgrade inspection and acceptance certification

**Deliveries:** 31 sections of 40 foot long LVSCS 18-inch-diameter pipe was delivered totaling 1,240 lineal feet.

**Submitted by:** Eric Lorenson

**Date:** June 2, 2014

**Reviewed by:** 

Tim Burkhard  
Project Resident  
Phone: 719-689-2986

**Date:** June 2, 2014

**CC&V Projects**

**Approved By:** 

**Date:** 6/3/14

**Approved By:** 

**Date:** \_\_\_\_\_



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | May 25 | May 26 | May 27 | May 28 | May 29 | May 30 | May 31 |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| Tim Burkhard   |        |        | PR     | PR     |        |        |        |
| Steve Rice     |        |        | UG     | UG     | UG     | UG     | UG     |
| Ben Melly      |        |        | ST     | ST     | ST     | ST     | ST     |
| Robert Redd    |        |        |        |        | UG     | UG     | UG     |
| Tyler Browning |        |        | ST     | ST     | ST     | ST     | ST     |
| Eric Lorensen  |        |        | ST     |        | ST     | ST     | ST     |
| Razi Molloy    |        |        | LT     | LT     | LT     | LT     | LT     |
| Chris Buckman  |        |        | GS     | GS     |        |        |        |
| Matt Hartz     |        |        | GS     | GS     | GS     |        |        |
| Andrea Meduna  |        |        |        |        | PE     |        |        |

#### **LEGEND:**

PL = Project Lead  
 PE = Project Engineer  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer

## Photographs of Activities

---



Photo 1 Secondary Underdrain Installation near Station A6+00



Photo 2 Slope Grading Below the Ball Mill Platform





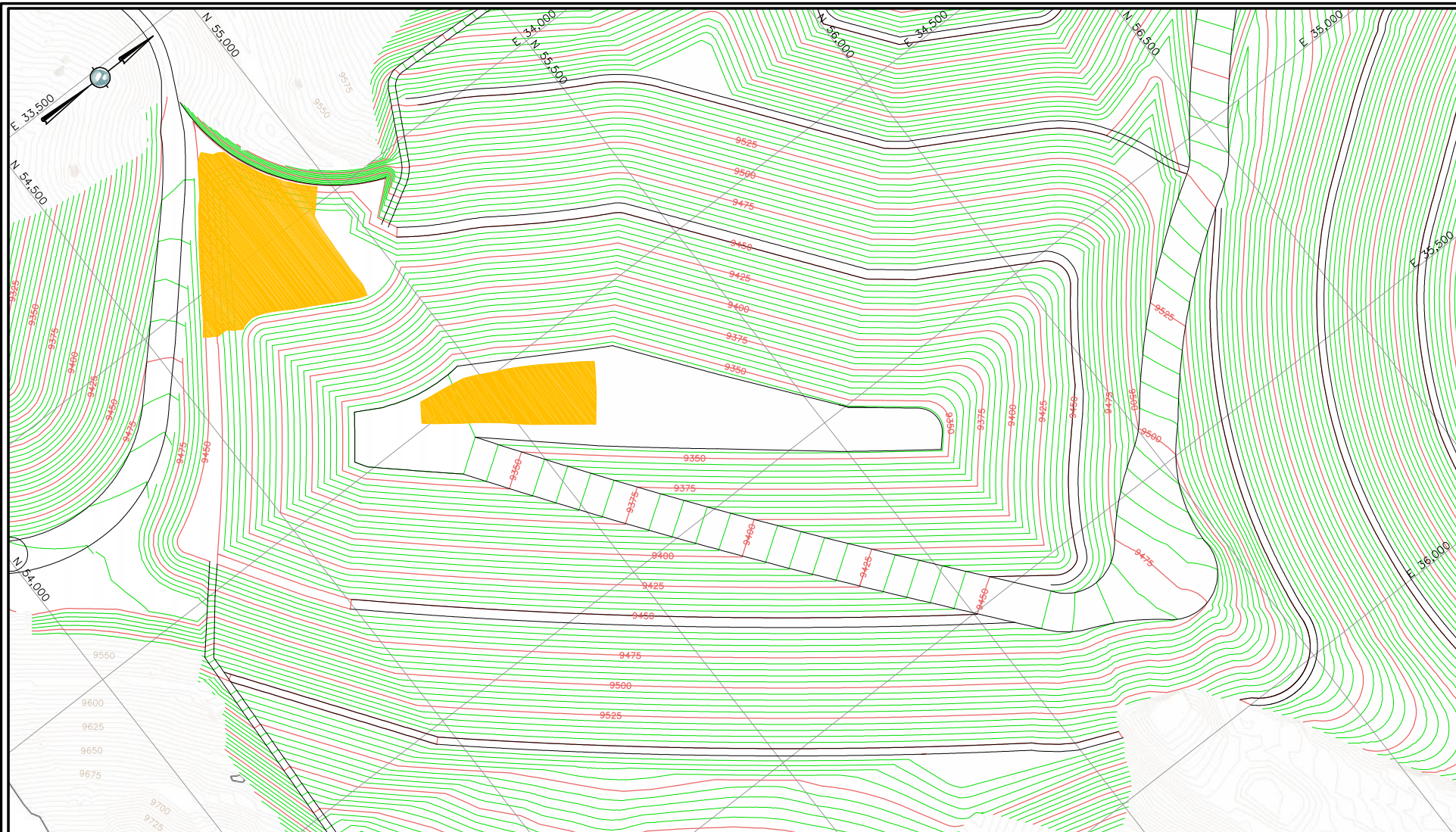
**Photo 3 Progress at the PSSA and Closure Drain Subgrade Preparation**









**Photo 4 Buttress Fill Area**



X:\Reporting\CAD-Weekly Acceptance Maps\Weekly Figure Map - To Update.dwg-5/31/2014 7:58 AM



## LEGEND

|   |                                |   |  |
|---|--------------------------------|---|--|
|  | APPROVED SUBGRADE              |  | APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  | APPROVED SOIL LINER FILL       |  | APPROVED DRAIN COVER FILL                    |
|  | APPROVED PRIMARY LLDPE LINER   |   |  |
|  | APPROVED SECONDARY LLDPE LINER |   |  |

150 0 150 300 FT

CLIENT  
**CRIPPLE CREEK & VICTOR  
MINING COMPANY**

PROJECT  
**PREGNANT SOLUTION STORAGE AREA**

TITLE  
**WEEKLY ACCEPTANCE AREAS**



|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 5/31/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |



**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (COLORADO)  
SQUAW GULCH (VLF) & HWY 67 RE-ALIGNMENT MONITORING WEEKLY REPORT**

|                    |  |                        |              |
|--------------------|--|------------------------|--------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0   |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | June 7, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |              |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |              |

**Reporting Period: 06.01.2014 through 06.07.2014**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      W=Weather day |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:                    |
|--|--|
| Highs: 62°F to 74°F                    | <b>Cloud Cover:</b> Partly cloudy to overcast      |
| Lows: 41°F to 48°F                     | <b>Precipitation:</b> Afternoon sprinkles Saturday |
|  | <b>Wind:</b> Variable                              |

**Ames:** Continuing construction tasks for the Valley Leach Facility (VLF).

**Planning:** Continuing construction activities and scheduling for the VLF.

### **CONSTRUCTION ACTIVITIES AND PROGRESS:**

#### **I) Earthworks**

##### **A) VLF (PSSA)**

**Topsoil/Overburden Stripping:** No topsoil or overburden stripping took place during this reporting period.

**Tree Grubbing and Clearing, Chipping:**

Clearing and grubbing was performed downslope of Phase 2 Diversion Channel alignment east of the Phase 2 Pond.

**Production Drilling:** Production drilling was performed within the VLF limits.

**Production Blasting:** Two production blasts occurred within the VLF.

**Structural Fill:**

All structural fill material discussed below was placed and compacted per the technical specifications.

Material was loaded in Cat 740 and 777 haul trucks from various places on the PSSA floor at the toe of the slopes; material was cut from the Phase 1 Diversion Channel near station 5+00 and placed in Cat 740 haul trucks; and a Cat 980 loader placed undersized rip-rap screen reject material from the riprap plant in Cat 740 haul trucks. All material from these areas were

transported to the buttress fill area upslope of stations J12+00 to J14+00 and downslope of stations J16+00 to J20+00 where it was placed as structural fill by Cat dozers.

A Cat 330 excavator loaded tandem trucks with stockpiled material from various locations throughout the PSSA floor. The material was hauled to the northern half of the PSSA floor and placed as structural fill.

A Cat dozer pushed material down from Dump 4 to stations M28+00 to M30+00 where it was placed as structural fill.

A Cat GPS dozer performed rough grade subgrade preparation in the Phase 1 area above Bench A between approximate stationing A6+00 to A7+00.

A Cat hammer-hoe broke oversized material in the subgrade downslope of stations A6+00.

A Cat 320 hammer-hoe broke oversize materials and cut the ADR  $\frac{1}{2} : 1$  slope at the 9,450 bench for additional bench access. Excess material was removed stockpiled at the south end of the  $\frac{1}{2} : 1$  slope for later removal.

Subgrade slope finishing and contouring occurred at various locations below elevation 9,450 on the PSSA slopes. Excess cut was stockpiled at the toe of the slope for later removal.

A Cat smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

The following subgrade areas in the PSSA were compacted to finished grade, inspected and certified for soil liner fill (SLF) placement:

- The ADR platform
- From the A Bench (9,450 elevation) to the PSSA floor between approximate stations A0+00 to A4+00
- The closure drain area

See the attached subgrade acceptance map for all accepted subgrade locations.

Concrete was poured after concrete forms and reinforced steel were constructed for the collars at the closure drain area. Soil liner fill was then placed and compacted with a plate tamper and smooth drum roller. The protective steel casings from around the PVC piping were cut off flush at the concrete collars. AMEC observed the placement of bottom layer of 12 oz. non-woven geotextile, the placement of the schedule 80 PVC 2-inch-diameter well screen (slot size 0.020), and leak detection fill over the schedule 80 piping within the closure drain floor after the soil liner fill was inspected and certified. Approximately 1,558 cubic yards of underdrain fill were hauled in and placed on the geotextile and leak detection fill in the closure drain area.

Soil liner fill was inspected and certified in the closure drain area; specifically the one foot thick SLF layer below the actual closure drain. Note: there will be another SLF acceptance for the 3 foot layer above the closure drain as well. See the attached SLF acceptance map for all accepted locations.

Soil liner fill from the Squaw Gulch stockpile was hauled to the southern PSSA floor and western inboard slopes. The material was placed on the approved slope subgrade and placed as fill and also stockpiled on the PSSA floor for later use in the area.

Soil liner fill was placed in a loose lift approximately 1.5 feet thick on the approved subgrade by Cat GPS dozers and 740 Haul Trucks.

SLF finishing and contouring occurred on the SLF at the western PSSA slopes below stations A2+00 to A4+00.



A Cat excavator began anchor trench excavation on the 9,450 elevation between stations A0+00 to A4+50.

#### **SLF Processing:**

**Cameron Site:** No soil liner fill mining or processing occurred at the Cameron Site. Approximately 244,860 tons of SLF material has been produced and remains stockpiled at the Cameron Site for future use.

**Squaw Gulch Borrow Site:** Soil liner fill mining and processing was completed at the Squaw Gulch Clay Borrow Site (the source was depleted). Approximately 143,198 tons of soil liner fill material was produced. The soil liner fill processing equipment will be transferred back to the Cameron site.

#### **Underdrain System:**

**Primary Underdrain:** Work was completed for the primary underdrain on May 23, 2014.

**Secondary Underdrain:** No work was performed on the secondary underdrain.

**Tertiary Underdrain:** Approximately 500 feet tertiary underdrain was completed on the eastern slope of the PSSA below station B4+00.

### **B) Underground Workings**

Confirmatory drilling was conducted at underground workings #6119 and #6260. Both sites will be blasted and additional remediation is required.

Excavation at underground workings #6625 and #6627 began. Additional remediation is required.

Underground workings #6559, #6564, #6573, #6574, #6575, #6608, #6622, #6623, #6624, and #6626 were excavated to competent rock, backfilled according to project specifications, and are considered remediated.

## **II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

### **CQA ACTIVITIES:**

---

- I) **Field Activities:** Field activities and observation during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling; production drilling and blasting; SLF moisture content and density testing; sampling and testing of leak detection fill (LDF) for quality control and quality assurance (QA and QC); sampling and testing of drain cover fill (DCF) for QC, and sampling and testing of SLF material for QA and QC; subgrade certification in the PSSA; SLF inspection and certification; and tertiary underdrain installation.
- II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, point load, specific gravity, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample number DCF-85 and DCF-86 (control samples).
- Soil Liner Fill sample numbers SLF 152-S through SLF-155-S (control samples).



- Soil Liner Fill sample numbers SLF 1-R and SLF 2-R (record samples).
- Leak Detection Fill sample number LDF-1-C (control sample)
- Leak Detection Fill sample number LDF-1-R (record sample)
- Phonolite rock samples for riprap suitability
- Concrete cylinders were cast for compressive strength testing from the closure drain collars

#### **General Project Items**

**Meetings and Discussions:** The weekly Contractor Meeting occurred on June 4, 2014 with CC&V Projects, AMEC, and Ames.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

#### **Miscellaneous:**

- Drain cover fill crusher processing continued
- Riprap screen processing continued
- Soil liner fill placed at the PSSA was moisture conditioned
- 62 rolls of liner were moved from the staging area above the Phase 2 Diversion Channel to the security complex pad on the southeast side of the PSSA
- ECA began mobilizing to site in preparation for geomembrane liner operations
- No delays were reported due to inclement weather

**Deliveries:** None

**Submitted by:** Eric Lorensen

Date: June 11, 2014

**Reviewed by:**

Tim Burkhard  
Project Resident  
Phone: 719-689-2986

Date: June 11, 2014

**CC&V Projects**

**Approved By:**

Date: 6/14/14

**Approved By:**

Date: 6/14/14

## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | Sun.<br>June 1 | Mon.<br>June 2 | Tues.<br>June 3 | Wed.<br>June 4 | Thurs.<br>June 5 | Fri.<br>June 6 | Sat.<br>June 7 |
|----------------|----------------|----------------|-----------------|----------------|------------------|----------------|----------------|
| Tim Burkhard   |                | PR             | PR              | PR             | PR               | PR             | PR             |
| Steve Rice     |                | UG             | UG              | UG             | UG               | UG             |                |
| Ben Melly      |                | ST             | ST              | ST             | ST               | ST             | ST             |
| Robert Redd    |                | UG             | UG              | UG             | UG               | UG             |                |
| Tyler Browning |                |                | ST              | ST             | ST               | ST             |                |
| Eric Lorensen  |                | ST             | ST              | ST             | ST               | ST             | UG             |
| Razi Molloy    |                | LT             | LT              | LT             | LT               | LT             | LT             |
| Denis Koval    |                | ST             | ST              | ST             | ST               | ST             |                |
| Dylan Budreau  |                |                | ST              |                | ST               | ST             | ST             |

#### **LEGEND:**

PL = Project Lead  
 PE = Project Engineer  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer



## Photographs of Activities



**Photo 1: Soil Liner Fill Placement on the PSSA Slopes.**



**Photo 2: Tertiary Underdrain, Spurs, and Laterals on the East Slope of the PSSA.**



**Photo 3: Geotextile and 2-inch well screen placement at the Closure Drain.**









**Photo 4: Drain Cover Fill Placement over the Leak Detection Fill and Geotextile in the Closure Drain Area**



X:\Reporting\CAD-Weekly Acceptance Maps\1 - Subgrade.dwg-6/9/2014 7:53 AM



## LEGEND

|   |                                |   |  |
|---|--------------------------------|---|--|
|  | APPROVED SUBGRADE              |  | APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  | APPROVED SOIL LINER FILL       |  | APPROVED DRAIN COVER FILL                    |
|  | APPROVED PRIMARY LLDPE LINER   |   |  |
|  | APPROVED SECONDARY LLDPE LINER |   |  |

|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|









|                |     |             |     |        |
|----------------|-----|-------------|-----|--------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE   |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/7/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |        |
| ACCEPTANCE MAP |     | 1           | 0   |        |



X:\Reporting\CAD-Weekly Acceptance Maps\2 - SLF\Weekly Figure Map - SLF.dwg-6/9/2014 7:56 AM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |

150 0 150 300 FT

|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|



|                |     |             |     |        |
|----------------|-----|-------------|-----|--------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE   |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/7/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |        |
| ACCEPTANCE MAP |     | 1           | 0   |        |



**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (COLORADO)  
SQUAW GULCH (VLF) & HWY 67 RE-ALIGNMENT MONITORING WEEKLY REPORT**

|                    |  |                        |               |
|--------------------|--|------------------------|---------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0    |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | June 14, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |               |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |               |

**Reporting Period: 06.08.2014 through 06.14.2014**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      W=Weather day |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:                |
|--|--|
| Highs: 55°F to 72°F                    | <b>Cloud Cover:</b> Partly cloudy              |
| Lows: 30°F to 45°F                     | <b>Precipitation:</b> Afternoon rain Wednesday |
|  | <b>Wind:</b> Variable                          |

**Ames:** Continuing construction tasks for the Valley Leach Facility (VLF).

**Planning:** Continuing construction activities and scheduling for the VLF.

### **CONSTRUCTION ACTIVITIES AND PROGRESS:**

#### **I) Earthworks**

##### **A) VLF (PSSA)**

**Topsoil/Overburden Stripping:** No topsoil or overburden stripping took place during this reporting period.

**Tree Grubbing and Clearing, Chipping:**

Clearing and grubbing was performed downslope of Phase 2 Diversion Channel alignment east of the Phase 2 Pond. Seed Masters chipped trees on top of the Area 34 stockpile.

**Production Drilling:** Production drilling was performed within the VLF limits.

**Production Blasting:** One production blast occurred within the VLF.

**Structural Fill:**

All structural fill material discussed below was placed and compacted per the technical specifications.

Material was loaded in Cat 740 and 777 haul trucks from various places on the PSSA floor at the toe of the slopes; a John Deere 850 excavator loaded Cat 740 haul trucks with processed reject material from the clay plant; and a Cat 980 loader placed undersized rip rap screen reject material from the riprap plant in Cat 740 haul trucks. All material from these areas were

transported to the buttress fill area upslope of stations J12+00 to J14+00 and downslope of stations J16+00 to J20+00 where it was placed as structural fill by Cat dozers.

A Cat 330 excavator hammered oversized rock on the northern slope of the PSSA.

Subgrade slope finishing and contouring occurred at various locations below elevation 9,450 on the PSSA slopes. Excess cut was stockpiled at the toe of the slope for later removal.

A Cat smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

A Cat excavator continued anchor trench excavation on the 9,450 elevation above the ADR Platform.

**Subgrade:**

The following subgrade areas in the PSSA were compacted per project specification to finished grade, inspected and certified for soil liner fill (SLF) placement:

- The PSSA embankment
- From the A Bench (9,450 elevation) to the PSSA floor between approximate stations A4+00 to A8+00
- From the B Bench (9,450 elevation) to the PSSA floor between approximate stations B0+00 to B6+00

See the attached subgrade acceptance map for all accepted subgrade locations.

Note: An AMEC field professional monitored structural fill material temperatures placed within the fill areas. Average structural fill temperatures were above 32°F.

**Soil Liner Fill (SLF):**

SLF was placed and compacted per project specification; then, inspected, tested and certified in compliance with technical specifications in the following areas:

- Closure drain area; specifically the 3 foot layer above the closure drain.
- ADR Platform and from STA A0+00 to A5+00 and downslope to the PSSA floor.

See the attached SLF acceptance map for all accepted locations.

SLF from the Squaw Gulch stockpile was hauled to the southern PSSA floor and western inboard slopes. The material was placed on the approved slope subgrade and placed as fill and also stockpiled on the PSSA floor for later use in the area.

SLF was placed in a loose lift approximately 1.5 feet thick on the approved subgrade by Cat GPS dozers and 740 Haul Trucks.

SLF finishing and contouring occurred on the SLF at the western PSSA slopes and across the PSSA embankment.

Note: An AMEC field professional monitored SLF material temperatures placed within the fill areas. Average SLF temperatures were above 32°F.

**SLF Processing:**

**Cameron Site:** No soil liner fill mining or processing occurred at the Cameron Site. Approximately 244,860 tons of SLF material has been produced and remains stockpiled at the Cameron Site for future use.

**Squaw Gulch Borrow Site:** Soil liner fill mining and processing was completed at the Squaw Gulch Clay Borrow Site (the source was depleted). Approximately 143,198 tons of soil liner fill



material was produced. The soil liner fill processing equipment is being transferred back to the Cameron site.

**Underdrain System:**

**Primary Underdrain:** Complete.

**Secondary Underdrain:** No work was performed on the secondary underdrain.

**Tertiary Underdrain:** Complete in PSSA footprint.

**B) Underground Workings**

Excavation at underground workings #6628 and #6629 began. Additional remediation is required.

Underground workings #6561 and #6606 were excavated but competent rock was not reached. Drill access was provided and confirmatory drilling began. Confirmatory drilling was completed on #6561, drilling on #6606 continues.

Underground workings #6119 and #6260 were blasted. Additional remediation is required for underground working #6119.

Underground workings #6260, #6625, #6627, #6607 were excavated to competent rock, backfilled according to project specifications, and are considered remediated.

**C) Geomembrane:**

• **PSSA**

Geomembrane installation within the PSSA began this week performing deployment, seaming, repair, and QA/QC activities. Geomembrane installation was performed at the ADR pad and PSSA northwest slope. Approximately 125,995 square feet of 100mil LLDPE geomembrane was deployed. Subgrade was inspected and approved by AMEC, Ames and ECA representatives prior to geomembrane deployment. Approximately 6,257 linear feet of seam was fusion welded during deployment using one or two fusion welding machines for each day of deployment. Destructive and non-destructive testing was completed per technical specifications.

Ames continuously excavated anchor trench ahead of geomembrane installation. After geomembrane testing was completed, the anchor trench above finished panels was backfilled and compacted to project specifications.

Panels S2 through S11 (secondary 100mil LLDPE – 58,503 sq.ft.) were inspected and accepted by AMEC, Ames and ECA representatives.

**II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

## CQA ACTIVITIES:

- I) **Field Activities:** Field activities and observation during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling; production drilling and blasting; SLF moisture content and density testing; sampling and testing of drain cover fill (DCF) for QC, and sampling and testing of SLF material for QA and QC; subgrade certification in the PSSA; and SLF inspection and certification.
- II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample number DCF-87, DCF-88 and DCF-89 (control samples).
- Soil Liner Fill sample numbers SLF 3-R, 4-R, 5-R, 6-R, 7-R, 8-R and 9-R (record samples).

## General Project Items

**Meetings and Discussions:** Weekly Contractor Meeting – June 11, 2014 (CC&V, AMEC, Ames); CC&V Weekly Safety Professional Meeting – June 12, 2014; ECA daily safety meetings; and Ames daily safety meetings.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

## Miscellaneous:

- Drain cover fill crusher processing continued
- Riprap screen processing continued
- Soil liner fill placed at the PSSA was moisture conditioned

**Deliveries:** None

**Submitted by:**

Bobby Redd, EI

Date: June 17, 2014

**Reviewed by:**

Tim Burkhard  
Project Resident  
Phone: 719-689-2986

Date: June 17, 2014

**CC&V Projects**

**Approved By:**

Date: 6/19/14

**Approved By:**

Date: 6-19-14

## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | Sun.   | Mon.   | Tues.   | Wed.    | Thurs.  | Fri.    | Sat.    |
|----------------|--------|--------|---------|---------|---------|---------|---------|
|                | June 8 | June 9 | June 10 | June 11 | June 12 | June 13 | June 14 |
| Tim Burkhard   |        | PR     | PR      | PR      | PR      | PR      |         |
| Steve Rice     |        | UG     | UG      | UG      | UG      | UG      | UG      |
| Ben Melly      |        | ST     | ST      | ST      | ST      | ST      | ST      |
| Robert Redd    |        | UG     | UG      | UG      | UG      | UG      | UG      |
| Tyler Browning |        | ST     | ST      | ST      | ST      | ST      | ST      |
| Eric Lorensen  |        | ST     | ST      | ST      | ST      | ST      | ST      |
| Razi Molloy    |        | LT     | LT      | LT      | LT      | LT      | LT      |
| Denis Koval    |        | ST     | ST      | ST      | ST      | ST      | ST      |
| Dylan Budreau  |        | ST     | ST      | ST      | ST      | ST      | ST      |
| Al Frias       |        |        |         |         | ST      | ST      | ST      |

#### **LEGEND:**

PL = Project Lead  
 PE = Project Engineer  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LS = Lead Soils Engineer  
 LG = Lead Geosynthetics Engineer  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer



## Photographs of Activities

---



**Photo 1: Soil Liner Fill Placement on the PSSA Slopes.**



**Photo 2: Excavating anchor trench.**





Photo 3: Vacuum testing extrusion weld during liner repairs.

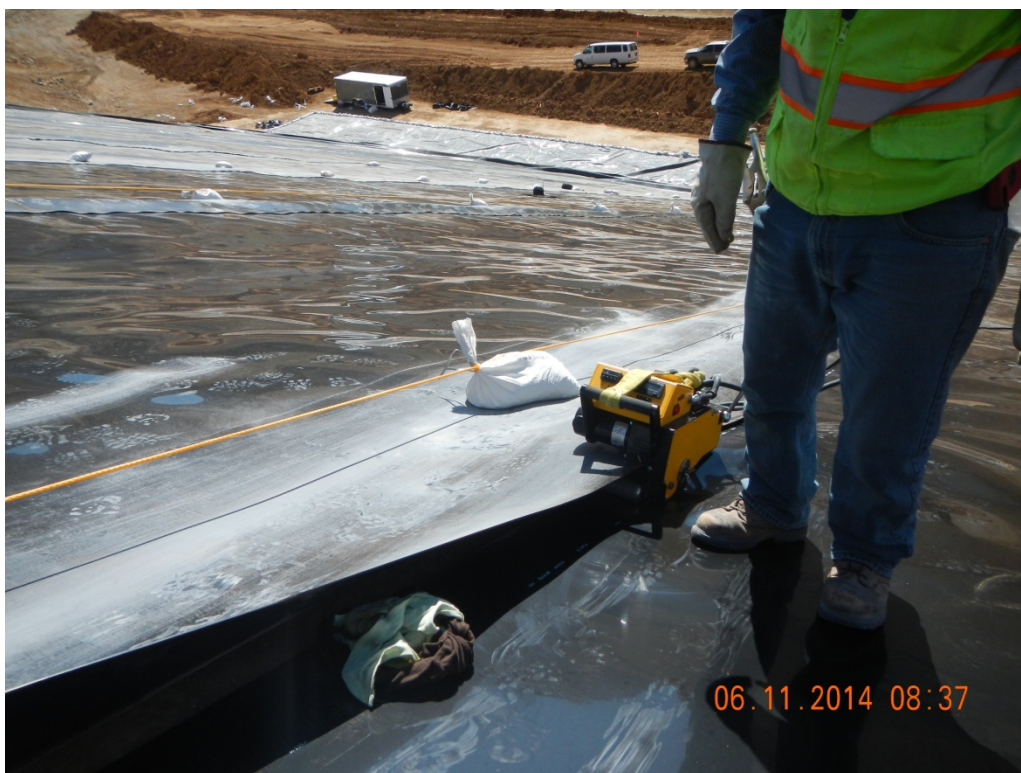
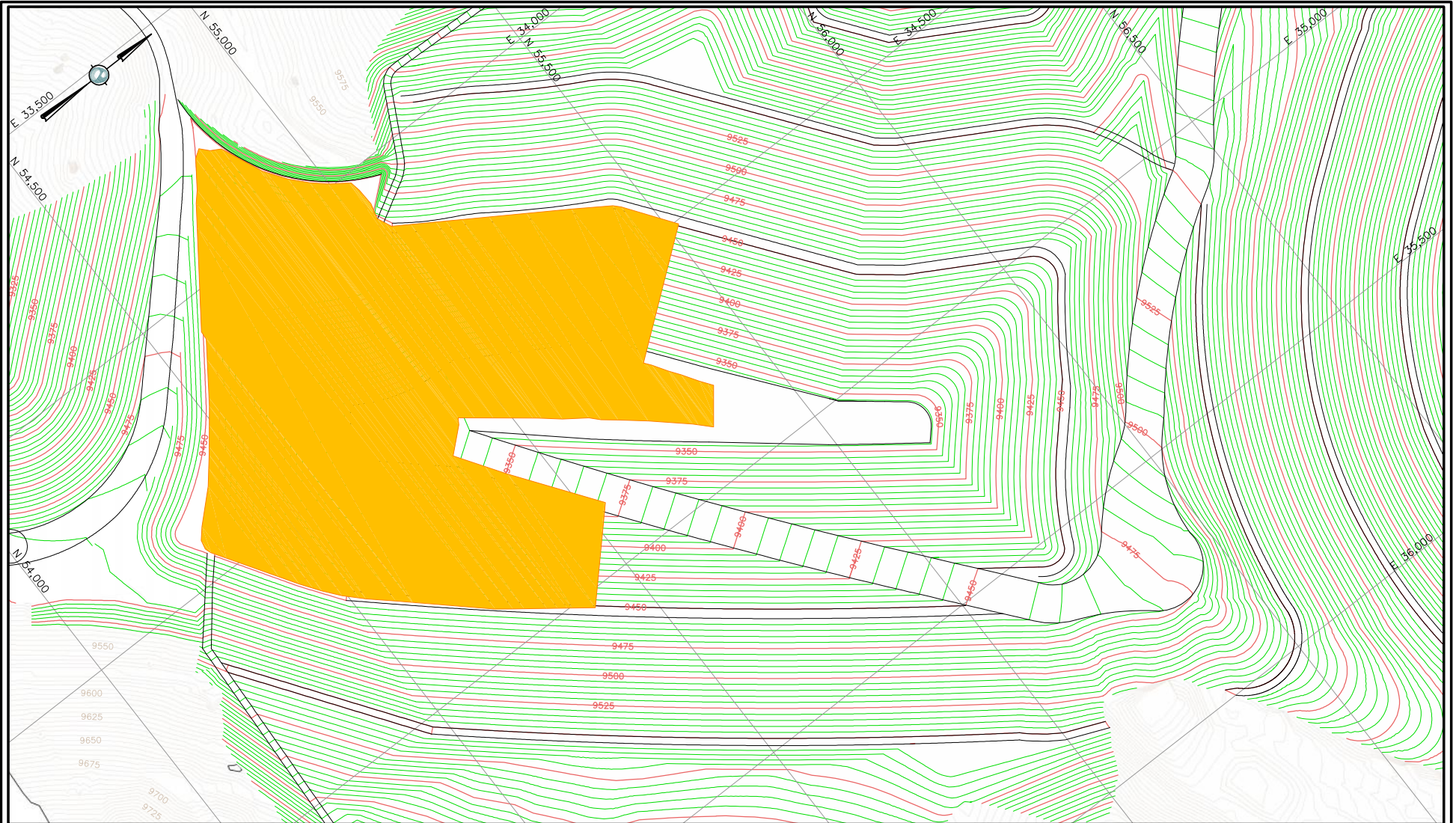








Photo 4: Fusion welding geomembrane seams.



X:\Reporting\CAD-Weekly Acceptance Maps\1 - Subgrade.dwg-6/17/2014 12:09 PM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |

150 0 150 300 FT

CLIENT  
**CRIPPLE CREEK & VICTOR  
MINING COMPANY**

PROJECT  
**PREGNANT SOLUTION STORAGE AREA**

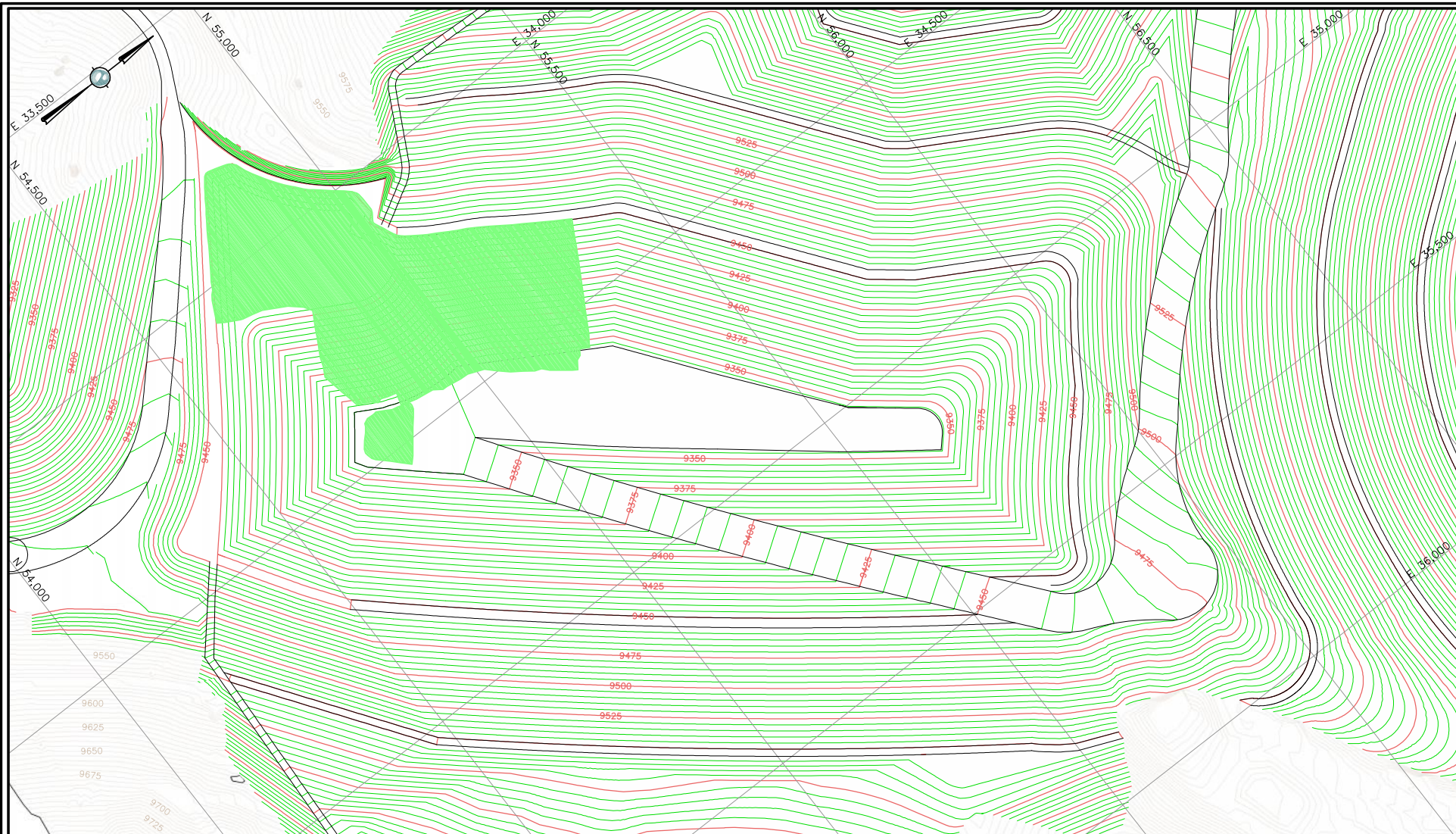
TITLE  
**WEEKLY ACCEPTANCE AREAS**









|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/14/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |



X:\Reporting\3 - CAD-Weekly Acceptance Maps\2 - SLF\Weekly Figure Map - SLF.dwg-6/18/2014 11:28 AM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |

150 0 150 300 FT

CLIENT  
**CRIPPLE CREEK & VICTOR  
MINING COMPANY**

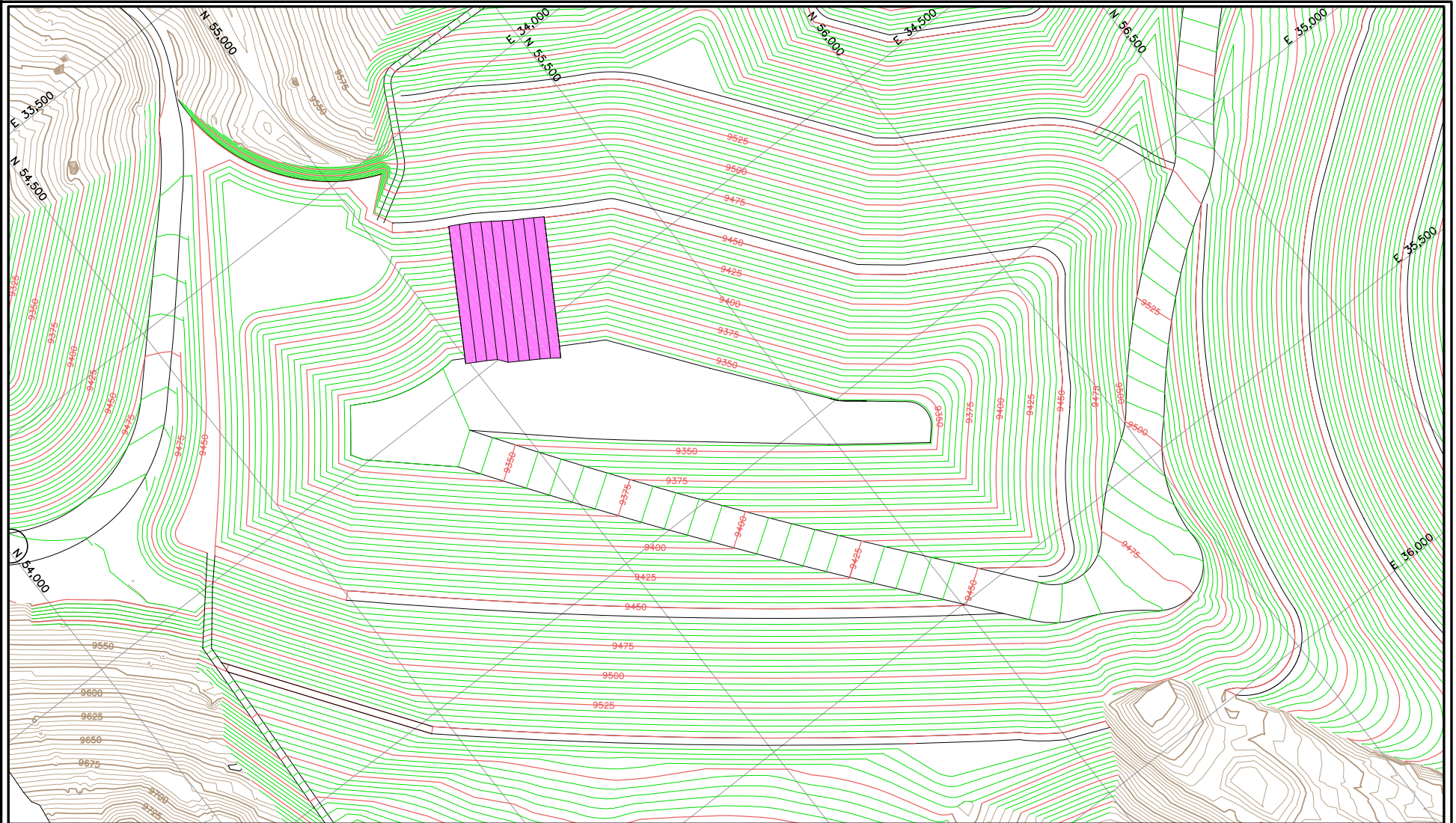
PROJECT  
**PREGNANT SOLUTION STORAGE AREA**

TITLE  
**WEEKLY ACCEPTANCE AREAS**



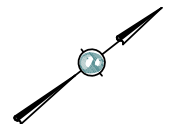
|                |     |             |     |        |
|----------------|-----|-------------|-----|--------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE   |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/7/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |        |
| ACCEPTANCE MAP |     | 1           | 0   |        |

S:\CAD\1125G-Squaw VLF\cadd\CADD DRAWINGS\figures\Liner Inspection figure\WFM-2014-06-14.dwg-6/17/2014 9:08 AM



## LEGEND

- WEEKLY PLACEMENT SECONDARY LLDE LINER
- PREVIOUSLY PLACED SECONDARY LLDE LINER



|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |   |
|-------|---|
| TITLE | WEEKLY ACCEPTANCE AREAS<br>WEEK ENDING 2014-06-14 |
|-------|---|



|                |    |             |     |          |
|----------------|----|-------------|-----|----------|
| DESIGNED BY    | RR | CHECKED BY  | TB  | DATE     |
| DRAWN BY       | RR | APPROVED BY | ALM | 06/14/14 |
| CADD FILENAME  |    | FIGURE No.  | REV |          |
| WLM-2014-06-14 |    | 3           | 0   |          |





**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (COLORADO)  
SQUAW GULCH (VLF) & HWY 67 RE-ALIGNMENT MONITORING WEEKLY REPORT**

|                    |  |                        |               |
|--------------------|--|------------------------|---------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0    |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | June 21, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |               |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |               |

**Reporting Period: 06.15.2014 through 06.21.2014**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      W=Weather day |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:                |
|--|--|
| Highs: 68°F to 75°F                    | <b>Cloud Cover:</b> Partly cloudy              |
| Lows: 37°F to 49°F                     | <b>Precipitation:</b> Afternoon rain Wednesday |
|  | <b>Wind:</b> Variable                          |

**Ames:** Continuing construction tasks for the Valley Leach Facility (VLF).

**Planning:** Continuing construction activities and scheduling for the VLF.

## **CONSTRUCTION ACTIVITIES AND PROGRESS:**

### **I) Earthworks**

#### **A) VLF (PSSA)**

**Topsoil/Overburden Stripping:** No topsoil or overburden stripping took place during this reporting period.

**Tree Grubbing and Clearing, Chipping:**

Clearing and grubbing was performed downslope of Phase 2 Diversion Channel alignment east of the Phase 2 Pond. Seed Masters chipped trees on top of the Area 34 stockpile.

**Production Drilling:** Production drilling was performed within the VLF limits.

**Production Blasting:** Two production blast occurred within the VLF.

**Structural Fill:**

All structural fill material discussed below was placed and compacted per the technical specifications.

Material was loaded into Cat 740 haul trucks from various places on the PSSA floor at the toe of the slopes; a John Deere 850 excavator loaded Cat 740 haul trucks with processed reject material from the clay plant and the northwest cut area of the PSSA; and a Cat 980 loader placed undersized rip rap screen reject material from the riprap plant in Cat 740 haul trucks. All material



from these areas were transported to the buttress fill area upslope of stations J12+00 to J14+00 and downslope of stations J16+00 to J20+00 where it was placed as structural fill by Cat dozers.

Rip rap was loaded into Cat 740 haul trucks from the rip rap plant and transported to the Phase 2 diversion channel. Geotextile fabric and rip rap were placed on top of approved subgrade by a Cat excavator from STA 20+00 to 28+00.

A Cat 330 excavator hammered oversized rock on the northern slope of the PSSA.

Subgrade slope finishing and contouring occurred at various locations below elevation 9,450 on the PSSA slopes. Excess cut was stockpiled at the toe of the slope for later removal.

A Cat smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

A Cat excavator continued anchor trench excavation on the 9,450 elevation above the ADR Platform.

#### **Subgrade:**

The following subgrade areas in the PSSA were compacted per project specification to finished grade, inspected and certified for soil liner fill (SLF) placement:

- From the A Bench (9,450 elevation) to the PSSA floor between approximate stations A8+00 to A12+00
- From the B Bench (9,450 elevation) to the PSSA floor between approximate stations B6+00 to B8+00

See the attached subgrade acceptance map for all accepted subgrade locations.

#### **Soil Liner Fill (SLF):**

SLF was placed and compacted per project specification; then, inspected, tested and certified in compliance with technical specifications in the following areas:

- PSSA embankment.
- From STA B0+00 to B5+00 and downslope to the PSSA floor.

See the attached SLF acceptance map for all accepted locations.

SLF from the Squaw Gulch stockpile was hauled to northern and southern inboard slopes and to the PSSA floor. The material was placed on the approved slope subgrade and placed as fill and also stockpiled on the PSSA floor for later use in the area. The southern Squaw Gulch stockpile has been depleted. Cut operations have begun into native ground.

SLF was placed in a loose lift approximately 1.5 feet thick on the approved subgrade by Cat GPS dozers and 740 Haul Trucks.

SLF finishing and contouring occurred on the SLF at the western PSSA slopes and across the PSSA embankment.

#### **SLF Processing:**

**Cameron Site:** No soil liner fill mining or processing occurred at the Cameron Site.

Approximately 244,860 tons of SLF material has been produced and remains stockpiled at the Cameron Site for future use. The soil liner fill processing equipment was transferred back to the Cameron site. No new processing during this reporting period.

**Squaw Gulch Borrow Site:** No soil liner fill mining or processing occurred at the Squaw Gulch Clay Borrow Site. Approximately 143,198 tons of soil liner fill material was produced and is currently being used in the PSSA.

**Underdrain System:**

**Primary Underdrain:** Complete.

**Secondary Underdrain:** No work was performed on the secondary underdrain.

**Tertiary Underdrain:** Complete in PSSA footprint.

**B) Underground Workings**

Confirmatory drilling of underground workings #6606 and #6631 was completed. Additional remediation is required.

Excavation at underground workings #6446 began. Additional remediation is required.

Underground workings #6628, #6629, #6630 were excavated to competent rock, backfilled according to project specifications, and are considered remediated.

Preparation of the subgrade for geogrid installation began on underground working #6119.

**C) Geomembrane:**

**• PSSA**

Geomembrane installation within the PSSA continued this week performing deployment, seaming, repair, and QA/QC activities. Geomembrane installation was performed at the ADR pad and PSSA northwest slope. Approximately 227,496 square feet of 100mil LLDPE geomembrane was deployed. Subgrade was inspected and approved by AMEC, Ames and ECA representatives prior to geomembrane deployment. Approximately 11,744 linear feet of seam was fusion welded during deployment using one or two fusion welding machines for each day of deployment. Destructive and non-destructive testing was completed per technical specifications.

Ames continuously excavated anchor trench ahead of geomembrane installation. After geomembrane testing was completed, the anchor trench above finished panels was backfilled and compacted to project specifications.

No additional panels (secondary 100mil LLDPE) were accepted by AMEC, Ames and ECA representatives during this reporting period.

**II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

## CQA ACTIVITIES:

- I) **Field Activities:** Field activities and observation during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling; production drilling and blasting; SLF moisture content and density testing; sampling and testing of drain cover fill (DCF) for QC, and sampling and testing of SF and SLF material for QA and QC; subgrade surface certification in the PSSA and Phase 2 diversion channel; and SLF surface inspection and certification.
- II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample number DCF-90, DCF-91, DCF-92 and DCF-93 (control samples).
- Soil Liner Fill sample numbers SLF 10-R, 11-R, 12-R, 13-R and 14-R (record samples).
- Structural Fill sample numbers SF 84-R and 85-R (record samples).

### General Project Items

**Meetings and Discussions:** Weekly Contractor Meeting – June 18, 2014 (CC&V, AMEC, Ames); CC&V Weekly Safety Professional Meeting – June 19, 2014; ECA daily safety meetings; and Ames daily safety meetings.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

### Miscellaneous:

- Drain cover fill crusher processing continued
- Riprap screen processing continued
- Soil liner fill placed at the PSSA was moisture conditioned

**Deliveries:** None

**Submitted by:**

Bobby Redd, EI

Date: June 25, 2014

**Reviewed by:**

Tim Burkhard

Project Resident

Phone: 719-689-2986

Date: June 25, 2014

**CC&V Projects**

**Approved By:**

Date: 6/27/14

**Approved By:**

Date: 6-27-14



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | Sun.<br>June 15 | Mon.<br>June 16 | Tues.<br>June 17 | Wed.<br>June 18 | Thurs.<br>June 19 | Fri.<br>June 20 | Sat.<br>June 21 |
|----------------|-----------------|-----------------|------------------|-----------------|-------------------|-----------------|-----------------|
| Tim Burkhard   |                 | PR              | PR               | PR              | PR                | PR              | PR              |
| Steve Rice     |                 | UG              | UG               | UG              | UG                | UG              |                 |
| Ben Melly      |                 | GL              | GL               | GL              | GL                | GL              | GL              |
| Robert Redd    |                 | LS              | LS               | LS              | LS                | LS              | LS              |
| Tyler Browning |                 | GT              | GT               | GT              | GT                | GT              | GT              |
| Eric Lorensen  |                 | ST              | ST               | ST              | ST                | ST              |                 |
| Razi Molloy    |                 | LT              | LT               | LT              | LT                | LT              | LT              |
| Denis Koval    |                 | ST              | ST               | ST              | ST                | ST              |                 |
| Dylan Budreau  |                 | GT              | GT               | GT              | GT                | GT              |                 |
| Al Frias       |                 | GT              | GT               | GT              | GT                | GT              | GT              |
| Chad Schreiner |                 | GT              | GT               | GT              | GT                | GT              | GT              |
| Randy Johnson  |                 |                 |                  |                 |                   |                 | ST              |

#### **LEGEND:**

PL = Project Lead  
 PE = Project Engineer  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LG = Lead Geosynthetics Engineer  
 LS = Lead Soils Technician  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GL = Geosynthetics Lead  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer

## Photographs of Activities



Photo 1: Soil Liner Fill Placement on the PSSA Slopes.



Photo 2: Rip rap placement in the Phase 2 diversion channel.





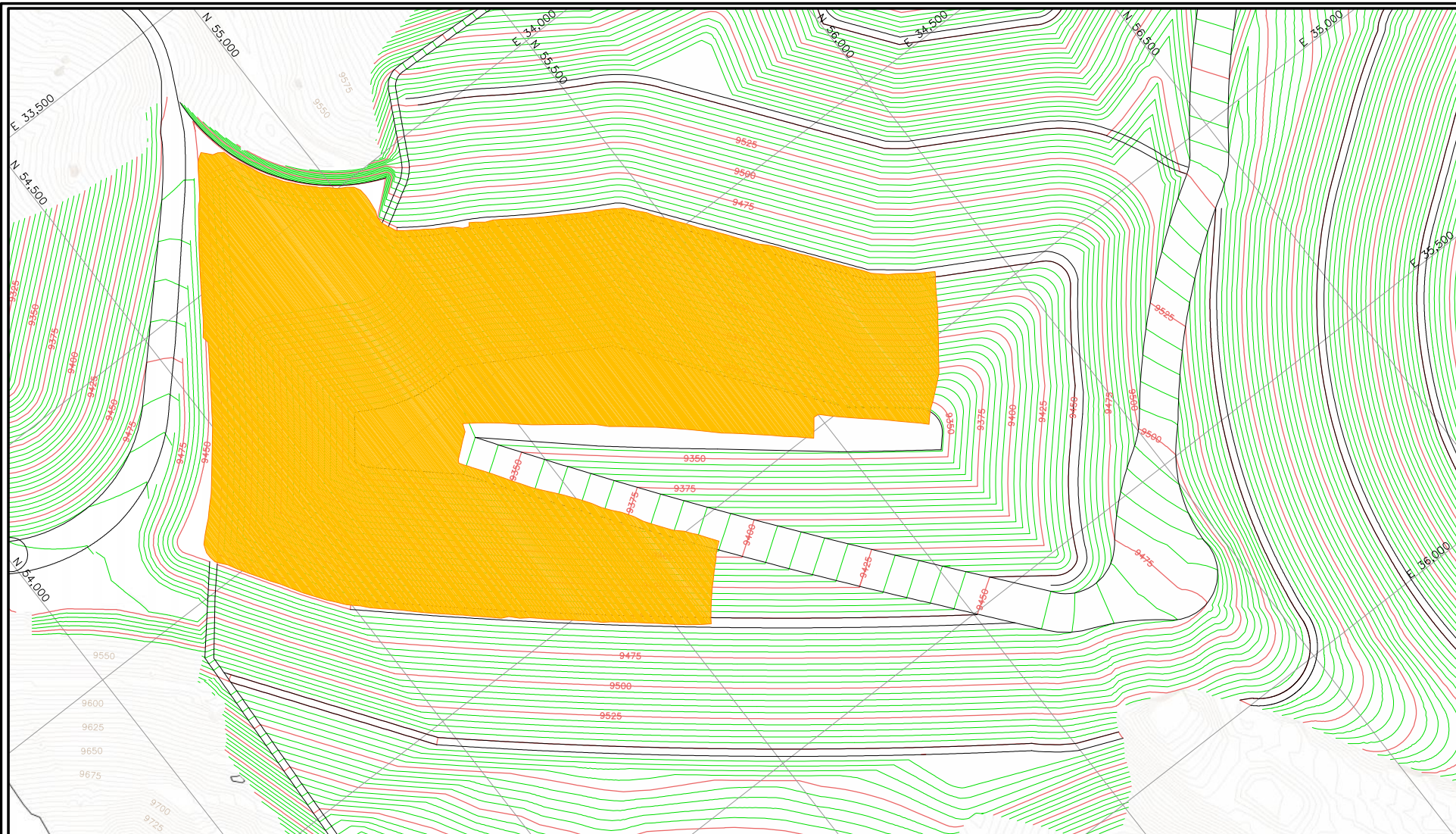
Photo 3: Fusion welding the geomembrane.









Photo 4: Moisture conditioning clay lined slopes.



X:\Reporting\3 - CAD-Weekly Acceptance Maps\1 - Subgrade\Weekly Figure Map - Subgrade.dwg-6/23/2014 12:42 PM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |

|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|









|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/21/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |

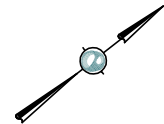


X:\Reporting\3 - CAD-Weekly Acceptance Maps\2 - SLF\Weekly Figure Map - SLF.dwg-6/23/2014 12:37 PM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |



150 0 150 300 FT

CLIENT **CRIPPLE CREEK & VICTOR  
MINING COMPANY**

PROJECT **PREGNANT SOLUTION STORAGE AREA**

TITLE **WEEKLY ACCEPTANCE AREAS**



|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/21/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |

S:\CAD\1125G-Squaw VLF\cadd\DRAWINGS\figures\WFM-2014-06-21.dwg-6/26/2014 3:14 PM



## LEGEND

- WEEKLY ACCEPTED SECONDARY LLDPE LINER AREA
- PREVIOUSLY ACCEPTED SECONDARY LLDPE LINER AREA

## Accepted Liner Area

Week Ending 2014-06-21 = 0 SF.

Total Accepted Liner Area = 58,504 SF.



150 0 150 300 FT

CLIENT Cripple Creek & Victor  
Mining Company

PROJECT Pregnant Solution Storage Area

TITLE

WEEKLY ACCEPTANCE AREAS  
WEEK ENDING 2014-06-21



|                |    |             |     |          |
|----------------|----|-------------|-----|----------|
| DESIGNED BY    | RR | CHECKED BY  | TB  | DATE     |
| DRAWN BY       | RR | APPROVED BY | ALM | 06/24/14 |
| CADD FILENAME  |    | FIGURE No.  | REV |          |
| WFM-2014-06-21 |    | 3           | 0   |          |





**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (COLORADO)  
SQUAW GULCH (VLF) & HWY 67 RE-ALIGNMENT MONITORING WEEKLY REPORT**

|                    |  |                        |               |
|--------------------|--|------------------------|---------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0    |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | June 28, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |               |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |               |

**Reporting Period: 06.22.2014 through 06.28.2014**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      W=Weather day |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:                 |
|--|---|
| Highs: 78°F to 68°F                    | <b>Cloud Cover:</b> Partly cloudy               |
| Lows: 39°F to 47°F                     | <b>Precipitation:</b> Afternoon rain, Mon & Wed |
|  | <b>Wind:</b> Variable                           |

**Ames:** Continuing construction tasks for the Valley Leach Facility (VLF).

**Planning:** Continuing construction activities and scheduling for the VLF.

## **CONSTRUCTION ACTIVITIES AND PROGRESS:**

### **I) Earthworks**

#### **A) VLF (PSSA)**

**Topsoil/Overburden Stripping:** No topsoil or overburden stripping took place during this reporting period.

**Tree Grubbing and Clearing, Chipping:**  
None.

**Production Drilling:** Production drilling was performed within the VLF limits.

**Production Blasting:** Two production blast occurred within the VLF.

#### **Structural Fill:**

All structural fill material discussed below was placed and compacted per the technical specifications.

Material was loaded into Cat 740 haul trucks from the northern end of the PSSA floor at the toe of the slopes; a John Deere 850 excavator loaded Cat 740 haul trucks with shot rock from the northern cut area of the PSSA near Bench A. Cat dozers were cutting material from the Ball Mill crossing. All material from these areas was transported to the buttress fill area upslope of stations J12+00 to J14+00 and downslope of stations J16+00 to J20+00 where it was placed as structural fill by Cat dozers.

A Cat 966 loader placed processed undersized rip rap material from the riprap plant in Cat 740 haul trucks. This material was hauled and placed into underground working #6446.

Rip rap was loaded into Cat 740 haul trucks from the rip rap plant and transported to the Phase 2 diversion channel. Geotextile fabric and rip rap were placed on top of approved subgrade by a Cat excavator from STA 16+00 to 18+00.

Cat dozers were finish grading and contouring the Phase 1 diversion channel. A Cat vibratory roller compacted the subgrade according to project specifications.

Cat dozers were finish grading between Bench D and Bench F. A Cat vibratory roller compacted the subgrade according to project specifications.

A Cat 330 excavator and a Cat 312 excavator hammered oversized rock on the northern slope of the PSSA.

Subgrade slope finishing and contouring occurred at various locations below elevation 9,450 on the PSSA slopes. Excess cut was stockpiled at the toe of the slope for later removal.

A Cat smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

A Cat excavator continued anchor trench excavation on the 9,450 elevation above the ADR Platform.

#### **Subgrade:**

The following subgrade areas in the PSSA were compacted per project specification to finished grade, inspected and certified for soil liner fill (SLF) placement:

- From the A Bench (9,450 elevation) to the PSSA floor between approximate stations A12+00 to A18+00
- From the B Bench (9,450 elevation) to the PSSA floor between approximate stations B8+00 to B12+00

See the attached subgrade acceptance map for all accepted subgrade locations.

#### **Soil Liner Fill (SLF):**

SLF was placed and compacted per project specification; then, inspected, tested and certified in compliance with technical specifications in the following areas:

- From STA A6+00 to A10+00 and downslope to the PSSA floor.
- From STA B5+00 to B9+00 and downslope to the PSSA floor.
- Portions of the south and southwestern PSSA floor

See the attached SLF acceptance map for all accepted locations.

SLF from the Squaw Gulch stockpile was hauled to northern and southern inboard slopes and to the PSSA floor. The material was placed on the approved slope subgrade as fill and also stockpiled on the PSSA floor for later use in the area.

SLF was placed in a loose lift approximately 1.5 feet thick on the approved subgrade by Cat GPS dozers and 740 Haul Trucks.

SLF finishing and contouring occurred on the SLF at the PSSA North and South slopes.

Density tests, N-45 to N-71, and depth checks, D-21 to D-39, were performed.

**SLF Processing:**

**Cameron Site:** No soil liner fill mining or processing occurred at the Cameron Site. Approximately 244,860 tons of SLF material has been produced and remains stockpiled at the Cameron Site for future use. The soil liner fill processing equipment was transferred back to the Cameron site. No new processing during this reporting period.

**Underdrain System:**

**Primary Underdrain:** Complete.

**Secondary Underdrain:** No work was performed on the secondary underdrain.

**Tertiary Underdrain:** Complete in PSSA footprint.

**B) Underground Workings**

Confirmatory drilling of underground workings #6606 and #6631 was completed. Additional remediation is required.

Coarse shaft backfill of underground working #6446 began. Additional remediation is required.

Began geogrid placement at underground working #6119. Additional remediation is required.

Coarse shaft backfill of underground working #6579 was completed on the main portion of the shaft. Drill access will be provided. Additional remediation is required.

Underground workings #6152, #6451, #6511, #6512, #6616 and #6621 were excavated to competent rock, backfilled according to project specifications, and are considered remediated.

**C) Geomembrane:****PSSA**

Geomembrane installation within the PSSA continued this week performing deployment, seaming, repair, and QA/QC activities. Geomembrane installation was performed at the ADR pad, PSSA closure drain slopes and PSSA west slope. Approximately 253,634 square feet of 100mil LLDPE geomembrane was deployed. Subgrade was inspected and approved by AMEC, Ames and ECA representatives prior to geomembrane deployment. Approximately 11,711 linear feet of seam was fusion welded during deployment using one or two fusion welding machines for each day of deployment. Destructive and non-destructive testing was completed per technical specifications.

Ames continuously excavated anchor trench ahead of geomembrane installation. After geomembrane testing was completed, the anchor trench above finished panels was backfilled and compacted to project specifications.

Secondary liner panels S-11 thru S-130 and panels S-151 thru S-163 (secondary 100mil LLDPE – 341,783 ft<sup>2</sup>) were accepted and approved for low volume placement by AMEC, Ames and ECA representatives during this reporting period. Additional repairs may be required prior to placement of low volume solution collection fill (ie. wrinkle removal, sub-liner rock repair).

**II) Storm Water Management**

Best Management Practices (BMPs) are being performed.



## CQA ACTIVITIES:

- I) **Field Activities:** Field activities and observation during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling; production drilling and blasting; SLF moisture content and density testing; sampling and testing of drain cover fill (DCF) for QC, and sampling and testing of SF material for QA and QC; subgrade surface certification in the PSSA and Phase 2 diversion channel; and SLF surface inspection and certification.
- II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample number DCF-94 and DCF-95 (control samples).
- Structural Fill sample numbers SF 86-R and 87-R (record samples).

### General Project Items

**Meetings and Discussions:** Weekly Contractor Meeting – June 25, 2014 (CC&V, AMEC, Ames); ECA daily safety meetings; and Ames daily safety meetings.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

### **Miscellaneous:**

- Drain cover fill crusher processing continued
- Riprap screen processing continued
- Soil liner fill placed at the PSSA was moisture conditioned
- Highway 67 shoulder was seeded

**Deliveries:** None

**Submitted by:** 

Bobby Redd, EI

Date: July 1, 2014

**Reviewed by:** 


Tim Burkhard

Project Resident

Phone: 719-689-2986

Date: July 1, 2014

**CC&V Projects**

**Approved By:** 

Date: 7/3/14

**Approved By:** 

Date: 7-7-14

## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | Sun.<br>June 22 | Mon.<br>June 23 | Tues.<br>June 24 | Wed.<br>June 25 | Thurs.<br>June 26 | Fri.<br>June 27 | Sat.<br>June 28 |
|----------------|-----------------|-----------------|------------------|-----------------|-------------------|-----------------|-----------------|
| Tim Burkhard   |                 | PR              | PR               | PR              | PR                | PR              | PR              |
| Steve Rice     |                 | UG              | UG               | UG              | UG                | UG              | UG              |
| Ben Melly      |                 | GL              | GL               | GL              | GL                | GL              | GL              |
| Robert Redd    |                 | LS              | LS               | LS              | LS                | LS              |                 |
| Tyler Browning |                 | GT              | GT               | GT              | GT                | GT              | GT              |
| Eric Lorensen  |                 | ST              | ST               | ST              | ST                | ST              | ST              |
| Razi Molloy    |                 | LT              | LT               | LT              | LT                | LT              | LT              |
| Denis Koval    |                 | ST              | ST               | ST              | ST                | ST              |                 |
| Dylan Budreau  |                 | GT              | GT               | GT              | GT                | GT              | GT              |
| Al Frias       |                 | GT              | GT               | GT              | GT                | GT              | GT              |
| Chad Schreiner |                 | GT              | GT               | GT              | GT                | GT              | GT              |

#### **LEGEND:**

PL = Project Lead  
 PE = Project Engineer  
 PS = Project Sponsor  
 PCE = Project Certifying Engineer  
 PM = Project Manager  
 PR = Project Resident  
 LG = Lead Geosynthetics Engineer  
 LS = Lead Soils Technician  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GL = Geosynthetics Lead  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer



## Photographs of Activities

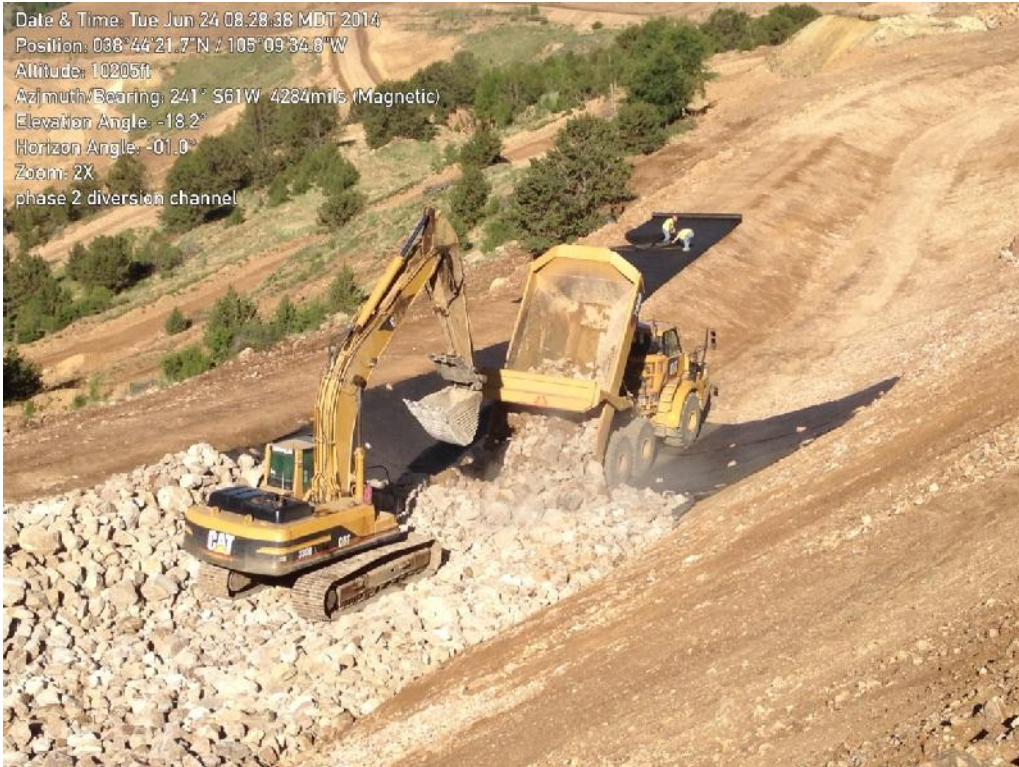


**Photo 1: Blast zone and SLF placement.**



**Photo 2: UG#6446, backfilling shaft with coarse shaft backfill.**



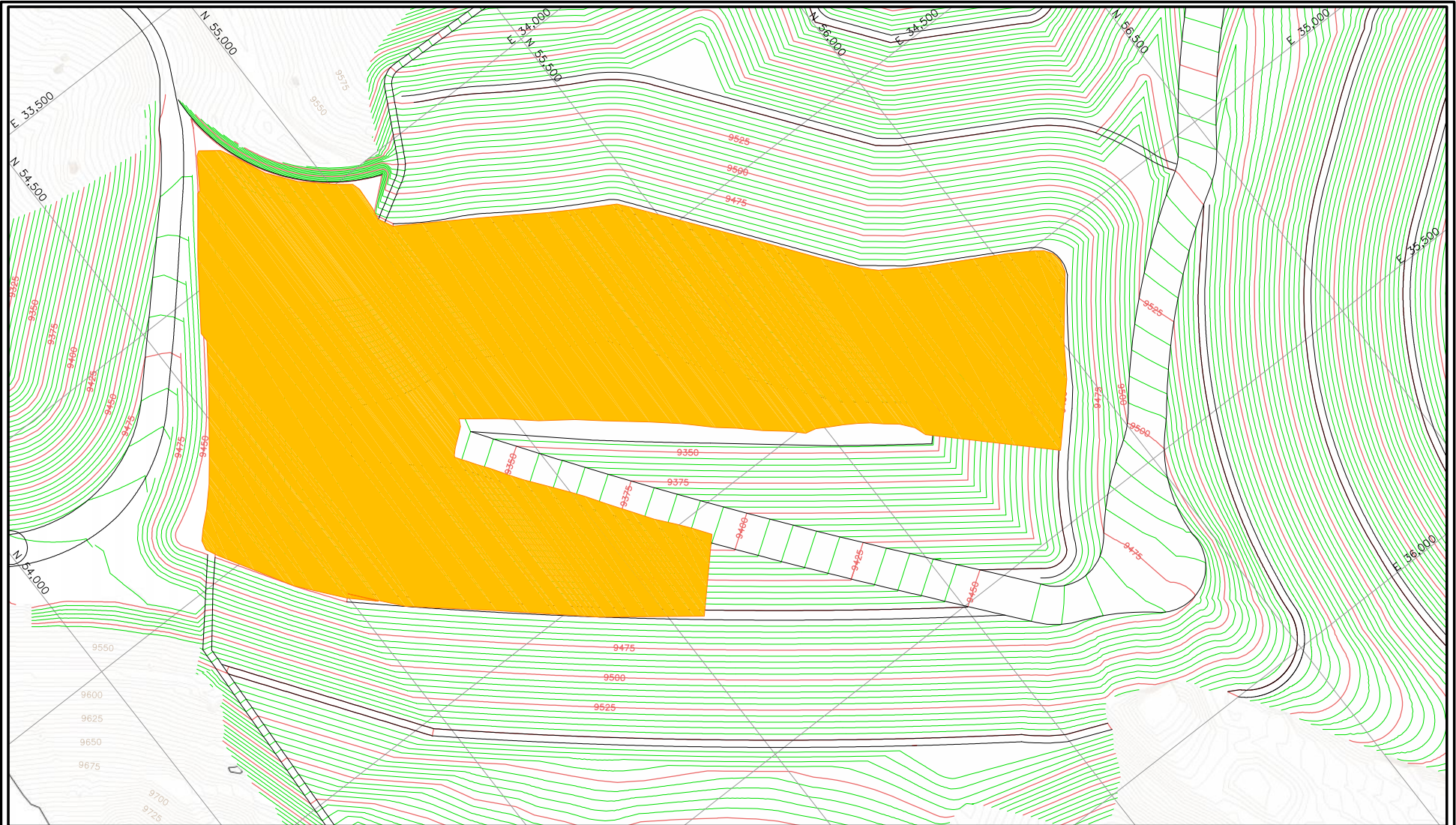


**Photo 3: Placing rip rap in the Phase 2 diversion channel.**









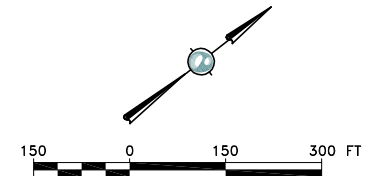
**Photo 4: Production drilling near B16+00.**

X:\Reporting\3 - CAD-Weekly Acceptance Maps\1 - Subgrade\Weekly Figure Map - Subgrade.dwg-7/1/2014 11:24 AM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |



|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

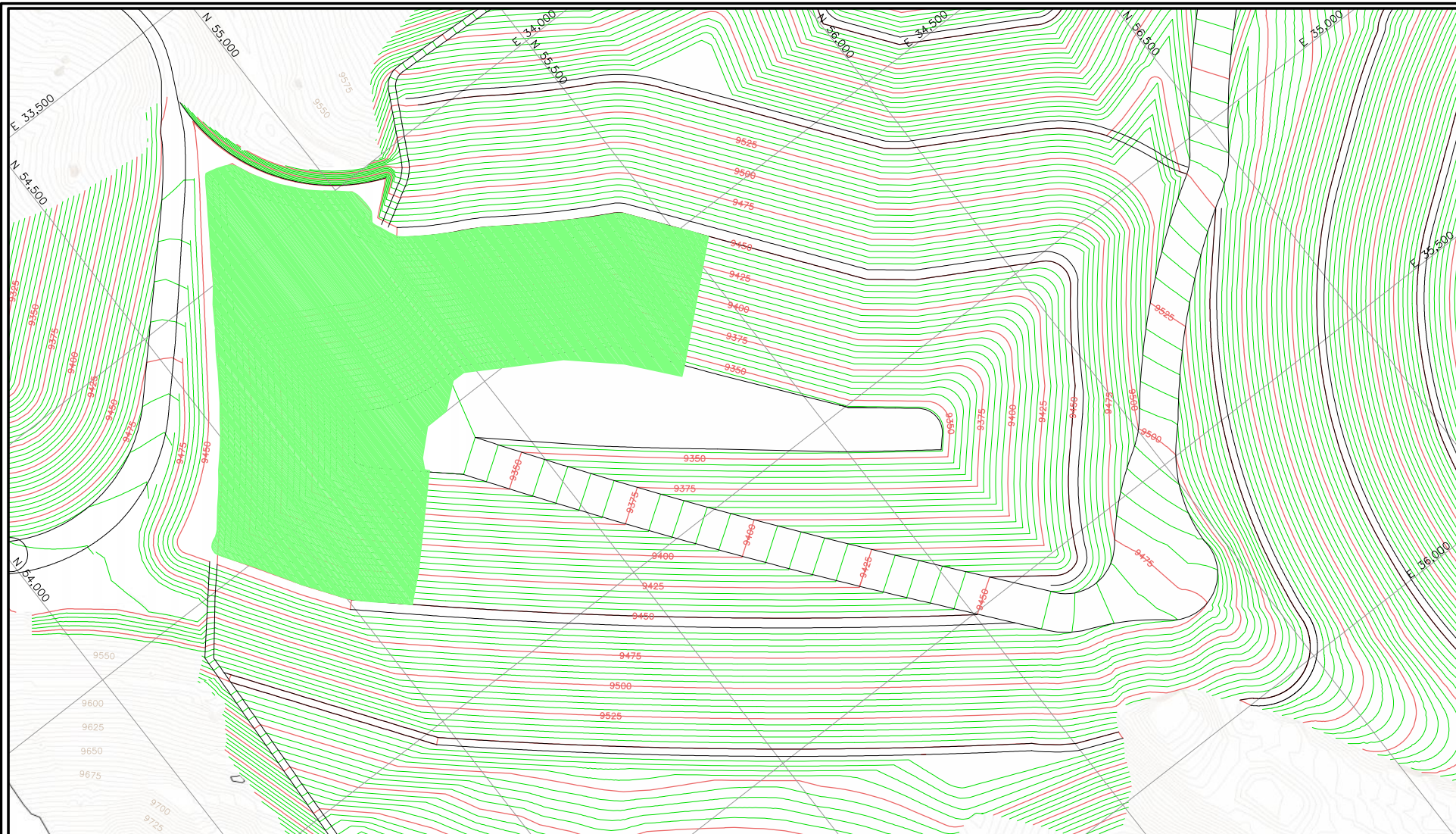
|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|









|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/28/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |

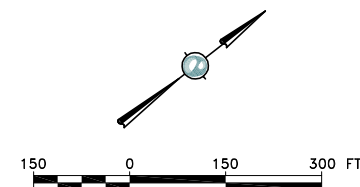


X:\Reporting\3 - CAD-Weekly Acceptance Maps\2 - SLF\Weekly Figure Map - SLF.dwg-6/23/2014 12:43 PM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |



|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

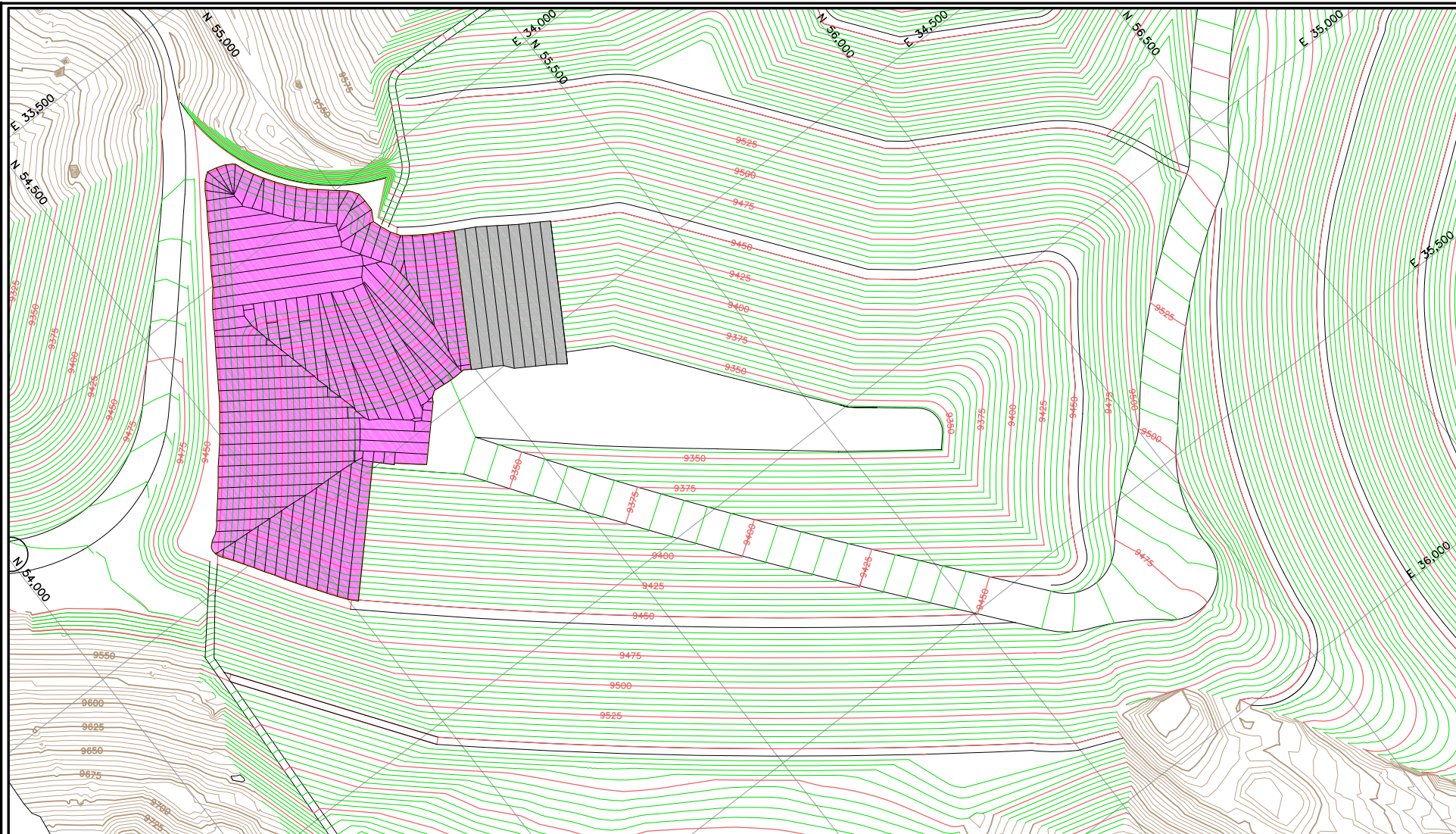
|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|



|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 6/28/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |



S:\CAD\1125G-Squaw VLF\cadd\DRAWINGS\figures\WFM-2014-06-28.dwg-6/26/2014 3:15 PM

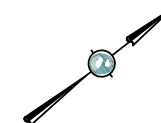


## LEGEND

- ACCEPTED WEEKLY SECONDARY LLDPE LINER AREA
- PREVIOUSLY ACCEPTED SECONDARY LLDPE LINER AREA

## Accepted Liner Area

Week Ending 2014-06-28 = 341,783 SF.  
Total Accepted Liner Area = 400,287 SF.



150 0 150 300 FT

CLIENT Cripple Creek & Victor  
Mining Company

PROJECT Pregnant Solution Storage Area

TITLE

WEEKLY ACCEPTANCE AREAS  
WEEK ENDING 2014-06-28



|                |    |             |     |         |
|----------------|----|-------------|-----|---------|
| DESIGNED BY    | RR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RR | APPROVED BY | ALM | 7/01/14 |
| CADD FILENAME  |    | FIGURE No.  | REV |         |
| WLM-2014.06.28 |    | 5           | 0   |         |



**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (COLORADO)  
SQUAW GULCH (VLF) & HWY 67 RE-ALIGNMENT MONITORING WEEKLY REPORT**

|                    |  |                        |              |
|--------------------|--|------------------------|--------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0   |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | July 5, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |              |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |              |

**Reporting Period: 06.29.2014 through 07.05.2014**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| Work Shifts                                       | - | D | D | D | D | - | - |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      W=Weather day |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:                    |
|--|--|
| Highs: 80°F to 62°F                    | <b>Cloud Cover:</b> Partly cloudy                  |
| Lows: 41°F to 52°F                     | <b>Precipitation:</b> Afternoon rain, Tues & Thurs |
|  | <b>Wind:</b> Variable                              |

**Ames:** Continuing construction tasks for the Valley Leach Facility (VLF).

**Planning:** Continuing construction activities and scheduling for the VLF.

## **CONSTRUCTION ACTIVITIES AND PROGRESS:**

### **I) Earthworks**

#### **A) VLF (PSSA)**

**Topsoil/Overburden Stripping:** Cat dozers stripped topsoil below the abandoned historic railroad berm east of the Phase 2 pond. The material was hauled to the Area 34 topsoil stockpile.

**Tree Grubbing and Clearing, Chipping:**  
None.

**Production Drilling:** Production drilling was performed within the VLF limits.

**Production Blasting:** One production blast occurred within the VLF.

**Structural Fill:**

All structural fill material discussed below was placed and compacted per the technical specifications.

A John Deere 850 excavator loaded Cat 777 haul trucks with shot rock from the northeastern cut area of the PSSA below Bench B. Cat dozers were cutting material from the Ball Mill crossing. Material from these areas was transported to the ADR haul road fill between STA 20+00 to 25+00, STA 65+00 and 70+00, and to the fill area between Bench D and Bench H where it was placed as structural fill by Cat dozers.

A Cat 966 loader placed processed undersized rip rap material from the riprap plant in Cat 740 haul trucks. This material was hauled and placed into underground working #6446.

A Cat dozer and a Cat vibratory roller were finish grading and compacting the subgrade between the ADR haul road STA 20+00 to 30+00 and H8+00 to H15+00.

A Cat 345 excavator was removing material from the Phase 2 diversion channel between STA 14+00 and 18+00. The material was hauled to the fill area east of the Phase 2 pond near the historic railroad berm with Cat 740 haul trucks and placed as structural fill with a Cat D7 GPS dozer.

Cat dozers were finish grading between Bench D and Bench F. A Cat vibratory roller compacted the subgrade according to project specifications.

A Cat 312 excavator hammered oversized rock on the upslope of STA B4+00 the PSSA.

Subgrade slope finishing and contouring occurred at STA A20+00 below elevation 9,450 on the PSSA slopes. Excess cut was stockpiled at the toe of the slope for later removal.

A Cat smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

A Cat dozer placed cut to fill near the Phase 2 diversion channel STA 4+00 to 6+00 and above the historic railroad berm and between STA I8+00 and I10+00.

#### **Subgrade:**

The following subgrade areas in the PSSA were compacted per project specification to finished grade, inspected and certified for soil liner fill (SLF) placement:

- The north edge of roadway from STA 0+00 to 5+00 of the ADR haul road.

See the attached subgrade acceptance map for all accepted subgrade locations.

#### **Soil Liner Fill (SLF):**

SLF was placed and compacted per project specification; then, inspected, tested and certified in compliance with technical specifications in the following areas:

- From STA A10+00 to A12+00 and downslope to the PSSA floor.
- Middle portion of PSSA floor

See the attached SLF acceptance map for all accepted locations.

SLF from the Squaw Gulch stockpile was hauled to northern and southern inboard slopes and to the PSSA floor. The material was placed on the approved slope subgrade as fill and also stockpiled on the PSSA floor for later use in the area.

SLF was placed in a loose lift approximately 1.5 feet thick on the approved subgrade by Cat GPS dozers and 740 Haul Trucks.

SLF finishing and contouring occurred on the SLF at the PSSA North and South slopes.

Density tests, N-72 to N-79, and depth checks, D-40 to D-47, were performed.

Record Sample, SLF-15-R, was collected and returned to AMEC's laboratory for analysis.

#### **SLF Processing:**

**Cameron Site:** No soil liner fill mining or processing occurred at the Cameron Site.

Approximately 244,860 tons of SLF material has been produced and remains stockpiled at the



Cameron Site for future use. The soil liner fill processing equipment remains at the Cameron site. No new processing during this reporting period.

**Underdrain System:**

**Primary Underdrain:** Complete.

**Secondary Underdrain:** No work was performed on the secondary underdrain.

**Tertiary Underdrain:** Complete in PSSA footprint.

**B) Underground Workings**

Underground working #6631 was blasted. Additional remediation is required.

Confirmatory drilling of underground working #6579 was completed. Additional remediation is required.

Confirmatory drilling of underground working #6318 began and is still in progress.

Coarse shaft backfill of underground working #6446 continued. Additional remediation is required.

Completed geogrid placement at underground working #6119. Site remediated.

**C) Geomembrane:**

**PSSA**

Geomembrane installation within the PSSA continued this week performing deployment, seaming, repair, and QA/QC activities. Geomembrane installation was performed at the ADR pad, PSSA closure drain slopes and PSSA west slope. Approximately 140,300 square feet of 100mil LLDPE geomembrane was deployed. Subgrade was inspected and approved by AMEC, Ames and ECA representatives prior to geomembrane deployment. Approximately 7,441 linear feet of seam was fusion welded during deployment using one or two fusion welding machines for each day of deployment. Destructive and non-destructive testing was completed per technical specifications.

Ames continuously excavated anchor trench ahead of geomembrane installation. After geomembrane testing was completed, the anchor trench above finished panels was backfilled and compacted to project specifications.

Secondary liner panels S-1, S131 thru S-145, S-164 thru S-182, S-185, S-194 and S-195 (secondary 100mil LLDPE – 195,483 ft<sup>2</sup>) were accepted and approved for low volume placement by AMEC, Ames and ECA representatives during this reporting period. Additional repairs may be required prior to placement of low volume solution collection fill (ie. wrinkle removal, sub-liner rock repair).

**II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

## CQA ACTIVITIES:

- I) **Field Activities:** Field activities and observation during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling; production drilling and blasting; SLF moisture content and density testing; sampling and testing of Drain Cover Fill (DCF) for QC, sampling and testing of Soil Liner Fill (SLF) material for QA; and sampling and testing of Structural Fill (SF) material for QA and QC; subgrade surface certification in the PSSA and Phase 2 diversion channel; and SLF surface inspection and certification.
- II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample number, DCF-96 (control sample).
- Soil Liner Fill sample number, SLF-15-R (record sample).
- Structural Fill sample numbers, SF 88-R & 89-R (record samples).

### General Project Items

**Meetings and Discussions:** Weekly Contractor Meeting – July 2, 2014 (CC&V, AMEC, Ames); CC&V Weekly Safety Professional Meeting – July 3, 2014; ECA daily safety meetings; and Ames daily safety meetings.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

### **Miscellaneous:**

- Drain cover fill crusher processing continued
- Riprap screen processing continued
- Soil liner fill placed at the PSSA was moisture conditioned
- Highway 67 shoulder seeding continued
- Seeding and mulching the Area 34 topsoil stockpile

**Deliveries:** None

**Submitted by:** 

Bobby Redd, EI

Date: July 9, 2014

**Reviewed by:** 

Tim Burkhard

Project Resident

Phone: 719-689-2986

Date: July 9, 2014

**CC&V Projects**

**Approved By:** 

Date: 7/24/14

**Approved By:** 

Date: 7-24-14

## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

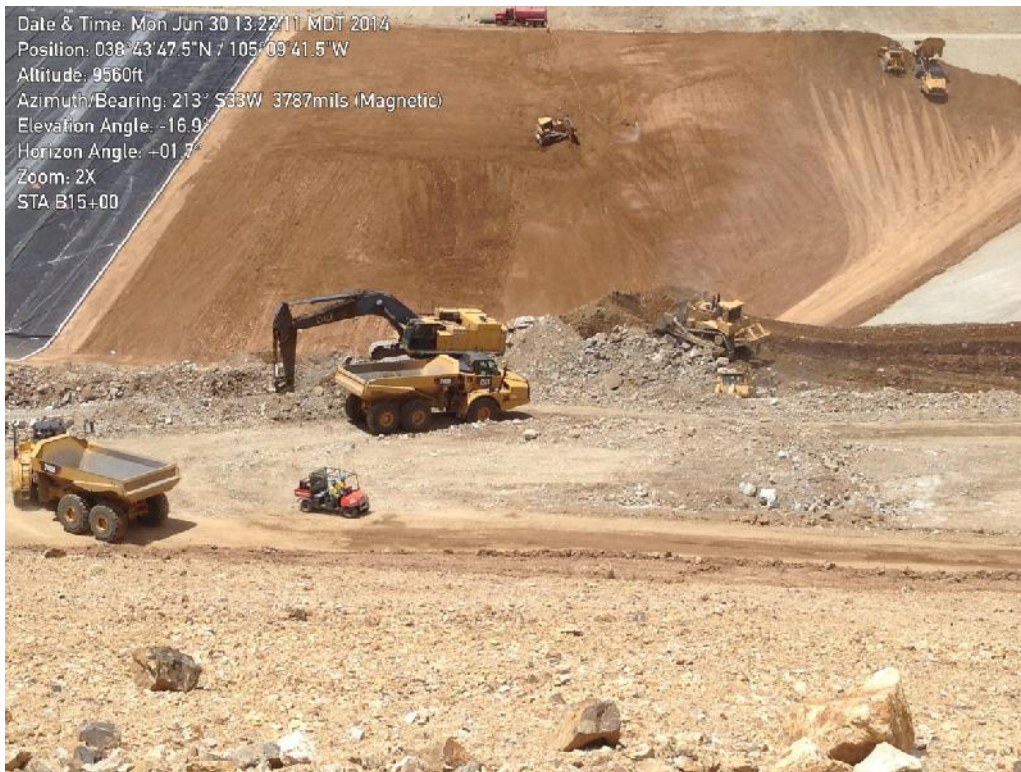
| Name           | Sun.<br>June 29 | Mon.<br>June 30 | Tues.<br>July 1 | Wed.<br>July 2 | Thurs.<br>July 3 | Fri.<br>July 4 | Sat.<br>July 5 |
|----------------|-----------------|-----------------|-----------------|----------------|------------------|----------------|----------------|
| Tim Burkhard   |                 | PR              | PR              | PR             | PR               |                |                |
| Mike Nelson    |                 |                 |                 | PM             |                  |                |                |
| Andrea Meduna  |                 |                 |                 | PE             |                  |                |                |
| Steve Rice     |                 | UG              | UG              | UG             | UG               |                |                |
| Ben Melly      |                 | GL              | GL              | GL             | GL               |                |                |
| Robert Redd    |                 | LS              | LS              | LS             | LS               |                |                |
| Tyler Browning |                 | GT              | GT              | GT             |                  |                |                |
| Eric Lorensen  |                 | ST              | ST              | ST             | ST               |                |                |
| Razi Molloy    |                 | LT              | LT              | LT             | LT               |                |                |
| Denis Koval    |                 | ST              | ST              | ST             | ST               |                |                |
| Dylan Budreau  |                 | GT              | GT              | GT             | GT               |                |                |
| Al Frias       |                 | GT              | GT              | GT             | GT               |                |                |
| Chad Schreiner |                 | GT              | GT              | GT             | GT               |                |                |

#### **LEGEND:**

PL = Project Lead  
 PM = Project Manager  
 PCE = Project Certifying Engineer  
 PE = Project Engineer  
 PR = Project Resident  
 LG = Lead Geosynthetics Engineer  
 LS = Lead Soils Technician  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GL = Geosynthetics Lead  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer



## Photographs of Activities



**Photo 1: Blast zone cut in foreground and SLF placement in background.**



**Photo 2: UG# 6579, confirmatory drilling.**





**Photo 3: Highway 67 drainage channel preparation.**









**Photo 4: Low Volume Solution Collection System Manifold HDPE pipe butt fusion.**

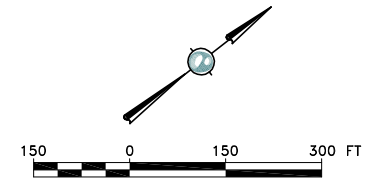


X:\Reporting\3 - CAD-Weekly Acceptance Maps\1 - Subgrade\Weekly Figure Map - Subgrade.dwg-7/1/2014 11:26 AM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |



|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|









|                |     |             |     |        |
|----------------|-----|-------------|-----|--------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE   |
| DRAWN BY       | RBR | APPROVED BY | ALM | 7/7/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |        |
| ACCEPTANCE MAP |     | 1           | 0   |        |



X:\Reporting\3 - CAD-Weekly Acceptance Maps\2 - SLF\Weekly Figure Map - SLF.dwg-7/7/2014 2:58 PM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |

|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

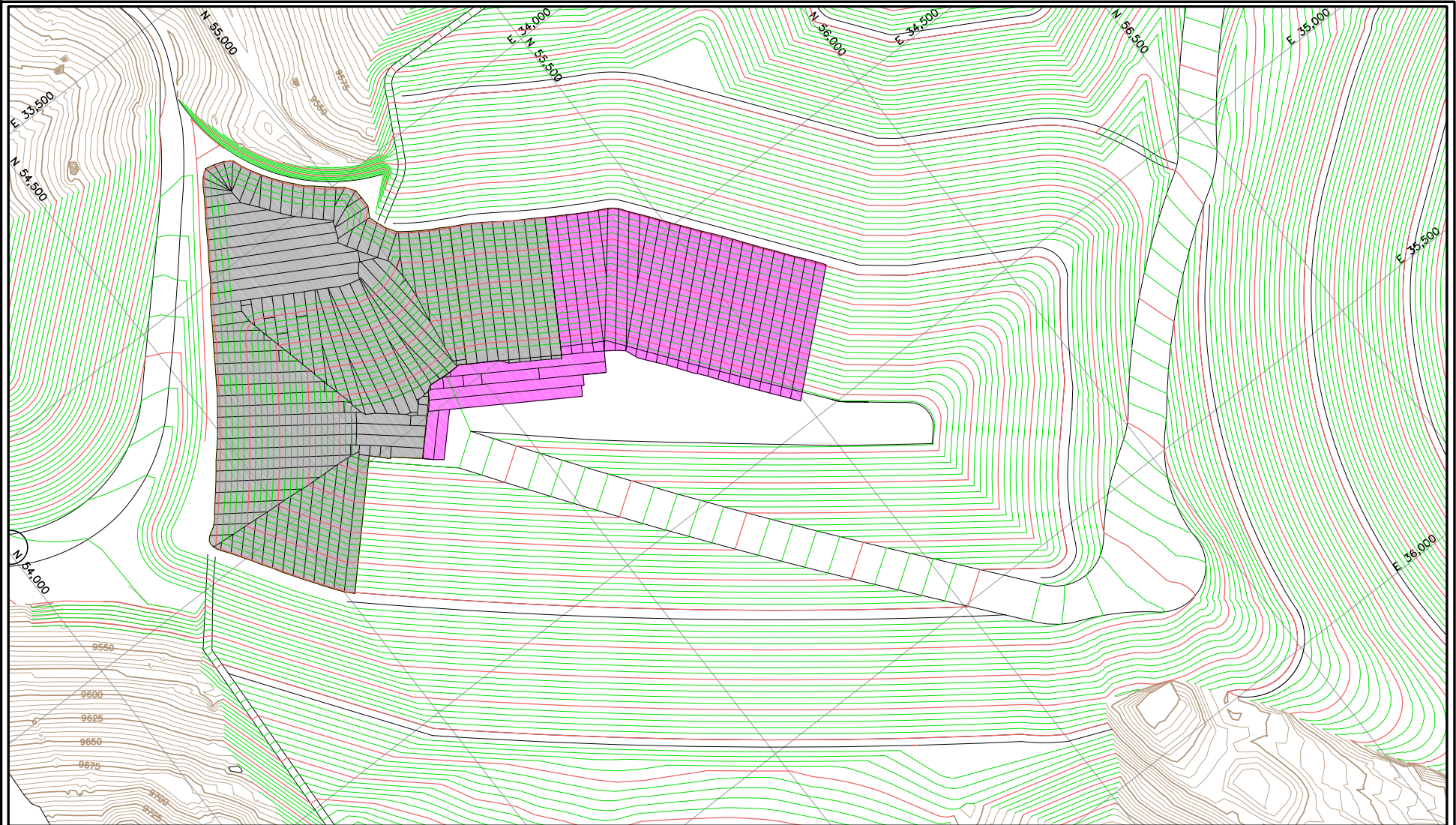
|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|



|                |     |             |     |        |
|----------------|-----|-------------|-----|--------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE   |
| DRAWN BY       | RBR | APPROVED BY | ALM | 7/7/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |        |
| ACCEPTANCE MAP |     | 1           | 0   |        |



S:\CAD\1125G-Squaw VLF\cadd\CADD DRAWINGS\figures\Liner Inspection figure\WFM-2014-07-05.dwg-7/8/2014 2:24 PM

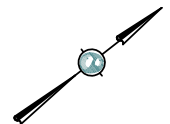


## LEGEND

- WEEKLY ACCEPTED SECONDARY LLDP LINER AREA
- PREVIOUSLY ACCEPTED SECONDARY LLDP LINER AREA

## Accepted Liner Area

Week Ending 2014-07-05 = 195,483 SF.  
Total Accepted Liner Area = 595,770 SF.



|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |   |
|-------|---|
| TITLE | WEEKLY ACCEPTANCE AREAS<br>WEEK ENDING 2014-07-05 |
|-------|---|



|                |    |             |     |         |
|----------------|----|-------------|-----|---------|
| DESIGNED BY    | RR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RR | APPROVED BY | ALM | 7/08/14 |
| CADD FILENAME  |    | FIGURE No.  | REV |         |
| WLM-2014.07.05 |    | 6           | 0   |         |

**CRIPPLE CREEK & VICTOR GOLD MINING Co.  
ANGLOGOLD ASHANTI (COLORADO)  
SQUAW GULCH (VLF) & HWY 67 RE-ALIGNMENT MONITORING WEEKLY REPORT**

|                    |  |                        |               |
|--------------------|--|------------------------|---------------|
| <b>Owner:</b>      | Cripple Creek & Victor Gold Mining Co. | <b>Project Number:</b> | 74201125N0    |
| <b>Project:</b>    | Squaw Gulch Valley Leach Fill (VLF)    | <b>Week Ending:</b>    | July 12, 2014 |
| <b>Location:</b>   | Cripple Creek & Victor Gold Mine, CO   |                        |               |
| <b>Contractor:</b> | Ames Construction, Inc.                |                        |               |

**Reporting Period: 07.06.2014 through 07.12.2014**

| Days  | S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|---|
| <b>Work Shifts</b>                                | - | D | D | D | D | D | D |
|   | - | - | - | - | - | - | - |
| D=Day Shift      N=Night Shift      W=Weather day |   |   |   |   |   |   |   |

| Ambient Temperature Ranges During Week | Weather Conditions During Week:                       |
|--|---|
| Highs: 80°F to 70°F                    | <b>Cloud Cover:</b> Partly cloudy                     |
| Lows: 47°F to 53°F                     | <b>Precipitation:</b> Rain - Mon, Tues, Wed, Fri, Sat |
|  | <b>Wind:</b> Variable                                 |

**Ames:** Continuing construction tasks for the Valley Leach Facility (VLF).

**Planning:** Continuing construction activities and scheduling for the VLF.

## **CONSTRUCTION ACTIVITIES AND PROGRESS:**

### **I) Earthworks**

#### **A) VLF (PSSA)**

**Topsoil/Overburden Stripping:** None.

**Tree Grubbing and Clearing, Chipping:** None.

**Production Drilling:** Production drilling was performed within the VLF limits.

**Production Blasting:** Two production blast occurred within the VLF.

#### **Structural Fill:**

All structural fill material discussed below was placed and compacted per the technical specifications.

A John Deere 850 excavator loaded Cat 777 haul trucks with shot rock from the northeastern cut area of the PSSA below Bench B. Cat dozers were cutting material from the Anaconda Mine Complex. Material from these areas was transported to the ADR haul road fill between STA 58+00 to 60+00 and STA 65+00 and 70+00 where it was placed as structural fill by Cat dozers.

Cat dozers were finish grading between Bench D and Bench F. A Cat vibratory roller compacted the subgrade according to project specifications.



A Cat 312 excavator hammered oversized rock on the upslope of STA B4+00 in the PSSA.

Cat dozers were finish grading and a Cat smooth drum roller compacted subgrade in various areas within PSSA and surrounding Phase 1 slopes.

John Deere and Cat dozers were cutting material and slope contouring the area around the Anaconda Mine Complex.

**Subgrade:**

The following subgrade areas in the PSSA were compacted per project specification to finished grade, inspected and certified for soil liner fill (SLF) placement:

- The north edge of roadway from STA 0+00 to 8+00 of the ADR haul road and down to the PSSA floor.
- The south edge of roadway from STA 0+00 to 5+00 of the ADR haul road.

See the attached subgrade acceptance map for all accepted subgrade locations.

**Soil Liner Fill (SLF):**

SLF was placed and compacted per project specification; then, inspected, tested and certified in compliance with technical specifications in the following areas:

- From STA 0+00 to 5+00 of the south edge of roadway of the ADR haul road and upslope to Bench B floor.
- From STA A10+00 to A12+00 and downslope to the PSSA floor.
- Between STA FF0+00 to FF2+00 and DD4+00 to DD6+00 (Phase 1).

See the attached SLF acceptance map for all accepted locations.

SLF from the Squaw Gulch stockpile was hauled to northern and southern inboard slopes and to the PSSA floor. The material was placed on the approved slope subgrade as fill and also stockpiled on the PSSA floor for later use in the area.

SLF was placed in a loose lift approximately 1.5 feet thick on the approved subgrade by Cat GPS dozers and 740 Haul Trucks.

SLF finishing and contouring occurred on the SLF at the PSSA North and South slopes.

Density tests, N-80 to N-96, and depth checks, D-48 to D-54, were performed.

Record Sample, SLF-16-R, was collected and returned to AMEC's laboratory for analysis.

**SLF Processing:**

**Cameron Site:** No soil liner fill mining or processing occurred at the Cameron Site.

Approximately 244,860 tons of SLF material has been produced and remains stockpiled at the Cameron Site for future use. The soil liner fill processing equipment remains at the Cameron site. No new processing during this reporting period.

**Underdrain System:**

**Primary Underdrain:** Complete.

**Secondary Underdrain:** No work was performed on the secondary underdrain.

**Tertiary Underdrain:** Complete in PSSA footprint.

## **B) Underground Workings**

Confirmatory drilling of underground working #6318 was completed and blasted. Excavation of shot rock began. Additional remediation is required.

Underground working #6579 was blasted. Additional remediation is required.

## **C) Geomembrane:**

### **PSSA**

Geomembrane installation within the PSSA continued this week performing deployment, seaming, repair, and QA/QC activities. Geomembrane installation was performed on the east slope. Approximately 82,643 square feet of 100-mil LLDPE geomembrane was deployed. Subgrade was inspected and approved by AMEC, Ames and ECA representatives prior to geomembrane deployment. Approximately 3,712 linear feet of seam was fusion welded during deployment using one or two fusion welding machines for each day of deployment. Destructive and non-destructive testing was completed per technical specifications.

Ames continuously excavated anchor trench ahead of geomembrane installation. After geomembrane testing was completed, the anchor trench above finished panels was backfilled and compacted to project specifications.

Secondary liner panels S-183, S-184, S-200 through S-204 (100-mil LLDPE – 14,145 ft<sup>2</sup>) were accepted and approved for low volume placement by AMEC, Ames and ECA representatives during this reporting period. Additional repairs may be required prior to placement of low volume solution collection fill (ie. wrinkle removal, sub-liner rock repair).

## **D) Overliner:**

- **PSSA**

Ames continued placing low volume solution collection fill (LVSCF) on approved secondary liner in minimum 3-foot lifts between panels S1 and S11, S40 to S42, S61 to S70 and S152 to S155 upslope with a Cat D6 GPS dozer and a Cat D8 dozer.

## **II) Storm Water Management**

Best Management Practices (BMPs) are being performed.

## CQA ACTIVITIES:

- I) **Field Activities:** Field activities and observation during this reporting period included: Slope grading and fill placement; underground working remediation and confirmatory drilling and blasting; production drilling and blasting; SLF moisture content and density testing; sampling and testing of Drain Cover Fill (DCF) for QC, sampling and testing of Soil Liner Fill (SLF) material for QA; sampling and testing of Low Volume Solution Collection Fill (LVSCF) material for QA; and sampling and testing of Structural Fill (SF) material for QA and QC; subgrade surface certification in the PSSA and the Phase 1 east slope; and SLF surface inspection and certification.
- II) **Laboratory Activities:** Laboratory testing continued with permeability, particle size distribution, Atterberg limits, moisture-density relationships, gradations, material classification, and field material sampling were performed during this reporting period.

The following samples were collected and returned to AMEC's laboratory for analysis:

- Drain Cover Fill sample numbers, DCF-97 and 98 (control sample).
- Soil Liner Fill sample number, SLF-16-R (record sample).
- Low Volume Solution Collection Fill, LVSCF 1-R, 2-R and 3-R (record samples).
- Structural Fill sample numbers, SF 90-R, 91-R and 92-R (record samples).

## General Project Items

**Meetings and Discussions:** Weekly Contractor Meeting – July 9, 2014 (CC&V, AMEC, Ames); CC&V Weekly Safety Professional Meeting – July 10, 2014; ECA daily safety meetings; and Ames daily safety meetings.

**Summary of Concerns:** None.

**CC&V:** Daily updates, reporting and scheduling are some of the tasks occurring between CC&V Projects, AMEC, and Ames.

## Miscellaneous:

- Drain cover fill crusher processing continued
- Riprap screen processing continued
- Soil liner fill placed at the PSSA was moisture conditioned
- Highway 67 drainage ditch construction
- Seeding and mulching the Area 34 topsoil stockpile

**Deliveries:** ECA received 8 rolls of 80-mil DSMS and 4 rolls of 100-mil LLDPE smooth geomembrane.

**Submitted by:** 

Bobby Redd, EI


Date: July 15, 2014

**Reviewed by:** 

Tim Burkhard  
Project Resident  
Phone: 719-689-2986

Date: July 15, 2014

**CC&V Projects**

**Approved By:** 

Date: 7/18/14

**Approved By:** 

Date: 7-18-14



## ATTACHMENT A

### AMEC - 2014 CQA Field Staff Schedule MLE2

| Name           | Sun.<br>July 6 | Mon.<br>July 7 | Tues.<br>July 8 | Wed.<br>July 9 | Thurs.<br>July 10 | Fri.<br>July 11 | Sat.<br>July 12 |
|----------------|----------------|----------------|-----------------|----------------|-------------------|-----------------|-----------------|
| Tim Burkhard   |                | PR             | PR              | PR             | PR                | PR              | PR              |
| Andrea Meduna  |                | PE             |                 |                | PE                | PE              |                 |
| Steve Rice     |                | UG             | UG              | UG             | UG                | UG              |                 |
| Ben Melly      |                |                |                 |                | GL                | GL              | GL              |
| Robert Redd    |                | LS             | LS              |                | LS                | LS              | LS              |
| Tyler Browning |                |                |                 |                |                   |                 |                 |
| Eric Lorensen  |                | ST             | ST              | ST             | ST                | ST              | ST              |
| Razi Molloy    |                | LT             | LT              | LT             | LT                | LT              | LT              |
| Denis Koval    |                | ST             | ST              | ST             | ST                | ST              |                 |
| Dylan Budreau  |                |                |                 |                | GT                | GT              | GT              |
| Al Frias       |                |                |                 | GT             | GT                | GT              |                 |
| Chad Schreiner |                |                |                 |                | GT                | GT              | GT              |

#### LEGEND:

PL = Project Lead  
 PM = Project Manager  
 PCE = Project Certifying Engineer  
 PE = Project Engineer  
 PR = Project Resident  
 LG = Lead Geosynthetics Engineer  
 LS = Lead Soils Technician  
 ST = Soil Technician  
 LT = Laboratory Technician  
 GL = Geosynthetics Lead  
 GT = Geosynthetics Technician  
 FLM= Field/Laboratory Manager  
 UG = Underground Working Remediation  
 SE = Senior Engineer  
 GS = Geophysics Survey Geologist  
 HY = Highway Design Engineer

## Photographs of Activities



**Photo 1: Structural Fill on ADR haul road.**



**Photo 2: Production drilling and shot rock removal.**





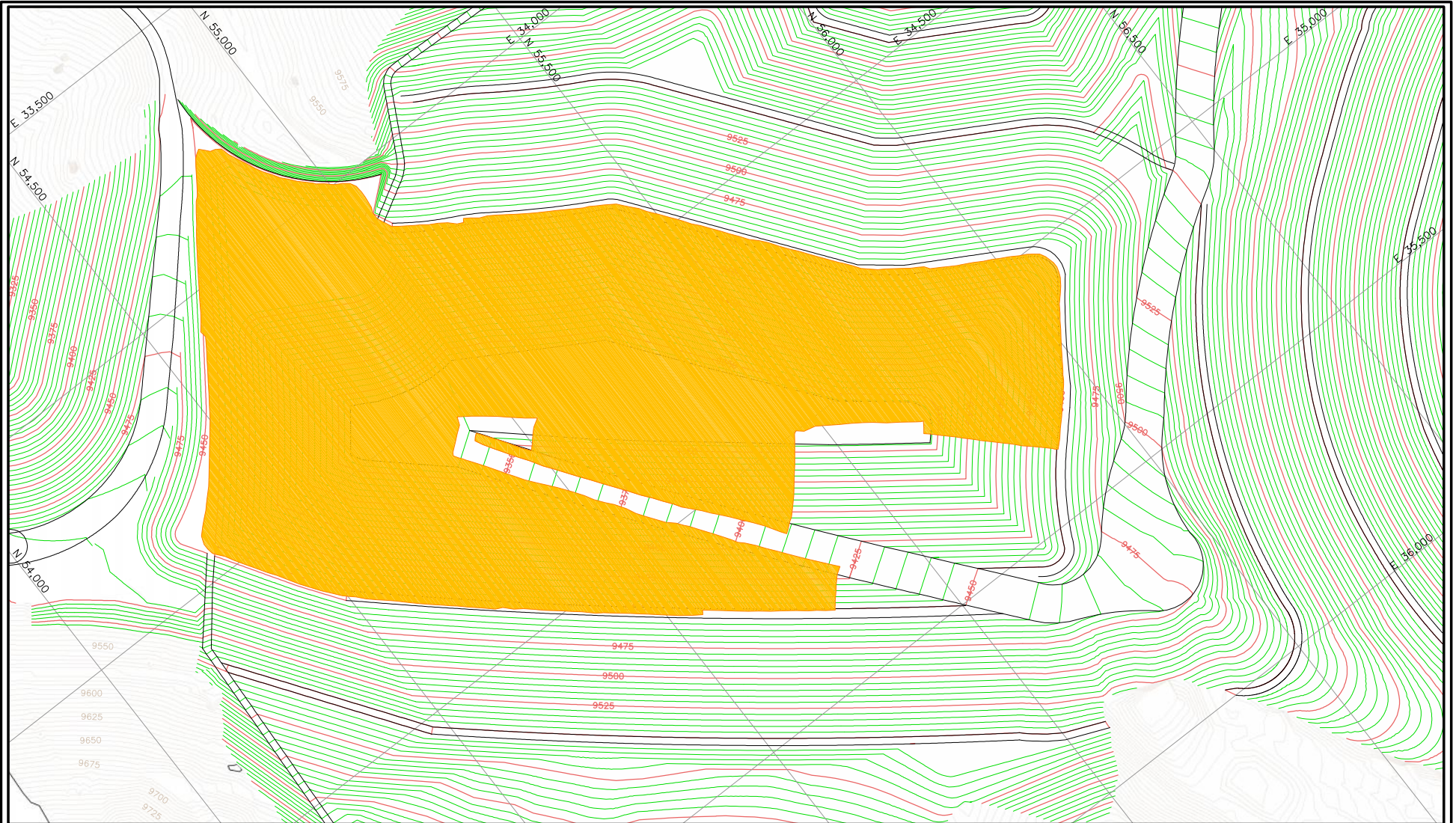
Photo 3: Geomembrane fusion welding.









Photo 4: Preparing Highway 67 drainage channel.

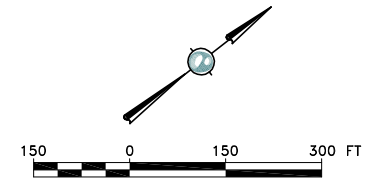


X:\Reporting\3 - CAD-Weekly Acceptance Maps\1 - Subgrade\Weekly Figure Map - Subgrade.dwg-7/15/2014 7:21 AM



## LEGEND

- |  |  |
|--|--|
|  APPROVED SUBGRADE              |  APPROVED LOW VOLUME SOLUTION COLLECTION FILL |
|  APPROVED SOIL LINER FILL       |  APPROVED DRAIN COVER FILL                    |
|  APPROVED PRIMARY LLDPE LINER   |  |
|  APPROVED SECONDARY LLDPE LINER |  |



|         |  |
|---------|--|
| CLIENT  | CRIPPLE CREEK & VICTOR<br>MINING COMPANY |
| PROJECT | PREGNANT SOLUTION STORAGE AREA           |

|       |                         |
|-------|-------------------------|
| TITLE | WEEKLY ACCEPTANCE AREAS |
|-------|-------------------------|



|                |     |             |     |         |
|----------------|-----|-------------|-----|---------|
| DESIGNED BY    | RBR | CHECKED BY  | TB  | DATE    |
| DRAWN BY       | RBR | APPROVED BY | ALM | 7/12/14 |
| CADD FILENAME  |     | FIGURE No.  | REV |         |
| ACCEPTANCE MAP |     | 1           | 0   |         |