

0094054

TANK 4 AND LEACHATE TRANSMISSION SYSTEM REPORT
CONSTRUCTION QUALITY ASSURANCE (CQA)

SECTION

6 OF 9

CQA PHOTOGRAPH LOG WEEK 22
(7/6/10 TO 7/9/10)

Geosynthetics



Facing N – ESI working on the south half of the secondary geocomposite tie-in for Cell 9.



Facing Down – ESI sealing the existing secondary drain rock between the existing 16 oz. geotextile.



Facing N – ESI tying the secondary geocomposite tie in along the south embankment of Cell 9.



Facing S – ESI folding the existing 16-oz. geotextile around the existing secondary drain rock to construct the tie-in.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 22
(7/6/10 TO 7/9/10)

Drainage Rock Production



Facing NE – TWS rock plant in production.



Facing NE – TWS rock plant in production.

Electrical Bank Concrete Fill

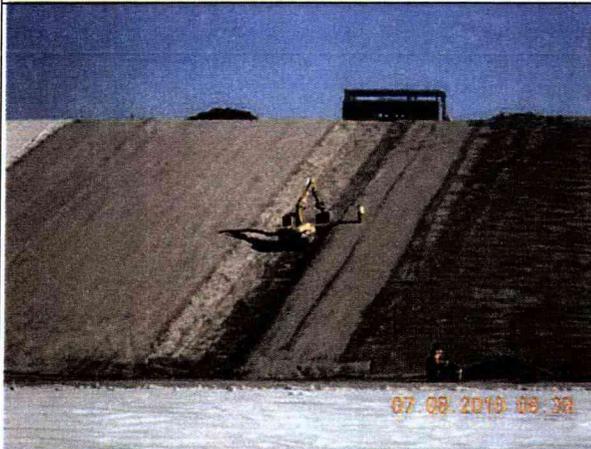


Facing N – Backfilling Cell 10 electrical bank with concrete.



Facing NE – Intermountain Testing testing electrical bank concrete.

Cell 9 Riser Trench Excavation



Facing N – TWS excavating Cell 9 riser trench.



Facing N – TWS excavating Cell 9 riser trench.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 23 (7/12/10 TO 7/16/10)

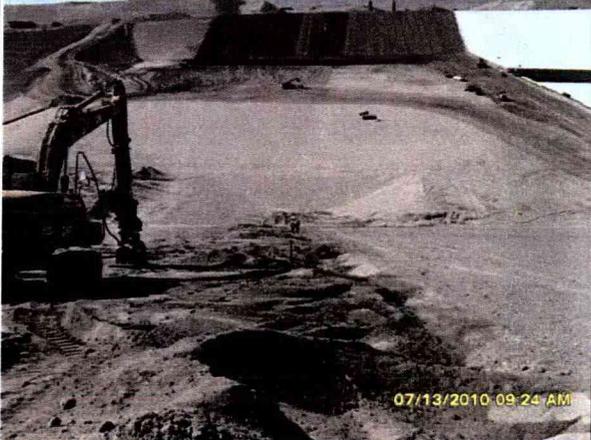
Cell 10 Excavation



Facing NW – TWS excavating the Cell 10 lysimeter trench.



Facing S – TWS backfilling the Cell 10 lysimeter



Facing S – TWS compacting backfill over the Cell 10 lysimeter trench.

CQA PHOTOGRAPH LOG WEEK 23
(7/12/10 TO 7/16/10)

Admix Placement



Facing SW – TWS placing and compacting admix on the south berm of Cell 10.



Facing SW – TWS utilizing the double smooth drum roller to finish the admix surface of the Cell 9 sump.



Facing N – The Cell 9 admix sump and side slope riser trench.



Facing S – TWS placing and compacting admix on the south berm of Cell 10.



Facing NW – TWS placing and compacting admix on the south floor of Cell 10.



Facing NE – The pugmill continuing to stockpile admix material.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 23
(7/12/10 TO 7/16/10)

Admix Placement Continued



Facing N – TWS placing the first lift of admix on the north berm of Cell 10.

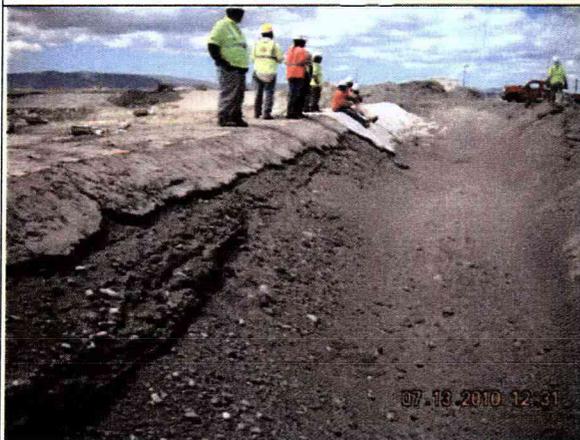


Facing SE – TWS compacting admix on the south floor of Cell 9 while the smooth drum roller prepares the subgrade for admix placement.

Note: No other admix activities occurred this week due to a stop work on all activities in the Cell construction area.

CQA PHOTOGRAPH LOG WEEK 23
(7/12/10 TO 7/16/10)

Cell 9 Anchor Trench



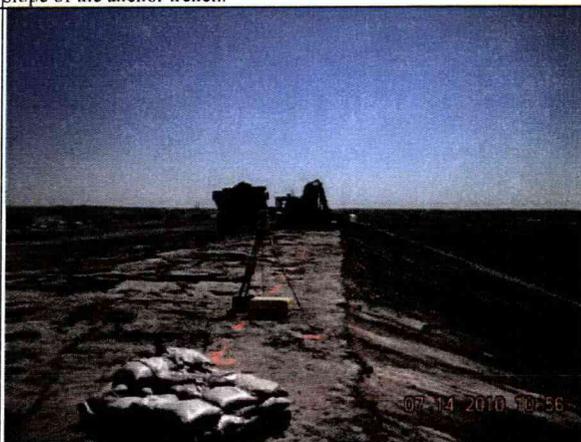
Facing W – The anchor trench interior side slope was unacceptable for liner deployment.



Facing W – TWS utilized a CAT excavator to correct the interior side slope of the anchor trench.



Facing W – The finished surface of the interior side slope of the anchor trench.



Facing E – TWS overbuilt the admix shoulder by a couple of feet.



Facing E – TWS excavating the excess admix with the CAT 312 excavator.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 23
(7/12/10 TO 7/16/10)

Cell 9 Secondary Riser	
<p>07.12.2010 09:35</p>	<p>07.18.2010 07:10</p>
<p>Facing S – TWS constructing the secondary drainage gravel/secondary geocomposite tie-in for Cell 9.</p>	<p>Facing SW – ESI constructing the secondary composite tie-in on the Cell 9 south slope.</p>
Drainage Gravel	
<p>07/13/2010 08:52 AM</p>	<p>07/16/2010 10:25 AM</p>
<p>Facing SW – TWS stockpiling Type A drainage gravel southeast of Cell 10.</p>	<p>Facing NE – American Rock stockpiling Type C drainage gravel north of Cell 10.</p>

CQA PHOTOGRAPH LOG WEEK 23
(7/12/10 TO 7/16/10)

Cell 9 Geosynthetics



07/13/2010 09:24 AM

Facing SW – Geosynthetic placement in Cell 9.



07/13/2010 12:32 PM

Facing SW – ESI deploying secondary geomembrane in Cell 9.



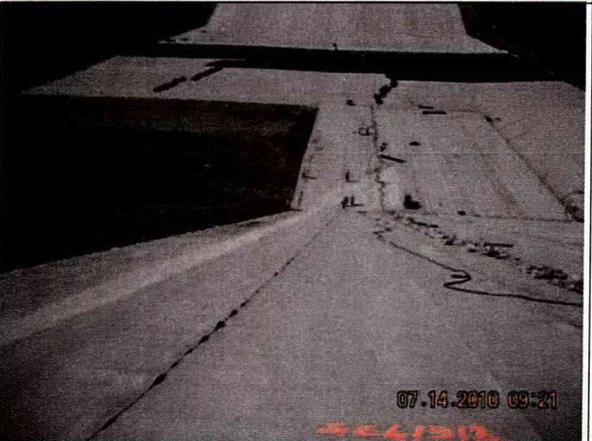
07.13.2010 15:50

Facing S – ESI welding the deployed secondary geomembrane in Cell 9.



07.14.2010 09:12

Facing S – ESI deploying the secondary geomembrane through the Cell 9 sump.



07.14.2010 09:21

Facing S – ESI welding the secondary geomembrane in the Cell 9 sump.

Note: No other geosynthetic activities occurred this week due to a stop work on all activities in the Cell construction area.

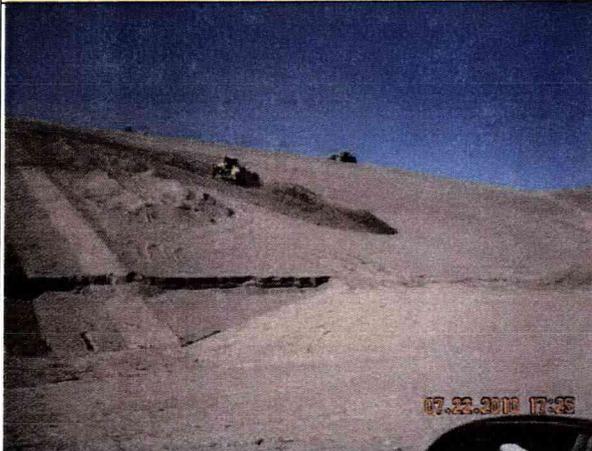
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 23
(7/12/10 TO 7/16/10)

Leachate Transmission Line	
<p>07/13/2010 09:44 AM</p>	<p>07-15-2010 08:21</p>
<p>Facing NE – BMWC installing valves in MH-38</p>	<p>Facing SW – TWS constructing the Cell 10 operations access ramp with the CAT D6 dozer.</p>
<p>07/16/2010 10:24 AM</p>	<p>07-15-2010 08:22</p>
<p>Facing N – TWS backfilling the leachate transmission pipeline between the existing pipeline and MH-21.</p>	<p>Facing N – TWS excavated a trench from MH-33 to the north berm for the Cell 10 discharge drain line to be utilizing during ATP testing.</p>
<p>07-15-2010 09:12</p>	
<p>Facing SW – TWS excavating and grading the trench for the Cell 9 discharge drain line.</p>	

CQA PHOTOGRAPH LOG WEEK 24
(7/19/10 TO 7/23/10)

Cell 10 Excavation



Facing NW – TWS trimming the subgrade of Cell 10 to grade with a CAT D6 GPS dozer.



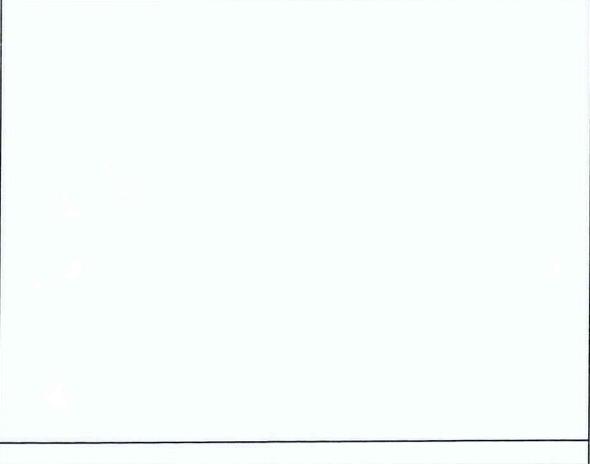
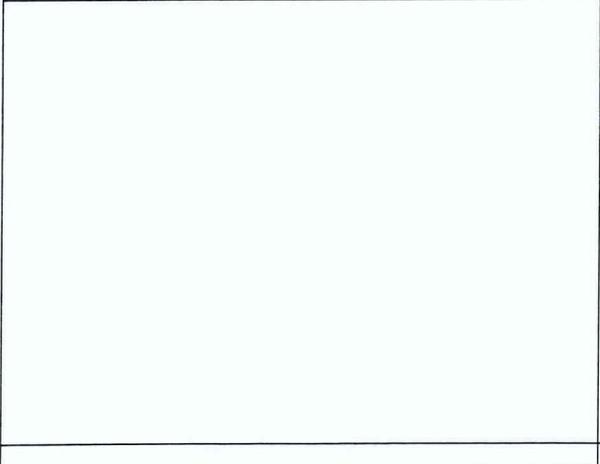
Facing W – TWS grading the north berm of Cell 10 and loading the grade trimmings into payhaulers.



Facing W – TWS stockpiled grade trimmings at the toe of the north slope.



Facing SW – TWS utilizing a payhauler to remove the grade trimmings from Cell 10.

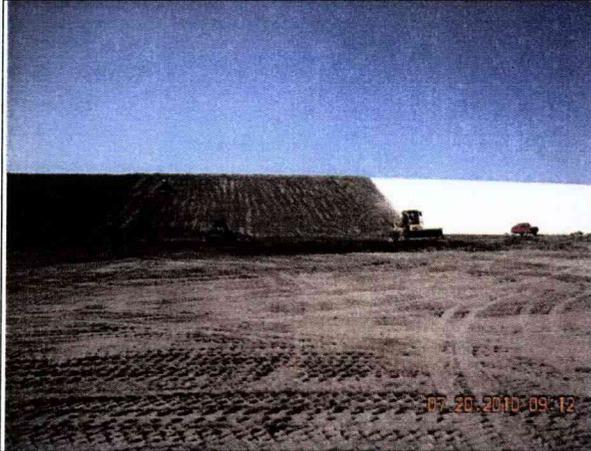




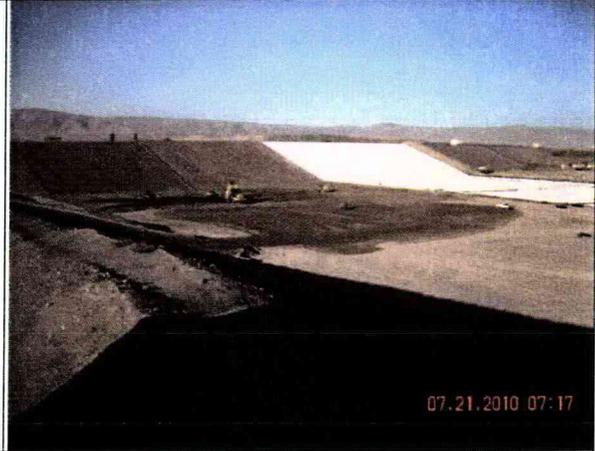
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 24 (7/19/10 TO 7/23/10)

Admix Placement



Facing S – TWS placing and compacting admix on the south half of Cell 10.



Facing SW – TWS placing and compacting admix on the south half of Cell 10.



Facing W – TWS compacting admix in the northwest corner of the Cell 10 floor.



Facing SW – TWS placing and compacting admix on the south half of Cell 10.



Facing SE – TWS preparing the south embankment for geomembrane deployment.



Facing SE – TWS grading the admix on the south slope of Cell 10 with a D6 dozer, while compacting the admix on the Cell 10 floor.

CQA PHOTOGRAPH LOG WEEK 24
(7/19/10 TO 7/23/10)

Admix Placement Continued



Facing SW – TWS placing and compacting admix on the south half of Cell 10.



Facing SW – TWS compacting admix in the northwest corner of the Cell 10 floor.



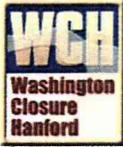
Facing N – TWS placing and compacting admix on the north slope and floor of Cell 10, while a water truck prepares the subgrade for admix placement.



Facing S – TWS compacting admix on the north slope and floor of Cell 10.



Facing W – TWS compacting admix in the northwest corner of the Cell 10 floor.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 24 (7/19/10 TO 7/23/10)

Cell 10 Lysimeter



Facing NE – TWS excavating the lysimeter trench in Cell 10.



Facing NE – TWS excavating the riser trench in the Cell 10 trench subgrade.



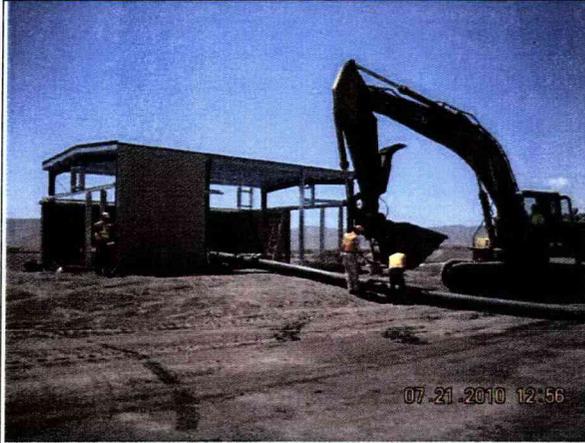
Facing W – TWS excavating the lysimeter sump in Cell 10 with a CAT D6 dozer.



Facing SE – The excavated lysimeter sump and side slope riser in Cell 10.

CQA PHOTOGRAPH LOG WEEK 24
(7/19/10 TO 7/23/10)

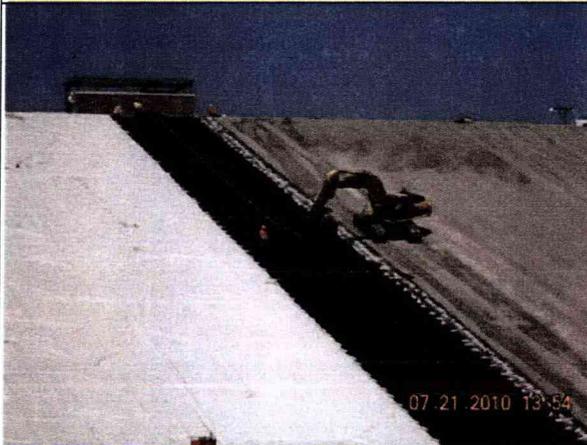
Cell 9 Secondary Riser



Facing SW – TWS and BMWC placing the secondary riser pipes into Cell 9.



Facing NE – TWS walking the secondary riser pipe down the riser trench with an excavator and a spotter.



Facing NE – TWS walking the second secondary riser pipe down the riser trench with an excavator and spotter.



Facing NW – TWS backfilling the Cell 9 secondary riser pipes with two (2) excavators.



Facing NW – TWS backfilling the Cell 9 secondary riser pipes with two (2) excavators.



Facing NW – TWS grading the Cell 9 secondary riser pipe backfill with the aid of a spotter.

CQA PHOTOGRAPH LOG WEEK 24
(7/19/10 TO 7/23/10)

Cell 9 Geosynthetics



Facing N – During the stop work initiated last week, a panel of secondary geomembrane was folded in the wind.

Facing W – ESI placing primary geomembrane over secondary geocomposite on the floor of Cell 9.



Facing NW – ESI pulling primary geomembrane across Cell 9 with a track bobcat.

Facing NW – ESI welding the primary geomembrane in Cell 9.



Facing W – ESI repairing the secondary geomembrane in the Cell 9 sump.

Facing NE – ESI deploying 16 oz. geotextile in the Cell 10 lysimeter sump.

CQA PHOTOGRAPH LOG WEEK 24
(7/19/10 TO 7/23/10)

Cell 9 Geosynthetics Continued



07/21/2010 07:37 AM



07/21/2010 10:28 AM

Facing SE – ESI deploying sec. geocomposite in the Cell 9 riser trench, while a technician repairs a hole in the sec. geomembrane.

Facing S – ESI deploying secondary geocomposite in the Cell 9 sump.



07/21/2010 12:18 PM



07/22/2010 07:14 AM

Facing SE – ESI deploying secondary geocomposite on the floor of Cell 9.

Facing SE – ESI deploying secondary geocomposite on the floor of Cell 9.



07/22/2010 12:43 PM



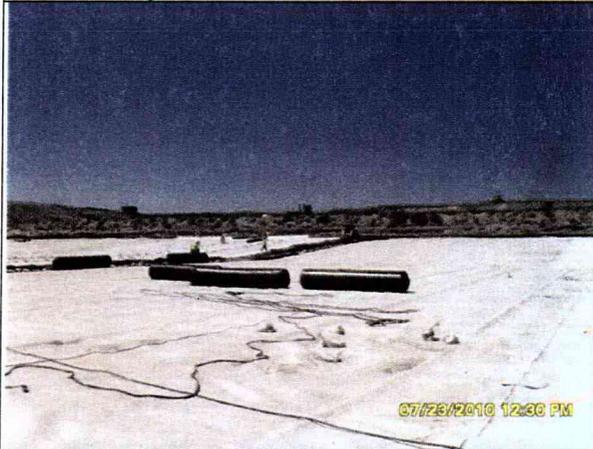
07/22/2010 15:06

Facing S – The secondary geocomposite/secondary drainage gravel tie-in.

Facing S – ESI encapsulating the secondary drainage gravel in the Cell 9 tie-in.

CQA PHOTOGRAPH LOG WEEK 24
(7/19/10 TO 7/23/10)

Cell 9 Geosynthetics Continued



Facing SE – ESI deploying primary geomembrane in Cell 9 with the aid of the track bobcat.



Facing S – ESI constructing the Cell 9 secondary composite tie-in.



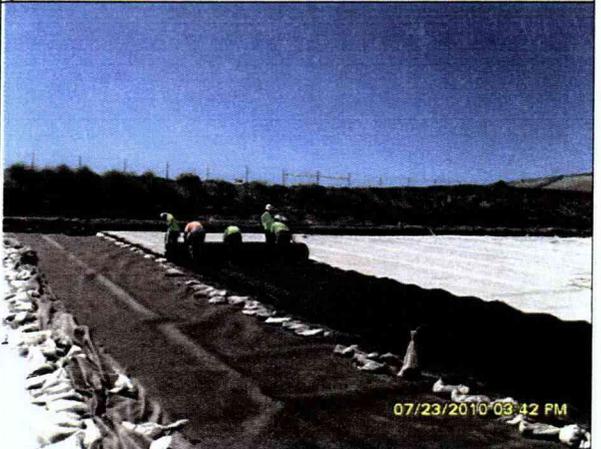
Facing N – ESI joining the secondary geocomposite on the Cell 9 floor west of the Cell 9 tie-in.



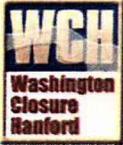
Facing N – ESI leistering geotextile flaps over the butt seams as per specifications.



Facing E – ESI welding the deployed primary geomembrane in Cell 9.



Facing W – ESI deploying secondary geocomposite on the north half of Cell 9.



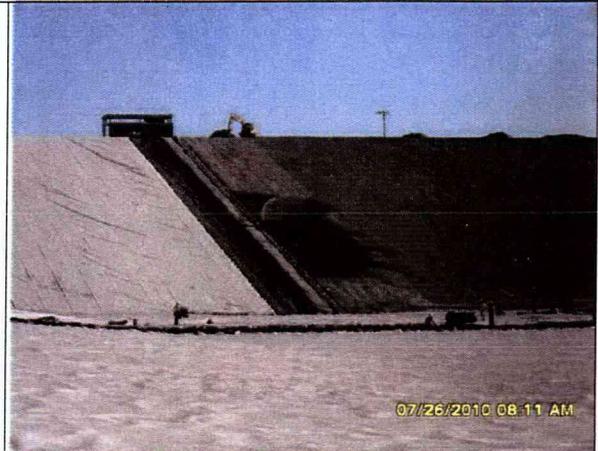
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 25 (7/26/10 TO 7/30/10)

Admix Placement



Facing N – TWS preparing the north slope for geomembrane placement.



Facing NE – TWS moisture conditioning the admix prior to geomembrane placement.



Facing SW – TWS compacting admix on the south half of Cell 10, while hauling admix to the north half of Cell 10.



Facing SW – TWS compacting admix on the north half of Cell 10, while a dozer trims the admix on the north berm to grade.



Facing N – TWS moisture conditioning the admix on the north berm.



Facing W – TWS excavating the anchor trench on the south berm of Cell 10.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 25
(7/26/10 TO 7/30/10)

Admix Placement Continued



Facing N – TWS trimming the south half of Cell 10 to grade while placing admix on the north half.



Facing SW – TWS finishing admix surface on the south berm with a smooth drum roller, while compacting admix on the floor.



Facing SE – TWS placing and compacting admix on the north half of Cell 10.



Facing NE – TWS spreading and compacting admix on the north berm, while moisture conditioning the subgrade of the north berm.



Facing NW – TWS moisture conditioning and compacting the admix on the south half the Cell 10 floor.



Facing W – TWS spreading and compacting admix on the north berm of Cell 10.



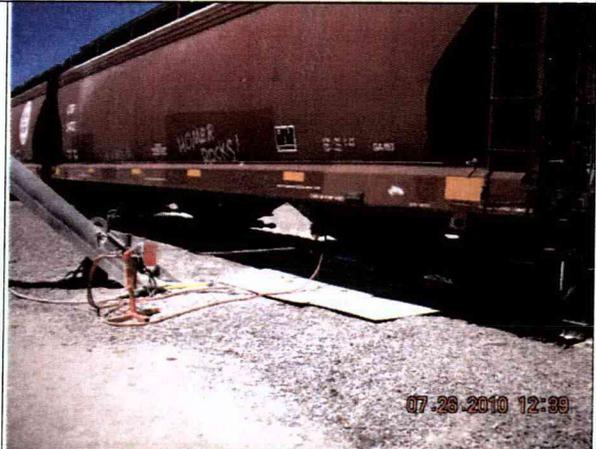
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 25 (7/26/10 TO 7/30/10)

Bentonite Delivery



TWS off-loading bentonite from railcars in the railroad siding.



TWS utilizing an auger to move the bentonite from the railcar to the blow truck.



The certified scale utilized to calculate the amount of bentonite hauled to site.

CQA PHOTOGRAPH LOG WEEK 25
(7/26/10 TO 7/30/10)

Cell 10 Lysimeter Sump



Facing NE – BMWC exposing the Cell 10 lysimeter pipe.



Facing NW – BMWC installing the bootless pipe penetration in the Cell 10 lysimeter sump.



Facing NW – ESI installing the tertiary liner in the Cell 10 lysimeter sump.



Facing NW – ESI installing the tertiary liner in the Cell 10 lysimeter sump.



Facing N – The installed tertiary geomembrane. Stormwater runoff gathered in the sump after an early morning storm.



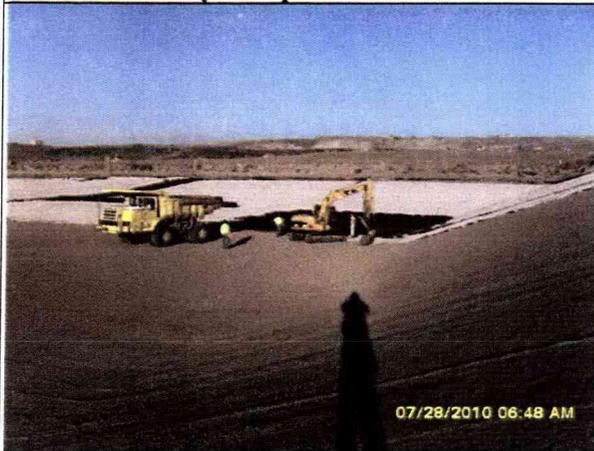
Facing NE – ESI deploying 16 oz. geotextile in the Cell 10 lysimeter sump.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 25 (7/26/10 TO 7/30/10)

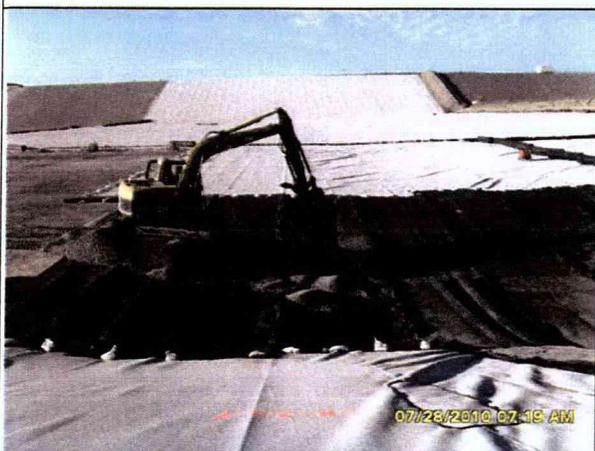
Cell 9 Secondary Sump



Facing SW – TWS placing Type B rock into the Cell 9 sump.



Facing SW – TWS placing Type B rock into the Cell 9 secondary sump.



Facing S – TWS spreading Type B in the Cell 9 secondary sump with the CAT 312 excavator.



Facing SE – TWS removing the ruts from the drainage gravel haul road to the Cell 9 secondary sump.



Facing NW – ESI deploying 16 oz. geotextile in the Cell 9 riser trench.



Facing S – TWS utilizing hand tools to remove the ruts near the Cell 9 sump.

CQA PHOTOGRAPH LOG WEEK 25
(7/26/10 TO 7/30/10)

Cell 9 Secondary Sump Continued



Facing SE – TWS moisture conditioning the reworked area with a water truck.



Facing S- TWS over moisture conditioned the admix near the Cell 9 sump.



Facing S – TWS utilizing had tools to spread out the saturated admix material.



Facing S – TWS compacting the drainage gravel haul road.



Facing N – TWS placing fresh admix over the haul road.



Facing NE – TWS spreading and compacting lift 6 over the Cell 9 gravel haul road to bring the admix surface to grade.



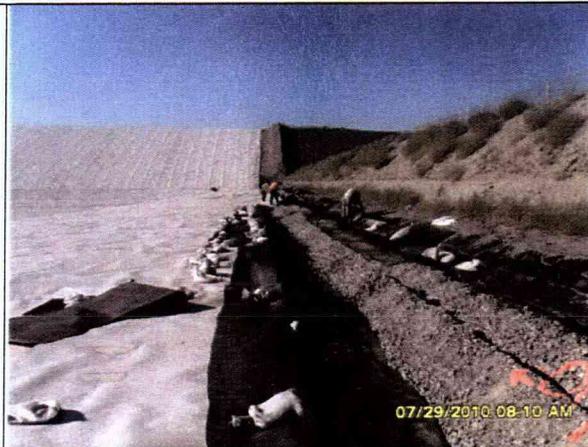
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 25 (7/26/10 TO 7/30/10)

Cell 9 Secondary Tie-in



Facing W – ESI deploying secondary geocomposite in Cell 9.



Facing N – TWS constructing the Cell 9 secondary drainage gravel tie-in.



Facing SW – ESI deploying secondary geocomposite in Cell 9.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 25
(7/26/10 TO 7/30/10)

Geosynthetic Placement



Facing S – ESI deploying secondary geomembrane on the south slope and floor of Cell 10.



Facing SE – ESI deploying secondary geomembrane on the north slope and floor of Cell 9 east of the sump.



Facing NE – ESI utilizing a track bobcat to deploy secondary geomembrane in Cell 9.



Facing SW – ESI left a hole in the secondary geomembrane due to a saturated admix subgrade next to the Cell 9 sump.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 26 (8/02/10 TO 8/07/10)

Admix Placement	
	
Facing NW – TWS placing admix material on the north berm on Cell 10.	Facing S – TWS grading the 3:1 admix termination with a CAT 325 excavator.
	
Facing NW – TWS moisture conditioning and compacting admix on the north berm of Cell 10.	Facing N – TWS compacting admix on the north berm, while a second dozer is preparing CQA test locations.
	
Facing SE – TWS compacting admix on the floor of Cell 10.	Facing S – TWS placing and spreading admix on the floor of Cell 10.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 26
(8/02/10 TO 8/07/10)

Admix Placement Continued



Facing N – TWS grading the north berm and spreading grade trimming as the next lift on the Cell 10 floor.



Facing E – TWS compacting admix on the south half of Cell 10.



Facing NE – TWS overbuilt the east termination of the admix. TWS utilized a CAT dozer to trim back the excess admix material.



Facing S – CQA verified that no subgrade was placed into the admix during trimming operations.



Facing N – TWS placing admix material onto the floor of Cell 10.



Facing N – TWS placing admix over the leading edge of the tertiary geomembrane in the Cell 10 lysimeter sump.

CQA PHOTOGRAPH LOG WEEK 26
(8/02/10 TO 8/07/10)

Admix Placement Continued	
<p>Facing SW – TWS grading the admix on the Cell 10 floor, while admix material is placed south of the Cell 10 sump.</p>	<p>Facing N – TWS moisture conditioning the subgrade of the Cell 10 slope prior to admix placement.</p>
<p>Facing NW – TWS moisture conditioning the Cell 10 slope, while admix is being placed and compacted on the slope.</p>	<p>Facing SE – TWS placing admix on the floor of Cell 10.</p>
<p>Facing E – TWS compacting admix on the north slope of Cell 10.</p>	<p></p>

CQA PHOTOGRAPH LOG WEEK 26
(8/02/10 TO 8/07/10)

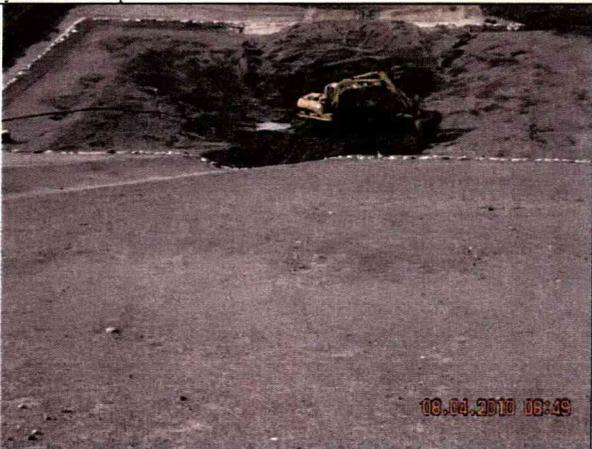
Cell 10 Lysimeter Sump



Facing W - TWS grading the Type C drainage gravel in the Cell 10 lysimeter sump.



Facing NE - TWS spreading and grading the Type C drainage gravel in the Cell 10 lysimeter sump.



Facing S - TWS grading the Type C drainage gravel in the Cell 10 lysimeter sump.



Facing NW - ESI deploying and welding 16 oz geotextile over the Type C drainage gravel in the Cell 10 lysimeter sump.

CQA PHOTOGRAPH LOG WEEK 26
(8/02/10 TO 8/07/10)

Geosynthetic Placement



Facing S – ESI deploying secondary geomembrane on the south slope and floor of Cell 10.



Facing SE – ESI deploying secondary geomembrane on the south slope and floor of Cell 10.



Facing NW – ESI weighing down the secondary geomembrane in Cell 10 with geocomposite rolls.



Facing N – Extents of geosynthetic placement in Cell 10 (continuation of picture to the left)



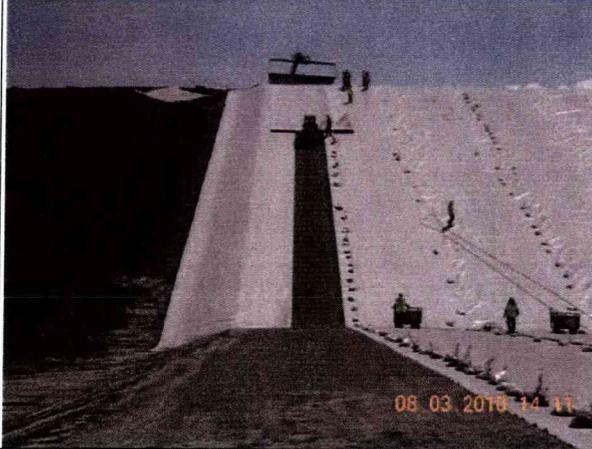
Facing S – ESI deploying secondary geomembrane on the south berm of Cell 10 with the aid of a track bobcat.



Facing SE – ESI welding secondary geomembrane on the south slope and floor of Cell 10.

CQA PHOTOGRAPH LOG WEEK 26
(8/02/10 TO 8/07/10)

Geosynthetic Placement Continued



Facing S – ESI deploying secondary geomembrane near the Cell 10 termination on the south slope.



Facing S – The geotextile on the geocomposite reached its exposure limit. ESI is folding the composite over to prolong the exposure date.

Ancillary Work



Facing E – TWS excavating an area of the subgrade near the trench access ramp that was left higher than design grade.



Facing E – TWS excavating the anchor trench on the north slope of Cell 10.

ERDF CONSTRUCTION CELLS 9-10

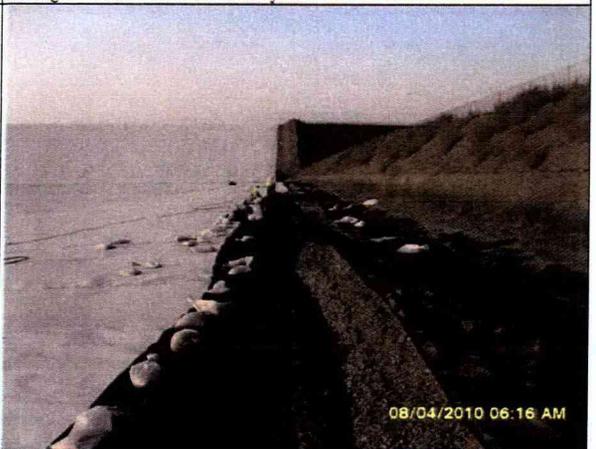
CQA PHOTOGRAPH LOG WEEK 26
(8/02/10 TO 8/07/10)

Cell 9 Secondary Tie-in



Facing S – The Cell 9 secondary tie-in.

Facing N – The Cell 9 secondary tie-in.



Facing S – ESI leistering the 16 oz. geotextile over the secondary drainage gravel on the Cell 9 secondary tie-in.

Facing S – ESI leistering the 16 oz. geotextile over the secondary drainage gravel on the Cell 9 secondary tie-in.



Facing S – ESI placed and welded the primary geomembrane over the secondary geotextile/geocomposite on the Cell 9 tie-in.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 27 (8/9/10 TO 8/13/10)

Admix Production	
	
Facing E – Pug mill producing the last of the admix material for Cells 9 and 10.	Facing E – TWS demobilizing the admix pug mill.
Admix Placement	
	
Facing N – TWS placing admix on the north slope, while a water truck moisture conditions the admix.	Facing N – TWS placing and compacting admix on the north slope.

CQA PHOTOGRAPH LOG WEEK 27
(8/9/10 TO 8/13/10)

Admix Placement Continued



Facing SW – TWS finishing the admix surface in Cell 10, while the water truck moisture conditions the admix surface



Facing W – TWS utilizing an excavator to grade the admix side slope riser trench.



Facing S – TWS moisture conditioning and compacting the admix on the north half of Cell 10.



Facing E – TWS compacting the admix in the Cell 10 sump with a CAT 825 sheepfoot compactor.



Facing W – TWS compacting and trimming the admix to grade on the north half of Cell 10.

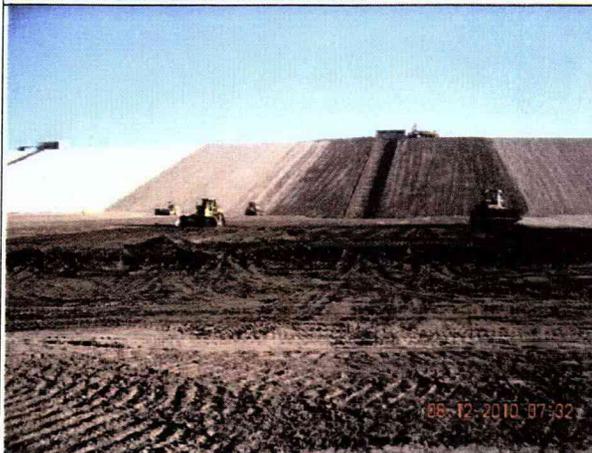


Facing W – TWS utilizing a smooth drum roller to prepare the admix surface for geomembrane placement.

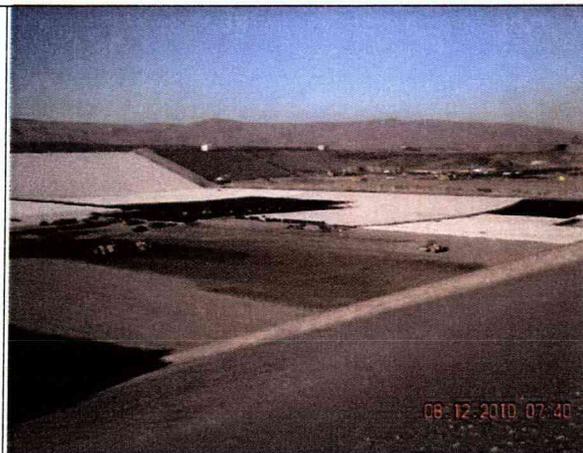
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 27
(8/9/10 TO 8/13/10)

Admix Placement Continued



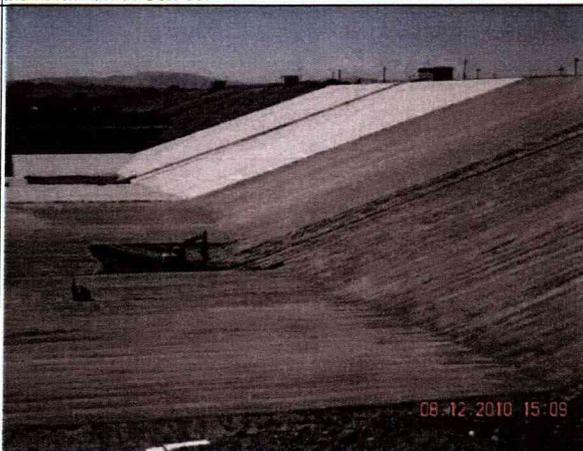
Facing N – TWS compacting the admix on the right and trimming the final lift to grade on the left.



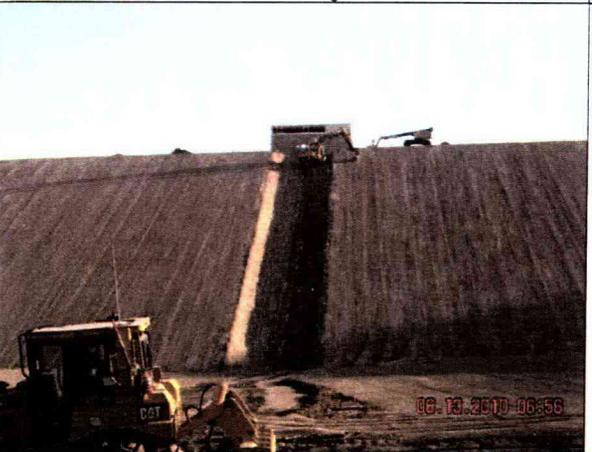
Facing SW – TWS compacting, trimming, and finishing the admix on the north half of Cell 10.



Facing N – TWS utilizing the smooth drum roller to prepare the admix surface, while a CAT excavator grades the Cell 10 riser trench.



Facing W – TWS utilizing the double smooth drum roller to finish the admix surface, while the CAT excavator grades the Cell 10 sump.



Facing N – The CAT excavator continuing to grade the admix side slope riser trench in Cell 10.

ERDF CONSTRUCTION CELLS 9-10

**CQA PHOTOGRAPH LOG WEEK 27
(8/9/10 TO 8/13/10)**

Geosynthetic Installation



Facing NW – Geotextile deployment in Cell 9.



Facing W – Due to exposure limits, ESI folded the geocomposite over, exposing the underside, and increasing the 14 day expose limit.



Facing SE – ESI deploying geotextile in Cell 9.



Facing SW – The extents of the geotextile deployment in Cell 9.



Facing E – ESI preparing to deploy geomembrane in Cell 9, but high winds halted deployment.

CQA PHOTOGRAPH LOG WEEK 27
(8/9/10 TO 8/13/10)

Cell 9 Geosynthetics Continued



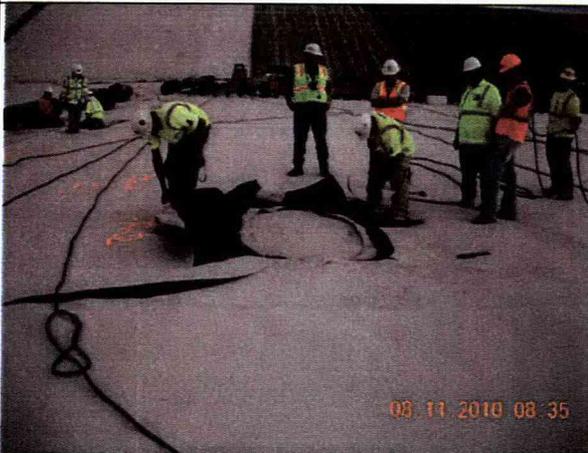
Facing NW – During installation of the primary geomembrane, CQA noticed a rut in the admix surface.

Facing NW – TWS cut and removed the primary and secondary geomembrane as well as the secondary geocomposite.



Facing NW – TWS removed the rut with a shovel.

Facing NW – The admix was then compacted to form a smooth, uniform surface.



Facing S – ES1 repaired the secondary geomembrane.

Facing NW – ES1 patched and joined the secondary geocomposite over the secondary geomembrane.

CQA PHOTOGRAPH LOG WEEK 27
(8/9/10 TO 8/13/10)

Drainage Gravel



Facing NW – TWS placing scrap geocomposite and geotextile over the admix termination in preparation for gravel placement.



Facing NW – TWS placing plywood over the admix subgrade in preparation for constructing the drainage gravel ramp.



Facing NW – TWS using operations soil to construct the drainage gravel access ramp in Cell 10.



Facing N – TWS constructing the drainage gravel access ramp in Cell 10.



Facing SE – TWS constructing the drainage gravel access ramp in Cell 10.



Facing N – TWS utilizing a trackhoe and CAT D6 LGP dozer to construct the southwest haul road.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 27
(8/9/10 TO 8/13/10)

Cell 9 Geosynthetics Continued



Facing SW – TWS placing gravel at the end of the haul road to be stockpiled by the dozer and spread by the trackhoe.



Facing SW – The CAT D6 LGP dozer stockpiling the gravel at the end of the haul road.



Facing NW – The trackhoe spreading the gravel in Cell 10.



Facing S – The southwest haul road in Cell 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 27 (8/9/10 TO 8/13/10)

Leachate Transmission Piping



Facing E – Backfill soil over the 16x10-in double containment line between MH-34 to MH-35.



Facing W – Backfill soil over the 16x10-in double containment line between MH-34 to MH-35.



Facing NW – Tank #3 ring wall construction.



Facing W – Backfill soil over the 16x10-in double containment line between MH-34 to MH-35.

CQA PHOTOGRAPH LOG WEEK 28
(8/16/10 TO 8/20/10)

Geosynthetic Placement



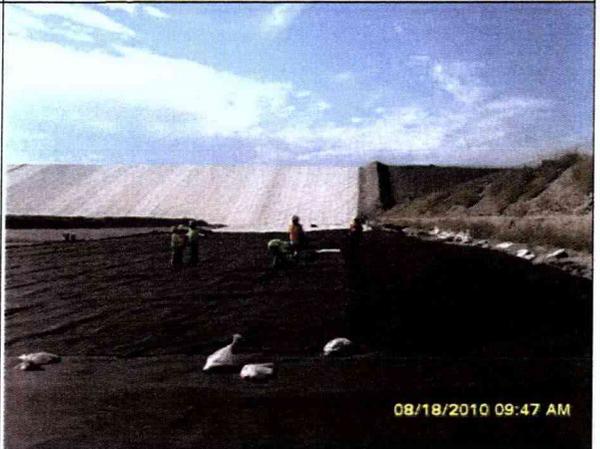
Facing N – ESI deploying secondary geomembrane on the west side of Cell 10.



Facing SE – ESI deploying secondary geomembrane on the west side of Cell 10.



Facing NW – ESI welding and repairing the secondary geomembrane tie-in in Cell 9.



Facing S – ESI placing and welding geotextile in Cell 10.



Facing NW – ESI vacuum testing the repairs on the Cell 8/9 tie-in.



Facing S – ESI deploying and welding 16 oz geotextile over the primary geomembrane.

CQA PHOTOGRAPH LOG WEEK 28
(8/16/10 TO 8/20/10)

Geosynthetic Placement (Continued)



Facing S – ESI staging geocomposite rolls over the deployed secondary geomembrane on the north floor of Cell 10.



Facing SE – ESI placing a protective rub sheet over the exposed geotextile/geocomposite in the Cell 9 riser trench.



Facing S – The protective rubsheet that was placed over the geotextile in the Cell 10 secondary riser trench.



Facing SW – ESI deploying secondary geocomposite on the floor of Cell 9.



Facing NW – The geocomposite deployment on the north slope and floor of Cell 9.



Facing NW – ESI installing the pipe sock and boot over the Cell 9 lysimeter pipe.

CQA PHOTOGRAPH LOG WEEK 28
(8/16/10 TO 8/20/10)

Geosynthetic Placement (Continued)



Facing SE – ESI deploying secondary geomembrane east of the Cell 10 sump on the north slope and floor of Cell 10.



Facing N – ESI deploying secondary geomembrane on the east termination of Cell 10.



Facing N – ESI repairing the deployed secondary geomembrane in Cell 10.



Facing SW – Secondary geomembrane deployment in Cell 10.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 28
(8/16/10 TO 8/20/10)

Cell 10 Secondary Riser Trench and Sump



Facing N – ESI deploying secondary geomembrane in the Cell 10 riser trench and sump.



Facing N – ESI deploying secondary geomembrane in the Cell 10 riser trench and sump.



Facing NE – ESI welding the secondary geomembrane in the Cell 10 riser trench and sump.



Facing NE – ESI placing the geocomposite over the secondary geomembrane in the Cell 10 riser trench and sump.



Facing SE – ESI joining the geocomposite in the Cell 10 riser trench.



Facing N – surveyor painting the edge of the 3:1 secondary backfill in the Cell 10 riser trench.

CQA PHOTOGRAPH LOG WEEK 28
(8/16/10 TO 8/20/10)

Cell 10 Secondary Riser Trench and Sump (Continued)



Facing NE – TWS placing the Cell 10 secondary riser pipes through the openings in the Cell 10 crest pad building.



Facing NE – TWS installing the secondary riser pipes into the Cell 10 riser trench.



Facing S – TWS installing the secondary riser pipes into the Cell 10 sump.



Facing N – TWS backfilling the secondary riser pipes in Cell 10.



Facing SE – TWS compacting the backfill over the secondary riser pipes in Cell 10.



Facing SW – TWS placing Type B drainage gravel into the Cell 10 sump.

**CQA PHOTOGRAPH LOG WEEK 28
(8/16/10 TO 8/20/10)**

Cell 10 Secondary Riser Trench and Sump (Continued)



Facing S – TWS spreading the drainage gravel in the Cell 10 sump, while the CQC inspector tests the riser pipe backfill.



Facing S – The rutting created by the payhaulers during placement of the drainage gravel in the Cell 10 sump.



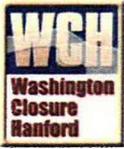
Facing NW – TWS protecting the leading edge of the secondary geomembrane in the Cell 10 sump prior to leaving for the weekend.



Facing W – TWS creating a small berm over the leading edge of the secondary geomembrane in Cell 10.



Facing N – ESI placed 16 oz. geotextile over the Cell 10 secondary riser trench backfill.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 28 (8/16/10 TO 8/20/10)

Primary Drainage Gravel



Facing N – TWS constructing the SW drainage gravel haul road in Cell 9.



Facing SE – TWS constructing the West drainage gravel haul road in Cell 9.



Facing SW – Extents of rock placement in Cell 9.



Facing SE – TWS constructing the NW drainage gravel haul road in Cell 9.



Facing SW – Extents of rock placement in Cell 9.



Facing NE – TWS spreading drainage gravel in from the West haul road in a 1-ft high lift across Cell 9.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 28 (8/16/10 TO 8/20/10)

Cell 9 Secondary Sump



Facing SW – TWS spreading drainage gravel in a 1-ft high lift with CAT D6 LGP dozers.



Facing NW – A CAT D6 LGP dozer spreading drainage gravel in a 1-ft high lift with the aid of laborers.



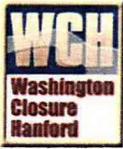
Facing N – TWS spreading rock near the Cell 7/9 tie-in; two laborers work on minimizing wrinkle propagation.



Facing N – TWS tying in the primary drainage gravel from Cell 7 to the primary drainage gravel in Cell 10.



Facing SW – Extent of gravel placement and liner placement in Cells 9 and 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 28 (8/16/10 TO 8/20/10)

Earthwork



Facing E – TWS backfilling the leachate transmission line between MH-34 and MH-35.



Facing W – TWS compacting the leachate transmission line between MH-34 and MH-35.



Facing W – TWS compacting the leachate transmission line between MH-9 and MH-38.



Facing W – TWS compacting the leachate transmission line between MH-9 and MH-38.

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Admix Placement	
 <p>08/25/2010 09:03</p>	 <p>08/25/2010 10:11</p>
<p>Facing E – TWS maintaining the admix surface south of the Cell 10 sump.</p>	<p>Facing E – The admix surface of Cell 10 after TWS moisture conditioned the surface.</p>
 <p>08/25/2010 08:31 AM</p>	 <p>08/25/2010 11:58 AM</p>
<p>Facing E – TWS moisture conditioning the admix surface prior to secondary geomembrane placement.</p>	<p>Facing E – TWS utilizing a smooth drum roller to prepare the admix surface for secondary geomembrane placement.</p>

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Geosynthetic Placement



Facing S – ESI removing dirt from the secondary geomembrane prior to placing secondary geocomposite in Cell 9.



Facing W – ESI joined the geocomposite together with zip ties.



Facing NE – ESI deploying secondary geocomposite on the north slope and floor of Cell 9 west of the sump.



Facing N – ESI completing the secondary geocomposite tie-in on the north slope of Cell 9.



Facing S – TWS and ESI constructing the secondary drainage gravel/geocomposite tie-in on the west side of Cell 9.



Facing N – ESI and TWS placing the secondary drainage gravel over the secondary geocomposite along the Cell 9 tie-in.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Geosynthetic Placement (Continued)



Facing N – ESI placing a rub sheet over the secondary geocomposite in order to deploy primary geomembrane.



Facing NW – ESI deploying primary geomembrane in Cell 9.



Facing S – ESI deploying primary geomembrane over secondary geocomposite in Cell 9.



Facing SW – ESI deployed primary geomembrane to the west shoulder of the Cell 9 sump.



Facing S – ESI cut the secondary geomembrane near the Cell 9 riser trench in order to remove large wrinkles in the geomembrane.



Facing NW – ESI "walking-out" the wrinkles on the north slope of Cell 9.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Geosynthetic Placement (Continued)



Facing NW – ESI welding the panel that was cut in order to remove the wrinkles east of the Cell 9 riser trench.



Facing S – The north slope of Cell 9 after the wrinkles had been removed.



Facing S – ESI placing secondary geocomposite on the north half of Cells 9 and 10.



Facing N – ESI completing the primary geomembrane tie-in on the west side of Cell 9.



Facing N – ESI deploying secondary geocomposite on the north slope of Cell 9 east of the riser trench.



Facing NE - ESI deploying secondary geocomposite on the north slope of Cell 9 east of the riser trench.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 29 (8/23/10 TO 8/27/10)

Geosynthetic Placement (Continued)



Facing NW – ESI deploying secondary geomembrane across Cell 10 with short panels.



Facing W – ESI deploying secondary geomembrane across unacceptable subgrade. TWS will fix subgrade at a later date.



Facing S – ESI completed deployment of secondary geomembrane on the north half of Cell 10.

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Cell 10 Secondary Riser Trench and Sump



Facing NW – TWS spreading and grading the Type B drainage gravel in the Cell 10 sump with the aid of the TWS surveyor.



Facing NW – TWS placing additional drainage gravel into the Cell 10 secondary sump.



Facing NW – TWS completed placing and grading the Type B drainage gravel in the Cell 10 secondary sump.



Facing SW – TWS moisture conditioning the admix surface prior to recompacting the admix.



Facing S – ESI preparing to use the CAT 825 to compact the admix on the Cell 10 secondary sump haul road.



Facing SE – After the admix was compacted and clipped to grade, CQA inspected the surface. Due to the large amount of overbuilt admix, CQA determined that rutting did not extended into the admix.

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Cell 10 Secondary Riser Trench and Sump



Facing NW – TWS preparing the admix surface for secondary geomembrane placement with the double smooth drum roller.



Facing S – TWS preparing the admix surface for secondary geomembrane placement with the double smooth drum roller.



Facing S – The final admix surface prior to placing secondary geomembrane.



Facing NW – ESI placing secondary geomembrane over the Cell 10 secondary sump haul road.



Facing S – ESI completed deployment of secondary geomembrane over the Cell 10 secondary sump haul road.

CQA PHOTOGRAPH LOG WEEK 29
(8/23/10 TO 8/27/10)

Drainage Gravel Placement



Facing SW – Extents of rock placement in Cell 9.



Facing N – TWS utilizing a spotter to aid the CAT D6 LGP dozer during placement of gravel near the Cell 9 tie-in.



Facing SE – TWS placing drainage gravel on the south half of Cell 9 with the aid of a laborer.



Facing SE – TWS placing drainage gravel on the south half of Cell 9 with the aid of a laborer.



Facing N – TWS preparing and grading the Cell 9 secondary drainage gravel tie-in by hand.



Facing SE – The extents of gravel placement in Cell 9. TWS completing grading activities in Cell 9.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 29 (8/23/10 TO 8/27/10)

Drainage Gravel Placement (Continued)



Facing SE – WCH preparing to use ground penetrating radar to check the admix for ruts under the three (3) primary gravel haul roads.



Facing SW – WCH utilizing ground penetrating radar on the primary gravel haul roads.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 29 (8/23/10 TO 8/27/10)

Earthwork



Facing E – TWS excavating for the leachate transmission pipe trench between MH-36 and MH-37.



Facing W – TWS excavating for the leachate transmission pipe trench between MH-36 and MH-37.



Facing N – TWS backfilling the Tank #3 foundation ring wall.



Facing W – TWS placing, moisture conditioning, and compacting fill over the leachate transmission pipes between MH-36 and MH-37.



Facing W – TWS placing and moisture conditioning backfill over the leachate transmission trench between MH-36 and MH-37

CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)

Geosynthetic Placement	
 <p>08.30.2010 06:33</p>	 <p>08.30.2010 06:33</p>
Facing SE – Extent of geocomposite placement in Cell 10.	Facing S – Extent of geocomposite placement in Cell 9.
 <p>08.30.2010 09:12</p>	 <p>08.30.2010 14:26</p>
Facing NW – ESI deploying secondary geocomposite on the north slope of Cell 9.	Facing N – ESI removing blow sand from the Cell 9 secondary riser trench.
 <p>08.30.2010 15:20</p>	 <p>08.30.2010 15:35</p>
Facing SW – ESI conducting pressure testing on the primary geomembrane in Cell 9.	Facing NW – ESI deploying secondary geocomposite in the Cell 9 riser trench.

**CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)**

Geosynthetic Placement (Continued)



Facing S – ESI deploying secondary geocomposite on the north slope of Cell 10.



Facing SW – ESI joining the geocomposite in Cell 9 together with zip ties.



Facing NE – ESI deploying secondary geocomposite on the north slope and floor west of the Cell 10 sump.



Facing N – ESI deploying secondary geocomposite on the north slope of Cell 10.



Facing SE – ESI zip tying secondary geocomposite in Cell 10, while a second crew completes repairs on the secondary geomembrane.



Facing S – ESI deploying secondary geocomposite on the north slope and floor of Cell 10, east of the Cell 10 sump.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)

Geosynthetic Placement (Continued)



Facing N – ESI deploying primary geomembrane east of the sump in Cell 9.



Facing S – ESI placing secondary panel S-118 on the south half of Cell 10 to repair a failed seam S4/S5.



Facing SE – Extents of geocomposite deployment in Cell 10.



Facing S – Extents of secondary geomembrane and secondary geocomposite deployment in Cell 9.

CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)

Cell 9 Sump Repair



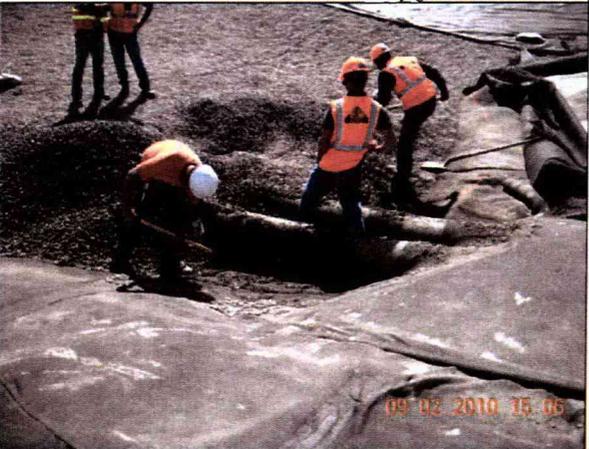
Facing S – Rain showers created small pools of water on the secondary geomembrane in Cell 10.

Facing SW – The storm water pooled in the Cells 9 and 10 sumps (TWS shown removing water from the Cell 10 sump).



Facing E – After ESI had remove the water from the Cell 9 sump, water was discovered under the Cell 9 secondary geomembrane.

Facing W – ESI, CQA, and TWS investigation of the trapped water in the Cell 9 sump.



Facing SW – ESI and TWS removing the drainage gravel in the Cell 9 sump to investigate the storm water infiltration.

Facing NW – ESI, TWS, and CQA continuing the investigation the following day.

**CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)**

Cell 9 Sump Repair (Continued)



Facing SW – ESI, TWS, and CQA tracing the source of the stormwater to the northwest corner of the sump.



Facing SW – The source of the stormwater infiltration.



Facing SW – ESI cutting a release hole in the secondary geomembrane in the Cell 9 sump.



Facing W – TWS and ESI "walking" the stormwater out from below the secondary geomembrane.



Facing NE – TWS left the admix to dry under the secondary geomembrane.

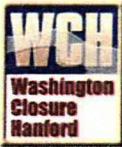


Facing Down – Patch over original investigation hole in the northwest corner of the Cell 9 sump.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)

Cell 9 Sump Repair (Continued)	
<p>Facing S – After CQA investigated and verified that the admix surface met stability requirements, ESI patched the release hole.</p>	<p>Facing NW – ESI joining the geocomposite over the repair area.</p>
<p>Facing NE – ESI replacing the secondary geotextile in the Cell 9 sump.</p>	<p>Facing SW – TWS replacing and grading the drainage gravel in the Cell 9 sump with a CAT 303 excavator.</p>



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 30 (8/30/10 TO 9/3/10)

Earthwork



Facing W – TWS backfilling the leachate transmission trench between MH-36 and MH-37.



Facing W – TWS compacting the leachate transmission trench backfill between MH-36 and MH-37 with a smooth drum roller.



Facing NW – TWS backfilling and compacting the base course on the operations haul ramp that was removed for the placement of the leachate transmission trench between MH-36 and MH-37



Facing NE – ESI grading and compacting the base course rock on the operations haul road.

ERDF CONSTRUCTION CELLS 9-10

**CQA PHOTOGRAPH LOG WEEK 30
(8/30/10 TO 9/3/10)**

Tank #1 Demolition



Facing NW – BMWC and TWS removing the transfer pipe between Tank #1 and Tank #2.



Facing NW – TWS cutting the liner from the tank wall.



Facing NW – TWS removing the metal tank wall with an excavator.



Facing NW – TWS removing the anchor bolts from the metal tank walls.



Facing N – TWS removed the tanks walls and folded the geomembrane for disposal in roll-off containers.

CQA PHOTOGRAPH LOG WEEK 31
(9/7/10 TO 9/10/10)

Geosynthetic Placement



Facing NW – ESI placing geocomposite in Cell 10.

Facing SW – ESI placing geocomposite in Cell 10.



Facing NE – ESI joining the composite rolls together with zip ties.

Facing SW – ESI deploying secondary geomembrane panel P-57 to the east of the Cell 9 sump.



Facing N – ESI removing the rub sheet from the Cell 9 riser trench protecting the 16 oz. geotextile.

Facing S – ESI deploying panel P-58 in the Cell 9 sump.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 31 (9/7/10 TO 9/10/10)

Geosynthetic Placement (Continued)



Facing NW – ESI joining the secondary geocomposite on the Cell 10 floor.



Facing NE – ESI deploying secondary geocomposite on the north slope of Cell 10, east of the Cell 9 riser trench.



Facing W – ESI sewing approved geocomposite seams on the floor of Cell 10.



Facing N – ESI deploying secondary geocomposite on the north slope of Cell 10.



Facing NE – ESI zip tying secondary geocomposite in on the north slope of Cell 10.



Facing NW – ESI deploying panel P-59 to the east of the panel P-56 on the north berm and slope of Cell 9.

CQA PHOTOGRAPH LOG WEEK 31
(9/7/10 TO 9/10/10)

Geosynthetic Placement (Continued)



Facing N – ESI welding primary geomembrane panels P-11/P-12 on the north slope and floor of Cell 10.



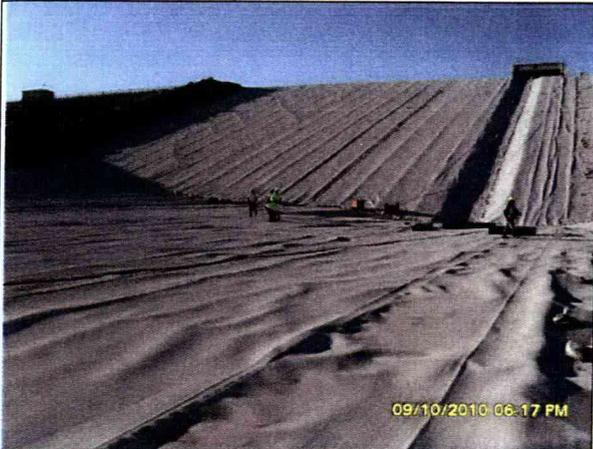
Facing SW – ESI placing secondary panel P-17 on the north slope and floor of Cell 10.



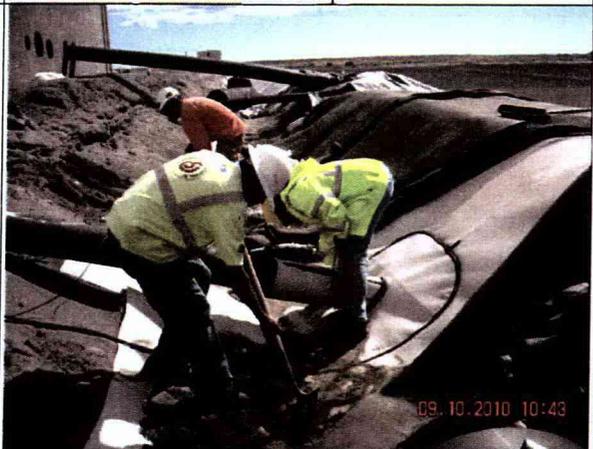
Facing SE – ESI performing repairs on the secondary geomembrane in Cell 10 south of the sump.



Facing S – ESI deploying primary geomembrane panels P-65 and P-66 over the Cell 9 riser trench and sump.



Facing NW – ESI welding the primary geomembrane panels P-62 to P-67 over the riser trench, sump, and floor of Cell 9.



Facing E – ESI spark testing the lysimeter pipe boot in the anchor trench of Cell 10.

CQA PHOTOGRAPH LOG WEEK 31
(9/7/10 TO 9/10/10)

Cell 9 Sump Repair



Facing W – TWS surveyor setting the grade for the secondary drainage gravel in Cell 9.



Facing SW – ESI removing the CAT 303 excavator from the Cell 9 sump after spreading the drainage gravel as per design drawings.



Facing N – CQA surveyor verifying that the drainage gravel matches the design drawings.



Facing NE – TWS removing storm water from the Cell 10 sump.



Facing N – TWS removing storm water from the Cell 9 sump prior to geomembrane deployment.



Facing NW – ESI deploying 16 oz geotextile in the Cell 9 sump.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 31 (9/7/10 TO 9/10/10)

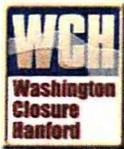
Tank #1 Demolition



Facing NW – TWS loading the last roll off container with tank liner material.



Facing NW – TWS removing last of the tank materials.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 32 (9/13/10 TO 9/17/10)

Geosynthetic Placement



Facing SE – ESI performing an air pressure test on the Cell 9 primary geomembrane, while a second technician patches the hole in the liner.



Facing NE – ESI vacuum testing repairs on the secondary geomembrane in Cell 10 south of the sump.



Facing SE – ESI deploying secondary geocomposite over the secondary geomembrane in Cell 10.



Facing SW – ESI joining the secondary geocomposite in Cell 10 together with zip ties.



Facing S – ESI placing the blow sand in the riser trench into sand bags to be used during geosynthetic placement.



Facing N – EIS deploying primary geomembrane on the north slope of Cell 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 32 (9/13/10 TO 9/17/10)

Geosynthetic Placement (Continued)



Facing N – ESI deploying primary geomembrane in the Cell 10 sump and riser trench.



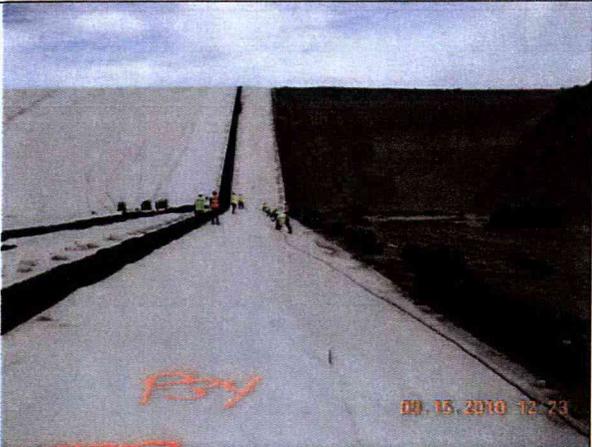
Facing N – ESI deploying primary geomembrane on the east side of the Cell 10 sump.



Facing NE – ESI deploy primary geomembrane on the north slope of Cell 10.



Facing NW – ESI continuing to deploy primary geomembrane on the north slope of Cell 10.



Facing N – ESI cutting the primary geomembrane on the floor of the Cell 10 termination.



Facing NW – ESI pulling the trimmed remnant of primary geomembrane into place to construct the Cell 10 primary termination.

ERDF CONSTRUCTION CELLS 9-10

**CQA PHOTOGRAPH LOG WEEK 32
(9/13/10 TO 9/17/10)**

Geosynthetic Placement (Continued)



Facing E – ESI deploying secondary geocomposite south of Cell 10.



Facing E – ESI joining the secondary geocomposite in Cell 10 together with zip ties.



Facing S – ESI vacuum testing the Cell 9 primary geomembrane tie-in.



Facing N – TWS pumping storm water from the Cell 9 sump.



Facing N – ESI determining the extents of the failed Cell 10 primary seam P-11/P-12 (DP-03).



Facing SE – Extent of geosynthetic deployment on September 16, 2010.

CQA PHOTOGRAPH LOG WEEK 32
(9/13/10 TO 9/17/10)

Geosynthetic Placement (Continued)



Facing S – ESI welding the Cell 10 primary geomembrane east to west, south of the Cell 10 sump.



Facing W – ESI deploying 16 oz. primary geotextile over the primary geomembrane in Cell 9.



Facing SE – Extent of geosynthetic deployment in Cell 10.



Facing S – Extent of geosynthetic deployment in Cell 9.



Facing SE – Extent of geosynthetic deployment in Cell 10.



Facing S – Extent of geosynthetic deployment in Cell 9.

CQA PHOTOGRAPH LOG WEEK 32
(9/13/10 TO 9/17/10)

Tank #4



Facing NW – TWS compacting the southwest half of the Tank 4 foundation.



Facing NW – BMWC welding the 16x10-in double containment inlet line for Tank 4.



Facing SW – TWS and BMWC installing the 4x8-in drain line for Tank 4.



Facing SW – BMWC pressure testing the inner pipe of the 10x16-in inlet pipe for Tank 4.



Facing NE –TWS backfilling the 4x8-in drain line for Tank 4.



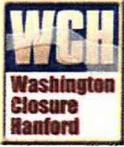
Facing NE – TWS compacting the Tank 4 inlet pipe backfill with both a jumping jack hand compactor and a hoe-pack.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Stormwater	
Facing SW – TWS removing the storm water from the sumps that accumulated over the weekend.	Facing SW – Stormwater accumulation in the Cell 9 sump over the weekend.
Facing NW – ESI removing stormwater from the subgrade haul road that splits Cell 10.	Facing SW – ESI pumping stormwater from the Cell 9 sump
Facing SE – The TWS stormwater overflow pond/area on the east side of the Cell 10 termination.	



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Geosynthetic Placement



Facing N – ESI deploying primary geocomposite on the north slope of Cell 9.



Facing NW – ESI deploying primary geocomposite on the north slope of Cell 9.



Facing S – ESI performing repairs on the primary geomembrane on the Cell 10 floor.



Facing S – ESI deploying primary geotextile on the floor of Cell 10.



Facing NW – ESI installing the pipe boot and sock on the Cell 9 lysimeter pipe.



Facing N – ESI deploying primary geocomposite on the north slope of Cell 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Geosynthetic Placement (Continued)



Facing NE – ESI deploying primary geocomposite on the north slope of Cell 10.



Facing SE – ESI double wedge welding primary geotextile on the floor of Cell 10.



Facing NW – ESI deploying primary geocomposite on the north slope of Cell 10.



Facing E – ESI welding the pipe boots and skirts for the secondary leachate pipes in Cell 10.



Facing SE – Extents of primary geotextile deployment in Cell 10.



Facing N – ESI deploying primary geocomposite on the north slope of Cell 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Geosynthetic Placement (Continued)



Facing N – Extrusion welding the primary termination of Cell 10 as per the design drawings.



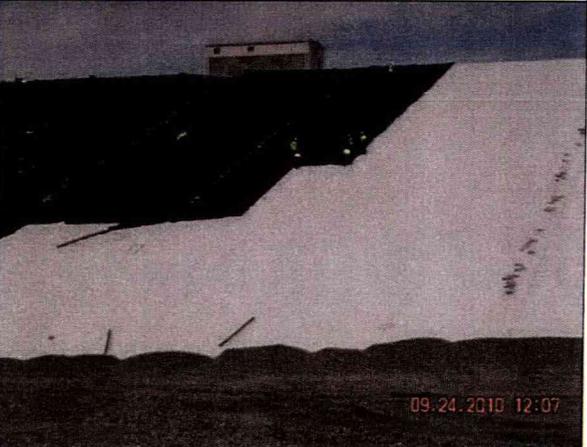
Facing N – ESI performing vacuum testing on the extrusion welded primary termination on the north side of Cell 10.



Facing N – ESI cutting the primary geomembrane and exposing the secondary geomembrane on the Cell 10 north slope termination.



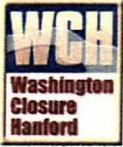
Facing NE – ESI leistering down the primary geomembrane to the secondary geomembrane on the Cell 10 north slope termination.



Facing NW – ESI deploying primary geocomposite on the north slope of Cell 10.



Facing NE – ESI deploying primary geocomposite on the north slope of Cell 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Drainage Gravel Placement



Facing W – TWS spreading the stockpiled drainage gravel in Cell 9 onto the north quarter of the Cell 9 floor.



Facing W – TWS constructing a 7-ft high haul road to the Cell 9 sump.



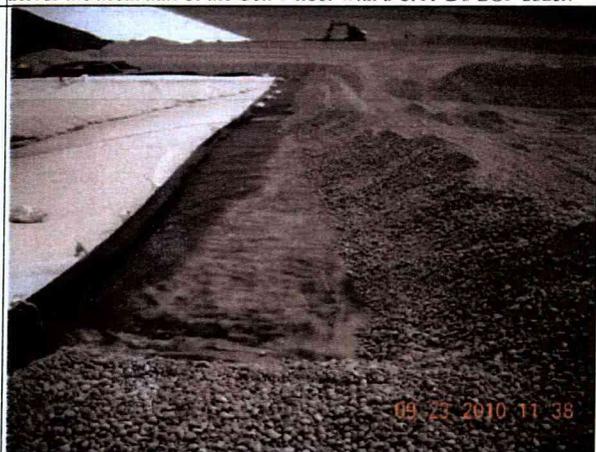
Facing SW – TWS constructing a 7-ft high haul road to the Cell 9 sump.



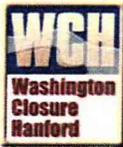
Facing S – TWS spreading the gravel from the Cell 9 sump haul road across the north half of the Cell 9 floor with a CAT D6 LGP dozer.



Facing SE – TWS removing excess drainage gravel that was spread too close to the Cell 9 sump.



Facing E – The gravel was pulled back from the Cell 9 sump to allow the 100 mil geomembrane rub sheet to be installed.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Drainage Gravel Placement (Continued)



Facing S – TWS constructing the northeast gravel haul road across Cell 10.



Facing SW – TWS constructing the Cell 10 north gravel haul road to the toe of the Cell 10 slope.



Facing S – TWS spreading gravel on the Cell 10 north haul road with a CAT 312 excavator to minimize wrinkles to the liner.



Facing S – TWS spreading gravel on the Cell 10 northeast haul road with a CAT 312 excavator to minimize wrinkles to the liner.



Facing SE – TWS constructing the 7-ft high northeast drainage gravel haul road across Cell 10.



Facing S – TWS trimming the gravel to grade in Cell 9 with a CAT GPS D6 LGP dozer.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Drainage Gravel Placement (Continued)



Facing N – WCH ground penetrating radar (GPR) preparing to survey the gravel haul roads in Cell 9.



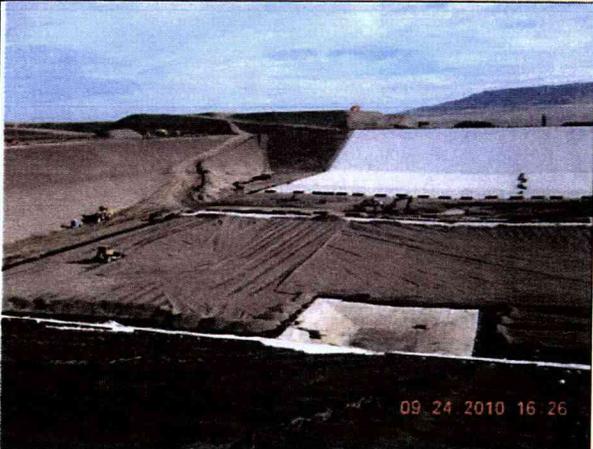
Facing N – WCH surveying the gravel haul roads with GPR to determine if rock placement caused damage to the admix surface.



Facing SE – TWS spreading gravel from the Cell 10 north east haul road across the north half of the Cell 10 floor.



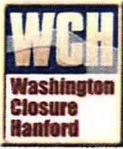
Facing S – TWS removing a portion of the drainage gravel ramp into Cell 9.



Facing SE – TWS trimming gravel to grade in Cell 10.



Facing SW – TWS trimming gravel to grade in Cell 10.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Drainage Gravel Repairs



Facing SW – The Hitachi excavator accidentally tipped during gravel placement, damaging the underlying liner.

Facing SE – Although the bucket rested on drainage gravel, the force from the bucket damaged the underlying liner.



Facing SE – TWS excavated area to investigate the damage.

Facing NW – ESI repaired the damage to the underlying primary geomembrane.



Facing NW – ESI performing vacuum testing on the repaired primary geomembrane liner.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

Drainage Gravel Repairs



Facing E – The dozer clipped the geocomposite while placing drainage gravel on the toe of the Cell 9 slope, west of the sump.



Facing NW – CQA investigation found no damage to the underlying primary geomembrane.



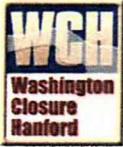
Facing NE – ESI repair the damaged geocompoiste



ERDF CONSTRUCTION CELLS 9-10

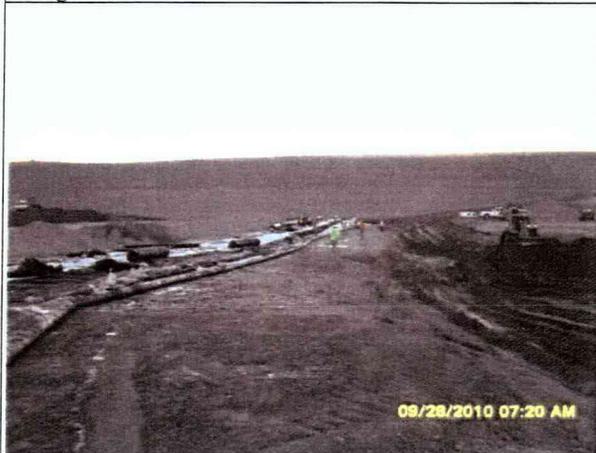
CQA PHOTOGRAPH LOG WEEK 33 (9/20/10 TO 9/24/10)

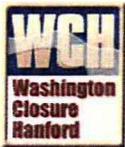
Tank 4	
	
Facing SE – The TWS surveyor staking out the ringwall on the Tank 4 foundation.	Facing W – TWS excavating the ringwall trench in the Tank 4 foundation.
	
Facing SE – The Tank 4 ringwall trench.	



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Subgrade	
	
<p>Facing E – ESI uncovering the admix tie-in, while TWS stockpiles the unacceptable subgrade material in Cell 10.</p>	<p>Facing SE – TWS stockpiling and removing the unacceptable subgrade material from Cell 10.</p>
	
<p>Facing E – TWS preparing to place admix on the Cell 10 subgrade. The admix tie-in was moisture conditioned and abraded prior to admix placement.</p>	



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Admix Placement



Facing N – TWS moisture conditioning the exposed dry admix in Cell 10.



Facing E – TWS moisture conditioning and reworking the admix surface prior to admix placement.



Facing NW – TWS placing admix on the Cell 10 subgrade.



Facing E – TWS placing, spreading, and compacting admix in Cell 10.



Facing NE – TWS placing and compacting admix in Cell 10, while two (2) smooth drum rollers finished the 6th lift of admix.



Facing NE – TWS completing the final proof rolling of the last of the admix in Cell 10.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34
(9/27/10 TO 10/2/10)

Geosynthetic Placement



Facing N – ESI placing and joining the primary geocomposite on the north slope of Cell 10.



Facing S – ESI performing vacuum testing on the rain flap detail in Cell 10.



Facing N – ESI performing the primary to secondary weld for the rain flap on the north slope of Cell 10.



Facing N – ESI completes placement of primary geocomposite west of the Cell 10 rain flap.



Facing SW – ESI deploying 8 oz. geotextile in Cells 9 and 10.



Facing N – ESI sewing the deployed 8 oz. geotextile in Cell 9.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34
(9/27/10 TO 10/2/10)

Geosynthetic Placement (Continued)



Facing NW – ESI conducting vacuum testing on the secondary geomembrane on the south slope of Cell 10.



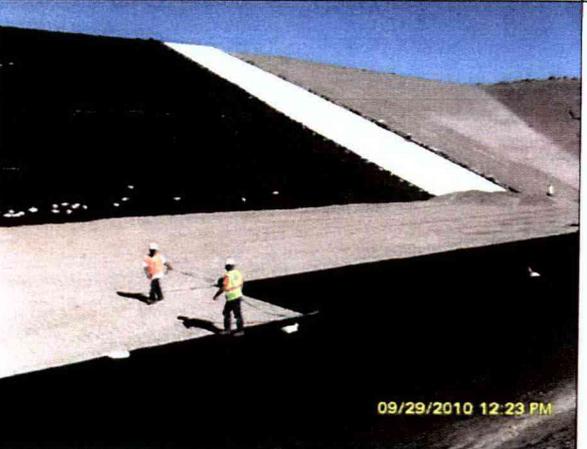
Facing E – ESI deploying secondary geocomposite on the south slope of Cell 10 at the Cell 9/10 tie-in.



Facing E – ESI welding the pipe boot and sock for the secondary leachate riser pipes in Cell 10.



Facing SE – ESI joining the butt seams of the primary geocomposite in Cell 9 with plastic zip ties.



Facing NE – ESI deploying 8 oz. geotextile on the floor of Cell 10.



Facing N – ESI welding the primary to secondary geomembrane weld to the east side of the Cell 10 rain flap.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

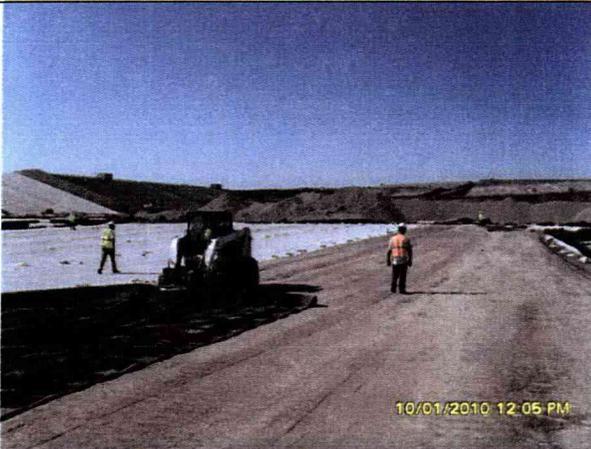
Geosynthetic Placement (Continued)



Facing S – ESI sewing the 8 oz. geotextile on the floor of Cell 9.



Facing SE – ESI deploying geotextile on the floor of Cell 9, while a crew joins the butt seams of the geomcomposite together with zip ties.



Facing W – ESI deploying secondary geomembrane in Cell 10.



Facing S – ESI deploying geomembrane in the center of Cell 10.



Facing W – ESI completing geomembrane deployment in the center of Cell 10.



Facing SW – ESI deploying and sewing the 8 oz. geotextile on the floor of Cell 9.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Drainage Gravel



Facing NE – WCH utilizing ground penetrating radar to survey the admix under the north east gravel haul road.

Facing SW – TWS grading the drainage gravel on the south half of the Cell 10 floor.

ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34
(9/27/10 TO 10/2/10)

Leachate Collection Pipe



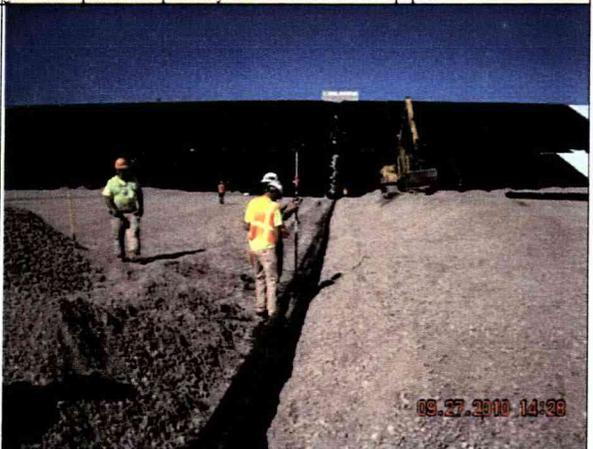
Facing S – ESI bringing the leachate collection pipe into Cell 10.



Facing NW – TWS utilizing hand shovels to remove the drainage gravel to place the primary leachate collection pipe.



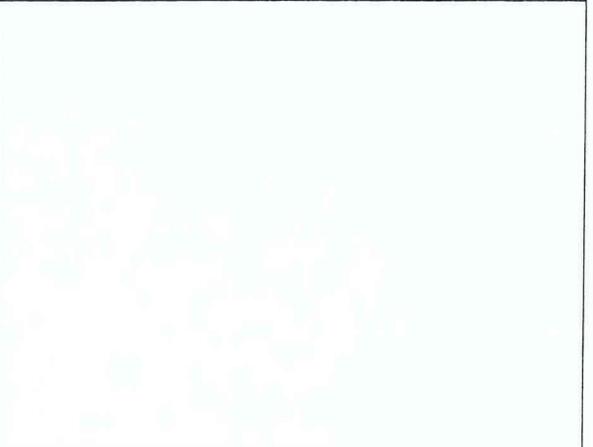
Facing S – ESI removing the drainage gravel from the south half of the Cell 10 floor for the placement of the leachate collection pipe.



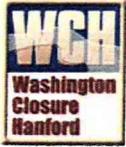
Facing N – CQA surveyors performing the as-built survey of the Cell 10 leachate collection pipe.



Facing S – ESI excavating the primary drainage gravel for the Cell 9 leachate collection pipe.



Facing SE – ESI placing primary geocomposite down the south embankment in preparation for the Cell 9 leachate clean out pipe.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Leachate Collection Pipe (Continued)



Facing S – TWS bringing the leachate collection pipe down the south slope of Cell 9.



Facing NE – TWS walking the Cell 10 leachate collection pipe across the Cell 9 floor.



Facing S – TWS constructing the 1-ft high berm over the leachate collection pipe in Cell 9. The clean out riser pipe rests on the south berm of Cell 9.



Facing N – The completed leachate collection pipe berm bisecting Cell 9.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Operations Placement



Facing SE – TWS building up the operations soil ramp, while a dozer grades the primary gravel in Cell 10.



Facing S – TWS constructing the operations soil ramp into Cell 10.



Facing SE – TWS utilizing hand equipment to place operations soil over the Cell 10 tie-in to anchor the leading edge of the geotextile.



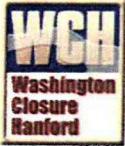
Facing SE – TWS placing operations soil into Cell 10.



Facing S – TWS constructing a 9-ft high operations soil haul road east to west across Cell 10.



Facing NE – TWS continuing to place a 9ft high operations soil haul road across Cell 10.



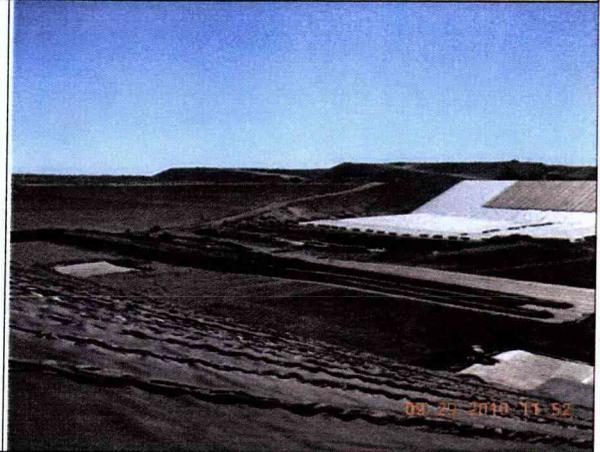
ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Operations Placement (Continued)



Facing SE – TWS placing a 9ft high operations soil haul road across Cell 10.



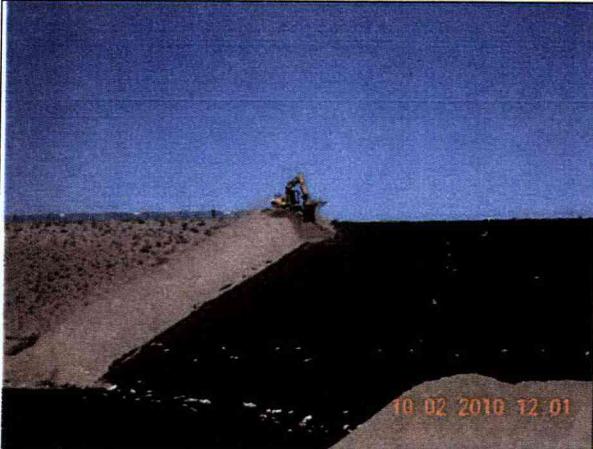
Facing SE – TWS spread operation soil 3-ft high across the geotextile in Cells 9 and 10 to anchor the geotextile.



Facing SW – TWS placing a 9ft high operations soil haul road into Cell 9.



Facing W – TWS placing and compacting backfill soil into the Cell 9 anchor trench.



Facing NW – TWS placing operations soil onto the Cell 9 slope with a CAT 312 excavator.



Facing NW – TWS placing operations soil onto the Cell 9 slope with a CAT 312 excavator.



ERDF CONSTRUCTION CELLS 9-10

CQA PHOTOGRAPH LOG WEEK 34 (9/27/10 TO 10/2/10)

Leachate Transmission System



Facing E – TWS lifting the MH-33 lid into place.



Facing E – TWS placing the lid onto MH-33.



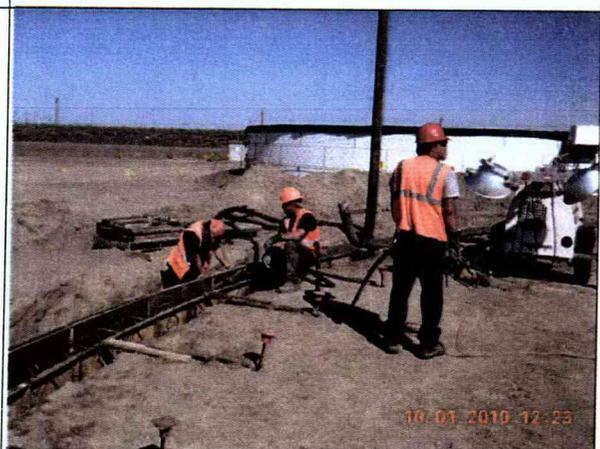
Facing – TWS and BMWC placing the lid over the rubber gasket and onto MH-33.



Facing W – TWS construction concrete forms around Tank #4.



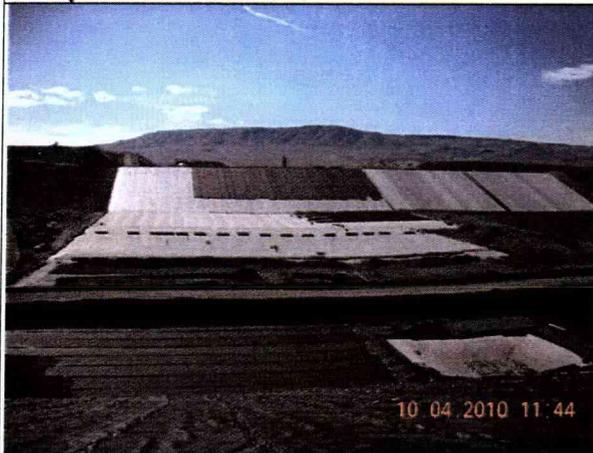
Facing N – BMWC placing the center connections for Tank 3, while installing the drain line manhole.



Facing NW – TWS placing concrete for the Tank 4 wingwall..

CQA PHOTOGRAPH LOG WEEK 35
(10/4/10 TO 10/9/10)

Geosynthetic Placement



Facing S – ESI deploying secondary geocomposite deployment on the south slope of Cell 10.



Facing S – ESI placing the 100-mill rub sheet in the Cell 9 sump.



Facing SW – ESI placing the 100-mill rub sheet in the Cell 9 sump.



Facing SE – ESI placing the primary geotextile in the Cell 9 sump.



Facing SE – ESI and TWS placing the HDPE flat stock in the Cell 9 sump.



Facing W – ESI deploying secondary geocomposite on the north side of the Cell 10 floor.