

**POST-CLOSURE INSPECTION FORM
MARJOL BATTERY SITE, THROOP, PENNSLYVANIA**

Date of Inspection: May 5, 2011 **Day of Inspection:** Thursday **Time Started:** 1030 **Time Completed:** 1300

Weather: Partly Cloudy 37 ° F

Attendees: Kevin O'Rourke, Lisa Ayers (Advanced GeoServices), Len Zelinka (PADEP), Nate Butler (SCE)

Inspection Checklist: Complete the checklist for all items. If deficiencies were observed during a previous inspection, note if conditions have changed or been repaired since the previous inspection. See O&M Plan for additional information regarding each item. Sketch areas of erosion, ponded water, lack of vegetative cover and other items requiring repair on a site plan and attach to this form. Bring a flashlight.

ITEM	Y / N	COMMENTS	MARK IF REPAIR NEEDED
<i>Containment Area Cap</i>			
Has proper vegetative cover been established? (at least 90 percent surface area coverage of live, growing species, with the largest individual surface area not meeting the 90 percent coverage requirement not to exceed 100 square feet)	No	Vegetation continues to improve.	X
Are trees, shrubs or deep rooted plants present on the cap?	No		
Is additional seeding, mulching or watering needed?	Yes	Inspection showed an improvement on the CA and surrounding areas. SCE is scheduled to begin additional seeding operations to expedite grass growth on the North Woods Front Slope, channels within the North Swale, areas above the existing stockpiles and the CA.	X

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ITEM	Y / N	COMMENTS	MARK IF REPAIR NEEDED
When was mowing last conducted?		October 2010; mowing not needed at time of inspection.	
Have significant changes in vegetative cover occurred (color, density, height, overall health)?	Yes	Significant improvement since last inspection in March 2011.	
Is the integrity and effectiveness of the Containment Area soil cover acceptable?	Yes		
Are significant erosion rills or soil cracking present?	No	Minor erosion rills present on southern and western slopes and will be addressed by SCE.	X
Is ponding present? If yes, note depth.	No	Slight puddling on benches less than one-half inch.	
Is settlement or subsidence visible?	No	Slight undulation on eastern portion of cap (high point areas).	
Are Containment Area slopes visually stable?	Yes		
Are cap drain outfall pipes free of blockage?	Yes	Minor sediment to be removed from outfall pipes near Check Dams CD-11 and CD-13; not blocked.	X
Are the geosynthetics visible?	No		
Is any waste material exposed?	No		

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Is there a visible change in the designed drainage pattern?	No		
Is damage from burrowing animals present?	No		
Are the silt socks in the CA functional?	Yes	Minor repairs noted on torn silt socks. A punch list dated March 13, 2011 is attached.	X
Is erosion occurring under the silt socks?	Yes	Minor erosion noted on southern slopes. To be repaired by SCE.	X
<i>Restored Excavation Areas</i>			
Has proper vegetative cover been established? (at least 90 percent surface area coverage of live, growing species, with the largest individual surface area not meeting the 90 percent coverage requirement not to exceed 100 square feet)	No	Slope north of parking area, areas northeast of Areas A and B, former haul roads in North Woods and areas in the North Swale.	X
Is additional seeding, mulching or watering needed?	Yes	See above	X
When was mowing last conducted?		October 2010; mowing requested on the eastern slope of the parking area.	

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Have changes in vegetative cover occurred?	Yes	Areas continue to fill with vegetation.	
Are significant erosion rills or soil cracking present (≥9")?	No		
Is ponding present? If yes, note depth.	No		
Is settlement or subsidence visible?	No		
Are slopes visually stable?	Yes		
Are erosion and sedimentation controls functioning properly? (silt socks, silt fence, RCE, etc.)	Yes		
<i>Access Roads</i>			
Are significant cracks, potholes, or erosion present?	No	Minor erosion noted; SCE to repair.	X
Is the roadway in adequate working order?	Yes		

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<i>Fencing</i>			
Is the fence rotted or deteriorated?	No		
Is the fence damaged or breached?	No		
Are all gates and locks operating?	Yes		
Are required signs present?	Yes	Private property signs placed around the Facility.	
Are there any signs of trespassing, including the North Woods Trails?	Yes	Possible ATV tracks noted on Franko Street Extension within the Site.	
<i>Stormwater System</i>			
What is the water level in the stormwater basin?		Approximately 5 feet.	
Are there indications of animal activity?	No		
Is adequate vegetation present?	Yes	Turf establishment on basin slopes and swales continue to improve.	

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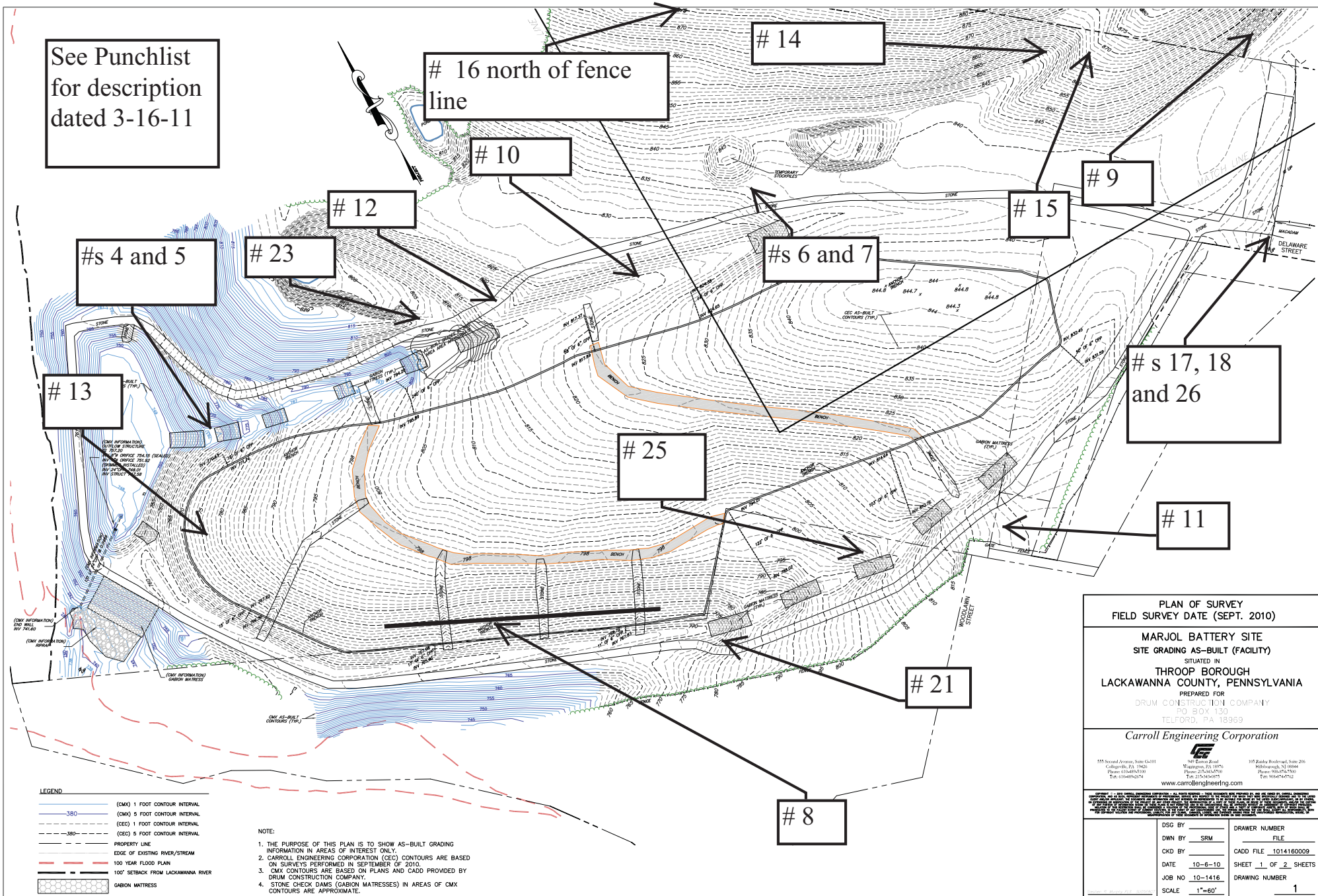
ITEM	Y / N	COMMENTS	MARK IF REPAIR NEEDED
Is erosion occurring in the basin or channels?	Yes	Erosion observed in North Swale, SCE to repair areas.	X
Are basin slopes visually stable?	Yes		
Has blockage or clogging occurred in channels, inlets or the discharge pipe?	No		
Are sediments present in channels, inlets or the basin? If yes, note depth.	Yes	Sediment remains in basin, but depth is not at cleanout elevation.	
Are rip rap channel linings / gabion mattresses in adequate working order?	Yes	A repair of gabion mattress lid is scheduled for CD-7 (North Swale).	
Are check dams in adequate working order?	Yes		
Is there water present in the North Woods Low Area? If yes, note depth.	No		
Is the North Woods Low Area drainage system functioning properly?	Yes		
Is vegetation established in the North Woods Low Area?	No	Vegetation improving.	

PUNCHLIST (03-16-11)
(See attached sketch for select locations)

1. Remove chain link and gate posts at Woodlawn Street and along Delaware Street.
2. Remove remaining concrete above the ground surface from fence post removal (check perimeter fence footprint).
3. Remove unused fence debris and temporary panels from the site (site-wide).
4. Place additional anchor pins in the permanent ECM placed between CD-6 and CD-7.
5. Remove and replace gabion mattress lid on CD-6 damaged during ECM installation upslope of CD-7.
6. Repair erosion rills and grade area south of stockpile area.
7. Install additional Curlex/jute mat ECM on non-stabilized areas proximate to the stockpiles.
8. Repair any ripped silt socks (wrap with geotextile) and repair rills below socks on the CA.
9. Repair the erosion on the North Woods front slope (along the berm and at the base of the slope).
10. Repair erosion issues along the side slopes of the North Swale and repair ECM (can be found intermittently throughout the channels of the swale).
11. Stabilize area at Woodlawn Street gate (seed and jute mat).
12. Repair erosion along the access road north of CD-2.
13. Repair the minor erosion rills on the western slope and the 4:1 slope of the CA.
14. Repair the erosion rills in the North Ravine.
15. Apply topsoil on haul road adjacent to North Ravine, seed and stabilize with ECM. (post basin conversion and perimeter fence removal).
16. Repair the erosion at the former haul road adjacent to the installed perimeter fence.
17. Install two 4" x 4" tie back posts for Delaware Street barrier gate (included in fence installation detail).

18. Establish drop pin holes for Delaware Street barrier gate (following basin conversion).
19. Remove High-Volume air monitors from site (located near Woodlawn St. gate).
20. Repair low spots on Access Road (review steeper areas on north and south sides of CA).
21. Remove eroded stone from south slope of CD-14.
22. Repair stakes on silt socks on CA.
23. Repair chain link fence at tie-in with split rail south of Area B.
24. Repair chain link fence post along northern perimeter (fence posts leaning).
25. Repair erosion and fill in hole north of CD-12.
26. Base of removed gate posts on Delaware Street. Grout post and finish area flush to surrounding asphalt.
27. Complete split rail fence installation (following basin conversion).

See Punchlist
for description
dated 3-16-11



LEGEND

	(CMX) 1 FOOT CONTOUR INTERVAL
	(CMX) 5 FOOT CONTOUR INTERVAL
	(CEC) 1 FOOT CONTOUR INTERVAL
	(CEC) 5 FOOT CONTOUR INTERVAL
	PROPERTY LINE
	EDGE OF EXISTING RIVER/STREAM
	100 YEAR FLOOD PLAN
	100' SETBACK FROM LACKAWANNA RIVER
	GABION MATRESS

NOTE:

1. THE PURPOSE OF THIS PLAN IS TO SHOW AS-BUILT GRADING INFORMATION IN AREAS OF INTEREST ONLY.
2. CARROLL ENGINEERING CORPORATION (CEC) CONTOURS ARE BASED ON SURVEYS PERFORMED IN SEPTEMBER OF 2010.
3. CMX CONTOURS ARE BASED ON PLANS AND CADD PROVIDED BY DRUM CONSTRUCTION COMPANY.
4. STONE CHECK DAMS (GABION MATRESSES) IN AREAS OF CMX CONTOURS ARE APPROXIMATE.

PLAN OF SURVEY
FIELD SURVEY DATE (SEPT. 2010)

MARJOL BATTERY SITE
SITE GRADING AS-BUILT (FACILITY)

SITUATED IN
THROOP BOROUGH
LACKAWANNA COUNTY, PENNSYLVANIA

PREPARED FOR
DRUM CONSTRUCTION COMPANY
PO BOX 130
TELFORD, PA 18969

Carroll Engineering Corporation

555 Second Avenue, Suite C-101 Cottsburgh, PA 15822 Phone: 814.468.1100 Fax: 814.468.6274		101 E. Erie Road Ebensburg, PA 16715 Phone: 717.442.2700 Fax: 717.442.2701 www.carrollengineering.com
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DSG BY	FILE	DRAWER NUMBER
DWN BY	SRM	FILE
CKD BY		CADD FILE 1014160009
DATE	10-6-10	SHEET 1 OF 2 SHEETS
JOB NO	10-1416	DRAWING NUMBER
SCALE	1"=60'	1