

memorandum

Environmental Protection Division Water Quality & RCRA Group (ENV-RCRA) *To/MS:* Memo to file *From/MS:* Anthony Grieggs, ENV-RCRA, K490 *Phone/Fax:* 5-0451/7-5224 *Symbol:* N/A *Date:* January 30, 2012

SW 19478

ERID-210062

NPDES PERMIT NO. NM0030759: CERTIFICATION OF THE 2011 ANNUAL EROSION EVALUATION INSPECTIONS FOR THE STORM WATER INDIVIDUAL PERMIT

As per Section G.3 of the Individual Permit for storm water discharges from Sites located at Los Alamos National Laboratory, a signature of the delegated official of the Permittees shall be included on all inspection reports.

The attached table summarizes the results of two hundred fifty (250) Annual Erosion Evaluation Inspections conducted during the period Jan. 1, – December 31, 2011 and serves as the "Annual Erosion Evaluation Inspection Report". Each SMA/Site inspection was conducted by a trained and qualified inspector and individual inspection forms are maintained as official institutional records for NPDES Permit No. NM0030759.

CERTIFICATION STATEMENT OF AUTHORIZATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Megas

Anthony R. Grieggs, Group Leader Water Quality & RCRA Group Environment, Safety, & Health Directorate Los Alamos National Laboratory

Cy:

ENV RCRA File, M704 (w/att.) Suzanne Coyne, IRM-DCS, M997 Terrill Lemke, ENV RCRA, K490 Sam Loftin, ENV RCRA, K490 DeAnn Meadows, IRM-DCS, K490 Steve Veenis, PMFS DO, M997 Jeff Walterscheid, ENV RCRA, M997

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January 1 – December 31, 2011

Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date				
	Los Alamos / Pueblo Watershed									
R001	R-SMA-0.5	SL	31-Aug-11	Recommend replacement of log berms -0004 & - 0005 with wattles. Heavy equipment has been driven across the site to access the main drainage to remove / reduce large woody debris from the channel.	Installed straw wattle immediately above log berm -0004. Log berm was retired. Installed straw wattle immediately above log berm -0005. Log berm was retired. Installed 3 straw wattles across new road. Installed seed and wood mulch in bare areas between wattle installations.	15-Sep-11 15-Sep-11 26-Sep-11				
R002	R-SMA-1	SL	31-Aug-11	New erosion observed: water from roundabout flows past drop inlet and off road and into R-SMA-1 drainage, causing considerable erosion to fill slope. Backup control measures are in place. May need to install gravel bags above drop inlets to help capture storm water. LANL will follow-up with LA County representative because the erosion is on county property.						
R003	R-SMA-1.95	SL	31-Aug-11	Culvert -0002 is not effective; recommend retiring. Earthen channel/swale -0003 is performing erosion control / run-on control functions.						
R004	R-SMA-2.05	SL	31-Aug-11	No deficiency found.						
R005	R-SMA-2.3	SL	31-Aug-11	No deficiency found.						
R006	R-SMA-2.5	SL	31-Aug-11	No deficiency found.						

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
B001	B-SMA-0.5	SL	30-Aug-11	Maintenance recommended: clean out channel at earthen channel/swale -0005. Alteration of pathway observed: main channel above -0009 has been bulldozed. New erosion observed within the SMA; but no new erosion observed at 10-004(b), -004(a), -001(a), -001(b), -001(d), 10-008, or 10-009. There is a newly introduced roll-off bin located just outside (northeast) of 10-009.	Cleaned sediment out of channel/swale - 0005.	15-Sep-11
B002	B-SMA-1	SL	30-Aug-11	No deficiency found.		_
P001	ACID-SMA-1.05	SL	06-Sep-11	No deficiency found.		
P002	ACID-SMA-2	SL	06-Sep-11	Maintenance recommended. Clean out rock check dams -0002 & -0013. Rock check dams are above Site; shovel sediment to the side/ above channel. Trash in drainages observed.	Removed trash and floatable debris from channel. Cleaned out sediment behind rock check dam -0002. Cleaned out sediment behind rock check dam -0013.	12-Oct-11
P002A	ACID-SMA-2.01	SL	06-Sep-11	Reminded field crews not to walk through the SMA to access sampler.		
P003	ACID-SMA-2.1	SL	06-Sep-11	There is floatable trash in some of the upper drainages.	Removed trash and floatable debris from channel	12-Oct-11
P004	P-SMA-0.3	SL	19-Oct-11	Recommend retiring water bar -0005.		
P005	P-SMA-1	SL	20-Oct-11	Retire concrete/asphalt channel/swale -0011. Asphalt berm -0010 does not exist - retire.		
P006	P-SMA-2	SL	20-Oct-11	No deficiency found.		
P007	P-SMA-2.15	SL	19-Oct-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
P008	P-SMA-2.2	SL	20-Oct-11	Modification recommended. Water is running under S-fence -0014.	Re-trenched and reset S-fence -0014 as needed to prevent undercutting.	09-Nov-11
P009	P-SMA-3.05	SL	19-Oct-11	No deficiency found.		
L001	LA-SMA-0.85	SW	29-Sep-11	Erosion downstream of sites 20' across and 15'+ deep starting to headcut under north-most gabion L00107010005. Trash in drainage.	No immediate follow-up required. Erosion to be addressed by engineered control. Recommend re-evaluation of gabion -0005 prior to next rainy season.	
L002	LA-SMA-0.9	SW	04-Oct-11	Augmented control measure installation completed on 10/3/2011. Five (5) berms with matting; rock spillways on the bottom three. Wattles at stream channel. Stabilized with erosion control blanket.		
L003	LA-SMA-1	SW	29-Sep-11	Modification recommended: need to extend wattles towards pylon to control erosion. Maintenance recommended: channel/swale -0005 has some holes that need repair. Erosion through site. Erosion of slope observed below top controls. Seed and wood mulch -0009 is partially eroded. Culvert angle on site map is wrong.	No immediate follow-up required. Channel/swale -0005 is still operational. Backup runoff and sediment controls have been installed at base of slope. Recommend re-evaluation of controls prior to next rainy season.	
L004	LA-SMA-1.1	SW	29-Sep-11	Permanent vegetation - vegetative buffer strip - 0006 is now riprap - retire. Wetland vegetation is now a rock lined channel. Area disturbed by Diamond Drive construction project (LA County). Area adjacent to swale will need seeding.		
L005	LA-SMA-1.25	SW	05-Oct-11	No deficiency found.		
L006	LA-SMA-2.1	SW	13-Oct-11	No deficiency found.		-
L007	LA-SMA-2.3	SW	13-Oct-11	No deficiency found.		
L008	LA-SMA-3.1	SW	05-Oct-11	No deficiency found.		
L009	LA-SMA-3.9	SW	05-Oct-11	No deficiency found.		
L010	LA-SMA-4.1	SW	05-Oct-11	No deficiency found.		

SL = S.R. Loftin, PhD, Certified Inspector of Sediment and Erosion Control

SW = S. Winsemius, State of New Mexico Professional Engineer, Certified Inspector of Sediment and Erosion Control, Certified Professional in Erosion and Sediment Control

Summary of Annual Erosion Evaluation Inspections

NPDES Permit No. NM0030759

January 1 – December 31, 2011

Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
L011	LA-SMA-4.2	SW	05-Oct-11	No deficiency found.		
L012	LA-SMA-5.01	SW	05-Oct-11	No deficiency found.		
L012A	LA-SMA-5.02	SW	05-Oct-11	No deficiency found.		
L013	LA-SMA-5.2	SW	30-Sep-11	No deficiency found.		
L014	LA-SMA-5.35	SW	30-Sep-11	No deficiency found.		
L015	LA-SMA-5.31	SW	30-Sep-11	Seed and wood mulch -0003 can be retired - good growth.		
L016	LA-SMA-5.33	SW	04-Oct-11	No deficiency found.		
L017	LA-SMA-5.361	SW	05-Oct-11	No deficiency found.		
L017A	LA-SMA-5.362	SW	05-Oct-11	No deficiency found.		
L018	LA-SMA-5.51	SW	30-Sep-11	No deficiency found.		
L018A	LA-SMA-5.52	SW	30-Sep-11	No deficiency found.		
L018B	LA-SMA-5.53	SW	30-Sep-11	No deficiency found.		
L018C	LA-SMA-5.54	SW	30-Sep-11	Repair recommended: earthen berm -0002 has some erosion. Erosion of downstream side of berm is observed.	No immediate follow-up required. Earthen berm -0002 is still operational. Backup runoff and sediment controls installed below Site. Recommend re-evaluation of controls prior to next rainy season.	
L019	LA-SMA-5.91	SW	13-Oct-11	Will need to evaluate site following completion of MDA V remediation activities for inclusion of permanent control measures.		
L019A	LA-SMA-5.92	SW	13-Oct-11	No deficiency found.		
L020	LA-SMA-6.25	SW	29-Sep-11	No deficiency found.		
L021	LA-SMA-6.27	SW	29-Sep-11	No deficiency found.		
L022	LA-SMA-6.3	SW	29-Sep-11	No deficiency found.		
L022A	LA-SMA-6.31	SW	29-Sep-11	No deficiency found.		

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L023	LA-SMA-6.32	SW	29-Sep-11	No deficiency found.		•
L024	LA-SMA-6.34	SW	29-Sep-11	No deficiency found.		
L025	LA-SMA-6.36	SW	29-Sep-11	No deficiency found.		
L026	LA-SMA-6.38	SW	29-Sep-11	No deficiency found.		
L027	LA-SMA-6.395	SW	29-Sep-11	Seed and wood mulch -0006 can be retired - good growth.		
L028	LA-SMA-6.5	SW	29-Sep-11	No deficiency found.		
L029	LA-SMA-9	SW	29-Sep-11	No deficiency found.		
L030	LA-SMA-10.11	SW	29-Sep-11	No deficiency found.		
L030A	LA-SMA-10.12	SW	29-Sep-11	No deficiency found.		
D001	DP-SMA-0.3	SW	29-Sep-11	No deficiency found.		
D002	DP-SMA-0.4	SW	29-Sep-11	No deficiency found.		
D003	DP-SMA-0.6	SW	13-Oct-11	No deficiency found.		
D004	DP-SMA-1	SW	29-Sep-11	Concrete/asphalt channel/swale -0005 is not on the site map - change of control measures. Retire from control measure list.		
D005	DP-SMA-2	SW	29-Sep-11	No deficiency found.		
D006	DP-SMA-2.35	SW	29-Sep-11	No deficiency found.		
D007	DP-SMA-3	SW	29-Sep-11	No deficiency found.		
D008	DP-SMA-4	SW	29-Sep-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
			-	Sandia Watershed		
S001	S-SMA-0.25	SW	14-Oct-11	Recommend re-evaluations of the SMA drainage boundaries around Buildings 03-0038, 03-1400, and 03-0043 areas.		
S002	S-SMA-1.1	sw	14-Oct-11	Riprap -0006 is full of sediment, causing change of flow path. Repair required: Gabion blanket -0005 flow path is buried in sand. Recommend removal of accumulated sediments. Control measures full of sediment are causing changes to runoff paths that are causing erosion. There is floatable waste (trash, cardboard, cans) within the SMA. Various piles and pieces of metal throughout the area that could contribute to TAL exceedances. Unmanaged erosion occurring throughout the majority of the SMA drainage. Unmanaged erosion off the road is causing undercutting of the road. Random metal scrap throughout site needs to be disposed of or recycled. Plastic lining the open trench running from the SMO fence corner towards edge of mesa is torn.	No immediate follow-up required. Backup run-on and runoff controls are in place. Recommend re-evaluation of controls prior to next rainy season. SMA is high priority and engineered control measures are in planning stage.	
S003	S-SMA-2	SW	19-Oct-11	Erosion is occurring under gabion blanket -0006 within 03-056(c).	No immediate follow-up required. This gabion blanket cannot be repaired due to position on slope. Recommend retiring control; rip-rap -0005 serves same function. SMA is high priority and is being evaluated for engineered control measures.	
S003A	S-SMA-2.01	SL	12-Sep-11	Utilities division plans to remove the lawn and replace with 'natural' low maintenance landscaping.		

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S004	S-SMA-2.8	SW	19-Oct-11	Repair recommended. Base course berm -0004 has been run over. Add material and compact.	No immediate follow-up required. Base course berm is still functional and back-up runoff and sediment controls are in place. Recommend re-evaluation of controls prior to next rainy season.	
S005	S-SMA-3.51	SW	19-Oct-11	No deficiency found.		
S005A	S-SMA-3.52	SW	19-Oct-11	No deficiency found.	,	
S005B	S-SMA-3.53	SW	14-Oct-11	No deficiency found.		
S006	S-SMA-3.6	sw	22-Sep-11	Erosion within the SMA has deposited sediment behind check dams located within the site; starting to cause bypassing of the check dams. Recommend removal of material from check dams. Erosion observed on slope of heavy equipment yard.	No immediate follow-up required. SMA is located at a facility that is also managed under the LANL MSGP. Repairs are being conducted through the MSGP program.	
S007	S-SMA-3.7	SW	13-Oct-11	No deficiency found.		
S008	S-SMA-3.71	SW	13-Oct-11	No deficiency found.		
S009	S-SMA-3.72	SW	13-Oct-11	No deficiency found.		
S010	S-SMA-3.95	SW	13-Oct-11	No deficiency found.		
S011	S-SMA-4.1	SW	13-Oct-11	No deficiency found.		
S012	S-SMA-4.5	SW	13-Oct-11	No deficiency found.		
S013	S-SMA-5	SW	13-Oct-11	No deficiency found.		
S014	S-SMA-5.2	SW	13-Oct-11	No deficiency found.		
S015	S-SMA-5.5	SW	13-Oct-11	No deficiency found.		
S016	S-SMA-6	SW	13-Oct-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
				Mortandad/Cañada del Buey Watershee	ł	
C001	CDB-SMA-0.15	SL	13-Oct-11	No deficiency found.		
C002	CDB-SMA-0.25	SL	13-Oct-11	Maintenance recommended. Clean up trash and floatable debris in vicinity of riprap -0009.	Removed trash and floatable debris from area.	31-Oct-11
C003	CDB-SMA-0.55	SL	13-Oct-11	No deficiency found.	8	
C004	CDB-SMA-1	SL	13-Oct-11	No deficiency found.		
C005	CDB-SMA-1.15	SL	13-Oct-11	No deficiency found.		
C006	CDB-SMA-1.35	SL	13-Oct-11	No deficiency found.		
C007	CDB-SMA-1.54	SL	13-Oct-11	No deficiency found.		
C008	CDB-SMA-1.55	SL	13-Oct-11	No deficiency found.		
C009	CDB-SMA-1.65	SL	13-Oct-11	No deficiency found.		
C010	CDB-SMA-4	SW	02-Sep-11	No deficiency found.		
M001	M-SMA-1	SL	17-Oct-11	No deficiency found.		
M002	M-SMA-1.2	SL	12-Sep-11	Modification recommended: Rip rap -0008 is filling the channel forcing the water to flow out of the channel.	Extended and modified rip rap -0008 by creating 4' x 4' rip rap lined basin below outfall.	22-Sep-11
M002A	M-SMA-1.21	SL	12-Sep-11	Modification recommended. Water is flowing around rock check dam -0004.	Modified rock check dam by extending both ends.	22-Sep-11
M002B	M-SMA-1.22	SL	12-Sep-11	Modification recommended. Water is flowing around rock check dam -0003.	Modified rock check dam -0003 by extending east end.	22-Sep-11
M003	M-SMA-3	SL	17-Oct-11	No deficiency found.		
M004	M-SMA-3.1	SL	17-Oct-11	No deficiency found.		
M005	M-SMA-3.5	SL	17-Oct-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
M006	M-SMA-4	SL	17-Oct-11	Repair/replacement recommended. Rock check dam -0010 is damaged. Rock check dam -0011 is gone; retire. Map correction required for rip rap - 0012.	Repaired rock check dam -0010.	03-Nov-11
M007	M-SMA-5	SL	17-Oct-11	No deficiency found.		
M008	M-SMA-6	SL	17-Oct-11	No deficiency found.		
M009	M-SMA-7	SL	17-Oct-11	No deficiency found.		
M010	M-SMA-7.9	SL	17-Oct-11	Recommend re-evaluating sampler location prior to 2012 rainy season – possibly relocate sampler to outfall.		
M011	M-SMA-9.1	SL	17-Oct-11	Recommend sampler installation modification; bottle intake is perpendicular to the direction of flow.		
M012	M-SMA-10	SL	17-Oct-11	Repair recommended. Tree has fallen across rock check dam -0010; tree needs to be removed.	Removed fallen tree in front of sampler; repaired rock check dam -0010.	03-Nov-11
M012A	M-SMA-10.01	SL	17-Oct-11	Recommend retiring seed & wood mulch -0002; add permanent vegetation / grass & shrubs (erosion control).		
M013	M-SMA-10.3	SL	17-Oct-11	No deficiency found.		
M014	M-SMA-11.1	SL	17-Oct-11	No deficiency found.		
M015	M-SMA-12	SL	17-Oct-11	No deficiency found.		
M016	M-SMA-12.5	SW	20-Oct-11	Map correction requested. Switch location of earthen berm -0010 with straw wattles -0002.		
M017	M-SMA-12.6	SW	20-Oct-11	No deficiency found.		
M018	M-SMA-12.7	SW	20-Oct-11	No deficiency found.		
M019	M-SMA-12.8	SW	20-Oct-11	No deficiency found.		

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Summary of Annual Erosion Evaluation Inspections

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M020	M-SMA-12.9	SW	20-Oct-11	No deficiency found.		5
M021	M-SMA-12.92	SL	19-Oct-11	No deficiency found.		
M022	M-SMA-13	SL	19-Oct-11	Modification recommended: extend both ends of rock check dam -0010.	No immediate follow-up required. Backup run-on and runoff controls are present; recommend re-evaluation of controls prior to next rainy season.	
T001	Pratt-SMA-1.05	SL	19-Oct-11	No deficiency found.		
T002	T-SMA-1	SW	21-Sep-11	Replacement recommended: straw wattles -0003 are full of sediment. Erosion is observed where channel crosses fence.	No immediate follow-up required. Backup run-on and runoff controls are present. Recommend re-evaluation of controls prior to next rainy season.	
T003	T-SMA-2.5	SL	17-Oct-11	No deficiency found.		
T004	T-SMA-2.85	SL	17-Oct-11	No deficiency found.		
T005	T-SMA-3	SL	17-Oct-11	Log check dams -0007 & -0008 are filling in.		
T006	T-SMA-4	SL	17-Oct-11	No deficiency found.		
T007	T-SMA-5	SL	17-Oct-11	No deficiency found.		•
T008	T-SMA-6.8	SL	17-Oct-11	No deficiency found.		
T009	T-SMA-7	SL	17-Oct-11	No deficiency found.		
T010	T-SMA-7.1	SL	17-Oct-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date				
	Pajarito Watershed									
E001	2M-SMA-1	SL	19-Sep-11	No deficiency found.						
E002	2M-SMA-1.42	SL	05-Oct-11	No deficiency found.						
E003	2M-SMA-1.43	SL	06-Oct-11	No deficiency found.						
E004	2M-SMA-1.44	SL	05-Oct-11	No deficiency found.						
E005	2M-SMA-1.45	SL	05-Oct-11	No deficiency found.						
E006	2M-SMA-1.5	SL	06-Oct-11	No deficiency found.						
E007	2M-SMA-1.65	SL	11-Oct-11	No deficiency found.						
E008	2M-SMA-1.67	SL	05-Oct-11	No deficiency found.						
E009	2M-SMA-1.7	SL	19-Sep-11	No deficiency found.						
E010	2M-SMA-1.8	SL	19-Sep-11	No deficiency found.						
E011	2M-SMA-1.9	SL	19-Sep-11	No deficiency found.						
E012	2M-SMA-2	SL	19-Sep-11	No deficiency found.						
E013	2M-SMA-2.2	SL	19-Sep-11	No deficiency found.						
E014	2M-SMA-3	SL	11-Oct-11	No deficiency found.						
E015	2M-SMA-2.5	SL	11-Oct-11	No deficiency found.		Α				
H001	3M-SMA-0.2	SL	05-Oct-11	No deficiency found.						
H002	3M-SMA-0.4	SL	06-Oct-11	No deficiency found.						
H003	3M-SMA-0.5	SL	12-Oct-11	No deficiency found.						
H004	3M-SMA-0.6	SL	12-Oct-11	No deficiency found.						
H005	3M-SMA-2.6	SL	12-Oct-11	No deficiency found.						
H006	3M-SMA-4	SL	12-Oct-11	No deficiency found.						

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J001	PJ-SMA-1.05	SL	06-Oct-11	Modification recommended: Water is flowing around the eastern end of water bar -0009.	No follow-up required. Backup run-on and runoff controls are present; recommend re-evaluation of controls prior to next rainy season.	
J002	PJ-SMA-2	SW	06-Sep-11	No deficiency found.		
J003	PJ-SMA-3.05	SW	06-Sep-11	No deficiency found.		
J004	PJ-SMA-4.05	SW	06-Sep-11	No deficiency found.		•
J005	PJ-SMA-5	SL	06-Oct-11	Modification recommended: water is flowing around the southern end of rock check dams - 0011 and -0012.	Extended the south end of rock check dam -0011 to the northwest as marked on attached map. Extended the south end of rock check dam -0012 to the northwest as marked on attached map.	13-Oct-11
J006	PJ-SMA-5.1	SL	06-Oct-11	No deficiency found.		-
J007	PJ-SMA-6	SL	11-Oct-11	Modification recommended: Extend Juniper Bales -0008 approximately 10 ft east using rock.	Added angular rock to extend east side of juniper bale -0008	02-Nov-11
J008	PJ-SMA-7	SL	11-Oct-11	No deficiency found.		
J009	PJ-SMA-8	SL	11-Oct-11	No deficiency found.		
J010	PJ-SMA-9	SL	11-Oct-11	No deficiency found.		
J012	PJ-SMA-10	SL	11-Oct-11	No deficiency found.		
J013	PJ-SMA-11	SL	11-Oct-11	No deficiency found.		
J014	PJ-SMA-11.1	SL	11-Oct-11	No deficiency found.		
J015	PJ-SMA-13	SL	12-Oct-11	No deficiency found.		
J016	PJ-SMA-13.7	SL	12-Oct-11	No deficiency found.		
J017	PJ-SMA-14	SW	21-Sep-11	No deficiency found.		
J018	PJ-SMA-14.2	SL	12-Oct-11	No deficiency found.		

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LA-UR-12-10201

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J019	PJ-SMA-14.3	SL	12-Oct-11	No deficiency found.		
J020	PJ-SMA-14.4	SL	12-Oct-11	No deficiency found.		5
J021	PJ-SMA-14.6	SL	12-Oct-11	No deficiency found.		
J022	PJ-SMA-14.8	SL	12-Oct-11	No deficiency found.		
J023	PJ-SMA-16	SL	12-Oct-11	No deficiency found.		
J024	PJ-SMA-17	SW	20-Sep-11	No deficiency found.		
J025	PJ-SMA-19	SW	20-Sep-11	Additional control measures shown on map should be considered for addition to site; controlling runoff within the site. Angled road has changed drainage pattern at site.		
J026	PJ-SMA-18	SW	20-Sep-11	New culvert to be installed by facility. Facility has completed work that changed flow patterns of site. Water bar -0008 covered by road regrading; bar ditch installed when road angled.	Retired water bar -0008. Added pre- existing earthen channel/swale.	16-Nov-11
J027	PJ-SMA-20	SW	20-Sep-11	Trench drain feeds culvert by 54-0324; recommend adding to site map.		
J028	STRM-SMA-1.05	SL	06-Oct-11	No deficiency found.		
J029	STRM-SMA-1.5	SL	06-Oct-11	No deficiency found.		
J030	STRM-SMA-4.2	SL	06-Oct-11	No deficiency found.		
J031	STRM-SMA-5.05	SL	06-Oct-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
Water/Cañon de Valle Watershed						
V001	CDV-SMA-1.2	SL	21-Sep-11	No deficiency found.		
V002	CDV-SMA-1.3	SL	21-Sep-11	No deficiency found.		
V003	CDV-SMA-1.4	SL	21-Sep-11	No deficiency found.		
V004	CDV-SMA-1.45	SL	21-Sep-11	No deficiency found.		-
V005	CDV-SMA-1.7	SL	04-Oct-11	No deficiency found.	4	
V006	CDV-SMA-2	SL	04-Oct-11	No deficiency found.		
V007	CDV-SMA-2.3	SL	22-Sep-11	Recommend installation of two (2) rock check dams as marked with pin flagging in field. Retire wattle -0008.	Installed 2 rock check dams.	14-Oct-11
V008	CDV-SMA-2.41	SW	19-Sep-11	Deep hole in slope ~1-2' adjacent to V00804060009. Water is leaving site just (1-2') west of V00803060002 - Need to extend to the west. Recommend adding rock berm and riprap rundown to site map as run-on and erosion and sediment controls. Lack of water at sampler may be due to location where water is leaving site west of V00803060002.	Filled hole in slope adjacent to rip rap - 0009. Extended rip rap across fill to complete. Extended straw wattles -0002 to the west.	14-Oct-11
V008A	CDV-SMA-2.42	SW	19-Sep-11	Water appears to be bypassing around the southwest end of V008A06010004; control measure needs to be extended to the southwest. Need erosion prevention downslope of the spillway from V008A06010004 where water is running around a retired check dam. A new rock check dam was installed upslope of V008A03060014 - erosion in area needs to be addressed. Extend V008A04060005 to the east to capture run-on from the fire road-area is eroding.	Extended rip rap -0005 to the north to capture runoff from fire road. Extended rock check dam -0004 to the south. Installed rip rap below rock check dam - 0017. Installed rip rap on north side of fire road across from rock check dam 0001.	14-Oct-11

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
V009	CDV-SMA-2.5	SW	19-Sep-11	New control measures have been installed at the site by the facility following the significant event that are not yet on the site map (completed 9-17-2011): two sets of straw wattles and four rock check dams near 06-010(c). Recommend additional control measures to address erosion within 16-010(d). Area northwest of V00904060009 needs seeding. Area west of 16-010(c) has destabilized with the slope eroding - recommend additional control measures in area.	Installed rock check dam inside. Installed rock check south of 16-010(d). Installed seed and wood mulch in bare area north of rip rap -0009.	20-Oct-11
V009A	CDV-SMA-2.51	SW	19-Sep-11	Modification recommended: V009A06010004 and V009A06010003 need to be increased in size.	Added additional rock to rock check dam - 0004. Added additional rock to rock check dam -	17-Oct-11 20-Oct-11
Noto		011/			0003.	
V010	CDV-SMA-3	SW	06-Sep-11	No deficiency found.		
V011	CDV-SMA-4	SW	06-Sep-11	No deficiency found.		
V012	CDV-SMA-6.01	SW	06-Sep-11	Recommend extending rundowns for earthen berm -0006 due to erosion at base of spillways. Recommend retiring erosion control blanket -0007 – near end of life. Erosion noted on site map. Erosion observed from edge of asphalt south of building 14-0023 in area between sites; additional control measure recommended to address issue. Site 14-006 - no deficiency found.	No immediate follow-up required. Backup run-on and runoff controls are present. Recommend re-evaluation of controls prior to next rainy season.	
V012A	CDV-SMA-6.02	SW	06-Sep-11	Some rills forming on the blast berm slopes that need seeding - inadequate vegetation. Seeding upslope of earth berm on flat part of site is growing well.	Installed earth berm with spillway. Installed seed and wood mulch in bare areas.	22-Nov-11
V013	CDV-SMA-7	SL	04-Oct-11	No deficiency found.		-
V014	CDV-SMA-8	SL	04-Oct-11	No deficiency found.		

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Summary of Annual Erosion Evaluation Inspections

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
V015	CDV-SMA-8.5	SW	06-Sep-11	Installation of berms changed drainage area to the site. Recommend reevaluation of SMA boundary.		
V016	CDV-SMA-9.05	SL	06-Oct-11	No deficiency found.	•	
				Maintenance recommended: extend rundown to the southeast at rock rundown and by waterbar	Built up and extended rock check dam - 0004.	07-Sep-11
				near F00104040003. Recommend additional sediment control at site. Note: Facility had proposed installation of a retention pond at the site	Built up and extended rock check dam - 0005.	07-Sep-11
F001	F-SMA-2	SW	01-Sep-11	(area shown on map would be a good location).	Built up and extended rock check dam - 0007.	07-Sep-11
					Six (6) earth berms installed as augmented controls; rock berm -0008 replaced by new earth berm.	02-Dec-11
1001	PT-SMA-0.5	SL	12-Oct-11	No deficiency found.		
1002	PT-SMA-1	SL	12-Oct-11	No deficiency found.		
1000	PT-SMA-1.7	SL	14-Oct-11	There is a gap in straw wattle -0003; recommend replacement with new wattle.	Replaced wattle -0003 with new wattle just above -0003. Retired -0003.	22-Sep-11
1003	PT-SMA-1.7	SL	14-Oct-11		Replaced wattle -0005 with new wattle just above -0005. Retired wattle -0005.	22-Sep-11
1004	PT-SMA-2	SL	12-Oct-11	No deficiency found.		
1004A	PT-SMA-2.01	SL	12-Oct-11	No deficiency found.		
1005	PT-SMA-3	SL	12-Oct-11	No deficiency found.		
1007	PT-SMA-4.2	SL	12-Oct-11	No deficiency found.		
W001	W-SMA-1	SL	22-Sep-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
W002	W-SMA-1.5	SL	22-Sep-11	Modification recommended: Extend the west end of rock check dams -0010 and -0011 as shown on	Extended the west side of rock check dam -0010 to the north.	20-Oct-11
	W-0MA-1.0	UL UL	22-000-11	site map. Modify the site map as shown to correct the locations of rock check dams -0008 and -0009.	Extended the west side of rock check dam -0011 to the north.	20-Oct-11
				Modification recommended: water is flowing around rock check dam -0004 - extend ends.	Extended both ends of rock check dam - 0004.	13-Oct-11
W003	W-SMA-2.05	SL	22-Sep-11	Evidence of flow from the SWMU drainage that has flowed around the sampler. New channel formed - see map markup. Additional controls are recommended to reduce flow and re-direct runoff to the sampler. Recommend installation of rock berm to redirect surface water.	Installed rock berm as marked on map to re-direct water into channel.	13-Oct-11
W004	W-SMA-3.5	SL	22-Sep-11	No deficiency found.		
W005	W-SMA-4.1	SL	22-Sep-11	No deficiency found.		
W006	W-SMA-5	SL	06-Oct-11	Modification recommended: water going around both ends of rock check dam -0012. Recommend addition of two existing rock check dams to site map & control measure list - no deficiency found.	Extended both ends of rock check dam - 0012.	13-Oct-11
W007	W-SMA-6	SL	22-Sep-11	No deficiency found.		
W008	W-SMA-7	SL	22-Sep-11	No deficiency found.		
W009	W-SMA-7.8	SL	22-Sep-11	No deficiency found.		
W010	W-SMA-7.9	SL	22-Sep-11	No deficiency found.		
W011	W-SMA-8	SL	22-Sep-11	Recommend re-routing the discharge from the culvert before next rainy season.		
W012	W-SMA-8.7	SL	22-Sep-11	No deficiency found.		
W012A	W-SMA-8.71	SL	22-Sep-11	No deficiency found.		
W013	W-SMA-9.05	SL	22-Sep-11	No deficiency found.		
W014	W-SMA-9.5	SL	06-Oct-11	No deficiency found.		

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Summary of Annual Erosion Evaluation Inspections

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
W015	W-SMA-9.7	SL	06-Oct-11	No deficiency found.	Straw wattle -0003 staked down during inspection.	06-Oct-11
W016	W-SMA-9.8	SL	06-Oct-11	No deficiency found.		
W017	W-SMA-9.9	SL	06-Oct-11	No deficiency found.		
W018	W-SMA-10	SL	06-Oct-11	No deficiency found.		
W019	W-SMA-11.7	SL	05-Oct-11	Recommend retiring damaged straw wattle -0028.		-
W020	W-SMA-12.05	SL	05-Oct-11	No deficiency found.		
W021	W-SMA-14.1	SW	06-Sep-11	No deficiency found.		
W022	W-SMA-15.1	SL	04-Oct-11	No deficiency found.		

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date			
	Ancho Watershed								
A001	A-SMA-1.1	SL	01-Sep-11	No deficiency found.					
A002	A-SMA-2	SL	01-Sep-11	Repair recommended. Earthen berm -0008 has been breached by facility and needs to be repaired.	Repaired breach and extended berm north.	15-Sep-11			
A003	A-SMA-2.5	SL	01-Sep-11	No deficiency found.					
A004	A-SMA-2.7	SL	01-Sep-11	Possibly re-evaluate sampler location to move further down roadside ditch. SMA has sampled, we will wait for sample results before re-evaluating sampler location.					
A005	A-SMA-2.8	SL	01-Sep-11	Recommend modification to sampler setup and/or wait to see if water flows around berm. Evaluate addition of base course cap and removal of vegetation, or just remove vegetation. Cleanup activities have removed most vegetative cover.					
A006	A-SMA-3	SL	01-Sep-11	Evaluate option of retiring -0006, -0007 and -0008 and install rock check dams.					
A007	A-SMA-3.5	SL	01-Sep-11	No deficiency found.					
A008	A-SMA-4	SL	04-Oct-11	No deficiency found.					
A009	A-SMA-6	SL	04-Oct-11	No deficiency found.					

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Permitted Feature	SMA Number	Inspector	Inspection Date	Observations	Maintenance Performed	Maintenance Date
				Chaquehui Watershed		
Q001	CHQ-SMA-0.5	SL	20-Sep-11	No deficiency found.		
Q002	CHQ-SMA-1.01	SL	20-Sep-11	No deficiency found.		
Q002A	CHQ-SMA-1.02	SL	20-Sep-11	No deficiency found.		
Q002B	CHQ-SMA-1.03	SL	20-Sep-11	No deficiency found.		
Q003	CHQ-SMA-2	SL	20-Sep-11	No deficiency found.		
Q004	CHQ-SMA-3.05	SL	20-Sep-11	No deficiency found.		
Q005	CHQ-SMA-4	SL	20-Sep-11	No deficiency found.		
Q006	CHQ-SMA-4.1	SL	20-Sep-11	No deficiency found.		
Q007	CHQ-SMA-4.5	SL	20-Sep-11	No deficiency found.		
Q008	CHQ-SMA-5.05	SL	20-Sep-11	No deficiency found.		
Q009	CHQ-SMA-6	SL	19-Sep-11	No deficiency found.	0	
Q010	CHQ-SMA-7.1	SL	20-Sep-11	No deficiency found.		

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SMA Number	Purpose	Inspection Date	Inspector	Backup controls in place?	Observations
	Augmented control measure(s) installation	21-Nov-11	SW	Yes	No deficiency found.
2M-SMA-1.42	Augmented control measure(s) installation - Week 2	29-Nov-11	SW	Yes	No deficiency found.
	Augmented control measure(s) installation - Week 3	08-Dec-11	SW	Yes	No deficiency found.
2M-SMA-1.44	Augmented control measure(s) installation	21-Nov-11	SW	Yes	No deficiency found.
2M-SMA-1.45	Augmented control measure(s) installation	26-Oct-11	SW	Yes	No deficiency found.
2IVI-SIVIA-1.45	Augmented control measure(s) installation - Week 2	01-Nov-11	SW	Yes	No deficiency found.
2M-SMA-1.67	Augmented control measure(s) installation	26-Oct-11	SW	Yes	No deficiency found.
21VI-51VIA-1.07	Augmented control measure(s) installation - Week 2	01-Nov-11	SW	Yes	No deficiency found.
3M-SMA-0.2	Augmented control measure(s) installation	07-Sep-11	SW	Yes	No deficiency found.
3IVI-3IVIA-0.2	Augmented control measure(s) installation - Week 2	15-Sep-11	SW	Yes	No deficiency found.
3M-SMA-0.4	Augmented control measure(s) installation	14-Sep-11	SW	Yes	No deficiency found.
	Augmented control measure(s) installation	05-Aug-11	SW	Yes	Recommended seeding areas of soil disturbance after earthen berm installation.
CDB-SMA-0.15	Augmented control measure(s) installation – follow-up	17-Aug-11	SW	n/a	Verified that areas of soil disturbance have been reseeded.
	Augmented control measure(s) installation	11-Aug-11	SL	Yes	Minor tracking from sediment upslope of gate leaving the site.
CDB-SMA-1.65	Augmented control measure(s) installation - Week 2	17-Aug-11	SW	Yes	Requested that area upslope of the new earthen berm be reseeded.
	Augmented control measure(s) installation	21-Nov-11	SW	Yes	No deficiency found.
CDV-SMA-3	Augmented control measure(s) installation - Week 2	29-Nov-11	SW	Yes	No deficiency found.
CDV-SMA-6.02	Augmented control measure(s) installation	23-Nov-11	SW	Yes	No deficiency found.
CDV-SMA-8	Augmented control measure(s) installation	15-Nov-11	SW	Yes	No deficiency found.
CHQ-SMA-4	Augmented control measure(s) installation	20-Jul-11	SW	Yes	No deficiency found.
CHQ-SMA-4.5	Augmented control measure(s) installation	20-Jul-11	SW	Yes	No deficiency found.

Summary of Remediation Construction Activity Inspections

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SMA Number	Purpose	Inspection Date	Inspector	Backup controls in place?	Observations
CHQ-SMA-7.1	Augmented control measure(s) installation	20-Jul-11	SW	Yes	No deficiency found.
DP-SMA-0.3	Augmented control measure(s) installation	11-Aug-11	SW	Yes	No deficiency found.
	DP-SMA-3: Remediation Construction Activity Inspection	08-Dec-11	SW	Yes	No deficiency found.
DP-SMA-3	DP-SMA-3: Remediation Construction Activity - Week 2	15-Dec-11	SW	Yes	Construction work halted due to snowstorms. Backup control measures are in place.
	Augmented control measure(s) installation	29-Nov-11	SW	Yes	No deficiency found.
F-SMA-2	Augmented control measure(s) installation - Week 2	09-Dec-11	SW	Yes	No deficiency found.
LA-SMA-0.9	Augmented control measure(s) installation	04-Oct-11	SW	Yes	No deficiency found.
LA-SMA-10.12	Augmented control measure(s) installation	17-Aug-11	SW	Yes	No deficiency found.
	Augmented control measure(s) installation	23-Aug-11	SW	Yes	Additional run-on controls recommended.
LA-SMA-5.33	Augmented control measure(s) installation	01-Sep-11	SW	Yes	First berm installed on 8/23/11 was eroded by storm event. Berm was rebuilt and armored using rock. Two diversion berms made of millings were installed upslope of the site for additional run-on control.
M-SMA-1.21	Augmented control measure(s) installation	05-Aug-11	SW	Yes	Backup control measures could not be identified by the inspector at the time of inspection. The construction project leader was immediately contacted and straw wattles were installed. The construction subcontractor was ordered to ensure that backup control measures are in place prior to initiating soil disturbance activities.
M-SMA-12.9	Augmented control measure(s) installation	05-Aug-11	SW	Yes	No deficiency found.
M-SMA-13	Augmented control measure(s) installation	05-Aug-11	SW	Yes	No deficiency found.
PJ-SMA-14	Augmented control measure(s) installation	21-Nov-11	SW	Yes	No deficiency found.
PJ-SMA-14.6	Augmented control measure(s) installation	21-Nov-11	SW	Yes	No deficiency found.

Summary of Remediation Construction Activity Inspections

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SMA Number	Purpose	Inspection Date	Inspector	Backup controls in place?	Observations
PJ-SMA-4.05	Augmented control measure(s) installation	03-Nov-11	SW	Yes	No deficiency found.
PJ-SMA-6	Augmented control measure(s) installation	03-Nov-11	SW	Yes	No deficiency found.
S-SMA-3.71	Augmented control measure(s) installation	26-Jul-11	SL	Yes	No deficiency found.
S-SMA-3.72	Augmented control measure(s) installation	26-Jul-11	SL	Yes	No deficiency found.
	Augmented control measure(s) installation	25-Aug-11	SW	Yes	No deficiency found.
STRM-SMA-1.5	Augmented control measure(s) installation - Week 2	01-Sep-11	sw	Yes	Berm material observed on road from material transfer. Construction subcontractor was requeste to sweep up the excess material.
	Augmented control measure(s) installation	19-Oct-11	SW	Yes	No deficiency found.
	Augmented control measure(s) installation - Week 2	26-Oct-11	SW	Yes	No deficiency found.
STRM-SMA-5.05	Augmented control measure(s) installation - Week 3	03-Nov-11	SW	Yes	Recommend seeding area when weather conditions are favorable in the spring.
W-SMA-8	Augmented control measure(s) installation	15-Nov-11	SW	Yes	No deficiency found.
W-SMA-9.05	Augmented control measure(s) installation	15-Nov-11	SW	Yes	No deficiency found.
W-SMA-9.5	Augmented control measure(s) installation	15-Nov-11	SW	Yes	No deficiency found.
W-SMA-9.9	Augmented control measure(s) installation	07-Nov-11	SW	Yes	No deficiency found.
W-SMA-11.7	Augmented control measure(s) installation	22-Sep-11	SW	Yes	No deficiency found.
	Augmented control measure(s) installation	22-Sep-11	SW	Yes	No deficiency found.
W-SMA-12.05	Augmented control measure(s) installation - Week 2	28-Sep-11	SW	Yes	Augmented control measures will alter the flow pattern at part of the site.

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