RECLAMATION

Managing Water in the West

MP CONSTRUCTION OFFICE

Willows, California

Construction Progress Report – L29

April 2012

RTA placing concrete for the MLTF diversion box slabs.

"Doing It Right from the Start"

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

CONSTRUCTION PROGRESS REPORT (L-29)
MP CONSTRUCTION OFFICE
MID-PACIFIC REGION
April 2012

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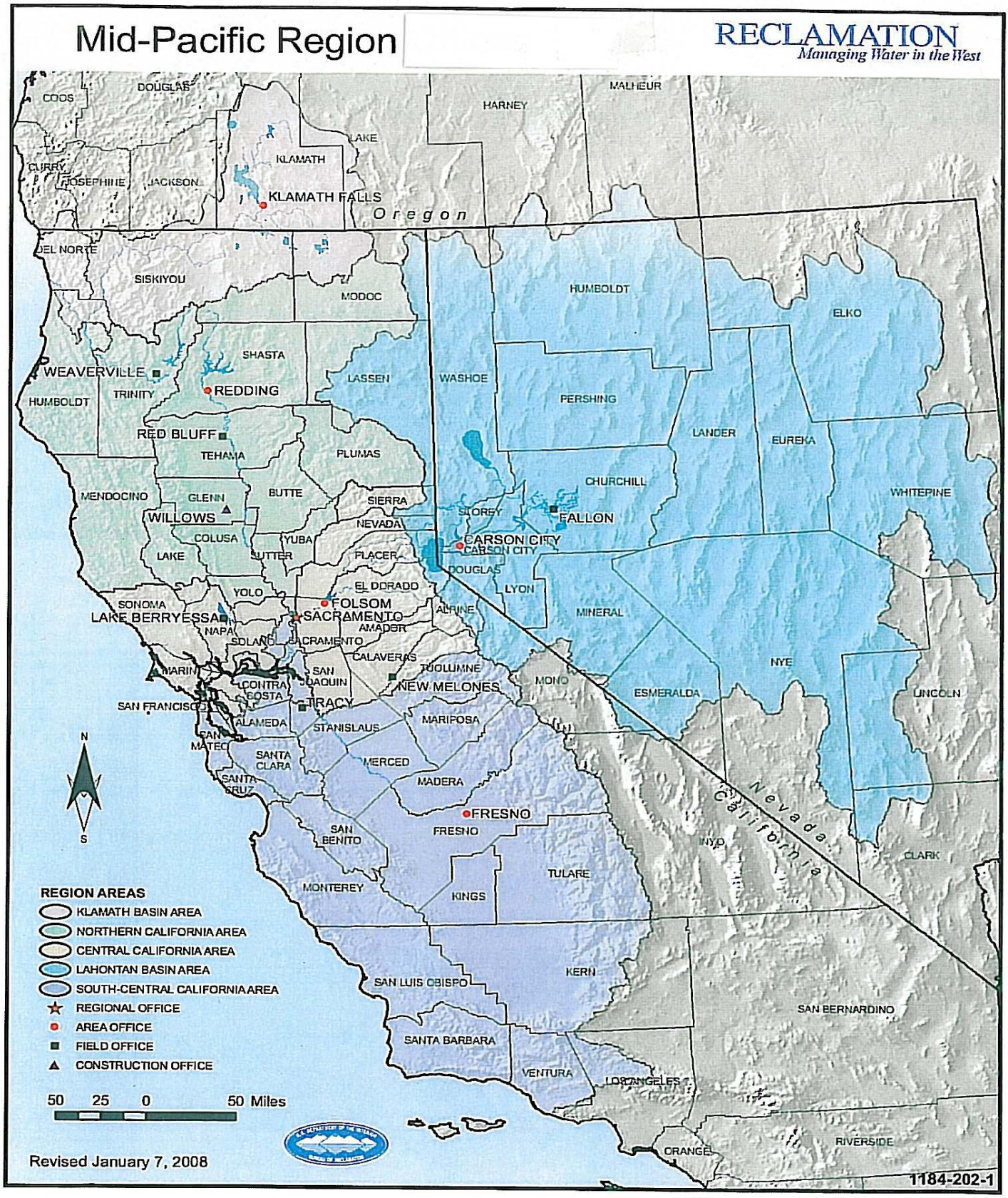
Mid-Pacific Region
RECLAMATION
Managing Water in the West
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LASSEN
WASHOE
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ORANGE
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REGION AREAS
KLAMATH BASIN AREA
NORTHERN CALIFORNIA AREA
CENTRAL CALIFORNIA AREA
LAHONTAN BASIN AREA
SOUTH-CENTRAL CALIFORNIA AREA
REGIONAL OFFICE
AREA OFFICE
FIELD OFFICE
CONSTRUCTION OFFICE
50 25 0 50 Miles
Revised January 7, 2008
1184-202-1

STAFFING – MID PACIFIC CONSTRUCTION OFFICE

The Mid Pacific Construction Office had 95 construction and administrative employees at the close of this month as follows:

Construction Engineer's Office	2
Preaward & Project Management Group	4
Administrative Management	12
Division of Field Engineering	40
Division of Office Engineering	17
Materials Lab Branch	12
Detail/Contract Employees	8

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

	MEANING
ARRA	American Recovery and Reinvestment Act
CCAO	Central California Area Office
CVP	Central Valley Project
LBAO	Lahontan Basin Area Office
MP	Mid Pacific Regional Office
MPCO	Mid-Pacific Construction Office
NCAO	Northern California Area Office
SCCAO	South Central California Area Office
TO	Tracy Office

CCAO

Contract No. R10PC20197
Specification No. 20-C0768
Control Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam and Powerplant–American River Division, Folsom Unit, Central Valley Project, California
Crane America Services, Inc., Livermore, CA

Work Performed:	April	4.7%
	Time Elapsed	82.6%
	Work Completed	80.3%
Contractor Earnings:	April	$89,397.23
	Previous	$1,287,517.02
	Total to Date	$1,524,935.17

Area Office Project Management
Project Manager: Brian Zewe, CC-607A

Office Engineering
Contract Administrator: Madelyn Giles, MPCO-210

Invoices 15 and 16 were received this period and forwarded to Denver Finance for processing. Invoice 16 was for work done this period; 15 was for work done through March 30, 2012.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 5

Work performed:

Crane America performed the following work:

Install Resistors:
Installed the new resistors (resistor bank) on the bridge crane.

Install Cab Console:
Installed the crane control console mounting bracket and control console inside the crane's cab.

Install Variable Frequency Drive Controls:

- Finished modifying the existing metal enclosure along the bank-side of the bridge crane
- Set the Variable Frequency Drive cabinet on the cabinet rack
- Installed conduits connecting the existing metal enclosure to the variable frequency drive cabinet

Install Hoist Motors:

- Installed the sprocket, coupler, and motor stands/pedestals on the main and auxiliary hoist motors
- Set and aligned the hoist motors on the bridge crane
- Welded the motor stands to the existing motor pad

Install Bridge Motors:

- Installed the sprocket and coupler on the bridge motors
- Installed stands and pedestals on the bridge motors
- Welded the new motors in their permanent location on the bridge crane
- Aligned the bridge motors with the gear case shaft and permanently secure the motors in place

Install Trolley Motors:

Permanently installed and aligned both trolley motors by performing the following:

- Installed the sprocket and coupler on the new trolley motors
- Installed the new sprocket and coupler on the existing trolley gear cases
- Set the new trolley motors and the modified gear cases on the bridge crane
- Aligned the trolley motors (upstream and downstream) with the trolley gear case shaft

Wire Up Electrical System:

Installed conduits from the bridge motors to the existing gutter box and from the new human machine interface panel to the existing sub panel inside the cab

Miscellaneous work:

The contractor forwarded the card error message in the variable frequency drive cabinet to subcontractor, Magnetek, for its instruction on correcting the deficiency.

Installation of an additional sprocket onto the rotor shaft on the 140-ton crane cord reel assembly
Control Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam and Powerplant

Contract No. R10PC20196
Specification No. 20-C0769
Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant–American River Division, Folsom Unit, Central Valley Project, California
Crane America Services, Inc., Livermore, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	88.8%
Contractor Earnings:	April	$0
	Previous	$456,650.16
	Total to Date	$456,650.16

Area Office Project Management
Project Manager: Brian Zewe, CC-607A

Office Engineering
Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period. The next invoice will be the final invoice.

The substantial completion date was June 23, 2011.

The only contract work remaining is for the contractor to submit final data.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees:

Work performed: 0
Site work was completed in June 2011.

Contract No. R10PC20R15
Specification No. 20-C0649A
Fixed Wheel Gate Rehabilitation–Folsom Dam River Division–Central Valley Project, California
Abide International, Inc., Sonoma, CA

April	6.3%
Time Elapsed	62.7%
Work Completed	30.9%

April	$511,649.21
Previous	$2,018,053.97
Total to Date	$2,529,703.18

Area Office Project Management
Project Manager: Jesse Castro, CC-607

Office Engineering
Contract Administrator: Larry Bowman, MPCO-240

Invoice 5 was received and forwarded to Denver finance for processing.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Bill Linder, MPCO-312

Number of Contract Employees: 2

Work performed:
Abide International directed the work of the subcontractors on site. The subcontractor, American Crane, provided crane operators and riggers for the Folsom Gantry crane during the installation and the removal of the stop logs on Unit 1. The subcontractor, C & W Diving, was responsible for the removal and the installation of the trash racks, and the activities related to seal the leakage on the stop logs on this unit as well.

During this month the C&W Diving subcontractor was present at the jobsite on a few occasions. They worked on removing and installing the trash racks from Unit 1 in order to install the stop logs. Once the stop logs were in place they came back and fixed a leakage on them.

The American Crane subcontractor was on site during this month also. They managed the stop logs installation and removal from Unit 1.

Contractor worked on the leakage test from all three units. One by one the fixed wheel gates were closed and locked and the units dewatered for the contractor to go inside the penstock to observe and measure the flow.

The results for the flow on the units were as follows:

1. Unit 1, 232.63 gallons per minute.
2. Unit 2, 368.79 gallons per minute.
3. Unit 3, 229.06 gallons per minute.

Contract No. R10PC20R57
Specification No. 20-C0760
Folsom Dam Civil Maintenance Building–American River Division–Folsom Unit, Central Valley Project, California
Building Solutions Inc., Reno, NV

Work Performed:	April	4.2%
	Time Elapsed	100%
	Work Completed	73.3%
Contractor Earnings:	April	$282,714.78
	Previous	$4,638,143.28
	Total to Date	$4,920,858.06

Area Office Project Management
Project Manager: Ed Roza, CC-608

Office Engineering
Contract Administrator: Laurie Larson, MPCO-222

Invoice 18 was received this period and forwarded to Denver Finance for processing.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Michael E. Manlick, MPCO-313

Number of Contract Employees: 15

Work performed:
Takahara delivered plants and trees to the site. Contractor installed filter fabric and placed the river rock swale in Planting Zone 4, also completed planting in Zone 6 and began planting in Zone 4.

Lancaster Burns infilled the gable truss over the firewall on Building Line #2 of Quad A's cold formed metal structure. They also hung the fire rated sheet rock on the attic side of Quad A's gable end along Building Line No. 2.

Solo Steel Erectors installed roofing across the east and west side of Quad B and C up to the intersection of Quad D's gable. They also completed installing roofing panels through the valley sections along the west side of Quad A. Solo Steel Erectors also placed roof panels around the twelve skylight openings on the northeast end of Quad A.

Solo Steel Erectors installed the exterior wall panels across the west side of Quad B, above the intersecting gable roof of Quad A.

Miles Construction installed the wall-to-ceiling trim in the Car Wash bay and the Lawn and Landscaping room of Quad C. They also relocated infill framing supports for roof vent curbs in Quad D.

BSI installed twelve Velux skylights. They also chip hammered concrete to relocate the toilet waste line in the Unisex Toilet.

Industrial Door Company installed eleven roll-up garage door tracks, roll-up doors and motor operators.

Rex Moore installed overhead support struts, conduit, light fixtures and wire in the Carpenter Shop and Garage Area of Quad B and the Paint Shop Office, Paint Booth and Paint Storage area of Quad D.

Foothill Fire Protection installed most of the rough-in including main and heads in the Kitchen, Planners room, Women's Bathroom, Women's Locker, and Multi-purpose room. They also began installing seismic bracing on the fire sprinkler mains and sprinkler laterals in Quad C.

AKD installed aluminum window frames around all four Quads of the building.

Iron Mechanical relocated the in-slab toilet waste line and the in-slab shower drain line. They also detailed the DWV and copper water services in the building; installing supports, air chambers and trap primer fittings. Iron Mechanical also delivered five A/C compressor units.

From inside Quad B, workers are completing the installation
of the exterior wall panels.
Folsom Dam Civil Maintenance Building

Contract No. R10PC20114
Specification No. 20-C0754
Folsom Dam–Safety of Dams Modification–MIAD Key-Block–American River Division, Folsom Unit, Central Valley Project, California.
Shimmick Construction Co., Inc., Sacramento, CA

Work Performed:	April	2.8%
	Time Elapsed	39.2%
	Work Completed	56.7%
Contractor Earnings:	April	$1,172,561.54
	Previous	$27,146,968.10
	Total to Date	$28,319,529.64

Area Office Project Management
Project Manager: Larry Hobbs, CC-106

Office Engineering
Contract Administrator: Larry Bowman, MPCO-240

Invoice 20 was received, approved, and forwarded to Denver, Colorado, this report period

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Howard Diedrich, MPCO-316, Sean Frische, MPCO-317

Number of Contract Employees: 64

Work performed:

CELL D:
Shimmick Construction Co., Inc. completed removal of Level 1 bracing; they also completed placing and compacting backfill up to the final grade. All work activities in Cell D are complete.

CELL B:
Shimmick Construction Co., Inc. completed removal of Levels 1 and 2 bracing; they also began and completed placing and compacting backfill from the top of the lean concrete up to the final grade. All work activities in Cell B are complete.

CELL E:
Shimmick Construction Co., Inc. began and completed excavation preparation by removing the guidewalls, installing guardrails around the perimeter of the cell, and installing the inclinometers at the specified locations along the walls. SCCI completed excavation from original grade down to Level 2. Level 1 bracing was installed by SCCI at the designed location.

CELL A:
Shimmick Construction Co., Inc. began and completed excavation preparation by removing the guidewalls, installing guardrails around the perimeter of the cell, and installing the inclinometers at the specified locations along the walls. SCCI completed excavation from original grade down to Level 1 and began installing the Level 1 bracing.

CELL F:
Subcontractor MDCI completed drilling for and installing structural secant piles. Drilling spoils were hauled to the designated stockpile area along the toe of the CSAMIAD stockpile by owner-operator dump trucks. Concrete was placed in the secant pile walls by subcontractor CEMEX. All secant pile walls in Cell F are complete.

CELL C:
Subcontractor MDCI began drilling for and installing primary secant piles. Drilling spoils were hauled to the designated stockpile area along the toe of the CSAMIAD stockpile by owner-operator dump trucks. Concrete was placed in the secant pile walls by subcontractor CEMEX.

BACKFILL PROCESSING:
Subcontractor Granite Construction completed processing select backfill material for the key-block.

MODIFICATION 005:

Shimmick Construction Co., Inc. continued welding the 6-in supplemental dewatering pipe to the structural secant pile I-beams. Bracing Level 6, Group 2 remains incomplete. One pipe strut is not onsite and the pipe strut connection plates have not been attached.

MODIFICATION 007:
Subcontractor, MDCI, mobilized the supplemental dewatering well drilling equipment for work in Cells F and C. Shimmick Construction Co., Inc. began and completed de-energizing and removing the supplemental dewatering pumps, control panels, electrical equipment, and header pipe for Cells B and D; Shimmick Construction Co., Inc. began and completed installing and energizing the same equipment and materials for Cells A and E. The supplemental dewatering systems for Cells A and E are fully operational. Shimmick Construction Co., Inc. backfilled all of the dewatering wells on the south wall of Cell D with pea gravel. Subcontractor HSI continued monitoring and recording data from the supplemental dewatering system. Shimmick Construction Co., Inc. replaced cartridge filters for arsenic filtration equipment weekly.

MDCI placing the same beam in drill hole S183 which they could not advance in drill hole S194.
Folsom Dam–Safety of Dams Modification–MIAD Key-Block

Contract No. R10PC20R24
Specification No. 20-C0751
Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates–American River Division–Folsom Unit, Central Valley Project, California
Kiewit Infrastructure West Co., Folsom, CA

Work Performed:	April	0.8%
	Time Elapsed	67.8%
	Work Completed	99.3%
Contractor Earnings:	April	$145,477.50
	Previous	$17,111,964.61
	Total to Date	$17,257,442.11

Area Office Project Management
Project Manager: Larry Hobbs, CC-106

Office Engineering
Contract Administrator: Casandra Arthur is handling some of the duties, MPCO-245

Invoice 19 was received, approved and forwarded to Denver, Colorado, this report period.

Modifications 7 and 8 were completed this period, providing equitable adjustment for damage to the contractor's crane and blasting and security badge delays.

The substantially complete date is December 12, 2011.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Howard Diedrich, MPCO-316

Number of Contract Employees: 0

Work performed:

No site work was performed because the contractor completed all site work including punch list items.

Contract No. R10PC20767
Specification No. 20-C0703
Folsom Power Plant U1, U2, and U3 Replacement Runners–American River Division–Folsom Unit–Central Valley Project, California
Voith Siemens Hydro Power Generation, Inc., York, PA

Work Performed:	April	0%
	Time Elapsed	80.5%
	Work Completed	73.0%
Contractor Earnings:	April	$0
	Previous	$5,249,193.78
	Total to Date	$5,249,193.78

Area Office Project Management
Project Manager: Jesse Castro, CC-607

Office Engineering
Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

Field Engineering
Construction Manager: N/A supply contract
Construction Representative: N/A supply contract

Number of Contract Employees: N/A supply contract

Work performed: N/A supply contract

Contract No. R10PC20019
Specification No. 20-C0689
Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement–American River Division–Folsom Unit–Central Valley Project, California
Andritz Hydro Corp, Charlotte, NC

Work Performed:	April	0%
	Time Elapsed	47.8%
	Work Completed	34.4%
Contractor Earnings:	April	$0
	Previous	$6,271,961.77
	Total to Date	$6,271,961.77

Area Office Project Management
Project Manager: Jesse Castro, CC-607

Office Engineering
Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

MPCO reviewed proposals for Modifications 6 and 7 which will definitize modifications 1 and 2. The review was not completed this period.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Sergio Vivar, MPCO-311, Sean Frische, MPCO-317

Number of Contract Employees: 0

Work performed:
No worked was performed. The contractor demobilized on October 28, and per the schedule will remobilize in October 2012.

Contract No. R10PC20R49
Specification No. 20-C0733
Lake Berryessa ADA Accessibility Improvements–ARRA Project No. 49.000–Lake Berryessa Recreational Area, Solano Project, California CSRW (DBA)
CSRW, Inc. (DBA) Allied Construction Services, Livermore, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	96.3%
Contractor Earnings:	April	$0
	Previous	$1,009,249.48
	Total to Date	$1,009,249.48

Area Office Project Management
Project Manager: Nicole Johnson, CC-605c

Office Engineering
Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

A final modification will be negotiated to incorporate differing quantities, some of which are over and some under 15 percent of the contract line item amounts.

Field Engineering
Construction Manager: Reynaldo Garcia, MPCO-310
Construction Representative: John Lakovich, MPCO-344

Number of Contract Employees: 0

Work performed: Site work was completed in September 2011.

Contract No. R10PC20R37
Specification No. 20-C0738
New Melones ADA Accessibility–ARRA Project No. 50.000–New Melones Recreation Area, East Side Division–Central Valley Project, California
J.I. Garcia Construction, Inc., Fresno, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	96.5%
Contractor Earnings:	April	$0
	Previous	$1,333,872.80
	Total to Date	$1,333,872.80

Area Office Project Management
Project Manager: Nicole Johnson, CC-605c

Office Engineering
Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

The contractor has to complete the final submittals.

Field Engineering
Construction Manager: Reynaldo Garcia, MPCO-310
Construction Representative: John Lakovich, MPCO-344

Number of Contract Employees: 0

Work performed:

The only remaining work is to resolve punch list items.

Contract No. R10PC20128
Specification No. 20-C0706
New Melones Power Plant Excitation System Replacement–East Side Division–New Melones Unit–Central Valley Project, California
Koontz Electric Company, Inc., Morrilton, AR

Work Performed:	April	13.2%
	Time Elapsed	76.8%
	Work Completed	82.0%
Contractor Earnings:	April	$317,946.00
	Previous	$1,656,613.00
	Total to Date	$1,974,559.00

Area Office Project Management
Project Manager: Terry Brown, CC-606a

Office Engineering
Contract Administrator: Larry Bowman, MPCO-240

Invoice 7 was received, approved, and forwarded to Denver Finance for processing.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Dennis Schuenemann, MPCO-338

Number of Contract Employees: 11

Work performed:

Prime contractor Koontz Electric Co. Inc. performed the following:

- Made wiring changes in the new Unit 1 Emerson exciter cabinet, tested one of the main breakers, captured data and then analyzed the captured data.
- Analyzed data, made software and hardware changes to correct the "crowbar" issue.
- Installed the new Unit 2 Power Potential Transformer into its perspective cabinet, and set the five new Emerson exciter cabinets 2SX1 – 2SX5 onto its existing housekeeping pad.
- Performed insulation resistance testing on all of the new U2 cables.
- Removed cables and fuses associated with the existing U2 exciter and pulled in new cables and flexible links for the new U2 exciter.
- Removed three switches and all corresponding indicator lights in the control room cabinet SC1 and installed five new switches and corresponding indicator lights.
- Pulled new wires and connected them between the new exciter and its peripheral components.
- Contractor removed three existing Unit 2 regulating power transformers on all three phases and then installed three new ones.

- Installed new current transformers, pulled and connected wiring for all three phases.
- Added conduit raceway for U2 air housing.
- Removed all demolished cabinets from the site.
- Began wire checkout and testing process.

The contractor used eleven work week days in April to remove existing excitation system, demolish existing excitation, install new excitation system and connect all wiring. The contractor is approximately 97% complete with Unit 1 and 72% complete with Unit 2

Contract No. R09PC20171
Specification No. 20-C0720
Nimbus Powerplant HVAC System Modification–American River Division–Folsom Unit, Central Valley Project, California
Perryman Mechanical, Inc., West Sacramento, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	79.9%
Contractor Earnings:	April	$0
	Previous	$428,963.09
	Total to Date	$428,963.09

Area Office Project Management
Brian Zewe, CC-607A

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed: No work was performed. There are punch list items to complete.

Contract No. R10PC20859
Specification No. None
Folsom Dam and Powerplant Site Security System – Central Valley Project, California
Trofholz Technologies, Inc., Rocklin, CA

Work Performed:	April	0%
	Time Elapsed	86.8%
	Work Completed	82.3%
Contractor Earnings:	April	$0
	Previous	$5,253,426.44
	Total to Date	$5,253,426.44

Area Office Project Management
Project Manager: Bill Vanderwaal, MPCO-122

No invoices were received this period.

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Juan Espinosa

Number of Contract Employees: 7

Work Performed:

Radial Gate Structure:
Harold E. Nutter and Son, Inc. subcontractor and West Coast Backhoe Inc.'s crewmen continued excavating the microwave sensor's trench. The crew continued the installation of communication and power conduit for the microwave sensors at the North Fork Pipeline.

Administration Building and Backup Control Center:
Trofholz Technologies, Inc. crewman continues to work on the programming and testing the access control system. The crewmen continue with the troubleshooting the intrusion detection system.

East Vehicle Barrier Civil, Electrical and Conduit Installation:
Trolfholz Technologies, Inc.'s crewmen continued the installations of the stop and go red/green light emitting diodes lights on both sides of the entrance roadway at the east vehicle barrier gate. The crews poured the concrete base pads for the stop and go lights.

Folsom Perimeter Gate:
Harold E. Nutter and Son's subcontractor Crusaders began installing the entrance gate to the Folsom Dam roadway. The crew installed the fence post with the fence fabric.

Other:
Trofholz Technologies, Inc. continued programming, troubleshooting and performing operational checks on the security system software.

The contractor's laborer is digging out the trench for the microwave sensor conduit to be installed with the backhoe.

LBAO

Contract No. R10PC20211
Specification No. 20-C0767
Prosser Creek Dam Road Improvements–Washoe Project–Stampede Division–California
Spectrum Services Group, Inc., Sacramento, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	100%
Contractor Earnings:	April	$0
	Previous	$385,427.30
	Total to Date	$401,223.96

Area Office Project Management
Project Manager: Locke Hahne, LO-400

Office Engineering
Contract Administrator: John Zimmerman, MPCO-230

Invoice 5–Final, was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done this period but for work done through March 29, 2012.

Field Engineering
Construction Manager: Reynaldo Garcia, MPCO-310
Construction Representative: Mike Rondoni, MPCO-319

Number of Contract Employees: 0

Work performed: All contract work was completed in September and the substantially complete date is September 13, 2011.

Contract No. R11PC20158
Specification No. 20-C0777
Stampede Powerplant and Switchyard Recoatings–Stampede Dam–Stampede Division–California
Farr Construction Corporation, Sparks, NV

Work Performed:	April	0%
	Time Elapsed	68.9%
	Work Completed	0%
Contractor Earnings:	April	$0
	Previous	$0
	Total to Date	$0

Area Office Project Management
Project Manager: Locke Hahne, LO-400

Office Engineering
Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

Field Engineering
Construction Manager: Reynaldo Garcia, MPCO-310
Construction Representative: Mike Rondoni, MPCO-319

Number of Contract Employees: 0

Work performed: No work was performed because it requires warmer weather (summertime). The contractor plans site work in July 2012.

NCAO

Contract No. R10PC20025
Specification No. None
Coleman Fish Hatchery Water Intakes Vegetation Replacement and Monitoring–Shasta Division–Central Valley Project, California
Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	April	0%
	Time Elapsed	31.6%
	Work Completed	85.6%
Contractor Earnings:	April	$0
	Previous	$606,142.55
	Total to Date	$606,142.55

Area Office Project Management
Project Manager: Hank Herrington, NC-210

No invoices were received this period.

Office Engineering
Contract Administrator: Jacquelyn Olds, MPCO-202

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:
The contractor's current activity consists of maintaining vegetation it planted in 2010.

Contract No. R11PC20124
Specification No. 20-C0780
Coleman National Fish Hatchery Barrier Weir Site Modifications–Shasta Division–Central Valley Project, California
Contractor Services Group, Inc., West Sacramento, CA

Work Performed:	April	1.8%
	Time Elapsed	57.0%
	Work Completed	3.2%
Contractor Earnings:	April	$16,177.16
	Previous	$12,401.00
	Total to Date	$28,578.16

Area Office Project Manager
Jim Goodwin, MP-200

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

Invoice 2 was received, approved, and forwarded to Denver, Colorado, this report period.

Notice to proceed was issued on October 13, 2011.

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: Fernando Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:
Site work has not begun and will begin in June 2012.

Contract No. R10PC20746
Specification No. 20-C0700
Coleman National Fish Hatchery Water Intakes Rehabilitation–Shasta Division–Central Valley Project, California
Shimmick Construction, Inc., Sacramento, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	97.8%
Contractor Earnings:	April	$0
	Previous	$7,915,099.25
	Total to Date	$7,915,099.25

Area Office Project Management
Project Manager: Hank Herrington, NC-210

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

The contractor has only to complete final submittals.

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

Site work is completed.

Contract No. R09PC20126
Specification No. 20-C0727
J.F. Carr Penstock Relining–NCAO, Shasta Power Plant–Sacramento River Division–Central Valley Project, California
Extreme Coatings, Inc., Pasco, WA

Work Performed	April	0%
	Time Elapsed	99.9%
	Work Completed	97.0%
Contractor Earnings	April	$0
	Previous	$2,871,774.61
	Total to Date	$2,871,774.61

Area Office Project Management
Program Manager: George Girgis

Office Engineering
Contract Administrator: Kevin Jacobs

No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:
No site work was performed this period.

Contract No. R10PC20744
Specification No. 20-C0712
J.F. Carr Power Plant, Generator G1 and G2 Rewinds–NCAO–Shasta Power Plant–Sacramento River Division–Central Valley Project California
National Electric Coil, Inc., Columbus, OH

Work Performed	April	0%
	Time Elapsed	100%
	Work Completed	96.5%
Contractor Earnings	April	$0
	Previous	$14,669,951.25
	Total to Date	$14,669,951.25

Area Office Project Management
Program Manager: John Dotter, NC-261

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Worked Performed:

No work was performed this period.

This will be the last report for this contract until the rotor balancing and commissioning work resumes.

Contract No. R11PC20235
Specification No. None
Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation–Sacramento Canal Units–Sacramento River Division–Central Valley Project, California
Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	April	0%
	Time Elapsed	2.2%
	Work Completed	0%
Contractor Earnings:	April	$0
	Previous	$0
	Total to Date	$0

Area Office Project Management
Project Manager: Bill Vanderwaal Hank Herrington, MPCO-122

No invoices were received this period.

Office Engineering
Contract Administrator: Matthew Bryne, MPCO-255

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 5

Work performed:
The contractor worked one day, April 30, 2012, installing fencing to mark the limits of disturbance at the project site.

Contract No. R10PC20R33
Specification No. 20-C0752
Red Bluff Pumping Plant and Fish Screen–Sacramento River Division–Sacramento Canals Unit–Central Valley Project, California
Balfour Beatty Infrastructure, Inc., Red Bluff, CA

Work Performed:	April	0%
	Time Elapsed	83.6%
	Work Completed	92.2%
Contractor Earnings:	April	$0
	Previous	$66,973,093.11
	Total to Date	$70,139,777.93

Area Office Project Management
Project Manager: Bill Vanderwaal

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

Invoice 21 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done this period but for work done through March 24, 2012.

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: Dave Derk, MPCO-334 and Luke Smith, MPCO-309

Number of Contract Employees: 85

Work Performed:
Power supply:

- Completion of the metering cabinet in the switchyard
- Connecting of the incoming the power lines to the take off structure.
- Pacific Gas and Electric completed the hookup of power for the switchyard and tested phasing through the transformers.

Site Work: Dredge work under the Red Bank Creek Bridge was started. Workers completed the dredge floating dock stair access. The cofferdam at the settling basin was removed and the canal, canal transition, and forebay flooded.

Fish Screen Structure: Crews completed the tuning baffles and fish screen cleaner system. The sediment jetting piping was cleaned and work under water elevation 244 was complete. The cat walk and handrail, concrete repairs, and grouting under the pipe supports continues. All fish screens, solid panels, and blowout panels were installed prior to flooding the forebay.

Pumping Plant: Workers completed installation and testing of the stop logs in each bay. The access ladder safety rails were installed and tested. All butterfly valve bonnet tube supports and actuators were installed. Discharge pipe flange supports were grouted and all trash racks installed.

Switchyard: The contractor completed the oil containment system around the transformer pads and generator concrete pad. The contractor installed the platforms for the four disconnect switches and two circuit breakers.

Canal and Canal Transition: The area was cleaned up and flooded.

Meyers Earthwork: Meyers had five employees onsite.
Forebay: The crew completed excavation and slope construction along the forebay.

Site work: Workers started excavation for the dredge pipeline along the forebay access road and installed some of the drop inlets and outfall structures around the site.

Canal and Canal Transition: Workers continued placing backfill for the canal and canal transition area.

Switchyard: Crews completed the gravel surfacing and backfilling inside the switchyard.

Harris Salinas Rebar: Harris Salinas had two employees onsite.
They installed the reinforcing steel for the back-up generator structural concrete pad in the switchyard.

Central Sierra Electric: Central Sierra Electric had eleven workers onsite.

Site Work: The electrical crew completed the ductbank between the pumping plant and switchyard, and the conduit run from the boat dock to the pumping plant. The crew started the duct bank around the access road towards the siphon.

Fish Screen: The electricians continued pulling control and power conductors between the pumping plant equipment and fish screen equipment. Some conductors were tested, terminated, and landed inside the control panels for the fish screen cleaners.

Pumping Plant: The electricians completed installation of the medium and low voltage switchgear, battery room equipment, and cable tray. The crews continued installing the wire way, conduits, and pulling of conductors to the valves, motors, control panels, and variable frequency drives (VFDs). They tested and landed conductors extending from the medium voltage switchgear to the switchyard, and from the control panel DCB to the switchyard. The crews completed installation of the non-segregated bus at the VFDs associated with the medium voltage switchgear.

Switchyard: Workers completed installation of the grounding grid in the switchyard and on the fence. They also installed, tested, and terminated/landed conduits and conductors for the circuit breakers, transformers, Western Agency Power Administration meter box, and lights.

Siphon: Workers installed the electrical conduits on the siphon trash rack.

Conco Pumping: Conco Pumping had one worker onsite.
Canal and Canal Transition:
The operator used a pump truck to place the controlled low slump material on the outside of the canal sheet pile wall. Mid Pacific Engineering and Reclamation Lab technicians tested the material.

FD Thomas: FD Thomas had ten painters onsite.
Fish Screen: The painters completed all coating touch-up work on all metal work in the fish screen.

Pumping Plant: Painters completed coating the trash racks and stop log guide metal work in the sump area. They completed all coating and touchup work on the discharge pipe and valves in the afterbay. They then started on the battery room and divider wall inside the control building, and on the roof hatches, exterior building columns, and pump pedestals and sole plates.

Siphon: Painters completed all siphon trash rack touch up coating.

Canal and Canal Transition: Painters completed the joint sealant in the canal area prior to flooding.

Harreld's Hi Voltage: Harreld's Hi Voltage had three workers onsite.
Switchyard: The workers pulled the medium voltage conductors between the switchyard and switchgear room, and terminated them in the transformers. The crew completed installation of all metal structures in the switchyard.

Pumping Plant: The crew installed all the medium voltage conductors between the medium voltage, low voltage, and switchyard equipment. They terminated and landed all the conductors.

Corrpro: Corrpro had two workers on site
The two technicians completed installation of the cathodic protection systems in the pumping plant, and siphon structure.

Pacific Power Testing: Pacific Power Testing had three workers on site.
The workers tested the relays, 69kV transformers, breakers, and batteries, and input the relay settings. The workers performed Hi-pot testing on all medium voltage cables, low voltage transformers, and the circuit breakers in the medium voltage switchgear.

Ballard's Diving: Ballard's Diving had four workers onsite.
Site Work: The crew removed the sheet pile cofferdam at the settling basin at the downstream end of the canal.

Fish Screen: The dive crew started removal of the sheet pile cofferdam in the Sacramento River in front of the fish screen, assisted by Balfour Beatty equipment operators.

Sabah International, Inc.: Sabah had two workers onsite.
Pumping Plant: The workers started installation of the fire suppression system inside the control building switchgear room.

Munson Pump: Munson Pumping had four workers onsite.
Site Work: The workers removed most of the dewatering system around the site and started assembling the dredge pipe which Meyers Earthwork will install.

Eaton: Eaton had two workers onsite.
Pumping Plant: The workers delivered the redundant relays, removed the relays from the medium voltage switchgear, and installed and wired all relays in the new cabinet.

Another Door Company: Another door company had one worker onsite.
Pumping Plant: The worker installed the door in the divider wall inside the control building and the double door on the battery room.

Tesco Controls: Tesco Controls had one worker onsite.
Pumping Plant: The communication cabinet was delivered and installed along with the auto dialer inside the pumping plant control panel.

Pisor Fence: Pisor Fence had four workers onsite.
Site Work: The crew started the metal guardrail beam on the pumping plant deck and around the site.

Apparatus Testing and Engineering: Apparatus Testing and Engineering had one worker onsite. The technician hi-pot tested all 9 motors.

All Commercial Fence: All Commercial Fence had three workers onsite.
Switchyard: The workers installed the 7-foot tall chain link fence around the switchyard with the two 20-foot wide gates.

Construction Specialties: Construction Specialties had three workers onsite.
Two workers assembles the battery room and divider wall frame in the pumping plant and sheet rocked both sides.

Transformer Testing and Repair, Inc: Transformer Testing and Repair had one worker onsite. The worker fixed the gas leak on transformer KW2A in the switchyard and took more oil samples for testing.

The Pumping Plant trash racks with the forebay full of water. Viewed from the fish screen deck.
Red Bluff Pumping Plant and Fish Screen

Contract No. R10PC20R09
Specification No. 20-C0740
Red Bluff Pumping Plant and Fish Screen, Landfill Excavation and Canal, Siphon and Access Bridge–Sacramento River Division–Sacramento Canals Unit–Central Valley Project, California
West Bay Builders, Red Bluff, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	95.7%
Contractor Earnings:	April	$0
	Previous	$22,275,999.59
	Total to Date	$22,275,999.59

Area Office Project Management
Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work Performed:

No work was performed as site work was completed in January 2012. Substantially complete date was December 2, 2011.

Contract No. R10PC20R11
Specification No. 20-C0730
Red Bluff Pumping Plant and Fish Screen, Pumps and Motors–Sacramento River Division–Sacramento Canals Unit–Central Valley Project, California
MWI Corporation, Deerfield Beach, FL

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	98.4%
Contractor Earnings:	April	$0
	Previous	$6,851,884.00
	Total to Date	$6,851,884.00

Area Office Project Management
Project Manager: Bill Vanderwaal

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

This is a supply contract.

Liquidated damages are being assessed starting July 31, 2011.

Invoice 17, for retained funds of $344,502.79, was received, approved, and forwarded to Denver, Colorado, this report period.

Field Engineering
Construction Manager: Randy Wyatt
Construction Representative: None

Number of Contract Employees: Not applicable as this is a supply contract.

Work Performed:
No work was performed. All pumps have been installed.

Contract No. R12PC20053
Specification No. 20-C0789
Shasta Powerplant Control and Computer Room HVAC Replacement–Shasta Division–Central Valley Project, California
Ray-Mac Mechanical, Inc., Mt. Shasta, CA.

Work Performed:	April	0%
	Time Elapsed	2.5%
	Work Completed	0%
Contractor Earnings:	April	$0
	Previous	$0
	Total to Date	$0

Area Office Project Management
Project Manager: Jeff Gifford, NC-221

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-214

Notice to Proceed date: April 26, 2012
No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees:

Work performed:
Onsite work has not begun.

Contract No. R10PC20102
Specification No. 20-C0755
Spring Creek Powerplant Generators G1 and G2 Rewinds–NCAO–Central Valley Project, California
Andritz Hydro Corp., Charlotte, NC

Work Performed:	April	21.9%
	Time Elapsed	97.3%
	Work Completed	55.3%
Contractor Earnings:	April	$2,491,903.50
	Previous	$3,801,117.15
	Total to Date	$6,293,020.65

Area Office Project Management
Project Manager: Joe Ascoli, NC-650

Office Engineering
Contract Administrator: Kevin Jacobs, MPCO-214

Invoice 3.1 was received, approved, and forwarded to Denver, Colorado, this report period.

A modification is in the works to change the outage schedule and change the contract completion date from May 2, 2012, to June 28, 2013.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:

There was no site work this period. Site work will be resumed next month.

Contract No. R12PC20044
Specification No. 20-C0774a
Station Service Switchgear Replacement–Trinity River Division–Central Valley Project, California
Eaton Corporation, Raleigh, NC

Work Performed:	April	0%
	Time Elapsed	7.4%
	Work Completed	0%
Contractor Earnings:	April	$0
	Previous	$0
	Total to Date	$0

Area Office Project Management
Project Manager: Jeff Gifford, NC-221

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-214

Notice to Proceed date: April 2, 2012
No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees:

Work performed:
Onsite work has not begun. Mobilization is scheduled to begin on the first site Spring Creek Power Plant on October 16, 2012, at JF Carr Power Plant on December 20, 2012, and at Trinity Power Plant on February 6, 2012.

Contract No. R10PC20185
Specification No. 20-C0762
Whiskeytown Lake Temperature Control Curtain–Trinity River Division–Central Valley Project, California
Erick Ammon, Inc., Anderson, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	99.0%
Contractor Earnings:	April	$0
	Previous	$2,992,214.00
	Total to Date	$2,992,214.00

Area Office Project Management
Project Manager: Bob Gee, NC-230

Office Engineering
Contract Administrator: John Zimmerman, MPCO-230

No invoices were received this period.

During this period factors related to liquidated damages were being considered to determine if liquidated damages should be applied. Once a determination is made the final modification incorporating 8 extra dive days will be executed.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Steve Holmes, MPCO-320

Number of Contract Employees: 0

Work performed: All site work was completed in September. The substantially complete date was June 17, 2011.

SCCAO

Purchase Order No. R11PC20155
Specification No.20-C0776a
Delta Cross Channel Gate Control and Lighting Improvements–Central Valley Project, California
Sierra Range Construction, Visalia, CA

Work Performed:	April	0%
	Time Elapsed	89.4%
	Work Completed	71.2%
Contractor Earnings:	April	$0
	Previous	$88,182.74
	Total to Date	$88,182.74

Area Office Project Management
Project Manager: Warren Feng, TO-438

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: Henry Garcia, MPCO-310

Number of Contract Employees: 4

Work performed:
Gate Control and Lighting System:
The contractor completed the field portion of Modification 3, which was to install the redundant limit switches. These redundant limit switches actually became the primary limit switches and the existing limit switches on the gate's gear drives became the redundant limits switches. This change will be noted on the as-built plans. Calibration of the primary and redundant limit switches was completed on April 25th, the date the contract is substantially complete. We developed a punch list.

Contract No. R12PC20055
Specification No.20-C0776b
Delta Cross Channel Gate Hoist Wire Rope Replacement–Central Valley Project, California
Sierra Range Construction, Visalia, CA

Work Performed:	April	0%
	Time Elapsed	82.0%
	Work Completed	0%
Contractor Earnings:	April	$0
	Previous	$0
	Total to Date	$0

Area Office Project Management
Project Manager: Yow-min (David) Tsao, TO-435

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: John Lakovich, MPCO-310

Number of Contract Employees: 0

Work Performed:
No work was performed this period. The contractor plans to be on site and complete all site work in May 2012.

Contract No. R10PC80R23
Specification No. 20-C0761
Delta-Mendota Canal–California Aqueduct Intertie–Central Valley Project–California
Shimmick Construction Company, Inc., Tracy, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	99.3%
Contractor Earnings:	April	$0
	Previous	$14,908,945.87
	Total to Date	$15,080,969.87

Area Office Project Management
Project Manager: Erika Kegel, MP-730

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

Invoice 17 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done this period but for work done through February 25, 2012.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Phil Vanderwal, MPCO-322

Number of Contract Employees: 5

Work performed:
A summary of the work performed follows:

Work centered on testing and commissioning of the pumping plant. Troubleshooting was needed to correct a shorted winding temperature sensor.

Other work in April is listed below:

- Installation of input/output wiring from the plant to the control room
- Testing the cathodic protection, replacing two buried anodes, stripping paint off anodes on the California Aqueduct trashracks, then bonding the trashracks to each other
- Injecting hydrophilic grout into a leaking joint in the north 108" pipeline at the transition from the steel to reinforced concrete pipe.
- Addressing electrical punch list items
- Installation of the three remaining 12" air check valves
- Continuing painting on the manifold and metal building
- Testing, balancing and troubleshooting the heating, ventilation, and air conditioning system
- Removing the office trailers as part of demobilization
- Starting and testing the engine generator's fuel monitoring system

- Continuing troubleshooting the fire alarm system

Devon Power Services taking a temperature reading on the lower bearing of Pump 6 (left), and checking the vibration sensor during 8 hour testing on April 6th (right).
Delta-Mendota Canal–California Aqueduct Intertie

Contract No. R10PC20R32
Specification No. 20-C0749
Fish Screen Structure Phase 3, Contra Costa Canal–Central Valley Project, California
Flatiron West, Inc., Oakley, CA

Work Performed:	April	1.4%
	Time Elapsed	100%
	Work Completed	99.4%
Contractor Earnings:	April	$180,172.85
	Previous	$13,755,052.81
	Total to Date	$13,935,225.66

Area Office Project Management
Project Manager: John Dealy, TO-406

Office Engineering
Contract Administrator: Larry Bowman, MPCO-240

Invoice 19 was received, approved and forwarded to Denver Finance for processing.

Field Engineering
Construction Manager: Henry Garcia, MPCO-310
Construction Representative: John Lakovich

Number of Contract Employees: 3

Work performed:
Number of Contract Employees: 3

Work performed:
The contractor worked a day on punch list items and worked a day on performance warranty items this period

Contract No. R11PC20185
Specification No. 20-C0778
Tracy 13.8kV Switchgear/Breaker Replacement–Tracy Pumping Plant and Substation–Central Valley Project, California
Contra Costa Electric Corp., Martinez, CA

Work Performed:	April	0%
	Time Elapsed	15.2%
	Work Completed	7.4%
Contractor Earnings:	April	$0
	Previous	$854,892.15
	Total to Date	$854,892.15

Area Office Project Management
Project Manager: Warren Feng, TO-438

Office Engineering
Contract Administrator: Amber Pierce, MPCO-205

This is a design build contract.

No invoices were received this period.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: Not yet determined

Number of Contract Employees: 4

Work performed: The contractor has not mobilized to the site, they did visit the site to perform a site investigation of the switchyard soils to be used in the required seismic submittal for the walk-in swictchgear.

Two holes were dug by hand above the east and west ends of the cable tunnel, the depths were two feet and three feet respectfully.

A subcontractor, using a hydraulic ram mounted within a commercial truck assembled four foot lengths of 1-1/4-inch hollow bits with a data collecting cable run through it. The bits were pushed through the soil to 40-feet using the ream while data was collected using a software program loaded in a laptop.

A Contra Costa Electric Corp. electrician creates 1.5” and 2” diameter conduit blockouts in the right side of lighting transformer KCC using a hydraulic punch.
Tracy 13.8kV Switchgear/Breaker Replacement

Regional

Contract No. R10PC20R80
Specification No. 20-C0759
Drought Relief–Construction of New Wells–ARRA Project No. 28.002–California
Layne Christensen Company, Fontana, CA

Work Performed:	April	0 %
	Time Elapsed	100%
	Work Completed	74.6%
Contractor Earnings:	April	$696,667.39
	Previous	$11,393.882.95
	Total to Date	$12,090,550.34

Area Office Project Management
Project Manager: Kevin Clancy, MP-410

Office Engineering
Contract Administrator: Laurie Larson, MPCO-222

Invoice 11 was received, approved and forwarded to Denver Colorado, this report period. It was not for work done this period but for work done November 26, 2011 through January 25, 2012.

Field Engineering
Construction Manager: John E. Nelson, MPCO-328
Construction Representative: Quint I. McCabe, MPCO-304

Modification executed February 23, 2012 that extended the contract until June 30, 2012.

Number of Contract Employees: 7

Work performed:
WSID Well 29, Tie-in electrical conduit from control cabinet to pump motor and relocate 5-inch PVC electrical conduit from power pole to control cabinet.
WSID Well 33.1, Scrub the perforated casing/screen and tie-in electrical conduit.
WSID Wells 33.2, Plug the bottom of the well and set well's control panel cabinet.
WSID Well 120, Four hour startup servicing and field testing/monitoring.
DPWD Well 38, Retro fit/change sockets.
DPWD Well 50, Install conductor casing /well seal.
DPWD Well 55, Repair leaking stretch nut assembly and four hour startup servicing and field testing/monitoring.
DPWD Well 86, Retro fit/change meter sockets and install discharge pipe.
DPWD Well 90, Four hour startup servicing and field testing/monitoring.
DPWD Well 97, Electrical top out and cast in place discharge pipe concrete support pads.
TID Well 105a, Tie-in electrical conduit and four hour startup servicing and field testing/monitoring and install stairs and landing.
TID Well 105b, Four hour startup servicing and field testing/monitoring.

FSWD Well 107, Four hour startup servicing and field testing/monitoring.
JID Well 112.1, 112.2, 112.3, and 112.4, Four hour startup servicing and field testing/monitoring.

Upcoming work:
Startup Servicing and Field testing/monitoring in the northern zones (DWPD, WSID, BBID).
WSID Well 33.1, Install pump and motor.
DPWD Well 50, Production and install test pump.
SLWD Well 47, Install conductor casing/well seal, and production and install pump.
BBID Well 5, Rewire/top out and startup servicing and field testing/monitoring.

The contractor remounting the motor on to the discharge head of Well 55
Drought Relief–Construction of New Wells

Purchase Order No. R10PX20R45
Specification No. 20-C0750
Drought Relief, Well Enhancements–ARRA Project No. 28.000–Central Valley Project
California
Hydro Resources–West, Inc., Winnemucca, NV

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	43.9%
Contractor Earnings:	April	$0
	Previous	$555,369.60
	Total to Date	$555,369.60

Area Office Project Management
Project Manager: Kevin Clancy, MP-410

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering
Construction Manager: John Nelson, MPCO-328
Construction Representative: Mike McCarty, MPCO-308

Number of Contract Employees: 0

Work performed:
No work was done this period. Site work will begin again in May 2012.

Purchase Order No. R10PX20R54
Specification No. 20-C0750
Drought Relief, Well Enhancements–ARRA Project No. 28.000–Central Valley Project Don Pedro Pump, LLC–Turlock, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	86.5%
Contractor Earnings:	April	$0
	Previous	$1,084,249.60
	Total to Date	$1,084,249.60

Area Office Project Management
Project Manager: Kevin Clancy, MP-410

Office Engineering
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering
Construction Manager: John Nelson, MPCO-328
Construction Representative: Mike McCarty, MPCO-308

Number of Contract Employees: 0

Work performed:
No work was performed. Contractor is waiting for PG&E to provide power.

Contract No. R10PC20R48
Specification No. 20-C0741
Gray Lodge Wildlife Area and Pixley National Wildlife Refuge Wetlands–Groundwater Well Construction–ARRA Project No. 28.113–Central Valley Project–East Side Division, California
Sansone Company, Inc., San Luis Obispo, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	97.0%
Contractor Earnings:	April	$0
	Previous	$4,791,270.59
	Total to Date	$4,791,270.59

Area Office Project Management
Project Manager: Sonya Nechanicky, MP-410

Office Engineering
Contract Administrator: Laurie Larson, MPCO-222

We are dealing with issues with the contractor regarding coatings, Pacific Gas and Electric, and equipment.

Field Engineering
Construction Manager: John E. Nelson, MPCO-328
Construction Representative: Richard T. Nead, MPCO-342

Number of Contract Employees: 0

Work performed:
Pixley
No onsite construction activities this month, both PX-1 and PX-2 are complete and a field substantially complete has been drafted. Wells are not operable due to nonfunctioning float switches and erosion problems at alfalfa valve structures which are design issues and the contractor has fulfilled all his contractual responsibilities.

Gray Lodge
Field pump test:
Maggiora Bros. Drilling: Complete field pump testing on wells 2, 3, and 4 but experienced noise and vibration issues during the pre-testing and testing of pump 3 which have not yet been resolved. A field substantial complete has been drafted for GL-2 and GL-4 however the pumps are inoperable as the nonfunctioning float switches have been removed leaving no low pumping level pump and motor protection.
No activity at Gray Lodge.

Future Work:

Resolve Gray Lodge well 4 issues.

Contract No. R10PC20R42
Specification No. 20-C0746
Hydropower Facility Modifications-Stage 1–Battle Creek Salmon and Steelhead Restoration Project, California
RTA Construction/Ray Toney JV, Redding, CA

Work Performed:	April	0%
	Time Elapsed	68.6%
	Work Completed	53.6%
Contractor Earnings:	April	$0
	Previous	$4,005,074.62
	Total to Date	$4,242,245.89

Area Office Project Management
Project Manager: Mary Marshall, MP-203

Office Engineering
Contract Administrator: Kent Perkes, MPCO-225

Invoices 13 and 14 were received, approved, and forwarded to Denver, Colorado, this report period. They were not done for work this period; Invoice 13 was for work done through March 30, 2012, and Invoice 14 was for work done through December 31, 2011.

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 20

Work performed:
Due to rain, work for the first two weeks of April was limited to storm water pollution prevention plan monitoring.

Penstock Bypass Pipeline: The contractor performed the following work:

- Placement of concrete for the manhole base at station 19+33.00
- Placement of blind flanges, manholes, and covers for manholes at stations 37+33 and 28+33
- Excavation and installation of the 66-inch reinforced concrete pipe, from pipe section 236 to pipe section 253, and placed 110 cubic yards of control low-strength material.
- Began placing and compacting backfill for the additional culvert and erosion protection in the 66-inch pipe trench.

Penstock Bypass Chute: Subcontractor, Muse Concrete, placed Chute Slab 26 and Chute Wall 24.

Mount Lassen Trout Farm Pipe: The contractor finished excavating for the trout farm pipe bypass, and finished forming and installing reinforcement and concrete for the slabs of the two diversion boxes for the diversion.

Rock Screen: Subcontractor, Schnetzer Engineering, mobilized a rock screener and began screening 3-inch minus material.

Contract No. R10PC20005
Specification No. 20-C0717
North Fork Screens and Ladders–Battle Creek Salmon and Steelhead Restoration Project, California
Syblon Reid Contractors, Folsom, CA

Work Performed:	April	0%
	Time Elapsed	94.6%
	Work Completed	97.1%
Contractor Earnings:	April	$0
	Previous	$11,912,247.39
	Total to Date	$11,912,247.39

Area Office Project Management
Project Manager: Mary Marshall, MP-203

Office Engineering
Contract Administrator: Kent Perkes, MPCO-225

The only thing remaining for the contractor to perform is to gain approval of a few final submittals including as-built drawings.

No invoices were received this period.

Field Engineering
Construction Manager: Randy Wyatt, MPCO-305
Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 0

Work performed: The contractor completed all contract site work in December 2011, and demobilized its field office.

Contract No. R10PC20R39
Specification No. 20-C0744
Volta Wasteway Refuge Level 2 Diversification Phase I Project–ARRA Project No. 28.129–Central Valley Project, California
Sansone Company Inc., San Luis Obispo, CA

Work Performed:	April	0%
	Time Elapsed	100%
	Work Completed	99.5%
Contractor Earnings:	April	$0
	Previous	$1,704,452.80
	Total to Date	$1,704,452.80

Area Office Project Management
Project Manager: Linda Colella, MP-410

Office Engineering
Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

All submittals complete, contractor is submitting final REA.

The substantially complete date was August 12, 2011.

Field Engineering
Construction Manager: Steve Holmes, MPCO-320
Construction Representative: John Nelson, MPCO-328

Number of Contract Employees: 0

Work performed:
No onsite work was performed as all site work has been completed.

Contracts in Warranty Status

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

R11PC20051 No Spec. No. Coleman Intakes - Leaky Concrete Pipe Joint Repair
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed. (1-year warranty extends to May 4, 2012).

Contract Administrator: John Zimmerman MPCO-230

R09PC20017 20-C0708 Marble Bluff Fish Handling Building Reroofing
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed (5-year roof guarantee extends to March 5, 2015).

R09PC20147 20-C0758 New Melones Lake Restroom Building Reroofing
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed (3-year roof guarantee extends to May 20, 2014).

R10PC20176 20-C0713 New Melones Resource Area Building Re-roofing
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed (3-year roof guarantee extends to March 25, 2013).

R10PC20032 20-C0737 New Melones Powerplant Emergency Engine Generator
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed (1-year warranty extends to May 26, 2012).

Contract Administrator: Ryan Hennigan MPCO-211

R11PC20087 Coleman National Fish Hatchery, Water Intake No. 3 Repairs to Fish Screen
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed (1-year warranty extends to July 13, 2012).

Contract Administrator: Madelyn Giles MPCO-210

R09PC20R03 20-C0677 Transformer K1A and K2A Replacements, Folsom Power
There was no Office Engineering Administrative activity this period.
This contract has not been contractually closed (5-year warranty for K1A extends to January 30, 2016, and that for K2A extends to January 4, 2017).

Lab Reports

Concrete Construction Data

Concrete Class: Structural Concrete
Report of Mixes Used From 03/01/2012 to 04/30/2012

Mix Design Number: F670AFPX7
Specification Number: 20-C0746
Project: Battle Creek
Feature: Hydropower Facility Modifications Stage 1

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size Sand	CA1	CA2	CA3	CA4	Yield Quantities per Cubic Yard Pounds Water	Cem	Poz	Sand	C.A.	AD#3 Oz	AEA	WRA	AD#4	AD#5	Cem Eff	TEMP	Fresh Concrete Tests Slump (ins)	UW (pcf)	W/ C+P	Air Grav Meth	Air Press Meter	Compressive Strength Of Individual Specimens (psi) 3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
03/05/2012																												
07:14	32.75	47.2	100.0	0.0	0.0	0.0	259	554	94	1417	1560	0	3.1	25.5	19.7	0.0	8.2	60	3.00	143.9	0.40	2.6	2.2		3400	4600			
																									3360	4440			
03/07/2012																												
09:40	14.50	57.8	100.0	0.0	0.0	0.0	237	529	92	1704	1224	0	3.0	24.8	18.4	0.0	7.3	63	2.75	140.2	0.38	5.6	4.0		2940	4000			
																									2920	3770			
04/19/2012																												
07:30	39.75	49.2	100.0	0.0	0.0	0.0	263	549	103	1484	1508	0	4.1	25.5	19.4	0.0		72	3.00	144.7	0.40	1.7	3.2		2690	######			
																									2690	######			
08:04	7.00	49.2	100.0	0.0	0.0	0.0	263	548	98	1478	1504	0	4.1	25.7	19.0	0.0		73	2.75	144.1	0.41	2.1	3.3		2940				
																									2740				
Design		47.4	100.0	0.0	0.0	0.0	280	536	95	1357	1507	0	3.1	25.2	18.9	0.0			3.00	139.8	0.44	4.0	4.0			4000			
AVG.		50.9	100.0	0.0	0.0	0.0	256	545	97	1521	1449	0	3.6	25.4	19.1	0.0	7.8	67	2.88	143.2	0.40	3.0	3.2		2960	4202			
S.D.		4.7	0.0	0.0	0.0	0.0	12	11	5	126	152	0	0.6	0.4	0.6	0.0	0.6	6	0.14	2.0	0.01	1.8	0.7		280	384			
C.O.V		9.3	0.0	0.0	0.0	0.0	4.9	2.0	5.0	8.3	10.5	0.0	17.7	1.5	3.0	0.0	7.4	9.6	5.0	1.4	2.8	59.3	23.3		9.5	9.1			

Bureau.....: Required average strength = -7201 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (n=40) = **.*
ACI.....: Required average strength = 19861 psi at 28 days (n=40)
CURE METHOD..: Water Tank with an Average Cure Temperature of 60 - 80 (F)

= Specimen not broken as of report date.

Concrete Class: Stuructural Concrete
Report of Mixes Used From 03/01/2012 to 04/30/2012

Mix Design Number: F670GFPW8
Specification Number: 20-C0746
Project: Battle Creek
Feature: Hydropower Facility Modifications Stage 1

		Percent Of Coarse Aggregate in each size					Yield Quantities per Cubic Yard											Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)					
							Pounds					Oz									Air								
Date Time	y^3 of Conc	Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	TEMP	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
03/09/2012																												
09:07	20.00	47.7	100.0	0.0	0.0	0.0	272	514	90	1387	1495	0	2.0	48.7	24.6	0.0	7.6	63	7.00	139.2	0.45	4.8	5.6		2970	3960			
																									2900	3860			
04/30/2012																												
07:22	28.00	49.5	100.0	0.0	0.0	0.0	246	523	95	1450	1500	0	9.8	49.5	43.5	0.0		75	3.00	141.2	0.40	4.4	4.5		######	######			
																									######	######			
Design		44.4	100.0	0.0	0.0	0.0	285	536	95	1267	1585	0	2.1	50.4	50.4	0.0			6.00	139.6	0.45	4.0	4.0			4000			
AVG.		48.6	100.0	0.0	0.0	0.0	259	519	93	1419	1498	0	5.9	49.1	34.0	0.0	7.6	69	5.00	140.2	0.42	4.6	5.1		2935	3910			
S.D.		1.3	0.0	0.0	0.0	0.0	18	6	4	45	4	0	5.5	0.6	13.4	0.0	0.0	9	2.83	1.4	0.04	0.3	0.8		49	71			
C.O.V		2.6	0.0	0.0	0.0	0.0	7.1	1.2	3.8	3.1	0.2	0.0	92.9	1.1	39.4	0.0	0.0	12.4	56.6	1.0	8.7	6.8	15.4		1.7	1.8			

Bureau.....: Required average strength = 4950 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (Est.) = 15.0
ACI.....: Required average strength = 4462 psi at 28 days (n=23)
CURE METHOD..: Water Tank with an Average Cure Temperature of 65 - 78 (F)

= Specimen not broken as of report date.

SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL
CONTROLLED BY THE LABORATORY COMPACTION METHOD

PROJECT: Battle Creek

FEATURE: Hydropower Facility Mods Stage 1

SPECIFICATION NO: 20-CO746

SPECIFICATION REQUIREMENTS:
Min percent compaction (D-Value): 95.00 %
Min average D-Value for ALL tests: 95.00 %
Max DRY Wo-Wf: 2.00
Max WET Wo-Wf: -2.00

PERIOD OF REPORT: 04/01/2012 - 04/30/2012

FILL NAME: 2 - Structural Backfill

TEST NUMBER								LOCATION				FIELD DENSITY TESTS									LABORATORY VALUES					COMPACTION CONTROL VALUES						
																MINUS #4																
MONTH	DAY	SHIFT	NUMBER	MTYPE	STATUS	BOR	STATION	OFFSET	ELEV	METH OF COMP	USBR TEST METH	WET DEN TOT MAT (PCF)	MOIS TOT MAT (%)	PLUS 3/4 (%)	SPEC GRAV +3/4-3/4	DRY DEN (PCF)	MOIS CONT (%)	DEG OF SAT (%)	COMP TEST METH	COMP CYL (PCF)	MAX DRY DEN (PCF)	OPT MOIS CONT (%)	DEG OF SAT (%)	Wo-Wf (%)	C (%)	D (%)	PENE NEED (PSI)	VISUAL SOIL CLASS	OTHER TESTS	REMARKS
04	30	A	01	R	A*	1	17+80	CL	1347	SR	7205	124.2	12.1	23.6	2.51	2.60	102.6	14.4	64	R	113.5	103.8	19.3	89	4.9	103.4	98.8	NA	(GC)S	N	
ACCEPTED TESTS THIS PERIOD: 1											AVG.	124.2	12.1	23.6	2.51	2.60	102.6	14.4	64		113.5	103.8	19.3	89	4.9	103.4	98.8				

STATISTICAL SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL
CONTROLLED BY THE LABORATORY COMPACTION METHOD

PROJECT: Battle Creek

FEATURE: Hydropower Facility Mods Stage 1

SPECIFICATION NO: 20-CO746

FILL NAME: 2 - Structural Backfill

SPECIFICATION REQUIREMENTS:
Min percent compaction (D-Value): 95.00 %
Min average D-Value for ALL tests: 95.00 %
Max DRY Wo-Wf: 2.00
Max WET Wo-Wf: -2.00

PERIOD OF REPORT: 04/01/2012 - 04/30/2012

	This Period	To Date
No. of Tests Taken	1	28
No. of Tests Accepted	1	26
No. of Tests Rejected	0	2
No. of Rejected Tests not Re-Checked	0	2
Average Water Content Total Material	12.1	10.8
Average Control Fraction Water Content	14.4	14.7
Average Optimum Water Content	19.3	16.3
Average Wo-Wf	4.9	1.6
Percent of Accepted Tests Dryer Than 2.00	100.0	30.8
Percent of Accepted Tests Wetter Than -2.00	0.0	0.0
Average Wet Density Total Material (PCF)	124.2	136.2
Average Control Fraction Dry Density (PCF)	102.6	110.6
Average Proctor Max Dry Density (PCF)	103.8	112.6
Average Compaction Cylinder Wet Density (PCF)	113.5	126.9
Average Percent +3/4 Material (%)	23.6	33.6
Average C-Value (%)	103.4	99.9
Average D-Value (%)	98.8	98.2
Percent Accepted with D-Value < 95.0	0.0	15.4
Tests Accepted Outside of Specification Limits	1	12
Minimum D-Value of 95.0 %	0	4
Max DRY Wo-Wf of 2.00	1	8

Aggregate Gradation Summary

From 04/01/2012 to 04/30/2012

Specification : 20-C0746
Mix Number : ALL Combined for This Specification
Project : Battle Creek
Feature : Hydropower Facility Modifications Stage 1

Sand Gradations (ASTM)

	Percent Passing											
Date	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	% -200	FINE MOD	Moist %	Spec Grav	Absorp
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
04/19/2012	100.0	99.8	82.0	52.6	26.5	8.0	2.6	1.80	3.28	5.00	2.58	3.10
	100.0	99.8	82.0	52.6	26.5	8.0	2.6	1.80	3.28	5.00	2.58	3.10
04/30/2012	100.0	99.9	84.1	55.0	28.4	9.0	3.2	2.30	3.20	2.70	2.54	2.20
Average	100.0	99.9	82.7	53.4	27.1	8.3	2.8	1.97	3.26	4.23	2.57	2.80
S.D.	0.0	0.1	1.2	1.4	1.1	0.6	0.3	0.29	0.05	1.33	0.02	0.52
C.O.V.	0.0	0.1	1.4	2.6	3.9	6.9	12.1	14.68	1.40	31.37	0.90	18.56

U.S. Bureau of Reclamation
Aggregate Gradation Summary

From 04/01/2012 to 04/30/2012

Specification : 20-C0746
Mix Number : ALL Combined for This Specification
Project : Battle Creek
Feature : Hydropower Facility Modifications Stage 1

Nominal Size : #4 - 1" (ASTM)

Coarse Aggregate Gradations

	Percent Passing Screen Sizes in Inches or Sieve Size Shown								
Date	1 1/2"	1"	1/2"	#4	#8	% -200	Moist %	Spec Grav	Absorp
Spec Max %	100.0	100.0	60.0	10.0	5.0				
Spec Min %	100.0	95.0	25.0	0.0	0.0				
04/19/2012	100.0	97.3	43.9	6.6	5.5	0.90	1.00	2.54	3.00
	100.0	97.3	43.9	6.6	5.5	0.90	1.00	2.54	3.00
04/30/2012	99.6	97.9	35.8	4.2	3.5	1.50	1.60	2.58	2.40
Average	99.9	97.5	41.2	5.8	4.9	1.10	1.20	2.55	2.80
S.D.	0.2	0.3	4.7	1.4	1.2	0.35	0.35	0.02	0.35
C.O.V.	0.2	0.4	11.3	24.4	24.8	31.49	28.87	0.90	12.37

U.S. Bureau of Reclamation
SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL
CONTROLLED BY THE LABORATORY COMPACTION METHOD

PROJECT: Central Valley

PERIOD OF REPORT: 04/01/2012 - 04/30/2012

FEATURE: MIAD Key-Block

SPECIFICATION NO: 20-C0754

FILL NAME: 1 - Key Block

TEST NUMBER						LOCATION				FIELD DENSITY TESTS									LABORATORY VALUES					COMPACTION CONTROL VALUES						
														MINUS #4															
MONTH	DAY	SHIFT	NUMBER	MATERIAL	SUBTEST	BORROW	STATION	OFFSET	ELEV	METH OF COMP	USBR METH	WET DEN TOT MAT (PCF)	MOIS TOT MAT (%)	PLUS #4 (%)	SPEC GRAV +4	SPEC GRAV -4	DRY DEN (PCF)	MOIS CONT (%)	DEG OF SAT (%)	COMP TEST METH	COMP CYL (PCF)	MAX DRY DEN (PCF)	OPT MOIS CONT (%)	DEG OF SAT (%)	Wo-Wf (%)	C (%)	D (%)	PENE NEED (PSI)	VISUAL SOIL CLASS	OTHER TESTS	REMARKS
04	02	A	01	R	A	2	Cell+0D	CL	353	VR	7205	149.2	7.3	29.9	2.72	2.71	129.8	9.8	88	R	139.3	126.9	9.7	79	-0.1	102.3	102.3	NA	SM	N	13'SON 28' WOE
04	02	A	02	R	A	2	Cell+0D	CL	353	VR	7205	152.0	7.0	30.3	2.71	2.71	133.4	9.6	97	R	138.9	126.7	9.4	76	-0.2	105.3	105.3	NA	SM	N	8' NOS 28' WOE
04	02	A	03	R	A	2	Cell+0D	CL	356	VR	7205	148.9	6.8	37.0	2.72	2.71	127.1	9.9	81	R	141.3	128.7	10.2	88	0.3	98.9	98.8	NA	SM	N	18'NOS 34' WOE
04	03	A	01	R	A	2	Cell+0D	CL	360	VR	7205	148.9	7.1	32.2	2.69	2.71	129.2	9.8	86	R	140.9	128.4	10.1	86	0.3	100.7	100.6	NA	SM	N	16'EOW 27'NOS
04	03	A	02	R	A	2	Cell+0B	CL	346	VR	7205	0.0	6.4	36.4	2.72	2.71	128.5	9.5	82	R	140.9	128.7	9.6	83	0.1	99.9	99.8	NA	SM	N	16'EOE 27'NOS
04	05	A	01	R	A	2	Cell+0D	CL	362	VR	7205	145.3	6.8	26.4	2.72	2.71	127.4	8.8	73	R	138.1	127.5	10.0	83	1.2	100.4	99.9	NA	SM	N	18'SON 63'EOW
04	05	A	02	R	A	2	CELL+0D	CL	362	VR	7205	156.3	8.5	27.6	2.72	2.71	137.0	11.1	128	R	142.1	128.2	10.5	89	-0.6	107.1	106.9	NA	SM	N	17'SON 101 EOW
04	05	A	03	R	A	2	CELL+0B	CL	351	VR	7205	150.3	6.9	23.2	2.71	2.71	134.3	8.5	89	R	139.3	130.2	10.1	92	1.6	104.6	103.1	NA	SM	N	9'SON 38' WOE
04	05	A	04	R	A	2	CELL+0B	CL	351	VR	7205	142.4	6.8	28.0	2.72	2.71	123.5	8.9	65	R	138.3	127.5	10.1	84	1.2	97.2	96.9	NA	SM	N	8' SON 14 WOE
04	06	A	01	R	A	2	Cell+0B	CL	358	VR	7205	142.8	7.3	22.8	2.70	2.71	125.5	9.2	72	R	140.3	128.8	10.0	87	0.8	97.7	97.4	NA	SM	N	6'SON 6' WOE
04	06	A	02	R	A	2	Cell+0B	CL	358	VR	7205	151.2	6.6	27.6	2.72	2.71	133.7	8.8	90	R	140.3	129.0	9.4	82	0.6	103.7	103.6	NA	SM	N	9' NOS 11'WOE
04	09	A	01	R	A	2	Cell+0B	CL	361	VR	7205	143.3	6.7	26.7	2.70	2.71	125.6	8.6	67	R	138.7	128.7	10.0	86	1.4	98.3	97.6	NA	SM	N	6' SON 23' WOE
04	09	A	02	R	A	2	Cell+0B	CL	361	VR	7205	148.5	7.1	22.5	2.70	2.71	132.3	8.8	86	R	139.9	128.9	9.7	84	0.9	102.9	102.6	NA	SM	N	9' WOE 23' NOS
04	10	A	01	R	A	3	Cell+0B	CL	365	VR	7205	147.8	7.2	24.6	2.72	2.71	130.7	8.9	82	R	139.5	128.2	9.8	83	0.9	102.0	102.0	NA	SM	N	14'SON 24' EOW
04	10	A	02	R	A	3	CELL+0B	CL	365	VR	7205	145.7	6.8	23.0	2.72	2.71	129.3	8.4	74	R	138.9	129.6	10.0	89	1.6	100.9	99.8	NA	SM	N	13'NOS 15'WOE
04	10	A	03	R	A	3	CELL+0D	CL	368	VR	7205	144.9	6.4	31.6	2.72	2.71	125.3	8.8	68	R	142.1	130.9	8.2	76	-0.6	95.9	95.7	NA	SM	N	28'NOS 27' EOW
04	17	A	01	R	A	3	Cell+0D	CL	372	VR	7205	148.8	7.1	27.7	2.67	2.71	131.3	9.1	86	R	140.4	128.7	10.0	86	0.9	102.0	102.0	NA	SM	N	20'WOE 12'NOS
04	17	A	02	R	A	3	cELL+0D	CL	372	VR	7205	151.1	6.9	31.6	2.70	2.71	132.4	9.3	91	R	141.5	129.5	9.2	82	-0.1	102.3	102.2	NA	SM	N	26'WOE 22'NOS
04	17	A	03	R	A	3	CELL+0B	CL	370	VR	7205	146.9	7.0	30.1	2.70	2.71	127.7	9.5	79	R	141.7	129.4	9.7	86	0.2	98.7	98.7	NA	SM	N	24'EOW 10'NOS
04	17	A	04	R	A	3	CELL+0B	CL	370	VR	7205	149.5	7.7	28.1	2.70	2.71	130.6	10.0	92	R	141.5	128.7	9.4	81	-0.6	101.5	101.5	NA	SM	N	4'EOW 24'NOS
04	18	A	01	R	A	3	Cell+0D	CL	379	VR	7205	147.2	6.4	31.2	2.71	2.71	128.3	8.8	75	R	140.1	128.8	8.8	76	0.0	99.6	99.6	NA	SM	N	38'OE 20'NOS
04	18	A	02	R	R	3	CELL+0D	CL	379	VR	7205	141.5	6.5	34.2	2.70	2.71	120.5	9.0	61	R	139.9	128.3	9.2	78	0.2	93.9	93.9	NA	SM	N	22'EOW 22SON
04	18	A	03	R	A	3	CELL+0B	CL	378	VR	7205	144.2	7.1	24.0	2.71	2.71	127.0	8.8	72	R	140.1	128.8	9.1	79	0.3	98.6	98.6	NA	SM	N	6'SON 24'EOW
04	18	A	04	R	A	3	CELL+0B	CL	378	VR	7205	144.0	7.2	30.0	2.69	2.71	124.4	9.6	72	R	140.7	130.3	0.0	0	-9.6	96.9	95.5	NA	SM	N	
04	19	A	01	X	A	3	CELL+0D	CL	379	VR	7205	143.6	6.4	29.4	2.71	2.71	125.2	8.4	65	R	140.1	129.2	0.0	0	-8.4	96.9	96.9	NA	SM	N	RE 04-18-12A2
ACCEPTED TESTS THIS PERIOD: 34											AVG.	142.8	7.0	26.7	2.71	2.80	129.3	9.1	79		139.5	128.6	9.3	78	0.2	101.1	100.5				
											S.D.	25.4	0.5	5.2	0.02	0.51	3.4	0.7	14		1.8	1.0	2.4	22	2.5	3.0	2.7				
											C.O.V.	17.8	6.6	19.5	0.72	*.**	2.6	7.5	18		1.3	0.8	26.1	28	***.*	3.0	2.7				

STATISTICAL SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL
CONTROLLED BY THE LABORATORY COMPACTION METHOD

PROJECT: Central Valley

PERIOD OF REPORT: 04/1/2012 - 04/30/2012

FEATURE: MIAD Key-Block

SPECIFICATION NO: 20-C0754

FILL NAME: 1 - Key Block

	This Period	To Date
No. of Tests Taken	25	35
No. of Tests Accepted	24	34
No. of Tests Rejected	1	1
No. of Rejected Tests not Re-Checked	0	0
Average Water Content Total Material	7.0	7.0
Average Control Fraction Water Content	9.1	9.1
Average Optimum Water Content	9.3	9.3
Average Wo-Wf	0.2	0.2
Average Wet Density Total Material (PCF)	142.8	142.8
Average Control Fraction Dry Density (PCF)	129.3	129.3
Average Proctor Max Dry Density (PCF)	128.6	128.6
Average Compaction Cylinder Wet Density (PCF)	139.5	139.5
Average Percent +#4 Material (%)	26.7	26.7
Average C-Value (%)	101.1	101.1
Average D-Value (%)	100.5	100.5

Concrete Class: Lean Concrete Fill
Report of Mixes Used From 03/01/2012 to 04/30/2012

Mix Design Number: 1529207
Specification Number: 20-C0754
Project: MIAD Key-Block
Feature: Lean Concrete

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size Sand	CA1	CA2	CA3	CA4	Yield Quantities per Cubic Yard — Pounds — Water	Cem	Poz	Sand	C.A.	Oz — AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	TEMP	Fresh Concrete Tests — Slump (ins)	UW (pcf)	W/ C+P	Air — Grav Meth	Press Meter	Compressive Strength Of Individual Specimens (psi) — 3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
03/09/2012 18:03	10.00	71.6	100.0	0.0	0.0	0.0	473	404	102	2021	804	0	0.0	0.0	0.0	0.0	4.4	69	7.50	140.9	0.93	-0.3	0.5		1030 1100	1810 1730	###### ######	###### ######	###### ######
Design		45.0	100.0	0.0	0.0	0.0	475	399	101	1257	1542	0	0.0	0.0	0.0	0.0			8.00	139.8	0.95	0.4	0.4			1000			
AVG.		71.6	100.0	0.0	0.0	0.0	473	404	102	2021	804	0	0.0	0.0	0.0	0.0	4.4	69	7.50	140.9	0.93	-0.3	0.5		1065	1770			

Bureau.....: Required average strength = 1238 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi & C.O.V. (Est.) = 15.0
ACI.....: Required average strength = 2000 psi at 28 days (n=2)
CURE METHOD..: Water Tank with an Average Cure Temperature of 50 - 79 (F)

= Specimen not broken as of report date.

Concrete Class: Lean Concrete Fill
Report of Mixes Used From 03/01/2012 to 04/30/2012

Mix Design Number: 1534982
Specification Number: 20-C0754
Project: MIAD Key-Block
Feature: Lean Concrete

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size Sand	CA1	CA2	CA3	CA4	Yield Quantities per Cubic Yard Pounds Water	Cem	Poz	Sand	C.A.	AD#3 Oz	AEA	WRA	AD#4	AD#5	Cem Eff	TEMP	Fresh Concrete Tests Slump (ins)	UW (pcf)	W/ C+P	Air Grav Meth	Air Press Meter	Compressive Strength Of Individual Specimens (psi) 3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
03/02/2012																												
07:34	600.00	68.8	100.0	0.0	0.0	0.0	480	449	101	1880	855	0	0.0	0.0	0.0	0.0	4.1	57	7.50	139.4	0.87	0.5	0.4		1050	1960			
																									920	1680			
10:45	600.00	68.7	100.0	0.0	0.0	0.0	483	448	102	1885	862	0	0.0	0.0	0.0	0.0	4.2	64	7.00	140.0	0.88	0.0	0.5		1230	1830			
																									1180	1910			
14:57	600.00	68.7	100.0	0.0	0.0	0.0	487	452	106	1893	867	0	0.0	0.0	0.0	0.0	4.3	67	6.00	140.9	0.87	-0.7	0.4		1230	1910			
																									1240	2010			
16:15	600.00	68.6	100.0	0.0	0.0	0.0	484	451	102	1884	866	0	0.0	0.0	0.0	0.0	4.9	68	6.00	140.2	0.88	-0.2	0.6		1420	2190	######		
																									1390	2220			
03/05/2012																												
07:07	660.00	71.0	100.0	0.0	0.0	0.0	479	445	100	1932	792	0	0.0	0.0	0.0	0.0	4.2	58	6.50	138.8	0.88	0.9	0.5		1330	1870			
																									1330	1900			
09:36	660.00	71.0	100.0	0.0	0.0	0.0	488	454	102	1967	807	0	0.0	0.0	0.0	0.0	4.8	64	5.50	141.4	0.88	-1.0	0.5		1480	2140			
																									1540	2220			
12:18	660.00	71.0	100.0	0.0	0.0	0.0	488	452	106	1963	803	0	0.0	0.0	0.0	0.0	4.4	73	6.00	141.2	0.87	-1.0	0.6		1340	1980			
																									1340	1960			
14:44	660.00	71.0	100.0	0.0	0.0	0.0	487	452	102	1964	805	0	0.0	0.0	0.0	0.0	5.2	74	5.00	141.1	0.88	-0.9	0.8		1580	2360			
																									1480	2320			
03/09/2012																												
07:14	995.00	71.6	100.0	0.0	0.0	0.0	473	452	102	1977	785	0	0.0	0.0	0.0	0.0	4.1	63	7.00	140.3	0.85	0.4	0.4		1270	1870	######	######	######
																									1290	1880	######	######	######
09:53	995.00	71.6	100.0	0.0	0.0	0.0	473	449	101	1989	788	0	0.0	0.0	0.0	0.0	4.7	66	6.75	140.8	0.86	0.1	0.6		1390	2110			
																									1350	2080			
13:51	138.00	71.6	100.0	0.0	0.0	0.0	487	452	104	1979	786	0	0.0	0.0	0.0	0.0	4.2	72	7.00	141.1	0.88	-0.7	0.8		1310	1870			
																									1330	1910			
03/21/2012																												
11:03	530.00	70.8	100.0	0.0	0.0	0.0	483	457	105	1974	819	0	0.0	0.0	0.0	0.0	4.4	65	5.25	142.1	0.86	-1.3	0.7		1270	2050			
																									1380	1960			
13:40	530.00	70.7	100.0	0.0	0.0	0.0	484	450	100	1936	805	0	0.0	0.0	0.0	0.0	4.4	64	6.50	139.8	0.88	0.1	0.6		1320	1980			
																									1330	2020			
Design		45.0	100.0	0.0	0.0	0.0	508	446	101	1198	1470	0	0.0	0.0	0.0	0.0			8.00	137.9	0.93	0.0	0.0			1000			
AVG.		70.4	100.0	0.0	0.0	0.0	483	451	103	1940	818	0	0.0	0.0	0.0	0.0	4.5	66	6.31	140.5	0.87	-0.3	0.6		1320	2007			
S.D.		1.2	0.0	0.0	0.0	0.0	5	3	2	41	32	0	0.0	0.0	0.0	0.0	0.3	5	0.76	0.9	0.01	0.7	0.1		138	160			
C.O.V		1.7	0.0	0.0	0.0	0.0	1.1	0.7	2.0	2.1	3.9	0.0	0.0	0.0	0.0	0.0	7.6	7.9	12.0	0.6	1.0	**.*	24.2		10.4	8.0			

Bureau.....: Required average strength = 1101 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi & C.O.V. (n=44) = 7.2
ACI.....: Required average strength = 1193 psi at 28 days (n=44)
CURE METHOD..: Water Tank with an Average Cure Temperature of 52 - 78 (F)

= Specimen not broken as of report date.

Concrete Construction Data
Concrete Class: Secant Pile Mix
Report of Mixes Used From 03/01/2012 to 04/30/2012

Mix Design Number: 1514243
Specification Number: C0-C0754
Project: MIAD KEY-BLOCK
Feature: SECANT PILES

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size: Sand	CA1	CA2	CA3	CA4	Yield Quantities per Cubic Yard — Pounds: Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	TEMP	Fresh Concrete Tests: Slump (ins)	UW (pcf)	W/C+P	Air Grav	Air Meth	Air Press Meter	Compressive Strength Of Individual Specimens (psi): 3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
03/01/2012 08:10	128.00	46.1	100.0	0.0	0.0	0.0	297	394	178	1397	1665	0	0.0	18.0	21.5	28.4	8.1	55	8.25	145.6	0.52	2.6		2.4		2050	3190			
																										1950	3220			
03/07/2012 09:20	186.50	45.2	100.0	0.0	0.0	0.0	317	402	177	1374	1696	0	0.0	18.0	21.9	28.6	10.8	59	7.75	146.9	0.55	1.1		2.0		2620	4250			
																										2740	4450			
03/08/2012 09:29	158.50	45.0	100.0	0.0	0.0	0.0	305	401	181	1374	1708	0	0.0	18.0	21.8	28.9	10.5	59	7.50	147.0	0.52	1.5		1.5		2700	4240			
																										2790	4200			
03/12/2012 10:05	187.00	45.5	100.0	0.0	0.0	0.0	308	404	172	1395	1701	0	0.0	18.1	22.0	29.1	10.3	67	6.50	147.4	0.53	1.1		2.3		2550	4190			
																										2460	4120			
03/13/2012 07:57	160.50	45.4	100.0	0.0	0.0	0.0	306	401	170	1384	1697	0	0.0	18.0	21.5	28.9	9.4	61	8.00	146.6	0.54	1.7		1.6		2110	3620			
																										2060	3890			
03/15/2012 11:06	193.00	45.6	100.0	0.0	0.0	0.0	379	394	167	1361	1654	0	0.0	17.7	21.8	28.1	9.4	66	8.00	146.5	0.68	-1.0		1.6		2030	3680			
																										2110	3720			
03/16/2012 07:18	135.50	45.7	100.0	0.0	0.0	0.0	307	403	178	1395	1692	0	0.0	18.1	22.0	29.1	8.6	57	7.50	147.2	0.53	1.3		1.7		2090	3490			
																										2090	3440			
03/20/2012 07:14	218.00	44.2	100.0	0.0	0.0	0.0	309	405	174	1359	1747	0	0.0	18.2	22.1	29.5	9.6	56	7.75	147.9	0.53	0.8		1.7		2440	3740			
																										2380	4050			
03/27/2012 08:21	99.00	42.5	100.0	0.0	0.0	0.0	306	402	171	1303	1793	0	0.0	18.7	22.2	29.0	10.7	58	7.00	147.2	0.53	1.4		1.0		2680	4310			
																										2680	4320			
03/28/2012 07:14	177.00	42.8	100.0	0.0	0.0	0.0	286	410	174	1327	1805	0	0.0	18.4	22.3	29.2	9.0	57	8.00	148.2	0.49	1.5		1.5		2200	3700			
																										2240	3650			
04/02/2012 08:40	123.50	43.9	100.0	0.0	0.0	0.0	299	406	173	1349	1758	0	0.0	18.5	22.1	28.9	10.7	56	8.25	147.6	0.52	1.4		1.4		2390	4290			
																										2520	4430			
04/04/2012 07:18	123.00	44.0	100.0	0.0	0.0	0.0	293	407	175	1358	1763	0	0.0	17.9	22.5	24.4		64	7.75	148.0	0.50	1.3		1.5		2890	######			
																										2810	######			
04/13/2012 08:12	143.00	44.0	100.0	0.0	0.0	0.0	301	408	173	1356	1760	0	0.0	18.3	22.2	29.4		58	9.00	148.1	0.52	1.0		1.5		2000	######			
																										2110	######			
04/16/2012 10:25	134.00	42.8	100.0	0.0	0.0	0.0	298	403	175	1324	1801	0	0.0	18.4	21.9	29.4		67	7.50	148.2	0.52	1.0		2.1		3710	######			
																										3590	######			
04/17/2012 07:49	65.50	43.0	100.0	0.0	0.0	0.0	301	406	172	1333	1801	0	0.0	18.5	22.4	29.2		66	8.50	148.6	0.52	0.6		1.1		2210	######			
																										2250	######			
04/18/2012 08:08	101.50	43.4	100.0	0.0	0.0	0.0	301	407	176	1342	1786	0	0.0	17.9	22.2	29.4		68	8.50	148.6	0.52	0.6		1.3		2240	######			
																										2290	######			
04/19/2012 07:47	73.00	43.2	100.0	0.0	0.0	0.0	300	405	174	1337	1792	0	0.0	18.1	22.0	28.8		67	8.75	148.4	0.52	0.8		1.4		2330	######			
																										2290	######			

Concrete Class: Secant Pile Mix
Report of Mixes Used From 03/01/2012 to 04/30/2012

Mix Design Number: 1514243
Specification Number: C0-C0754
Project: MIAD KEY-BLOCK
Feature: SECANT PILES

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size Sand	CA1	CA2	CA3	CA4	Yield Quantities per Cubic Yard — Pounds: Water	Cem	Poz	Sand	C.A.	AD#3	Oz: AEA	WRA	AD#4	AD#5	Cem Eff	TEMP	Fresh Concrete Tests: Slump (ins)	UW (pcf)	W/ C+P	Air Grav Meth	Air Press Meter	Compressive Strength Of Individual Specimens (psi): 3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
04/20/2012 08:23	136.50	43.3	100.0	0.0	0.0	0.0	300	406	174	1335	1783	0	0.0	18.5	22.4	29.3		73	8.00	148.1	0.52	0.9	1.6		2510	######			
																									2600	######			
04/23/2012 09:48	231.00	42.6	100.0	0.0	0.0	0.0	297	403	171	1300	1785	0	0.0	18.0	21.9	29.3		72	8.25	146.5	0.52	2.0	1.8		2160	######			
																									2220	######			
04/24/2012 07:57	229.50	42.8	100.0	0.0	0.0	0.0	299	404	174	1308	1784	0	0.0	18.1	22.0	28.8		69	9.00	147.0	0.52	1.6	1.5		######	######			
																									######	######			
04/25/2012 08:15	253.50	42.2	100.0	0.0	0.0	0.0	288	402	171	1294	1808	0	0.0	18.3	21.8	28.8		72	7.50	146.8	0.50	2.2	1.4		######	######			
																									######	######			
04/26/2012 07:43	202.50	42.4	100.0	0.0	0.0	0.0	297	402	177	1295	1791	0	0.0	17.9	22.1	29.2		68	7.50	146.7	0.51	1.9	1.8		######	######			
																									######	######			
04/27/2012 07:48	258.50	42.9	100.0	0.0	0.0	0.0	297	401	173	1305	1772	0	0.0	18.0	21.8	28.9		65	7.25	146.2	0.52	2.2	1.8		######	######			
																									######	######			
04/30/2012 07:48	215.50	44.7	100.0	0.0	0.0	0.0	299	405	169	1367	1726	0	0.0	18.1	22.0	29.1		68	8.00	146.9	0.52	1.7	1.4		######	######			
																									######	######			
Design		42.0	100.0	0.0	0.0	0.0	309	395	169	1276	1750	0	0.0	18.0	22.0	24.0			8.00	144.4	0.55	3.0	3.0			3000			
AVG.		43.9	100.0	0.0	0.0	0.0	304	403	174	1345	1753	0	0.0	18.2	22.0	28.8	9.7	64	7.92	147.3	0.53	1.3	1.6		3089	3918			
S.D.		1.2	0.0	0.0	0.0	0.0	17	4	3	33	48	0	0.0	0.2	0.3	1.0	0.9	6	0.60	0.8	0.03	0.7	0.3		4185	390			
C.O.V		2.8	0.0	0.0	0.0	0.0	5.7	0.9	1.8	2.5	2.7	0.0	0.0	1.3	1.2	3.4	9.6	9.0	7.6	0.6	6.4	55.5	20.7		**.*	9.9			

Bureau.....: Required average strength = 3495 psi at 28 days. Based on 90% exceeding the design strength of 3000 psi & C.O.V. (n=236) = 11.1
ACI.....: Required average strength = 3557 psi at 28 days (n=236)
CURE METHOD..: Water Tank with an Average Cure Temperature of 58 - 77 (F)

= Specimen not broken as of report date.

U.S. Bureau of Reclamation
Aggregate Gradation Summary

From 04/01/2012 to 04/30/2012

Specification : C0-C0754
Mix Number : ALL Combined for This Specification
Project : MIAD KEY-BLOCK
Feature : SECANT PILES

Sand Gradations (ASTM)

	Percent Passing											
Date	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	% -200	FINE MOD	Moist %	Spec Grav	Absorp
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
04/02/2012	100.0	97.8	85.5	71.7	46.9	17.4	5.0	2.50	2.76	5.19	2.65	2.00
04/04/2012	100.0	97.8	85.5	71.7	46.9	17.4	5.0	2.50	2.76	5.15	2.65	2.00
04/13/2012	100.0	97.8	85.5	71.7	46.9	17.4	5.0	2.50	2.76	8.37	2.65	2.00
04/16/2012	100.0	98.4	87.4	75.2	51.5	19.4	5.5	2.20	2.63	4.66	2.65	2.00
04/17/2012	100.0	98.4	87.4	75.2	51.5	19.4	5.5	2.20	2.63	3.86	2.65	2.00
04/18/2012	100.0	98.4	87.4	75.2	51.5	19.4	5.5	2.20	2.63	3.87	2.65	2.00
04/19/2012	100.0	98.4	87.4	75.2	51.5	19.4	5.5	2.20	2.63	3.52	2.65	2.00
04/20/2012	100.0	98.4	87.4	75.2	51.5	19.4	5.5	2.20	2.63	3.40	2.65	2.00
04/23/2012	100.0	97.8	86.4	74.6	51.0	19.5	5.8	2.50	2.65	3.32	2.65	2.00
04/24/2012	100.0	97.8	86.4	74.6	51.0	19.5	5.8	2.50	2.65	3.49	2.65	2.00
04/25/2012	100.0	97.8	86.4	74.6	51.0	19.5	5.8	2.50	2.65	3.94	2.65	2.00
04/26/2012	100.0	97.8	86.4	74.6	51.0	19.5	5.8	2.50	2.65	5.39	2.65	2.00
04/27/2012	100.0	97.8	86.4	74.6	51.0	19.5	5.8	2.50	2.65	4.73	2.65	2.00
04/30/2012	100.0	98.4	86.3	74.3	51.0	19.1	5.1	2.50	2.66	3.45	2.65	2.00
Average	100.0	98.1	86.6	74.1	50.3	19.0	5.5	2.39	2.66	4.45	2.65	2.00
S.D.	0.0	0.3	0.7	1.4	1.8	0.9	0.3	0.15	0.05	1.35	0.00	0.00
C.O.V.	0.0	0.3	0.9	1.8	3.7	4.6	5.9	6.23	1.93	30.21	0.00	0.00

Aggregate Gradation Summary

From 04/01/2012 to 04/30/2012

Specification : C0-C0754
Mix Number : ALL Combined for This Specification
Project : MIAD KEY-BLOCK
Feature : SECANT PILES

Nominal Size : #8 - 3/8" (ASTM)

Coarse Aggregate Gradations

	Percent Passing Screen Sizes in Inches or Sieve Size Shown								
Date	1/2"	3/8"	#4	#8	#16	% -200	Moist %	Spec Grav	Absorp
Spec Max %	100.0	100.0	30.0	10.0	5.0				
Spec Min %	100.0	85.0	10.0	0.0	0.0				
04/02/2012	100.0	99.7	27.1	3.9	0.7	0.40	1.50	2.70	1.40
04/04/2012	100.0	99.7	27.1	3.9	0.7	0.40	1.50	2.70	1.40
04/13/2012	100.0	99.7	27.1	3.9	0.7	0.40	2.00	2.70	1.40
04/16/2012	100.0	98.8	15.6	2.4	0.6	0.30	2.00	2.70	1.40
04/17/2012	100.0	98.8	15.6	2.4	0.6	0.30	2.00	2.70	1.40
04/18/2012	100.0	98.8	15.6	2.4	0.6	0.30	2.00	2.70	1.40
04/19/2012	100.0	98.8	15.6	2.4	0.6	0.30	1.50	2.70	-NA-
04/20/2012	100.0	98.8	15.6	2.4	0.6	0.30	1.50	2.70	1.40
04/23/2012	0.0	0.0	0.0	0.0	0.0	0.40	1.00	2.70	1.40
04/24/2012	100.0	99.2	13.8	1.8	0.2	0.40	1.00	2.70	1.40
04/25/2012	100.0	99.2	13.8	1.8	0.2	0.40	1.00	2.70	1.40
04/26/2012	100.0	99.2	13.8	1.8	0.2	0.40	1.50	2.70	1.40
04/27/2012	100.0	99.2	13.8	1.8	0.2	0.40	1.50	2.70	1.40
04/30/2012	100.0	99.0	21.7	4.6	1.1	0.80	1.50	2.70	1.40
Average	92.9	92.1	16.8	2.5	0.5	0.39	1.54	2.70	1.40
S.D.	26.7	26.5	7.2	1.2	0.3	0.13	0.37	0.00	0.00
C.O.V.	28.8	28.8	42.5	47.7	58.6	32.30	23.77	0.00	0.00

Concrete Class: Fish Screen Slab
Report of Mixes Used From 04/01/2012 to 04/30/2012

Mix Design Number: F740QFPX7-2
Specification Number: 20-C0752
Project: Central Valley
Feature: Red Bluff Pumping Plant and Fish Screen

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size: Sand	CA1	CA2	CA3	CA4	Yield Quantities per Cubic Yard — Pounds: Water	Cem	Poz	Sand	C.A.	AD#3	Oz: AEA	WRA	AD#4	AD#5	Cem Eff	T E M P	Fresh Concrete Tests: Slump (ins)	UW (pcf)	W/ C+P	Air — Grav Meth	Air — Press Meter	Compressive Strength Of Individual Specimens (psi): 3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
04/06/2012																													
13:57	35.50	53.9	100.0	0.0	0.0	0.0	272	595	107	1569	1332	0	4.6	21.1	27.8	0.0		70	4.25	143.5	0.39	3.0	3.6		3040	######			
																									2980	######			
Design		44.0	100.0	0.0	0.0	0.0	237	592	105	1254	1624	0	4.5	27.8	20.9	0.0			3.00	141.2	0.34	5.0	5.0			4000			
AVG.		53.9	100.0	0.0	0.0	0.0	272	595	107	1569	1332	0	4.6	21.1	27.8	0.0	0.0	70	4.25	143.5	0.39	3.0	3.6		3010				

Bureau.....: Required average strength = 4574 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (n=241) = 9.8
ACI.....: Required average strength = 4758 psi at 28 days (n=241)
CURE METHOD..: Water Tank with an Average Cure Temperature of 70 - 76 (F)

= Specimen not broken as of report date.