C015 0018 Incoming

#4715

ENERGY WEST
MINING COMPANY
A SUBSIDIARY OF PACIFICORP

Energy West Mining Company
P. O. Box 310
15 No Main Street
Huntington, Utah 84528

RECEIVED
NOV 24 2014
DIV. OF OIL, GAS & MINING

November 21 2014

Utah Coal Program
Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subj: Clean Copy Resubmittal for the Deer Creek MRP, PacifiCorp, Deer Creek Mine C/015/0018, Task ID 4715, Emery County, Utah.

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company "Energy West" as mine operator, hereby resubmits the clean copies to amended Deer Creek Mine MRP, Volume 1, Part 2, Division Task ID #4714. Energy West mistakenly erred in submitting the text section with inconsistent pagination. Please replace the text section from the November 14, 2014 clean copy submittal with the information of this submittal

Energy West is regretful of the mistake but hopeful this submittal clears up any discrepancies. If you have any questions concerning this submittal, please contact Dennis Oakley at 435-687-4825.

Sincerely,

Kenneth S. Fleck

Kenneth Fleck
Geology and Environmental Affairs Manager

Cc: file

Encl

Volume 1, Part 2, 2-220 thru 2-225

C/015/018 Incoming

ENERGY WEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

Energy West Mining Company
P. O. Box 310
15 No Main Street
Huntington, Utah 84528

November 14 2014

Utah Coal Program
Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subj: Clean Copy Submittal for the Deer Creek Mine MRP, PacifiCorp, Deer Creek Mine C/015/0018, Task ID 4715, Emery County, Utah.

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company "Energy West" as mine operator, hereby submits the clean copies to amended Deer Creek Mine MRP, Volume 1, Part 2, Division Task ID #4715. Please stamp and incorporate into the proper locations in the MRP as outlined in the attached C2 Form.

If you have any questions concerning this submittal, please contact Dennis Oakley at 435-687-4825.

Sincerely,

Kenneth S. Fleck

Kenneth Fleck
Geology and Environmental Affairs Manager

Cc: file

Encl Volume 1, Table of Contents, pg i
Volume 1, Part 2, pgs 2-220 thru 2-225
Map HM1-A
C2 Forms

RECEIVED
NOV 17 2014
DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: PacifiCorp
Mine: Deer Creek Mine **Permit Number:** C/019/0018
Title: Clean Copy Submittal for the Deer Creek Mine MRP, PacifiCorp, Deer Creek Mine C/015/0018, Task ID 4715, Emery County, Utah.

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☒ Add	☐ Replace	☐ Remove	Volume 1, Part 2: add 2-220 thru 2-225
☒ Add	☐ Replace	☐ Remove	Volume 1, Part 2: add map HM-1A after page 2-225
☐ Add	☒ Replace	☐ Remove	Volume 1, Table of Contents, replace page i
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	

Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.	Received by Oil, Gas & Mining
	RECEIVED NOV 17 2014 DIV. OF OIL, GAS & MINING

TABLE OF CONTENTS

DOGM REGULATION	TITLE	PAGE NO.

Volume 1

R645-301-100: General Contents

All Legal and Financial Information has been moved to the Legal and Financial Volume

PART 2 - ENVIRONMENTAL RESOURCES

645-301-411.140	Archeological Survey	2-1
645-301-600	Geology	Volume 8
645-301-700	Hydrology	Volume 9
645-301-724.400	Climatological Information	Volume 9
645-301-321	Vegetation	2-135
645-301-321	Vegetation Monitoring Plan	2-174
645-301-200	Soils Information	2-174
645-301-322	Fish and Wildlife Resources	2-182
645-301-410	Land Use Information	2-211
645-301-221	Prime Farm Land Investigation	2-214
645-301-320	Alluvial Valley Floors	2-219
645-301-720	Hydrologic Resources and Monitoring Requirements	2-220

DOGM REGULATION	TITLE	PAGE NO.

Volume 2

PART 3 - MINING OPERATION PLAN

645-301-511.100	Deer Creek Mine Operation	3-1
645-301-523	Mining Plan	3-3
645-301-523	Mining Method	3-7
645-301-523	Production	3-15
645-301-523	Equipment	3-18
645-301-511.200	Engineering Principles and Techniques	3-18
645-301-526	Facilities	3-20
645-301-526.300	Water Pollution Control Facilities	3-36

INCORPORATED
NOV 2 5 2014
Div. of Oil, Gas & Mining

R645-301-720: HYDROLOGIC RESOURCES AND MONITORING REQUIREMENTS

Hydrology

The Deer Creek Mine is part of the East Mountain property in which PacifiCorp holds coal mining interests. The East Mountain property encompasses multiple adjacent mining operations including; Cottonwood/Wilberg Mine, Deer Creek Mine, and the reclaimed Des Bee Dove Mine (Phase III Bond Released approved August 2014). PacifiCorp has collected comprehensive baseline information on the hydrologic resources of the East Mountain property that consists of ground and surface water investigations, climatological information, baseline cumulative impact area information, and probable hydrologic consequence determination to ensure the protection of the hydrologic balance of the Deer Creek Mine permit area and East Mountain property. This information is found in Volume 9, Volume 9A, and/or Volume 9B.

As part of the requirements of the Utah Coal Regulations R645-301-731.221 through R645-301-731.225, a hydrologic monitoring program has been established in cooperation with Utah Division of Oil, Gas, and Mining. The hydrologic monitoring program involves collecting water quality and quantity samples of ground and surface water for specific sites pertinent the Deer Creek Mine permit area.

The following details the hydrologic monitoring program for the Deer Creek Mine permit for surface and ground water monitoring sites, required sampling parameter list, and map showing site locations.

INCORPORATED

NOV 2 5 2014

Div. of Oil, Gas & Mining

Surface Water Hydrology (for detailed information for the Deer Creek Mine see Volumes 9, 9A, and 9B)

Cottonwood Creek Drainage System

Indian Creek (refer to Deer Creek Volume 12 R645-301-700: Hydrologic Monitoring Map MFS1851D)

1) ICA
2) ICF
3) ICD
4) ICB

Huntington Creek Drainage System

Huntington Creek (refer to Volume 9, Hydrologic Section, Cottonwood/Wilberg and Deer Creek Mines, Map HM-1A)

1) HCC01
2) HCC02
3) HCC04

Deer Creek Canyon (refer to Volume 9, Hydrologic Section, Cottonwood/Wilberg and Deer Creek Mines, Map HM-1A)

1) DCR01
2) DCR04
3) DCR06

Meetinghouse Canyon-South Fork (refer to Volume 9, Hydrologic Section, Cottonwood/Wilberg and Deer Creek Mines, Map HM-1A)

1) MHC01

INCORPORATED
NOV 2 5 2014
Div. of Oil, Gas & Mining

Rilda Canyon (refer to Volume 9, Hydrologic Section, Cottonwood/Wilberg and Deer Creek Mines, Map HM-1A)

1) RCF1
2) RCLF1
3) RCLF2
4) RCF2
5) RCF3
6) RCW4

Mill Fork Canyon (refer to Deer Creek Volume 12 R645-301-700: Hydrologic Monitoring Map MFS1851D)

1) MFA01
2) MFB02
3) MFU03

Ground Water Hydrology (for detailed information for the Deer Creek Mine see Volumes 9 and 9A: Hydrologic Section, Cottonwood/Wilberg and Deer Creek Mines)

East Mountain Springs (refer to Volume 9, Hydrologic Section, Cottonwood/Wilberg and Deer Creek Mines, Map HM-4)

1) Sheba Springs
2) 80-48
3) 80-50
4) 89-65
5) 89-66
6) 89-67
7) 89-68
8) Rilda Canyon Meters (Meters 2 & 3)*

* NEWUSSD controls Rilda Canyon meters. Monitoring will be conducted when meters are functioning.

INCORPORATED
NOV 2 5 2014
Div. of Oil, Gas & Mining

East Mountain Springs - Mill Fork Area (refer to Deer Creek Permit Volume 12 R645-301-700: Hydrologic Monitoring Map MFS1851D)

1) EM-216
2) MFR-30
3) JV-9
4) JV-34
5) RR-5
6) RR-15
7) RR-23A
8) MF-7
9) MF-10
10) MF-19B
11) MF-213
12) MF-219
13) SP1-26
14) SP1-29
15) MFR-10
16) UJV 101
17) UJV-206
18) UJV-213
19) EM Pond
20) Little Bear Spring
21) Grants Spring

Piezometric Data - Surface

Rilda Canyon

1) P1
2) P5
3) P6
4) P7
5) EM-47

Cottonwood Creek Canyon

1) EM-31
2) CCCW-1A
3) CCCW-1S
4) CCCW-2A
5) CCCW-3A
6) CCCW-3S U
7) CCCW-3S L

Piezometric Data - Underground

1) Refer to Annual Hydrologic Reports for Locations: Map HM-2

Waste Rock Wells

1) DCWR1

INCORPORATED
NOV 25 2014
Div. of Oil, Gas & Mining

UPDES Monitoring Locations - UPDES Permit #UT0023604

1) 001 - Sediment Pond
2) 002 - Mine Discharge

Required Monitoring Parameters

Field Measurements shall be collected during monitoring of surface and ground water sites. Field measurements include:

- Date and Time
- Flow
- pH
- Temperature
- Conductivity
- Dissolved Oxygen (perennial streams only)

Surface and ground water samples shall be analyzed for quality utilizing the following parameters (in mg/L). Baseline parameters shall be collected every 5 years. Operational samples shall be collected at all other times and as dictated by the monitoring schedule.

Laboratory Measurements:

#	*	-	Total Settleable Solids (UPDES Only)
#	*	-	Total Suspended Solids (Surface Only)
	*	-	Total Dissolved Solids
	*	-	Total Hardness ($CaCO_3$)
		-	Acidity ($CaCO_3$)
		-	Aluminum (Al) - Dissolved
		-	Arsenic (As) - Dissolved
		-	Boron (B) - Dissolved (Waste Rock Sites Only)
	*	-	Carbonate (CO_3^{-2})
	*	-	Total Alkalinity/Bicarbonate ($CaCO_3$)
		-	Cadmium (Cd) - Dissolved
	*	-	Calcium (Ca) - Dissolved
	*	-	Chloride (Cl-)
		-	Copper (Cu) - Dissolved
	*	-	Iron (Fe) - Total & Dissolved
		-	Lead (Pb) - Dissolved
	*	-	Magnesium (Mg) - Dissolved
	*	-	Manganese (Mn) - Total & Dissolved
		-	Molybdenum (Mo) - Dissolved
		-	Nitrogen: Ammonia (NH3) - reported as N

INCORPORATED
NOV 2 5 2014
Oil, Gas & Mining

Laboratory Measurements cont.

- Nitrite (NO_2) - reported as N
- Nitrate (NO_3^-) - reported as N
* Potassium (K) - Dissolved
* Oil & Grease*
- Ortho Phosphate (PO_4^{-3}) - reported as P
- Selenium (Se) - Dissolved (Waste Rock Sites Only)
* Sodium (Na) - Dissolved
* Sulfate (SO_4^{-2})
- Zinc (Zn) - Dissolved
* Cation-Anion Balance

Construction * Operational - Baseline

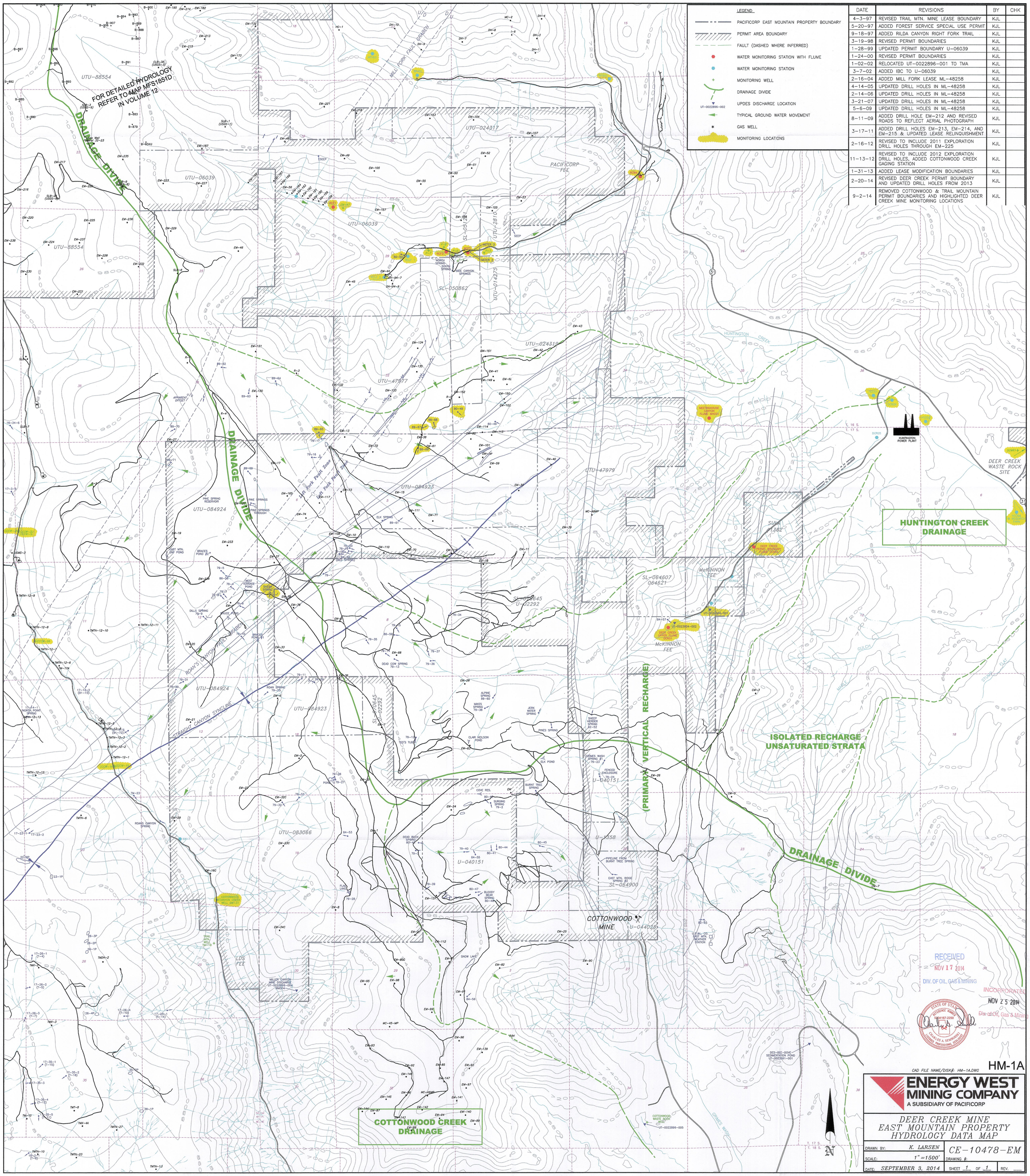
*UPDES & surface waters above & below mine sites

Monitoring Schedule

Surface monitoring sites shall be field monitored quarterly for all field parameters except for Indian Creek Sites - monitoring to be conducted during base flow only. Surface sites shall also be analyzed for quality for all quality parameters listed except for Indian Creek sites - monitoring to be conducted during base flow only.

East Mountain Springs (including the Mill Fork Area) shall be field monitored during the months of July and October. Rilda Canyon Springs - NEWUSSD: Meters 2 & 3 shall be field monitored monthly depending on access. East Mountain Springs (including the Mill Fork Area) shall also be analyzed for quality during the months of July and October. Rilda Canyon Springs - NEWUSSD: Meters 2 & 3 shall be monitored for quality monthly depending on access. All surface and ground water monitoring requirements for the Mill Fork Area are found in Volume 12, Deer Creek Mine, Mill Fork Lease,Section R645-301-700.

INCORPORATED
NOV 2 5 2014
of Oil, Gas & Mining



LEGEND

- PACIFICORP EAST MOUNTAIN PROPERTY BOUNDARY
- PERMIT AREA BOUNDARY
- FAULT (DASHED WHERE INFERRED)
- WATER MONITORING STATION WITH FLUME
- WATER MONITORING STATION
- MONITORING WELL
- DRAINAGE DIVIDE
- UT-0022896-002 UPDES DISCHARGE LOCATION
- TYPICAL GROUND WATER MOVEMENT
- GAS WELL
- MONITORING LOCATIONS

DATE	REVISIONS	BY	CHK
4-3-97	REVISED TRAIL MTN. MINE LEASE BOUNDARY	KJL	
5-20-97	ADDED FOREST SERVICE SPECIAL USE PERMIT	KJL	
9-18-97	ADDED RILDA CANYON RIGHT FORK TRAIL	KJL	
3-19-98	REVISED PERMIT BOUNDARIES	KJL	
1-28-99	UPDATED PERMIT BOUNDARY U-06039	KJL	
1-24-00	REVISED PERMIT BOUNDARIES	KJL	
1-02-02	RELOCATED UT-0022896-001 TO TMA	KJL	
3-7-02	ADDED IBC TO U-06039	KJL	
2-16-04	ADDED MILL FORK LEASE ML-48258	KJL	
4-14-05	UPDATED DRILL HOLES IN ML-48258	KJL	
2-14-06	UPDATED DRILL HOLES IN ML-48258	KJL	
3-21-07	UPDATED DRILL HOLES IN ML-48258	KJL	
5-6-09	UPDATED DRILL HOLES IN ML-48258	KJL	
8-11-09	ADDED DRILL HOLE EM-212 AND REVISED ROADS TO REFLECT AERIAL PHOTOGRAPH	KJL	
3-17-11	ADDED DRILL HOLES EM-213, EM-214, AND EM-215 & UPDATED LEASE RELINQUISHMENT	KJL	
2-16-12	REVISED TO INCLUDE 2011 EXPLORATION DRILL HOLES THROUGH EM-225	KJL	
11-13-12	REVISED TO INCLUDE 2012 EXPLORATION DRILL HOLES, ADDED COTTONWOOD CREEK GAGING STATION	KJL	
1-31-13	ADDED LEASE MODIFICATION BOUNDARIES	KJL	
2-20-14	REVISED DEER CREEK PERMIT BOUNDARY AND UPDATED DRILL HOLES FROM 2013	KJL	
9-2-14	REMOVED COTTONWOOD & TRAIL MOUNTAIN PERMIT BOUNDARIES AND HIGHLIGHTED DEER CREEK MINE MONITORING LOCATIONS	KJL	

RECEIVED
NOV 17 2014
DIV. OF OIL, GAS & MINING

INCORPORATED
NOV 25 2014
Div. of Oil, Gas & Mining

STATE OF UTAH
REFERENCE NUMBER
5804167-2250
CHARLES A. SEMBOUST
PROFESSIONAL GEOLOGIST

HM-1A

CAD FILE NAME/DISK#: HM-1A.DWG

ENERGY WEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

DEER CREEK MINE
EAST MOUNTAIN PROPERTY
HYDROLOGY DATA MAP

DRAWN BY: K. LARSEN		CE-10478-EM
SCALE: 1"=1500'		DRAWING #:
DATE: SEPTEMBER 3, 2014	SHEET 1 OF 1	REV.