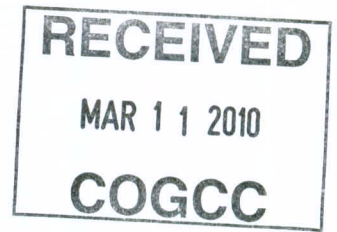




2A: 2581162



**EXPANSION OF THE MAESTAS GU A #1 WELL  
Supplemental STORM WATER MANAGEMENT PLAN (SWMP)  
APPENDIX NQ 19 December 2009**

**1.0 SITE AND PROJECT INFORMATION**

Project Name: Maestas GU A #3; Well Pad Expansion

Project Location: The project is located on private lands located in Sec 23; T33N, R09W SUL La Plata County, Colorado N.M.P.M. Lat/Long: 37°05'10.42800" N 107°47'30.98399" W

Owner Name and Address: BP America Production Company  
380 Airport Road  
Durango, CO 81301

Facility Contact and Telephone Number: Dan Fauth  
(970) 247-6800

**Project Specifics**

a. Description of the Construction Activity: Expansion of a well pad for a natural gas well on 260'x 195' level well pad. Construction of a temporary access road.

b. Sequence of Major Construction Activities:  
. Well Pad Construction  
. Well Drilling and Completion  
. Interim Pad Reclamation

c. Estimated Total Area of Site disturbance ~1.20 Acres

d<sub>a</sub>. Estimated Runoff Coefficient, Before and After

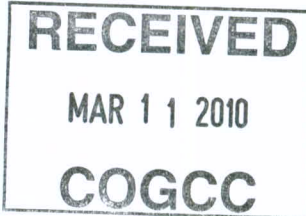
Resource:	Before:	After:
Grasslands	0.35	0.35/0.75
Pinyon/Juniper	0.40	0.40/0.75
Existing Well Pad	0.75	0.75

d<sub>b</sub>. Existing Soil Data:

Soil:	Area:	Erosion:
Arboles Clay Loam	Entire Pad	Moderate

e. Description of Existing Vegetation and Estimate of Percent of Ground Cover:  
Grasslands ~ 80%  
Sagebrush shrub ~ 50-55%

- |    |   |  |
|----|---|--|
| f. | Description of Potential<br>Pollution Sources:            | 1) Diesel fuel and gasoline for equipment and vehicles; 2)<br>Lubricating oil 3) Drilling mud (bentonite -based viscous fluid);<br>4) Casing cement. |
| g. | Description of Anticipated<br>Non-storm water Discharges: | None Anticipated   |
| h. | Name of Receiving Water<br>and Type of Outfalls:          | Unnamed ephemeral stream via overland flow   |



**2.0 SITE MAPS**

The attached maps (Exhibit B) illustrate the approximate location of the well pad. Construction activities and areas of cut and fill and soil disturbance are limited to the area surveyed for the location. The maps illustrate the features required by the CDPS General Permit for field wide construction activities on fee lands under the field wide permit. There are no point-source outfall structures; runoff enters the receiving watersheds and water bodies by overland flow.

**3.0 BEST MANAGEMENT PRACTICES FOR STORMWATER POLLUTION PREVENTION**

The Best Management Practices (BMP) to be employed during the construction of this well site and pipeline project are outlined in the field wide Storm Water Management Plan. Specific BMPs to be implemented during the proposed project are described in Exhibit A.

**4.0 INSPECTION AND MAINTENANCE**

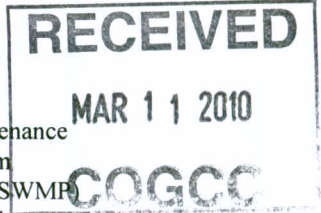
Inspections of the project site and maintenance of BMPs installed shall be conducted in accordance with the CDPHE CDPS permit and the field wide plan.

**5.0 TERMINATION**

At this time no formal permit termination is necessary as the PHASE II rule under the CDPHE is covered under a field wide permit. Upon final stabilization of the site covered under this supplemental plan, the plan and its associated inspections should be kept for at least three years following the date of final stabilization.

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**EXHIBIT A**  
Implementation Responsibility Transfer Log



By signing below, I certify under penalty of law that I understand and am responsible for the maintenance and implementation of the terms and conditions of the general Colorado Discharge Pollutant System (CDPS) permit and measures identified by the above site specific Storm Water Management Plan (SWMP) that may authorize the storm water discharges associated with my activities from the construction site identified in Section 6.0 of this site specific SWMP.

Site Responsibilities:

Name and Title (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

By signing below, I certify under penalty of law that I understand and am responsible for the maintenance and implementation of the terms and conditions of the general Colorado Discharge Pollutant System (CDPS) permit and measures identified by the above site specific Storm Water Management Plan (SWMP) that may authorize the storm water discharges associated with my activities from the construction site identified in Section 6.0 of this site specific SWMP.

Site Responsibilities:

Name and Title (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

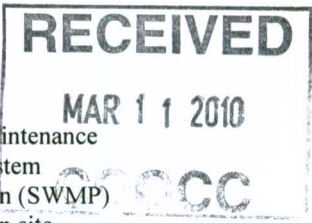
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Site Responsibilities:

Name and Title (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



By signing below, I certify under penalty of law that I understand and am responsible for the maintenance and implementation of the terms and conditions of the general Colorado Discharge Pollutant System (CDPS) permit and measures identified by the above site specific Storm Water Management Plan (SWMP) that may authorize the storm water discharges associated with my activities from the construction site identified in Section 6.0 of this site specific SWMP.

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Name and Title (type or print): \_\_\_\_\_

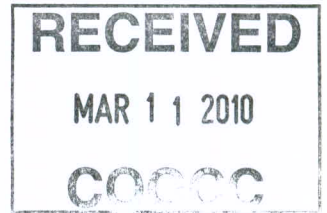
Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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**EXHIBIT B**  
Detailed BMPs & BMP Alterations Log

## BMPs



### Identified Implementation Locations:

1. **Drilling Pad Construction (See attached Figure 1)**

BMPs: 2, 14, 24 & 40

- Implement wattles and wattle check dams where shown on map.
- Clear top-soil and store along east edge of well pad
- Establish sub-base to route surface water as sheet flow off the north edge of location.
- Establish base lift gravel to accommodate level drilling operations and stabilize pad surface.
- Construct temporary access road to the northwest corner. Strip top soil for reclamation.
- Repair or replace existing CMP culvert underneath access road.

2. **Drilling and Completion Operations (See attached Figure 1)**

BMPs: Spill and Contaminated Soil Management

- Fuel, Mud Products, drill cutting spoils, Trailer Septic Tanks, etc. that may contribute to storm water run-off shall be maintained within the graveled well pad area and contained in proper containers and/or sheltered from exposure.
- Any equipment maintenance shall be avoided during drilling and completion—in the event maintenance must occur, it shall be conducted within the graveled pad area, fluids shall be captured within spill proof containers, and absorbent mats shall be utilized beneath maintenance operations.
- Contaminated soil should be collected and disposed of at an appropriate soil farm or similar facility.

3. **Interim Pad Reclaim (See attached Figure 2)**

BMPs: 2, 24, & 34

- Reclaim north fill slopes to 3:1 or less.
- Trench and bury remaining drill cuttings when material is 95-100% dry.
- Reclaim pre-construction contours to the maximum extent practicable along north side of pad.
- Reclaim temporary access road, reestablish drainage to preexisting conditions or better.
- Spread top-soil over fill slopes & blend to existing grade areas where sloping meets pre-disturbance grade.
- Remove, repair, or replace drilling pad wattles if necessary.
- Implement rip-rap rock inlet and outlet protections at access entry culvert.

4. **Re-seeding & BMP Removal**

- Re-seed as soon as possible following reclamation of pad-provided season and weather permits and cover with 2 tons/acre of weed free straw mulch. Tackify or crimp the mulch to the exposed soil surfaces.
  - Cut/Fill Slopes.
- Seed mix should implement an annual cover or triticale.
- Upon 70% Re-Vegetation across site, remove wattles and any other temporary erosion and sediment control BMP.

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**EXHIBIT C**  
Maps

**STORM WATER CONTROL MAP-DRILL PAD LAYOUT  
CLEARING AND GRADING**  
Figure 1



**NOTES:**

1. TOPO LINES: 4-7 ft. PROJECTION: NAD83 (CONUS)
2. This map is informational in nature, not accurate by surveying standards, and is presented without representations or warranties by Prymoris Environmental Consulting, Inc.



Sec. 23; T 33N, R9W,  
N.M.P.M.  
(La Plata County, CO.)

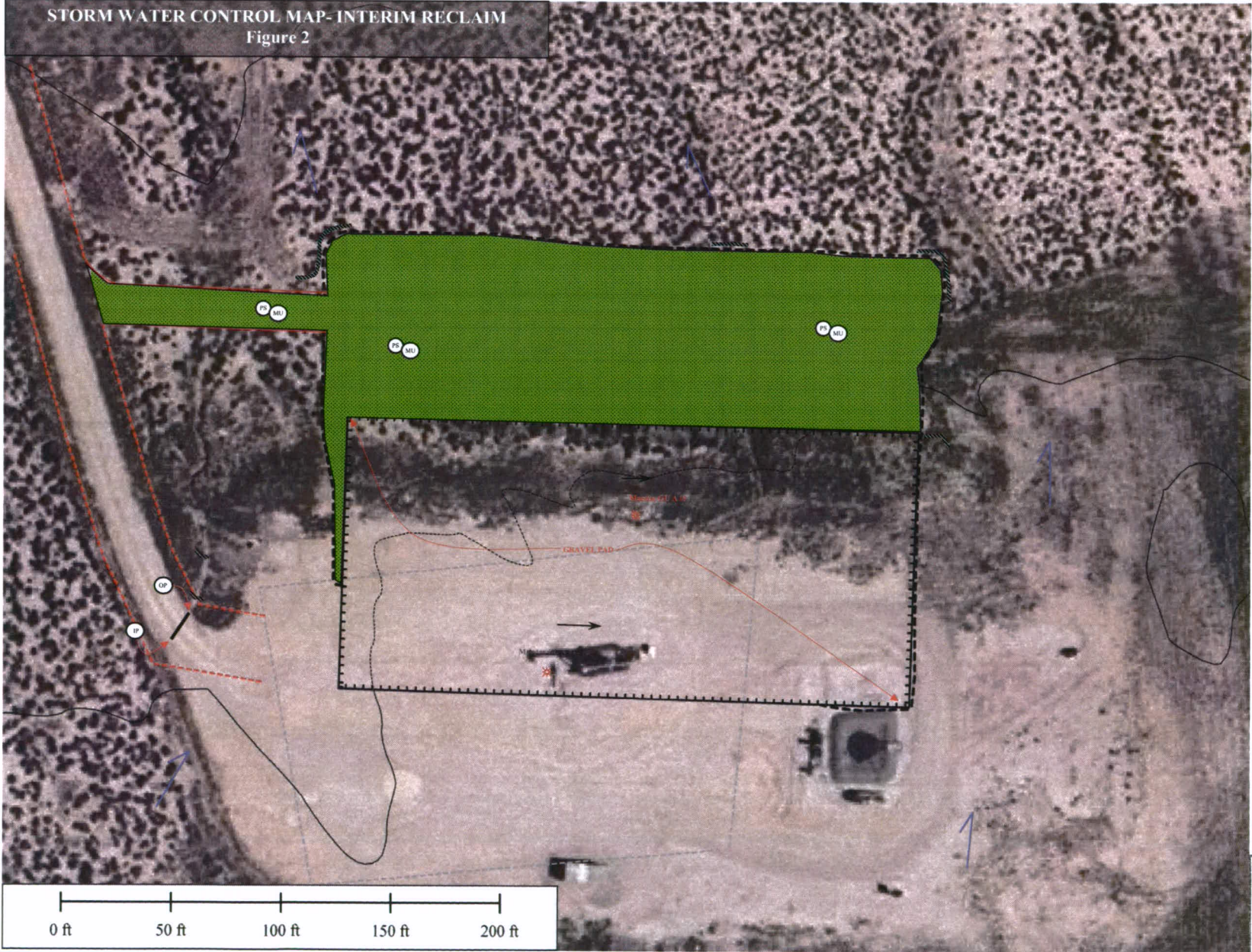
LEGEND	
	Limit of Disturbance
	Sediment Control Log (Wattle)
	Wattle Check Dam
	Offsite Water Flow Pattern
	Onsite Water Flow Pattern
	Well Pad Access

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**STORM WATER CONTROL MAP- INTERIM RECLAIM**  
**Figure 2**



**NOTES:**  
 1. TOPO LINES 4-7 ft. PROJECTION: NAD27 (CONUS)  
 2. This map is informational in nature, not accurate by surveying standards, and is presented without representations or warranties by Pryor's Environmental Consulting, Inc.

N  
  
 Sec. 23, T 33N, R9W,  
 N.M.P.M.  
 (La Plata County, CO.)

**LEGEND**

	Limit of Disturbance
	Sediment Control Log (Wattle)
	Permanent Seeding & Mulching
	Outlet Protection (Rip-rap)
	Inlet Protection (Rip-rap)
	Onsite Water Flow Pattern
	Offsite Water Flow Pattern
	Well Pad Access

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