

**AQUIFER PROTECTION PERMIT NO. P- 511619
PLACE ID 9676, LTF 61225**

1.0 Authorization

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Asarco LLC – Ray Operations to close 22 detention ponds in the 7E and 7F Impoundment Area at the Ray Operations located near Kearny, Pinal County, Arizona, over groundwater of the Mineral Creek drainage area, in Township 2 South, Range 13 East, Sections 34 and 35 of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (closure, and post-closure periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

1.1 Permittee Information

Facility Name: Asarco Ray 7E/7F Impoundment Area
Facility Address: Asarco Ray Operations
State Highway 177 approximately 10 miles north of Kearny

Permittee: Asarco LLC – Ray Operations
Permittee Address: Box 640
Kearny, Arizona 85137

Facility Contact: General Manager
Emergency Phone No.: 520 356-2333

Latitude/Longitude: 33° 09' 18" N, 110° 58' 56" W

1.2 Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is zero (0) gallons per day (gpd). The facility is not authorized to discharge under this permit.

1.3 Authorizing Signature

Trevor Baggiore, Director, Water Quality Division
Arizona Department of Environmental Quality
Signed this ____ day of _____, 2016

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Detention Ponds DP-1 through DP-22	33° 08' 7.5" N	110° 58' 58" W

Detention ponds 1 through 22 are located at the Asarco Ray 7E/7F Impoundment Area. Nineteen of the ponds were used to contain post-treatment discharge of effluent from the Goat Ranch Waste Water Treatment Facility. Three of the ponds (DP-14, DP-21, and DP-22) did not receive effluent and were not used for any other purpose. The treatment facility built in 1977 and operated until 1997, treated stormwater from the Big Dome Pond and Goat Ranch Pond. The detention ponds contained calcium sulfite silt and sediment from the treatment process. Closure activities for 19 of the detention ponds included the removal of the impounded sediments to the 7-Series Rock Deposition Area (RDA), which is an active leach facility permitted under the ASARCO Ray Operations area wide APP, P-100525. The three ponds that didn't receive treated wastewater did not contain accumulated sediments.

The 22 detention pond are located within the future footprint of the expanded 7-Series RDA and will be covered by the rock deposited in the 7-Series RDA. The detention ponds are also within the sub-flow capture area of the Mineral Creek Retention Basin and associated pump-back system, as defined in the original permit application for the area-wide APP, P-100525.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The closure and post-closure costs are covered by the closure of the 7-Series RDA in the area-wide APP 100525, and by the financial demonstration in the area wide APP.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

Closure of detention ponds DP-14, DP-21 and DP-22 has achieved discharge reduction through clean closure since the ponds were not used for effluent disposal and did not contain accumulated sediments.

Discharge reduction in the remaining 19 detention ponds has been partially achieved through removal of the accumulated sediments. Final closure will be achieved when the detention ponds are covered by the 7-Series RDA and closure of the 7-Series RDA is achieved as required by area-wide permit P-100525.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

Discharge of pollutants to the detention ponds is not authorized. Storm water that falls directly within the footprint of the detention ponds is the only water authorized. As authorized under area-wide permit P-100525, the detention ponds will be covered by the 7-Series RDA.

2.4 Point(s) of Compliance [A.R.S. § 49-244]

The POC(s) are established by the following monitoring location(s):

POC Locations	ADWR Registration Number	Latitude (North)	Longitude (West)
R-18	55-534853	33° 07' 34"	110° 58' 35"
R-19	55-534852	33° 07' 34"	110° 58' 35"
R-22	55-543974	33° 07' 33"	110° 58' 36"

Monitoring is not required under this permit at the POC locations. These POCs are monitored under the area-wide permit P-100525.

The Director may amend this permit to designate additional POCs, if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(B) and (K)(1), A.A.C. R18-9-A206(A)]

2.5.1 Discharge Monitoring

Not applicable.

2.5.2 Facility / Operational Monitoring

Not applicable.

2.5.3 Groundwater Monitoring and Sampling Protocols

Routine groundwater monitoring is not required under the terms of this permit. Groundwater monitoring at the Point of Compliance wells will be conducted under area-wide permit P-100525.

2.5.4 Surface Water Monitoring and Sampling Protocols

Not applicable.

2.5.5 Analytical Methodology

Not applicable.

2.5.6 Installation and Maintenance of Monitoring Equipment

Not applicable.

2.6 Contingency Plan Requirements

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. §49-201(12) and pursuant to A.R.S. § 49-241 That Are Not Addressed Elsewhere in Section 2.6

2.6.1.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.1.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Compliance Section within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.1.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous

materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Water Quality Compliance Section within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.1.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.1.2 and 2.6.1.3 to ADEQ Water Quality Compliance Section within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.2 Corrective Actions

With the exception of emergency response actions taken under Section 2.6.1, the permittee shall obtain written approval from the Water Permits Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding Discharge Limitation, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer; and/or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements

[A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-monitoring Report Form

Not applicable. There is no monitoring required by the permit.

2.7.2 Operation Inspection / Log Book Recordkeeping

Not applicable. There are no inspections required by the permit.

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing within 5 days (except as provided in Section 2.6.1) of becoming aware of a violation of any permit condition or discharge limitation.
2. The permittee shall submit a written report to the Water Quality Compliance Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of its cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time

- period during which the violation is expected to continue;
- c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
- d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
- e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
- f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

Not applicable.

2.7.5 Reporting Location

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to:

Arizona Department of Environmental Quality
Water Quality Compliance Section
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4497

All documents required by this permit to be submitted to the Water Permits Section shall be directed to:

Arizona Department of Environmental Quality
Water Permits Section
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

Not applicable.

2.7.7 Changes to Facility Information in Section 1.0

The Water Permits Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

Not applicable.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

2.9.1 Closure Plan

The closure activities, as described in the documents provided under this permit application, shall be completed. The closure activities to be conducted include covering of the detention ponds by the 7-Series RDA and closure of the 7-Series RDA as required by area wide permit P-100525. Any variation from the plan shall be submitted to the Department for approval.

2.9.2 Closure Completion

Upon completion of closure activities required by Section 2.9.1, the permittee shall give written notice to the Water Permits Section as required in Section 3.0, indicating that the approved closure activities have been implemented fully.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Water Permits Section.

If clean closure is not achieved for all detention ponds, then the permittee shall submit for approval to the Water Permits Section a Post-closure Plan that addresses post-closure maintenance and monitoring actions at the facility. Any post-closure plan required under this permit may be incorporated into the post-closure plan required by area wide permit P-100525. The Post-closure Plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-closure Plan, this permit or area wide permit P-100525 shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-closure Plan.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Water Permits Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section.

No.	Description	Due by:	Permit Amendment Required?
1	Provide notification that closure activities described in Section 2.9.1 have been completed and meet the requirements of the approved Closure Plan.	90 days after completion of closure activities	No
2	If clean closure is not achieved, submit a Post-closure Plan as described in Section 2.10.	90 days after completion of closure activities	Yes

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

Not applicable

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

Not applicable.

4.3 CONTINGENCY MONITORING

Not applicable.

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application dated September 19, 2014 and subsequent submittals
2. Public Notice dated [REDACTED]
3. Public Hearing dated [REDACTED]
4. Responsiveness Summary dated [REDACTED]

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).