



**TETRA TECH**

## **ASARCO LLC – Mission Complex**

### **Non-Point Source Monitoring Plan**



**June 2007**  
**Revised July 2007**

complex world

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# **ASARCO LLC – Mission Complex**

## **Non-Point Source Monitoring Plan**

*Prepared for:*

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## **1.0 INTRODUCTION**

Tetra Tech was retained by ASARCO LLC Mission Complex (Asarco or Mission) to develop a Non-Point Source Monitoring Plan (NPSMP) satisfying the requirements of Air Quality Permit No. 2026, Part B, Section II.D.2, as well as to address corrective action requirements associated with Notice of Violation (NOV) # PC 0512-160.

The Non-Point Source Monitoring Plan provides a means of monitoring and recordkeeping for any of the activities listed in Part B, Sections I.C.4 through 11. This plan covers all non-point, non NSPS sources i.e., sources subject to Part B, Section I.C.4 through 11 except for Haul Roads, Access Roads, and Tailings, which are covered by Part B, Section II.E and F respectively.

## 2.0 NON-POINT SOURCE MONITORING PLAN

As defined in Pima County regulations,

*"Nonpoint source" means a source of air contaminants that lacks an identifiable plume or emission point.*

These sources would include emissions not associated with stacks such as haul roads, tailings storage areas, open areas, material handling, and storage piles.

Visible emissions from non-point sources are required to be monitored bi-weekly to comply with Part B, Section II.C, of Permit 2026. Visible emissions are monitored pursuant to the Visual Observation Plan. Control measure monitoring is established by this Non-Point Source Monitoring Plan (NPSMP).

### 2.1 Visual Observation Plan

The Visual Observation Plan (VOP) has been written so that Mission complies with Permit 2026 requirement Part B, Section II.C for Visible Emissions Monitoring. Two types of non-point sources are associated with Mission.

- Process fugitive emissions associated with the NSPS facilities.
- Sources associated with Part B, Section I.C – Open Areas, Roadways, Streets, Material Handling, Storage Piles, and Tailings.

The VOP addresses monitoring and recordkeeping associated with both types of non-point source emissions. A copy of the VOP is included in Appendix A of this document.

Coverage provided by the VOP overlaps some of the activities being discussed in this document. As discussed below, the VOP will be used as a quality assurance/quality control check for the NPSMP to ensure that the controls and monitoring specified below are achieving the applicable opacity standard.

### 2.2 Qualifying Sources for Non-Point Source Monitoring Plan

Sources to be included within this NPSMP include Roadways, Open Areas, Streets, Material Handling, and Storage Piles. The plan excludes Haul Roads, Access Roads, and Tailings subject to Permit Part B, Sections II.E and F, as described in Section "Part B," Section II.D. of Mission Permit 2026. These areas are delineated on Figure 1 in the Figures section.

### **2.2.1 Roadways**

Roadways consist of all roads within the Mission Mine with the exception of haul roads and West Pima Mine Road at the entrance to mine property. Periodic road grading reduces the accumulation of fines which minimizes dust from small vehicle traffic. New unpaved service roads will be constructed in a manner to control fugitive dust by using proper engineering practices such as utilizing a water truck and road grader. Mission roadways (excepting haul and access roads subject to Permit Part B, Section II.E) can be classified in two ways: service roads and access roads. Access roads are the most infrequently traveled roadways and provide access to remote areas such as dumps, inactive tailings, and ancillary facilities. These are excluded from consideration in this plan; however, in the event that the status of the roadway may change to a service roadway a specific control is listed below. Service roads are more frequently traveled and provide access to operations areas, active dumps, and active tailings facilities. Depending on mine operations, the status of a roadway may change from access to service.

Control #1: Access roadways are traveled infrequently by supervision or maintenance personnel and are watered if traffic warrants.

- Applied: as needed.
- Variation: If a construction project will require increased traffic, a watering schedule will be developed and implemented during the construction period.
- Records: A copy of watering schedules, if needed, will be maintained in the facility records.

Control #2: Service roadways that are traveled more frequently are watered daily or as meteorological and traffic conditions warrant.

- Applied: daily.
- Variation: If dust is observed during VOP observation or by supervision, frequency is increased. During rainy periods, watering is discontinued or decreased.
- Records: Basic water schedules are retained on a per shift basis.

Control #3: Speed Limits. Speed on all roadways is limited by speed limit and stop signs. Environmental Awareness Training (initial and refresher) addresses speed control.

- Applied: continuously.
- Variation: none anticipated.
- Records: Presence of signs; periodic initial and refresher environmental awareness training sign-in sheets.

Control #4: Periodic road grading reduces the accumulation of fines, which minimizes dust from small vehicle traffic.

- Applied: As road and weather conditions warrant.
- Variation: not applicable.
- Records: none.

Control #5: New unpaved roads will be constructed in a manner to control dust by using proper engineering practices such as utilizing a water truck and road grader.

- Applied: during construction.
- Variation: none anticipated.
- Records: A copy of the watering schedule used for construction projects, as described in Control #1.

### **2.2.2 Open Areas**

Open areas consist of three categories: active rock storage piles; closed areas; and non-disturbed desert areas included within the permit area. The categories are described below:

Active rock storage piles consist of material which is not susceptible to wind erosion due to the size of the material. Run of mine materials at Mission typically range in size from 2 feet in diameter down to ½ of an inch.

Closed areas consist of closed rock storage piles and tailings dams. The closed rock storage piles have the same controls as the operating rock storage piles; dust is controlled by material size. The closed tailings facilities have been or are in the process of being revegetated which controls dust.

No action is contemplated for adjacent undisturbed desert areas. Typically, natural encrustation of those areas will minimize fugitive emissions. Any remedial action such as watering will cause a significant disturbance and eventually a higher potential for erosion from these areas. Vehicular traffic to undisturbed areas will be minimized to the extent possible.

Control #1: Vegetation left in place in closed or undisturbed areas.

- Applied: until operations requirements change.
- Variation: none.
- Records: map<sup>1</sup>.

---

<sup>1</sup> Map in the rest of the document refers to Figure 1

Control #2: Traffic restricted to roadways to minimize areas' dust creation by breaking the surface.

- Applied: in all areas where access is not required.
- Variation: none anticipated.
- Records: none.

Control #3: Irregular landforms such as berms break up areas where winds cross open areas to minimize dust entrainment.

- Applied: in areas of operational disturbance and along specified roadways.
- Variation: If access is required or if there have been no operations in an area.
- Records: map indicating roadways with berms or other landforms.

Control #4: Closed areas are revegetated or capped with soil and rock.

- Applied: in areas closed to future operation.
- Variation: none.
- Records: map.

### **2.2.3 Streets/Concentrate Transportation (Material Handling)**

The only street within the Mission Permit area is the end of West Pima Mine Road where it intersects the Mission gate. The pavement ends at the entrance of the Mission Mine where the guard house is located. The public must check in at this location. Carryover of dirt and road debris can occur upon vehicle exit of the mine property to West Pima Road. To minimize this carry over, gravel is spread from the guard gate for a distance of approximately 100 feet.

Control #1: 10% Inherent Moisture

- Applied: continuously
- Variation: none anticipated
- Records: Operational records for the filter plant operations are maintained to ensure proper operation; delivery records are maintained at the smelter for moisture content and are reviewed for payment of load weights. No specific records are kept for air monitoring purposes.

**Control #2: Vehicle Tarps**

- Applied: Each truck is tarped after loading and before leaving the plant roadways and entering public thoroughfares.
- Variation: none anticipated.
- Records: none.

**Control #3: Gravel applied to roadway near guardhouse.**

- Applied: as needed.
- Variation: none anticipated.
- Records: Guardhouse employee will inspect gravel monthly and record condition in log book.

**2.2.4 Non-NSPS Sources associated with Material Handling and Storage Piles**

These non-point sources will encompass activities at Mission that are not specific to NSPS affected facilities. Many are fugitives related to mining or earthmoving activities while a number are process related activities that can be grouped together. Those groupings are below.

Mission Primary Crushing	Material Handling Activities
Traylor Primary Crusher	Dozing
Feeders (Syntron)	Haulage
Conveyors	Dumping
Mission Secondary/ Tertiary Crusher	Lime Handling
Surge Bins	Feeder Conveyor
Storage Bins and Stockpiles	Hopper
Feeders	Bins
Feed Conveyors	Feeders
South Crusher	Material Loading Activities
Allis-Chalmers Gyratory Crusher	Loaders/Excavators
Feeders	Miscellaneous Operational Activities
Conveyors	associated with Materials
Stacker	Cleanup of roadways and other
	areas
	Road Grading

Each of these activity areas and the associated areas within the operations are inspected and managed in a number of ways.

All conveyers are covered under hoods to prevent excessive amounts of particulate matter from becoming airborne. Most conveyer transfer points are equipped with spray bars. Moisture content and material size minimizes the potential for exposed material to become airborne.

Monitoring frequency of the above listed areas by supervision is once per shift.

Control #1: Dump pocket spray systems

- Applied: continually.
- Variation: water sprays may be turned off when meteorological conditions and operational conditions warrant (e.g., when excessive moisture interferes with operations)
- Records: none unless repairs are required; then work orders for repair may be generated.

Control #2: Conveyors are covered to eliminate windborne dust generation

- Applied: continuously.
- Variation: none anticipated.
- Records: none.

Control #3: Material fall is minimized by keeping stockpile heights consistent.

- Applied: when practicable.
- Variation: during times of stockpile base or feeder maintenance when levels need to be lowered, or during pit production downtimes when feed material is interrupted.
- Records: none.

Control #4: Contain fine materials in storage and surge bins minimizing windborne dust from stockpiles.

- Applied: continually.
- Variation: none anticipated.
- Records: none.

Control #5: Conveyor drop points equipped with spray bars

- Applied: continually where spray bars are located.
- Variation: as meteorological conditions and operational conditions warrant (e.g., excessive moisture develops that interferes with operations), the sprays may be turned off.
- Records: none unless repairs are required; then work orders for repair may be generated.

Control #6: Water is used as meteorological conditions warrant to wet down stockpiles being worked with loaders and excavators.

- Applied: as needed.
- Variation: none anticipated.
- Records: none.

### 3.0 MONITORING, RECORDKEEPING, AND REPORTING

The NPSMP relies upon two major monitoring components: Visual Observation under the VOP (attached) and Monthly Monitoring, specified below. Monthly monitoring is used to ensure that control measures and practices are in place and being used. VOP monitoring is used to ensure that the measures are achieving the desired environmental result.

#### 3.1.1 *Monitoring.*

Monitoring Measure #1. Each month, Mission environmental staff will conduct a facility inspection to ensure:

- Speed limit signs in place, Roadways Control #3;
- No excessive accumulation of fines on service roads, Roadways Control #4;
- No areas where traffic has intruded into open areas, undisturbed desert, Open Areas Controls #1 and #2;
- Berms in good condition, Open Areas Control #3;
- Dump pocket spray nozzles operating, Non-NSPS Material Handling Control #1;
- Conveyor covers in place, Non-NSPS Material Handling Control #2;
- Conveyor material drop height and spray bars, Non-NSPS Material Handling Controls #3 and #5.

Monitoring Measure #2. Each month, following the monthly inspection, Mission environmental staff will meet with operating department personnel to review the results of the inspection and the following additional topics:

- Whether any construction projects or new access roads are anticipated and, if so, an appropriate watering schedule for such construction, Roadway Controls #1 and #5;
- Road grading schedules, Roadway Control #4;
- Berm repair, Open Area Control #3;
- Any repairs needed to crusher and conveying systems, Non-NSPS Material Handling Controls #1 through #6;
- Closed areas are revegetated, Open Area Control #4; and
- Material Handling Controls #1 through #3.

#### 3.1.2 *Recordkeeping*

Each month, Mission environmental staff will document the results of the monthly inspection and operations meeting, and identify any areas where speed limit signs need to be replaced, service

road sections scheduled for grading, areas where traffic has intruded into open areas and corrective measures identified, berms to be repaired or expanded, and planned repairs to dump pocket spray nozzles, conveyor covers and drop point spray bar repairs.

As part of the record, Mission environmental staff will also document that any actions scheduled in prior month were appropriately completed.

Mission will keep the records listed under each Control Measure.

### **3.1.3 Reporting**

In each semiannual report, Asarco will report any months in which the monthly inspection and/or monthly environmental/operating meeting was not completed. Asarco will also report:

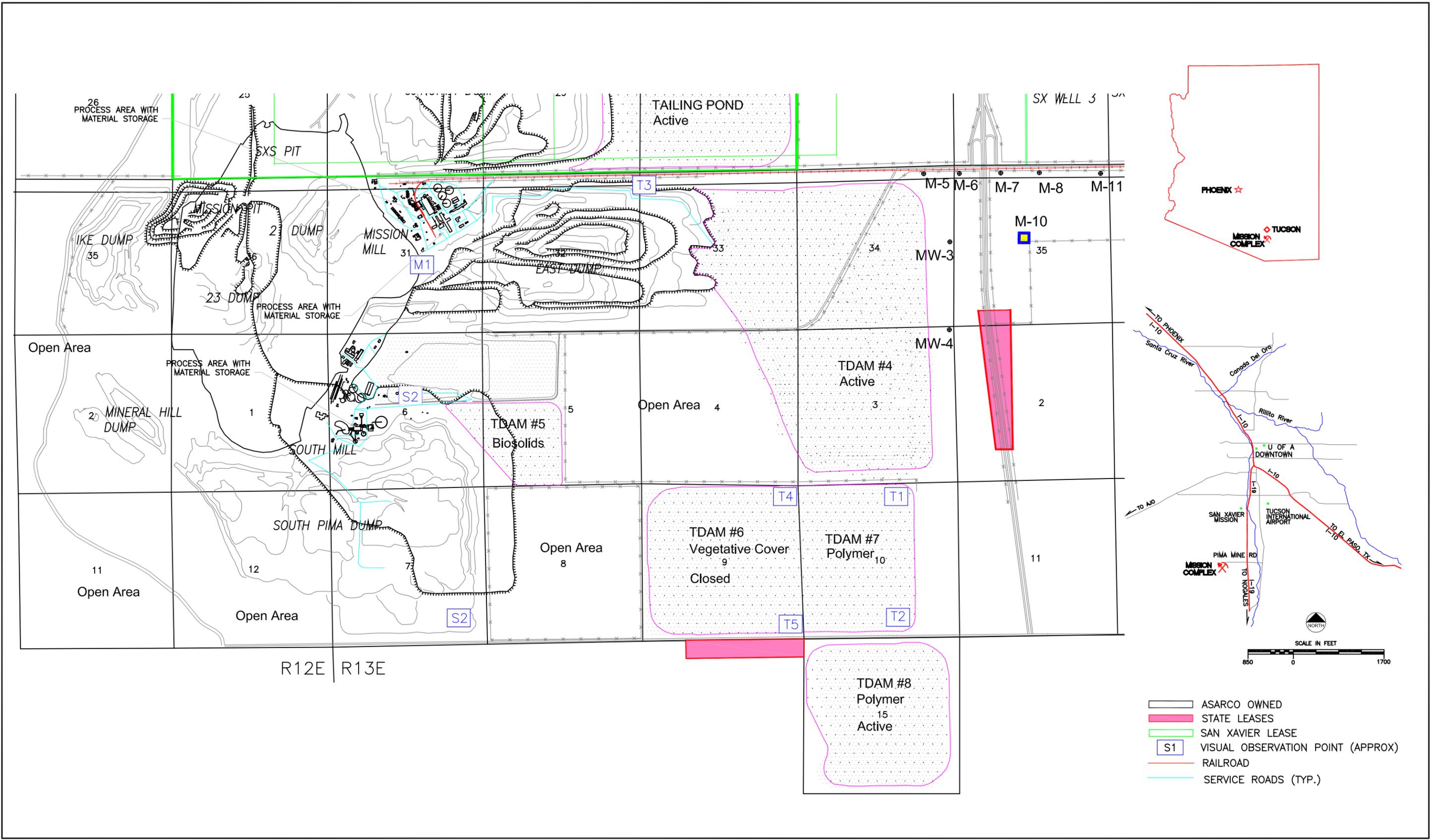
- Any case where a watering schedule was not implemented as required by Roadway Control #1, #2, or #5;
- Any control that required upgrading or enhancement in two consecutive reports, and there was no intervening correction, including a justification for the decision not to upgrade or enhance the control;
- Any enhancements or new controls adopted into the NPSMP as a result of the monthly reviews or VOP quality control review, unless a permit revision is required for the change. In that case appropriate permit revision procedures will be followed. Changes that may be made without notice to PDEQ may include but not be limited to:
  - Upgrades to mapping to reflect operational changes as long as monitoring points do not change;
  - Changes in roadways that may be reviewed based on a status or operational change; and
  - Changes to monitoring forms that reflect a change in status of the equipment (i.e. temporarily out of service) as long as NSPS equipment or other permit terms are not affected.

## **4.0 QUALITY CONTROL**

In order to ensure that the NPSMP achieves its objectives, Mission will use the VOP as a quality control measure. If the VOP identifies an area that exceeds the relevant opacity standard, or which for two consecutive regular readings is within 10% of the relevant standard (e.g., an opacity of 18% against a standard of 20%), Asarco will prepare a brief written evaluation of whether the elevated readings reflect a deficiency in the NPSMP and its controls and, if so, Asarco will implement additional controls or, if required, file a permit revision to implement additional controls.

**FIGURE**

X:\Clients\Asarco\Mission Complex\CADD\dwg\ASARCO\_PROP7.dwg SAVED:5/31/07 PRINTED:5/31/07 BY:CAD MACHINE 2



JUNE 2007



**FIGURE 1**  
**SITE AND VISUAL OBSERVATION MAP**  
**ASARCO MISSION COMPLEX**

**APPENDIX A**  
**VISUAL OBSERVATION PLAN**



**ASARCO INCORPORATED**  
**MISSION COMPLEX**

**VISUAL OBSERVATION PLAN**

Required per  
Air Quality Permit No. 2026

December 11, 2003  
[revised July 21, 2004, April 26, 2007, July 20, 2007]

This visual observation plan is written to comply with requirement II *Monitoring of Operations* (C) (5) of Attachment “B”: Specific Conditions of the ASARCO Mission Complex Air Quality Permit No. 2026. In addition, this plan also covers the NSPS equipment per I.A.2, I.C.2 (open areas, roadways, streets, materials handling, storage piles and tailings) as well as II.C.1 (bi-weekly monitoring of process fugitives).

Non-point sources will be monitored bi-weekly using a visual survey by a certified Method 9 observer from strategic lookouts located throughout the Mission Complex Property. The lookout locations are identified (M-1, S-1, S-2, T-1, T-2, T-3, T-4 and T-5) on the accompanying Map (Figure 1-A). The visual survey will occur once in each two week time period, as close to a full two weeks between observations as possible. Each bi-weekly visual survey of emissions from non-point sources will be conducted, when the source is in operation, in accordance with this observation plan. The *Non-Point Source Visual Observation Checklist* (see attachment 1) will be used to record the name of the observer, the date of the observation, the result of the observation for each source and actions taken.

During the visual survey, if the Method 9 observer notices an emission from the source that on an instantaneous basis appears to exceed 20% opacity, the observer will, if feasible, take a six-minute Method 9 observation of the emissions using the *Visible Emission Observation Form* (see attachment 2). If the six-minute opacity reading exceeds 20%, then the observer will report the exceedance to the proper personnel. Responsible staff members will ensure that emission controls or equipment are adjusted or repaired accordingly to reduce the opacity to below 20%. Accordingly, responsible personnel will report the excess emission under Section XIII.B of PART A: “GENERAL PROVISIONS” of the permit. If the six-minute opacity reading of the emission is less than 20%, the observer will record the date, time of the reading, location, and result of the observation on the *Non-Point Source Visual Observation Checklist*.

The following conditions have been added to the Visual Observation Plan as agreed in ASARCO’s response to the PDEQ Compliance Status Letter (CSL# PC 0310-185) dated January 9, 2004 and as a result of subsequent consultation with PDEQ. The following conditions only apply to any tailings dam in the berm building mode:

- Prior to the initiation of berm building, Asarco personnel will conduct an initial inspection of the tailings dam on which berm building will occur. The initial inspection will determine and document whether any portions of the tailings dam are drier than necessary for berm building and may reasonably result in dust emissions. If such areas are identified, Asarco personnel will identify and document an appropriate control strategy and will apply dust suppressant or water, as appropriate, to minimize the possibility of dust emissions. Asarco will notify PDEQ of the initial berm building inspection results, including any corrective measures that are to be taken.

- Asarco personnel will increase monitoring for dust emissions to once per week (or more as conditions require) following the protocol for the bi-weekly visual surveys conducted according to the Visual Observation Plan that was submitted to PDEQ on December 11, 2003. The increased monitoring frequency will only affect tailings dams in the berm building mode and will occur at the following observation points as necessary:
  - a. T-1
  - b. T-2
  - c. T-3
  - d. T-4
  - e. T-5
- Asarco will increase the watering schedule beyond the required “two times per day” whenever increasing dusty conditions are noted during the “berm-building mode” of tailing impoundment construction.
- Each day that construction occurs after the construction has ceased for the day Asarco personnel will conduct an inspection of the disturbed areas of each tailings dam in the berm building mode to determine whether any disturbed portions of the tailings dam are dry and may reasonably result in dust emissions. If such areas are identified, Asarco personnel will apply dust suppressant or water, as appropriate, to minimize the possibility of dust emissions.

The following is a list of the observation points and the non-point source or sources that will be observed from each point.

**Observation Point**

**Sources Monitored**

Water Tank Hill M-1  
(Mission Concentrator)

- 1) Concentrate Storage area
- 2) Filter Plant and unpaved roadways
- 3) Moly Plant area, unpaved roadways & Process fugitives
- 4) North Crusher area, unpaved roadways & Process fugitives
- 5) Secondary Crusher area- unpaved roadways
- 6) Secondary Crusher area - Process/Conveyor fugitives
- 7) Unpaved roads & process fugitives near Mission Mill
- 8) Warehouse yard. Maintenance shops & unpaved roadways

- 9) North slope of East and Pima rock dumps.
- 10) East slopes of Pima, Mineral Hill and Ike waste rock dumps
- 11) S. Mill & Process fugitive areas
- 12) Unpaved roadways- Mission perimeter.
- 13) Mission Mill coarse ore stockpile
- 14) Mission Primary Crusher.

**Water Tank Hill S-1**

- 1) S. Mill & Process fugitives areas.
- 2) Unpaved roadways- Mission pit perimeter.
- 3) Mission Mill Coarse ore stockpile.
- 4) Mission Primary Crusher.
- 5) Top of Tailing Dam #4
- 6) Top of Tailing Dam #5

**Southwest corner of S-2**

- 1) South Slope of East, Pima & Mineral Hill Dumps.
- 2) Top of Tailing Dam #8.
- 3) Top of Tailing Dam #7.

**Northeast corner of #7 Dam T-1**

- 1) Top of Tailing Dam #4
- 2) East slope of Tailing Dam #4.
- 3) East slope of Tailing Dam #7.

**Southeast corner of #7 Dam T-2**

- 1) East slope of Tailing Dam #7
- 2) East slope of Tailing Dam #8.

**Northwest corner of #4 Dam T-3**

- 1) North slope of Tailing Dam #4.
- 2) Top of Tailing Dam #4.

**Northeast corner of #6 Dam T-4**

- 1) Top of Tailing Dam #6.
- 2) N. slope of Tailing Dam #7.
- 3) N. slope of Tailing Dam #6.
- 4) South slope East Dump

**Southeast corner of #6 Dam T-5**

- 1) Top of Tailing Dam #8.
- 2) Top of Tailing Dam #7.
- 3) N. Slope of Tailing Dam #8.

The Visual Observation plan will be implemented by ASARCO immediately upon approval by the Department. Visual surveys will be conducted bi-weekly, during normal

operation of the plant. Visual surveys will be conducted as close as possible to a full two weeks apart but may not be conducted on the same day in each monitoring period. Records of the visual surveys will be kept in the Environmental Department.

**ASARCO Mission Complex  
Visual Observation Plan Checklist (Includes fugitives)**

[revised 12/7/2006]

<u>Weather Conditions (Temperature, sky conditions, etc.)</u>
---

Observation Point #	Dust Source, N/A	Visual Survey				Method 9 Opacity		Action Taken	Windspeed & Direction				
		<10%	>10%	<20%	>20%	Date	Time			Y/N	Date	Time	
M-1	Concentrate Storage Area												
	Filter Plant and unpaved roadways												
	Moly Plant area, unpaved roadways & process fugitives												
	North Crusher Area, unpaved roadways & process fugitives												
	Secondary Crusher-Unpaved Roads												
	-Process/conveyor Fugitives												
	Unpaved Roads & process fugitives near Mission Mill												
	Warehouse yard. Maint. Shops & unpaved roadways												
	North slope of East & Pima rock dumps												
	East slopes of Pima, Min. Hill, and Ike rock dumps												
	S. Mill& process fugitives areas												
	Unpaved roadways-Mission Pit perimeter												
	Mission Mill coarse ore stockpile.												
Mission Primary Crusher													
S-1	S. Mill& process fugitives areas												
	Unpaved roadways-Mission Pit perimeter												
	Mission Mill coarse ore stockpile.												
	Mission Primary Crusher												
	Top of Tailing Dam #4												
S-2	Top of Tailing Dam #5												
	South slope of East, Pima & Mineral Hill Dumps												
	Top of Tailing Dam #8												
T-1	Top of Tailing Dam #7												
	Top of Tailing Dam #4												
	E. Slope of Tailing Dam # 4												
T-2	E. Slope of Tailing Dam # 7												
	E. Slope of Tailing Dam # 8												
T-3	N. Slope of Tailing Dam # 4												
	Top of Tailing Dam #4												
T-4	Top of Tailing Dam #6												
	N. Slope of Tailing Dam # 7												
	N. Slope of Tailing Dam # 6												
	South Slope East Dump												
T-5	Top of Tailing Dam #8												
	Top of Tailing Dam #7												
	N. Slope of Tailing Dam # 8												

\_\_\_\_\_  
Observer Name & Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Last Inspection Date

\_\_\_\_\_  
Method 9 Certified Date

**VISIBLE EMISSION OBSERVATION FORM**

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

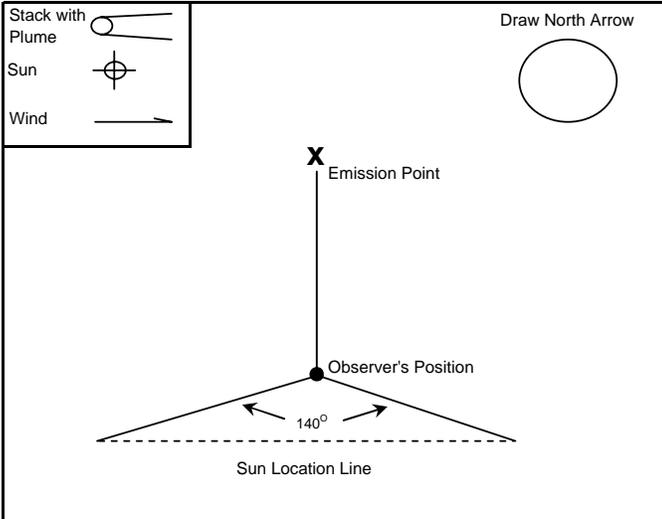
PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE FROM OBSERVER
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER

DESCRIBE EMISSION	
EMISSION COLOR	IF WATER DROPLET PLUME
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED	

DESCRIBE PLUME BACKGROUND		
BACKGROUND COLOR	SKY CONDITIONS	
WIND SPEED	WIND DIRECTION	
AMBIENT TEMP	WET BULB TEMP	RH. Percent

**SOURCE LAYOUT SKETCH**

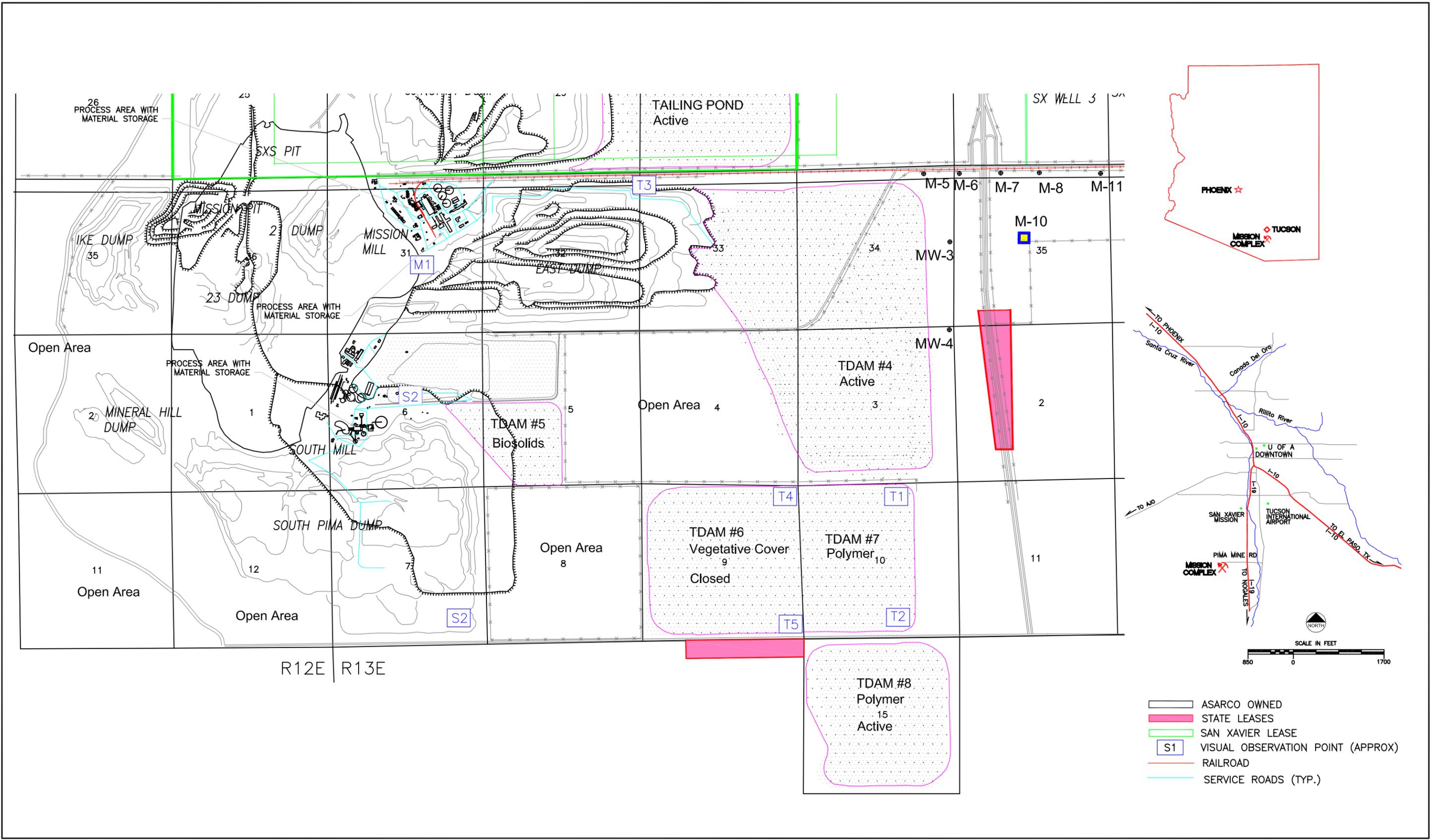


ADDITIONAL INFORMATION

OBSERVATION DATE		START TIME			END TIME
SEC. MIN.	0	15	30	45	COMMENT
1					
10					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
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OBSERVER'S NAME (PRINT)					
OBSERVER'S SIGNATURE					DATE
ORGANIZATION					
CERTIFIED					DATE
CONTINUED ON VEO FORM NUMBER					

X:\Clients\Asarco\Mission Complex\CADD\dwg\ASARCO\_PROP7.dwg SAVED:5/31/07 PRINTED:5/31/07 BY:CAD MACHINE 2



JUNE 2007



**FIGURE 1**  
**SITE AND VISUAL OBSERVATION MAP**  
**ASARCO MISSION COMPLEX**

**APPENDIX B**  
**MONITORING FORMS**

ASARCO LLC—Mission Complex

MONTHLY NON-POINT SOURCE MONITORING ACTIVITIES

Date: \_\_\_\_\_ For Month: \_\_\_\_\_

Report completed by: \_\_\_\_\_

Monthly Inspection

Y N Speed limit signs in place.  
If No, repairs needed at:

Y N Service road regrading needed?  
If Yes, action needed at:

Y N Traffic intrusion into open areas, undisturbed desert, or other inappropriate location?  
If Yes, action needed at:

Y N Dust control berms in good condition?  
If No, action needed at:

Y N Dump pocket spray nozzles in good condition?  
If No, note action needed:

Y N Conveyor covers in place?  
If No, note where cover repairs needed:

Y N Material handling—conveyor drop height minimized and spray bars operational?  
If No, note where action needed:

Monthly Meeting

Date of Meeting: \_\_\_\_\_

New construction projects or roads requiring watering schedule identified?

Road grading schedule—service roads planned for grading?

Berm repairs scheduled?

Commitments made to address items from monthly inspection—document issue, corrective action, schedule, and responsible individual/department

Prior Month Issues

Y N Were all prior month commitments met?  
If No, list issues and attach explanation and new schedule

Repeat Issues

Y N Were there any repeat issues (e.g., same as prior month) without intervening correction?  
If Yes, list issues and attach explanation and schedule for addressing

Quality Control

Y N Any exceedances of standards in VOP?  
If Yes, attach evaluation of whether additional control measures are needed and, if so, when they will be implemented

Y N Any near misses of standards in VOP?  
If Yes, attach evaluation of whether additional control measures are needed and, if so, when they will be implemented

**ASARCO Mission Complex  
Visual Observation Plan Checklist (Includes fugitives)**

[revised 12/7/2006]

<u>Weather Conditions (Temperature, sky conditions, etc.)</u>
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Observation Point #	Dust Source, N/A	Visual Survey				Method 9 Opacity		Action Taken	Windspeed & Direction				
		<10%	>10%	<20%	>20%	Date	Time			Y/N	Date	Time	
M-1	Concentrate Storage Area												
	Filter Plant and unpaved roadways												
	Moly Plant area, unpaved roadways & process fugitives												
	North Crusher Area, unpaved roadways & process fugitives												
	Secondary Crusher-Unpaved Roads												
	-Process/conveyor Fugitives												
	Unpaved Roads & process fugitives near Mission Mill												
	Warehouse yard. Maint. Shops & unpaved roadways												
	North slope of East & Pima rock dumps												
	East slopes of Pima, Min. Hill, and Ike rock dumps												
	S. Mill & process fugitives areas												
	Unpaved roadways-Mission Pit perimeter												
	Mission Mill coarse ore stockpile.												
Mission Primary Crusher													
S-1	S. Mill & process fugitives areas												
	Unpaved roadways-Mission Pit perimeter												
	Mission Mill coarse ore stockpile.												
	Mission Primary Crusher												
	Top of Tailing Dam #4												
S-2	Top of Tailing Dam #5												
	South slope of East, Pima & Mineral Hill Dumps												
	Top of Tailing Dam #8												
T-1	Top of Tailing Dam #7												
	Top of Tailing Dam #4												
	E. Slope of Tailing Dam # 4												
T-2	E. Slope of Tailing Dam # 7												
	E. Slope of Tailing Dam # 8												
T-3	N. Slope of Tailing Dam # 4												
	Top of Tailing Dam #4												
T-4	Top of Tailing Dam #6												
	N. Slope of Tailing Dam # 7												
	N. Slope of Tailing Dam # 6												
	South Slope East Dump												
T-5	Top of Tailing Dam #8												
	Top of Tailing Dam #7												
	N. Slope of Tailing Dam # 8												

\_\_\_\_\_  
Observer Name & Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Last Inspection Date

\_\_\_\_\_  
Method 9 Certified Date

**ASARCO Mission Complex**  
**Monthly Opacity Performance Test of Tailing Impoundments**  
PDEQ Air Quality Operating Permit #2026, Part B,II. C.5.f.

Tailing Impoundment #	Date/Time	Result of EPA Method 9, 6 min. tests	Comments/Action Taken
4			
5			
6			
7			
8			

## VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

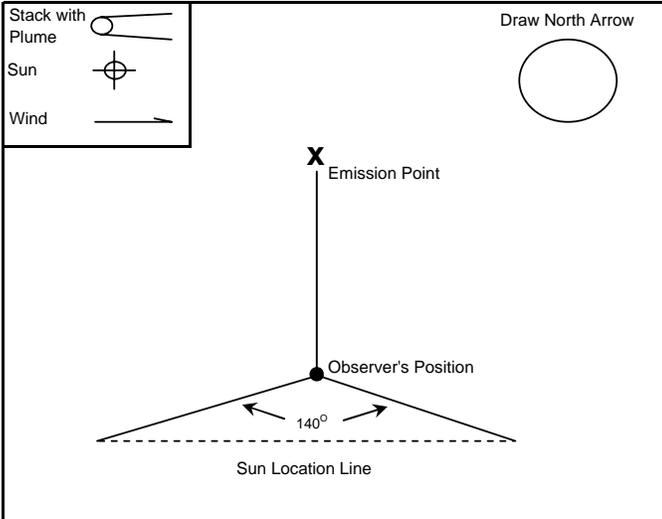
PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE FROM OBSERVER
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER

DESCRIBE EMISSION	
EMISSION COLOR	IF WATER DROPLET PLUME
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED	

DESCRIBE PLUME BACKGROUND		
BACKGROUND COLOR	SKY CONDITIONS	
WIND SPEED	WIND DIRECTION	
AMBIENT TEMP	WET BULB TEMP	RH. Percent

### SOURCE LAYOUT SKETCH



ADDITIONAL INFORMATION

OBSERVATION DATE		START TIME			END TIME
SEC. MIN	0	15	30	45	COMMENT
1					
10					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT)					
OBSERVER'S SIGNATURE					DATE
ORGANIZATION					
CERTIFIED					DATE
CONTINUED ON VEO FORM NUMBER					



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