



**PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR PROGRAM**

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TUCSON, ARIZONA 85701  
PHONE (520) 724-7400 FAX (520) 838-7432  
www.pima.gov/deq

**Site Inspection Report**

**Tracking ID: PC 1307-099**

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**Permit #:** 6067  
**Source:** Freeport-McMoRan Sierrita Inc.  
**Location:** 6200 W. Duval Mine Road, Green Valley, AZ  
**Date:** July 29, 2013  
**Arrival Time:** 1:00 pm  
**Departure Time:** 3:30 pm  
**Inspectors:** Anna Martin  
Elizabeth Quinley  
Janice Easley  
**Spoke With:** Kali Hoyak, Environmental Engineer II  
Eric Werner, Environmental Engineer I  
Procopio Gonzales, Senior Tailings Supervisor  
**Phone #:** 520-393-2603 (Hoyak)  
**Reason for Inspection:** Complaint  
**Compliance Status:** Noncompliant

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The Pima County Department of Environmental Quality (PDEQ) received multiple complaints regarding dust on Saturday, July 27, 2013 from the Freeport-McMoRan Sierrita Inc. (FMSI) tailings impoundment. In addition to the complaints, a PDEQ inspector observed and photographed a major dust event in the Green Valley area on July 27, 2013 between the hours of 3pm and 4pm. The inspector observed white dust clouds, originating from the north side of the FMSI tailings impoundment, travel eastward over the side of the impoundment. The dust moved southeast, crossing I-19. The inspector observed fine, white tailings dust of sufficient density to obscure local vegetation on property over 2.25 miles from the closest FMSI property boundary. The inspector observed the dust continue to travel toward the Santa Rita Mountains. PDEQ inspector photographs from July 27, 2013, documenting the white dust clouds beyond FMSI property boundaries, can be found in Attachment 3. PDEQ inspectors responded to the complaints and observations by conducting an inspection Monday, July 29, 2013.

### **Site Inspection**

We conducted off-site surveillance and an on-site inspection of the FMSI tailings impoundment on the afternoon of July 29, 2013. We observed the tailings impoundment from Continental Road, southeast of the water tank and observed no fugitive dust (Attachment 1, Photo 1). Winds blew from the south with a maximum speed of 7.1 mph and an average speed of 4.7 mph. We observed the tailings impoundment from the intersection of Duval Road and Mission Road and observed no fugitive dust (Attachment 1, Photo 2). Winds blew from the south at a maximum speed of 2.5 mph and an average speed of 0.8 mph.

We entered FMSI, met with Ms. Kali Hoyak, Environmental Engineer II, and Eric Werner, Environmental Engineer I, and conducted inspection rights protocol (Attachment 2). We reviewed the content of the complaints with Ms. Hoyak and Mr. Werner and showed them photos of the fugitive particulate matter event on July 27, 2013 (Attachment 3). Ms. Hoyak stated that she was not aware of any July 27, 2013 fugitive emissions until PDEQ contacted her on July 29, 2013. We drove to the north side of the tailings impoundment and met with Mr. Procopio Gonzales, FMSI Senior Tailings Supervisor. We conducted inspection rights protocol with Mr. Gonzales (Attachment 2) and began discussions about recent and current activity on the tailings impoundment. We learned that FMSI is currently depositing tailings slurry on the southern half (south dam) of the tailings impoundment and that the north side (north dam) is undergoing road construction and pipeline lifts, to raise the dam walls which contain the tailings. We learned that the pipeline lift was underway on the north edge of the impoundment dam. This pipeline lift follows the near-completion of a new road around the tailings impoundment. Ms. Hoyak and Mr. Gonzales indicated that the road along the north edge of the impoundment dam was complete except for capping with native soil. They stated that magnesium chloride had been applied to the road at least twice since its construction. The road appeared stable (Attachment 1, Photo 3) and we observed traffic traveling at or below the speed limit of 25 mph generating little to no dust. Between the road and the tailings lay berms and stockpiles of soil from road construction. The road was bordered with piles and pushed berms of tailings soil material. We observed water trucks spraying the soil (Attachment 1, Photo 4) and found the piles to be well-crustured and stable (Attachment 1, Photo 5). Mr. Gonzales indicated the piles are sprayed by a water truck approximately every 2 hours.

We walked onto the north dam and found the surface to vary in condition and stability. Ms. Hoyak and Mr. Gonzales stated that All-Track vehicles apply magnesium chloride, a hygroscopic dust suppressant, on the tailings surface. Mr. Gonzalez showed a grid of previous All-Track tracks on the dam surface and stated that magnesium chloride had been applied at least three times in the last 2.5 months (Attachment 1, Photo 6). We observed a gray surface, showing intact magnesium chloride application, on the northern edge the north dam (Attachment 1, Photo 7). From the northern edge, we looked south at the central north dam surface and observed a lighter colored surface, indicating disintegrated magnesium chloride. We walked to a more central area of the north dam and found the surface to be dimpled or pockmarked. The dimpled areas were not well-crustured and were easy to disturb (Attachment 1, Photos 8 and 9). When disturbed, the surface broke into very fine particulate. Mr. Gonzalez indicated that heavy rain causes the dam surface crust to break apart and dimple. Mr. Gonzalez and Ms. Hoyak informed us that a strong storm downburst of rain occurred on the afternoon of July 26, 2013, totaling 0.9 inches of rain in 30 minutes. Ms. Hoyak later informed PDEQ that the 0.9 inch measurement was taken by an operator at about 4:00 pm on July 26 from a simple rain gauge located outside the tailings shop area.

In general, we found the north dam surface to contain cracks and channels of varying depths (Attachment 1, Photos 10 – 13). The cracks, and especially the channels, contained loose, dry particulate. Mr. Gonzales indicated that cracking may be caused by light rain followed by hot, dry weather. The loose material in the channels appeared sandy and was somewhat aligned along southeast edges of channels. The loose channel material was not as fine as particulate created by disturbing the surface and did not appear highly susceptible to becoming windblown. Mr.

Gonzales indicated that channeling is caused by the deposition and flow of tailings slurry. Three All-Track vehicles were applying magnesium chloride in the southeast area of the north dam during the inspection. We did not observe any excessive dust while inspecting the north dam. A wind measurement while on the dam showed winds from the southwest at a maximum speed of 10.2 mph and an average speed of 7.5 mph.

While on the north dam, we saw dust devils originate along the berm of the southwest portion of the south dam (Attachment 1, Photo 15). The dust devils dissipated soon after leaving the edge of the dam as they traveled northeast onto the south dam surface. We drove to south dam area and saw loose material in cracks on the berm, the apparent source of dust for the dust devils. The south dam surface appeared stable and Mr. Gonzalez called the water truck to increase stabilization of the berm areas. The dust devils were the only airborne fugitive particulate matter observed during the inspection.

We inquired about work activities, conditions, and any FMSI observations on Saturday, July 27, 2013. Mr. Gonzalez and Ms. Hoyak confirmed that they had received no reports of dust activity on July 27, 2013. Mr. Gonzalez stated that there was no traffic on the dam road except for the water trucks. He said that work crews were active until 2:00 pm on July 27, 2013 at the warehouse, on the south dam pipe lift project, and at the shop. PDEQ Inspector Anna Martin asked Mr. Gonzalez if the dimpled and less-stable area of the north dam had been inspected following the heavy July 26, 2013 rain event. Mr. Gonzalez and Ms. Hoyak said that no inspection took place. Mr. Gonzalez stated the area would have been wet and that an inspection would not have revealed the vulnerability to the wind.

Mr. Gonzalez said that the priority for the week of July 29, 2013 would be applying magnesium chloride to the entire north dam surface. He indicated that five All-Track vehicles would be used for the rest of the week. Ms. Hoyak indicated she would provide weather station data and available rain-gauge data for July 26 and July 27, 2013. We emphasized our request for wind speed records between 3:00 pm and 4:00 pm on July 27, 2013 from the weather station at the top of the tailings impoundment.

## **Records Review**

PDEQ requested and received a minimum of 30 days of operations records from FMSI on July 29, 2013. Based on reports of isolated rain events, and to gain a better understanding of conditions on the tailings impoundment, PDEQ requested rainfall and wind speed records from FMSI weather stations for July 26 and 27, 2013. Rain and wind records were received from FMSI on July 31, August 5, and August 6, 2013. Weather records for July 27, 2013 were also downloaded from the National Weather Service (Attachment 5).

**Winds:** FMSI provided PDEQ with hourly wind data for Friday, July 26, 2013 and 15-minute wind data for Saturday, July 27, 2013. On July 26, 2013, the highest winds occurred in the afternoon and blew from the north. At 2:00 pm the 10M MET station recorded an average speed of 13.19 mph and a maximum speed of 37.69 mph. On July 27, 2013, the highest winds also occurred in the afternoon. At 3:30 pm the winds blew from the west-northwest at an average speed of 20.4 mph and a maximum speed of 29.25 mph. At 3:45 pm the winds blew from the northwest at an average speed of 18.86 mph

and a maximum speed of 27.53 mph. Average and maximum wind speeds were below 10 mph by 5:00 pm on July 27, 2013. Wind data from FMSI is provided in Attachment 4.

The National Weather Service (NWS), which records weather data at Tucson International Airport, recorded a sharp change in weather during the afternoon of July 27, 2013. At 3:48 pm, the NWS recorded winds from the south at 5 mph. At 3:53 pm, the NWS recorded winds from the south-southwest at 22 mph with gusts to 35 mph.

**Rainfall:** The 10M MET weather station, located northwest of the tailings impoundment's reclaim pond, recorded an hourly total of 0.05 inches of rain at 1:00 pm and 2:00 pm on July 26, 2013. No other rain was recorded by a FMSI weather station for July 26, 2013. On July 27, 2013, the 60 M MET weather stations recorded an hourly total of 0.01 inches at 1:00 pm and 0.03 inches at 4:00 pm.

FMSI also takes daily readings of a simple rain gauge at the tailings shop, located about 0.5 miles north of the 10M-MET station, and generally records daily precipitation data on the Surface Inspection form. Mr. Gonzalez and Ms. Hoyak informed us that 0.9 inches of rain fell at the simple rain gauge in 30 minutes on July 26, 2013. The Surface Inspection Form from July 26 confirms 0.9 inches of rain. Precipitation data is provided in Attachment 4.

**Water Truck:** FMSI provided water truck records from January 3, 2013 to July 28, 2013. The records, provided for one 10,000 gallon truck, one 8,000 gallon truck, one 4,000 gallon truck, and one rental truck provide date used, number of loads distributed, and the initials of the operator. The records do not indicate the location of the water trucks' distribution. According to the records, no water was distributed on July 27, 2013.

62,000 gallons of water were distributed on July 24, 2013; 48,000 gallons of water were distributed on July 25, 2013; 32,000 gallons of water were distributed on July 26, 2013; and 8,000 gallons of water were distributed on July 28, 2013. Water truck data is provided in Attachment 4.

**Magnesium Chloride:** FMSI provided magnesium chloride distribution records from April 14, 2013 to July 28, 2013. The records, provided for five All-Track vehicles and one water truck used for magnesium chloride, provide date used, number of loads applied, and the initials of the operator. The records do not indicate the location of the magnesium chloride application. Ms. Hoyak indicated that water trucks would have been likely to apply magnesium chloride to the road, not the dam surface. According to the records, there was no application of magnesium chloride recorded between July 11 and July 25, 2013. 2,500 gallons were distributed on July 26, 2013; 7,000 gallons were distributed on July 27, 2013; and 14,000 gallons of magnesium chloride were distributed on July 28, 2013. Magnesium chloride records are provided in Attachment 4.

**Tailings Dam Environmental Activities Report:** FMSI provided weekly Tailings Dam Environmental Activities Report Records for June 21, 2013 through July 25, 2013. The completion of these weekly reports is required by the FMSI Air Quality Class I Permit

42862, Attachment B. Condition XIX.B.3.c. The reports show tailings deposition occurred on the south dam and berm pushing, pipe stabbing, and crane work occurred on the border of the north dam. The reports list no magnesium chloride application for the weeks ending July 19, 2013 and July 25, 2013. Magnesium chloride application is recorded on records dated July 12, 2013; June 27, 2013; and June 21, 2013. Each report shows use of water trucks.

FMSI also provided a weekly Tailings Dam Environmental Activity Report dated August 2, 2013. This report, covering activities from July 26, 2013 through August 1, 2013, allowed PDEQ to identify actions taken after the reported fugitive dust event on July 27, 2013. The report showed a total of 37 water truck loads distributed and 56,000 gallons of magnesium chloride applied to the tailings impoundment. The report's map and comments indicate magnesium chloride was applied over much of the north dam, with focus on filling washouts from precipitation. The report lists 1.4 inches of rain received between July 26 and August 1, 2013. Tailings Dam Environmental Activities Reports are provided in Attachment 4.

**Surface Inspection:** FMSI provided Surface Inspection reports for most days between June 25, 2013 and July 31, 2013. Notably, no Surface Inspection reports were available for July 27 or July 28, 2013. The inspections are part of the FMSI Fugitive Source Management Plan, which is required by Attachment B, Condition XIX.B.3.b.i of FMSI's Class I Air Quality Permit. The following Surface Inspection reports identified areas of the tailings dam in a condition that required action (such as "Piles of Standing Sands"): July 3, 2013; July 9, 2013; July 25, 2013; July 30, 2013; and July 31, 2013. The July 26 and 29, 2013 Surface Inspections do not provide a condition description.

Surface Inspection reports have an Action Plan section for the inspector to complete. I checked the action plans for Surface Inspections that identified areas of the tailings dam in a condition that required action. On July 3, 9, 25, and 26, 2013, the action plan stated that water trucks were in use and that All-Track vehicles were on standby. The July 29, 2013 Surface Inspection does not provide a condition description, but it does state "magnesium chloride All-Track vehicles and Water Trucks" for the action plan. The July 29, 2013 action plan also referenced "magnesium chloride All-Track vehicles and Water Trucks." Finally, the July 30, 2013 action plan stated, "(4) All-Tracks active phase 2, north dam, H<sub>2</sub>O Trucks on road and berms." Surface Inspection Reports are provided in Attachment 4.

## **Review of Applicable Regulatory Requirements**

### **Permit Condition:**

#### **Part B: SPECIFIC CONDITIONS**

#### **Section XIX: REQUIREMENTS FOR FUGITIVE SOURCES**

##### **B: Open Areas, Roadways and Streets, Material Handling, Storage Piles**

##### **1: Emission Limitations/Standards**

- a: The permittee shall not cause, allow or permit visible emission from any fugitive dust source in excess of 20% opacity measured in accordance with EPA Reference Method 9.**

### **PCC 17.16.050**

B. Except for sources located within the boundaries of the Tohono O’Odham, Pasqua Yaqui and San Xavier Indian Reservations, opacity of an emission from any nonpoint source, as measured in accordance with the Arizona Testing Manual, Reference Method 9, shall not exceed the following:

1. Twenty percent for such nonpoint sources in eastern Pima County, east of the eastern boundary of the Tohono O’Odham Reservation.

### **Findings:**

Visible emissions were observed by a PDEQ inspector and multiple complainants. No EPA Method 9 Visible Emissions observations were conducted to evaluate compliance with opacity limitations.

### **Permit Condition:**

Part B: SPECIFIC CONDITIONS

#### Section II: FACILITY-WIDE REQUIREMENTS

##### E. Visibility Limiting Standard

1. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.
2. Condition II.E.1 shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source.
3. Condition II.E.1 shall not apply to the generation of airborne particulate matter from undisturbed land.

### **PCC 17.16.050**

D. No person shall cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.

1. Sources required to obtain an air quality permit under ARS § 49-426, § 49-480 or Rule 17.12.470 may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with this subsection.
2. This subsection shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source.
3. This subsection shall not apply to the generation of airborne particulate matter from undisturbed land.

### **Findings:**

FMSI conducted a surface inspection on part of the north dam on July 25, 2013. This inspection revealed conditions where action was required. The inspection form for July 25, 2013 states the following for an action plan: “Water trucks in all areas, and berms. All-Tracks on standby”. There is no specific record of application of magnesium chloride on the north dam on July 25 or 26, 2013.

FMSI records show an isolated rain event on July 26, 2013 totaling 0.9 inches of rain. FMSI employees recorded the rain event on the July 26, 2013 surface inspection report. FMSI

employees acknowledged they are aware that heavy rain can compromise the crust of the impoundment surface. FMSI records do not show a response or follow-up inspection of the dam surface following the rain event. Work conducted until 2:00 pm on July 27, 2013 did not include an inspection of the rained-on dam surface.

Fugitive dust emissions from the FMSI tailings impoundment were photographed by a PDEQ inspector from 3:21 pm to 3:41 pm on July 27, 2013. A complaint received by PDEQ reported a 3:27 pm fugitive dust emission from tailings. Photographs, PDEQ inspector observations, and on-site inspection reveal the emissions originated from the north section of the north dam. The inspector observed white dust clouds originating from the north dam travel eastward over the side of the dam. The dust moved southeast, crossing I-19. The inspector observed fine, white tailings dust of sufficient density to obscure local vegetation on property over 2.25 miles from the closest FMSI property boundary. The inspector observed the dust continue to travel toward the Santa Rita Mountains.

FMSI records for 3:30 pm and 3:45 pm on July 27, 2013 show winds blowing from the north-northwest and northwest to the east-southeast and southeast at a maximum speed of 29.25 mph. Maximum wind speeds were recorded over 15 mph from 3:00 pm until 4:45 pm on July 27, 2013.

FMSI was not aware of July 27, 2013 fugitive emissions until PDEQ contacted FMSI on July 29, 2013.

**Deficiency:**

Pursuant to Permit Condition Part B, Section II, E and PCC 17.16.050, FMSI allowed diffusion of tailings-generated visible emissions beyond the property boundary. Though wind speeds recorded at FMSI were greater than 25 mph on July 27, 2013, the control measures taken by FMSI to prevent the diffusion of visible emissions were not commensurate with the amount of tailings impoundment surface area susceptible to becoming airborne.

**Compliance Determination**

Following review of the site inspection and PDEQ inspector observations and photographs, PDEQ Management has determined that a Notice of Violation will be issued to FMSI for the above listed deficiency.

**Attachments:**

1. Inspection Photo Log, dated July 29, 2013
2. Inspection Rights Protocol, dated July 29, 2013
3. Inspection Photo Log, dated July 27, 2013
4. Records provided by FMSI
5. National Weather Service Data for July 27, 28, and 29, 2013

**1. Inspection Photo Log, dated July 29, 2013**

**Site Location:** Freeport-McMoRan Sierrita Inc.  
6200 W. Duval Mine Road, Green Valley, AZ

**Photographer:**  
A. Martin, J. Easley, E.  
Quinley

**Tracking No.:**  
PC 1307-099

**Photo No. 1**

**Date:**  
7/29/13



**Photo No. 2**

**Date:**  
7/29/13



**Photo No. 3**

**Date:**  
7/29/13



**Photo No. 4**

**Date:**  
7/29/13



**Photo No. 5**

**Date:**  
7/29/13



**Photo No. 6**

**Date:**  
7/29/13



**Photo No. 7**

**Date:**  
7/29/13



**Photo No. 8**

**Date:**  
7/29/13



**Photo No. 9**

**Date:**  
7/29/13



**Photo No. 10**

**Date:**  
7/29/13



**Photo No. 11**

**Date:**  
7/29/13



**Photo No. 12**

**Date:**  
7/29/13



**Photo No. 13**

**Date:**  
7/29/13



**Photo No. 14**

**Date:**  
7/29/13



**Photo No. 15**

**Date:**  
7/29/13



**2. Inspection Rights Protocol, dated July 29, 2013**



PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY

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Tucson, Arizona 85701-1429
Phone (520) 724-7400 Fax (520) 838-7432
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NOTIFICATION OF INSPECTION RIGHTS

REGULATED PERSON INFORMATION (Company, Agency, Organization or Individual)

Regulated Person Freeport McMoran Serrita Inc. Permit # 6067
On-site Representative Kali Hoyack, Eric Werner Title
Site Location 6200 W. Duval Mine Rd
Site Contact Phone
Mailing Address PO Box 527. Green Valley, AZ 85622

PDEQ INFORMATION

Inspector Name E. Quinley Phone 724-9726
Inspection Date 7/29/13 Time
Accompanied by A. Martin, J. Easley

INSPECTION RIGHTS

Upon entry to the premises, the Pima County Department of Environmental Quality (PDEQ) inspector(s) met with the regulated person or authorized on-site representative, presented photo identification indicating that they are a PDEQ employee(s), and explained:

- The purpose of the inspection is to determine compliance with Air Quality Regulations or Pima County Code (PCC) Title 17. The inspection is being conducted pursuant to Arizona Revised Statutes (A.R.S.) §49-471 et seq. and PCC 17.20.050.
Inspection fee: \$ or A portion of Activity Permit Fee or X A portion of your annual emission fee
Regulated person or on-site representative may accompany the PDEQ inspector(s) on the premises, except during confidential interviews.
The regulated person has the right to have on request: copies of any original documents taken by PDEQ during the inspection, a split of any samples taken during the inspection if the split of any samples would not prohibit an analysis from being conducted or render an analysis inconclusive, copies of any analysis performed on samples taken during the inspection, and copies of any documents relied on to determine compliance with licensure or regulatory requirements.
Each person interviewed during the inspection will be informed that statements made by the person may be included in the inspection report.
Each person whose conversation is tape recorded will be informed that the conversation is being tape recorded.
Administrative hearing rights to appeal an administrative order or permit decision that was made as a result of the inspection are set forth in Arizona Revised Statutes (A.R.S.) §49.511, 49.490, 49.496 and 49.497 et seq. Rights relating to an appeal of a final agency decision are found in A.R.S. §49.480.02 and 49.482 et seq.

Questions or comments on these procedures, your inspection and due process rights or this form may be directed to the PDEQ inspector listed on this form at (520) 724-7400. While you have the right to decline to sign this form, the PDEQ representative(s) may still proceed with the inspection pursuant to PCC 17.20.050.

X I have read this notification and discussed any questions or concerns with the PDEQ inspector(s).

Signature Kali Hoyack Eric Werner Date 7.29.13

refused to sign the Notification.

Authorized on-site representative is not present at the facility.

**3. Inspection Photo Log, dated July 27, 2013**

**Site Location:** Freeport-McMoRan Sierrita Inc.  
6200 W. Duval Mine Road, Green Valley, AZ  
(Photos taken from east of I-19)

**Photographer:**  
J. Easley

**Tracking No.:**  
PC 1307-099

**Photo No. 1**

**Date:**  
7/27/13



**Photo No. 2**

**Date:**  
7/27/13



**Photo No. 3**

**Date:**  
7/27/13



**Photo No. 4**

**Date:**  
7/27/13



#### **4. Records provided by FMSI**

**10 Meter Meteorological Station****Friday, July 26, 2013**

<b>Time</b>	<b>Average Wind Speed (mph)</b>	<b>Max Wind Speed (mph)</b>	<b>Wind Direction (towards)</b>
12:00 AM	4.62	7.08	ENE
1:00 AM	6.20	7.92	NE
2:00 AM	6.49	8.33	NE
3:00 AM	5.05	7.80	NE
4:00 AM	2.45	4.89	NE
5:00 AM	3.51	4.85	ENE
6:00 AM	6.71	9.37	NNE
7:00 AM	5.95	7.32	NNE
8:00 AM	6.99	9.65	NE
9:00 AM	8.65	11.39	NE
10:00 AM	9.28	12.98	WSW
11:00 AM	7.62	13.36	SSE
12:00 PM	4.18	8.29	SSE
1:00 PM	8.12	27.88	SE
2:00 PM	13.19	37.69	S
3:00 PM	4.41	8.85	SE
4:00 PM	7.27	16.18	S
5:00 PM	5.07	13.53	SSE
6:00 PM	7.80	14.42	NNE
7:00 PM	4.94	7.38	NE
8:00 PM	5.25	9.78	E
9:00 PM	4.74	7.54	NE
10:00 PM	5.65	10.64	NE
11:00 PM	9.31	13.29	NNE
12:00 AM	7.82	10.70	NE

**60 Meter Meteorological Station****Friday, July 26, 2013**

<b>Time</b>	<b>Wind Speed (mph)</b>	<b>Wind Direction (out of)</b>
12:00 AM	5.20	SW
1:00 AM	8.83	SW
2:00 AM	8.00	SW
3:00 AM	5.64	WSW
4:00 AM	2.16	SSW
5:00 AM	1.02	SW
6:00 AM	5.40	SSW
7:00 AM	4.14	SSW
8:00 AM	7.22	SSW
9:00 AM	8.43	SSW
10:00 AM	8.30	SSW
11:00 AM	7.78	WNW
12:00 PM	4.52	NNW
1:00 PM	7.42	ENE
2:00 PM	13.68	NE
3:00 PM	2.67	NNW
4:00 PM	10.63	N
5:00 PM	10.03	NNW
6:00 PM	7.80	SW
7:00 PM	4.13	SW
8:00 PM	5.01	SW
9:00 PM	4.24	SW
10:00 PM	4.68	SW
11:00 PM	10.09	SSW
12:00 AM	8.12	SW

**10 Meter Meteorological Station  
Saturday, July 27, 2013**

<b>Time</b>	<b>Avg Wind Speed (mph)</b>	<b>Max Wind Speed (mph)</b>	<b>Wind Direction (Degrees)</b>	<b>Wind Direction (towards) *</b>
12:00 AM	6.62	8.16	241.12	ENE
12:15 AM	6.66	7.98	254.01	ENE
12:30 AM	6.52	7.54	241.89	ENE
12:45 AM	6.60	7.77	233.10	NE
1:00 AM	6.82	7.78	224.70	NE
1:15 AM	6.32	7.61	224.51	NE
1:30 AM	7.60	8.91	216.95	NE
1:45 AM	8.09	11.07	212.97	NNE
2:00 AM	9.24	11.02	203.76	NNE
2:15 AM	7.75	11.88	204.39	NNE
2:30 AM	5.95	6.86	200.08	NNE
2:45 AM	7.16	8.41	196.60	NNE
3:00 AM	7.05	8.65	196.53	NNE
3:15 AM	7.11	8.03	204.78	NNE
3:30 AM	7.63	9.51	217.09	NE
3:45 AM	6.64	7.84	227.22	NE
4:00 AM	7.31	8.41	223.10	NE
4:15 AM	6.92	8.65	237.37	ENE
4:30 AM	7.41	8.71	239.34	ENE
4:45 AM	6.77	9.16	233.66	NE
5:00 AM	5.42	6.62	245.84	ENE
5:15 AM	5.45	6.45	238.42	ENE
5:30 AM	4.71	5.93	231.43	NE
5:45 AM	4.83	6.38	235.81	NE
6:00 AM	1.69	3.62	263.90	E
6:15 AM	2.30	4.14	205.44	NNE
6:30 AM	3.52	3.76	197.17	NNE
6:45 AM	3.13	3.91	198.10	NNE
7:00 AM	3.70	4.37	200.34	NNE
7:15 AM	4.12	5.21	197.95	NNE
7:30 AM	4.81	6.85	204.26	NNE
7:45 AM	7.73	9.94	207.96	NNE
8:00 AM	7.48	9.20	197.55	NNE
8:15 AM	6.62	8.09	207.82	NNE
8:30 AM	6.00	7.57	329.20	SSE
8:45 AM	6.66	8.03	310.60	SE
9:00 AM	4.12	6.27	355.70	S
9:15 AM	3.08	4.79	113.00	WNW
9:30 AM	2.37	3.61	111.20	WNW
9:45 AM	3.04	4.11	96.80	W

10:00 AM	2.95	4.27	99.60	W
10:15 AM	3.94	5.90	120.30	WNW
10:30 AM	3.38	5.35	104.30	WNW
10:45 AM	4.97	7.19	107.60	WNW
11:00 AM	4.03	7.14	63.50	WSW
11:15 AM	4.56	7.40	63.10	WSW
11:30 AM	5.11	7.95	75.30	WSW
11:45 AM	5.81	8.44	98.00	W
12:00 PM	5.01	16.74	48.20	SW
12:15 PM	12.06	21.75	259.66	E
12:30 PM	5.48	12.28	287.40	ESE
12:45 PM	2.86	5.84	293.30	ESE
1:00 PM	4.50	6.02	244.49	ENE
1:15 PM	2.88	5.15	248.71	ENE
1:30 PM	3.35	7.19	340.10	SSE
1:45 PM	4.46	8.42	15.60	SSW
2:00 PM	5.27	8.88	23.00	SSW
2:15 PM	4.03	7.72	353.50	S
2:30 PM	3.25	6.15	349.80	S
2:45 PM	3.01	10.09	281.60	ESE
3:00 PM	11.68	17.51	232.25	NE
3:15 PM	14.86	22.49	245.60	ENE
3:30 PM	20.40	29.25	295.50	ESE
3:45 PM	18.86	27.53	321.20	SE
4:00 PM	11.71	19.35	343.90	SSE
4:15 PM	11.46	17.61	2.60	S
4:30 PM	16.32	19.80	357.10	S
4:45 PM	11.73	18.50	357.40	S
5:00 PM	6.11	8.49	347.40	SSE
5:15 PM	2.39	5.46	343.20	SSE
5:30 PM	4.69	7.19	50.90	SW
5:45 PM	1.95	4.62	24.10	SSW
6:00 PM	0.75	2.86	55.50	SW
6:15 PM	0.69	2.39	29.90	SSW
6:30 PM	0.40	1.94	8.30	S
6:45 PM	1.83	3.79	272.60	E
7:00 PM	5.11	7.03	268.40	E
7:15 PM	2.79	4.36	286.20	ESE
7:30 PM	3.83	5.00	254.41	ENE
7:45 PM	4.08	4.69	251.80	ENE
8:00 PM	4.21	4.95	275.80	E
8:15 PM	4.49	5.61	293.70	ESE
8:30 PM	4.89	5.99	298.40	ESE
8:45 PM	3.53	3.98	289.10	ESE
9:00 PM	2.90	3.32	271.90	E
9:15 PM	2.45	3.33	270.10	E
9:30 PM	3.42	4.68	252.77	ENE

9:45 PM	5.22	6.38	242.66	ENE
10:00 PM	5.04	6.42	245.68	ENE
10:15 PM	4.59	5.52	253.26	ENE
10:30 PM	5.10	6.18	231.97	NE
10:45 PM	6.21	7.95	232.83	NE
11:00 PM	5.86	6.62	229.29	NE
11:15 PM	5.62	6.97	236.08	NE
11:30 PM	5.17	6.71	244.26	ENE
11:45 PM	5.22	6.68	218.60	NE

\*\*Note, the cardinal directions shown indicate what direction the wind was blowing towards, rather than where it was blowing from

<b>Friday, 7/26/2013</b>		
<b>Time</b>	<b>Rainfall (in)</b>	
	<b>10m</b>	<b>60m</b>
12:00 AM	0	n/a
1:00 AM	0	n/a
2:00 AM	0	n/a
3:00 AM	0	n/a
4:00 AM	0	n/a
5:00 AM	0	n/a
6:00 AM	0	n/a
7:00 AM	0	n/a
8:00 AM	0	n/a
9:00 AM	0	n/a
10:00 AM	0	n/a
11:00 AM	0	n/a
12:00 PM	0	n/a
1:00 PM	0.05	n/a
2:00 PM	0.05	n/a
3:00 PM	0	n/a
4:00 PM	0	n/a
5:00 PM	0	n/a
6:00 PM	0	n/a
7:00 PM	0	n/a
8:00 PM	0	n/a
9:00 PM	0	n/a
10:00 PM	0	n/a
11:00 PM	0	n/a
12:00 AM	0	n/a
<b>Total</b>	<b>0.1</b>	<b>n/a</b>

<b>Saturday, July 27, 2013</b>		
<b>Time</b>	<b>Rainfall (in)</b>	
	<b>10m</b>	<b>60m</b>
12:00 AM	0	0
1:00 AM	0	0
2:00 AM	0	0
3:00 AM	0	0
4:00 AM	0	0
5:00 AM	0	0
6:00 AM	0	0
7:00 AM	0	0
8:00 AM	0	0
9:00 AM	0	0
10:00 AM	0	0
11:00 AM	0	0
12:00 PM	0	0
1:00 PM	0	0.01
2:00 PM	0	0
3:00 PM	0	0
4:00 PM	0	0.03
5:00 PM	0	0
6:00 PM	0	0
7:00 PM	0	0
8:00 PM	0	0
9:00 PM	0	0
10:00 PM	0	0
11:00 PM	0	0
12:00 AM	0	0
<b>Total</b>	<b>0</b>	<b>0.04</b>



2013

73736	Number of loads	Operator	73736	Number of loads	Operator
Date			Date		
1-9-13	5	IWL	5-6-13	7	RCN
1-10-13	8	IWL	5-7-13	4	RCN
1-17-13	7	GG	5-7-13	1	DH
2-19-13	2	EM	5-9	4	RCN
02/19	8	EV	5-9	4	<del>RCN</del>
3-4	6	RN	5-10	11	EM
3-5	2	RN	5-11	1	EM
3-7	2	EV	5-13	8	EV
3-7	7	RN	5-14	10	EM
3-6	7	RN	5-15	12	EM
3-11	1	SEM	5-16	11	EM
3-18	6	GG	5-17	13	EM
3-19	4	GG	5-18	8	SEM
3-28	6	GG	<del>5-19</del>	<del>6</del>	
4-1	4	SEM	5-23	6	IWL
4-2	5	SEM	5/20	8	EV
4-3	3	EV	5/21	9	EV
04/04	5	EV	5/22	8	EV
4-5	5	EV	5/23	8	EV
4-8	18	EV	5/24	8	EV
4-9	12	EV	5/25	7	EM
4-10	14	EV	5/27	8	SEM
4-11	11	EV	5-28	10	EM
4-12	12	EV	5-29	10	EM
4-13	7	RCN	5-30	9	EM
4-16	8	RCN	5-31	3	IWL
4-	2	SM	6-3	8	IWL
4-17	8		6-4	6	EM
4-18	7		6-5	5	EM
4/23	2	SEM	6-6	8	EM
4/24	2	SEM	6-7	7	EM
4/23	10		6-13	8	EM
4/24	10		6-10	5	RN
4/25	6		6-11	5	RN
4/26	5		6-12	5	RN
4/21	10		6-14	2	EM
4/25	8	RCN	6-17	2	EM
4-29	11	EM	6-18	6	EM
5/3	8	EM	6-19	2	EM
5-3	2	EM	6-20	7	EM
5-4	2	IWL	6-21	7	EM





4,000 Gall

74184	Number of loads	Operator	74184	Number of loads	Operator
Date			Date		
1-3	8	GG	5-22	9	IWC
1-4	5	GG			
02/19	8	EF			
03/07	5	EF			
3-7	13	DPM			
3-7	4	DLV	5-23	11	AC
3-8	4	FL	5-24	8	IWC
3-22	3	GG	5-29	6	IWC
3-24	5	DLV	5-30	6	IWC
3-28	7	JH	5-30	2	AC
3-26	3	GG	6-18	7	IWC
3-27	3	GG	6-4	7	IWC
4-3	2	D.C.G.	6-5	9	IWC
4/4	11	D.C.G.	6-6	10	IWC
4-4	3	SEM	6-7	3	IWC
4-7	4	DEVO	6-10	3	IWC
4/5	9	D.C.G.	6-18	3	IWC
4-8	15	SEM	6-18	1	IWC
4-9	13	SEM	7-8	4	IWC
4-15	12	SEM	7-9	6	IWC
4-15	13	DEVO	7-10	2	IWC
4-16	5	SEM	7-28	2	DEVO
4-24	2	GG			
4-25	13	SEM			
04/30	6	EF			
5/2	8	D.C.G.			
5-13	12	PAD			
5/13	2	AL			
5/16	8	J			
5-8	3	GG			
5-9	11	DPM			
5-10	4	DPM			
5-11	2	GG			
5-14	2	GG			
5-15	4	GG			
5-16	5	AL			
5-17	13	AL			
5-18	5	IWC			
5-20	11	IWC			
5-21	2	AL			
5-21	10	IWC			















# Attachment A

## Tailings Dam Environmental Activities Report 7/26 thru 8/1

Operator: DENNIS VOELKER (SENA)

Date: 08-02-2013

### Primary Controls

	N/S	Phase	Area	
Area of Deposition	S	1-3	98/1-4	
Special Wetting Areas	N	1-3	1-9	
Water Truck - # of Loads	88	19	36 15	84 2 <span style="float: right;">37 H<sub>2</sub>O TRK</span>

	Gallons	Location	Approx. Area Covered
Alltrack/March Buggy Application	700X 80 1/2	N	50,000 gallons
MgCl Applied to Roads	10,500	N	

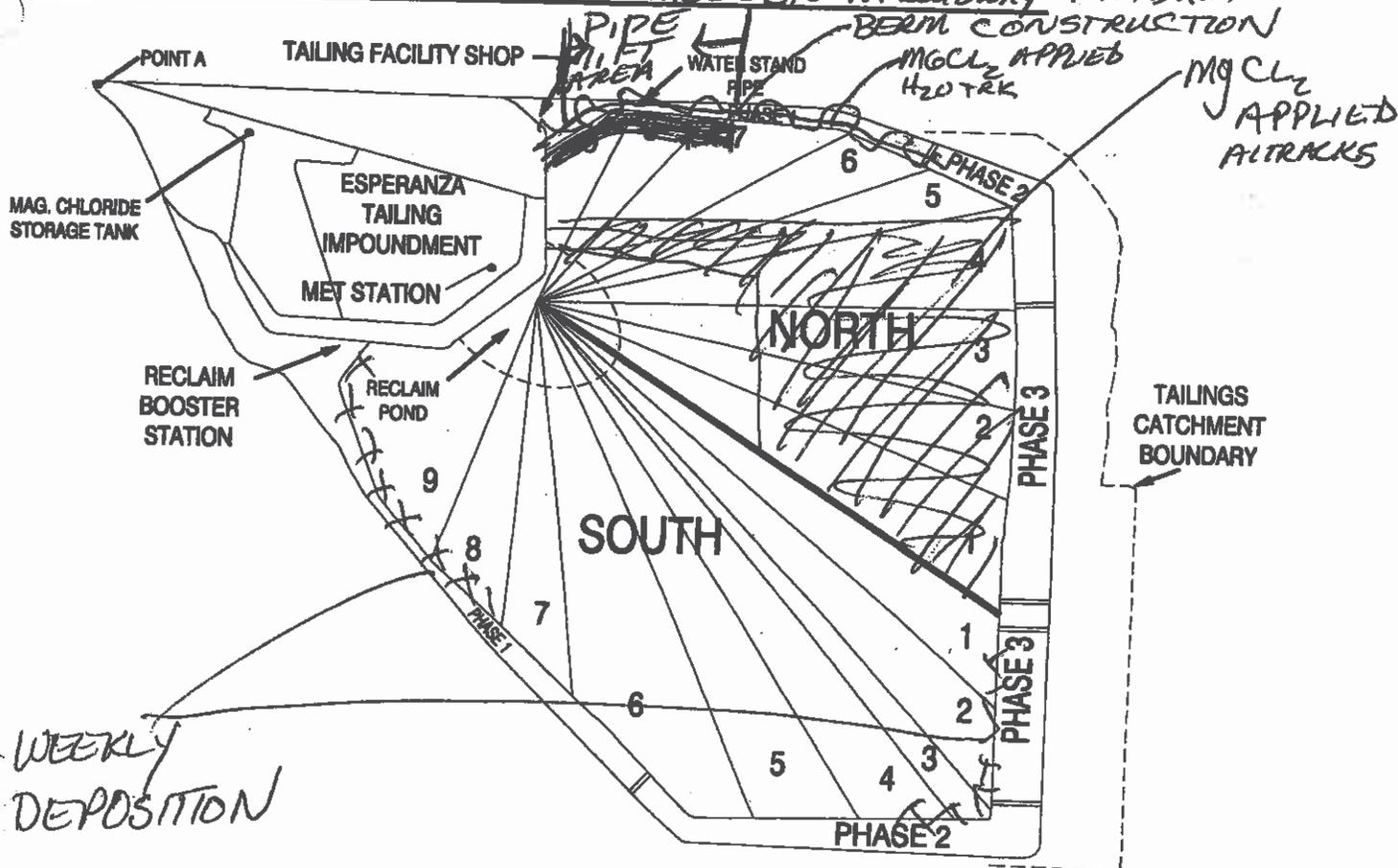
### Site Conditions

Areas Under Construction	N	ALL	ALL
Inches of Rain	1.4		

### Special Projects

	Area of Application
Hydroseeding Area	

**Comments** BERM CONSTRUCTION - PIPE LIFT ONGOING  
Filling washouts N DAM FROM 1.5 inch precip. last  
WEEK. HEAVY RAIN & WINDS ON N HALF OF DAM  
NOTHING NOTABLE ON SOUTH - MgCl<sub>2</sub> to N. ROADWAY & N. DAM



# Attachment A

## Tailings Dam Environmental Activities Report

Operator: Isaiah Catalan

Date: 7/25/13

### Primary Controls

	N/S	Phase	Area
Area of Deposition	S	2	5-3
Special Wetting Areas			
Water Truck - # of Loads	88 <input checked="" type="checkbox"/>	36 9	84 <input checked="" type="checkbox"/> <sup>37</sup> Rental 9
	Gallons	Location	Approx. Area Covered
Alltrack/March Buggy Application	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MgCl Applied to Roads	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Site Conditions

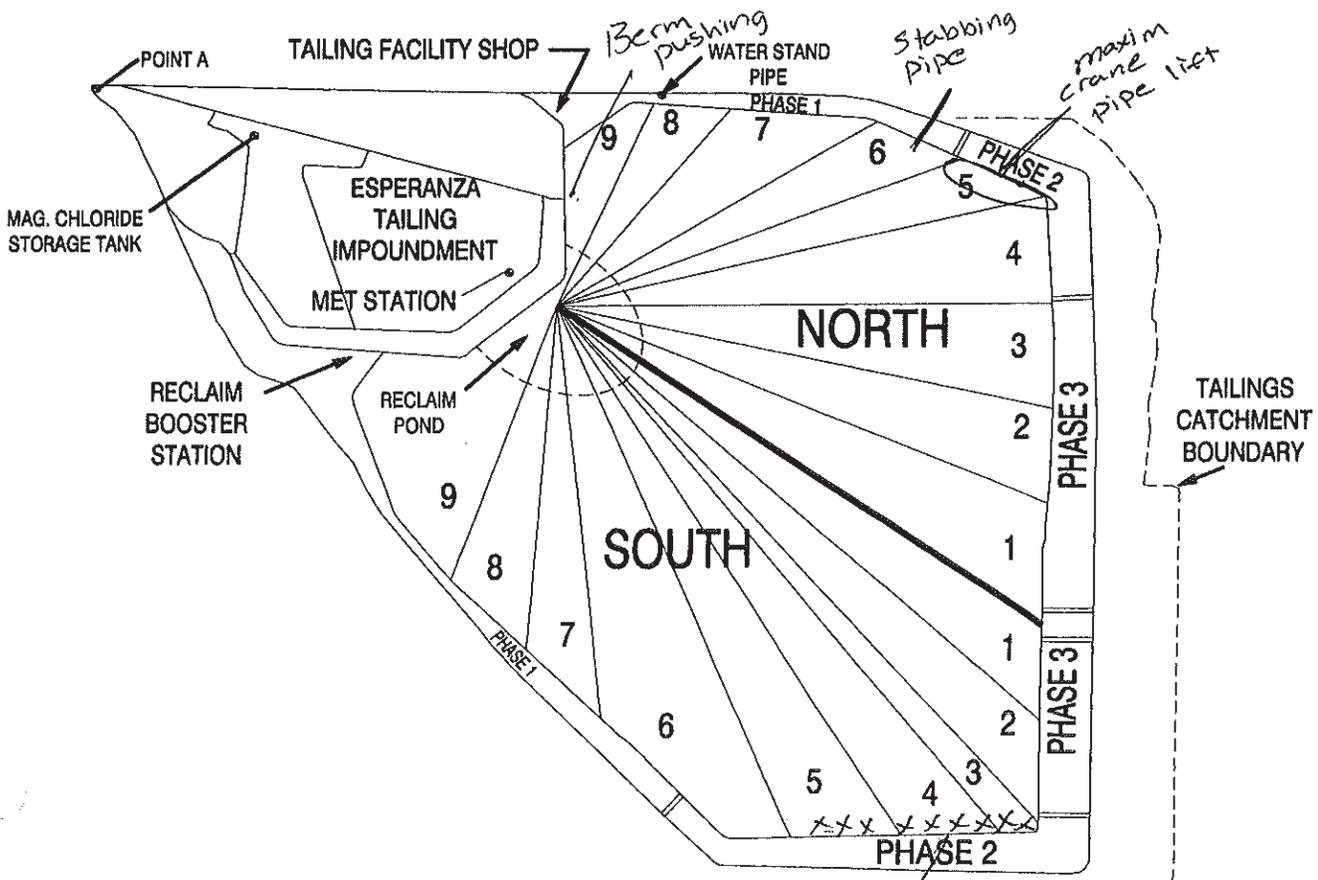
Areas Under Construction	N	1,2,3	1-9
Inches of Rain			

### Special Projects

### Area of Application

Hydroseeding Area	

Comments North Dam, pipe stabbing, berm pushing, and maxim crane obono pipe lift



Weekly Deposition

# Attachment A Tailings Dam Environmental Activities Report

Operator: PAUL DIAZ

Date: 07/19/2013

**Primary Controls**

	N/S	Phase	Area	
Area of Deposition	S	1	7.6	
Special Wetting Areas				
Water Truck - # of Loads	88	36	84	Rental 0

	Gallons	Location	Approx. Area Covered
Alltrack/March Buggy Application	0	0	0
MgCl Applied to Roads	0	0	0

**Site Conditions**

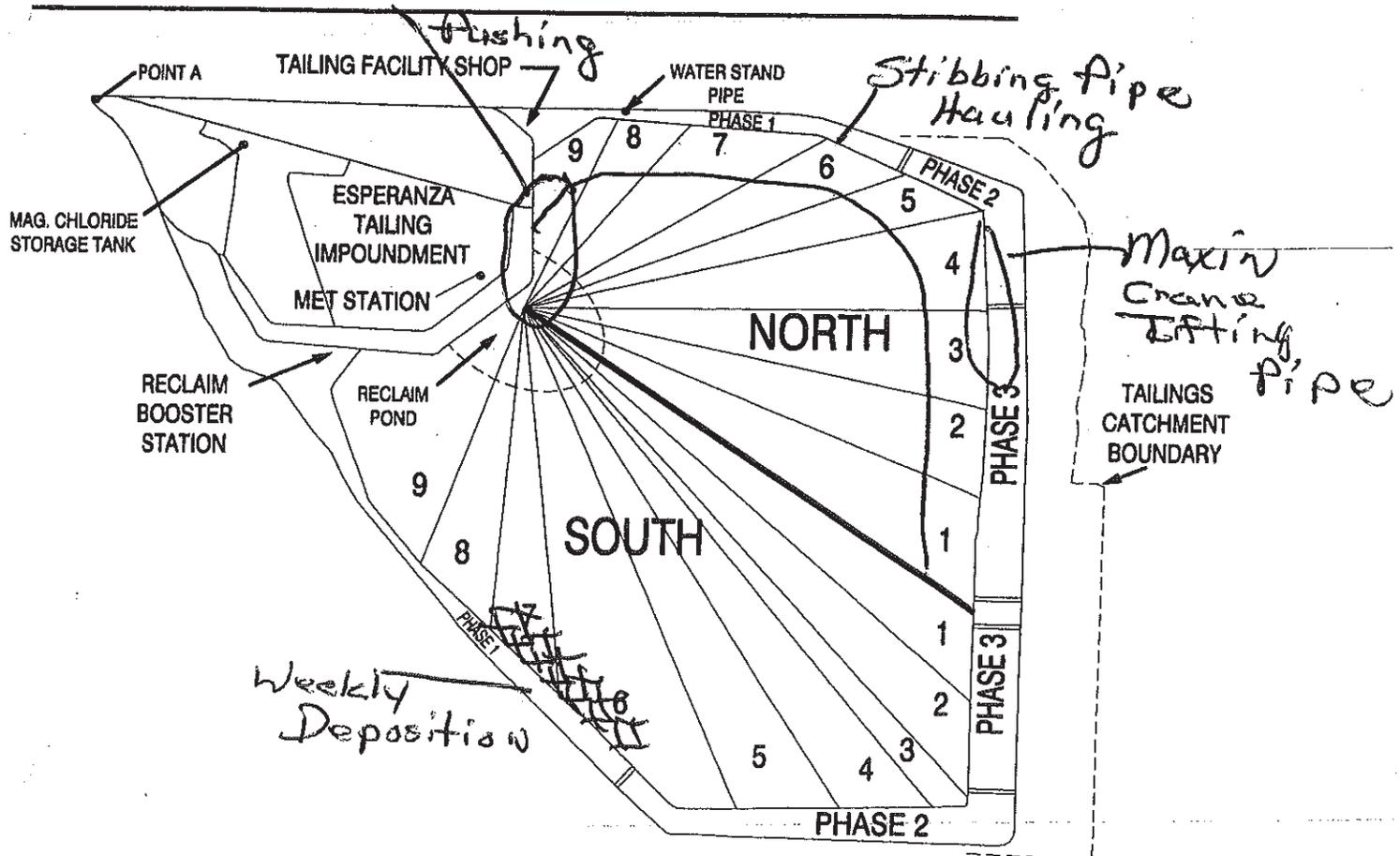
Areas Under Construction	N	1,2,3	1-9
Inches of Rain			

**Special Projects**

**Area of Application**

Hydroseeding Area	
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Comments Pipe Stibbing on North Dam & Roadwork  
North DAM. Maxin Lifting pipe.



# Attachment A Tailings Dam Environmental Activities Report

Operator: J. Murphy

Date: 7-12-2013

### Primary Controls

	N/S	Phase	Area
Area of Deposition	S	1	9, 8, 7, 6
Special Wetting Areas			
Water Truck - # of Loads	88 27	36 36	84 12 Rental

	Gallons	Location	Approx. Area Covered
Alltrack/March Buggy Application	5	N	Phase 3-1/2
MgCl Applied to Roads	7000	N	Phase 2/3

### Site Conditions

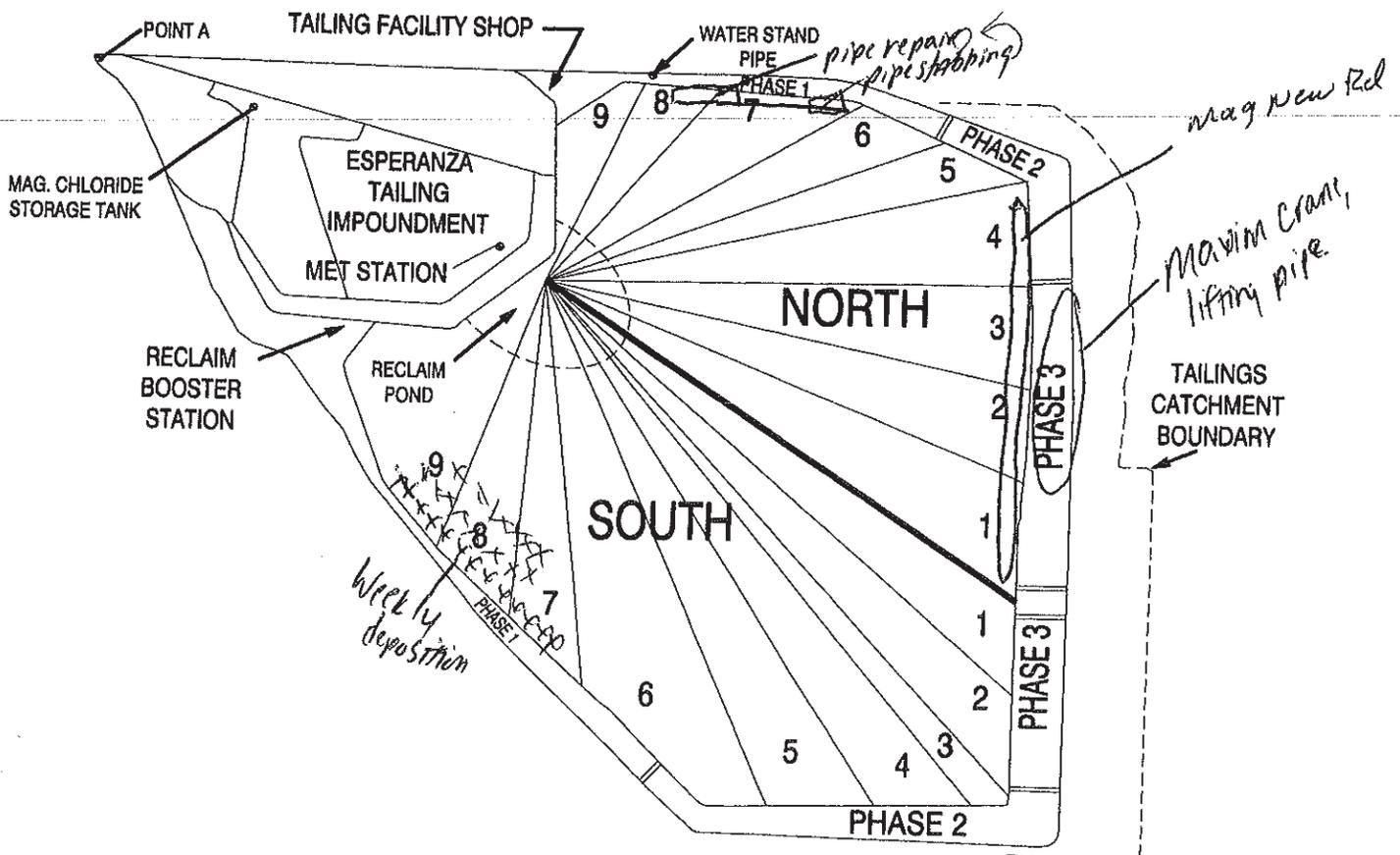
Areas Under Construction	N	3	2-3
Inches of Rain	.65		

### Special Projects

#### Area of Application

Hydroseeding Area	

**Comments** *Continued pipe stabbing, N.W. corner, \* Roadwork @ divider, N. Phase 1-2.  
Maxim present lifting pipe*



Attachment A

Tailings Dam Environmental Activities Report

(6/28 thru 7/4)

Operator: STORME MIHOKY

Date: 07-04-2013

Primary Controls

	N/S	Phase	Area	
Area of Deposition	5	1/9	9/1-3	
Special Wetting Areas				
Water Truck - # of Loads	88 10	36 12	84 0	Rental 73737 13

	Gallons	Location	Approx. Area Covered
Alltrack/March Buggy Application	0		
MgCl Applied to Roads	0		

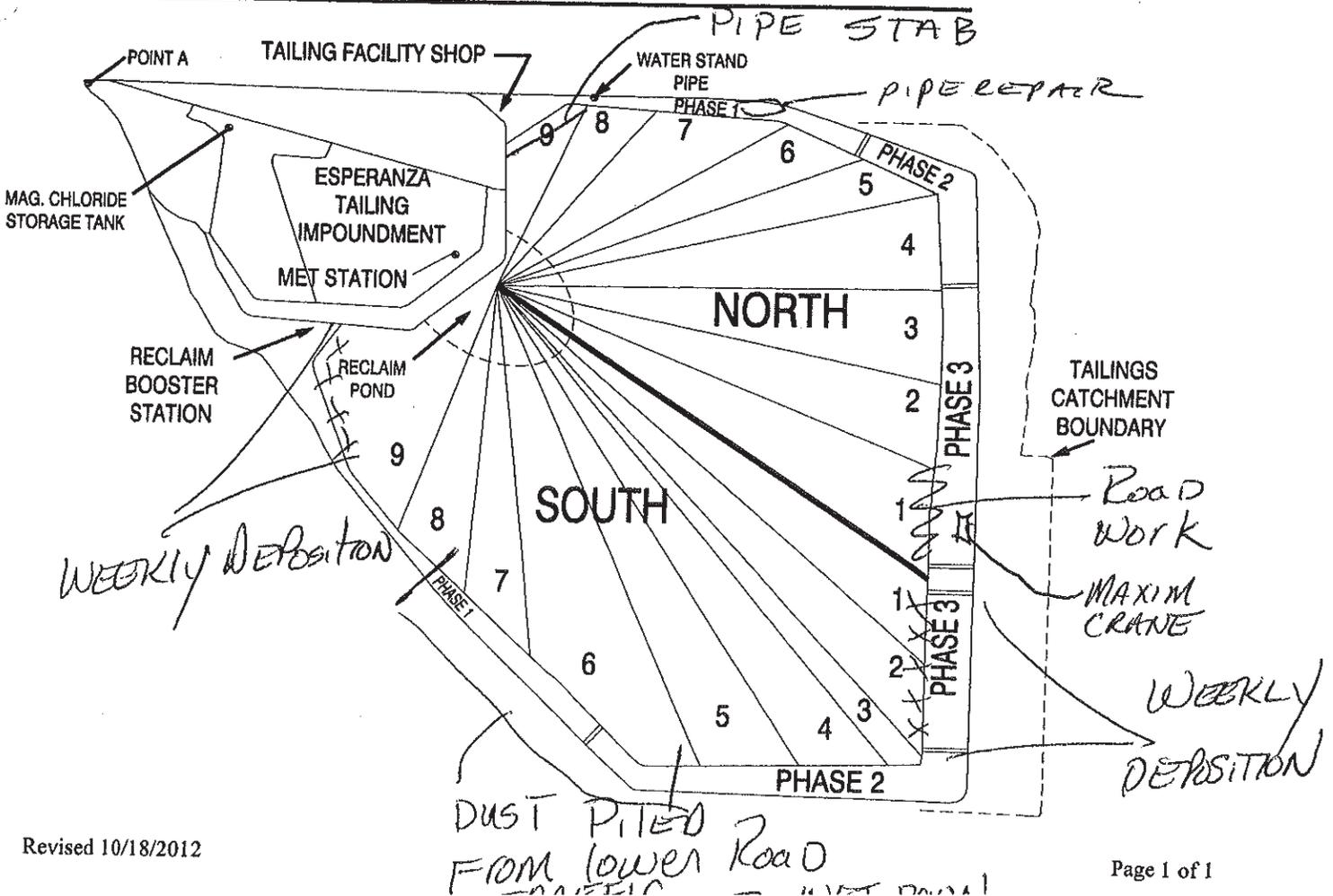
Site Conditions

Areas Under Construction	N	3	1-2
Inches of Rain	1.55		

Special Projects

	Area of Application
Hydroseeding Area	

Comments - STABBING PIPE NW END Roadwork  
N END Phase 3 A 1 CRANE IN FOR PIPE  
LIFT SUNDAY MONDAY NIGHT 1.55 inch rain



# Attachment A Tailings Dam Environmental Activities Report

Operator: Isaiah Catalan

Date: 6/27/13

Primary Controls	N/S	Phase	Area	
Area of Deposition	S	112	23,45	
Special Wetting Areas				37 - 48
Water Truck - # of Loads	88 <del>58</del>	36 22	84 0	Revised
	Gallons	Location	Approx. Area Covered	
Alltrack/March Buggy Application	4200	1	6,7,8,9	
MgCl Applied to Roads				

### Site Conditions

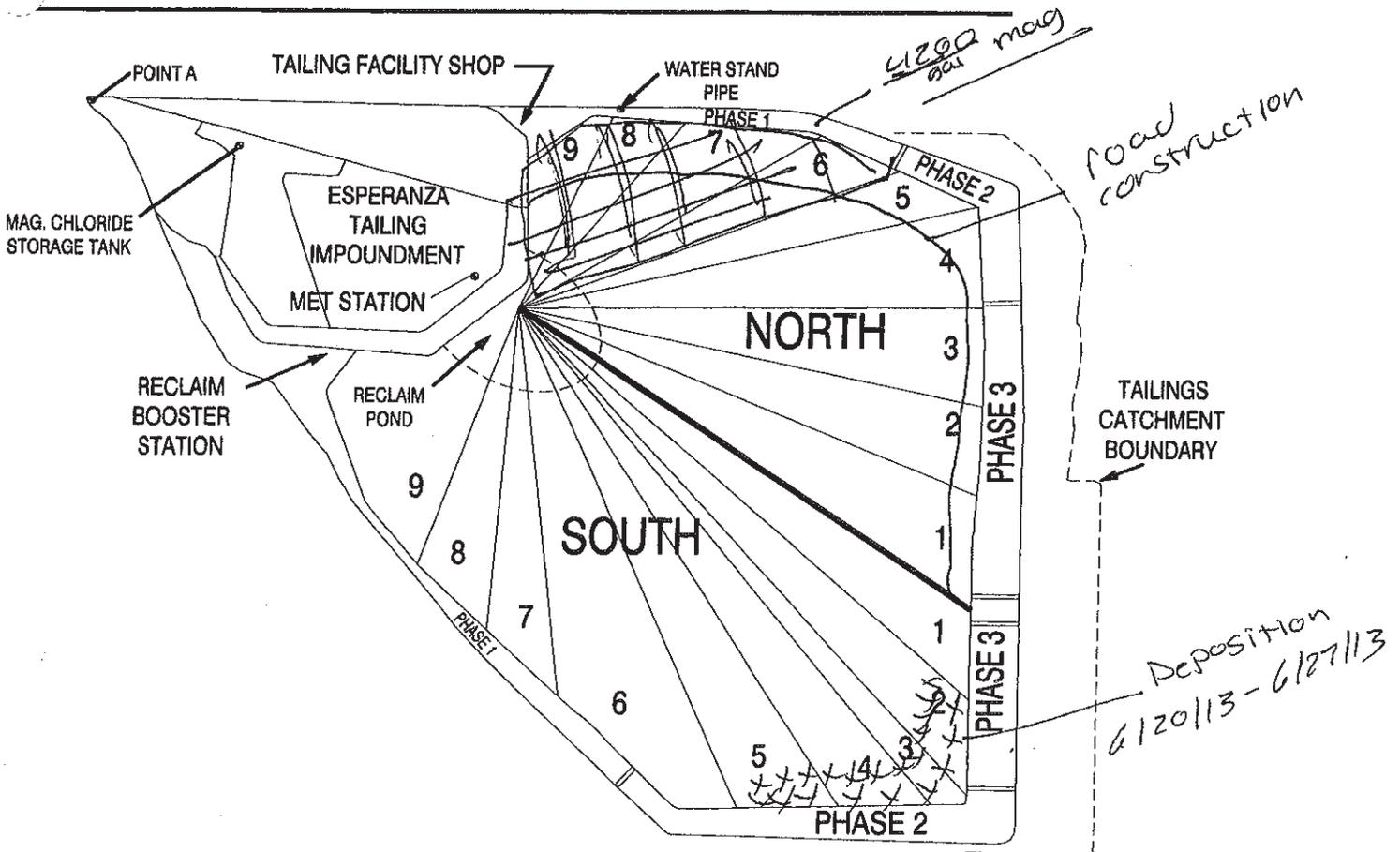
Areas Under Construction	N	1-3	1-9
Inches of Rain			

### Special Projects

#### Area of Application

Hydroseeding Area	N/A
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### Comments



# Attachment A

06/14/13 - 06/20/13

## Tailings Dam Environmental Activities Report

Operator: PAUL DIAZ

Date: 6/21/2013

### Primary Controls

	N/S	Phase	Area
Area of Deposition	S	1-2	4, 7, 6
Special Wetting Areas			
Water Truck - # of Loads	88 50	36 34	84 4

37

Rental: 28

	Gallons	Location	Approx. Area Covered
Alltrack/March Buggy Application	30400	3-4	1, 2, 3, 4, 6, 7
MgCl Applied to Roads			

### Site Conditions

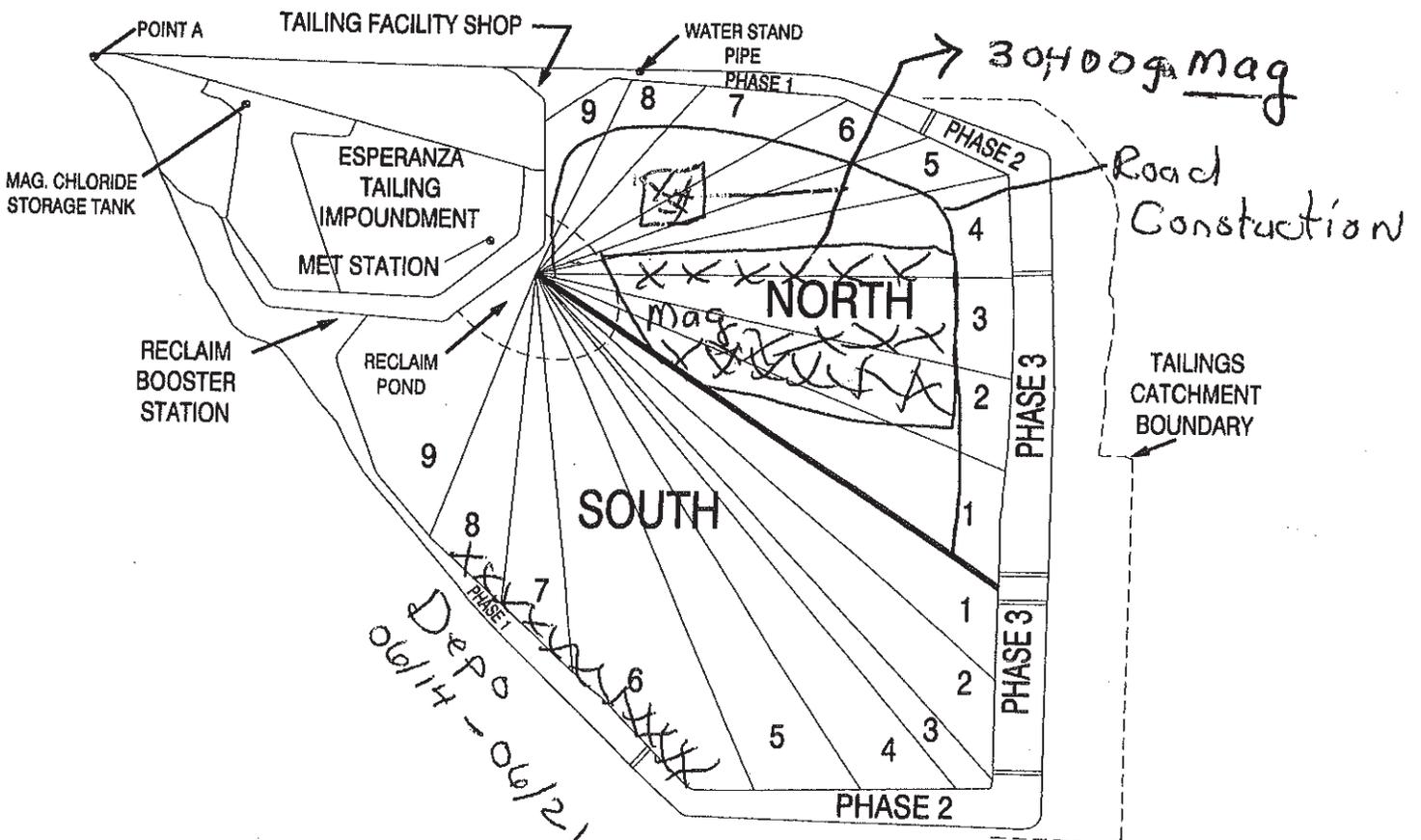
Areas Under Construction	N	1-3	1-9
Inches of Rain			

### Special Projects

#### Area of Application

Hydroseeding Area	N/A
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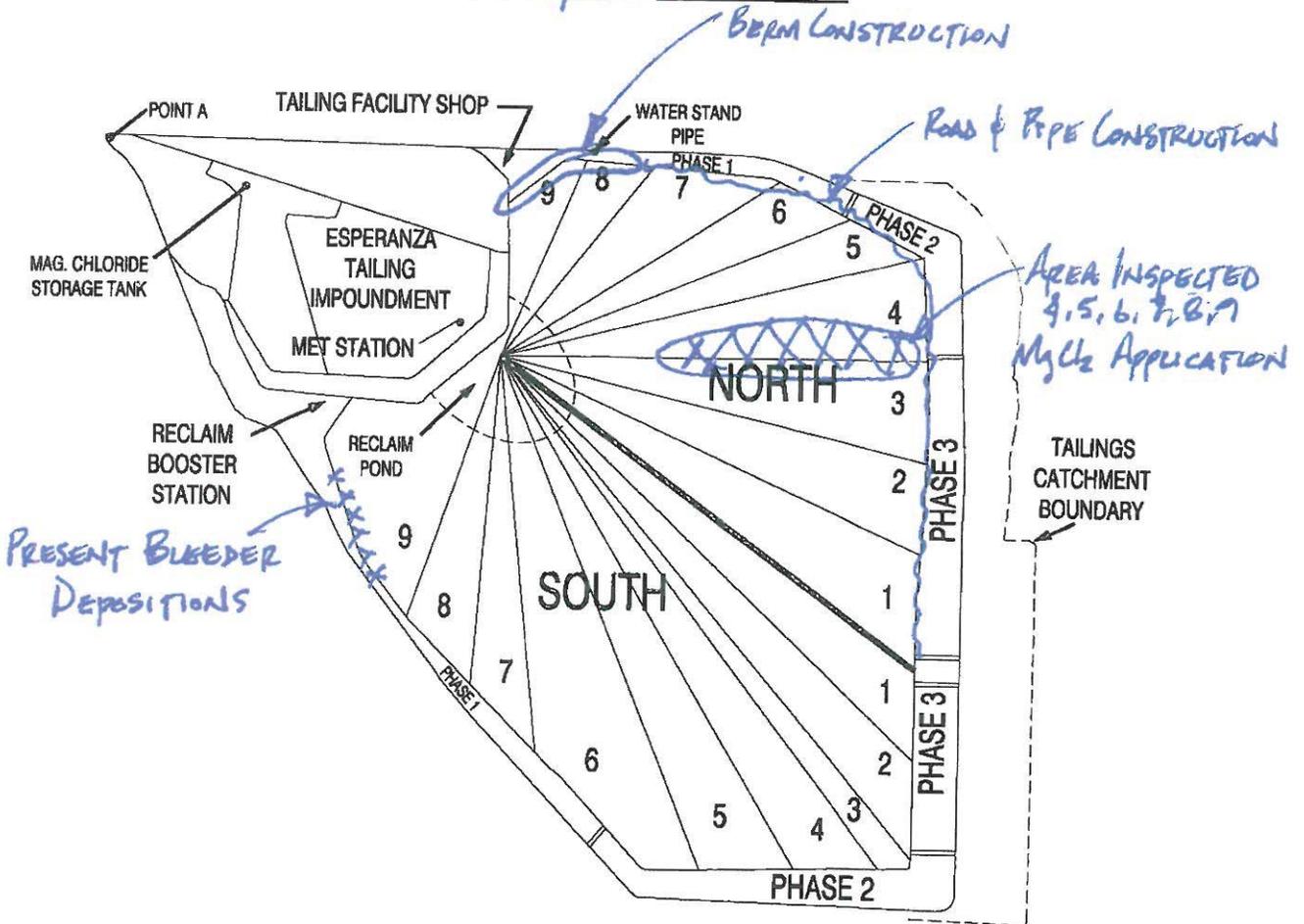
### Comments



Surface Inspection

Date: 07/31/13  
 Time 1500  
 Conditions Monsoon Potential  
 Dam Inspected NORTH Phase(s) 2,3  
 GPS Coordinates \_\_\_\_\_

Inspected by: D.E. Fleming



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

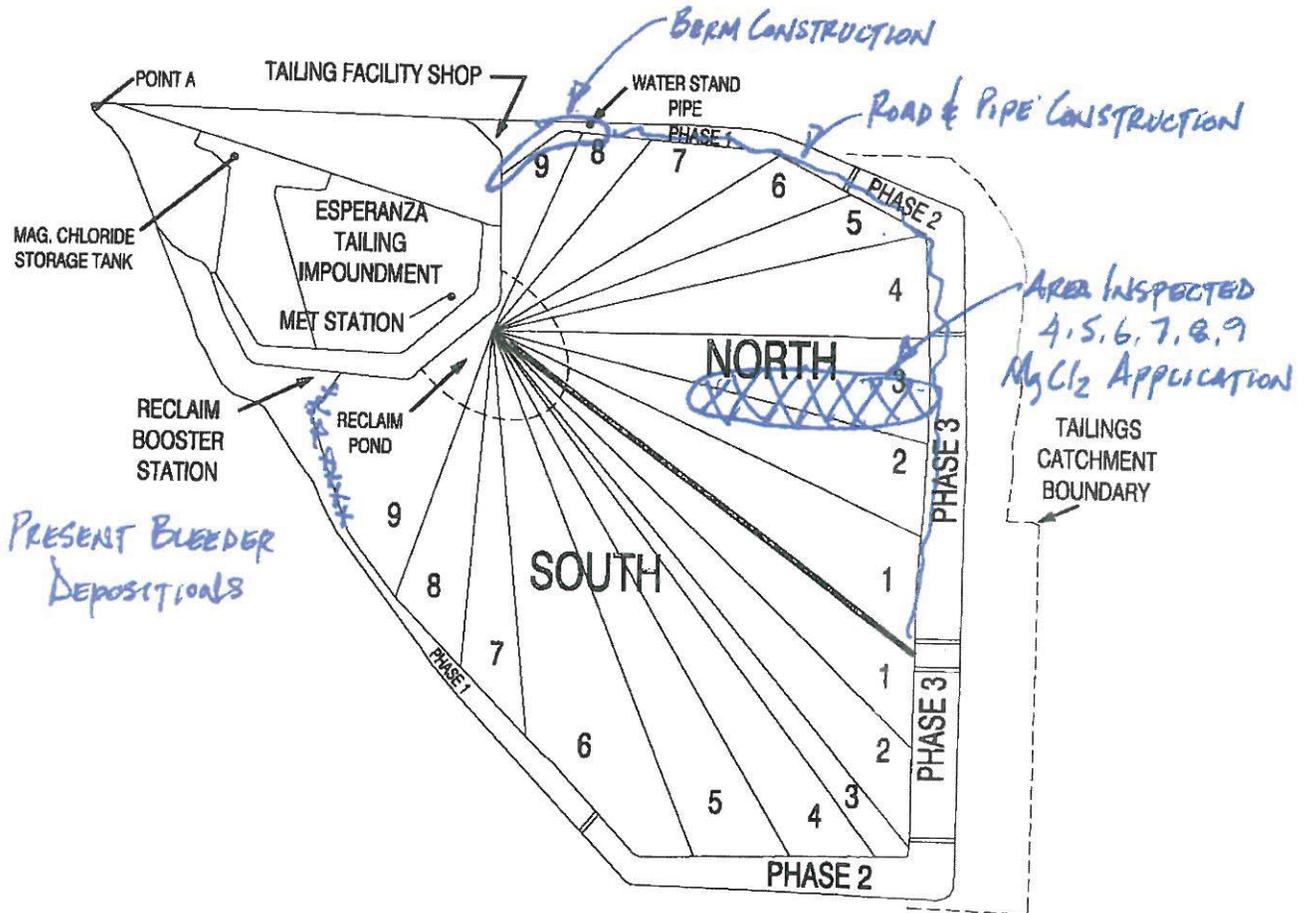
Action Plan: (3) All Tracks Active Ph 2, North Dam H2O Trucks On Rds & Berms  
 Dust Suppressant Applied MgCl2 Completed Y/N If N Date Completed \_\_\_\_\_ Initial DF  
 Tons Used 9800 gal Operator GARUA, MEPRANZA, FLEMING

Weather Conditions: Wind Speed 10 Gusts To 20+ Temperature 100° Precipitation Last 24 Hrs. Y/N

**Surface Inspection**

Date: 07/30/13  
 Time: 1500  
 Conditions: MONSOON POTENTIAL  
 Dam Inspected: NORTH Phase(s) 2, 3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: A. B. FLEMING



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

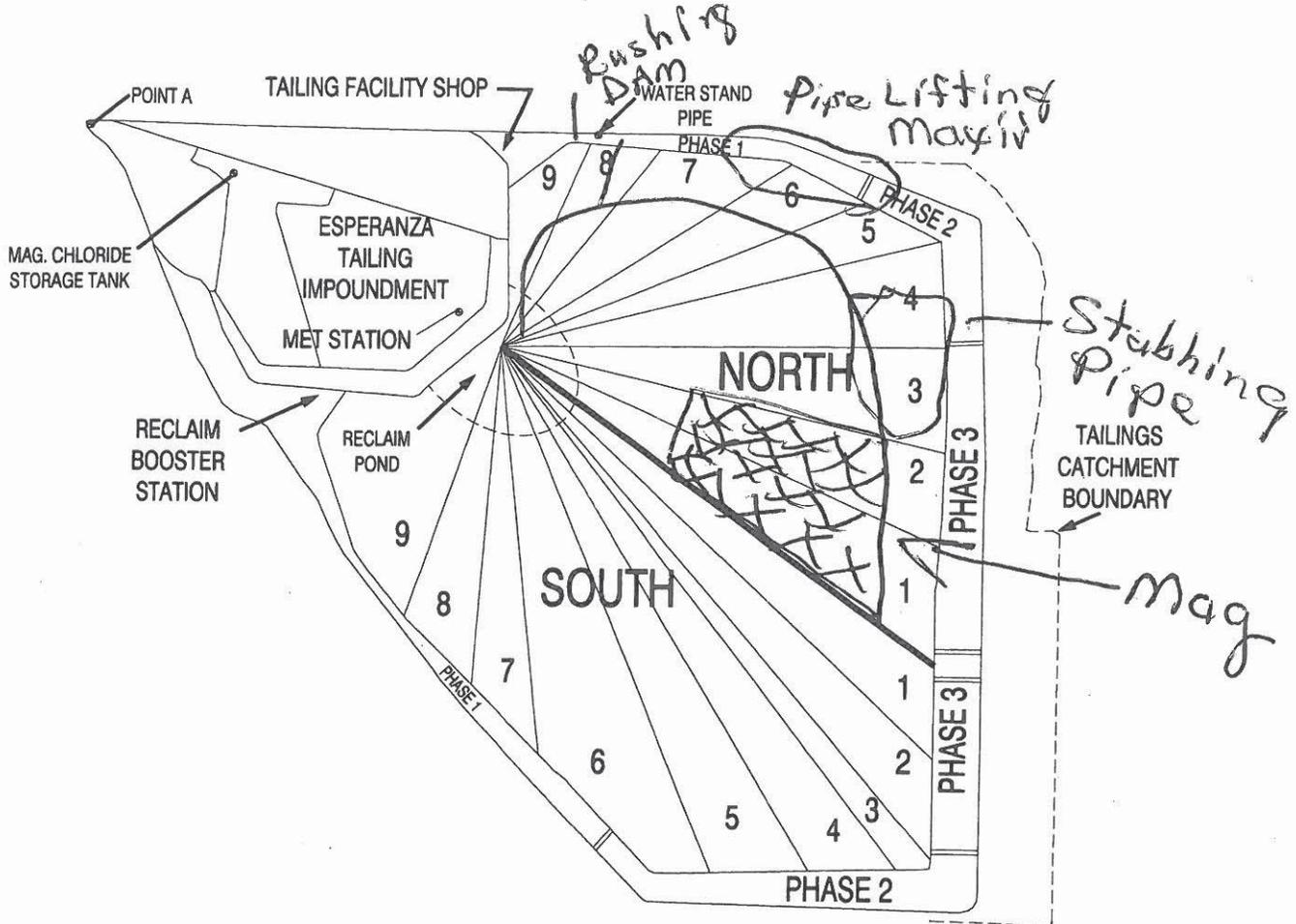
Action Plan: (4) ALLTRACKS ACTIVE PH 2, NORTH DAM, H<sub>2</sub>O TRUCKS ON ROS & BORMS  
 Dust Suppressant Applied: MgCl<sub>2</sub> Completed Y/N (Y) If N Date Completed \_\_\_\_\_ Initial ABF  
 Tons Used: 16100 gal Operator: GARCIA, FLEMING, MERRANZA, NEGRETTE

Weather Conditions: Wind Speed 10 Gusts To 25+ Temperature 100° Precipitation Last 24 Hrs. (Y) / N

Tailings Impoundment Surface Inspection

Date: 7/29/2013  
 Time: 1530HRS  
 Conditions: Clear  
 Dam Inspected: North Phase(s) 1,2,3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: PAUL DIAZ



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: Mag ALL Trucks and Water Trucks  
 Dust Suppressant Applied: H<sub>2</sub>O Completed Y/N \_\_\_\_\_ If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Gallons Used: 500 Operator: \_\_\_\_\_

Weather Conditions: Wind Speed 8 Gusts To 10 Temperature 91°/°F Precipitation Last 24 Hrs. Y(N)

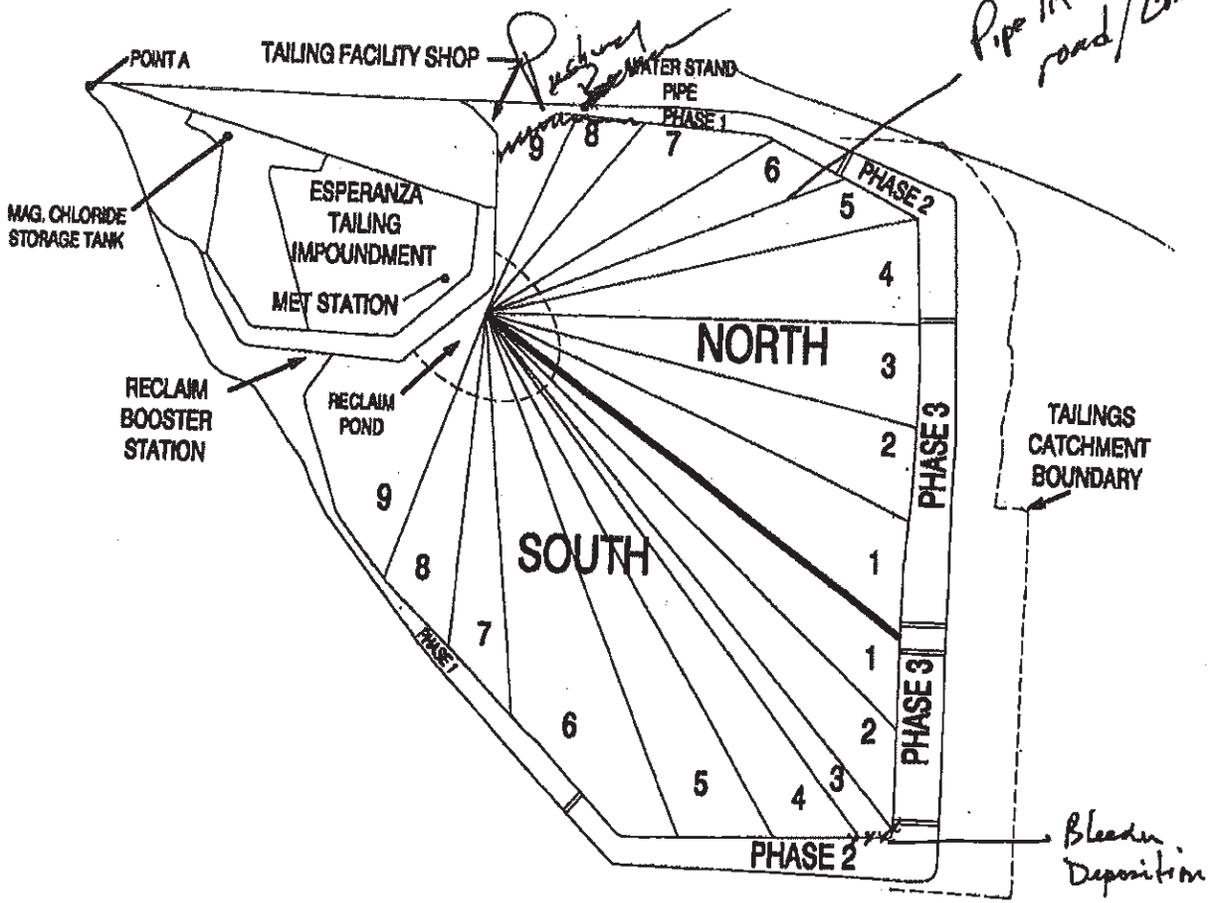
Fax to 393-2651

*5 prep*

# Tailings Impoundment Surface Inspection

Date: 7/06/13  
 Time: 8:10 AM  
 Conditions: Windy during the afternoon / Cloudy  
 Dam Inspected: \_\_\_\_\_ Phase(s) \_\_\_\_\_  
 GPS Coordinates: \_\_\_\_\_

Inspected by: Isaiab Catalan



Mark area inspected on diagram using number below that best describes conditions observed.

Recent Deposition (14 days or less)	No Action Required
Moist Surface	No Action Required
Established Algae/Salt Crust	No Action Required
Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
Crusts breaking down	Watch Area / Reinspect in one week
Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
Broken Down Crust	Action Required - Deposition or Suppressant Application
Delta	Action Required - Deposition or Suppressant Application
Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

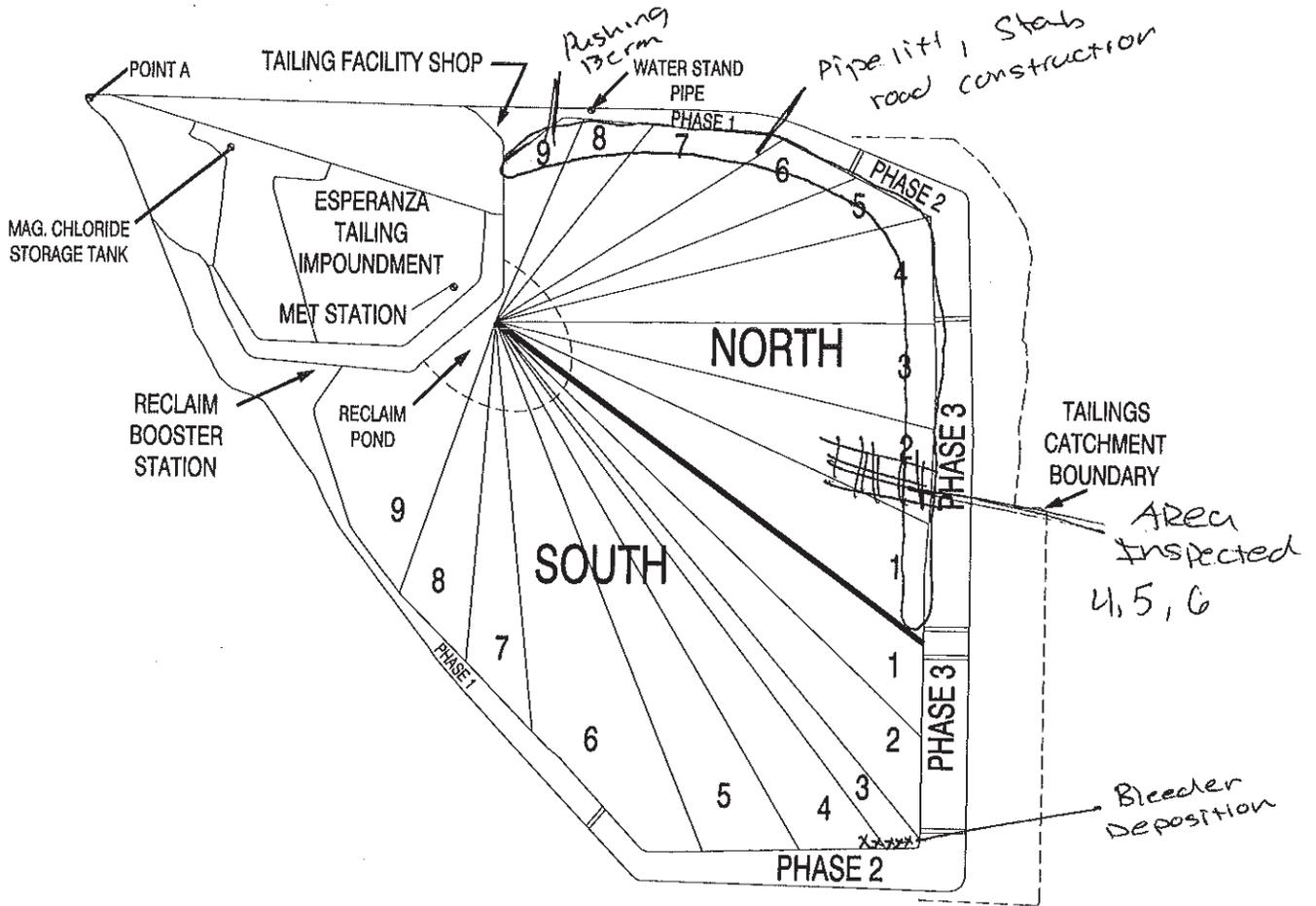
Inspection Plan: Water Trucks on Roads/Berms All Trucks on Stand by  
 Suppressant Applied: N/A  
 Equipment Used: N/A  
 Completed Y/N, If N Date Completed: \_\_\_\_\_ Initial: \_\_\_\_\_  
 Operator: IS

Other Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature 80° Precipitation Last 24 Hrs.  Y  N

# Surface Inspection

Date: 7/25/13  
 Time 8:00 AM  
 Conditions Cloudy  
 Dam Inspected Norm D. Phase(s) 3  
 GPS Coordinates \_\_\_\_\_

Inspected by: Isaiah Catalan



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
④	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
⑤	Crusts breaking down	Watch Area / Reinspect in one week
⑥	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

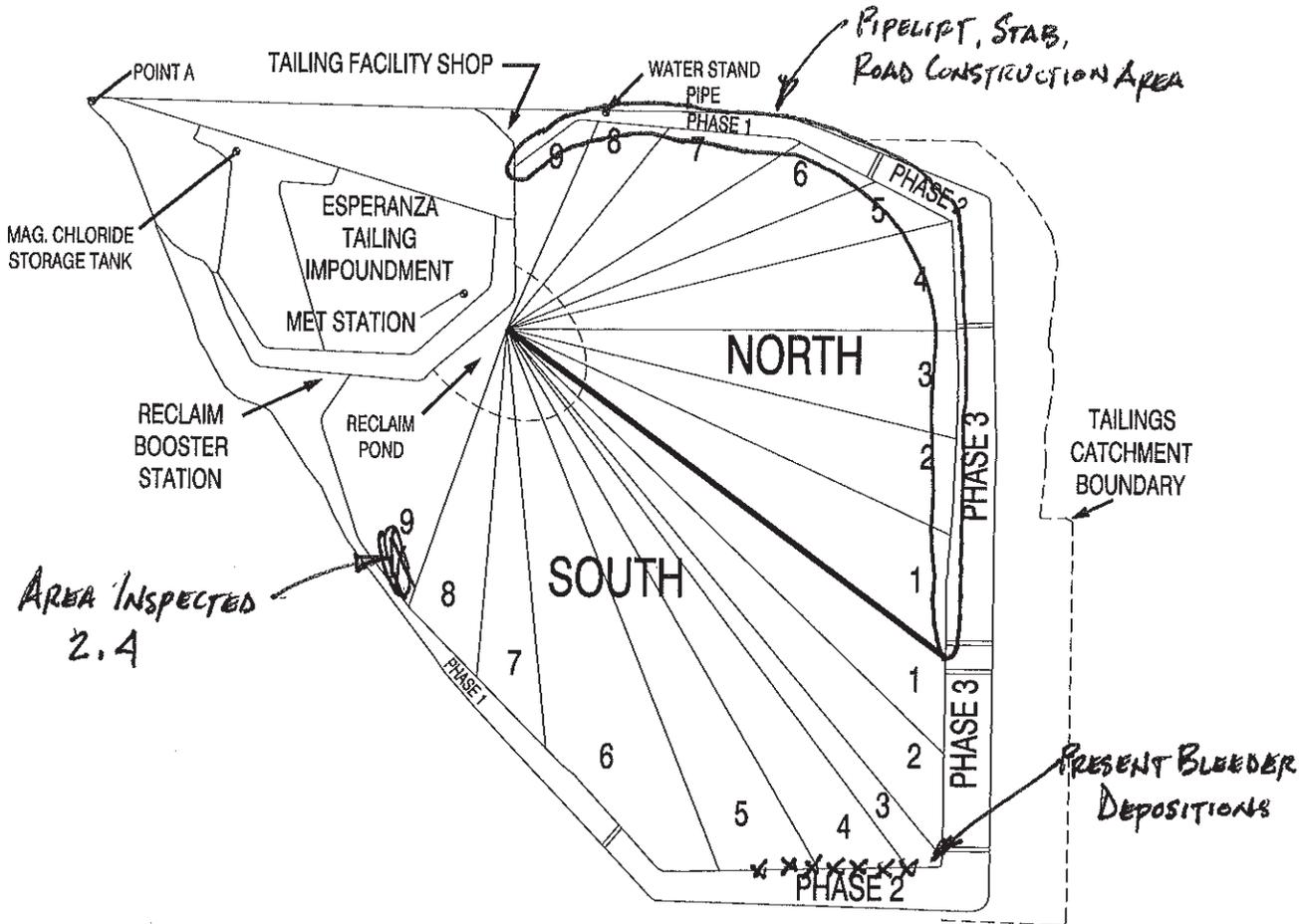
Action Plan: Water trucks in all Areas and Berms. All trucks on Stand by  
 Dust Suppressant Applied H<sub>2</sub>O Completed Y/N      If N Date Completed      Initial       
 ons Used      Operator     

Weather Conditions: Wind Speed 0 Gusts To 2 Temperature 75° Precipitation Last 24 Hrs. Y (N)

Fax to 8730 & 8608

**Surface Inspection**

Date: 07/24/13  
 Time 1200  
 Conditions OVERCAST  
 Dam Inspected SOUTH Phase(s) 1  
 GPS Coordinates \_\_\_\_\_  
 \_\_\_\_\_  
 Inspected by: E. FLEMING



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: H2O TRUCK ON ROADS & BERMS, ALL TRACKS STANDING BY.

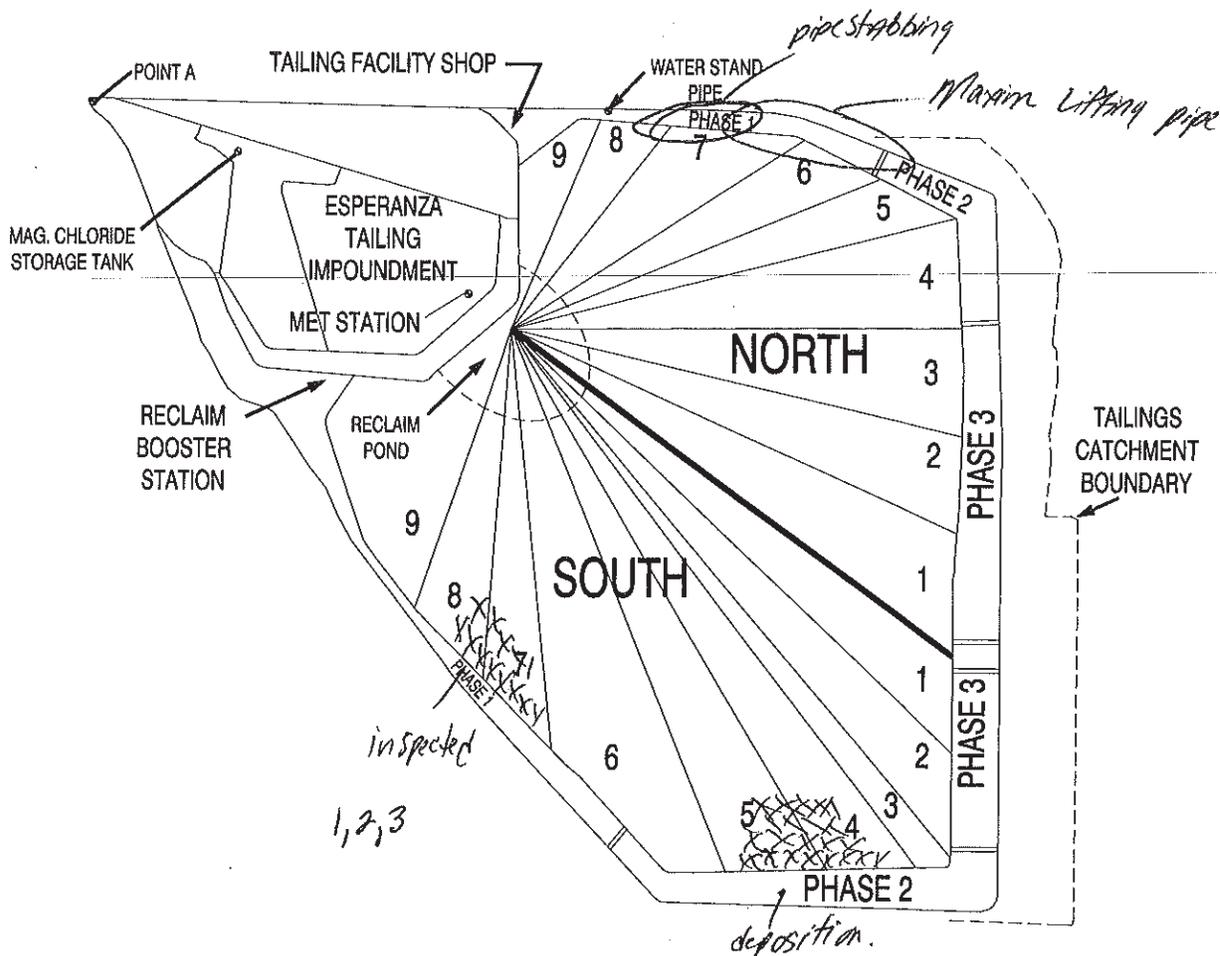
Dust Suppressant Applied H2O Completed Y / N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Conditions Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed 10 Gusts To 14 Temperature 85° Precipitation Last 24 Hrs (Y) N

Fax to 8730 & 8608

**Surface Inspection**

Date: 7-23-2013  
 Time: 3:35  
 Conditions: slight breeze, humid  
 Dam Inspected: South Phase(s) 1  
 GPS Coordinates \_\_\_\_\_  
 \_\_\_\_\_  
 Inspected by: J. Murphy



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: water truck operations

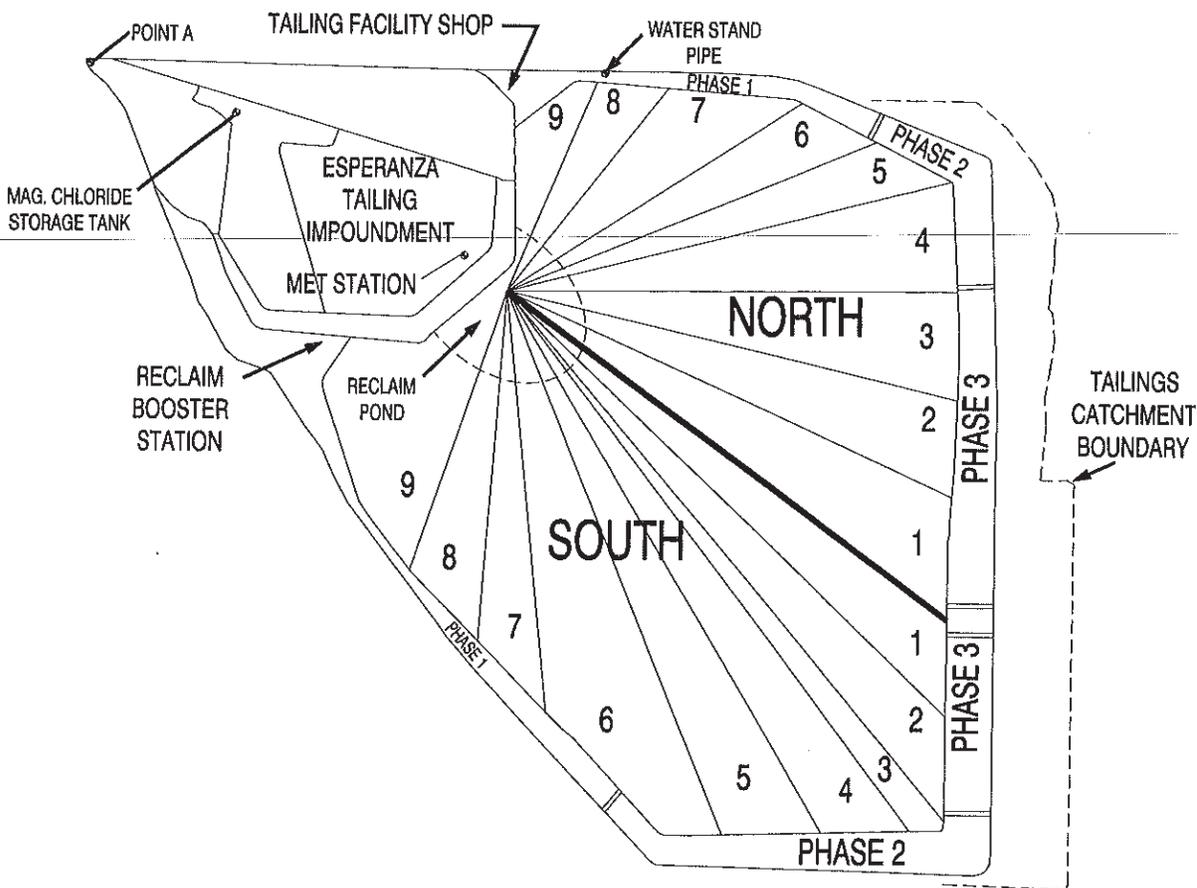
Dust Suppressant Applied \_\_\_\_\_ Completed Y / N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Pumps Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed 3 Gusts To 6 Temperature 92° Precipitation Last 24 Hrs. Y / N (N)

Fax to 8730 & 8608

Surface Inspection

Date: 7-22-2013  
 Time \_\_\_\_\_  
 Conditions \_\_\_\_\_  
 Dam Inspected \_\_\_\_\_ Phase(s) \_\_\_\_\_  
 GPS Coordinates \_\_\_\_\_  
 \_\_\_\_\_  
 Inspected by: \_\_\_\_\_



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: \_\_\_\_\_

Dust Suppressant Applied \_\_\_\_\_ Completed Y / N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Conditions Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature \_\_\_\_\_ Precipitation Last 24 Hrs. Y / N

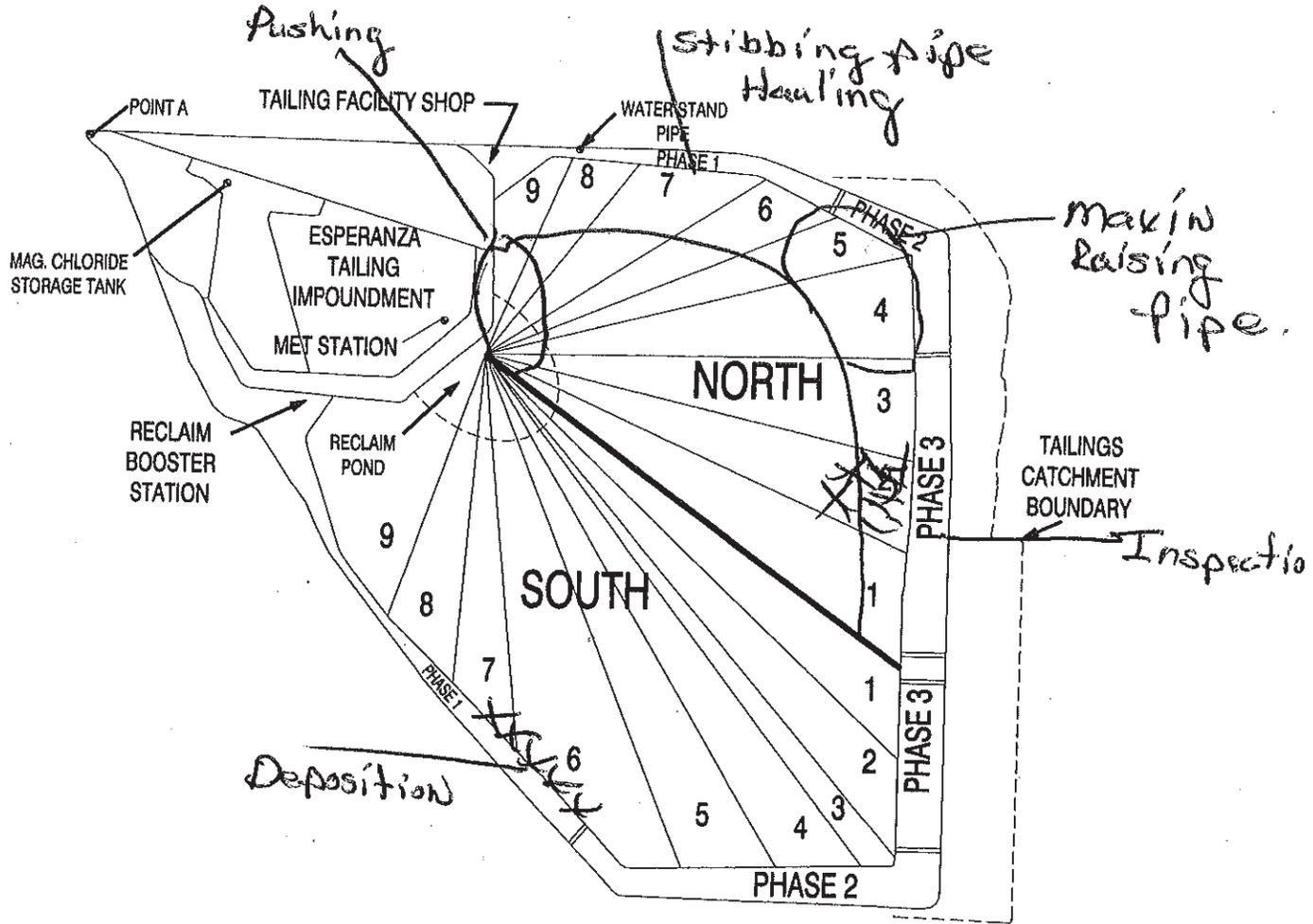
Fax to 8730 & 8608

*no precip stop*

Impairment Surface Inspection

Date: 07/19/2013  
 Time: 12:43  
 Conditions: Cloudy  
 Dam Inspected: North Phase(s)  
 GPS Coordinates

Inspected by: \_\_\_\_\_



Work area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Inspection Plan: no water trucks

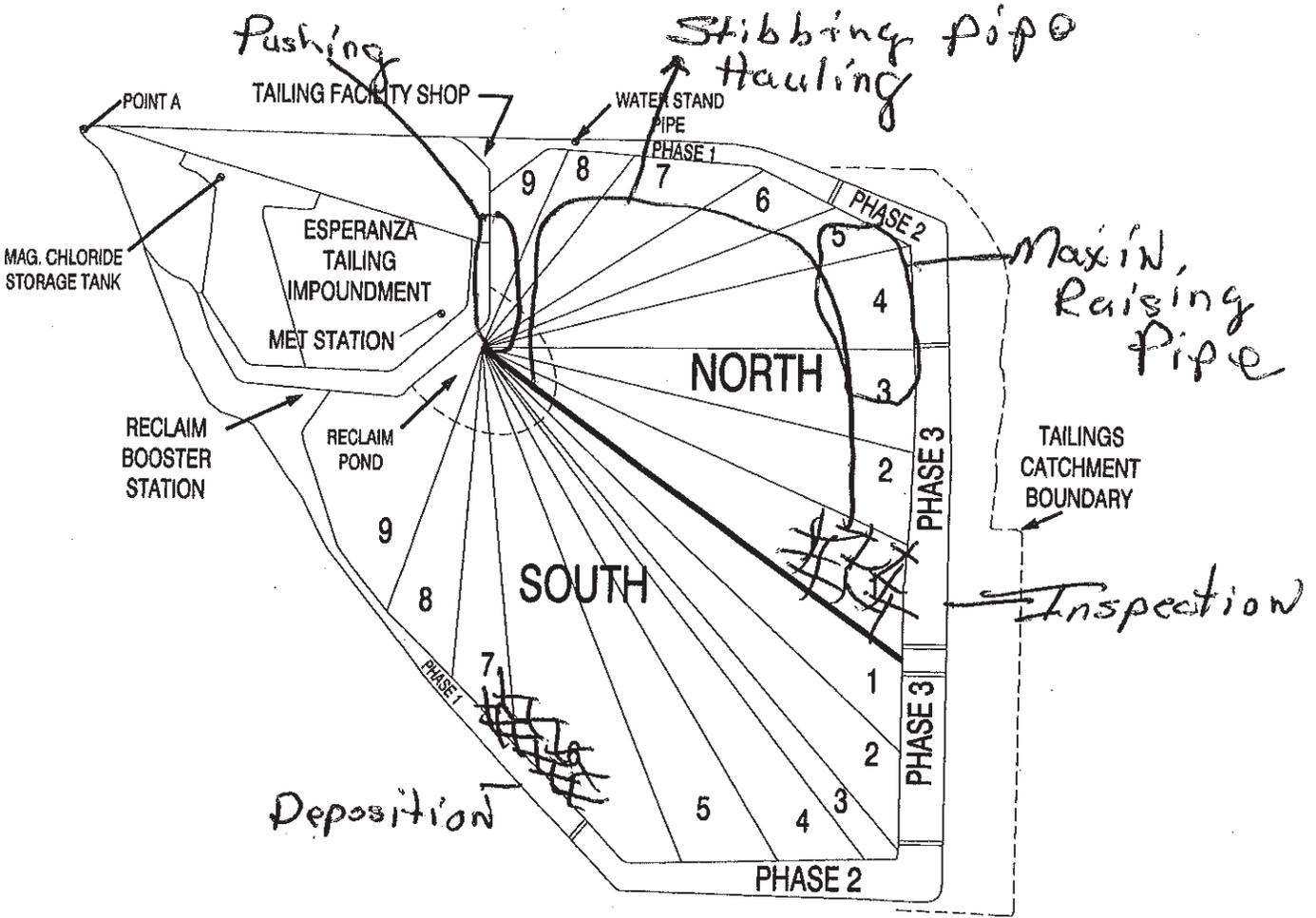
Suppressant Applied \_\_\_\_\_ Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Methods Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed 2 Gusts To 2 Temperature 81°F Precipitation Last 24 Hrs. Y/N

Fax to 393-2651

Date: 07/18/2013  
 Time: 0945HR  
 Conditions: Slight Overcast  
 Dam Inspected: North Phase(s) 3-1  
 GPS Coordinates: \_\_\_\_\_

Inspected by: \_\_\_\_\_



Area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Water Control Plan: No Water Trucks  
 First Suppressant Applied \_\_\_\_\_ Completed Y/N \_\_\_\_\_ If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Equipment Used \_\_\_\_\_ Operator \_\_\_\_\_

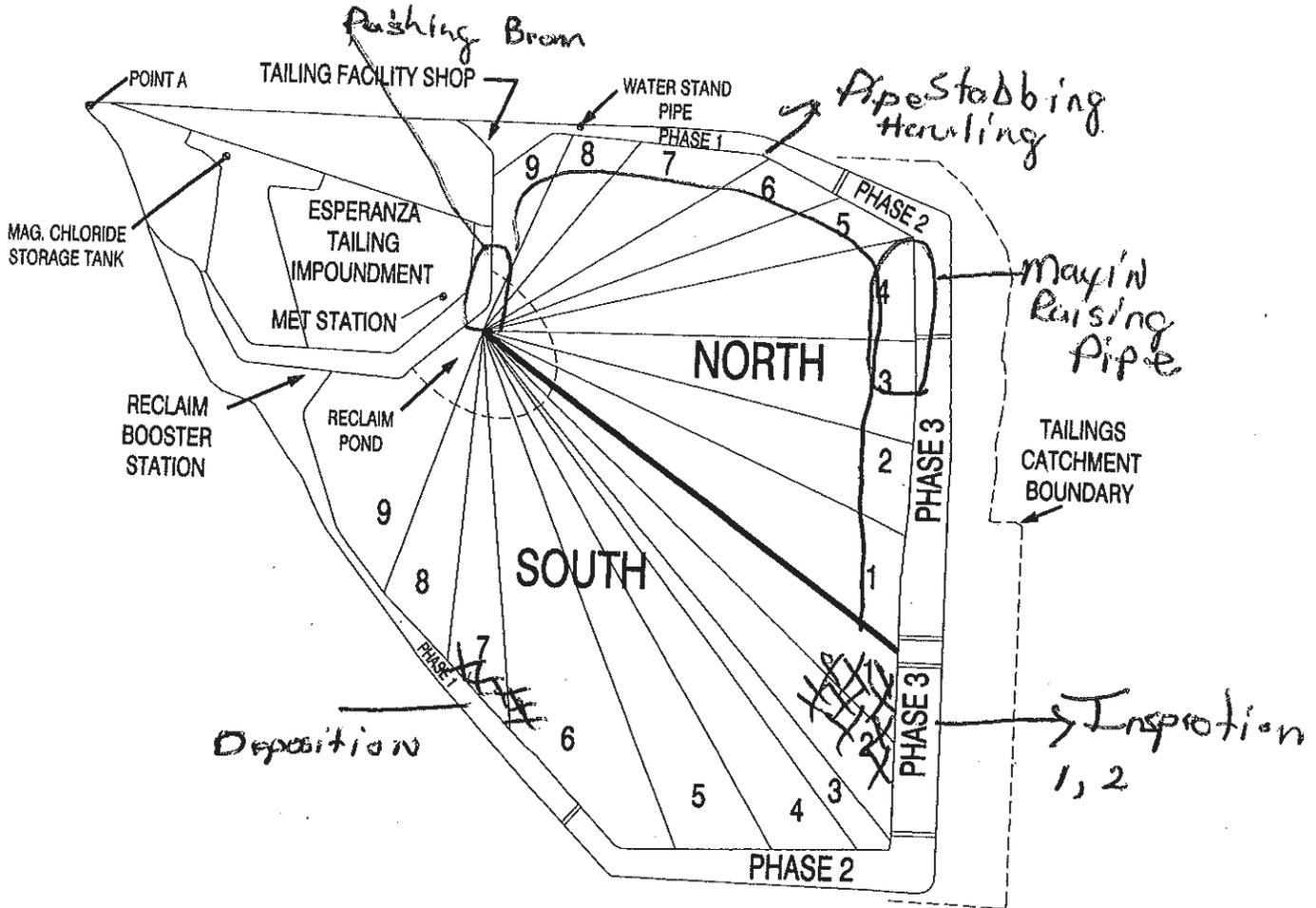
Weather Conditions: Wind Speed 3 Gusts To 5 Temperature 83° Precipitation Last 24 Hrs.  Y  N

Fax to 393-2651

Impoundment Surface Inspection

Date: 07/17/2013  
 Time: 1605 HRS  
 Conditions: Slight Overcast  
 Dam Inspected: South Phase(s) 3-1,2  
 GPS Coordinates: \_\_\_\_\_

Inspected by: \_\_\_\_\_



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

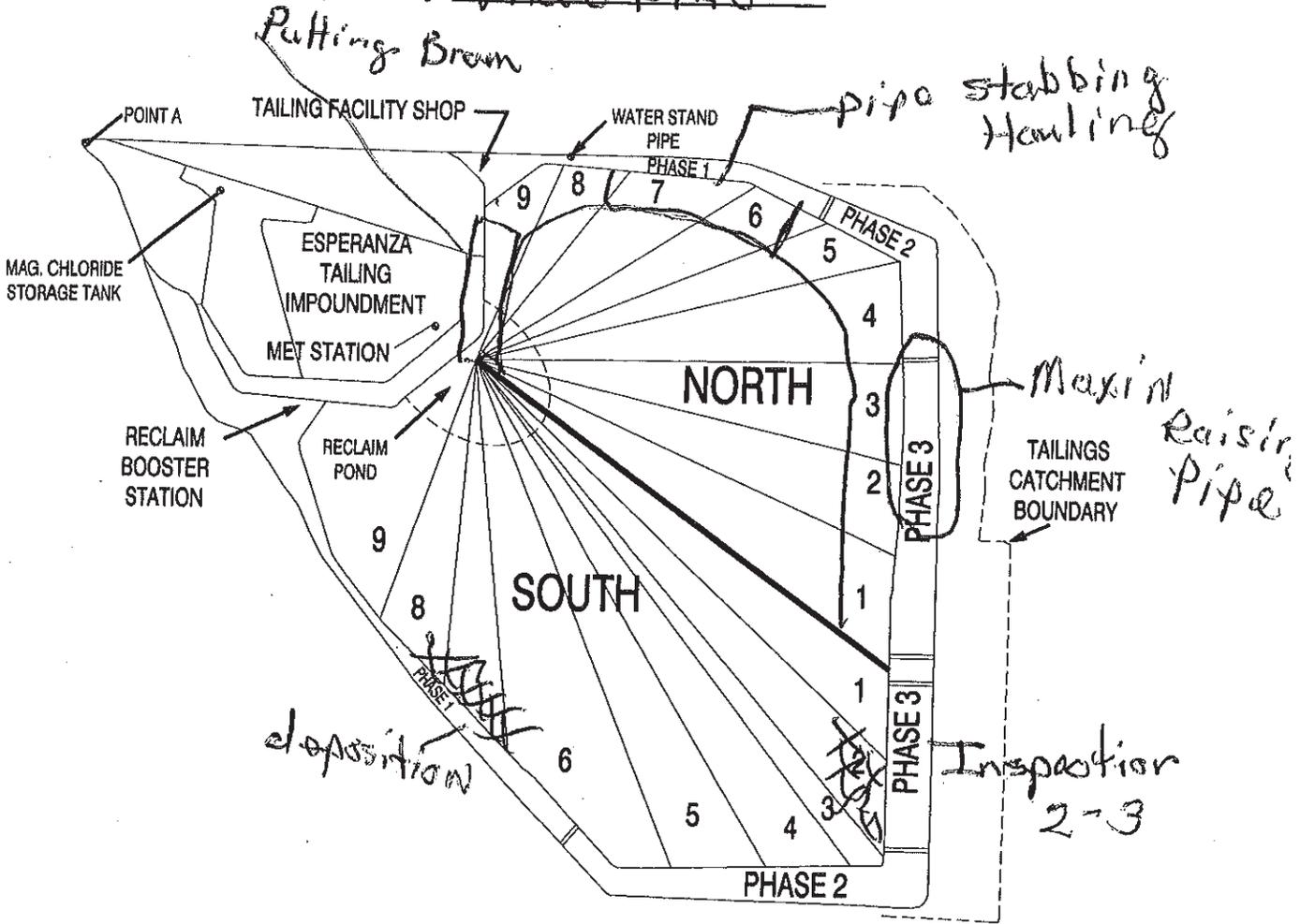
Inspection Plan: No Water Trucks  
 Dust Suppressant Applied \_\_\_\_\_ Completed Y / N IF N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Tons Used \_\_\_\_\_ Operator \_\_\_\_\_

Atk. Conditions: Wind Speed 3 Gusts To 4 Temperature 95°/F Precipitation Last 24 Hrs. Y (N)

Surface Inspection

Date: 07/16/2013  
 Time: 15:30 HRS  
 Conditions: Slight Overcast  
 Dam Inspected: South Phase(s): 2-3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: PAUL DIAZ



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

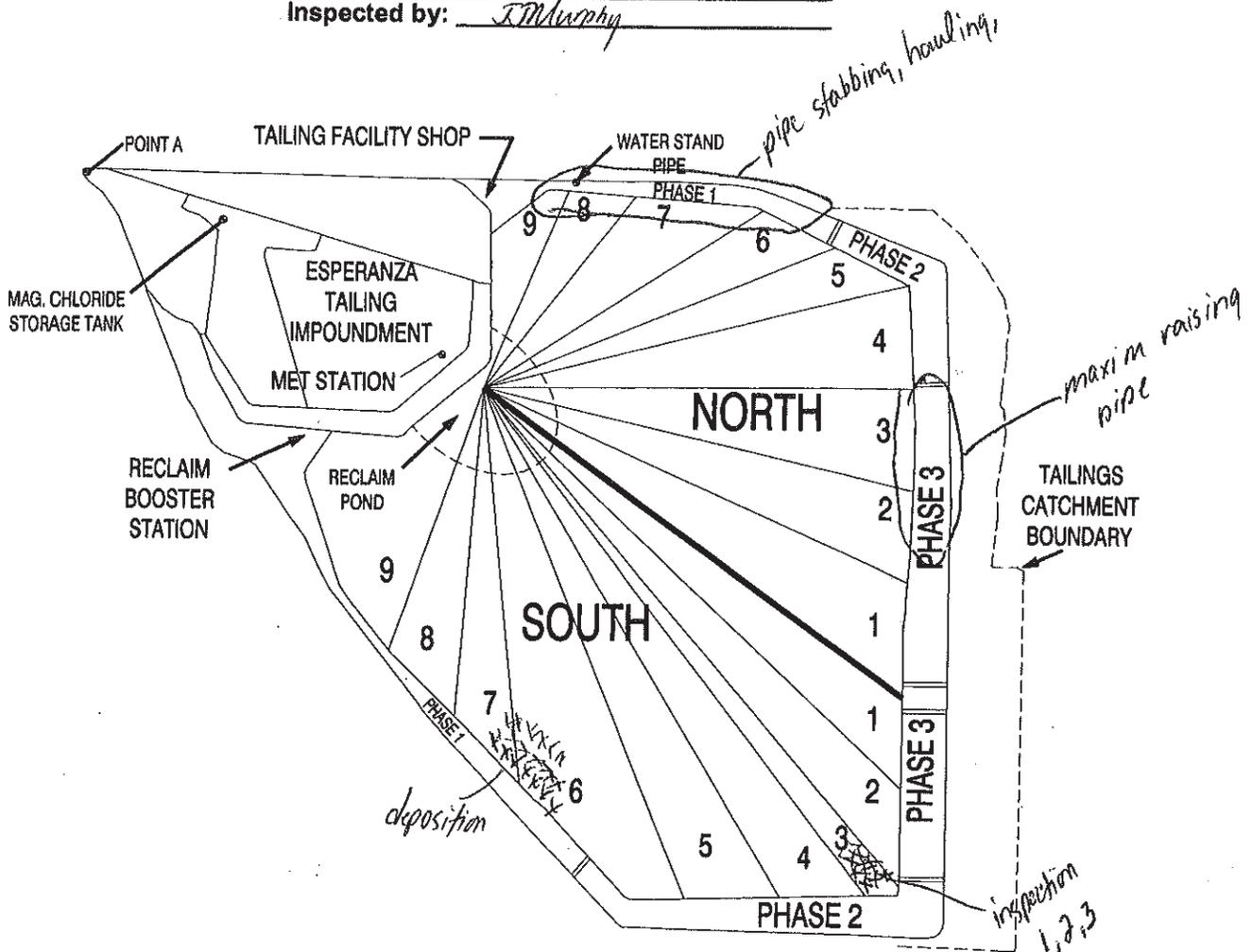
Water Truck in use #36  
 Suppressant Applied \_\_\_\_\_ Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Operator \_\_\_\_\_

Conditions: Wind Speed 4 Gusts To 10 Temperature 86 Precipitation Last 24 Hrs. (Y)/N

Fax to 393-2651

Date: 7-13-2013  
 Time: 3:30  
 Conditions: slight breeze, overcast humid  
 Dam Inspected: South Phase(s): 2-3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: J. Murphy



Mark area inspected on diagram using number below that best describes conditions observed.

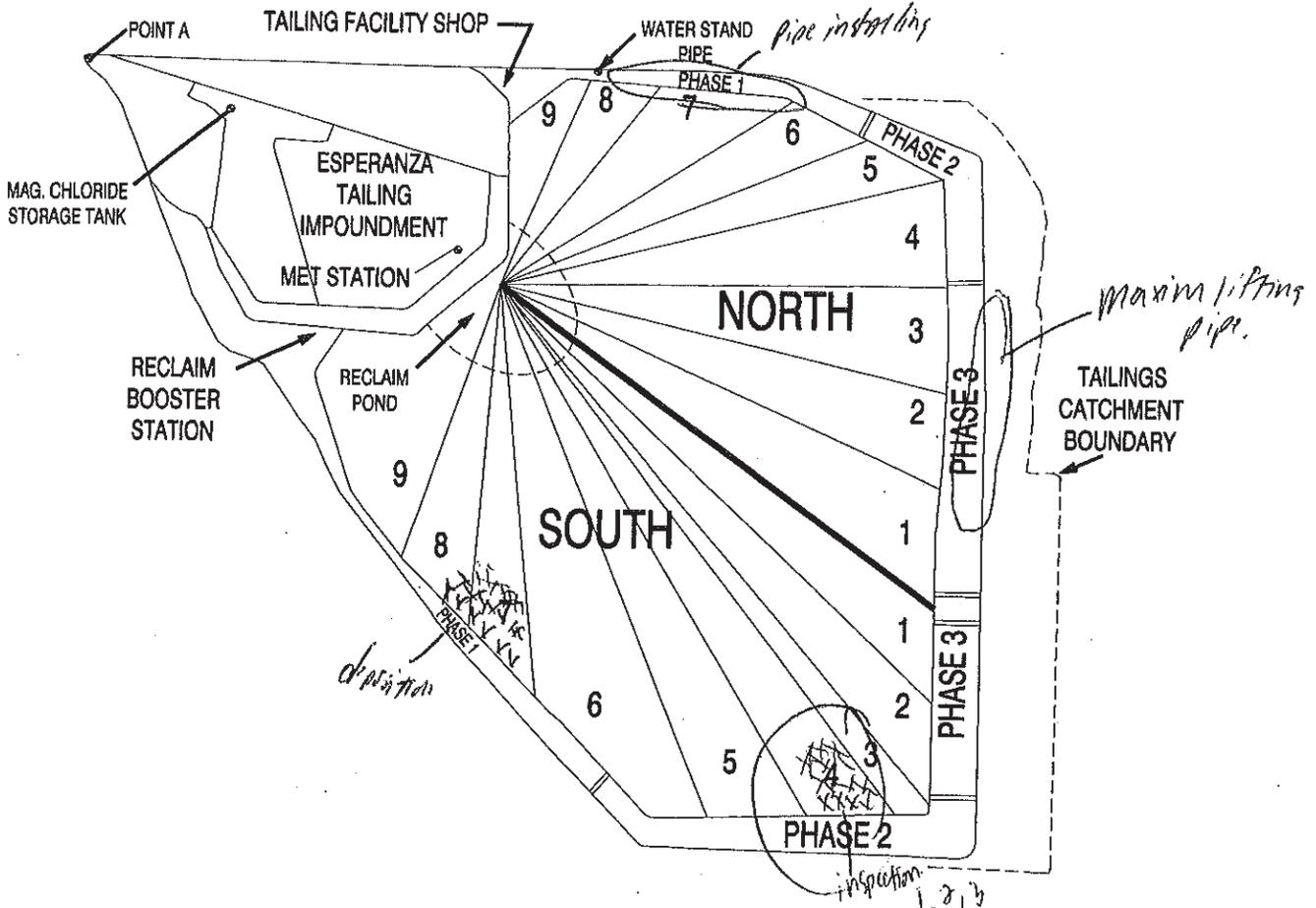
1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: Water trucks on stand by  
 1st Suppressant Applied \_\_\_\_\_ Completed Y / N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Methods Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed 6 Gusts To 10 Temperature 92° Precipitation Last 24 Hrs. Y / (N)

Fax to 393-2651

Date: 7-17-2013  
 Time: 3:30  
 Conditions: Hot, Humid, Breezy  
 Dam Inspected: Sand Phase(s): 2  
 GPS Coordinates: \_\_\_\_\_  
 Inspected by: JM



Work area inspected on diagram using number below that best describes conditions observed.

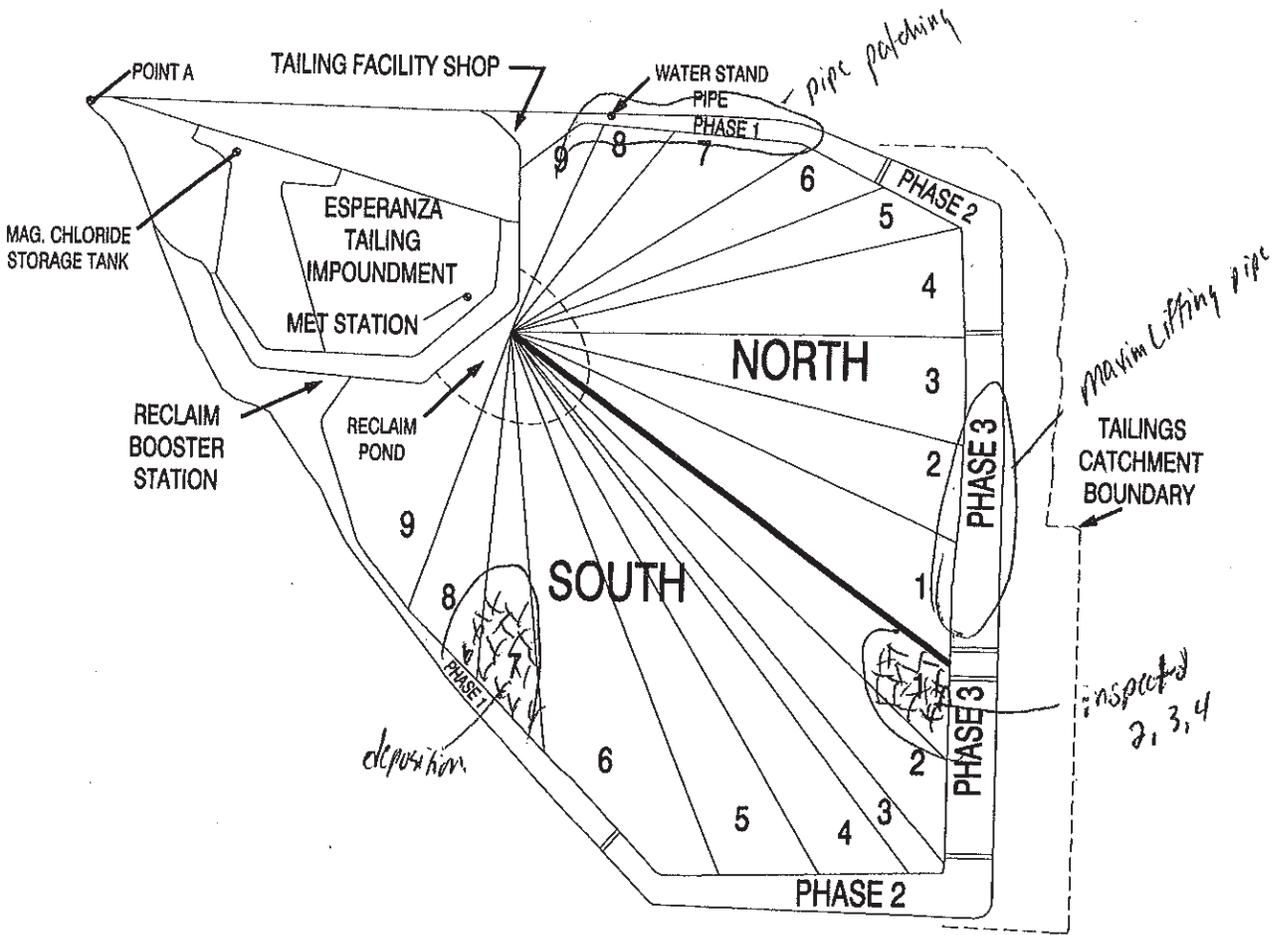
1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Inspection Plan: Water trucks in use, mag application.  
 1st Suppressant Applied: H<sub>2</sub>O Completed Y/N: \_\_\_\_\_ If N Date Completed: \_\_\_\_\_ Initial: \_\_\_\_\_  
 Gallons Used: 1120-44,000 Operator: \_\_\_\_\_

Weather Conditions: Wind Speed 4 Gusts To 7 Temperature 92° Precipitation Last 24 Hrs.  Y /  N

Fax to 393-2651

Date: 7-11-2013  
 Time: 8:50  
 Conditions: Breezy  
 Dam Inspected: South Phase(s): 3  
 GPS Coordinates: \_\_\_\_\_  
 Inspected by: J. Murphy



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

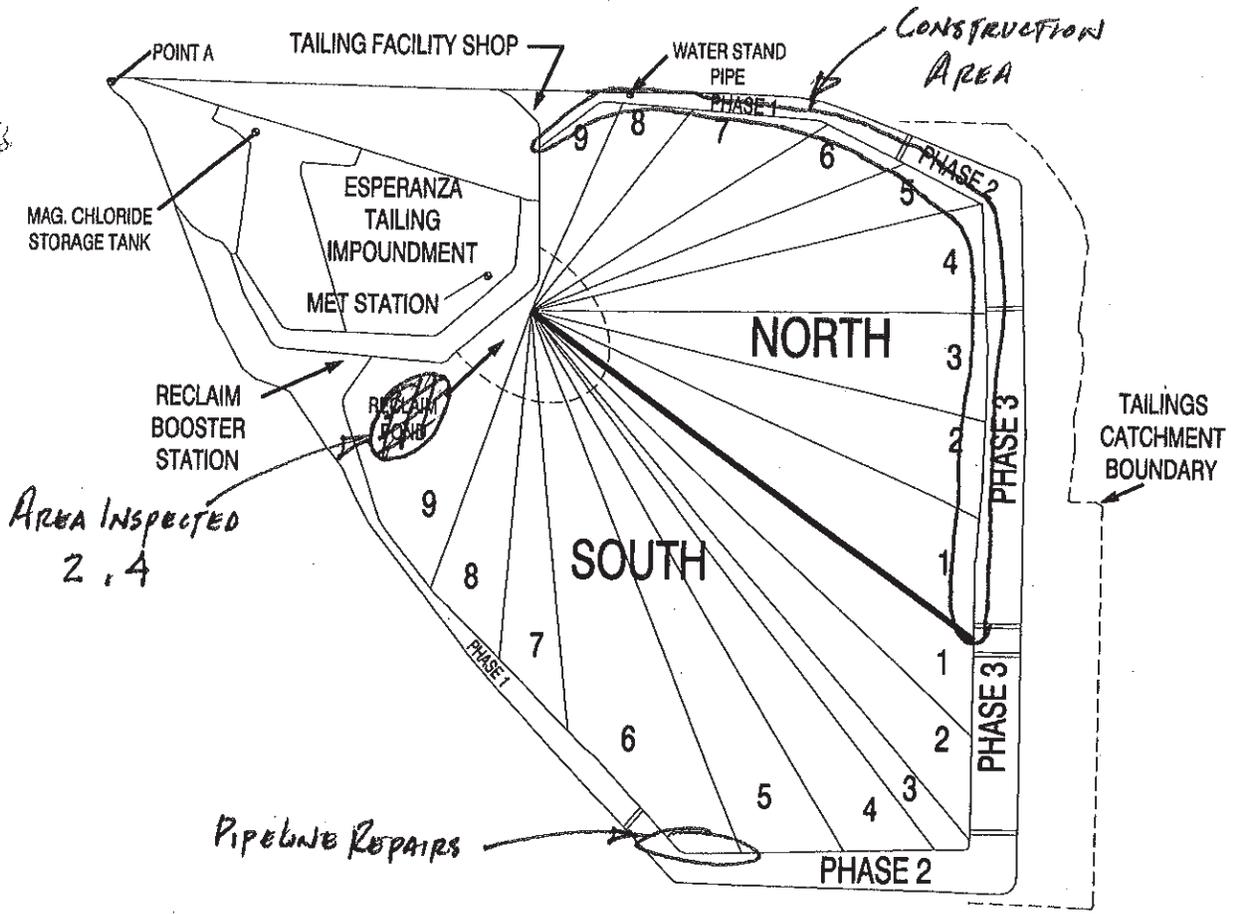
Action Plan: Water trucks operating, additional on shrubby.  
 1st Suppressant Applied: water, MgCl2 Completed Y/N: \_\_\_\_\_ If N Date Completed: \_\_\_\_\_ Initial: \_\_\_\_\_  
 Conditions Used: H2O - 40,000 Operator: \_\_\_\_\_

Weather Conditions: Wind Speed 5 Gusts To 9 Temperature 80% Precipitation Last 24 Hrs. (Y) N

Fax to 393-2651

Date: 07/10/13  
 Time 0800  
 Conditions CLEARING  
 Dam Inspected SOUTH Phase(s) 1  
 GPS Coordinates \_\_\_\_\_

Inspected by: D. ERIC FLEMING



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: H2O TRUCK ACTIVE, ALLTRACK ACTIVE  
 Best Suppressant Applied H2O, MgCl2 Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Conditions Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature 80° Precipitation Last 24 Hrs.  N

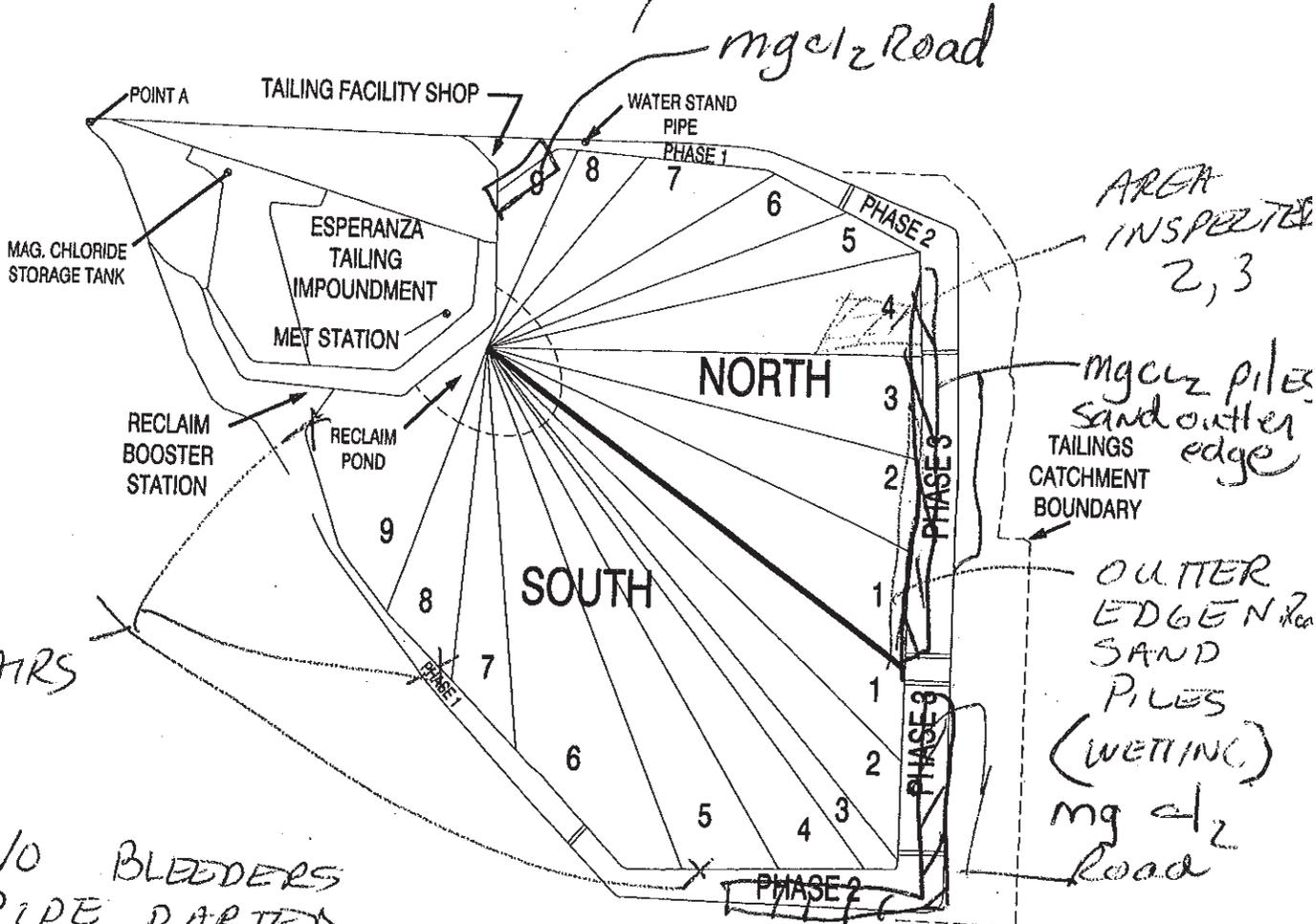
Fax to 393-2651

*10" @ T Dam Shop*

**Impoundment Surface Inspection**

Date: 7-9-13  
 Time: 11:00  
 Conditions: WARM MUDGY  
 Dam Inspected: North Phase(s) 2  
 GPS Coordinates: \_\_\_\_\_

Inspected by: J. Miller



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

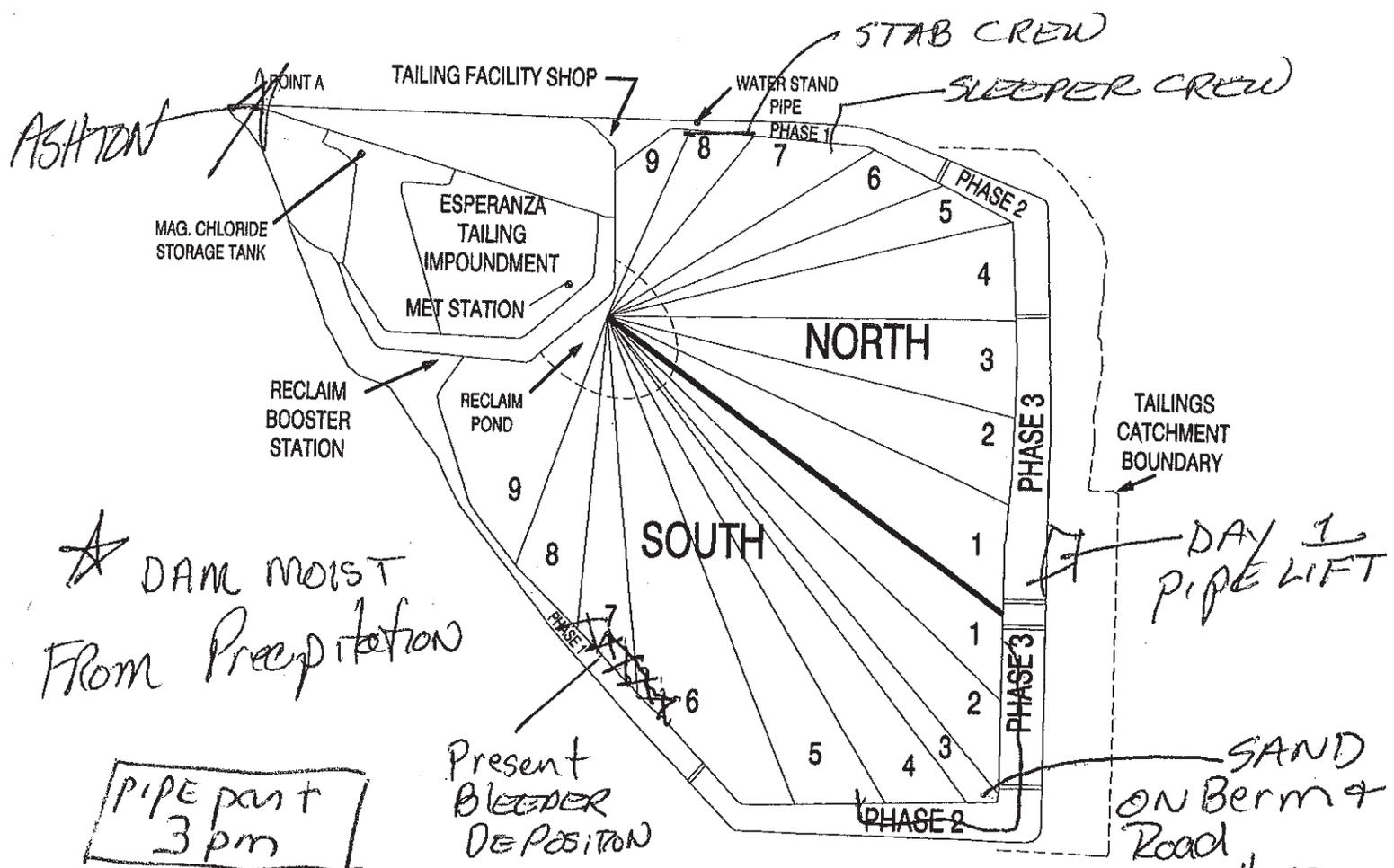
Suppression Plan: H<sub>2</sub>O TRK ON  
 Suppressant Applied: MgCl<sub>2</sub>  
 Suppressants Used: 3 500  
 Completed: Y If N Date Completed: \_\_\_\_\_  
 Operator: JRV CRUMENS Initial: \_\_\_\_\_

atli. Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature 80 Precipitation Last 24 Hrs. Y N

Tailings Impoundment Surface Inspection

Date: July 8 2013  
 Time: 0700  
 Conditions: Hot  
 Dam Inspected: \_\_\_\_\_ Phase(s): \_\_\_\_\_  
 GPS Coordinates: \_\_\_\_\_

Inspected by: STORME MITTOKY



★ DAM MOIST FROM PRECIPITATION

PIPE part 3 pm

Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Water Plan: H2O TRK ONLINE ATTRACKS ON STANDBY  
 Dust Suppressant Applied: \_\_\_\_\_ Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Tons Used \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature 85° Precipitation Last 24 Hrs (Y)N

Fax to 393-2651

Issued 01/31/13

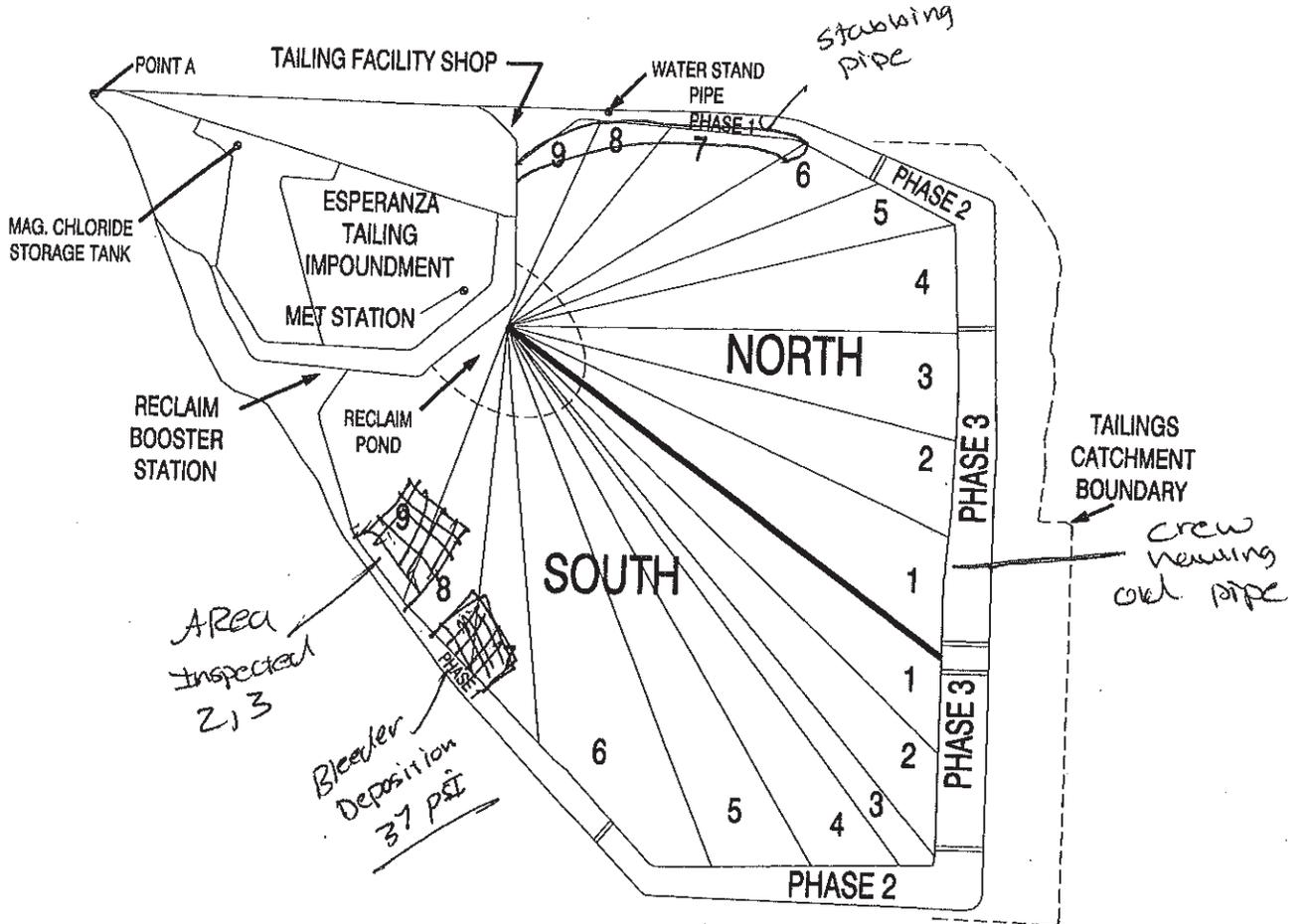
precip 1.50 AT SHOP

★ Pipe Lift start

**Tailings Impoundment Surface Inspection**

Date: 7/7/13  
 Time 9:00 AM  
 Conditions overcast  
 Dam Inspected South Phase(s) I  
 GPS Coordinates \_\_\_\_\_

Inspected by: Isaiam Catalan



Mark area inspected on diagram using number below that best describes conditions observed.

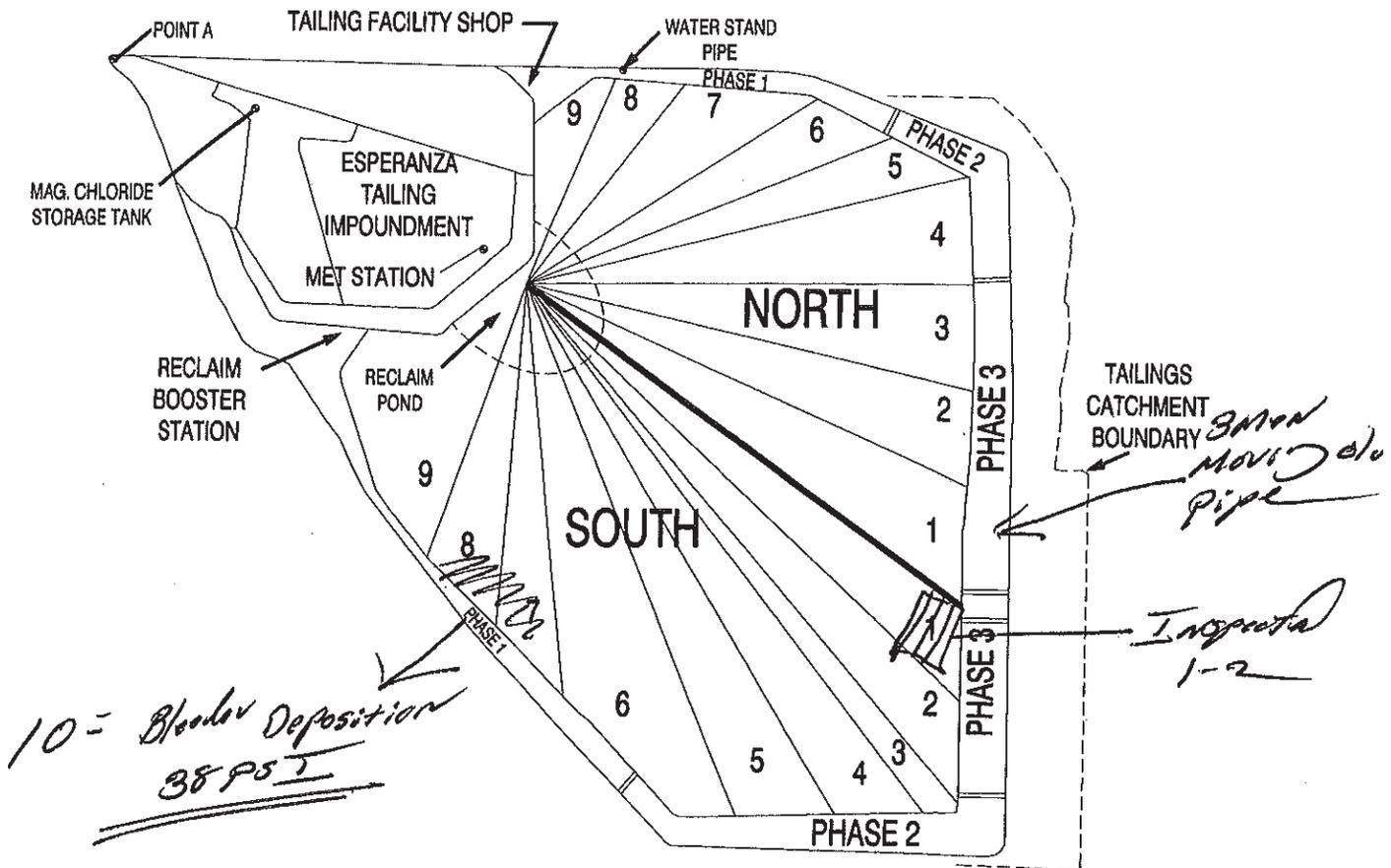
1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: Water trucks, All trucks on standby  
 Dust Suppressant Applied NONE  
 Suppressants Used \_\_\_\_\_ Completed Y If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Operator \_\_\_\_\_

Weather Conditions: Wind Speed 0 Gusts To 0 Temperature 85° Precipitation Last 24 Hrs. Y

Date: 7-6-13  
 Time: 1:10 PM  
 Conditions: Hot - cloudy  
 Dam Inspected: South Phase(s) 3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: Dennis Yelker



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

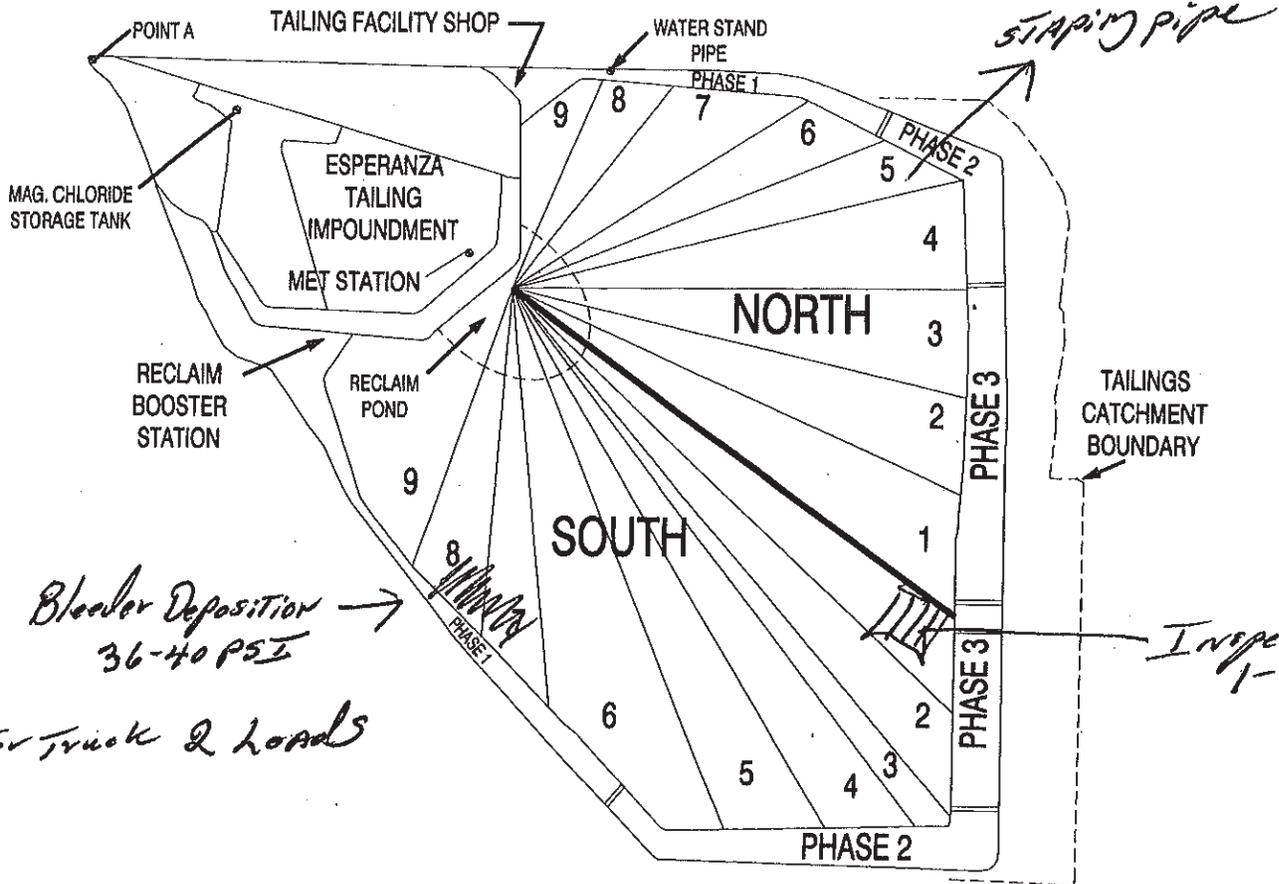
Action Plan: Water Trucks & Airtrucks on stand by 3 People Handling old Pipe  
 1st Suppressant Applied: None Completed Y If N Date Completed: \_\_\_\_\_ Initial: \_\_\_\_\_  
 Suppressants Used: \_\_\_\_\_ Operator: \_\_\_\_\_

Weather Conditions: Wind Speed 8 Gusts To 0 Temperature 98 Precipitation Last 24 Hrs (Y) N

Fax to 393-2651

Date: 7-9-13  
 Time: 12:00 NOON  
 Conditions: HOT DRY  
 Dam Inspected: South Phase(s): 3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: Dennis Yecker



Work area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

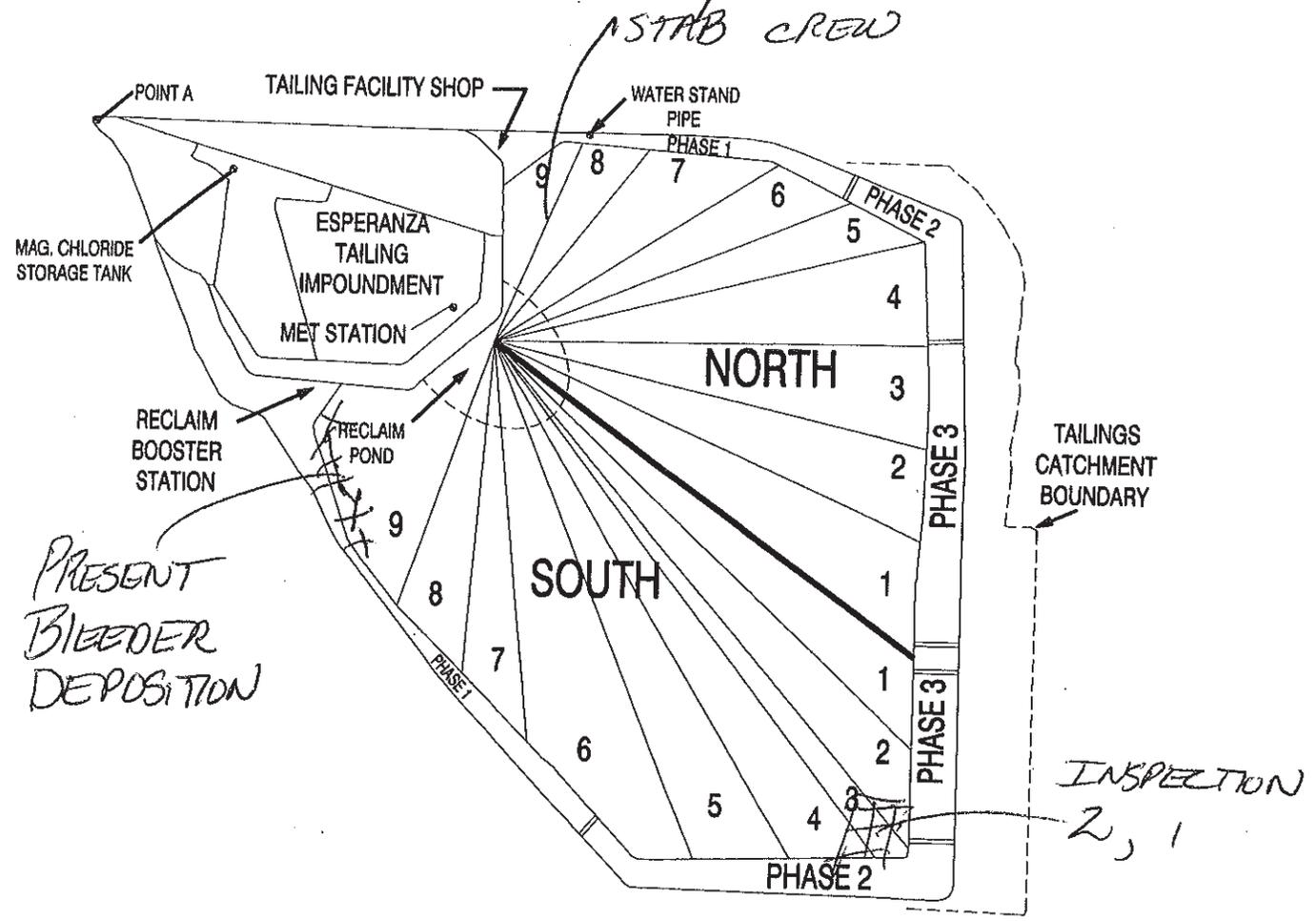
Inspection Plan: 36 water truck  
 Suppressant Applied: \_\_\_\_\_ Completed Y/N: \_\_\_\_\_ If N Date Completed: ALL TRACKS ON STANDBY  
 Equipment Used: \_\_\_\_\_ Operator: \_\_\_\_\_ Initial: \_\_\_\_\_

Weather Conditions: Wind Speed 10 Gusts To 0 Temperature 98° Precipitation Last 24 Hrs. Y/N (N)

Tailing Impoundment Surface Inspection

Date: 7-4-2013  
 Time: 0600  
 Conditions: WET  
 Dam Inspected: \_\_\_\_\_ Phase(s): \_\_\_\_\_  
 GPS Coordinates: \_\_\_\_\_

Inspected by: S. MILTON



Mark area inspected on diagram using number below that best describes conditions observed.

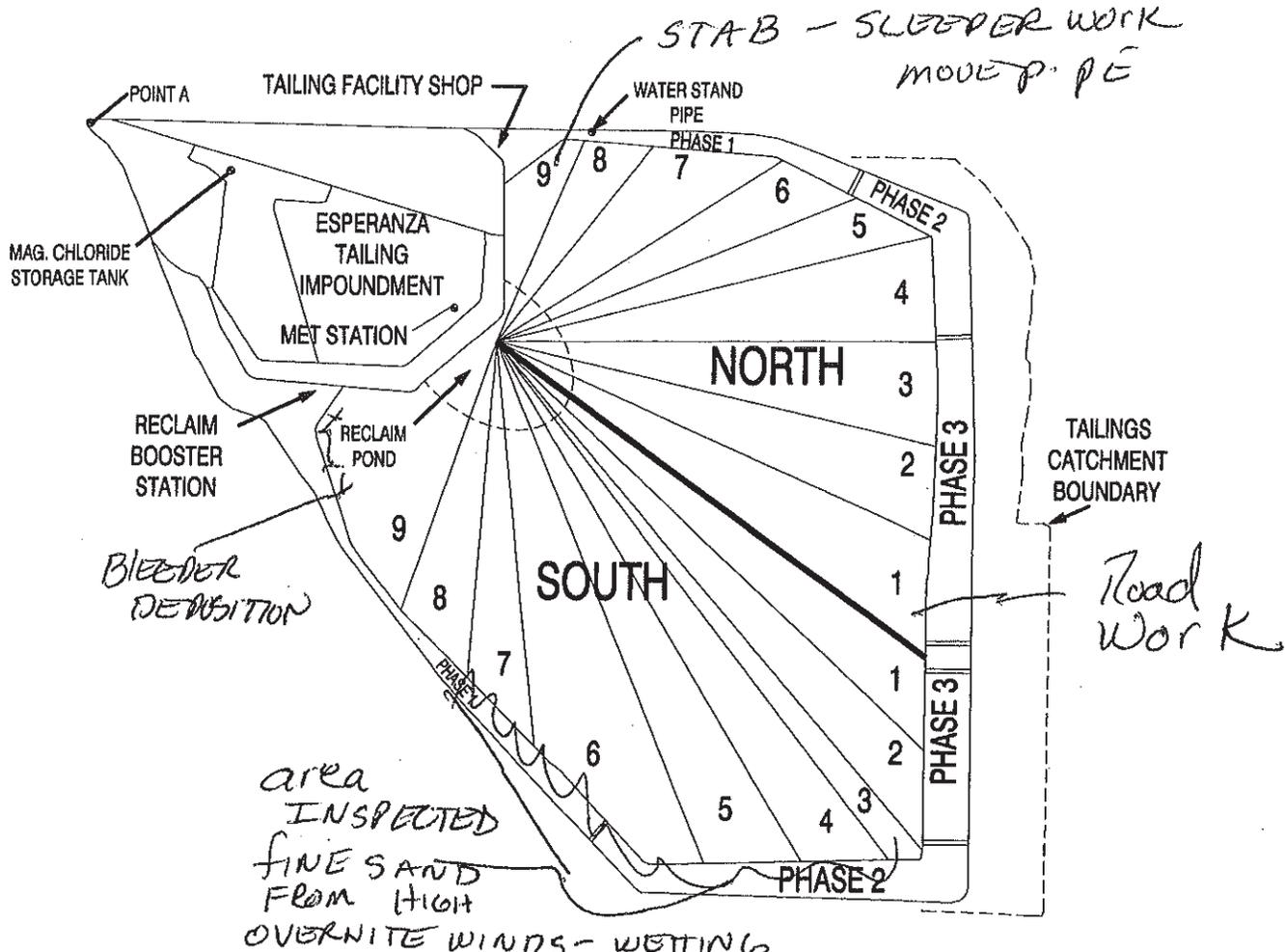
1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Inspection Plan: H2O TRKS ONLINE ATRACKS ONLINE  
 Dust Suppressant Applied: \_\_\_\_\_ Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Conditions Used: \_\_\_\_\_ Operator \_\_\_\_\_

Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature \_\_\_\_\_ Precipitation Last 24 Hrs. Y/N

Date: 7-3-2013  
 Time: 0800  
 Conditions: WARM BREEZY  
 Dam Inspected: SOUTH Phase(s) 1-2  
 GPS Coordinates: \_\_\_\_\_

Inspected by: S. MILROY



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: H<sub>2</sub>O TRUCKS ONLINE AIR TRUCKS ON STANDBY  
 Dust Suppressant Applied \_\_\_\_\_ Completed Y/N \_\_\_\_\_ If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Suppressants Used \_\_\_\_\_ Operator \_\_\_\_\_

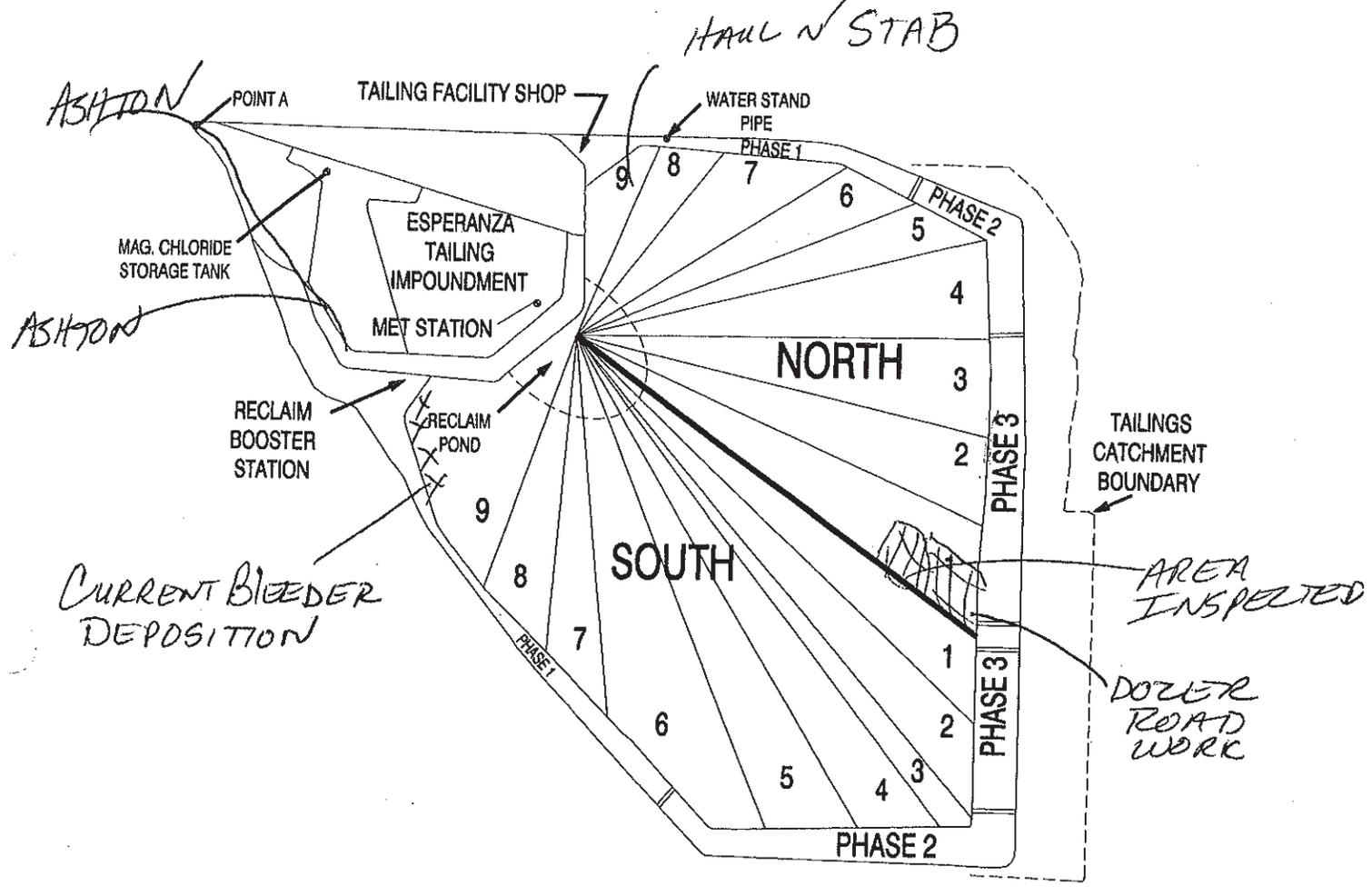
Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature \_\_\_\_\_ Precipitation Last 24 Hrs. Y (N)

Fax to 393-2651

**Large Impoundment Surface Inspection**

Date: 7-2-13  
 Time: 0730  
 Conditions: OVER  
 Dam Inspected \_\_\_\_\_ Phase(s) \_\_\_\_\_  
 GPS Coordinates \_\_\_\_\_

Inspected by: STERNE MURPHY



Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
2	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Inspection Plan: H<sub>2</sub>O TRICKS AIRTRACKS ON STANDBY  
 Suppressant Applied \_\_\_\_\_ Completed Y/N \_\_\_\_\_ If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Tons Used \_\_\_\_\_ Operator \_\_\_\_\_

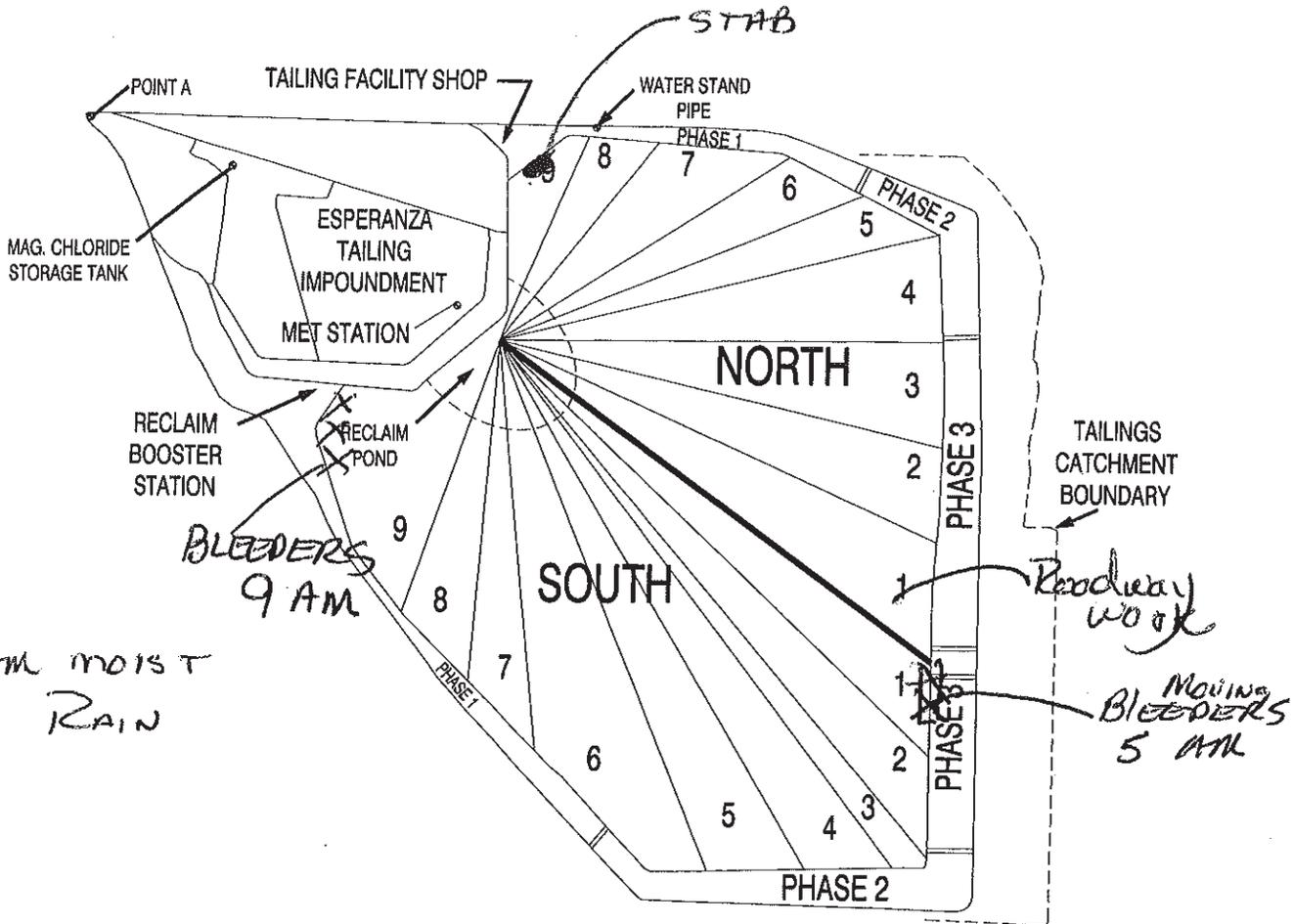
Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature yes Precipitation Last 24 Hrs. (Y) N

*15 at shop*

Tailings Impoundment Surface Inspection

Date: 7-1-13  
 Time: 0700  
 Conditions: WARM CALM  
 Dam Inspected: ALL Phase(s): 1-3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: S. Mithun



DAM MOIST FROM RAIN

ROADWAY WORK  
MOVING BLEEDERS 5 AM

Mark area inspected on diagram using number below that best describes conditions observed.

1	Recent Deposition (14 days or less)	No Action Required
<u>2</u>	Moist Surface	No Action Required
3	Established Algae/Salt Crust	No Action Required
4	Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
5	Crusts breaking down	Watch Area / Reinspect in one week
6	Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
7	Broken Down Crust	Action Required - Deposition or Suppressant Application
8	Delta	Action Required - Deposition or Suppressant Application
9	Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Action Plan: Hwy TRK Run ALTRAKS ON STAND BY  
 Dust Suppressant Applied \_\_\_\_\_ Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Ballons Used \_\_\_\_\_ Operator \_\_\_\_\_

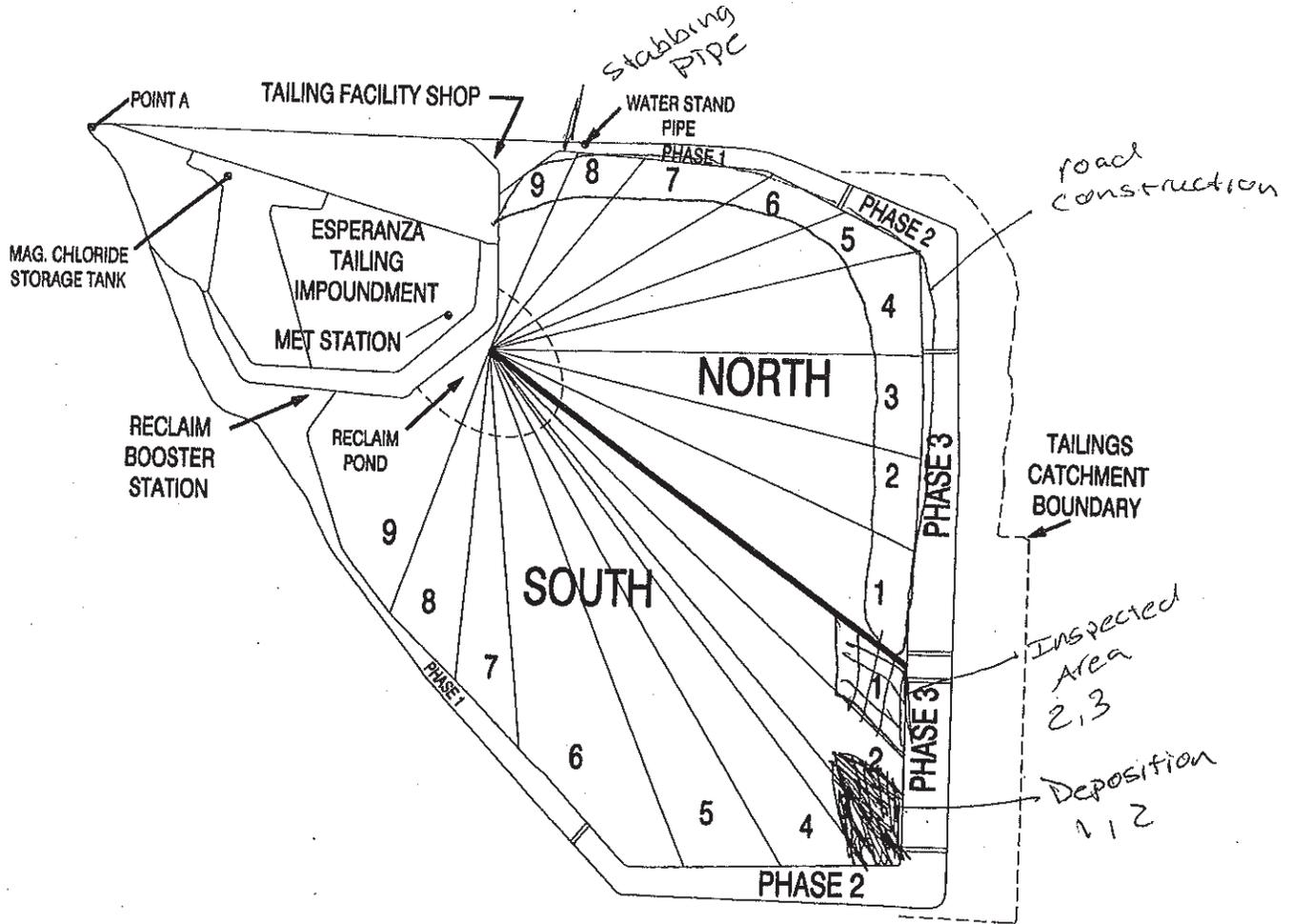
Weather Conditions: Wind Speed \_\_\_\_\_ Gusts To \_\_\_\_\_ Temperature 4 Precipitation Last 24 Hrs. Y N

7.4 at stop

**Tailings Impoundment Surface Inspection**

Date: 6/28/13  
 Time: 7:00 AM  
 Conditions: Sunny Heat  
 Dam Inspected: South Phase(s) 3  
 GPS Coordinates: \_\_\_\_\_

Inspected by: Isaihan Catalan



Mark area inspected on diagram using number below that best describes conditions observed.

Recent Deposition (14 days or less)	No Action Required
Moist Surface	No Action Required
Established Algae/Salt Crust	No Action Required
Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
Crusts breaking down	Watch Area / Reinspect in one week
Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
Broken Down Crust	Action Required - Deposition or Suppressant Application
Delta	Action Required - Deposition or Suppressant Application
Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

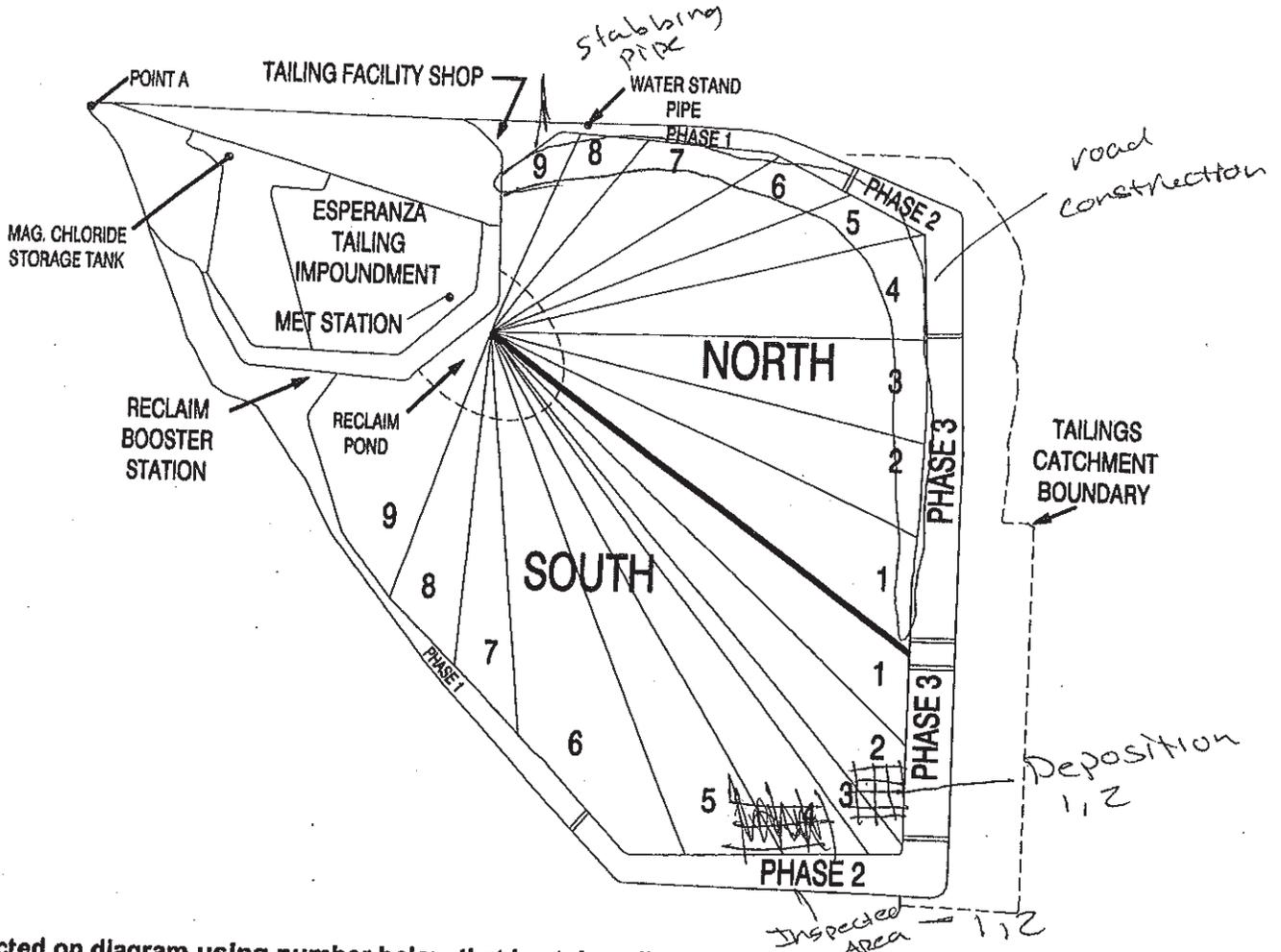
on Plan: Water trucks in all areas  
 Suppressant Applied \_\_\_\_\_ Completed Y / N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Suppressants Used \_\_\_\_\_ Operator \_\_\_\_\_

atmospheric Conditions: Wind Speed 0 Gusts To 5 Temperature 100° Precipitation Last 24 Hrs. Y (N)

**Tailings Impoundment Surface Inspection**

Date: 6/27/13  
 Time: 10:30 AM  
 Conditions: Sunny / Hot  
 Dam Inspected: South Phase(s): 2  
 GPS Coordinates: \_\_\_\_\_

Inspected by: Isaiah Catalan



Work area inspected on diagram using number below that best describes conditions observed.

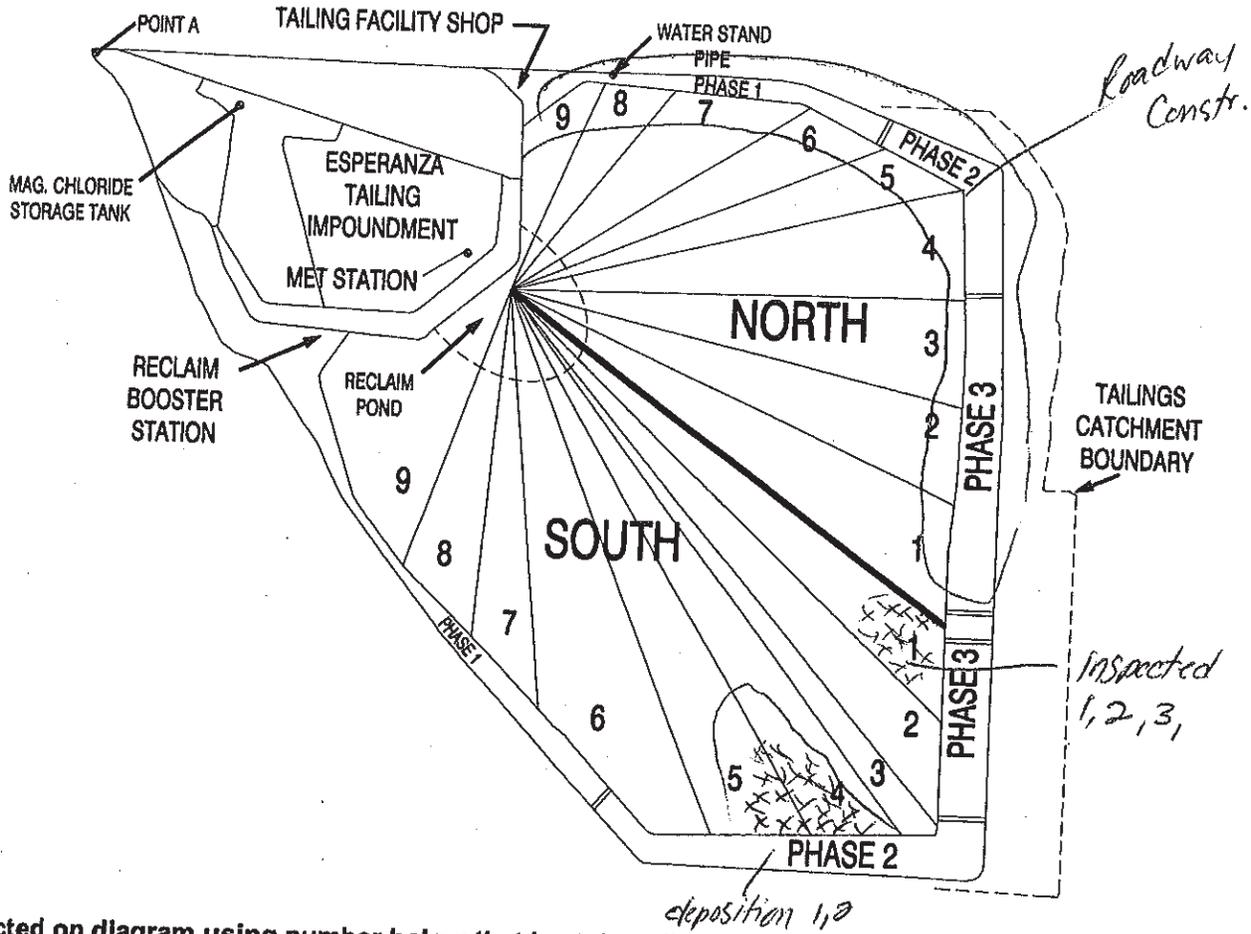
Recent Deposition (14 days or less)	No Action Required
Moist Surface	No Action Required
Established Algae/Salt Crust	No Action Required
Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
Crusts breaking down	Watch Area / Reinspect in one week
Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
Broken Down Crust	Action Required - Deposition or Suppressant Application
Delta	Action Required - Deposition or Suppressant Application
Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Work Plan: Water trucks in all areas  
 Suppressant Applied \_\_\_\_\_  
 Trucks Used \_\_\_\_\_ Completed Y/N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Operator \_\_\_\_\_

Weather Conditions: Wind Speed 5 Gusts To 10 Temperature 95° Precipitation Last 24 Hrs. Y(N)

**Tailings Impoundment Surface Inspection**

Date: 10-25-2013  
 Time: 12:30  
 Conditions: NOT, breezy  
 Dam Inspected: SOUTH Phase(s): 3-1  
 GPS Coordinates: \_\_\_\_\_  
 \_\_\_\_\_  
 Inspected by: D. Murphy



Work area inspected on diagram using number below that best describes conditions observed.

Recent Deposition (14 days or less)	No Action Required
Moist Surface	No Action Required
Established Algae/Salt Crust	No Action Required
Crusted with light surface sands (blown in/washed in)	Watch Area / Reinspect in one week
Crusts breaking down	Watch Area / Reinspect in one week
Piles of Standing Sands (blown in)	Action Required - Deposition or Suppressant Application
Broken Down Crust	Action Required - Deposition or Suppressant Application
Delta	Action Required - Deposition or Suppressant Application
Area with Dust Suppressant Previously Applied	Watch Area / Reinspect as required

Inspection Plan: water trucks all over  
 Suppressant Applied \_\_\_\_\_ Completed  Y / N If N Date Completed \_\_\_\_\_ Initial \_\_\_\_\_  
 Suppressants Used: 5 loads = 3,750 gallons Operator \_\_\_\_\_

Weather Conditions: Wind Speed 5 Gusts To 10 Temperature 10° Precipitation Last 24 Hrs. Y/ N

## **5. National Weather Service Data for July 27, 28, and 29, 2013**

# National Weather Service Forecast Office Tucson, AZ

www.weather.gov



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Get Local Forecast for:  
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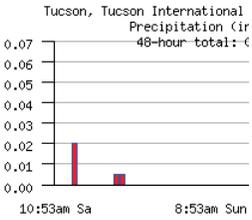
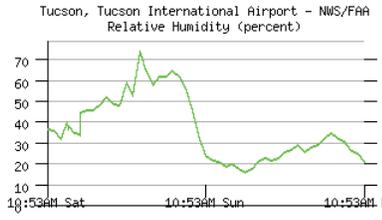
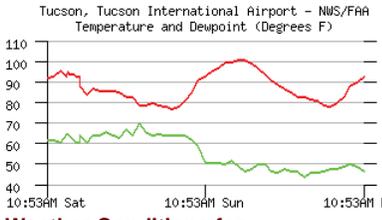
- XML RSS Feeds
- Current Hazards
- Watches / Warnings
- Outlooks
- NOAA Watch
- Weather Briefing
- Current Conditions
- Observations
- Radar
- Satellite
- Precipitation
- Quick Weather
- Surface plot map

- Forecasts
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- Climate
- Local
- National
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- More...
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- Monsoon Safety
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- Monsoon
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Show 7 Days Printable Version Show Raw Observations

For Information Regarding the Accuracy of This Data: [MesoWest Disclaimer/FAQ](#)



## Weather Conditions for: Tucson, Tucson International Airport, AZ (KTUS)

Elev: 2546 ft; Latitude: 32.13153; Longitude: -110.95635

Current time: Mon, 29 Jul 10:56 am (MST)

Most Recent Observation: Mon, 29 Jul 9:53 am MST (MST)

Time	Temp	Dew	Relative	Wind	Wind	Visibility	WX	Clouds	Sea Level	Altimeter	Station	Precip	Precip	Precip	Precip	6 Hr	6 Hr	24 Hr	
(MST)	(f)	(f)	(%)	Direction	Speed	(miles)			(mb)	(inches)	(inches)	1 hour	3 hour	6 hour	24 hour	Max	Min	Max	
					(mph)				Pressure	Setting	Pressure	(inches)	(inches)	(inches)	(inches)	Temp	Temp	Temp	
29 Jul 9:53 am MST	90	49	25	S	9	10.00	CLR		1012.4	30.06	27.406								
29 Jul 8:53 am MST	88	50	27	SSW	10	10.00	CLR		1012.5	30.06	27.406								
29 Jul 7:53 am MST	83	49	31	S	6	10.00	CLR		1012.2	30.05	27.397								
29 Jul 6:53 am MST	80	48	33	SE	8	10.00	CLR		1011.6	30.03	27.378								
29 Jul 5:53 am MST	78	48	35	E	5	10.00	CLR		1010.9	30.02	27.369								
29 Jul 4:53 am MST	79	47	32	SE	8	10.00	CLR		1010.1	29.99	27.341								
29 Jul 3:53 am MST	81	46	29	SSE	5	10.00	CLR		1009.4	29.98	27.332						87	78	
29 Jul 2:53 am MST	82	46	28	SSE	10	10.00	CLR		1009.3	29.97	27.322								
29 Jul 1:53 am MST	83	44	26	S	6	10.00	CLR		1009.0	29.97	27.322								
29 Jul 12:53 am MST	83	47	29	S	5	10.00	CLR		1009.1	29.96	27.313								
28 Jul 11:53 pm MST	85	47	27	E	6	10.00	CLR		1008.7	29.95	27.304								
28 Jul 10:53 pm MST	87	48	26	ENE	3	10.00	CLR		1008.4	29.95	27.304							101	
28 Jul 9:53 pm MST	89	46	23	CALM		10.00	CLR		1008.0	29.93	27.285							87	
28 Jul 8:53 pm MST	91	47	22	WSW	6	10.00	CLR		1007.3	29.91	27.267								
28 Jul 7:53 pm MST	94	50	23	SW	9	10.00	CLR		1006.2	29.88	27.239								
28 Jul 6:53 pm MST	97	50	21	SSW	9G18	10.00	CLR		1005.7	29.86	27.220								
28 Jul 5:53 pm MST	99	48	18	W	12	10.00	CLR		1005.2	29.85	27.211								
28 Jul 4:53 pm MST	101	47	16	WSW	10	10.00	FEW110		1005.4	29.86	27.220						101	93	
28 Jul 3:53 pm MST	101	49	18	WSW	12G21	10.00	FEW100		1005.7	29.87	27.230								
28 Jul 2:53 pm MST	100	52	20	SSW	7	10.00	BKN100		1006.3	29.89	27.248								
28 Jul 1:53 pm MST	100	50	19	NW	7	10.00	FEW110		1007.1	29.91	27.267								
28 Jul 12:53 pm MST	97	51	21	VRBL	3	10.00	FEW100		1008.1	29.93	27.285								
28 Jul 11:53 am MST	96	51	22	VRBL	3	10.00	CLR		1008.7	29.96	27.313								
28 Jul 10:53 am MST	93	51	24	WSW	3	10.00	CLR		1009.2	29.96	27.313								
28 Jul 9:53 am MST	91	59	34	CALM		10.00	CLR		1009.3	29.97	27.322							94	75
28 Jul 8:53 am MST	85	62	46	VRBL	5	10.00	CLR		1009.7	29.97	27.322								
28 Jul 7:53 am MST	81	64	57	S	6	10.00	CLR		1009.8	29.97	27.322								
28 Jul 6:53 am MST	78	64	62	S	7	10.00	CLR		1009.7	29.96	27.313								
28 Jul 5:53 am MST	77	64	65	SSE	6	10.00	CLR		1009.3	29.95	27.304								
28 Jul 4:53 am MST	78	64	62	SE	9	10.00	CLR		1008.7	29.93	27.285								
28 Jul 3:53 am MST	79	65	62	ESE	8	10.00	CLR		1008.5	29.93	27.285			0.02		84	78		
28 Jul 2:53 am MST	80	64	58	SE	10	10.00	CLR		1008.2	29.93	27.285								
28 Jul 1:53 am MST	79	66	65	SE	8	10.00	CLR		1008.8	29.94	27.295								
28 Jul 12:53 am MST	79	70	74	SE	3	10.00	CLR		1008.7	29.95	27.304								
27 Jul 11:53 pm MST	83	64	53	SSE	6	10.00	CLR		1009.0	29.96	27.313								
27 Jul 10:53 pm MST	83	67	59	E	5	10.00	SCT100		1009.3	29.97	27.322							97	
27 Jul 9:53 pm MST	85	63	48	SSE	7	10.00	SCT090		1009.3	29.96	27.313								
27 Jul 8:53 pm MST	86	64	49	ESE	5	10.00	CLR		1008.7	29.94	27.295								
27 Jul 7:53 pm MST	86	66	52	S	5	10.00	CLR		1008.7	29.93	27.285								
27 Jul 6:53 pm MST	86	64	49	SSW	3	10.00	CLR		1008.6	29.93	27.285								
27 Jul 5:53 pm MST	87	64	46	CALM		10.00	FEW039 FEW110		1008.7	29.93	27.285								
27 Jul 4:53 pm MST	84	61	46	S	9	10.00	-RA SCT110		1009.4	29.95	27.304								
27 Jul 3:53 pm MST	88	64	45	SSW	22G35	10.00	TS CLR		1010.4	29.98	27.332			0.02		97	78		
27 Jul 3:48 pm MST	93	61	34	S	5	10.00	TS FEW090			29.97	27.322								
27 Jul 3:23 pm MST	93	61	35	ESE	9	10.00	VCTS FEW090 SCT110			29.95	27.304								
27 Jul 2:53 pm MST	94	62	35	E	12	10.00	CLR		1009.2	29.96	27.313								
27 Jul 2:18 pm MST	94	64	38	E	12	10.00	CLR			29.99	27.341								
27 Jul 2:02 pm MST	95	65	37	N	9	10.00	VCTS FEW050 FEW090 SCT110			29.99	27.341								
27 Jul 1:53 pm MST	93	65	40	NNE	7	10.00	FEW048 SCT090 BKN110		1010.5	29.99	27.341	0.02	0.02						
27 Jul 12:53 pm MST	96	61	32	CALM		10.00	FEW065 FEW090		1010.7	30.01	27.359								
27 Jul 11:53 am MST	93	62	36	CALM		10.00	CLR		1011.7	30.03	27.378								

Webmaster  
 US Dept of Commerce  
 National Oceanic and Atmospheric Administration  
 National Weather Service  
 Tucson Weather Forecast Office  
 520 North Park Ave, Suite 304  
 Tucson, AZ 85719  
 Tel: (520) 670-6526

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