

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 10-15-11**

Date: 10/10/11 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work		
NNE	6:00 AM	30 min Avg	0.000	30 min Avg	0.000	0.022	0.028
NNE	6:30 AM	30 min Avg	0.000	30 min Avg	0.026	0.022	0.028
NNE	7:00 AM	30 min Avg	0.009	30 min Avg	0.053	0.031	0.037
NNE	7:30 AM	30 min Avg		30 min Avg	0.000	0.022	0.028
NNE	8:00 AM	30 min Avg	0.000	30 min Avg	0.010	0.022	0.028
NNE	8:30 AM	30 min Avg	0.065	30 min Avg	0.028	0.087	0.093
NNE	9:00 AM	30 min Avg	0.005	30 min Avg	0.000	0.027	0.033
NNE	9:30 AM	30 min Avg	0.026	30 min Avg	0.017	0.048	0.054
NNE	10:00 AM	30 min Avg	0.000	30 min Avg	0.008	0.022	0.028
NNE	10:30 AM	30 min Avg	0.001	30 min Avg	0.005	0.023	0.029
NNE	11:00 AM	30 min Avg	0.000	30 min Avg	0.009	0.022	0.028
NNE	11:30 AM	30 min Avg	0.008	30 min Avg	0.011	0.030	0.036
NE	12:00 PM	30 min Avg	0.000	30 min Avg	0.003	0.022	0.028
NE	12:30 PM	30 min Avg	0.022	30 min Avg	0.003	0.044	0.050
NE	1:00 PM	30 min Avg	0.000	30 min Avg	0.000	0.022	0.028
NNE	1:30 PM	30 min Avg	0.003	30 min Avg	0.005	0.025	0.031
NE	2:00 PM	30 min Avg	0.000	30 min Avg	0.006	0.022	0.028
NNE	2:30 PM	30 min Avg	0.009	30 min Avg	0.000	0.031	0.037
NNE	3:00 PM	30 min Avg	0.002	30 min Avg	0.011	0.024	0.030
NNE	3:30 PM	30 min Avg	0.000	30 min Avg	0.000	0.022	0.028
NNE	4:00 PM	30 min Avg	0.000	30 min Avg	0.000	0.022	0.028
NNE	4:30 PM	30 min Avg	0.009	30 min Avg	0.000	0.031	0.037
ENE	5:00 PM	30 min Avg	0.010	30 min Avg	0.023	0.032	0.038
ENE	5:30 PM	30 min Avg	0.004	30 min Avg	0.004	0.026	0.032

Notes: E-Bam Unit 2 located SE corner of plant; moved to NE corner due to NNE winds. Unit 1 located SW side of plant, south of Bldg. 3
All readings in mg/m³

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Implement 9/30/11 thru 10/14/11)

Action level = upwind concentration + 0.022 mg/m³

Stop Work Level = upwind concentration + 0.028 mg/m³

Note time/duration of work stoppage: The upwind E-bam unit was moved from the SE corner to the NE corner due to NNE winds; Abatement, demo, and hazardous waste removal did not start until 7:30 a.m.

Note: Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered accurate

Note: Revised action levels in bold in effect 9/30/11 thru 10/14/11, only when measured wind direction has northerly component.

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Particulate Monitoring Summary
Week Ending 10-15-11**

Date: 10/11/11 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work
NNE	6:00 AM	30 min Avg	0.000	0.022	0.028
NNE	6:30 AM	30 min Avg	0.000	0.022	0.028
NNE	7:00 AM	30 min Avg	0.057	0.079	0.085
NNE	7:30 AM	30 min Avg	0.011	0.033	0.039
NNE	8:00 AM	30 min Avg	0.000	0.022	0.028
NNE	8:30 AM	30 min Avg	0.058	0.080	0.086
NNE	9:00 AM	30 min Avg	0.018	0.040	0.046
NNE	9:30 AM	30 min Avg	0.000	0.022	0.028
NNE	10:00 AM	30 min Avg	0.013	0.035	0.041
NNE	10:30 AM	30 min Avg	0.000	0.022	0.028
ENE	11:00 AM	30 min Avg	0.007	0.029	0.035
ENE	11:30 AM	30 min Avg	0.003	0.025	0.031
ENE	12:00 PM	30 min Avg	0.000	0.022	0.028
E	12:30 PM	30 min Avg	0.005	0.040	0.050
E	1:00 PM	30 min Avg	0.000	0.035	0.045
E	1:30 PM	30 min Avg	0.010	0.045	0.055
E	2:00 PM	30 min Avg	0.015	0.050	0.060
ESE	2:30 PM	30 min Avg	0.017	0.052	0.062
E	3:00 PM	30 min Avg	0.010	0.045	0.055
E	3:30 PM	30 min Avg	0.012	0.047	0.057
E	4:00 PM	30 min Avg	0.006	0.041	0.051
ESE	4:30 PM	30 min Avg	0.002	0.037	0.047
E	5:00 PM	30 min Avg	0.010	0.045	0.055
E	5:30 PM	30 min Avg	0.017	0.052	0.062

Notes: E-Bam Unit 2 located NE corner of plant; E-Bam Unit 1 located SW side of plant, south of Building 3.

All readings in mg/m³

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Effective 9/30/11 thru 10/14/11)

Action level = upwind concentration + 0.022 mg/m³

Stop Work Level = upwind concentration + 0.028 mg/m³

Note time/duration of work stoppage: At 8:08 AM, particulate concentrations at the downwind unit reached site "Stop Work" levels.

All demo, abatement and hazardous waste removal ceased while additional dust suppression measures were implemented in the work areas. Work resumed after the 8:38 reading, which was below site Action and Stop Work levels.

Note: Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered

Note: Revised action levels in bold in effect 9/30/11 thru 10/14/11, only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 10-15-11**

Date: 10/12/11 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work
S	6:00 AM	30 min Avg	0	0.035	0.045
S	6:30 AM	30 min Avg	0.001	0.036	0.046
S	7:00 AM	30 min Avg	0.05	0.042	0.095
S	7:30 AM	30 min Avg	0.022	0.014	0.044
S	8:00 AM	30 min Avg	0	0.018	0.022
SSE	8:30 AM	30 min Avg	0.08	0.042	0.102
S	9:00 AM	30 min Avg	0	0.011	0.022
SSE	9:30 AM	30 min Avg	0	0.035	0.045
S	10:00 AM	30 min Avg	0.012	0.002	0.047
SSE	10:30 AM	30 min Avg	0.001	0.011	0.036
SSE	11:00 AM	30 min Avg	0.001	0	0.036
SSE	11:30 AM	30 min Avg	0	0.008	0.035
SSE	12:00 PM	30 min Avg	0	0	0.035
S	12:30 PM	30 min Avg	0	0	0.035
SSE	1:00 PM	30 min Avg	0.003	0	0.038
S	1:30 PM	30 min Avg	0	0.008	0.035
S	2:00 PM	30 min Avg	0.007	0	0.042
S	2:30 PM	30 min Avg	0.002	0.001	0.037
SSE	3:00 PM	30 min Avg	0.008	0.007	0.043
ESE	3:30 PM	30 min Avg	0.006	0.002	0.041
ESE	4:00 PM	30 min Avg	0.017	0.02	0.062
ESE	4:30 PM	30 min Avg	0	0.002	0.035
E	5:00 PM	30 min Avg	0.002	0.007	0.037
E	5:30 PM	30 min Avg	0.005	0.009	0.040

Notes: E-BAM location SE-East of building 42, NW-West of building 14

All readings in mg/m³

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Effective 9/30/11 thru 10/14/11)

Action level = upwind concentration + 0.022 mg/m³

Stop Work Level = upwind concentration + 0.028 mg/m³

Note time/duration of work stoppage:

Note: Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered

Note: Revised action levels in bold in effect 9/30/11 thru 10/14/11, only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 10-15-11**

Date: 10/13/11 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work
NNE	6:00 AM	30 min Avg 0	30 min Avg 0		
NNE	6:30 AM	30 min Avg 0.009	30 min Avg 0.038		
NE	7:00 AM	30 min Avg 0.063	30 min Avg 0.057		
NE	7:30 AM	30 min Avg 0.024	30 min Avg 0.018		
	8:00 AM	30 min Avg 0	30 min Avg *		
	8:30 AM	30 min Avg *	30 min Avg *		
	9:00 AM	30 min Avg *	30 min Avg *		
NE	9:30 AM	30 min Avg 0	30 min Avg 0		
NE	10:00 AM	30 min Avg 0.056	30 min Avg 0		
NE	10:30 AM	30 min Avg 0	30 min Avg 0.06		
NE	11:00 AM	30 min Avg 0.01	30 min Avg 0.013	0.032	0.038
NNE	11:30 AM	30 min Avg 0	30 min Avg 0	0.022	0.028
NNE	12:00 PM	30 min Avg 0.011	30 min Avg 0.008	0.033	0.039
NNE	12:30 PM	30 min Avg 0.021	30 min Avg 0	0.043	0.049
NNE	1:00 PM	30 min Avg 0.005	30 min Avg 0	0.027	0.033
NNE	1:30 PM	30 min Avg 0.013	30 min Avg 0.005	0.035	0.041
NNE	2:00 PM	30 min Avg 0.013	30 min Avg 0.008	0.035	0.041
NNE	2:30 PM	30 min Avg 0.004	30 min Avg 0.001	0.026	0.032
NNE	3:00 PM	30 min Avg 0	30 min Avg 0.006	0.022	0.028
NNE	3:30 PM	30 min Avg 0.002	30 min Avg 0	0.024	0.030
	4:00 PM	30 min Avg	30 min Avg		
	4:30 PM	30 min Avg	30 min Avg		
	5:00 PM	30 min Avg	30 min Avg		
	5:30 PM	30 min Avg	30 min Avg		

Notes: E_BAM location N-East of building 14, S-East of building 47

All readings in mg/m³

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Effective 9/30/11 thru 10/14/11)

Action level = upwind concentration + 0.022 mg/m³

Stop Work Level = upwind concentration + 0.028 mg/m³

Note time/duration of work stoppage: *At 7:45 thunderstorms with heavy rain hit the site before any work has started. The E-BAM units were unplugged for protection. When they were started back up they needed another warm-up period due to the rain and high humidity. Abatement, demo, and haz waste removal did not start due to the forecasted high northerly winds

Note: Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered

Note: Revised action levels in bold in effect 9/30/11 thru 10/14/11, only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
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Week Ending 10-15-11**

Date: 10/14/11 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work	
NNE	6:00 AM	30 min Avg	-0.005	30 min Avg	0	
NNE	6:30 AM	30 min Avg	0.055	30 min Avg	0.069	
NNE	7:00 AM	30 min Avg	0.014	30 min Avg	0.006	
NNE	7:30 AM	30 min Avg	0.012	30 min Avg	0.007	0.034
NNE	8:00 AM	30 min Avg	0.002	30 min Avg	0.01	0.024
N	8:30 AM	30 min Avg	0	30 min Avg	0.002	0.022
NNE	9:00 AM	30 min Avg	0	30 min Avg	0.009	0.022
N	9:30 AM	30 min Avg	0	30 min Avg	0.017	0.022
NNE	10:00 AM	30 min Avg	0	30 min Avg	0	0.022
N	10:30 AM	30 min Avg	0.007	30 min Avg	0.006	0.029
N	11:00 AM	30 min Avg	0	30 min Avg	0.001	0.022
NNE	11:30 AM	30 min Avg	0.005	30 min Avg	0.006	0.027
NNE	12:00 PM	30 min Avg	0.005	30 min Avg	0.003	0.027
E	12:30 PM	30 min Avg	0	30 min Avg	0.001	0.035
E	1:00 PM	30 min Avg	0.01	30 min Avg	0	0.045
E	1:30 PM	30 min Avg	0.016	30 min Avg	0.005	0.051
E	2:00 PM	30 min Avg	0.002	30 min Avg	0.005	0.037
E	2:30 PM	30 min Avg	0.007	30 min Avg	0.007	0.042
E	3:00 PM	30 min Avg	0.004	30 min Avg	0.016	0.039
E	3:30 PM	30 min Avg	0	30 min Avg	0	0.035
E	4:00 PM	30 min Avg	0.018	30 min Avg	0.011	0.053
E	4:30 PM	30 min Avg	0.003	30 min Avg	0.008	0.038
ESE	5:00 PM	30 min Avg	0.012	30 min Avg	0.011	0.047
ESE	5:30 PM	30 min Avg	0	30 min Avg	0.002	0.035

Notes: E-BAM Location NE corner. SW-South of building 3.

All readings in mg/m³

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Effective 9/30/11 thru 10/14/11)

Action level = upwind concentration + 0.022 mg/m³

Stop Work Level = upwind concentration + 0.028 mg/m³

Note time/duration of work stoppage:

Note: Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered

Note: Revised action levels in bold in effect 9/30/11 thru 10/14/11, only when measured wind direction has northerly component.

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Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work		
NNE	6:00 AM	30 min Avg	0	30 min Avg	0		
NNE	6:30 AM	30 min Avg	0.021	30 min Avg	0.075		
NNE	7:00 AM	30 min Avg	0.036	30 min Avg	0.017		
NNE	7:30 AM	30 min Avg	0.054	30 min Avg	0.033	0.089	0.099
N	8:00 AM	30 min Avg	0.022	30 min Avg	0.012	0.057	0.067
N	8:30 AM	30 min Avg	0.005	30 min Avg	0.003	0.040	0.050
NNE	9:00 AM	30 min Avg	0.002	30 min Avg	0.01	0.037	0.047
N	9:30 AM	30 min Avg	0	30 min Avg	0.008	0.035	0.045
NNE	10:00 AM	30 min Avg	0.003	30 min Avg	0.014	0.038	0.048
NE	10:30 AM	30 min Avg	0.001	30 min Avg	0.012	0.036	0.046
NE	11:00 AM	30 min Avg	0.007	30 min Avg	0.017	0.042	0.052
ENE	11:30 AM	30 min Avg	0.005	30 min Avg	0.008	0.040	0.050
ENE	12:00 PM	30 min Avg	0.001	30 min Avg	0.008	0.036	0.046
E	12:30 PM	30 min Avg	0.008	30 min Avg	0.005	0.043	0.053
E	1:00 PM	30 min Avg	0.008	30 min Avg	0.009	0.043	0.053
	1:30 PM	30 min Avg		30 min Avg			
	2:00 PM	30 min Avg		30 min Avg			
	2:30 PM	30 min Avg		30 min Avg			
	3:00 PM	30 min Avg		30 min Avg			
	3:30 PM	30 min Avg		30 min Avg			
	4:00 PM	30 min Avg		30 min Avg			
	4:30 PM	30 min Avg		30 min Avg			
	5:00 PM	30 min Avg		30 min Avg			
	5:30 PM	30 min Avg		30 min Avg			

Notes: E-BAM location: NE Corner. SW-South of Building 3

All readings in mg/m³

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage: All work stopped at 12:35 for the weekend.

Note: Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered