

Salton Sea Ambient Air and Meteorological Monitoring



Imperial Irrigation District

Summary Period: 03-01-2016 through 03-31-2016

Report Date: 10-19-2016

Data Summary - Particulate Concentration

PM10

	Bombay Beach	Naval Test Base	Salton City	Salton Sea Park	Sonny Bono	Torres-Martinez
Data Capture	1.00	1.00	0.92	1.00	1.00	0.93
Monthly Mean	37.6	312.9	231.1	21.3	68.0	35.3
Max Hour	1537.9	24535.0	7671.7	240.8	2533.0	1791.7
Min Hour	-20.3	-39.8	-46.0	-21.5	-15.7	-377.9

PM25

	Bombay Beach	Naval Test Base	Salton City	Salton Sea Park	Sonny Bono	Torres-Martinez
Data Capture	1.00	1.00	0.92	1.00	1.00	0.93
Monthly Mean	4.2	21.9	18.5	3.9	8.0	3.4
Max Hour	78.7	1343.9	501.4	26.2	284.0	64.9
Min Hour	-29.6	-13.2	-13.6	-25.1	-18.1	-323.3

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Data Summary - Meteorological Data

Naval Test Base

	at_2m	delta_temp_diff	net_rad	rh_2m	wd_sonic	ws_10m
Data Capture	1	1	1	1	1	1
Monthly Mean	21.3	0.4	71.7	28.2	217.6	5.2
Max Hour	32.5	4.9	689.1	78.6	336.4	18.4
Min Hour	9.2	-1.1	-80.0	6.3	31.5	0.4

Sonny Bono

	at_2m	delta_temp_diff	net_rad	rh_2m	wd_sonic	ws_10m
Data Capture	1	1	1	1	1	1
Monthly Mean	20.3	0.5	80.6	46.4	227.1	4.5
Max Hour	33.5	6.0	519.2	86.9	324.8	19.1
Min Hour	8.2	-2.3	-85.5	8.1	43.3	0.7

Salton Sea Park

	at_2m	delta_temp_diff	net_rad	rh_2m	wd_sonic	ws_10m
Data Capture	1	1	1	1	1	1
Monthly Mean	21.5	0.9	80.7	35.2	193.9	2.3
Max Hour	32.8	6.1	536.1	68.5	332.6	11.8
Min Hour	10.1	-1.7	-120.0	7.3	30.8	0.1

Torres-Martinez

	at_2m	delta_temp_diff	net_rad	rh_2m	wd_sonic	ws_10m
Data Capture	0.93	0.93	0.93	0.93	0.93	0.93
Monthly Mean	19.5	1.0	81.2	43.3	239.5	3.2
Max Hour	32.2	7.4	467.5	86.0	343.7	9.2
Min Hour	5.9	-1.4	-95.4	11.7	35.4	0.4

Salton City

	at_2m	delta_temp_diff	net_rad	rh_2m	wd_sonic	ws_10m
Data Capture	0.35	0.35	0.35	0.35	0.35	0.35
Monthly Mean	20.7	0.3	40.4	34.8	225.3	4.5
Max Hour	31.5	5.4	351.1	65.5	332.0	15.5
Min Hour	9.7	-1.5	-69.2	7.6	37.0	0.8

Bombay Beach

	at_2m	delta_temp_diff	net_rad	rh_2m	wd_sonic	ws_10m
Data Capture	1	1	1	1	1	1

Monthly Mean	20.4	0.8	77.7	40.3	187.7	3.7
Max Hour	31.6	4.8	508.2	72.5	342.5	16.9
Min Hour	8.0	-1.3	-89.6	9.4	4.9	0.2

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Data Review - Data Check Notes

```
## Warning in postgresqlExecStatement(conn, statement, ...): RS-DBI driver
## warning: (unrecognized PostgreSQL field type tsrange (id:3908) in column 1)
```

Table continues below

deployment	start.date	start.hour	end.date	end.hour	flag
Bombay Beach	2016-03-18	11:00:00	2016-03-18	12:00:00	Revalidated 3D WDV (ASI)
Salton Sea Park	2016-03-21	12:00:00	2016-03-23	00:00:00	TEOM Status Error
Naval Test Base	2016-03-08	14:00:00	2016-03-08	15:00:00	TEOM Op Mode Error
Naval Test Base	2016-03-14	09:00:00	2016-03-14	11:00:00	TEOM Op Mode Error
Salton City	2016-03-08	13:00:00	2016-03-08	14:00:00	TEOM Op Mode Error
Salton City	2016-03-14	08:00:00	2016-03-14	10:00:00	TEOM Op Mode Error
Salton Sea Park	2016-03-03	09:00:00	2016-03-03	10:00:00	TEOM Op Mode Error
Salton Sea Park	2016-03-10	10:00:00	2016-03-10	11:00:00	TEOM Op Mode Error
Salton Sea Park	2016-03-17	09:00:00	2016-03-17	10:00:00	TEOM Op Mode Error
Sonny Bono	2016-03-09	09:00:00	2016-03-09	10:00:00	TEOM Op Mode Error
Torres-Martinez	2016-03-21	10:00:00	2016-03-21	11:00:00	TEOM Op Mode Error
Bombay Beach	2016-03-18	14:00:00	2016-03-18	15:00:00	Revalidated 3D WDV (ASI)
Bombay Beach	2016-03-19	08:00:00	2016-03-19	10:00:00	Validated 3D WDV (ASI)
Bombay Beach	2016-03-19	13:00:00	2016-03-19	14:00:00	Validated 3D WDV (ASI)
Bombay Beach	2016-03-22	13:00:00	2016-03-22	14:00:00	Validated 3D WDV (ASI)
Bombay Beach	2016-03-21	13:00:00	2016-03-21	14:00:00	TEOM Op Mode Error
Salton Sea Park	2016-03-24	07:00:00	2016-03-25	07:00:00	TEOM Status Error
Salton Sea Park	2016-03-25	07:00:00	2016-03-26	07:00:00	TEOM Status Error
Salton Sea Park	2016-03-26	07:00:00	2016-03-27	07:00:00	TEOM Status Error
Salton Sea Park	2016-03-27	06:00:00	2016-03-28	07:00:00	TEOM Status Error

Salton Sea Park	2016-03-27	06:00:00	2016-03-28	07:00:00	TEOM Status Error
Bombay Beach	2016-03-04	11:00:00	2016-03-04	12:00:00	Revalidated 3D WDV (ASI)
Bombay Beach	2016-03-05	12:00:00	2016-03-05	13:00:00	Revalidated 3D WDV (ASI)
Bombay Beach	2016-03-02	09:00:00	2016-03-02	10:00:00	Validated 3D WDV (ASI)
Bombay Beach	2016-03-02	11:00:00	2016-03-02	12:00:00	Validated 3D WDV (ASI)
Bombay Beach	2016-03-10	09:00:00	2016-03-10	11:00:00	TEOM Op Mode Error
Bombay Beach	2016-03-17	12:00:00	2016-03-17	13:00:00	Validated 3D WDV (ASI)
Torres-Martinez	2016-03-10	11:00:00	2016-03-10	12:00:00	TEOM Op Mode Error
Salton Sea Park	2016-03-28	23:00:00	2016-04-06	07:00:00	TEOM Status Error
Bombay Beach	2016-03-30	09:00:00	2016-03-30	11:00:00	TEOM Op Mode Error
Bombay Beach	2016-03-30	09:00:00	2016-03-30	11:00:00	TEOM Status Error
Naval Test Base	2016-03-29	08:00:00	2016-03-29	09:00:00	TEOM Op Mode Error
Sonny Bono	2016-03-29	06:00:00	2016-03-29	08:00:00	TEOM Op Mode Error
Torres-Martinez	2016-03-31	09:00:00	2016-03-31	10:00:00	TEOM Op Mode Error
Torres-Martinez	2016-03-31	12:00:00	2016-03-31	13:00:00	TEOM Op Mode Error
Torres-Martinez	2016-03-31	09:00:00	2016-03-31	11:00:00	TEOM Status Error
Salton City	2016-03-29	09:00:00	2016-03-29	11:00:00	TEOM Op Mode Error
Salton City	2016-03-30	07:00:00	2016-03-30	08:00:00	TEOM Op Mode Error
Bombay Beach	2016-03-30	10:00:00	2016-03-30	12:00:00	Site Visit
Bombay Beach	2016-03-14	12:00:00	2016-03-14	13:00:00	Site Visit
Bombay Beach	2016-03-14	20:00:00	2016-03-14	22:00:00	Invalidated Data
Bombay Beach	2016-03-21	12:00:00	2016-03-21	15:00:00	Site Visit
Bombay Beach	2016-03-10	10:00:00	2016-03-10	11:00:00	Site Visit
Bombay Beach	2016-03-14	12:00:00	2016-03-14	13:00:00	Site Visit
Bombay Beach	2016-03-21	12:00:00	2016-03-21	15:00:00	Site Audit
Bombay Beach	2016-03-30	10:00:00	2016-03-30	12:00:00	Site Visit
Naval Test Base	2016-03-08	14:00:00	2016-03-08	16:00:00	Site Visit
Naval Test Base	2016-03-08	14:00:00	2016-03-08	16:00:00	Site Visit
Naval Test Base	2016-03-14	10:00:00	2016-03-14	12:00:00	Site Visit
Naval Test Base	2016-03-15	00:00:00	2016-03-24	06:00:00	Invalidated Data
Naval Test Base	2016-03-24	06:00:00	2016-03-24	08:00:00	Site Visit
1001	2016-03-30	07:45:00	2016-03-30	12:15:00	Site Audit
Naval Test Base	2016-03-24	06:00:00	2016-03-24	08:00:00	Site Audit

Naval Test Base	2016-03-24	06:00:00	2016-03-24	06:00:00	Site Audit
Naval Test Base	2016-03-28	19:00:00	2016-03-28	22:00:00	Invalidated Data
Naval Test Base	2016-03-29	09:00:00	2016-03-29	10:00:00	Site Visit
Salton City	2016-03-02	02:00:00	2016-03-04	14:00:00	General Information
Salton City	2016-03-08	14:00:00	2016-03-08	15:00:00	Site Visit
Salton City	2016-03-08	14:00:00	2016-03-09	23:00:00	Invalidated Data
Salton City	2016-03-13	18:00:00	2016-03-14	02:00:00	General Information
Salton City	2016-03-14	08:00:00	2016-04-01	00:00:00	General Information
Salton City	2016-03-14	09:00:00	2016-03-14	11:00:00	Site Visit
Salton City	2016-03-16	12:00:00	2016-03-16	13:00:00	Site Visit
Salton City	2016-03-14	08:00:00	2016-04-01	00:00:00	General Information
Salton City	2016-03-17	05:00:00	2016-03-17	07:00:00	General Information
Salton City	2016-03-24	08:00:00	2016-03-24	10:00:00	Site Audit
Salton City	2016-03-24	08:00:00	2016-03-24	10:00:00	Site Audit
Salton City	2016-03-29	10:00:00	2016-03-29	12:00:00	Site Visit
Salton City	2016-03-30	08:00:00	2016-03-30	09:00:00	Site Visit
Salton Sea Park	2016-03-07	00:00:00	2016-03-07	23:00:00	Invalidated Data
Salton Sea Park	2016-03-10	10:00:00	2016-03-10	11:00:00	Site Visit
Salton Sea Park	2016-03-21	11:00:00	2016-03-21	13:00:00	Site Audit
Sonny Bono	2016-03-09	08:00:00	2016-03-09	10:00:00	Site Visit
Sonny Bono	2016-03-23	06:00:00	2016-03-23	08:00:00	Site Audit
Sonny Bono	2016-03-29	07:00:00	2016-03-29	09:00:00	Site Visit
Torres-Martinez	2016-03-03	00:00:00	2016-03-04	23:00:00	Invalidated Data
Torres-Martinez	2016-03-10	12:00:00	2016-03-10	13:00:00	Site Visit
Torres-Martinez	2016-03-13	00:00:00	2016-03-15	23:00:00	Invalidated Data
Torres-Martinez	2016-03-21	00:00:00	2016-03-21	10:00:00	Invalidated Data
Torres-Martinez	2016-03-21	10:00:00	2016-03-21	12:00:00	Site Audit
Torres-Martinez	2016-03-29	00:00:00	2016-03-31	23:00:00	Invalidated Data
Torres-Martinez	2016-03-29	08:00:00	2016-03-31	10:00:00	General Information
Torres-Martinez	2016-03-31	10:00:00	2016-03-31	13:00:00	Site Visit
1001	2016-03-30	07:45:00	2016-03-30	12:15:00	Site Audit
1002	2016-03-30	13:35:00	2016-03-30	16:10:00	Site Audit
1002	2016-03-30	13:35:00	2016-03-30	16:10:00	Site Audit
1003	2016-03-31	08:20:00	2016-03-31	14:57:00	Site Audit
1003	2016-03-31	08:20:00	2016-03-31	14:57:00	Site Audit
1001	2016-03-02	10:32:00	2016-03-02	10:54:00	Site Visit
1001	2016-03-02	10:32:00	2016-03-02	10:54:00	Site Visit
1002	2016-03-02	11:44:00	2016-03-02	11:59:00	Site Visit
1002	2016-03-02	11:44:00	2016-03-02	11:59:00	Site Visit
1003	2016-03-02	13:24:00	2016-03-02	13:38:00	Site Visit
1003	2016-03-02	13:24:00	2016-03-02	13:38:00	Site Visit

1003	2016-03-02	13:24:00	2016-03-02	13:38:00	Site Visit
1004	2016-03-02	13:04:00	2016-03-02	13:16:00	Site Visit
1004	2016-03-02	13:04:00	2016-03-02	13:16:00	Site Visit
1003	2016-03-10	10:34:00	2016-03-10	11:23:00	Site Visit
1003	2016-03-10	10:34:00	2016-03-10	11:23:00	Site Visit
1004	2016-03-29	07:30:00	2016-03-29	11:08:00	Site Visit
1004	2016-03-29	07:30:00	2016-03-29	11:08:00	Site Visit
1002	2016-03-29	14:20:00	2016-03-29	15:46:00	Site Visit
1002	2016-03-29	14:20:00	2016-03-29	15:46:00	Site Visit
1001	2016-03-30	07:45:00	2016-03-30	12:15:00	Site Visit
1001	2016-03-30	07:45:00	2016-03-30	12:15:00	Site Visit
1002	2016-03-30	13:35:00	2016-03-30	15:10:00	Site Visit
1002	2016-03-30	13:35:00	2016-03-30	15:10:00	Site Visit

flag_note	reviewed	invalidate
3D vector-averaged wind direction (calculated) was manually revalidated by Air Sciences.	TRUE	FALSE
TEOM returned a status error.	TRUE	TRUE
TEOM returned an operation mode error.	TRUE	TRUE
TEOM returned an operation mode error.	TRUE	TRUE
TEOM returned an operation mode error.	TRUE	TRUE
TEOM returned an operation mode error.	TRUE	TRUE
TEOM returned an operation mode error.	TRUE	TRUE
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3D vector-averaged wind direction (calculated) was manually validated by Air Sciences.	TRUE	FALSE
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TEOM returned an operation mode error.	TRUE	TRUE
TEOM returned a status error.	TRUE	TRUE
TEOM returned a status error.	TRUE	TRUE
TEOM returned a status error.	TRUE	TRUE
TEOM returned a status error.	FALSE	TRUE
3D vector-averaged wind direction (calculated) was manually revalidated by Air Sciences.	TRUE	FALSE
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3D vector-averaged wind direction (calculated) was manually validated by Air Sciences.	TRUE	FALSE
3D vector-averaged wind direction (calculated) was manually validated by Air Sciences.	TRUE	FALSE

TEOM returned an operation mode error.	TRUE	TRUE
3D vector-averaged wind direction (calculated) was manually validated by Air Sciences.	TRUE	FALSE
TEOM returned an operation mode error.	TRUE	TRUE
TEOM returned a status error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned a status error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned a status error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
TEOM returned an operation mode error.	FALSE	TRUE
Site visit maintenance. The TEOM filters were replaced.	TRUE	TRUE
MET Site Visit/Maintenance: No internet connection upon arrival. Restarted logger computer and downloaded 41 updates before it would connect - Invalidated.	TRUE	TRUE
MET Ultrasonic Young Error & Data Gap - Invalidated.	TRUE	TRUE
MET Site Visit/Maintenance - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: Replaced TEOM filters. Adjusted time on TEOM +3 mins - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: No internet connection upon arrival. Restarted logger computer and downloaded 41 updates before it would connect - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: Leak Check, Flow Audit, Leak Check, replaced TEOM Filters - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: TEOM filters replaced - Invalidated.	TRUE	TRUE
MET Site Visit - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: replaced TEOM filters - Invalidated.	TRUE	TRUE
TEOM Site Visit?Maintenance: replaced TEOM filters - Invalidated.	TRUE	TRUE
MET Noticing 2m bearings failing - Invalidated.	TRUE	TRUE
MET Site Visit/Maintenance: changed bearings on 2m anemometer - Invalidated.	TRUE	TRUE
MET - ASI on site for install/audit/calibration.	TRUE	TRUE
TEOM Site Visit/Audit/Maintenance: leak check, flow audit, leak check, replaced TEOM filters - Invalidated.	TRUE	TRUE
MET Too low of values for 1m ws - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: replaced TEOM filters - Invalidated.	TRUE	TRUE
MET + PM data gap.	TRUE	FALSE

TEOM Site Visit/Maintenance: replaced TEOM filters - Invalidated.	TRUE	TRUE
MET Sonic anemometer error - Invalidated.	TRUE	TRUE
MET Sonic anemometer error/data gap.	TRUE	FALSE
MET Sonic anemometer error/data gap.	TRUE	FALSE
TEOM Site Visit/Maintenance: Replaced TEOM filters, time adjustment on TEOM +2 mins - Invalidated.	TRUE	TRUE
MET + TEOM Maintenance - Worked on Ultrasonic - Invalidated.	TRUE	TRUE
MET Sonic anemometer data gap.	TRUE	FALSE
Worked on Ultrasonic with success temporarily, but issue not resolved.	TRUE	FALSE
MET Site Visit/Maintenance: changed bearings at 1m ws - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: Leak check, flow audit, leak check, replaced TEOM filters - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: replaced TEOM filters - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: replaced TEOM filters - Invalidated.	TRUE	TRUE
MET Sonic anemometer error - Invalidated.	TRUE	TRUE
MET + TEOM Site Visit/Maintenance: Replaced TEOM filters, time adjustment on TEOM +2 mins - Invalidated.	TRUE	TRUE
MET + TEOM Site Visit/Maintenance: Leak Check, Flow Audit, Leak Check, replaced TEOM Filters, adjusted time on TEOM +1 min - Invalidated.	TRUE	TRUE
MET + TEOM Site Visit/Maintenance: Replace TEOM filters, adjusted TEOM +1 min - Invalidated.	TRUE	TRUE
MET + TEOM Site Visit/Maintenance: Leak Check, Flow Audit, Leak Check, replace TEOM filters, adjusted TEOM time +1 min - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: Replace TEOM filters - Invalidated.	TRUE	TRUE
MET Sonic anemometer error - Invalidated.	TRUE	TRUE
TEOM Site Visit/Maintenance: TEOM filter change, adjusted time on TEOM +2 mins - Invalidated.	TRUE	TRUE
MET Sonic anemometer error - Invalidated.	TRUE	TRUE
MET Sonic anemometer error - Invalidated.	TRUE	TRUE
MET + TEOM Site Visit/Maintenance: Leak Check, flow audit, leak check, replaced TEOM filters - Invalidated.	TRUE	TRUE
MET Sonic anemometer error - Invalidated.	TRUE	TRUE
MET + TEOM data gap - Power outage due to line accidentally being cut by trencher project at wetlands - Invalidated.	TRUE	FALSE
MET + TEOM Site Visit/Maintenance: Power has been restored, replaced Teom Filters -	TRUE	TRUE

Invalidated.

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Salton Sea Ambient Air and Meteorological Monitoring Net



Imperial Irrigation District

Summary Period: 03-01-2016 through 03-31-2016

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Dust Event

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