STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

March 21, 2013

Mr. Michael Zerga, Vice President
Kaiser Aluminum Washington, LLC
P.O. Box 15108
Spokane, WA 99215-5108

RE: Inspection of Wastewater Treatment Facilities National Pollutant Discharge Elimination System (NPDES) Permit No. WA-000089-2

Dear Mr. Zerga:

Enclosed is the inspection report for my site visit on December 12, 2012. We made a single recommendation regarding the reporting requirements of your NPDES permit. When your laboratory performs a duplicate test on a sample, you should average the two results (original & duplicate) for compliance monitoring and reporting; as long as the laboratory performed the duplicate test according to the approved analytical methods of the permit.

I wish to thank Bud Leber, Todd Bennatt, and Ron Lehrman for their assistance during the inspection. Please review the report, and if you have any questions, please contact me at (509) 329-3500.

Sincerely,

Pat Hallinan
Water Quality Section

PH:dw
cc/encls: Bud Leber, Kaiser Aluminum Washington, LLC

State of Washington Department of Ecology
Eastern Regional Office

WATER COMPLIANCE INSPECTION REPORT

substitute for OMB No. 2040-0057 and EPA form 3560-3 (Rev. 9-94) (last file update 12-95.)

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES #	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5	3 WA-0000892 11	12 20/12/12 17	18 C	19 S	20 2

Remarks: Kaiser Aluminum Washington Class I Inspection

Inspection work days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 1.5 69	70 5	71 N	72 N	73 ____ 74 75 ____ 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time/Date	Permit Effective Date
Kaiser Aluminum Washington, LLC Trentwood Works 15000 E. Euclid Ave Spokane Valley, WA 99215	2:00 PM / Dec. 20, 2012	07/01/11
	Exit Time / Date 4:30 PM / Dec. 20, 12	Permit Expiration Date 06/30/16

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Bud Leber
Environmental Engineering Manager
(509) 927-6554; (509) 927-6095 fax

Other Facility Data

Name, Address of Responsible Official/Title/Phone and Fax Number.
Michael Zerga
Vice President
P.O. Box 15108, Spokane Valley, WA 99215-5108
Phone Number (509) 924-1500 Fax Contacted ? ☐ Yes ☒ No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

☒	Permit	☒	Flow Measurement	☒	Operations&Maint.	☐	CSO/SSO (Sewer Overflow)
☒	Records/Reports	☒	Self-Monitoring Program	☐	Sludge Handling/Disposal	☐	Pollution Prevention
☒	Facility Site Review	☒	Compliance Schedules	☐	Pretreatment	☐	Multimedia
☒	Effluent/Receiving water	☒	Laboratory	☐	Storm Water	☐	other

Section D: Summary of Findings/Comments

Permit: Ecology re-issued the NPDES permit to Kaiser Aluminum Washington (Kaiser) in July, 2011 with an expiration date of June 30, 2016. The permit required a number of submittals throughout the permit term, many related to the compliance schedule for meeting final water-quality based effluent limits for ammonia, CBOD, and total phosphorus. Kaiser has met all submittal requirements of the re-issued permit.

Kaiser appealed the July, 2011 permit to the Pollution Control Hearings Board (PCHB) contesting certain effluent limits in the permit, along with other permit and monitoring conditions. Kaiser and Ecology negotiated a settlement to the appeal, and the PCHB issued a Stipulation and Agreed Order (PCHB 11-102) outlining the terms of the settlement. Ecology issued an amended permit for a 30 day public comment period on January 22, 2013. Among other items, the amendment proposes to replace effluent limits at internal Outfall 002 with more stringent performance based limits at internal Outfall 006.

Facility Site Review: Kaiser manufactures aluminum sheet and plate, mostly for use in aircraft manufacturing. Industrial operations include re-melting and casting of aluminum to form ingots. The ingots are rolled on one or more of three hot rolling mills in series to form aluminum sheet, plate, or coil. Further thickness reductions for coil are accomplished on subsequent cold mills. Additional operations include annealing, inspection, sawing and final product packaging.

The facility discharges treated stormwater, industrial wastewater, contact and noncontact cooling waters, domestic wastewater, and excess groundwater to the Spokane River. The treatment facilities include: an industrial treatment system (IWT, Outfall 002) treating oil and metal contaminated wastewaters; a sanitary treatment system (SWT, Outfall 003) treating the site's domestic wastewater; a 4-million gallon settling lagoon (equipped with oil skimming and collection equipment) that receives contact and noncontact cooling waters, the treated IWT and SWT effluents, and site stormwater runoff; a black walnut shell (BWS, Outfall 006) filtration system treating effluent from the settling lagoon. The final discharge consists of the BWS effluent and excess groundwater from onsite remediation activities.

The industrial wastewater treatment (IWT) system (Outfall 002), treatment consists of oil water separation, lime addition and clarification, then multimedia filtration. The sanitary wastewater treatment system consists of primary clarification, a trickling filter, secondary clarification, disinfection, and sludge digestion. The facility routes backwash from the black walnut shell filtration system into a separation tank, where oil/water separation occurs. Plant personnel then decant the water/solids into the IWT clarifier and send the oil to an oil reclamation system.

At Outfall 001, Kaiser has constructed a new shack that houses effluent collection and sampling equipment. Plant personnel collect the composite samples by withdrawing a small continuous stream from the effluent pipe and routing this flow

into a small overflow tank. An automatic composite sampler (driven by a vacuum pump) withdraws sub-samples from the overflow tank.

Records/Reports: The attached table lists a discharge monitoring report summary from July 2011 (effective date of permit) through November, 2012. Presently, Kaiser monitors their final discharge to the River (Outfall 001), and internal outfalls 002, 003, 006, and 007 (ground water remediation, flow only). The permit also specifies monitoring for the plant intake water withdrawn from the Spokane River and influent to the black walnut shell filtration system. For Outfall 006, the permit allows limits for aluminum, chromium, TSS, and oil & grease be calculated on a net basis using river water intake pollutant concentrations. Kaiser calculates intake water flow from differences from other monitored flow rates.

Kaiser exceeded permit limits at Outfall 006 for TSS in August, 2012. After inspection of the composite sampling set-up, plant personnel noted a large accumulation of biological growth in the equipment. Kaiser cleaned out the sampling equipment and will do this on a regular basis to prevent this from re-occurring in the future. Kaiser also exceeded the daily maximum limits at Outfall 002 for aluminum on January, 2012. This high level also caused an exceedence of the monthly average limit. Kaiser investigated the incident and could not find a cause. Aluminum levels prior to and immediately after January 12th were less than 10% of the daily maximum limit.

Laboratory: Laboratory personnel collect and analyze the compliance monitoring samples, except for cadmium, lead, and PCBs (Kaiser sends these samples to an outside contract laboratory). For cadmium and lead, Kaiser does not usually receive the results in time for the DMR submittal (15th of the month). Kaiser has been submitting an amended DMR sheet that includes the cadmium and lead results on the following month's DMR form.

For the in-house laboratory results, the lab personnel run duplicate samples for some parameters. When reporting this data, Kaiser has been using the first sample result, and not the second (duplicate). After office review, Ecology will recommend the facility average the two samples for compliance monitoring and reporting.

Name(s) and Signatures of Inspector(s)	Agency/Office/Telephone	Date
Pat Hallinan	WA Dept. of Ecology/Eastern Regional Office 4601 N. Monroe Street, Spokane, WA 99205-1295 (509) 329-3500	Mar. 20, 13
Signature of Management Q A Reviewer Diana Washington	Agency/Office/Phone and Fax Numbers WA Dept. of Ecology/Eastern Regional Office rev's phone (509) 329-3504 fax # (509) 329-3570	Date

ANNOUNCED Inspection

INSTRUCTIONS

Section A: National Date System Coding (i.e., PCS)

Column 1: Transaction Code. Use N, C, or D for New Change or Delete. All inspections will be new unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number. *(Use the Remarks columns to record State permit number, if necessary.)*

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 94/06/30 = June 30, 1994).

Column 18: Inspection Type. Use one of the codes listed below to describe the type of inspection:

A Performance Audit
B Compliance Biomonitoring
C Compliance Evaluation (non-sampling)
D Diagnostic
E Corps of Engineers Inspection
F Pretreatment Follow-up
G Pretreatment Audit
I Industrial User (IU) Inspection
L Enforcement Case Support
M Multimedia
P Pretreatment Compliance Inspection
R Reconnaissance
S Compliance Sampling
U IU Inspection with Pretreatment Audit
X Toxics Inspection
Z Sludge
2 IU Sampling Inspection
3 IU Non-Sampling Inspection
4 IU Toxics Inspection
5 IU Sampling Inspection with Pretreatment
6 IU Non-Sampling Inspection with pretreatment
7 IU Toxics with Pretreatment

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

C - Contractor or Other Inspectors (*Specify in Remarks Columns*)
E - Corps of Engineers
J - Joint EPA/State Inspectors - EPA Lead
N - NEIC Inspectors
R - EPA Regional Inspector
S - State Inspector
T - Joint State/EPA Inspectors - State Lead

Column 20: Facility Type. Use of one of the codes below to describe the facility.

1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 - Industrial. Other than municipal, agricultural, and Federal facilities.
3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 - Federal. Facilities identified as Federal by the EPA Regional Office

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection. The heading marked "Multimedia" may indicate medias such as CAA, RCRA, and TSCA. The heading marked "Other" may indicate activities such as SPCC, BMPs, and concerns that are not covered elsewhere.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

	Flow (mgd)		Temp (°F)		pH (s.u.)		Cadmium (ug/L)		Lead (ug/L)		Zinc (ug/L)	
Date	Avg	Max	Avg	Max	Min	Max	Avg	Max	Avg	Max	Avg	Max
Jul-11	17.8	18.3	62.1	68.7	7.1	7.7	0.03	0.05	0.19	0.25	16	35
Aug-11	17.3	18.1	61.9	65.4	***5.9***	7.4	0	0	0.11	0.12	10	24
Sep-11	16.9	17.7	60.7	67.5	***5.8***	6.9	0.019	0.02	0.082	0.1	13	24
Oct-11	16.9	17.5	60	69.2	6.2	8.1	0.02	0.06	0.13	0.16	22	81
Nov-11	11.7	12.9	57.2	72.9	7.2	7.7	0.03	0.04	0.13	0.16	14	21
Dec-11	15.8	16.1	58.8	73.8	7.2	8.1	0.03	0.08	0.12	0.27	16	27
Jan-12	15.9	17	55.8	68.5	7.5	8.2	0.02	0.03	0.08	0.13	16	28
Feb-12	14.9	16.7	54	58.4	7.3	8.1	0.02	0.04	0.1	0.15	11	18
Mar-12	16.1	16.6	55.2	56.5	7.1	8.3	0.02	0.04	0.1	0.16	10	17
Apr-12	16.4	16.9	67.8	78.2	7	7.6	0.04	0.13	0.26	0.57	14	18
May-12	12	17	65.4	76.7	6.7	8.1	0.05	0.06	0.72	1.3	16	28
Aug-12	16.4	17.5	62.2	66	6.3	7	0.02	0.03	0.08	0.19	1	7
Sep-12	16.2	16.7	60.9	62.9	6.3	6.8	0.01	0.02	0.06	0.08	7	24
Oct-12	16.8	17.3	57.3	61	***5.8***	8.5	0.02	0.03	0.1	0.25	13	30
Nov-12	16	17.6	55.9	59	6.8	7.1	0.02	0.02	0.07	0.12	14	19
Min	11.7	12.9	54.0	56.5	5.8	6.8	0.00	0.00	0.06	0.08	1	7
Max	17.8	18.3	67.8	78.2	7.5	8.5	0.05	0.13	0.72	1.30	22	81
Avg	15.8	16.9	59.7	67.0	6.7	7.7	0.02	0.04	0.16	0.27	13	27
Limits	-	-	-	-	6	9	1.3	2.2	7	12.1	75	146

For the months of of September, 2011 and October, 2012, the duration of the pH excursions were within the length of time allowed for continuous pH recording.

For August, 2011, the facility was in the process of switching process control monitoring systems. The actual length of the pH excursion is not known.

			TSS				Oil & Grease				Total Al				Total Cr			
	Flow (mgd)		lbs/day		mg/L		lbs/day		mg/L		lbs/day		mg/L		lbs/day		mg/L	
Date	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
Jul-11	10.5	10.93	134.6	213.7	1.8	2.7	40.1	110.3	0.5	1.5	4.9	10.6	0.07	0.14	0.6	4.1	0.009	0.05
Aug-11	10	10.83	85.8	165.3	1.3	2.4	25.2	73	0.77	1.7	2	6.9	0.03	0.1	0.1	0.4	0.001	0.005
Sep-11	10.1	10.41	72.3	107.7	1	1.5	27.1	96	0.46	1.3	1.9	3.2	0.03	0.04	0.2	0.8	0.004	0.012
Oct-11	9.5	10.1	111.8	183.7	1.5	2.4	42.1	121.3	0.72	1.6	2.2	3.1	0.04	0.05	0	0.4	0.001	0.007
Nov-11	8.9	9.23	450.4	1457	6.3	20.1	38.5	68.9	0.7	1.1	3.3	10.2	0.05	0.14	0	0	0	0
Dec-11	8.4	8.7	77.4	131.9	1.4	2.3	52.9	91.1	0.99	1.8	1.8	3	0.04	0.05	0.7	2.7	0.011	0.037
Jan-12	8.5	9.6	47.1	123.6	1.1	2.1	78.3	337.2	1.41	5	2.2	3.7	0.04	0.07	1.2	2.5	0.017	0.035
Feb-12	8.6	9.3	286.3	1194	4	16.4	70.6	160.1	1.21	2.7	1.5	3.9	0.06	0.16	0	0.4	0.001	0.006
Mar-12	8.7	9.24	184.7	405.2	2.9	5.7	92.9	143.8	1.71	2.5	2.1	3.7	0.05	0.07	0.3	2.2	0.005	0.031
Apr-12	9	9.56	80.2	156	1.8	2.8	16	78.1	0.34	1.1	-1.4	1.3	0.04	0.06	0	0	0	0
May-12	9.4	9.97	170.8	522	2.7	7.3	137.5	449.8	1.93	6.1	0.4	4.3	0.06	0.11	0.1	0.6	0.002	0.008
Aug-12	9.48	10.51	604.3	**3346**	7.6	41.3	87.1	179.1	1.36	2.7	4.3	19.4	0.057	0.243	0	0	0	0
Sep-12	9.33	9.84	78.3	135.2	1.1	1.8	42	131.6	0.7	1.9	2.1	3.1	0.03	0.042	0	0.4	0.001	0.005
Oct-12	10.22	10.7	69.7	169.2	1.3	1.9	65.8	168.8	1.06	3.1	2.5	7.7	0.05	0.09	0.2	1.3	0.004	0
Nov-12	9.93	10.98	98.9	161.7	1.2	2	64.1	186	1.26	3.4	2.3	4.9	0.03	0.07	0.4	2.3	0.004	0
Min	8.4	8.7	47.1	107.7	1.0	1.5	16.0	68.9	0.34	1.10	-1.4	1.3	0.03	0.04	0.0	0.0	0.000	0.000
Max	10.5	11.0	604.3	3346.0	7.6	41.3	137.5	449.8	1.93	6.10	4.9	19.4	0.07	0.24	1.2	4.1	0.017	0.050
Avg	9.4	10.0	170.2	564.8	2.5	7.5	58.7	159.7	1.01	2.50	2.1	5.9	0.05	0.10	0.3	1.2	0.004	0.013

Limits:

Current	-	-	709.4	1142	-	-	655.1	710.5	-	-	23.4	46.8	-	-	2.1	5.1	-	-
Proposed	-	-	406.1	903.9	-	-	374.7	565.3	-	-	7.5	14.4	-	-	-	-	-	-

Bold, shaded cell indicates permit limit exceedence

	Total Al				Total Cr				Total Zn			
	lbs/day		mg/L		lbs/day		mg/L		lbs/day		mg/L	
Date	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
Jul-11	1.3	1.9	0.04	0.055	0.15	0.42	0.004	0.012	1.12	1.3	0.033	0.038
Aug-11	0.8	1.7	0.017	0.038	0	0	0	0	1.07	1.46	0.023	0.035
Sep-11	0.5	0.9	0.014	0.027	0.1	0.24	0.003	0.007	0.71	1	0.021	0.028
Oct-11	0.7	1	0.02	0.027	0.02	0.18	0.001	0.005	0.82	1.01	0.023	0.029
Nov-11	0.7	1.3	0.02	0.035	0	0	0	0	1.18	1.36	0.034	0.038
Dec-11	0.9	1.4	0.027	0.04	0.06	0.17	0.002	0.005	1.28	1.44	0.038	0.043
Jan-12	0.9	1.5	0.027	0.045	0	0	0	0	1.32	1.41	0.04	0.043
Feb-12	2.3	8	0.089	0.36	0.02	0.15	0.001	0.007	1	1.46	0.043	0.052
Mar-12	1.4	2.1	0.058	0.095	0.04	0.2	0.002	0.009	1.09	1.54	0.047	0.061
Apr-12	4.6	9.1	0.189	0.368	0.02	0.14	0.001	0.006	1.71	2.17	0.071	0.096
May-12	4.1	9.2	0.16	0.345	0.05	0.24	0.002	0.009	1.28	1.86	0.05	0.074
Aug-12	0.2	0.6	0.011	0.026	0	0	0	0	0.34	0.53	0.015	0.024
Sep-12	0.2	0.6	0.009	0.026	0	0	0	0	0.34	0.43	0.016	0.02
Oct-12	1.8	8.7	0.049	0.231	0.16	1.22	0.005	0.035	1.46	2.02	0.041	0.055
Nov-12	0.4	1	0.012	0.03	0	0	0	0	1.29	1.55	0.038	0.042
Min	0.2	0.6	0.009	0.026	0	0	0	0	0.34	0.43	0.015	0.020
Max	4.6	9.2	0.189	0.368	0.16	1.22	0.005	0.035	1.71	2.17	0.071	0.100
Avg	1.39	3.27	0.049	0.117	0.04	0.20	0.001	0.006	1.07	1.37	0.036	0.050

			TSS				Oil & Grease				Total P			
	Flow (mgd)		lbs/day		mg/L		lbs/day		mg/L		lbs/day		mg/L	
Date	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
Jul-11	0.07	0.11	9	12.3	13.3	16.2	2.1	3.1	3.47	6.2	0.1	0.2	0.21	0.32
Aug-11	0.07	0.09	9.3	17	14.3	26.8	1.7	4.1	2.87	6.6	0.1	0.2	0.23	0.27
Sep-11	0.07	0.11	9.5	17.8	15.6	31.8	1.5	3.4	2.73	6.2	0.1	0.2	0.23	0.29
Oct-11	0.08	0.11	11.6	29.2	15.4	33	3.2	12.2	4.69	16.1	0.2	0.3	0.24	0.33
Nov-11	0.07	0.09	9	18.6	14.8	26.9	1.5	2.6	2.43	3.7	0.2	0.2	0.25	0.32
Dec-11	0.07	0.09	11.5	24.5	18.6	35	1.6	7.4	2.71	11.7	0.2	0.5	0.3	0.8
Jan-12	0.06	0.11	13.8	51	22.3	80.4	3.5	31	6.04	53.9	0.2	1.1	0.38	1.75
Feb-12	0.06	0.08	8.2	24.9	14	38.7	2.2	3.8	4.2	6.9	0.1	0.2	0.24	0.31
Mar-12	0.06	0.08	9.3	42.9	15	65.1	3.2	6.2	5.82	9.7	0.2	0.2	0.26	0.35
Apr-12	0.07	0.09	13.6	38.1	21.6	60.1	2.4	9.2	3.87	14.3	0.2	0.2	0.26	0.39
May-12	0.06	0.09	6.9	14.5	11.2	20.4	2.7	7.7	5.02	14.5	0.1	0.2	0.24	0.33
Aug-12	0.06	0.08	7.1	17.6	13.3	32	2.8	9.4	5.41	17.1	0.2	0.2	0.28	0.35
Sep-12	0.07	0.1	11.3	20.2	16.6	28.2	2.7	8.2	4.34	10.1	0.3	0.4	0.41	0.73
Oct-12	0.08	0.1	15.7	35.3	21.6	48.6	4.8	20	6.93	25.2	0.2	0.3	0.29	0.48
Nov-12	0.06	0.09	16.4	27.2	28.9	39.4	2.9	13.2	5.66	24.8	0.2	0.3	0.28	0.58
Min	0.06	0.08	6.9	12.3	11.2	16.2	1.5	2.6	2.4	3.7	0.1	0.2	0.21	0.27
Max	0.08	0.11	16.4	51.0	28.9	80.4	4.8	31.0	6.9	53.9	0.3	1.1	0.41	1.75
Avg	0.07	0.09	10.8	26.1	17.1	38.8	2.6	9.4	4.4	15.1	0.2	0.3	0.27	0.51
Limits	-	-	60.4	127.2	-	-	37.2	62.1	-	-	-	-	-	-

Bold, shaded cell indicates permit limit exceedence

					BOD				TSS				Total P					
	Flow (mgd)		pH (s.u.)		lbs/day		mg/L		lbs/day		mg/L		lbs/day		mg/L		Fecal Coliform (#/100ml)	
Date	Avg	Max	Min	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
Jul-11	0.06	0.1	5.7	8.3	1.54	1.96	3.33	4.13	1.29	1.82	2.77	3.9	0.3	0.4	0.66	0.81	0	0
Aug-11	0.06	0.1	6.6	7	2.81	6.3	4.74	7.47	1.49	1.92	2.82	3.5	0.4	0.6	0.74	0.9	0	0
Sep-11	0.07	0.11	6.5	6.9	3.43	4.7	5.83	7.81	4.19	20.03	5.71	24	0.5	0.7	0.71	0.83	0	0
Oct-11	0.07	0.07	5.6	7.7	4.43	5.45	7.71	9.6	1.32	1.76	2.3	3.1	0.5	0.7	0.89	1.24	0	0
Nov-11	0.07	0.08	6.3	7	2.71	5.34	4.73	8.66	2.07	9.57	3.46	15.5	0.5	0.9	0.84	1.56	0	0
Dec-11	0.06	0.07	6.1	6.8	1.65	2.58	3.5	5.63	0.61	1.6	1.22	2.9	0.4	0.6	0.83	1.11	0	0
Jan-12	0.1	0.15	6.1	6.8	3.17	6	3.94	6.18	0.99	2.04	1.1	1.7	0.7	1.1	0.84	1.39	0	0
Feb-12	0.14	0.15	6.5	7.2	5.63	8.67	4.84	6.88	9.72	48.82	7.86	39	1.1	1.4	0.94	1.22	0	0
Mar-12	0.13	0.16	0	0	6.93	11.96	6.29	9.62	5.65	22.01	4.9	17.7	0.9	1.2	0.82	0.97	0	0
Apr-12	0.14	0.15	6.6	7.3	7.77	13.84	6.81	11.6	4.26	5.61	3.73	4.7	0.9	1.2	0.77	0.99	0	0
May-12	0.14	0.16	6.2	7.8	8.96	12.84	7.49	9.85	5.72	8.31	4.77	6.3	1	1.8	0.82	1.34	0	0
Aug-12	0.09	0.11	6.4	7	4.87	7.79	6.42	9.83	2.05	4.09	2.63	4.3	0.8	1.2	0.99	1.29	0	0
Sep-12	0.09	0.11	6.2	7	5.05	6.67	6.45	7.78	1.68	2.6	2.25	3	0.8	1.3	0.98	1.53	0	0
Oct-12	0.08	0.11	6	6.9	4.12	10.65	5.96	11.93	1.79	2.58	2.47	3	0.7	0.9	0.97	1.12	17	100
Nov-12	0.08	0.11	6.8	7.2	2.46	3.73	3.55	4.86	1.46	2.64	2.17	4	0.6	0.8	0.92	1.09	0	0
Min	0.06	0.07	0	0	1.54	1.96	3.33	4.13	0.61	1.60	1.10	1.70	0.3	0.4	0.66	0.81	0.0	0.0
Max	0.14	0.16	6.8	8.3	8.96	13.84	7.71	11.93	9.72	48.82	7.86	39.00	1.1	1.8	0.99	1.56	17.0	100.0
Avg	0.09	0.12	5.84	6.7267	4.37	7.23	5.44	8.12	2.95	9.03	3.34	9.11	0.7	1.0	0.85	1.16	1.1	6.7
Limits	-	-	-	-	48	72	30	45	48	72	30	45	-	-	-	-	200	400