12-31-02
12.3.8 v.8

ASH GROVE CEMENT - WESTERN REGION
SEATTLE PLANT

12/31/02

	RECEIVED / PRODUCED DAY	RECEIVED / PRODUCED MONTH	RECEIVED / PRODUCED YEAR	USED / SHIPPED DAY	USED / SHIPPED MONTH	USED / SHIPPED YEAR	INVENTORY
RAW MATERIALS							
LIMESTONE		82,822	843,161		91,621	865,390	13,939
LIME FINES		1,606	4,312		1,606	4,313	0
BOTTOM ASH		11,702	105,419	446	11,778	105,268	294
CASTLE ROCK CLAY		1,764	20,931		2,600	23,423	867
ERI (RECYCLED)		0	1,084		0	1,084	0
SUPERIOR SILICA		8,022	73,517	306	8,083	73,911	229
JHARDIE CHIPS		0	3,976		0	4,126	0
COMINCO SLAG		2,246	18,651		2,274	18,872	587
HECKET SLAG		0	0		0	0	0
KLEEN BLAST SLAG		140	1,281		140	1,280	0
HYDRATED LIME		734	3,653		748	3,681	14
RAW MATERIAL SALES							
3/4" LIMESTONE SALES		18,695	149,943		16,528	137,014	10,174
5/8" AGG. (STONEWAY)		0	0		0	0	3,655
SILICA (STEILACOOM)		0	0		0	0	7,445
KILN FEED							
TYPE I/II		114,691	1,062,802		115,461	1,061,215	8,097
FUELS (TONS)							
COAL (Tons)		5,816	86,087		9,646	85,677	4,507
TDF (Tons)					683	5,499	0
FUELS (NET HEAT VALS)	Fuel Usage Rate			Fuel Usage (MMBTU)			
GAS (MMBTU Net)		6.7%	7.5%		16,200	160,915	
COAL (MMBTU Net)		86.1%	86.0%		208,551	1,852,320	
TDF (MMBTU Net)		7.2%	6.5%		17,476	140,783	
TOTAL (MMBTU Net)					242,227	2,154,017	
MMBTU/Ton					3.17	3.10	
CLINKER							
PRODUCTION		76,418	693,842		62,382	669,278	38,171
SALES / RECEIVALS		0	0		0	0	
CEMENT ADDITIVES							
GYPSUM		4,619	41,062		3,319	38,330	7,675
GRINDING AID (Lbs)		45,200	425,200		38,316	400,817	45,735
CEMENT							
TYPE I		53,261	615,947		17,225	314,444	69,942
TYPE II		0	0		6,936	114,629	0
TYPE I-II		0	0		10,037	161,028	0
TYPE III		3,710	27,546		2,279	28,119	3,527
TYPE CG		8,730	64,115		5,651	64,487	4,062
TYPE I-II (Durkee)		0	1,113		0	0	0
TYPE III (Durkee)		0	637		0	0	0
TYPE I-II (LaFarge)		0	10,676		0	0	0
TOTAL PRODUCED		65,701	707,608		42,128	682,706	
TOTAL RECEIVED		0	1,750		0	0	
GRAND TOTAL		65,701	709,358		42,128	682,706	77,532

CHEMICAL ANALYSIS

31-Dec	Raw Mix	Clinker
TYPE	I	I
SiO2	14.23	21.63
Al2O3	3.09	5.08
Fe2O3	1.96	3.20
CaO	42.59	65.04
MgO	1.44	2.24
SO3	0.29	0.54
LOI	35.04	0.47
Na2O	0.34	0.48
K2O	0.15	0.19
TOTAL	99.13	98.86
FREE CaO		1.00
TOTAL ALK.	0.67	0.60
C3S	62.81	60.06
C2S	15.50	16.77
C3A	7.50	8.04
C4AF	9.19	9.74

CEMENT 31-Dec	Mill #1	Mill #2
TYPE:	I	I
SiO2	20.41	20.31
Al2O3	4.89	4.88
Fe2O3	3.09	3.09
CaO	63.68	63.64
MgO	2.19	2.23
SO3	2.77	2.93
LOI	1.11	1.21
Na2O	0.43	0.43
K2O	0.18	0.18
TOTAL	98.75	98.90
INSOL	0.13	0.14
FREE CaO	0.94	1.00
TOTAL ALK.	0.54	0.55
C3S	58.85	59.07
C2S	14.19	13.72
C3A	7.74	7.72
C4AF	9.39	9.38
NC	25.0	26.0
VICAT - I	68	68
VICAT - F	165	158
BLAINE	399	463
45 uM	95.68	96.94
30 uM	91.92	94.53
FALSE SET	85	71
PACK SET	4	4
REFLECT.	80.7	84.1

DAYS SINCE LAST L.T.I. — **330**

EQUIPMENT DATA	RUN TIME DAY	RUN TIME MONTH	RUN TIME YEAR	PRODUCTION RATE DAY	PRODUCTION RATE MONTH	PRODUCTION RATE YEAR	REASON FOR DOWNTIME
RAW MILL (TPH)		625.1	5803.8		183.5	183.1	
KILN (TPD)		723.0	7063.3		2536.8	2357.6	
% RUN TIME		97.2%	80.6%				
#1 FINISH MILL (TPH)		647.2	6922.4		50.8	48.3	
% RUN TIME		87.0%	79.0%				
#2 FINISH MILL (TPH)		666.2	7398.9		49.3	50.5	
% RUN TIME		89.5%	84.5%				

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