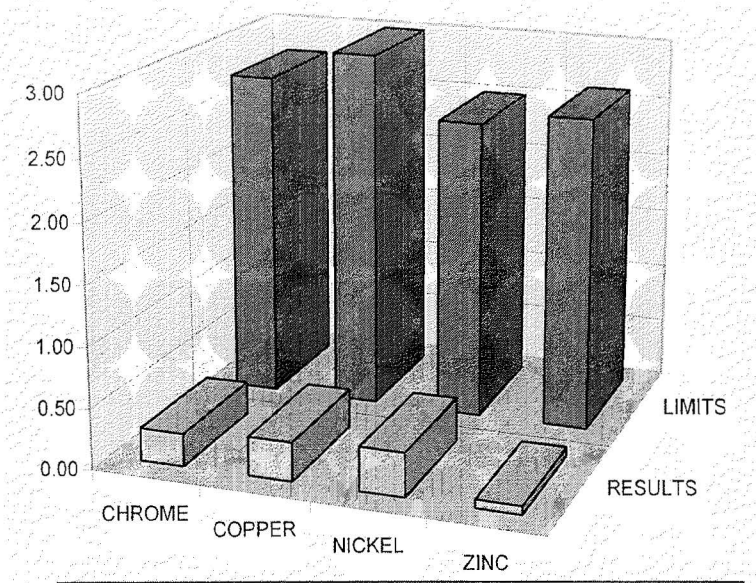
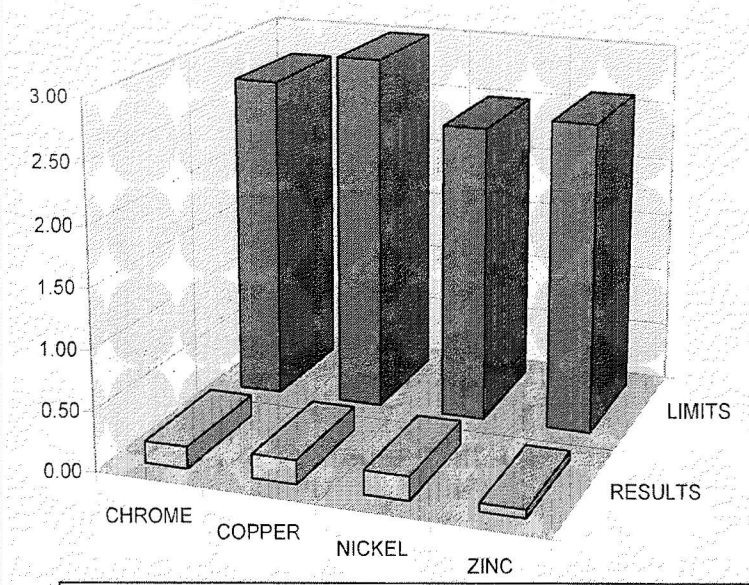
JULY
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
JULY 1, 2003
COMPOSITE M91154



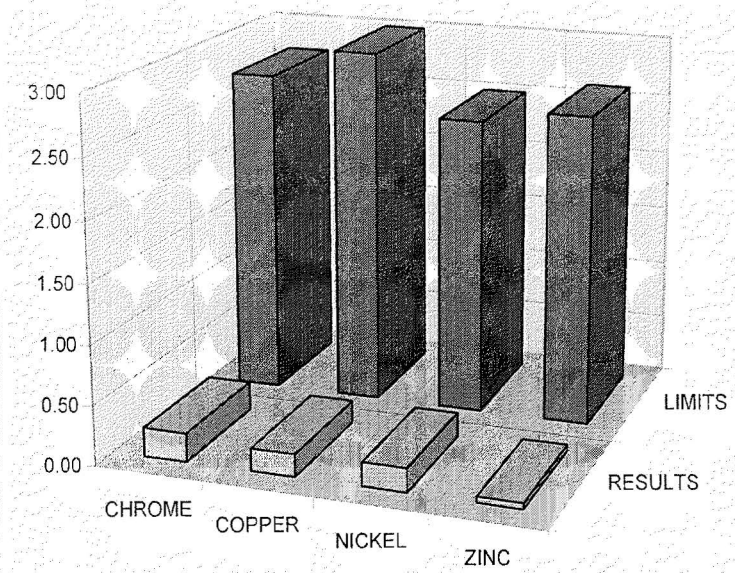
ALASKAN COPPER WORKS
3200 FACILITY
JULY 10, 2003
COMPOSITE M20232

VISUAL REPRESENTATION OF THE LAB RESULTS

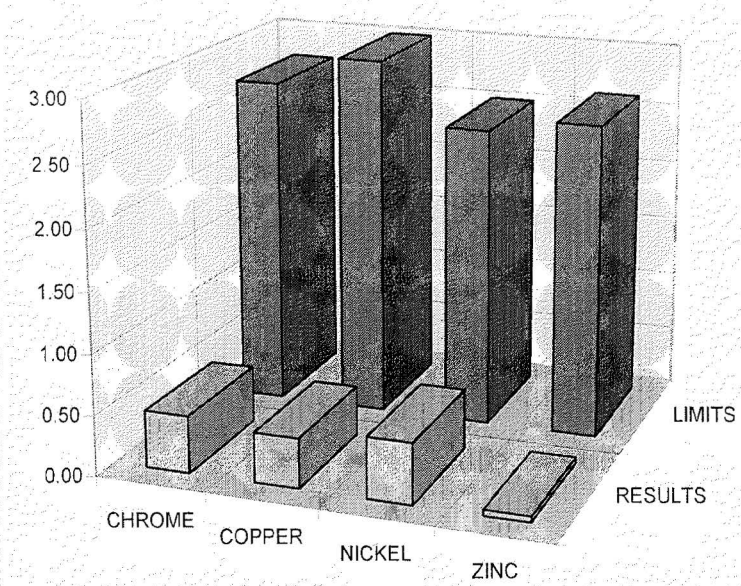
	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.27	0.32	0.36	0.07
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.18	0.20	0.20	0.07
LIMITS	2.75	3.00	2.50	2.61

JULY
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
JULY 17, 2003
COMPOSITE M91294

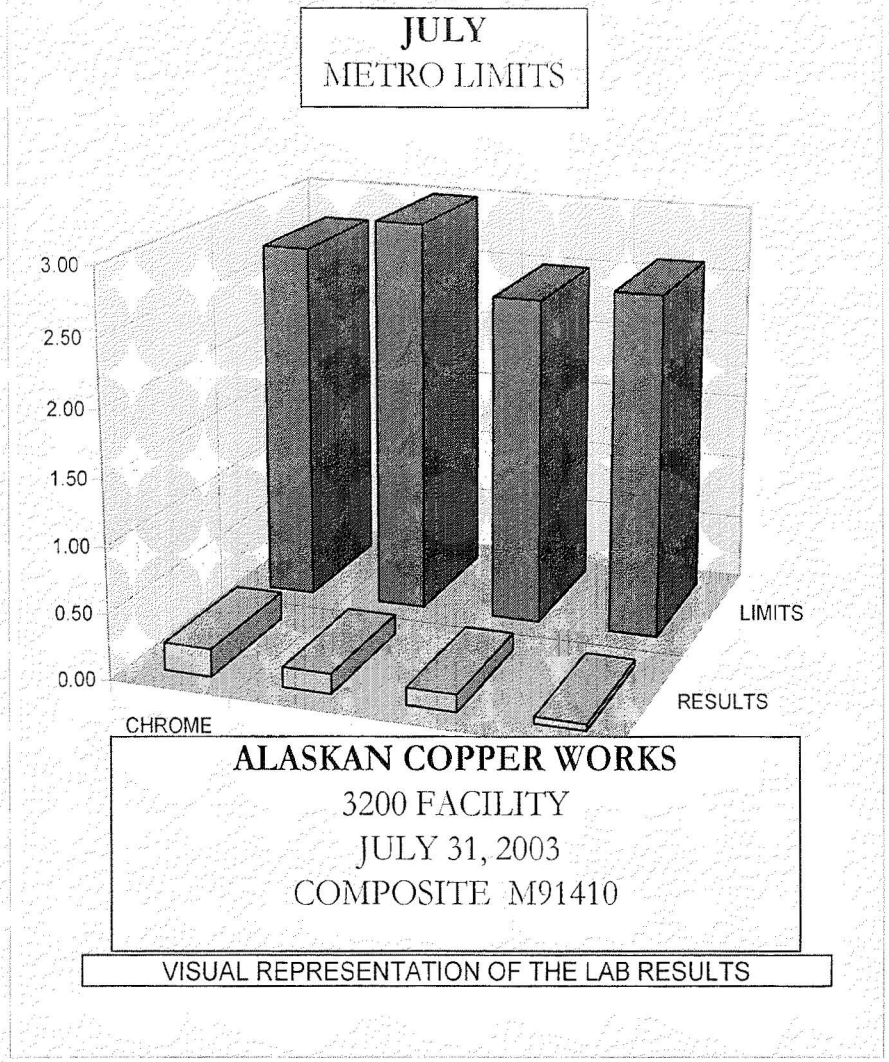


ALASKAN COPPER WORKS
3200 FACILITY
JULY 24, 2003
COMPPSITE M20285

VISUAL REPRESENTATION OF THE LAB RESULTS

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.24	0.19	0.20	0.05
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.47	0.41	0.50	0.05
LIMITS	2.75	3.00	2.50	2.61



	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.21	0.15	0.13	0.05
LIMITS	2.75	3.00	2.50	2.61

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	6/30	7 AM	13.7	11	9.83	9.31	—	—	1926	103	117	125	99				
		3 PM	13.2	10	10.11	9.54	—	—	1007	50	125	123	129				
		11PM	12.2	8	9.81	9.67	—	—	2300	114	123	125	114				
TUESDAY	7/1	7 AM	12.1	7	10.06	9.68	—	—	2415	116	119	114	121				
		3 PM	12.1	7	9.53	9.57	—	—	665	47	123	124	128				
		11PM	11.2	4	10.28	9.53	—	—	1629	99	116	128	114				
WEDNESDAY	7/2	7 AM	11.3	4	9.73	9.51	—	—	1629	107	119	114	123				
		3 PM	11.2	18	9.86	9.52	—	—	855	59	124	124	127				
		11PM	10.4	16	10.57	9.50	—	—	1657	111	124	129	114				
THURSDAY	7/3	7 AM	10.4	16	9.52	9.46	—	—	1657	117	118	116	122				
		3 PM	9.3	14	9.86	9.88	—	—	971	66	126	121	126				
		11PM	8.9	11	9.51	9.42	—	—	1786	145	127	118	114				
FRIDAY	7/4	7 AM															
		3 PM															
		11PM															
SATURDAY																	
SUNDAY																	

\WOUT\500-0007, 03/04/99

AKC-00087

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	7/2	7 AM	8.3	10	11.08	9.12	—	—	1787	151	91	79	72				
		3 PM	8.0	9	9.61	9.47	—	—	1326	62	102	118	118				
		11PM	7.3	5	10.33	9.43	—	—	2491	153	110	121	111				
TUESDAY	7/8	7 AM	6.7	4	12.22	9.42	—	—	2491	159	94	119	115				
		3 PM	6.2	20	10.17	9.44	—	—	817	45	107	123	128				
		11PM	5.2	18	9.63	9.41	—	—	2072	130	121	127	113				
WEDNESDAY	7/9	7 AM	5.2	18	10.06	9.38	—	—	2072	134	120	115	119				
		3 PM	4.1	16	10.70	9.27	—	—	706	64	122	122	128				
		11PM	3.9	13	10.26	9.32	—	—	1588	129	126	119	115				
THURSDAY	7/10	7 AM	3.9	13	9.88	9.37	—	—	1670	133	121	119	119				
		3 PM	3.0	10	10.27	9.27	—	—	773	68	125	123	129				
		11PM	2.0	8	10.01	9.38	—	—	1969	155	120	128	115				
FRIDAY	7/11	7 AM	1.7	8	9.51	9.39	—	—	1969	169	126	116	119				
		3 PM	1.0	7	9.87	9.39	—	—	1054	86	124	126	128				
		11PM	0.0	6	9.64	9.52	—	—	2182	187	124	123	118				
SATURDAY																	
SUNDAY																	

AKC-00087

.\WOUT\500-0007, 03/04/99

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	7/14	7 AM	0	4	10.44	9.27	—	—	2182	6	126	118	121				
		3 PM	29.0	17	9.66	9.46	—	—	1351	77	120	128	126				
		11PM	28.4	15	9.58	10.71	—	—	2395	157	122	127	118				
TUESDAY	7/15	7 AM	28.4	14	10.27	9.54	—	—	2589	155	122	117	126				
		3 PM	28.3	13	9.90	9.63	—	—	548	7	122	119	127				
		11PM	28.1	12	10.08	10.20	—	—	1325	42	126	119	116				
WEDNESDAY	7/16	7 AM	28.1	10	9.98	10.17	—	—	1325	44	121	119	124				
		3 PM	27.6	9	9.51	9.84	—	—	2165	86	124	118	130				
		11PM	26.8	7	10.49	9.61	—	—	3506	140	122	123	113				
THURSDAY	7/17	7 AM	26.9	7	9.51	9.55	—	—	2181 / 3506	97 / 141	116	115	119				3506 / 1325 / 2181
		3 PM	26.9	20	10.09	9.46	—	—	387	16	111	106	127				
		11PM	26.6	18	9.69	9.49	—	—	956	27	107	101	117				
FRIDAY	7/18	7 AM	26.7	18	9.58	9.49	—	—	968	28	98	92	108				
		3 PM	26.3	18	9.98	9.46	—	—	342	26	112	121	131				
		11PM	26.1	17	9.78	9.57	—	—	862	46	122	124	116				
SATURDAY																	
SUNDAY																	

AKC-00087

.\WOUT\500-0007, 03/04/99

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	7/21	7 AM	25.8	17	9.62	9.32	—	—	862	53	128	119	121				
		3 PM	25.4	15	10.48	9.41	—	—	811	21	127	126	129				
		11PM	24.9	14	9.94	9.57	—	—	1943	46	120	123	118				
TUESDAY	7/22	7 AM	25.0	14	10.00	9.58	—	—	2313	48	116	115	119				
		3 PM	24.6	13	10.27	9.54	—	—	389	28	123	119	131				
		11PM	23.9	12	9.52	9.69	—	—	1216	64	126	126	114				
WEDNESDAY	7/23	7 AM	24.0	13	10.29	9.65	—	—	1216	65	119	120	122				
		3 PM	23.9	12	9.55	9.55	—	—	649	30	127	120	131				
		11PM	23.2	12	10.05	9.61	—	—	1846	71	118	119	116				
THURSDAY	7/24	7 AM	23.2	12	11.94	9.62	—	—	2030	75	119	123	108				
		3 PM	22.9	10	9.94	9.53	—	—	603	101	124	120	131				
		11PM	22.4	8	10.19	9.89	—	—	1276	135	125	122	116				
FRIDAY	7/25	7 AM	22.4	8	10.19	9.94	—	—	1276	136	124	115	101				
		3 PM	22.4	7	9.81	9.77	—	—	553	17	126	120	130				
		11PM	22.2	6	9.89	9.69	—	—	1521	46	119	120	114				
SATURDAY																	
SUNDAY																	

AKC-00087

.\WOUT\500-0007, 03/04/99

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	7/28	7 AM	22.2	5	10.93	9.43	—	—	1819	51	128	119	117				
		3 PM	21.1	19	9.62	9.41	—	—	644	12	124	125	131				
		11PM	21.1	17	9.52	9.42	—	—	1656	42	120	123	114				
TUESDAY	7/29	7 AM	21.1	17	10.56	9.55	—	—	1656	44	116	118	118				Forgot to reset flow & cycles
		3 PM	21.2	16	9.54	9.85	—	—	2230	64	127	119	130				
		11PM	20.2	14	10.46	9.81	—	—	3350	99	119	121	113				
WEDNESDAY	7/30	7 AM	20.2	14	10.05	9.76	—	—	1694 / 3350	56 / 100	117	120	106				3350 − 1656 = 1694
		3 PM	20.2	14	9.64	9.64	—	—	250	9	128	118	130				
		11PM	19.6	13.0	9.89	9.54	—	—	1061	32	121	120	114				
THURSDAY	7/31	7 AM	19.6	13	9.65	9.53	—	—	1061	34	116	116	106				
		3 PM	19.4	11	9.72	9.58	—	—	419	14	128	119	130				
		11PM	19.2	10	10.50	9.67	—	—	1194	35	119	119	111				
FRIDAY	8/1	7 AM	19.1	10	11.57	9.66	—	—	1194	40	117	120	116				
		3 PM	18.9	10	9.52	9.59	—	—	405	9	127	121	131				
		11PM	18.8	8	10.16	9.71	—	—	1053	29	118	126	111				
SATURDAY																	
SUNDAY																	

AKC-00087

.\WOUT\500-0007, 03/04/99

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/03
Date Received: 07/31/03
Project: Metro Self Monitor, PO# M91410, F&BI 307291
Date Extracted: 08/06/03
Date Analyzed: 08/06/03

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Chromium	Copper	Nickel	Zinc
M91410 307291-01	0.21	0.15	0.13	<0.05
Method Blank	<0.05	<0.05	<0.1	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/03
Date Received: 07/24/03
Project: Metro Self Monitor, PO# M20285, F&BI 307215
Date Extracted: 08/06/03
Date Analyzed: 08/06/03

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Chromium	Copper	Nickel	Zinc
M20285 307215-01	0.47	0.41	0.50	<0.05
Method Blank	<0.05	<0.05	<0.1	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/03
Date Received: 07/17/03
Project: Metro Self Monitor, PO# M91294, F&BI 307149
Date Extracted: 08/06/03
Date Analyzed: 08/06/03

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Chromium	Copper	Nickel	Zinc
M91294 307149-01	0.24	0.19	0.20	<0.05
Method Blank	<0.05	<0.05	<0.1	<0.05

AKC-0008720

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/03
Date Received: 07/10/03
Project: Metro Self Monitor, PO# M20232, F&BI 307086
Date Extracted: 08/06/03
Date Analyzed: 08/06/03

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Chromium	Copper	Nickel	Zinc
M20232 307086-01	0.18	0.20	0.20	0.07
Method Blank	<0.05	<0.05	<0.1	<0.05