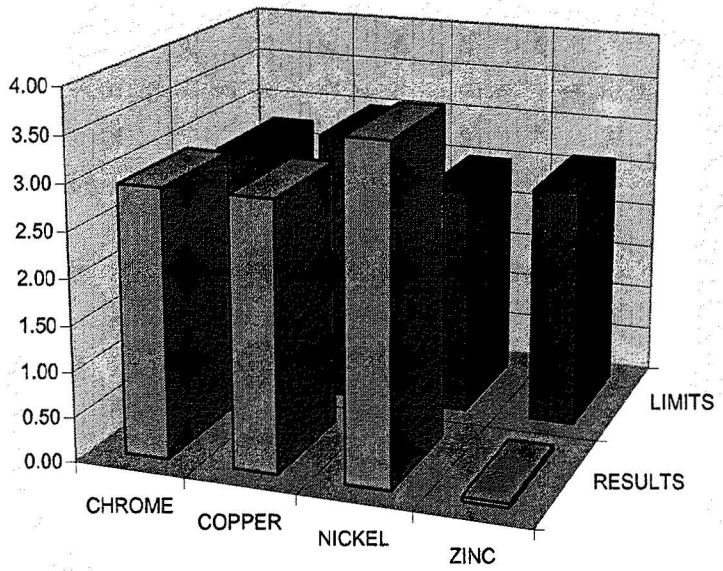
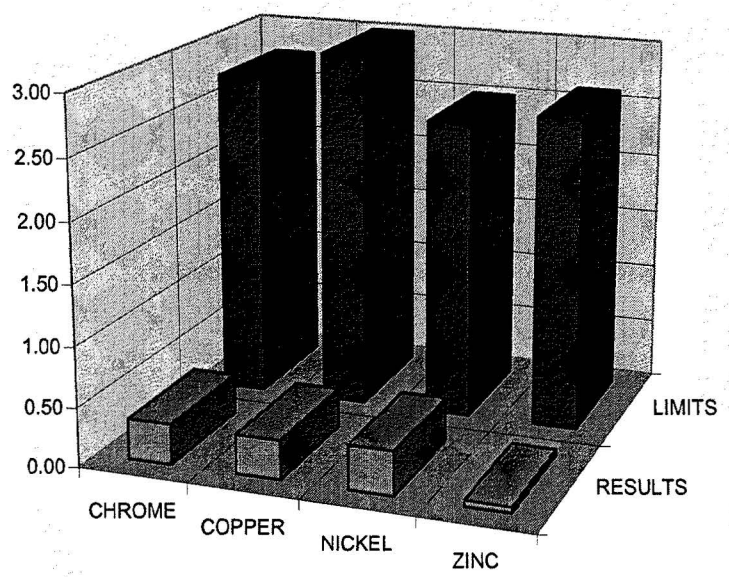
NOVEMBER
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
NOVEMBER 1, 2006
COMPOSITE M108989



ALASKAN COPPER WORKS
3200 FACILITY
NOVEMBER 9, 2006
COMPOSITE M10948

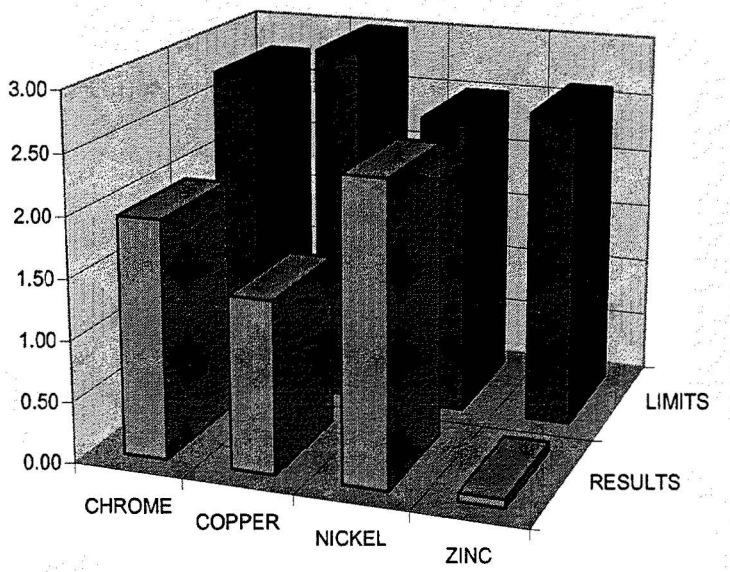
VISUAL REPRESENTATION OF THE LAB RESULTS

NOTE: ALL LABORATORY RESULTS HAVE BEEN CHANGED FROM **ppb** TO **ppm** FOR REPORTING PURPOSES

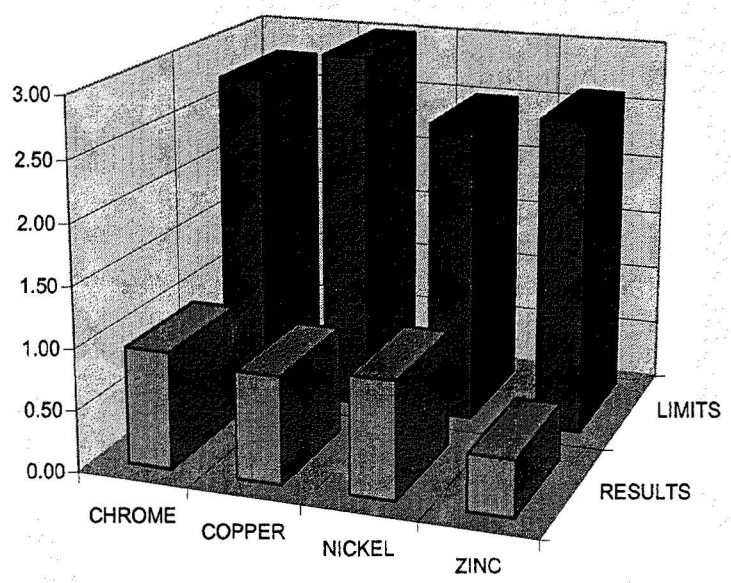
	CHROME	COPPER	NICKEL	ZINC
RESULTS	2.94	2.94	3.64	0.05
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.34	0.33	0.37	0.05
LIMITS	2.75	3.00	2.50	2.61

NOVEMBER
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
NOVEMBER 16, 2006
COMPOSITE M109080



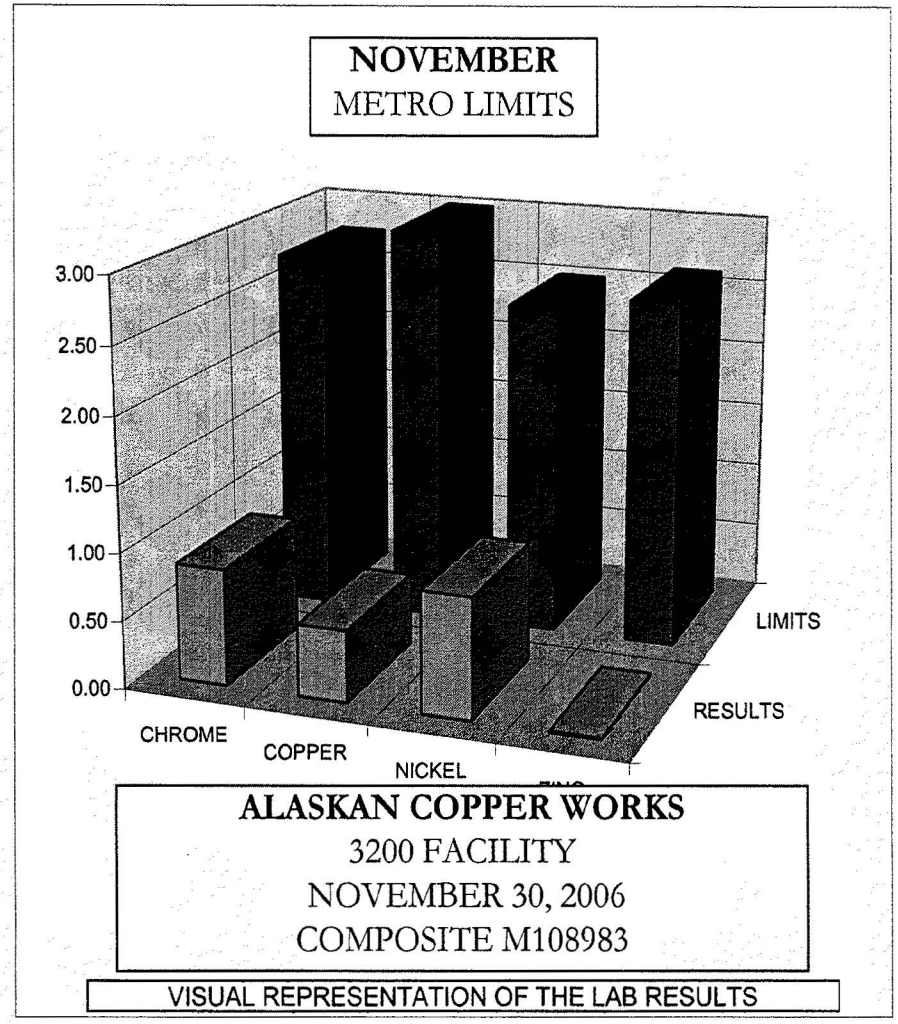
ALASKAN COPPER WORKS
3200 FACILITY
NOVEMBER 22, 2006
COMPOSITE M109141

VISUAL REPRESENTATION OF THE LAB RESULTS

NOTE: ALL LABORATORY RESULTS HAVE BEEN CHANGED FROM **ppb** TO **ppm** FOR REPORTING PURPOSES

	CHROME	COPPER	NICKEL	ZINC
RESULTS	1.96	1.41	2.46	0.07
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.95	0.87	0.95	0.46
LIMITS	2.75	3.00	2.50	2.61



	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.86	0.53	0.89	0.01
LIMITS	2.75	3.00	2.50	2.61

Analysis For Total Metals By EPA Method 200.8

Client ID:	M109207A Lg Tank	Client:	Alaskan Copper Works
Date Received:	11/30/06	Project:	% of acid, PO# M109207
Date Extracted:	12/05/06	Lab ID:	611339-01 10000x
Date Analyzed:	12/05/06	Data File:	611339-01 10000x.014
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	94	60	125
Indium	90	60	125
Holmium	90	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	19,800,000
Nickel	17,900,000
Copper	2,810,000
Zinc	85,200
Arsenic	18,400
Silver	<10,000
Lead	10,000
Iron (screen)	73,580,000

DRAFT

RUSH

Analysis For Total Metals By EPA Method 200.8

Client ID:	M109207B Sm Tank	Client:	Alaskan Copper Works
Date Received:	11/30/06	Project:	% of acid, PO# M109207
Date Extracted:	12/05/06	Lab ID:	611339-02 10000x
Date Analyzed:	12/05/06	Data File:	611339-02 10000x.015
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125
Indium	90	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	13,100,000
Nickel	27,900,000
Copper	27,400,000
Zinc	91,400
Arsenic	14,800
Silver	<10,000
Lead	25,000
Iron (screen)	54,500,000

DRAFT

RUSH

Analysis For Total Metals By EPA Method 200.8

Client ID:	M109206B Sm tank	Client:	Alaskan Copper Works
Date Received:	11/30/06	Project:	Heavy Mtl Rinse Tanks, PO# M109206
Date Extracted:	12/05/06	Lab ID:	611340-02 10000x
Date Analyzed:	12/05/06	Data File:	611340-02 10000x.017
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	91	60	125
Holmium	90	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	6,810,000
Nickel	15,500,000
Copper	18,500,000
Zinc	43,000
Arsenic	<10,000
Silver	<10,000
Cadmium	<10,000
Lead	14,400
Iron (screen)	33,400,000

DRAFT

RUSH

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Alaskan Copper Works
Date Received:	Not Applicable	Project:	Heavy Mtl Rinse Tanks, PO# M109206
Date Extracted:	12/05/06	Lab ID:	I6-434 mb
Date Analyzed:	12/05/06	Data File:	I6-434 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125
Indium	89	60	125
Holmium	99	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Nickel	<1
Copper	<1
Zinc	<1
Arsenic	<1
Silver	<1
Cadmium	<1
Lead	<1
Iron (screen)	<100

DRAFT

RUSH

Analysis For Total Metals By EPA Method 200.8

Client ID:	M109206A Lg tank	Client:	Alaskan Copper Works
Date Received:	11/30/06	Project:	Heavy Mtl Rinse Tanks. PO# M109206
Date Extracted:	12/05/06	Lab ID:	611340-01 10000x
Date Analyzed:	12/05/06	Data File:	611340-01 10000x.016
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125
Indium	90	60	125
Holmium	89	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	6,760.000
Nickel	5,920.000
Copper	978.000
Zinc	10.200
Arsenic	<10.000
Silver	<10.000
Cadmium	<10.000
Lead	<10.000
Iron (screen)	29,950.000

DRAFT

RUSH

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Alaskan Copper Works
Date Received:	Not Applicable	Project:	Metro Self Monitor. PO# M109205
Date Extracted:	12/05/06	Lab ID:	I6-434 mb
Date Analyzed:	12/05/06	Data File:	I6-434 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Nickel	<1
Copper	<1
Zinc	<1

DRAFT

RUSH

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Alaskan Copper Works
Date Received:	Not Applicable	Project:	% of acid, PO# M109207
Date Extracted:	12/05/06	Lab ID:	I6-434 mb
Date Analyzed:	12/05/06	Data File:	I6-434 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125
Indium	89	60	125
Holmium	90	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Nickel	<1
Copper	<1
Zinc	<1
Arsenic	<1
Silver	<1
Lead	<1
Iron (screen)	<100

DRAFT

RUSH

Date of Report: 12/05/06
Date Received: 11/30/06
Project: % of acid, PO# M109207, F&BI 611339
Date Analyzed: 12/04/06

RESULTS FROM THE ANALYSIS OF PRODUCT SAMPLES FOR SPECIFIC GRAVITY
@ 15.56 °C

Sample ID Laboratory ID	Specific Gravity
M109207A Lg Tank 611339-01	1.25
M109207B Sm Tank 611339-02	1.24

DRAFT

RUSH

Date of Report: 12/05/06
Date Received: 11/30/06
Project: % of acid, PO# M109207, F&BI 611339
Date Analyzed: 12/04/06

RESULTS FR OM THE ANALYSIS OF AQUEOUS SAMPLES FOR PERCENT ACID

Sample ID Laboratory ID	Percent Acid
M109207A Lg Tank 611339-01	11
M109207B Sm Tank 611339-02	10

DRAFT

RUSH

SAMPLE RESULTS-CONVENTIONALS
KH12-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Liquid
Data Release Authorized:
Reported: 12/05/06

Project: PO# H-626
Event: 611339
Date Sampled: 11/30/06
Date Received: 11/30/06

Client ID: M109207A LG TANK
ARI ID: 06-24035 KH12A

Analyte	Date Batch	Method	Units	RL	Sample
Fluoride	12/01/06 120106#1	EPA 300.0	mg/L	2.000	99.100

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
KH12-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Liquid
Data Release Authorized:
Reported: 12/05/06

Project: PO# H-626
Event: 611339
Date Sampled: 11/30/06
Date Received: 11/30/06

Client ID: M109207B SM TANK
ARI ID: 06-24036 KH12B

Analyte	Date Batch	Method	Units	RL	Sample
Fluoride	12/04/06 120406#1	EPA 300.0	mg/L	1.000	[illegible]

RL Analytical reporting limit
U Undetected at reported detection limit

DATE	pH	Cr	Cu	Ni	Zn
limits	9.0 - 12.0	2.75	3.00	2.50	2.61
11/22/2006	10.2 -10.4	0.95	0.87	0.95	0.04
11/16/2006	9.9 - 11.1	1.96	1.41	2.46	0.07
11/9/2006	9.5 - 9.8	0.34	0.33	0.37	0.05
11/1/2006	**9.9 - 11.3**	**2.94**	**2.94**	**3.64**	**0.05**
10/31/2006	**10.0 - 11.3**	**2.53**	**2.27**	**2.94**	**0.08**
10/19/2006	9.4 - 9.9	0.75	0.80	1.08	0.03
10/12/2006	9.4 - 9.5	0.92	1.24	1.50	0.05
9/28/2006	9.7 - 10.5	1.04	0.79	0.87	0.04
9/22/2006	9.6 - 9.8	0.77	1.05	1.09	0.09
9/15/2006	9.7 - 10.0	0.84	0.94	0.95	0.01
9/7/2006	9.5 - 9.6	1.50	1.38	1.76	0.04
8/31/2006	9.3 - 9.3	1.41	1.75	1.83	0.05
8/25/2006	9.3 - 9.4	0.63	1.35	1.92	0.36
8/17/2006	**9.7 - 10.0**	**1.82**	**2.46**	**3.36**	**0.24**
8/10/2006	9.6 - 9.9	0.96	1.73	1.66	0.13
7/29/2006	9.9 - 9.9	0.33	0.23	0.27	0.04
7/13/2006	9.6 - 9.8	1.27	1.81	2.07	0.08
6/29/2006	9.3 - 9.4	0.45	0.32	0.36	0.01
6/22/2006	10.1 - 10.6	1.81	1.17	1.94	0.05
6/15/2006	9.7 - 9.7	1.10	1.05	1.39	0.05
6/9/2006	9.6 - 9.9	9.4	0.82	1.08	0.10
6/8/2006	10.1 - 10.5	1.24	1.05	1.55	0.02
5/26/2006	9.8 - 9.9	0.69	0.56	0.59	0.01
5/18/2006	9.9 - 10.2	0.49	0.64	0.65	0.04
5/4/2006	9.5 - 9.7	1.05	1.35	1.56	0.02
4/27/2006	9.3 - 9.7	0.82	1.06	1.18	0.03
4/20/2006	10.1 - 10.3	1.17	1.18	1.14	0.03
4/13/2006	9.4 - 9.8	0.78	0.67	0.85	0.01
3/30/2006	9.7 - 9.7	0.13	0.06	0.02	0.01
3/23/2006	9.6 - 9.6	0.26	0.33	0.27	0.01
3/9/2006	9.6 - 9.6	0.09	0.12	0.06	0.01
3/2/2006	9.6 - 9.7	0.17	0.22	0.16	0.01
2/23/2006	9.4 - 9.7	0.62	0.76	0.87	0.01
2/16/2006	9.8 - 10.1	0.61	0.75	0.72	0.01
2/10/2006	9.8 - 9.9	0.38	0.39	0.36	0.01
2/2/2006	9.6 - 9.7	0.34	0.22	0.32	0.01
1/26/2006	9.6 - 9.7	1.29	1.12	1.38	0.04
1/19/2006	9.9 - 10.1	0.77	0.62	0.87	0.02
1/12/2006	9.9 - 11.2	0.14	0.13	0.15	0.16
1/5/2006	9.1 - 10.2	0.79	1.66	1.53	0.03

AREA FROM → TANK

10/06

SMALL PARTS

DATE	SHIFT	INIT.	JOB #	SIZE	TYPE OF FITTING	THICK	ALLOY	QUANTITY	QTY REJECT	LETTER/DISPOSITION	SENT TO
	2ND	OZ	64489	12"	Pipe 20'	12/60	T4L	6			Shipping
			64570	20"	Pipe 20'	218	T6L	12			"
			31144	6 x 4	Conc Reducer	10/60	317	2			"
			64543		Elbow		T4L	1			"
			45106		Square		T6L	1			"
			64566		Concent Red		T4L	6			"
			31115		Reducer		T4L	1			"
			64559		Elbow		T6L	14			"
			31151		Basquets			32			
			3105	10"	Pipe	3/16	T4L	1			Shipping

LEGEND : (A) MATERIAL HANDLING (B) WELDS (C) COINING (D) DIMENSIONING (E) FITTING (F) FORMING (G) OTHER

#423054 R10/96

AKC-000718

ALASKAN

AREA FROM → TANK

10/31/06

SMALL PARTS

DATE	SHIFT	INIT.	JOB #	SIZE	TYPE OF FITTING	THICK	ALLOY	QUANTITY	QTY REJECT	LETTER/DISPOSITION	SENT TO
	2ND	FZ	31069	20"	PIPE 20'		TIL	2			SHIPP.
			— " —		ELBOW 90°		70/30	— " —			
			31075	9"	TUBING	11/GA	TIL	47			INSP.
			64482	8"	ELBOW 45°	145	90/10	2			
			31151		BASKETS			62			
			30916	30x20	CONC. PLATE	.250	70/30	5			

LEGEND : (A) MATERIAL HANDLING (B) WELDS (C) COINING (D) DIMENSIONING (E) FITTING (F) FORMING (G) OTHER

#422054 R10/06

AKC-0007188

ALASKAN

AREA FROM → TANK

11/01/06

SMALL PARTS

DATE	SHIFT	INIT.	JOB #	SIZE	TYPE OF FITTING	THICK	ALLOY	QUANTITY	QTY REJECT	LETTER/DISPOSITION	SENT TO
	2ND	FC	31029	8"	Tee 10.	12/60		45			
			91618-4	36x24	Ecc Reduc	9/16	T4L	1			
			31039	36"	Elbow		T6L	1			INSP
			31069	20"	Tee 20"			1			
			64483	10"	Elbow 90°	234	70/30	8			
			64549	4"	Stub End		T4L	200			
			64575	8x6"	Conc. Reduc	14/60	T4L	30			
			41625	4"	Blind			6			
			91602	6" - 8"	Blind		T4L	7			
			628	8"	Stub End		T6L	39			
			64559		Elbow 90°		T6L	14			

LEGEND : (A) MATERIAL HANDLING (B) WELDS (C) COINING (D) DIMENSIONING (E) FITTING (F) FORMING (G) OTHER

#423054 R10/96

AKC-0007189

ALASKAN

AREA FROM → TANK.

11/02/06

SMALL PARTS

DATE	SHIFT	INIT.	JOB #	SIZE	TYPE OF FITTING	THICK	ALLOY	QUANTITY	QTY REJECT	LETTER/DISPOSITION	SENT TO
			64576		PIPE 20'		T6L	6			SWIS
			64511	24"	PIPE 20.		T4L	1			\
			91608	6"	PIPE SPOOL			2			\
			31006	24"	PIPE	365	ALGX	3			INSP
			31006	48"	PIPE	375	ALGX	1			
			31006	48"	HEAD	3/8	ALGX	1			
			91613		PIPE	10/GA	2545 MD.	4			
			64543	24"	ELBOW 45°	250	T4L	11			
			64569	14x10"	CONC. REDUC	.188	T4L	6			
			64558	14"	ELBOW	10/GA	T6L	4			
			31196	VESSEL	TANK			50			
			31187	VESSEL	TANK			12			
			64640	3"	STUB END	.095	90/10	37			
			64553	12" OD	ELBOW 90°	10/GA	T6L	9			

LEGEND : (A) MATERIAL HANDLING (B) WELDS (C) COINING (D) DIMENSIONING (E) FITTING (F) FORMING (G) OTHER

#423054 R10/96

AKC-0007190

ALASKAN

AREA FROM → TANK

11/03/06

SMALL PARTS

DATE	SHIFT	INIT.	JOB #	SIZE	TYPE OF FITTING	THICK	ALLOY	QUANTITY	QTY REJECT	LETTER/DISPOSITION	SENT TO
			31006	10"	Pipe			3		2	Shipp.
			64450	18"	Pipe 20'		T4L	1			
			64511	24"	Pipe 20'	3/16	T4L	1			
			64516	12"	Pipe 20'	14/64	T4L	2			
			64576	5"	Pipe 20'		T6L	6			
			64623	6"	Pipe 20'	10/64	T4L	25		32	
			91549	24"	Ring		T4L	10			Insp.
			91543	18"	Ring.		T4L	4			
			64558		Elbow 90°	106A	T6L	4			
			64642		STUB END		90-10	37			
			64352		Tee		90-10	10			
			628		Lateral		70-30	1			
			64671		Stub end		90-10	19			
			628		Tee		90-10	2			
			628		Elbow		90-10	2			

LEGEND : (A) MATERIAL HANDLING (B) WELDS (C) COINING (D) DIMENSIONING (E) FITTING (F) FORMING (G) OTHER

#423054 R10/96 628 Tee. 70-30 2

AKC-0007191

ALASKAN

AREA FROM → TANK

11/06/06

SMALL PARTS

DATE	SHIFT	INIT.	JOB #	SIZE	TYPE OF FITTING	THICK	ALLOY	QUANTITY	QTY REJECT	LETTER/DISPOSITION	SENT TO
	2ND	BL	64623	6"	PIPE 20'	11/64	T4L	9			Spring
			31063	30" OD	PIPE 10'	5/16	T6L	4			↓
			31056	42" OD	PIPE	3/8	T6L	2			↓
			41625	12" OD	PIPE OUTLET.			5			INSP.
			31105	8 x 3	CONC RED.	148	T4L	3			
			31116	8"	ELBOW 90°	10/60	321	2			
			31117	8"	ELBOW 90°	10/60	321	4			
			31148	20x10	CONC. REDUC.	10/60	T6L	1			
			64597	8x8	CONC RED.	148	T4L	14			
			64670	2½	STUBEND	083	90/10	31			
			64686	24x18	ECC. REDUC	250	T4L	4			
			64687	18x8	ECC. REDUC.	188	T4L	1			
			628	4	STUB END		90/10	13			
			628	2½	STUB END			38			
			628	3	STUB END			18			↓

LEGEND : (A) MATERIAL HANDLING (B) WELDS (C) COINING (D) DIMENSIONING (E) FITTING (F) FORMING (G) OTHER

#423054 R10/96

AKC-0007192