

Stream #	13	14	15	1025
SOUS (Nom.)	0.0	205.0	205.0	0.0
SOUS (Des.)	0.0	326.0	253.0	0.0
TAKE (Nom.)	3.0	11.3	11.3	2.0
TAKE (Des.)	5.0	11.3	7.6	6.0
% SLIDE	0.5	97.0	97.0	0.0
Slurry SG	1.00	3.09	3.09	1.00
Slurry (Nom.)	3.4	68.4	68.4	3.4
Slurry (Des.)	6.0	120.2	81.6	6.0
Slurry (Nom.)	14.9	301.3	301.3	15.0
Slurry (Des.)	28.2	529.2	360.1	28.3

No.	MADE BY	DATE	APPR. BY	DESCRIPTION
E	06	17/03/12		TITLE BLOCK/NO. No. LCD-001 A - REVISION AS SHOWN
D	06	04/04/12		STREAM DATA UPDATED
C	06	29/07/11		ADDED REVISION EQUIPMENT NUMBERS
B	06	28/07/11		STREAM DATA REVISION, REVISION FOR CLEAN REVIEW

No.	MADE BY	DATE	APPR. BY	DESCRIPTION
J	06	22/JAN/13		REVISION IN PROGRESS
H	06	02/OCT/12		ADDED CONVEYOR/TRANSFER HOUSE - IF (Base Engineering)
G	06	08/JUN/12		ADDED CONVEYOR/TRANSFER HOUSE - ISSUED FOR APPROVAL
F	06	19/MAY/12		TITLE BLOCK/NO. No. LCD-001 002 - REVISION AS SHOWN (FP)

DWG. No.	DESCRIPTION

DWG. No.	DESCRIPTION

DRAWN BY:	DG	DATE:	14/OCT/2011
DESIGNED BY:	DG		14/OCT/2011
CHECKED BY:			
APPROVED BY:			

REVISION IN PROGRESS
DATE: 22/JAN/2013

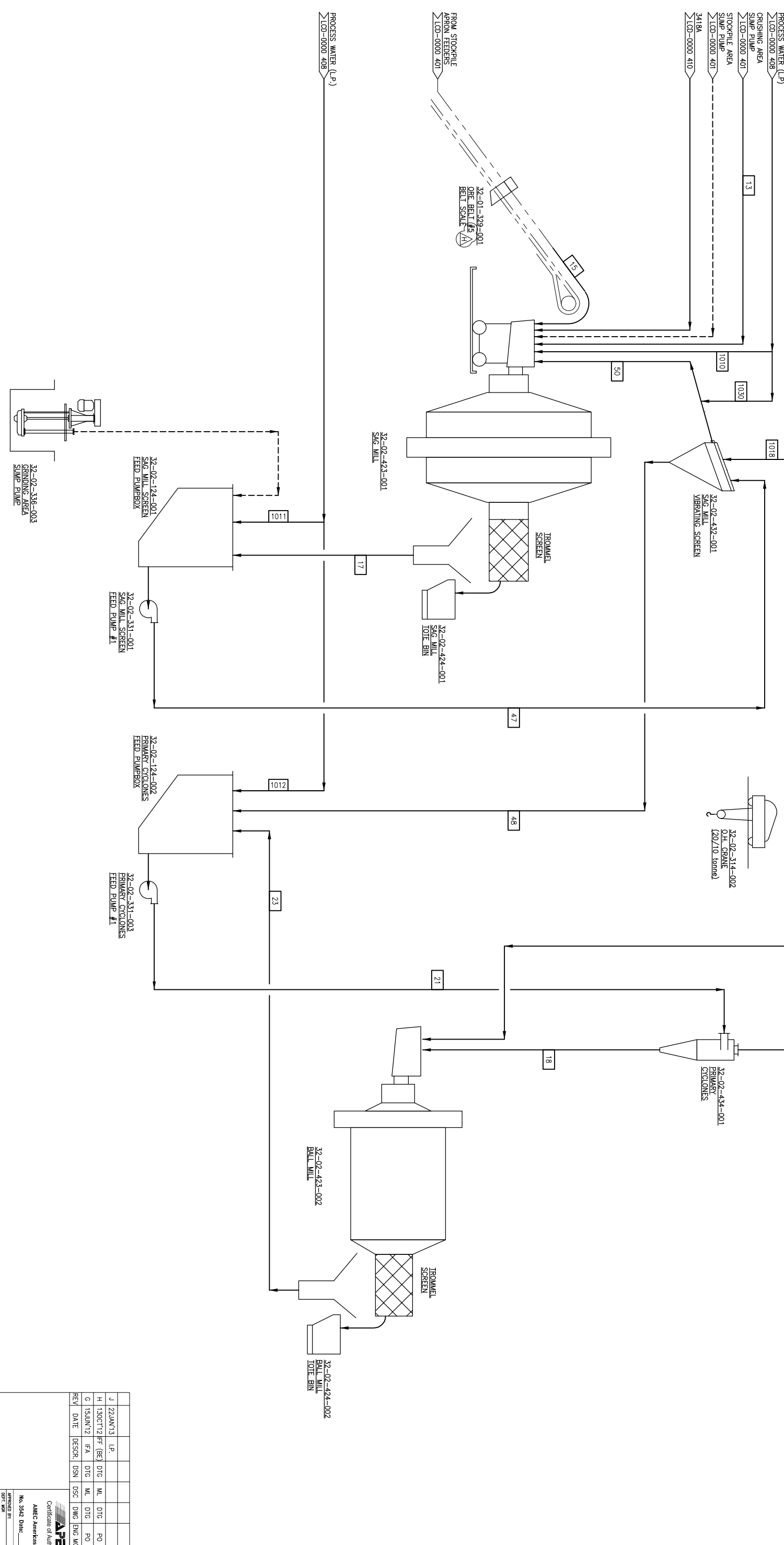
R.T.A. #

AMEC Saskatoon, SK		amc	
PROJECT NO.	170100	CLIENT APPROVED	DATE
NO.	2000		
DATE	11/0		
TYPE	PTD		
NO. 3542	Date:		
Certificate of Authorization AMEC America Limited			
APPROVED BY:	DATE:		
DATE:			
DATE:			
DATE:			

LAIOR CONCENTRATOR		SCALE: NTS	
000 - NEW CONCENTRATOR		DWG. NO.	
AREA 01 - CRUSHING		LCD-0000 401 J	
PROCESS FLOWSHEET		REV:	
		CAD FILE: LCD0000 401.DWG	



TO BULK C_u/P_b FLOTATION TANK
 LCD-0000 403



Stream #	13	15	17	18	21	23	24	47	48	50	1010	1011	1012	1018	1030
SOLES (Nom) mm	0.0	205.0	247.2	337.8	623.8	418.8	202.8	247.2	225.0	42.2	0.0	0.0	0.0	0.0	0.0
SOLES (Des) mm	0.0	205.0	247.2	337.8	623.8	418.8	202.8	247.2	225.0	42.2	0.0	0.0	0.0	0.0	0.0
TAZER (Nom) mm	3.0	26.3	45.5	41.9	150.3	157.7	43.0	42.0	42.0	50.3	0.0	0.0	0.0	0.0	0.0
TAZER (Des) mm	3.0	26.3	45.5	41.9	150.3	157.7	43.0	42.0	42.0	50.3	0.0	0.0	0.0	0.0	0.0
% Solids	0.5	97.0	98.5	168.3	542.9	187.8	346.9	161.8	134.3	16.8	70.1	60.6	157.7	38.1	14.2
Slurry (Nom) m ³ /h	1.00	3.09	2.09	2.02	1.68	2.04	1.40	1.82	1.83	2.09	1.00	0.0	1.00	1.00	1.00
Slurry (Des) m ³ /h	3.4	69.4	157.4	246.5	641.2	281.7	352.3	210.5	225.0	26.9	58.7	50.8	132.2	28.5	11.9
Slurry (Des) J US/GPM	6.0	81.8	188.2	283.4	766.3	336.7	427.1	251.6	268.9	32.1	70.2	60.7	158.0	38.2	14.2
Slurry (Des) J US/GPM	14.9	301.3	683.2	1081.0	2823.1	1240.3	1551.3	927.0	990.5	118.4	258.5	223.7	582.1	129.7	52.3
Slurry (Des) J US/GPM	28.2	390.1	828.4	1291.9	3373.9	1482.4	1854.0	1107.8	1183.8	141.5	309.0	267.3	695.6	155.0	62.5

No.	DATE	APPR.	DESCRIPTION	No.	DATE	APPR.	DESCRIPTION	REV.	DATE	APPR.	DESCRIPTION
E	07/28/12	BT	TITLE BLOCK/DWG. No. LCD-0002 A - REVISION AS SHOWN	J	22/JAN/13	BT	REVISION IN PROGRESS	1	14/OCT/2011	BT	DRAWN BY: DG
D	06/04/M/12	BT	STREAM DATA UPDATED	H	03/OCT/12	BT	DELETED PUMPER/PUMPS - ISSUED FOR FT (Base Engineering)	2	14/OCT/2011	BT	DESIGNED BY: DG
C	29/M/11	BT	ADDED REVERSED EQUIPMENT NUMBERS	G	08/JUN/12	BT	ADDED PUMPER/PUMP - ISSUED FOR APPROVAL	3			CHECKED BY:
B	28/OCT/11	BT	STREAM DATA REVERSED, REVERSED FOR CLEAN REVIEW	F	19/M/12	BT	TITLEBLOCK/DWG. No. LCD-0011 003 - REVISION AS SHOWN (FR)	4			APPROVED BY:

REVISION IN PROGRESS
 DATE: 22/JAN/2013

HUBBAY

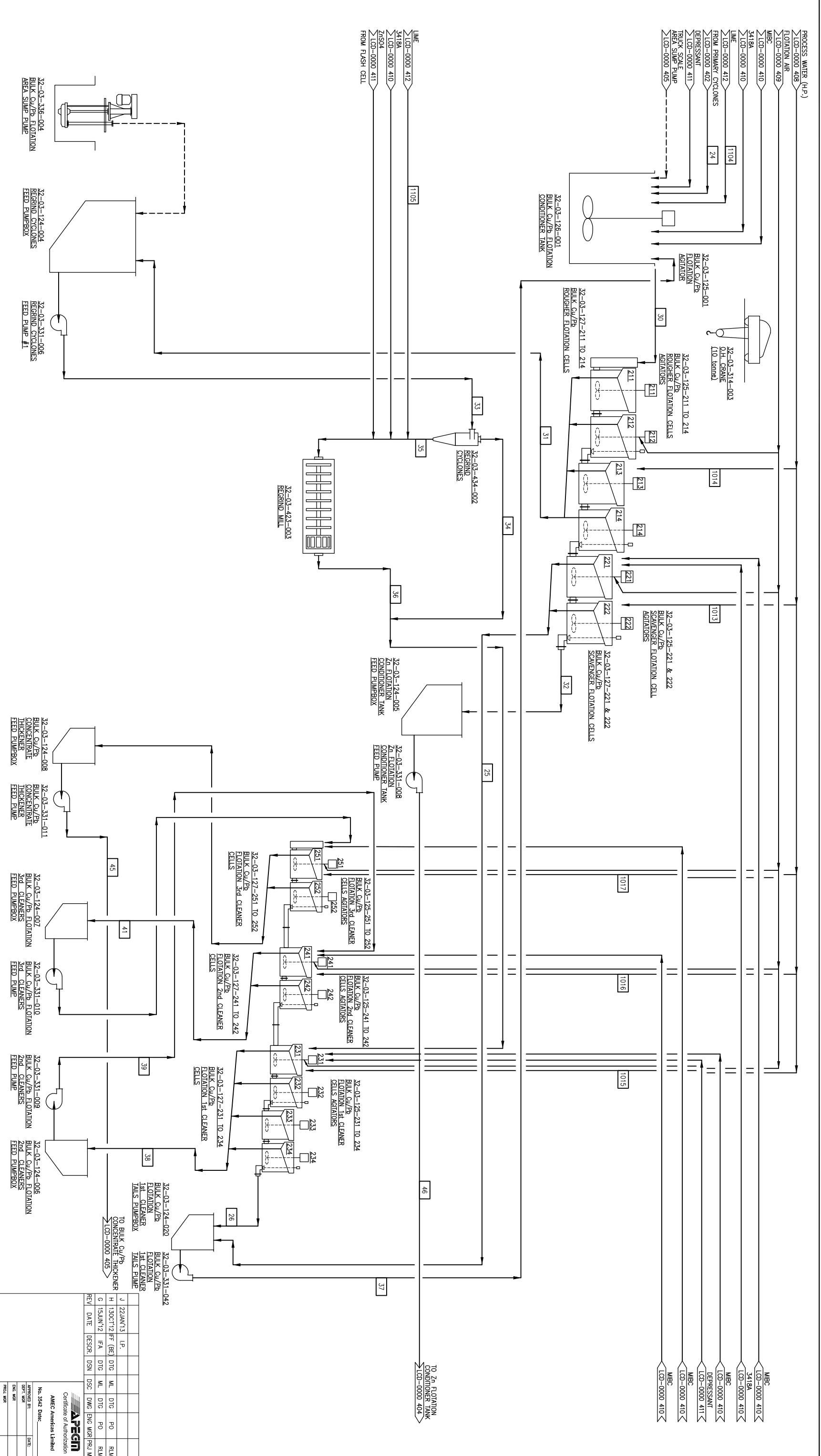
LAIOR CONCENTRATOR
 000 - NEW CONCENTRATOR
 AREA 02 - GRINDING
 PROCESS FLOWSHEET

SCALE: N T S
 DWG. No. LCD-0000 402
 REV. J
 CAD FILE: LCD0000 402.DWG

PROJECT	170100	NO.	2000	DISCIPLINE	110	TYPE	PPD
REV	DATE	DESIGN	DSN	DSC	DWG	ENG	MGR
J	22/JAN/13	I.P.					
H	13/OCT/12	H.F.	(B.E.)	D.T.G.	M.L.	D.T.G.	P.O.
G	15/JUN/12	H.F.A.	D.T.G.	M.L.	D.T.G.	P.O.	R.L.M.

R.T.A. #

AMEC
 AMEC Saskatchewan, SK
 Certificate of Authorization
 AMEC America Limited
 No. 5542 Date: _____
 APPROVED BY: _____ DATE: _____
 DESIGNED BY: _____ DATE: _____
 PROJ. MGR: _____



Stream #	No.	DATE	BY	DATE	BY	DESCRIPTION	DWG. No.	DWG. No.	DESCRIPTION
308	30	2013	11	2013	11				
309	31	2013	11	2013	11				
310	32	2013	11	2013	11				
311	33	2013	11	2013	11				
312	34	2013	11	2013	11				
313	35	2013	11	2013	11				
314	36	2013	11	2013	11				
315	37	2013	11	2013	11				
316	38	2013	11	2013	11				
317	39	2013	11	2013	11				
318	40	2013	11	2013	11				
319	41	2013	11	2013	11				
320	42	2013	11	2013	11				
321	43	2013	11	2013	11				
322	44	2013	11	2013	11				
323	45	2013	11	2013	11				
324	46	2013	11	2013	11				

No.	DATE	BY	DESCRIPTION
1	2013	11	TITLE BLOCK/NAME NO. LMD-0003 A - REVISION AS SHOWN
2	2013	11	SHEET DATA UPDATED
3	2013	11	ADDED REVISION NUMBERS
4	2013	11	SHEET DATA REVISION NUMBERS FOR CLIENT REVIEW

No.	DATE	BY	DESCRIPTION
1	2013	11	REVISION IN PROGRESS
2	2013	11	DELETED PUMPHOUSES/PUMPS/OIL CANNE - FR (Basic Engg)
3	2013	11	REMOVED FLUATION CELLS AS SHOWN - ISSUED FOR APPROVAL
4	2013	11	TITLEBLOCK/NAME NO. LMD-0011 004 - REVISION AS SHOWN (FR)

REVISION	DATE	BY	DESCRIPTION
B	2013	11	REVISION IN PROGRESS
C	2013	11	REVISION IN PROGRESS
D	2013	11	REVISION IN PROGRESS
E	2013	11	REVISION IN PROGRESS
F	2013	11	REVISION IN PROGRESS
G	2013	11	REVISION IN PROGRESS
H	2013	11	REVISION IN PROGRESS
I	2013	11	REVISION IN PROGRESS
J	2013	11	REVISION IN PROGRESS

REV	DATE	BY	CHK	APP	DESCRIPTION
J	2013	11			REVISION IN PROGRESS
I	2013	11			REVISION IN PROGRESS
H	2013	11			REVISION IN PROGRESS
G	2013	11			REVISION IN PROGRESS
F	2013	11			REVISION IN PROGRESS
E	2013	11			REVISION IN PROGRESS
D	2013	11			REVISION IN PROGRESS
C	2013	11			REVISION IN PROGRESS
B	2013	11			REVISION IN PROGRESS

REV	DATE	BY	CHK	APP	DESCRIPTION
J	2013	11			REVISION IN PROGRESS
I	2013	11			REVISION IN PROGRESS
H	2013	11			REVISION IN PROGRESS
G	2013	11			REVISION IN PROGRESS
F	2013	11			REVISION IN PROGRESS
E	2013	11			REVISION IN PROGRESS
D	2013	11			REVISION IN PROGRESS
C	2013	11			REVISION IN PROGRESS
B	2013	11			REVISION IN PROGRESS

REV	DATE	BY	CHK	APP	DESCRIPTION
J	2013	11			REVISION IN PROGRESS
I	2013	11			REVISION IN PROGRESS
H	2013	11			REVISION IN PROGRESS
G	2013	11			REVISION IN PROGRESS
F	2013	11			REVISION IN PROGRESS
E	2013	11			REVISION IN PROGRESS
D	2013	11			REVISION IN PROGRESS
C	2013	11			REVISION IN PROGRESS
B	2013	11			REVISION IN PROGRESS

REV	DATE	BY	CHK	APP	DESCRIPTION
J	2013	11			REVISION IN PROGRESS
I	2013	11			REVISION IN PROGRESS
H	2013	11			REVISION IN PROGRESS
G	2013	11			REVISION IN PROGRESS
F	2013	11			REVISION IN PROGRESS
E	2013	11			REVISION IN PROGRESS
D	2013	11			REVISION IN PROGRESS
C	2013	11			REVISION IN PROGRESS
B	2013	11			REVISION IN PROGRESS

REV	DATE	BY	CHK	APP	DESCRIPTION
J	2013	11			REVISION IN PROGRESS
I	2013	11			REVISION IN PROGRESS
H	2013	11			REVISION IN PROGRESS
G	2013	11			REVISION IN PROGRESS
F	2013	11			REVISION IN PROGRESS
E	2013	11			REVISION IN PROGRESS
D	2013	11			REVISION IN PROGRESS
C	2013	11			REVISION IN PROGRESS
B	2013	11			REVISION IN PROGRESS

REV	DATE	BY	CHK	APP	DESCRIPTION
J	2013	11			REVISION IN PROGRESS
I	2013	11			REVISION IN PROGRESS
H	2013	11			REVISION IN PROGRESS
G	2013	11			REVISION IN PROGRESS
F	2013	11			REVISION IN PROGRESS
E	2013	11			REVISION IN PROGRESS
D	2013	11			REVISION IN PROGRESS
C	2013	11			REVISION IN PROGRESS
B	2013	11			REVISION IN PROGRESS

REVISION IN PROGRESS
DATE: 22JAN2013

AMEC Saskatchewan, SK

AMEC

PROJECT NO. 1701000

DATE 2000

DWG NO. LCD-0000 403 J

SCALE: N.T.S.

REV. J

DATE 14OCT2011

DESIGNED BY: DG

CHECKED BY:

APPROVED BY:

LAIOR CONCENTRATOR

000 - NEW CONCENTRATOR

AREA 03 - BULK CU/Pb FLOTATION

PROCESS FLOWSHEET

SCALE: N.T.S.

DWG. NO. LCD-0000 403 J

REV. J

DATE 14OCT2011

DESIGNED BY: DG

CHECKED BY:

APPROVED BY:

LAIOR CONCENTRATOR

000 - NEW CONCENTRATOR

AREA 03 - BULK CU/Pb FLOTATION

PROCESS FLOWSHEET

AMEC

AMEC American Limited

Certificate of Authorization

No. 5474 Date: _____

ISSUED BY: _____

CHECKED BY: _____

DATE: _____

SCALE: N.T.S.

DWG. NO. LCD-0000 403 J

REV. J

DATE 14OCT2011

DESIGNED BY: DG

CHECKED BY:

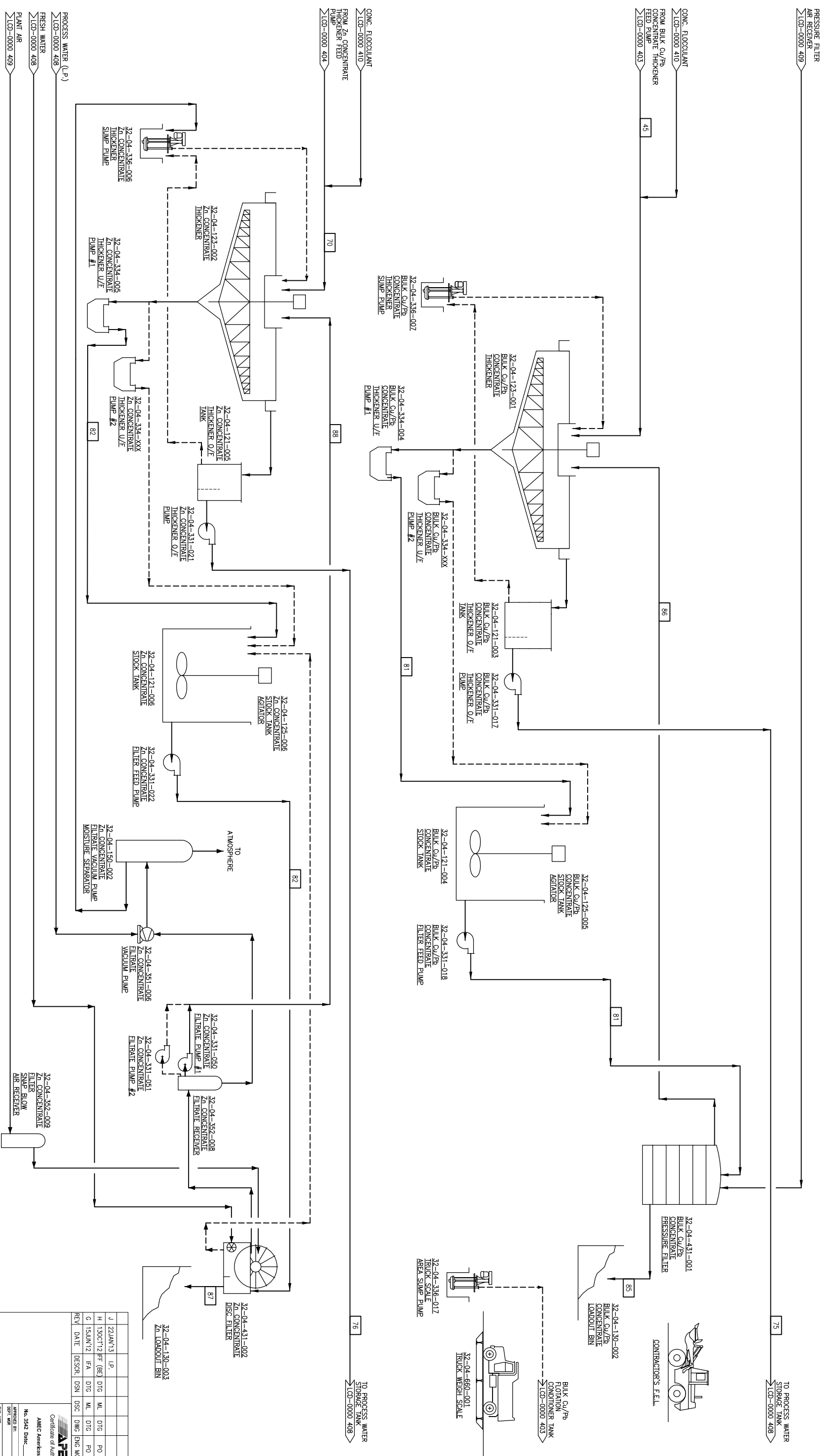
APPROVED BY:

LAIOR CONCENTRATOR

000 - NEW CONCENTRATOR

AREA 03 - BULK CU/Pb FLOTATION

PROCESS FLOWSHEET



Stream #	70	75	76	77	78	79	80	81	82	83	84	85	86	87	88	
Stream #	45	70	75	76	77	78	79	80	81	82	83	84	85	86	87	88
SOLES (kg/m ³)	7.4	19.3	0.0	0.0	7.4	13.5	7.4	0.0	19.3	0.0	19.3	0.0	19.3	0.0	0.0	
WATER (kg/m ³)	91	23.3	0.0	0.0	23.3	0.0	23.3	0.0	23.3	0.0	23.3	0.0	23.3	0.0	7.7	
WATER (kg/m ³)	21.0	62.4	21.2	49.2	3.7	4.8	0.9	3.8	2.0	10.6	0.0	0.0	0.0	0.0	0.0	
WATER (kg/m ³)	26.1	64.4	26.3	68.5	4.4	5.6	0.8	3.8	2.0	10.6	0.0	0.0	0.0	0.0	0.0	
% Solids	26.1	30.0	0.0	0.0	68.8	0.0	0.0	0.0	0.0	32.7	1.00	1.00	1.00	1.00	1.00	
Slurry (kg/m ³)	1.24	1.30	1.00	1.00	1.98	2.11	3.15	1.00	3.37	6.3	7.7	7.5	7.5	7.5	7.5	
Slurry (kg/m ³)	23.0	50.1	21.2	49.3	5.6	6.7	13.4	3.1	3.6	13.4	27.6	27.6	27.6	27.6	27.6	
Slurry (kg/m ³)	27.5	59.9	25.4	59.0	6.7	7.8	16.1	3.1	3.6	13.4	27.6	27.6	27.6	27.6	27.6	
Slurry (kg/m ³)	101.2	220.5	101.2	217.2	24.6	29.2	59.2	11.2	13.4	59.2	112.0	112.0	112.0	112.0	112.0	
Slurry (kg/m ³)	120.9	253.6	111.7	259.6	29.4	34.0	70.7	13.4	16.0	70.7	134.0	134.0	134.0	134.0	134.0	

No.	DATE	APPR.	BY	DESCRIPTION
5	17/03/12			TITLE BLOCK/PMC No. LMD-006 4 - REVISION AS SHOWN
6	04/04/12			STREAM DATA UPDATED
7	29/07/11			ADDED REVISION EQUIPMENT NUMBERS
8	29/07/11			STREAM DATA REVISION, REVISION FOR CLIENT REVIEW

No.	DATE	APPR.	BY	DESCRIPTION
9	22/01/13			REVISION IN PROGRESS
10	02/07/12			ISSUED FOR RUM (Basic Engineering)
11	08/04/12			ISSUED FOR APPROVAL
12	19/09/12			TITLEBLOCK/PMC No. LMD-011 006 - REVISION AS SHOWN (FR)

REV	DATE	DESCRIPTION
A	14/07/2011	DRAWN BY: DG
B	14/07/2011	DESIGNED BY: DG
C		CHECKED BY:
D		APPROVED BY:

REVISION IN PROGRESS

DATE: 22/JAN/2013

R.T.A. #

AMEC Saskatchewan, SK		amec	
PROJECT	NO.	CLIENT APPROVAL	DATE
1701000	2000		

REV	DATE	DESCR	DSN	DSC	DWG	ENG	MGR	PRJ	MGR
J	22/JAN/13	I.P.							
H	15/OCT/12	H.F. (BE)	DTG	ML	DTG	PO	RUM		
G	15/JAN/12	F.A	DTG	ML	DTG	PO	RUM		

LAIOR CONCENTRATOR

000 - NEW CONCENTRATOR

AREA 04 - CONCENTRATE DEWATERING

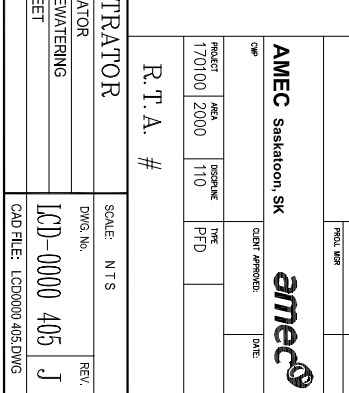
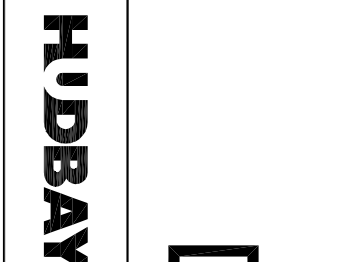
PROCESS FLOWSHEET

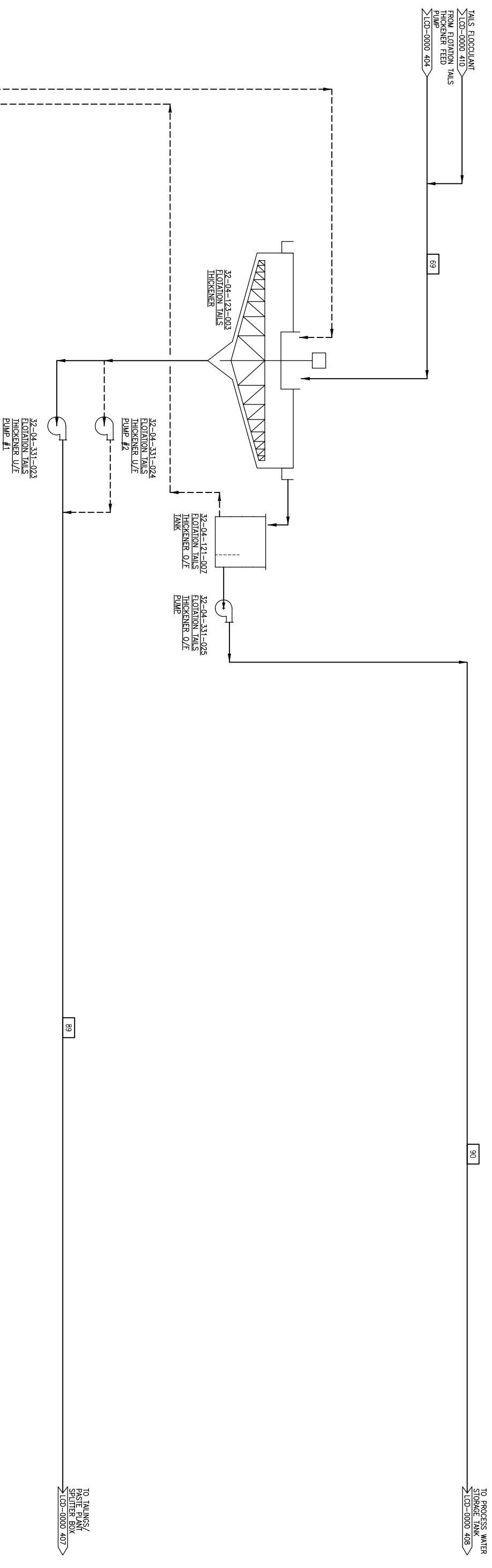
SCALE: N.T.S.

DWG. NO.: LCD-0000 405

REV: J

CAD FILE: LCD0000 405.DWG





Stream #	69	89	90
SOLES (NOM) m3/h	178.7	178.7	0.0
SOLES (DES) m3/h	215.0	215.0	0.0
WATER (NOM) m3/h	242.0	280.5	80.7
WATER (DES) m3/h	308.9	215.7	96.4
% Solids	40.9	48.7	0.0
Slurry (NOM) m3/h	1.39	1.52	1.00
Slurry (DES) m3/h	314.3	236.6	80.8
Slurry (NOM) USGPM	375.6	292.8	96.6
Slurry (DES) USGPM	1383.6	1041.9	355.9
Slurry (Des) J USGPM	1653.6	1246.2	425.3

32-04-336-008
FLOTATION TAILS
THICKENER SUMP PUMP

32-04-331-023
FLOTATION TAILS
THICKENER O/F
PUMP #1

32-04-331-024
FLOTATION TAILS
THICKENER O/F
PUMP #2

32-04-121-002
FLOTATION TAILS
THICKENER O/F
TANK

32-04-331-025
FLOTATION TAILS
THICKENER O/F
PUMP

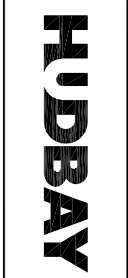
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E	06	17/03/12	BT	BT	TITLE BLOCK/NO. NO. LMD-0007 A - REVISION AS SHOWN
D	06	04/04/12	BT	BT	STREAM DATA UPDATED
C	06	29/07/11	BT	BT	ADDED REVISION EQUIPMENT NUMBERS
B	06	26/07/11	BT	BT	STREAM DATA REVISION, REVISION FOR CLIENT REVIEW

REVISIONS	No.	DATE	BY	APPR.	DESCRIPTION
J	06	22/01/13	BT	BT	REVISION IN PROGRESS
H	06	02/07/12	BT	BT	ISSUED FOR REVIEW (Basic Engineering)
G	06	08/01/12	BT	BT	ISSUED FOR APPROVAL
F	06	19/09/12	BT	BT	TITLEBLOCK/NO. NO. LMD-0011 007 - REVISION AS SHOWN (FR)

REFERENCES	DWG. No.	DESCRIPTION

REFERENCES	DWG. No.	DESCRIPTION

DRAWN BY:	DG	DATE:	14/07/2011
DESIGNED BY:	DG		
CHECKED BY:			
APPROVED BY:			



REVISION IN PROGRESS
DATE: 22/JAN/2013

LAIOR CONCENTRATOR		SCALE:	N T S
000 - NEW CONCENTRATOR		DWG. NO.:	LCD-0000 406 J
AREA 04 - FLOTATION TAILS THICKENING		REV.:	J
PROCESS FLOWSHEET		CAD FILE:	LC00000 406.DWG

R. T. A. #

PROJECT	170100	NO.	2000	DISCIPLINE	110	TYPE	PPD		
REV	DATE	DESCR	DSN	DSC	DWG	ENG	MGR	PRJ	MGR
J	22/JAN/13	I.P.			ML	DTG	PO	RLM	
H	13/OCT/12	H.F. (BE)	DTG		ML	DTG	PO	RLM	
G	15/JUN/12	F.A	DTG		ML	DTG	PO	RLM	

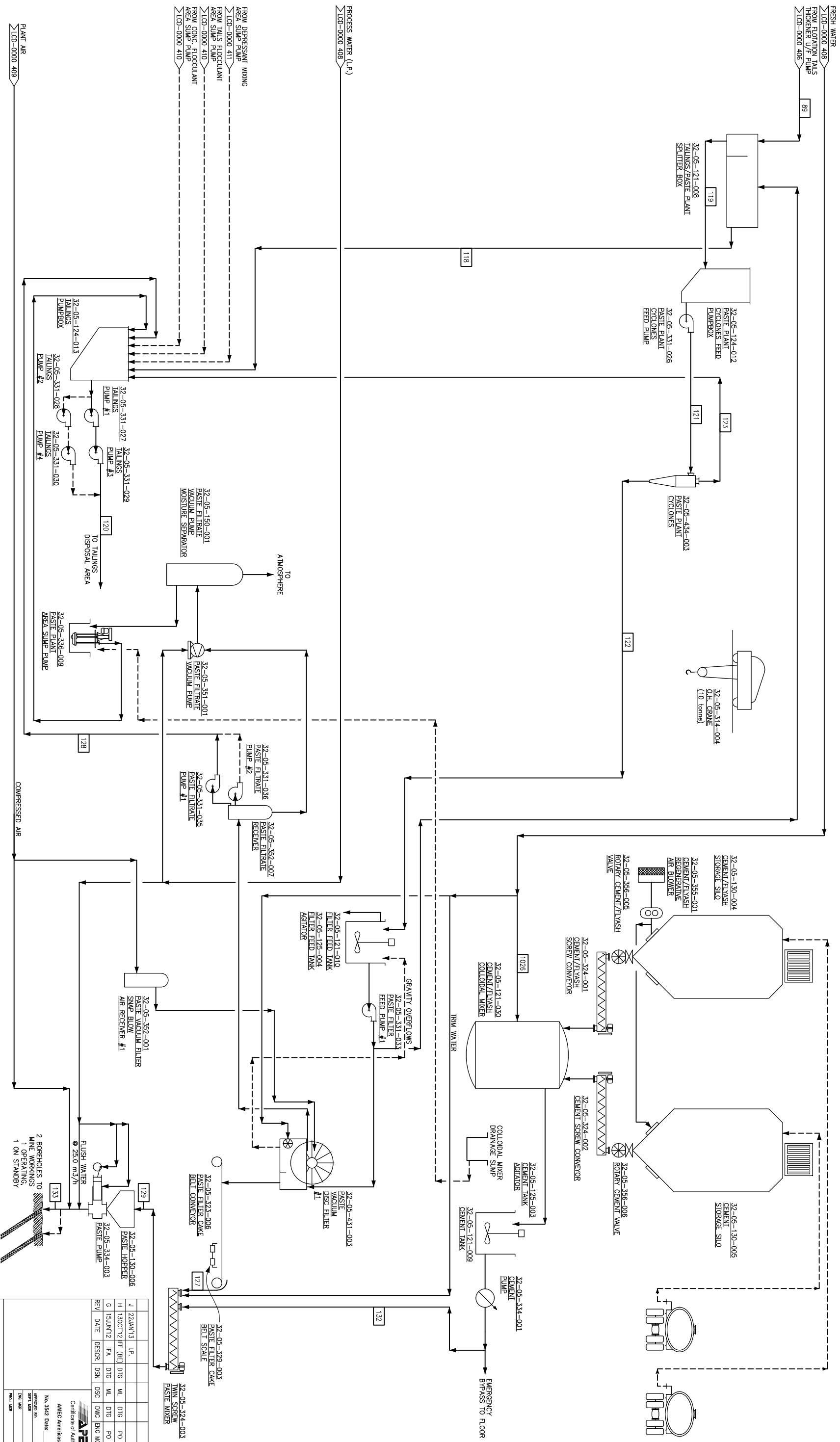
AMEC saskatoon, SK

AMEC America Limited
Certificate of Authorization
No. 3542 Date: _____

APPROVED BY:	DATE:
DRN. MGR:	
PROJ. MGR:	

TO PROCESS WATER
STORE TANK
LOD-0000 408

TO TAILINGS/
PASTE PUMP
FILTER BOX
LOD-0000 407



Stream #	89	118	119	120	121	122	123	127	128	129	132	133	1028
SOLIDS (NOM)	118.7	0.0	118.7	33.0	118.7	143.7	33.0	143.7	0.0	148.0	2.3	148.0	0.0
SOLIDS (CAL)	213.5	0.0	213.5	213.5	213.5	171.7	41.8	171.7	0.0	174.9	2.7	174.9	0.0
WATER (NOM)	215.7	0.0	215.7	215.7	215.7	171.7	41.8	171.7	0.0	174.9	2.7	174.9	0.0
WATER (CAL)	215.7	0.0	215.7	215.7	215.7	171.7	41.8	171.7	0.0	174.9	2.7	174.9	0.0
% SOLIDS	48.7	0.0	48.7	48.4	48.2	44.4	87.3	48.2	0.0	75.9	69.0	75.8	1.2
Slurry (Nom)	145.2	0.0	145.2	145.2	145.2	102.1	21.6	102.1	0.0	102.1	1.4	102.1	0.0
Slurry (Cal)	236.6	0.0	236.6	168.3	237.3	140.8	96.5	67.4	93.2	2.9	63.5	1.0	0.0
Slurry (Nom)	282.8	0.0	282.8	282.8	283.6	168.3	115.4	102.1	67.4	111.4	3.5	111.7	1.2
Slurry (Cal)	1041.9	0.0	1041.9	732.0	1045.0	619.9	425.1	316.2	248.1	410.4	12.9	411.5	4.6
Slurry (Nom)	1245.2	0.0	1245.2	1248.9	1248.9	740.9	508.0	449.6	298.6	490.5	15.4	491.9	5.4

No.	DATE	BY	APPR.	DESCRIPTION
1	17/03/12	BT		TITLE BLOCK/PMC No. LCD-0014 - REVISION AS SHOWN
2	06/04/12	BT		STREAM DATA UPDATED
3	28/07/11	BT		ADDED REVISION NUMBERS
4	28/07/11	BT		STREAM DATA REVISION, REVISION FOR CLIENT REVIEW

No.	DATE	BY	APPR.	DESCRIPTION
5	22/01/13	BT		REVISION IN PROGRESS
6	03/07/12	BT		ISSUED FOR REVIEW (Basic Engineering)
7	08/01/12	BT		REVISION AS SHOWN - ISSUED FOR APPROVAL
8	19/09/12	BT		TITLE BLOCK/PMC No. LCD-0017 008 - REVISION AS SHOWN (FR)

DWG. No.	DESCRIPTION	DWG. No.	DESCRIPTION	DWG. No.	DESCRIPTION

DATE	DESCRIPTION
14/02/2011	DRAWN BY: DG
14/02/2011	DESIGNED BY: DG
	CHECKED BY:
	APPROVED BY:

REVISION IN PROGRESS

DATE: 22/01/2013

LAIOR CONCENTRATOR

000 - NEW CONCENTRATOR

AREA 05 - PASTE BACKFILL PLANT

PROCESS FLOWSHEET

SCALE: NTS

DWG. No. **LCD-0000 407**

REV: **J**

CAD FILE: LCD0000 407.DWG

REV	DATE	DESIGN	DSN	DSC	DWG	ENG	MGR	PRJ	MGR
J	22/01/13	I.P.							
H	13/02/12	H.F.	BE	DTG	ML	DTG	PO	RJM	
G	15/01/12	H.F.A	DTG	ML	DTG	PO	RJM		

AMEC

AMEC American Limited

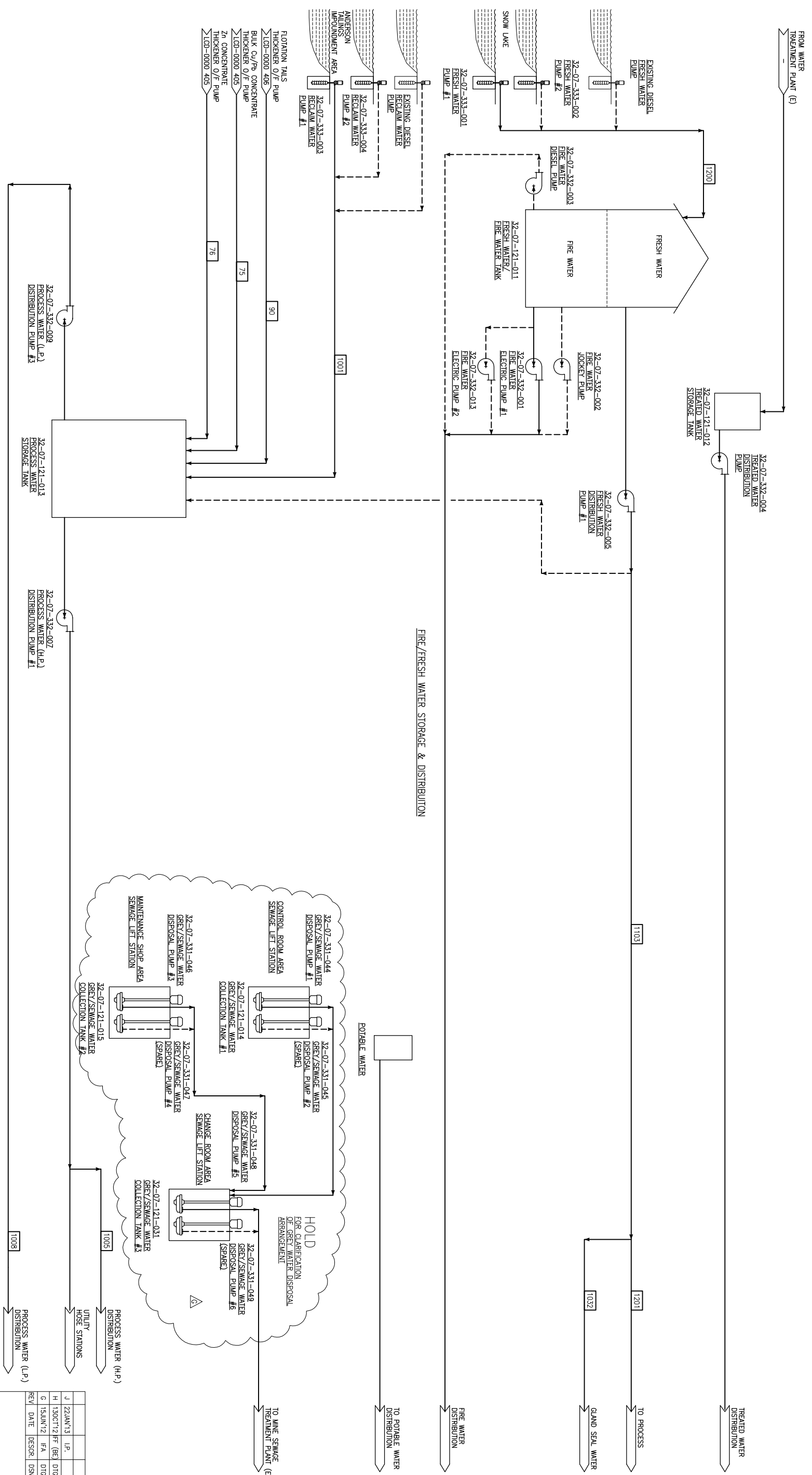
Certificate of Authorization

No. 542 Date:

ISSUED BY: DATE

EXT. USE

PROJ. USE



PROCESS WATER STORAGE & DISTRIBUTION

Stream #	75	76	90	1001	1005	1008	1032	1103	1200	1201
Stream #	75	76	90	1001	1005	1008	1032	1103	1200	1201
STATUS (Nom.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATUS (Des.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow (Nom.)	21.2	40.2	80.7	160.0	32.0	273.9	33.2	38.9	38.0	0.2
Flow (Des.)	26.3	58.0	96.4	272.5	45.5	327.3	44.1	50.8	50.8	10.0
% Slide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Slurry SG	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Slurry (Nom.)	21.2	49.3	80.8	161.1	38.2	274.4	27.8	37.0	37.0	9.2
Slurry (Des.)	26.4	59.0	96.6	272.5	45.6	327.9	33.2	44.2	50.8	11.0
Slurry (Nom.) USGPM	93.5	217.2	355.9	709.5	168.1	1208.0	122.4	162.8	162.8	40.4
Slurry (Des.) USGPM	111.7	259.6	425.3	1200.0	200.9	1443.7	146.3	194.5	400.0	48.3

No.	MADE BY	DATE	DESCRIPTION
E	06	17/03/12	TITLE BLOCK/NO. No. LMD-0015 4 - REVISION AS SHOWN
D	06	04/M/12	STREAM DATA UPDATED
C	06	29/M/11	ADDED REVISION EQUIPMENT NUMBERS
B	06	28/07/11	STREAM DATA REVISION, REVISION FOR CLIENT REVIEW

No.	MADE BY	DATE	DESCRIPTION
J	06	22/JAN/13	REVISION IN PROGRESS
H	06	02/OCT/12	ISSUED FOR REVIEW (Basic Engineering)
G	06	08/JUN/12	ADDED EXISTING PUMPS - ISSUED FOR APPROVAL
F	06	19/MAY/12	TITLE BLOCK/NO. No. LMD-0011 009 - REVISION AS SHOWN (FR)

DWG. No.	DESCRIPTION

DWG. No.	DESCRIPTION	DATE

REVISION IN PROGRESS	DATE:
	22/JAN/2013

PROJECT	NO.	DATE	DESCRIPTION
AMEC Saskatoon, SK	170100	2000	110

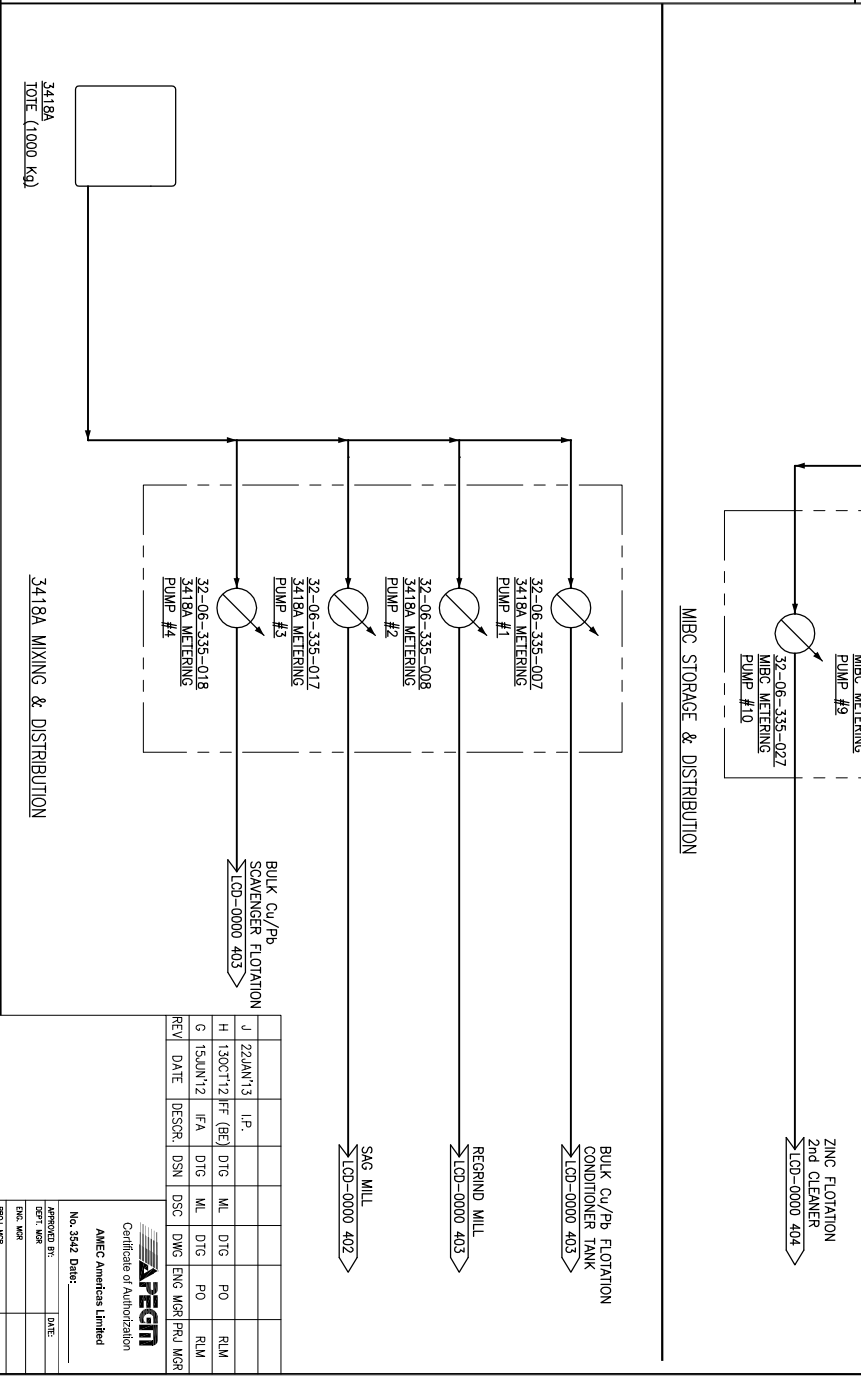
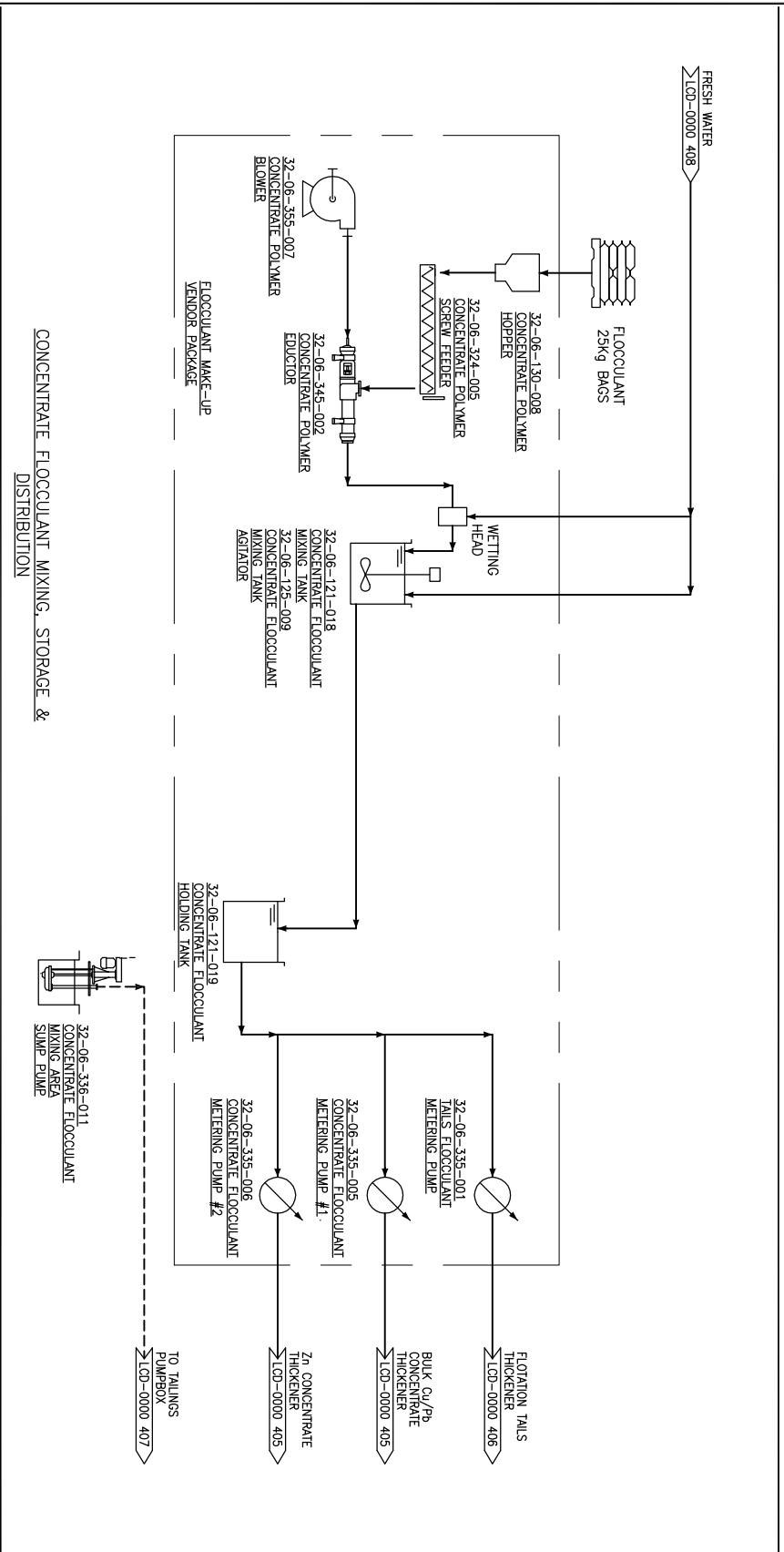
REV	DATE	DESIGN	DSN	DSC	DWG	ENG	MGR	PRJ	MGR
J	22/JAN/13	I.P.							
H	13/OCT/12	H.F.	(B.E.)	DTG	ML	DTG	PO	RJM	
G	15/JUN/12	H.A	DTG	ML	DTG	PO	RJM		

AMERICAN ENGINEERING & CONSTRUCTION	AMEC
No. 5424 Date:	
AMERICAN ENGINEERING & CONSTRUCTION	AMEC
AMERICAN ENGINEERING & CONSTRUCTION	AMEC
AMERICAN ENGINEERING & CONSTRUCTION	AMEC

SCALE	NTS
LAIOR CONCENTRATOR	000 - NEW CONCENTRATOR
	AREA 07 - WATER SUPPLY & DISTRIBUTION
	PROCESS FLOWSHEET

DWG. No.	REV.
LCD-0000 408	J

SCALE	NTS
LCD-0000 408.DWG	



No.	MADE BY	DATE	APPV. BY	DESCRIPTION	REVISION	No.	MADE BY	DATE	APPV. BY	DESCRIPTION	REVISION	DWG. No.	DESCRIPTION	REVISION	DWG. No.	DESCRIPTION	DATE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY		
5						9																	
4						8																	
3						7																	
2						6																	
1						5																	

REVISION IN PROGRESS
DATE: 22JAN2013

HUBBAY

LAIOR CONCENTRATOR
000 - NEW CONCENTRATOR
REAGENTS MIXING, STORAGE & DISTRIBUTION
PROCESS FLOWSHEET

SCALE: N.T.S.
DWG. NO.: LCD-0000 410 J
REV:

AMEC Saskatoon, SK

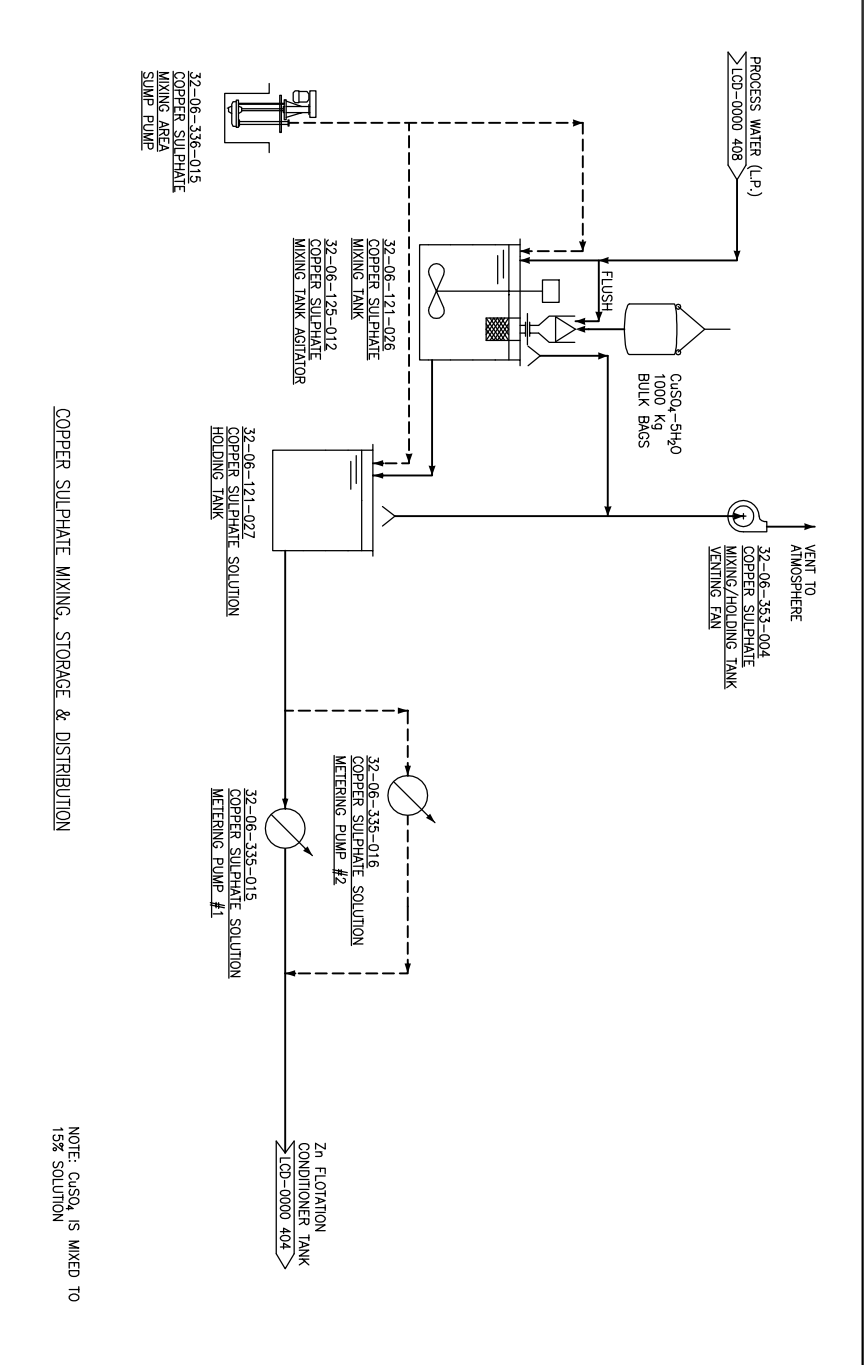
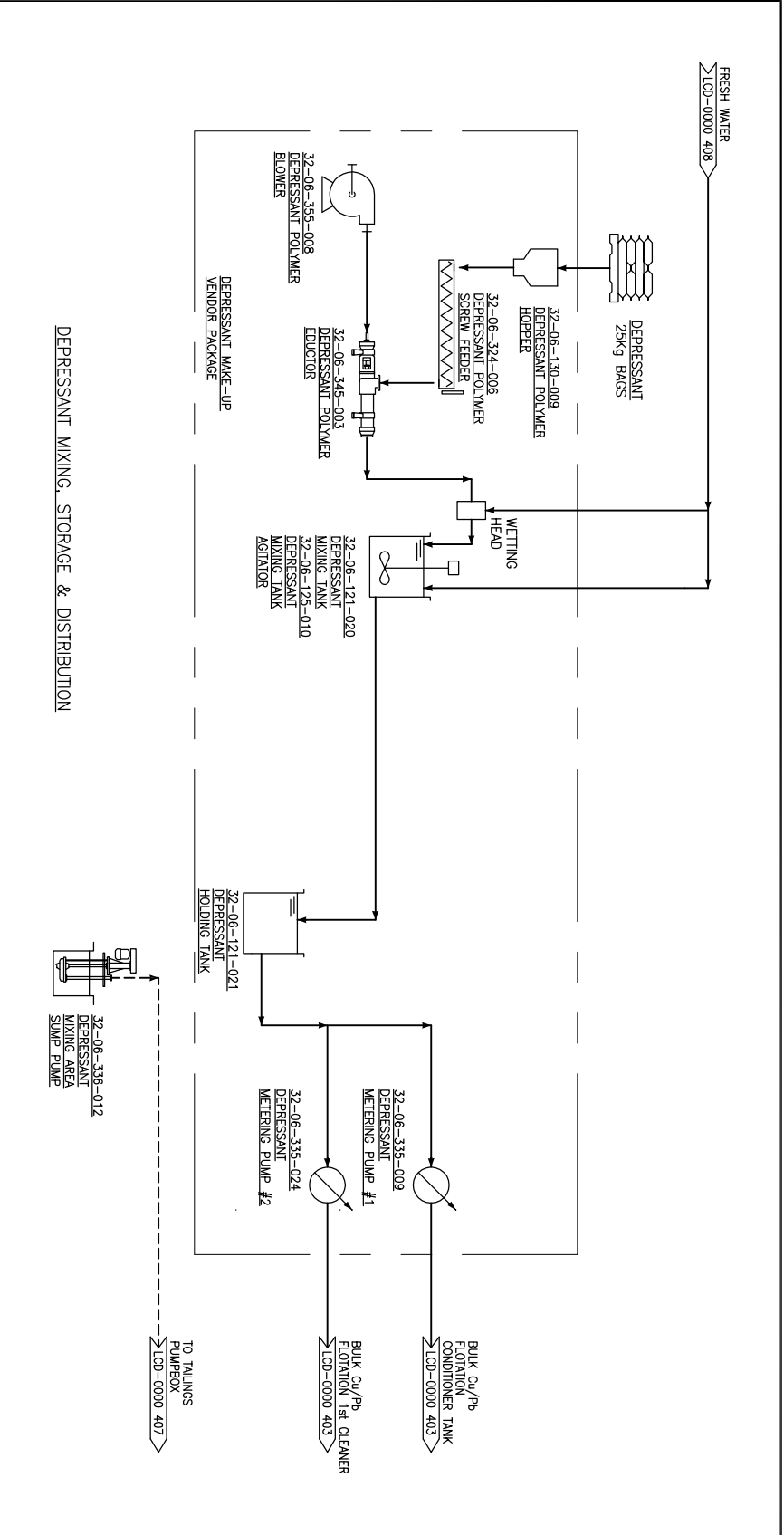
No. 5424 Date: _____

AMERICAN
CERT. NOS.
INC. NOS.
PROJ. NOS.

APREGM
Certificate of Authorization
AMEC American Limited

DATE

REV	DATE	DESQR.	DSN	DSC	DWG	ENG	WRK	PRJ	MGR
J	22JAN13	I.P.							
H	15OCT12	FA	DTG	ML	DTG	PO	PO	RIUM	
G	15JAN12	FA	DTG	ML	DTG	PO	PO	RIUM	



Stream #	Solids (Nom)	Unit
1	Solids (Nom)	mt/h
2	Water (Nom)	mt/h
3	Water (Nom)	mt/h
4	Water (Nom)	mt/h
5	% Solids	
6	Slurry (Nom)	mt/h
7	Slurry (Nom)	mt/h
8	Slurry (Nom)	USGPM
9	Slurry (Nom)	USGPM

No.	MADE BY	DATE	DESCRIPTION
0	BT	17/03/12	TITLE BLOCK/DWG. No. LCD-0018 A - REVISION AS SHOWN
E	BT	06/04/12	STREAM DATA UPDATED
D	BT	29/06/11	ADDED REVISION EQUIPMENT NUMBERS
C	BT	28/07/11	STREAM DATA REVISION, REVISION FOR CLIENT REVIEW
B	BT	28/07/11	STREAM DATA REVISION, REVISION FOR CLIENT REVIEW

No.	MADE BY	DATE	DESCRIPTION
J	BT	22/JUN/13	REVISION IN PROGRESS
H	BT	02/OCT/12	ISSUED FOR REVIEW (Basic Engineering)
G	BT	08/JUN/12	ISSUED FOR APPROVAL
F	BT	19/MAY/12	TITLEBLOCK/DWG. No. LCD-0011 012 - REVISION AS SHOWN (FR)

DESCRIPTION	DWG. No.	DATE
DESIGNED BY: DG		14/OCT/2011
CHECKED BY:		
APPROVED BY:		

REVISION IN PROGRESS
 DATE: 22/JUN/2013

R.T.A. #

AMEC Saskatoon, SK		CLIENT APPROVED	DATE
PROJECT NO.	1701000		
WEEK	2000		
DISCIPLINE	110		
TYPE	PTD		

LAIOR CONCENTRATOR

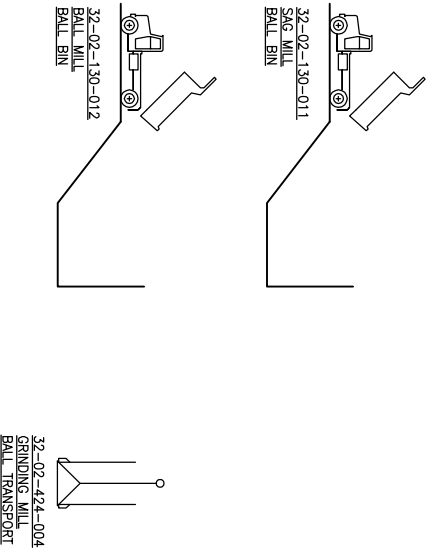
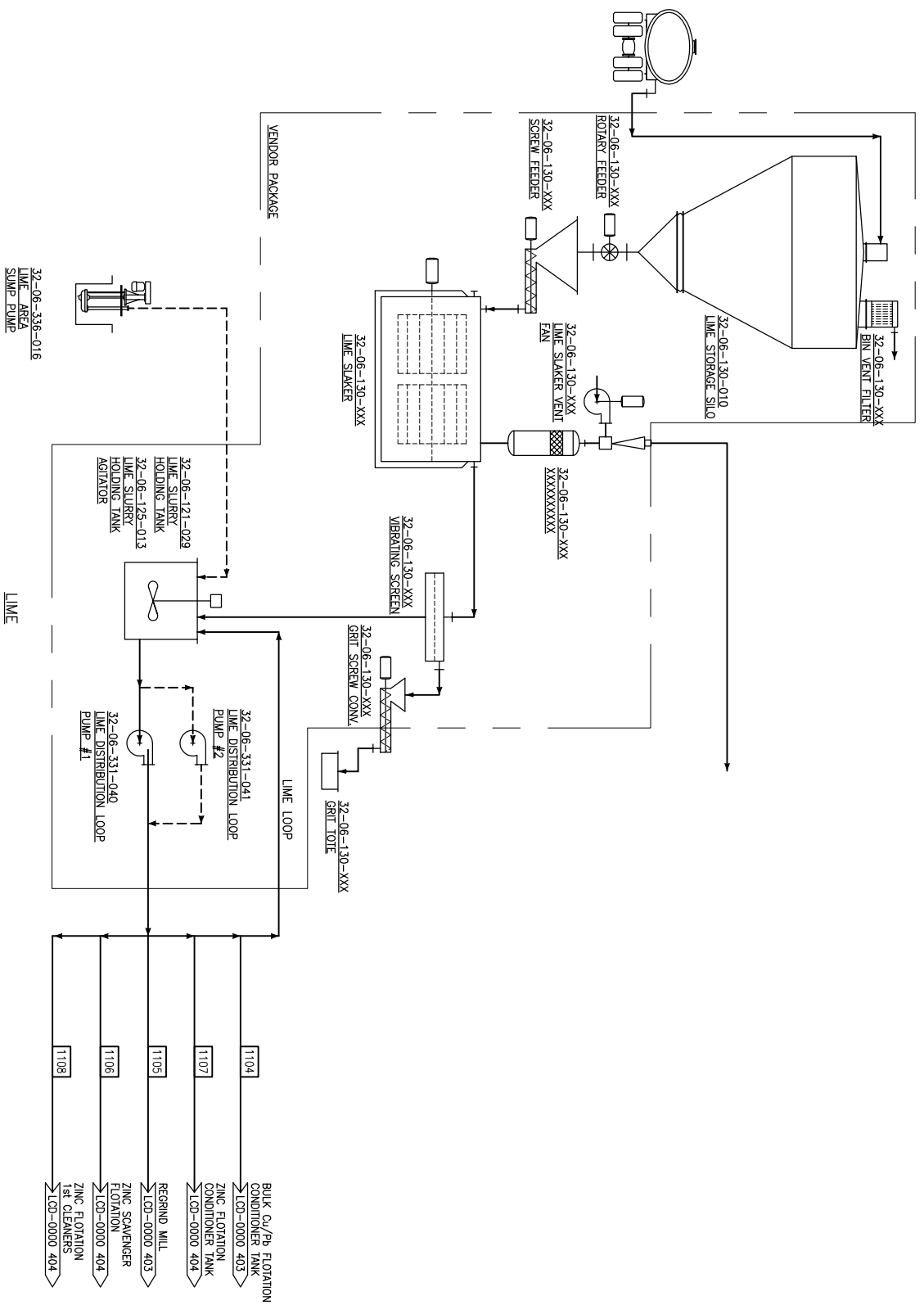
000 - NEW CONCENTRATOR
AREA 06 - REAGENTS MIXING, STORAGE & DISTRIBUTION
PROCESS FLOWSHEET

SCALE: NTS
DWG. No.: LCD-0000 411 J
REV:

REV	DATE	DESOR.	DSN	DSC	DWG. ENG.	WGR.	PRJ.	MGR.
J	22/JUN/13	I.P.						
H	13/OCT/12	H.F.	(B.E.)	D.T.G.	M.L.	D.T.G.	P.O.	R.I.M.
G	15/JUN/12	H.F.A.	D.T.G.	M.L.	D.T.G.	P.O.	R.I.M.	

Certificate of Authorization
 No. 5144 Date: _____
 APPROVED BY: _____ DATE: _____
 ENG. NO. _____
 PROJ. NO. _____





Stream #	1102	1104	1105	1106	1107	1108
SOLIDS (NOM) mth	0.3	0.1	0.0	0.0	0.3	0.1
SOLIDS (DES) mth	0.6	0.1	0.0	0.1	0.3	0.8
WATER (NOM) mth	2.6	0.8	0.1	0.3	2.4	0.9
WATER (DES) mth	2.6	0.8	0.1	0.3	2.4	0.9
SLURRY (NOM) mth	13.6	12.9	12.6	12.6	12.6	12.6
SLURRY (DES) mth	14.0	10.9	10.7	10.7	10.7	10.7
SLURRY (NOM) m3/h	4.0	0.9	0.1	0.4	1.9	0.8
SLURRY (DES) m3/h	4.8	1.0	0.1	0.4	2.2	1.0
SLURRY (NOM) USGPM	17.6	3.8	0.5	1.5	8.2	3.6
SLURRY (DES) USGPM	21.1	4.5	0.6	1.8	9.6	4.3

REVISION	No.	DATE	DESCRIPTION
6	06	17/03/12	TITLE BLOCK/PMC. No. LMD-0019 A - REVISION AS SHOWN
5	05	04/04/12	STREAM DATA UPDATED
4	05	29/07/11	ADDED RECEIVED EQUIPMENT NUMBERS
3	05	29/07/11	STREAM DATA RECEIVED, REVISION FOR CLEAN REVIEW

REVISION	No.	DATE	DESCRIPTION
6	06	22/01/13	REVISION IN PROGRESS
5	06	03/07/12	ISSUED FOR REVIEW (Basic Engineering)
4	06	08/01/12	SELECTED RECEIVED BALL BIN - ISSUED FOR APPROVAL
3	06	19/04/12	TITLE BLOCK/PMC. No. LMD-0011 013 - REVISION AS SHOWN (FR)

REFERENCES	DWG. No.	DESCRIPTION

REFERENCES	DWG. No.	DESCRIPTION

DATE	DESCRIPTION
14/02/2011	DRAWN BY: DG
14/02/2011	DESIGNED BY: DG
	CHECKED BY:
	APPROVED BY:



REVISION IN PROGRESS
DATE: 22JAN2013

SCALE	NTS
DWG. No.	LCD-0000 412
REV.	J
SCALE FILE:	LC00000412.DWG

PROJECT	NO.	DATE	DESCRIPTION
170100	2000	110	PPD

REV	DATE	BY	CHK	APP
J	22JAN13	I.P.		
H	13OCT12	J.F.F. (B.E.)	D.T.G.	M.L.
G	15JUN12	J.F.A.	D.T.G.	M.L.
			D.T.G.	P.O.
			D.T.G.	R.U.M.

AMEC Saskatchewan, SK
 No. 5542 Date: _____
 Certificate of Authorization
 AMEC America Limited
 AMEC USA
 DATE: _____
 DATE: _____
 PROJ. NO: _____

LAIOR CONCENTRATOR
 000 - NEW CONCENTRATOR
 AREA 06 - REAGENTS MIXING, STORAGE & DISTRIBUTION
 PROCESS FLOWSHEET

R.T.A. #

