



A Member of the MMD Group of Companies

MMD Mining Sizing (Europe) Ltd

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www.mmdsizers.com

Project Name: IMOURAREN URANIUM PROJECT

TSU PO Number: 9806J-0210-PO-4314-003-IM22010

MMD Contract No 33267

Main Doc Reference: A0103-PID

Secondary Doc Reference: 9806J-0210-DW-4314-00101

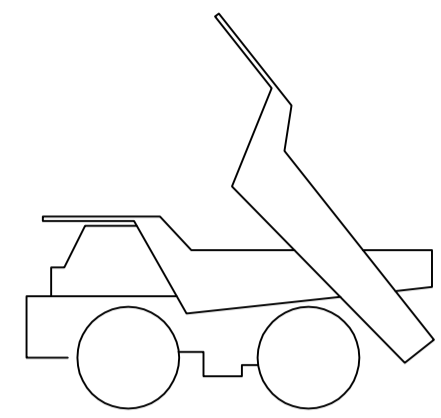
Document Revision: M

Revision Date: 09-Apr-2014

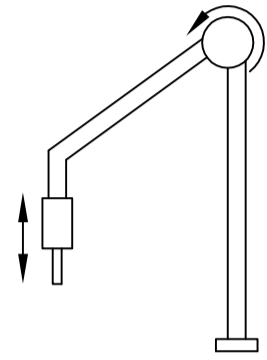
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Document Title: P&ID
All Tags

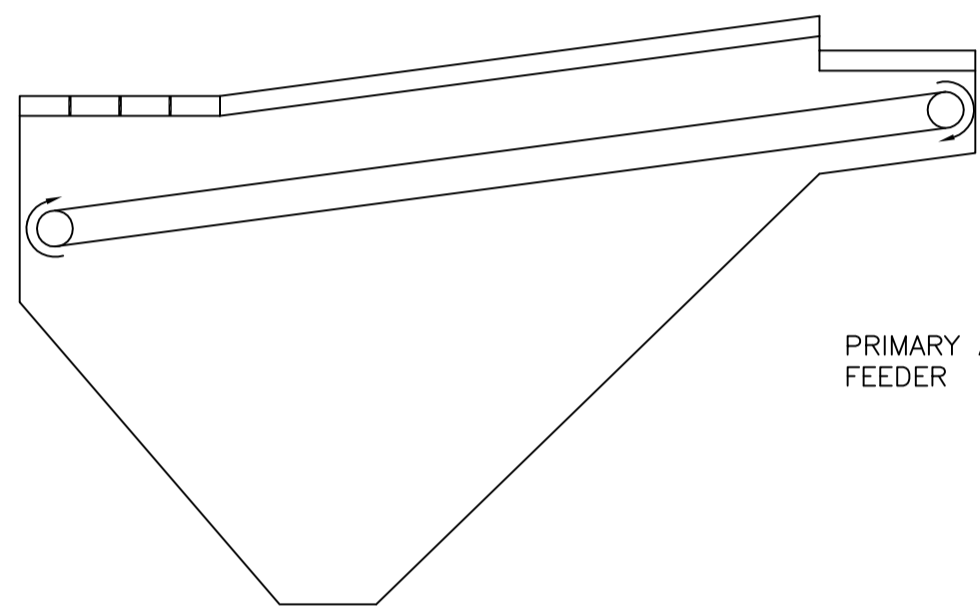
MAIN EQUIPMENT ITEMS



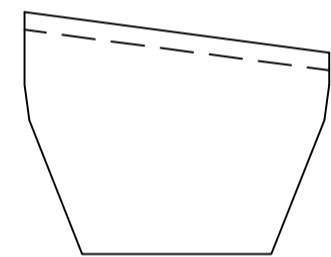
DUMPER TRUCK



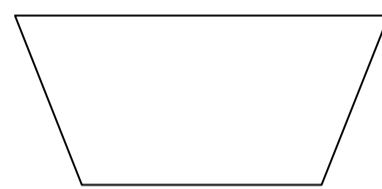
ROCK BREAKER



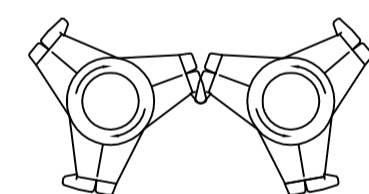
PRIMARY APRON FEEDER



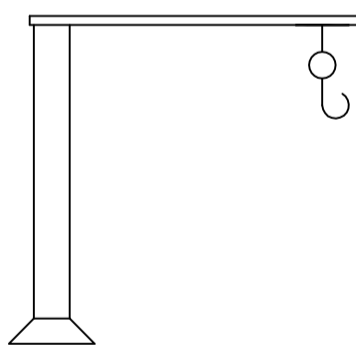
PRIMARY GRIZZLY FEEDER VIBRATING



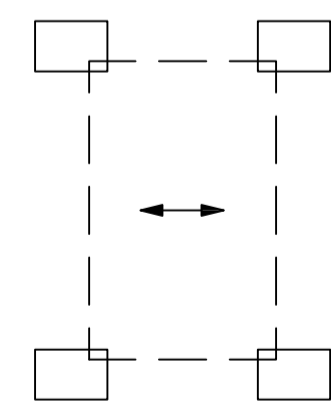
PRIMARY SIZER CHUTE/HOOD



PRIMARY SIZER

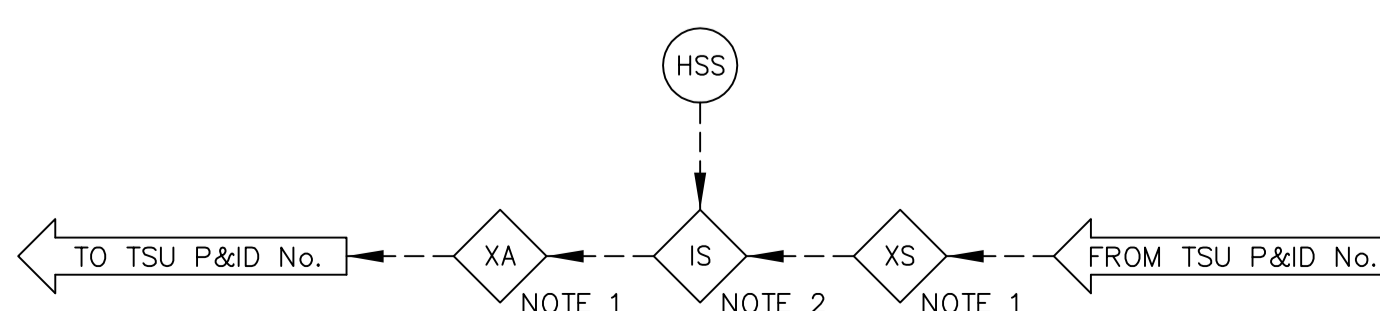


PRIMARY CRUSHING CRANE



WHEEL CARRIAGE

EMERGENCY SHUTDOWN



SYMBOLS

- PLC
- INSTRUMENT INSTALLED ON LOCAL PANEL
- INSTRUMENT INSTALLED ON PANEL IN TECHNICAL OR CONTROL ROOM
- FIELD/ LOCAL
- TRIP/INTERLOCK - CONTROL
- TRIP/INTERLOCK - SHUTDOWN
- MOTOR TYPE M1 - FIXED SPEED
- MOTOR TYPE M2 - VARIABLE SPEED
- (R) - REVERSING
- PUMP
- HYDRAULIC PUMP
- HEAT EXCHANGER/ RADIATOR
- FAN
- SIREN & BEACON COMBINATION (COLOUR AMBER)
- SIREN
- HEATING ELEMENT
- GO/NO GO TRAFFIC LIGHTS (COLOUR RED/GREEN)
- DIRECTIONAL TRAFFIC LIGHTS
- INSPECTION HATCH WITH CASTELL KEY INTERLOCK
- CCTV CAMERA
- SOLENOID VALVE
- CONTROL VALVE
- 2 WAY VALVE
- BYPASS VALVE
- 3 WAY VALVE
- PRESSURE RELIEF VALVE
- NON RETURN VALVE
- FLANGES
- FILTER
- TILT SWITCH
- FLEXIBLE HOSE
- PROCESS ROUTE
- MECHANICAL LINKAGE
- PRIMARY PROCESS LINE
- SECONDARY PROCESS LINE
- ELECTRICAL SIGNAL
- HYDRAULIC LINE
- DATA/SOFTWARE

IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATED VARIABLE	MODIFIER (LOWER CASE)	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		USERS CHOICE	USERS CHOICE	USERS CHOICE
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		ELEMENT		
F	FLOW	RATIO (FRACTION)			
G	GAUGING		GLASS		
H	HAND (MANUALLY) INITIATED				HIGH
I	CURRENT ELECTRICAL/ INTERLOCK		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		
M	USERS CHOICE	MOMENTARY			MIDDLE OR INTERMEDIATE
N	USERS CHOICE		USERS CHOICE	USERS CHOICE	USERS CHOICE
O	USERS CHOICE		ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIATION		RECORD		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE DAMPER OR LOUVRE	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION DIMENSION	Z AXIS		DRIVER, ACTUATOR OR UNCLASSIFIED FINAL CONTROL ELEMENT	

BATTERY LIMITS

BATTERY LIMIT	DESCRIPTION	DETAILS
BL1	CH-210-04 DE-DUSTING POINT 1	250 x 500mm
BL2	CH-210-04 DE-DUSTING POINT 2	250 x 500mm
BL3	CH-210-04 DE-DUSTING POINT 3	250 x 500mm
BL4	CH-210-03 FLANGE CONNECTION	2968 x 1168mm
BL5	CH-210-04 FLANGE CONNECTION	13492.5 x 1376mm
BL6	CH-210-04 DE-DUSTING POINT 4	250 x 500mm
BL7	CH-210-04 DE-DUSTING POINT 5	250 x 500mm
BL8	CH-210-04 DE-DUSTING POINT 6	250 x 500mm
BL9	CH-210-02 FLANGE CONNECTION	2378 x 1168mm

Do Not Scale - If In Doubt Ask

Notes

1. 0450-XA-0200E
0450-XS-0200E
2. Shutdown Interlocks from MMD Primary Sizing Plant
3. For all vendor package details refer to MMD Sizer Package O&M Manual

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 2 of 7)
A0103-P&ID	P&ID All Tags (Sheet 3 of 7)
A0103-P&ID	P&ID All Tags (Sheet 4 of 7)
A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 6 of 7)
A0103-P&ID	P&ID All Tags (Sheet 7 of 7)
A3505	Cause & Effect Chart All Tags



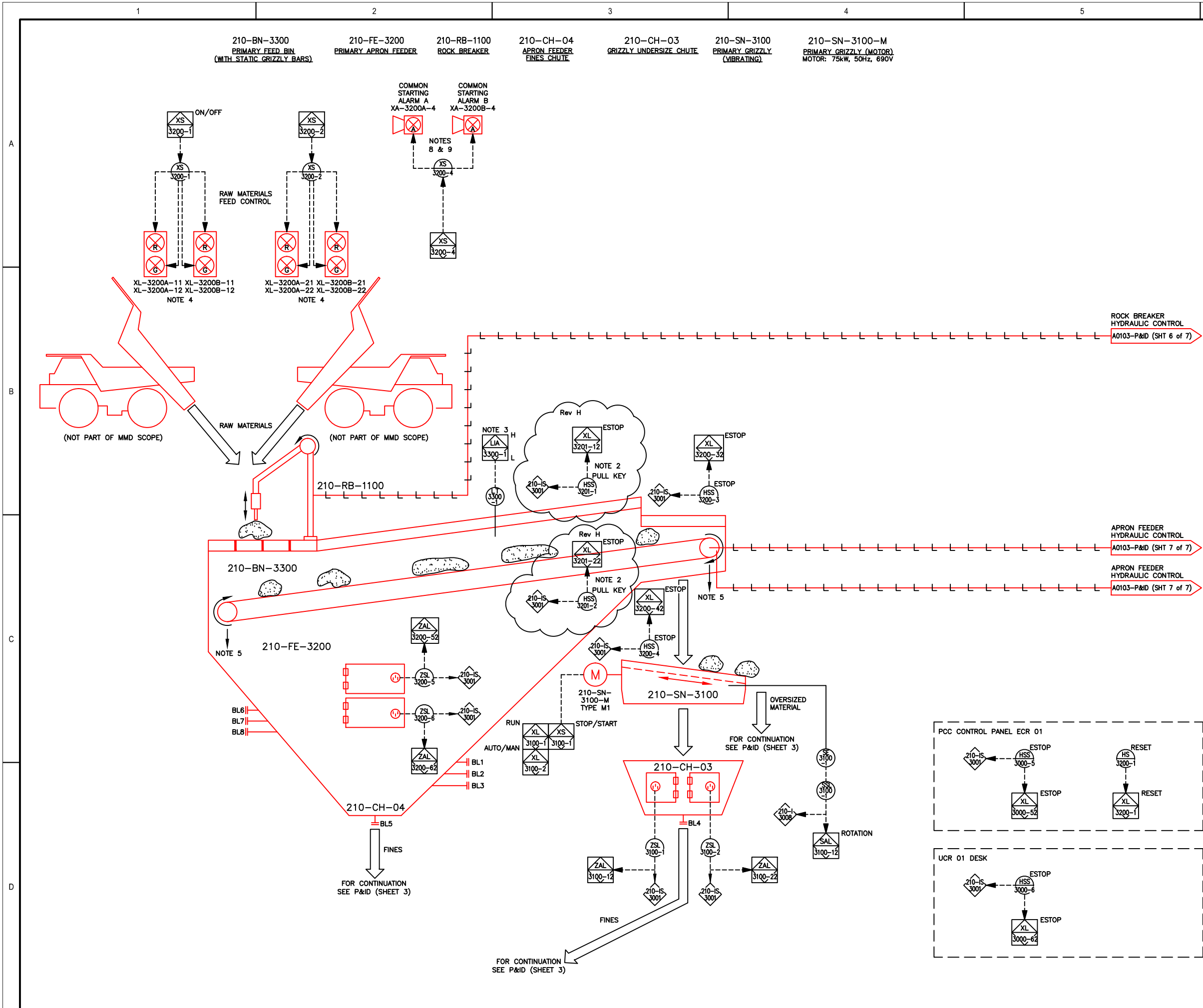
MMD Mining Machinery Developments Ltd.
Cotes Park Lane,
Cotes Park Industrial Estate,
Somercoates,
Derbyshire,
DE55 4NJ
Tel. +44 (0)1773 835533
Fax +44 (0)1773 835593

Iss	Description	Designer	Checked	Approved	Date
E	Re-issued for Construction	KD	JDL		28-08-12
D	Re-issued for Construction	KD	JDL	JM	25-07-12
C	Re-issued for Construction	KD	JDL	JM	09-07-12
B	Issued for Construction	KD	JDL	JM	28-02-12
A	Original Issue - For Comment	KD	JDL	JM	22-09-11



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Client: Areva NC BG Mines	Drawn By: KD	Date: 22-Aug-2011
PO Ref: 9806J-0210-PO-4314-003-00-IM22010	See Doc Ref: 9806J-0210-DW-4314-00101	
Project Name: Imouraren Uranium Project		
Drawing Title: J3250 P&ID All Tags (Sheet 1 of 7)		
Drawing No: A0103-P&ID	Scale: NTS	Sheet Size: A1
		Rev: E



Do Not Scale - If In Doubt Ask

Notes

1. All instrument tags are preceded with 0210--.
2. 1 x Pull key either side of conveyor.
3. Small time delay activation to avoid spurious alarms.
4. Relay with 2 n/o & 2 n/c contacts. Fall safe to red.
5. For greasing details see P&ID (Sheet 5 of 7).
6. If downstream conveyor 220-CV-1000 stops, MMD Sizer Package should be stopped.
7. For interlock details see Cause & Effect chart.
8. Beacon lamp colour - amber.
9. Relay with 1 n/o & 1 n/c contacts.

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
A0103-P&ID	P&ID All Tags (Sheet 3 of 7)
A0103-P&ID	P&ID All Tags (Sheet 4 of 7)
A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 6 of 7)
A0103-P&ID	P&ID All Tags (Sheet 7 of 7)
A3505	Cause & Effect Chart All Tags

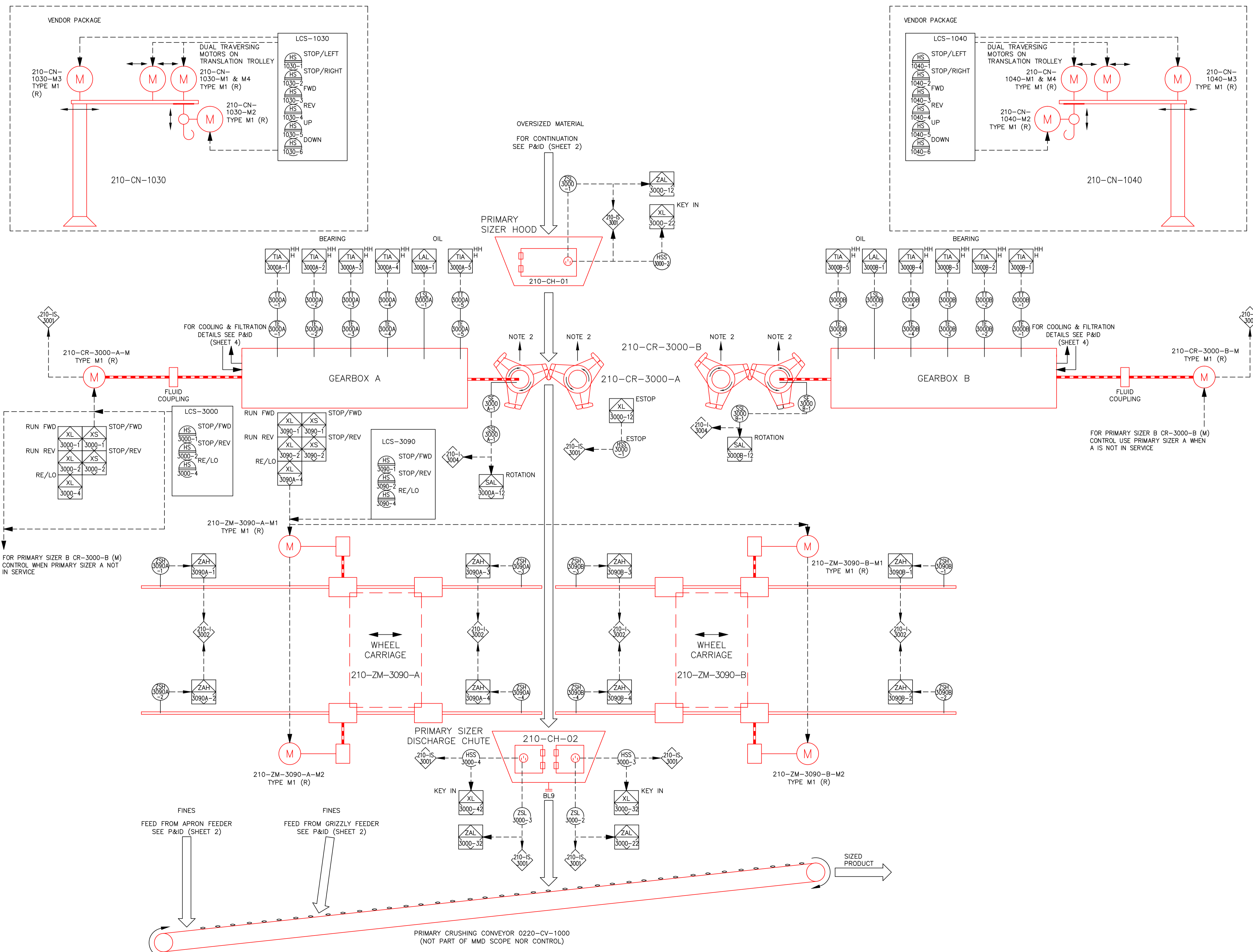
MMD Mining Machinery Developments Ltd.
Cotes Park Lane,
Cotes Park Industrial Estate,
Somercotes,
Derbyshire,
DE55 4NJ
Tel. +44 (0)1773 835533
Fax +44 (0)1773 835593

Iss	Description	Designer	Checked	Approved	Date
J	Apron Feeder LT-3300-1 Low	RE	NR		17-03-14
H	Re-issued for Construction	WB			12-8-13
G	Re-issued for Construction	CML	JDL	JM	03-10-12
F	Re-issued for Construction	KD	JDL	JM	10-09-12
E	Re-issued for Construction	KD	JDL	JM	28-08-12
D	Re-issued for Construction	KD	JDL	JM	25-07-12
C	Re-issued for Construction	KD	JDL	JM	09-07-12
B	Issued for Construction	KD	JDL	JM	28-02-12
A	Original Issue - For Comment	KD	JDL	JM	22-09-11

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Client:	Areva NC BG Mines	Drawn By:	KD	Date:	22-Aug-2011
PO Ref:	9806J-0210-PO-4314-003-00-IM22010				
See Doc Ref:	9806J-0210-DW-4314-00101				
Project Name:	Imouraren Uranium Project				
Lonson Job No:	J3250				
Drawing Title:	P&ID All Tags (Sheet 2 of 7)				
Drawing No:	A0103-P&ID	Scale:	NTS	Sheet Size:	A1
				Rev:	J

- 210-CN-1030
PRIMARY CRUSHING
DAVIT CRANE 1
- 210-CR-3000-A-M
PRIMARY SIZER A
(MOTOR)
MOTOR: 400kW, 50Hz, 6600V
- 210-ZM-3090-A-M1
PRIMARY SIZER A TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V
- 210-CR-3000-A
PRIMARY SIZER A
(DUTY)
- 210-CR-3000-B
PRIMARY SIZER B
(STANDBY)
- 210-ZM-3090-B-M1
PRIMARY SIZER B TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V
- 210-CR-3000-B-M
PRIMARY SIZER B
(MOTOR)
MOTOR: 400kW, 50Hz, 6600V
- 210-CN-1040
PRIMARY CRUSHING
DAVIT CRANE 2
- 210-CN-1030-M1 & M4
PRIMARY CRUSHING
DAVIT CRANE 1
TRAVERSE MOTORS:
0.24kW, 50Hz, 415V
- 210-CN-1030-M2
PRIMARY CRUSHING
DAVIT CRANE 1
SLEW MOTOR:
0.75kW, 50Hz, 415V
- 210-ZM-3090-A-M2
PRIMARY SIZER A TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V
- 210-CH-01
PRIMARY SIZER HOOD
- 210-CH-02
PRIMARY SIZER
DISCHARGE CHUTE
- 210-ZM-3090-B-M2
PRIMARY SIZER B TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V
- 210-CN-1040-M1 & M4
PRIMARY CRUSHING
DAVIT CRANE 2
TRAVERSE MOTORS:
0.24kW, 50Hz, 415V
- 210-CN-1040-M2
PRIMARY CRUSHING
DAVIT CRANE 2
SLEW MOTOR:
0.75kW, 50Hz, 415V
- 210-CN-1030-M3
PRIMARY CRUSHING
DAVIT CRANE 1
HOIST MOTOR: 2.5kW, 50Hz, 415V
- 210-CN-1040-M3
PRIMARY CRUSHING
DAVIT CRANE 2
HOIST MOTOR: 2.5kW, 50Hz, 415V



- ### Notes
- All instrument tags are preceded with 0210--.
 - For greasing details see P&ID (Sheet 5 of 7)
 - Primary Sizer A and B share common controls

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
A0103-P&ID	P&ID All Tags (Sheet 2 of 7)
A0103-P&ID	P&ID All Tags (Sheet 4 of 7)
A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 6 of 7)
A0103-P&ID	P&ID All Tags (Sheet 7 of 7)
A3505	Cause & Effect Chart All Tags

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Fax +44 (0)1773 835593

Iss	Description	Designer	Checked	Approved	Date
J	Dual Traverse motors on Davits	RE	ROE	JM	05-02-14
H	Remove Auto/Manual selectors	RE		JM	14-11-13
G	Re-issued for Construction	CML	JDL	JM	03-10-12
F	Re-issued for Construction	KD	JDL	JM	10-09-12
E	Re-issued for Construction	KD	JDL	JM	22-08-12
D	Re-issued for Construction	KD	JDL	JM	25-07-12
C	Re-issued for Construction	KD	JDL	JM	09-07-12
B	Issued for Construction	KD	JDL	JM	28-02-12
A	Original Issue - For Comment	KD	JDL	JM	22-09-11

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Client:	Areva NC BG Mines	Drawn By:	KD	Date:	22-Aug-2011
PO Ref:	9806J-0210-PO-4314-003-00-IM22010				
See Doc Ref:	9806J-0210-DW-4314-00101				
Project Name:	Imouraren Uranium Project				
Job No:					
Drawing Title:	P&ID All Tags (Sheet 3 of 7)				
Drawing No:	A0103-P&ID	Scale:	NTS	Sheet Size:	A1
					Rev: J

210-CN-1030
PRIMARY CRUSHING
DAVIT CRANE 1

210-CR-3000-A-M
PRIMARY SIZER A
(MOTOR)
MOTOR: 400kW, 50Hz, 6600V

210-ZM-3090-A-M1
PRIMARY SIZER A TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V

210-CR-3000-A
PRIMARY SIZER A
(DUTY)

210-CR-3000-B
PRIMARY SIZER B
(STANDBY)

210-ZM-3090-B-M1
PRIMARY SIZER B TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V

210-CR-3000-B-M
PRIMARY SIZER B
(MOTOR)
MOTOR: 400kW, 50Hz, 6600V

210-CN-1040
PRIMARY CRUSHING
DAVIT CRANE 2

210-CN-1030-M1 & M4
PRIMARY CRUSHING
DAVIT CRANE 1
TRAVERSE MOTORS:
0.24kW, 50Hz, 415V

210-CN-1030-M2
PRIMARY CRUSHING
DAVIT CRANE 1
SLEW MOTOR:
0.75kW, 50Hz, 415V

210-ZM-3090-A-M2
PRIMARY SIZER A TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V

210-CH-01
PRIMARY SIZER HOOD

210-CH-02
PRIMARY SIZER
DISCHARGE CHUTE

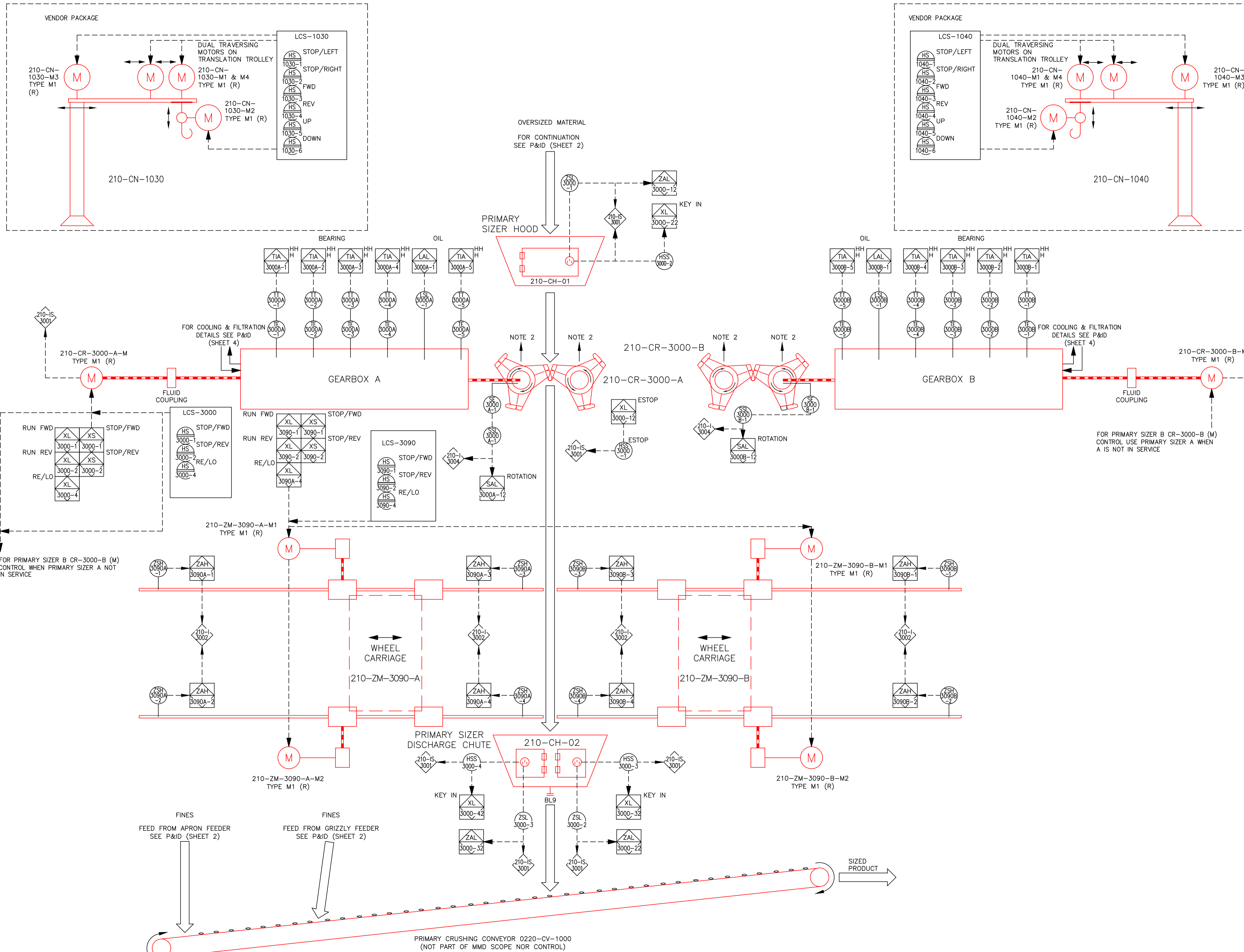
210-ZM-3090-B-M2
PRIMARY SIZER B TROLLEY
(MOTOR)
MOTOR: 1.1kW, 50Hz, 690V

210-CN-1040-M1 & M4
PRIMARY CRUSHING
DAVIT CRANE 2
TRAVERSE MOTORS:
0.24kW, 50Hz, 415V

210-CN-1040-M2
PRIMARY CRUSHING
DAVIT CRANE 2
SLEW MOTOR:
0.75kW, 50Hz, 415V

210-CN-1030-M3
PRIMARY CRUSHING
DAVIT CRANE 1
HOIST MOTOR: 2.5kW, 50Hz, 415V

210-CN-1040-M3
PRIMARY CRUSHING
DAVIT CRANE 2
HOIST MOTOR: 2.5kW, 50Hz, 415V



Notes

- All instrument tags are preceded with 0210--.
- For greasing details see P&ID (Sheet 5 of 7)
- Primary Sizer A and B share common controls

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
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A3505	Cause & Effect Chart All Tags



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C	Re-issued for Construction	KD	JDL	JM	09-07-12
B	Issued for Construction	KD	JDL	JM	28-02-12
A	Original Issue - For Comment	KD	JDL	JM	22-09-11



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Client: Areva NC BG Mines	Drawn By: KD	Date: 22-Aug-2011
PO Ref: 9806J-0210-PO-4314-003-00-IM22010		
See Doc Ref: 9806J-0210-DW-4314-00101		

Project Name: Imouraren Uranium Project
Job No:

Drawing Title: P&ID All Tags (Sheet 3 of 7)	Scale: NTS	Sheet Size: A1	Rev: J
Drawing No: A0103-P&ID			

210-PU-3010-A-M
 PRIMARY SIZER A
 OIL PUMP MOTOR
 MOTOR: 2.2kW, 50Hz, 690V

210-AC-3020-A-M
 PRIMARY SIZER A
 OIL AIR COOLER MOTOR
 MOTOR: 1.1kW, 50Hz, 690V

210-PU-3010-B-M
 PRIMARY SIZER B
 OIL PUMP MOTOR
 MOTOR: 2.2kW, 50Hz, 690V

210-AC-3020-B-M
 PRIMARY SIZER B
 OIL AIR COOLER MOTOR
 MOTOR: 1.1kW, 50Hz, 690V

Do Not Scale - If In Doubt Ask

Notes

- 1. All instrument tags are preceded with 0210-.

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
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A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 6 of 7)
A0103-P&ID	P&ID All Tags (Sheet 7 of 7)
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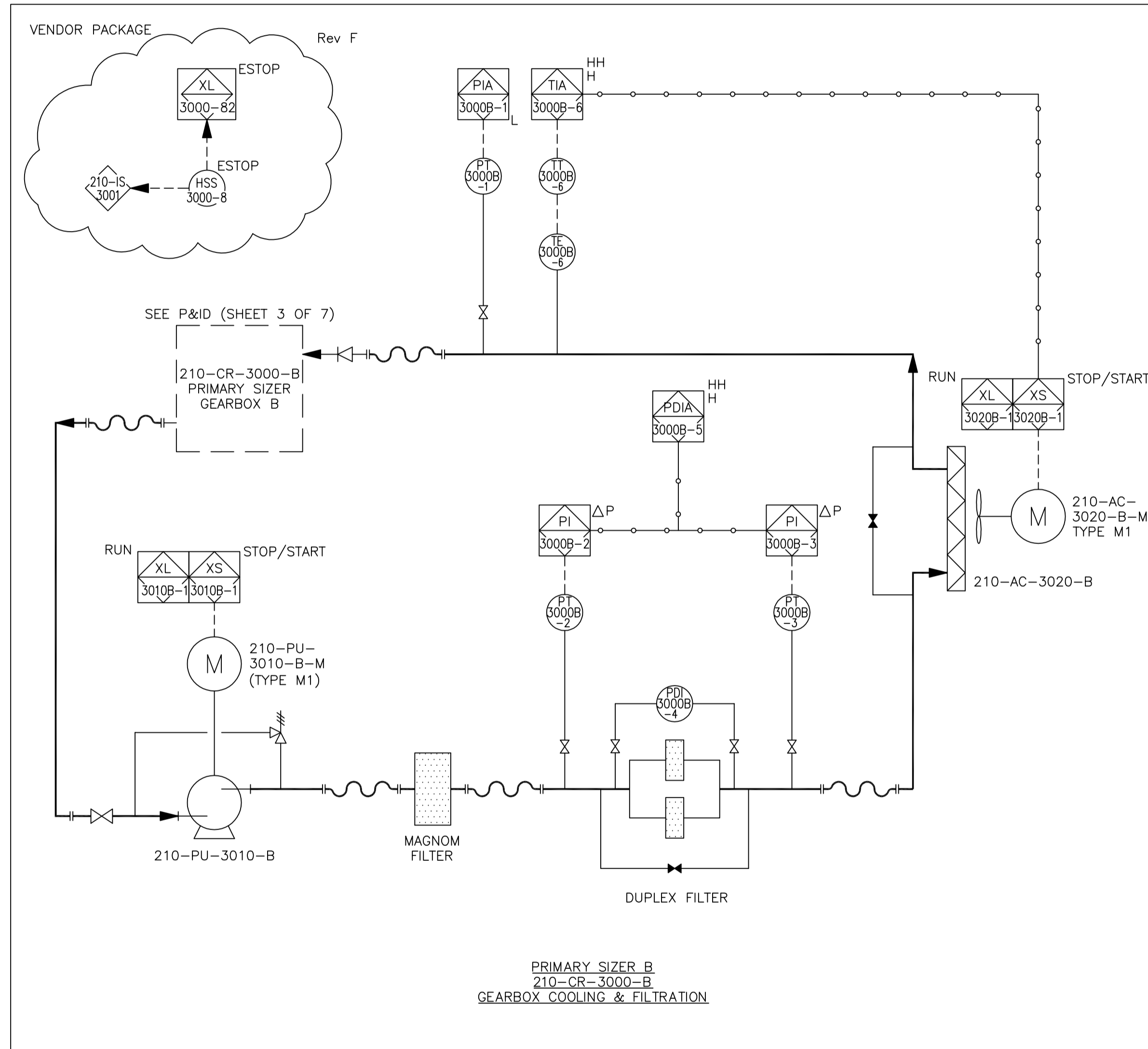
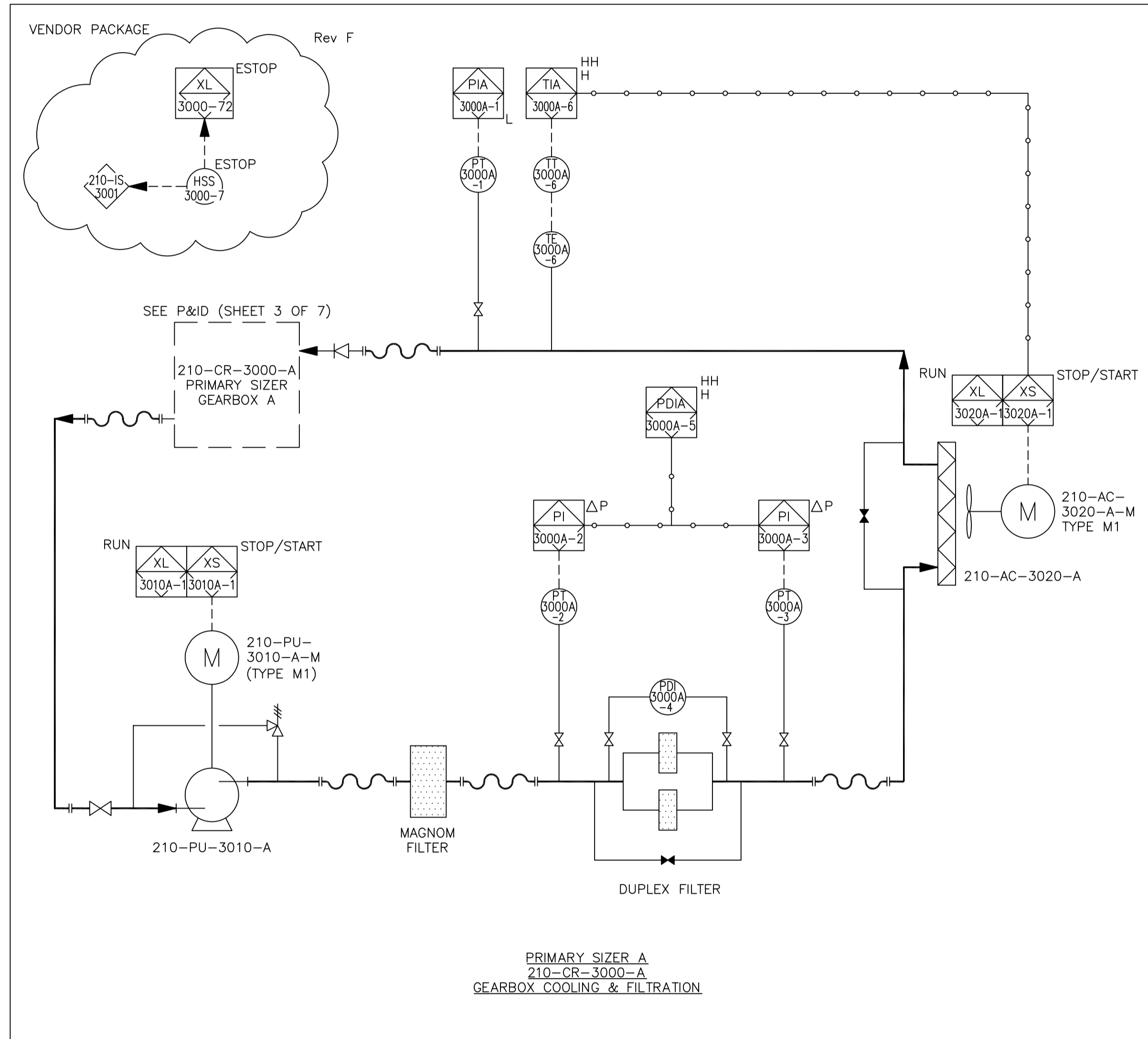
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Iss	Description	Designer	Checked	Approved	Date
F	Re-issued for Construction	WB			12-8-13
E	Re-issued for Construction	KD	JDL		10-09-12
D	Re-issued for Construction	KD	JDL	JM	28-08-12
C	Re-issued for Construction	KD	JDL	JM	09-07-12
B	Issued for Construction	KD	JDL	JM	28-02-12
A	Original Issue - For Comment	KD	JDL	JM	22-09-11



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Client: Areva NC BG Mines	Drawn By: KD	Date: 22-Aug-2011
PO Ref: 9806J-0210-PO-4314-003-00-IM22010	See Doc Ref: 9806J-0210-DW-4314-00101	
Project Name: Imouraren Uranium Project		
Job No: J3250		
Drawing Title: P&ID All Tags (Sheet 4 of 7)		
Drawing No: A0103-P&ID	Scale: NTS	Sheet Size: A1
		Rev: F



A

B

C

D

1
 210-PU-3250-M
 PRIMARY APRON FEEDER
 GREASE PUMP MOTOR
 MOTOR: 0.37kW, 50Hz, 690V

2
 210-PU-3030-A-M
 PRIMARY SIZER A
 GREASE PUMP MOTOR
 MOTOR: 0.37kW, 50Hz, 690V

3
 210-PU-3030-B-M
 PRIMARY SIZER B
 GREASE PUMP MOTOR
 MOTOR: 0.37kW, 50Hz, 690V

6
 Do Not Scale - If In Doubt Ask

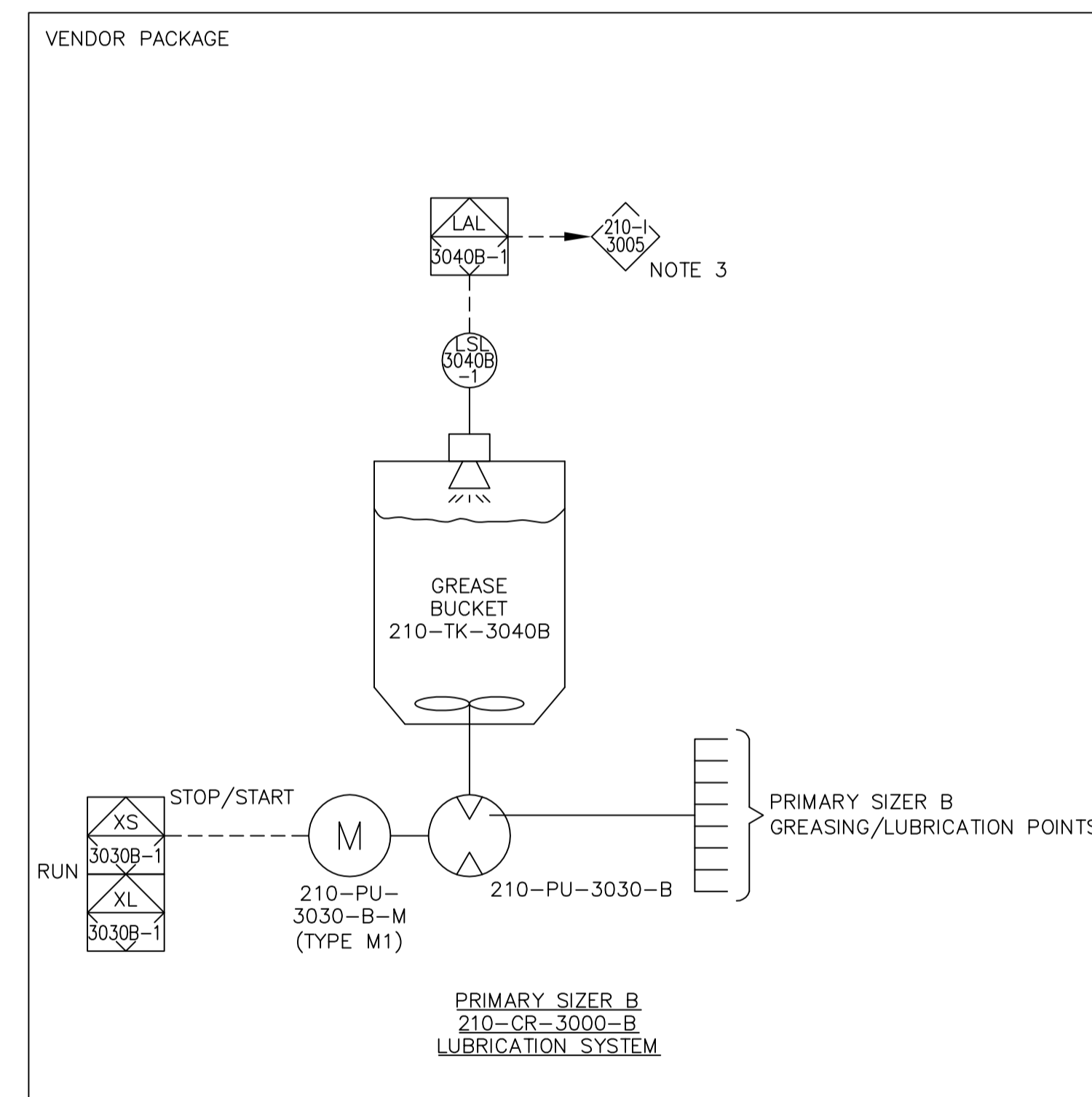
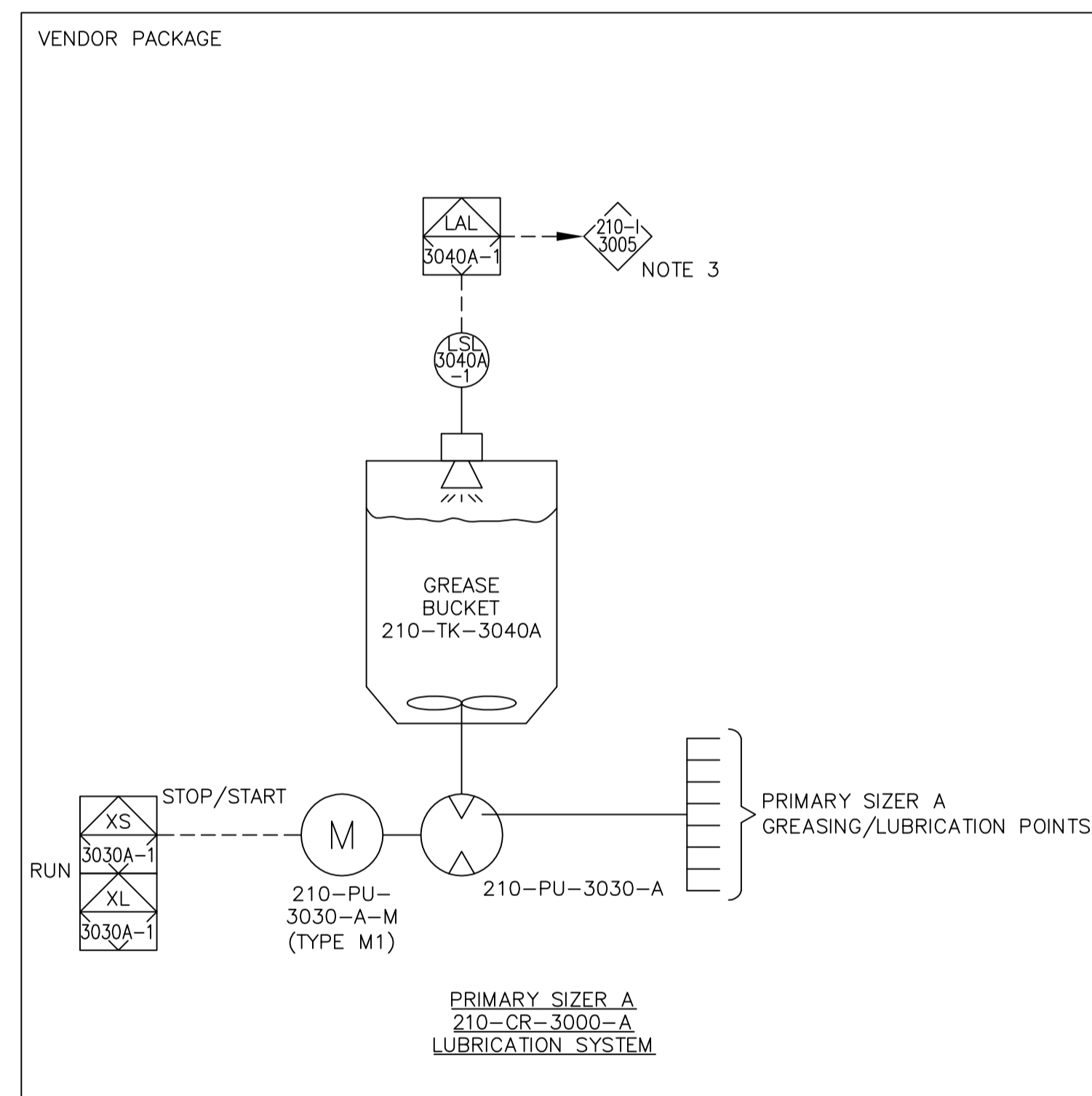
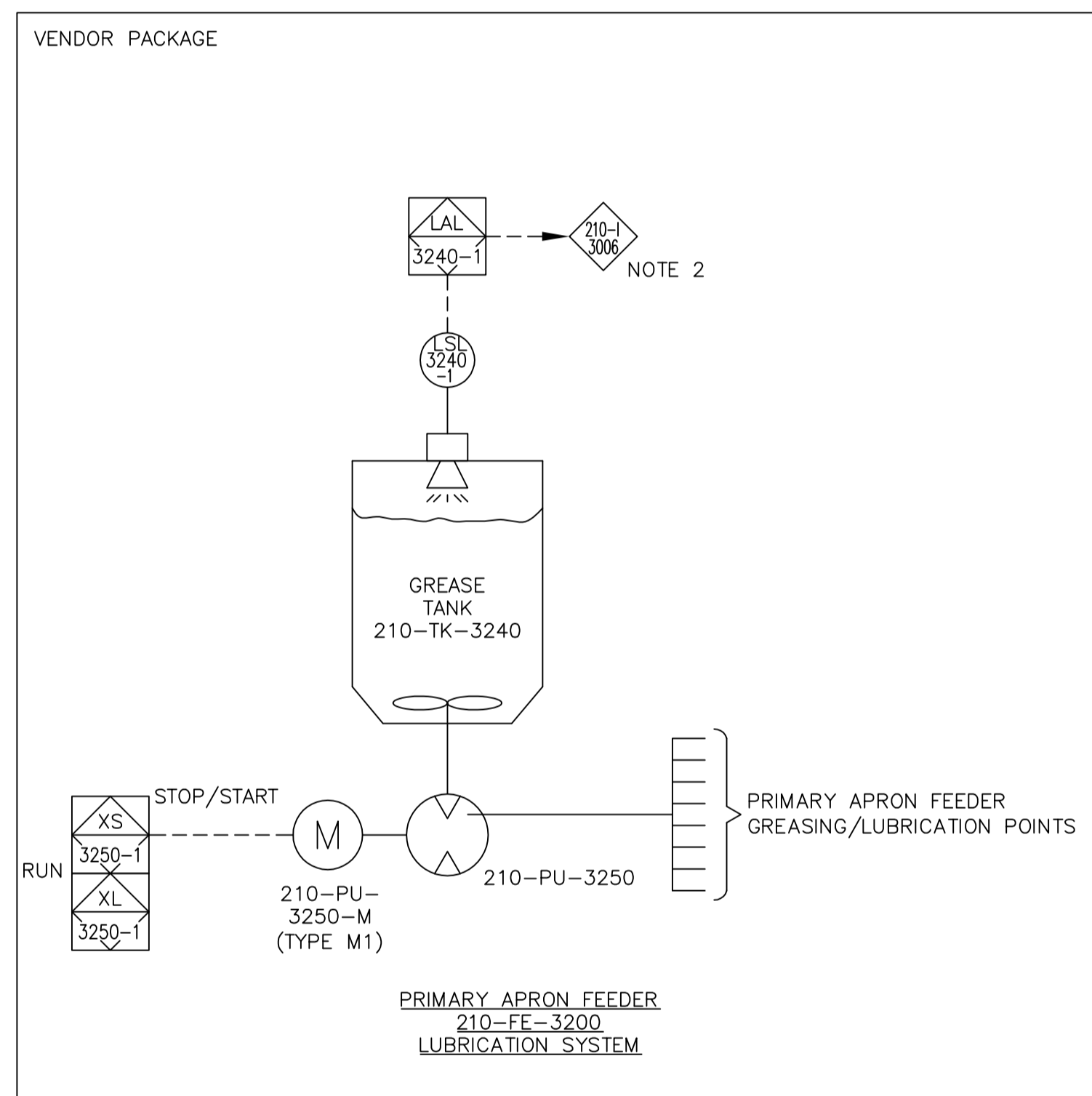
Notes

1. All instrument tags are preceded with 0210-.
2. Timed interlock will stop the Apron Feeder if low level is activated and grease tank is not refilled.
3. Timed interlock will stop the Sizer if low level is activated and grease tank is not refilled.

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
A0103-P&ID	P&ID All Tags (Sheet 2 of 7)
A0103-P&ID	P&ID All Tags (Sheet 3 of 7)
A0103-P&ID	P&ID All Tags (Sheet 4 of 7)
A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 6 of 7)
A0103-P&ID	P&ID All Tags (Sheet 7 of 7)
A3505	Cause & Effect Chart All Tags



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 Cotes Park Lane,
 Cotes Park Industrial Estate,
 Somercotes,
 Derbyshire,
 DE55 4NJ
 Tel. +44 (0)1773 835533
 Fax +44 (0)1773 835593

Iss	Description	Designer	Checked	Approved	Date
G	Issued for Construction	CML	JDL	JM	03-10-12
F	Re-issued for Construction	CML	JDL	JM	03-10-12
E	Re-issued for Construction	KD	JDL	JM	28-08-12
D	Re-issued for Construction	KD	JDL	JM	25-07-12
C	Re-issued for Construction	KD	JDL	JM	09-07-12
B	Issued for Construction	KD	JDL	JM	28-02-12
A	Original Issue - For Comment	KD	JDL	JM	22-09-11



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Client:	Areva NC BG Mines	Drawn By:	KD	Date:	21-Sept-2011
PO Ref:	9806J-0210-PO-4314-003-00-IM22010				
See Doc Ref:	9806J-0210-DW-4314-00101				
Project Name:	Imouraren Uranium Project				
Job No:	J3250				
Drawing Title:	P&ID All Tags (Sheet 5 of 7)				
Drawing No:	A0103-P&ID	Scale:	NTS	Sheet Size:	A1
				Rev:	G

210-PU-1110-M
ROCK BREAKER
(HYDRAULIC UNIT PUMP MOTOR)
MOTOR: 55kW, 50Hz, 690V

210-AC-1120-M
ROCK BREAKER
(HYDRAULIC UNIT AIR
COOLER MOTOR)
MOTOR: 0.37kW, 50Hz, 690V

Do Not Scale - If In Doubt Ask

Notes

1. All instrument tags are preceded with 0210-.
2. Vendor control panel pre-programmed and pre-wired as part of vendor package. For full details refer to MMD Sizer Package O&M Manual.

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
A0103-P&ID	P&ID All Tags (Sheet 2 of 7)
A0103-P&ID	P&ID All Tags (Sheet 3 of 7)
A0103-P&ID	P&ID All Tags (Sheet 4 of 7)
A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 7 of 7)
A3505	Cause & Effect Chart All Tags



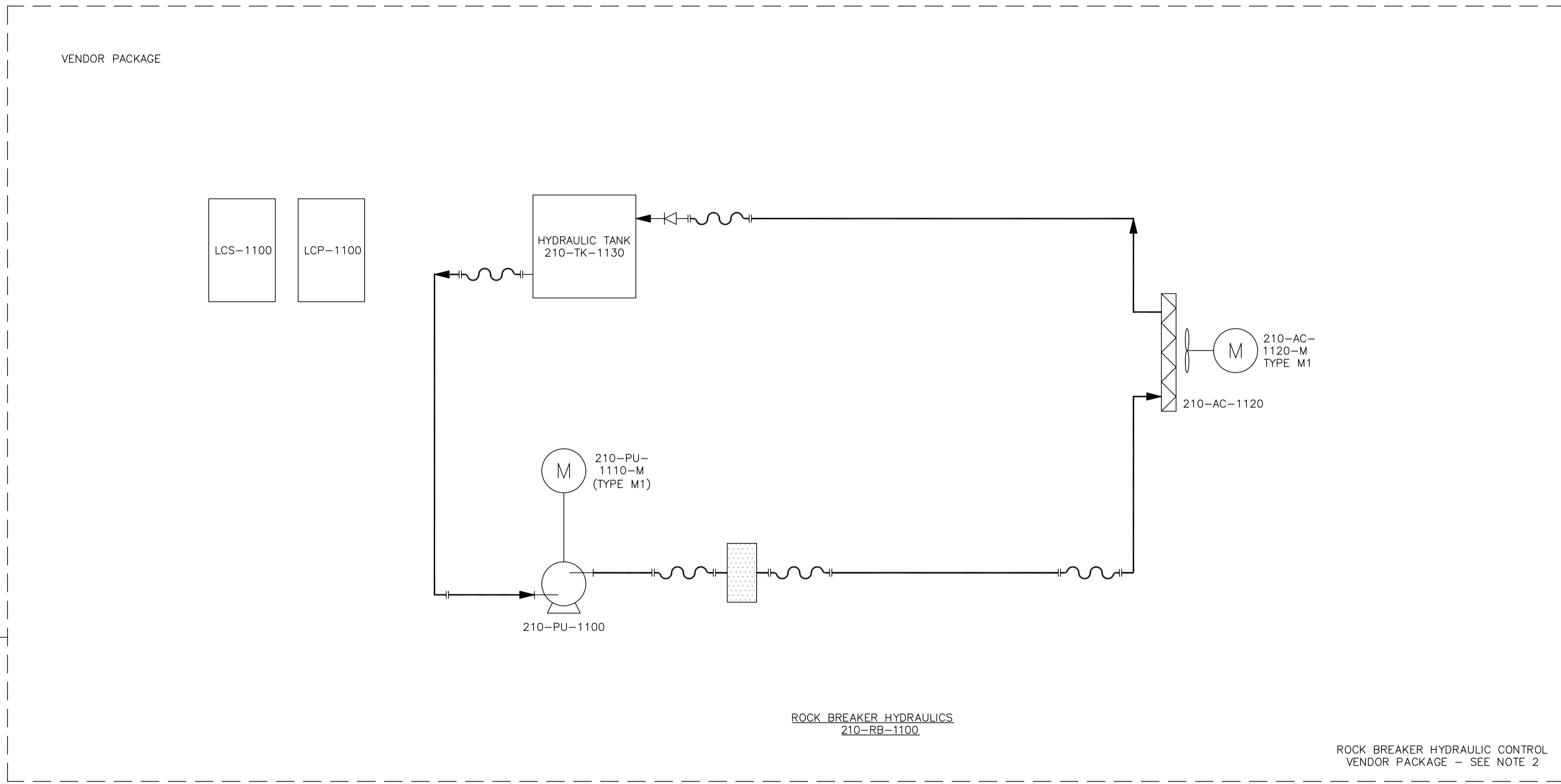
MMD Mining Machinery Developments Ltd.
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Iss	Description	Designer	Checked	Approved	Date
D	Issued For Construction	KD	JDL		10-09-12
C	Re-issued For Comment	KD	JDL	JM	28-08-12
B	Re-issued For Comment	KD	JDL	JM	25-07-12
A	Original Issue - For Comment	KD	JDL	JM	09-07-12



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Client: Areva NC BG Mines	Drawn By: KD	Date: 05-Jul-2012
PO Ref: 9806J-0210-PO-4314-003-00-IM22010	See Doc Ref: 9806J-0210-DW-4314-00101	
Project Name: Imouraren Uranium Project		
Lonson Job No: J3250		
Drawing Title: P&ID All Tags (Sheet 6 of 7)		
Drawing No: A0103-P&ID	Scale: NTS	Sheet Size: A1
		Rev: D



ROCK BREAKER
A0103-P&ID (SHT 2 of 7)

ROCK BREAKER HYDRAULICS
210-RB-1100

ROCK BREAKER HYDRAULIC CONTROL
VENDOR PACKAGE - SEE NOTE 2

Notes

1. All instrument tags are preceded with 0210.
2. Vendor control panel pre-programmed and pre-wired as part of vendor package.
3. If downstream conveyor 220-CV-1000 stops Apron Feeder and MMD Sizer also stop after a time delay.
4. For interlock details see Cause & Effect chart

Holds

Reference Drawings

Drawing No.	Drawing Title
A0103-P&ID	P&ID All Tags (Sheet 1 of 7)
A0103-P&ID	P&ID All Tags (Sheet 2 of 7)
A0103-P&ID	P&ID All Tags (Sheet 3 of 7)
A0103-P&ID	P&ID All Tags (Sheet 4 of 7)
A0103-P&ID	P&ID All Tags (Sheet 5 of 7)
A0103-P&ID	P&ID All Tags (Sheet 6 of 7)
A3505	Cause & Effect Chart All Tags



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Rev	Description	Designer	Checked	Approved	Date
F	Re-issued for Construction	JDL	WB	JM	27-06-13
E	Re-issued for Construction	CML	JDL	JM	03-10-12
D	Issued for Construction	KD	JDL	JM	10-09-12
C	Issued for Approval	KD	JDL	JM	01-08-12
B	Re-issued for Comment	KD	JDL	JM	25-07-12
A	Original Issue - For Comment	KD	JDL	JM	09-07-12



www.lonsonitd.co.uk enquiry@lonsonitd.co.uk

Client:	Areva NC BG Mines	Drawn By:	KD	Date:	05-Jul-2012
PO Ref:	9806J-0210-PO-4314-003-00-IM22010				
See Doc Ref:	9806J-0210-DW-4314-00101				
Project Name:	Imouraren Uranium Project				
Lonson Job No:	J3250				
Drawing Title:	P&ID All Tags (Sheet 7 of 7)				
Drawing No:	A0103-P&ID	Scale:	NTS	Sheet Size:	A1
				Rev:	F

210-PU-3200-M
 PRIMARY APRON FEEDER
 (HYDRAULIC UNIT PUMP MOTOR)
 MOTOR: 315kW, 50Hz, 690V

210-AC-3220-M
 PRIMARY APRON FEEDER
 (HYDRAULIC UNIT AIR COOLER MOTOR)
 MOTOR: 11kW, 50Hz, 690V

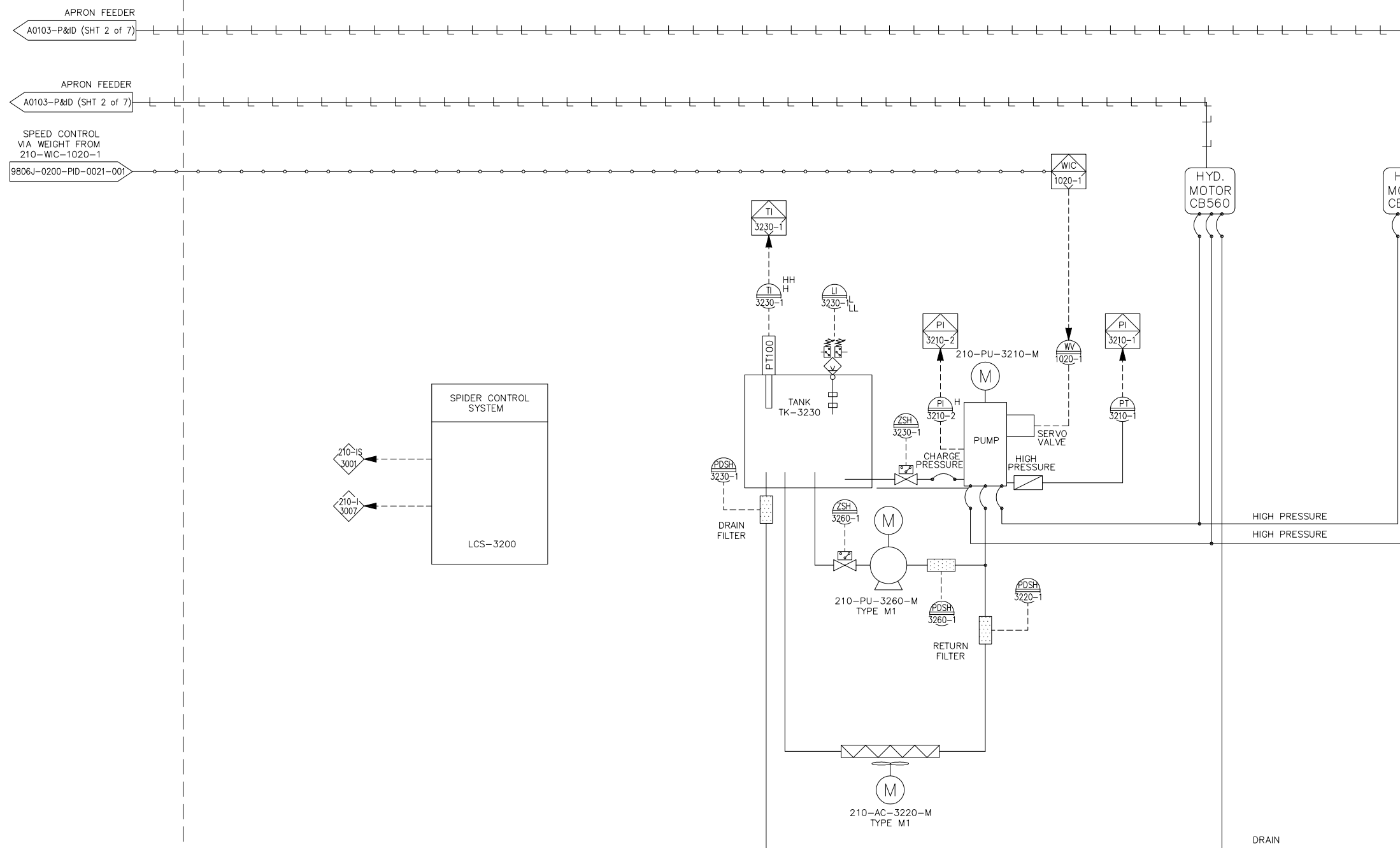
210-PU-3260-M
 PRIMARY APRON FEEDER
 (HYDRAULIC UNIT CIRCULATION PUMP MOTOR)
 MOTOR: 3kW, 50Hz, 690V

A

B

C

D



NOTE 3

APRON FEEDER HYDRAULIC CONTROL
 VENDOR PACKAGE - SEE NOTE 2