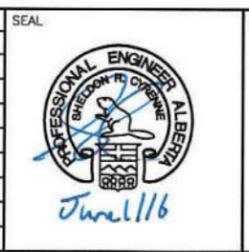


THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, IMPROVED, REENGINEERED, ALTERED, CHANGED, MODIFIED, SOLE, DISTRIBUTED, OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. DAMAGES TO REPUTATION OR LIABILITY FOR ANY LOSS OF PROFITS OR BUSINESS OPERATIONS SHALL NOT BE UNDER ANY CIRCUMSTANCES BE RESPONSIBLE TO THE USER OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN.

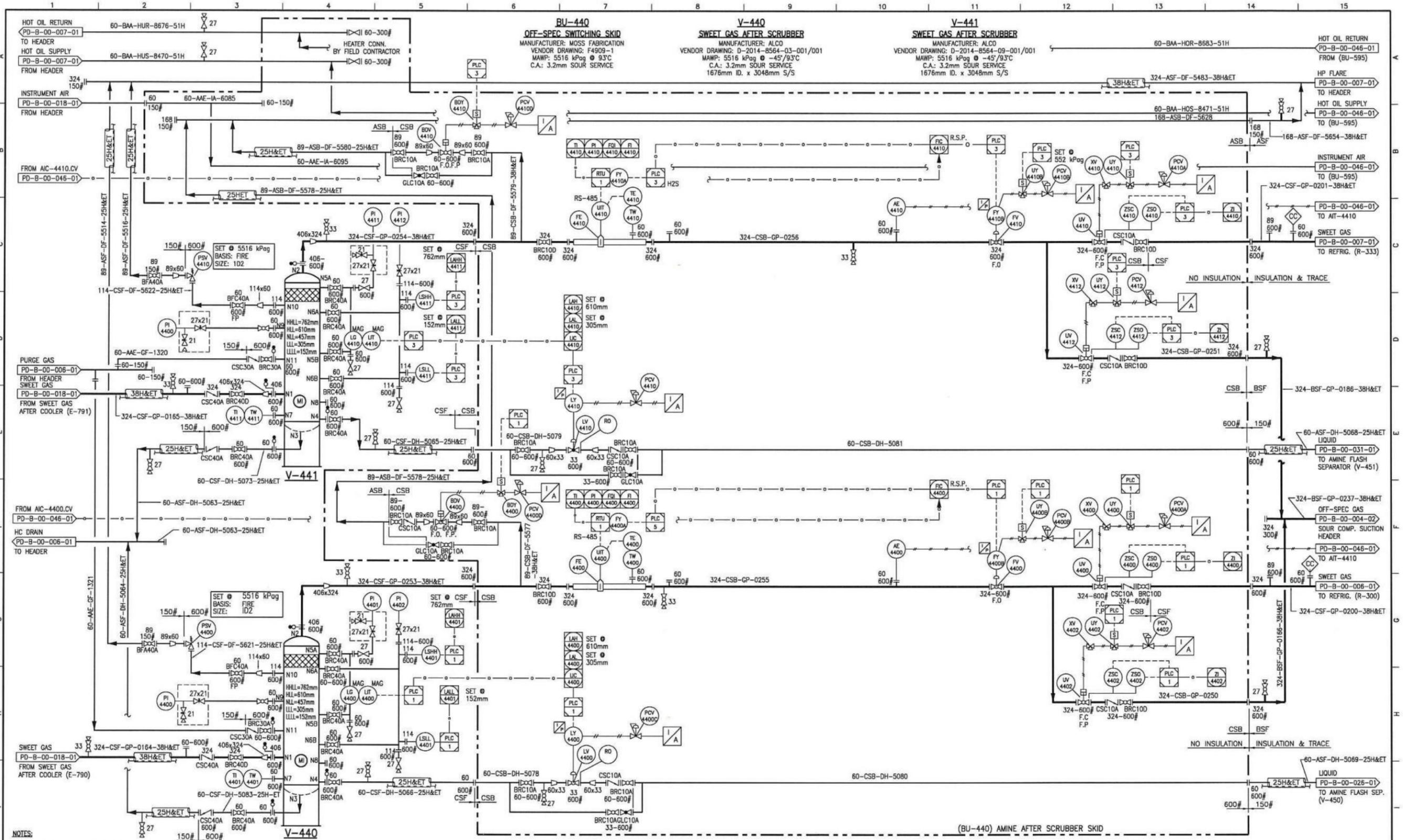
REFERENCE DRAWINGS		REVISIONS					
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	APP'D	REVISION DESCRIPTION
		A	2014/07/18	NVM			ISSUED FOR REVIEW
		B	2014/07/29	DVM			ISSUED FOR HAZOP
		C	2014/12/05	AAK			ISSUED FOR DESIGN
		0	2015/03/11	BSP			ISSUED FOR CONSTRUCTION
		1	2015/06/30	LD			RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL			RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVG			AS-BUILT



**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

		<b>SCALE:</b> N.T.S. <b>DRAWN BY:</b> N. V. MORE <b>DATE:</b> 2014/05/19 <b>CLIENT:</b> 188 <b>REGION:</b> 01 <b>PROJECT:</b> 02		<b>DRAWING NO.:</b> PD-B-00-018-01 <b>REV:</b> 3	
--	--	---	--	---	--

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, REPRODUCED, CHANGED, MODIFIED, ALTERED, REPRODUCED, EITHER WHOLLY OR IN PART, OR IN ANY MANNER, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. ANY UNAUTHORIZED USE OR DISSEMINATION OF THIS INFORMATION IS STRICTLY PROHIBITED.



NOTES:  
1. LEVEL SWITCH BRIDLES TO BE PROVIDED BY VENDOR.

REFERENCE DRAWINGS				REVISIONS			
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	APP'D	REVISION DESCRIPTION
		A	2014/05/19	NWM			ISSUED FOR REVIEW
		B	2014/08/07	JHJ			ISSUED FOR HAZOP
		C	2014/12/05	AAK			ISSUED FOR DESIGN
		0	2015/03/11	BSP			ISSUED FOR CONSTRUCTION
		1	2015/06/30	LD			RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL			RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVG			AS-BUILT

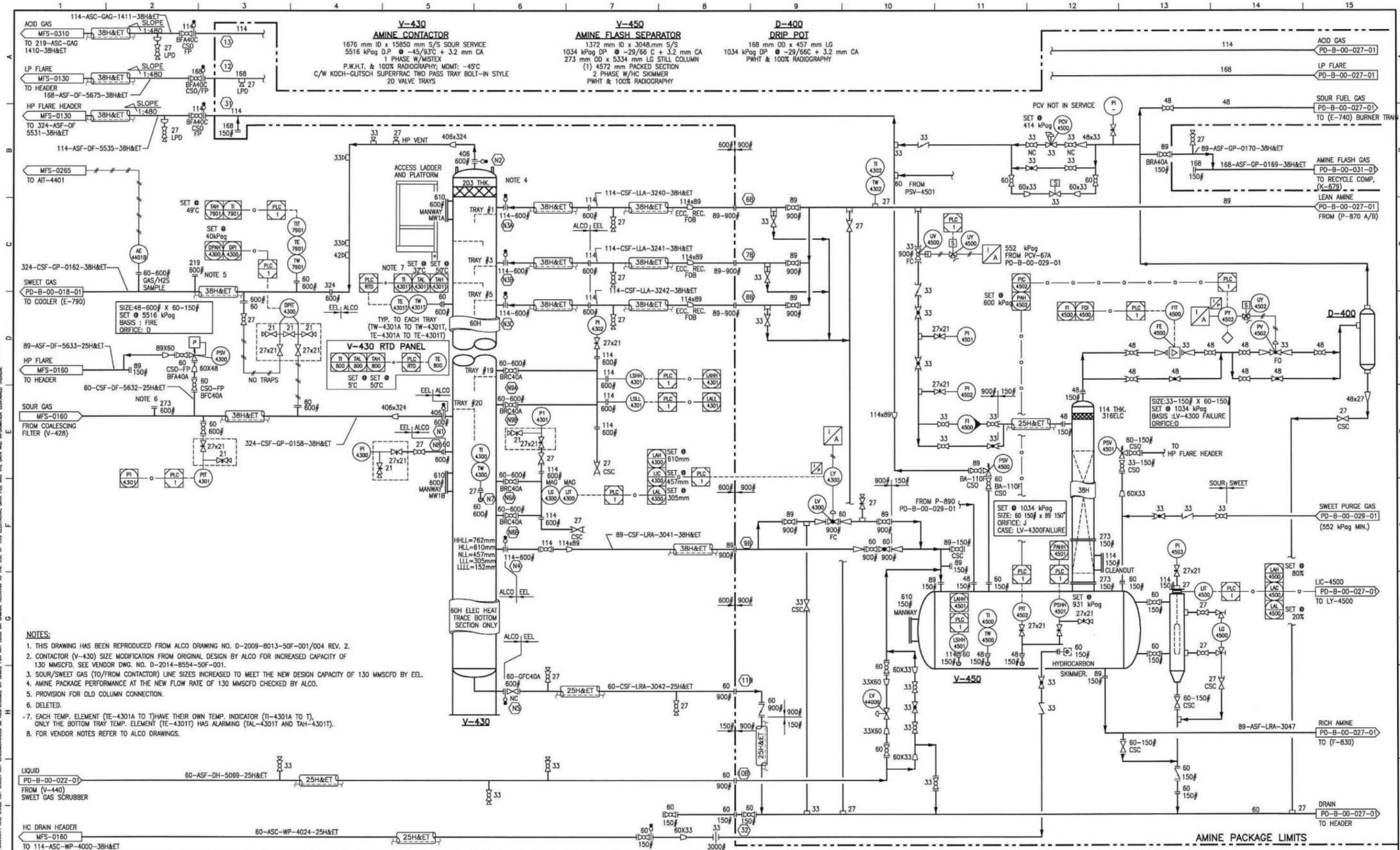
SEAL

PROFESSIONAL ENGINEER ALBERTA  
 EQUINOX ENGINEERING CANADA LTD.  
 Jhal/16

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

		SCALE		DRAWN BY		DATE		CLIENT		REGION		PROJECT		DRAWING NO.		REV	
		N.T.S.		D. KUDAV		2014/05/13		188		01		02		PD-B-00-022-01		3	



REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	CHK'D	APP'D	REVISION DESCRIPTION
		A	2014/09/25	RBN				ISSUED FOR REVIEW
		B	2014/12/05	SBJ				ISSUED FOR DESIGN
		0	2015/05/19	AKS				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	DVM				AS-BUILT

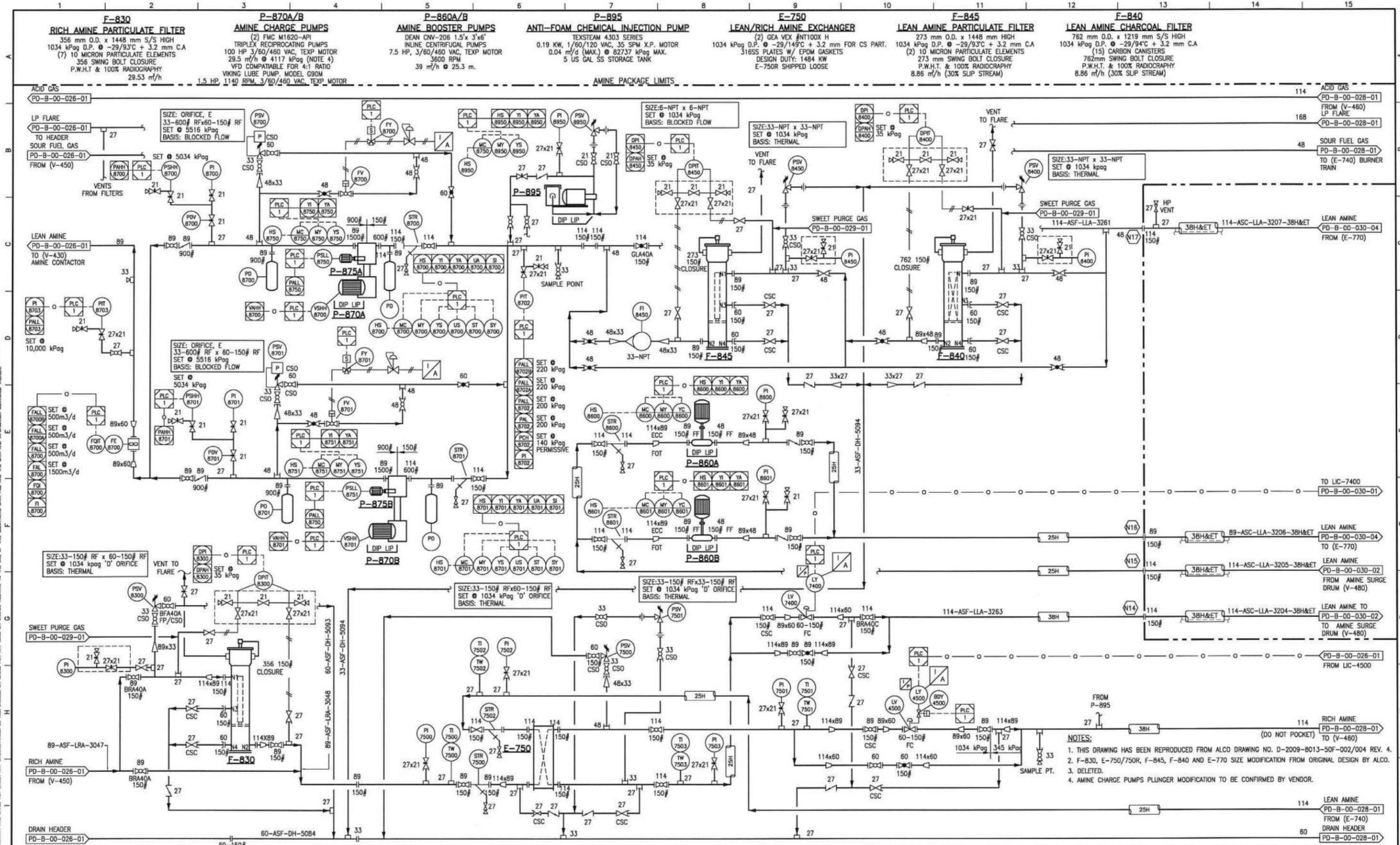
SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	KSB	2014/07/28	188	01	02	PD-B-00-026-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, IMPAIRED, REVISED, ALTERED, MODIFIED, OR UTILIZED IN ANY FORM, EQUINOX ENGINEERING LTD. MAKES NO REPRESENTATION OR WARRANTY AND SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY LOSS OR DAMAGE RELATING TO THE USE OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN.



THE INFORMATION AND DATA CONTAINED IN THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY TO EQUINOX ENGINEERING CANADA LTD. AND SHALL NOT BE REPRODUCED, COPIED, MIMICED, REPRODUCED, ALTERED, CHANGED, MODIFIED, SOLD, DISTRIBUTED OR UTILIZED IN ANY FORM. EQUINOX ENGINEERING CANADA LTD. MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF THE INFORMATION CONTAINED HEREIN.

**NOTES:**  
 1. THIS DRAWING HAS BEEN REPRODUCED FROM ALCO DRAWING NO. D-2009-B013-50F-002/004 REV. 4.  
 2. F-830, E-750/750R, F-845, F-840 AND E-770 SIZE MODIFICATION FROM ORIGINAL DESIGN BY ALCO.  
 3. DELETED.  
 4. AMINE CHARGE PUMPS PLUNGER MODIFICATION TO BE CONFIRMED BY VENDOR.

REFERENCE DRAWINGS		REVISIONS				
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D DFTC	CHK'D ENG
		A	2014/11/05	RBN		
		B	2014/12/09	SBJ		
		0	2015/05/20	AKS		
		1	2015/06/30	LL		
		2	2015/08/24	LL		
		3	2016/04/12	DVM		

SEAL

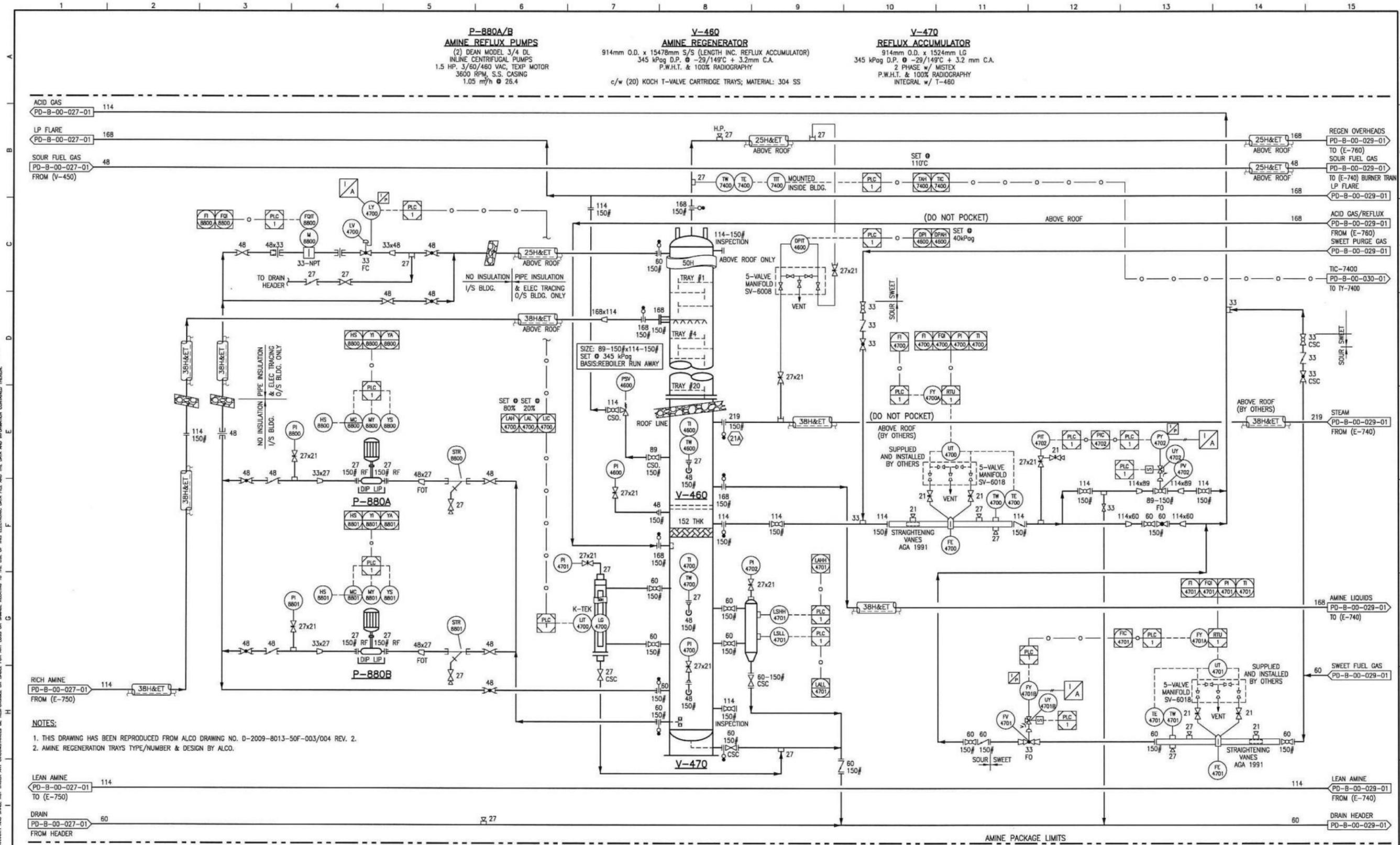
PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

June 11/16

**EQUINOX Engineering**

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/06/28	188	01	02	PD-B-00-027-01	3



**NOTES:**  
 1. THIS DRAWING HAS BEEN REPRODUCED FROM ALCO DRAWING NO. D-2009-8013-50F-003/004 REV. 2.  
 2. AMINE REGENERATION TRAYS TYPE/NUMBER & DESIGN BY ALCO.

**LEAN AMINE** PD-B-00-027-01 114 TO (E-750)

**DRAIN** PD-B-00-027-01 60 FROM HEADER

REFERENCE DRAWINGS		REVISIONS				
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	REVISION DESCRIPTION
		A	2014/11/05	LMS		ISSUED FOR INTERNAL REVIEW
		B	2014/12/09	SBJ		ISSUED FOR DESIGN
		0	2015/05/19	AKS		ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL		RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL		RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	DVM		AS-BUILT

SEAL

June 11/16

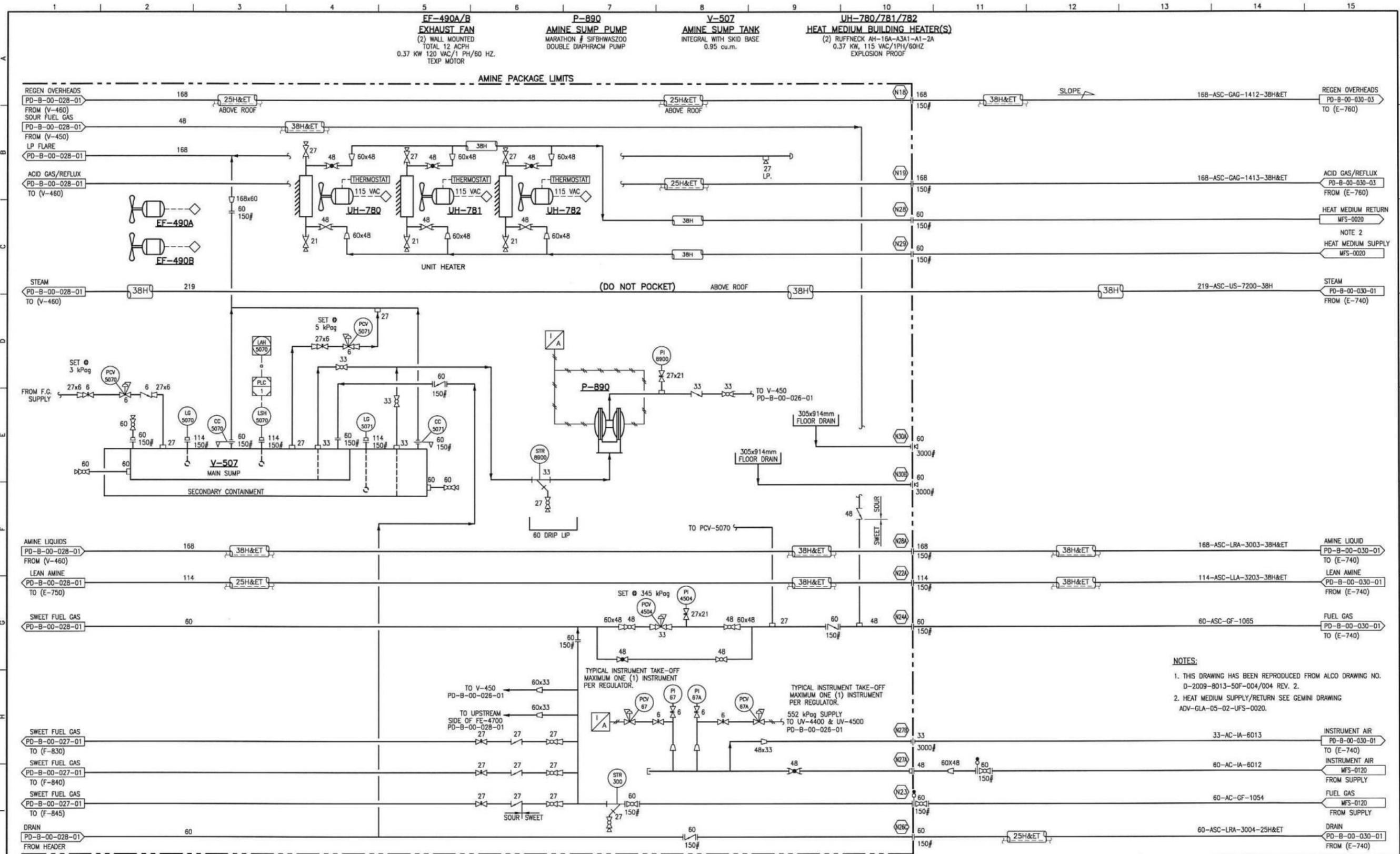
PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	N. V. MORE	2014/07/28	188	01	02	PD-B-00-028-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, MITATED, REPRODUCED, ADAPTED, MODIFIED, OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. ANY UNAUTHORIZED USE OR DISSEMINATION OF THIS INFORMATION IS STRICTLY PROHIBITED.

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, MIMICED, ALTERED, CHANGED, MODIFIED, REPRODUCED, EITHER WHOLLY OR IN PART, OR IN ANY MANNER, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. ANY USE OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. MAKES NO REPRESENTATION OR WARRANTY AND SHALL NOT UNDER ANY CIRCUMSTANCES BE RESPONSIBLE OR LIABLE FOR ANY LOSS OR DAMAGE RELATING TO THE USE OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN.



- NOTES:**
- THIS DRAWING HAS BEEN REPRODUCED FROM ALSO DRAWING NO. D-2009-8013-50F-004/004 REV. 2.
  - HEAT MEDIUM SUPPLY/RETURN SEE GEMINI DRAWING ADV-GLA-05-02-UFS-0020.

REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D DFTG	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		A	2015/02/12	DVM				ISSUED FOR INTERNAL REVIEW
		B	2014/12/09	SBJ				ISSUED FOR DESIGN
		0	2015/05/19	AKS				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVG				AS-BUILT

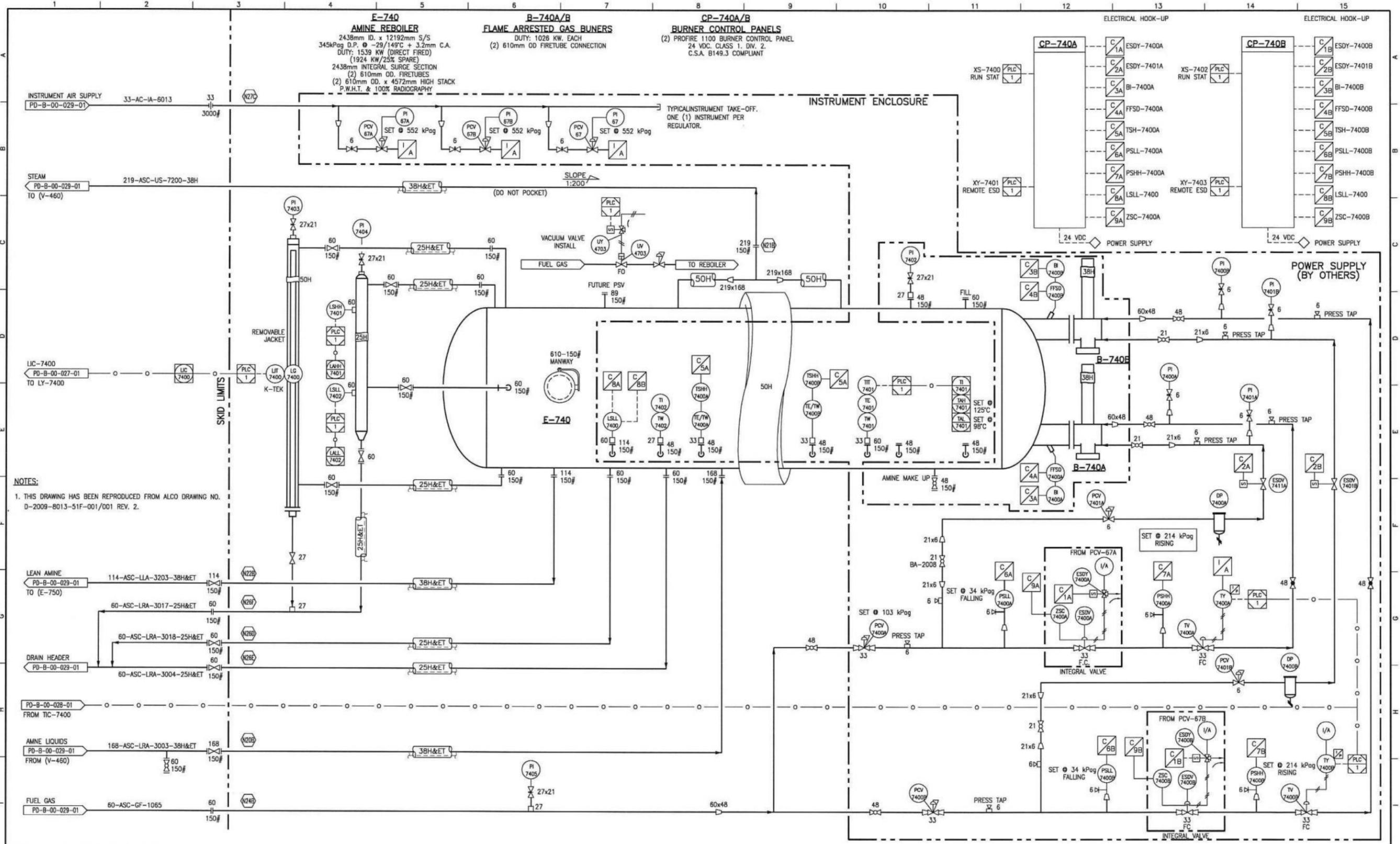
SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/06/06	188	01	02	PD-B-00-029-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE, AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, REPRODUCED, ALTERED, CHANGED, MODIFIED, SOLD, DISTRIBUTED, OR UTILIZED IN ANY FORM. EQUINOX ENGINEERING LTD. MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY, COMPLETENESS, OR QUALITY OF THE INFORMATION AND DATA CONTAINED HEREIN.



**NOTES:**  
 1. THIS DRAWING HAS BEEN REPRODUCED FROM ALCO DRAWING NO. D-2009-8013-51F-001/001 REV. 2.

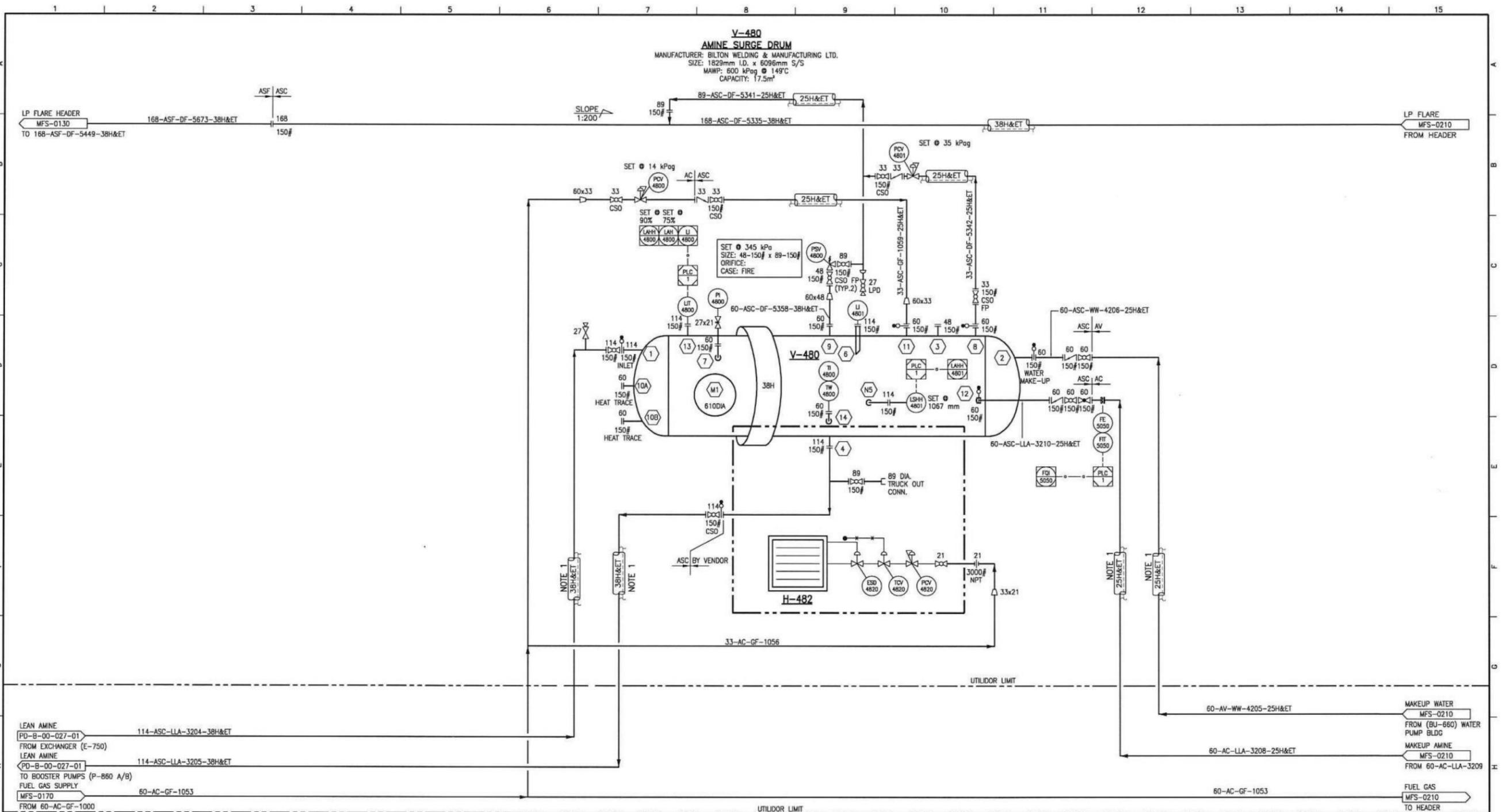
REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D DFTG	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		A	2015/02/12	DVM				ISSUED FOR INTERNAL REVIEW
		B	2014/12/10	UMS				ISSUED FOR DESIGN
		0	2015/05/18	BSP				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVC				AS-BUILT

SEAL

PERMIT

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/06/06	188	01	02	PD-B-00-030-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT AND MAY NOT BE REPRODUCED, COPIED, MITATED, REPRODUCED, ALTERED, CHANGED, MODIFIED, DISTRIBUTED, OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING CANADA LTD. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION OF THIS INFORMATION IS STRICTLY PROHIBITED.



**NOTES:**

- INSULATE AND HEAT TRACE OUTSIDE OF UTILIDOR ONLY.
- FOR HEAT MEDIUM LINES TO/FROM COOLERS SEE UTILITY FLOWSHEET ADV-GLA-05-02-UFS-0030.
- DELETED.
- DELETED.
- THIS DRAWING HAS BEEN REPRODUCED FROM GEMINI DRAWING ADV-GLA-05-02-MFS-0200, REV 4.
- THIS DRAWING HAS BEEN CHANGED SINCE THE LAST REVISION.  
 E-760 HAS BEEN MOVED TO PD-B-00-030-03  
 E-770 HAS BEEN MOVED TO PD-B-00-030-04

REFERENCE DRAWINGS		REVISIONS					
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	APP'D	REVISION DESCRIPTION
		0	2015/05/20	BSP			ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL			RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL			RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVG			AS-BUILT

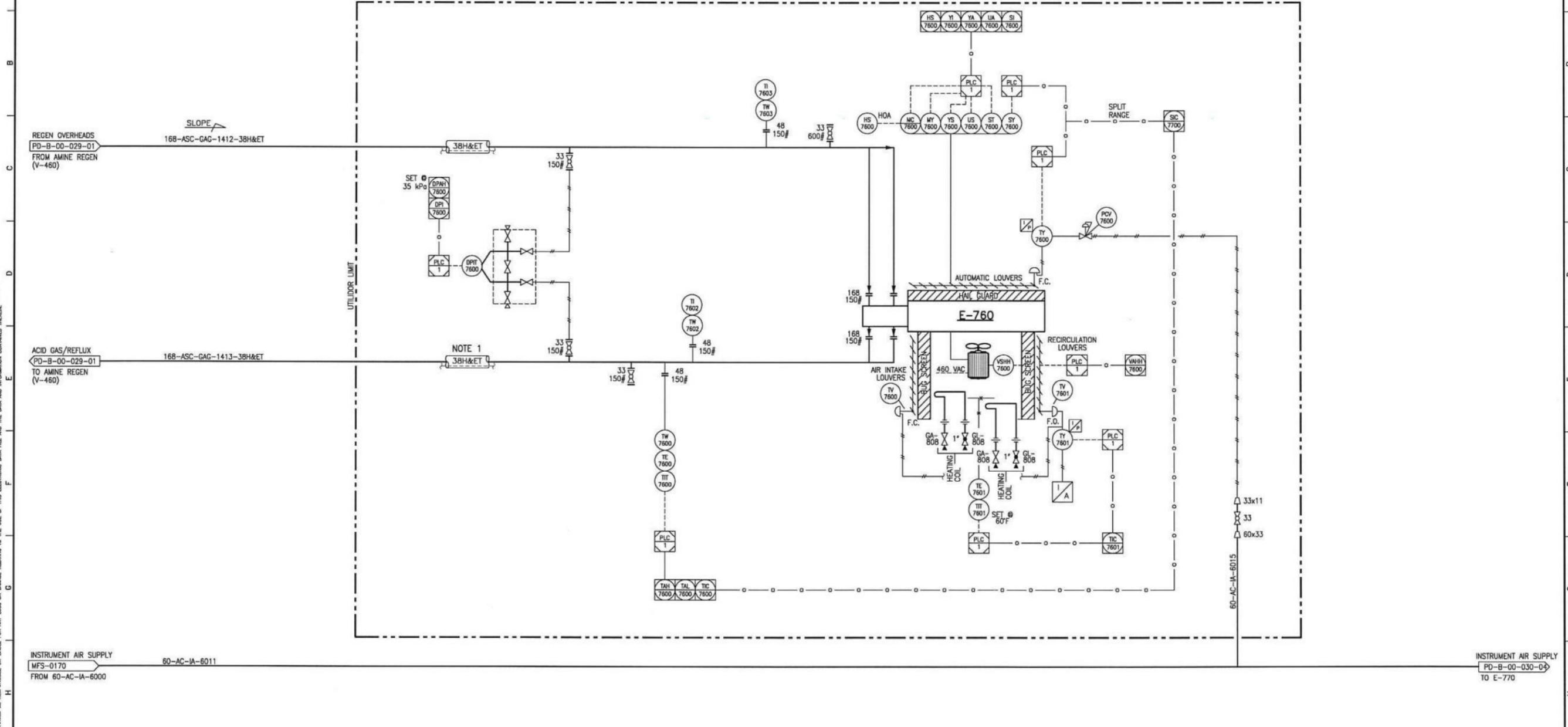
SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

		SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
		N.T.S.	RBN	2014/10/06	188	01	02	PD-B-00-030-02	3

**E-760  
REFLUX CONDENSER**  
ACE MODEL E96R-13  
345 kPa<sub>g</sub> @ -29/149°C + 3.2 mm C.A.  
DUTY: 889 kW  
40HP 460V AC/3PH/60HZ 1800RPM  
TEFC MOTOR (VFD RATED.)  
P.W.H.T & 100% RADIOGRAPHY.



- NOTES:**
1. INSULATE AND TRACE OUTSIDE OF UTILIDOR ONLY.
  2. DELETED.
  5. THIS DRAWING HAS BEEN REPRODUCED FROM PART OF GEMINI DRAWING ADV-GLA-05-02-MFS-0200, REV 4.
  4. THIS DRAWING HAS CHANGED SINCE THE LAST REVISION THE BLACK BOX TAGS HAVE BEEN INCORPORATED INTO OTHER AMINE P&ID.

REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D DFTG	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		0	2015/05/19	SBJ				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVG				AS-BUILT

SEAL

June 1/16

PERMIT

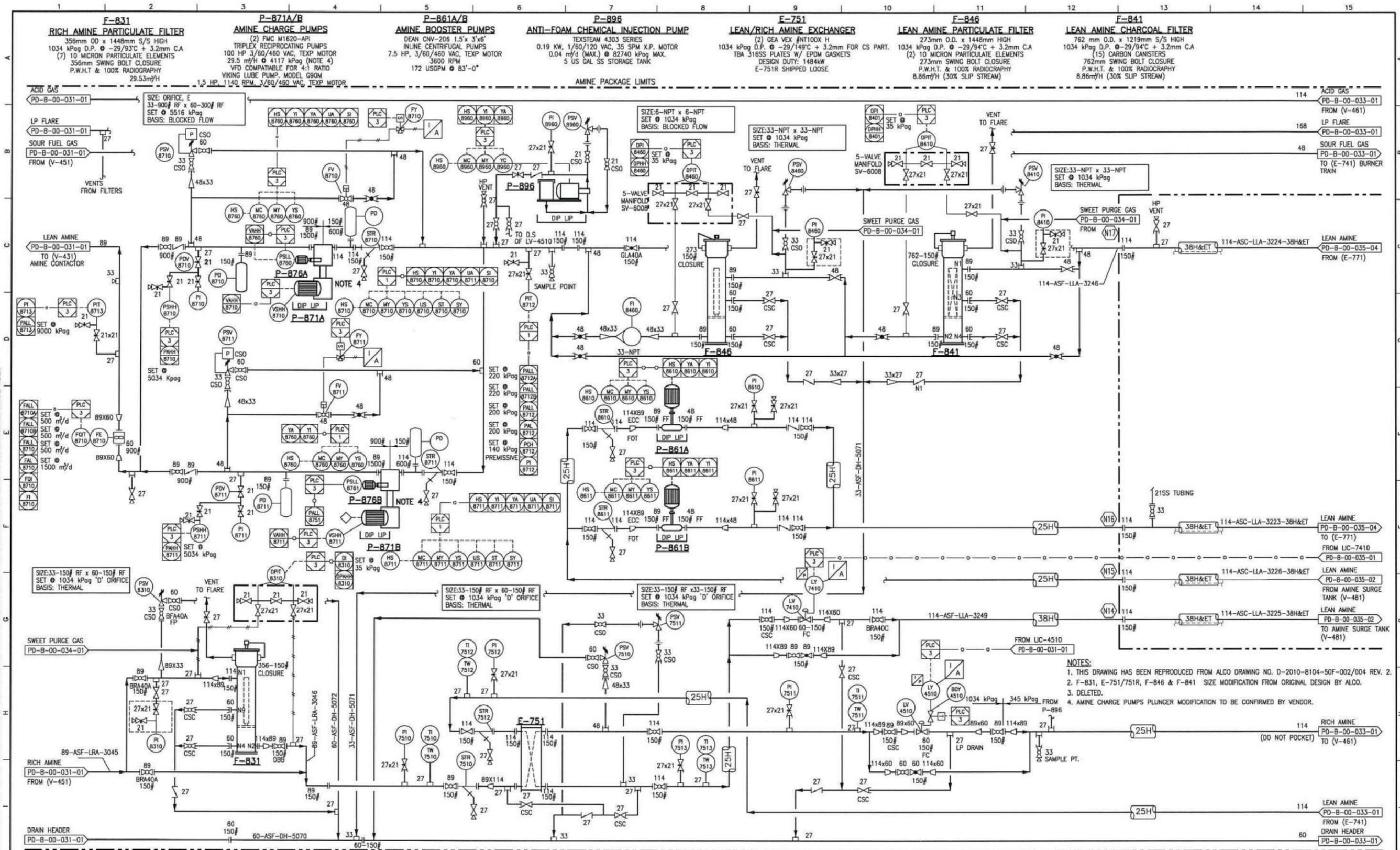
**PERMIT TO PRACTICE**  
EQUINOX ENGINEERING CANADA LTD.  
PERMIT NUMBER: P 12626  
The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	SBJ	2015/05/19	188	01	02	PD-B-00-030-03	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE, AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, MIMICED, REPRODUCED, ALTERED, CHANGED, MODIFIED, OR UTILIZED IN ANY FORM, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. WAIVES NO REPRESENTATION OR WARRANTY AND SHALL NOT UNDER ANY CIRCUMSTANCES BE RESPONSIBLE OR LIABLE FOR ANY LOSS OR DAMAGE RELATING TO THE USE OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN.







REFERENCE DRAWINGS

DRAWING NO.	DRAWING DESCRIPTION
PD-B-00-031-01	ACID GAS
PD-B-00-031-01	LP FLARE
PD-B-00-031-01	SOUR FUEL GAS
PD-B-00-031-01	FROM (V-451)
PD-B-00-031-01	VENTS FROM FILTERS
PD-B-00-031-01	LEAN AMINE TO (V-431) AMINE CONTACTOR
PD-B-00-031-01	LEAN AMINE TO (V-461) FROM (V-461)
PD-B-00-031-01	LEAN AMINE TO (E-741) BURNER TRAIN
PD-B-00-031-01	LEAN AMINE TO (E-771) FROM (E-771)
PD-B-00-031-01	LEAN AMINE TO (E-771) FROM LIC-7410
PD-B-00-031-01	LEAN AMINE TO (E-771) FROM AMINE SURGE TANK (V-481)
PD-B-00-031-01	LEAN AMINE TO AMINE SURGE TANK (V-481)
PD-B-00-031-01	RICH AMINE FROM (V-451)
PD-B-00-031-01	DRAIN HEADER

REVISIONS

REV	DATE	BY	CHK'D	APP'D	REVISION DESCRIPTION
A	2014/11/05	BSP			ISSUED FOR INTERNAL REVIEW
B	2014/12/09	UMS			ISSUED FOR DESIGN
0	2015/05/19	ASK			ISSUED FOR CONSTRUCTION
1	2015/06/30	LL			RE-ISSUED FOR CONSTRUCTION
2	2015/08/24	LL			RE-ISSUED FOR CONSTRUCTION
3	2015/04/12	UMS			AS-BUILT

SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers, Geologists and Geophysicists of Alberta

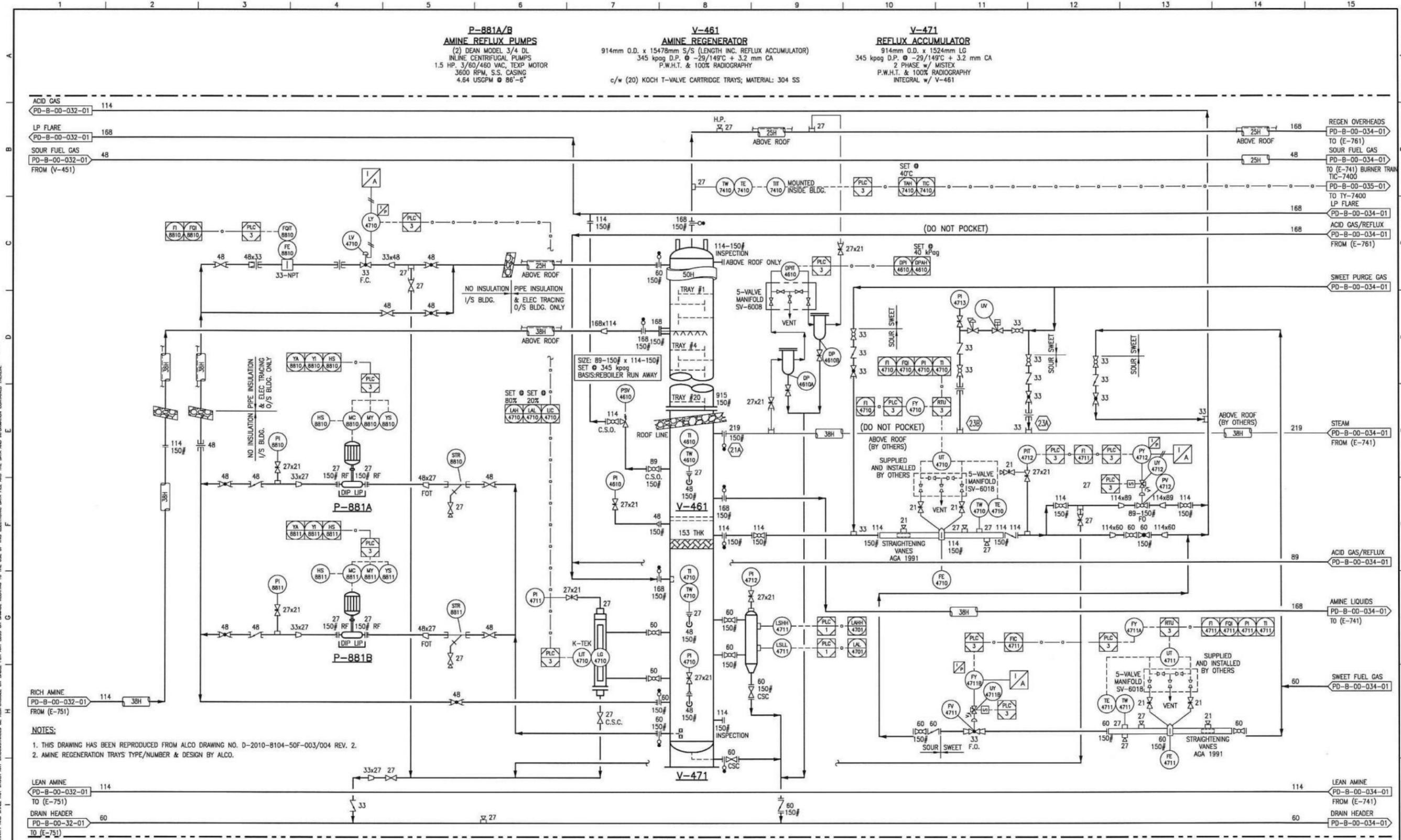
SCALE

**EQUINOX** Engineering

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/06/28	188	01	02	PD-B-00-032-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, MIMICED, REVERSE ENGINEERED, ALTERED, MODIFIED, SOLD, DISTRIBUTED OR UTILIZED IN ANY FORM. SOURCE: EQUINOX ENGINEERING CANADA LTD. ALL RIGHTS RESERVED. NO REPRESENTATION OR WARRANTY IS MADE BY EQUINOX ENGINEERING CANADA LTD. REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATA CONTAINED HEREIN.

- NOTES:
- THIS DRAWING HAS BEEN REPRODUCED FROM ALCO DRAWING NO. D-2010-8104-50F-002/004 REV. 2.
  - F-831, E-751/751R, F-846 & F-841 SIZE MODIFICATION FROM ORIGINAL DESIGN BY ALCO.
  - DELETED.
  - AMINE CHARGE PUMPS PLUNGER MODIFICATION TO BE CONFIRMED BY VENDOR.



THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, IMPAIRED, REPRODUCED, ALTERED, DISTRIBUTED OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. ANY REPRODUCTION OR TRANSMISSION OF THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. IS PROHIBITED.

REFERENCE DRAWINGS		REVISIONS				
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	REVISION DESCRIPTION
		A	2014/11/05	UMS		ISSUED FOR INTERNAL REVIEW
		B	2014/12/09	UMS		ISSUED FOR DESIGN
		0	2015/05/20	BSP		ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL		RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL		RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	DEK		AS-BUILT

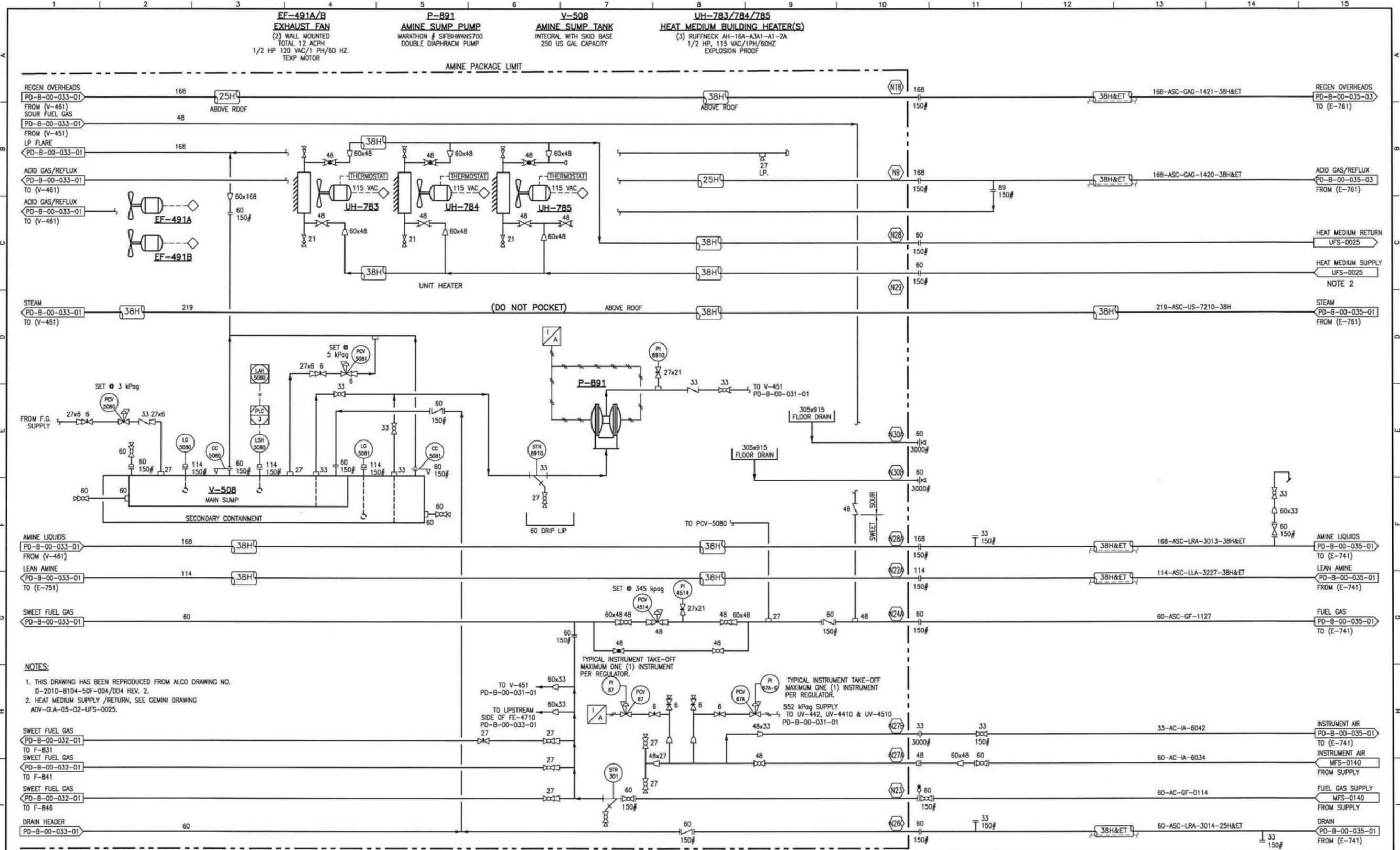
SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	N. V. MORE	2014/07/28	188	01	02	PD-B-00-033-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, IMPAIRED, ALTERED, CHANGED, MODIFIED, SOLD, DISTRIBUTED, OR UTILIZED IN ANY FORM. EQUINOX ENGINEERING LTD. MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF THE DATA AND INFORMATION CONTAINED THEREIN.



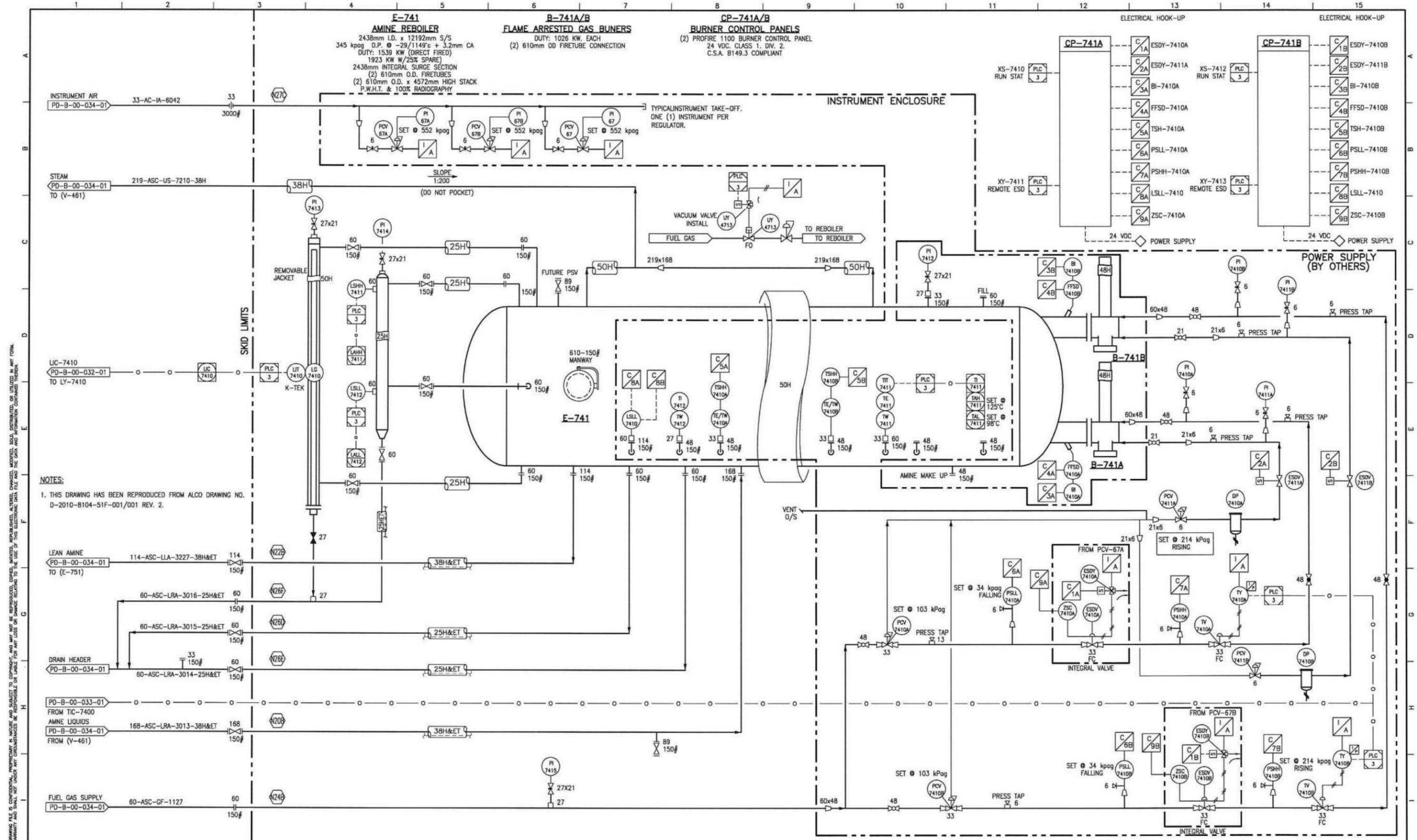
REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D OFTG	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		A	2014/11/06	RBN				ISSUED FOR INTERNAL REVIEW
		B	2014/12/10	UMS				ISSUED FOR DESIGN
		0	2015/05/20	BSP				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	DEK				AS-BUILT

SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/06/06	188	01	02	PD-B-00-034-01	3



NOTES:  
 1. THIS DRAWING HAS BEEN REPRODUCED FROM ALCO DRAWING NO. D-2010-8104-51F-001/001 REV. 2.

REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D D/T/G	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		A	2014/11/05	RBN				ISSUED FOR INTERNAL REVIEW
		B	2014/12/10	UMS				ISSUED FOR DESIGN
		0	2015/05/19	AKS				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	DEK				AS-BUILT

SEAL

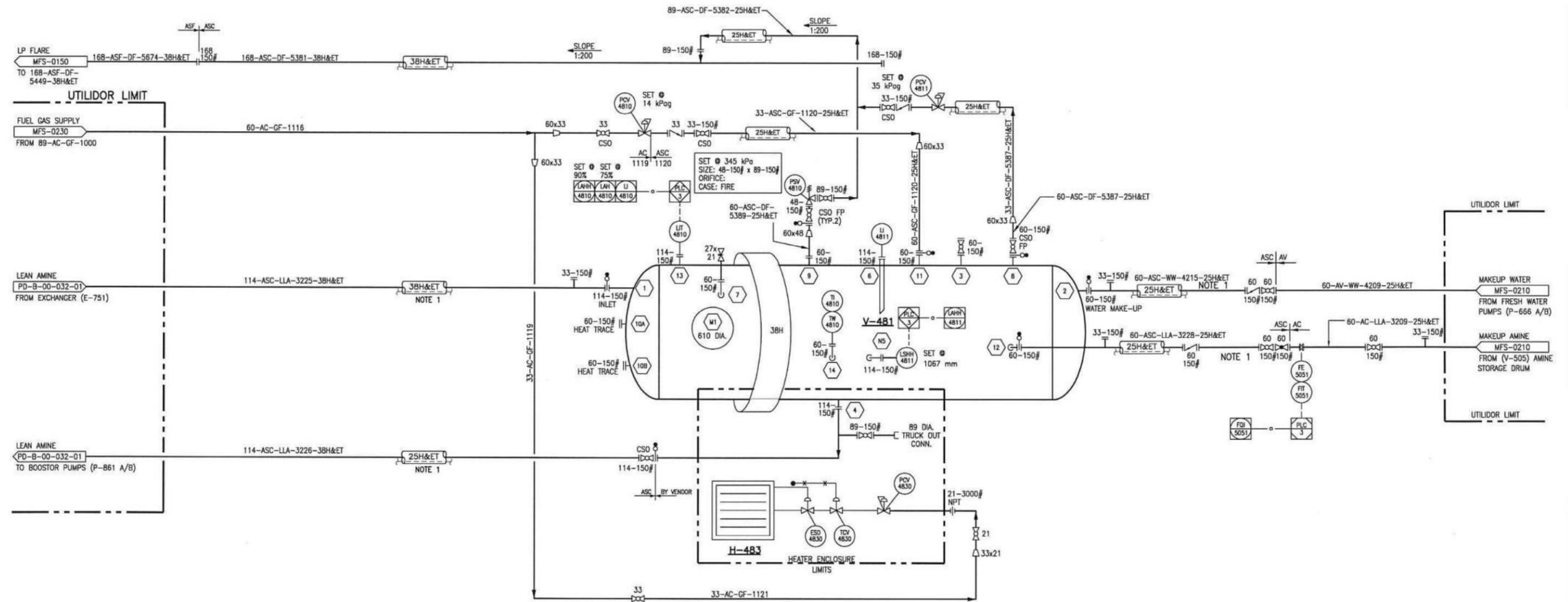
PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers, Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/08/08	188	01	02	PD-B-00-035-01	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, REPRODUCED, ALTERED, MODIFIED, SOLD, DISTRIBUTED, OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. EQUINOX ENGINEERING LTD. MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF THE DATA AND INFORMATION CONTAINED THEREIN.

V-481  
**AMINE SURGE DRUM**  
 MANUFACTURER: BILTON WELDING & MANUFACTURING LTD.  
 SIZE: 1829mm I.D. x 6096mm S/S  
 MAWP: 600 kPag @ 149° C  
 CAPACITY: 17.5m<sup>3</sup> (110 BBL)



- NOTES:**
- 1.) INSULATE AND HEAT TRACE OUTSIDE OF UTILIDOR ONLY.
  - 2.) FOR HEAT MEDIUM LINES TO/FROM COOLERS SEE UTILITY FLOWSHEET ADV-GLA-05-02-UFS-0030.
  - 3.) INSULATE & HEAT TRACE LINE # 60-AV-WW-4209-25H&ET WITHIN UTILIDOR.
  - 4.) DELETED.
  - 5.) DELETED.
  - 6.) THIS DRAWING HAS BEEN REPRODUCED FROM GEMINI DRAWING, ADV-GLA-05-02-MFS-0260, REV.3
  - 7.) DELETED.
  - 8.) THIS DRAWING HAS BEEN CHANGED SINCE LAST REVISION  
 E-760 HAS BEEN MOVED TO PD-B-00-035-03  
 E-770 HAS BEEN MOVED TO PD-B-00-035-04

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, IMPAIRED, REPRODUCED, ALTERED, CHANGED, MODIFIED, SOLD, DISTRIBUTED OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. ANY UNAUTHORIZED USE OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO EQUINOX ENGINEERING LTD.

REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D DFTG	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		0	2015/05/19	SBJ				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SBJ				AS-BUILT

SEAL

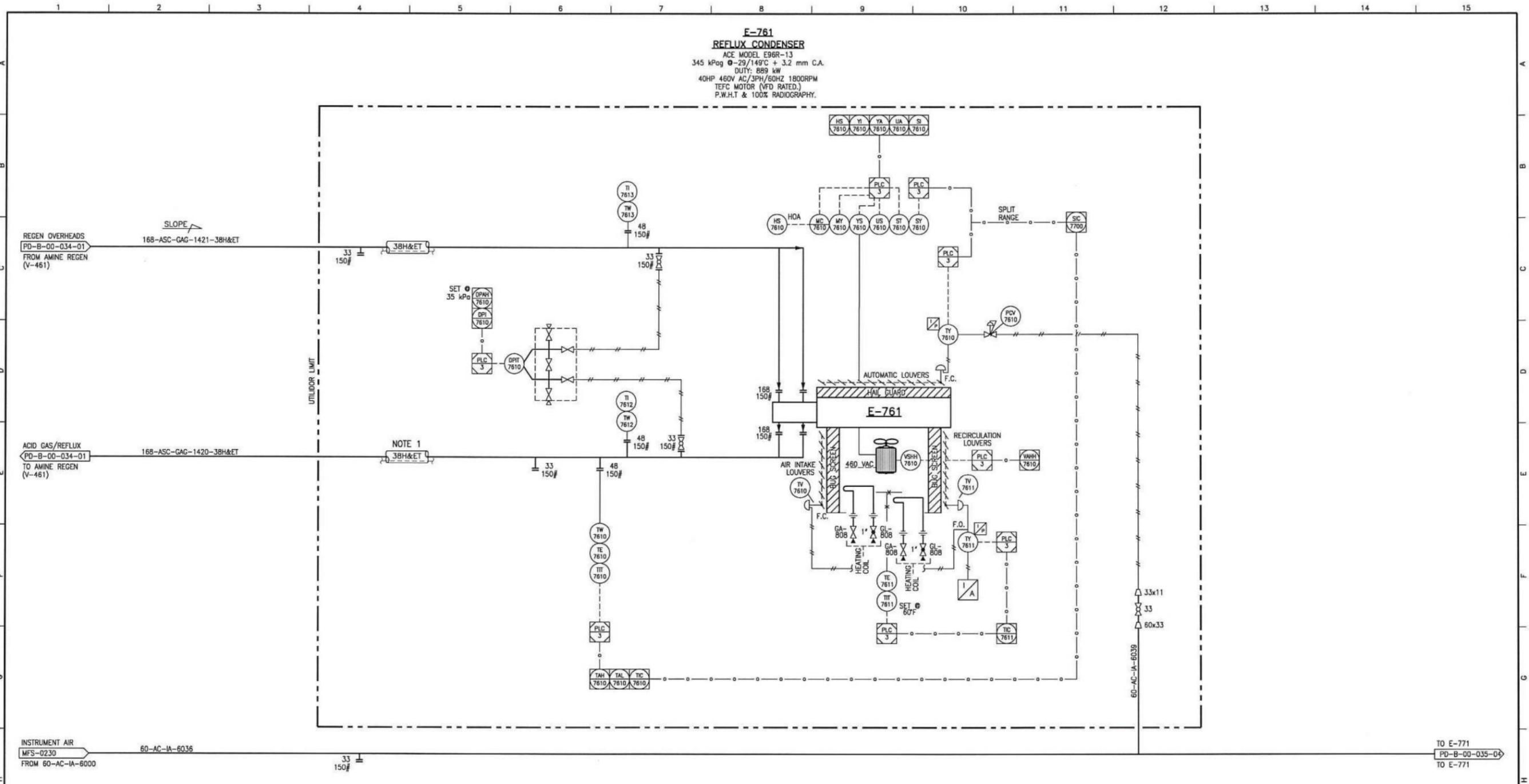
PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

*June 1/16*

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	P. THAKUR	2014/06/06	188	01	02	PD-B-00-035-02	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, IMITATED, REDISTRIBUTED, ALTERED, CHANGED, MODIFIED, SOLD, DISTRIBUTED, OR UTILIZED IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING LTD. WAIVES AND REPRESENTATION OF WARRANTY AND SHALL NOT BE RESPONSIBLE IN ANY CIRCUMSTANCES BE RESPONSIBLE FOR ANY LOSS OR DAMAGE RELATING TO THE USE OF THIS ELECTRONIC DATA FILE AND THE DATA AND INFORMATION CONTAINED THEREIN.



- NOTES:**
1. INSULATE AND TRACE OUTSIDE OF UTILIDOR ONLY.
  2. DELETED.
  3. THIS DRAWING HAS BEEN REPRODUCED FROM PART OF GEMINI DRAWING ADV-GLA-05-02-MFS-0260, REV 4.
  4. THIS DRAWING HAS CHANGED SINCE THE LAST REVISION THE BLACK BOX TAGS HAVE BEEN INCORPORATED INTO OTHER AMINE P&ID.

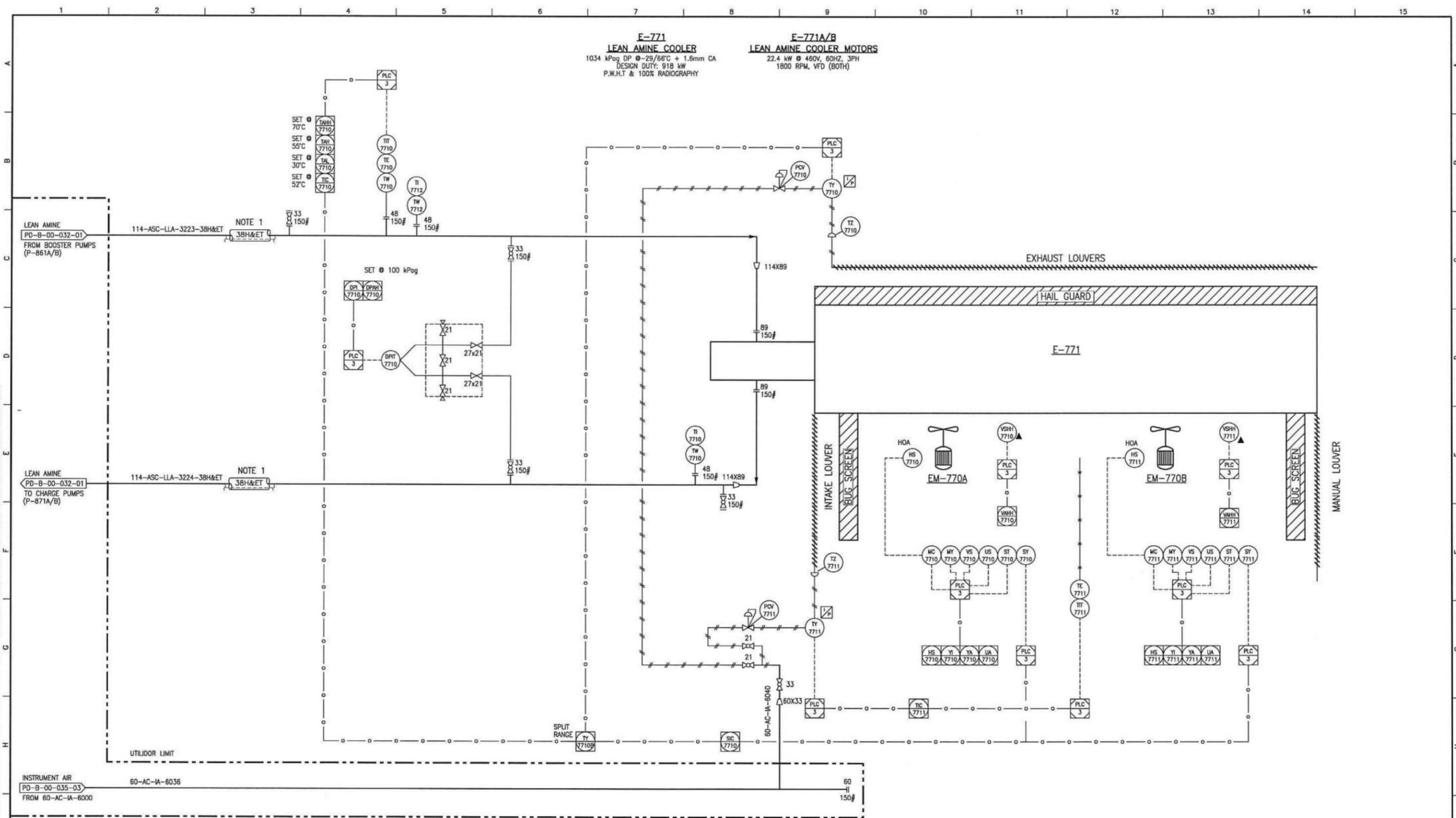
REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D	CHK'D	APP'D	REVISION DESCRIPTION
					DATE	ENG	PM	
		0	2015/05/19	RBN				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/12	SVG				AS-BUILT

SEAL

PERMIT

**PERMIT TO PRACTICE**  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
N.T.S.	S.JADHAV	2015/05/19	188	01	02	PD-B-00-035-03	3



**NOTES:**

1. INSULATE AND HEAT TRACE OUTSIDE OF UTILIDOR ONLY.
2. DELETED.
3. THIS DRAWING HAS BEEN RE-PRODUCED FROM PART OF GEMINI DRAWING ADV-GLA-0200, REV 4.
3. THIS DRAWING HAS CHANGED SINCE THE LAST REVISION. THE BLACK BOX TAGS HAVE BEEN INCORPORATE INTO THE OTHER AMINE P&ID'S.
4. ▲: VENDOR SUPPLIED INSTRUMENT.

REFERENCE DRAWINGS		REVISIONS						
DRAWING NO.	DRAWING DESCRIPTION	REV	DATE	BY	CHK'D DFTG	CHK'D ENG	APP'D PM	REVISION DESCRIPTION
		0	2015/05/19	DVM				ISSUED FOR CONSTRUCTION
		1	2015/06/30	LL				RE-ISSUED FOR CONSTRUCTION
		2	2015/08/24	LL				RE-ISSUED FOR CONSTRUCTION
		3	2016/04/29	UMS				AS-BUILT

SEAL

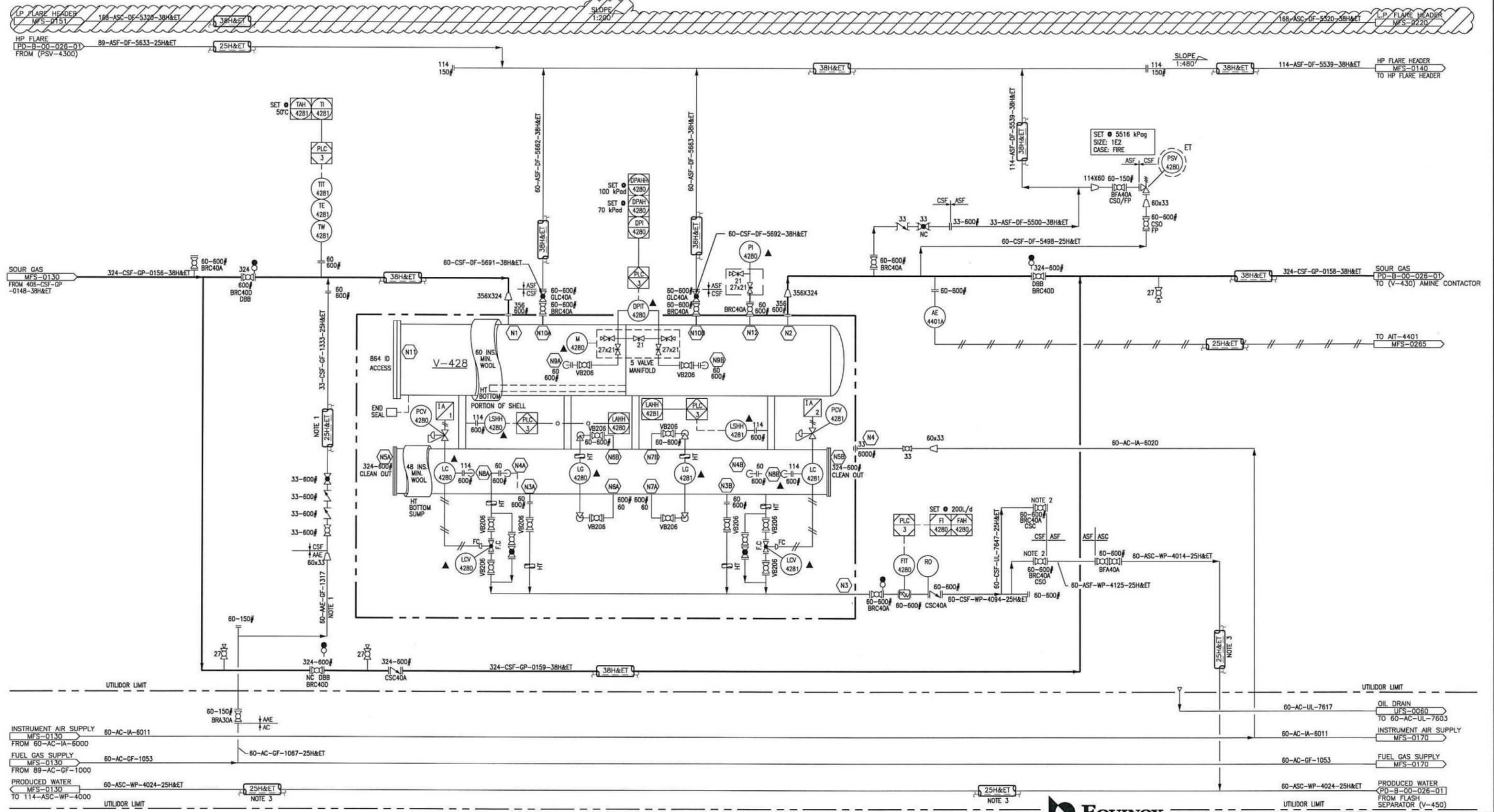
PERMIT

PERMIT TO PRACTICE  
EQUINOX ENGINEERING CANADA LTD.  
PERMIT NUMBER: P 12626  
The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

		SCALE	DRAWN BY	DATE	CLIENT	REGION	PROJECT	DRAWING NO.	REV
		N.T.S.	RBN	2015/01/08	188	01	02	PD-B-00-035-04	3

THE INFORMATION AND DATA CONTAINED IN THIS ELECTRONIC DRAWING FILE IS CONFIDENTIAL, PROPRIETARY IN NATURE AND SUBJECT TO COPYRIGHT, AND MAY NOT BE REPRODUCED, COPIED, REPRODUCED, ALTERED, CHANGED, MODIFIED, REPRODUCED, DISTRIBUTED, OR UTILIZED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING U.S. ANY REPRODUCTION OR TRANSMISSION IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF EQUINOX ENGINEERING U.S. IS PROHIBITED.

V-428  
 HORIZONTAL COALESCING FILTER (130 MMSCFD)  
 MANUFACTURER: PECO  
 VENDOR DRAWING: F4880-1  
 MAWP: 5516 kPag @ 93°C  
 C.A.: 3.18mm  
 SIZE: 864mm ID x 3048 mm S.S



- NOTES:
- 1.) INSULATE AND HEAT TRACE OUTSIDE OF UTILIDOR ONLY.
  - 2.) ONE VALVE TO BE CSO AT ALL TIMES.
  - 3.) LINE TO BE INSULATED AND TRACED WITHIN THE UTILIDOR.
  - 4.) DELETED.
  - 5.) ORIGINAL LUBE OIL SEPARATOR (V-194) HAS BEEN RELOCATED TO SALES GAS LINE
  - 6.) ▲ VENDOR SUPPLIED INSTRUMENT.
  - 7.) SINGLE HATCHED AREAS INDICATE DECOMMISSIONING.

DRAWING No.	REFERENCE DRAWING	No.	PROJ No.	PROJECT DESCRIPTION	REV.	DATE	REVISIONS	DRAWN	CHK.	APPD.
		3	16.04.17	AS-BUILT						
		2	15.08.24	RE-ISSUED FOR CONSTRUCTION						
		1	15.06.30	RE-ISSUED FOR CONSTRUCTION						
		4	188-01-02	GAS PLANT PHASE 7 EXPANSION (EEL)	C	15.03.04	ISSUED FOR CONSTRUCTION	BSP		
		3	G11044.100	GAS PLANT PHASE 4 EXPANSION	O	14.12.05	ISSUED FOR DESIGN	DVM		
		2	G10040.001	GAS PLANT PHASE 3 EXPANSION	B	14.07.28	ISSUED FOR HAZOP	KSB		
		1	G08-063	GAS PLANT EXPANSION	A	14.07.18	ISSUED FOR REVIEW	NVM		

**EQUINOX.**  
 Engineering  
 PERMIT TO PRACTICE  
 EQUINOX ENGINEERING CANADA LTD.  
 PERMIT NUMBER: P 12626  
 The Association of Professional Engineers,  
 Geologists and Geophysicists of Alberta

FILENAME: U:\Department\Design\_Drafting\Internal\Drawings\188\188-01-02\_P&ID\_ADV-GLA-05-02-MFS-0160.dwg  
 PLOT DATE: 2016.05.17 1:15 PM  
 PLOTTED BY: AXUE

