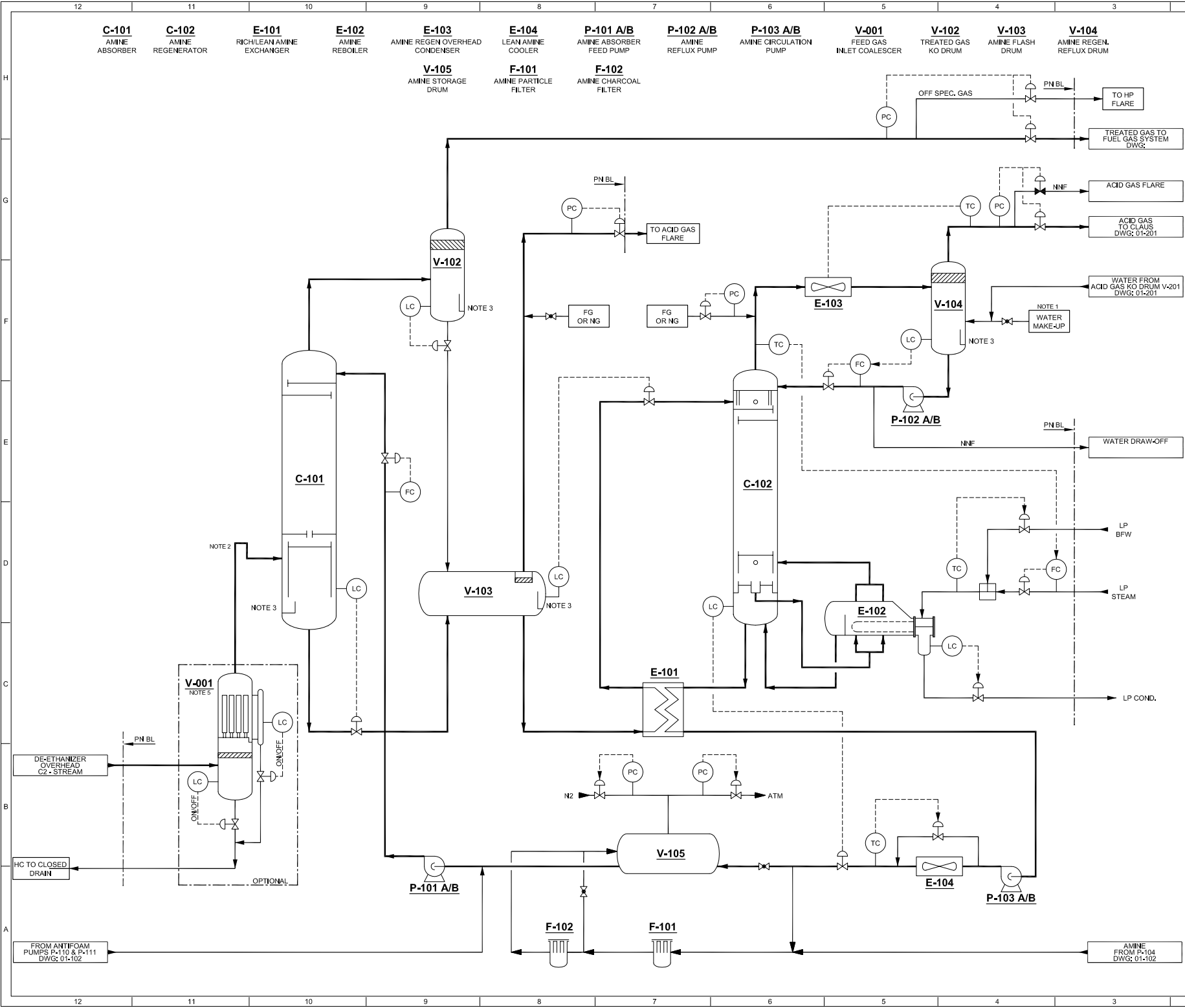


	Comodoro Rivadavia Refinery Sulphur Recovery Unit with AdvaSulf™ Technology Technical Proposal		Ref. N° : 13-20242
			Page : 12/45
			Date: 25/01/2013 Rev. : 0

4. **PROCESS FLOW DIAGRAM**

The Process Flow Diagrams are presented here after:

- 01-101: AMINE UNIT
- 01-102: AMINE UNIT MISCELLANIOUS SYSTEMS
- 01-201: CLAUS SECTION KO DRUMS
- 01-202: CLAUS SECTION
- 01-203: INCINERATION SECTION
- 01-204: SULPHUR DEGASSING AND STORAGE PIT



NOTES:

- 1 • O2 < 50 PPB.
- 2 • SEAL LEG TO PREVENT FROM SOLVENT BACK FLOW.
- 3 • EQUIPMENT EQUIPPED WITH SKIMMING BOX AND LINE ROUTED TO HC SKIM DRUM.
- 4 • DELETED.
- 5 • FEED GAS INLET COALESCER IS REQUIRED UNLESS CLIENT GUARANTEE THE QUALITY OF FEED GAS (NO PARTICLES, NO LIQUID SLUG, DRY GAS.).

GENERAL NOTES:

LEGEND:

◇ STREAM NUMBER

0	FIRST ISSUE	25.01.13	PB	GS	VS
REV.	DESCRIPTION	DATE	DWN	CHKD	APPD

Ce PLAN est la propriété de PROSERNAT. Il ne peut être reproduit et / ou communiqué sans autorisation. THE DRAWING belongs to PROSERNAT. It cannot be reproduced and / or transmitted without authorization.

PROCESS LICENSOR:

PROSERNAT
HEAVY PROCESSING • OILFIELD SERVICES

JOB NUMBER:

20242

01-101

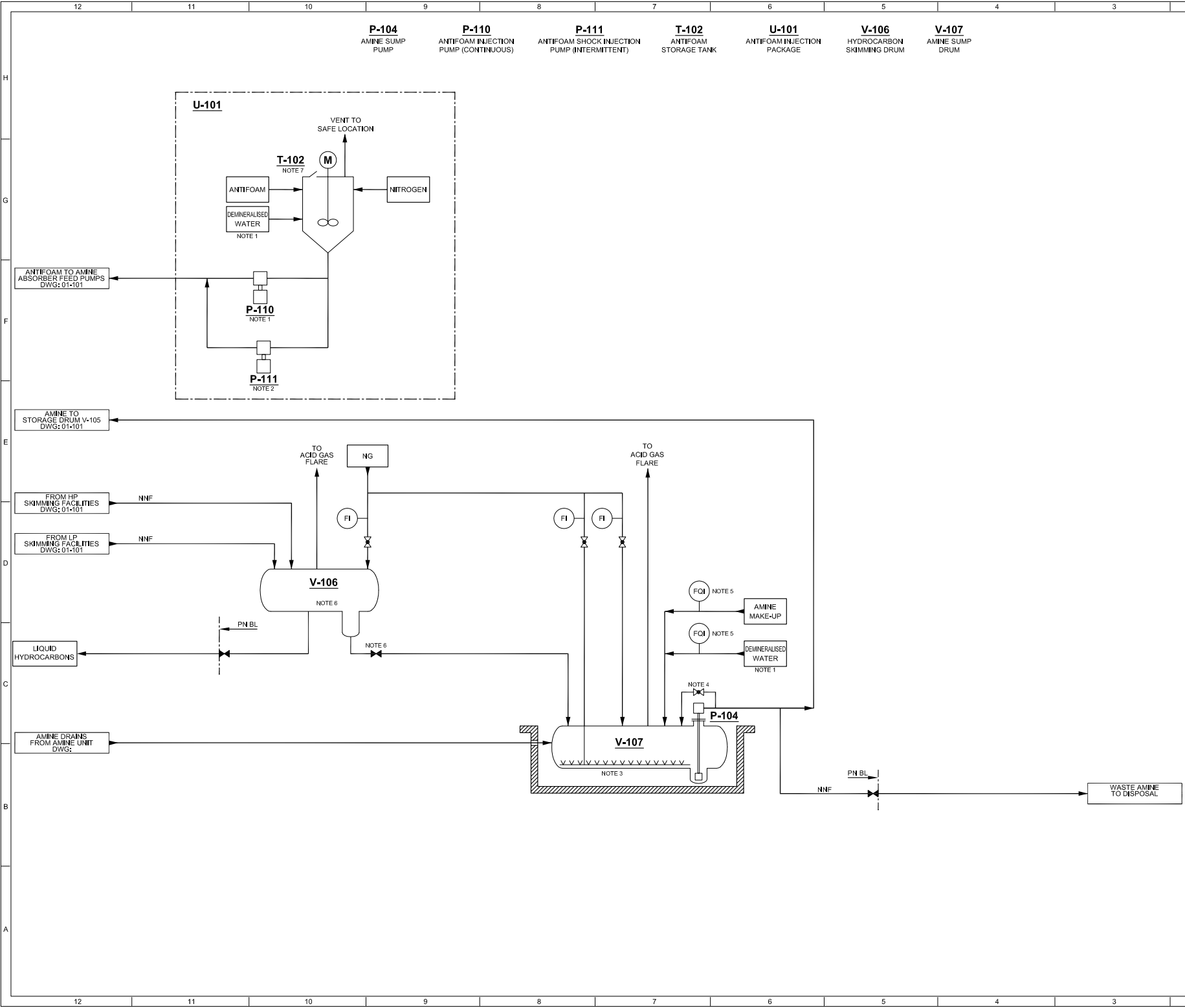
CUSTOMER:

REFINADORA PATAGONICA S.A.

TITLE

PROCESS FLOW DIAGRAM

AMINE UNIT



NOTES:

- 1 • DEMINERALIZED WATER WITH O₂ CONTENT < 50 PPB.
- 2 • DOSING PUMP WITH ADJUSTABLE FLOW.
- 3 • SPARGING SYSTEM USED TO REMOVE DISSOLVED GASES FROM AMINE.
- 4 • GLOBE VALVE FOR AMINE / WATER MIXING.
- 5 • PROVIDED WITH FCI FOR MAKE-UP MEASUREMENT.
- 6 • HYDROCARBON / SOLVENT SEPARATION IS MANUAL.
- 7 • FIXED ROOF WITH SEGMENTAL COVER.

GENERAL NOTES:

LEGEND:

◇ STREAM NUMBER

0	FIRST ISSUE	25.01.13	PB	GS	VS
REV.	DESCRIPTION	DATE	DWN	CHKD	APPD

Ce PLAN est la propriété de PROSERNAT. Il ne peut être reproduit et / ou communiqué sans autorisation. THE DRAWING belongs to PROSERNAT. It cannot be reproduced and / or transmitted without authorisation.

PROCESS LICENSOR:

**PROSERNAT**
RESEARCH PETROCHEMICALS • OILFIELD TECHNOLOGIES

JOB NUMBER:

20242
01-102

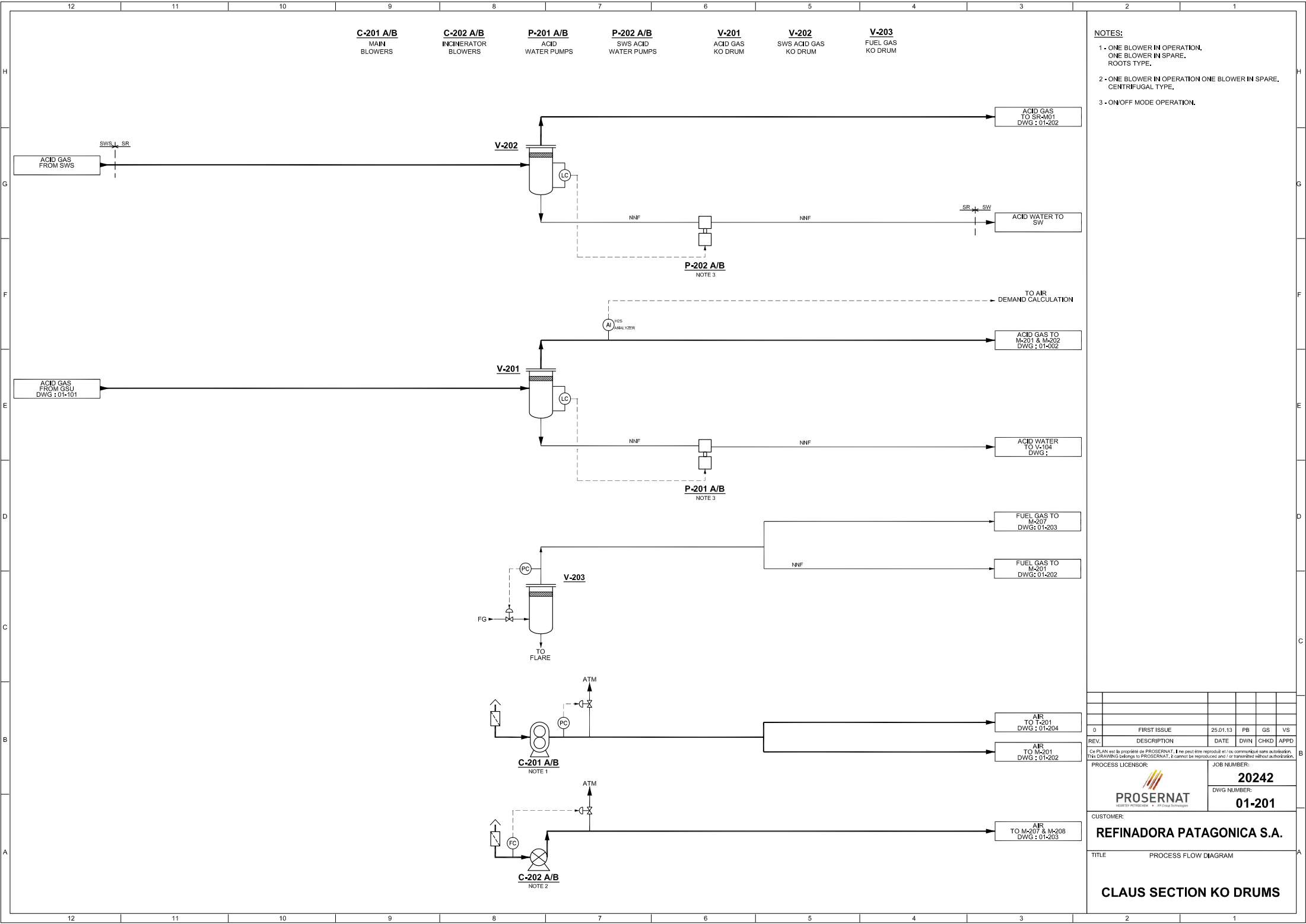
CUSTOMER:

REFINADORA PATAGONICA S.A.

TITLE

PROCESS FLOW DIAGRAM

AMINE UNIT
MISCELLANEOUS SYSTEMS



NOTES:

- 1 - ONE BLOWER IN OPERATION, ONE BLOWER IN SPARE, ROOTS TYPE.
- 2 - ONE BLOWER IN OPERATION ONE BLOWER IN SPARE, CENTRIFUGAL TYPE.
- 3 - ON/OFF MODE OPERATION.

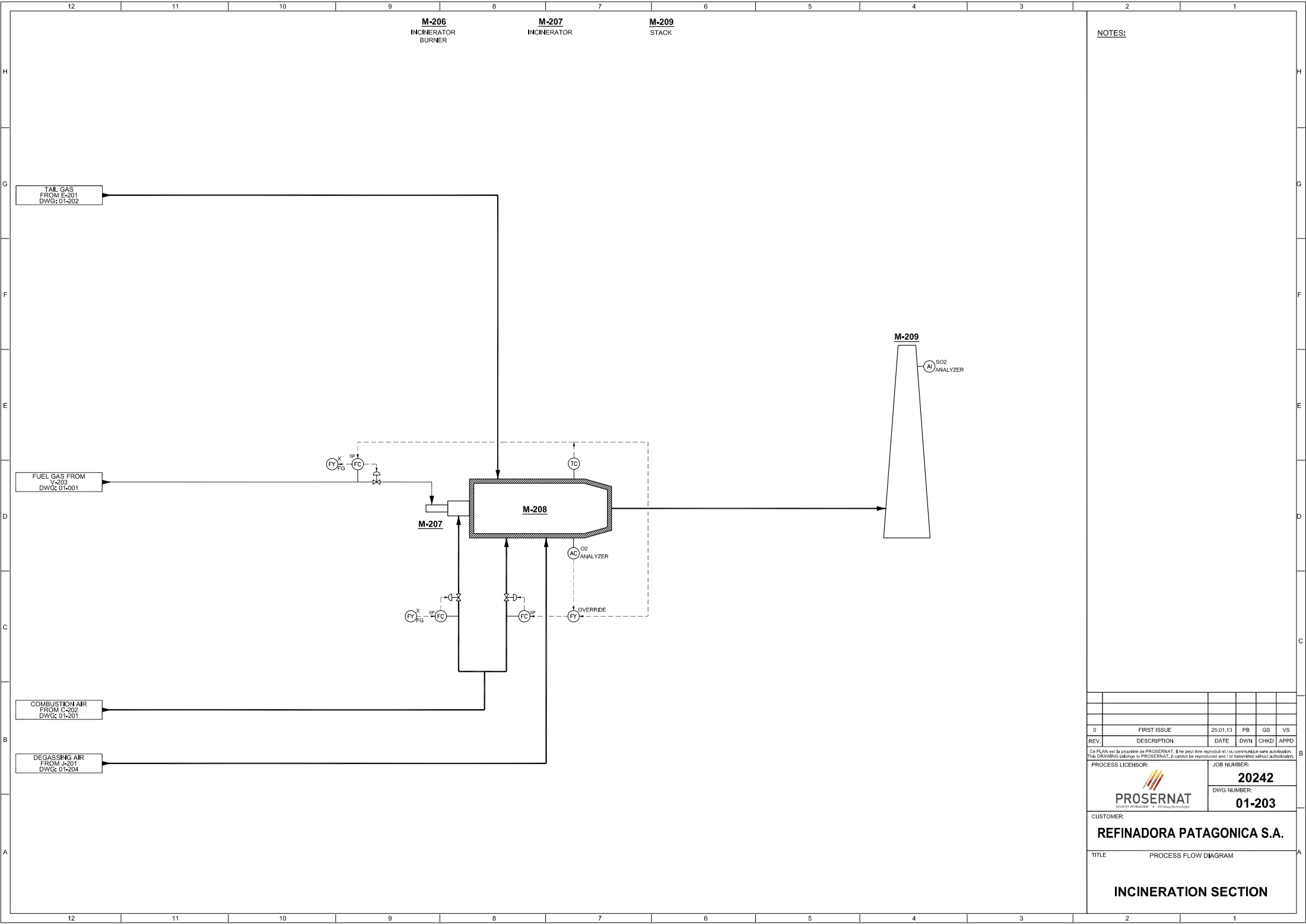
0	FIRST ISSUE	25.01.13	PB	GS	VS
REV.	DESCRIPTION	DATE	DWN	CHKD	APPD

Ce PLAN est la propriété de PROSERNAT. Il ne peut être reproduit et / ou communiqué sans autorisation. This DRAWING belongs to PROSERNAT. It cannot be reproduced and / or transmitted without authorisation.

PROCESS LICENSOR:	JOB NUMBER:
	20242
CUSTOMER:	DWG NUMBER:
REFINADORA PATAGONICA S.A.	01-201

TITLE	PROCESS FLOW DIAGRAM
-------	----------------------

CLAUS SECTION KO DRUMS



NOTES:

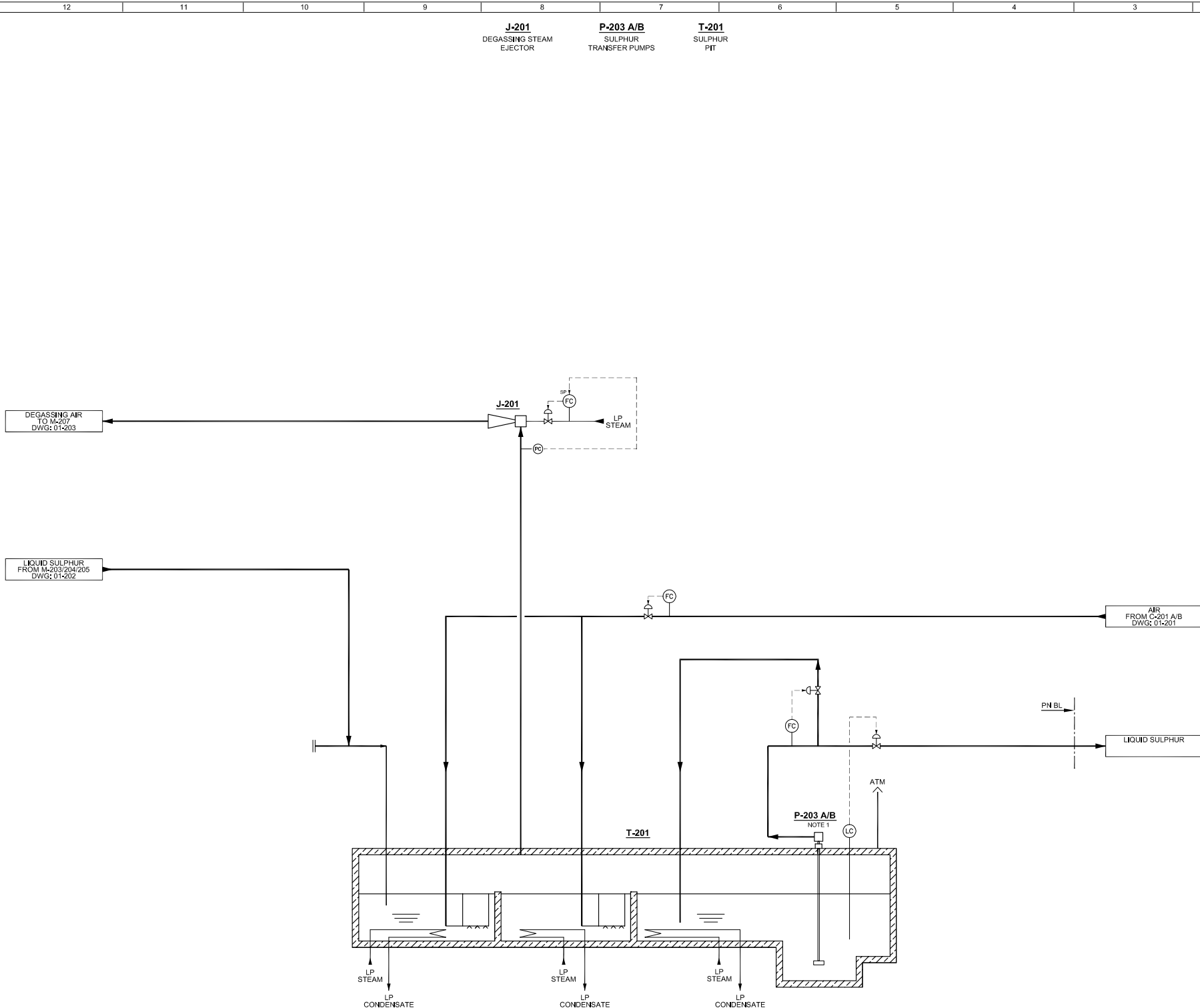
0.	FIRST ISSUE	25.01.13	PB	GS	VS
REV.	DESCRIPTION	DATE	DWN	CHKD	APPD

Ce PLAN est la propriété de PROSERMAT. Il ne peut être reproduit et / ou communiqué sans autorisation.
This DRAWING belongs to PROSERMAT. It cannot be reproduced and / or transmitted without authorization.

PROCESS LICENSOR:	JOB NUMBER:
	20242
CUSTOMER:	DWG NUMBER:
REFINADORA PATAGONICA S.A.	01-203

TITLE	PROCESS FLOW DIAGRAM
-------	----------------------

INCINERATION SECTION



NOTES:

1. SULPHUR TRANSFER PUMPS OPERATE IN CONTINUOUS MODE.

0	FIRST ISSUE	25.01.13	PB	GS	VS
REV.	DESCRIPTION	DATE	DWN	CHKD	APPD

Ce PLAN est la propriété de PROSERNAT. Il ne peut être reproduit et / ou communiqué sans autorisation.
This DRAWING belongs to PROSERNAT. It cannot be reproduced and / or transmitted without authorization.

PROCESS LICENSOR:



JOB NUMBER:

20242

DWG NUMBER	
------------	--

01-204

CUSTOMER:

REFINADORA PATAGONICA S.A.

TITLE	PROCESS FLOW DIAGRAM
-------	----------------------

SULPHUR DEGASSING AND STORAGE PIT