

INGALLS IRON - EX: N/A

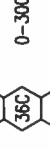
KIRBY INLAND MARINE

CARGO PIPING FLOW DIAGRAM

REV.	DATE	BY	CHK APP	REVISION DESCRIPTION	SCALE:	NONE	PAGE:	1 OF 3	REV.	0
0	01/08/10	RB	BR	OF APPROVED						

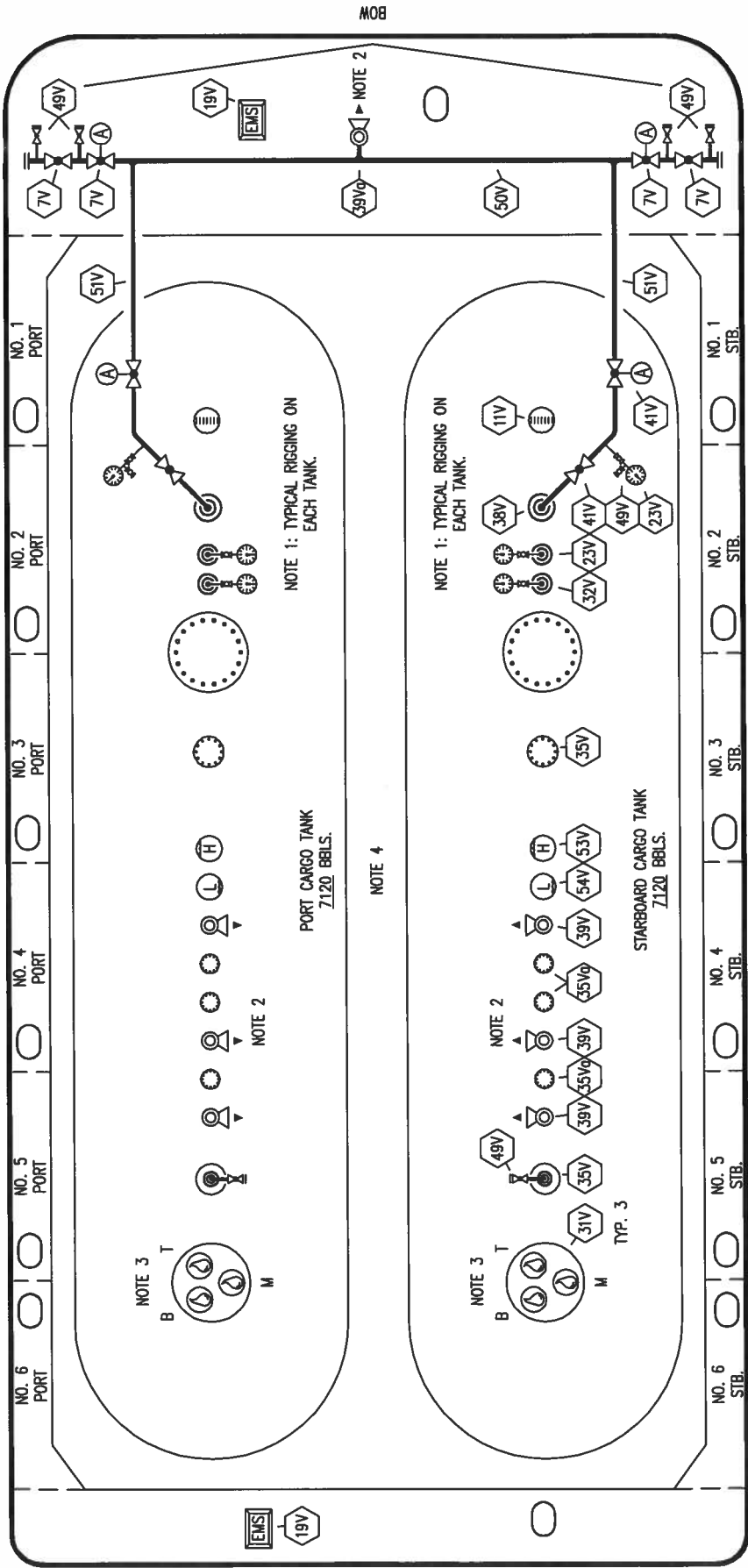
NOTE 1: P/V VALVES VENTED TO ATMOSPHERE
 NOTE 2: 2" CONDUIT BELOW GRATE FOR EMS.

- NO** DESCRIPTION
- 1C 4" CARGO TANK VALVE
 - 5C 6" HEADER VALVE
 - 8C 3 RELIEF VALVE/4" STACK
 - 11C BLEED OFF VALVE
 - 19C 6" CARGO HEADER
 - 26C DRAIN (BLEED) VALVE
 - 30C 4" CARGO PIPELINE
 - 36C 0-300# PRESSURE GAUGE
 - 37C 4" CARGO DROP
 - (A) AIR ACTUATED AUTOMATIC VALVE
- ABOVE DECK PIPING



USL 148

PORT



STERN

BOB

STARBOARD

NO	DESCRIPTION	NO	DESCRIPTION
7V	4" HEADER VALVE	41V	3" VAPOR TANK VALVE
11V	GAUGE STICK (MIDDLE)	49V	BLEED VALVE
19V	EMERGENCY SHUT DOWN STATIONS	50V	4" VAPOR HEADER
23V	PRESSURE GAUGE 0-300#	51V	3" VAPOR PIPELINE
31V	SAMPLE STATIONS	53V	HIGH LEVEL GAUGE
32V	TEMPERATURE GAUGE 0-160 F	54V	LOW LEVEL GAUGE
35V	12" NOZZLE W/ 2" BLIND	55V	ABOVE DECK PIPING
38V	SPARE 6" (BLIND)	(A)	AIR ACTUATED AUTOMATIC VALVE
39V	VAPOR DROP OR PENETRATION		
49V	PRESSURE/VACUUM VALVE @ 260 PSI		
	4" STACK-3 PRESSURE/VACUUM VALVE		

REV.	DATE	BY	CHK	APPI	REVISION DESCRIPTION
1					
0	01/08/10	RB	BR	OF	APPROVED
1	02/17/12	DCB	DDA		REMOVED P/V VALVES

SCALE:	NONE
PAGE:	2 OF 3

INGALLS IRON - EX: N/A

KIRBY INLAND MARINE

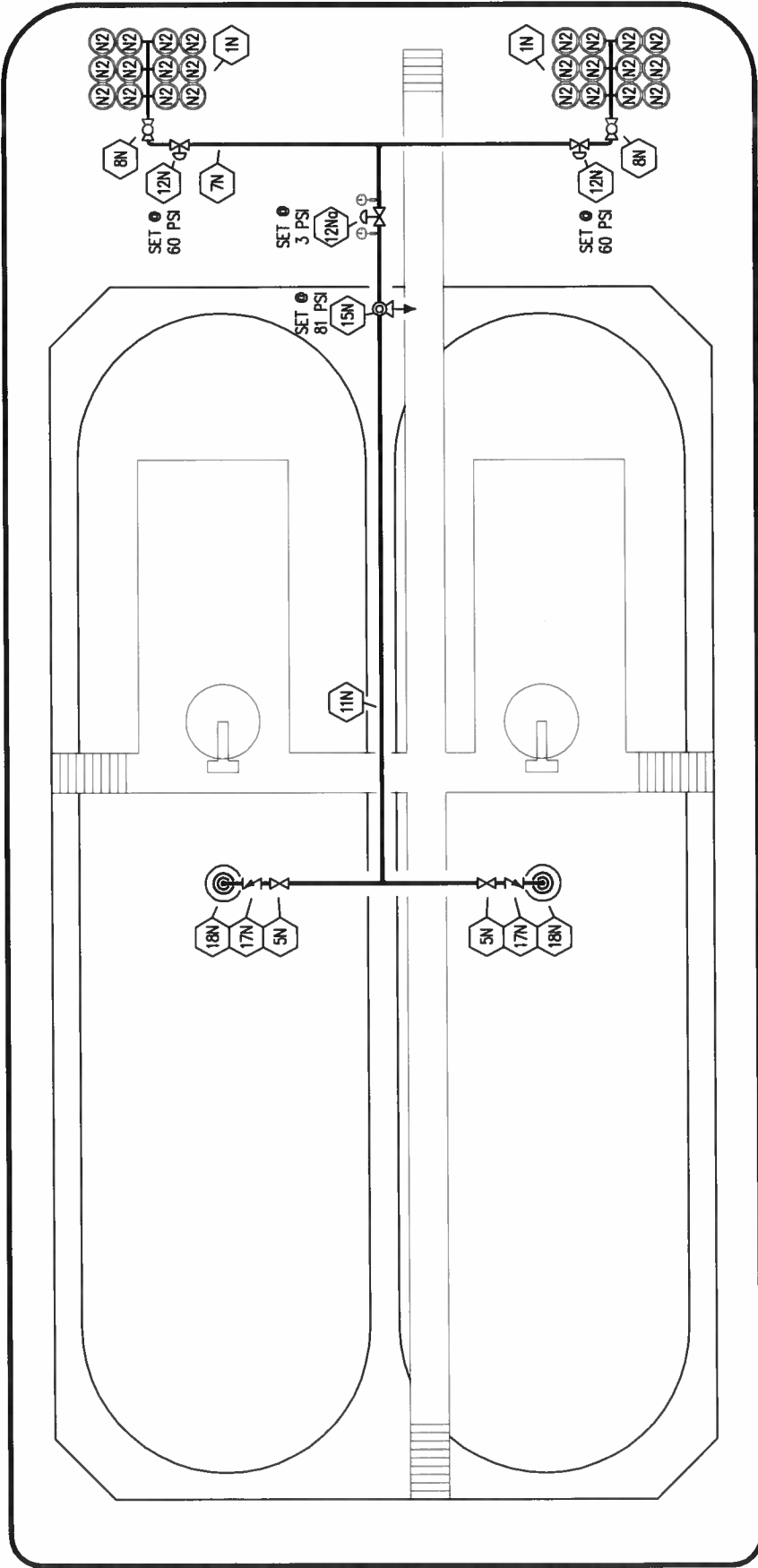
VAPOR

PIPING FLOW DIAGRAM

USL 148

REV. **1**

PORT



BOW

STERN

STARBOARD

- NO DESCRIPTION
- 1N NITROGEN BOTTLE RACK (12 PK.)
- 5N N2 SUPPLY VALVE
- 7N NITROGEN HEADER
- 8N N2 REGULATOR CONTROL VALVE
- 11N NITROGEN PIPELINE
- 12N HARRIS NITROGEN REGULATOR
- 12No FISHER NITROGEN REGULATOR
- 15N N2 RELIEF VALVE
- 17N N2 CHECK VALVE
- 18N N2 TANK PENETRATION

— ABOVE DECK PIPING



KIRBY INLAND MARINE

**NITROGEN
PIPING FLOW DIAGRAM**

REV. 1

USL 146, 147 & 148

SCALE: NONE
PAGE: 3 OF 3

REV.	DATE	BY	CHK	APP	REVISION	DESCRIPTION
1	09/27/11	JN	DDA			REVISED PSI
0	11/09/10	RB	RB	OF	APPROVED	