

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:52am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-01.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES	DRAWN	S.FARWELL	PROPAG
SURF. PREP. :						DESIGN PRES.	4516 kPa	DESIGN TEMP.	-28/149 °C	DATE	00/01/21	
PRIMER : PNT-11						TEST PRES.	6774 kPa	X-RAY	100%	CHECKED	M/waniuk	
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	DATE	May 25/00	LINE No. : P-001-BS-273
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		CKD		ENG		APPROVED	<i>S.Farwell</i>	TO: V-100 FROM: SKID EDGE (N1)
	REV	BY	DATE	DESCRIPTION		APPROVED		APPROVED		DATE	05/30/00	DWG No. : B-PIP-99420-151 '01'

ITM	QTY	SIZE	WT	PIPE		
1	3.0 m	273	9.27	SMLS		SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	89	300#	40	RFWN	SA-105N
7	2	273	300#	40	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	1	89	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS
13	1	273	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

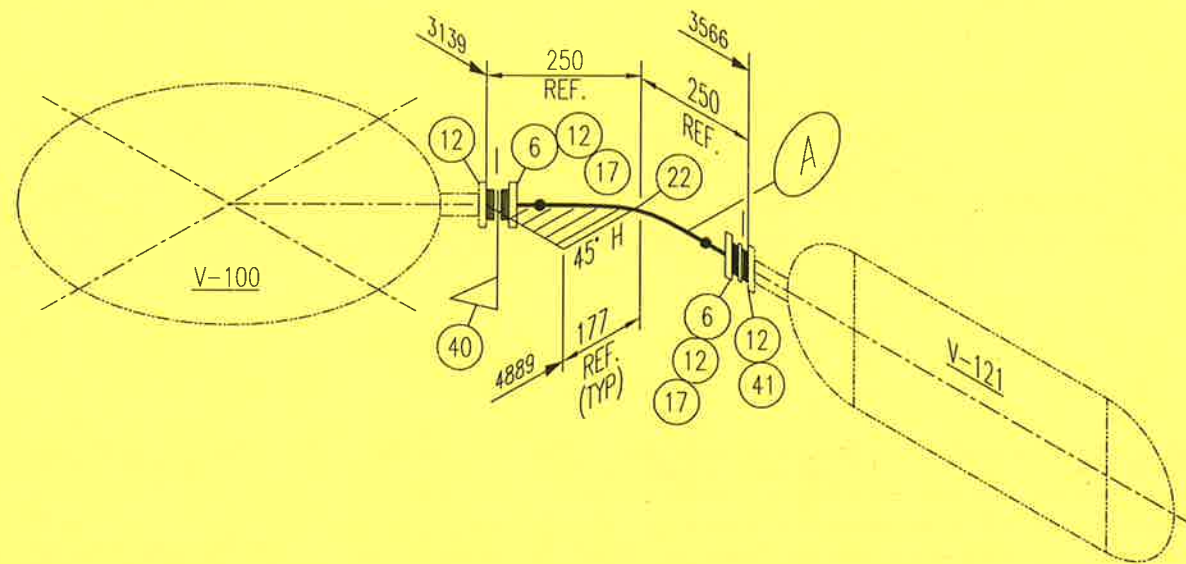
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	8	19ø	108	SA-193-B7M/SA-194-2HM		
18	16	25ø	159	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	1	89	40	ELBOW 90° LR		SA-234-WPB
23	1	89	STD	WOL: (ON A 273 OD RUN)		SA-105N
24	1	273	40	ELBOW 90° LR		SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	3	27	6000#	TOL: (ON A 273 OD RUN) (1) c/w PLUG		SA-105N
36	1	33	6000#	TOL: (ON A 273 OD RUN) c/w PLUG		SA-105N

ITM	QTY	SIZE	MISCELLANEOUS			



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DATE: 2000.05.29 7:53am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-02.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES
SURF. PREP. :						DESIGN PRES.	4516 kPa	DESIGN TEMP.	-28/149 °C
PRIMER :	PNT-11					TEST PRES.	6774 kPa	X-RAY	100%
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.	
REV	BY	DATE	DESCRIPTION		CKD	ENG	APPROVED		
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		<i>M I</i>	<i>gn</i>	PROCESS : GAS		
					DRAWN	S.FARWELL		PROPAK	
					DATE	00/01/24			
					CHECKED	<i>M. Iwanick</i>			
					DATE	<i>May 29/00</i>		LINE No. : P-002-BS-219	
					APPROVED	<i>S. W. J. R.</i>		TO: V-121 FROM: V-100	
					DATE	<i>05/30/00</i>		DWG No. : B-PIP-99420-151 '02'	
									REV 1

ITM	QTY	SIZE	WT	PIPE	

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	2	219	300#	40	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	4	219	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

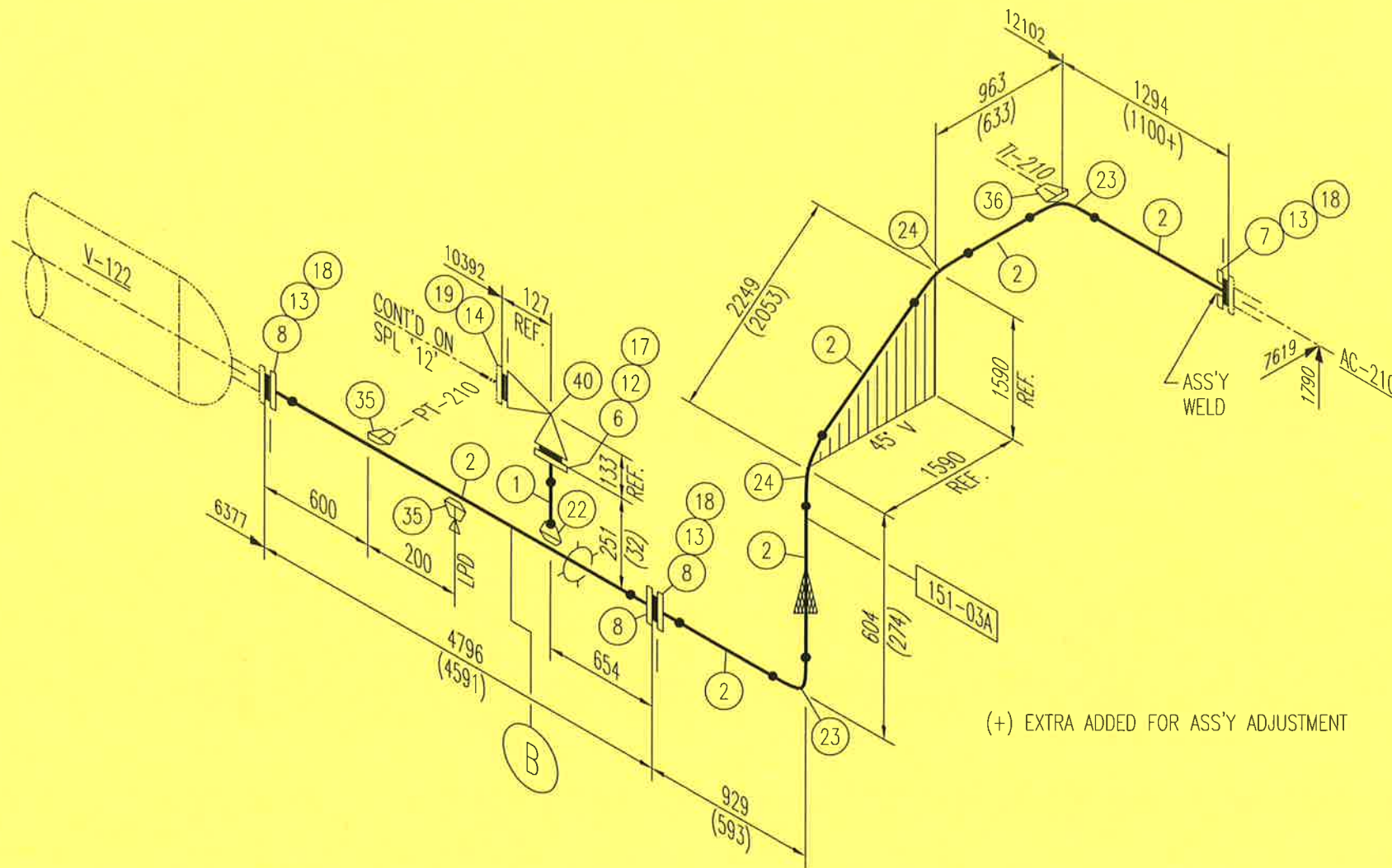
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	24	22ø	146	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	1	219	40	ELBOW 45° LR SMLS		SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		

ITM	QTY	SIZE	MISCELLANEOUS			
40	1	219	TSS-121	PURCH. BY ENG.		
41	1	219	RO-121	PURCH. BY ENG.		



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:53am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-03.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES
SURF. PREP. :						DESIGN PRES.	4447 kPa	DESIGN TEMP.	-28/176 °C
PRIMER :]-PNT-12						TEST PRES.	6671 kPa	X-RAY	100%
PAIN T :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.	
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		CKD	ENG	APPROVED	
	REV	BY	DATE	DESCRIPTION				PROCESS : GAS	

DRAWN	S.FARWELL	PROPAK	
DATE	00/01/24		
CHECKED	<i>m.lwaniew</i>	LINE No. : P-003-BS-168	
DATE	<i>May 29/00</i>		
APPROVED	<i>[Signature]</i>	TO: AC-210	FROM: V-122
DATE	<i>05/30/00</i>	DWG No. : B-PIP-99420-151 '03'	REV 1

ITM	QTY	SIZE	WT	PIPE	
1	0.1 m	60	8.71	SMLS	SA-106-B
2	10.2 m	168	7.11	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	60	300#	160	RFWN	SA-105N
7	1	168	300#	-	RFSO	SA-105N
8	3	168	300#	40	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	1	60	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS
13	3	168	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS
14	1	89	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

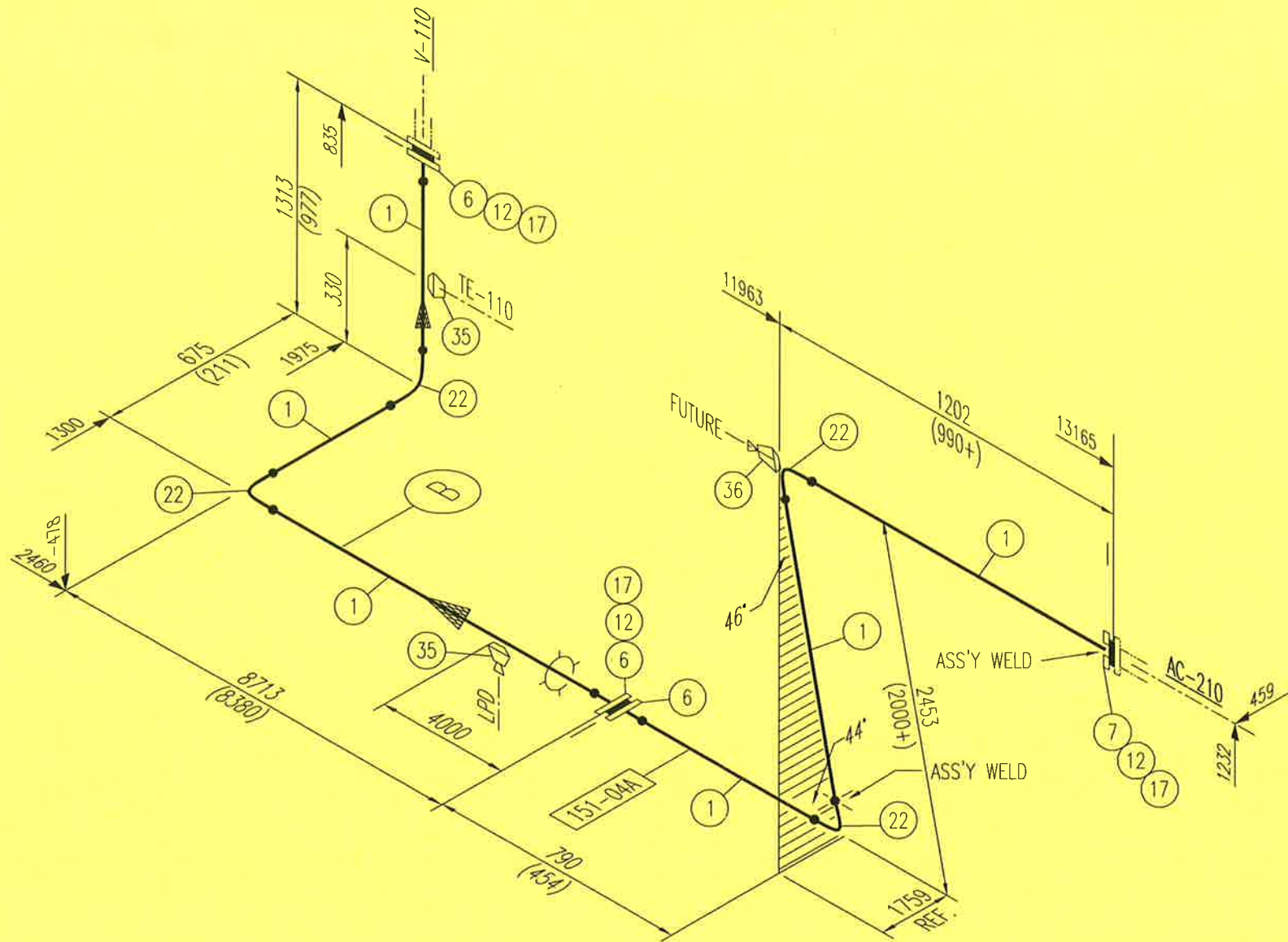
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	16ø	133	SA-193-B7M/SA-194-2HM	
18	36	19ø	127	SA-193-B7M/SA-194-2HM	
19	4	16ø	95	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	1	60	160	WOL: (ON A 168 OD RUN)	SA-105N
23	2	168	40	ELBOW 90° LR	SA-234-WPB
24	2	168	40	ELBOW 45° LR SMLS	SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES	

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	2	27	6000#	TOL: (ON A 168 OD RUN) (1) c/w PLUG	SA-105N
36	1	27	6000#	EOL: (ON A 168 OD RUN) NPT	SA-105N

ITM	QTY	SIZE	MISCELLANEOUS	
40	1	60x89	PSV-200	PURCH. BY ENG.



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

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AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:54am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-04.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES					
SURF. PREP. :						DESIGN PRES.	4516 kPa	DESIGN TEMP.	-28/149 °C	DRAWN	S.FARWELL	PROPAK		
PRIMER :	PNT-11					TEST PRES.	6774 kPa	X-RAY	100%	DATE	00/01/24			
PAIN T :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		CHECKED	m.l.waniuk			
		1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION					DATE	May 29/00	LINE No. : P-004-BS-168		
		REV	BY	DATE	DESCRIPTION	CKD	ENG	APPROVED		APPROVED	S.FARWELL	TO: V-110		FROM: AC-210
										DATE	05/30/00	DWG No. : B-PIP-99420-151 '04'		REV 1

ITM	QTY	SIZE	WT	PIPE	
1	14.3 m	168	7.11	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	3	168	300#	40	RFWN	SA-105N
7	1	168	300#	-	RFSO	SA-105N

ITM	QTY	SIZE	RATING	GASKETS	
12	3	168	300#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS

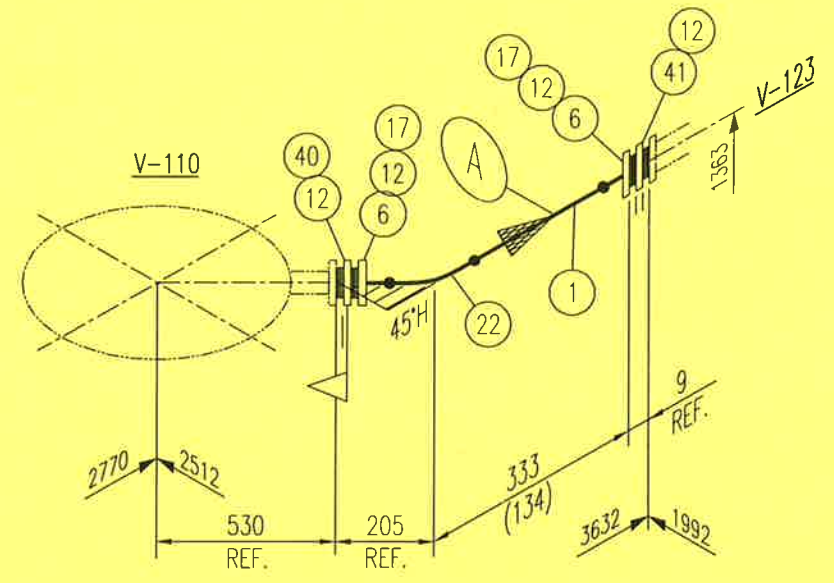
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	36	19 Ø	127	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	4	168	40	ELBOW 90° LR SMLS SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	2	27	6000#	TOL: ON A 168 OD RUN (1) /w PLUG SA-105N	
36	1	27	6000#	EOL: ON A 168 OD RUN c/w PLUG SA-105N	

ITM	QTY	SIZE	MISCELLANEOUS		



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

ITM	QTY	SIZE	WT	PIPE	
1	0.2 m	168	7.11	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	2	168	300#	40	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	4	168	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	24	19 Ø	133	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	1	168	40	ELBOW 45' LR SMLS SA-234-WPB		

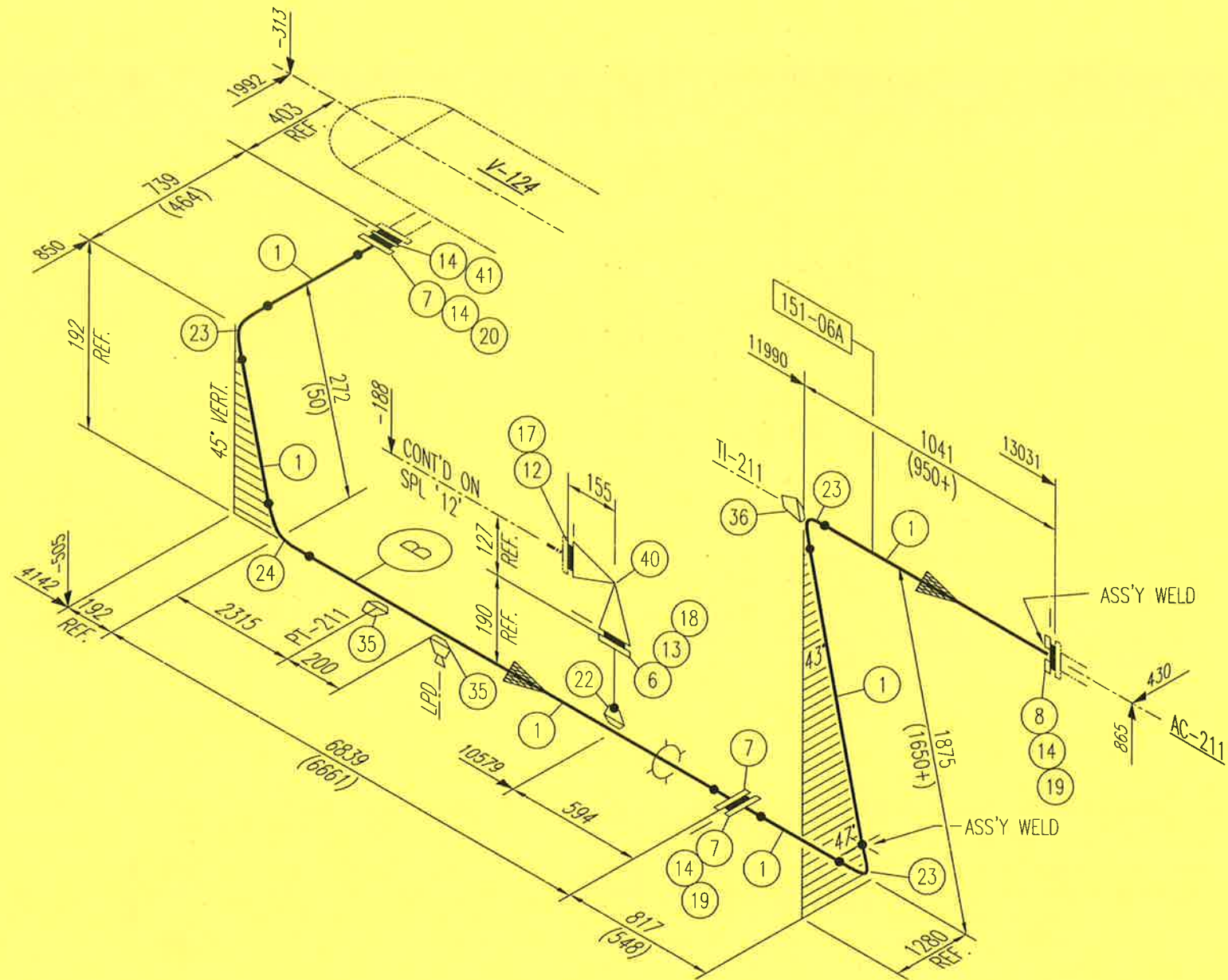
ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		

ITM	QTY	SIZE	MISCELLANEOUS			
40	1	168	TSS-123		PURCH. BY ENG.	
41	1	168	RO-123		PURCH. BY ENG.	

DATE: 2000.05.29 7:54am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-05.dwg

INSUL : NONE									CODE	B31.3	STRESS RELIEF	YES								
SURF. PREP. :									DESIGN PRES.	4516 kPa	DESIGN TEMP.	-28/149 °C	DRAWN	S.FARWELL	PROPAK					
PRIMER :									TEST PRES.	6774 kPa	X-RAY	100%	DATE	00/01/24						
PAINT :									WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	CHECKED	M. Iwanicki	LINE No. : P-005-BS-168					
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION				M.I.	CKD	ENG	APPROVED		DATE	May 29/00	TO: V-123		FROM: V-110			
REV	BY	DATE	DESCRIPTION				APPROVED	PROCESS	PROCESS GAS				DATE	05/30/00	DWG No. : B-PIP-99420-151 '05'		REV	1		



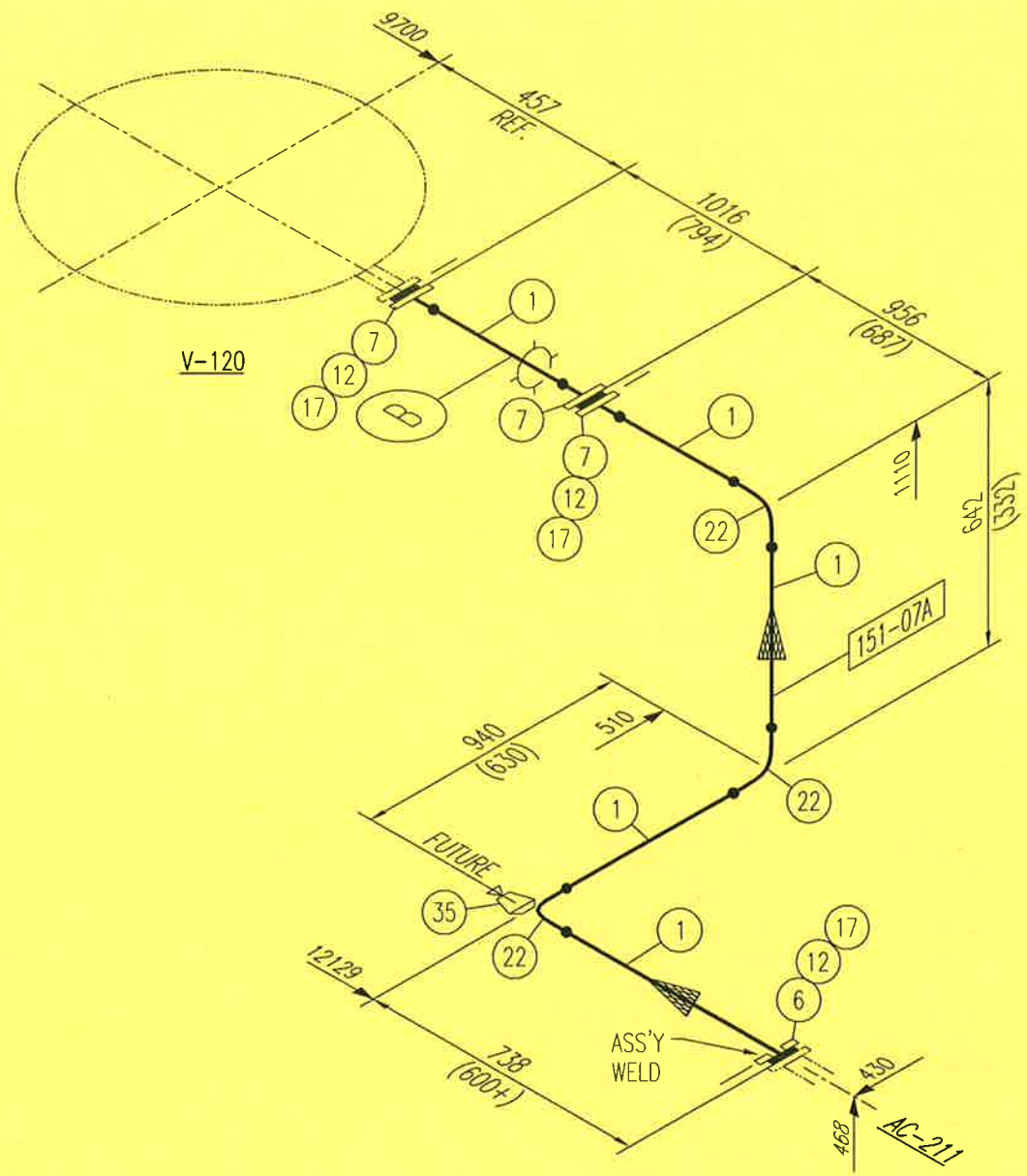
+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:54am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-06.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES																																																																																																																																																																																																						
SURF. PREP. :						DESIGN PRES.	8908 kPa	DESIGN TEMP.	-28/176 °C																																																																																																																																																																																																						
PRIMER : PNT-12						TEST PRES.	13362 kPa	X-RAY	100%																																																																																																																																																																																																						
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.																																																																																																																																																																																																							
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1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		M I	GW	PROCESS : PROCESS GAS																																																																																																																																																																																																								
<table border="1"> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td>WT</td> <td colspan="2">PIPE</td> </tr> <tr> <td>1</td> <td>11.4 m</td> <td>114</td> <td>8.56</td> <td>SMLS</td> <td>SA-106-B</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td>RATING</td> <td>SCHEDULE</td> <td>FLANGES</td> </tr> <tr> <td>6</td> <td>1</td> <td>48</td> <td>600#</td> <td>160</td> <td>RFWN SA-105N</td> </tr> <tr> <td>7</td> <td>3</td> <td>114</td> <td>600#</td> <td>80</td> <td>RFWN SA-105N</td> </tr> <tr> <td>8</td> <td>1</td> <td>114</td> <td>600#</td> <td>-</td> <td>RFSO SA-105N</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td>RATING</td> <td colspan="2">GASKETS</td> </tr> <tr> <td>12</td> <td>1</td> <td>60</td> <td>150#</td> <td>3 THK RF SP. WD. FLEX.</td> <td>STD. FILLER 316SS</td> </tr> <tr> <td>13</td> <td>1</td> <td>48</td> <td>600#</td> <td>3 THK RF SP. WD. FLEX.</td> <td>STD. FILLER 316SS</td> </tr> <tr> <td>14</td> <td>4</td> <td>114</td> <td>600#</td> <td>3 THK RF SP. WD. FLEX.</td> <td>STD. FILLER 316SS</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td>LENGTH</td> <td colspan="2">STUD BOLTS w/ 2 HEX NUTS</td> </tr> <tr> <td>17</td> <td>4</td> <td>16 Ø</td> <td>83</td> <td colspan="2">SA-193-B7M/SA-194-2HM</td> </tr> <tr> <td>18</td> <td>4</td> <td>19 Ø</td> <td>123</td> <td colspan="2">SA-193-B7M/SA-194-2HM</td> </tr> <tr> <td>19</td> <td>16</td> <td>22 Ø</td> <td>146</td> <td colspan="2">SA-193-B7M/SA-194-2HM</td> </tr> <tr> <td>20</td> <td>8</td> <td>22 Ø</td> <td>152</td> <td colspan="2">SA-193-B7M/SA-194-2HM</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td>SCHEDULE</td> <td colspan="2">FITTINGS - BW</td> </tr> <tr> <td>22</td> <td>1</td> <td>48</td> <td>160</td> <td colspan="2">WOL: (ON A 114 OD RUN) SA-105N</td> </tr> <tr> <td>23</td> <td>3</td> <td>114</td> <td>80</td> <td colspan="2">ELBOW 90° LR SMLS SA-234-WPB</td> </tr> <tr> <td>24</td> <td>1</td> <td>114</td> <td>80</td> <td colspan="2">ELBOW 45° LR SMLS SA-234-WPB</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td colspan="3">NIPPLES/SWAGES</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td>RATING</td> <td colspan="2">FITTINGS - SCR'D / SW</td> </tr> <tr> <td>35</td> <td>2</td> <td>27</td> <td>6000#</td> <td colspan="2">TOL: ON A 114 OD RUN - (1) w/ PLUG SA-105N</td> </tr> <tr> <td>36</td> <td>1</td> <td>27</td> <td>6000#</td> <td colspan="2">EOL: (ON A 114 OD RUN) SA-105N</td> </tr> <tr> <td colspan="6"> </td> </tr> <tr> <td>ITEM</td> <td>QTY</td> <td>SIZE</td> <td colspan="3">MISCELLANEOUS</td> </tr> <tr> <td>40</td> <td>1</td> <td>48x60</td> <td colspan="3">PSV-202 PURCH. BY ENG.</td> </tr> <tr> <td>41</td> <td>1</td> <td>114</td> <td colspan="3">RO-124 PURCH. BY ENG.</td> </tr> </table>										ITEM	QTY	SIZE	WT	PIPE		1	11.4 m	114	8.56	SMLS	SA-106-B							ITEM	QTY	SIZE	RATING	SCHEDULE	FLANGES	6	1	48	600#	160	RFWN SA-105N	7	3	114	600#	80	RFWN SA-105N	8	1	114	600#	-	RFSO SA-105N							ITEM	QTY	SIZE	RATING	GASKETS		12	1	60	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS	13	1	48	600#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS	14	4	114	600#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS							ITEM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		17	4	16 Ø	83	SA-193-B7M/SA-194-2HM		18	4	19 Ø	123	SA-193-B7M/SA-194-2HM		19	16	22 Ø	146	SA-193-B7M/SA-194-2HM		20	8	22 Ø	152	SA-193-B7M/SA-194-2HM								ITEM	QTY	SIZE	SCHEDULE	FITTINGS - BW		22	1	48	160	WOL: (ON A 114 OD RUN) SA-105N		23	3	114	80	ELBOW 90° LR SMLS SA-234-WPB		24	1	114	80	ELBOW 45° LR SMLS SA-234-WPB								ITEM	QTY	SIZE	NIPPLES/SWAGES									ITEM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		35	2	27	6000#	TOL: ON A 114 OD RUN - (1) w/ PLUG SA-105N		36	1	27	6000#	EOL: (ON A 114 OD RUN) SA-105N								ITEM	QTY	SIZE	MISCELLANEOUS			40	1	48x60	PSV-202 PURCH. BY ENG.			41	1	114	RO-124 PURCH. BY ENG.		
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ITEM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW																																																																																																																																																																																																											
35	2	27	6000#	TOL: ON A 114 OD RUN - (1) w/ PLUG SA-105N																																																																																																																																																																																																											
36	1	27	6000#	EOL: (ON A 114 OD RUN) SA-105N																																																																																																																																																																																																											
ITEM	QTY	SIZE	MISCELLANEOUS																																																																																																																																																																																																												
40	1	48x60	PSV-202 PURCH. BY ENG.																																																																																																																																																																																																												
41	1	114	RO-124 PURCH. BY ENG.																																																																																																																																																																																																												

DRAWN	S.FARWELL	PROPAK	
DATE	00/01/24		
CHECKED	m!wariuk		
DATE	May 29/00	LINE No. : P-006-CS-114	
APPROVED	S.Farwell	TO: AC-211	FROM: V-124
DATE	05/30/00	DWG No. : B-PIP-99420-151 '06'	
			REV 1



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

DATE: 2000.05.29 7:55am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-07.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES	DRAWN	S.FARWELL	PROPAK
SURF. PREP. :						DESIGN PRES.	9067 kPa	DESIGN TEMP.	-28/149 °C	DATE	00/02/14	
PRIMER : PNT-11						TEST PRES.	13601 kPa	X-RAY	100%	CHECKED	M. Iwanick	
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		DATE	May 29/00	
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		CKD	ENG	APPROVED		APPROVED	<i>[Signature]</i>	LINE No. : P-007-CS-114
	REV	BY	DATE	DESCRIPTION					PROCESS : PROCESS GAS	DATE	05/30/00	TO: V-120 FROM: AC-211
												DWG No. : B-PIP-99420-151 '07' REV 1

ITM	QTY	SIZE	WT	PIPE		
1	3.3 m	114	8.56	SMLS		SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	114	600#	-	RFSO	SA-105N
7	3	114	600#	80	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	3	114	600#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

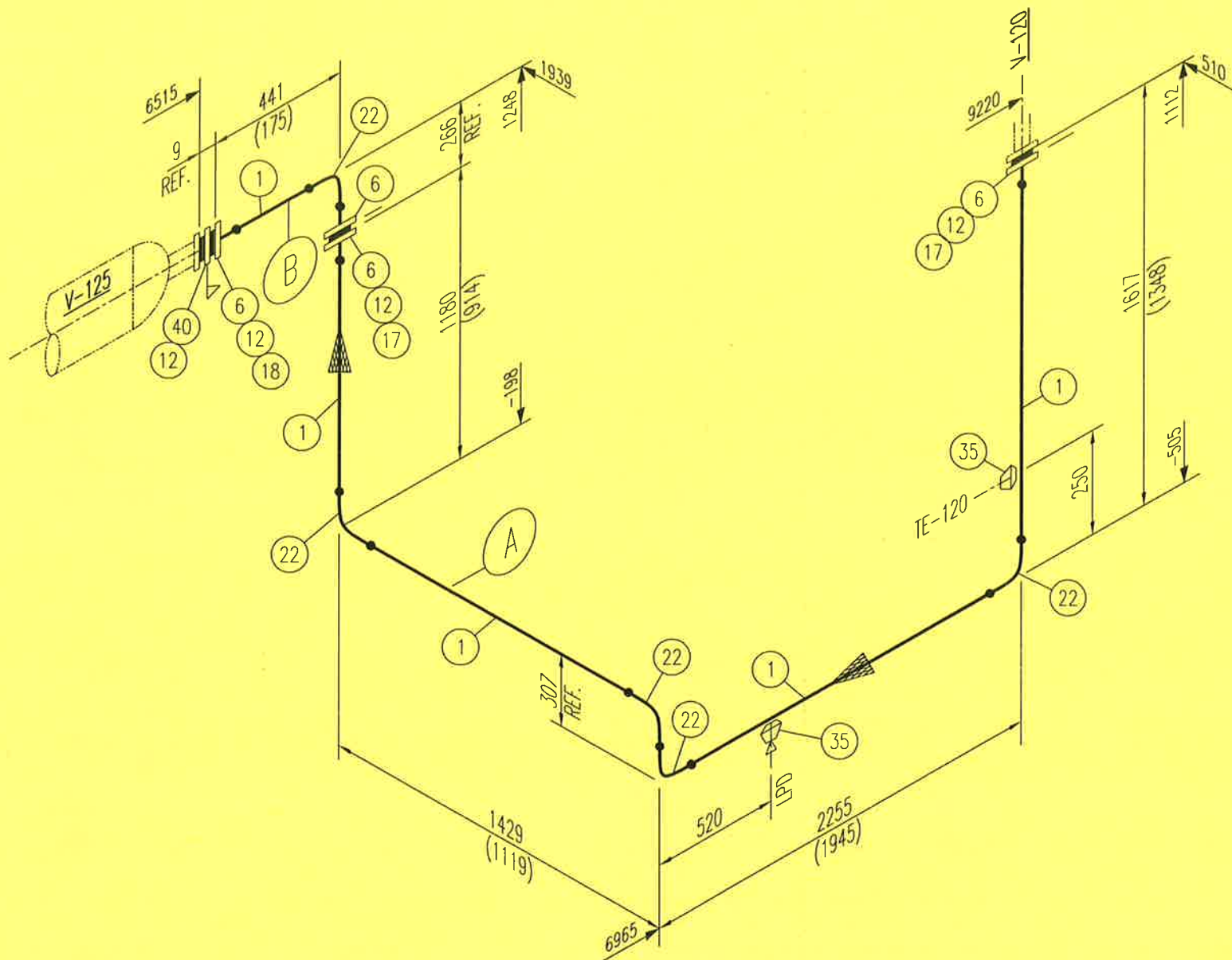
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	24	22Ø	146	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	3	114	80	ELBOW 90° LR		SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	1	27	6000#	EOL: (ON A 114 OD RUN) c/w PLUG NPT		SA-105N

ITM	QTY	SIZE	MISCELLANEOUS			



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:55am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-08.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES			
SURF. PREP. :						DESIGN PRES.	9067 kPa	DESIGN TEMP.	-28/149 °C	DRAWN	S.FARWELL	PROPAG
PRIMER :	PNT-11					TEST PRES.	13601 kPa	X-RAY	100%	DATE	00/01/24	
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		CHECKED	M.Iwanick	
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION						DATE	May 25/00	LINE No. : P-008-CS-114
						CKD	ENG			APPROVED	<i>S.Farwell</i>	TO: V-125 FROM: V-120
	REV	BY	DATE	DESCRIPTION		APPROVED		PROCESS : PROCESS GAS		DATE	07/30/00	DWG No. : B-PIP-99420-151 '08'

ITM	QTY	SIZE	WT	PIPE		
1	6.1 m	114	8.56	SMLS		SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	4	114	600#	80	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	4	114	600#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS

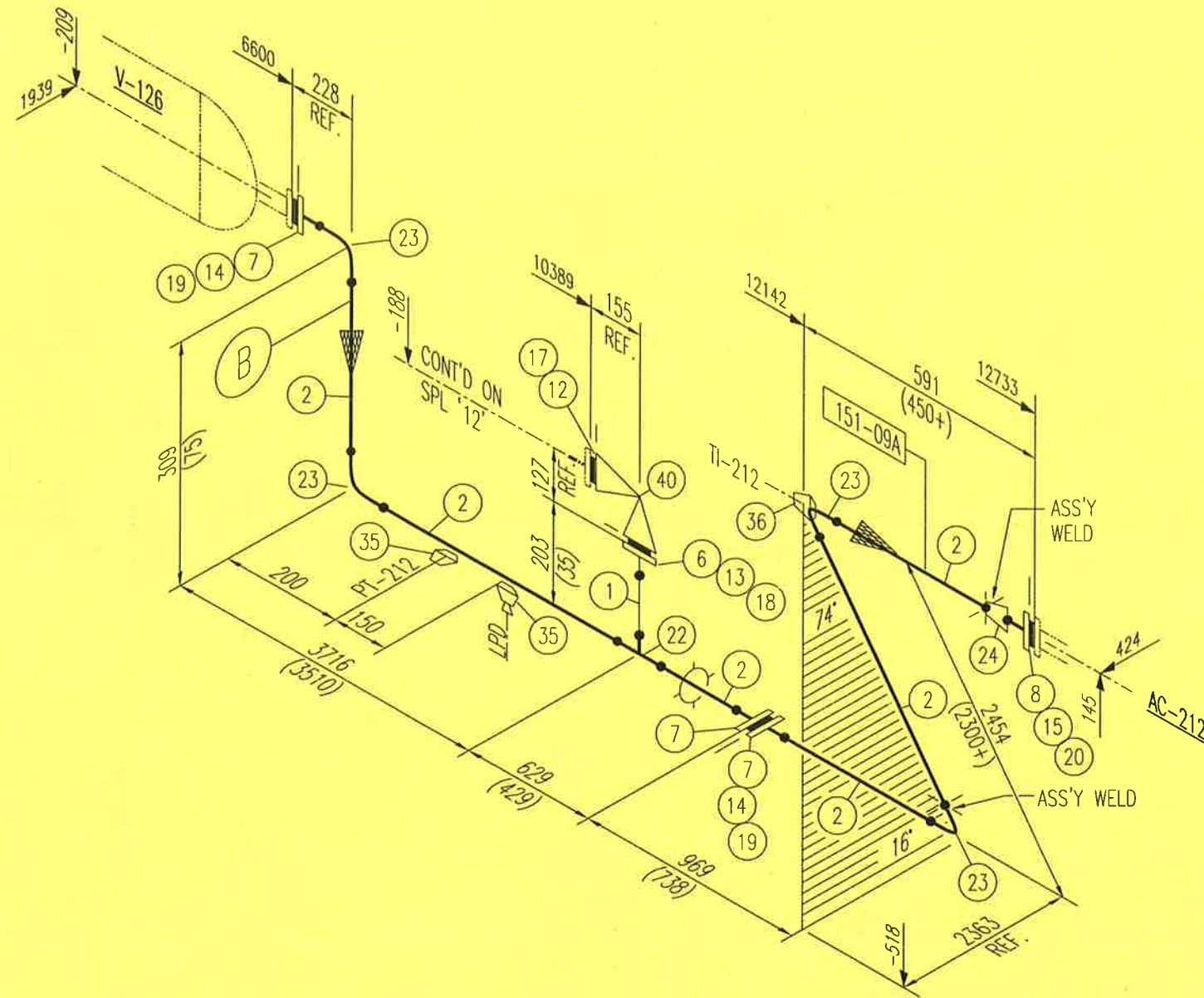
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	16	22 Ø	146	SA-193-B7M/SA-194-2HM		
18	8	22 Ø	152	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	5	114	80	ELBOW 90° LR SMLS SA-234-WPB		

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	2	27	6000#	TOL: (ON A 114 O/D RUN) - (1) w/ PLUG SA-105N		

ITM	QTY	SIZE	MISCELLANEOUS			
40	1	114	TSS-125	PURCH. BY ENG.		



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:56am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-09.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES
SURF. PREP. :						DESIGN PRES.	11377 kPa	DESIGN TEMP.	-28/176 °C
PRIMER : PNT-12						TEST PRES.	17066 kPa	X-RAY	100%
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		CKD	ENG	APPROVED	PROCESS : PROCESS GAS
	REV	BY	DATE	DESCRIPTION					

ITM	QTY	SIZE	WT	PIPE	
1	0.1 m	48	7.14	SMLS	SA-106-B
2	8.3 m	89	7.62	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	48	900#	160	RTJWN	SA-105N
7	3	89	900#	80	RFWN	SA-105N
8	1	114	900#	80	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS	
12	1	73	300#	3 THK RF SP. WD. FLEX. STD. FILLER	316SS
13	1	48	900#	O-RING R20 OVAL	316SS
14	2	89	900#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 73.66 ID INNER RING	316SS
15	1	114	900#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 97.18 ID INNER RING	316SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	19 Ø	102	SA-193-B7M/SA-194-2HM	
18	4	25 Ø	152	SA-193-B7M/SA-194-2HM	
19	16	22 Ø	146	SA-193-B7M/SA-194-2HM	
20	8	29 Ø	171	SA-193-B7M/SA-194-2HM	

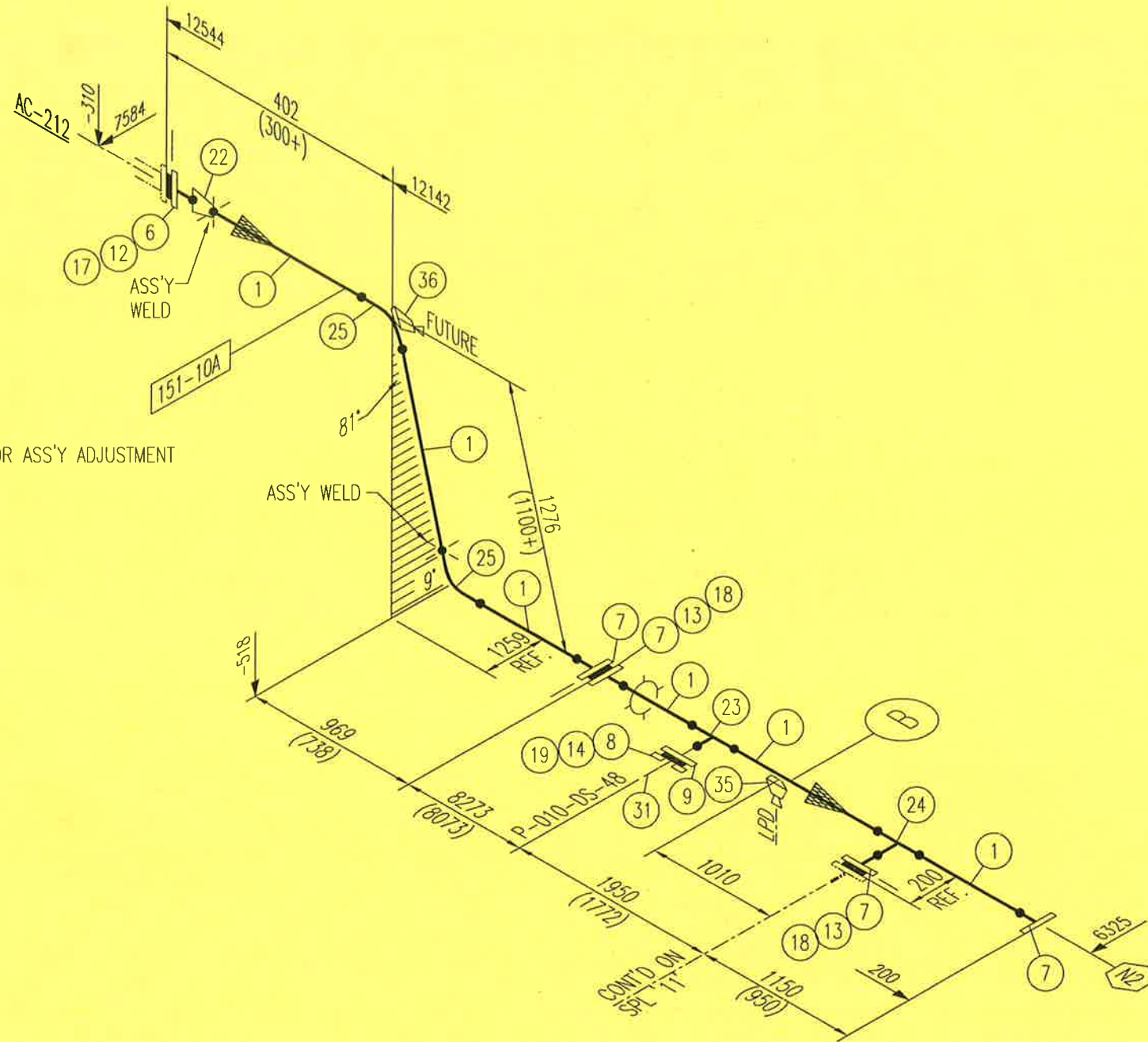
ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	1	89x48	80x160	REDUCING TEE SMLS	SA-234-WPB
23	4	89	80	ELBOW 90° LR SMLS	SA-234-WPB
24	1	114x89	80	CONCENTRIC REDUCER SMLS	SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	2	27	6000#	TOL: ON A 89 OD RUN - (1) w/ PLUG	SA-105N
36	1	27	6000#	EOL: (ON A 89 OD RUN) NPT	SA-105N

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	48x60	PSV-203		PURCH. BY ENG.

DRAWN	S.FARWELL	PROPAG			
DATE	00/01/24				
CHECKED	M. J. MARIANI				
DATE	MAY 25/00	LINE No. :	P-009-DS-89		
APPROVED	S. FARWELL	TO:	AC-212	FROM:	V-126
DATE	05/30/00	DWG No. :	B-PIP-99420-151 '09'		



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 7:56am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-10.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES
SURF. PREP. :						DESIGN PRES.	11377 kPa	DESIGN TEMP.	-28/149 °C
PRIMER : -PNT-11						TEST PRES.	17066 kPa	X-RAY	100%
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		CKD	ENG	APPROVED	
	REV	BY	DATE	DESCRIPTION					PROCESS : PROCESS GAS

ITM	QTY	SIZE	WT	PIPE	
1	14.2 m	89	7.62	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	114	900#	80	RFWN	SA-105N
7	4	89	900#	80	RFWN	SA-105N
8	1	48	900#	-	RFSO	SA-105N
9	1	48	900#	160	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	1	114	900#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 97.18 ID INNER RING	316SS	
13	2	89	900#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 73.66 ID INNER RING	316SS	
14	1	48	900#	3 THK RF SP. WD. FLEX. STD. FILLER	316SS	

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	29ø	171	SA-193-B7M/SA-194-2HM	
18	16	22ø	146	SA-193-B7M/SA-194-2HM	
19	4	25ø	140	SA-193-B7M/SA-194-2HM	

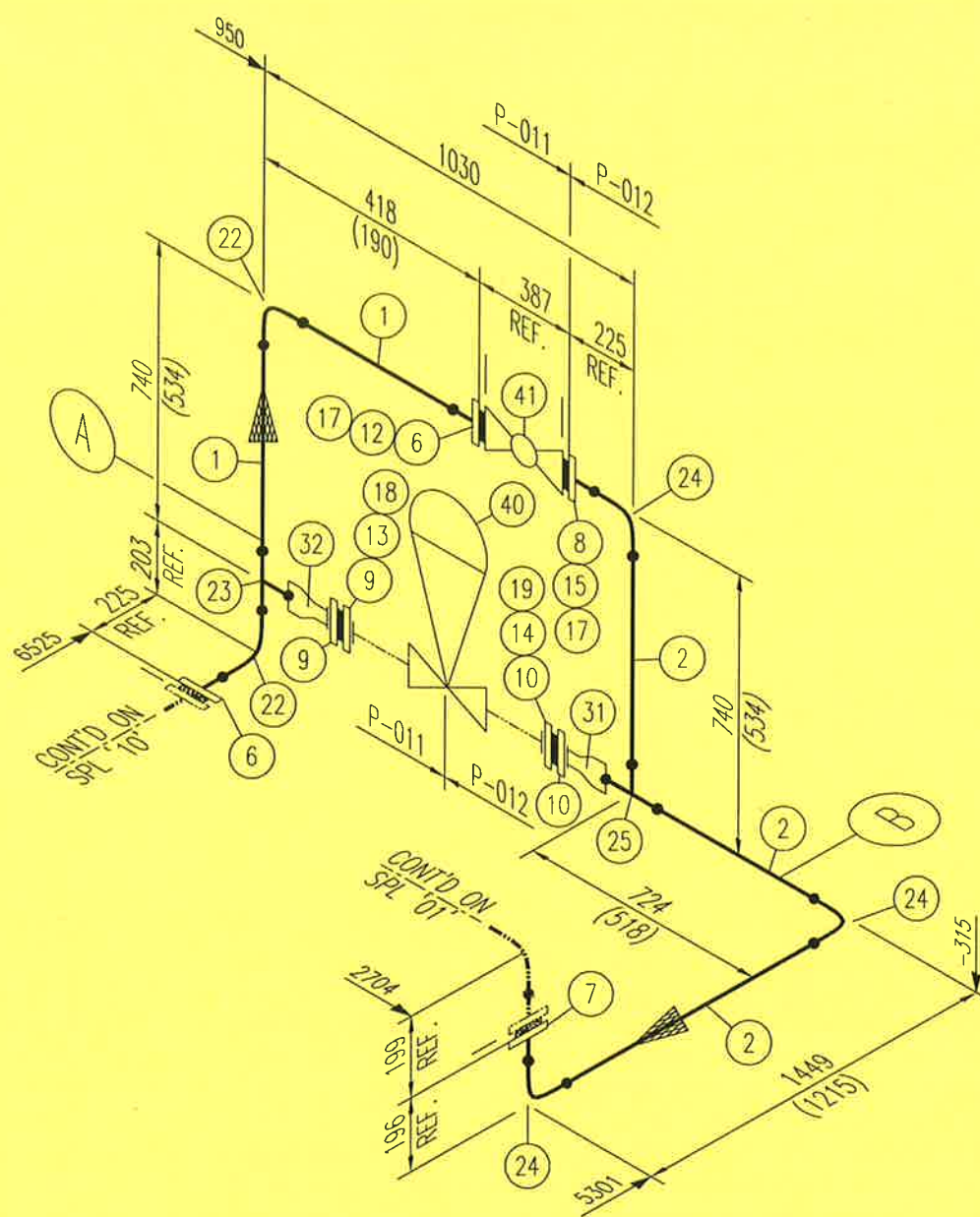
ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	1	114x89	80/80	CONCENTRIC REDUCER SMLS	SA-234-WPB
23	1	89x48	80/160	REDUCING TEE SMLS	SA-234-WPB
24	1	89	80	STRAIGHT TEE SMLS	SA-234-WPB
25	2	89	80	ELBOW 90° LR SMLS	SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES	
31	1	48	NIPPLE: SCH 160 x 152 LG PBE SMLS	SA-106-B

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	27	6000#	TOL: (ON A 89 OD RUN) c/w PLUG	SA-105N
36	1	27	6000#	EOL: (ON A 89 OD RUN) NPT c/w PLUG	SA-105N

ITM	QTY	SIZE	MISCELLANEOUS	

DRAWN	S.FARWELL	PROPAK		
DATE	00/01/25			
CHECKED	M. Iwanick			
DATE	May 29/00	LINE No. :	P-010-DS-89	
APPROVED	S. WANG	TO: SKID EDGE (N2)	FROM: AC-212	
DATE	05/30/00	DWG No. :	B-PIP-99420-151 '10'	
				REV 1



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

LINE No.	P-010/P-011	P-012
DESIGN PRES.	11377 kPa	4516 kPa
TEST PRES.	17066 kPa	6774 kPa

DATE: 2000.05.29 7:59am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-11.dwg

INSUL :	NONE	CODE	B31.3	STRESS RELIEF	YES
SURF. PREP. :		DESIGN PRES.	SEE TABLE	DESIGN TEMP.	-28/149 °C
PRIMER :	PNT-11	TEST PRES.	SEE TABLE	X-RAY	100%
PAINT :		WELD PROC'S	P.S.L.	P.S.L.	P.S.L.
REV	BY	DATE	DESCRIPTION	CKD	ENG
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION	M.I.	GN
				APPROVED	PROCESS : PROCESS GAS

ITM	QTY	SIZE	WT	PIPE	
1	0.8 m	89	7.62	SMLS	SA-106-B
2	2.5 m	89	5.49	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	2	89	900#	80	RFWN	SA-105N
7	1	89	300#	40	RFWN	SA-105N
8	1	89	900#	40	RFWN	SA-105N
9	1	33	900#	160	RF-NPT	SA-105N
10	1	33	300#	160	RF-NPT	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	1	89	900#	3 THK RF SP. WD. FLEX.	STD. FILLER c/w 73.66 ID INNER RING	316SS
13	1	33	900#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS
14	1	33	300#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS
15	1	89	900#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	16	22ø	146	SA-193-B7M/SA-194-2HM	
18	4	22ø	127	SA-193-B7M/SA-194-2HM	
19	4	16ø	83	SA-193-B7M/SA-194-2HM	

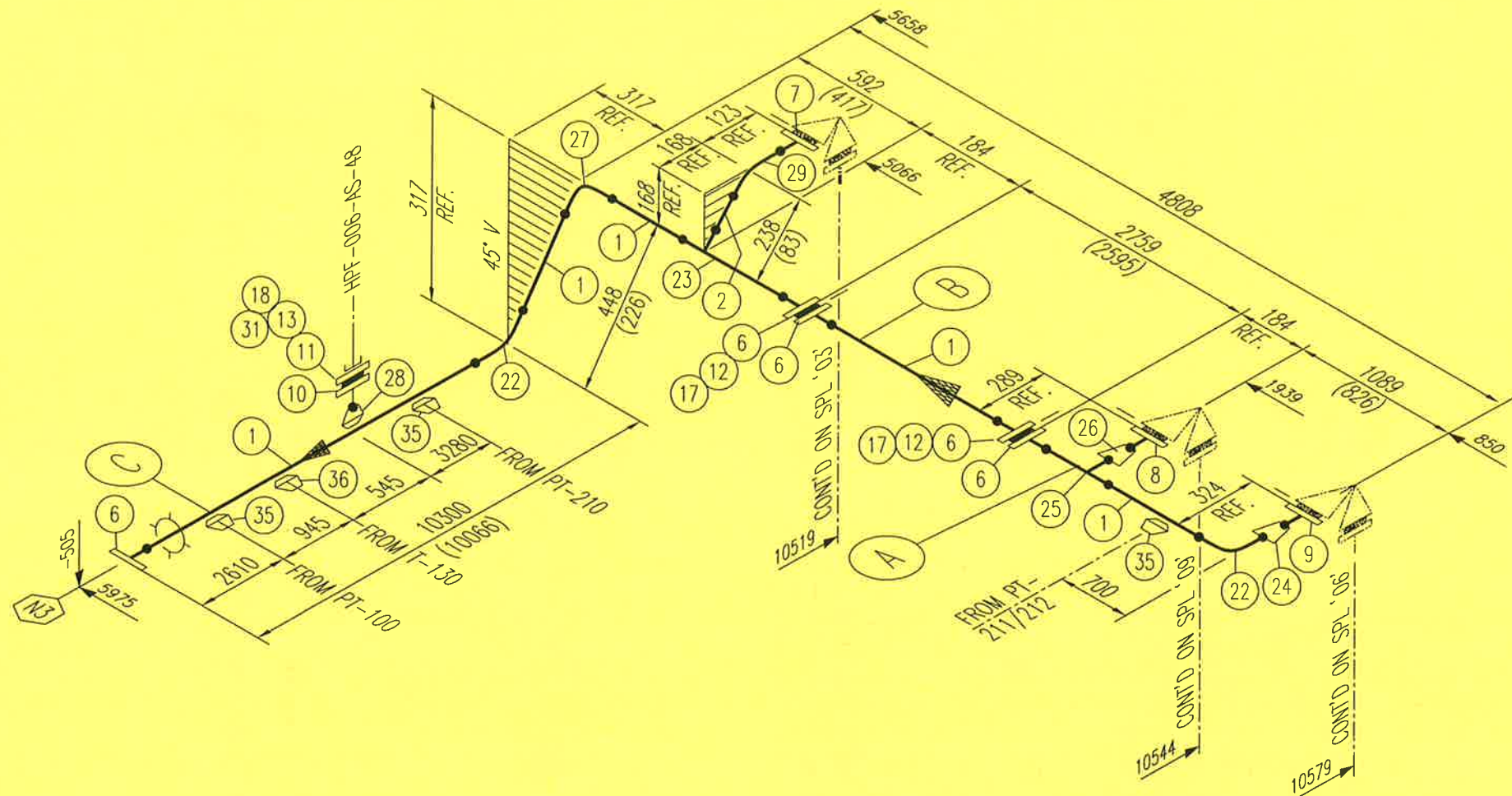
ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	2	89	80	ELBOW 90° LR	SA-234-WPB
23	1	89	80	STRAIGHT TEE SMLS	SA-234-WPB
24	3	89	40	ELBOW 90° LR	SA-234-WPB
25	1	89	40	STRAIGHT TEE SMLS	SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES		
31	1	89x33	CONCENTRIC SWAGE40 BLE/160 TSE SMLS		SA-234-WPB
32	1	89x33	CONCENTRIC SWAGE80 BLE/160 TSE SMLS		SA-234-WPB

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	33	PCV-100		PURCH. BY ENG.
41	1	89	BA-910		PURCH. BY ENG.

DRAWN	S.FARWELL	PROPAK			
DATE	00/01/2				
CHECKED	M.I. Maniuk				
DATE	May 29/00	LINE No. : P-011-DS-89/P-012-BS-89			
APPROVED	S. Maniuk	TO: P-001-BS-273		FROM: P-010-DS-89	
DATE	05/29/00	DWG No. : B-PIP-99420-151 '11'			REV 1



ITM	QTY	SIZE	WT	PIPE	
1	15.6 m	114	6.02	SMLS	SA-106-B
2	0.1 m	89	5.49	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	5	114	150#	40	RFWN	SA-105N
7	1	89	150#	40	RFWN	SA-105N
8	1	73	300#	40	RFWN	SA-105N
9	1	60	150#	80	RFWN	SA-105N
10	1	48	150#	160	RFWN	SA-105N
11	1	48	150#	160	RFSW	SA-105N

ITM	QTY	SIZE	RATING	GASKETS	
12	2	114	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS
13	1	48	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	16	16 Ø	95	SA-193-B7M/SA-194-2HM	
18	4	13 Ø	76	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	2	114	40	ELBOW 90° LR SMLS SA-234-WPB	
23	1	114x89	40/40	REDUCING TEE SMLS SA-234-WPB	
24	1	114x60	40/80	CONCENTRIC REDUCER SMLS SA-234-WPB	
25	1	114	40	STRAIGHT TEE SMLS SA-234-WPB	
26	1	114x73	40/40	CONCENTRIC REDUCER SMLS SA-234-WPB	
27	1	114	40	ELBOW 45° LR SMLS SA-234-WPB	
28	1	48	160	WOL: (ON A 114 OD RUN) SA-105N	
29	1	89	40	ELBOW 45° LR SMLS SA-234-WPB	

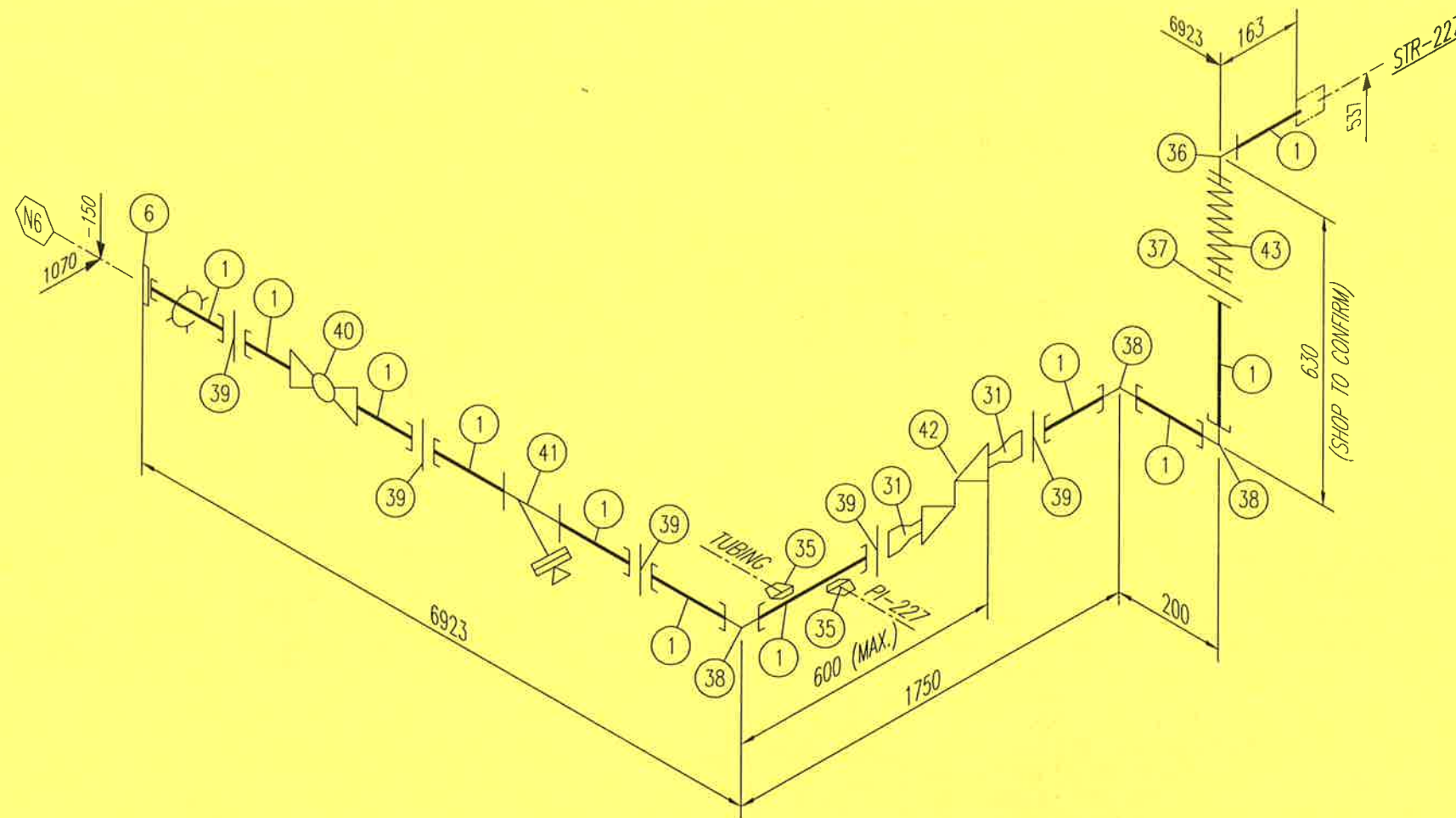
ITM	QTY	SIZE	NIPPLES/SWAGES	
31	1	48	NIPPLE: SCH 160 x 150 LG PBE SMLS SA-106-B	

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	3	21	6000#	TOL: (ON A 114 OD RUN) SA-105N	
36	1	33	6000#	TOL: (ON A 114 OD RUN) SA-105N	

ITM	QTY	SIZE	MISCELLANEOUS		

DATE: 2000.05.29 7:59am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-12.dwg

INSUL : NONE				CODE	B31.3	STRESS RELIEF	YES	DRAWN	S.FARWELL	PROPAK		
SURF. PREP. :				DESIGN PRES.	1585 kPa	DESIGN TEMP.	-28/149 °C				DATE	00/02/15
PRIMER : PNT-11				TEST PRES.	2378 kPa	X-RAY	100%				CHECKED	M. J. W. / S. W.
PAINT :				WELD PROC'S	P.S.L.	P.S.L.	P.S.L.				DATE	May 29 / 00
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION	CKD	ENG	APPROVED	PROCESS : FLARE GAS	DATE	05/30/00	LINE No. : HPF-001-AS-114		
REV	BY	DATE	DESCRIPTION					APPROVED	S. W. / S. W.	TO: SKID EDGE (N3) FROM: PSV-200/202/203		
								DATE	05/30/00	DWG No. : B-PIP-99420-151 '12'		



ITM	QTY	SIZE	WT	PIPE	
1	11.3 m	60	5.54	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	60	150#	80	RFSW	SA-105

ITM	QTY	SIZE	RATING	GASKETS		

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		

ITM	QTY	SIZE	NIPPLES/SWAGES		
31	2	60x48	CONCENTRIC SWAGE80 BLE/80 TSE SMLS		SA-234-WPB

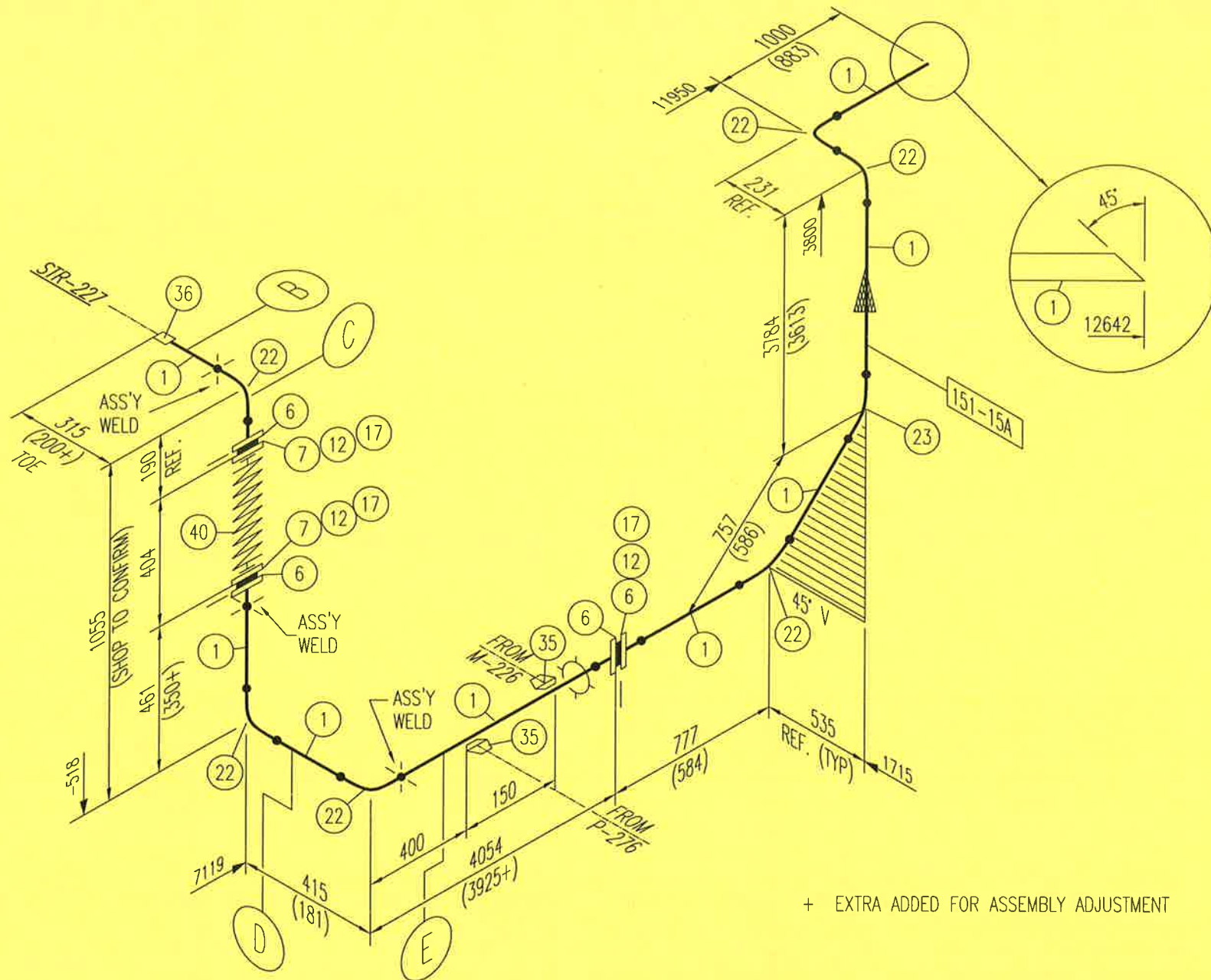
ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	2	21	3000#	TOL: (ON A 60 OD RUN)	
36	1	60	3000#	ELBOW 90° NPT	
37	1	60	3000#	UNION: NPT	
38	3	60	3000#	ELBOW 90° SW	
39	5	60	3000#	UNION: SW	

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	60	BA-608	PURCH. BY ENG.	
41	1	60	ST-608	PURCH. BY ENG.	
42	1	48	FCV-227	PURCH. BY ENG.	
43	1	60	FJ-228	PURCH. BY ENG.	

DATE: 2000.05.29 8:00am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-14.dwg

INSUL : NONE									CODE	B31.3	STRESS RELIEF	NO
SURF. PREP. :									DESIGN PRES.	1034 kPa	DESIGN TEMP.	-28/149 °C
PRIMER :									TEST PRES.	1551 kPa	X-RAY	N/A
PAINT :									WELD PROC'S	P.S.L.	P.S.L.	P.S.L.
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION				CKD	ENG	PROCESS : START GAS SUPPLY		
REV	BY	DATE	DESCRIPTION				APPROVED					

DRAWN	S.FARWELL	PROPAK
DATE	00/02/15	
CHECKED	M. Iwanicki	LINE No. : FG-007-A-60/FG-008-A-60
DATE	May 29/00	
APPROVED	S. W. [Signature]	TO: STR-227
DATE	05/30/00	FROM: SKID EDGE (N6)
DWG No. : B-PIP-99420-151 '14'		REV 1



ITM	QTY	SIZE	WT	PIPE	
1	12.2 m	89	5.49	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	4	89	150#	40	RFWN	SA-105
7	2	89	150#	40	RF-NPT	SA-105

ITM	QTY	SIZE	RATING	GASKETS	
12	3	89	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 304SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	12	16ø	95	SA-193-B7/SA-194-2H	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	6	89	40	ELBOW 90° LR SA-234-WPB	
23	1	89	40	ELBOW 45° LR SMLS SA-234-WPB	

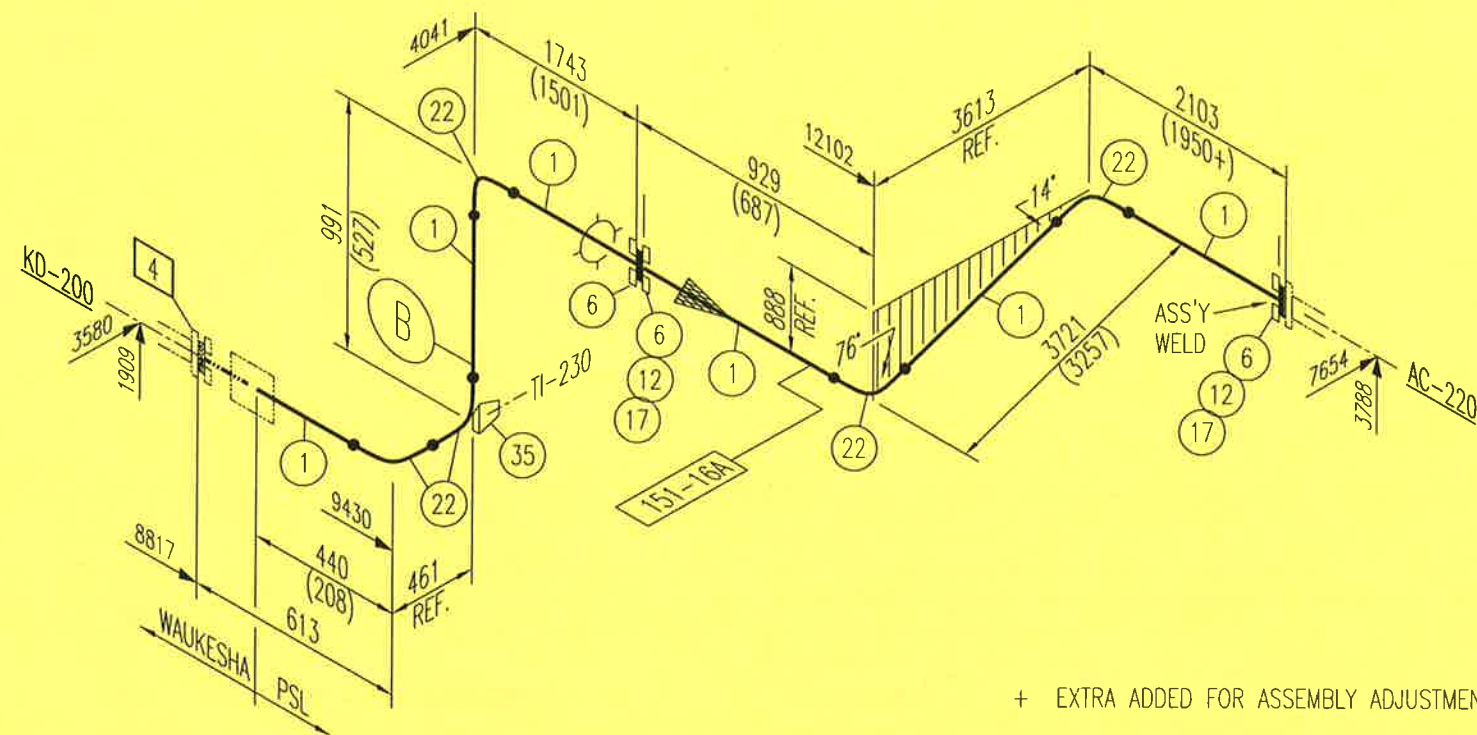
ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	2	21	3000#	TOL: (ON A 89 OD RUN) SA-105	
36	1	89	3000#	FULL CPLG: NPT SA-105	

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	89	FJ-229	PURCH. BY ENG.	

DATE: 2000.05.29 8:00am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-15.dwg

INSUL : NONE						CODE	NON-CODE	STRESS RELIEF	NO					
SURF. PREP. :						DESIGN PRES.	ATMOS.	DESIGN TEMP.	-28/149°C	DRAWN	S.FARWELL	PROPAK		
PRIMER :	PNT-11					TEST PRES.	AIR TEST	X-RAY	N/A	DATE	00/02/15			
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	CHECKED	W. I. W. R. I. K.			
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION						DATE	May 29/00	LINE No. : AV-002-A-89		
	REV	BY	DATE	DESCRIPTION						APPROVED	S. I. W. A. N. D.	TO: COOLER PLENUM		FROM: STR-227
										DATE	05/30/00	DWG No. : B-PIP-99420-151 '15'		REV 1

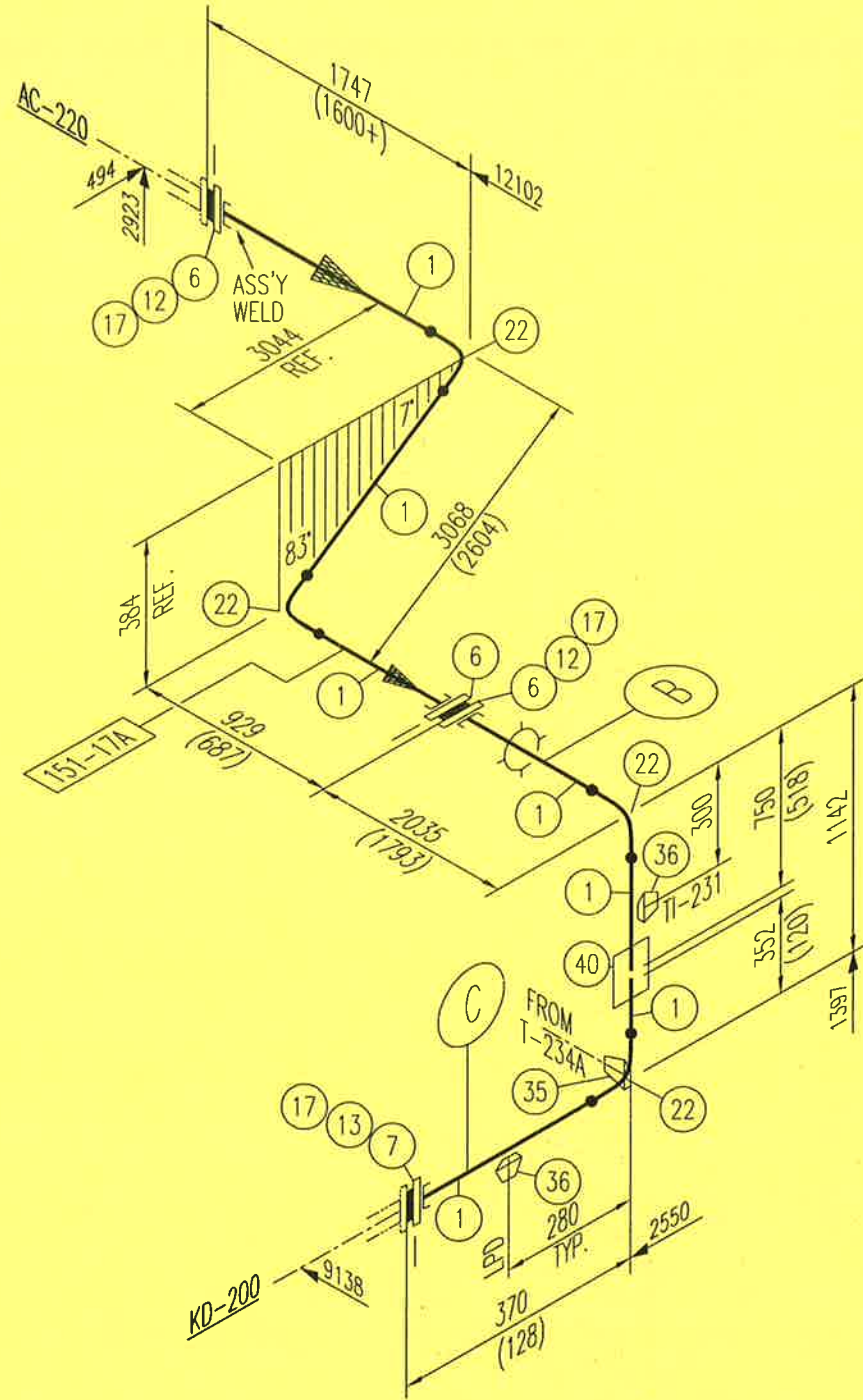


+ EXTRA ADDED FOR ASSEMBLY ADJUSTMENT

ITEM	QTY	SIZE	WT	PIPE	
1	8.9 m	168	7.11	SMLS	SA-106-B
ITEM	QTY	SIZE	RATING	SCHEDULE	FLANGES
6	3	168	150#	-	RFSO SA-105
ITEM	QTY	SIZE	RATING	GASKETS	
12	2	168	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 304SS
ITEM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	16	19ø	102	SA-193-B7/SA-194-2H	
ITEM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	5	168	40	ELBOW 90° LR SMLS SA-234-WPB	
ITEM	QTY	SIZE	FITTINGS - SCR'D / SW		
35	1	27	3000#	EOL: (ON A 168 OD RUN) SA-105	
ITEM	QTY	SIZE	MISCELLANEOUS		

DATE: 2000.05.29 8:01am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-16.dwg

INSUL : NONE						CODE	NON-CODE	STRESS RELIEF	NO	
SURF. PREP. :						DESIGN PRES.	ATMOS	DESIGN TEMP.	-28/149 °C	
PRIMER : PNT-11						TEST PRES.	LEAK TEST	X-RAY	N/A	
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION			PROCESS :	JACKET WATER			
REV	BY	DATE	DESCRIPTION	CKD	ENG					
						APPROVED				
						DRAWN	S.FARWELL	PROPAK		
						DATE	00/01/25			
						CHECKED	M. Mena			
						DATE	May 29/00	LINE No. : GL-001-A-168		
						APPROVED	S. WARD	TO: AC-220	FROM: KD-200	
						DATE	05/30/00	DWG No. : B-PIP-99420-151 '16'		
										REV
										1



ITM	QTY	SIZE	WT	PIPE	
1	8.1 m	168	7.11	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	3	168	150#	-	RFSO	SA-105
7	1	168	150#	-	FFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS		
12	2	168	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS
13	1	168	150#	3 THK FF FULL FACE		GARLOCK 3000

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	24	19ø	102	SA-193-B7/SA-194-2H	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	4	168	40	ELBOW 90° LR SMLS	SA-234-WPB

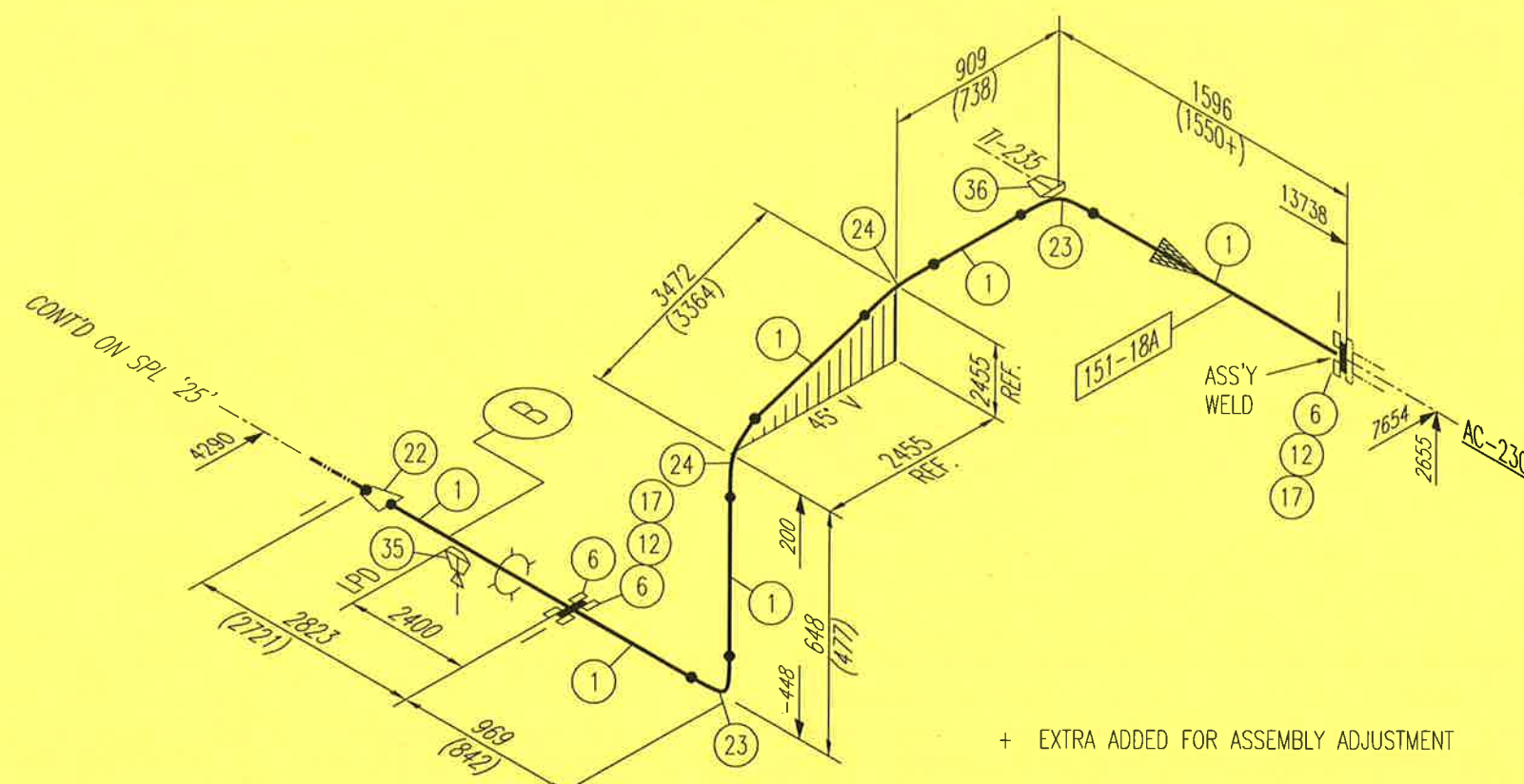
ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	48	3000#	TOL: (ON A 168 OD RUN)	SA-105
36	2	27	3000#	TOL: (ON A 168 OD RUN)	SA-105

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	168	FJ-232		PURCH. BY ENG.

DATE: 2000.05.29 8:01am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-17.dwg

INSUL : NONE									CODE	NON-CODE	STRESS RELIEF	NO				
SURF. PREP. :								DESIGN PRES.	ATMOS		DESIGN TEMP.	-28/149 °C	DRAWN	S.FARWELL	PROPAK	
PRIMER :	PNT-11							TEST PRES.	LEAK TEST	X-RAY	N/A	CHECKED	m. Inerick			
PAINT :								WELD PROC'S	P.S.L.		P.S.L.		DATE	may 29/00	LINE No. :	GL-002-A-168
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION				APPROVED	CKD	ENG			APPROVED	SWAND	TO: KD-200	FROM: AC-220
	REV	BY	DATE	DESCRIPTION				PROCESS :	JACKET WATER			DATE	05/30/00	DWG No. :	B-PIP-99420-151 '17'	REV



ITM	QTY	SIZE	WT	PIPE	
1	10.7 m	89	5.49	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	3	89	150#	40	RFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS		
12	2	89	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	8	16Ø	95	SA-193-B7/SA-194-2H		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	1	89x60	40/80	CONCENTRIC REDUCER SMLS	SA-234-WPB	
23	2	89	40	ELBOW 90° LR SMLS	SA-234-WPB	
24	2	89	40	ELBOW 45° LR SMLS	SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	1	27	3000#	TOL: (ON A 89 OD RUN) c/w PLUG		SA-105

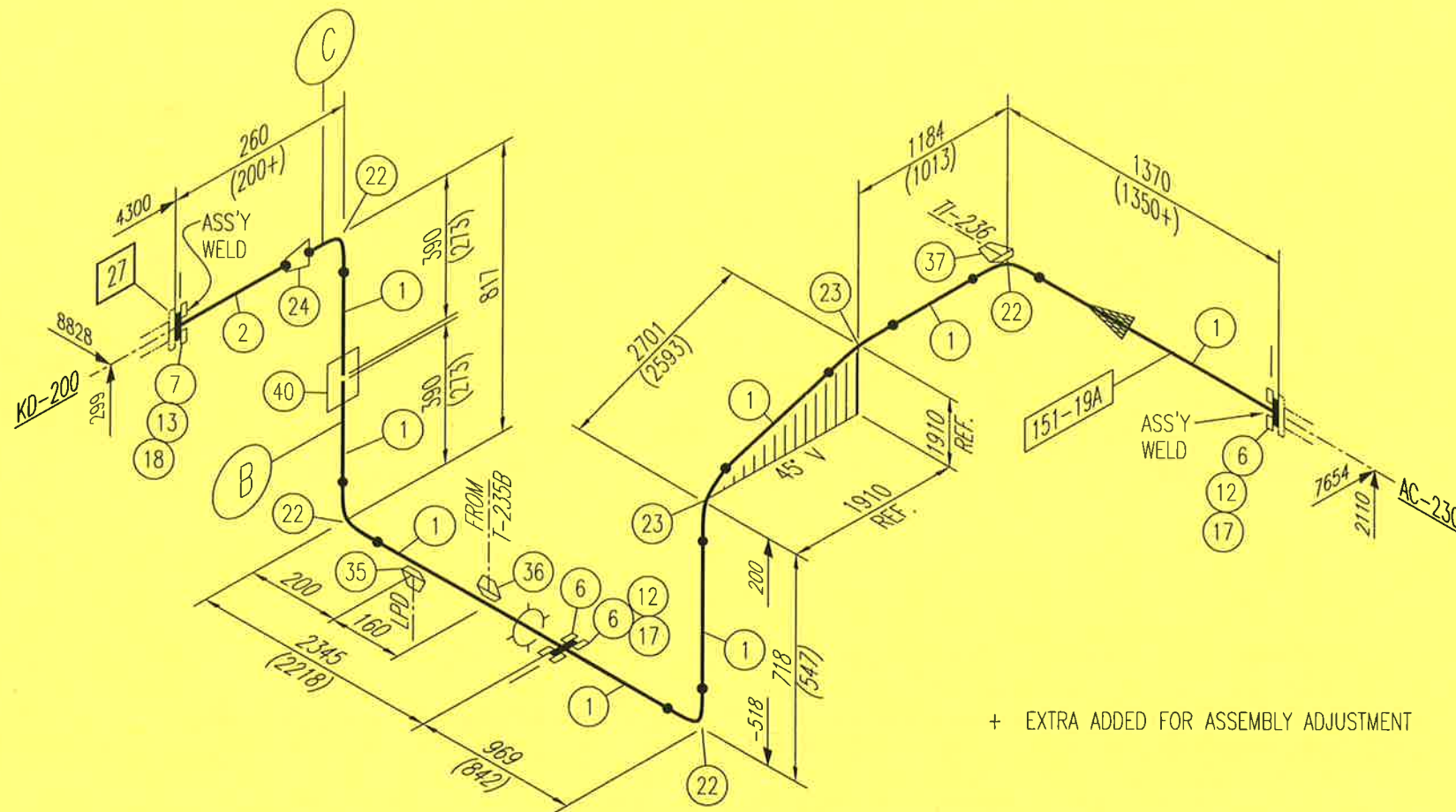
ITM	QTY	SIZE	MISCELLANEOUS			

DATE: 2000.05.29 8:01am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-18.dwg

INSUL : NONE																			
SURF. PREP. :																			
PRIMER :	PNT-11																		
PAINT :																			
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION															
	REV	BY	DATE	DESCRIPTION															

CODE	NON-CODE	STRESS RELIEF	NO
DESIGN PRES.	ATMOS.	DESIGN TEMP.	-28/149 °C
TEST PRES.	LEAK TEST	X-RAY	N/A
WELD PROC'S	P.S.L.	P.S.L.	P.S.L.
CKD	ENG	APPROVED	

DRAWN	S.FARWELL	PROPAK
DATE	00/01/27	
CHECKED	M. Ivanish	
DATE	May 29/00	LINE No. : GL-007-A-89
APPROVED	S. Wadd	TO: AC-230 FROM: GL-006-A-60
DATE	05/30/00	DWG No. : B-PIP-99420-151 '18'
		REV 1



+ EXTRA ADDED FOR ASSEMBLY ADJUSTMENT

ITM	QTY	SIZE	WT	PIPE	
1	10 m	89	5.49	SMLS	SA-106-B
2	0.3 m	73	5.16	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	3	89	150#	-	RFSO	SA-105
7	1	73	150#	-	RFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS	
12	2	89	150#	3 THK. RF SP. WD. FLEX.	STD. FILLER 304SS
13	1	73	150#	3 THK. FF FULL FACE	GARLOCK 3000

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	16 ø	95	SA-193-B7/SA-194-2H	
18	4	16 ø	89	SA-193-B7/SA-194-2H	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	4	89	40	ELBOW 90° LR SMLS SA-234-WPB	
23	2	89	40	ELBOW 45° LR SMLS SA-234-WPB	
24	1	89x73	40/40	CONCENTRIC REDUCER SMLS SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES		

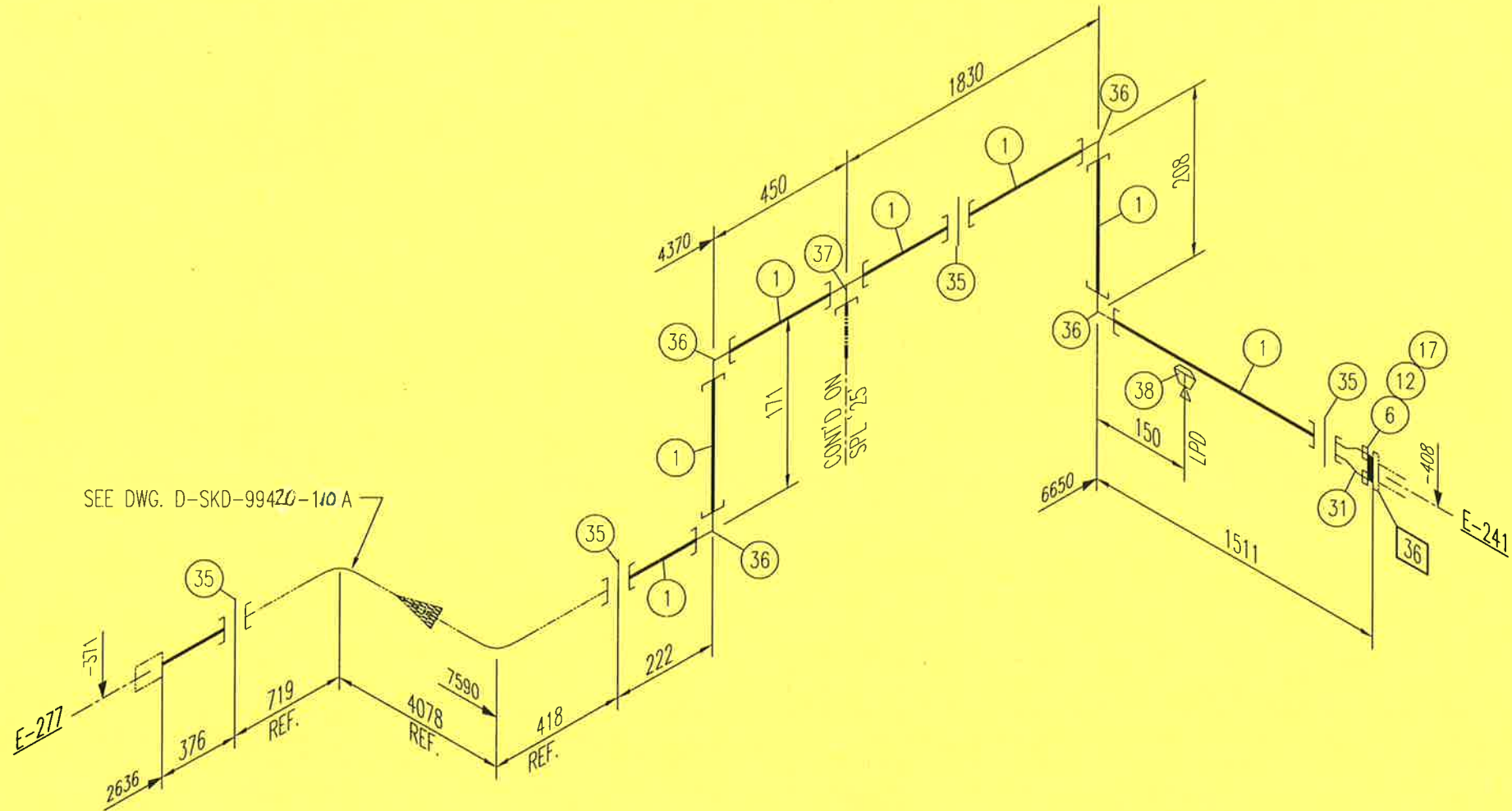
ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	27	3000#	TOL: (ON A 89 OD RUN) SA-105	
36	1	48	3000#	TOL: (ON A 89 OD RUN) SA-105	
37	1	27	3000#	EOL: (ON A 89 OD RUN) NPT SA-105	

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	89	FJ-237	PURCH. BY ENG.	

DATE: 2000.05.29 8:02am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-19.dwg

INSUL : NONE						CODE	NON-CODE	STRESS RELIEF	NO
SURF. PREP. :						DESIGN PRES.	ATMOS.	DESIGN TEMP.	-28/149 °C
PRIMER : PNT-11						TEST PRES.	LEAK TEST	X-RAY	N/A
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION			PROCESS	AUXILIARY WATER		
REV	BY	DATE	DESCRIPTION	CKD	ENG	APPROVED			

DRAWN	S.FARWELL	PROPAK	
DATE	00/05/25		
CHECKED	<i>m. l. m. u.</i>		
DATE	<i>May 25/00</i>	LINE No. : GL-009-A-89	
APPROVED	<i>S. Farwell</i>	TO: KD-200	FROM: AC-230
DATE	<i>05/30/00</i>	DWG No. : B-PIP-99420-151 '19'	



ITM	QTY	SIZE	WT	PIPE	
1	4.8 m	60	5.54	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES
6	1	73	150#	-	FFSO SA-105

ITM	QTY	SIZE	RATING	GASKETS	
12	1	73	150#	3 THK FF FULL FACE	GARLOCK 3000

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	4	16ø	89	SA-193-B7/SA-194-2H	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	

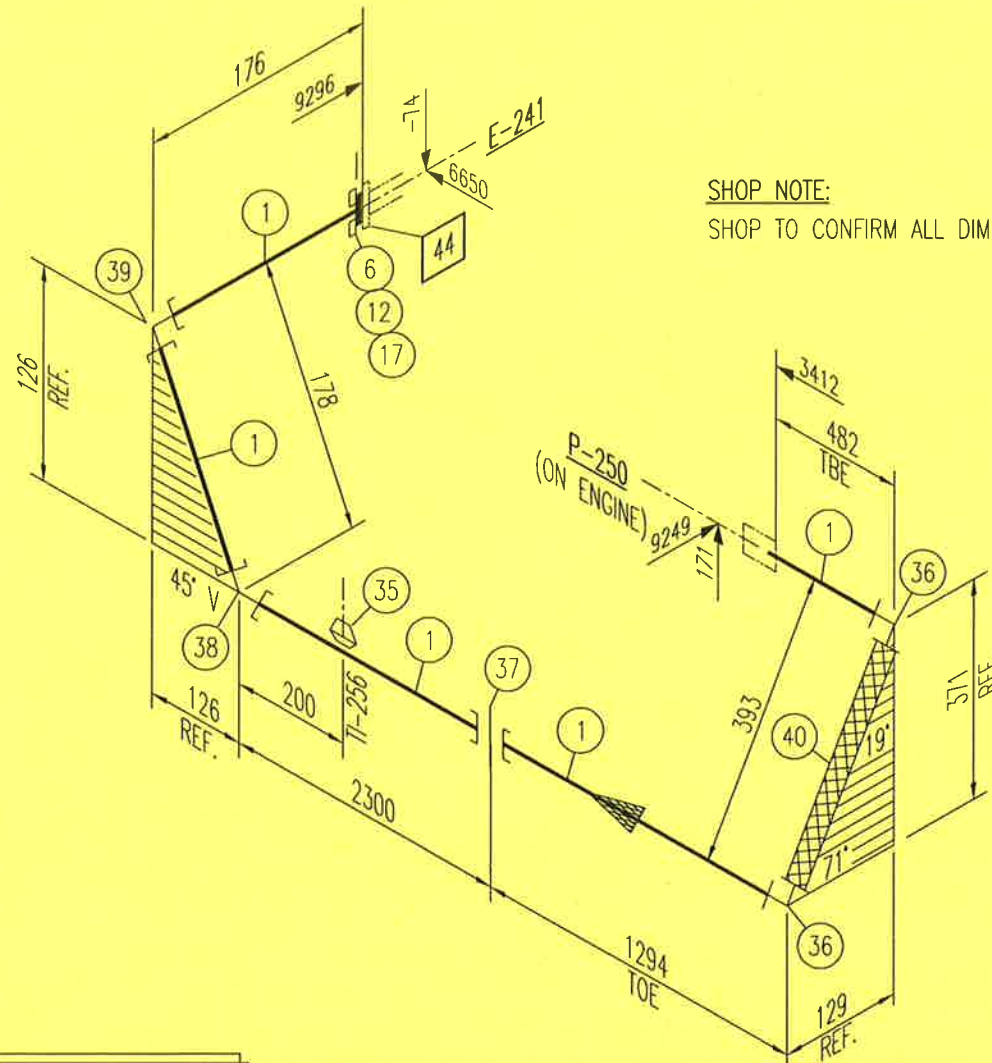
ITM	QTY	SIZE	NIPPLES/SWAGES		
31	1	73x48	CONCENTRIC SWAGE40 PLE/80 PSE SMLS		SA-234-WPB

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	4	60	3000#	UNION: SW	SA-105
36	4	60	3000#	ELBOW 90° SW	SA-105
37	1	60	3000#	TEE SW	SA-105
38	1	27	3000#	TOL: (ON A 60 OD RUN) c/w PLUG	SA-105

ITM	QTY	SIZE	MISCELLANEOUS		

DATE: 2000.05.29 8:05am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-21.dwg

INSUL : NONE									CODE	NON-CODE	STRESS RELIEF	NO					
SURF. PREP. :									DESIGN PRES.	ATMOS.	DESIGN TEMP.	-28/149 °C	DRAWN	S.FARWELL	PROPAK		
PRIMER :									TEST PRES.	LEAK TEST	X-RAY	N/A	DATE	00/02/14			
PAINT :									WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	DATE	May 29/00	LINE No. : GL-005-A-60		
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION			M I SW	APPROVED	P.S.L.	P.S.L.	P.S.L.		DATE	6/2/00	TO: E-277		FROM: E-241
	REV	BY	DATE	DESCRIPTION			CKD	ENG	PROCESS : GLYCOL				DATE	05/30/00	DWG No. : B-PIP-99420-151 '21'		REV



SHOP NOTE:
SHOP TO CONFIRM ALL DIMENSIONS ON ASSEMBLY.

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

ITM	QTY	SIZE	WT	PIPE	
1	4.7 m	60	5.54	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	60	150#	-	RFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS		
12	1	60	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	4	16Ø	83	SA-193-B7/SA-194-2H		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		

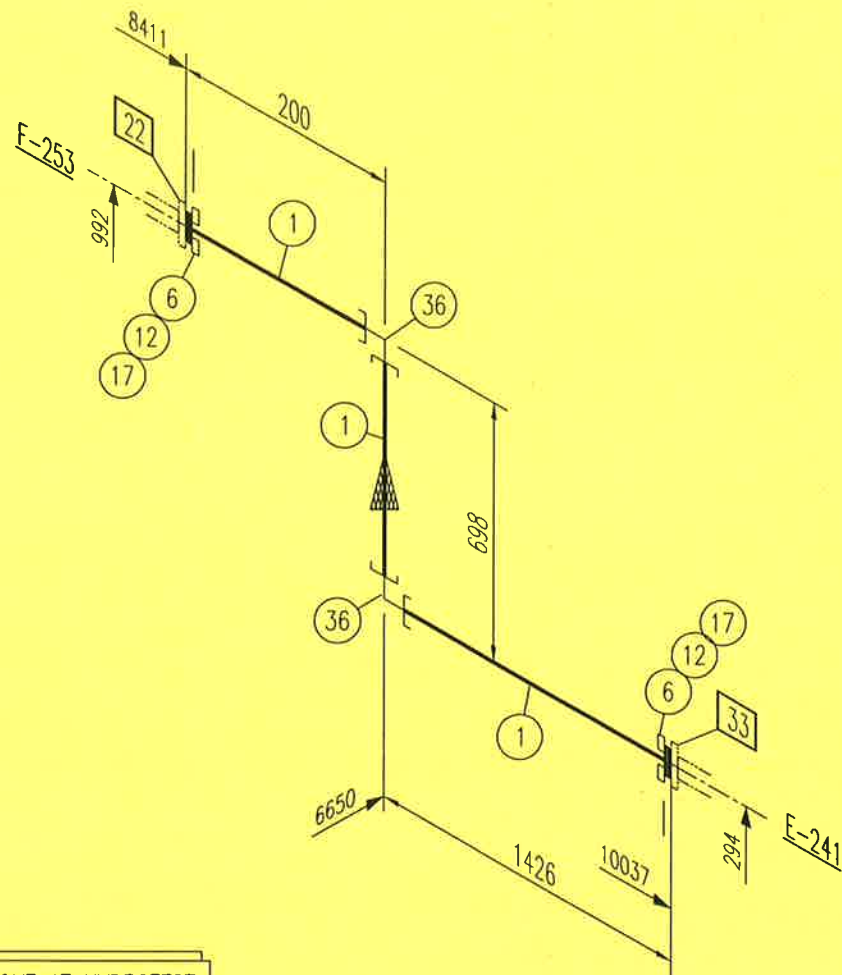
ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	27	3000#	TOL: (ON A 60 OD RUN) SA-105	
36	2	60	3000#	ELBOW 90° NPT SA-105	
37	1	60	3000#	UNION: SW SA-105	
38	1	60	3000#	ELBOW 45° SW SA-105	
39	1	60	3000#	ELBOW 90° SW SA-105	

ITM	QTY	SIZE	MISCELLANEOUS			
40	1	60	FJ-251	PURCH. BY ENG.		

DATE: 2000.05.29 8:05am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-22.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	NO	DRAWN	S.FARWELL	PROPAK			
SURF. PREP. :						DESIGN PRES.	1585 kPa	DESIGN TEMP.	-28/149 °C	DATE	00/05/15				
PRIMER : PNT-11						TEST PRES.	2379 kPa	X-RAY	N/A	CHECKED	M. SWANSON				
PAIN T :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	DATE	May 29/00	LINE No. : LO-001-A-60			
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION	M.F.	CKD	ENG	APPROVED	PROCESS : LUBE OIL	APPROVED	3/20/00	TO: E-241		FROM: P-250	
	REV	BY	DATE	DESCRIPTION						DATE	05/30/00	DWG No. : B-PIP-99420-151 '22'			REV 1



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

ITM	QTY	SIZE	WT	PIPE	
1	2.5 m	60	5.54	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	2	60	150#	-	RFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS	
12	2	60	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 304SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	16Ø	83	SA-193-B7/SA-194-2H	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	

ITM	QTY	SIZE	NIPPLES/SWAGES		

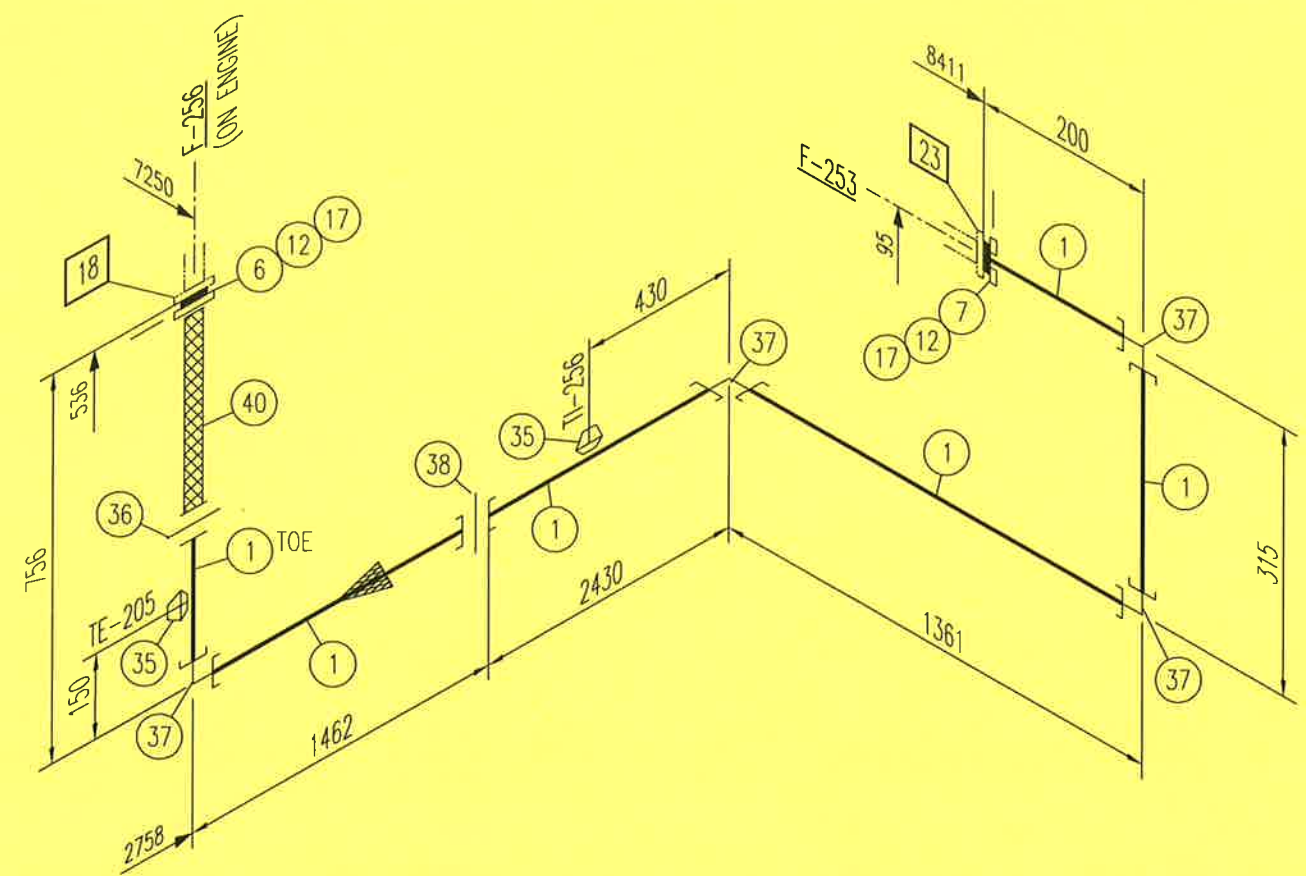
ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
36	2	60	3000#	ELBOW 90° SW	SA-105

ITM	QTY	SIZE	MISCELLANEOUS		

DATE: 2000.05.29 8:05am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-23.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	NO	DRAWN	S.FARWELL	PROPAK
SURF. PREP. :						DESIGN PRES.	1585 kPa	DESIGN TEMP.	-28/149 °C	DATE	00/02/14	
PRIMER : PNT-11						TEST PRES.	2379 kPa	X-RAY	N/A	CHECKED	M. Imanjw	
PAIN T :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		DATE	May 29/00	
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		CKD	ENG	APPROVED		DATE	05/30/00	LINE No. : LO-002-A-60
	REV	BY	DATE	DESCRIPTION								TO: F-253 FROM: E-241
												DWG No. : B-PIP-99420-151 '23'
												REV 1

PROCESS : LUBE OIL



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST, AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 8:06am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-24.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	NO			
SURF. PREP. :						DESIGN PRES.	1585 kPa	DESIGN TEMP.	-28/149 °C	DRAWN	S.FARWELL	PROPAK
PRIMER : PNT-11						TEST PRES.	2379 kPa	X-RAY	N/A	DATE	00/02/14	
PAIN T :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		CHECKED	M. Iwanicki	
	1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION		PROCESS	LUBE OIL			DATE	May 29/00	LINE No. : LO-003-A-60
	REV	BY	DATE	DESCRIPTION						APPROVED	S. Farwell	TO: F-256 FROM: F-253
										DATE	05/29/00	DWG No. : B-PIP-99420-151 '24'

ITM	QTY	SIZE	WT	PIPE		
1	6.6 m	60	5.54	SMLS		SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	60	150#	80	RF-NPT	SA-105
7	1	60	150#	-	RFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS		
12	2	60	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS

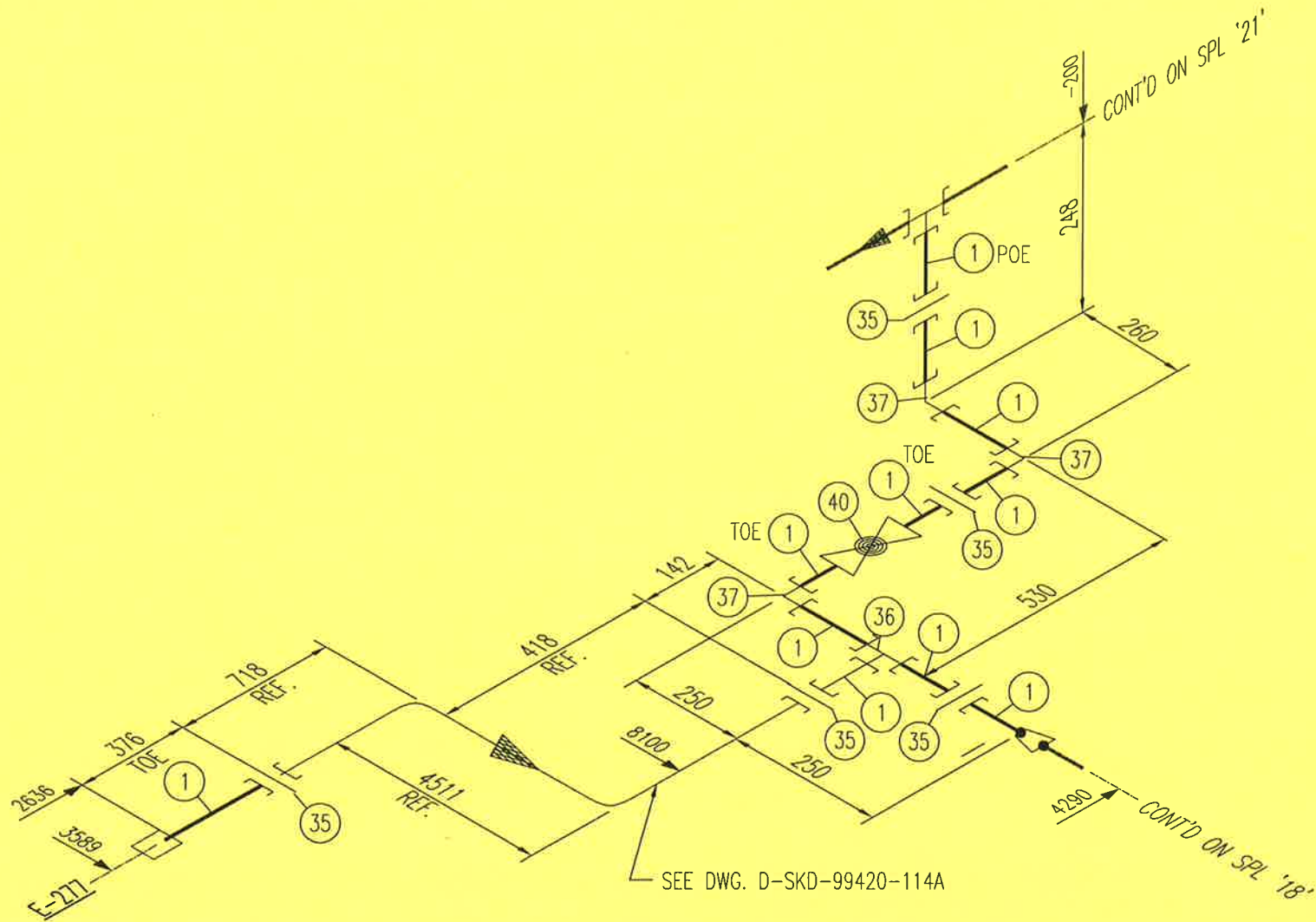
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	8	16Ø	83	SA-193-B7/SA-194-2H		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	2	27	3000#	TOL: (ON A 60 OD RUN)		SA-105
36	1	60	3000#	UNION: NPT		SA-105
37	4	60	3000#	ELBOW 90° SW		SA-105
38	1	60	3000#	UNION: SW		SA-105

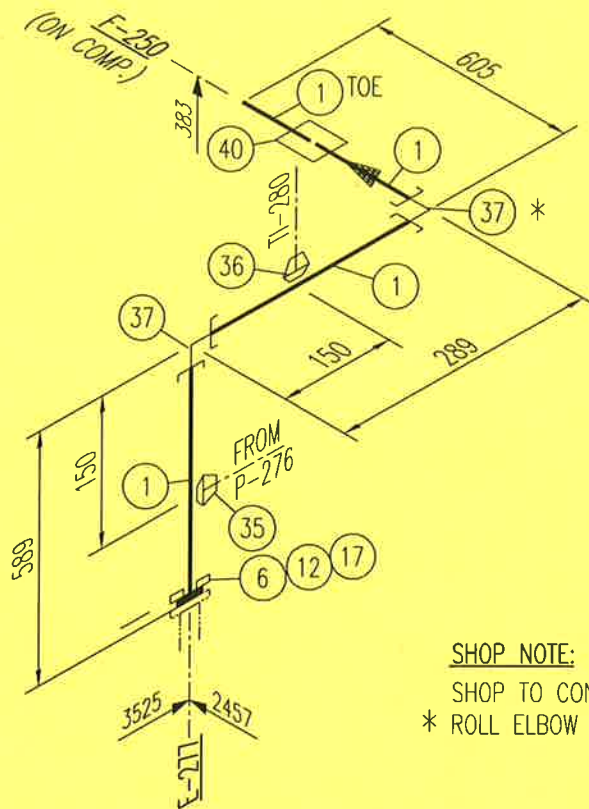
ITM	QTY	SIZE	MISCELLANEOUS			
40	1	60	FJ-255			PURCH. BY ENG.



ITEM		QTY	SIZE	WT	PIPE	
1		2.0 m	60	5.54	SMLS	SA-106-B
ITEM		QTY	SIZE	RATING	SCHEDULE	FLANGES
ITEM		QTY	SIZE	RATING	GASKETS	
ITEM		QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
ITEM		QTY	SIZE	SCHEDULE	FITTINGS - BW	
ITEM		QTY	SIZE	NIPPLES/SWAGES		
ITEM		QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	5	60	3000#	UNION: SW	SA-105	
36	1	60	3000#	TEE SW	SA-105	
37	3	60	3000#	ELBOW 90° SW	SA-105	
ITEM		QTY	SIZE	MISCELLANEOUS		
40	1	60	GL-808	PURCH. BY ENG.		

DATE: 2000.05.31 3:44pm FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-25.dwg

INSUL : NONE						CODE	NON-CODE	STRESS RELIEF	NO	DRAWN S.FARWELL		
SURF. PREP. :						DESIGN PRES.	ATMOS.	DESIGN TEMP.	-28/149 °C	DATE 00/05/31		
PRIMER :		PNT-11				TEST PRES.	LEAK TEST	X-RAY	N/A	CHECKED S. Farwell		
PAINT :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	DATE 06/01/00		
REV		BY	DATE	DESCRIPTION		CKD	ENG	APPROVED		LINE No. : GL-006-A-60/GL-008-A-60		
1		S.F.	00/06/01	ISSUED FOR CONSTRUCTION		S. Farwell		G. Farwell		TO: GL-007-A-89 FROM: E-277		
						PROCESS : GLYCOL				DWG No. : B-PIP-99420-151 '25'		
										REV 1		



SHOP NOTE:
 SHOP TO CONFIRM ALL DIMENSIONS ON ASSEMBLY.
 * ROLL ELBOW TO SUIT F-250 CONNECTION

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
 AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 8:06am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-26.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	NO
SURF. PREP. :						DESIGN PRES.	1585 kPa	DESIGN TEMP.	-28/149 °C
PRIMER : PNT-11						TEST PRES.	2379 kPa	X-RAY	N/A
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.	
REV	BY	DATE	DESCRIPTION			CKD	ENG	APPROVED	
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION			MI	SW		
						PROCESS : LUBE OIL			
						DRAWN	S.FARWELL		PROPAK
						DATE	00/05/15		
						CHECKED	M. J. ...		
						DATE	May 29/00		LINE No. : LO-011-A-60
						APPROVED	S. ...		TO: F-250 FROM: E-277
						DATE	05/30/00		DWG No. : B-PIP-99420-151 '26' REV 1

ITM	QTY	SIZE	WT	PIPE	
1	1.6 m	60	5.54	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES
6	1	89x60	150#	-	RED. FLG RFSO SA-105

ITM	QTY	SIZE	RATING	GASKETS	
12	1	89	150#	3 THK RF SP. WD. FLEX.	STD. FILLER 304SS

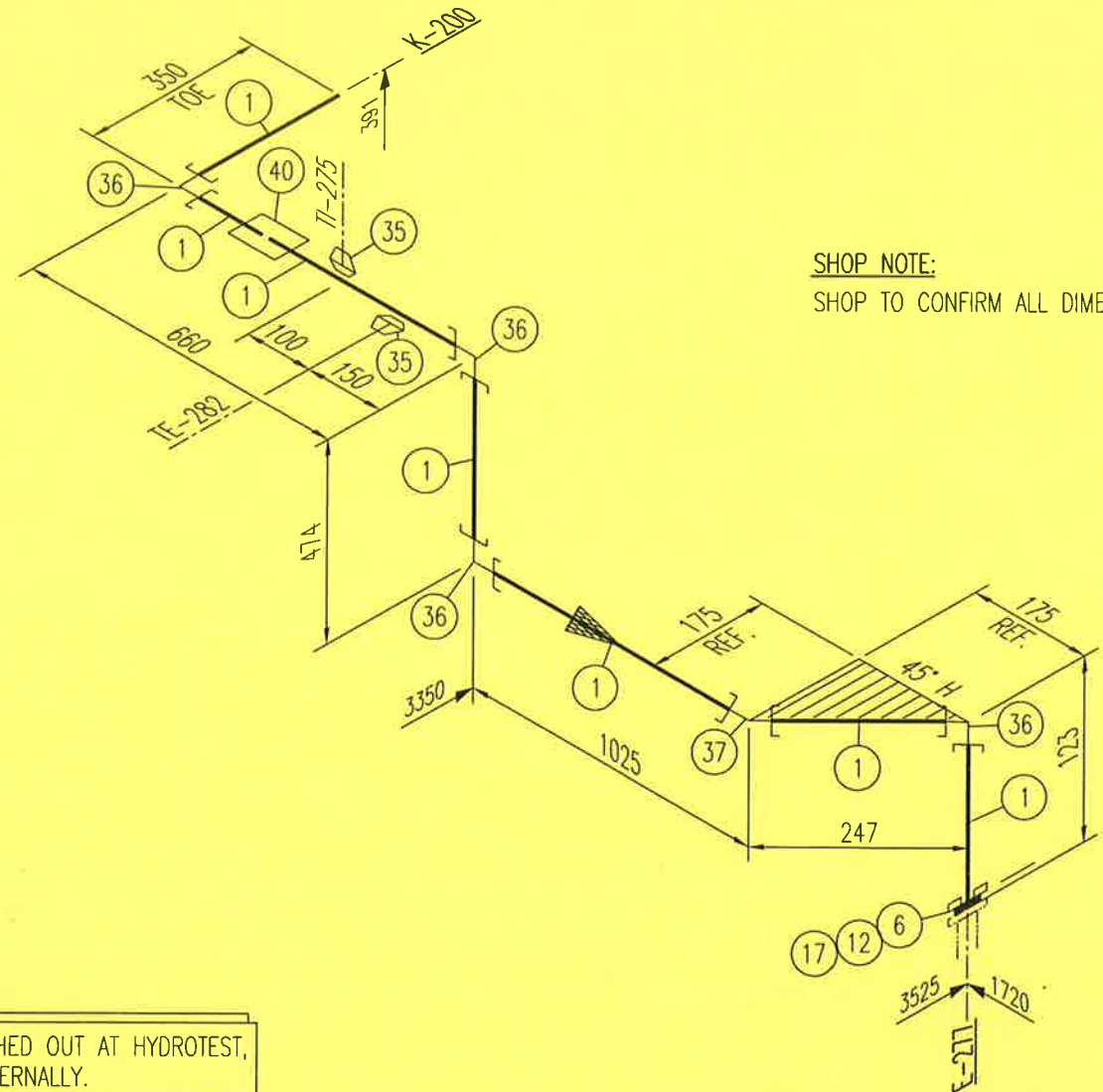
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	4	16ø	95	SA-193-B7/SA-194-2H	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	

ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	48	3000#	TOL: (ON A 60 OD RUN)	SA-105
36	1	27	3000#	TOL: (ON A 60 OD RUN)	SA-105
37	2	60	3000#	ELBOW 90° SW	SA-105

ITM	QTY	SIZE	MISCELLANEOUS		
40	1	60	FJ-283	PURCH. BY ENG.	



SHOP NOTE:
SHOP TO CONFIRM ALL DIMENSIONS ON ASSEMBLY.

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.05.29 8:07am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-151-27.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	NO
SURF. PREP. :						DESIGN PRES.	1585 kPa	DESIGN TEMP.	-28/149 °C
PRIMER :						TEST PRES.	2379 kPa	X-RAY	N/A
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.	
REV	BY	DATE	DESCRIPTION			CKD	ENG	APPROVED	
1	S.F.	00/05/29	ISSUED FOR CONSTRUCTION			M.I.	SW	PROCESS : LUBE OIL	

DRAWN	S.FARWELL	PROPAK		
DATE	00/05/15			
CHECKED	M. J. Maniuk			
DATE	MAY 29/00	LINE No. : LO-010-A-60		
APPROVED	S. W. And	TO: E-277		FROM: K-200
DATE	05/30/00	DWG No. : B-PIP-99420-151 '27'		REV 1

ITM	QTY	SIZE	WT	PIPE	
1	3.1 m	60	5.54	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	89x60	150#	-	RED. FLG. RFSO	SA-105

ITM	QTY	SIZE	RATING	GASKETS		
12	1	89	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS

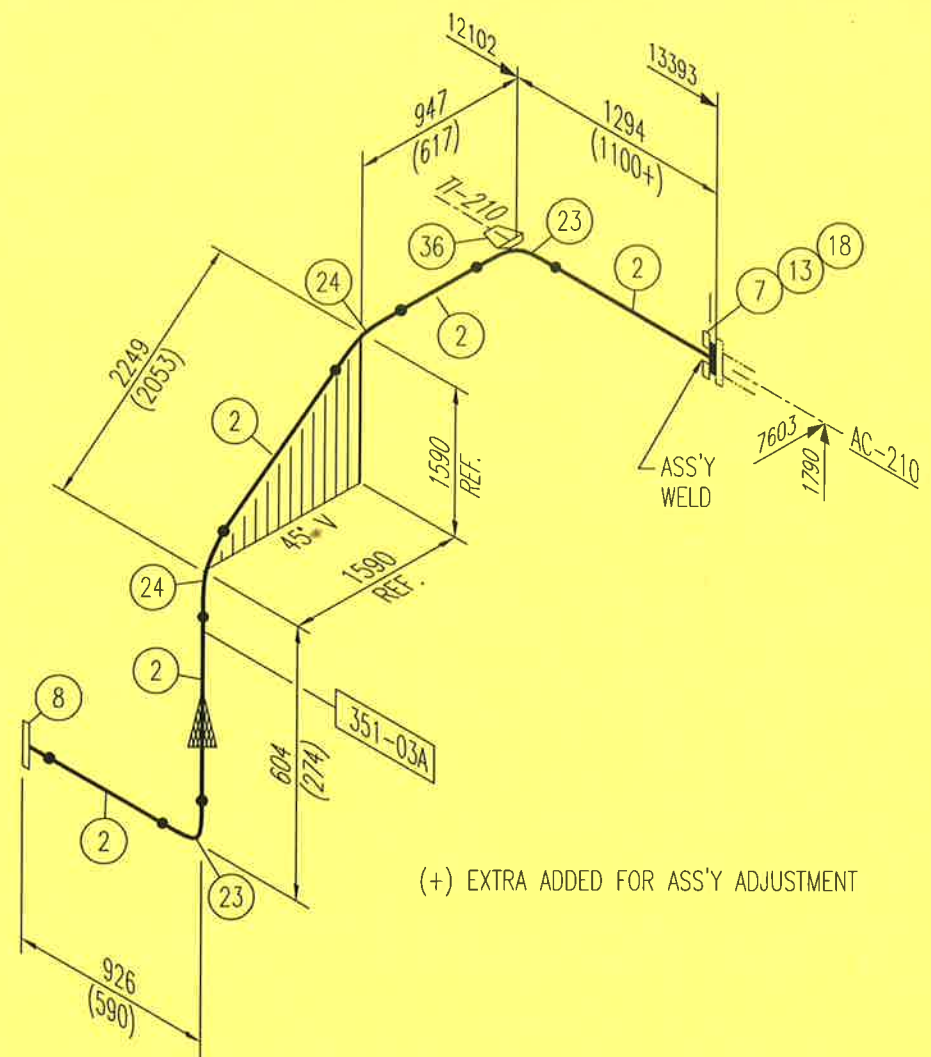
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	4	16ø	95	SA-193-B7/SA-194-2H		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	2	27	3000#	TOL: (ON A 60 OD RUN) SA-105		
36	4	60	3000#	ELBOW 90° SW SA-105		
37	1	60	3000#	ELBOW 45° SW SA-105		

ITM	QTY	SIZE	MISCELLANEOUS			
40	1	60	FJ-274	PURCH. BY ENG.		



THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST, AIR DRIED AND OILED INTERNALLY.

DATE: 2000.10.10 10:29am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-03.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES
SURF. PREP. :						DESIGN PRES.	4447 kPa	DESIGN TEMP.	-28/176 °C
PRIMER : PNT-12						TEST PRES.	6671 kPa	X-RAY	100%
PAIN T :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.	
REV	BY	DATE	DESCRIPTION		CKD	ENG	APPROVED		
1	G.Z.	00/10/10	ISSUED FOR CONSTRUCTION				PROCESS : GAS		

ITM	QTY	SIZE	WT	PIPE	
2	5.1 m	168	7.11	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
7	1	168	600#	-	RFSO	SA-105N
8	1	168	300#	40	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
13	1	168	600#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
18	12	25ø	171	SA-193-B7M/SA-194-2HM		

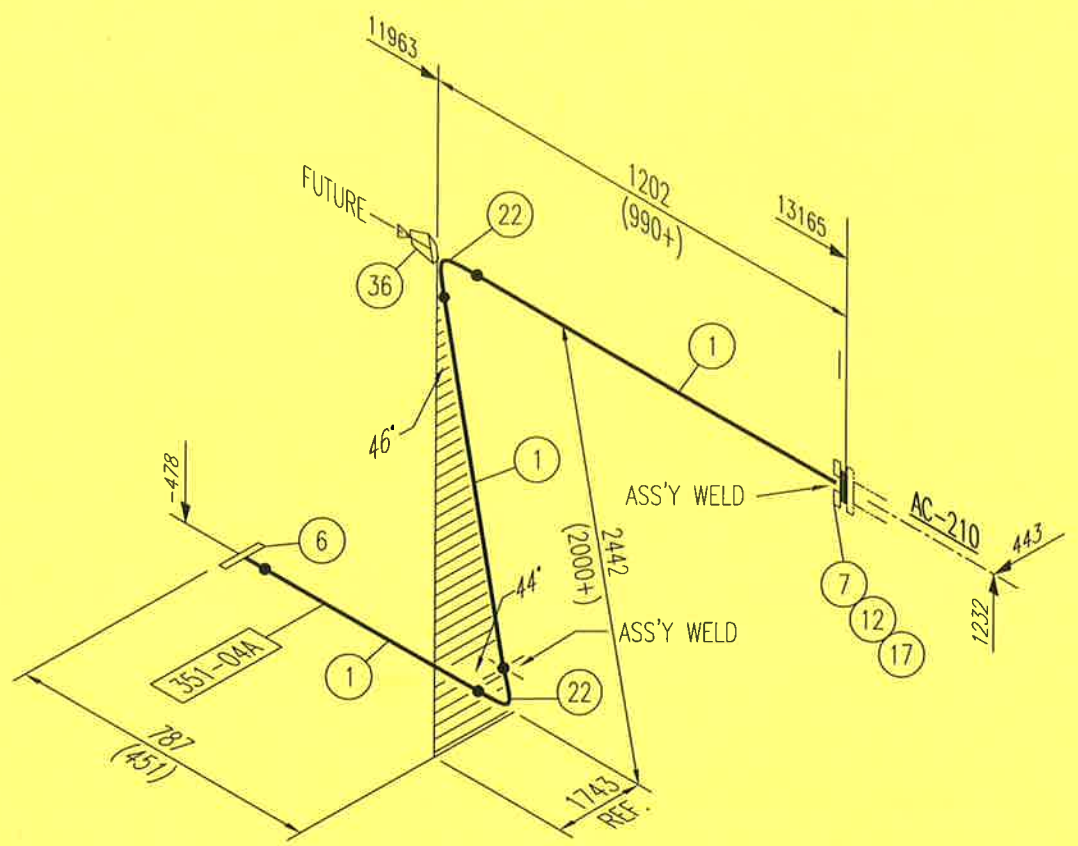
ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
23	2	168	40	ELBOW 90° LR	SA-234-WPB	
24	2	168	40	ELBOW 45° LR SMLS	SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
36	1	27	6000#	EOL: (ON A 168 OD RUN) NPT	SA-105N	

ITM	QTY	SIZE	MISCELLANEOUS			

DRAWN	G. ZAVALA	PROPAK			
DATE	00/10/10				
CHECKED	G. ZAVALA				
DATE	00/10/10	LINE No. : P-003-BS-168			
APPROVED	<i>A. W...</i>	TO: AC-210		FROM: V-122	
DATE	00/10/10	DWG No. : B-PIP-99420-351 '03'			REV 1



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST, AIR DRIED AND OILED INTERNALLY.

DATE: 2000.10.10 10:29am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-04.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES					
SURF. PREP. :						DESIGN PRES.	4516 kPa	DESIGN TEMP.	-28/149 °C	DRAWN	G. ZAVALA	PROPAK		
PRIMER : PNT-11						TEST PRES.	6774 kPa	X-RAY	100%	DATE	00/10/10			
PAIN T :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		CHECKED	G. ZAVALA	LINE No. : P-004-BS-168		
	1	G.Z.	00/10/10	ISSUED FOR CONSTRUCTION		APPROVED	<i>B. Witt</i>			DATE	00/10/10	TO: V-110	FROM: AC-210	
	REV	BY	DATE	DESCRIPTION		APPROVED	CKD	ENG		DATE	00/10/10	DWG No. : B-PIP-99420-351 '04'	REV 1	

ITM	QTY	SIZE	WT	PIPE	
1	3.8 m	168	7.11	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	168	300#	40	RFWN	SA-105N
7	1	168	600#	-	RFSO	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
12	1	168	600#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

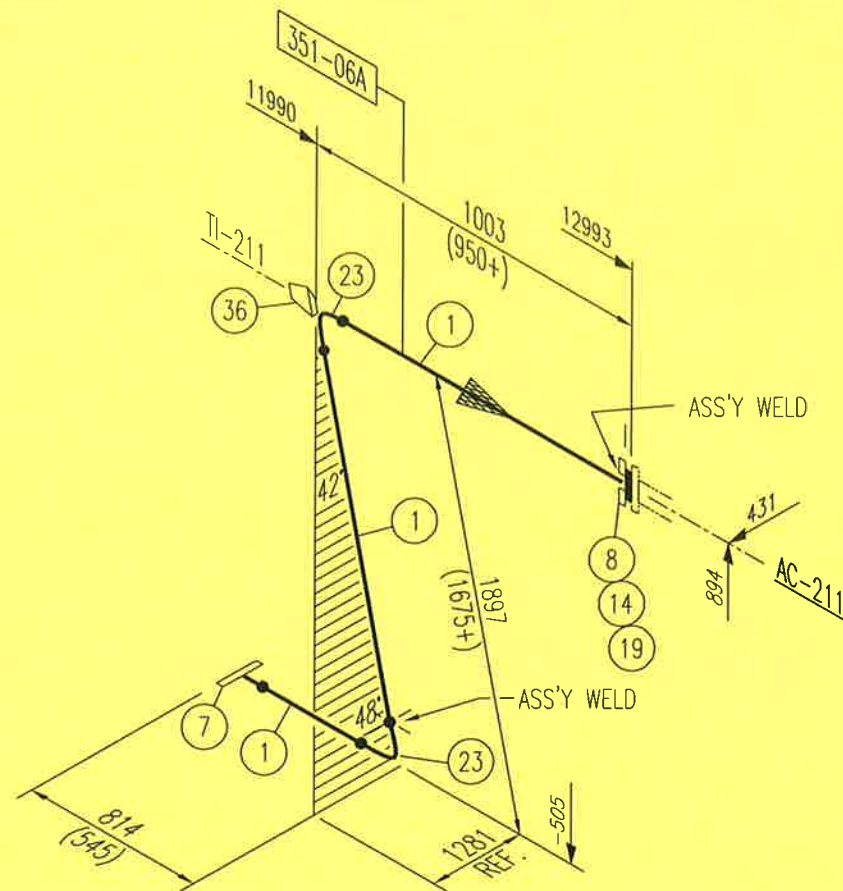
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	12	25 ø	171	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	2	168	40	ELBOW 90' LR SMLS SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
36	1	27	6000#	EOL: ON A 168 OD RUN c/w PLUG SA-105N	

ITM	QTY	SIZE	MISCELLANEOUS		



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.10.10 10:30am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-06.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES			
SURF. PREP. :						DESIGN PRES.	8908 kPa	DESIGN TEMP.	-28/176 °C	DRAWN	G. ZAVALA	PROPAK
PRIMER :	PNT-12					TEST PRES.	13362 kPa	X-RAY	100%	DATE	00/10/10	
PAINT :						WELD PROC'S	P.S.L. P.S.L.	P.S.L. P.S.L.		CHECKED	G. ZAVALA	LINE No. : P-006-CS-114
	1	G.Z.	00/10/10	ISSUED FOR CONSTRUCTION						DATE	00/10/10	TO: AC-211 FROM: V-124
	REV	BY	DATE	DESCRIPTION		APPROVED	CKD	ENG		DATE	00/10/10	DWG No. : B-PIP-99420-351 '06'
												REV 1

ITM	QTY	SIZE	WT	PIPE		
1	3.5 m	114	8.56	SMLS		SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
7	1	114	600#	80	RFWN	SA-105N
8	1	114	900#	-	RFSO	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
14	1	114	900#	3 THK RF SP. WD. FLEX.	STD. FILLER	316SS

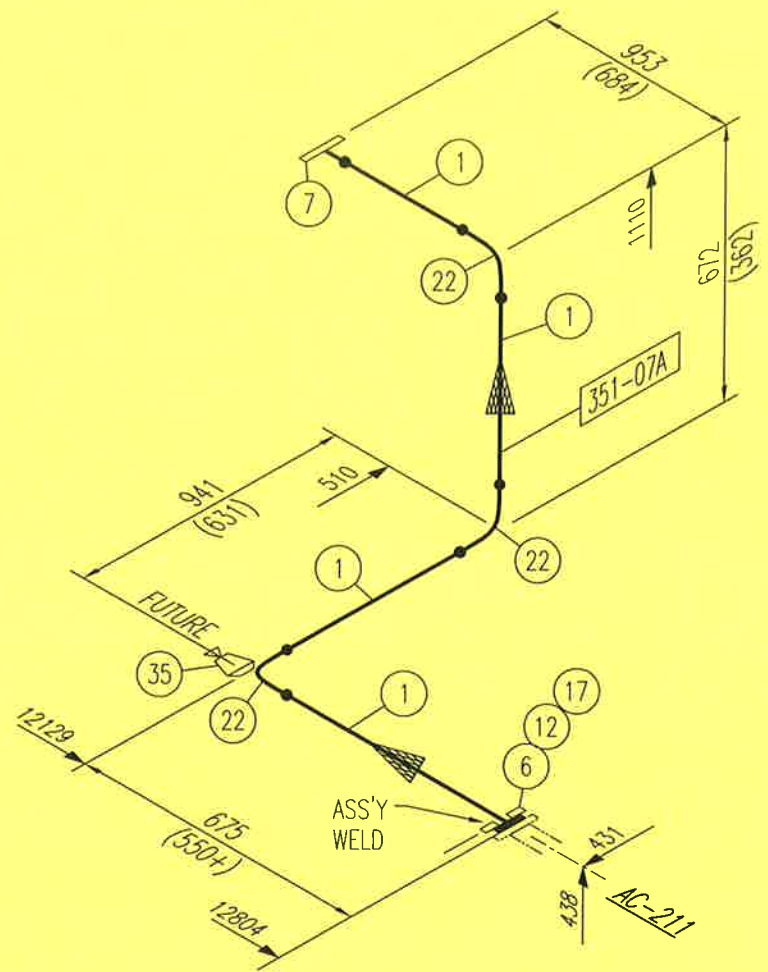
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
19	8	29 ø	171	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
23	2	114	80	ELBOW 90° LR SMLS		SA-234-WPB

ITM	QTY	SIZE	NIPPLES/SWAGES			

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
36	1	27	6000#	EOL: (ON A 114 OD RUN)		SA-105N

ITM	QTY	SIZE	MISCELLANEOUS			



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.10.10 10:30am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-07.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES	DRAWN	G. ZAVALA	PROPAK		
SURF. PREP. :						DESIGN PRES.	9067 kPa	DESIGN TEMP.	-28/149 °C	DATE	00/10/10			
PRIMER : PNT-11						TEST PRES.	13601 kPa	X-RAY	100%	CHECKED	G. ZAVALA			
PAIN T :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	DATE	00/10/10	LINE No. : P-007-CS-114		
	1	G.Z.	00/10/10	ISSUED FOR CONSTRUCTION		APPROVED	CKD	ENG		APPROVED	A. W. W.	TO: V-120		FROM: AC-211
	REV	BY	DATE	DESCRIPTION		PROCESS	PROCESS GAS			DATE	00/10/10	DWG No. : B-PIP-99420-351 '07'		REV 1

ITM	QTY	SIZE	WT	PIPE	
1	2.5 m	114	8.56	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	114	900#	-	RFSO	SA-105N
7	1	114	600#	80	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS	
12	1	114	900#	3 THK RF SP. WD. FLEX.	STD. FILLER 316SS

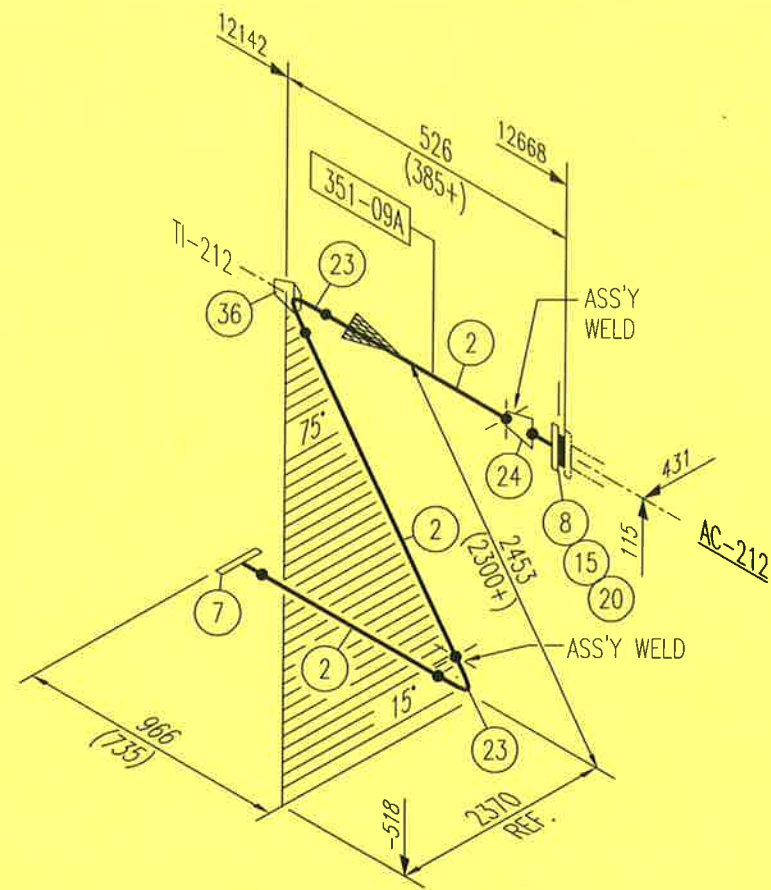
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	29ø	171	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	3	114	80	ELBOW 90° LR SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	27	6000#	EOL: (ON A 114 OD RUN) c/w PLUG NPT SA-105N	

ITM	QTY	SIZE	MISCELLANEOUS		



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
AIR DRIED AND OILED INTERNALLY.

DATE: 2000.10.10 10:30am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-09.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	YES					
SURF. PREP. :						DESIGN PRES.	11377 kPa	DESIGN TEMP.	-28/176 °C	DRAWN	G. ZAVALA	PROPAK		
PRIMER : PNT-12						TEST PRES.	17066 kPa	X-RAY	100%	DATE	00/10/10			
PAIN T :						WELD PROC'S	P.S.L.		P.S.L.	CHECKED	G. ZAVALA	LINE No. : P-009-DS-89		
	1	G.Z.	00/10/10	ISSUED FOR CONSTRUCTION		APPROVED	B. Wick		P.S.L.	DATE	00/10/10	TO: AC-212	FROM: V-126	
	REV	BY	DATE	DESCRIPTION		APPROVED	CKD	ENG	PROCESS : PROCESS GAS	DATE	05/10/10	DWG No. : B-PIP-99420-351 '09'		REV 1

ITM	QTY	SIZE	WT	PIPE	
2	8.3 m	89	7.62	SMLS	SA-106-B

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
7	1	89	900#	80	RFWN	SA-105N
8	1	114	1500#	80	RFWN	SA-105N

ITM	QTY	SIZE	RATING	GASKETS		
15	1	114	1500#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 97.18 ID INNER RING 316SS		

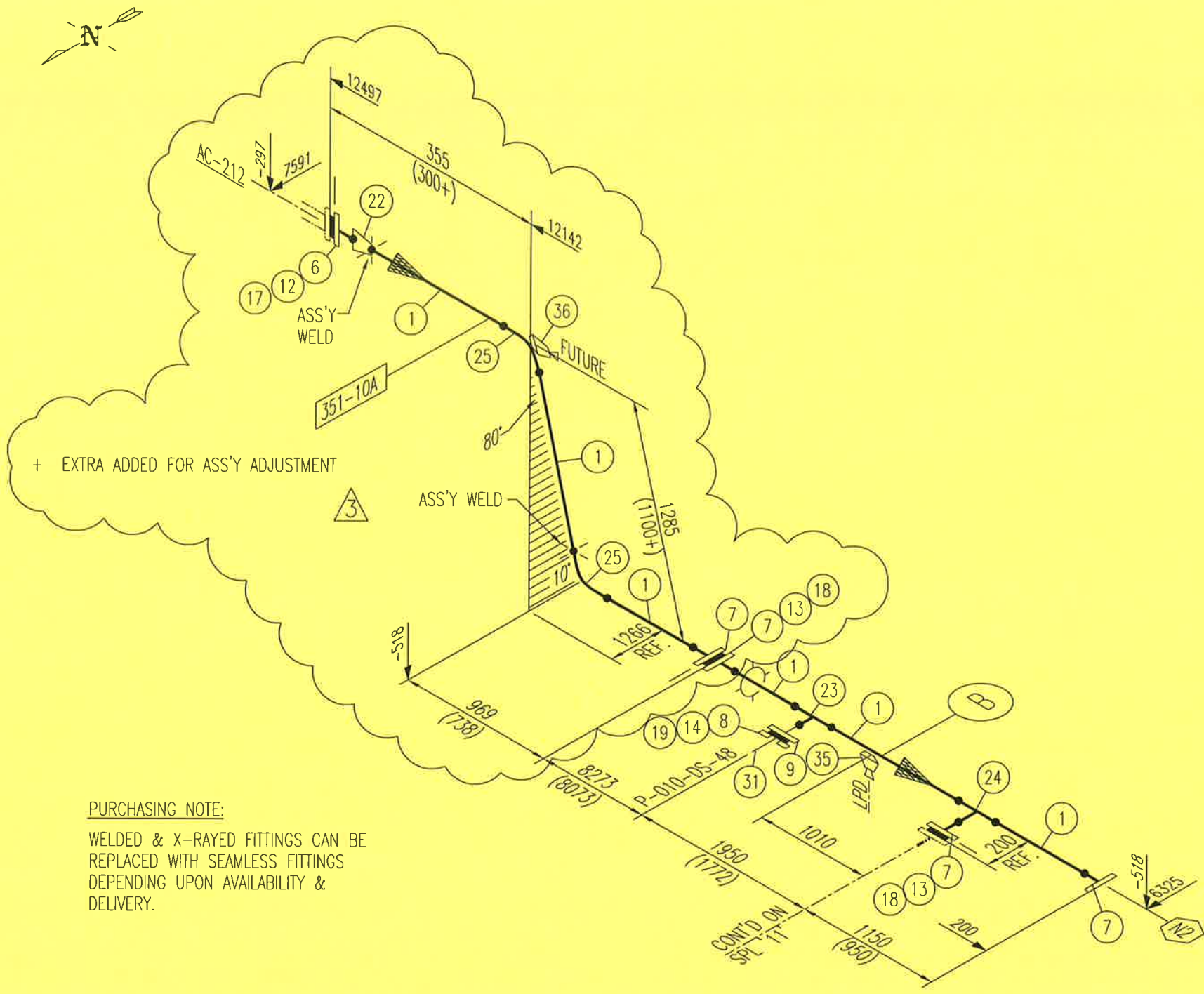
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
20	8	32 ø	197	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
23	2	89	80	ELBOW 90° LR SMLS SA-234-WPB	
24	1	114x89	80	CONCENTRIC REDUCER SMLS SA-234-WPB	

ITM	QTY	SIZE	NIPPLES/SWAGES		

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
36	1	27	6000#	EOL: (ON A 89 OD RUN) NPT SA-105N	

ITM	QTY	SIZE	MISCELLANEOUS		



+ EXTRA ADDED FOR ASS'Y ADJUSTMENT

PURCHASING NOTE:
 WELDED & X-RAYED FITTINGS CAN BE
 REPLACED WITH SEAMLESS FITTINGS
 DEPENDING UPON AVAILABILITY &
 DELIVERY.

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST,
 AIR DRIED AND OILED INTERNALLY.

ITM	QTY	SIZE	WT	PIPE	
1	14.2 m	89	7.62	SMLS	SA-312-TP304L

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	1	114	1500#	80S	RFWN	SA-182-F316
7	4	89	900#	80S	RFWN	SA-182-F316
8	1	48	900#	-	RFSO	SA-182-F316
9	1	48	900#	80S	RFWN	SA-182-F316

ITM	QTY	SIZE	RATING	GASKETS	
12	1	114	1500#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 97.18 ID INNER RING 304SS	
13	2	89	900#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 73.66 ID INNER RING 304SS	
14	1	48	900#	3 THK RF SP. WD. FLEX. STD. FILLER 304SS	

ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS	
17	8	32φ	197	SA-193-B7M/SA-194-2HM	
18	16	22φ	146	SA-193-B7M/SA-194-2HM	
19	4	25φ	140	SA-193-B7M/SA-194-2HM	

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW	
22	1	114x89	80S/80S	CONCENTRIC REDUCER WLD & X-RAYED SA-403-WPWX304L	
23	1	89x48	80S/80S	REDUCING TEE WLD & X-RAYED SA-403-WPWX304L	
24	1	89	80S	STRAIGHT TEE WLD & X-RAYED SA-403-WPWX304L	
25	2	89	80S	ELBOW 90° LR WLD & X-RAYED SA-403-WPWX304L	

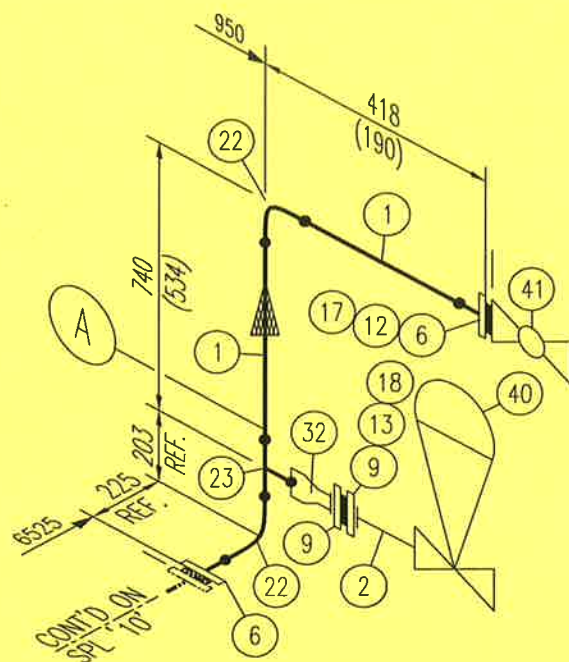
ITM	QTY	SIZE	NIPPLES/SWAGES	
31	1	48	NIPPLE: SCH 80S x 152 LG PBE SMLS SA-312-TP304L	

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW	
35	1	27	6000#	TOL: (ON A 89 OD RUN) c/w PLUG SA-182-F304L	
36	1	27	6000#	EOL: (ON A 89 OD RUN) NPT c/w PLUG SA-182-F304L	

ITM	QTY	SIZE	MISCELLANEOUS		

DATE: 2000.10.10 10:31am FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-10.dwg

INSUL : NONE				CODE	B31.3	STRESS RELIEF	N/A	DRAWN	D. SMITH	PROPAG				
SURF. PREP. :				DESIGN PRES.	11377 kPa	DESIGN TEMP.	-28/149 °C				DATE	00/09/19		
PRIMER : N/A				3	G.Z.	00/10/10	REMOVED HOLD, ITEMS #6, 12, 17 WERE 900#	TEST PRES.	17066 kPa	X-RAY	100%			
PAINT :				2	D.T.S.	00/09/22	ADD SPOOL TO COOLER/FLGS WERE 304SS	WELD PROC'S	P.S.L.	P.S.L.	P.S.L.			
				1	D.T.S.	00/09/20	ISSUED FOR CONSTRUCTION							
REV	BY	DATE	DESCRIPTION	CKD	ENG	APPROVED	PROCESS : PROCESS GAS	DATE	00/09/20	LINE No. : P-010-DS-89	TO: SKID EDGE (N2)	FROM: AC-212	REV	3



PURCHASING NOTE:

WELDED & X-RAYED FITTINGS CAN BE REPLACED WITH SEAMLESS FITTINGS DEPENDING UPON AVAILABILITY & DELIVERY.

THIS SPOOL TO BE FLUSHED OUT AT HYDROTEST, AIR DRIED AND OILED INTERNALLY.

DATE: 2000.09.22 3:15pm FILE NAME: J:\jobs99\DWG\99420\Comp\PIP\PIP-99420-351-11.dwg

INSUL : NONE						CODE	B31.3	STRESS RELIEF	N/A				
SURF. PREP. :						DESIGN PRES.	11377 kPa	DESIGN TEMP.	-28/149 °C	DRAWN	D. SMITH	PROPAK	
PRIMER : N/A						TEST PRES.	17066 kPa	X-RAY	100%	DATE	00/09/19		
PAIN T :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	CHECKED	G. ZAVALA		
	2	D.T.S.	00/09/22	FLANGES WERE 304SS						DATE	00/09/20	LINE No. : P-011-DS-89	
	1	D.T.S.	00/09/20	ISSUED FOR CONSTRUCTION						APPROVED	G. WICK	TO: P-001-BS-273 FROM: P-010-DS-89	
	REV	BY	DATE	DESCRIPTION	CKD APPROVED	ENG APPROVED	PROCESS : PROCESS GAS			DATE	00/09/20	DWG No. : B-PIP-99420-351 '11'	REV 2

ITM	QTY	SIZE	WT	PIPE		
1	0.8 m	89	7.62	SMLS		SA-312-TP304L
2	0.8 m	33	4.55	SMLS		SA-312-TP304L

ITM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	2	89	900#	80S	RFWN	SA-182-F316
9	2	33	900#	80S	RF-NPT	SA-182-F316

ITM	QTY	SIZE	RATING	GASKETS		
12	1	89	900#	3 THK RF SP. WD. FLEX. STD. FILLER c/w 73.66 ID INNER RING		304SS
13	1	33	900#	3 THK RF SP. WD. FLEX. STD. FILLER		304SS

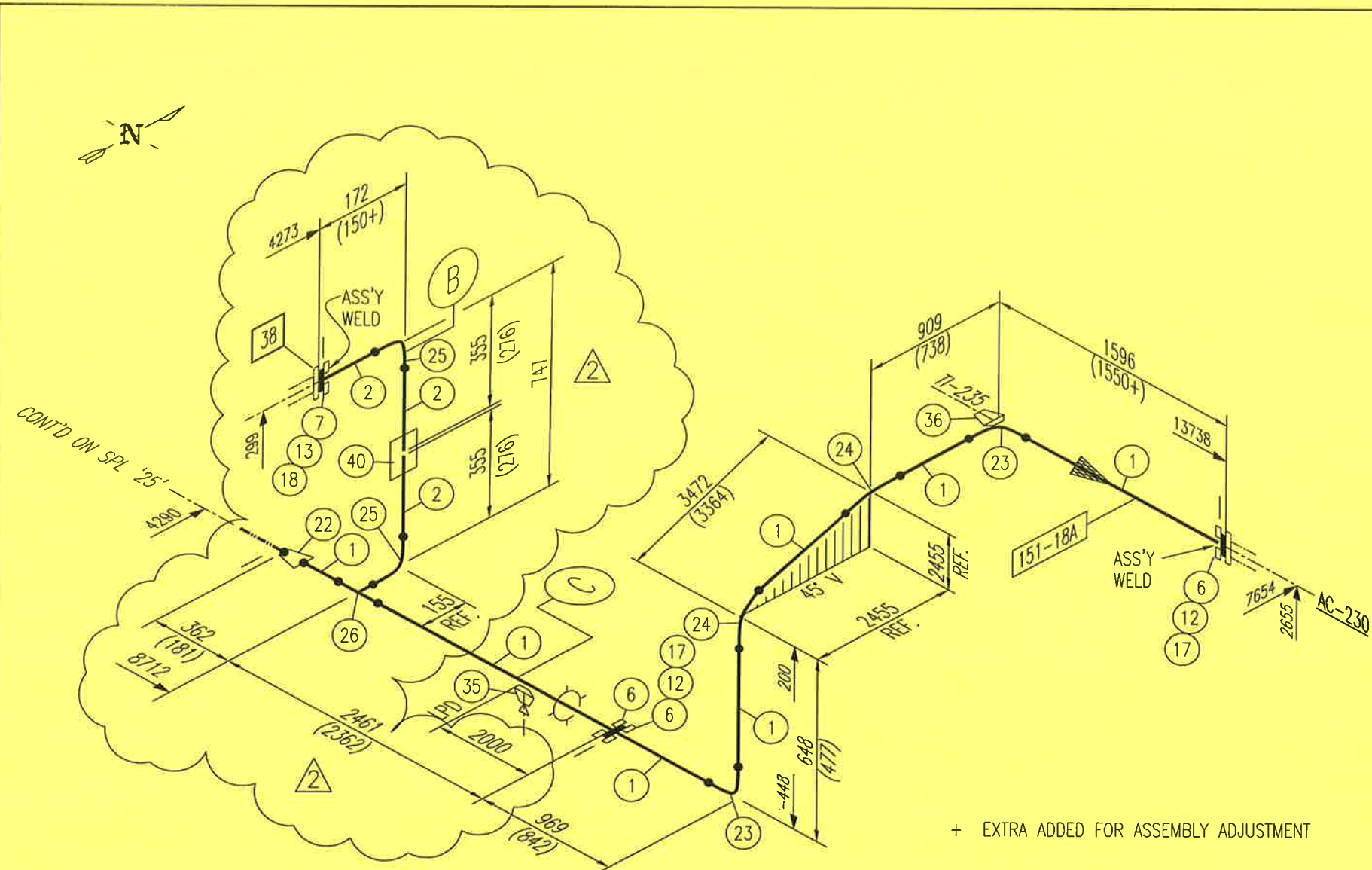
ITM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	8	22φ	146	SA-193-B7M/SA-194-2HM		
18	4	22φ	127	SA-193-B7M/SA-194-2HM		

ITM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	2	89	80S	ELBOW 90° LR		SA-403-WPWX304L
23	1	89	80S	STRAIGHT TEE SMLS		SA-403-WPWX304L

ITM	QTY	SIZE	NIPPLES/SWAGES			
32	1	89x33	CONCENTRIC SWAGE 80S BLE/80S TSE SMLS			SA-403-WPWX304L

ITM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		

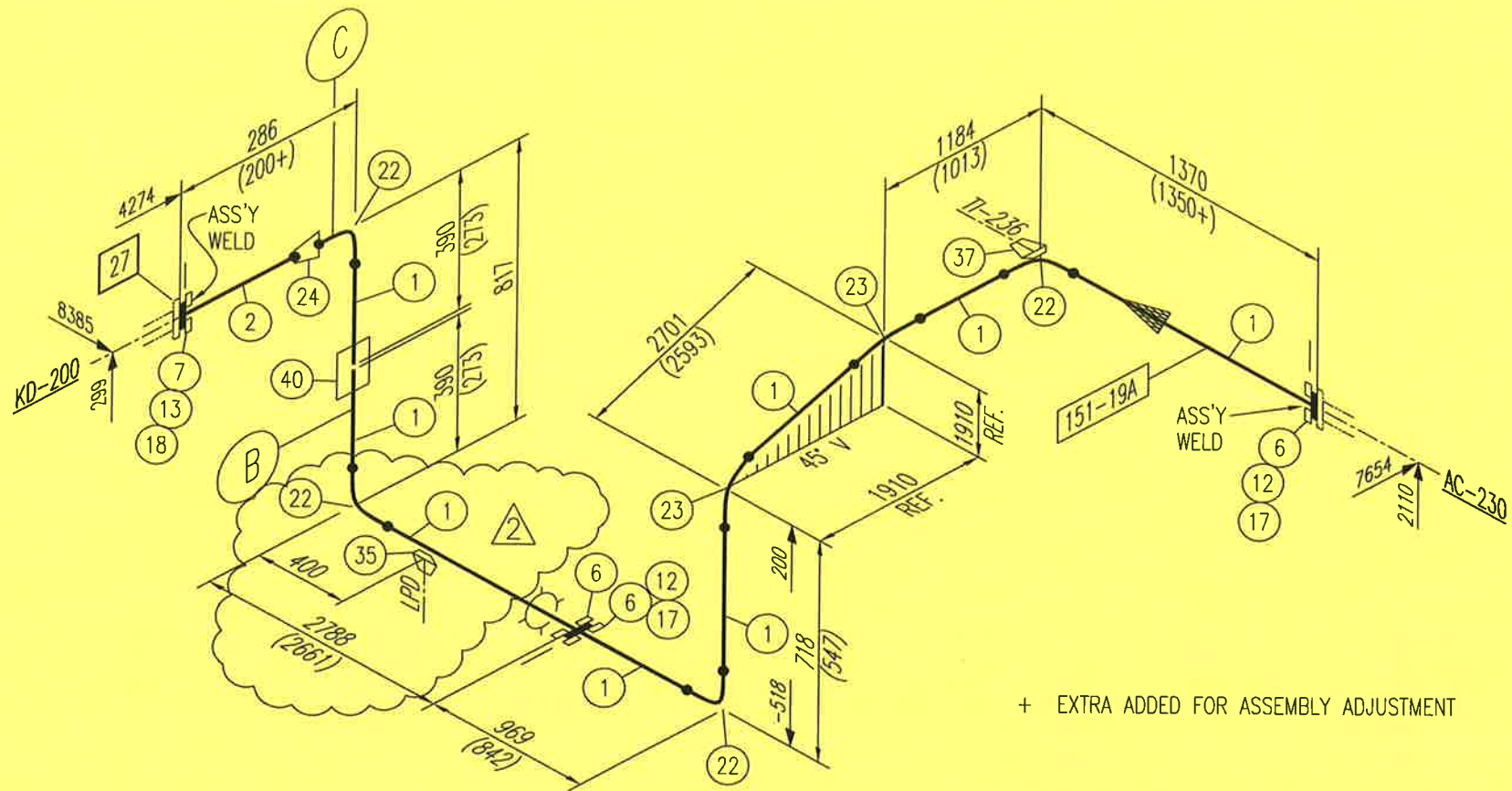
ITM	QTY	SIZE	MISCELLANEOUS			
40	1	33	PCV-100			PURCH. BY ENG.
41	1	89	BA-910			PURCH. BY ENG.



		PIPE					
②	ITM	QTY	SIZE	WT			
	1	10.7 m	89	5.49	SMLS		SA-106-B
	2	0.8 m	60	5.54	SMLS		SA-106-B
		FLANGES					
②	ITM	QTY	SIZE	RATING	SCHEDULE		
	6	3	89	150#	40	RFSO	SA-105
	7	1	60	150#	-	FFSO	SA-105
		GASKETS					
②	ITM	QTY	SIZE	RATING			
	12	2	89	150#	3 THK RF SP. WD. FLEX.	STD. FILLER	304SS
	13	1	60	150#	3 THK FF FULL FACE		GARLOCK 3000
		STUD BOLTS w/ 2 HEX NUTS					
②	ITM	QTY	SIZE	LENGTH			
	17	8	16ø	95	SA-193-B7/SA-194-2H		
	18	4	16ø	83	SA-193-B7/SA-194-2H		
		FITTINGS - BW					
②	ITM	QTY	SIZE	SCHEDULE			
	22	1	89x60	40/80	CONCENTRIC REDUCER SMLS		SA-234-WPB
	23	2	89	40	ELBOW 90° LR SMLS		SA-234-WPB
	24	2	89	40	ELBOW 45° LR SMLS		SA-234-WPB
	25	2	60	80	ELBOW 90° LR SMLS		SA-234-WPB
	26	1	89/60	40/80	RED. TEE: SMLS		SA-234-WPB
		NIPPLES/SWAGES					
		ITM	QTY	SIZE			
		FITTINGS - SCR'D / SW					
		ITM	QTY	SIZE	RATING		
		35	1	27	3000#	TOL: (ON A 89 OD RUN) c/w PLUG SA-105	
		MISCELLANEOUS					
②	ITM	QTY	SIZE				
	40	1	60	FJ-239		PURCH. BY ENG.	

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INSUL : NONE						CODE	NON-CODE	STRESS RELIEF	NO	DRAWN	S.FARWELL	PROPAK		
SURF. PREP. :						DESIGN PRES.	ATMOS.	DESIGN TEMP.	-28/149 °C					
PRIMER : PNT-11						TEST PRES.	LEAK TEST	X-RAY	N/A	CHECKED	M. IWANIUK			
PAIN T :						WELD PROC'S	P.S.L.	P.S.L.	P.S.L.	DATE	00/02/17	LINE No. : GL-007-A-89		
						M.I.	T.K.	CKD	ENG	APPROVED	T. KELLER	TO: AC-230 FROM: GL-006-A-60		
						REV	BY	DATE	DESCRIPTION	PROCESS : AUXILIARY WATER	DATE	00/02/17	DWG No. : B-PIP-99420-351 '18'	REV



+ EXTRA ADDED FOR ASSEMBLY ADJUSTMENT

ITEM	QTY	SIZE	WT	PIPE		
1	10.5 m	89	5.49	SMLS		SA-106-B
2	0.3 m	73	5.16	SMLS		SA-106-B

ITEM	QTY	SIZE	RATING	SCHEDULE	FLANGES	
6	3	89	150#	-	RFSO	SA-105
7	1	73	150#	-	FFSO	SA-105

ITEM	QTY	SIZE	RATING	GASKETS		
12	2	89	150#	3 THK. RF SP. WD. FLEX.	STD. FILLER	304SS
13	1	73	150#	3 THK. FF FULL FACE		GARLOCK 3000

ITEM	QTY	SIZE	LENGTH	STUD BOLTS w/ 2 HEX NUTS		
17	8	16 ø	95	SA-193-B7/SA-194-2H		
18	4	16 ø	89	SA-193-B7/SA-194-2H		

ITEM	QTY	SIZE	SCHEDULE	FITTINGS - BW		
22	4	89	40	ELBOW 90° LR SMLS		SA-234-WPB
23	2	89	40	ELBOW 45° LR SMLS		SA-234-WPB
24	1	89x73	40/40	CONCENTRIC REDUCER SMLS		SA-234-WPB

ITEM	QTY	SIZE	NIPPLES/SWAGES			

ITEM	QTY	SIZE	RATING	FITTINGS - SCR'D / SW		
35	1	27	3000#	TOL: (ON A 89 OD RUN)		SA-105
36						
37	1	27	3000#	EOL: (ON A 89 OD RUN) NPT		SA-105

ITEM	QTY	SIZE	MISCELLANEOUS			
40	1	89	FJ-237			PURCH. BY ENG.

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REV	BY	DATE	DESCRIPTION	M.I.	T.K.	CKD	ENG	APPROVED	PROCESS
2	D.T.S.	00/09/21	ENGINE WAS WAUKESHA 5794GSI						AUXILIARY WATER
1	S.F.	00/02/17	ISSUED FOR CONSTRUCTION						

DRAWN	S.FARWELL	PROPAG	
DATE	00/01/27		
CHECKED	M.IWANIUK		
DATE	00/02/17	LINE No. : GL-009-A-89	
APPROVED	T.KELLER	TO: KD-200	FROM: AC-230
DATE	00/02/17	DWG No. : B-PIP-99420-351 '19'	REV 2