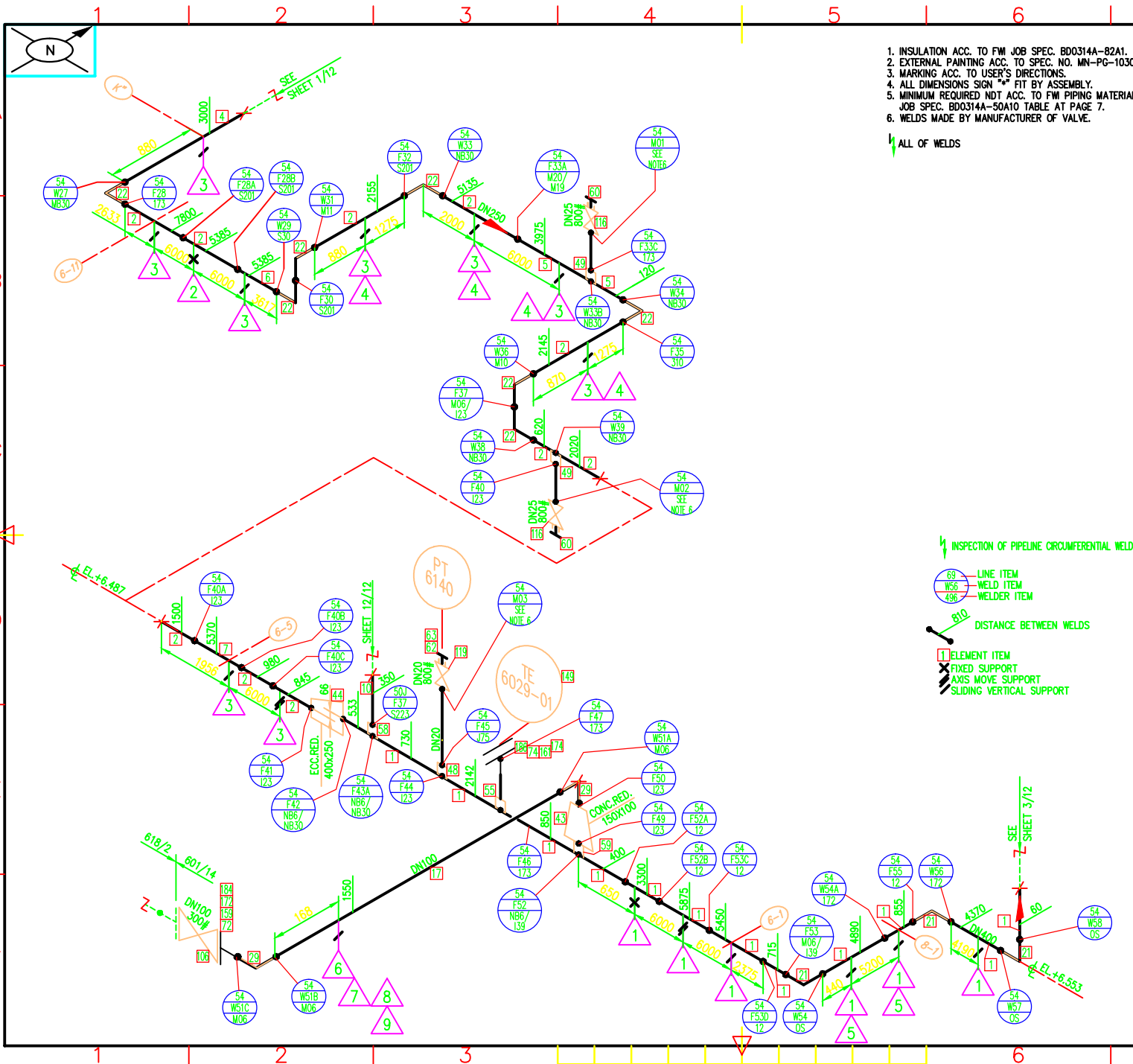
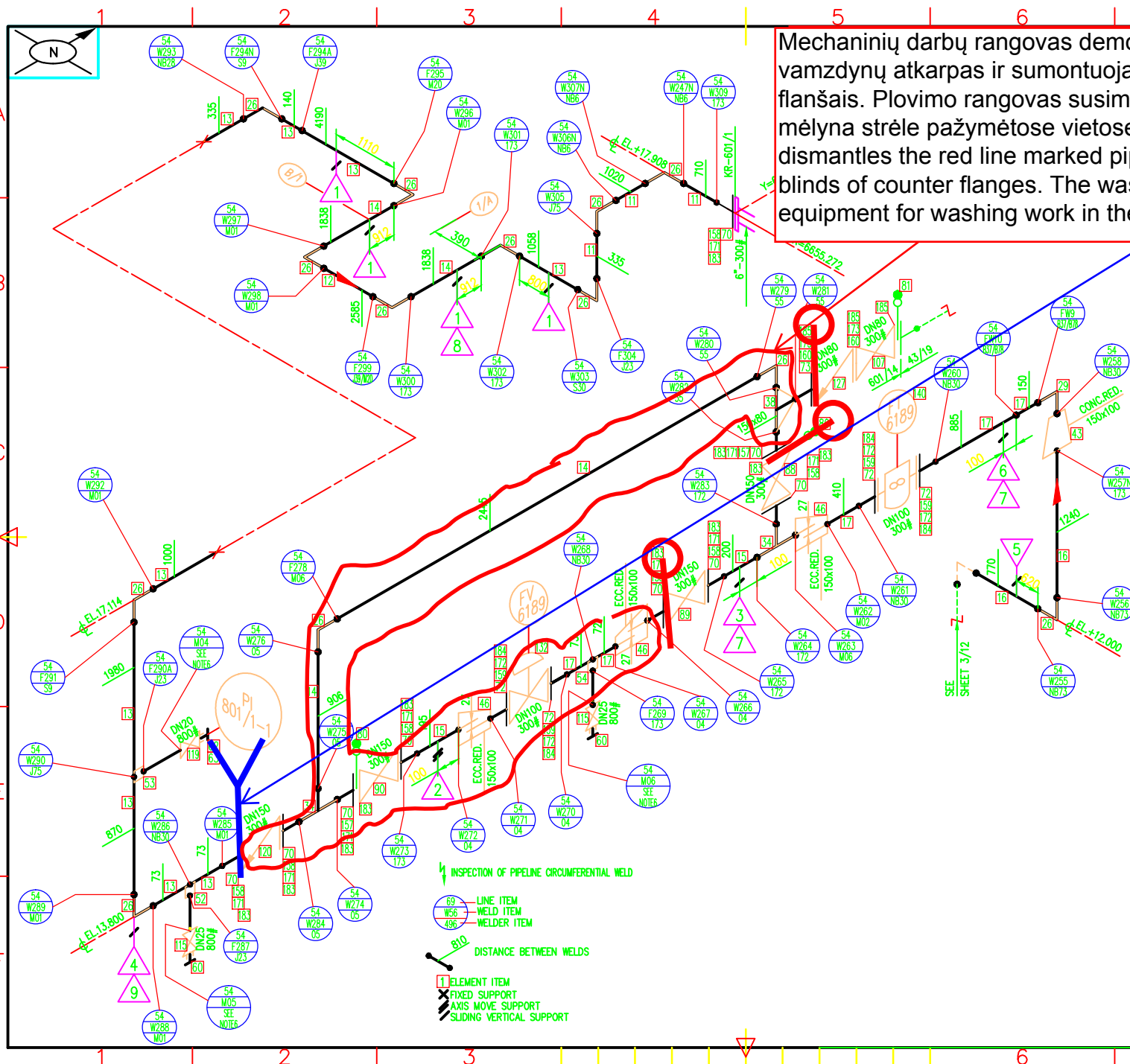


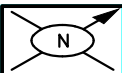


6	100	114	P80-083	-	100					1					
5			P80-083	G3	800					2					
4			P80-083	G	760					4					
3	220	273	P80-083	-	100					9					
2	220	273	P80-083	-	100					1					
1	400	400	P80-083	-	100					0					
No.	DN	O.D.	Part Description	TYPE	H	V	X	Y	Z	G-to pounds/mm	Unit mm/mm	Notes			
BILL OF SUPPORTS															
OPER. MEDIUM			TOPPED CRUDE			TEST MEDIUM				WATER					
PARAMETERS		OPER.		DESIGN		TEST		QUALITY LEVEL		VT	RT/UT %	MT/PT			
PRES. barg		18		23		43		B		100	100	SEE NOTE 5			
TEMP. °C		320		365		10+40		PWHT			YES				
250	4.3	-	-	-	-	DN		400	250	150	100				
400	6.5	100	3.5	-	-	TYPE		HC	HC	HC	HC				
DN	M.A.W.T.	DN	M.A.W.T.	DN	M.A.W.T.	THK.		130	100	100	100				
MINIMUM ALLOWABLE WALL THK.								INSULATION							
HEATING			ST		MATERIAL			P5		CLASS		H2A2			
CODES			PED, ASME B31.3												
PIPING LAYOUT DWG. NO.					603-10-PJ-008										
P&ID DIAGRAM NO.					GP2-S001/1-07										
BILL OF MATERIAL NO.					603-50J/54-PR-601/14										
INSPECTION BY				TPT			CLASS ACC.TO PED				1-1				
0 AS BUILT. FOR PASSPORT DOC. ONLY 02.2008															
REV.		REVISION DESCRIPTION										DATE			
0		J. Hoffman			D. Kwiatkowski			K. Jaworski							
REV.		PREPARED BY			SIGN		CHECKED BY			SIGN		APPROVED BY SIGN			
INVESTOR:		AG MAZEKU HAFTA													
PLANT:		VACUUM UNIT													
PROJECT TITLE:		VACUUM UNIT REBUILDING													
LINE NO.:		601/14													
 NAFTOREMONT PASSPORT DRAWING PREPARED BY NAFTOREMONT DESIGN-ENGINEERING FIELD DIVISION															
SIZE		ISO. NO.								SHEET		SHEETS		REV.	
A3		603-50J/54-PK-601/14								02		12		00	

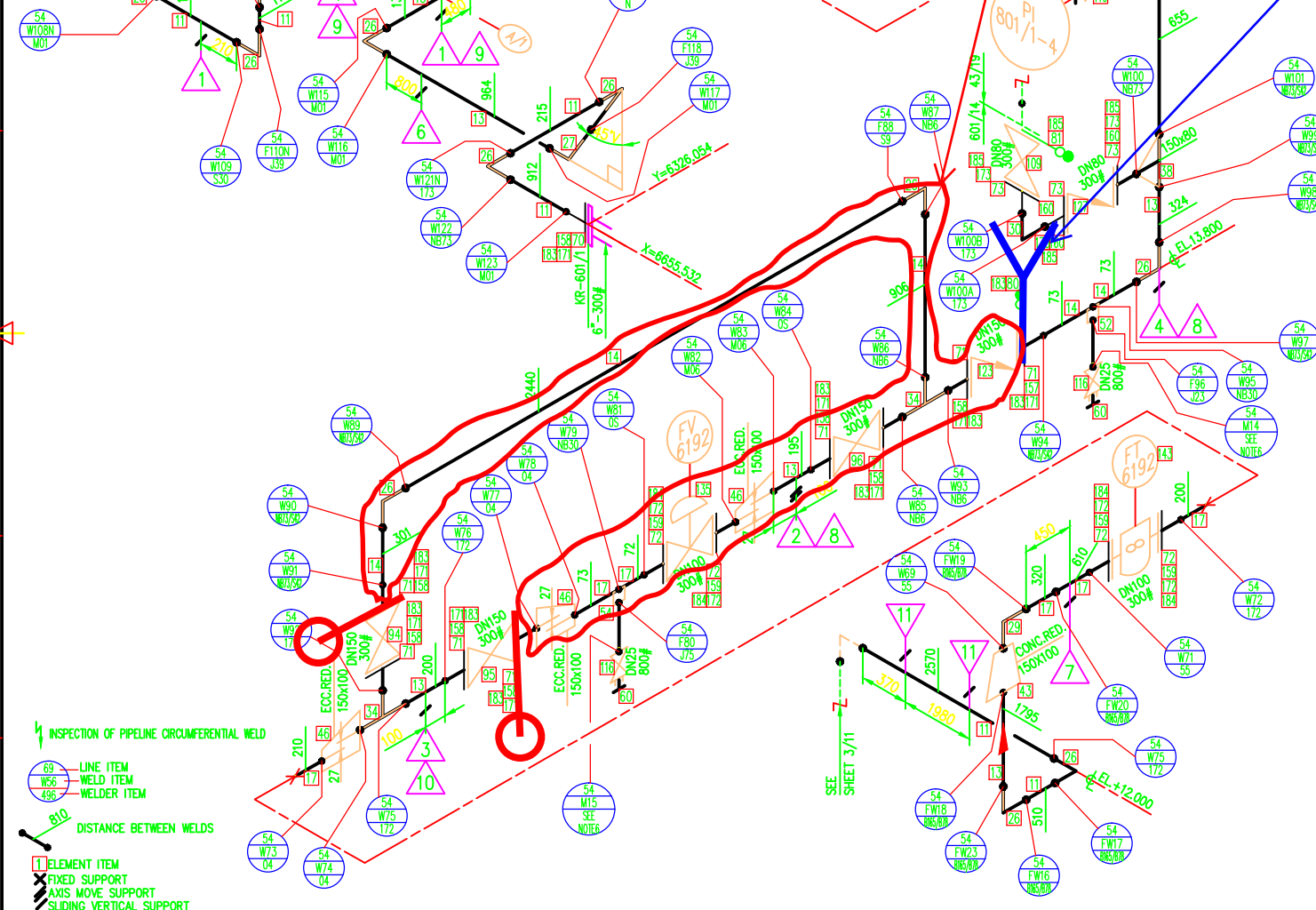
Mechaninių darbų rangovas demontuoja raudona linija pažymėtas vamzdinių atkarpas ir sumontuoja akles su atsakomaisiais flanšais. Plovimo rangovas susimontuoja įrangą plovimo darbams mėlyna strėle pažymėtose vietose /Mechanical contractor dismantles the red line marked pipeline sections and installs the blinds of counter flanges. The washing contractor assembles the equipment for washing work in the areas marked with a blue arrow



BILL OF MATERIALS											
ITEM NO.	QTY	DESCRIPTION	UNIT	SIZE	GRADE	TEST	WATER	RT/UT	MT/PT	SEE	NOTE
1	1	PIPE	FT	18	23	43	B	100	100	NOTE 5	
2	1	FLANGE	PC	18	23	43	B	100	100	NOTE 5	
3	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
4	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
5	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
6	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
7	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
8	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
9	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
10	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
11	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
12	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
13	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
14	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
15	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
16	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
17	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
18	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
19	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
20	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
21	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
22	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
23	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
24	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
25	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
26	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
27	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
28	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
29	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
30	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
31	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
32	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
33	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
34	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
35	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
36	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
37	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
38	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
39	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
40	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
41	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
42	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
43	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
44	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
45	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
46	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
47	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
48	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
49	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
50	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
51	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
52	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
53	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
54	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
55	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
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57	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
58	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
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60	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
61	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
62	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
63	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
64	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
65	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
66	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
67	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
68	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
69	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
70	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
71	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
72	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
73	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
74	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
75	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
76	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
77	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
78	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
79	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
80	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
81	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
82	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
83	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
84	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
85	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
86	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
87	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
88	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
89	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
90	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
91	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
92	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
93	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
94	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
95	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
96	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
97	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
98	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
99	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	
100	1	VALVE	PC	18	23	43	B	100	100	NOTE 5	



Mechaninių darbų rangovas demontuoja raudona linija pažymėtas vamzdynų atkarpas ir sumontuoja akles su atsakomaisiais flanšais. Plovimo rangovas susimontuoja įrangą plovimo darbams mėlyna strėle pažymėtose vietose /Mechanical contractor dismantles the red line marked pipeline sections and installs the blinds of counter flanges. The washing contractor assembles the equipment for washing work in the areas marked with a blue arrow



11	100	100.3	PR-030	-	300					2		
10			IS-012	BI						1		
9			IS-012	CI						2		
8			IS-012	CI						2		
7	100	114.3	PR-032	-	300					1		
6	100	100.3	PR-032	-	300					3		
5												
4	100	100.3	PR-030	-	300					1		
3	100	100.3	PR-032	-	300					1		
2	100	100.3	PR-032	-	300					1		
1	100	100.3	PR-032	-	150					1		

No.	BN	Q.S.	Part Description	PIPE	H	V	X	Y	Z	Q-ty	Unit	Notes
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BILL OF MATERIAL

OPER. MEDIUM		TOPPED CRUDE		TEST MEDIUM		WATER	
PARAMETERS	OPER.	DESIGN	TEST	QUALITY LEVEL	VT	RT/UT	MT/PT
PRES. barg	18	23	43	B	100	100	SEE NOTE 5
TEMP. °C	320	365	10+40	PWHT			YES
100	3.5	-	-	-	DN	150	100 80 25
150	3.8	-	-	-	TYPE	HC	HC HC HC
DN	M.A.W.T.	DN	M.A.W.T.	DN	M.A.W.T.	THK.	100 100 100 70

MINIMUM ALLOWABLE WALL THK.				INSULATION			
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HEATING	ST	MATERIAL	P5	CLASS	H2A2
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CODES	PED, ASME B31.3					
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PIPING LAYOUT DWG. NO.	603-10-PJ-015					
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P&ID DIAGRAM NO.	GP2-S001/1-10A					
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BILL OF MATERIAL NO.	603-50J/54-PR-601/14					
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INSPECTION BY	TPT		CLASS ACC.TO PED	1-8		
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0	AS BUILT. FOR PASSPORT DOC. ONLY				02.2008
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REV.	REVISION DESCRIPTION				DATE
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0	J. Hoffman	D. Kwiatkowski	K. Jaworski		
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REV. PREPARED BY	SIGN	CHECKED BY	SIGN	APPROVED BY	SIGN
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INVESTOR:	AB MAZEKU NAFTA				
PLANT:	VACUUM UNIT				

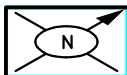
PROJECT TITLE:	VACUUM UNIT REBUILDING				
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LINE NO.:	601/14				
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SIZE	ISO. NO.		SHEET	SHEETS	REV.
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A3	603-50J/54-PK-601/14		07	12	00
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1. INSULATION ACC. TO FW JOB SPEC. BD0314A-82A1.
2. EXTERNAL PAINTING ACC. TO SPEC. NO. MN-PG-1030.
3. MARKING ACC. TO USER'S DIRECTIONS.
4. ALL DIMENSIONS SIGN "4" FIT BY ASSEMBLY.
5. MINIMUM REQUIRED NOT ACC. TO FW PIPING MATERIAL JOB SPEC. BD0314A-50A10 TABLE AT PAGE 7.
6. WELDS MADE BY MANUFACTURER OF VALVE.

ALL OF WELDS

NO.	QTY	DESCRIPTION	UNIT	AMOUNT	REMARKS
1	1	INSULATION	FT	100	
2	1	EXTERNAL PAINTING	FT	100	
3	1	MARKING	FT	100	
4	1	ALL DIMENSIONS	FT	100	
5	1	MINIMUM REQUIRED	FT	100	
6	1	WELDS	FT	100	

BILL OF SUPPLIES

OPER. MEDIUM	TEST MEDIUM	WATER
PARAMETERS	OPER.	TEST
PRES. barg	18	23
TEMP. °C	320	365

QUALITY LEVEL	VT	RT/UT	MT/PT
100	3.5	-	-
150	3.8	-	-
DN	M.A.W.T.	M.A.W.T.	M.A.W.T.

MINIMUM ALLOWABLE WALL THK.	INSULATION
HEATING	ST
MATERIAL	P5

CLASS	H2A2
CODES	PED, ASME B31.3

PIPING LAYOUT DWG. NO.	603-10-PJ-015
P&ID DIAGRAM NO.	GP2-S001/1-10A

BILL OF MATERIAL NO.	603-50J/54-PR-601/14
INSPECTION BY	PT

CLASS ACC. TO	PD
REV.	0

AS BUILT. FOR PASSPORT DOC. ONLY	02.2008
REV.	0

J. Hoffman	D. Kwiatkowski	K. Joworski
REV.	0	0

PREPARED BY	SIGN	CHECKED BY	SIGN	APPROVED BY	SIGN
INVESTOR:	AB MAZEKOW NAFTA	PLANT:	VACUUM UNIT	PROJECT	VACUUM UNIT REBUILDING

TITLE:	LINE NO.: 601/14
SIZE	ISO. NO.

603-50J/54-PK-601/14	SHEET	08	SHEETS	12	REV.	00
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WZOR-80-106	7	8
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Mechaninių darbų rangovas demontuoja raudona linija pažymėtas vamzdynų atkarpas ir sumontuoja akles su atsakomaisiais flanšais. Plovimo rangovas susimontuoja įrangą plovimo darbams mėlyna strėle pažymėtose vietose /Mechanical contractor dismantles the red line marked pipeline sections and installs the blinds of counter flanges. The washing contractor assembles the equipment for washing work in the areas marked with a blue arrow

