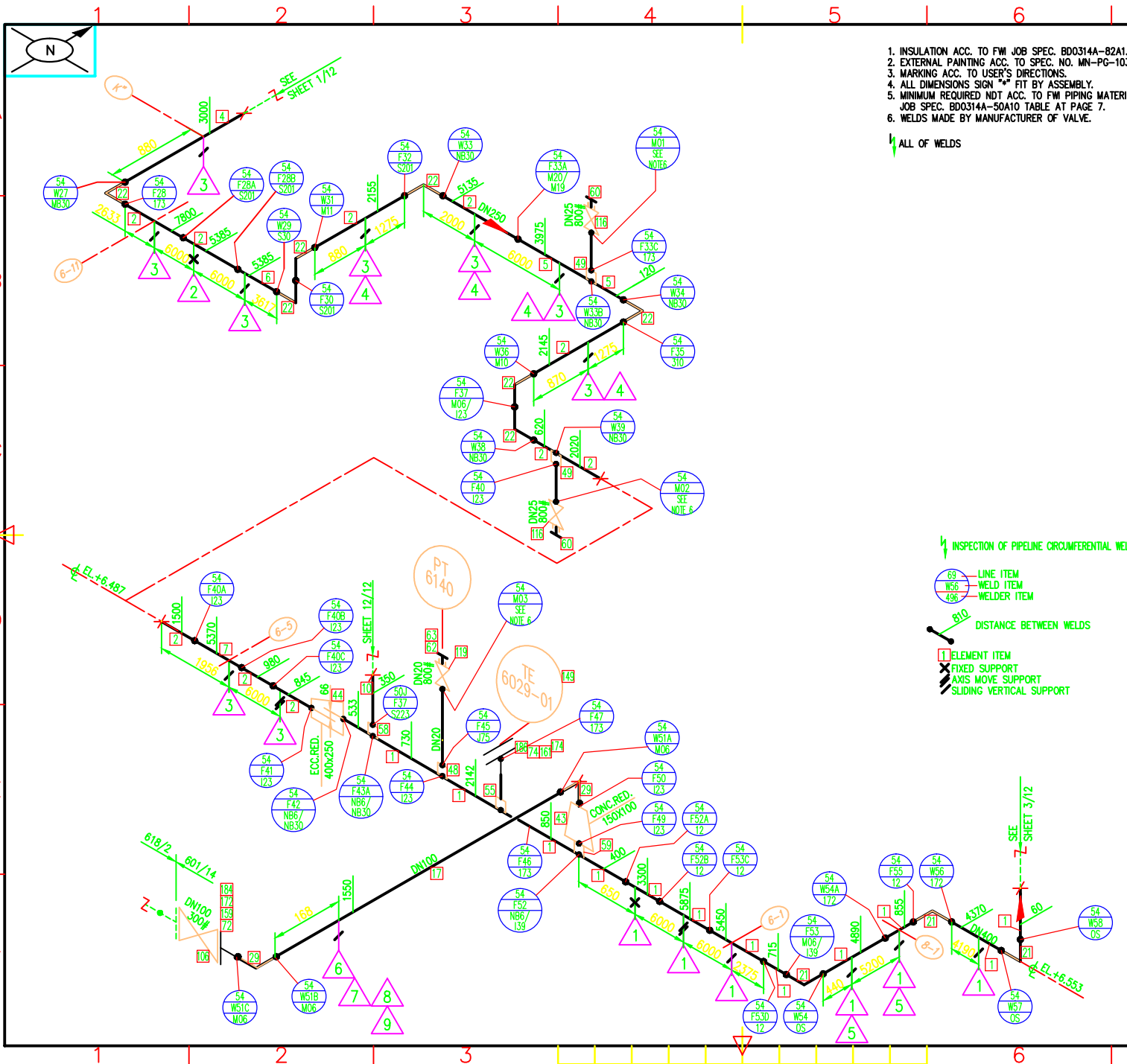
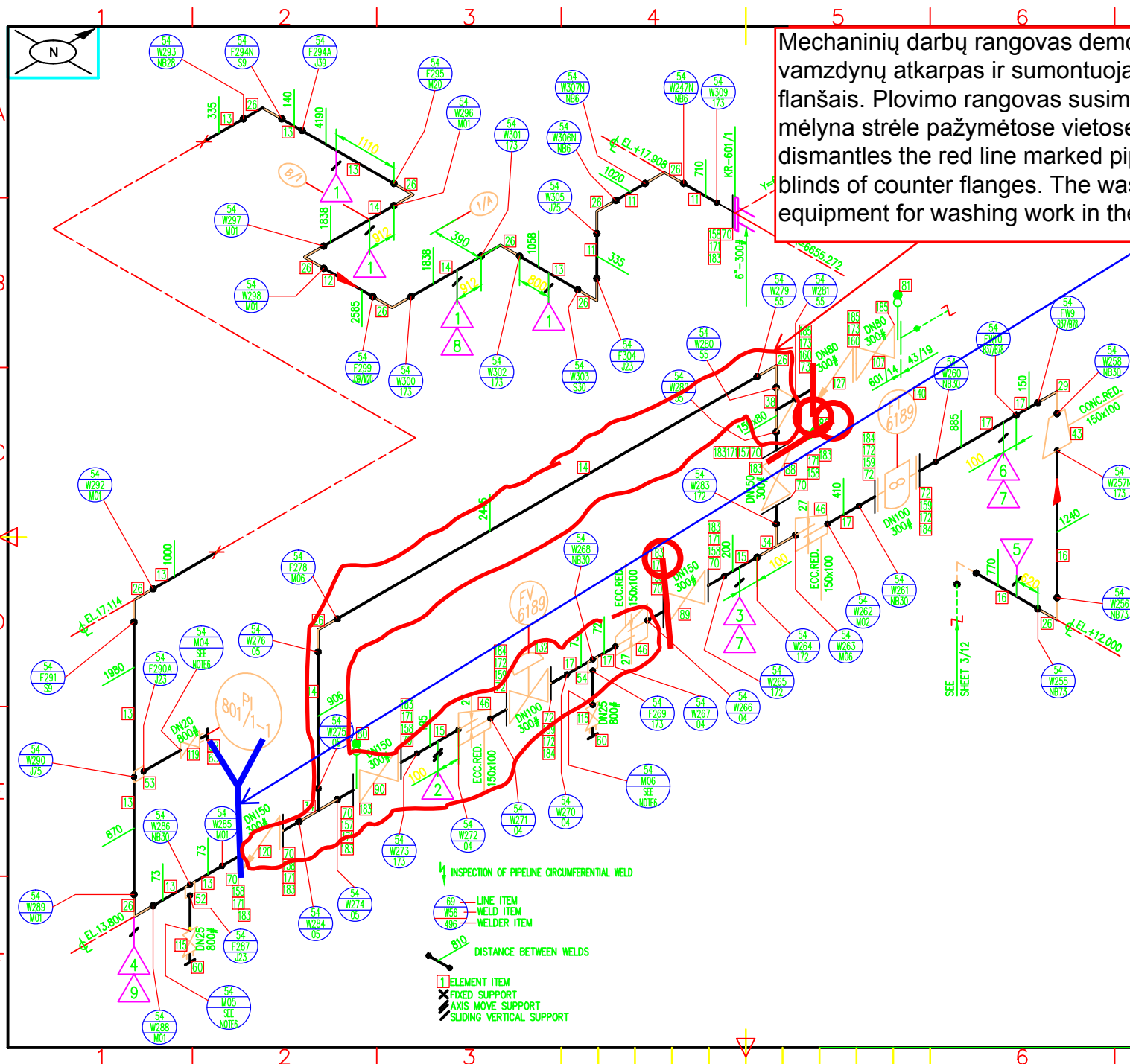




0			K3-002	B4			1500		1				
0			K3-002	C2			800		1				
7			K3-002	B2			800		1				
0	100	114	PIB-023	-	100				1				
3			K3-002	C3	800				2				
4			K3-013	C	700				4				
3	200	273	PIB-023	-	100				0				
2	200	273	PIB-023	-	100				1				
1	400	400	PIB-023	-	100				0				
No.	DN	O.D.	Port Description	TYPE	H	V	X	Y	Z	Q-ty	Unit	Total	Remarks

BILL OF SUPPORTS													
OPER. MEDIUM			TOPPED CRUDE			TEST MEDIUM			WATER				
PARAMETERS	OPER.	DESIGN	TEST	QUALITY LEVEL	VT	RT/UT %	MT/PT	SEE NOTE 5					
PRES. barg	18	23	43	B	100	100							
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. Joworski							
REV.		PREPARED BY		SIGN		CHECKED BY		SIGN		APPROVED BY		SIGN	
INVESTOR:		AG MAZEKU NAFTA											
PLANT:		VACUUM UNIT											
PROJECT TITLE:		VACUUM UNIT REBUILDING											
LINE NO.:		601/14											
 PASSPORT DRAWING PREPARED BY NAFTOFORMONT 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	TYPE	N	V	X	Y	Z	W	OTHER
1	1	PIPE	FT	18							
2	1	FLANGE	PC	23							
3	1	VALVE	PC	43							
4	1	WELD	PC	100							
5	1	WELD	PC	100							
6	1	WELD	PC	100							
7	1	WELD	PC	100							
8	1	WELD	PC	100							
9	1	WELD	PC	100							
10	1	WELD	PC	100							
11	1	WELD	PC	100							
12	1	WELD	PC	100							
13	1	WELD	PC	100							
14	1	WELD	PC	100							
15	1	WELD	PC	100							
16	1	WELD	PC	100							
17	1	WELD	PC	100							
18	1	WELD	PC	100							
19	1	WELD	PC	100							
20	1	WELD	PC	100							
21	1	WELD	PC	100							
22	1	WELD	PC	100							
23	1	WELD	PC	100							
24	1	WELD	PC	100							
25	1	WELD	PC	100							
26	1	WELD	PC	100							
27	1	WELD	PC	100							
28	1	WELD	PC	100							
29	1	WELD	PC	100							
30	1	WELD	PC	100							
31	1	WELD	PC	100							
32	1	WELD	PC	100							
33	1	WELD	PC	100							
34	1	WELD	PC	100							
35	1	WELD	PC	100							
36	1	WELD	PC	100							
37	1	WELD	PC	100							
38	1	WELD	PC	100							
39	1	WELD	PC	100							
40	1	WELD	PC	100							
41	1	WELD	PC	100							
42	1	WELD	PC	100							
43	1	WELD	PC	100							
44	1	WELD	PC	100							
45	1	WELD	PC	100							
46	1	WELD	PC	100							
47	1	WELD	PC	100							
48	1	WELD	PC	100							
49	1	WELD	PC	100							
50	1	WELD	PC	100							
51	1	WELD	PC	100							
52	1	WELD	PC	100							
53	1	WELD	PC	100							
54	1	WELD	PC	100							
55	1	WELD	PC	100							
56	1	WELD	PC	100							
57	1	WELD	PC	100							
58	1	WELD	PC	100							
59	1	WELD	PC	100							
60	1	WELD	PC	100							
61	1	WELD	PC	100							
62	1	WELD	PC	100							
63	1	WELD	PC	100							
64	1	WELD	PC	100							
65	1	WELD	PC	100							
66	1	WELD	PC	100							
67	1	WELD	PC	100							
68	1	WELD	PC	100							
69	1	WELD	PC	100							
70	1	WELD	PC	100							
71	1	WELD	PC	100							
72	1	WELD	PC	100							
73	1	WELD	PC	100							
74	1	WELD	PC	100							
75	1	WELD	PC	100							
76	1	WELD	PC	100							
77	1	WELD	PC	100							
78	1	WELD	PC	100							
79	1	WELD	PC	100							
80	1	WELD	PC	100							
81	1	WELD	PC	100							
82	1	WELD	PC	100							
83	1	WELD	PC	100							
84	1	WELD	PC	100							
85	1	WELD	PC	100							
86	1	WELD	PC	100							
87	1	WELD	PC	100							
88	1	WELD	PC	100							
89	1	WELD	PC	100							
90	1	WELD	PC	100							
91	1	WELD	PC	100							
92	1	WELD	PC	100							
93	1	WELD	PC	100							
94	1	WELD	PC	100							
95	1	WELD	PC	100							
96	1	WELD	PC	100							
97	1	WELD	PC	100							
98	1	WELD	PC	100							
99	1	WELD	PC	100							
100	1	WELD	PC	100							

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

NO	DN	Q.A.	Part Description	FW	H	V	X	Y	Z	Q-ty	Unit	Material	Remarks
8	100	114.3	FW-002	-	300					1			
7	100	114.3	FW-003	-	300					1			
6	100	114.3	FW-004	-	300					1			
5	100	114.3	FW-005	-	300					1			
4	100	114.3	FW-006	-	300					1			
3	100	114.3	FW-007	-	300					1			
2	100	114.3	FW-008	-	300					1			
1	100	114.3	FW-009	-	300					1			

BILL OF SUPPLIES

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	80	3.2	-	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			
-----------------------------	--	--	--	------------	--	--	--

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	FT	CLASS ACC.TO PED	1-1
---------------	----	------------------	-----

0	AS BUILT. FOR PASSPORT DOC. ONLY						
---	----------------------------------	--	--	--	--	--	--

REV.	REVISION DESCRIPTION						DATE
------	----------------------	--	--	--	--	--	------

0	J. Hoffman	D. Kwiatkowski	K. Jaworski
---	------------	----------------	-------------

REV.	PREPARED BY	SIGN	CHECKED BY	SIGN	APPROVED BY	SIGN
------	-------------	------	------------	------	-------------	------

INVESTOR:	AB MAZEKIU NAFTA					
-----------	------------------	--	--	--	--	--

PLANT:	VACUUM UNIT					
--------	-------------	--	--	--	--	--

PROJECT	VACUUM UNIT REBUILDING					
---------	------------------------	--	--	--	--	--

TITLE:						
--------	--	--	--	--	--	--

LINE NO.:	601/14					
-----------	--------	--	--	--	--	--

NAFTOREMONT				PASSPORT DRAWING PREPARED BY		
-------------	--	--	--	------------------------------	--	--

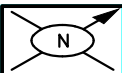
NAFTOREMONT				KONCZKA		
-------------	--	--	--	---------	--	--

NAFTOREMONT				DESIGN/ENGINEERING FIELD DIVISION		
-------------	--	--	--	-----------------------------------	--	--

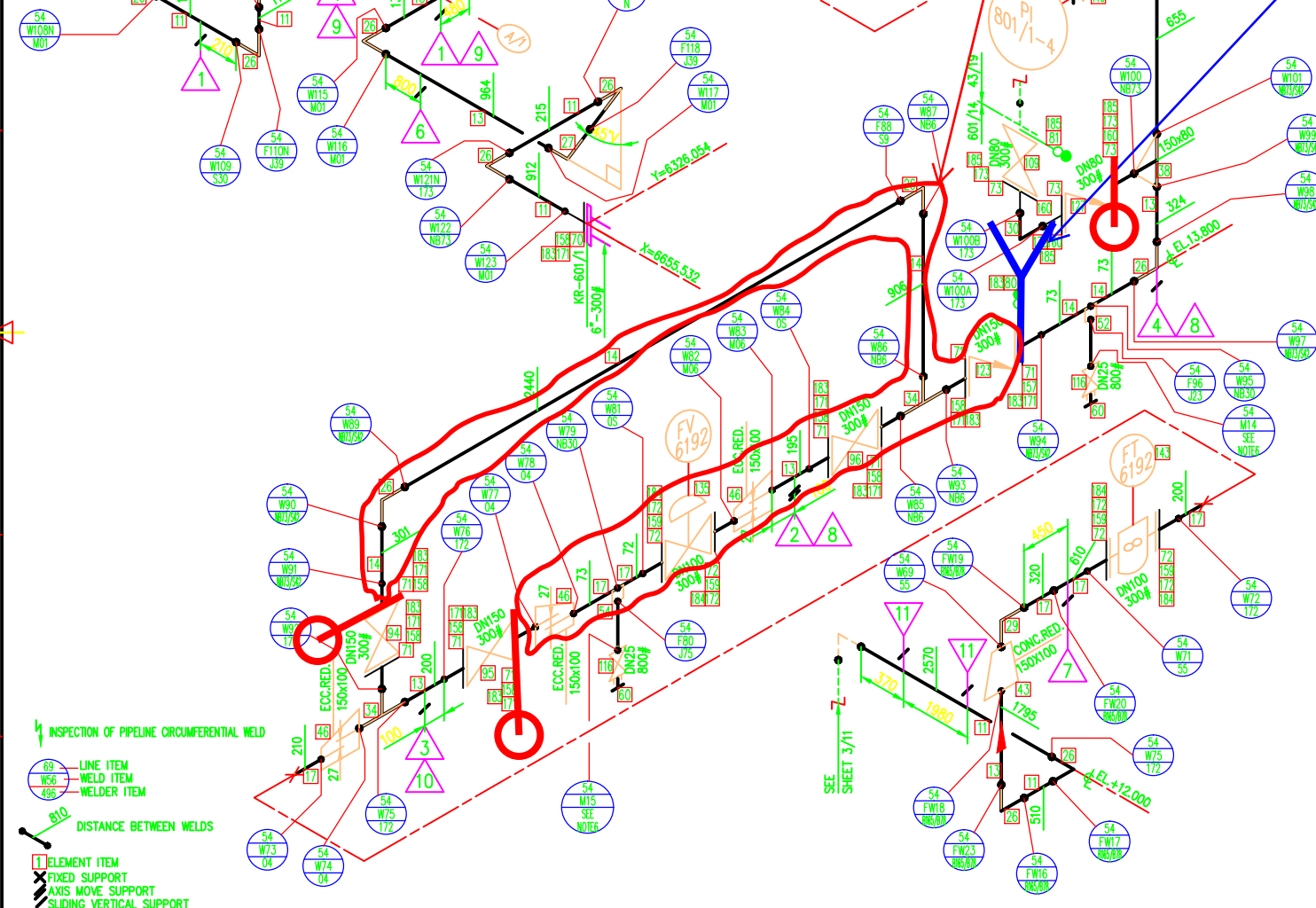
SIZE	ISO. NO.		SHEET	SHEETS	REV.
------	----------	--	-------	--------	------

A3	603-50J/54-PK-601/14		06	12	00
----	----------------------	--	----	----	----

WZ0080-106					
------------	--	--	--	--	--



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	FW-030	-	300				2		
10			WS-030	BN					1		
9			WS-030	GN					2		
8			WS-030	GN					2		
7	100	114.3	FW-030	-	300				1		
6	100	100.3	FW-030	-	300				3		
5											
4	100	100.3	FW-030	-	300				1		
3	100	100.3	FW-030	-	300				1		
2	100	100.3	FW-030	-	300				1		
1	100	100.3	FW-030	-	300				1		

BILL OF MATERIALS											
OPER. MEDIUM		TOPPED CRUDE			TEST MEDIUM			WATER			
PARAMETERS		OPER.	DESIGN		TEST	QUALITY LEVEL	VT	RT/UT %	MT/P		
PRES. barg		18	23		43	B	100	100	SEE NOTE		
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		
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	WPT	CLASS ACC.TO PED	1-8
---------------	-----	------------------	-----

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: **AS MAZEKU NAFTA**

PLANT: **VACUUM UNIT**

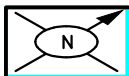
PROJECT: **VACUUM UNIT REBUILDING**

TITLE:

LINE NO.: **601/14**



SIZE	ISO. NO.	SHEET	SHEETS	REV.
A3	603-50J/54-PK-601/14	07	12	00



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 NDT 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	ITEM	UNIT	AMOUNT	REMARKS
1	1	INSULATION	FT	1000	
2	1	EXTERNAL PAINTING	FT	1000	
3	1	MARKING	FT	1000	
4	1	ALL DIMENSIONS	FT	1000	
5	1	MINIMUM REQUIRED NDT	FT	1000	
6	1	WELDS	FT	1000	

BILL OF SUPPLIES

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	%		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

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 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. Joworski

REV. PREPARED BY SIGN CHECKED BY SIGN APPROVED BY SIGN

INVESTOR: AB MAZEKOW NAFTA

PLANT: VACUUM UNIT

PROJECT: VACUUM UNIT REBUILDING

TITLE:

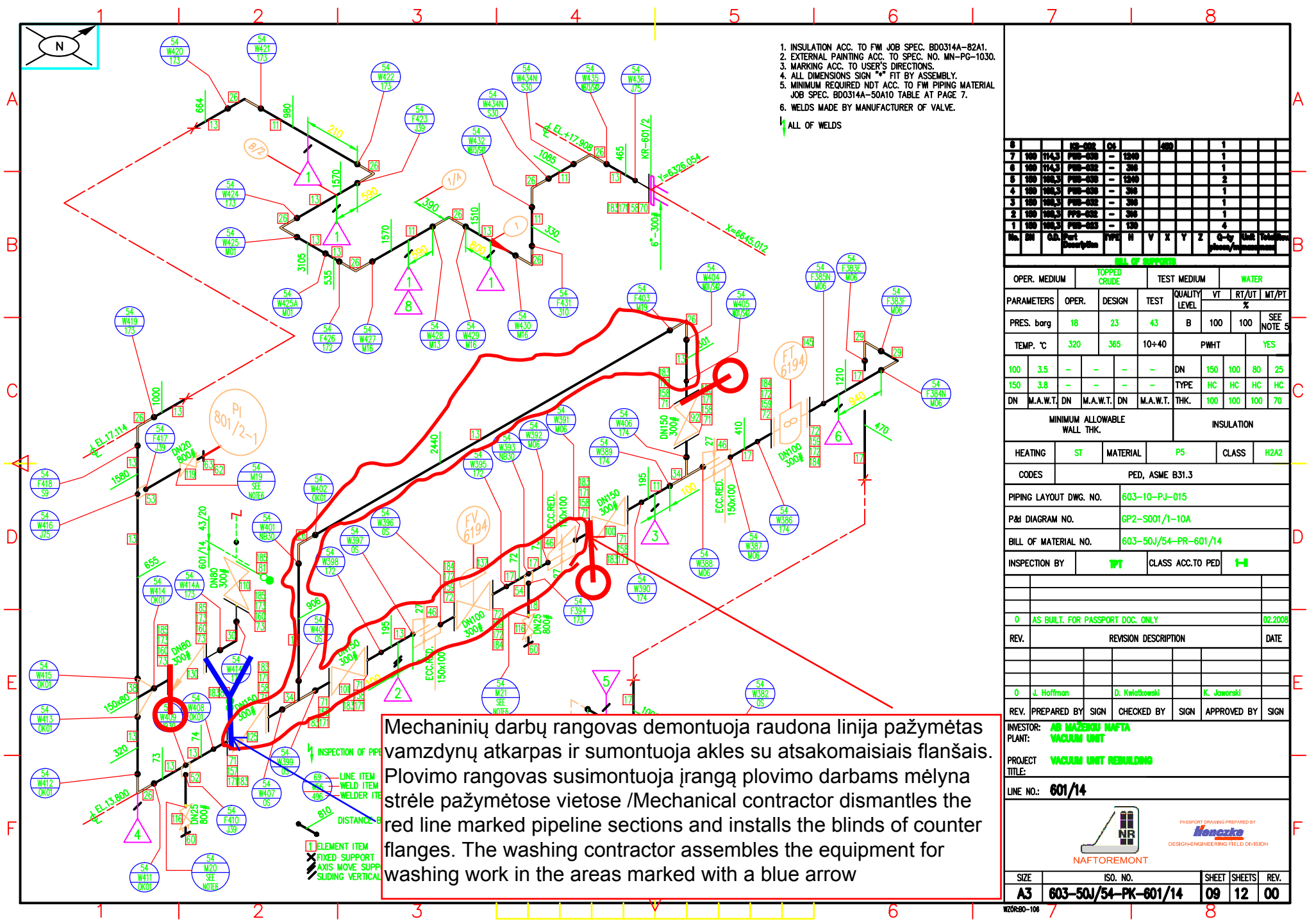
LINE NO.: 601/14

SIZE ISO. NO. SHEET SHEETS REV.

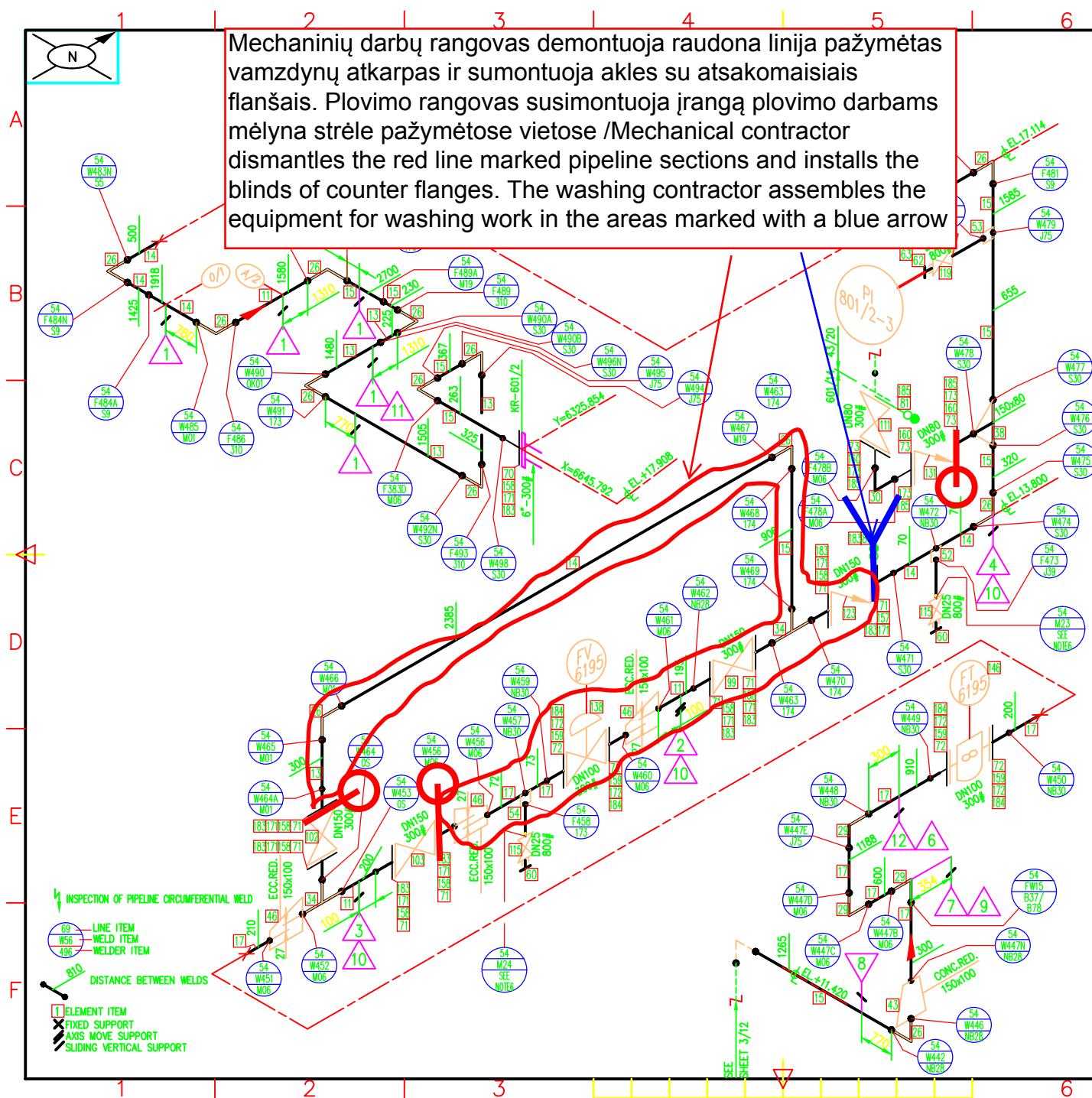
A3 603-50J/54-PK-601/14 08 12 00

W20R30-106

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

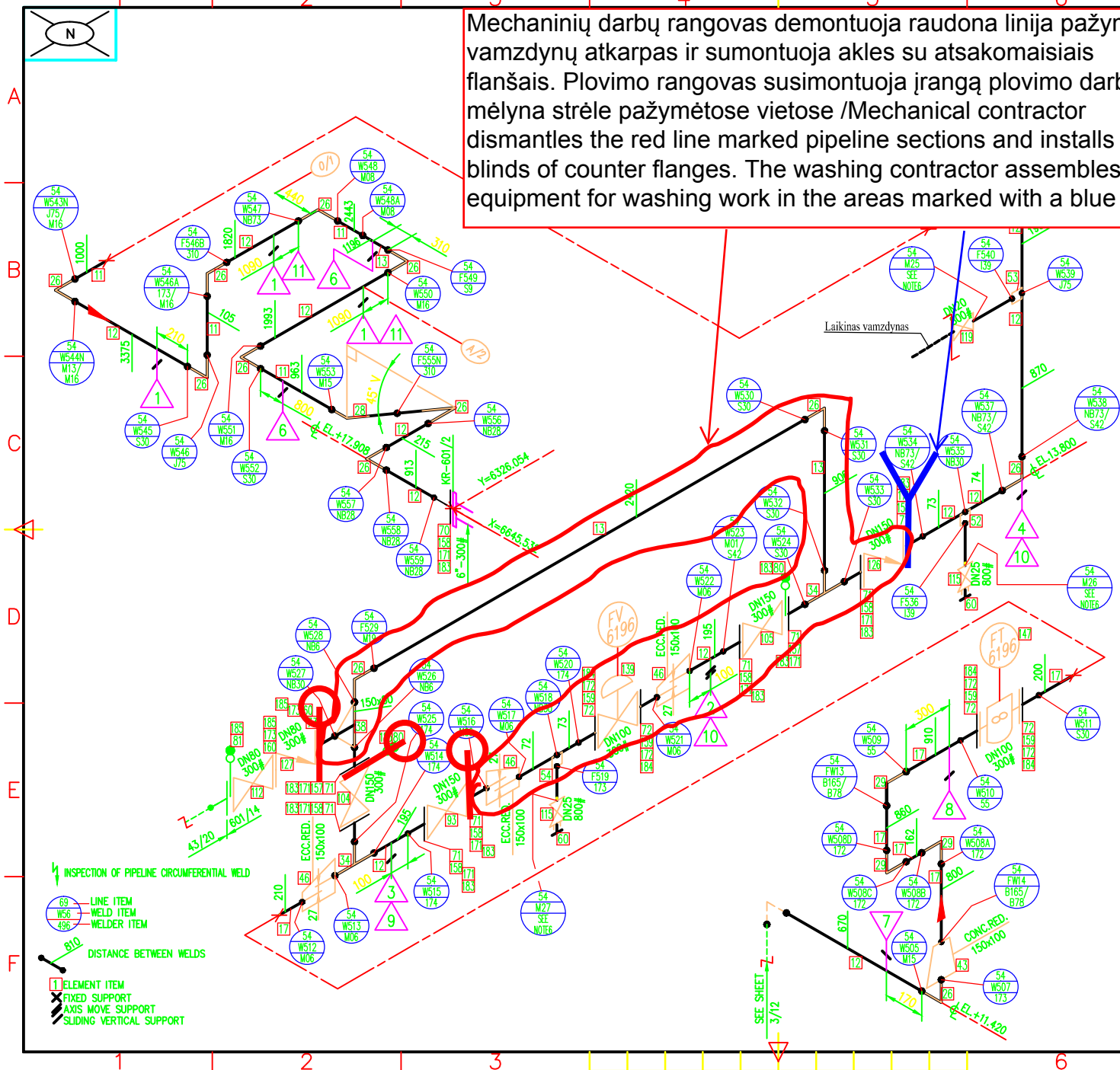


Mechaninių darbų rangovas demontuoja raudona linija pažymėtas vamzdynų atkarpas ir sumontuoja akles su atsakomaisiais flanšais. Plovimo rangovas susimontuoja įrangą plovimo darbams mėlyna strėle pažymėtose vietose /Mechanical contractor dismantles the red line marked pipeline sections and installs the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



12			K3-019	A		410	180	860		1			
11			K3-012	C4			1540						
10			K3-012	C4			800			3			
9			K3-019			354	220			1			
8	100	100.3	PFB-035	-	860					1			
7	80	80.9	PFB-035	-	100					1			
6	100	114.3	PFB-035	-	120					1			
5			(REMOVED)							1			
4	100	100.3	PFB-035	-	310					1			
3	100	100.3	PFB-032	-	310					1			
2	100	100.3	PFB-032	-	310					1			
1	100	100.3	PFB-035	-	130					8			
No.	DN	O.D.	Part Description	TYPE	H	V	X	Y	Z	G-by photo/measurement	Unit	Tolerance	
BILL OF SUPPLIES													
OPER. MEDIUM			TOPPED CRUDE			TEST MEDIUM				WATER			
PARAMETERS		OPER.	DESIGN		TEST	QUALITY LEVEL	VT	RT/UT	WT/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							
HEATING		ST	MATERIAL		P5	CLASS		H2A2					
CODES		PED, ASME B31.3											
PIPING LAYOUT DWG. NO.				603-10-PJ-015									
P&I DIAGRAM NO.				GP2-S001/1-10A									
BILL OF MATERIAL NO.				603-50J/54-PR-601/14									
INSPECTION BY			TPT	CLASS ACC.TO PED				1-H					
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:	AD MAZENKU NAFTA VACUUM UNIT												
PROJECT TITLE:	VACUUM UNIT REBUILDING												
LINE NO.:	601/14												
 PASSPORT DRAWING PREPARED BY Henazko DESIGN-ENGINEERING FIELD DIVISION NAFTOREMONT													
SIZE	ISO. NO.						SHEET	SHEETS	REV.				
A3	603-50J/54-PK-601/14						10	12	00				

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		IS-002	C1		400		2		
10		IS-002	C4		300		2		
9		IS-002	C4		200		1		
8	100	114.3	PIB-003	-	120		1		
7	100	100.3	PIB-003	-	80		1		
6	100	100.3	PIB-003	-	600		1		
5		REMOVED							
4	100	100.3	PIB-003	-	300		1		
3	100	100.3	PIB-003	-	300		1		
2	100	100.3	PIB-003	-	300		1		
1	100	100.3	PIB-003	-	120		3		

No.	DN	O.D.	Part Description	TYPE	N	V	X	Y	Z	Q-ty	Unit	Remarks
-----	----	------	------------------	------	---	---	---	---	---	------	------	---------

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
----------	-----	-----	-------	------	--	--	-----

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.	THK.	100	100	100	70	
----	----------	----	----------	------	-----	-----	-----	----	--

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 PED	1-1						
---------------	----	------------------	-----	--	--	--	--	--	--

0	AS BUILT. FOR PASSPORT DOC. ONLY								
---	----------------------------------	--	--	--	--	--	--	--	--

REV.	REVISION DESCRIPTION								DATE
------	----------------------	--	--	--	--	--	--	--	------

0	J. Hoffman	D. Kwiatkowski	K. Jaworski						
---	------------	----------------	-------------	--	--	--	--	--	--

REV.	PREPARED BY	SIGN	CHECKED BY	SIGN	APPROVED BY	SIGN			
------	-------------	------	------------	------	-------------	------	--	--	--

INVESTOR:	AB MAZOUK NAFTA								
-----------	-----------------	--	--	--	--	--	--	--	--

PLANT:	VACUUM UNIT								
--------	-------------	--	--	--	--	--	--	--	--

PROJECT TITLE:	VACUUM UNIT REBUILDING								
----------------	------------------------	--	--	--	--	--	--	--	--

LINE NO.:	601/14								
-----------	--------	--	--	--	--	--	--	--	--

 PASSPORT DRAWING PREPARED BY Naftozna DESIGN-ENGINEERING FIELD DIVISION									
--	--	--	--	--	--	--	--	--	--

SIZE	ISO. NO.				SHEET	SHEETS	REV.
------	----------	--	--	--	-------	--------	------

A3	603-50J/54-PK-601/14				11	12	00
----	----------------------	--	--	--	----	----	----

