



Test ID: G4-214#2237	Result: Medium Concern
Pipe: 8" RFO (S4)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 5.2FR, T(0,1)
Location: Weld -2.30 m	Calibration: Automatic (1213.96 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7336'N, 144°41.2378'E
Tested: 20 Jun 2014 13:50	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
S8	13.06	-	0.3	40	Support	Pedestal support
S9	13.1	-	0.15	40	Clamp	U-blot type
W5	14.45	-	0	90	Weld	
A4	16.14	2	0	70	Anomaly	Visual and UT confirm no significant finding
S10	18.82	-	0.3	50	Support	Pedestal support
A5	18.83	1	0.35	40	Medium	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.06"@ 1.5 mm. UT reading adjacent to pit is 7.03 mm. Remaining wall thickness approximately 5.53 mm (21.3% wall loss)
S11	18.92	-	0.15	0	Clamp	U-blot type
W6	20.03	-	0	90	Weld	
A6	21.7	5	0	90	Anomaly	Visual and UT confirm no significant findings
S12	24.84	-	0.3	60	Support	Pedestal support
A7	24.85	2	0.3	60	Medium	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.10"@ 2.5 mm. UT reading adjacent to pit is 7.09 mm. Remaining wall thickness approximately 4.59 mm (35.3% wall loss)
S13	24.94	-	0.15	45	Clamp	U-blot type
W7	25.57	-	0	90	Weld	
A8	27.28	7	0	90	Anomaly	Visual and UT confirm no significant finding



Test ID: G4-214#2237	Result: Medium Concern
Pipe: 8" RFO (S4)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 5.2FR, T(0,1)
Location: Weld -2.30 m	Calibration: Automatic (1213.96 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7336'N, 144°41.2378'E
Tested: 20 Jun 2014 13:50	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
A9	30.64	3	0.35	60	Medium	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.08" @ 2.0 mm. UT reading adjacent to pit is 7.04 mm. Remaining wall thickness approximately 5.04 mm (28.4% wall loss)
S14	30.68	-	0.3	60	Support	Pedestal support
S15	30.78	-	0.15	60	Clamp	U-blot type
W8	31.2	-	0	90	Weld	
U2	31.57	-	~		End	



Ring location



Positive direction



Negative direction



Corrosion under pipe support

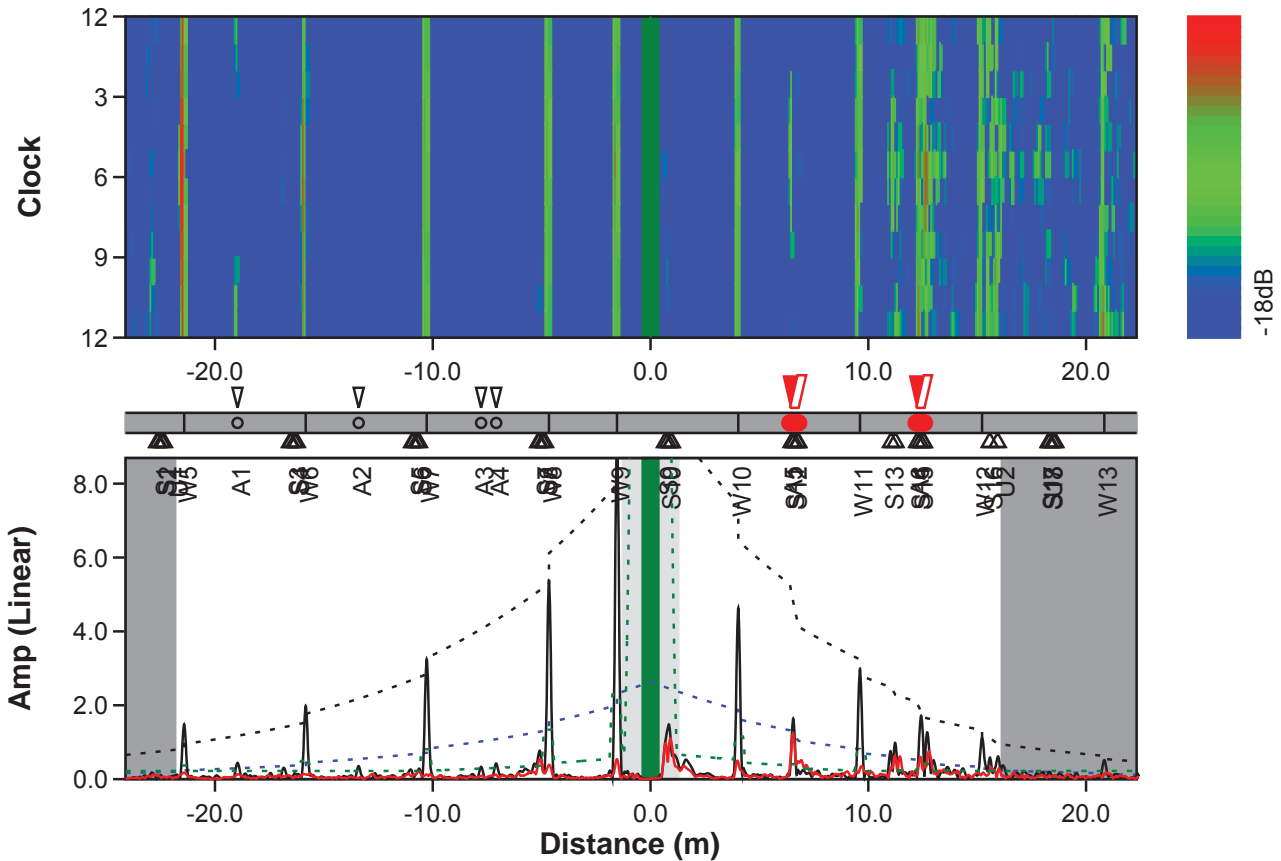


Closed view of corrosion



Test ID: G4-214#2238	Result: Major Concern
Pipe: 8" RFO (S5)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 3.8FR, T(0,1)
Location: Weld -1.54 m	Calibration: Automatic (1995.11 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7190'N, 144°41.2498'E
Tested: 23 Jun 2014 08:03	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 8" RFO-No.6 - Test Point No.: S5
Positive direction with product flow.
Found external corrosion at pipe support (refer class, note and location as table below).
Location of signals measuring from center of ring.
Thickness at ring position are (12 o'clock:7.11 mm), (3 o'clock:7.03 mm), (6 o'clock:7.08 mm), (9 o'clock: 7.06 mm)





Test ID: G4-214#2238	Result: Major Concern
Pipe: 8" RFO (S5)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 3.8FR, T(0,1)
Location: Weld -1.54 m	Calibration: Automatic (1995.11 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7190'N, 144°41.2498'E
Tested: 23 Jun 2014 08:03	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
S1	-22.45	-	0.15	45	Clamp	U-bolt type
S2	-22.35	-	0.3	0	Support	Pedestal support
U1	-21.82	-	~		End	
W5	-21.41	-	0	90	Weld	
A1	-18.96	9	0	70	Anomaly	Visual and UT confirm no significant finding
S3	-16.35	-	0.15	60	Clamp	U-bolt type
S4	-16.25	-	0.3	50	Support	Pedestal support
W6	-15.83	-	0	90	Weld	
A2	-13.4	4	0	90	Anomaly	Visual and UT confirm no significant finding
S5	-10.74	-	0.15	14	Clamp	U-bolt type
S6	-10.64	-	0.3	25	Support	Pedestal support
W7	-10.27	-	0	100	Weld	
A3	-7.78	2	0	70	Anomaly	Visual and UT confirm no significant finding
A4	-7.08	2	0	70	Anomaly	Visual and UT confirm no significant finding
S7	-4.95	-	0.15	8	Clamp	U-bolt type
S8	-4.85	-	0.3	80	Support	Pedestal support
W8	-4.66	-	0	90	Weld	
W9	-1.54	-	0	90	Weld	Datum of screening
S9	0.67	-	0.3	17	Support	Pedestal support
S10	0.8	-	0.15	35	Clamp	U-bolt type
W10	4.03	-	0	90	Weld	



Test ID: G4-214#2238	Result: Major Concern
Pipe: 8" RFO (S5)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 3.8FR, T(0,1)
Location: Weld -1.54 m	Calibration: Automatic (1995.11 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7190'N, 144°41.2498'E
Tested: 23 Jun 2014 08:03	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
A5	6.4	7	0.4	25	Severe	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.22" @ 5.5 mm. UT reading adjacent to pit is 7.01 mm. Remaining wall thickness approximately 1.51 mm (78.5% wall loss)
S11	6.48	-	0.3	25	Support	Pedestal support
S12	6.6	-	0.15	25	Clamp	U-bolt type
W11	9.61	-	0	90	Weld	
S13	11.04	-	0.2	60	Saddle	Patch plate at bottom side
A6	12.2	2	0.38	20	Severe	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.20" @ 5.0 mm. UT reading adjacent to pit is 7.01 mm. Remaining wall thickness approximately 2.01 mm (71.3% wall loss)
S14	12.24	-	0.3	50	Support	Pedestal support
S15	12.38	-	0.15	60	Clamp	U-bolt type
W12	15.22	-	0	80	Weld	
S16	15.57	-	0.36	45	Saddle	Patch plate at bottom side
U2	16.13	-	~		End	



Test ID: G4-214#2238	Result: Major Concern
Pipe: 8" RFO (S5)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 3.8FR, T(0,1)
Location: Weld -1.54 m	Calibration: Automatic (1995.11 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7190'N, 144°41.2498'E
Tested: 23 Jun 2014 08:03	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
S17	18.28	-	0.3	50	Support	Pedestal support
U3	18.33	-	~		End	
S18	18.34	-	0.15	50	Clamp	U-bolt type
W13	20.83	-	0	60	Weld	



Ring location



Positive direction



Negative direction



Corrosion under pipe support

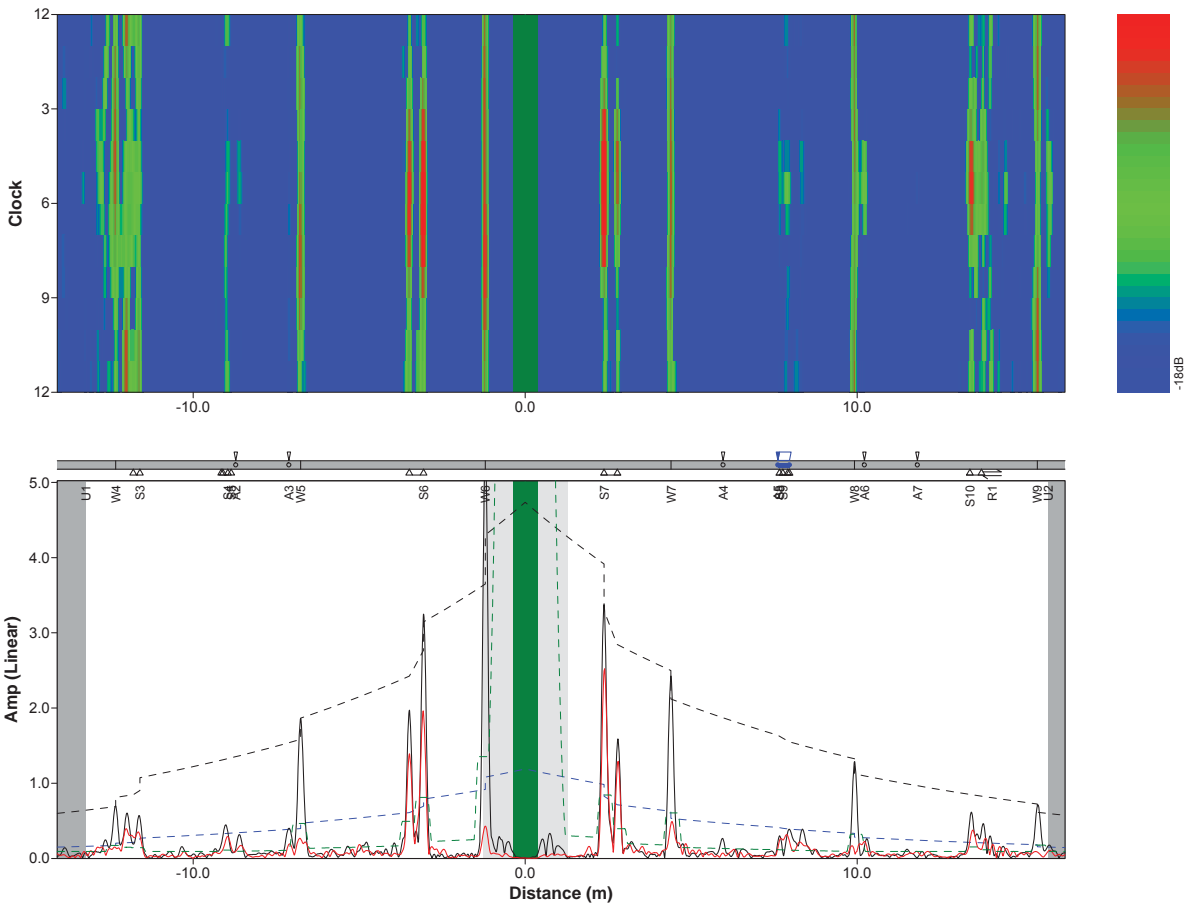


Closed view of corrosion



Test ID: G4-214#2241	Result: Medium Concern
Pipe: 8" RFO (S6)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 5.0FR, T(0,1)
Location: Weld -1.20 m	Calibration: Automatic (1668.56 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7073'N, 144°41.2598'E
Tested: 23 Jun 2014 11:47	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 8" RFO-No.6 - Test Point No.: S6
 Positive direction with product flow.
 Found external corrosion at pipe support (refer class, note and location as table below).
 Location of signals measuring from center of ring.
 Thickness at ring position are (12 o'clock:7.20 mm), (3 o'clock:7.03 mm), (6 o'clock:7.00 mm),
 (9 o'clock: 7.01 mm)





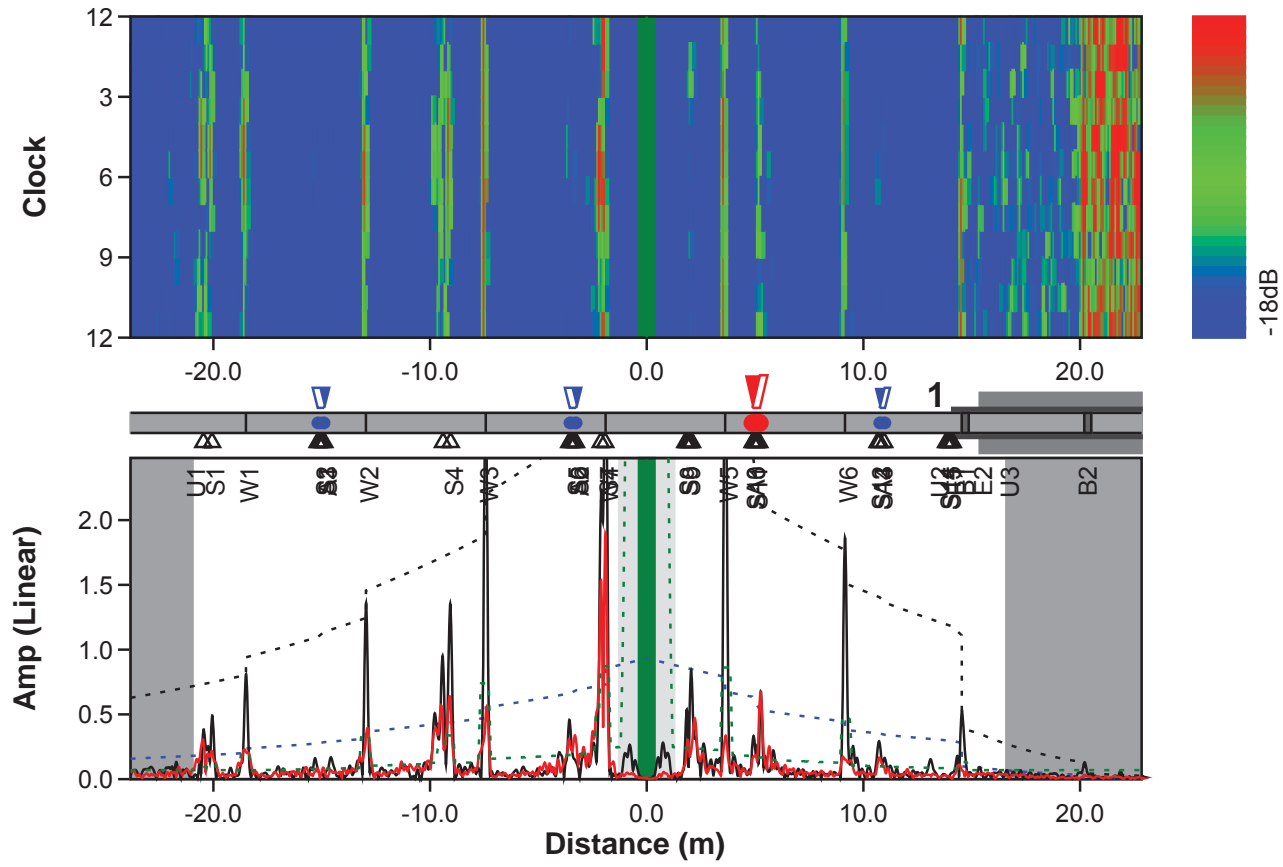
Test ID: G4-214#2241	Result: Medium Concern
Pipe: 8" RFO (S6)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 5.0FR, T(0,1)
Location: Weld -1.20 m	Calibration: Automatic (1668.56 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7073'N, 144°41.2598'E
Tested: 23 Jun 2014 11:47	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
U1	-13.23	-	~		End	
W4	-12.33	-	0	80	Weld	
S3	-11.6	-	0.2	40	Support	Pedestal support
S4	-8.95	-	0.15	35	Clamp	U-bolt type
S5	-8.85	-	0.3	0	Support	Pedestal support
A2	-8.72	5	0	50	Anomaly	UT confirm no significant finding. Minimum remaining thickness is 6.70 mm
A3	-7.12	6	0	50	Anomaly	UT confirm no significant finding. Minimum remaining thickness is 6.80 mm
W5	-6.76	-	0	90	Weld	
S6	-3.06	-	0.43	40	Saddle	Patch plate at bottom side
W6	-1.2	-	0	90	Weld	Datum of screening
S7	2.37	-	0.4	25	Saddle	Patch plate at bottom side
W7	4.39	-	0	80	Weld	
A4	5.96	3	0	70	Anomaly	UT confirm no significant finding. Minimum remaining thickness is 6.90 mm
A5	7.61	4	0.35	18	Medium	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.13" @ 3.3 mm. UT reading adjacent to pit is 7.12 mm. Remaining wall thickness approximately 3.82 mm (46.3% wall loss)
S8	7.65	-	0.3	11	Support	Pedestal support
S9	7.75	-	0.15	0	Clamp	U-bolt type
W8	9.92	-	0	90	Weld	
A6	10.22	6	0	13	Anomaly	UT confirm no significant finding. Minimum remaining thickness is 6.98 mm
A7	11.81	1	0	0	Anomaly	UT confirm no significant finding. Minimum remaining thickness is 6.97 mm
S10	13.39	-	0.35	45	Saddle	Patch plate at bottom side
R1	14.06	-	0	35	Trailing Echoes	False echo
W9	15.42	-	0	90	Weld	
U2	15.75	-	~		End	



Test ID: G4-214#2247	Result: Major Concern
Pipe: 8" RFO (S7)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 4.6FR, T(0,1)
Location: Weld -1.91 m	Calibration: Automatic (1649.3 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.6970'N, 144°41.2701'E
Tested: 24 Jun 2014 11:24	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 8" RFO-No.6 - Test Point No.: S7
 Positive direction with product flow.
 Found external corrosion at pipe support (refer class, note and location as table below).
 Location of signals measuring from center of ring.
 Thickness at ring position are (12 o'clock:7.06 mm), (3 o'clock:7.09 mm), (6 o'clock:7.03 mm), (9 o'clock: 7.01 mm)





Test ID: G4-214#2247	Result: Major Concern
Pipe: 8" RFO (S7)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 4.6FR, T(0,1)
Location: Weld -1.91 m	Calibration: Automatic (1649.3 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.6970'N, 144°41.2701'E
Tested: 24 Jun 2014 11:24	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
S1	-20.06	-	0.4	60	Saddle	
W1	-18.49	-	0	70	Weld	
A1	-14.88	1	0.3	0	Medium	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.13"@ 3.3 mm. UT reading adjacent to pit is 7.12 mm. Remaining wall thickness approximatly 3.82 mm (46.3% wall loss)
S2	-14.98	-	0.1	0	Clamp	
S3	-14.88	-	0.3	0	Support	
W2	-12.95	-	0	70	Weld	
S4	-9.05	-	0.35	50	Saddle	
W3	-7.42	-	0	80	Weld	
S5	-3.37	-	0.1	0	Clamp	
A2	-3.25	1	0.3	0	Medium	Visually confirm corrosion under pipe support (6H00) with max. pit depth approximately 0.13"@ 3.3 mm. UT reading adjacent to pit is 7.12 mm. Remaining wall thickness approximatly 3.82 mm (46.3% wall loss)
S6	-3.27	-	0.3	0	Support	
S7	-1.92	-	0.2	45	Saddle	
W4	-1.89	-	0	45	Weld	Datum of screening
S8	1.78	-	0.3	60	Support	
S9	1.88	-	0.1	45	Clamp	
W5	3.62	-	0	90	Weld	
A3	4.87	3	0.35	50	Severe	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.18"@ 4.5 mm. UT reading adjacent to pit is 6.88 mm. Remaining wall thickness approximatly 2.38 mm (65.4% wall loss)



Test ID: G4-214#2247	Result: Major Concern
Pipe: 8" RFO (S7)	Ring: R2B08(1499)
Site: Inside Terminal	Config: 4.6FR, T(0,1)
Location: Weld -1.91 m	Calibration: Automatic (1649.3 mV)
Size: 8 inch (7.05mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.6970'N, 144°41.2701'E
Tested: 24 Jun 2014 11:24	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

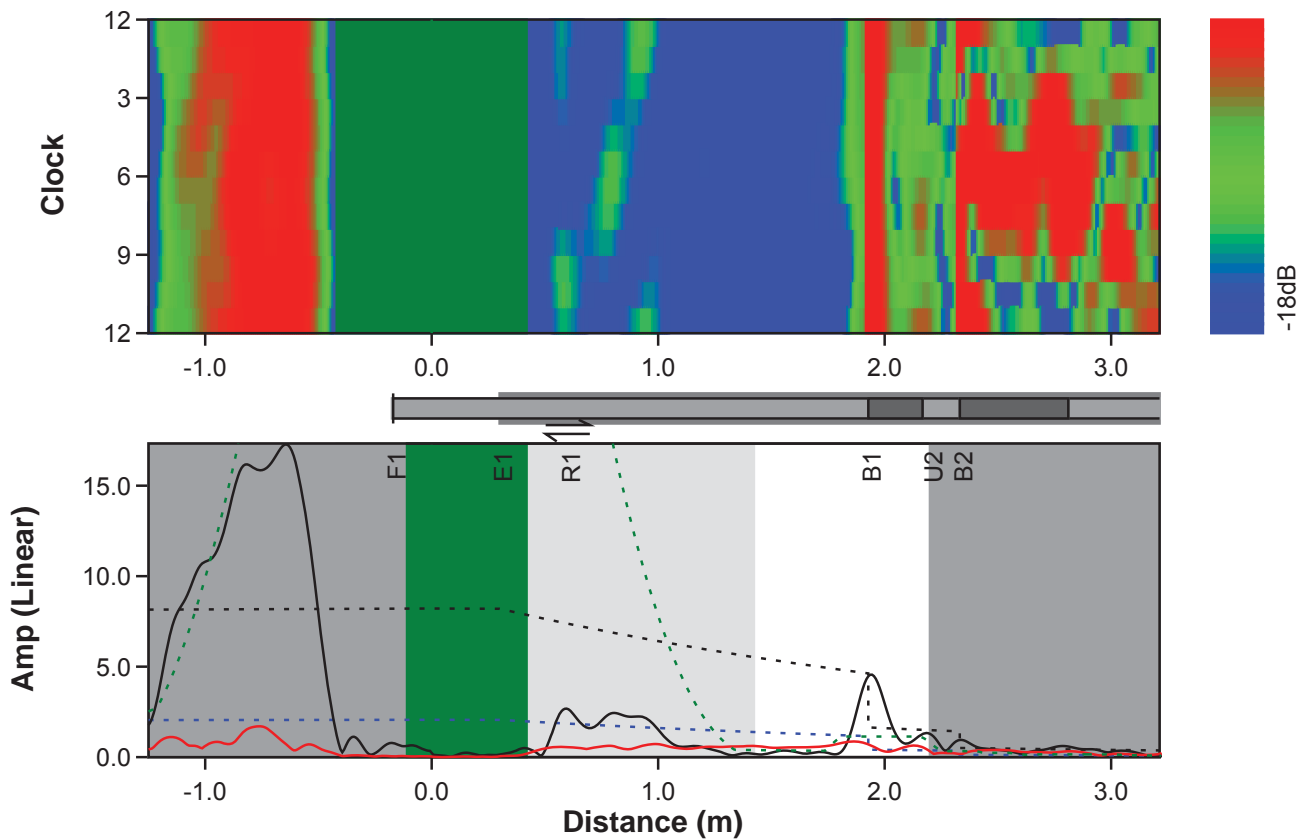
Feature	Location	ECL	Length	Extent	Class	Notes
S10	4.88	-	0.3	50	Support	
S11	4.99	-	0.1	45	Clamp	
W6	9.15	-	0	90	Weld	
S12	10.65	-	0.3	45	Support	
A4	10.74	5	0.25	45	Medium	Visually confirm external corrosion under pipe support (6H00) with max. pit depth approximately 0.08"@ 2.0 mm. UT reading adjacent to pit is 7.08 mm. Remaining wall thickness approximately 5.08 mm (28.2% wall loss)
S13	10.75	-	0	45	Clamp	
U2	13.38	-	0	35	User1	Insert weld patch (0.12x0.10) m
S14	13.82	-	0.3	9	Support	
S15	13.92	-	0.1	9	Clamp	
E1	14.1	-	~	60	Plastic	
B1	14.54	-	0	80	45 deg Bend	
E2	15.36	-	~	50	Earth	
U3	16.59	-	~		End	
B2	20.19	-	0	80	45 deg Bend	
U1	-20.96	-	~		End	

3.5 6"RESIDUAL FUEL OIL (RFO)



Test ID: G4-214#2242	Result: OK
Pipe: 6" RFO (S1)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.4FR, T(0,1)
Location: Falnge -0.17 m	Calibration: Automatic (2162.08 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7419'N, 144°41.1931'E
Tested: 23 Jun 2014 15:39	Client: Vital Energy
Tested by: Khairul Anuar Husain[SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 1 - Test Point No.: S1
Positive direction with product flow.
No corrosion above the reporting level observed in the tested section of the pipe and found satisfactory.
(refer class, note and location as table below).
Location of signals measuring from center of ring.
Thickness at ring position are (12 o'clock:7.70 mm), (3 o'clock:7.58 mm), (6 o'clock:7.53 mm), (9 o'clock: 7.30 mm)





Test ID: G4-214#2242	Result: OK
Pipe: 6" RFO (S1)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.4FR, T(0,1)
Location: Falnge -0.17 m	Calibration: Automatic (2162.08 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7419'N, 144°41.1931'E
Tested: 23 Jun 2014 15:39	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
F1	-0.17	-	0	90	Flange	Datum of screening
E1	0.3	-	~	80	Plastic	Wrapping
R1	0.6	-	0	80	False Echo	
B1	1.92	-	0	80	45 deg Bend	
U2	2.19	-	~		End	
B2	2.33	-	0	60	1D Bend	



Ring location



Positive direction

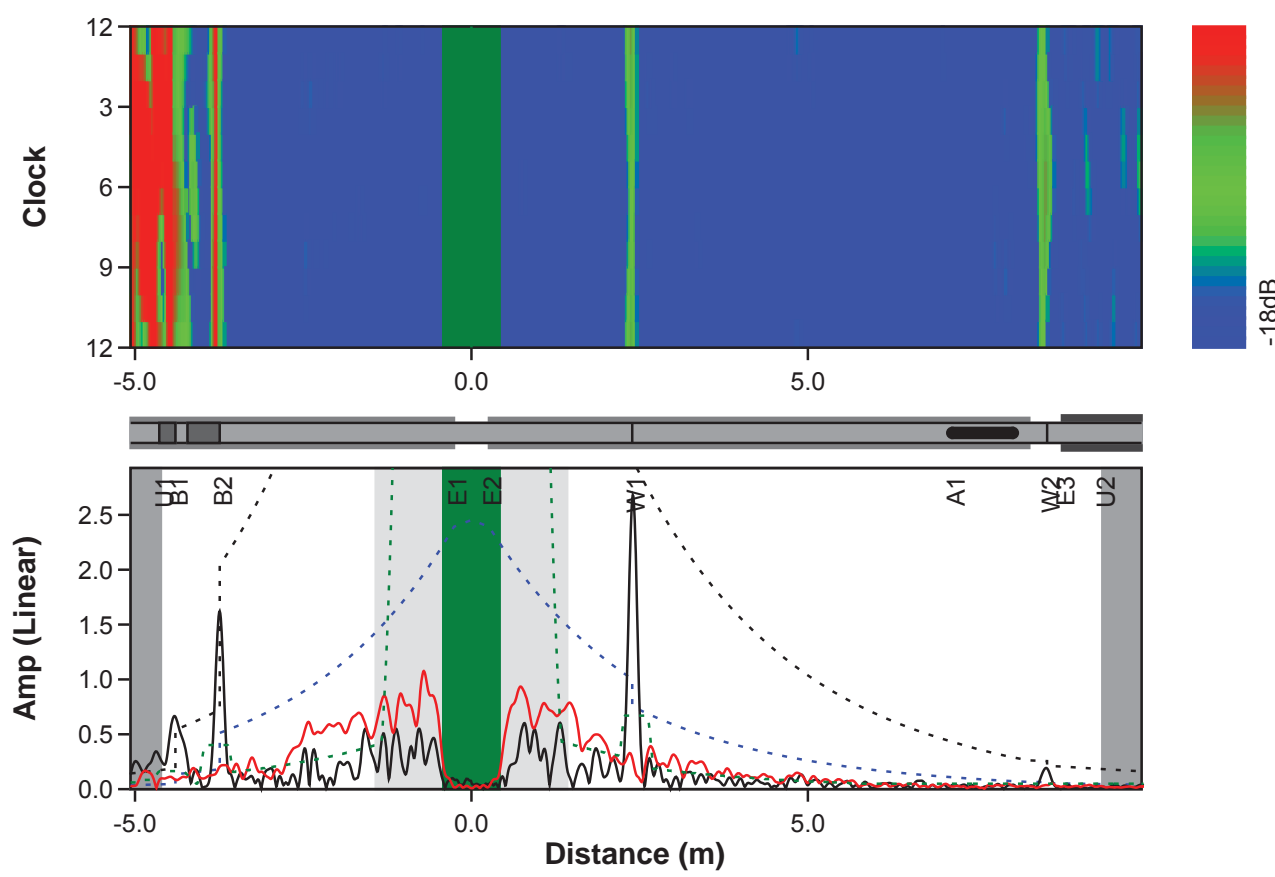


General view of negative direction (manifold 1)



Test ID: G4-214#2244	Result: Minor Concern
Pipe: 6" RFO (S2)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.0FR, T(0,1)
Location: Weld bend -3.72 m	Calibration: Automatic (2313.48 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7441'N, 144°41.1951'E
Tested: 23 Jun 2014 16:20	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 1 - Test Point No.: S2
Positive direction with product flow.
Found external corrosion under wrapping section (refer class, note and location as table below).
Location of signals measuring from center of ring.
Thickness at ring position are (12 o'clock:7.22 mm), (3 o'clock:7.20 mm),
(6 o'clock:7.39 mm), (9 o'clock: 7.34 mm)





Test ID: G4-214#2244	Result: Minor Concern
Pipe: 6" RFO (S2)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.0FR, T(0,1)
Location: Weld bend -3.72 m	Calibration: Automatic (2313.48 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7441'N, 144°41.1951'E
Tested: 23 Jun 2014 16:20	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
U1	-4.61	-	~		End	
B1	-4.4	-	0	80	45 deg Bend	
B2	-3.74	-	0	90	1D Bend	Datum of screening
E1	-0.26	-	~	13	Plastic	Wrapping
E2	0.26	-	8.03	0	Plastic	Wrapping
W1	2.38	15	0	90	Weld	
A1	7.14	2	0.9	15	Minor	Visually confirm general corrosion under wrapping section
W2	8.55	-	0	70	Weld	
E3	8.77	-	2.65	14	Plastic	Wrapping
U2	9.37	-	~		End	
E4	11.4	-	1.37	35	Plastic	Wrapping at bottom side
B3	13.11	-	0	90	45 deg Bend	
E5	13.45	-	0.2	80	Wall	
E6	13.65	-	~	60	Earth	Underground



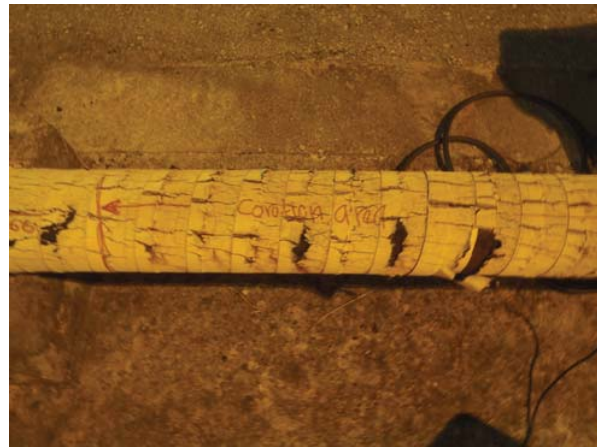
Ring location



Positive direction



Negative direction



Corrosion under wrapping area

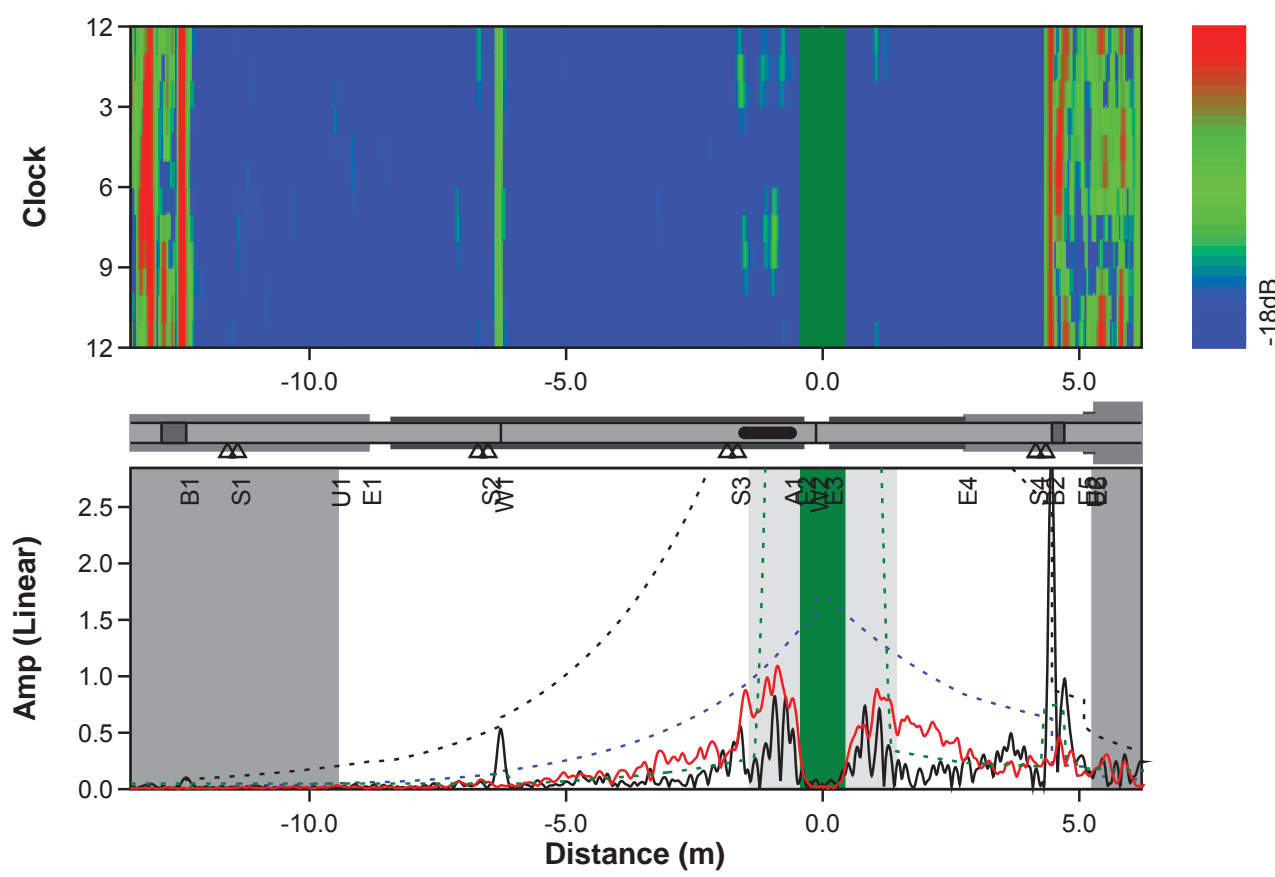


Closed view of corrosion



Test ID: G4-214#2245	Result: Minor Concern
Pipe: 6" RFO (S3)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.0FR, T(0,1)
Location: Weld -0.13 m	Calibration: Automatic (2284.01 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7443'N, 144°41.2000'E
Tested: 23 Jun 2014 17:30	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

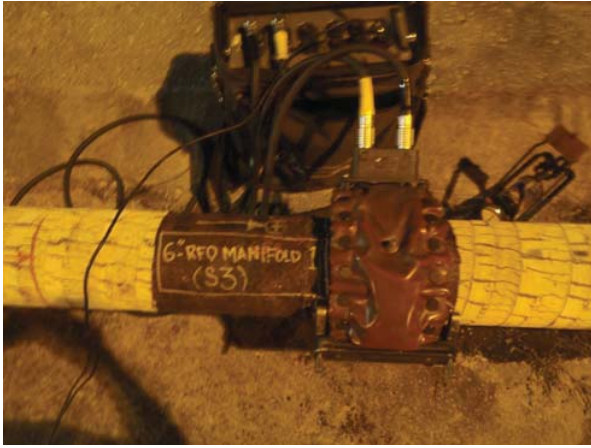
General Notes: 6" RFO-Manifold 1 - Test Point No.: S3
 Positive direction with product flow.
 Found external corrosion under wrapping section (refer class, note and location as table below).
 Location of signals measuring from center of ring.
 Thickness at ring position are (12 o'clock:7.44 mm), (3 o'clock:7.60 mm),
 (6 o'clock:7.27 mm), (9 o'clock: 7.66 mm)





Test ID: G4-214#2245	Result: Minor Concern
Pipe: 6" RFO (S3)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.0FR, T(0,1)
Location: Weld -0.13 m	Calibration: Automatic (2284.01 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7443'N, 144°41.2000'E
Tested: 23 Jun 2014 17:30	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

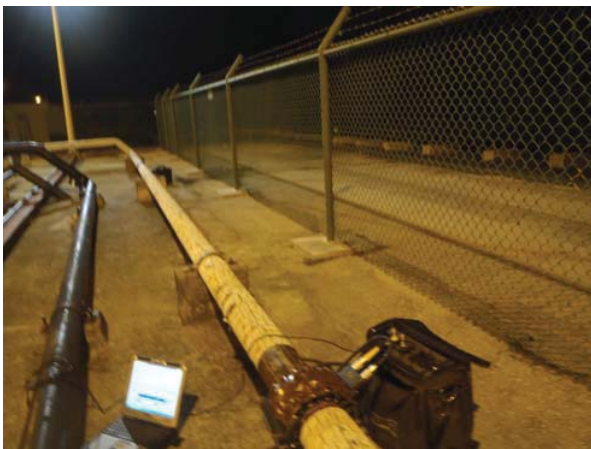
Feature	Location	ECL	Length	Extent	Class	Notes
B1	-12.4	-	0	90	1D Bend	
S1	-11.4	-	0.2	0	Support	
U1	-9.44	-	~		End	
E1	-8.85	-	~	45	Plastic	Wrapping
S2	-6.52	-	0.2	0	Support	Pedestal support
W1	-6.27	-	0	90	Weld	
S3	-1.66	-	0.2	0	Support	Pedestal support
A1	-0.62	3	0.9	0	Minor	Visually confirm general corrosion under wrapping section
E2	-0.38	-	8.02	0	Plastic	Wrapping
W2	-0.13	-	0	70	Weld	Datum of screening
E3	0.15	-	2.61	70	Plastic	Wrapping
E4	2.76	-	~	0	Plastic	Wrapping
S4	4.15	-	0.2	0	Support	Pedestal support
B2	4.46	-	0	90	45 deg Bend	
E5	5.09	-	0.2	50	Wall	
U2	5.25	-	~		End	
E6	5.29	-	~	0	Earth	



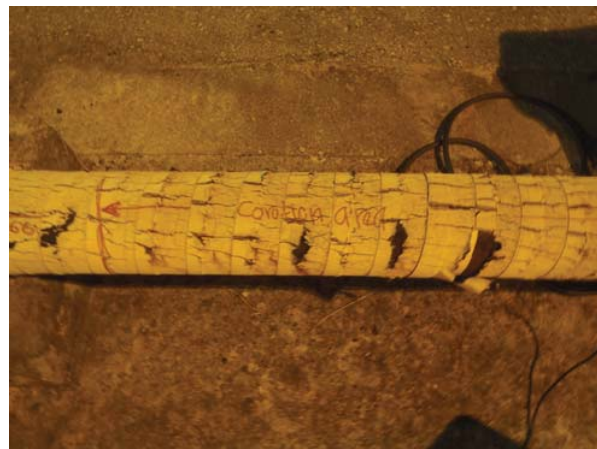
Ring location



Positive direction



Negative direction



Corrosion under wrapping area

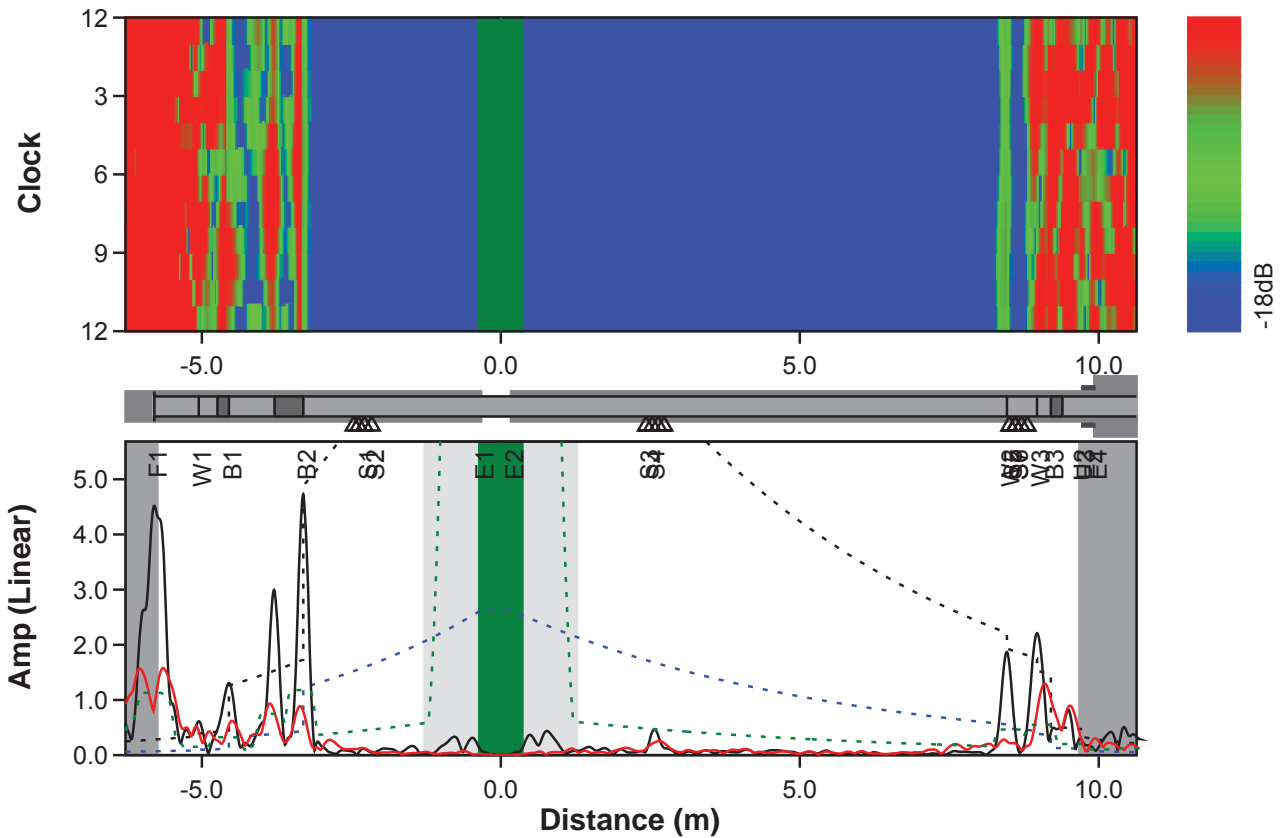


Closed view of corrosion



Test ID: G4-214#2246	Result: OK
Pipe: 6" RFO (S4)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.0FR, T(0,1)
Location: Weld bend -4.54 m	Calibration: Automatic (2616.4 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7465'N, 144°41.1973'E
Tested: 23 Jun 2014 18:05	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 2 - Test Point No.: S4
Positive direction with product flow.
No corrosion above the reporting level observed in the tested section of the pipe and found satisfactory.
(refer class, note and location as table below).
Location of signals measuring from center of ring.
Thickness at ring position are (12 o'clock:10.25 mm), (3 o'clock:10.69 mm), (6 o'clock:11.39 mm), (9 o'clock: 10.81 mm)





Test ID: G4-214#2246	Result: OK
Pipe: 6" RFO (S4)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.0FR, T(0,1)
Location: Weld bend -4.54 m	Calibration: Automatic (2616.4 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7465'N, 144°41.1973'E
Tested: 23 Jun 2014 18:05	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
F1	-5.79	-	0	70	Flange	
W1	-5.05	-	0	15	Weld	
B1	-4.54	-	0	50	45 deg Bend	
B2	-3.3	-	0	80	1D Bend	Datum of screening
S1	-2.27	-	0.1	0	Clamp	U-bolt type
S2	-2.16	-	0.3	0	Support	Pedestal support
E1	-0.33	-	~	90	Plastic	Wrapping
E2	0.17	-	~	80	Plastic	Wrapping
S3	2.43	-	0.3	35	Support	Pedestal support
S4	2.52	-	0.1	50	Clamp	Pedestal support
W2	8.46	-	0	80	Weld	
S5	8.5	-	0.3	90	Support	Pedestal support
S6	8.6	-	0.1	80	Clamp	U-bolt type
S7	8.6	-	0	80	Clamp	U-bolt type
W3	8.96	30	0	50	Weld	
B3	9.19	-	0	0	45 deg Bend	
U2	9.67	-	~		End	
E3	9.72	-	0.2	0	Wall	
E4	9.92	-	~	0	Earth	Underground



Ring location



Positive direction

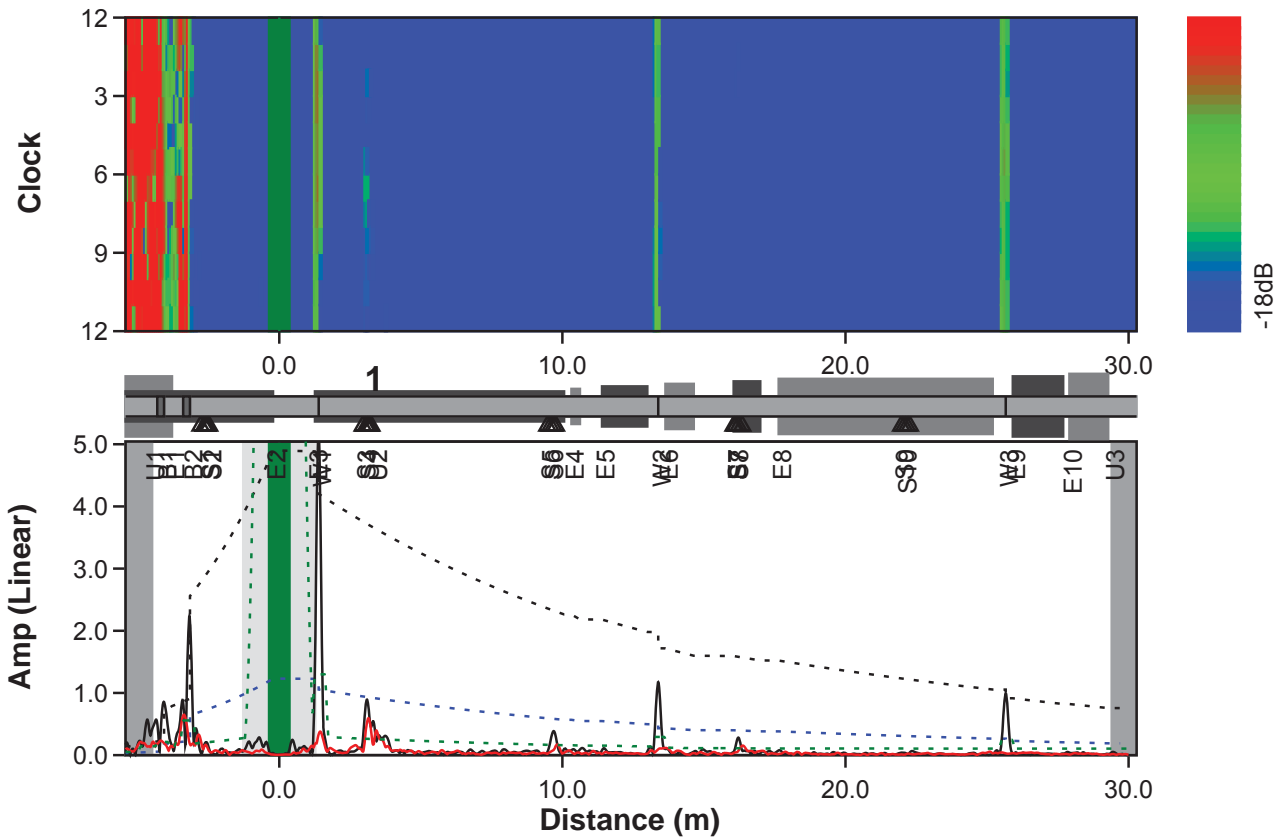


Negative direction



Test ID: G4-214#2249	Result: OK
Pipe: 6" RFO (S5)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.2FR, T(0,1)
Location: Weld +1.40 m	Calibration: Automatic (1587.28 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7499'N, 144°41.2060'E
Tested: 24 Jun 2014 12:41	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 2 - Test Point No.: S5
 Positive direction with product flow.
 No corrosion above the reporting level observed in the tested section of the pipe and found satisfactory.
 (refer class, note and location as table below).
 Location of signals measuring from center of ring.
 Thickness at ring position are (12 o'clock:11.15 mm), (3 o'clock:11.40 mm), (6 o'clock:11.49 mm), (9 o'clock: 11.97 mm)





Test ID: G4-214#2249	Result: OK
Pipe: 6" RFO (S5)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.2FR, T(0,1)
Location: Weld +1.40 m	Calibration: Automatic (1587.28 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7499'N, 144°41.2060'E
Tested: 24 Jun 2014 12:41	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
U1	-4.49	-	~		End	
B1	-4.07	-	0	70	45 deg Bend	
E1	-3.79	-	~	30	Earth	Underground
B2	-3.15	-	0	90	45 deg Bend	
S1	-2.54	-	0.1	20	Clamp	U-bolt type
S2	-2.48	-	0.3	35	Support	Pedestal support
E2	-0.22	-	~	70	Plastic	Wrapping
E3	1.26	-	8.8	90	Plastic	Wrapping
W1	1.39	25	0	90	Weld	Datum of screening
S3	2.95	-	0.3	70	Support	Pedestal support
S4	3.07	-	0.1	35	Clamp	U-bolt type
U2	3.37	-	0	25	User1	Tack weld - cathodic protection
S5	9.47	-	0.3	70	Support	Pedestal support
S6	9.58	-	0.1	80	Clamp	U-bolt type
E4	10.32	-	0.3	20	Plastic	Wrapping
E5	11.4	-	1.6	70	Plastic	Wrapping
W2	13.38	14	0	90	Weld	
E6	13.64	-	1	0	Plastic	Wrapping
E7	16.05	-	0.94	80	Plastic	Wrapping
S7	16.05	-	0.3	60	Support	Pedestal support
S8	16.12	-	0.1	80	Clamp	U-bolt type
E8	17.64	-	7.56	70	Plastic	Wrapping
S9	21.97	-	0.3	70	Support	Pedestal support
S10	22.07	-	0.1	70	Clamp	U-bolt type
W3	25.66	20	0	100	Weld	
E9	25.91	-	1.78	60	Plastic	Wrapping
E10	27.91	-	1.37	70	Plastic	Wrapping
U3	29.4	-	~		End	



Ring location



Positive direction

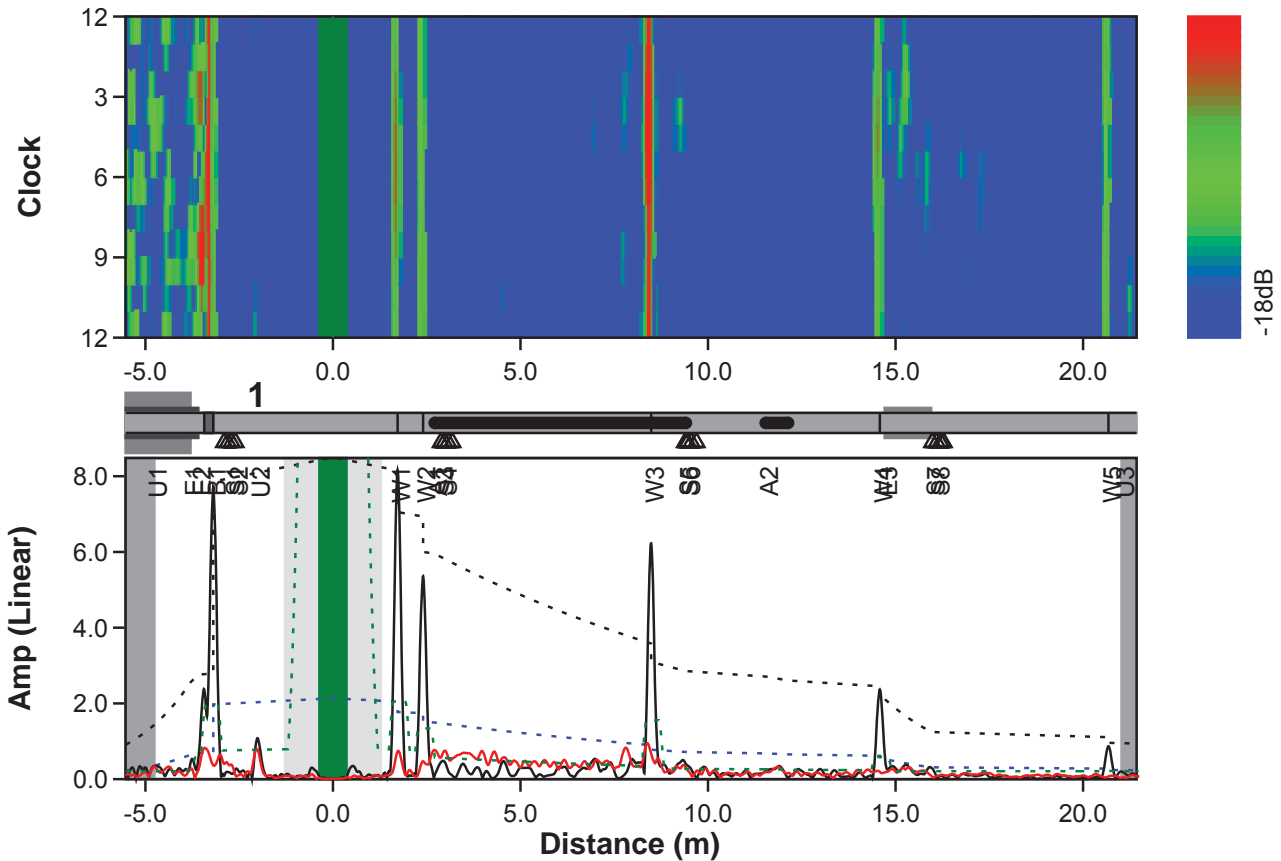


Negative direction



Test ID: G4-214#2250	Result: Minor Concern
Pipe: 6" RFO (S6)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.4FR, T(0,1)
Location: Weld +1.72 m	Calibration: Automatic (2273.6 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7519'N, 144°41.2049'E
Tested: 24 Jun 2014 13:44	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 1 - Test Point No.: S6
Positive direction with product flow.
Found general external corrosion (refer class, note and location as table below).
Location of signals measuring from center of ring.
Thickness at ring position are (12 o'clock:7.24 mm), (3 o'clock:7.26 mm), (6 o'clock:6.70 mm), (9 o'clock: 7.08 mm)





Test ID: G4-214#2250	Result: Minor Concern
Pipe: 6" RFO (S6)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.4FR, T(0,1)
Location: Weld +1.72 m	Calibration: Automatic (2273.6 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7519'N, 144°41.2049'E
Tested: 24 Jun 2014 13:44	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
U1	-4.75	-	~		End	
E1	-3.79	-	~	45	Earth	Underground
E2	-3.58	-	~	60	Plastic	Wrapping
B1	-3.19	-	0	90	45 deg Bend	
S1	-2.7	-	0.1	0	Clamp	U-bolt type
S2	-2.6	-	0.3	0	Support	Pedestal support
U2	-2.01	-	0	25	User1	Tack weld - Cathodic protection
W1	1.72	-	0	90	Weld	Datum of screening
W2	2.4	-	0	90	Weld	
A1	2.71	1	6.7	0	Minor	Visually confirm general external corrosion
S3	2.88	-	0.3	0	Support	Pedestal support
S4	2.97	-	0.1	0	Clamp	U-bolt type
W3	8.48	-	0	90	Weld	
S5	9.39	-	0.3	25	Support	Pedestal support
S6	9.46	-	0.1	25	Clamp	
A2	11.53	2	0.6	25	Minor	Visually confirm general external corrosion
W4	14.58	-	0	90	Weld	
E3	14.71	-	1.24	90	Plastic	Wrapping
S7	15.98	-	0.3	70	Support	Pedestal support
S8	16.1	-	0.1	50	Clamp	U-bolt type
W5	20.67	-	0	90	Weld	
U3	21.02	-	~		End	
E4	21.53	-	0.35	0	Plastic	Wrapping
S9	21.92	-	0.3	0	Support	Pedestal support
S10	22	-	0.1	25	Clamp	U-bolt type
E5	22.28	-	2.65	0	Plastic	Wrapping



Ring location



Positive direction



Negative direction



General corrosion

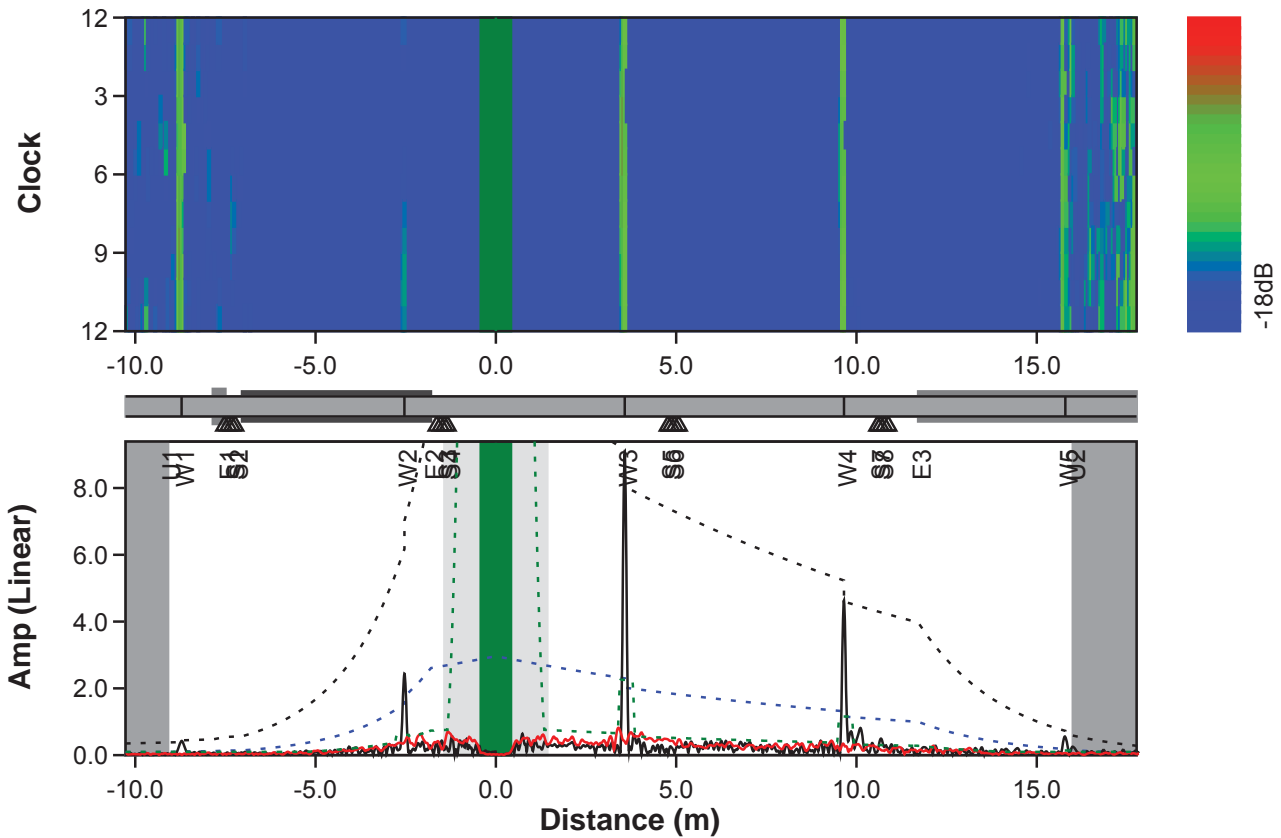


Closed view of corrosion



Test ID: G4-214#2251	Result: OK
Pipe: 6" RFO (S7)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.4FR, T(0,1)
Location: Weld +3.57 m	Calibration: Automatic (2051.37 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7589'N, 144°41.2211'E
Tested: 25 Jun 2014 07:58	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 1 - Test Point No.: S7
 Positive direction with product flow.
 No corrosion above the reporting level observed in the tested section of the pipe and found satisfactory.
 (refer class, note and location as table below).
 Location of signals measuring from center of ring.
 Thickness at ring position are (12 o'clock:6.84 mm), (3 o'clock:7.44 mm), (6 o'clock:7.97 mm), (9 o'clock:7.17 mm)





Test ID: G4-214#2251	Result: OK
Pipe: 6" RFO (S7)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 0.4FR, T(0,1)
Location: Weld +3.57 m	Calibration: Automatic (2051.37 mV)
Size: 6 inch (7.1mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7589'N, 144°41.2211'E
Tested: 25 Jun 2014 07:58	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
U1	-9.08	-	~		End	
W1	-8.71	-	0	90	Weld	
E1	-7.5	-	0.35	45	Plastic	Wrapping
S1	-7.32	-	0.1	18	Clamp	U-bolt type
S2	-7.23	-	0.3	18	Support	Pedestal support
W2	-2.53	-	0	80	Weld	Weld with small cap size
E2	-1.8	-	5.24	0	Plastic	Wrapping
S3	-1.43	-	0.1	0	Clamp	U-bolt type
S4	-1.34	-	0.3	0	Support	Pedestal support
W3	3.57	-	0	90	Weld	Datum of screening
S5	4.76	-	0.3	0	Support	Pedestal support
S6	4.86	-	0.1	0	Clamp	U-bolt type
W4	9.65	-	0	90	Weld	
S7	10.58	-	0.3	40	Support	Pedestal support
S8	10.67	-	0.1	60	Clamp	U-bolt type
E3	11.71	-	~	0	Plastic	Wrapping
W5	15.79	-	0	90	Weld	
U2	15.99	-	~		End	



Ring location



Positive direction

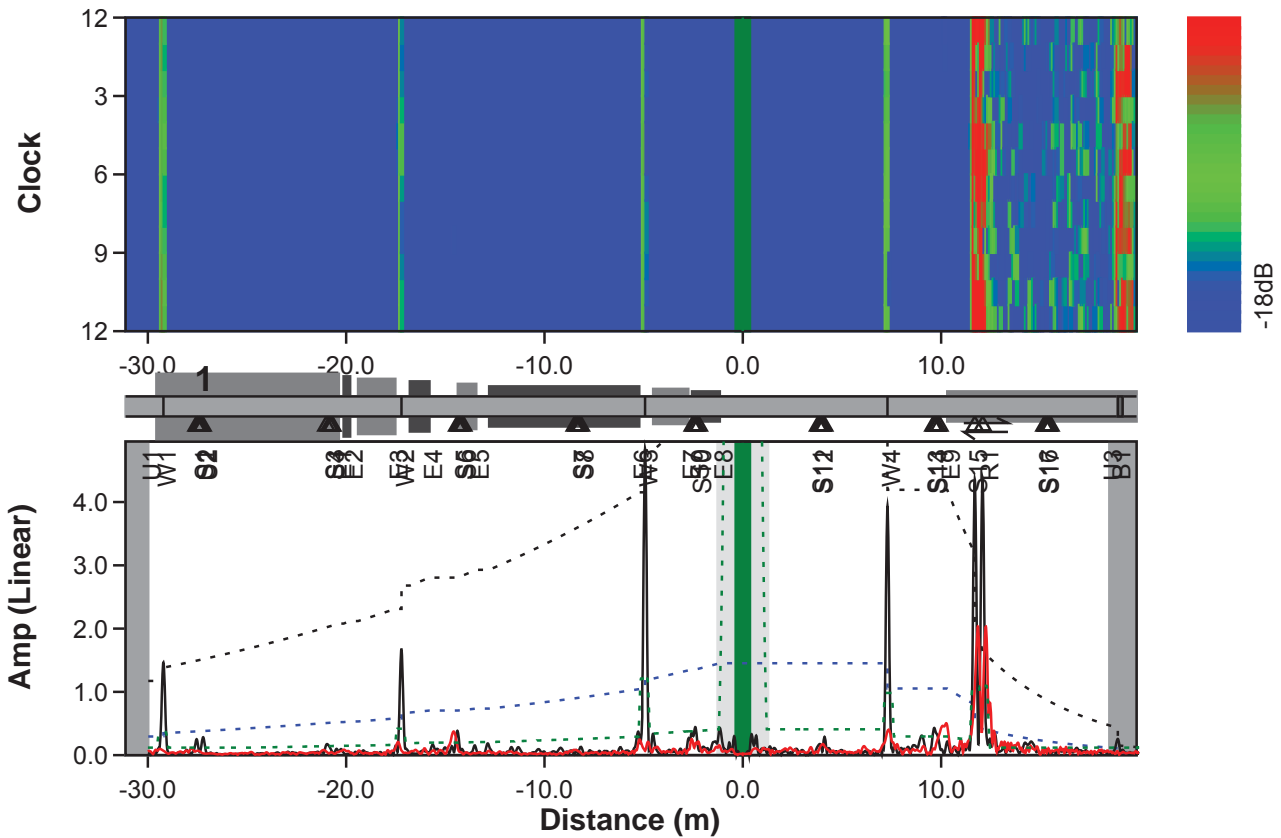


Negative direction



Test ID: G4-214#2253	Result: OK
Pipe: 6" RFO (S8)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.6FR, T(0,1)
Location: Weld -4.91 m	Calibration: Automatic (3118.49 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7588'N, 144°41.2217'E
Tested: 25 Jun 2014 08:55	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

General Notes: 6" RFO-Manifold 2 - Test Point No.: S8
 Positive direction with product flow.
 No corrosion above the reporting level observed in the tested section of the pipe and found satisfactory.
 (refer class, note and location as table below).
 Location of signals measuring from center of ring.
 Thickness at ring position are (12 o'clock:11.21 mm), (3 o'clock:11.35 mm), (6 o'clock:11.12 mm), (9 o'clock: 11.21 mm)





Test ID: G4-214#2253	Result: OK
Pipe: 6" RFO (S8)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.6FR, T(0,1)
Location: Weld -4.91 m	Calibration: Automatic (3118.49 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7588'N, 144°41.2217'E
Tested: 25 Jun 2014 08:55	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
U1	-29.98	-	~		End	
W1	-29.21	25	0	90	Weld	
S1	-27.34	-	0.1	60	Clamp	U-bolt type
S2	-27.24	-	0.3	90	Support	Pedestal support
U2	-27.14	-	0	90	User1	Tack weld - Cathodic protection
S3	-20.75	-	0.1	60	Clamp	U-bolt type
S4	-20.7	-	0.3	45	Support	Pedestal support
E1	-20.37	-	9.2	25	Plastic	Wrapping
E2	-19.8	-	0.33	0	Plastic	Wrapping
E3	-17.52	-	1.88	0	Plastic	Wrapping
W2	-17.21	14	0	90	Weld	
E4	-15.8	-	0.99	50	Plastic	Wrapping
S5	-14.21	-	0.1	50	Clamp	U-bolt type
S6	-14.1	-	0.3	60	Support	Pedestal support
E5	-13.44	-	0.93	80	Plastic	Wrapping
S7	-8.27	-	0.1	40	Clamp	U-bolt type
S8	-8.17	-	0.3	60	Support	Pedestal support
E6	-5.22	-	7.57	35	Plastic	Wrapping
W3	-4.92	25	0	100	Weld	Datum of screening
E7	-2.75	-	1.77	70	Plastic	Wrapping
S9	-2.34	-	0.1	60	Clamp	U-bolt type
S10	-2.22	-	0.3	0	Support	Pedestal support
E8	-1.15	-	1.4	60	Plastic	Wrapping
S11	3.8	-	0.3	40	Support	Pedestal support
S12	3.9	-	0.1	11	Clamp	U-bolt type
W4	7.29	16	0	90	Weld	
S13	9.61	-	0.3	80	Support	Pedestal support
S14	9.69	-	0.1	60	Clamp	U-bolt type
E9	10.31	-	~	0	Plastic	Wrapping



Test ID: G4-214#2253	Result: OK
Pipe: 6" RFO (S8)	Ring: R2B06(1504)
Site: Inside Terminal	Config: 1.6FR, T(0,1)
Location: Weld -4.91 m	Calibration: Automatic (3118.49 mV)
Size: 6 inch (10.975mm)	Version: 3.103, Wavemaker G4-214
	GPS: 13°27.7588'N, 144°41.2217'E
Tested: 25 Jun 2014 08:55	Client: Vital Energy
Tested by: Khairul Anuar Husain [SGS]	Procedure: WI-TM-065/Ver.00/27.04.2011
	DACs: Call=6%, Weld=23%

Feature	Location	ECL	Length	Extent	Class	Notes
S15	11.69	-	0.4	70	Saddle	Patch plate at bottom side
R1	12.25	-	0	0	Reverb.	False echo
S16	15.21	-	0.3	7	Support	Pedestal support
S17	15.31	-	0.1	7	Clamp	U-bolt type
U3	18.48	-	~		End	
B1	18.91	-	0	80	45 deg Bend	



Ring location



Positive direction

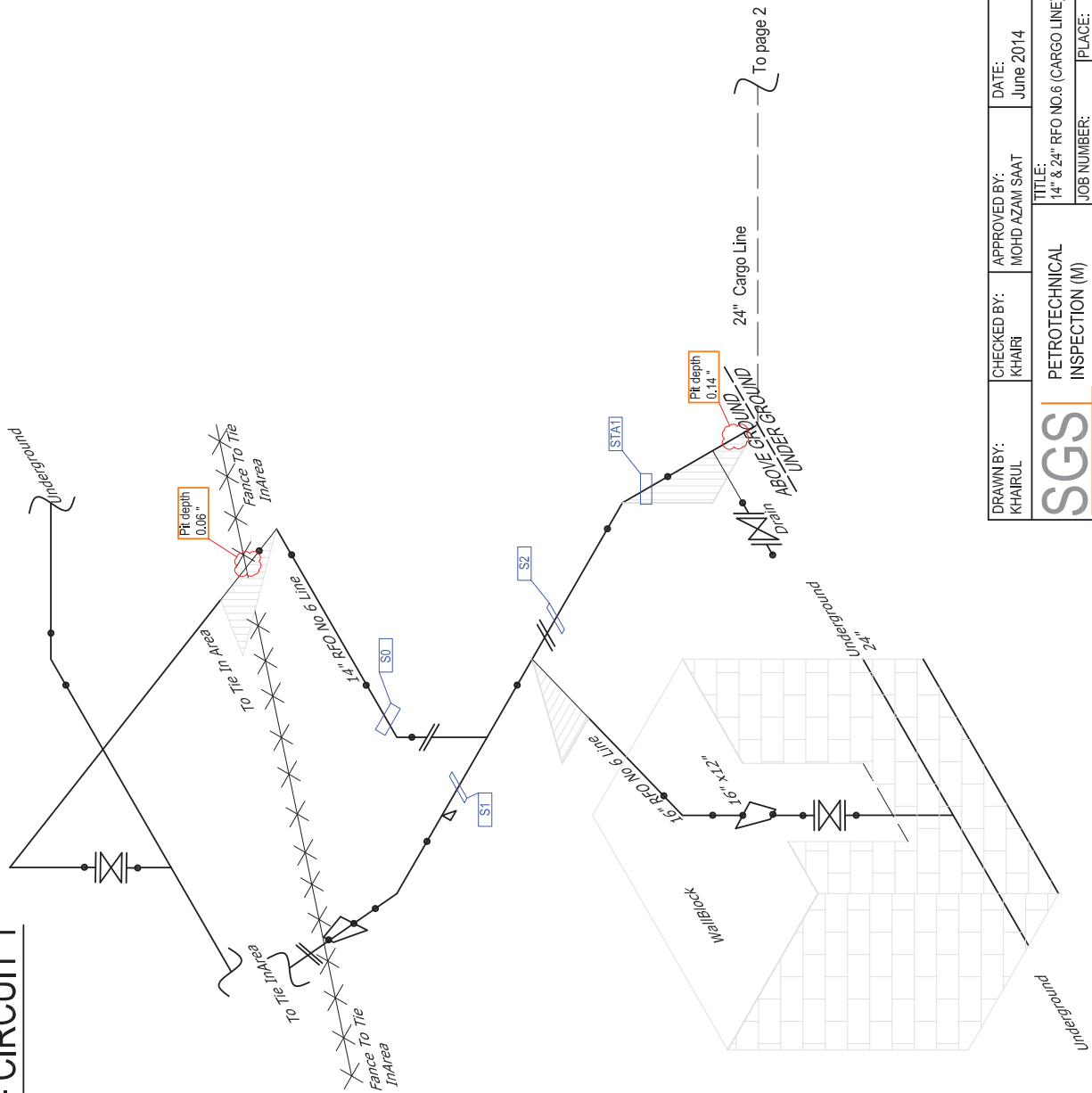


Negative direction

4.0 PIPELINE ISOMETRIC DRAWING

OUTSIDE TERMINAL - CIRCUIT 1

Tie In Area



DRAWN BY: KHARUL	CHECKED BY: KHAIRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 1
PLACE: SDN BHD.			PLACE: VITAL ENERGY, GUAMI, USA	

OUTSIDE TERMINAL - CIRCUIT 1

Road area



To page 3

V₅

V₄

V₃

V₂

V₁


SS

2" Cargo Line

Avg. Pit depth
0.05"

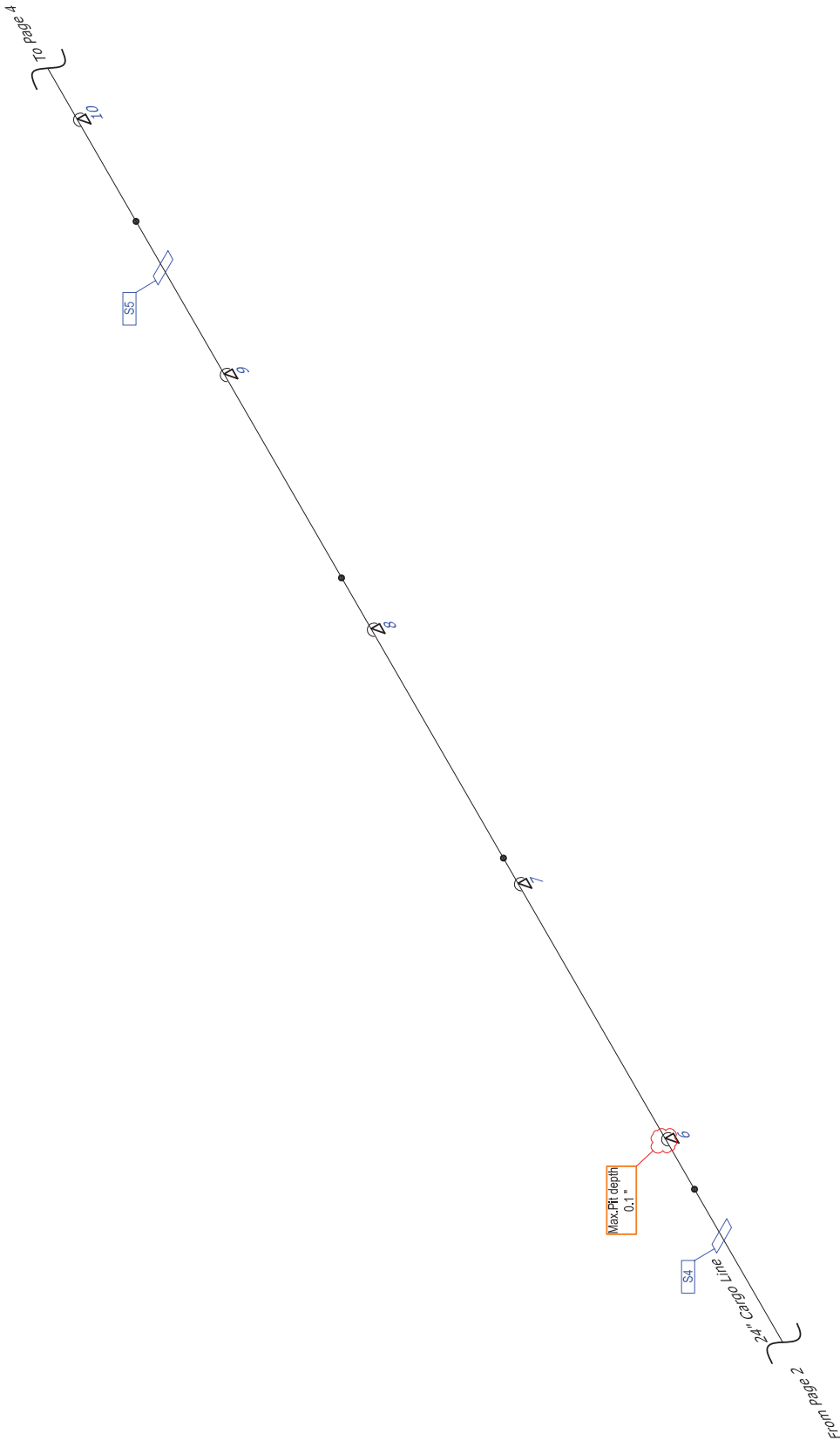
ABOVE GROUND
UNDER GROUND

From page 1


DRAWN BY: KHAIRUL	CHECKED BY: KHAIRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
			TITLE: 24" RFO NO.6 (CARGO LINE)	PAGE: 2
PETROTECHNICAL INSPECTION (M) SDN BHD.			JOB NUMBER: 10110709	PLACE: VITAL ENERGY, GUAMI, USA

OUTSIDE TERMINAL - CIRCUIT 1

Road area

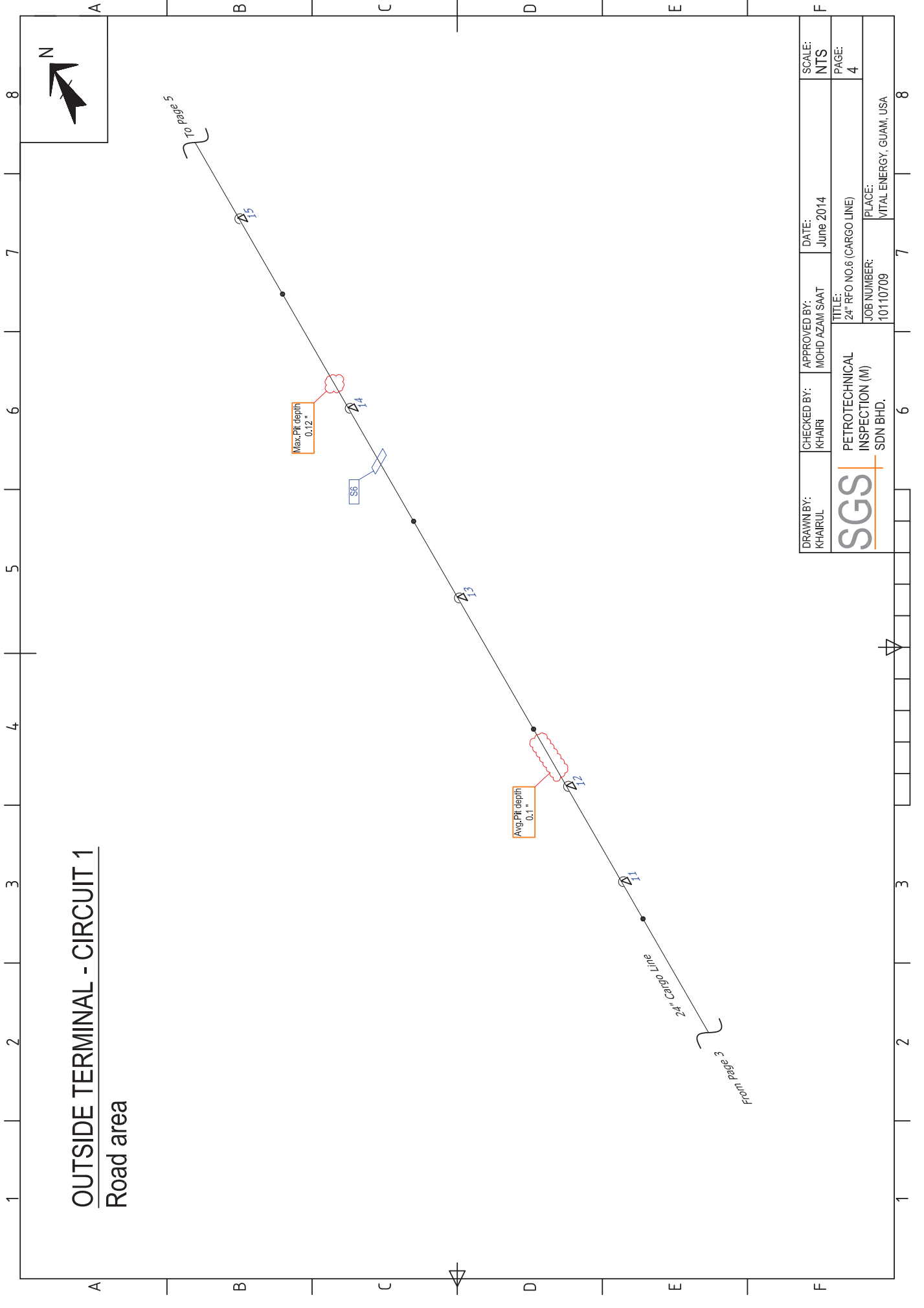


Max. Pit depth
0.1"

DRAWN BY: KHAIRUL	CHECKED BY: KHAIRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M) SDN BHD.			JOB NUMBER: 10110709	PAGE: 3
			PLACE: VITAL ENERGY, GUAMI, USA	

OUTSIDE TERMINAL - CIRCUIT 1

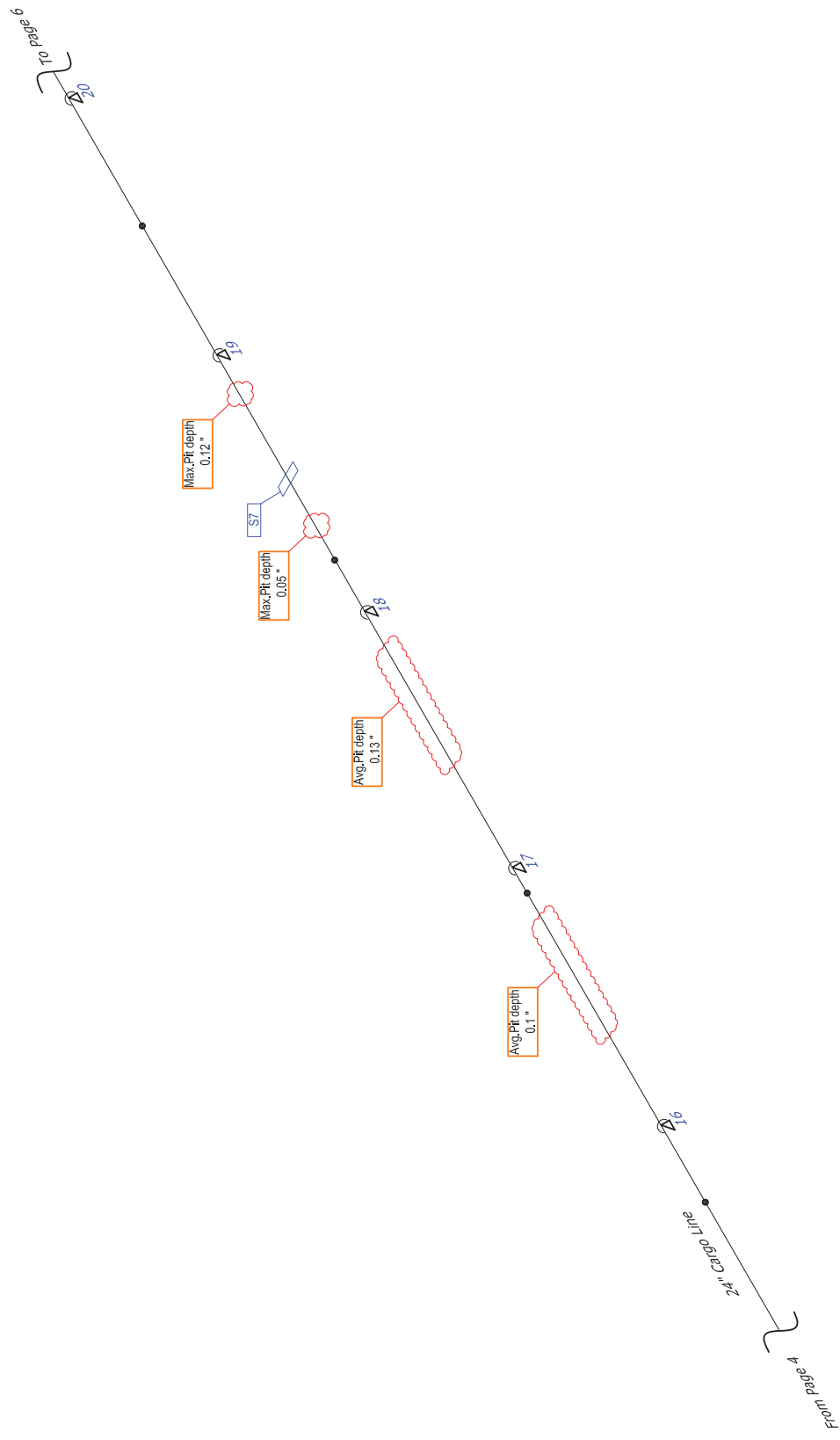
Road area



DRAWN BY: KHAIRUL	CHECKED BY: KHAIRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			24" RFO NO.6 (CARGO LINE)	PAGE: 4
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

OUTSIDE TERMINAL - CIRCUIT 1

Road area

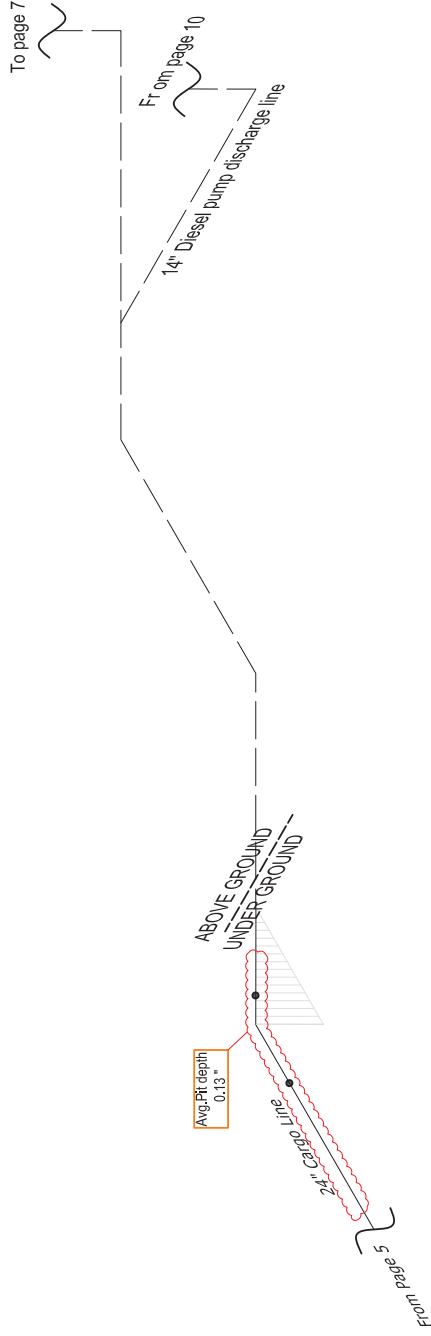


DRAWN BY: KHAIRUL	CHECKED BY: KHAIRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 5	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	



OUTSIDE TERMINAL - CIRCUIT 1

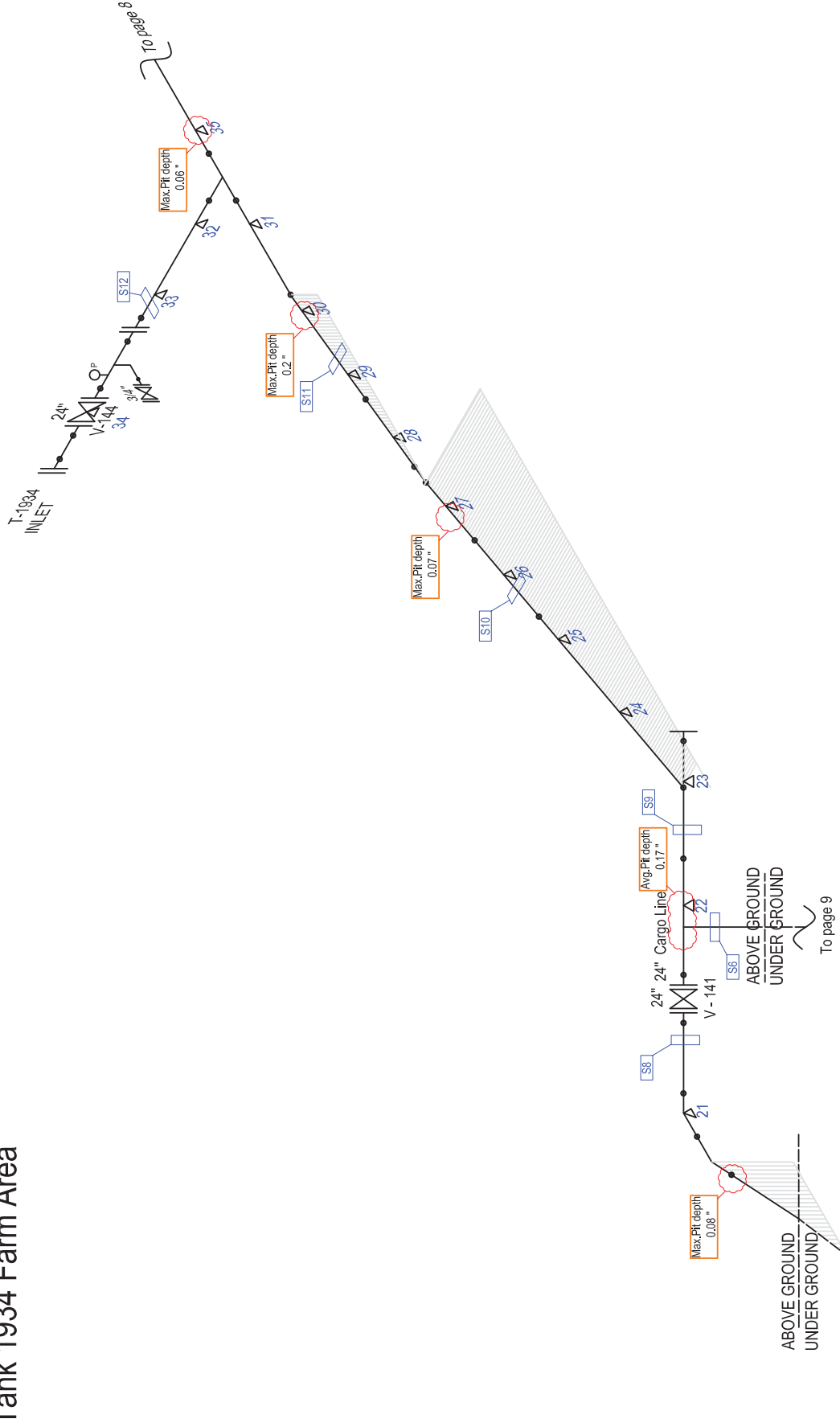
Road area



DRAWN BY: KHAIRUL	CHECKED BY: KHAIRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 6
SDN BHD.			PLACE: VITAL ENERGY, GUAMI, USA	

INSIDE TERMINAL - CIRCUIT 1

Tank 1934 Farm Area



DRAWN BY: MOHD. KHAIRI	CHECKED BY: MAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: June 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 7
PLACE: SDN BHD.			PLACE: VITAL ENERGY, GUAMI, USA	

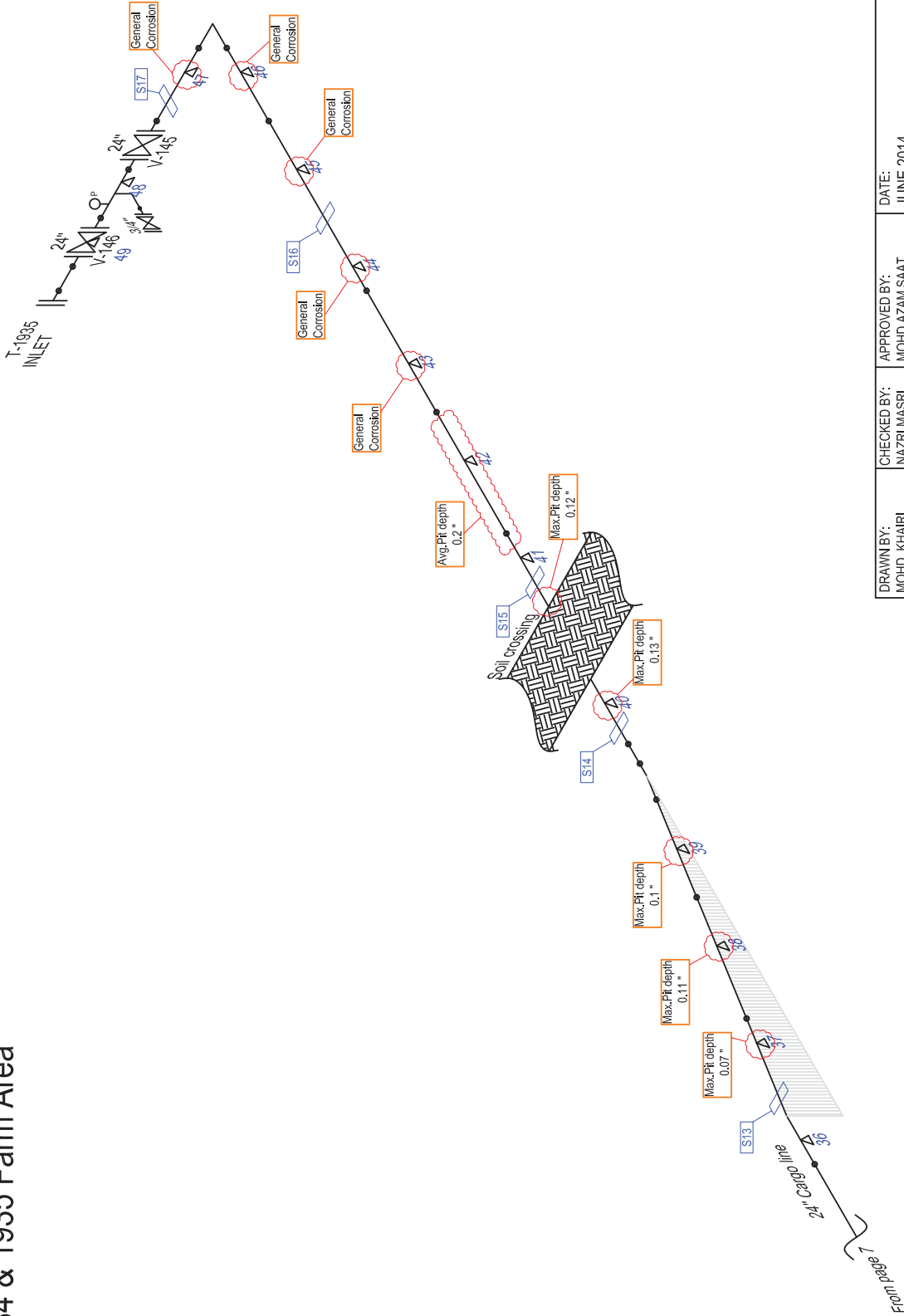
Note:-
Drawing for inspection used only

From page 6

To page 9

INSIDE TERMINAL - CIRCUIT 1

Tank 1934 & 1935 Farm Area

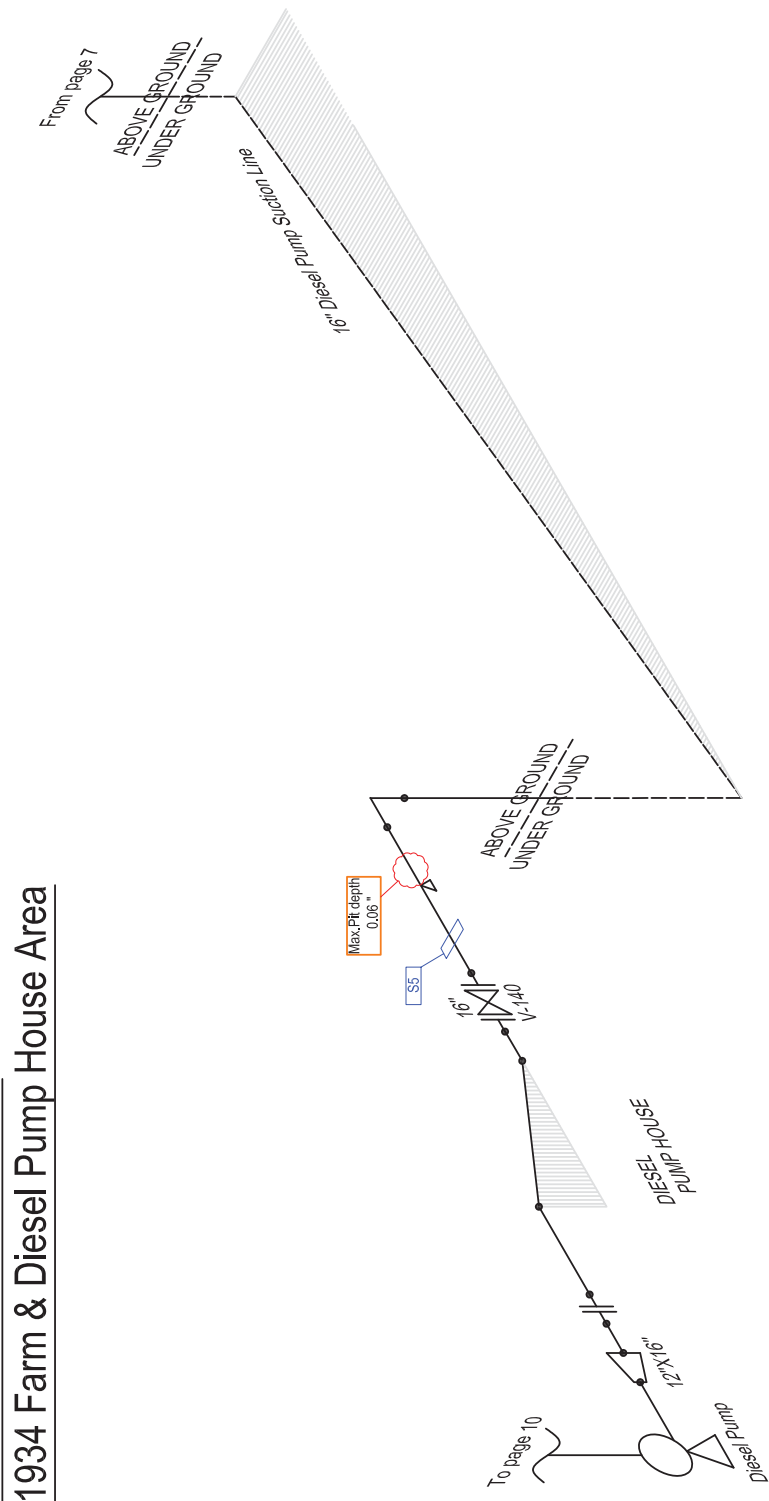


DRAWN BY: MOHD. KHAIRI	CHECKED BY: MAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			TITLE: 24" RFO NO.6 (CARGO LINE)	PAGE: 8
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 1

Tank 1934 Farm & Diesel Pump House Area

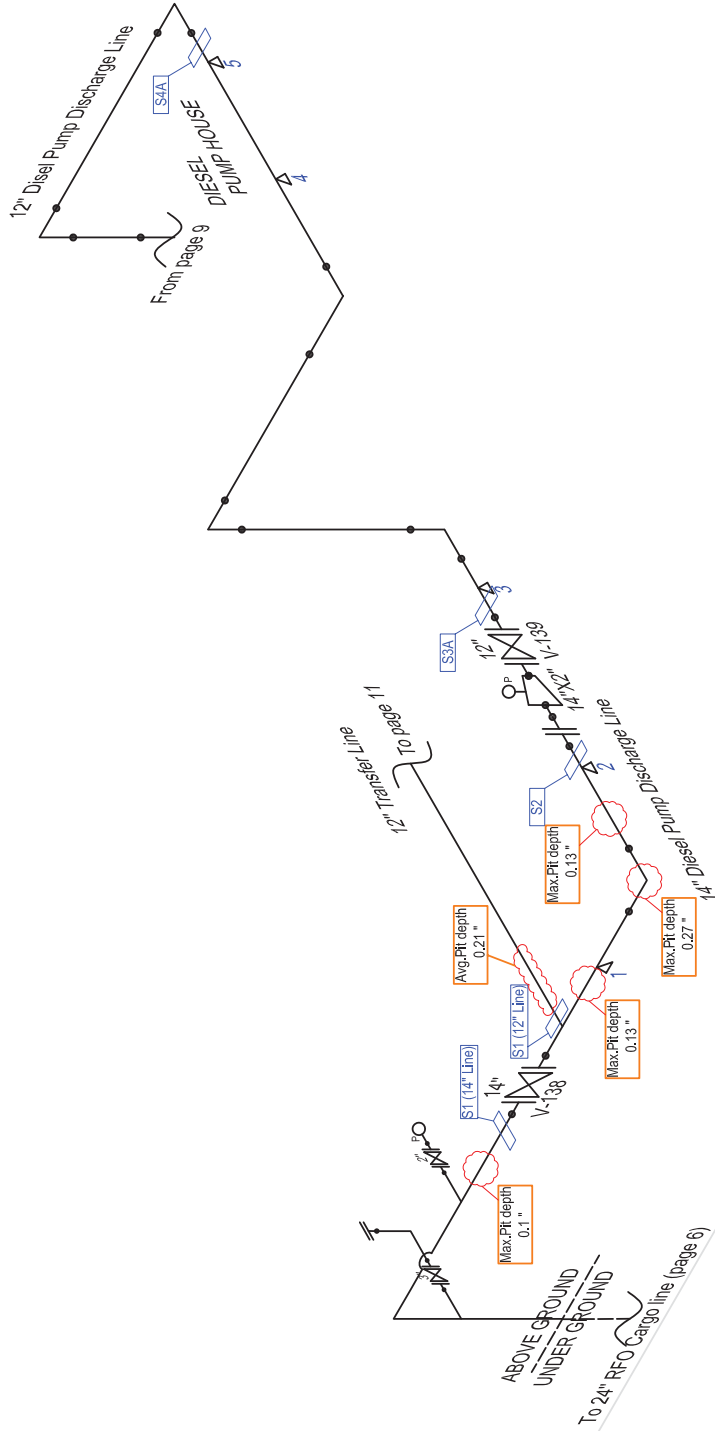


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M) SDN BHD.			TITLE: 16" RFO NO.6 (DIESEL PUMP SUCTION LINE)	PAGE: 9
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 2

Diesel Pump House Area

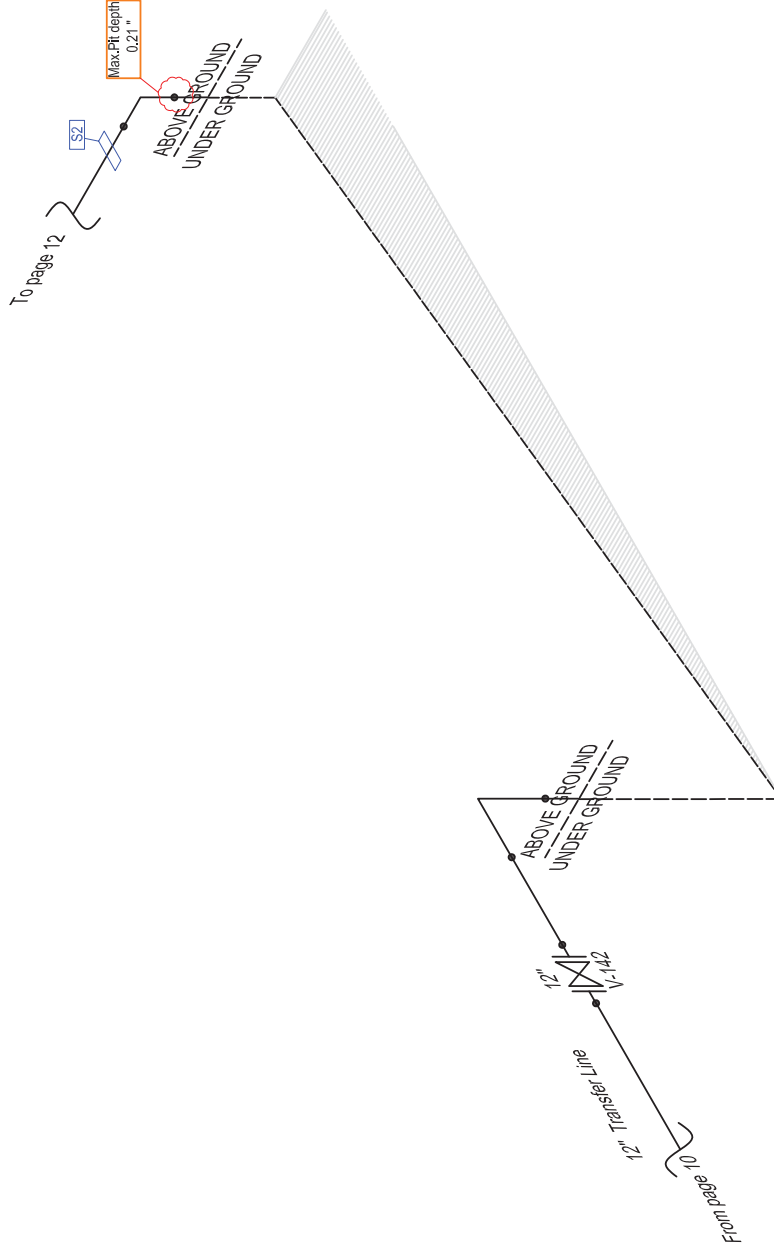


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 10	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 3

Diesel Pump House & Tank 1934 Farm Area

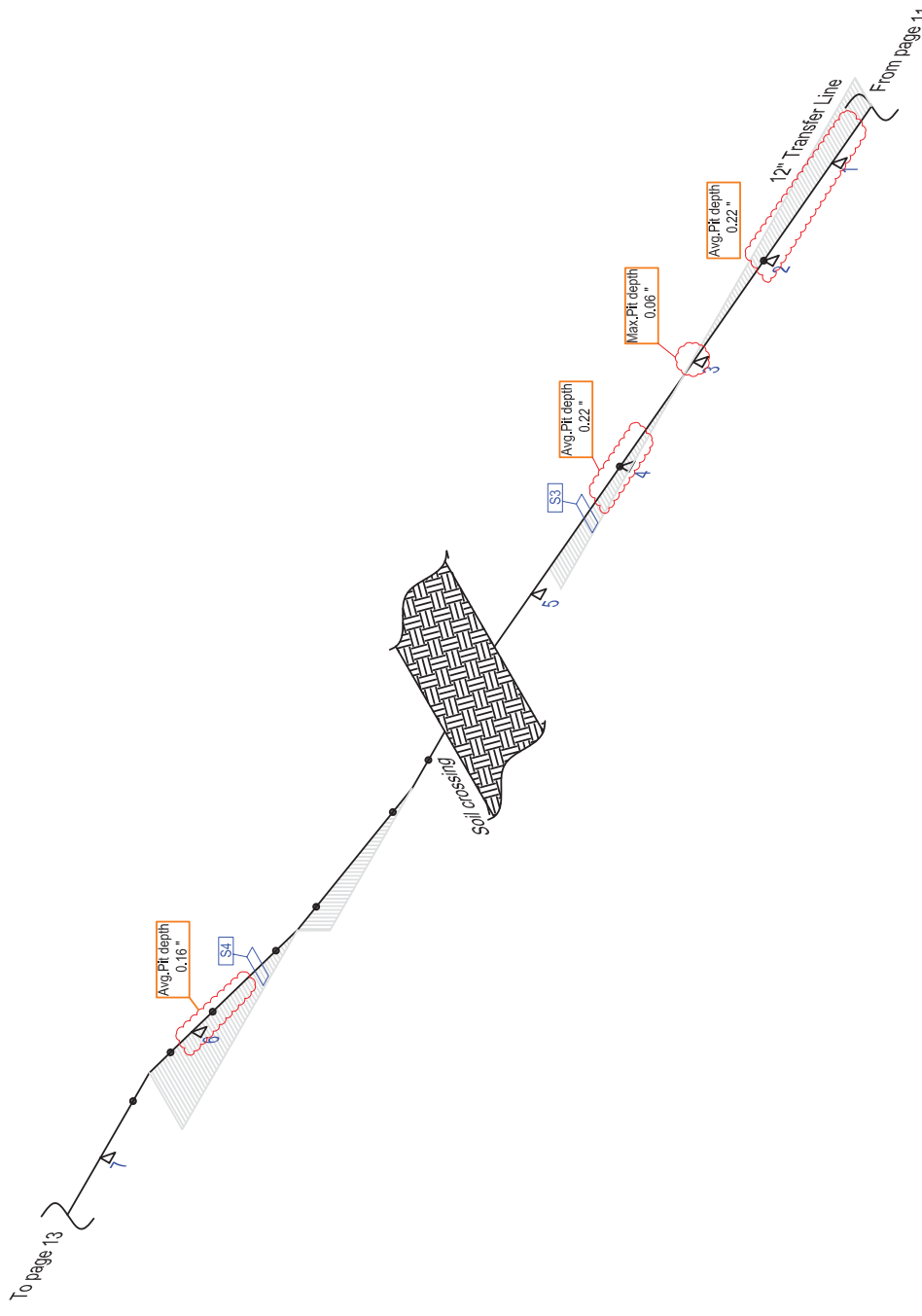


Note:-
Drawing for inspection used only

DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			TITLE: 12" RFO NO.6 (TRANSFER LINE)	PAGE: 11
SDN BHD.			JOB NUMBER: 10110709	PLACE: VITAL ENERGY, GUAMI, USA

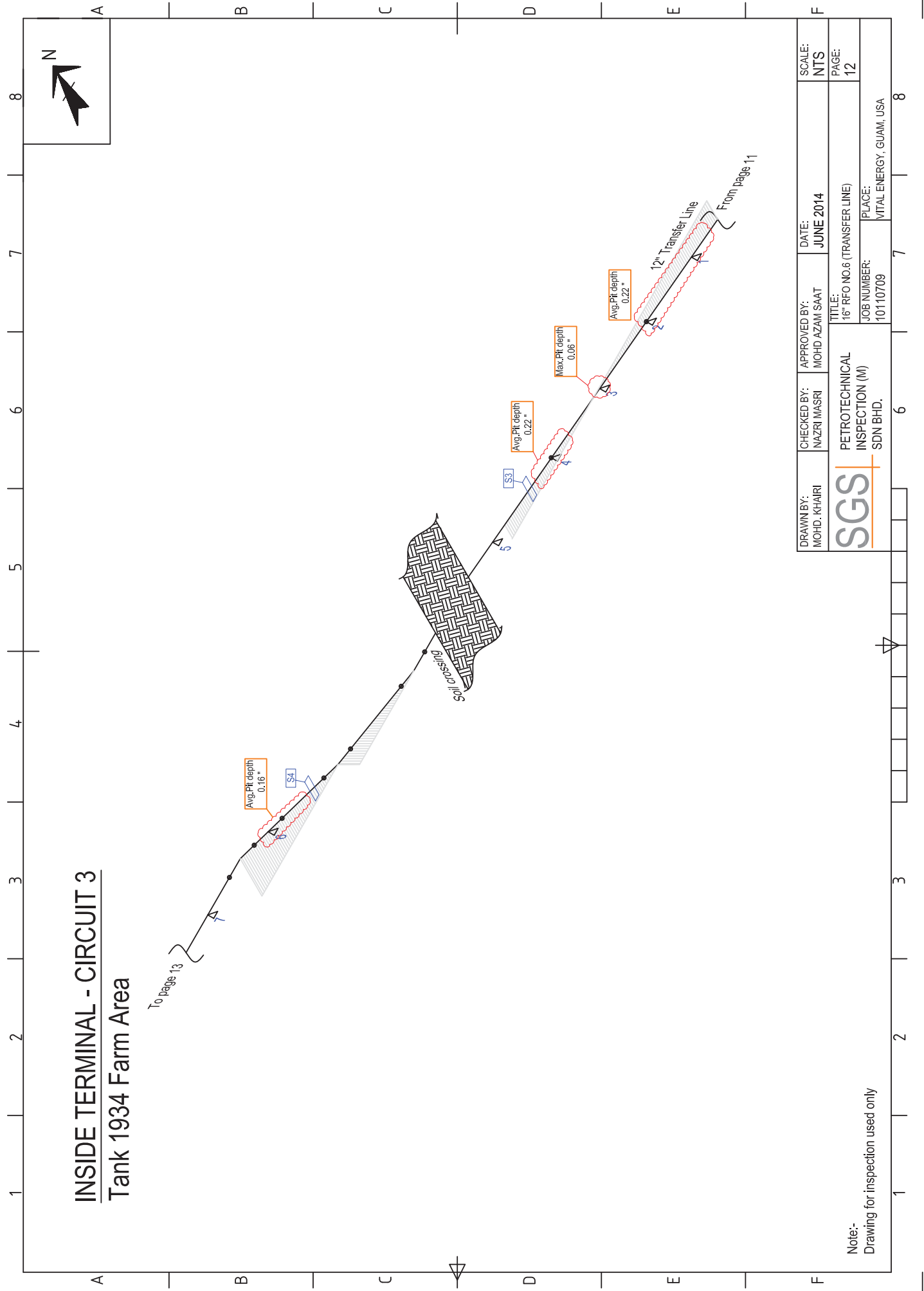
INSIDE TERMINAL - CIRCUIT 3

Tank 1934 Farm Area



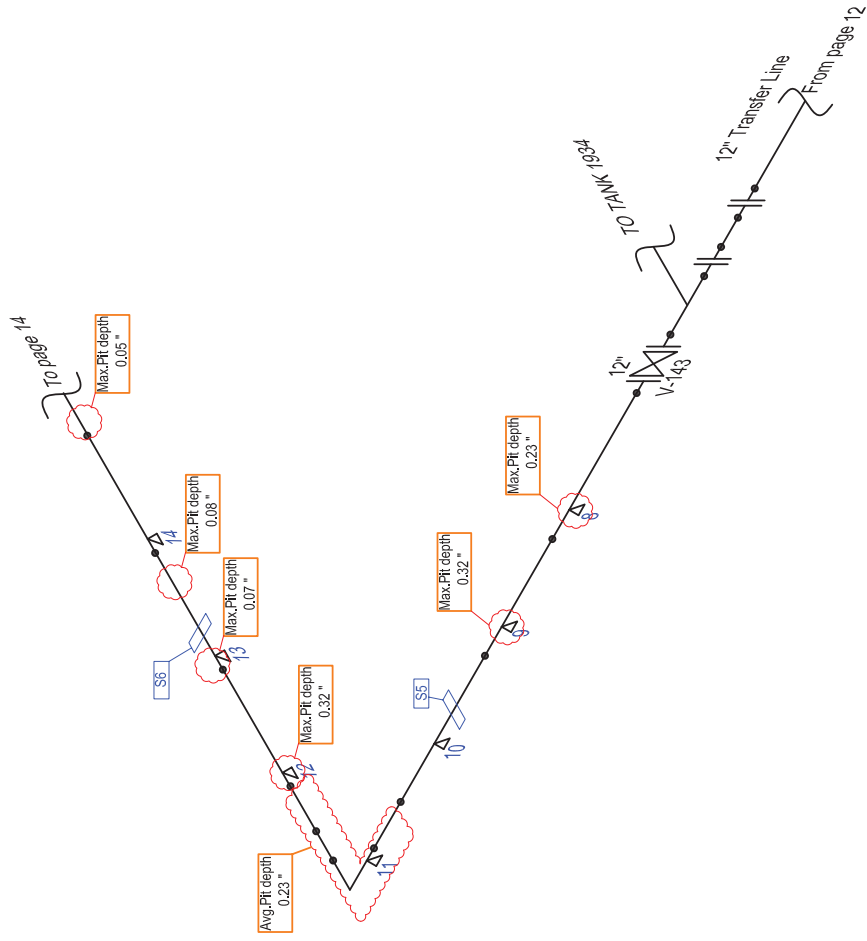
DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 12	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only



INSIDE TERMINAL - CIRCUIT 3

Tank 1934 Farm Area

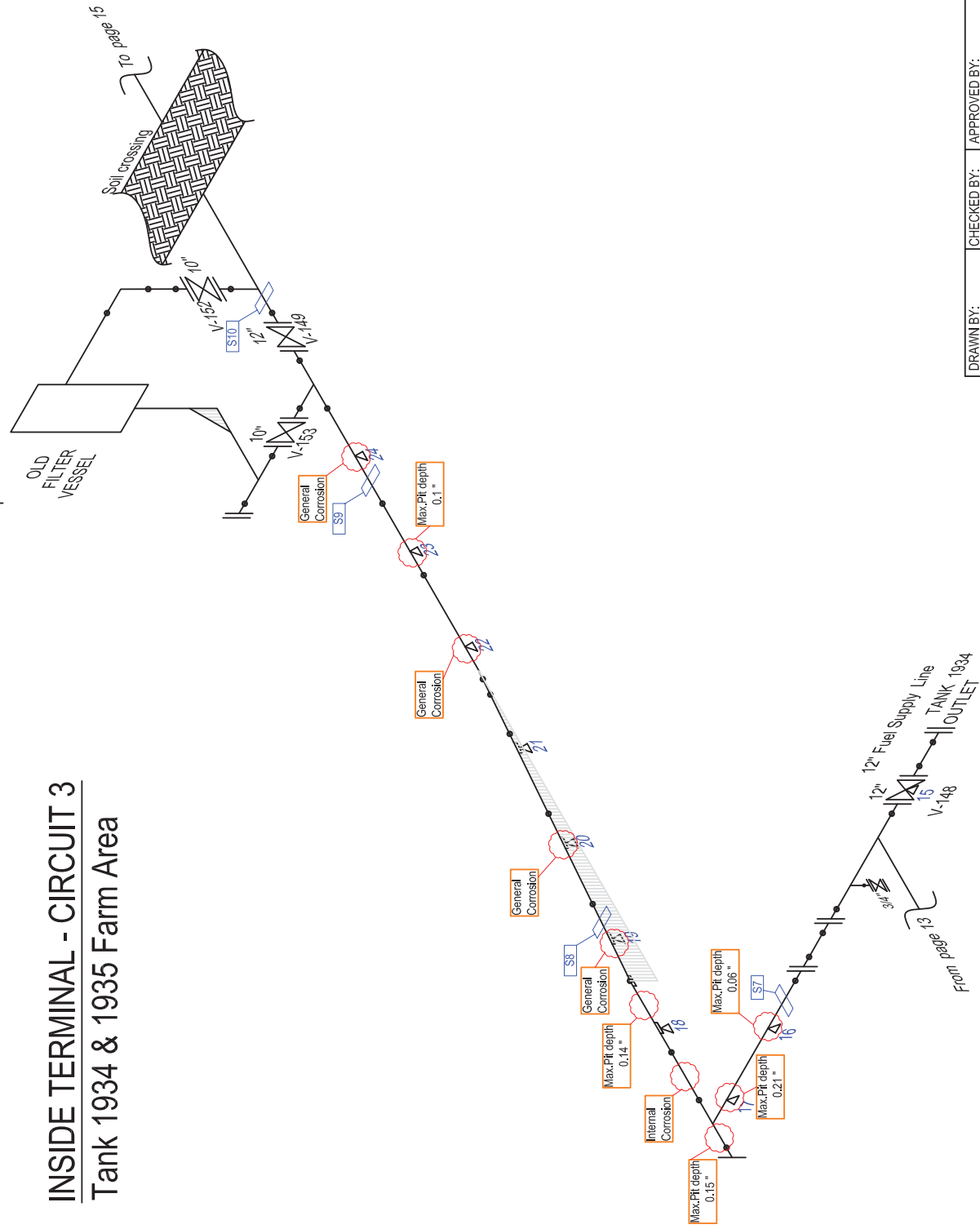


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 13
SDN BHD.			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
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INSIDE TERMINAL - CIRCUIT 3

Tank 1934 & 1935 Farm Area

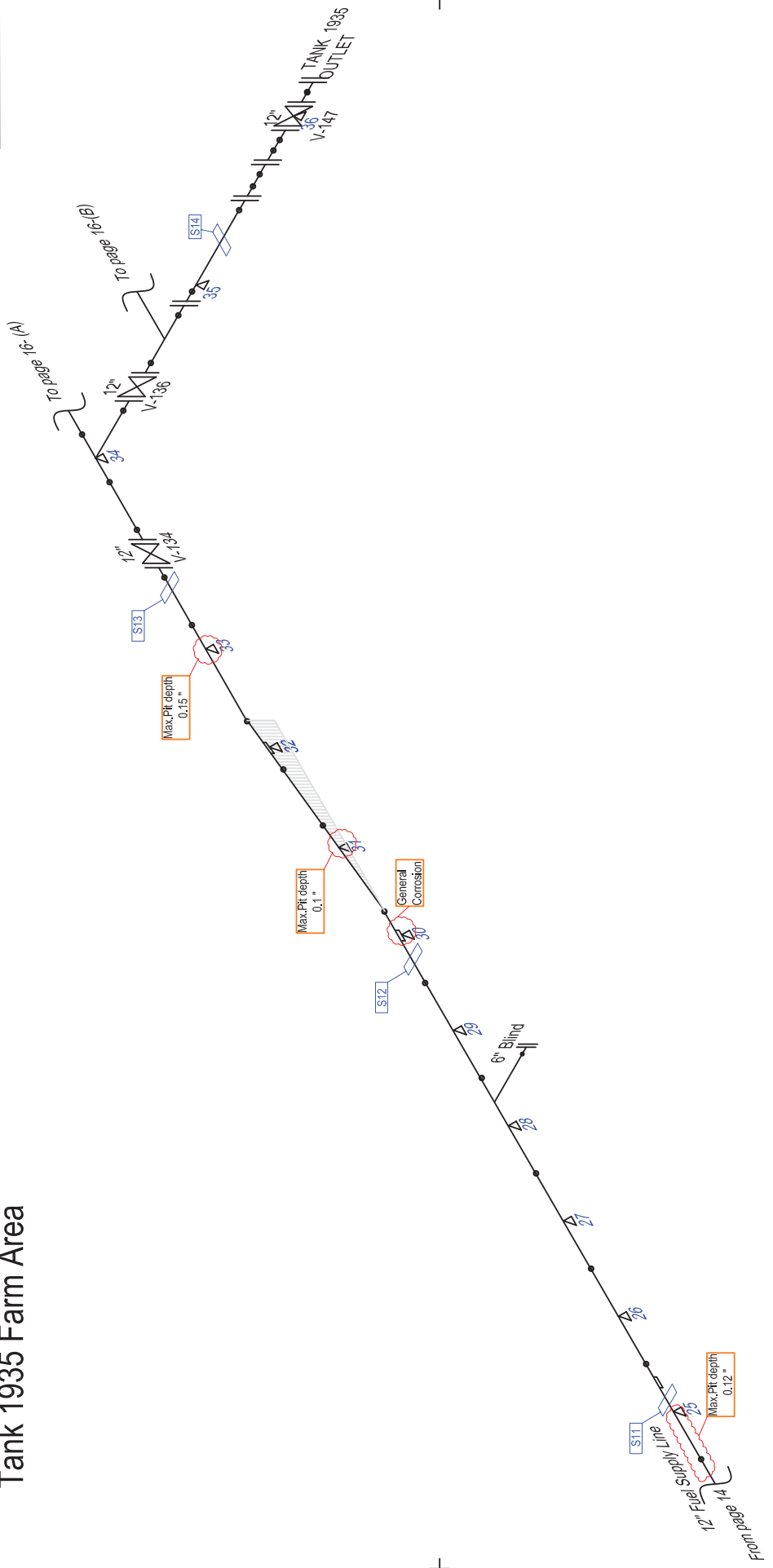


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 14	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 3

Tank 1935 Farm Area

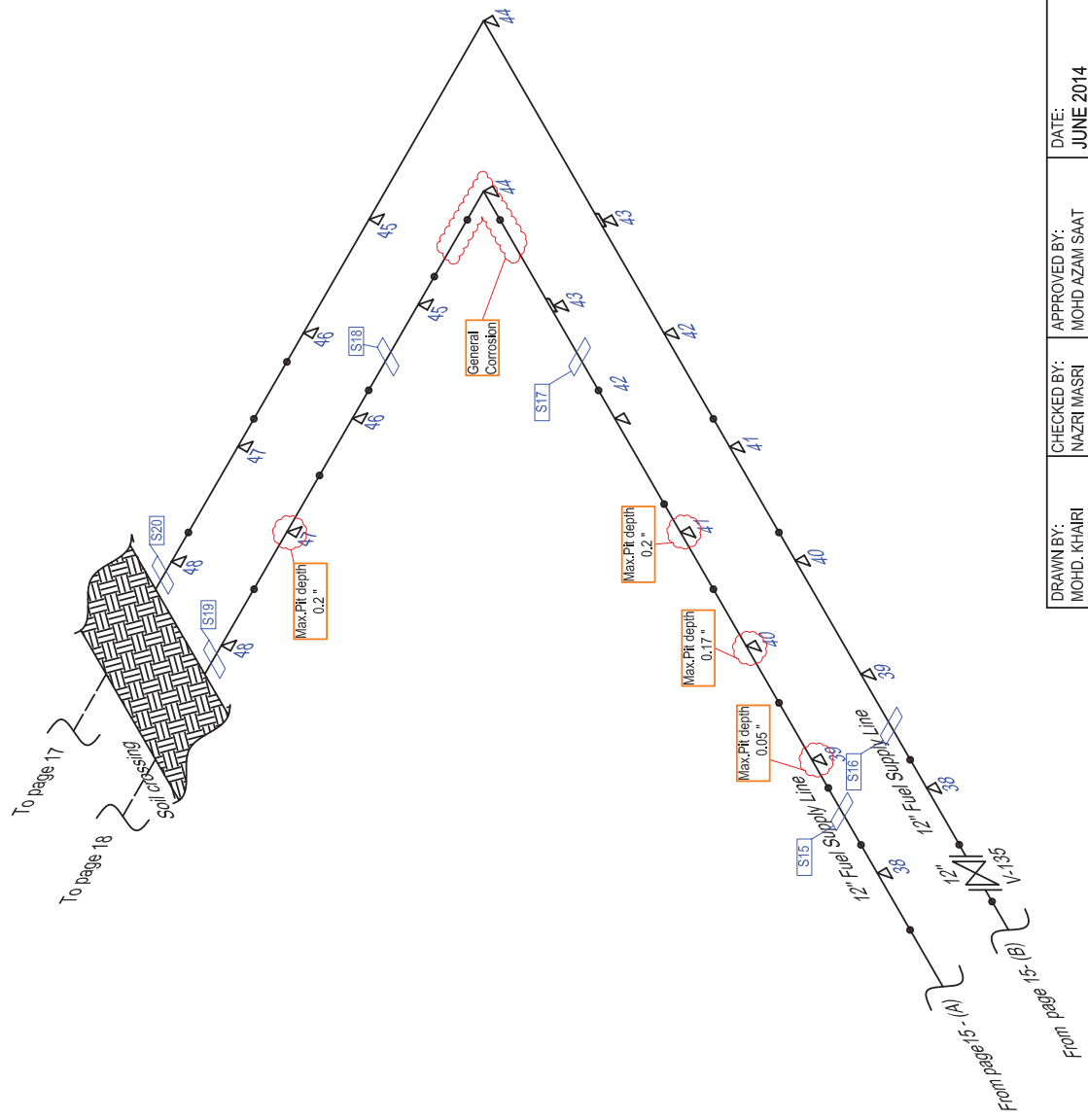


DRAWN BY: MOHD. KHAIRI	CHECKED BY: MAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 15	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 3

Tank 1935 Farm Area

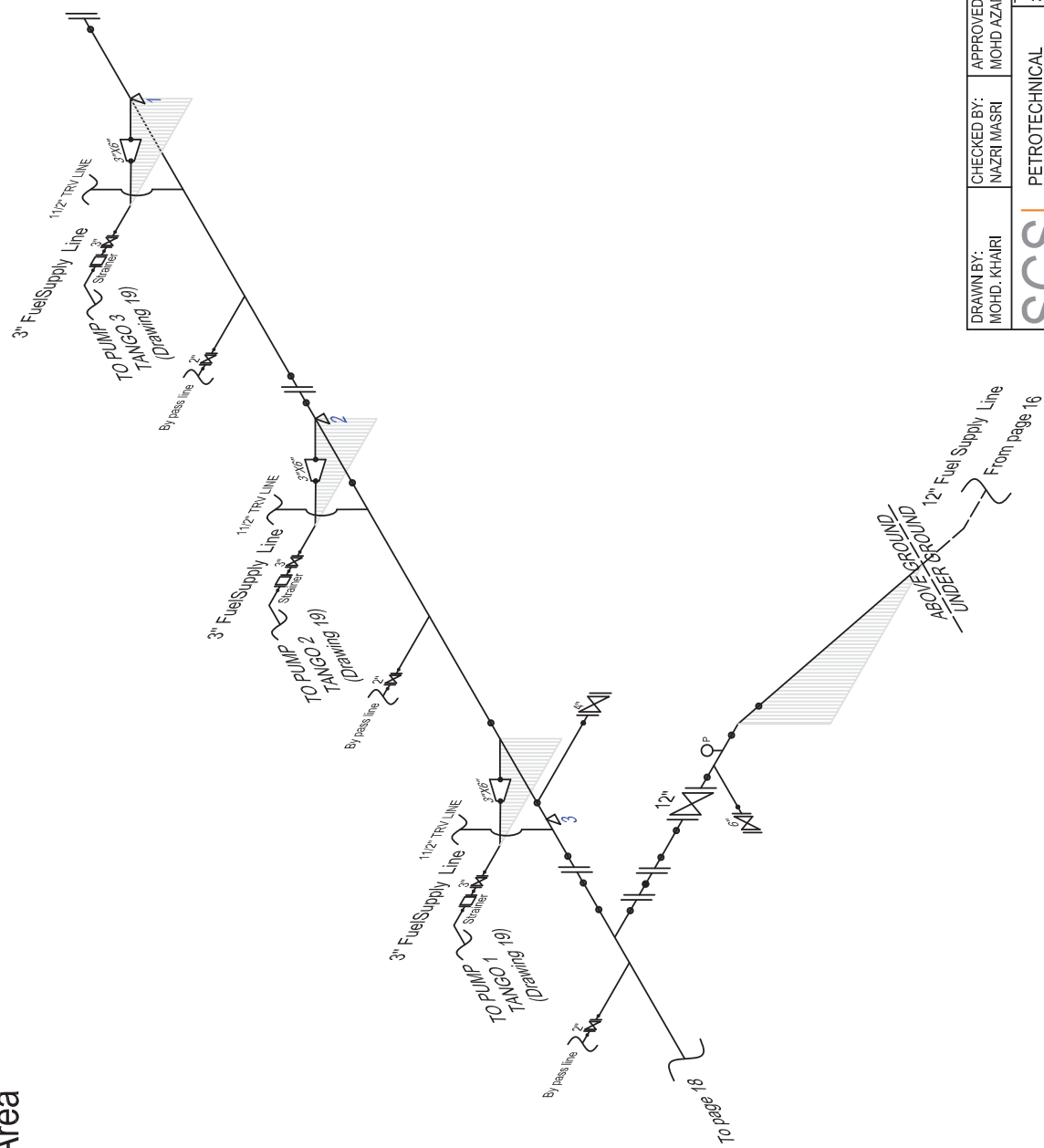


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
PETROTECHNICAL INSPECTION (M)			TITLE: 12" RFO NO.6 (FUEL SUPPLY)	PAGE: 16
SDN BHD.			JOB NUMBER: 10110709	PLACE: VITAL ENERGY, GUAMI, USA

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 3

Pump Area

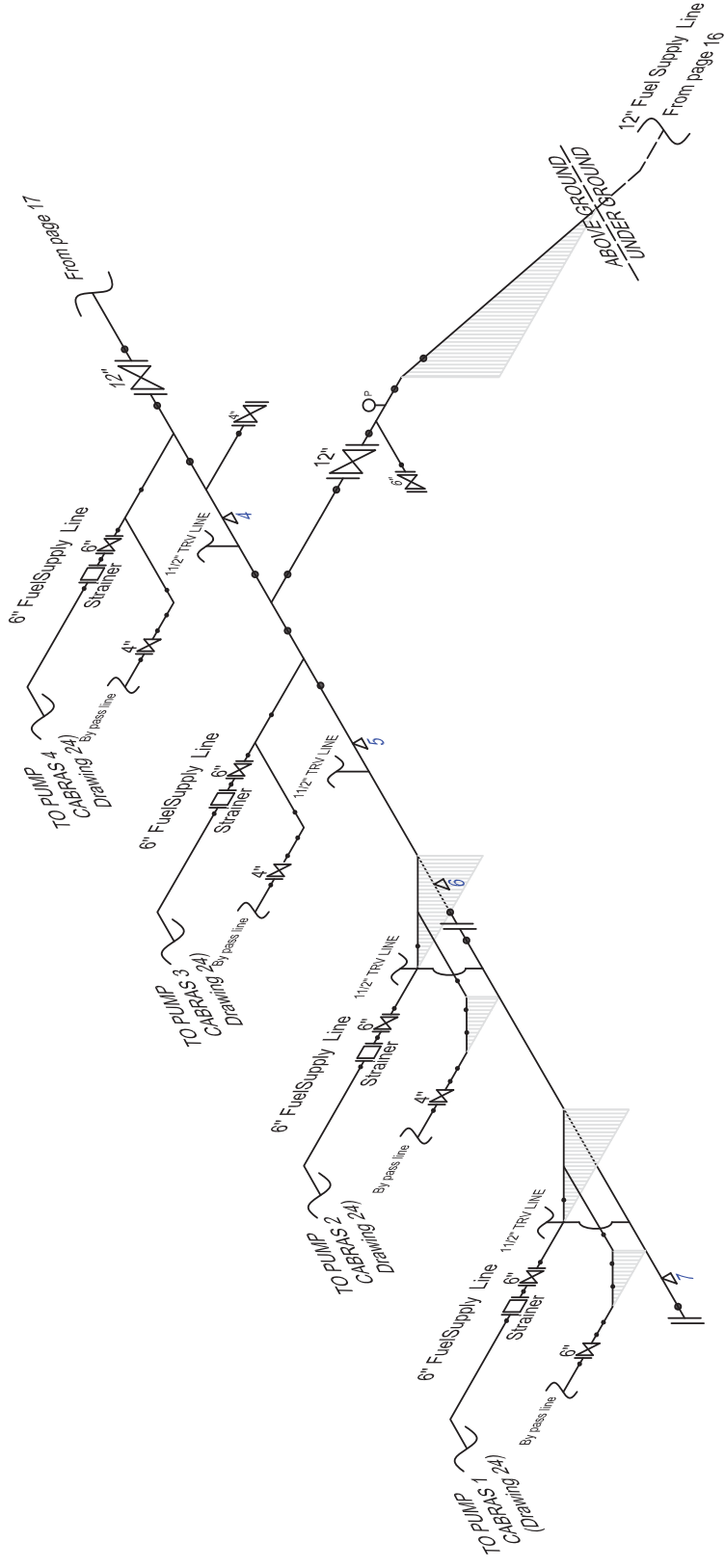


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			TITLE: 3" 12" RFO NO.6 (FUEL SUPPLY)	PAGE: 17
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 3

Pump Area

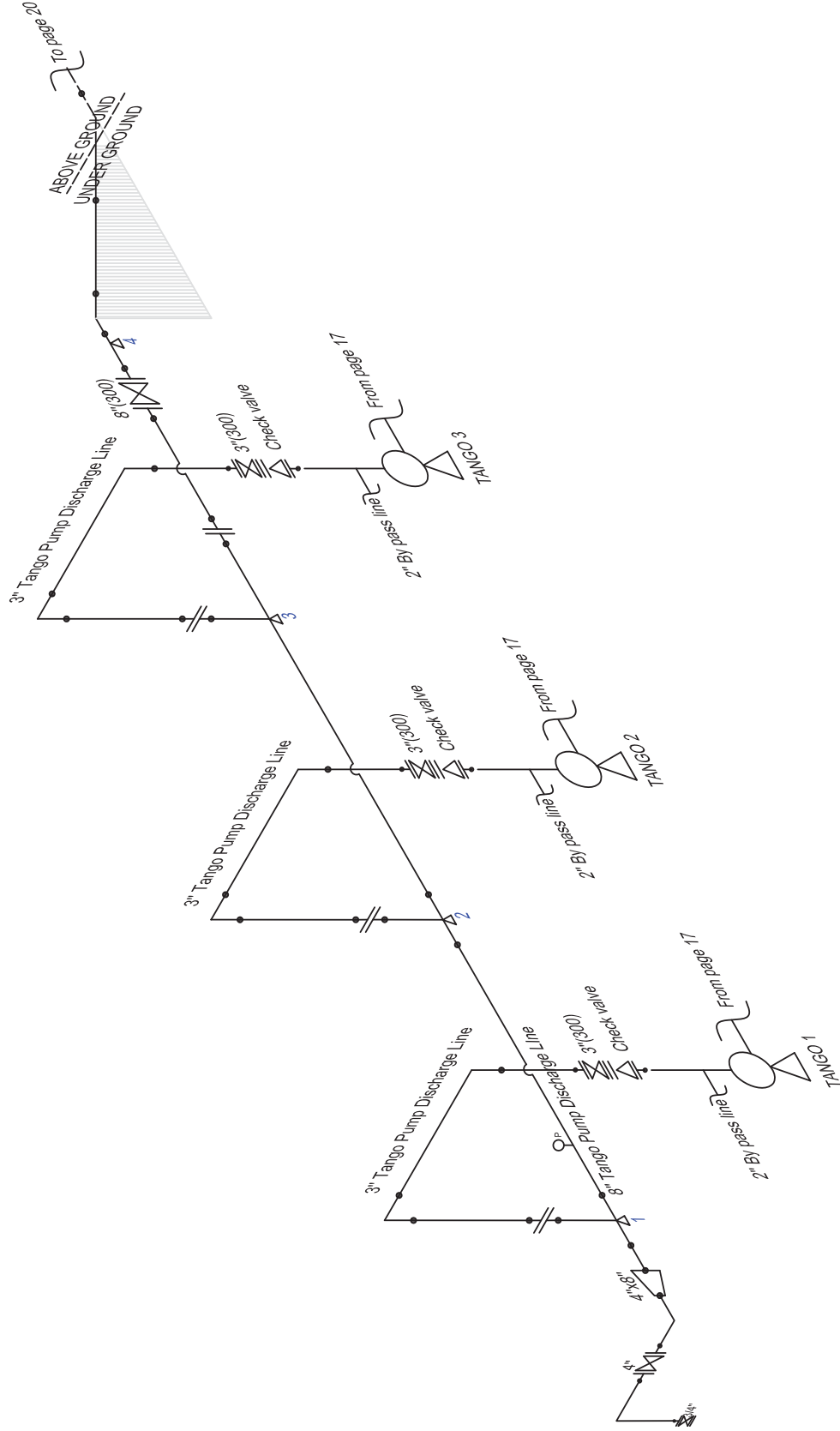


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 18
DRAWING FOR INSPECTION USED ONLY			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 4

Pump Area - Tango pump discharge line

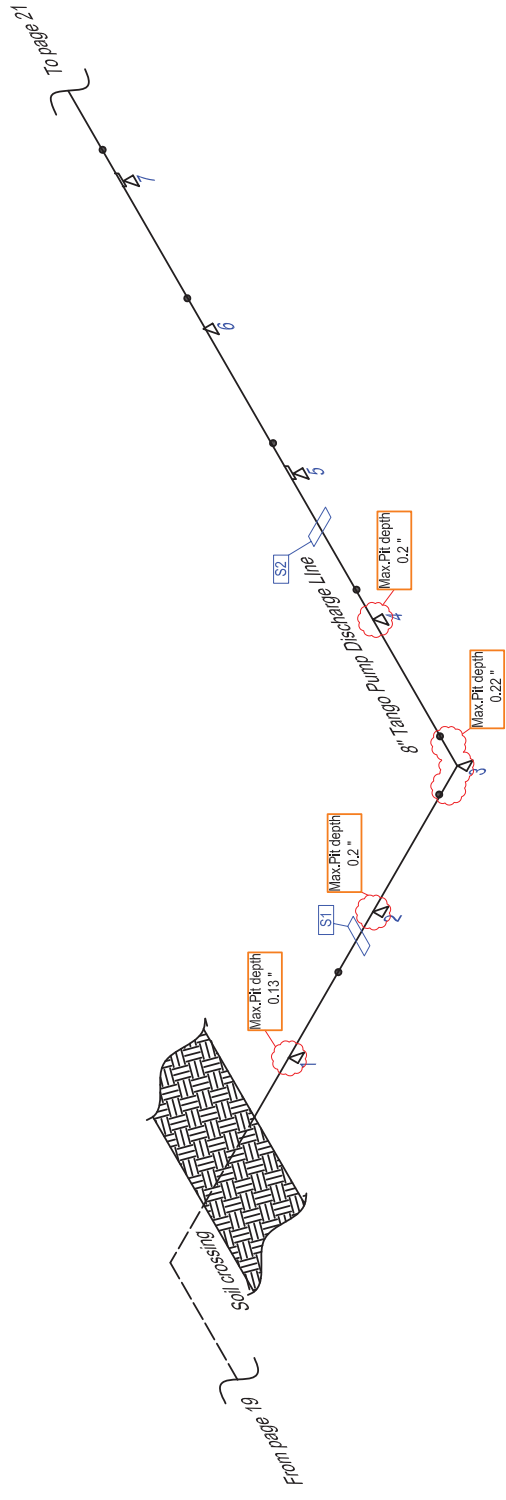


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 19	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 4

Field Area - Tango pump discharge line

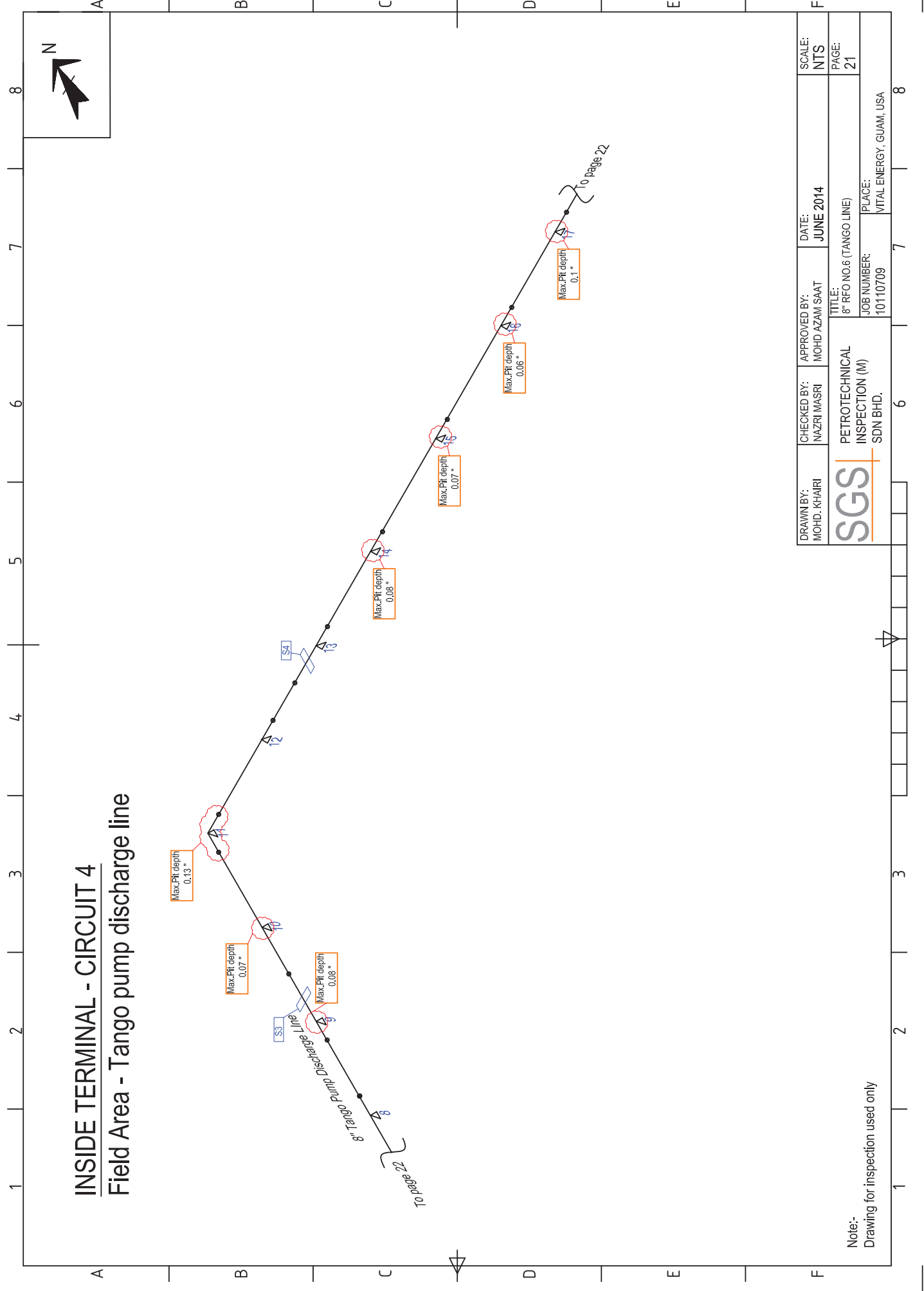


Note:-
Drawing for inspection used only

DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 20
SDN BHD.			PLACE: VITAL ENERGY, GUAMI, USA	

INSIDE TERMINAL - CIRCUIT 4

Field Area - Tango pump discharge line



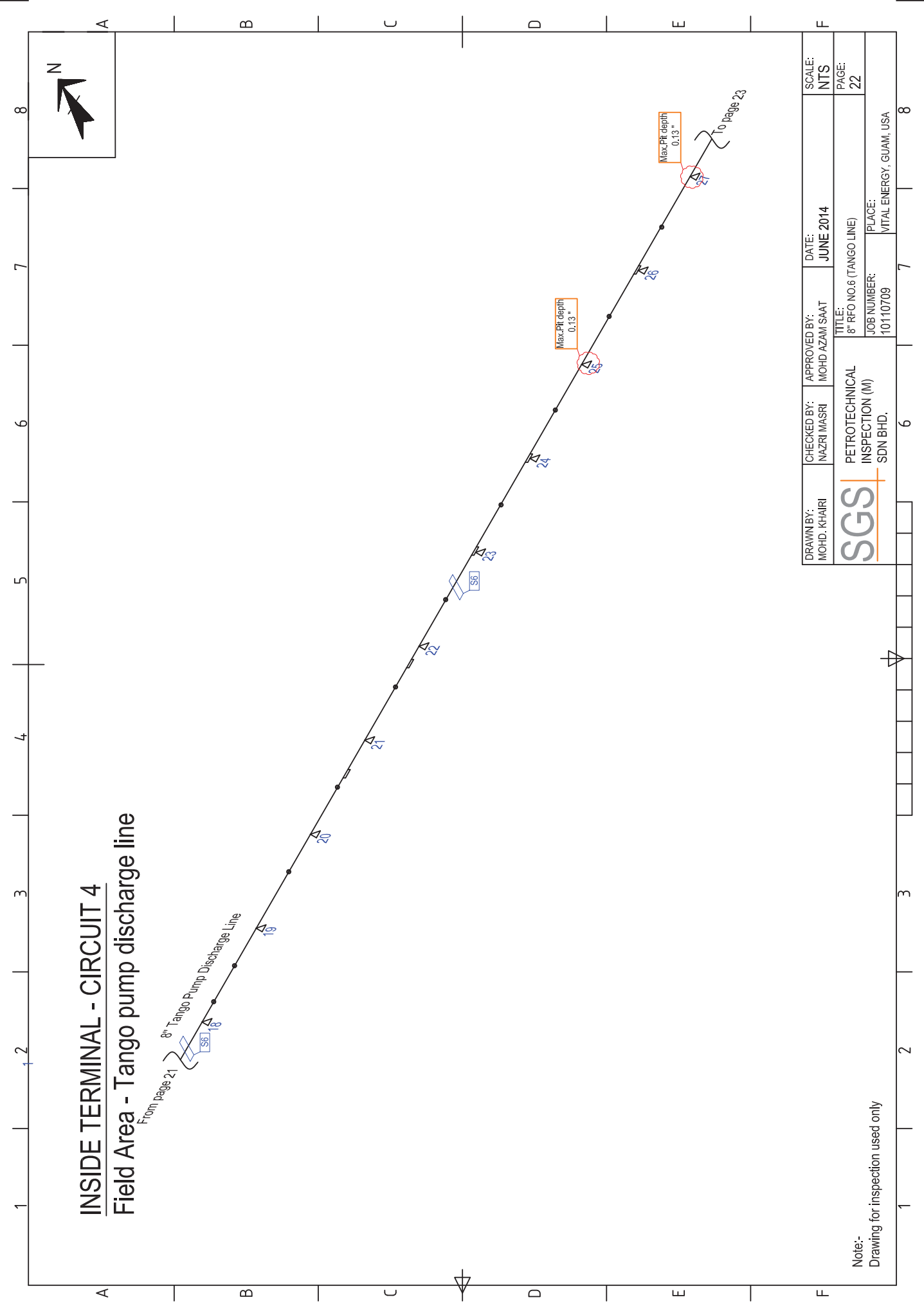
Note:-
Drawing for inspection used only

DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
			TITLE: PETROTECHNICAL INSPECTION (M)	PAGE: 21
			JOB NUMBER: 10110709	PLACE: VITAL ENERGY, GUAMI, USA

INSIDE TERMINAL - CIRCUIT 4

Field Area - Tango pump discharge line

From page 21
8" Tango Pump Discharge Line

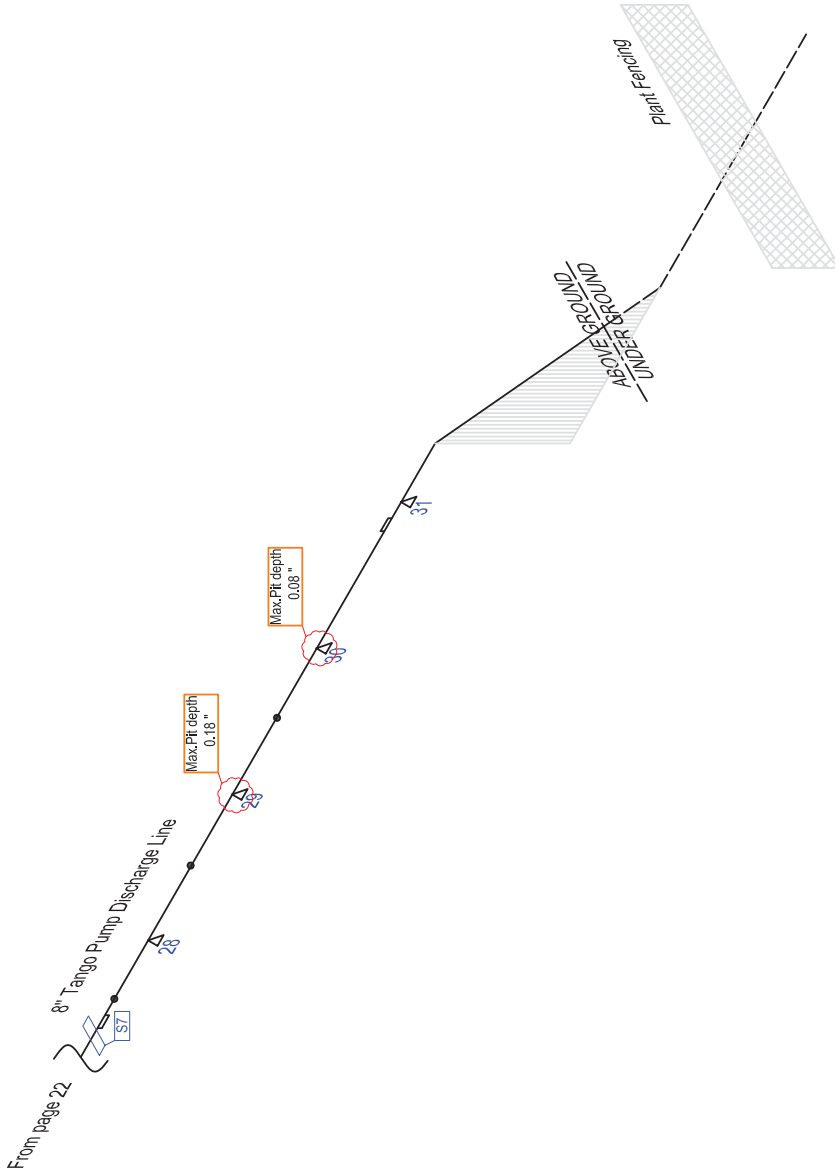


DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			JOB NUMBER: 10110709	PAGE: 22
PLACE: SDN BHD.			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only

INSIDE TERMINAL - CIRCUIT 4

Field Area - Tango pump discharge line

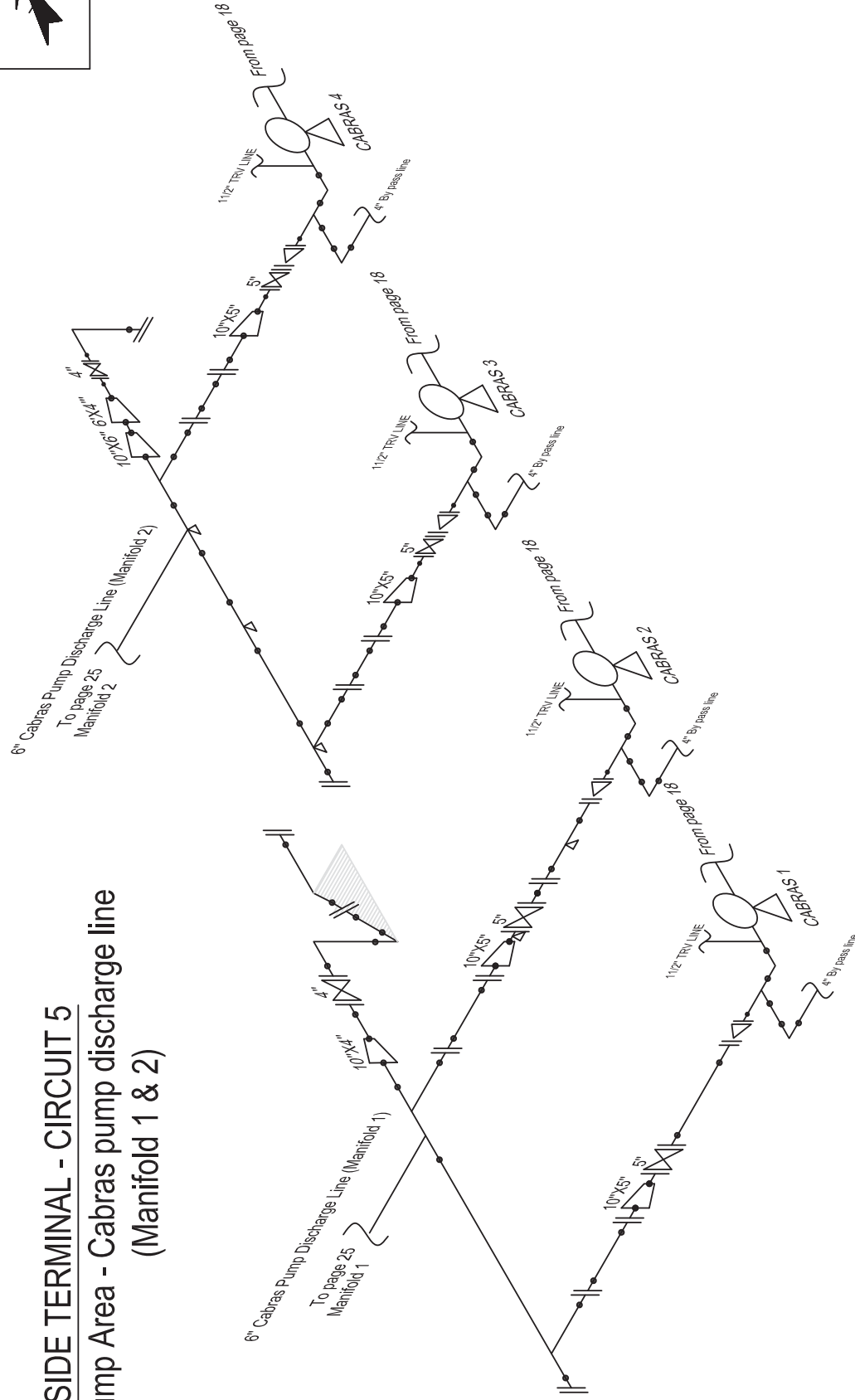


Note:-
Drawing for inspection used only

DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 23	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

INSIDE TERMINAL - CIRCUIT 5

Pump Area - Cabras pump discharge line (Manifold 1 & 2)

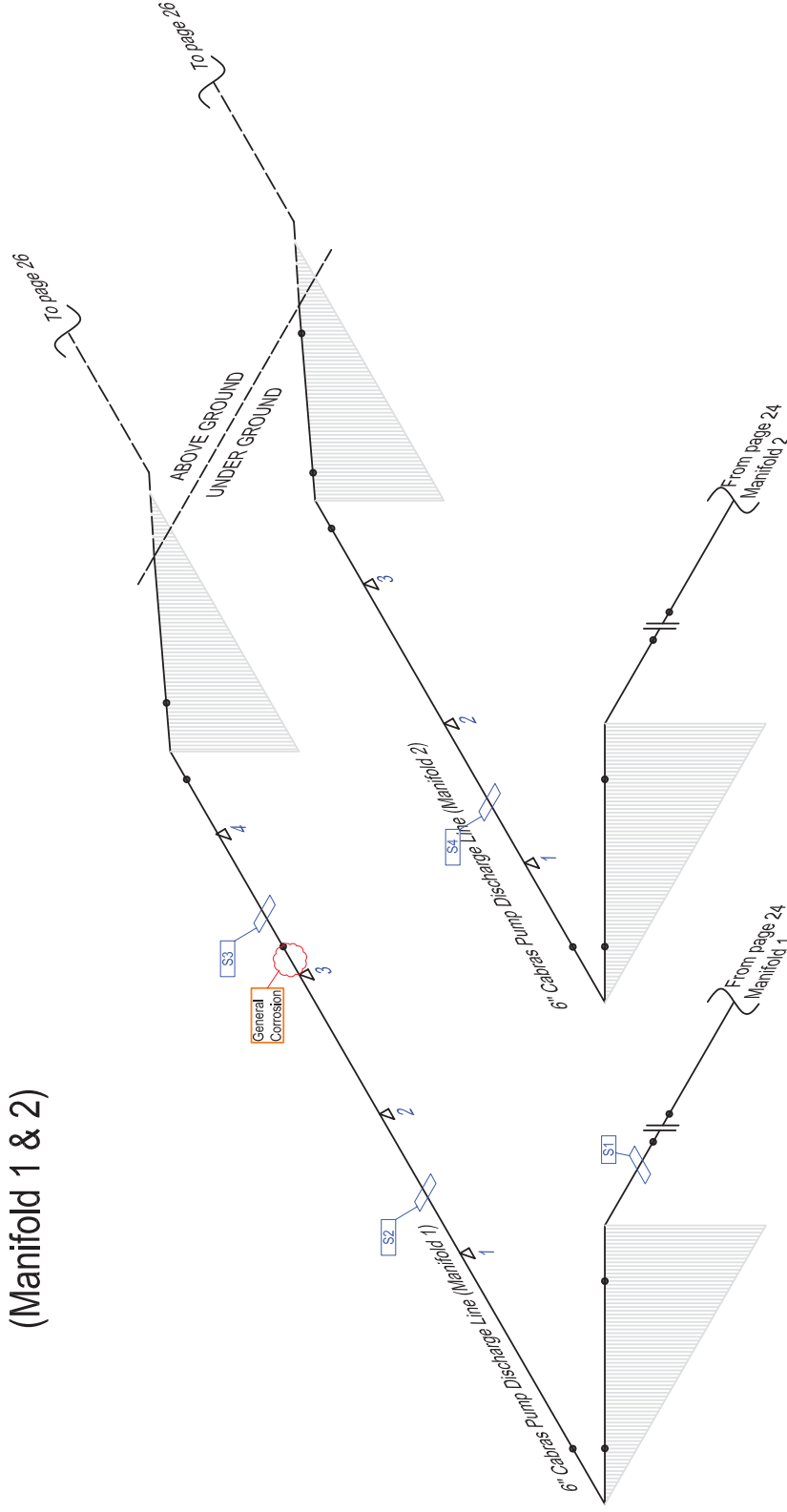


Note:-
Drawing for inspection used only

DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 24	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

INSIDE TERMINAL - CIRCUIT 5

Field Area - Cabras pump discharge line
(Manifold 1 & 2)



DRAWN BY: MOHD. KHAIRI	CHECKED BY: NAZRI MASRI	APPROVED BY: MOHD AZAM SAAT	DATE: JUNE 2014	SCALE: NTS
TITLE: PETROTECHNICAL INSPECTION (M)			PAGE: 25	
JOB NUMBER: 10110709			PLACE: VITAL ENERGY, GUAMI, USA	

Note:-
Drawing for inspection used only