

2020 Scope of Work

Mascot pipeline verification dig

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Background Information:

The Mascot pipeline is a 8" in pipeline that runs from the Clyde Terminal to JUHI (Mascot). The line carries aviation Jet-A-1(jet fuel). The line has a length of 23km, and a maximum allowable operating pressure, MAOP, of 90.5 bar.

The existing coating system (yellow jacket) is not believed to contain asbestos.

Table 1: Defect

Log. Distance	GPS Approx.	Description of defect and reason for verification and/or repair	Description of work to eliminate or mitigate threat	Approximate Site Length
11714.628	322136.7212 6248804.405	Metal loss& Coating defect	Verify, assess features and recoat	15m

Scope of Works:

PRE-WORK

- VIVA ENERGY will engage third party coating inspector directly.
- The Contractor shall submit NDT qualifications, calibration certificates to be approved by VIVA ENERGY
- The contractor to perform DBYD and organised 3rd party pipeline supervision as required.
- Land access permits to be obtained the contractor.
- The contractor shall provide a SAFETY MANAGEMENT PLAN (where required) , METHOD STATEMENT & SWMS to be approved by Viva Energy
- The contractor and any subcontractors shall attend any pre-work safety meetings and inductions (Part A, B and C)
- Site facilities should be in line with Occupations Health and Safety Act 2004 and codes of practice Building and Construction Workplaces. As a minimum 1 closet with hand washing facilities should be available for sites with <6 people, please review legislation for requirements if >6 people or as required due to project length
- Contractors and sub-contractors **Shall** inform Viva operation personnel and project managers immediately after any incident, near miss, PIN and site audit by regulators and authorities.

EXCAVATION & COATING REMOVAL

1. VIVA ENERGY to issue Contractor permit to carry out agreed work scope.
2. Contractor shall install site safety requirements insuring that they comply with Worksafe Acts and Australian regulations (excavation separation, fencing, traffic management.etc)
3. Contractor to mobilize to site. Where ramps, additional ballast, fence removal is required, the Contractor is responsible for creating appropriate access to the excavation site.
4. The Contractor shall peg/survey girth welds and verify the location in line with PIP-P004-V1. **Conduct localised DCVG (60m range) to identify previous coating defect (12.5% IR).**
5. Contractor shall confirm with the VIVA ENERGY representative that the location of the girth welds is as expected.
6. Upon confirmation from VIVA ENERGY, the Contractor shall continue excavation of the feature joint length only in line with VIVA ENERGY excavation procedure as agreed with the VIVA ENERGY representative. Ensure excavation follows VIVA ENERGY procedure PIP-P003-V4 (Trenching and Reinstatement of Pipelines). Allow 1m at each end beyond recoat extremities.
7. After excavation prior to coating removal contractor to preform coating assessment to PIP-P27.

8. The Contractor shall remove coating as per VIVA ENERGY procedure PIP-P010 (Pipeline Coating, Including Removal of Coating).

VERIFICATION WORKS- SITE SPECIFIC

LD 11714.628

- Conduct localised DCVG (60m range) to identify previous coating defect (12.5% IR)
- Excavate section of pipe of log distance above, extend excavation to repair nearby coating defect
- Remove coating and assess metal loss for rectification requirements using 3D scanning
- Perform full 100% MPI of pipe joint (**DO NOT GRIND IF CRACKS ARE DETECTED - ADVISE R&I**)
- Assess girth welds (2x)
- Following assessment (and potential rectification), repair coating and backfill

COATING APPLICATION AND BACKFILL

1. The Contractor shall blast exposed pipe to specified surface profile and finish suitable for coating application as per PIP-P010.
2. The Contractor shall recoat exposed length of pipe as per PIP-P010 (Pipeline Coating, Including Removal of Coating). Ensure surface finish, surface profile, environmental conditions, DFT, holiday testing and quantity of defects is completed and recorded.
3. A third party coating inspector engaged by VIVA ENERGY shall inspect the coating application. **HOLD POINT:** Please allow 48 hrs for results. Any faults to be addressed by the contractor at no additional charge to VIVA ENERGY.
4. The Contractor will ensure GPS co-ordinates are taken for start and end points of new coating and provide this in a report to Viva Energy (PIP-P010).
5. **HOLD POINT:** Prior to any backfill, all documentation shall be submitted to VIVA ENERGY for approval. This includes but is not limited to:
 1. All NDT records
 2. All drawings
 3. All third party inspection reports
 4. Progress submission of signed off ITP
6. Upon approval from VIVA ENERGY, the Contractor shall backfill site as per VIVA ENERGY procedure PIP-P003-V4 (Trenching and Reinstatement of Pipelines).


7. The Contractor shall demobilize, ensuring that site is left clean and tidy.
8. Contractor to submit full documentation package for VIVA ENERGY approval
9. Close out report ,MDR, to be provided by the principal contractor, two weeks upon completion of the work.

APPENDICES

Appendix 1 – Mascot DIG Sheets & Details

Figure 1: Detailed feature description for defect 1, LD 11714.628

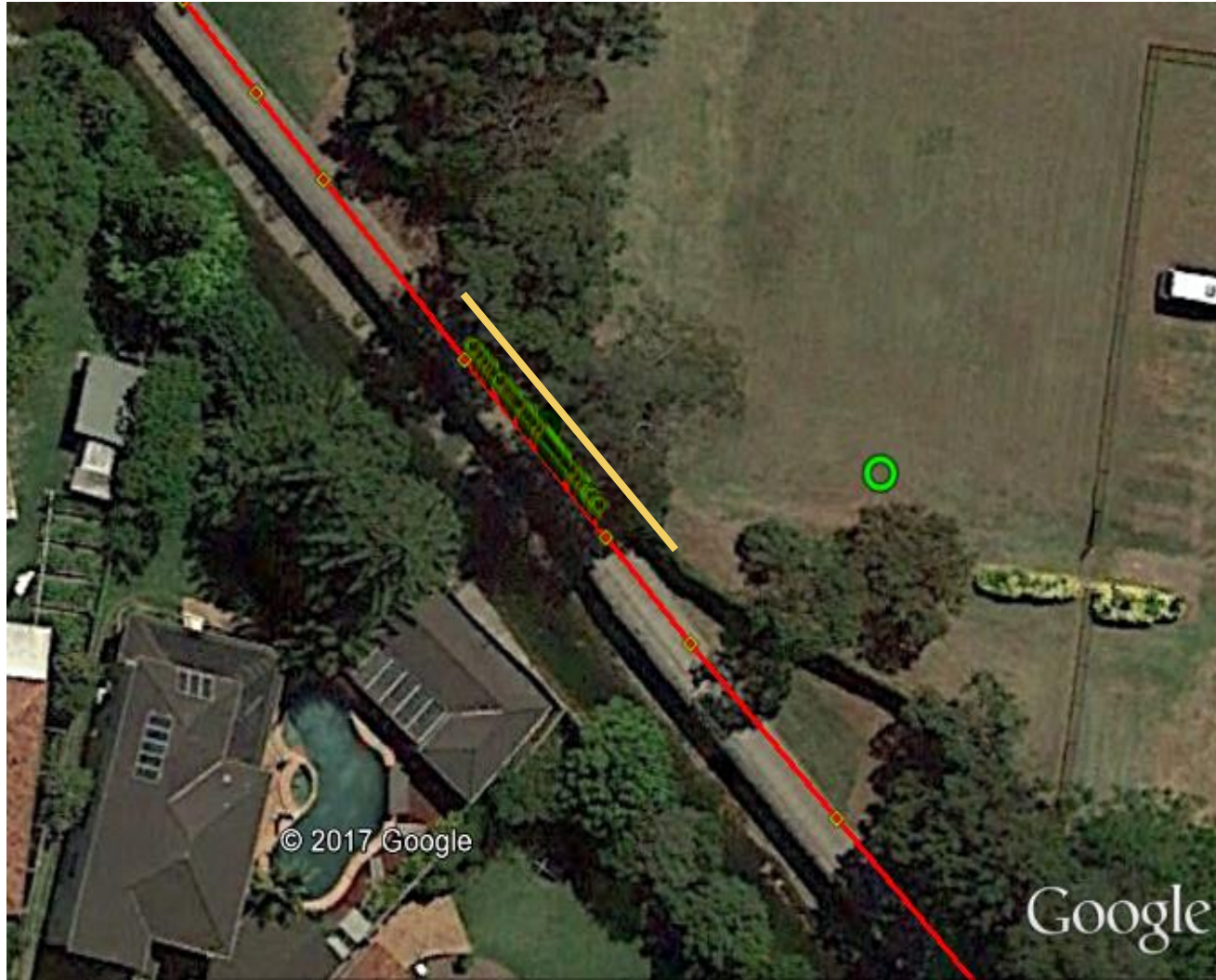
PIPELINE DETAILS

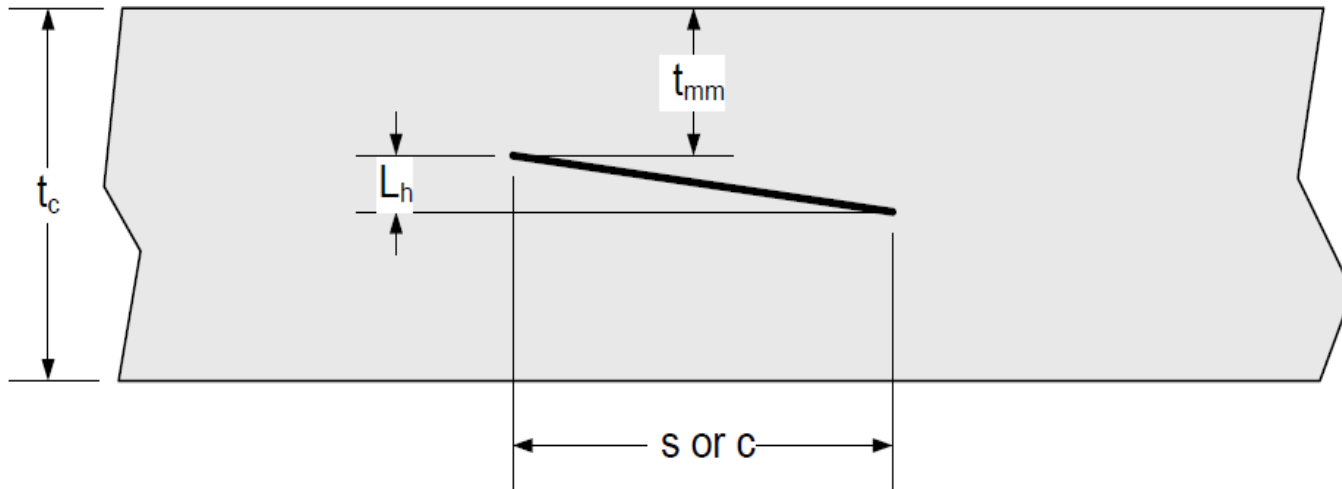
Pipeline	Mascot	Pipe Standard	ASTM A106 / API 5L	Coating Type	
Licence #		Pipe Specification	ERW and SMLS	CP Type	ICCP
Diameter (mm)	200	Pipe Grade	B / X42	Aerial / Google Earth Image File	
Length (m)	23300	Nominal WT (mm)	5.56 and 9.53		

DEFECT REGION DETAILS

Overall Region	Log Distance (m)	Easting	Northing	Comments / Description
Start	11714.628	322136.7212	6248804.405	
End	11729.707	322146.7087	6248793.217	

	No.	Log Distance (m)		Start Co-ordinates		End Co-ordinates		Ref Attachment
		Start	End	Easting	Northing	Easting	Northing	
GW	2	11714.63	11729.71	322136.7212	6248804.405	322146.7087	6248793.217	
Corrosion	133	11715.55	11728.96					
Cracks	0							
Dents	0							
Douges	0							





Section A-A
Cross Section Of Lamination

List of Procedures

Document	Description
PIP-P003-V4	Excavation Trenching and Backfill
PIP-P004-V1	Defect Location and Verification
PIP-P005-V1	Assessment- Corrosion
PIP-P006	Assessment-Cracking
PIP-P007	Assessment- Mechanical Damage
PIP-P008	Assessment- Weld Defects
PIP-P010	Coatings
PIP-P011-V1	Grinding
PIP-P027	Assessment Procedure – Field Assessment



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