



Diversified Technology Services

2045 Preisker Ln. Suite A - Santa Maria, CA 93454 - (805) 928-6392

Location: Somehow USA

Process Piping UT Inspection Intervals and Evaluation Sheet

Circuit Number	Description	Corr. Rate (mpy)	UT Inspection Criteria			Comments
			UTT Last	Intvl. (Yrs)	UTT Next	
RF-P-01-75	Inlet Gas to V-402	28	05/08/03	3.39	09/26/06	
RF-P-01-76	Nat. Gas From V-402 to T-501	25	05/15/03	2.85	03/22/06	Piping specification calls for Sch160 1/2" nipples. The actual nipples installed are Schedule 80
RF-P-02-07	Res. Gas From T-501 to V-403	22	05/08/03	2.15	06/29/05	
RF-P-02-08	Res. Gas From V-403 to Main Gas Headers	33	05/07/03	1.44	10/14/04	Piping specification calls for Sch160 1/2" nipples. The actual nipples installed are Schedule 80
RF-P-03-32	Fuel Gas to V-404	17	05/08/03	4.42	10/06/07	Piping specification calls for Sch160 1/2" nipples. The actual nipples installed are Schedule 80
RF-P-16-10	Lean Amine From T-502 to V-408	20	05/07/03	2.75	02/03/06	
RF-P-16-11	Lean Amine From V-408 to P-604/605	20	05/08/03	2.75	02/04/06	
RF-P-16-12	Lean Amine From P-604/605 to F-410	18	05/14/03	4.04	05/26/07	Piping specification calls for Sch160 1/2" nipples. The actual nipples installed are Schedule 80
RF-P-16-13	Lean Amine From F-410 to E-202	3	05/13/03	5.01	05/13/08	Piping specification calls for Sch160 1" nipples. The actual nipples installed are Schedule 40
RF-P-16-14	Lean Amine From E-202 to A-301	29	05/08/03	2.43	10/10/05	
RF-P-16-15	Lean Amine From A-301 to F-411	26	05/08/03	1.94	04/15/05	
RF-P-16-16	Lean Amine From F-411 to V-408, P-601/602	31	05/12/03	0.87	03/24/04	
RF-P-16-17	Lean Amine From P-601/602 to T-501	14	05/14/03	2.70	01/25/06	
RF-P-16-18	Lean Amine From P-601/602 to T-501		05/14/03	V	11/12/03	There are three elbows that have an appearance of loss from erosion in the outside radius after leaving P-601 and 602. These elbows are showing 15 to 30 mills of wall loss in the outside radiuses.
RF-P-16-19	Lean Amine From P-601/602 to T-501	23	05/14/03	2.03	05/24/05	Pressure t-min is only five mills less than the structural settings
RF-P-16-20	Amine Make-up to V-404		05/14/03	V	09/07/03	There are several spools of piping in this circuit that have average thickness readings around .154" which is Schedule 40 piping instead of the specified Schedule 80 piping at .218". There are additionally several spools of Schedule 80 piping installed as well. The thickness readings appear to be uniform and consistent with Schedule 40 in the thinner areas, it does not appear to be from corrosion at this time.
RF-P-18-08	Rich Amine From T-501 to V-404		05/14/03	V	05/13/04	There were four ells and three sections of piping that were found to have low thickness readings during this inspection. There is an appearance of Corrosion in the outside radiuses of elbows in this circuit. Additionally there are indications in a few sections of piping, the wall loss in these areas appears to be approx. 24 to 30 mills at this time.
RF-P-18-09	Rich Amine From V-404 to F-405	15	05/15/03	4.79	02/26/08	
RF-P-18-10	Rich Amine From V-405 to E-202	20	05/14/03	3.67	01/14/07	Piping specification calls for Sch160 1" nipples. The actual nipples installed are Schedule 40
RF-P-18-11	Rich Amine From E-202 to T-502	4	05/19/03	4.37	10/01/07	
RF-P-18-12	Rich Amine From T-502 to E-203	25	05/15/03	2.94	04/22/06	
RF-P-18-14	Rich Amine From V-407 to P-607/608	7	05/15/03	3.07	06/09/06	
RF-P-18-15	Rich Amine From P-607/608 to T-502	9	05/19/03	1.67	01/16/05	
RF-P-18-16	Anti-foam Injection for Amine	0	05/19/03	5.00	05/17/08	
RF-P-18-17	Rich Amine From V-403 to V-404		05/19/03	V	10/17/07	Low Readings were found on one ell and it's adjacent piping just prior to V-404. The area of thinning has a corrosion rate of 71 mills per year which is heavy if proven to be accurate. This area needs to be verified with UT and if proven valid this area should be radiographed, to determine the extent of corrosion.
RF-P-19-03	Acid Gas From T-502 to A-302	0	05/19/03	5.00	05/17/08	
RF-P-19-04	Acid Gas From A-302 to V-407	2	05/07/03	4.12	06/20/07	
RF-P-19-05	Acid Gas From V-407 to V-350	30	05/08/03	1.66	01/03/05	Mild Wall Loss in outside radius of elbows just prior to entering V-370. These elbows are showing approx. 25 mills of wall loss from the nominal thickness. Also there is a 1" nipple specified to be Schedule 160 but has actually been installed as Schedule 40.
RF-P-19-06	Water Injection for Acid Gas	6	05/07/03	5.00	05/04/08	
RF-P-19-07	Acid Gas From V-350 to V-370	28	05/07/03	0.92	04/07/04	There were low readings found on the elbow for the PSV Branch in this circuit. The readings found were .135" to .138" which are representative to Schedule 40 2" piping. This circuit has a piping specification for Schedule 80 piping which is a nominal thickness of .218". The remainder of piping in this circuit has signs of a 20 mill loss which could be mild due to the actual unknown original thickness.
RF-P-19-08	Acid Gas From V-370 to Vent Knock Out	17.8	05/07/03	3.21	07/20/06	