Chris Hoidal
Director,Western Region
DOT - PHMSA
12300 W. Dakota Ave, Suite 110
Lakewood, CO 80228

TESORO

Tesoro Refining & Marketing Company
Pipelines, Terminals, & Trucking
19100 Ridgewood Parkway
San Antonio, TX 78259
www.tsocorp.com

June 15th of 2012

Re: Response to CPF 5-2012-6008 Notice of Probable Violation & Proposed Compliance Order:

Dear Mr. Hoidal,

Tesoro is committed to responsibly operating our pipeline systems to ensure the health and safety of our employees, contractors, and the communities in which we operate. Tesoro also works to diligently protect the environment in areas where we operate. This letter is being submitted in regards to the Notice of Probable Violation & Proposed Compliance Order CPF 5-2012-6008 dated April 17, 2012, and received on April 23, 2012. Tesoro takes these allegations seriously and wants to take this opportunity to submit written explanations, comments and materials.

Regarding the Notice of Probable Violation, Tesoro is contesting (but is not requesting an oral hearing) on finding numbers 5 and 7. Please see the additional information in this letter supporting why Tesoro asserts it was not in violation of 49 CFR §195. Although Tesoro does not believe these are violations, in order to continuously improve, we have implemented actions to enhance our systems and processes in these critical areas.

Regarding the Proposed Compliance Order, Tesoro is requesting that modifications be made before it is finalized. Please refer to the attached itemized responses regarding these suggested changes.

Per your letter dated May 15, 2012, Tesoro's request for more time to respond was granted resulting in Tesoro's reply being due no later than June 21, 2012. Please contact Lori Menke at (210) 626-6526, if you have any questions regarding this matter.

Sincerely,

Ralph Grimmer
Vice President, Logistics

Tesoro's Response:
Tesoro does not contest finding #2 or the associated proposed compliance order. Recent liaison activities include participation of various agencies in an oil spill drill completed on April 14, 2011. This drill tested the response of Tesoro and local Emergency Responders to a worst case discharge scenario of our Honolulu pipeline system. Agencies that participated in this drill included the Oahu Civil Defense Agency, US Coast Guard, US Fish and Wildlife Service (USFWS), the National Oceanographic and Atmospheric Administration (NOAA), US Navy and US Air Force Responders, and Honolulu and State Personnel.

Tesoro plans to lead a discussion at the next LEPC meeting on June 20, 2012, to interface with local response agencies. This discussion will include information on the availability of Tesoro's Emergency Response Plan, expectations for personnel responding to emergencies at Tesoro assets, resources available and expertise necessary for incident mitigation, and a planned discussion on how to ensure this information is communicated to response agencies and personnel that were not in attendance.

In order to better document liaison activities, Tesoro has implemented a new Emergency Responder Liaison Meeting Form. Tesoro also plans to routinely meet with local Fire Department personnel to further enhance response capabilities. Please see Appendix B to review the supporting documentation.

PHMSA Finding #3:
Tesoro failed to follow its procedures for effectiveness reviews. Tesoro failed to demonstrate that they 1) had completed periodic reviews of work done by its employees and contractors to determine the effectiveness of their O&M procedures and 2) had taken corrective action to remedy deficient procedures when found. Tesoro had a procedure for doing effectiveness reviews but they had no records to demonstrate that these reviews or any corrective actions had been taken on account of the reviews. An operator is required to periodically review the work done by its employees and contractors to determine the effectiveness of procedures used to complete that work and if any deficiencies are found in the procedures they are required to take corrective action to remedy those deficiencies.

PHMSA Proposed Compliance Order: ***N/A***

Tesoro's Response:
Tesoro contests finding #3. Documentation of completed O&M Effectiveness Reviews was located after the agency's inspection. Tesoro personnel perform periodic effectiveness reviews of their DOT O&M Manual procedures, including actions to correct any deficiencies. Documentation of previous effectiveness reviews are found in Appendix C.

PHMSA Finding #4:
Tesoro failed to perform a causal factor analysis of two (2) third-party strikes in their Honolulu pipeline in 2009. One of these strikes was by HECO and another by an archaeological contractor doing work for the "Kam" Highway. Both of these third party strikes occurred even though each third party had made a One-Call. Tesoro had not determined the root cause of these strikes so that preventative actions could be taken to prevent such occurrences in the future. An operator is required to implement a program that will monitor the performance of the Integrity Management program including risk-assessment and mitigation methods with the intent of reducing the likelihood and consequences of a product release. Root cause analysis is a key element in the Program

Evaluation process in order to effectively diagnose problems and develop corrective actions.

PHMSA Proposed Compliance Order #3:
In regard to Item Number 4 of the Notice pertaining to failure of Tesoro to perform a root cause analysis of two third party strikes of their Honolulu pipeline, Tesoro must perform a causal factor analysis to determine why Tesoro's damage prevention program and locate program failed to prevent these strikes. Tesoro must correct any deficiencies they find from this analysis. Tesoro must submit records demonstrating compliance with this item to the Director, Western Region.

Tesoro's Response:
Tesoro does not contest finding #4. At the time of the events, Tesoro did not consider the two examples referenced in your letter to be "incidents" that required causal factor analysis. Therefore, incident investigations were not performed. Both situations resulted in minor coating abrasion which was repaired prior to the pipeline being reburied.

In response to the proposed compliance order, Tesoro has conducted root cause analysis on the events in question. These post incident reviews highlighted third party companies poor excavation practices. In one case the third party contractor had marked their proposed area of excavation, which was confirmed to be clear by Tesoro. The third party company proceeded to excavate outside of the marked area without making a second required one-call notification. The second incident investigation revealed that a third party company changed the excavation dates and started digging prior to adequately notifying Tesoro of this change. Tesoro plans to review the results of this investigation with both companies in question.

In addition to this action, Tesoro has decided to revise its DOT Integrity Management Program (IMP) to ensure that coating abrasion events are appropriately investigated. This change will ensure that abrasion events are analyzed to determine gaps in the damage prevention and line locate programs. A copy of the revised DOT IMP procedure is within Attachment D for your review.

PHMSA Finding #5:
Tesoro failed to demonstrate that they had identified the circumstances in which a close interval survey (CIS) or comparable technology was practical and necessary to accomplish the objectives of paragraph 10.1.1.3 of NACE RP0169 for their Honolulu pipeline. Specifically Tesoro's procedure LOM028 Corrosion Control stated "Every 5 years the pipeline or portion of the pipeline will be evaluated for the need of a Close Interval Survey (beginning 7/2004)" yet Tesoro had no records to demonstrate that they had identified circumstances in which a CIS was practical and necessary. When practicable and determined necessary by sound engineering practice, an operator is required to perform a detailed CIS potential survey to (a) assess the effectiveness of the cathodic protection system; (b) provide base line operating data; (c) locate areas of inadequate protection levels; (d) identify locations likely to be adversely affected by construction, stray currents, or other unusual environmental conditions; or (e) select areas to be monitored periodically.

PHMSA Proposed Compliance Order #4:
In regard to Item Number 5 of the Notice pertaining to close interval surveys (CIS), Tesoro must perform a CIS of their Honolulu pipeline to (a) assess the effectiveness of the cathodic protection system; (b) provide base line operating data; (c) locate areas of inadequate protection levels; (d) identify locations likely to be adversely affected by construction, stray currents, or other unusual environmental conditions; and (e) select

areas to be monitored periodically. Tesoro must submit records demonstrating compliance with this item to the Director, Western Region.

Tesoro's Response:
Tesoro contests finding #5 and disagrees with the proposed compliance order. Tesoro is using this opportunity to explain its position. Tesoro has identified the circumstances in which a CIS is practical and necessary, in accordance with 195.573 (a) (2). Tesoro has applied sound engineering judgment to evaluate the need for Close Interval Surveys (CIS) for the Tesoro Honolulu Pipeline System, and has determined that it is currently not practical, safe or necessary to perform a CIS survey. In response to PHMSA finding #5, a report was generated that describes Tesoro's CIS determination. In lieu of a CIS, Tesoro has implemented alternative CP evaluation methods to accomplish the objectives of NACE SP0169–2007 paragraph 10.1.1.3. Therefore, Tesoro believes that no further action is necessary for compliance.

PHMSA Finding #6:
Tesoro had no records to demonstrate if corrective actions had either been planned or taken to correct cathodic protection (CP) deficiencies found in 2010. Tesoro's CP contractor had issued approximately 12 recommendations to Tesoro to correct CP deficiencies which were found during the contractor's 2010 CP field activities. It appeared that Tesoro had implemented some of these recommendations but Tesoro had no records to show whether all of the recommendations had been accepted or if there were plans to follow those recommendations not yet taken. An operator is required to correct any identified deficiency in CP. Additionally an operator is required to maintain a record of those corrective actions for at least 5 years as per 195.589(c).

PHMSA Proposed Compliance Order #5:
In regard to Item Number 6 of the Notice pertaining to corrective actions to remediate CP deficiencies found in 2010, Tesoro must address each of the recommendations within Coffman Engineering 2010 CP report for Tesoro HI's Honolulu pipeline. Tesoro must document how they have addressed each of those recommendations. Tesoro must submit records demonstrating compliance with this item to the Director, Western Region.

Tesoro's Response:
Tesoro does not contest finding #6 or the proposed compliance order. Tesoro's 2010 Cathodic Protection (CP) Survey Report recommendation status has been detailed within the attached technical response letter. In addition, Tesoro has planned the remaining 2010 CP Survey recommendations for completion before the end of 2012. Supporting documentation is within Appendix F for your review.

PHMSA Finding #7:
Tesoro had not developed a program for minimizing the detrimental effects of stray currents that could be associated with the new transit rail system (now under construction) which will closely parallel their Honolulu pipeline at locations. Rail transit systems are a known source of interference current and often have damaging effects on pipelines if not mitigated. An operator is required to have a program to identify, test for, and minimize the detrimental effects of stray currents.

PHMSA Proposed Compliance Order #6:
In regard to Item Number 7 of the Notice pertaining to a nearby rail transit system being constructed that could create potential damaging stray currents on the Tesoro Honolulu pipeline, Tesoro must develop and implement a plan for mitigating potential stray currents from the new transit rail system within Honolulu. Tesoro must submit records demonstrating compliance with this item to the Director, Western Region.

Tesoro's Response:

Tesoro contests finding #7, and subsequently does not accept the proposed compliance order. Tesoro disagrees that this allegation constitutes a violation of 49 CFR §195.577, because the proposed transit rail system is a future event which has not yet occurred. Preliminary information provided by the rail transit system indicates that stray currents will not be an issue due to the design considerations that will be implemented. Tesoro currently attends regular task force meetings with Kiewit, the Hawaii Rail Transit design engineering firm. Tesoro also reviews email updates from Kiewit on the project progress. As the rail system designs are finalized and systems are installed, Tesoro will develop a program to identify, test for and minimize the effects of the new rail system as appropriate. Mitigation measures addressing interference currents will be implemented as deemed necessary. It is premature to develop such a program until specifics of the rail system are established and provided to Tesoro. Please see supporting documentation within Appendix G.

PHMSA Finding #1:
Tesoro failed to demonstrate that qualifying tests of their in-service welding procedure had been performed. Specifically Tesoro had no record of qualifying test results for PLM-A2, the weld procedure used for the installation of a 65" sleeve repair on 6/19/2009. An operator's welding procedures must be qualified under API 1104 or Section IX of ASME Boiler and Pressure Vessel Code. The quality of the test weld must be determined by destructive testing. The operator must retain and follow those weld procedures and the qualifying test records whenever that weld procedure is used.

PHMSA Proposed Compliance Order #1:
In regard to Item Number 1 of the Notice pertaining to qualification of weld PLM-A2, Tesoro must perform destructive testing of this weld in accordance with API 1104 or Section IX of ASME Boiler and Pressure Vessel Code. Tesoro must then retain the record of this weld's qualification and any records showing this weld's use. Tesoro must submit records demonstrating compliance with this item to the Director, Western Region.

Tesoro's Response:
Tesoro does not contest finding #1 and believes that no additional action is necessary to meet the proposed compliance order. Subsequent to this inspection, Tesoro qualified the sleeve welding procedure that was utilized during the June 19, 2009, repair.

Due to a new Tesoro naming convention, this welding procedure was renamed PL-M2 on August 23, 2011. All welds completed during the subject sleeve repair project were made per this qualified procedure. Please see the attachments containing the qualified welding procedure and project welding records (See Appendix A).

PHMSA Finding #2:
Tesoro failed to maintain liaison with various local fire departments responsible for responding to Tesoro Honolulu pipeline emergencies. Interviews with Tesoro personnel revealed that it had been about three years since the last fire department review of Tesoro's Honolulu pipeline facilities. An operator is required to maintain liaison with government organizations who may respond to an operator's pipeline emergencies. These liaison activities must include each participating pipeline and emergency responder group learning of the other's capabilities, responsibilities, and resources to respond to pipeline emergencies. Liaison activities must also include some preliminary emergency response planning between the operator and the local emergency responders.

PHMSA Proposed Compliance Order #2:
In regard to Item Number 2 of the Notice pertaining to liaison activities with local fire fighting organizations responsible for responding to Tesoro Honolulu pipeline emergencies, Tesoro must perform liaison activities with fire, police and other public officials who are responsible for responding to fire and other emergencies on Tesoro's Honolulu pipeline facilities. These liaison activities must include each participating emergency responder group and Tesoro learning of the other's capabilities, responsibilities, and resources to respond to pipeline emergencies. Liaison activities must also include some preliminary emergency response planning between Tesoro and the local emergency responders. Tesoro must submit records demonstrating compliance with this item to the Director, Western Region.

Appendices Table of Contents

The following appendices support Tesoro's responses to the allegations:

Appendix A

Tesoro's Welding Procedure PL-M2

Welding Project Records for 65" Sleeve Repair on 6/19/2009

WELDER OR WELDING OPERATOR COUPON QUALIFICATION TEST RECORD

REPORTED TO: Tesoro Pipeline
Attn: Larry Moe
3501 4th Avenue NE
Watford City, ND 58854

DATE: August 23, 2011
LAB NO: 11-370
JOB NO: Frontier

Welder Name Mark Thiel Clock No. 9219 Stamp No. _____
Type of Welder Welder Performance
Welding Procedure Specification No. PL-M2 Rev. 1.0 Date August 12, 2011

Process Type:	SMAW - Manual with backing
Mean Temperature:	75° F
Weather Conditions:	Mostly Clear
Time of Day/Welding Time:	0900 to 1430, 5½ Hours - includes cutting & fitting
Voltage/Amperage:	18 to 30 volts / 90 to 165 amps
Welding Machine Type/Size:	Miller 304
Weld Type/Position:	Sleeve Weld 6G position (fixed @ 40 - 45 degrees)
Filler Metal/Group Number:	E7018/3
Reinforcement Size/Welding Direction:	up to 1/8" / Uphill
Pipe Type and Grade:	API 5L X52 L2 - Sleeve A572 Grade 50
Wall Thickness/Outside Diameter:	0.375"/12.750" to 12.750"
Qualified Thickness/Outside Diameter Range:	0.188" to 0.750" / 2.375" to 12.750"

VISUAL INSPECTION (6.4) Acceptable YES or NO Yes

TENSILE TESTS (5.6.2)

	1	2	3	4
Coupon stenciled	MT			
Original specimen dimensions (in.)	0.915 x 0.308			
Original specimen area (in.)	0.282			
Maximum load (lbs)	22,600			
Tensile Strength (psi)	80,150			
Fracture location	Base Metal			

___ Procedure
X Welder
Maximum Tensile 80,150

X Qualifying test
___ Line test
Minimum tensile 80,150

X Qualified
___ Disqualified
Average Tensile 80,150

Remarks on tensile-strength test and Macro Etch test:

1. Tensile Test MT = Satisfactory
2. Macro Test, Fillet Weld = Satisfactory
3. Macro Test, Fillet Weld = Satisfactory
4. _____
5. Macro Test, Fillet Weld = Satisfactory
6. Macro Test, Fillet Weld = Satisfactory
7. _____
8. _____

Remarks on bend test:

1. Butt Weld - Face Bend = Satisfactory
2. Butt Weld - Root Bend = Satisfactory
3. _____
4. _____

Remarks on nick-break test:

1. Nick-break - Butt Weld = Satisfactory
2. Nick-break - Fillet Weld = Satisfactory
3. Nick-break - Fillet Weld = Satisfactory
4. Nick-break - Fillet Weld = Satisfactory
5. Nick-break - Fillet Weld = Satisfactory
6. Nick-break - Fillet Weld = Satisfactory
7. Nick-break - Fillet Weld = Satisfactory
8. Nick-break - Fillet Weld = Satisfactory
9. Nick-break - Fillet Weld = Satisfactory
10. _____

We, the undersigned, certify that the statements in this record are correct and that welds were prepared and tested in accordance with the requirements of paragraph 5.6 and/or 5.8 of API Standard 1104 Twentieth Edition, November 2005 Welding of Pipelines and Related Facilities.

Test Witnessed by Larry R Ewer, CWI - ETI Ewer Testing & Inspection Inc Date August 12, 2011
Weld Tests Performed by ETI Ewer Testing & Inspection Inc Laboratory No. 11-370

by _____

LARRY R. EWER
CERTIFIED
CWI

WELDER OR WELDING OPERATOR COUPON QUALIFICATION TEST RECORD

REPORTED TO: Tesoro Pipeline
Attn: Larry Moe
3501 4th Avenue NE
Watford City, ND 58854

DATE: August 23, 2011
LAB NO: 11-370
JOB NO: Frontier

Welder Name Rayburn Mouton Clock No. 1026 Stamp No. _____
Type of Welder Welder Performance
Welding Procedure Specification No. PL-M2 Rev. 1.0 Date August 12, 2011

Process Type:	SMAW - Manual with backing
Mean Temperature:	75° F
Weather Conditions:	Mostly Clear
Time of Day/Welding Time:	0900 to 1430, 5½ Hours - includes cutting & fitting
Voltage/Amperage:	18 to 30 volts / 90 to 165 amps
Welding Machine Type/Size:	Lincoln SA 200
Weld Type/Position:	Sleeve Weld 6G position (fixed @ 40 - 45 degrees)
Filler Metal/Group Number:	E7018/3
Reinforcement Size/Welding Direction:	up to 1/8" / Uphill
Pipe Type and Grade:	API 5L X52 L2 - Sleeve A572 Grade 50
Wall Thickness/Outside Diameter:	0.375"/12.750" to 12.750"
Qualified Thickness/Outside Diameter Range:	0.188" to 0.750" / 2.375" to 12.750"

VISUAL INSPECTION (6.4) Acceptable YES or NO Yes

TENSILE TESTS (5.6.2)

	1	2	3	4
Coupon stenciled	RM			
Original specimen dimensions (in.)	0.850 x 0.312			
Original specimen area (in.)	0.265			
Maximum load (lbs)	21,200			
Tensile Strength (psi)	80,000			
Fracture location	Base Metal			

___ Procedure
X Welder
Maximum Tensile 80,000

X Qualifying test
___ Line test
Minimum tensile 80,000

X Qualified
___ Disqualified
Average Tensile 80,000

Remarks on tensile-strength test and Macro Etch test:
1. Tensile Test RM = Satisfactory
2. Macro Test, Fillet Weld = Satisfactory
3. Macro Test, Fillet Weld = Satisfactory
4. _____
5. Macro Test, Fillet Weld = Satisfactory
6. Macro Test, Fillet Weld = Satisfactory
7. _____
8. _____

Remarks on bend test:
1. Butt Weld - Face Bend = Satisfactory
2. Butt Weld - Root Bend = Satisfactory
3. _____
4. _____

Remarks on nick-break test:
1. Nick-break - Butt Weld = Satisfactory
2. Nick-break - Fillet Weld = Satisfactory
3. Nick-break - Fillet Weld = Satisfactory
4. Nick-break - Fillet Weld = Satisfactory
5. Nick-break - Fillet Weld = Satisfactory
6. Nick-break - Fillet Weld = Satisfactory
7. Nick-break - Fillet Weld = Satisfactory
8. Nick-break - Fillet Weld = Satisfactory
9. Nick-break - Fillet Weld = Satisfactory
10. _____

We, the undersigned, certify that the statements in this record are correct and that welds were prepared and tested in accordance with the requirements of paragraph 5.6 and/or 5.8 of API Standard 1104 Twentieth Edition, November 2005 Welding of Pipelines and Related Facilities.

Test Witnessed by Larry R Ewer, CWI - ETI Ewer Testing & Inspection Inc Date August 12, 2011
Weld Tests Performed by ETI Ewer Testing & Inspection Inc Laboratory No. 11-370

by _____

LARRY R. EWER
82122901
CWI

WELDER OR WELDING OPERATOR COUPON QUALIFICATION TEST RECORD

REPORTED TO: Tesoro Pipeline
Attn: Larry Moe
3501 4th Avenue NE
Watford City, ND 58854

DATE: August 23, 2011
LAB NO: 11-370
JOB NO: Chaznline

Welder Name Rex Geldert Clock No. 3066 Stamp No. _____
Type of Welder Welder Performance
Welding Procedure Specification No. PL-M2 Rev. 1.0 Date August 12, 2011

Process Type:	SMAW - Manual with backing
Mean Temperature:	75° F
Weather Conditions:	Mostly Clear
Time of Day/Welding Time:	0900 to 1430, 5½ Hours - includes cutting & fitting
Voltage/Amperage:	18 to 30 volts / 90 to 165 amps
Welding Machine Type/Size:	Lincoln SEA 300
Weld Type/Position:	Sleeve Weld 6G position (fixed @ 40 - 45 degrees)
Filler Metal/Group Number:	E7018/3
Reinforcement Size/Welding Direction:	up to 1/8" / Uphill
Pipe Type and Grade:	API 5L X52 L2 - Sleeve A572 Grade 50
Wall Thickness/Outside Diameter:	0.375"/12.750" to 12.750"
Qualified Thickness/Outside Diameter Range:	0.188" to 0.750" / 2.375" to 12.750"

VISUAL INSPECTION (6.4) Acceptable YES or NO Yes

TENSILE TESTS (5.6.2)

	1	2	3	4
Coupon stenciled	RG			
Original specimen dimensions (in.)	0.940 x 0.304			
Original specimen area (in.)	0.286			
Maximum load (lbs)	23,300			
Tensile Strength (psi)	81,500			
Fracture location	Base Metal			

___ Procedure
X Welder
Maximum Tensile 81,500

X Qualifying test
___ Line test
Minimum tensile 81,500

X Qualified
___ Disqualified
Average Tensile 81,500

Remarks on tensile-strength test and Macro Etch test:

1. Tensile Test RG = Satisfactory
2. Macro Test, Fillet Weld = Satisfactory
3. Macro Test, Fillet Weld = Satisfactory
4. _____
5. Macro Test, Fillet Weld = Satisfactory
6. Macro Test, Fillet Weld = Satisfactory
7. _____
8. _____

Remarks on bend test:

1. Butt Weld - Face Bend = Satisfactory
2. Butt Weld - Root Bend = Satisfactory
3. _____
4. _____

Remarks on nick-break test:

1. Nick-break - Butt Weld = Satisfactory
2. Nick-break - Fillet Weld = Satisfactory
3. Nick-break - Fillet Weld = Satisfactory
4. Nick-break - Fillet Weld = Satisfactory
5. Nick-break - Fillet Weld = Satisfactory
6. Nick-break - Fillet Weld = Satisfactory
7. Nick-break - Fillet Weld = Satisfactory
8. Nick-break - Fillet Weld = Satisfactory
9. Nick-break - Fillet Weld = Satisfactory
10. _____

We, the undersigned, certify that the statements in this record are correct and that welds were prepared and tested in accordance with the requirements of paragraph 5.8 and/or 5.8 of API Standard 1104 Twentieth Edition, November 2005 Welding of Pipelines and Related Facilities.

Test Witnessed by Larry R Ewer, CWI - ETI Ewer Testing & Inspection Inc Date August 12, 2011
Weld Tests Performed by ETI Ewer Testing & Inspection Inc Laboratory No. 11-370

by _____

LARRY R. EWER
82122901
CWI

WELDER OR WELDING OPERATOR COUPON QUALIFICATION TEST RECORD

REPORTED TO: Tesoro Pipeline
Attn: Larry Moe
3501 4th Avenue NE
Watford City, ND 58854

DATE: August 23, 2011
LAB NO: 11-370
JOB NO: Chaznline

Welder Name Jake Robertson Clock No. 3559 Stamp No. _____
Type of Welder Welder Performance
Welding Procedure Specification No. PL-M2 Rev. 1.0 Date August 12, 2011

Process Type:	SMAW - Manual with backing
Mean Temperature:	75° F
Weather Conditions:	Mostly Clear
Time of Day/Welding Time:	0900 to 1430, 5½ Hours - includes cutting & fitting
Voltage/Amperage:	18 to 30 volts / 90 to 165 amps
Welding Machine Type/Size:	Lincoln 300 D
Weld Type/Position:	Sleeve Weld 6G position (fixed @ 40 - 45 degrees)
Filler Metal/Group Number:	E7018/3
Reinforcement Size/Welding Direction:	up to 1/8" / Uphill
Pipe Type and Grade:	API 5L X52 L2 - Sleeve A572 Grade 50
Wall Thickness/Outside Diameter:	0.375"/12.750" to 12.750"
Qualified Thickness/Outside Diameter Range:	0.188" to 0.750" / 2.375" to 12.750"

VISUAL INSPECTION (6.4) Acceptable YES or NO Yes

TENSILE TESTS (5.6.2)

	1	2	3	4
Coupon stenciled	JR			
Original specimen dimensions (in.)	0.940 x 0.312			
Original specimen area (in.)	0.293			
Maximum load (lbs)	23,300			
Tensile Strength (psi)	79,500			
Fracture location	Base Metal			

___ Procedure
X Welder
Maximum Tensile 79,500

X Qualifying test
___ Line test
Minimum tensile 79,500

X Qualified
___ Disqualified
Average Tensile 79,500

Remarks on tensile-strength test and Macro Etch test:

1. Tensile Test JR = Satisfactory
2. Macro Test, Fillet Weld = Satisfactory
3. Macro Test, Fillet Weld = Satisfactory
4. _____
5. Macro Test, Fillet Weld = Satisfactory
6. Macro Test, Fillet Weld = Satisfactory
7. _____
8. _____

Remarks on bend test:

1. Butt Weld - Face Bend = Satisfactory
2. Butt Weld - Root Bend = Satisfactory
3. _____
4. _____

Remarks on nick-break test:

1. Nick-break - Butt Weld = Satisfactory
2. Nick-break - Fillet Weld = Satisfactory
3. Nick-break - Fillet Weld = Satisfactory
4. Nick-break - Fillet Weld = Satisfactory
5. Nick-break - Fillet Weld = Satisfactory
6. Nick-break - Fillet Weld = Satisfactory
7. Nick-break - Fillet Weld = Satisfactory
8. Nick-break - Fillet Weld = Satisfactory
9. Nick-break - Fillet Weld = Satisfactory
10. _____

We, the undersigned, certify that the statements in this record are correct and that welds were prepared and tested in accordance with the requirements of paragraph 5.6 and/or 5.8 of API Standard 1104 Twentieth Edition, November 2005 Welding of Pipelines and Related Facilities.

Test Witnessed by Larry R Ewer, CWI - ETI Ewer Testing & Inspection Inc Date August 12, 2011
Weld Tests Performed by ETI Ewer Testing & Inspection, Inc Laboratory No. 11-370

by _____

LARRY R. EWER
82122901
CWI

WELDER PROCEDURE QUALIFICATION TEST RECORD

REPORTED TO: Tesoro Pipeline
Attn: Larry Moe
3501 4th Avenue NE
Watford City, ND 58854

DATE: August 24, 2011
LAB NO: 11-370
JOB NO: Frontier

Welder Name Mark Thiel and Raybum Mouton Clock No. 9219 and 1026 Stamp No. _____
Type of Welder Welding Procedure Qualification PL-M2
Welding Procedure Specification No. PL-M2 Rev. 1.0 Date August 12, 2011

Process Type:	SMAW - Manual with backing
Mean Temperature:	75° F
Weather Conditions:	Mostly Clear
Time of Day/Welding Time:	0900 to 1430, 5½ Hours - includes cutting & fitting
Voltage/Amperage:	18 to 30 volts / 90 to 165 amps
Welding Machine Type/Size:	Miller 304 and Lincoln SA 200
Weld Type/Position:	Sleeve Weld 6G position (fixed @ 40 - 45 degrees)
Filler Metal/Group Number:	E7018/3
Reinforcement Size/Welding Direction:	up to 1/8" / Uphill
Pipe Type and Grade:	API 5L X52 L2 - Sleeve A572 Grade 50
Wall Thickness/Outside Diameter:	0.375"/12.750" to 12.750"
Qualified Thickness/Outside Diameter Range:	0.188" to 0.750" / 2.375" to 12.750"

VISUAL INSPECTION (6.4) Acceptable YES or NO Yes

TENSILE TESTS (5.6.2)

	1	2	3	4
Coupon stenciled	MT	RM		
Original specimen dimensions (in.)	0.915 x 0.308	0.850 x 0.312		
Original specimen area (in.)	0.282	0.265		
Maximum load (lbs)	22,600	21,200		
Tensile Strength (psi)	80,150	80,000		
Fracture location	Base Metal			

X Procedure
___ Welder
Maximum Tensile 80,150

X Qualifying test
___ Line test
Minimum tensile 80,000

X Qualified
___ Disqualified
Average Tensile 80,075

Remarks on tensile-strength test and Macro Etch test:

1. Tensile Test MT = Satisfactory
2. Macro Test, Fillet Weld MT = Satisfactory
3. Macro Test, Fillet Weld MT = Satisfactory
4. Macro Test, Fillet Weld MT = Satisfactory
5. Macro Test, Fillet Weld MT = Satisfactory
6. Macro Test, Fillet Weld RM = Satisfactory
7. Macro Test, Fillet Weld RM = Satisfactory
8. Macro Test, Fillet Weld RM = Satisfactory
9. Macro Test, Fillet Weld RM = Satisfactory
10. Macro Test, Fillet Weld RM = Satisfactory

Remarks on bend test:

1. Butt Weld MT - Face Bend = Satisfactory
2. Butt Weld MT - Root Bend = Satisfactory
3. Butt Weld RM - Face Bend = Satisfactory
4. Butt Weld RM - Face Bend = Satisfactory

Remarks on nick-break test:

1. Nick-break - Butt Weld MT = Satisfactory
2. Nick-break - Fillet Weld MT = Satisfactory
3. Nick-break - Fillet Weld MT = Satisfactory
4. Nick-break - Fillet Weld MT = Satisfactory
5. Nick-break - Fillet Weld MT = Satisfactory
6. Nick-break - Fillet Weld MT = Satisfactory
7. Nick-break - Fillet Weld MT = Satisfactory
8. Nick-break - Fillet Weld MT = Satisfactory
9. Nick-break - Fillet Weld MT = Satisfactory
10. Nick-break - Butt Weld RM = Satisfactory
11. Nick-break - Fillet Weld RM = Satisfactory
12. Nick-break - Fillet Weld RM = Satisfactory
13. Nick-break - Fillet Weld RM = Satisfactory
14. Nick-break - Fillet Weld RM = Satisfactory
15. Nick-break - Fillet Weld RM = Satisfactory
16. Nick-break - Fillet Weld RM = Satisfactory
17. Nick-break - Fillet Weld RM = Satisfactory
18. Nick-break - Fillet Weld RM = Satisfactory

WELDER PROCEDURE QUALIFICATION TEST RECORD

DATE: August 24, 2011
Page: 2 of 2

Type of Welder Welding Procedure Qualification PL-M2
Welding Procedure Specification No. PL-M2 Rev. 1.0 Date August 12, 2011

Vickers Hardness Tests Results							
Identification	VHN	Identification	VHN	Identification	VHN	Identification	VHN
MT Sleeve BM - 1	140	MT Girth BM - 1	131	RM Sleeve BM - 1	120	RM Girth BM - 1	141
BM - 2	141	BM - 2	138	BM - 2	138	BM - 2	148
BM - 3	121	BM - 3	128	BM - 3	146	BM - 3	146
BM - 4	120	BM - 4	146	BM - 4	121	BM - 4	133
BM - 5	129	BM - 5	134	BM - 5	128	BM - 5	124
BM - 6	116	BM - 6	142	BM - 6	138	BM - 6	134
HAZ - 7	126	HAZ - 7	117	HAZ - 7	126	HAZ - 7	109
HAZ - 8	133	HAZ - 8	122	HAZ - 8	140	HAZ - 8	116
HAZ - 9	127	HAZ - 9	116	HAZ - 9	113	HAZ - 9	118
HAZ - 10	144	HAZ - 10	133	HAZ - 10	137	HAZ - 10	136
HAZ - 11	147	HAZ - 11	126	HAZ - 11	131	HAZ - 11	109
HAZ - 12	152	HAZ - 12	139	HAZ - 12	137	HAZ - 12	126
Weld - 13	147	Weld - 13	142	Weld - 13	140	Weld - 13	145
Weld - 14	142	Weld - 14	149	Weld - 14	142	Weld - 14	141
Weld - 15	151	Weld - 15	139	Weld - 15	138	Weld - 15	126
Weld -16	140	Weld - 16	145	Weld - 16	150	Weld - 16	148
Weld - 17	143	Weld - 17	159	Weld - 17	128	Weld - 17	170
Weld - 18	128	Weld - 18	151	Weld - 18	130	- 18	152

CHARPY TEST RESULTS		ASTM A370 10mm x 10mm x 2mm notch				ASTM Type A @ -20° F					
Specimen	Location	Impact Value (ft-lbs)				Lateral Expansion (Mils)			Percent Shear Fracture		
		Individual			Avg						
1, 2, 3	WCL	32	34	67	44	44	45	74	40	60	85
1, 2, 3	HAZ	40	44	41	42	68	67	60	70	100	70

We, the undersigned, certify that the statements in this record are correct and that welds were prepared and tested in accordance with the requirements of paragraph 5.6 and/or 5.8 of API Standard 1104 Twentieth Edition, November 2005 Welding of Pipelines and Related Facilities.

Test Witnessed by Larry R Ewer, CWI - ETI Ewer Testing & Inspection Inc Date August 12, 2011
Weld Tests Performed by ETI Ewer Testing & Inspection Inc Laboratory No. 11-370

by

LARRY R. EWER
8212201
CWI

Tesoro Pipeline

Tesoro Corporation
PT&T Repair and Inspection Report

Note: Refer to Tesoro Procedure Manual for detailed instructions on completing this form.

Project Number:	Line Sheet Number:	Report Number: PT –

General Information

Company: Tesoro Hawaii Corp.

Location: ☒ Hawaii ☐ Alaska ☐ Salt Lake City ☐ Northern Great Plains ☐ Other _____

This Report is	Line Size		State	County
☐ New ☒ Revised	10" White Oil	☐ Trunk ☐ Gathering	Hawaii	Honolulu

Tract or Line List No.			Section	Township		Range	
	☐ NW ☐ NE ☐ SW ☐ SE	☐ NW ☐ NE ☐ SW ☐ SE			☐ N ☐ S		☐ E ☐ W

Facility (Line Segment) Refinery to Sand Island	Mile Post	GPS Latitude (dec. deg.)	GPS Longitude (dec. deg.)

Inspection Data

Month	Day	Year	Feet Repaired	From Inventory	To Inventory	Exact Location
June	20	2009	51' coating	Refinery	Sand Island	Kapolei Dig #4 16011.30' from launch

Soil Condition	☒ Crumbly ☐ Sandy	☒ Rocky ☐ Clay	☒ Dry ☐ Wet	
Coating Condition	☒ Well Bonded ☐ Poorly Bonded	Coating Type: Asbestos mastic		☐ No Inspection made – pipe was not exposed
Pipe Condition (External)	☒ Mechanical Damage ☐ Minor Pits (50 Mils) At Support	☐ Slight Rust Film ☐ Deep Pits (Mils)	☐ Thick Rust Film ☒ Random Pits (100 Mils)	
	☐ No External pipe inspection made – pipe was not exposed or coating is well bonded			
Pipe Condition (Internal)	☐ No Internal Corrosion ☐ Minor Pits ☐ Random Pits ☐ Deep Pits (Mils) ☒ No Internal inspection made – pipe was not removed			Clock Position on Pipe

Repair Data (X) ☐ **If Not Applicable**

Month	Day	Year	Feet Repaired	From Inventory	To Inventory	Exact Location
June	20	2009	65" Sleeve	Refinery	Sand Island	Kapolei Dig #4 16011.30' from launch

Reason For Repair: ☒ Corrosion ☐ Defective Material Casing ☐ Testing ☐ Outside Forces ☐ Cathodic Interference

Type of Repair:
☒ Welded Full Encirclement Sleeve ☐ Welded Patch ☐ Pipe Replacement ☐ Other _____
☒ Coating Repair (Coating Type) 75% overlap of Calpico 20 mil wrap w/Polyken Base Paint Coating:

Welder		Company/Contractor	Date of Qualification & OQ
Adrian Booker	☒ API 1104 ☒ API 1107	PCC	10/2005
	☐ API 1104 ☐ API 1107		

Comments: During the excavation of the ILI events #539 thru #542 at Kapolei Dig #4, the asbestos coating was removed and the pipe was sandblasted for evaluation. Item #539 had a wormhole to approx. .100" deep, these areas were covered with a 65" type "B" sleeve. The sleeve passed it's Magnetic Particle test with no relevant indications noted. The other Items that the pig called out were very accurate to the CPIG findings and will not require any repairs at this time. There were two areas in this location that were not picked up by the pig, one was a minor gouge to .030". The gouge was ground out and a Magnetic Particle test was done, with no relevant indications noted. The second area that the pig missed was approx. 11"L x 9"W with .050" deep pits, neither of these Items needed any further attention at this time. The entire exposed area, approx. 51' long, was re-wrapped using a 75% overlap of Calpico 20 mil wrap w/Polyken base and was backfilled using a C-33 cushion around the pipeline. The potential readings in this area were -1.043 on and -0.967 in the off position.

Pipe or Sleeve Installed (X) ☐ **If Not Applicable**

Taken From (Stock Location)		Footage	Inventory Installed (Centerline)
PCC fab yard	☐ Pipe ☒ Sleeve	65"	6.68' from center of sleeve to D/S weld (Item 543)

Size	Grade	Type	Manufacturer	Wall Thickness (Inches)	Hydrotest Date	Test Pressure (pipe)
10"	X42/B	API 5L	V & M Star	.365"	(pipe) 6-28-2004	2420

General Information

Other Inspection Findings, Remarks: (Attach Field Sketch)

Prepared by (Signature)	(Title)	Date
Randy Hill	Visual / OQ Inspector	June 20, 2009

Copies to: Preparer, Regional PT&T Office, Denver PT&T Engineering Dept.

E&I ENGINEERING & INSPECTIONS HAWAII INC.

External Metal Loss

PIPELINE INTEGRITY – NDE Report

Dig Location: Kapolei Dig #4

Designation # 16011.30' from launch

Project : 10" White Oil Pipeline **Pipeline System:** Tesoro Hawaii **Segment:** Refinery to Sand Island Terminal

NDE Methods

Visual ☒ WCAMT ☒ UT-FAST ☐ UT-0 Degree ☒ UT Shear ☐

Thickness Nominal:	.250"
Actual Thickness:	.147"
Joint Length:	40.27'

Item #	NDE Type	Max ML	Axial Length	Circ. Length	% Wall Loss	Clock Position	MAOP	Max Safe Press	Burst Press	Sleeve Length	
539	VT/PG	.065"	60"	14"	26%	10:30	1107	1145	1590	N/A	15985.63'
540	VT/PG	.060"	25"	10"	24%	9:45	1107	1176	1633	N/A	15989.68'
541	VT/PG	.100"	16"	10"	40%	8:00	1107	928	1289	65"	16011.30'
542	VT/PG	.040"	10"	6"	16%	3:30	1107	1300	1805	65"	16013.93'
N/A	VT/PG	.050"	11"	9"	20%	9:00	1107	1238	1719	N/A	16015.03' (no item #)
N/A	VT/PG /MT	.030"	1"	.25"	12%	3:30	1107	1407	2126	N/A	16016.68' (Gouge no Item #) Ground out

***NDE anomaly start is referenced to the Excavation Designation Girth Weld.

NDE Technician: Randy Hill Level: II

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E&I ENGINEERING & INSPECTIONS HAWAII, INC.

Site: 10" White Oil (Kapolei Dig #4) Gouge No Item #

Station: 16016.68' From Launch Date: 3/27/2009

P = 2StFT/D [psig] - Calculated Pressure 1,407

Established MAOP [psig] 1,107

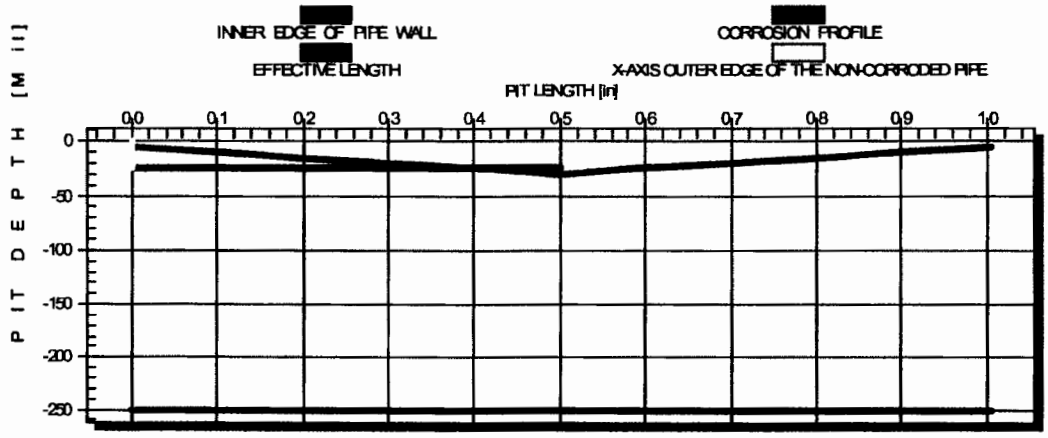
Pipe Outside Diameter [in]	10.75	Effective Length [in]	1.0
Pipe Wall Thickness [in]	0.250	Effective Area [in]²	0.018
SMYS [psi]	42,000	Max. Pit Depth [in]	0.030
Design Factor	0.72	Max.Depth/Wall Thickness	12%
Total Length [in]	1.0		

Effective Length: Start [in] 0.00 End [in] 1.00

RESULTS OF ANALYSIS:

METHOD	Max.Safe Pressure [psig]	Burst Pressure [psig]	Safety Factor
RSTRENG - Effective Area	1407	2401	2.17
RSTRENG - 0.85dL	1407	2392	2.16
ASME B31 G	1407	2126	1.92

CORROSION PROFILE:



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HAWAII, INC.

4/21/2009

GOUGE DEPTH MEASUREMENT

Nr.	Increment [in]	Pit Depth [Mil]
1.	0	5
2.	0.1	10
3.	0.2	15
4.	0.3	20
5.	0.4	25
6.	0.5	30
7.	0.6	25
8.	0.7	20
9.	0.8	15
10.	0.9	10
11.	1	5

Prepared By: Randy Hill

Date: 4-21-09

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Site: 10" White Oil (Kapolei Dig #4) Item 539

Station: 15985.63' From Launch Date: 3/27/2009

P = 2StFT/D [psig] - Calculated Pressure	1,407
Established MAOP [psig]	1,107

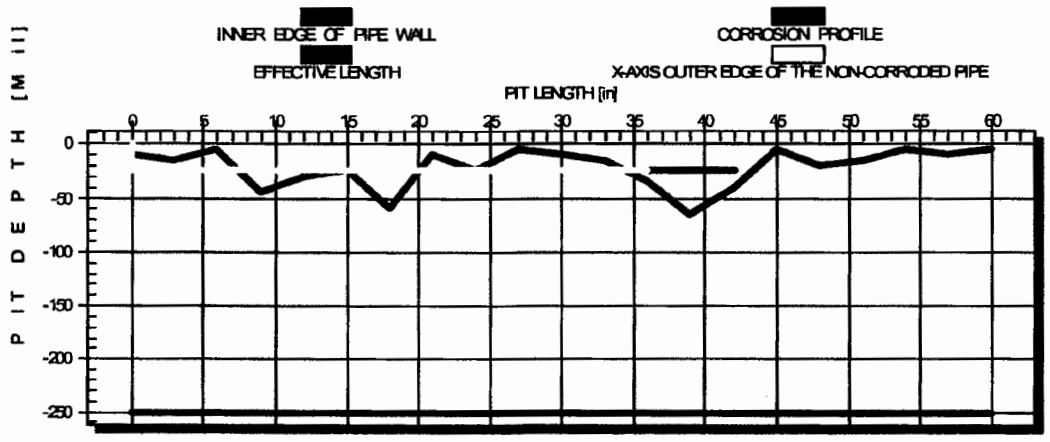
Pipe Outside Diameter [in]	10.75	Effective Length [in]	6.0
Pipe Wall Thickness [in]	0.250	Effective Area [in]²	0.308
SMYS [psi]	42,000	Max. Pit Depth [in]	0.065
Design Factor	0.72	Max.Depth/Wall Thickness	26%
Total Length [in]	60.0		

Effective Length: Start [in] 36.00 End [in] 42.00

RESULTS OF ANALYSIS:

METHOD	Max.Safe Pressure [psig]	Burst Pressure [psig]	Safety Factor
RSTRENG - Effective Area	1407	2066	1.87
RSTRENG - 0.85dL	1363	1893	1.71
ASME B31 G	1145	1590	1.44

CORROSION PROFILE:



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CORROSION MEASUREMENT

Nr.	Increment [in]	Pit Depth [Mil]
1.	0	10
2.	3	15
3.	6	5
4.	9	45
5.	12	30
6.	15	25
7.	18	60
8.	21	10
9.	24	25
10.	27	5
11.	30	10
12.	33	15
13.	36	35
14.	39	65
15.	42	40
16.	45	5
17.	48	20
18.	51	15
19.	54	5
20.	57	10
21.	60	5

Prepared By: Randy Hill Date: 4-21-09

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HAWAII, INC.

Site: 10" White Oil (Kapolei Dig #4) Item 540

Station: 15989.68' From Launch Date: 3/27/2009

P = 2StFT/D [psig] - Calculated Pressure	1,407
Established MAOP [psig]	1,107

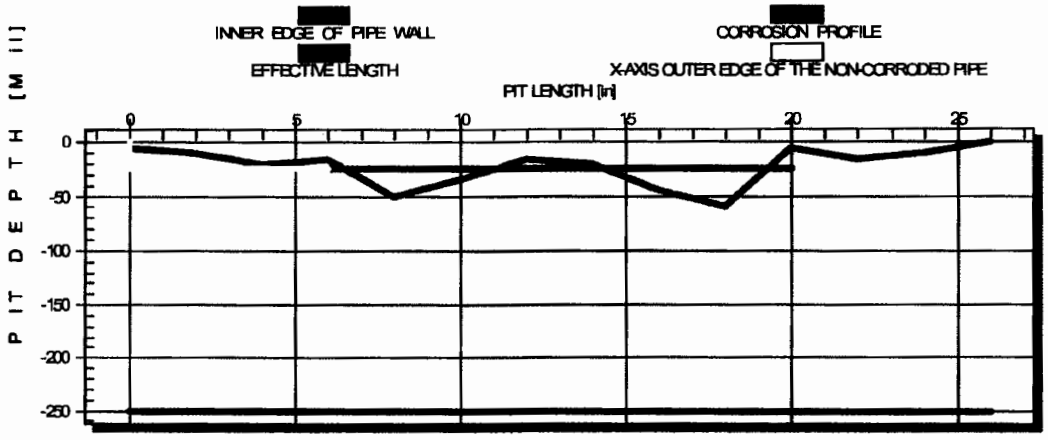
Pipe Outside Diameter [in]	10.75	Effective Length [in]	14.0
Pipe Wall Thickness [in]	0.250	Effective Area [in]²	0.470
SMYS [psi]	42,000	Max. Pit Depth [in]	0.060
Design Factor	0.72	Max.Depth/Wall Thickness	24%
Total Length [in]	26.0		

Effective Length: Start [in] 6.00 End [in] 20.00

RESULTS OF ANALYSIS:

METHOD	Max.Safe Pressure [psig]	Burst Pressure [psig]	Safety Factor
RSTRENG - Effective Area	1407	2145	1.94
RSTRENG - 0.85dL	1407	1960	1.77
ASME B31 G	1176	1633	1.48

CORROSION PROFILE:



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CORROSION MEASUREMENT

Nr.	Increment [in]	Pit Depth [Mil]
1.	0	5
2.	2	10
3.	4	20
4.	6	15
5.	8	50
6.	10	35
7.	12	15
8.	14	20
9.	16	45
10.	18	60
11.	20	5
12.	22	15
13.	24	10
14.	26	0

Prepared By: Randy Hill

Date: 4-21-09

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Site: 10" White Oil (Kapolei Dig #4) Item 541

Station: 16011.30' From Launch Date: 3/27/2009

P = 2StFT/D [psig] - Calculated Pressure	1,407
Established MAOP [psig]	1,107

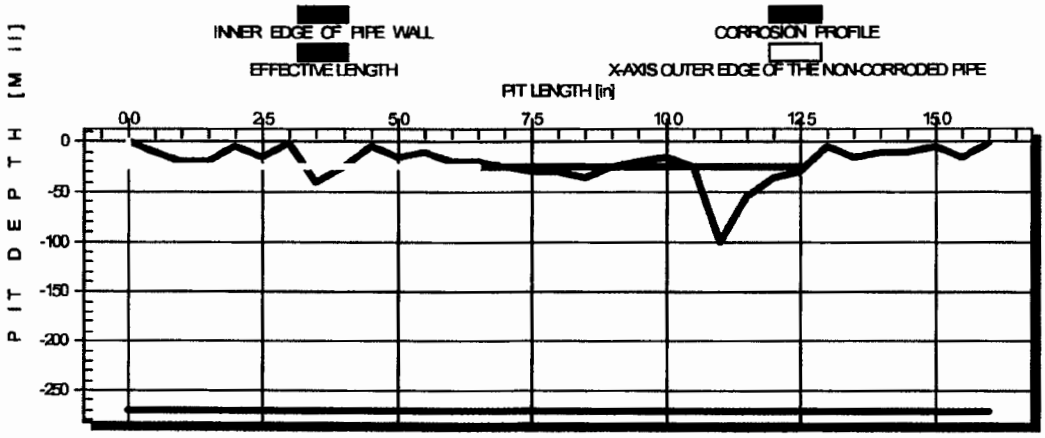
Pipe Outside Diameter [in]	10.75	Effective Length [in]	6.0
Pipe Wall Thickness [in]	0.250	Effective Area [in]²	0.210
SMYS [psi]	42,000	Max. Pit Depth [in]	0.100
Design Factor	0.72	Max.Depth/Wall Thickness	40%
Total Length [in]	16.0		

Effective Length: Start [in] 6.50 End [in] 12.50

RESULTS OF ANALYSIS:

METHOD	Max.Safe Pressure [psig]	Burst Pressure [psig]	Safety Factor
RSTRENG - Effective Area	1407	2183	1.97
RSTRENG - 0.85dL	1214	1687	1.52
ASME B31 G	928	1289	1.16

CORROSION PROFILE:



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3/27/2009

CORROSION MEASUREMENT

Nr.	Increment [in]	Pit Depth [Mil]
1.	0	0
2.	0.5	10
3.	1	20
4.	1.5	20
5.	2	05
6.	2.5	15
7.	3	10
8.	3.5	40
9.	4	25
10.	4.5	05
11.	5	15
12.	5.5	10
13.	6	20
14.	6.5	20
15.	7	25
16.	7.5	30
17.	8	30
18.	8.5	35
19.	9	25
20.	9.5	20
21.	10	15
22.	10.5	25
23.	11	100
24.	11.5	55
25.	12	35
26.	12.5	30
27.	13	05
28.	13.5	15
29.	14	10
30.	14.5	10

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31.	15	05
32.	15.5	15
33.	16	10

Prepared By: Randy Hill Date: 3-27-09

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Site: 10" White Oil (Kapolei Dig #4) Item 542

Station: 16013.93' From Launch Date: 3/27/2009

P = 2StFT/D [psig] - Calculated Pressure	1,407
Established MAOP [psig]	1,107

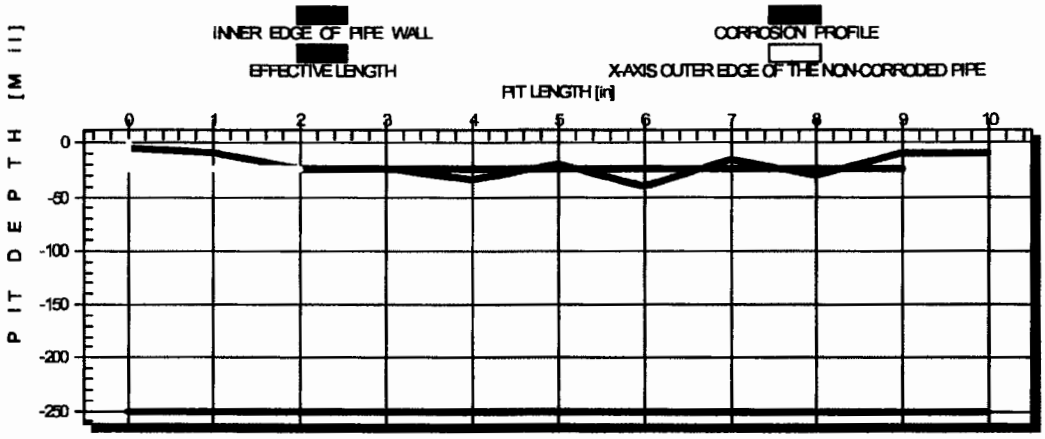
Pipe Outside Diameter [in]	10.75	Effective Length [in]	7.0
Pipe Wall Thickness [in]	0.250	Effective Area [in]²	0.183
SMYS [psi]	42,000	Max. Pit Depth [in]	0.040
Design Factor	0.72	Max.Depth/Wall Thickness	16%
Total Length [in]	10.0		

Effective Length: Start [in] 2.00 End [in] 9.00

RESULTS OF ANALYSIS:

METHOD	Max.Safe Pressure [psig]	Burst Pressure [psig]	Safety Factor
RSTRENG - Effective Area	1407	2236	2.02
RSTRENG - 0.85dL	1407	2156	1.95
ASME B31 G	1300	1805	1.63

CORROSION PROFILE:



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4/21/2009

CORROSION MEASUREMENT

Nr.	Increment [in]	Pit Depth [Mil]
1.	0	5
2.	1	10
3.	2	25
4.	3	25
5.	4	35
6.	5	20
7.	6	40
8.	7	15
9.	8	30
10.	9	10
11.	10	10

Prepared By: Randy Hill

Date: 4-21-09

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ENGINEERING & INSPECTIONS HAWAII, INC.

MAGNETIC PARTICLE EXAMINATION RECORD

Client: Tesoro Pipeline	Location: 10" White Oil (Kapolei Dig #4)	Date: 4-21-09
P.O. No.: 4501447289	Job No.: 09-198	
E & I Procedure: NDT003.2 REV.B	Code: API1104	
Report No.: RRH042109		

MATERIAL

Type: C/S

Thickness: .250"

Geometry

☒ Pipe ☐ Plate ☐ Rod

☐ Other: ____

Item: 10" White Oil Pipeline (Kapolei Dig #4)

Stage of Mfg.: Gouge

Surface Condition: In service (Ground)

MAGNETIZING TECHNIQUE

Prod: ☒ AC ☐ DC Spacing 4-6"

Amps ____ Coil Dia. ____

Longitudinal Turns ____ Amp Turns ____

Direct ____

Circular ____

Central Conductor ____

Amps ____

Inspection Medium ☐ Dry Powder Color: Black

☒ White Contrast Type Batch No.: 04L11K-02451

Illumination ☒ White ☐ Ultraviolet

MAGNETIZING EQUIPMENT

Mfg.: Parker Probe Serial #: 9962

Calibration Date: 7-19-09

Field Verification By: Pie Gauge

UV Meter : N/A

MODEL: N/A Serial #: N/A

Item(s)	Accept	Reject
Gouge (Removed)	☒	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐

Sketch/Notes

Performed By : Randy Hill Level: II Date: 4-21-09 Reviewed By: Date: Page 1 of 1

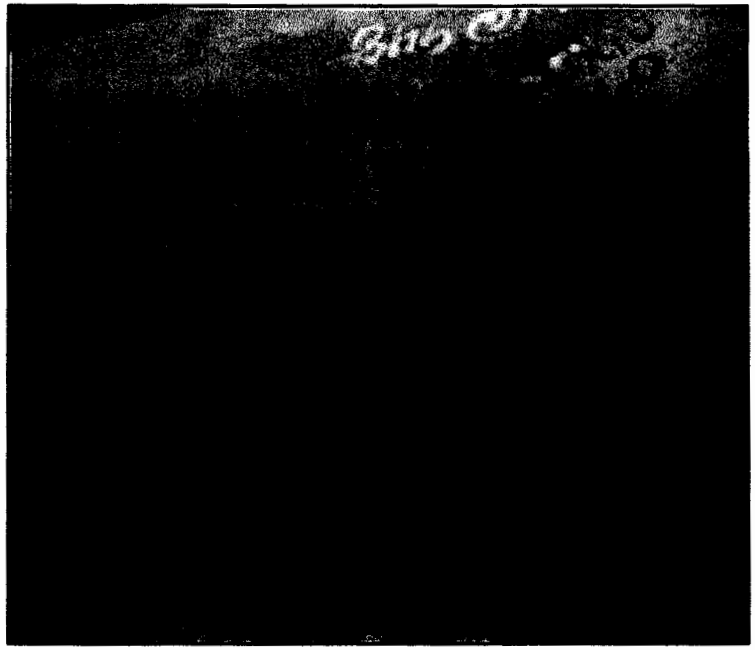
E&I
ENGINEERING & INSPECTIONS HAWAII INC.

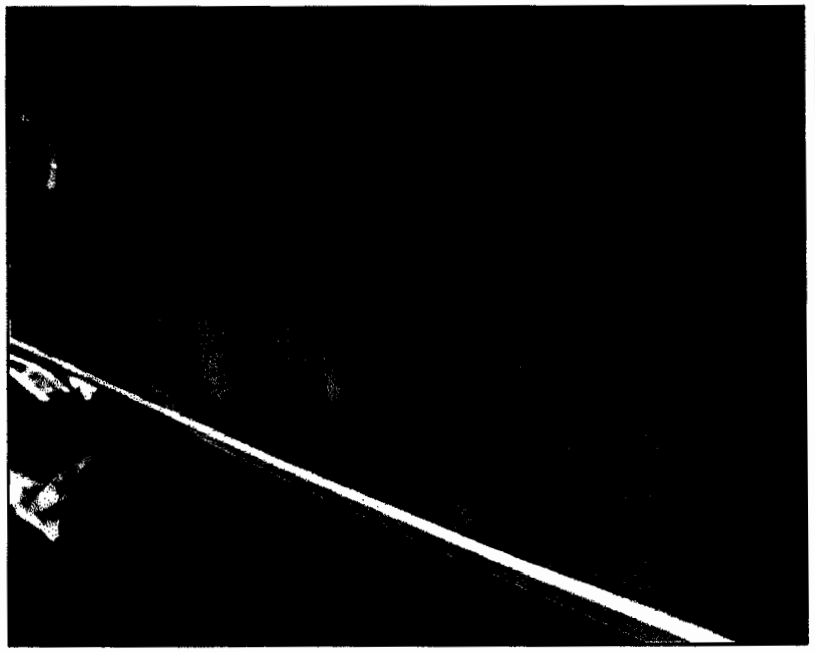
NDE Examination Results
10" White Oil Pipeline

Component Designation 16011.30' from launch
Repair Number: Kapolei Dig #4
Location: Kapolei 10" White Oil

Nominal Wall Thk: 250"

SKETCH OR OTHER DETAILS





Technician Randy Hill

Date March 27, 2009

E & I ENGINEERING & INSPECTIONS HAWAII INC.

NDE Examination Results
10" White Oil Pipeline

Component Designation 16011.30' from launch
Repair Number: Kapolei Dig # 4
Location: 10" White Oil Refinery to Sand Island

Sleeve T nom: .365"

Lamination Scan was Acceptable at sleeve ends
Magnetic Particle Examination Results

U/S Fillet	☒ accept	☐ reject
D/S Fillet	☒ accept	☐ reject
Long Seam 2:00	☒ accept	☐ reject
Long Seam 8:00	☒ accept	☐ reject

Magnetic Particle examination per E & I Hawaii, Inc. NDE examination procedures.

Technique: WCAMT – Wet contrast AC Yoke

Sleeve Length: 65" Type "B" sleeve
Date Installed: 6-20-09
Welder: Adrian Booker
Welder:
Comments: No relevant indications noted

[redacted]

Technician Randy Hill Level II Date June 20, 2009

Quality • Integrity • Reliability

ENGINEERING & INSPECTIONS
HAWAII, INC.

Site: 10" White Oil (Kapolei Dig #4) NO ITEM #

Station: 16015.03' From Launch Date: 3/27/2009

P = 2StFT/D [psig] - Calculated Pressure	1,407
Established MAOP [psig]	1,107

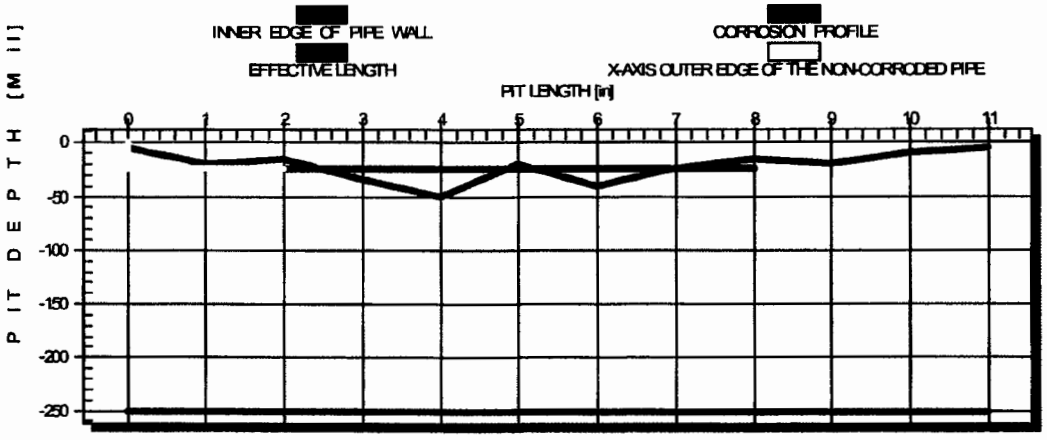
Pipe Outside Diameter [in]	10.75	Effective Length [in]	6.0
Pipe Wall Thickness [in]	0.250	Effective Area [in]²	0.185
SMYS [psi]	42,000	Max. Pit Depth [in]	0.050
Design Factor	0.72	Max.Depth/Wall Thickness	20%
Total Length [in]	11.0		

Effective Length: Start [in] 2.00 End [in] 8.00

RESULTS OF ANALYSIS:

METHOD	Max.Safe Pressure [psig]	Burst Pressure [psig]	Safety Factor
RSTRENG - Effective Area	1407	2212	2.00
RSTRENG - 0.85dL	1407	2082	1.88
ASME B31 G	1238	1719	1.55

CORROSION PROFILE:



P. O. Box 700217 • Kapolei, HI 96709-0217 • Tel: (808) 682-1667 • Fax: (808) 682-1834 • E-Mail: E I Hawaii@aol.com

ENGINEERING & INSPECTIONS
HAWAII INC.

4/21/2009

CORROSION MEASUREMENT

Nr.	Increment [in]	Pit Depth [Mil]
1.	0	5
2.	1	20
3.	2	15
4.	3	35
5.	4	50
6.	5	20
7.	6	40
8.	7	25
9.	8	15
10.	9	20
11.	10	10
12.	11	5

Prepared By: Randy Hill Date: 4-21-09

PO Box 700217 • Kapolei, Hawaii 96709-0217 • Tel: (808) 682-1667 • Fax: (808) 682-1834 • E-Mail: E I Hawaii@aol.com

Tesoro Refining & Marketing Co.
1225 17th Street Suite #1800
Denver, CO. 80202

Procedure Or Welder Qualification Test
API 1107
For Pipe 2 3/8" thru 12 3/4" O.D.

Company	**Tesoro Hawaii Corporation**		
Welding Procedure #	**PLM-A2**	Specification Number	**PQR WIC1**
Location	**Tesoro yard - Campbell Industrial Park**	Date	**November 2, 2005**
Welder	**Adrian Booker (AB)**	Soc Sec #	**452-83-9113**
Contractor	**Pacific Consultants & Contracting**		

Test Information:

Start Time	**1100 hrs.**	Welding Time	**1250 hrs. (1 hr. 50 min.)**
Position	**Fixed 6G**	Weld Progression	**Uphill**
Ambient Temperature	**79° F.**	Preheat **200° F.**	Post Heat **None**
Weather Conditions	**Clear, light breeze**	Wind Break Used	**Yes**
Welding Machine Type	**Miller**	Size or Model	**Trailblazer 310 D**
Type of Current	**D.C.**	Polarity **Reverse**	
AWS Classification and Brand Name of Electrodes		**Lincoln E-7018**	
Sleeve Manufacturer	**V&M Star Tubular Products**		
Sleeve ID	**10.75**	Sleeve Wall Thickness	**0.375**
Long Seam Bevel in Degrees	**30 deg.**	Land **1/16"**	Root Gap **1/8"**
Size of Reinforcement		Cap **1/16"**	Root **1/16" backing strip**

Pass No.	1	2	3	4	5	6	7	8
Electrode Classification	**Bead E7018**	**Filler E7018**	**Filler E7018**	**Cap E7018**				
Diameter	**1/8"**	**1/8"**	**1/8"**	**1/8"**				
Welding Direction	**UPHILL**	**UPHILL**	**UPHILL**	**UPHILL**				

Actual Values:

Pass #	Electrode Desig.	Electrode Size	Voltage	Amperage	IPM
Root	**E7018**	**1/8"**	**27**	**98**	**6.0**
Hot Pass	**E7018**	**1/8"**	**27**	**98**	**6.0**
Fillers	**E7018**	**1/8"**	**27**	**98**	**6.0**
Cap	**E7018**	**1/8"**	**27**	**98**	**6.0**

Pipe Temperatures taken 1" from Weld Joint in Degrees Fahrenheit

Start	Root	Hot Pass	Fillers	Cap
Temps not taken				

Recorded By: **Jim Tschacher, Inspector, T&TCS**

Procedure Or Welder Qualification Test

API 1107

For Pipe 2 3/8" thru 12 3/4" O.D.

Coupon Test Report

Sleeve

Physical Test Data

Coupon Stencil	T-1	T-1A
Specimen DimensionsT & W	.375" x 1.0"	.375" x .575"
Specimen Area T x W	0.375"	0.215"
Maximum Load	26,580	19,492
Tensile Strength Load x Area	70,880	90,660
Fracture Location	NA	BM

1st attempt to break strap was aborted due to decision by NDE tech Randy Hill. The strap was returned to Adrian Booker to trim the load area down. Strap was then pulled until fracture occurred

Remarks

Tensile: Strap #

Bends: Strap #

R-1	(root bend) Acceptable
F-1	(face bend) Acceptable

Nick Break groove fillet: Strap #

N-1	Fine grain structure, no inclusions - Acceptable

Nick Break circumferential: Strap #

N-1	Acceptable
N-2	Acceptable
N-3	Acceptable
N-4	Acceptable

Procedure Qualified or Disqualified

Welder Qualified or Disqualified **Qualified**

Miscellaneous Remarks: **Excellent workmanship**

Test Date: **Wednesday, November 02, 2005**

Welder Name **Adrain Booker**

Stencil **AB**

Inspector Name: **Brian McKenna** Signature

Date **11/2/2005**

Company Witness: **Jim Tschacher** Signature

Date **11/2/2005**

Pacific Consultants & Construction, Inc.

WELDER CONTINUITY LOG

WELDER: **Adrian Booker** STAMP: **AB**

Original Date Qualified: **December 2004**

INITIAL AND DATE THE MONTHS DURING WHICH THE WELDER PERFORMED THE FOLLOWING PROCESSES:

MONTH / YEAR	SMAW	GTAW	1104	GMAW
March / 2005	X VMG	X VMG		
July / 2005	X	X		
October / 2005	X	X	X VMG	
January / 2006	X	X	X	
April / 2006	X	X	X	
July / 2006	X	X	X	
October / 2006	X	X	X	
January / 2007	X	X	X	
April / 2007	X	X	X	
July / 2007	X	X	X	
September / 2007	X	X	X	
December / 2007	X	X	X	
February / 2008	X	X	X	
May / 2008	X	X	X	
September /2008	X	X	X	
January / 2009	X	X	X	
May / 2009	X	X	X	

SMA-1.1-01	**December 2004**
GTA-SMA-1.1-01	**March 2005**
GTA-SMA-8.1-01	**March 2005**
API 1104	**October 2005**
PCC-SMAW-6010/7018	**February 2007**

Tesoro Pipeline — WELDING PROCEDURE TEST REPORT
(COMPANY)

Location weld made at: Pacific Consultants and Construction Report Date: 10/21/05
Contractor: P.C.C. Address: Kalaeloa St. Kapolei, HI Stencile: AB
Project ID: Pier 33 Line: 10" Inspector: Mark Burd
Position: ☐ Rolled ☐ Fixed (horiz. axis) ☐ Fixed (vert. axis) ☑ 45° (6G) Direction: ☐ Uphill ☑ Downhill ☐ Horizontal
Welder: Adrian Paul Booker Welder's SSN. 452-83-9113 Business Phone: 808-672-7702
Welder's Business Address: PO Box 701047 Kapolei, HI 96709-1047
Weld date: 10/20/05 Welding time: 1.75 Hrs. Temperature: 85 F Wind break used: YES
Weather condition: Partly Cloudy Weld joint design. ☑ Butt ☐ Fillet / Branch
Voltage: Root 32-34 Hot 42-45 Other 40-43 Amperage: Root 117-120 Hot 174-179 Other 174-177
Travel Speed: 7 IPM 6 IPM 7 IPM Electrical Charateristics DCEP
Time Between Passes: Root to Hot Pass 10 Min. Hot Pass to Start of Next Pass 15 Min
Type of welding machine: Miller Size: Pipe Pro 304
Filler metal (brand name): 6010-Fleetwood 5P ; 7010- Shield Arc HYP+
Pipe Mfr.: Domestic Grade: A-106- GR B Wall thickness (in.): .365" Dia. O.D.(in.): 10.75"

Procedure No. PL-A3 / 235	Bead Number 1	2	3	4	5	6	7
Size of Electrode	1/8"	1/8"	1/8"	1/8"	1/8"		
A.W.S. No. of Electrode	E-6010 5P	E-7010	E-7010	E-7010	E-7010		
PROCEDURE TENSILE TEST ONLY							
Coupon Number	1	2	3	4	5	6	7
Wall thickness of coupon (in.)							
Original width of coupon (in.)							
Orig. area of plate (inches squared)							
Maximum load							
Tensile strength (max. load/orig. plate area)							
Fracture location							

☐ Procedure qualification ☑ Welder qualification by destructive testing ☐ Welder renewal by destructive testing ☐ Welder qualification or renewal by radiography
Procedure or welder was: ☑ Qualified ☐ Disqualified
Radiographer:
Date radiographer certified:
Radiograph identification number of test weld:
Standard: ☑ API 1104 ☐ API 1107 ☐ ASME IX ☐ Other:

Remarks on tensile:
1.
2.
3.
4.

Remarks on Bend Tests: 2-Root Bends

☑ Root	☐ Side	☐ Face	☐ Side
1. Acceptable		1.	
2. Acceptable		2.	
3.		3.	
4.		4.	

Remarks on Nick Tests: 4 - Nick Breaks

1. Acceptable	5.
2. Acceptable	6.
3. Acceptable	7.
4. Acceptable	8.

Tested at: 9110 Hanua St. suite 202 Kapolei HI 96707 Date: 10/20/05
By: Mark Burd CWI # 02010211 Engineering & Inspections Hawaii, Inc.
AWS QC 1 MARK S. BURD 02010211 CWI
Acceptance
Company Tesoro Pipeline
Date:

Send Copy to:

WPK 001

COUPON TEST REPORT
Qualification per API Std. 1104

Test No. N4

Location: - Naperville
Date: 1-20-87 State Illinois Roll Weld: Fixed position Weld: 6G
Welder: C. A. Knops Mark: SS #330-44-9828
Welding time: 27.7 min Time of Day: M. Temp: 70
Weather condition: Indoors
Wind break used: None Voltage: 23-32 Amperage: 60 to 185
Type of welding machine: D. C. Rectifier Size: 500 amp
Filler metal: AWS A5.1. Class E6010 and A5.5 Class E7010-G
Size of reinforcement: 1/16"
Pipe Kind and Grade: API 5L. Grade X42
Wall thickness: 0.375" nominal Dia. O.D.: 12 3/4"
Travel Speed: 4.5-9.6 ipm

Bead No.:	1	2	3	4	5	6	7
Size of Electrode, in.	3/32	1/8	5/32	3/16	3/16		
No. of Electrodes	13	10	12	7	10		

Coupon stenciled	N4T1	N4T2					
Original Dimension: of pipe	9" x 1" 0.375 nominal						
Orig. area of pipe, in^2	0.378	0.378					
Maximum load, lbs	25.670	28.590					
Tensile strength, lbs/in^2	67.910	75.630					
Fracture location	base metal						

X Procedure X Qualifying Test X Qualified
X Welder __ Line Test __ Disqualified

Max. tensile: 75.630 Min. tensile: 67.910 Avg. tensile: 71.770

Remarks on tensile:
1. All specimens broke in base metal outside of grips.
2.
3.
4.

Remarks on Bend Tests:
1. 2 Face bends - passed
2. 2 Root bends - passed
3.
4.

Remarks on Nick Tests
1. Passed - <1/16" inclusions
2.
3.
4.

Test made at: Research Center. Naperville. IL Date: January 22. 1987
Tested by: K.K. Suter. J. Blum. C.A. Knops Supervised by: S. Ibarra

(Use back for additional remarks.) S. Ibarra

Date: January 29. 1987
Note: Can be used to report both Procedure Qualification test and Welder Qualification tests.

Hardness Survey, HRA

	Range	Average
Base Metal	46.2-50.3	48.0
Heat-affected Zone	48.3-50.0	49.2
Weld Metal	51.3-56.3	54.9

Attn: Rocky

V & M Star
Seamless Tubular Products

CERTIFIED TEST REPORT

Monday, June 28, 2004

PRODUCT DESCRIPTION:

SLN S60128

OD: 10.750 WALL 0.365 LBS/FT 40.52 PEB DRL LP

SEAMLESS HOT ROLLED

GRADE: API 5L X42/B PSL 2 Rev. July 1, 2000

CUSTOMER:
WILSON
W M DEWEY YARD

MILL ORDER NO:
67424

CUSTOMER ORDER NUMBER:
80891000

COMMENT Melted and Manufactured in the U.S.A.

This pipe is also manufactured to:
ASTM A106B/C Rev.04
ASTM A53B Rev.02
ASME SA106B/C Rev.01
ASME SA53B Rev.01
V&M Star's QA program meets the requirements of DIN 50049 3.1.B and EN 10204 3.1.B

MC# 1920U LINE 60

MECHANICAL PROPERTIES: TRANSVERSE

	SPECIMEN CROSS SECTION			STRENGTH KSI		ELONGATION	
	WIDTH (IN)	THICK (IN)	AREA (SQIN)	YIELD	TENSILE	GAGE LENGTH	% ELONG
1)	1.512	0.368	0.5564	49.3	73.9	2	37.1
2)							
3)							
4)							

HYDROSTATIC TEST (PSI): 2420 for a 5 second minimum DRIFT PLUG SIZE: INCHES

SUPPLEMENTAL REQUIREMENTS:

HARDNESS ····· 80 HRBS AVG
FLATTENING ····· PASSED
NACE TEST ····· SATISFIES NACE MR-01-75
JOMINY ·····
GRAIN SIZE ·····
OTHER ·····

CHEMICAL ANALYSIS: 61 Electromagnetic Inspected. Reference Standard was a test joint with 10% OD Longitudinal and Transverse notches.

Required CE Max of 0.43

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Nb	V	Al	Ca	B	Ti	N	CE
HEAT	0.18	0.87	0.006	0.004	0.20	0.20	0.07	0.07	0.01	0.009	0.001	0.002	0.026	0.0024	0.0001	0.003	0.0069	0.36
PRODUCT 1)	0.21	0.87	0.006	0.005	0.20	0.21	0.06	0.08	0.01	0.009	0.001	0.001	0.028	0.0023	0.0001	0.003	0.0071	0.39
PRODUCT 2)	0.19	0.86	0.006	0.004	0.20	0.20	0.06	0.07	0.01	0.011	0.001	0.001	0.027	0.0022	0.0001	0.003	0.0084	0.36
PRODUCT 3)																		
PRODUCT 4)																		

CHARPY IMPACT TESTING:

DIRECTION:		TEST #1	TEST #2	TEST #3
TRANS	FULL:	42		
SIZE:		36		
2/3		47		
TEMP:	AVG:	42		
32 (°F)	SHEAR:	40		
NOTCH:		40		
V		40		
	AVG:	40		

This material has been produced and tested in accordance with the requirements of applicable specifications unless otherwise listed below. We hereby certify that the above test results are representative of those contained in the records of the company. Any modification to this certification as provided by V & M Star without the expressed written consent of V & M Star negates the validity of this test report. V & M Star is not responsible for the inability of this material to meet specific applications.

SIGNED:

DATE: 6-28-04

"The following clause is a condition of this contract and must be passed on verbatim in each subsequent sale: 'These commodities, technology, or software, were exported from the United States in accordance with the export administration regulation. Diversion contrary to U.S. law is prohibited.' Buyer acknowledges his understanding that the sanction of denial of trading privileges in USA exports may be imposed for violation of this export regulation."

SWORN AND SUBSCRIBED TO BEFORE ME

THIS_____DAY_____

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

THIS CERTIFICATE IS NOTORIZED ONLY WHEN REQUEST

Appendix B

NPREP Annual Table Top Drill with Local Emergency Responders

Emergency Responder Liaison Meeting Form

Tabletop Exercise Documentation

TESORO
Tesoro Hawaii
431 Kuwili Street, 2nd Floor
Honolulu, Hawaii 96817
Phone: (808) 547-3834
Fax: 1-866-426-9071

Date(s) Performed:	2011/04/14

Exercise or actual response:	Full Scale Area Exercise
Announced or unannounced:	Announced
Location of exercise:	Hawaii Spill Response Center
Start/End time:	0630 to 1630

Scenario (check one and fill in simulated volume):

AMPD	☐ Check Box	
MMPD	☐ Check Box	
WCD	☒ Check Box	17,873 bbls

Describe how the following objectives were exercised:

Spill management teams' knowledge of facility response plan:	See Exercise Objectives in Participant's Handbook, Page 2-5.	Proper notifications:	See Exercise Objectives in Participant's Handbook, Page 2-5.
Communication system:	See Exercise Objectives in Participant's Handbook, Page 2-5.	Spill management teams' ability to access oil spill response contractors:	See Exercise Objectives in Participant's Handbook, Page 2-5.
Spill management teams' ability to coordinate with on-scene coordinators:	See Exercise Objectives in Participant's Handbook, Page 2-5.	Identify which of the 15 core components were exercised:	See Exercise Objectives in Participant's Handbook, Page 2-5.
Spill management teams' ability to access sensitive site & resource information in Area Plan:	See Exercise Objectives in Participant's Handbook, Page 2-5.	Certifying Signature/ Name/Position:	Annie Lam Emergency Response/Ind Hygienist

See attach description of lessons learned.

Print Form

2011 NPREP Overview

Scope

Test and evaluate core components of the Hawaii Area Contingency Plan and various emergency response plans during a simulated oil spill. This full scale exercise will include standing up a Unified Command/ICS along with deployment of resources in the field.

Exercise Background

Full Scale Exercise

- A scripted exercise scenario with built-in flexibility to allow updates to drive activity.
- A real-time, stressful environment that closely mirrors real event.
- Multiple agencies.
- Notifications will be performed during a drill prior to the Command Post portion of the exercise; it will be evaluated and included in the After Action Report/Lessons Learned.
- Equipment Deployment will not be conducted the same day of the Command Post portion of the exercise; it will be evaluated and included in the After Action Report/Lessons Learned.
- It is acknowledged that some agencies/organizations would not be mobilized/on-scene within the first two hours of the spill. In order to meet Exercise Objectives, it was agreed that all participating agencies and organizations will be assembled at the Incident Command Post at the beginning of the April 14, 2011 exercise (0800).

Exercise Objectives

Overall Objectives:

- Exercise the Area Contingency Plan, along with the Tesoro Kapolei Refinery and the U.S. Navy Integrated Contingency Plan.
- Exercise the response management system identified in the ACP and the spill management teams involved.
- Deploy response equipment and personnel that commensurate with the exercise scenario.

Exercise Objectives (cont.)

Specific Exercise Objectives:

1. **Notification (1.0)**
   Test each participant's notification procedures identified within the respective response plans.
   - Conduct required notification.
   - Notify NRDA trustees.
2. **Staff Mobilization (2.0)**
   Demonstrate the ability to assemble a spill response organization identified in the ACP and Responsible Party Response Plan.
   - Integrate personnel from Tesoro and the Navy to Command and General staff positions.
3. **Unified Command (3.1)**
   Demonstrate the ability to work within a Unified Command structure.
   - Verify appropriate and adequate personnel in UC.
   - Develop and implement overall incident objectives.
4. **Operations (3.2.1)**
   Demonstrate the ability to direct operations related to the implementation of action plans.
   - Communicate effectively with Situation Unit to update information on field response operations.
   - Establish effective Divisions, Groups and Task Forces.
   - Coordinate tactical planning for the next operational period with Planning.
5. **Planning (3.2.2)**
   Utilize a structured planning process to develop an Incident Action Plan for the next operational period.
   - Conduct effective ICS meetings.
   - Prepare an organization chart.
   - Prepare incident objectives.
   - Prepare a communications plan.
   - Prepare work assignments.
   - Prepare a site safety plan.
   - Prepare a medical plan.
   - Prepare a waste management/disposal plan.
   - Prepare other applicable plans.

Exercise Objectives (cont.)

6. **Logistics (3.2.3)**

   Demonstrate the ability to acquire resources to support short-term and long-term action plans.

   - Effective use of one common requisition process.

7. **Public Affairs and Community Affairs (3.2.5)**

   Establish a Joint Information Center to provide the necessary interface between the unified command, media, public and government.

   - Prepare joint press releases.
   - Devise a mean to monitor social media, such as Facebook and Twitter.
   - Develop and implement a Community Outreach Plan.
   - Develop and communicate a Volunteer Program.
   - Conduct an Open House & Press Conference.

8. **Source Control (4.0)**

   Demonstrate the ability to control and stop the discharge at the source.

   - Assemble and deploy salvage resources.

9. **Assessment (5.0)**

   Demonstrate the ability to provide an initial assessment of the discharge and continuing assessments of the effectiveness of the tactical operations.

   - Conduct aerial and forward observations.
   - Prepare visual reports using Ozi Explorer.
   - Integrate aerial observation information into NOAA's modeling capabilities to produce spill trajectories.

10. **Recovery (7.0)**

    Demonstrate the ability employ appropriate mitigation and removal techniques, including alternative response strategies.

    - Evaluate and provide recommendation for night time dispersant use.
    - Coordinate mechanical recovery activities with dispersant application.

11. **Protection (8.0)**

    Demonstrate the ability to protect the environmentally and economically sensitive areas identified in the ACP and in the respective industry response plan.

    - Conduct resources at-risk assessment.

Exercise Objectives (cont.)

- Coordinate with Operations to deploy resources to protect sensitive areas.

12. **Wildlife Recovery and Rehabilitation (8.3)**
    Demonstrate the ability to quickly identify wildlife at risk and implement the proper protection procedures in the ACP's Wildlife Response Plan.
    - Conduct wildlife risk assessment.
    - Initiate request for resources.
    - Development of applicable plans.
13. **Disposal (9.0)**
    Demonstrate the ability to dispose of the recovered material and contaminated debris.
    - Obtain approval to decant.
14. **Communications (10.0)**
    Demonstrate the ability to establish communication both within the response organization and with other entities.
15. **Personnel Support (12.4)**
    Demonstrate the ability to provide suitable operational spaces for the Joint Information Center.
16. **Documentation (15.0)**
    Demonstrate the ability to document decision and actions taken for all operational and support aspects of the response.

Exercise Scenario

At approximately 0200 am on April 14, 2011, a catastrophic oil spill incident occurs. Joint efforts of Tesoro, Navy, State, and the Coast Guard respond. By 0800 a Unified Command and Incident Command Post is stood up at the Hawaii Oil Spill Response Center.

Public interests and concerns prompt an Open House.

THIS IS A DRILL Tesoro

TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information — 8. Initial Incident Check-in? √ — 9. Time

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	√	In	Out
Dan Carlson	Tesoro	IC		☐	08 50	
Eric Haugstad	Eric Haugstad	Deputy IC	210-865-9018	☐	07:30	
Barry Whitfield		Safety	4790574	☐		
Anne Alder		Safety	801 6732810	☐	0800	
Heather Harris	Tesoro	Legal	210-254-6906	☐	0800	
Michelle Straus	Michelle Straus	Legal	253-896-8780	☐	0800	
Lance Tanaka		Liaison		☐		
Dan Riley		Liaison	210 [illegible]	☐		
Doreen Bartels		Liaison	808-286-5515	☐	6:30	
Lani Ornelas	Lani Ornelas	Liaison	808-754-7987	☐	6:40	
Clayton Tamashiro		Liaison	808-620-5558	☐	8:15	
Dana Gusman		Liaison		☐		
Nathan Hokama		PIO	808 226-7470	☐	800	
Mike Marcy	Tesoro	PIO	925 382-0746	☐	0820	
Joe Ran		Ops	366-7416	☐		
Joe Moscatello		Ops	479-0511	☐	7:50	
Andrew Troske		Ops	808-479-0539	☐	09:20	
Pete Boksanski		Ops		☐		
Josh Kaye		Ops	479-0547	☐	8:15	
Stan Kurashige	Stan Kurashige	Ops	479-0528	☐	8:25	
Andre Thomas		Ops	479-0591	☐		

10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

THIS IS A DRILL

THIS IS A DRILL

Tesoro

TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	8. Initial Incident Check-in? √	9. Time In	9. Time Out
Tom Markee	Tesoro Tom Markee	Ops		☐		
Art Brostrom	Arthur L. Brostrom	Ops		☐	7:53	
Alan Yoshida	Alan	Ops		☐		
Mike Johnson	Tesoro	Ops	291-3419	☑	8:45	
John Purdy		Ops	220-8523	☐	830	
Cameron Hunt		Planning	479-6151	☐	08:00	
Alan Knox	Tesoro	Planning	479-0527	☐	08:15	
Jon Taketa	Tesoro	Planning/Resource	479-0538	☐	0745	
Miles Kaneshiro	Tesoro	Planning/Resource	291-5309	☐	9:00	
Mike Medina	Tesoro	Planning/Resource	864-5742	☐	8:15	
Rudy Rivas		Planning/Resource		☐		
Khuong Le	Khuong Le TSO	Planning/Requisition	780 704 5	☐	845	
See Ming Yim	TSO	Planning/Requisition	285-1900	☑	730	
Glenn Merchant	TSO	Planning/Situation	285-3879	☐	0700	
Jeannie Courtney	TSO	Planning/Situation	547 3829	☐	0710	
Jeff Moore	Jeff Moore TSO	Planning/Aerial Observer	479.0530	☐	8:15	
Bob Miller	Tesoro	Planning/Situation	310-347-1013	☑	08:25	
Ted Metrose	Tesoro	Planning/Environmental	284 [illegible] 9881	☑		
Claire Spencer	TSO	Planning/Environmental	925-250-0103	☐	08:20	
Sharon Trujillo	TSO	Planning/Environmental	707-580-1769	☐	08:25	
Judy Au	TSO	Planning/Environmental	218-3775	☐	740	

10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

THIS IS A DRILL

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TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	8. Initial Incident Check-in? √	9. Time In	9. Time Out
Walt Albertson	Tesoro	Planning	479-0521	☐	0830	
Albert Alvarez	Tesoro	Planning	754-0330	☐	0730	
Rose Chu	Tesoro	Planning/Wildlife	479-0575	☐	0828	
Kendra McBride	Tesoro	Planning	781-8415	☐	0750	
Kerri Medeiros	Tesoro	Planning/Documentation	330-8547	☐	0645	
Jane Baron	Tesoro	Planning/Documentation	547-3933	☐	750	
Donna Kikuchi	Tesoro	Planning/Documentation	347-8627	☐	1 HOUR	
Joan Tamayose	Tesoro	Planning/Documentation	5473899	☐	900	
Rochelle Sakai	Tesoro	Planning/Documentation	547-3989	☐	0800	
Melissa Goo	Tesoro	Planning/Documentation	5413285	☐	740	
Cheryl Ono	Tesoro	Planning/Documentation	547-3483	☐	780	
Phyllis Anguay	Tesoro	Planning/Documentation		☐	8:45	
Earl Katayama	Tesoro	Planning/Documentation		☐		
Tiffani Scott-Bugni	Tesoro	Planning/Documentation	801-642-8055	☐	8:25	
Diane Simplot	Tesoro	Planning/Documentation	360-632-9301	☐	8:25	
Gina Alvarado	Tesoro	Planning/Documentation	3109616116	☐	8:20	
Iris Suehisa	Tesoro	Planning/Documentation	5958422	☐	8:25	
Norm Edelman	Tesoro	Logistics		☐		
Alvin Kamikawa	Tesoro	Logistics	282-1757	☐	8:30	
Lynol Kaawaloa	Tesoro	Logistics	479-0525	☐	845	
Mark Kettner	Tesoro	Logistics	479-0510	☐	8:45	

10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

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Navy

TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information				8. Initial Incident Check-in? √	9. Time	
4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s		In	Out
Tracy Miyamoto	NAVFAC HI	Planning/Environmental		☐	840	
~~Karrie Maeda~~	~~PHNSY & IMF~~	~~Planning~~		☐		
Eric Seman	FISC Pearl	Planning/IAP Developer	808-25[illegible]1486	☑	0845	
Nate Hong	FISC Peal	Logistics	808 306 2415	☑	846	
Kay Murakami	CNRHI	Finance	808 473 2782	☑	840	
Arthur Yatsuoka	NAVFAC HI	Finance		☑	0840	
				☐		
KEMPSHALL	USN SUPSALV	TRUX SUPSALV/MAR		☐		
				☐		
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10. Prepared by Date/Time	11. Date / Time Sent to Resource Unit

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Tesoro

TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information — **8. Initial Incident Check-in?** √ — **9. Time**

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	8. √	9. In	Out
Michelle Loveless	Tesoro	Logistics		☐		
Jenelle McCardle	Tesoro	Logistics	JMcCa 929-3209	☐	0830	
Richard Murphy	Tesoro	Logistics		☐		
Linda Stone	Tesoro	Logistics	808 291-4365	☐	8:30	
Lance Dolera	Tesoro	Logistics/Medical Unit	277-4820	☒	0800	
Clyde Foreman	Tesoro	Logistics/Security	265-9280	☐	0615	
Louis Marrero	Tesoro	Logistics/Security		☐		
Pualani Bargamento	Tesoro	Logistics/Communications	295.3323	☒	740	
Pat Kaawa	Tesoro	Logistics/Communications		☒	730am	
Faye Shiraki	Tesoro	Logistics/Communications	285 3287	☒	8:00AM	
Twinkle Pereira	Tesoro	Logistics/Communications		☐		
Dani Kawakami	Tesoro	Finance	547-3969	☐	7:44am	
Bruce Gillette	Tesoro	Finance	360-395-8594	☒	8:20am	
Nathan Nemoto	Tesoro	Finance/Time/Cost Unit	547-3875	☐	8:20	
Debbie Hamamoto	Tesoro	Finance/Time/Cost Unit	547-3876	☐	~~8:39~~ 9:00	
Lainie Tamashiro	Tesoro	Finance		☐		
Norman Edelman	Tesoro	Logistics	479-8979	☐	08:30	
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10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

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TESORO

1. Incident Name	2. Operational Period	3.Check-In Location	CHECK-IN LIST (Personnel) ICS 211p
	From: To:	☐ Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information — **8. Initial Incident Check-in?** √ — **9. Time**

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	☐	In	Out
✓ JOHN SCHUMACHER	TESORO	EVALUATOR	360 428 0682	☒	0800	
✓ ANNIE LAM	TESORO	FACILITATOR	547-3834	☒	0600	
✓ BLAIR SCHLICHTER	USCG	COACH	286-4675	☒	0730	
✓ Blade Benson	TSO	Truth	925 766-4776	☒	0815	
✓ Robert Westerdawn	TSO	Evaluator	310-961-7458	☒	0815	
✓ MARK WINSLOW	TSO	ODS	808 352 2857	☐	0815	
✓ Tara Howard	TSO	Truth	360 432 6906	☐	0815	
✓ RICK DEMONT	TSO	TRUTH	508 479-0584	☐	0800	
✓ CRAIG CORNEL	MSRC	EVALUATOR	206 799-1621	☐	0830	
✓ TRACY TAYLOR	DLA Energy	COACH	965-346-0984	☐	0830	
✓ Tom Rayburn	DLA Energy	Evaluator	216-509-8149	☐	0830	
John Tamaya Tamaya	TESORO	IC-DO.	5473896	☐	9:12	
✓ KIRK TOMITA	HECO	TRUTH	352-0920	☐	0830	
✓ WADE NAKASHIMA	TESORO	"	282-8600	☐		
LANCE TANAKA	TESORO	LNO	265-9690	☐	0730	
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10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

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~~USCG~~

TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information				8. Initial Incident Check-in? √	9. Time	
4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	☐	In	Out
CAPT Nunan	USCG	IC		☐		
LTJG Kit Pace	USCG	Liaison		☐		
LTJG Leigh Cotterell	USCG	PIO		☐		
MST1 Trevor Moser	USCG	Ops		☐	0845	
MST1 Robert Pottgieser	USCG	Ops		☐		
LCDR Rob Nakama	USCG	Planning		☐		
MST2 Jamie Testa	USCG	Planning	(808)4695643	☐	0830	
PAC KURT FREDRICKSON	USCG	JIC	808 535 3232	☐	0830	
PA3 Angela Henderson	USCG	JIC	808 535 3837	☐	0930	
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10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

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20 - ICS 341

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TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information — **8. Initial Incident Check-in?** √ — **9. Time**

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	☐	In	Out
RDML Dixon Smith	CNRHI	UC		☐		
CAPT Lee	CNRHI	UC (Observer)		☐		
Kalani Kamanao	CNRHI	Safety	~~8~~23-9287	☐	0825	
Melody Sale	CNRHI	Safety	722 7391	☐	0825	
David Sullivan	CNRHI	Liaison	226-0362	☑	0825	
John Muraoka	CNRHI	Liaison	473-0384	☐	0835	
Grace Hewlen	CNRHI	PIO	473-2926	☑	0835	
Scott Hedrick	FISC Pearl	OPS		☐	~~0746~~	
Dante Castrence	SUPSALV	OPS	808-306-6534	☐	0825	
Robert Fields	JBPHH	OPS		☐		
Scott ~~Castrence~~ Asteneres	SUPSALV	OPS	808-294-4071	☐	830	
David Klaproth	JBPHH	OPS	808-636-3444	☐	0800	
Chief Bonnett	JBPHH	OPS	361-249-2974	☐	0830	
Master Chief Latimer	JBPHH	OPS	808 550 7694	☐	~~0830~~	
Alan Sugihara	NAVFAC HI	Planning	722-5360	☐	0840	
Jason Mori	NAVFAC HI	Planning	808-471-1171 Ext 340	☐	0850	
Wayne Choy	FISC Pearl	Planning/Resource	808-306-1765	☐	0845	
Chad Quillopo	CNRHI	Planning/Resource	808-~~391~~-7278	☐	0838	
Patricia Colemon	CNRHI	Planning/Situation	808-372-7278	☐	0838	
Steve Butler	FISC Pearl	Planning/Aerial Observer	808-479-1792	☐	~~0846~~	
Estra Higa	NAVFAC HI	Planning/Aerial Observer	471-4216	☐	0820	

10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

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State, City, Federal Agencies

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TESORO

1. Incident Name	2. Operational Period	3.Check-in Location	CHECK-IN LIST (Personnel) ICS 211p
	From: 4/14/2011 To: 4/14/2011	X Command Post ☐ Other ☐ Staging Area	

Personnel Check-In Information — **8. Initial Incident Check-in?** √ — **9. Time**

4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	√	9. Time In	9. Time Out
Curtis Martin CM	State	IC		☐	0800	
Janice Okubo	State	PIO		☐		
Gary Susag	City	Liaison		☐		
Josh Fisher	USFWS	Planning/Environmental	808-781-8216	☐	8:45	
Ruth Yender	NOAA	Planning/Tech Specialist	(206) 849-9926	☒	0830	
Coordinator Library				☐		
Elaine Landshire	State	Finance		☐		
Lynn Bailey	State	Finance	808-586-4653	☐	0800	
Becky Hommon	NAVY REG HAWAII	Counsel	808 864 2468	☐	0830	
DAVE FITZPATRICK	NAVY REG HAWAII	PLANNING	8084751794	☐	0930	
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10. Prepared by Date/Time	11. Date / Time Sent to Resource Unit

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TESORO

1. Incident Name	2. Operational Period From: To:	3.Check-in Location ☐ Command Post ☐ Other ☐ Staging Area	CHECK-IN LIST (Personnel) ICS 211p

Personnel Check-In Information				8. Initial Incident Check-in? √	9. Time	
4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact #s	☐	In	Out
Frank Marcinkowski	TCCI / Navy	Evaluator	707-582-0439	☑	0835	
JUSTIN WICSAN	ACI / NAVY	EVALUATOR	~~703~~ 707-407-3651	☑	0835	
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10. Prepared by	Date/Time	11. Date / Time Sent to Resource Unit

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Emergency Responder Liaison Meeting

Meeting Date: _____

Discussion Topics:

- ☐ Provide/offer a copy of the Tesoro Emergency Response Program(s), current pipeline and facility maps &/or diagrams
- ☐ Learn the responsibility and resources of each Emergency Response Group which may respond to an emergency
- ☐ Identify if the Emergency Response Group's responsibility and resources are the same for all Tesoro pipelines and facilities in your region, or if it varies depending on location
- ☐ Determine if the Emergency Response Group has adequate and proper resources to respond to Tesoro emergencies
- ☐ Acquaint the Emergency Responders with Tesoro's emergency response capabilities (ex: fire response equipment)
- ☐ Determine the types of pipeline emergencies during which the Emergency Response Group should be notified, and the method of communication
- ☐ Plan how Tesoro and Emergency Responders engage in mutual assistance to minimize hazards to life or property.
- ☐ Identify how the information discussed will be communicated to other Emergency Responders that did not attend the meeting. Request a copy of the sign-in sheet from the ER Group data sharing for Tesoro DOT regional files.
- ☐ Additional Discussion Topics: _____

Tesoro Representatives:

Printed Name	Signature	Tesoro Department

Emergency Response Group Participants:

Printed Name	Signature	Emergency Response Group

Appendix C

Tesoro's DOT Operations & Maintenance Manual Effectiveness Reviews

TESORO HAWAII CORPORATION - DOT REGULATED PIPELINES
MAINTENANCE PROCEDURES MANUAL

REVIEW LOG

DATE	NAME	SIGNATURE	COMMENTS
4/11/06	Alan Knox		
11/28/06	Alan Knox		
12-21-06	Michael Reams		
12/21/06	Alan Knox		
9/1/07	Alan Knox		
11/25/08	Alan Knox		Revisions made
11/26/08	Mike Reams		
12-1-08	Randall Wago	R. Wago	

TESORO

O&M Manual Review Log

Region: Hawaii
Manual # 30

Date	Name (Print)	Signature
11/18/09	Alan Knox	
6/21/10	Alan Knox	
12/13/10	Alan Knox	
12/14/10	Michael Reese	
12-14-10	Randall Wago	
3/16/11	Alan Knox	
3/17/11	Michael Reese	
3-28-11	Randall Wago	
12/13/11	Alan Knox	
3-8-12	Randall Wago	
3-12-2012	Michael Reese	

No.: LFM006-03
Title: Effectiveness Review
3/12/12 *Rev No. 11*

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5/17/2012	O&M Appendix A		
5/17/2012	LO M006	Andre Thomas A.T.	N
5/17/2012	LO M008	Andre Thomas A.T.	N
5/17/2012	LO M020	Andre Thomas A.T.	N
5/17/2012	LO M024	Andre Thomas A.T.	N
5/17/2012	LO M029	Andre Thomas A.T.	N
5/17/2012	LO M030	Andre Thomas A.T.	N
5/17/2012	LO M031	Andre Thomas A.T.	N
	O&M Appendix B		
5/17/2012	LFM 001-01	Andre Thomas A.T.	N
5/17/2012	LFM 008-01	Andre Thomas A.T.	N
5/17/2012	LFM 009-01	Andre Thomas A.T.	N
5/17/2012	O&M Appendix C	Andre Thomas A.T.	N

Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

No.: LFM006-03
Title: Effectiveness Review
3/12/12 Rev No. 11

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5/17/2012	O&M Appendix A		
5/17/2012	LO M006	Dennis Dilwith D.D.	N
5/17/2012	LO M008	Dennis Dilwith D.D.	N
5/17/2012	LO M020	Dennis Dilwith D.D.	N
5/17/2012	LO M024	Dennis Dilwith D.D.	N
5/17/2012	LO M029	Dennis Dilwith D.D.	N
5/17/2012	LO M030	Dennis Dilwith D.D.	N
5/17/2012	LO M031	Dennis Dilwith	N
	O&M Appendix B		
5/17/2012	LFM 001-01	Dennis Dilwith DD.	N
5/17/2012	LFM 008-01	Dennis Dilwith DD	N
5/17/2012	LFM 009-01	Dennis Dilwith DD	N
5/17/2012	O&M Appendix C	Dennis Dilwith D.D	N

Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5/17/2012	O&M Appendix A		
5/17/2012	LO M006	Ralph Dannenberg	N
5/17/2012	LO M008	Ralph Dannenberg	N
5/17/2012	LO M020	Ralph Dannenberg	N
5/17/2012	LO M024	Ralph Dannenberg	N
5/17/2012	LO M029	Ralph Dannenberg	N
5/17/2012	LO M030	Ralph Dannenberg	N
5/17/2012	LO M031	Ralph Dannenberg	N
	O&M Appendix B		
5/17/2012	LFM 001-01	Ralph Dannenberg	N
5/17/2012	LFM 008-01	Ralph Dannenberg	N
5/17/2012	LFM 009-01	Ralph Dannenberg	N
5/17/2012	O&M Appendix C	Ralph Dannenberg	N

Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

No.: LFM006-03
Title: Effectiveness Review
3/12/12 *Rev No. 11*

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5/17/2012	O&M Appendix A		
5/17/2012	LO M006	Wayne Kakazu	N
5/17/2012	LO M008	Wayne Kakazu	N
5/17/2012	LO M020	Wayne Kakazu	N
5/17/2012	LO M024	Wayne Kakazu	N
5/17/2012	LO M029	Wayne Kakazu	N
5/17/2012	LO M030	Wayne Kakazu	N
5/17/2012	LO M031	Wayne Kakazu	N
	O&M Appendix B		
5/17/2012	LFM 001-01	Wayne Kakazu	N
5/17/2012	LFM 008-01	Wayne Kakazu	N
5/17/2012	LFM 009-01	Wayne Kakazu	N
5/17/2012	O&M Appendix C	Wayne Kakazu	N

Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

No.: LFM006-03
Title: Effectiveness Review
3/12/12 Rev No. 11

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5/17/2012	O&M Appendix A		
5/17/2012	LO M006	Lee Kamakawiwoole LK	N
5/17/2012	LO M008	Lee Kamakawiwoole LK	N
5/17/2012	LO M020	Lee Kamakawiwoole LK	N
5/17/2012	LO M024	Lee Kamakawiwoole LK	N
5/17/2012	LO M029	Lee Kamakawiwoole LK	N
5/17/2012	LO M030	Lee Kamakawiwoole LK	N
5/17/2012	LO M031	Lee Kamakawiwoole LK	N
	O&M Appendix B		
5/17/2012	LFM 001-01	Lee Kamakawiwoole LK	N
5/17/2012	LFM 008-01	Lee Kamakawiwoole LK	N
5/17/2012	LFM 009-01	Lee Kamakawiwoole LK	N
5/17/2012	O&M Appendix C	Lee Kamakawiwoole LK	N

Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

No.: LFM006-03
Title: Effectiveness Review
3/12/12 Rev No. 11

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5/17/2012	O&M Appendix A		
5/17/2012	LO M006	Richard Richey	N
5/17/2012	LO M008	Richard Richey	N
5/17/2012	LO M020	Richard Richey	N
5/17/2012	LO M024	Richard Richey	N
5/17/2012	LO M029	Richard Richey	N
5/17/2012	LO M030	Richard Richey	N
5/17/2012	LO M031	Richard Richey	N
	O&M Appendix B		
5/17/2012	LFM 001-01	Richard Richey	N
5/17/2012	LFM 008-01	Richard Richey	N
5/17/2012	LFM 009-01	Richard Richey	N
5/17/2012	O&M Appendix C	Richard Richey	N

Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

No.: LFM006-04
Title: Revision Request
3/12/12 Rev No. 11

Revision Request

Date: 5/21/2012

O&M Manual Section	Description of Revisions (may attach document with changes noted)	Revision Requested by
LOM017	WHERE IS WELDING PERMIT FORM?	M. REESE
Appendix C-2 p2	Change Description to show changes in operations	A. Knox
Appendix C-3 p1	Change Description to show pipeline MOP of 720 based on pressure switch	A. Knox

Note: This form of proposed changes must be submitted to the Environmental Compliance Manager (ECM) or designee for *Tesoro Operations & Maintenance Manual* &/or *Tesoro Operator Qualification Program* revisions, as necessary.

No.: LFM006-03
Title: Effectiveness Review
3/12/12 Rev No. 11

Effectiveness Review

Review Date	Binder & Section Description	Name of Reviewer(s)	Follow-Up Needed? (Y/N)
5-21-12	OPERATIONS & MAINT. (O+M) MANUAL	RANDALL WAGO	N
5-21-2012	MAINT. WELDING (WHERE	M. REESE	
	IS WELDING PERMIT		
	FORM?) LDM017		
5-21-2012	OPERATIONS & MAINT. (O+M MANUAL)	M. REESE	N
5-22-12	O+M Manual-Logistics Hi	Alan Knox	Y

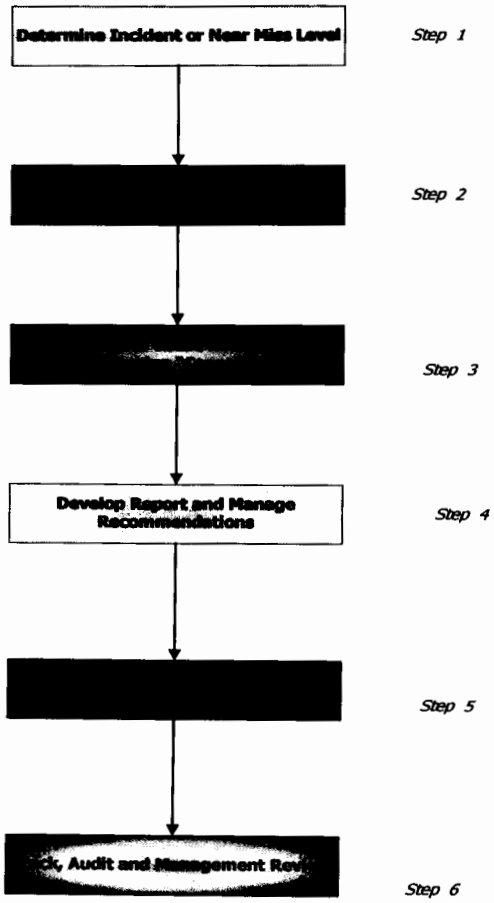
Note: Effectiveness Review documentation shall be submitted to the Environmental Compliance Manager (ECM) or designee, and subsequent *Tesoro Operations & Maintenance (O&M) Manual* &/or *Tesoro Operator Qualification (OQ) Program* revisions will be completed as necessary.

Appendix D

DOT Integrity Management Program (IMP) Incident Investigation Procedure
(See Highlighted Text)

SCOPE	This procedure describes the "Incident and Near Miss Investigation, Management and Reporting Policy" for evaluating every Tesoro incident, including its cause. Incidents within the oil and gas pipeline industry that are applicable to Tesoro operations are also evaluated to determine implications to Tesoro's pipeline system and to this *IM Program*. This procedure is in accordance with *49 CFR §195.452, 49 CFR §192.913(b)(1)(v)* and *ASME/ANSI B31.8S-2004.*
RESPONSIBILITY	♦ ECM or designee ♦ Project Manager ♦ Location Manager ♦ Contract Group Manager
EMPLOYEE INVESTIGATION	The responsibility for investigating contractor events lies with the Project Manager, Facility Manager and the ECM.
CONTRACTOR INVESTIGATION	The responsibility for investigating contractor events lies with the relevant Project Manager and the Contract Group Manager. Depending on the severity of the incident, the Tesoro Facility Manager and governmental or agency investigators may conduct investigations when a contractor event occurs at a Tesoro location or involves interests or property owned by Tesoro.
FREQUENCY	Based upon incident or near-miss rate.
INTRODUCTION	Tesoro is in the best position to gather and analyze their incident information. Analysis of all pertinent data will help Tesoro determine where the risks of an incident are the greatest. This will knowledge will help with making prudent decisions to assess and reduce HCA risks. The purpose of this incident investigation procedure is to prevent occurrence/recurrence of events by establishing a management system that: ♦ Identifies and evaluates causes ♦ Identifies recommendations to address root causes ♦ Provides methods for effective follow-up to complete and/or review action items This investigation process shall be used to evaluate all incidents and near-misses. The depth of investigations, amount of resources committed to the process and investigative tools used will vary depending upon the seriousness, complexity, and learning value of the particular incident. A Tesoro location may adopt policies and/or procedures that supplement this work process to address site-specific needs, provided the location's requirements meet or exceed those of this work process.
CENTRAL INCIDENT DATABASE	The Central Incident Database includes: ♦ Excavation Damage ♦ Spills/Leaks ♦ Property/Equipment Damage ♦ Injuries ♦ Environmental Impacts Incidents that occur with covered and non-covered pipeline segments are recorded in a central database. In addition, root cause analysis reports

	are recorded in the central database to support identification of targeted additional preventative and mitigative measures in the HCAs. The information gathered includes recognized damage that is not required to be reported as an incident under *49 CFR §191.*
INTERNAL VS. EXTERNAL COMPARISONS	These comparisons show how a pipeline segment that could affect a HCA is progressing in relation to Tesoro's other non-covered pipeline segments. The pipeline segment is also evaluated to determine if it compares to other operators' pipeline segments. Incidents within the industry that are applicable to Tesoro operations are evaluated to determine implications to Tesoro's pipeline system and to this *IM Program.* External-Comparing data external to the pipeline segment (e.g., OPS incident data) may be utilized for measures on the frequency and size of leaks in relation to other companies. (per *49 CFR §195.452(C)*).
EXCAVATION DAMAGE	Tesoro collects location-specific excavation damage in the central database, which is described above (see *49 CFR §192.935(b)(ii), 49 CFR §195.452(g)(1),* and *49 CFR §195 Appendix C (V)(A)(2)*). **Excavation damage events shall be evaluated through Tesoro's incident investigation process. Coating abrasion is included as an excavation damage event. The Regional Manager shall perform a post-accident analysis to determine the incident cause(s). A root-cause analysis method will be utilized to make this determination, in accordance with the *Tesoro DOT O&M Manual Emergency Procedures LOM009.***
INCIDENT	Any accident and/or near miss that impacts or prevents Tesoro from reaching its goals regarding safety, environment, production and/or reliability.
NEAR-MISS	An undesired and unanticipated event which, under slightly different circumstances, could have resulted in harm to people, damage to property or the environment, or production loss.
DETERMINE LEVEL OF INCIDENT OR NEAR MISS	The first step in the investigation of incidents and near misses is to determine the level. The incident or near miss level (Level 1 – 5) shall be determined using the *Tesoro Incident Level Matrix* within *Appendix A1 of the Tesoro H&S Standard "Incident/Near Miss Investigation, Management and Reporting."* Major incidents are classified as level 5, and minor incidents are level 1. Incident classification levels 1-5 are defined within the *Incident/Near Miss Investigation, Management and Reporting Standard.* The *Tesoro Incident Level Matrix* evaluates the severity of consequences that impact: ♦ Environment, Health and Safety ♦ Security ♦ Community ♦ Business Goals ♦ Mechanical Integrity If an incident or near miss falls under more than one of the above, it shall be classified using the highest level (consequence) that applies. In the event there is uncertainty regarding classification of an incident or near miss, the Location Manager shall make the final determination.

INCIDENT INVESTIGATION OVERVIEW	Figure 1 below provides an overview of the steps taken when investigating incidents and near-misses. Figure 1 
DOCUMENTATION	The *Incident Spreadsheet* functions as the *Central Incident Database* (see section above) for all reported accident and/or near miss. Additional documentation for this procedure is within the *Operations & Maintenance (O&M) Manual procedure OM001. Incident Investigation & Near Miss Report form* guidance and instructions are available in the *Logistics Incident Investigation & Management Procedure TSHP-002.* The *Incident Report* and *Incident Spreadsheet (aka Central Incident Database)* shall be maintained for 5-years from the date of the incident, unless another policy, procedure or legal requirements mandates the reports be kept for a longer time. Records resulting from implementation of this procedure are retained in the in *IM Program* files within the P&T file room.
REFERENCES	♦ *49 CFR §195.452 Pipeline integrity management in high consequence areas* ♦ *49 CFR §191 Transportation of Natural and Other Gas by Pipeline; Annual Reports, Incident Reports, and Safety-Related Conditions Reports* ♦ *ASME B31.8S-2004 Supplement to B31.8 on Managing System Integrity of Gas Pipelines* ♦ *49 CFR §192.913(b)(1)(v) When may an operator deviate its*

	program from certain requirements of this subpart? – Exceptional Performance ◆ *49 CFR §195.452 Pipeline integrity management in high consequence areas. (g)(1) What is Information Analysis* ◆ *49 CFR §195 Appendix C (V)(A)(2) Methods to Measure Performance* ◆ *Tesoro Health & Safety Standard "Incident/Near Miss Investigation, Management and Reporting"* ◆ *Operations & Maintenance (O&M) Manual procedure OM001*
APPLICABLE PROTOCOLS	This procedure applies to the following *Integrity Management Inspection Protocols:* ◆ *Protocol F.05.a.v.(Gas): Periodic Evaluations* ◆ *Protocol 3.04 (Liquid): Integration of other Information with Assessment Results* ◆ *Protocol 8.04 (Liquid): Root Cause Analysis Process*
REVISION CONTROL	

DATE	DESCRIPTION OF CHANGES
07/01/08	Rev. 0: Incident Investigation Procedure added to *IM Program* with addition of Gas IMP data.
06/01/09	Rev. 1: Addition of documentation row reference to the new *Incident Investigation and Near Miss Report Form FM018-01.*
10/01/10	Rev. 2: Updated the *Documentation* and *References* rows with the *Operations & Maintenance (O&M) Manual procedure OM001 with Incident Investigation & Near Miss Report form.* Deleted *FM018-01 Incident Investigation and Near Miss Report Form*, and form references within this procedure. Reformatted references.
5/31/12	**Rev. 3: Added clarification to the *Excavation Damage* row**

Appendix E

Coffman Engineers Technical Close Interval Survey (CIS) Letter

May 15, 2012

Tesoro Companies Inc.
431 Kuwili Street
Honolulu, Hawaii 96817

Attention: Mr. Louie Tamoria

Reference: TESORO HAWAII HONOLULU PIPELINE DOT AUDIT FINDING NUMBER 5 TECHNICAL RESPONSE

Dear Mr. Tamoria:

Recently a Department of Transportation (DOT) audit identified three items pertaining to cathodic protection (CP) of the Tesoro Hawaii Honolulu pipeline. The following is a technical response to the DOT Item Number 5:

The Honolulu pipeline has been evaluated for the need to perform a close interval survey (CIS) and it has been determined that it currently is not practical, safe or necessary to perform a CIS survey. The technical reasons for not performing a CIS follows:

1. Tesoro has been in the process of upgrading and balancing their CP systems. New rectifiers were installed line wide in 2011/2012 that allows for enhanced incremental adjustments and improved monitoring capabilities. The new rectifiers will aid in obtaining uniform current distribution throughout the system. The new rectifiers also allow for better monitoring capabilities through GPS time synchronizable current interrupters. Additionally, CP coupon monitoring stations have been added, new anodes have been installed at existing groundbed locations and test stations have been repaired.

2. Paraphrasing, NACE SP 0169, paragraph 10.1.1.3 states that when practical and determined necessary by sound engineering practice a CIS should be conducted. Sound engineering practices allows for using other means and methods where a conventional CIS approach is not practical, safe or warranted at the time. Tesoro has determined that it is presently not practical, safe or of sound engineering practice to perform a CIS on the Honolulu pipeline. Much of the Honolulu pipeline is parallel to, crosses or is directly under major roadways which is not concussive to performing this type of work (both from a practical and safety perspective). Using sound engineering practices, Tesoro has implemented a strategy to upgrade their existing CP systems such that their established test point locations are adequately protected. As part of this strategy, monitoring techniques have been improved (CP coupon test stations installed and GPS time synchronizable interrupters were installed in the rectifiers). The effectiveness of the CP system is being determined by evaluating the levels of protection afforded to the pipeline at the test point locations. The levels of protection between the test point locations are

evaluated by graphically plotting cathodic protection profiles of the CP test station data and looking for trends in the data (see the plots in the annual reports). Where trends in the data suggest additional efforts are warranted, additional testing is performed, rectifiers are adjusted and in some cases additional test stations or groundbeds are installed. Tesoro has also participated in joint stray current and other testing with the other Operators in the area. Tesoro, on an annual basis, works cooperatively with the other Operators to address questions and/or possible concerns as they arise.

Please let me know if you need additional information or if I can be of further assistance.

Sincerely,

COFFMAN ENGINEERS, INC.

C. Dan Stears

C. Dan Stears, Principal
Corrosion Control Engineering
NACE Cathodic Protection Specialist #3527

Appendix F

Coffman Engineers Technical 2010 CP Survey Recommendations Letter

2010 Annual Survey Recommendations Plan to Complete

May 15, 2012

Tesoro Companies Inc.
431 Kuwili Street
Honolulu, Hawaii 96817

Attention: Mr. Louie Tamoria

Reference: TESORO HAWAII HONOLULU PIPELINE DOT AUDIT FINDING NUMBER 6 TECHNICAL RESPONSE

Dear Mr. Tamoria:

Recently a Department of Transportation (DOT) audit identified three items pertaining to cathodic protection (CP) of the Tesoro Hawaii Honolulu pipeline. The following is a technical response to the DOT Item Number 6:

A cathodic protection survey is performed on an annual basis. As part of this survey, recommendations are developed. As recommendations have been implemented, resolved or addressed, the recommendations are eliminated from the following years' recommendation list. If deemed appropriate, outstanding recommendations are carried over to the following year. Pertaining to the 2010 CP survey recommendations, approximately 79% (11 out of 14) of the items have been completed/substantially addressed. The following is a summary of the status of those items:

1. Recommendation partially implemented by Tesoro. Additional CP coupons were not installed, however new rectifiers were installed with GPS time synchronizable interrupters. This enhancement allows for time synchronizable interruption of the Tesoro CP systems as well as the other Operators CP systems (Note: The other Operators in proximity to the Honolulu pipeline previously upgraded their systems using the same GPS time synchronizable interrupters). As of 2012, only an isolated section of the pipeline (East end of the Honolulu pipeline between AGI Airport Terminal and the Sand Island Terminal) presently necessitates the addition of CP coupons. On an annual basis, additional coupon/conventional test stations are evaluated. *This is an open recommendation, however progress has been accomplished.*

2. A new refinery rectifier was installed. *Recommendation completed.*

3. Casing short TS-4RA eliminated. *Recommendation completed.*

4. Additional testing was performed at TS-52RA and test results suggested that an electrolytic short may not exist. Testing suggested an intermediate problem associated

with the existing test leads. New test leads should be installed. *Recommendation substantially completed, however new test leads need to be installed.*

5. The old Unocal pipeline (TS-23THT) was identified not to be a Tesoro responsibility. This test point has been eliminated. Subsequently, AGI independently removed the shorted condition. *Recommendation complete.*

6. Additional current was afforded to the TS-1RA area in 2012, after the new refinery rectifier was installed. *Recommendation complete.*

7. Cooperative field work was performed with Gasco in 2011/2012 and the appropriate test points were eliminated. *Recommendation complete.*

8. The pipeline appears to be in contact with another pipeline at TS-17AGITHT. Until proper separation of the pipelines can be determined and a subsequent plan developed, the installation of additional CP coupons are warranted. *This is an open recommendation.*

9. Test stations are now being repaired on an annual basis. *Recommendation substantially complete.*

10. New rectifiers with GPS interrupters were installed in 2011/2012. *Recommendation complete.*

11. A new groundbed was installed by Heco and is being shared with Tesoro. *Recommendation complete.*

12. Bonding the fire water system at Sand Island Terminal into the CP system has not been evaluated. *This is an open recommendation.*

13. Pipeline maps have not been updated with current CP information. *This is an open recommendation.*

14. Annual CP surveys and system balancing are occurring on an annual basis. *Recommendation complete.*

Please let me know if you need additional information or if I can be of further assistance.

Sincerely,

COFFMAN ENGINEERS, INC.

C. Dan Stears

C. Dan Stears, Principal
Corrosion Control Engineering
NACE Cathodic Protection Specialist #3527

2010 Annual Survey Recommendations Plan to complete

Honolulu Pipeline - Overview

ITEM	Recommendation	Plans	Date of Repair	Comments
1	Install additional coupon monitoring stations throughout the entire length of the pipeline. Prioritize the installations giving the highest priority to those areas where there is an obvious depression in the pipeline cathodic protection profile and where the polarized potentials are more negative than -1.2 volts. Reference the test result discussions in this report and the attached data and cathodic protection profile sheets for areas to install additional coupon monitoring stations.	Identify the area needed for extra coupons on the east end of the Honolulu Pipeline and install	December-12	The coupons will be installed by end September 2012. Assign to Coffman Engineering and Tesoro Maintenance Supervisor
2	Replace the rectifier located inside the refinery. Install a GPS synchronized interrupter in the new rectifier. Consider moving the rectifier and installing a new groundbed near TS-3ARA so that more current is afforded to the pipeline and less current is afforded to the refinery.	Installed new Rectifier	January-12	Complete
3	Remove the electrolytic couple (water or debris in the casing) at TS-4RA.	Plans are to remove the casing prior to the 2011 annual CP survey. - CP/Corrosion Specialist 1/25/11		Complete
4	Perform additional testing at TS-62RA to determine if an electrolytic short exists between the pipeline and casing. Remediate as necessary.	Monitor the casing during subsequent annual surveys. - CP/Corrosion Specialist 1/25/11	N/A	Casing potential is more than 300mV difference in the 'OFF' cycle and does not shift between the 'ON' and 'OFF' during interruption. - CP/Corrosion Specialist 1/25/11
5	Remove the shorted condition that exists between the pipe and the tank fire protection system at TS-23THT. Verify isolation when repairs are completed.	Shorted condition Illuminated	2011	Complete - See 2011 CP survey report that condition no longer exists.
6	Increase the amount of current afforded to the pipeline at TS-1RA from the refinery's cathodic protection system.		March-12	Complete
7	Confirm test wires identification and source at Chevron/Tesoro shared test station locations. Eliminate the test point locations if Tesoro test leads are not present.			Complete
8	Determine if the pipeline is in contact with another pipeline at TS-17AGITHT.	To install coupon stations. Identify the distance between the two pipelines. Develop a plan as necessary.	December-12	In conjunction with item one, the coupons will be installed by end September 2012. Assign to Coffman Engineering and Tesoro Maintenance Supervisor
9	Perform the minor test station repairs that are identified in the report.	Replace broken covers on CP Test Stations	December-12	Assigned to Tesoro Maintenance Supervisor by September 2012
10	Install GPS synchronized interrupters in the rectifiers to facilitate the cathodic protection surveys and increase the quality of the data obtained.		March-12	Complete
11	Consider installing a new groundbed in the Kapolei area to supplement the cathodic protection levels in that area. The design has been completed.	Sharing current with HECO	2011	Complete
12	Consider bonding the fire water system in to the CP system at the Tesoro Harbor Terminal.	Testing to verify bonding is necessary	December-12	Assign to Coffman Engineering and Tesoro Maintenance Supervisor by September 2012
13	Update the pipeline maps to show current test point locations based on GPS data that was obtained for each site.	Identify test point locations and update pipeline alignment sheets to show current test point locations	December-12	Assign to Tesoro Maintenance Supervisor & Corporate Office by September 2012
14	Continue to perform annual cathodic protection surveys and balance the system as required.	Ongoing - CP/Corrosion Specialist 1/25/11	N/A	Complete
	- Highlighted in Green = Complete			

Appendix G

Coffman Engineers Technical Transit Rail System Letter

Tesoro's DOT Liquid Operations & Maintenance Manual Corrosion Control Procedure (LOM028)
Interference Currents Row

May 15, 2012

Tesoro Companies Inc.
431 Kuwili Street
Honolulu, Hawaii 96817

Attention: Mr. Louie Tamoria

Reference: TESORO HAWAII HONOLULU PIPELINE DOT AUDIT FINDING NUMBER 7 TECHNICAL RESPONSE

Dear Mr. Tamoria:

Recently a Department of Transportation (DOT) audit identified three items pertaining to cathodic protection (CP) of the Tesoro Hawaii Honolulu pipeline. The following is a technical response to the DOT Item Number 7:

Preliminary information provided by the rail transit system representatives indicate that stray current will not be an issue due to the design considerations that will be implemented. The Honolulu pipeline is not presently "exposed" to stray currents associated with the rail project so immediate action is not necessary or appropriate. Rail systems can vary significantly in their design and potential for stray currents. As the rail system designs are finalized and systems are installed, Tesoro will develop a program to identify, test for and minimize the effects of the new rail system as appropriate. It is premature to develop such a program until specifics of the rail system are established and provided to Tesoro.

Please let me know if you need additional information or if I can be of further assistance.

Sincerely,

COFFMAN ENGINEERS, INC.

C. Dan Stears

C. Dan Stears, Principal
Corrosion Control Engineering
NACE Cathodic Protection Specialist #3527

Interference Currents

Reference: *49 CFR §195.577*

Tesoro pipelines exposed to stray currents must be identified, currents tested for, and the detrimental effects of such currents must be minimized.

Each impressed current or galvanic anode system is designed and installed to minimize any adverse effects on metallic structures existing adjacent to Tesoro pipelines.

As part of the initial survey, or when a new structure is installed across or near the pipeline system, a joint investigation with a representative of the foreign facility shall be made whenever there is a reasonable possibility of damage to/from the foreign structure or from stray currents. The objective is to resolve the interference problem, if any, to the mutual satisfaction of both parties.

A record of the investigation shall be made to show before and after conditions on both structures and what, if any, corrective measures were taken.

If electrical bonding is required, the recommendation report will suggest the following:

- All Mutual or Critical bonds established with an outside company.
- All Critical bonds established, including inter-company.

Tests should be repeated when changes in applied current are made by either system that could possibly affect the previous situation.

The Tesoro Cathodic Protection Specialist will determine the location for each reverse current switch, diode, and interference bond whose failure would jeopardize structure protection. These "critical bonds" shall be checked for current magnitude and direction at least 6 times each calendar year, not to exceed 2 ½ months.

All other interference bonds must be checked for current magnitude and direction annually, not to exceed 15 months.

See the *Tesoro Cathodic Protection (CP) Program* and the *Tesoro CP Criteria & Requirements for Survey & Remedial Action Procedure* for additional information on Interference Currents. Bond inspections shall be documented on form *LFM028-03 Bond Maintenance Record Sheet.*