KINDER MORGAN
ENERGY PARTNERS, L.P.

July 22. 2009

Certified Mail: 7006-2150-0003-0110-7010

Chris Hoidal, PE
Director, Western Region
PHMSA Pipeline Safety Office, Suite 110
12300 W. Dakota Ave
Lakewood, CO 80228

Re: Notice of Probable Violation (NOPV) and Compliance Order (CO)
CPF 5-2008-5045

Dear Mr. Hoidal:

Enclosed is documentation of Kinder Morgan's evaluation of the emergency flow-restricting device (EFRD) capability required by your letter dated December 3, 2008 in the above referenced matter, which was written as a result of the Galletti Way release that occurred on SFPP L.P. Line Section (LS) 13 on October 2, 2007. SFPP L.P. is an Operating Partnership of Kinder Morgan Energy Partners, L.P. This documentation was requested via telephone by Huy Nguyen on June 26, 2009.

The results of the EFRD evaluation concluded that no further action is required. The documentation consists of (1) the Pipeline System EFRD Analysis Sheet, with attachments (2) EFRD Analysis Action Plan and (3) EFRD Project Closure Report.

Based on the telephone conversation referenced above, Kinder Morgan understands that this documentation, combined with the information provided in our initial response dated January 9, 2009, addresses all of the items raised in the above referenced NOPV/CO. Furthermore, it is Kinder Morgan's understanding that provided the EFRD documentation enclosed satisfy PHMSA, the above referenced case will be closed.

If you have any questions regarding information contained in the EFRD evaluation documentation, contact Noel Duckworth at 713-369-8025. For other matters associated with this NOPV/CO, contact me at 713-369-9454.

Respectfully,

500 Dallas Suite 1000 Houston, TX 77002 713-369-9000 713-369-9394 Fax

Edward A "Buzz" Fant
Director, Compliance, Codes and Standards
Products Pipelines
Kinder Morgan Energy Partners L.P.

cc: Huy Nguyen
Ron McClain
Noel Duckworth

Attachments:
Pipeline System EFRD Analysis Sheet w/attachments
EFRD Analysis Action Plan
EFRD Project Closure Report

KINDER MORGAN

PIPELINE SYSTEM EFRD ANALYSIS SHEET

KMEP Risk Engineering

500 DALLAS STREET, SUITE 1000, HOUSTON TX, 77002
Phone: 713-369-8077 • Fax: 714-560-6683

Interoffice Correspondence

Date: *12/01/08* (01/15/09)

(updated *N/A*) (updated *N/A*)

To: G. Lies **From: J. Nickel**

S. Davis

Conference Call Date: *01/15/09*

Subject: **Draft** EFRD Analysis for KMEP ***LS-13; 10x6 Reducer - Reno 6"***;

(See LS-12/13 Form)

Triggering Event: ☒ ILI Action Plan ***KMEP, LS-13, 10X6 Reducer ~ Reno Terminal***

☐ MOC #

☐ Other (describe);

This EFRD Analysis Sheet shall be used by the Manager Risk Engineering and the Business Unit Director of Engineering *(or equivalent) to conduct and document the Emergency Flow Restricting Device Conference Call* (EFRD-CC) as described in **Appendix H9.5, EFRD Engineering Analysis**.

Include attachments as necessary. Reference attachments in appropriate provided space on form.

List participants in EFRD-CC not on Distribution List:

Rupesh Muthyala – American Innovations

Mike LaMont- American Innovations

1 EFRD ASSESSMENT

Section 1 shall be completed by Risk Engineering and provided to the Director Engineering for use during the EFRD-CC.

1.1 Pipe Segment Characteristics (Risk Engineering)

1.1.1 Length and Size of Pipeline:

Segment Length (trap-to-trap, miles): *7.38*

Segment Pipe Diameter(s): ***6"***

1.1.2 Segment EFRDs (see **Attachment 1**)

Attachment 1

EFRDs (Mainline Valve List) Mainline Valves.xls

1.1.3 Type of Product Carried

Product Type: ☐ Crude ☒ **Refined Product** ☐ **NGL** ☐ **CO2**

Comments:

1.1.4 Current Throughput

Maximum Achievable Flow Rate (BPH): ***2,500***

1.2 The Pipeline's Proximity to an HCA (Risk Engineering)

HCA Length (mi): *7.38* **HCA % of Segment:** *100%*

Describe pipelines proximity to HCAs for the area(s) of consideration for the subject EFRD Analysis:
Pipeline impacts 4 of the 5 NPMS defined high consequence areas: HPA, OPA, ESA and DW.

HCA Map of area(s) of consideration (see attachment):

http://intranet/operations/products/manuals/IMP/HCAmaps.cfm

Index 5/D-HCA-RCKLN-RENO_082.pdf

Pipeline HCA Listings from IMPM (see **Attachment 2**):

Attachment 2

HCA Listings from IMPM HCA Listings.xls

1.3 Time to Detect and Isolate Leak (Area Manager / SCADA Group)

Time to detect (minutes): ***3 min*** Time to isolate (minutes): ***Less than 15 min*** Evaluation Date: ***11/08/2007***

Comments:

The valves evaluated during the EFRD Analysis are remotely operated MOVs and/or check valves. The SMEs including the Area Manager participating in the analysis have confirmed that the time to detect and isolate a leak is 5 minutes.

The results shown on the attached release volume profile sheets are based on 5 minutes to detect and isolate. Analysis considering a 15 minutes response time would shift the release curves up by 400 BBL. The EFRD review team considered this shift during the analysis.

For evaluation on swiftness of leak detection and pipeline shutdown capabilities see Leak Detection Analysis results from last evaluation performed under **Appendix H9.3, Leak Detection Analysis**.

T:\Risk and P&MM Records\P&MM Reviews\LO&M_form_200_63_Submitted_Leak_Detection_Analysis\SFPP (N)\SFPP_LS11_12_13_RO_RE_L_OM200-63_070811.doc

1.4 Location of Nearest Response Personnel (Area Manager)

Identify location and maximum travel time from nearest manned facility or emergency response center to respond to a leak or rupture at or near the area(s) under consideration for this EFRD Analysis.

Location(s) of leak/rupture and (include location description and pipeline milepost)	Approx. Distance (miles)	Max. Travel Time	Determined by/ Date
Response Time from Sparks Terminal to anywhere on the segment	***Segment length – 7.38 miles***	***30 min***	***EFRD Conf. Call Team 01/15/09***
Comments:			

1.5 Risk Assessment Results (Risk Engineering)

Risk Analysis results for ***LS-13; 10x6 Red - Reno 6"***:

2008 CAP Rank: 79

Describe risk profile for the area(s) of consideration for the subject EFRD Analysis:

Attachment 3 ***Base Case Release Profile***	Base Case.jpg
Attachment 3A ***Scenario 1 Release Profile***	Package
Attachment 3B ***Scenario 2 Release Profile***	Package
Attachment 3C ***Scenario 3 Release Profile***	Package
Attachment 4 ***Risk Profile***	Microsoft Office Excel Worksheet

EFRD Risk Profile for area(s) of consideration:

(See LS-12/13 Form)

2 WHAT IF ANALYSIS: DESIRED CAPABILITIES AND IMPROVEMENTS

In addition to "What if" EFRD Scenarios proposed by Business Unit in section 2.1 below, "What if" Scenarios presented in sections 2.2, 2.3 and 2.4 below shall be considered by Business Unit, and basis for recommendation (or lack thereof) shall be documented during EFRD-CC.

2.1 'What if' benefit for EFRD Scenarios proposed by Business Unit

'What if' benefit for Consideration (Business Unit)	Basis for Consideration (or lack thereof)	Name/Title, Date
Scenario 1: Convert Sparks Convey Valve	*Submitted for further engineering analysis*	*EFRD Conference Call SME Team/ January 15, 2009*
Scenario 2: New EFRD at 620033	*No further consideration based on spill volume reduction results*	*EFRD Conference Call SME Team/ January 15, 2009*
Scenario 3: New EFRD at 631869	*No further consideration based on spill volume reduction results*	*EFRD Conference Call SME Team/ January 15, 2009*

2.2 'What if' benefit to Modify Existing Assets

'What if' benefit for Consideration	Basis for Consideration (or lack thereof)	Name/Title, Date
Benefit of EFRD to respond to transient conditions	*Transient conditions, such as those that might be caused by changes in pump operation, the incorrect operation or failure of regulators, valve use, leaks or other events that may cause pressure or flow transients are considered by operating teams in the development of operating plans. The analysis detailed within this report evaluates the release volumes that would be seen after the operating team has properly responded to an event.*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefits of changing EFRD valve sequencing	*For the purpose of this study, valve sequencing is assumed to be consistently implemented by trained controllers*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefit of additional Controller training to detect/react to EFRD operation	*Controllers are trained and qualified on a regular basis to detect and react to EFRD operations*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefit of pressure modeling to simulate EFRD operations	*Line isolation in a release event is performed in a staged sequence to minimize transient conditions. Operating procedures are established to ensure transients are minimized during the operation of EFRDs.*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefit from installing/ updating telemetry	*No recommendations made in Leak Detection Evaluation (L*	*EFRD Conference Call SME Team/ January 15, 2009*

	O&M 273)	
Benefit from improving valve closure rates	*Very little benefit. The closure rates of MOV are found to be within acceptable periods to not significantly effect the overall period for isolating the release.*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefit from actuating existing manual valves	*Scenario 1 was found to offer the most significant reduction of the impact to currently identified HCAs.*	*EFRD Conference Call SME Team/ January 15, 2009*

2.3 'What if' benefit to Install Additional Assets

'What if' benefit for Consideration	**Basis for Consideration (or lack thereof)**	**Name/Title, Date**
Benefit from installing check valves	*Due to pipeline profile and grading, check valves are not being further evaluated*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefit from install remotely controlled valves (MOV)	*See Scenarios 2&3*	*EFRD Conference Call SME Team/ January 15, 2009*

2.4 What if' benefit to Maintenance of Existing Assets

'What if' benefit for Consideration	**Basis for Consideration (or lack thereof)**	**Name/Title, Date**
Benefit from periodic operation of valves (open close)	*Existing O&M requirements are sufficient*	*EFRD Conference Call SME Team/ January 15, 2009*
Benefit from additional training for maintenance personnel	*No changes are being made or suggested. Therefore, maintenance personnel training is not warranted*	*EFRD Conference Call SME Team/ January 15, 2009*

Describe any suggested EFRD System enhancements from the 'What if' analysis and document recommendations (or lack thereof) in form H9.5, EFRD Analysis Action Plan (refer to attachment below).

ATTACHMENT I

Input Model: Mainline Valves - Valve Information results

[illegible]
[illegible]
[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LS-13; 10x6 Reducer - Reno 6"	[illegible]	7 Valve [illegible]	Gate	[illegible]		10x6 Reducer: [illegible]			[illegible]	[illegible]
LS-13; 10x6 Reducer - Reno 6"	[illegible]	7 Valve [illegible]	Gate	[illegible]	Automatic - Local	MainLine Valve Book, rev [illegible]; Conversion from IAP v5.8 on Apr 19 2007 2:48PM	[illegible]	[illegible]	[illegible]	[illegible]
LS-13; 10x6 Reducer - Reno 6"	614,258.00	7 Valve 431838	Gate			MainLine Valve Book, rev [illegible]; Conversion from IAP v5.8 on Apr 19 2007 2:48PM	[illegible]		[illegible]	[illegible]
LS-13; 10x6 Reducer - Reno 6"	628,315.00	7 Valve 444767	Gate			MainLine Valve Book, rev [illegible]; Conversion from IAP v5.8 on Apr 19 2007 2:48PM	[illegible]		[illegible]	[illegible]
LS-13; 10x6 Reducer - Reno 6"	637,903.00	7 Valve 454333	Gate			MainLine Valve Book, rev [illegible]; Conversion from IAP v5.8 on Apr 19 2007 2:48PM	[illegible]		[illegible]	[illegible]
LS-13; 10x6 Reducer - Reno 6"	[illegible]	Valve [illegible]	Gate			[illegible]			[illegible]	[illegible]

ATTACHMENT 2

Evaluation Model: Liquid HCA Rules (Liquid ROF Index) results

Calculation Status: Last Calculated: 10/24/2008 3:01:56 PM **Reference:** IAP Reference (BASE) - (Base Reference)

Comments: Evaluation determines what parts of the pipeline could affect an HCA. Specific and more detailed HCA data can be found in the liquid HCA input model.

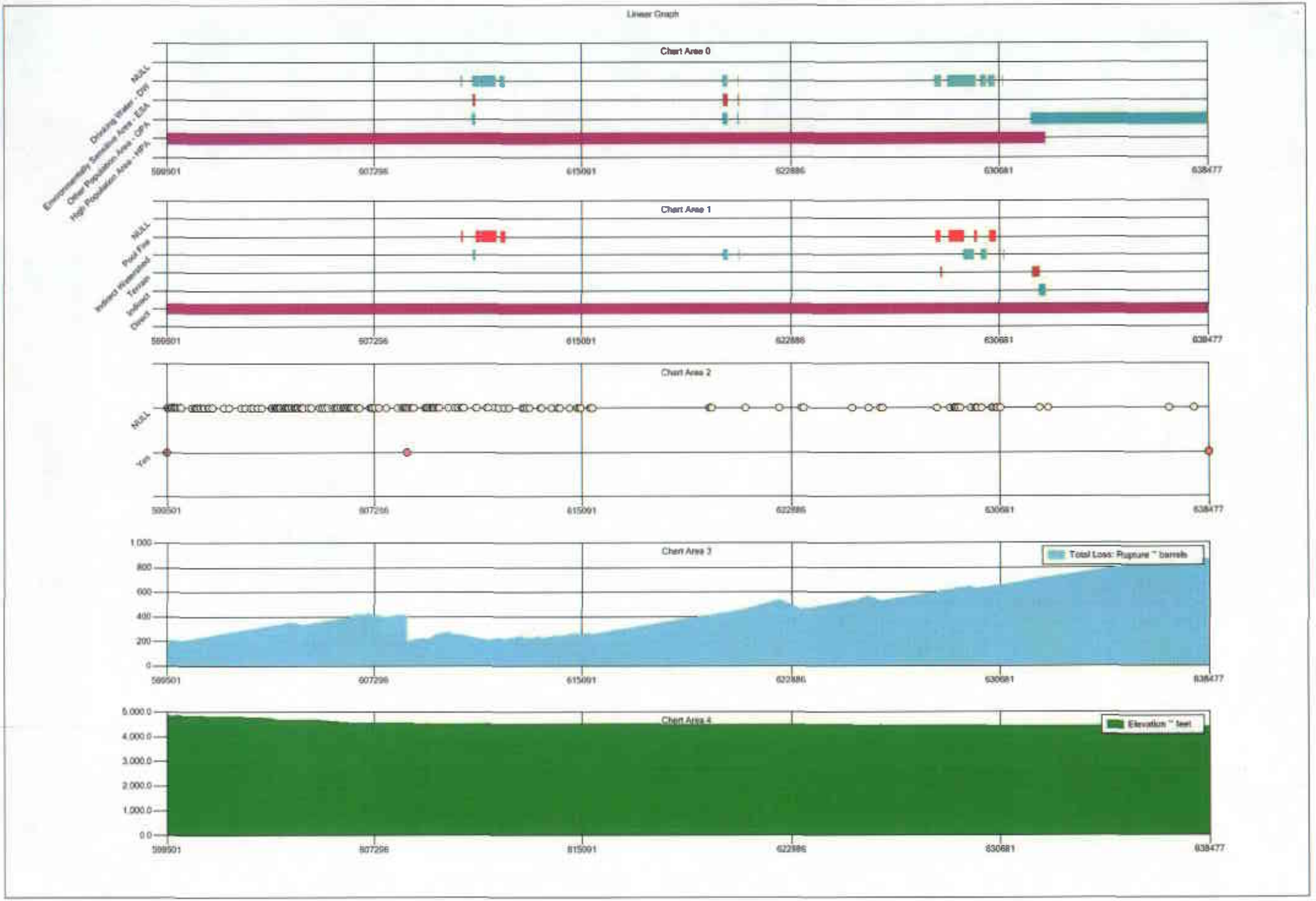
Filter and Sort Settings: Unfiltered view. View is sorted on [comp_name] ASC, Start Station ASC

Component	Start Station	End Station	Length	Type Classifications
LS-13; 10x6 Reducer - Reno 6"	599,501.00	610,553.06	11,052.06	HPA
LS-13; 10x6 Reducer - Reno 6"	610,553.06	610,625.35	72.29	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	610,625.35	611,004.32	378.97	HPA
LS-13; 10x6 Reducer - Reno 6"	611,004.32	611,085.89	81.57	HPA, OPA, ESA, DW
LS-13; 10x6 Reducer - Reno 6"	611,085.89	611,093.12	7.23	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,093.12	611,181.92	88.8	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,181.92	611,276.93	95.01	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,276.93	611,301.71	24.78	HPA
LS-13; 10x6 Reducer - Reno 6"	611,301.71	611,367.80	66.09	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,367.80	611,455.57	87.77	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,455.57	611,544.37	88.8	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,544.37	611,546.44	2.07	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,546.44	611,628.01	81.57	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,628.01	611,708.56	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,708.56	611,797.36	88.8	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,797.36	611,872.74	75.38	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	611,872.74	612,041.06	168.32	HPA
LS-13; 10x6 Reducer - Reno 6"	612,041.06	612,104.05	62.99	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	612,104.05	612,206.28	102.23	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	612,206.28	620,333.98	8,127.70	HPA
LS-13; 10x6 Reducer - Reno 6"	620,333.98	620,416.59	82.61	HPA, OPA, ESA, DW
LS-13; 10x6 Reducer - Reno 6"	620,416.59	620,498.16	81.57	HPA, OPA, ESA, DW
LS-13; 10x6 Reducer - Reno 6"	620,498.16	620,534.31	36.15	HPA, OPA, ESA, DW
LS-13; 10x6 Reducer - Reno 6"	620,534.31	620,911.21	376.9	HPA
LS-13; 10x6 Reducer - Reno 6"	620,911.21	620,961.81	50.6	HPA, OPA, ESA, DW
LS-13; 10x6 Reducer - Reno 6"	620,961.81	628,285.10	7,323.29	HPA
LS-13; 10x6 Reducer - Reno 6"	628,285.10	628,365.65	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	628,365.65	628,445.16	79.51	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	628,445.16	628,525.70	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	628,525.70	628,766.30	240.6	HPA
LS-13; 10x6 Reducer - Reno 6"	628,766.30	628,846.85	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	628,846.85	628,927.39	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	628,927.39	629,007.93	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,007.93	629,087.44	79.51	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,087.44	629,167.99	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,167.99	629,248.53	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,248.53	629,329.08	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,329.08	629,408.59	79.51	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,408.59	629,489.13	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,489.13	629,569.68	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,569.68	629,650.22	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,650.22	629,729.73	79.51	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,729.73	629,730.76	1.03	HPA
LS-13; 10x6 Reducer - Reno 6"	629,730.76	629,811.31	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	629,811.31	630,000.28	188.97	HPA
LS-13; 10x6 Reducer - Reno 6"	630,000.28	630,052.94	52.66	HPA, DW

LS-13; 10x6 Reducer - Reno 6"	630,052.94	630,133.48	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	630,133.48	630,214.03	80.55	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	630,214.03	630,294.57	80.54	HPA
LS-13; 10x6 Reducer - Reno 6"	630,294.57	630,375.11	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	630,375.11	630,456.69	81.58	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	630,456.69	630,537.23	80.54	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	630,537.23	630,847.02	309.79	HPA
LS-13; 10x6 Reducer - Reno 6"	630,847.02	630,860.44	13.42	HPA, DW
LS-13; 10x6 Reducer - Reno 6"	630,860.44	631,917.84	1,057.40	HPA
LS-13; 10x6 Reducer - Reno 6"	631,917.84	631,999.41	81.57	HPA, OPA
LS-13; 10x6 Reducer - Reno 6"	631,999.41	632,079.96	80.55	HPA, OPA
LS-13; 10x6 Reducer - Reno 6"	632,079.96	632,161.54	81.58	HPA, OPA
LS-13; 10x6 Reducer - Reno 6"	632,161.54	632,170.83	9.29	HPA, OPA
LS-13; 10x6 Reducer - Reno 6"	632,170.83	632,274.09	103.26	HPA, OPA
LS-13; 10x6 Reducer - Reno 6"	632,274.09	632,413.49	139.4	HPA, OPA
LS-13; 10x6 Reducer - Reno 6"	632,413.49	638,477.00	6,063.51	OPA

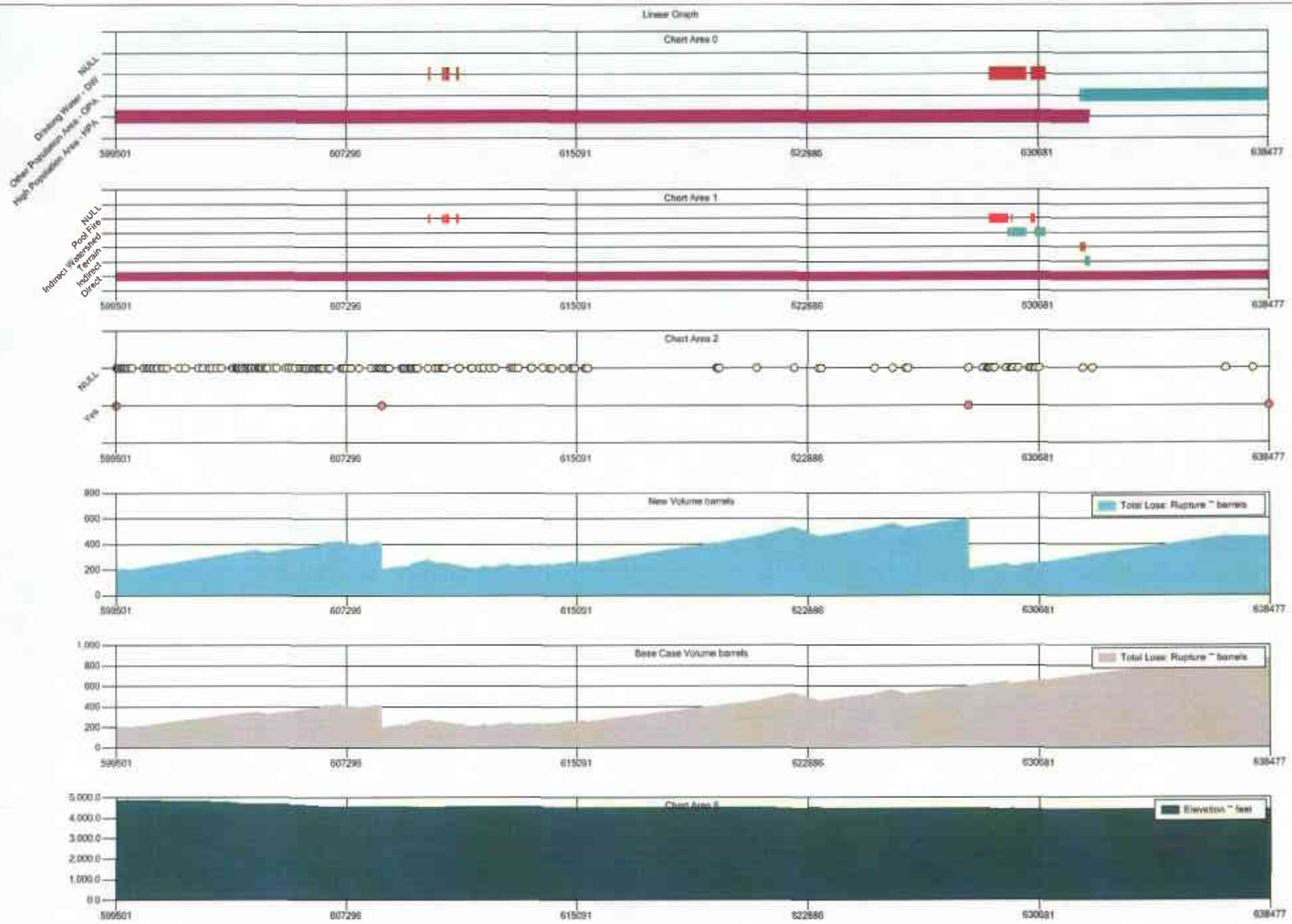
ATTACHMENT 3

BASE CASE RELEASE



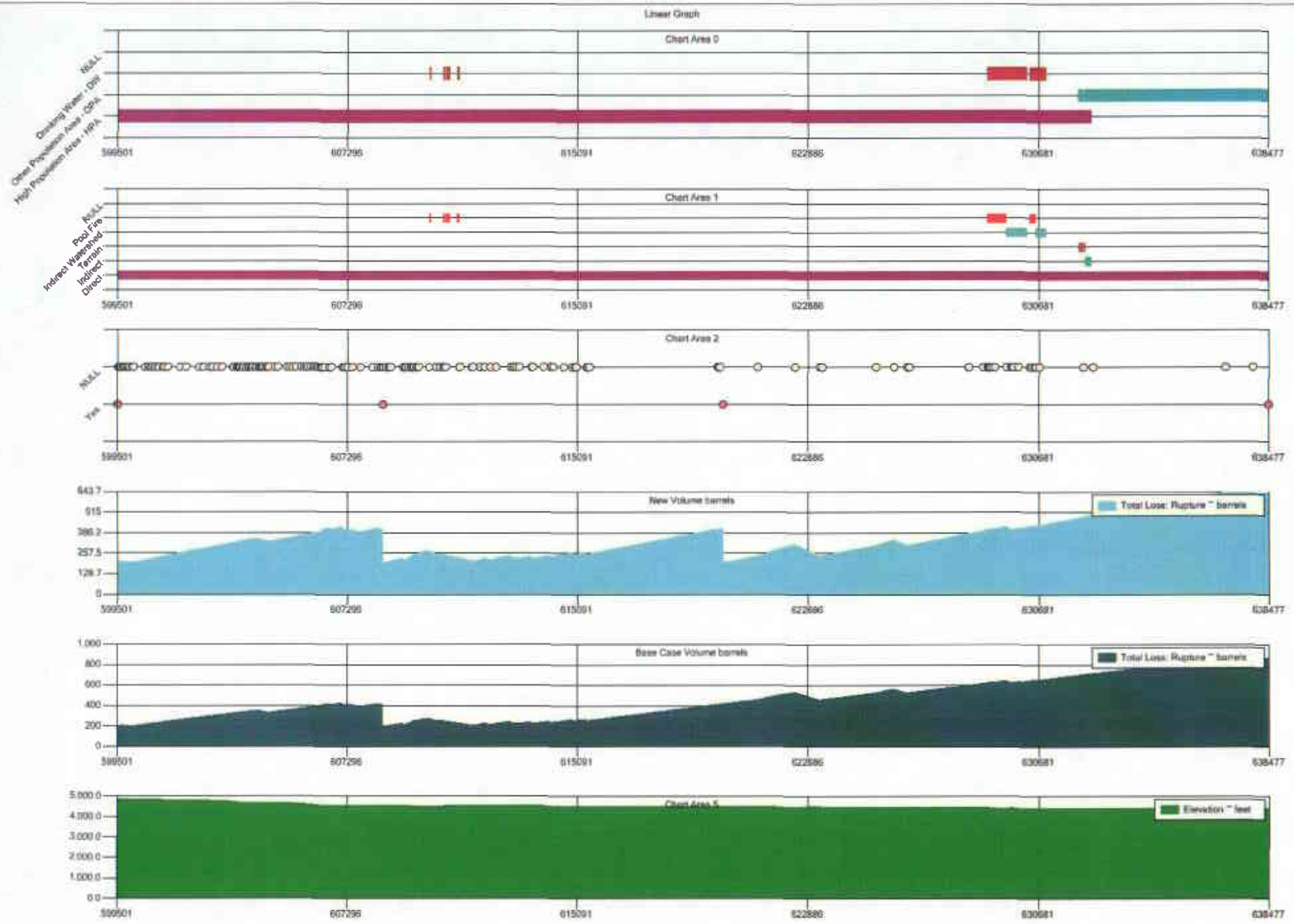
ATTACHMENT 3A

SCENARIO 1



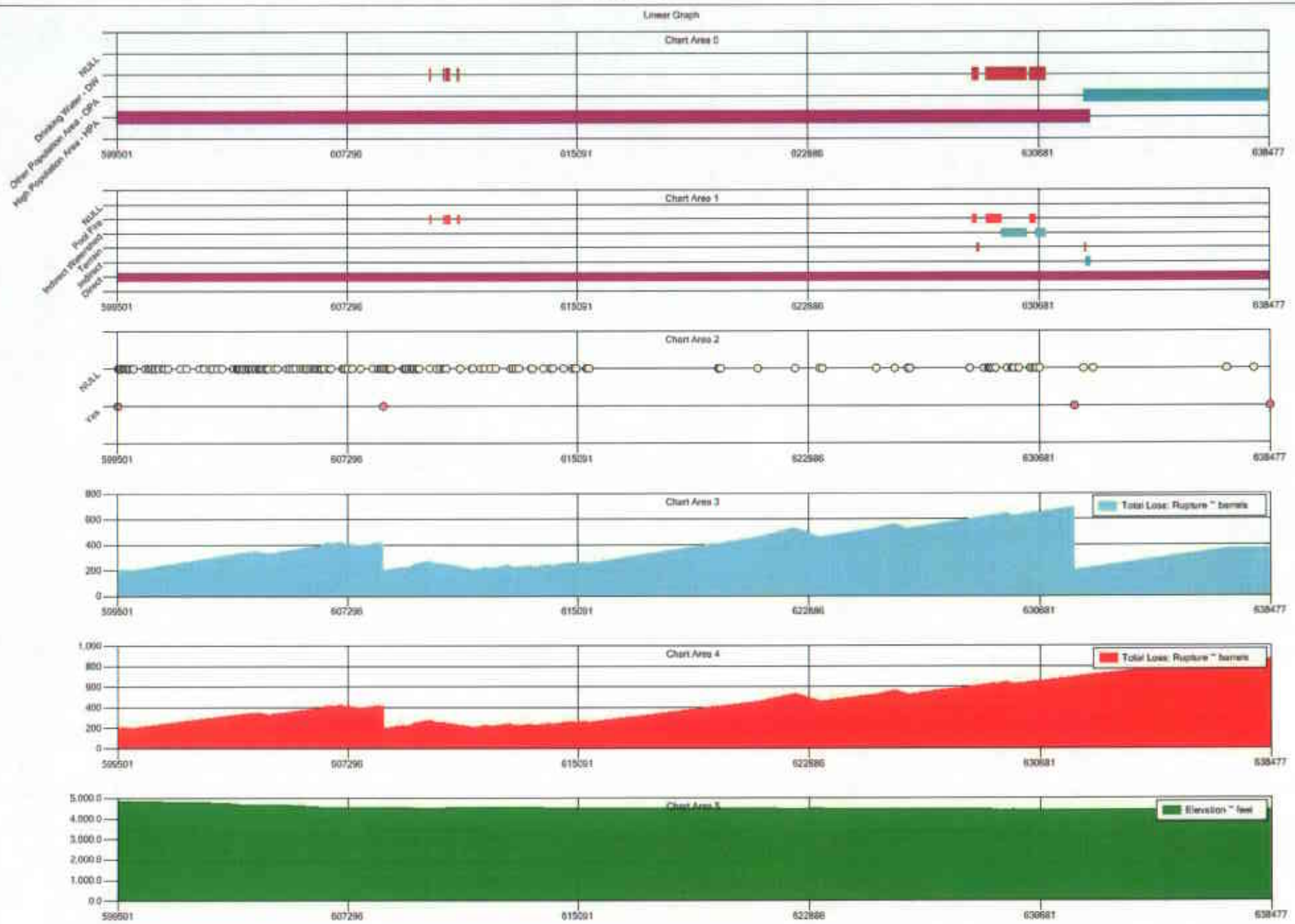
ATTACHMENT 3B

SCENARIO 2



ATTACHMENT 3C

SCENARIO 3



ATTACHMENT 4

Collapse Model: CAP
Report results

Calculation Status: Last Calculated: 12/23/2008 2:39:23 PM

Reference: IAP Reference (BASE) - (Base Reference)

Comments: RM Added 05/06/07

Filter and Sort Settings: Unfiltered view. View is sorted on DESC

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
+	LS-13, 10x8 Reducer - Reno 6"	[illegible]	658,477.00	18.32	2.83	3.37	7.11	8.73	7.38	752,930.88	HPA, OPA, ESA, OW	7.38	100	rupeshm	12/23/2008 [illegible]
+	Scenario 3 LS-13, 10x8 Reducer - Reno 6"	[illegible]	638,477.00	[illegible]	3.57	3.31	7.11	5.71	7.38	736,942.86	HPA, OPA	7.38	100	rupeshm	12/22/2008 17:53
+	Scenario 2 LS-13, 10x6 Reducer - Reno 6"	[illegible]	638,477.00	[illegible]	3.57	3.31	7.11	5.7	7.38	735,784.35	HPA, OPA	7.38	100	rupeshm	12/22/2008 17:53
+	Scenario 1 LS-13, 10x6 Reducer - Reno 6"	[illegible]	638,477.00	[illegible]	3.57	3.31	7.11	5.69	7.38	734,517.10	HPA, OPA	7.38	100	rupeshm	12/22/2008 17:53

Notes:

This data has been normalized to the 12/23/08 risk data

Scenario 1-3 show a 2.5[illegible]% change in risk. The *changes do not shift this segment in the* [illegible] risk rank.

KMEP Risk Engineering

500 DALLAS STREET, SUITE 1000, HOUSTON TX, 77002
Phone: 713-369-8077 • Fax: 714-560-6683

Interoffice Correspondence

Date: 07/09/09

To: James Nickel – Houston
Gregg Lies - Fairfield, California
Jim Giles - Orange, California

From: Scott Davis – Senior Project Manager

Subject: Action Plan: EFRD Analysis KMEP ***LS-13; 10x6 Reducer - Reno 6"***

This action plan is the result of reviewing the "what-if" analysis generated during the EFRD Conference Call (EFRD-CC) for the subject EFRD Analysis (refer to **L-O&M Procedure 274, EFRD Analysis**).

Potential Projects, Risk Benefits and Recommendations from "what-if" analysis (refer to form **IMP9.5-01, Pipeline System EFRD Analysis Sheet**) were made by the Business Unit Engineering and Operations teams during the EFRD-CC and are documented by Scott Davis in the **EFRD Action Plan** below.

Summary of discussions from EFRD-CC

EFRD Analysis Dates

Step in Process	Date	Comments/ Clarifications
Receipt of Final ILI Action Plan	12/09/08	Rosen Hard Spot Survey
First Conference Call Completed	12/02/08	Identified 3 Scenarios
Second Conference Call Completed	1/15/09	Scenario 1 was identified as requiring additional engineering analysis (Conversion of Sparks Coney valve to remotely operated).
Action Plan Submitted to Director of Operations and Engineer	1/20/09	
Additional Conference Call Completed[1]	1/27/09	See note below
Action Plan Completed	7/09/09	

[1] *While reviewing LS-12/13, the SME Team noted that LS-12 and LS-13 needed to be combined with the LS-12/13 analysis as the volumes from LS-12/13 could feed into LS-13 during a release event on LS-13. Subsequently, the form and base cases were updated to reflect the combined line sections on the LS-12/13 form. In order to avoid these instances in the future, the questionnaire used to validate the model during conference call one, now requires confirmation that the segment is completely isolated from outside liquid sources after closure of isolation valves.*

Conclusions

The Analysis team completed the second conference call to review 3 scenarios for LS-13. The scenarios reviewed are listed below and are also detailed in the EFRD Analysis Worksheet.

Scenario 1: Convert Sparks Coney Valve	***Submitted for further engineering analysis***	***EFRD Conference Call SME Team/ January 15, 2009***
Scenario 2: New EFRD at 620033	***No further consideration based on spill volume reduction results***	***EFRD Conference Call SME Team/ January 15, 2009***
Scenario 3: New EFRD at 631869	***No further consideration based on spill volume reduction results***	***EFRD Conference Call SME Team/ January 15, 2009***

Of the 3 scenarios, the team agreed that only Scenario 1, Conversion of the Sparks Coney Valve to a remote operated valve, warranted additional analysis.

Subsequent to the second conference call the team recognized during the review of LS-12/13 that LS-13 could receive flow from a portion of LS-12/13 in a release event on LS-13. As a result, LS-12, LS-12/13, and LS-13 were analyzed as a unit to ensure that volumes communicated from one segment to the next are properly measured. No additional scenarios were identified during this review relative to LS-13.

EFRD Action Plan: Potential Projects, Risk Benefits and Recommendations

Potential EFRD Capabilities Improvements from 'What if' Analysis (see IMP9.5-01) *(Director of Engineering)*	*Risk Reduction Benefit from the Model from 'What if' Analysis *(Risk Engineering)*	**Recommendations/ Justification *(Director of Engineering)*	Priority, if additional actions are required *(Director of Engineering)*	Implement Potential EFRD Capabilities Improvements *(Director of Engineering)*
Scenario 1 – Conversion of Sparks Coney Valve to a remote operated valve offers a reduction in release volume from 600 BBLS to 200 BBLs in an area potentially affecting OPA, DW, and HPA type High Consequence Areas.	See EFRD Analysis Worksheet section 1.5 for Risk Profiles. Risk Reduction: 2.5% Risk Rank: No Shift in rank	The relative minor release volume reductions, minor reduction in overall risk and no shift in the segment within the current CAP risk ranking, does not support the implementation of this scenario.	Priority (A, B, etc.) N/A Comments: No further action recommended	☐Yes ☒No; Date: 7/9/09 Comments: No further action recommended.
			Priority (A, B, etc.) Comments:	☐Yes ☐No; Date: Comments:
			Priority (A, B, etc.) Comments:	☐Yes ☐No; Date: Comments:
			Priority (A, B, etc.) Comments:	☐Yes ☐No; Date: Comments:

**Include amount of potential risk reduction.*
***Attach additional sheets for detailed justifications; include practicability of implementation, and other considerations identified during decision-making process.*

Action Plan Approval

After completing the EFRD Action Plan, the Business Unit Director of Engineering (or equivalent) shall review the action plan with the appropriate Business Unit personnel (e.g. Operations, Product Movement, etc.) and note follow-up items and responsibilities.

Director of Engineering (or equivalent): Scott P. Davis	Date: 7-09-2009
Follow-up Action Items: Obtain concurrence from Pipeline Integrity and Field Operations.	

Closure Reports

EFRD Implementation (upon completion of action plan):

The recommended EFRD implementation actions in the **EFRD Action Plan** have been completed and are summarized in the attached Word document. The risk reduction benefit from the action plan implementation and other associated actions are noted for each completed EFRD project. This Closure Report, along with the ILI tool performance parameters (risk reduction benefit) shown in the **EFRD Action Plan** will be shared with Greg Lies – Director of Operations and James Nickel – Manager of Risk Engineering and forwarded to the Business Unit GIS Database Gatekeeper.

Closure Report Template

EFRD Analysis Reassessment schedule:

The reassessment time for the ***LS-13; 10x6 Reducer - Reno 6"*** is based on the triggering events listed in **L-O&M Procedure 274, EFRD Analysis**.

Process Improvement Recommendations:

None recommended.

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Interoffice Correspondence

Date: July 9, 2009

To: James Nickel – Houston

From: Scott Davis

Michal Zidek – GIS Database Gatekeeper

Chris Langan – Project Manager for ILI Action Plan

KMEP LS-13, 6-inch PLMP 113.537- Reno Terminal, Rosen Hard Spot Tool, 7.38 Miles, 2007

Subject: EFRD Project Closure Report: ***KMEP,*** *LS-13; 10x6 Red - Reno 6"*

EFRD Analysis of the Kinder Morgan Energy Partners *LS-13; 10x6 Red - Reno 6"* was performed by the Pacific Region North Business Unit. This report summarizes the results of follow-up actions recommended by the action plan and recommends project closure.

Action Plan Results

The action plan required completion of 0 EFRD risk reduction projects. The actions and their results are summarized below by project number and shall include detailed results of the field activities. The summaries below will be organized in order of priority (highest priority listed first).

Mr. James Nickle and Mr. Gregg Liess concur in the recommendation that no further action is required on the EFRD Action Plan.