SCG-02-WP-A

Errata Workpapers (Redline) Supporting the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis T. Sera

(Technical – Project Execution and Management, Volume V of VII; Public Version)

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Final Workpaper for Supply Line 35-20 Phase 1 [redacted] TIMP Project

I. SUPPLY LINE 35-20 [redacted] TIMP PROJECT

A. Background and Summary

Supply Line 35-20 [redacted] Transmission Integrity Management Program (TIMP) Project assessed a [redacted] diameter line that runs approximately 21.3 miles from [redacted]. The pipeline is routed across Class 1, 3 and 4 locations with 21.1 miles within High Consequence Area(s) (HCAs) and 0.2 miles within non-HCAs. This Workpaper describes the activities and costs associated with an Inspection using In-Line Inspection (ILI) and the Direct Examinations made to three sites. The Project activities were located in the cities of Costa Mesa and Dana Point. The specific attributes of this Workpaper are detailed in Table 1 below. The total loaded cost of the Project is $2,822,470.

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Final Workpaper for Supply Line 35-20 Phase 1 [redacted] TIMP Project

Table 1: General Project Information

Inspection Details	
Pipeline	35-20
Segment	[redacted]
Inspection Type	[redacted] Tool
Location	Costa Mesa and Dana Point
Class	1, 3, 4
HCA Length	21.1 miles
Vintage	Multiple vintages from [redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	Multiple SMYS values from [redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Final Tool Run Date	[redacted]
Inspection Due Date	[redacted]
Direct Examination Details	
Site	1
Examination ID	[redacted]
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]

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Final Workpaper for Supply Line 35-20 Phase 1 [redacted] TIMP Project

Table 1: General Project Information (Continued)

Direct Examination Details			
Site	2		
Examination ID	[redacted]		
Mitigation/Remediation Type	Soft Pad		
Within HCA	Yes		
SRC/IRC	No		
Pipe Diameter	[redacted]		
MAOP			
SMYS			
Construction Start Date			
Construction Completion Date			
Direct Examination Details			
Site	3		
Examination ID	[redacted]		
Mitigation/Remediation Type	Soft Pad		
Within HCA	Yes		
SRC/IRC	No		
Pipe Diameter	[redacted]		
MAOP			
SMYS			
Construction Start Date			
Construction Completion Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	394,039	2,428,431	2,822,470

B. Maps and Images

Figure 1: Satellite Image of Supply Line 35-20 [redacted] TIMP Project

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

A. Project Scope

As described in the Prepared Direct Testimony of Jordan Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow the four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that typically occur during the Inspection including Direct Examinations.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project. The final scope of this Project is summarized in Tables 2 and 3 below.

1. Inspection – Engineering, Design, and Constructability: SoCalGas identified Supply Line 35-20 for Inspection using ILI.
   a. ILI from a temporary launcher site within [redacted] to a temporary receiver site within [redacted].
2. Direct Examination – Engineering, Design, and Constructability: Following the completion of the Inspection using ILI, three Direct Examination sites were identified for validation.
   a. Direct Examination Site #1 consisted of soft pad repairs.
   b. Direct Examination Site #2 consisted of soft pad repairs.
   c. Direct Examination Site #3 consisted of soft pad repairs.
3. Post-Assessment – Engineering, Design, and Constructability: The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.
4. Final Project Scope: The final project scope of this Workpaper includes Inspection using ILI and three Direct Examinations.

Table 2: Final Inspection Project Scope – ILI

Final Project Scope					
Line	Inspection Length	Threat Type	Inspection Technology	Tool Method of Travel	Retrofits
SL35 -20	21.3 mi	[redacted]	[redacted]	[redacted]	No

Table 3: Final Direct Examination Project Scope

Final Project Scope							
Line	Site	Within HCA	SRC/IRC	Examination Length	Mitigation/ Remediation Type	Replacement Length	Cost Category
SL35-20	1	Yes	No	20 ft	Soft Pad	N/A	O&M
SL35-20	2	Yes	No	41 ft	Soft Pad	N/A	Capital
SL35-20	3	Yes	No	14 ft	Soft Pad	N/A	O&M

B. Engineering, Design, and Constructability Factors – Inspection

SoCalGas initiated the planning process for the Supply Line 35-20 [redacted] Project by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate Inspection methods, and select the Inspection tools. Key factors that influenced the engineering and design of this Project are as follows:

1. Site Description: ILI from a temporary launcher site at [redacted] to a temporary receiver site within [redacted].
2. HCA Threats:
   [redacted]

[redacted]

3. Pipe Vintage: Multiple vintages from [redacted].
4. Long Seam Type:
   [redacted]
5. Inspection Tools and Technologies: The Project utilized [redacted] capabilities during the Inspection of the pipeline. [redacted] were also utilized in preparation for the Inspection.
6. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the pipeline could be inspected without system impacts.
7. Customer Impacts: No customer impacts.
8. Community Impacts: No identified impacts.
9. Substructures: The Project Team did not identify any existing substructures that impacted the design and engineering.
10. Environmental: No identified impacts.
11. Permit Restrictions: No identified impacts.
12. Land Use: No identified impacts.
13. Traffic Control: No additional impacts to traffic due to ongoing SoCalGas project.
14. Constructability: The Project Team moved the Project up approximately 6 months in order to minimize impact to the community by utilizing the existing traffic control, excavation and permits required for a separate SoCalGas project.

[redacted]

C. Engineering, Design, and Constructability Factors – Direct Examination

SoCalGas initiated the planning process for the Supply Line 35-20 [redacted] TIMP Project by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate Inspection methods, and select the Inspection tools. Key factors that influenced the engineering and design of this Project are as follows:

1. Engineering Assessment: There were three Direct Examination Sites selected for validation within the Supply Line 35-20 [redacted] TIMP Project.
   a. Direct Examination Site #1 consisted of soft pad repairs.
   b. Direct Examination Site #2 consisted of soft pad repairs.
   c. Direct Examination Site #3 consisted of soft pad repairs.
2. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the pipeline could be inspected without system impacts.
3. Customer Impacts: No customer impacts.
4. Community Impacts: No identified impacts.
5. Substructures: The Project Team did not identify any existing substructures that impacted the design and engineering.
6. Environmental: No identified impacts.
7. Permit Restrictions: The Project Team obtained the following permits:
   a. City of Newport Beach Right of Way (ROW) for Direct Examination Site 1. Permit restrictions include working hours of 9am to 3pm.
   b. Encroachment Permit from the City of Dana Point for Direct Examination Site #2 and Site #3.
8. Land Use: No identified impacts.
9. Traffic Control: The Project Team required Traffic Control Plans (TCP) for the City of Newport Beach for Direct Examination Site #1.

D. Engineering, Design, and Constructability Factors – Post-Assessment

During the Post-Assessment step, the Project Team used the data collected from the Inspection and Direct Examinations to determine the effectiveness of the Inspection and evaluate the tool's performance to review the integrity of the pipeline, identify potential required examinations or remediations, and to establish the next reassessment interval for the threats assessed. This analysis resulted in no additional examinations.

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractors that best met the criteria for this Project.

B. Construction Schedule

Table 4: Construction Timeline – Inspection

Construction Start Date	[redacted]	
Construction Completion Date		
Inspection Due Date		

Table 5: Construction Timeline – Direct Examination

Mobilization 1: Direct Examination Sites #2, #3		
Construction Start Date	[redacted]	
Construction Completion Date		
Mobilization 2: Direct Examination Sites #1		
Construction Start Date	[redacted]	
Construction Completion Date		

Figure 2: Direct Examination Site #1 Overview

Figure 3: Direct Examination Site #2 Overview

Figure 4: Direct Examination Site #3

Figure 5: Launch Site Overview

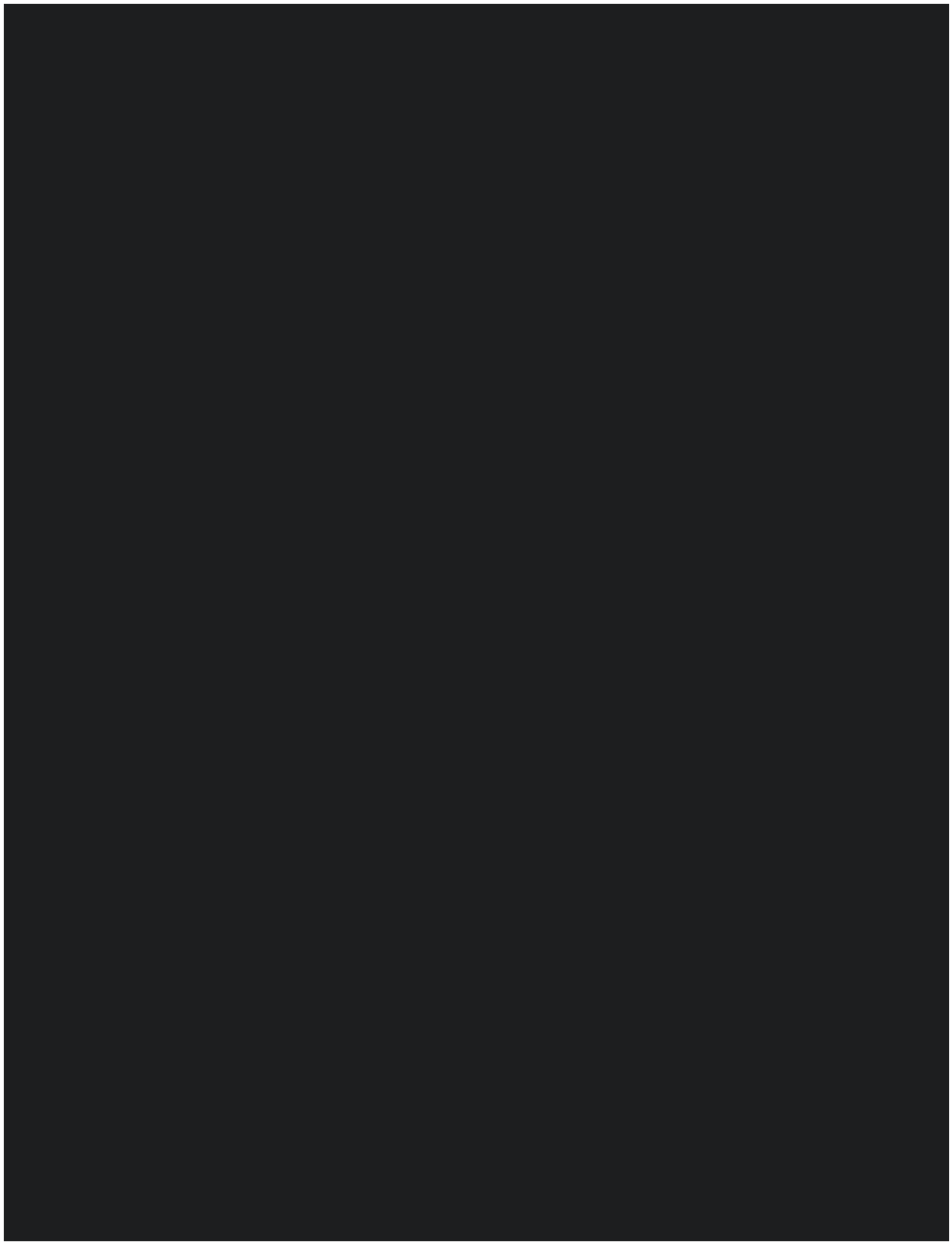

Figure 6: Direct Examination Site #1 Overview 2

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site; final Inspection and returning pipeline to normal operating conditions, transportation, and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas executed the design, planning, and construction activities for this Project to minimize or avoid costs where appropriate. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Schedule Coordination: The Project Team coordinated with another SoCalGas project to utilize the existing permits, TCPs, and excavation at the launcher site.

B. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $2,822,470.

Table 6: Actual Direct Costs[3]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	26,360	223,965	250,326
Contract Costs	233,827	1,445,866	1,679,693
Material	-9,275	176,457	167,182
Other Direct Charges	44,285	306,625	350,910
Total Direct Costs	295,197	2,152,913	2,448,111

Table 7: Actual Indirect Costs[4]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	98,419	275,518	373,936
AFUDC	316	0	316
Property Taxes	107	0	107
Total Indirect Costs	98,841	275,518	374,359

Table 8: Total Costs[5]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	394,039	2,428,431	2,822,470

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.
[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 35-20 [redacted] TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 CFR Part 192, Subpart O, including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting an appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $2,822,470.

End of Supply Line 35-20 [redacted] TIMP Project Final Workpaper

I. SUPPLY LINE 36-37 [redacted] TIMP PROJECT

A. Background and Summary

Supply Line 36-37 [redacted] Transmission Integrity Management Project Program (TIMP) assessed a [redacted] diameter line that runs approximately 0.5 miles on [redacted], through residential neighborhoods and commercial areas. The pipeline is routed across [redacted] locations with 0.2 miles within High Consequence Area(s) (HCAs) and 0.3 miles within non-HCAs. This Workpaper describes the activities and costs associated with an Inspection using In-Line Inspection (ILI) located in the City of Ventura that required a change in the ILI method of travel during construction due to unforeseen pipeline conditions. The specific attributes of this Workpaper are detailed in Table 1 below. The total loaded cost of the Project is $6,803,726.

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Final Workpaper for Supply Line 36-37 [redacted] TIMP Project

Table 1: General Project Information

Inspection Details	
Pipeline	36-37
Segment	[redacted]
Inspection Type	[redacted] Tool
Location	Ventura
Class	[redacted]
HCA Length	0.2 miles
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Final Tool Run Date	[redacted]
Inspection Due Date	[redacted]

Inspection Details	
Pipeline	36-37
Segment	[redacted]
Inspection Type	[redacted] Tool
Location	Ventura
Class	[redacted]
HCA Mileage	0.2 miles
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Final Tool Run Date	[redacted]
Inspection Due Date	[redacted]

Project Costs ($)	Capital	O&M	Total
Loaded Project Costs	3,807,322	2,996,404	6,803,726

Final Workpaper for Supply Line 36-37 [redacted] TIMP Project

B. Maps and Images

Figure 1: Satellite Image of Supply Line 36-37 [redacted] TIMP Project

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

A. Project Scope

As described in the Prepared Direct Testimony of Jordan Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow the four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Inspection.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project. The final scope of this Project is summarized in Table 2 below.

1. Inspection – Engineering, Design, and Constructability: SoCalGas identified Supply Line 36-37 for Inspection using ILI.
   a. [redacted] was initially planned to assess Line 36-37. During the [redacted], it was determined the inspection would be infeasible due to liquids in the line and an assessment using [redacted] tools was then selected.
   b. [redacted] from a temporary launcher site on [redacted] to a temporary receiver site on [redacted].
   c. The Project Team removed a total of approximately 80 feet of [redacted] pipe and replaced it with approximately 44-feet of [redacted] pipe.
   d. The Project Team installed two [redacted] one at the launcher site and one at the receiver site.
2. Direct Examination – Engineering, Design, and Constructability: Following the completion of the Inspection using [redacted], Direct Examination was done on a validation spool piece, and it was determined that no Direct Examination sites were required.

3. Post-Assessment – Engineering, Design, and Constructability: The validation analysis of the spool piece following the Inspection resulted in no additional examinations.
4. Final Project Scope: The final project scope of this Workpaper includes Inspection using [redacted] and [redacted].

Table 2: Final Inspection Project Scope – ILI

Final Project Scope					
Line	Inspection Length	Threat Type	Inspection Technology	Tool Method of Travel	Retrofits
36-37	0.5 mi	[redacted]	[redacted]	[redacted]	Yes
36-37	0.5 mi	[redacted]	[redacted]	[redacted]	Yes
36-37	0.5 mi	[redacted]	[redacted]	[redacted]	Yes
36-37	0.5 mi	[redacted]	[redacted]	[redacted]	Yes

B. Engineering, Design, and Constructability Factors – Inspection

SoCalGas initiated the planning process for the Supply Line 36-37 [redacted] Project by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate Inspection methods, and select the Inspection tools. Key factors that influenced the engineering and design of this Project are as follows:

1. Site Description:
   a. [redacted] was launched from an existing [redacted] located on [redacted] to 434 feet downstream of the [redacted].
   b. [redacted] from a temporary launcher site on [redacted].
      i. ILI was launched in a commercial area on the heavily trafficked [redacted].
      ii. ILI was received at a commercial and residential area on the heavily trafficked [redacted].

2. HCA Threats:
   a. [redacted]
   b. [redacted]
   c. [redacted]
   d. [redacted]
   e. [redacted]
   f. [redacted]
3. Pipe Vintage: [redacted].
4. Long Seam Type:
   a. [redacted]
   b. [redacted]
5. Inspection Tools and Technologies:
   a. The Project utilized [redacted] capabilities during the Inspection of the pipeline. [redacted] were also utilized in preparation for the Inspection.
   b. The initial [redacted] run was aborted during the Inspection due to encountering liquids in the pipeline. The Project Team re-evaluated the Inspection method and utilized [redacted] tools to complete the assessment.
6. Inspection Retrofits:
   a. The Project Team removed a total of approximately 80 feet of [redacted] pipe and replaced it with approximately 44 feet of [redacted] pipe.
   b. The Project Team installed two permanent [redacted], one at the launcher site and one at the receiver site.

[redacted]

7. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the pipeline could be inspected by isolating the pipeline without system impacts.
8. Customer Impacts: No customer impacts.
9. Community Impacts: The Project Team coordinated with the city and residents in the area to minimize noise impacts from construction activities.
10. Substructures: The Project Team did not identify any existing substructures that impacted the design and engineering.
11. Environmental: No identified impacts.
12. Permit Restrictions: The following permits were obtained by the Project Team:
    a. Encroachment Permit from City of Ventura that required night work hours from 9PM to 5AM.
    b. Encroachment Permit from Caltrans.
13. Land Use: No identified impacts.
14. Traffic Control: The Project Team obtained a Traffic Control Plan (TCP) from the City of Ventura for the launcher site and the receiver site. The TCP required a two-lane closure on [redacted] at the launcher site, and a two-lane closure on [redacted] at the receiver site.
15. Schedule Delay: The Project Team experienced multiple schedule delays due to the unsuccessful [redacted] run followed by a holiday moratorium in the City of Ventura and Inspection tool availability.
16. Constructability: The Project Team utilized nitrogen to facilitate cleaning runs in preparation for the Inspection due to safety considerations.

C. Engineering, Design, and Constructability Factors – Direct Examination

SoCalGas completed the Direct Examination for the Supply Line 36-37 [redacted] TIMP Project using a validation spool piece and it was determined that no additional Direct Examination Sites were required for validation.

D. Engineering, Design, and Constructability Factors – Post-Assessment

During the Post-Assessment step, the Project Team used the data collected from the Inspection to determine the effectiveness of the Inspection and evaluate the tool's performance to review the integrity of the pipeline, identify potential required examinations or remediations, and to establish the next reassessment interval for the threats assessed. This analysis resulted in no additional examinations.

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractors that best met the criteria for this Project.

B. Construction Schedule

Table 3: Construction Timeline – Inspection

Mobilization 1: Inspection— [redacted]	
Construction Start Date	
Construction Completion Date	
Inspection Due Date	
Mobilization 2: Inspection— [redacted]	
Construction Start Date	
Construction Completion Date	
Inspection Due Date	

Figure 2: End of Sheave Pulley at Receiver Site

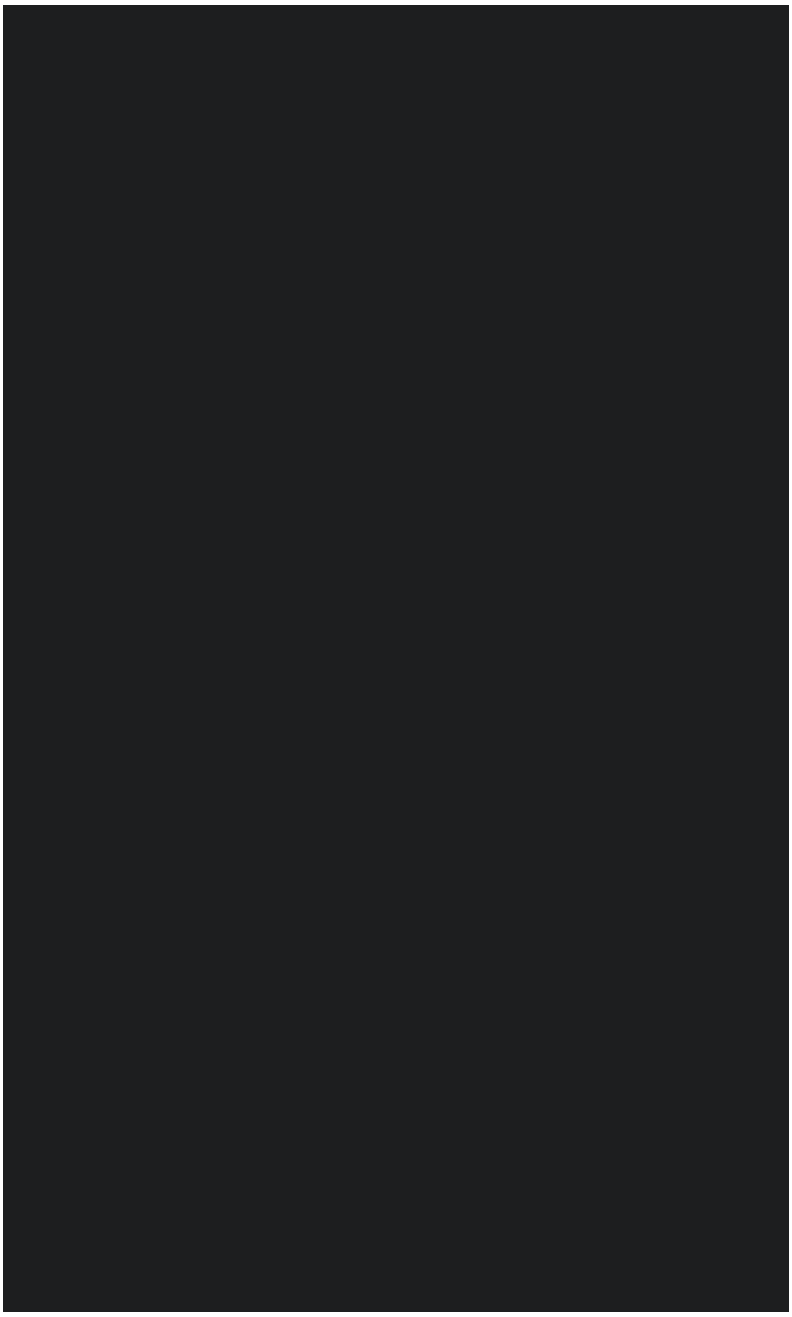


Figure 3: Safety Precautions at Launcher Site

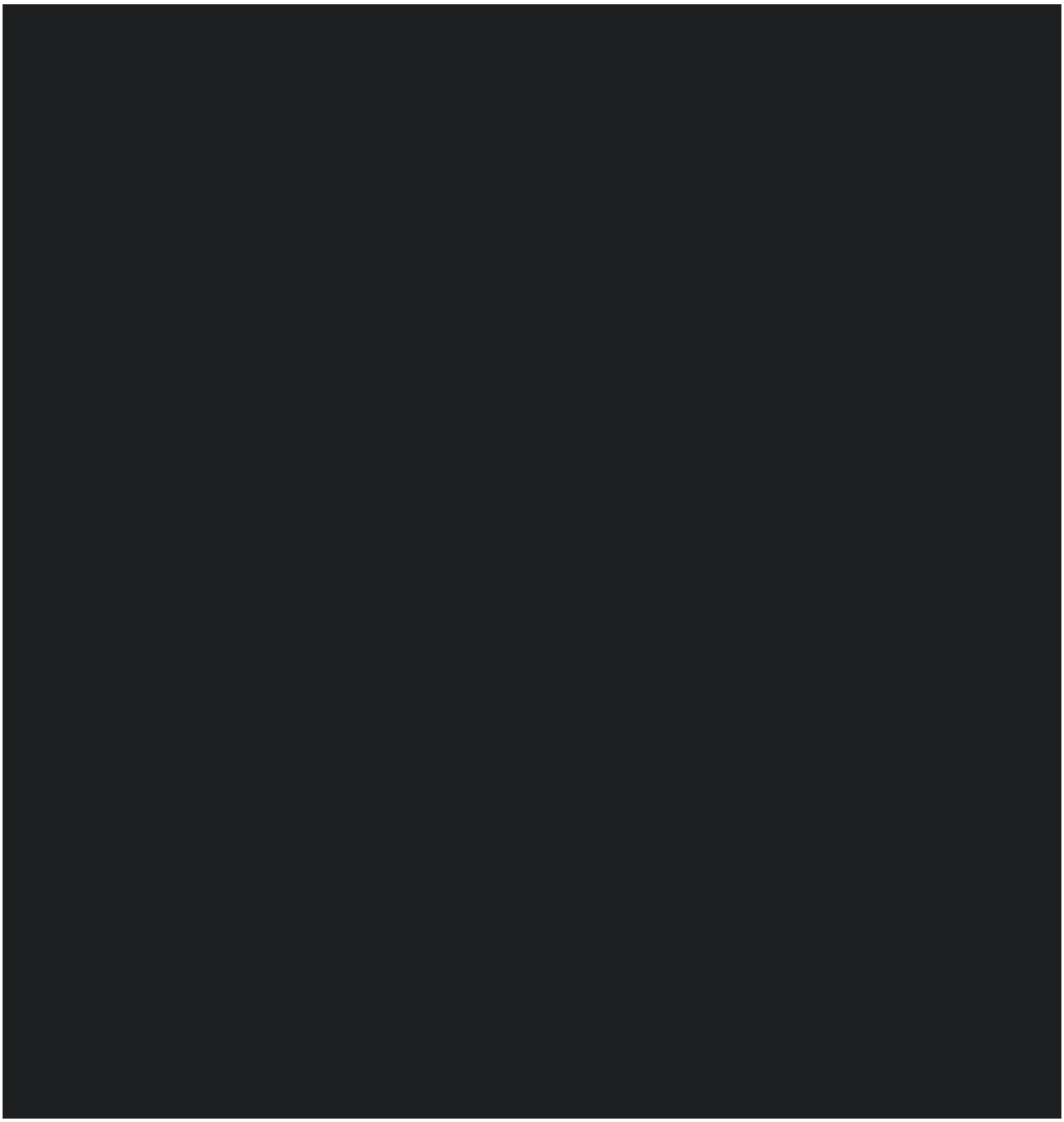
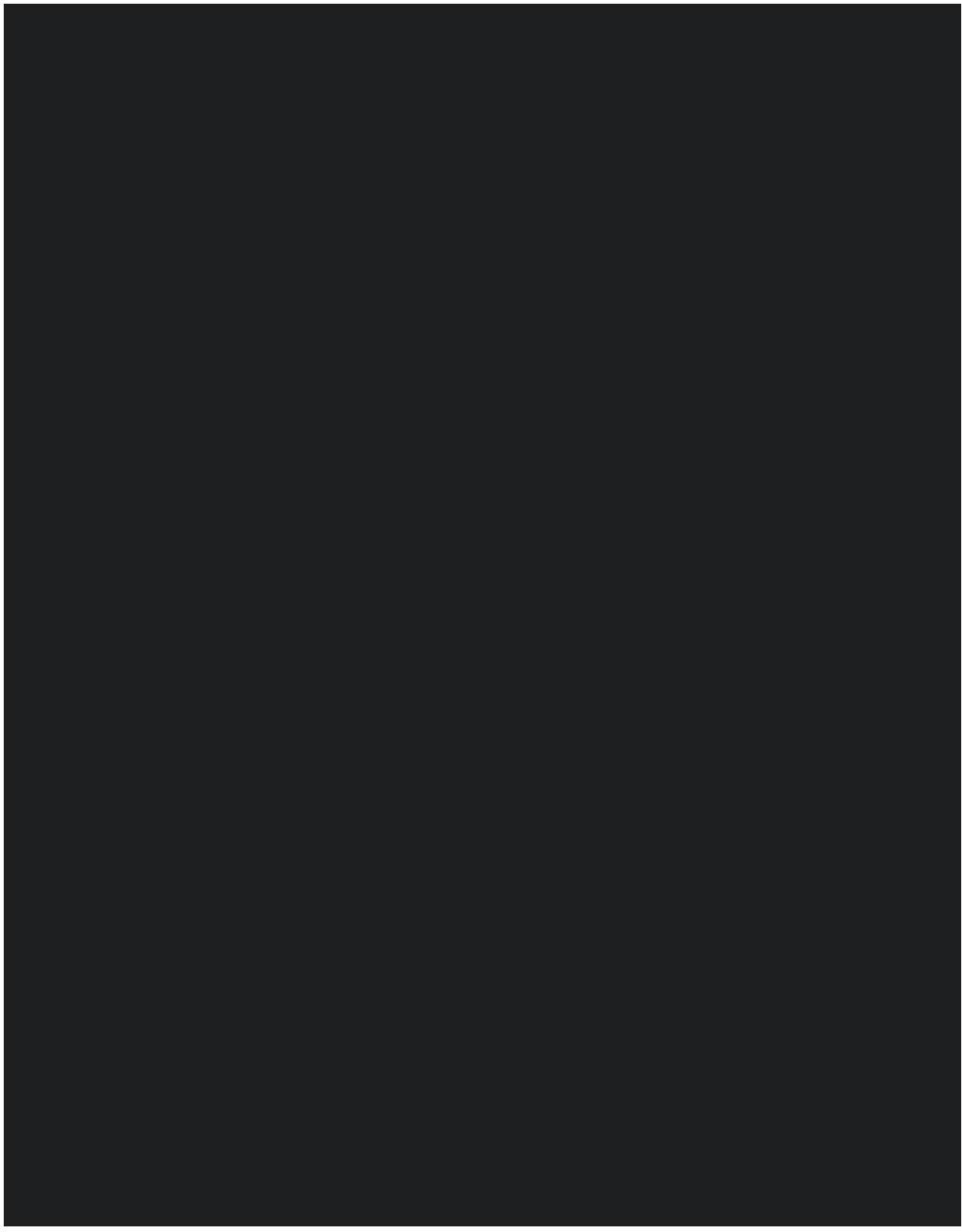


Figure 4: Launcher Site Utilizing Nitrogen



C. Commissioning and Site Restoration

Commissioning activities include restoration of the site; final Inspection and returning pipeline to normal operating conditions, transportation and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas executed the design, planning, and construction activities for this Project to minimize or avoid costs where appropriate. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Schedule Coordination: The Project Team coordinated with another SoCalGas Project to complete pipeline replacement on sections of Supply Line 36-37 that required [redacted]. This resulted in cost efficiencies related to less excavations tie-ins and restoration.

B. Actual Costs[3]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $6,803,726.

Table 10: Actual Direct Costs[4]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	109,720	393,549	503,269
Contract Costs	1,970,263	856,205	2,826,467
Material	66,005	66,769	132,774
Other Direct Charges	479,328	1,371,207	1,850,535
Total Direct Costs	2,625,316	2,687,730	5,313,045

Table 11: Actual Indirect Costs[5]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	1,162,818	308,674	1,471,492
AFUDC	12,984	0	12,984
Property Taxes	6,204	0	6,204
Total Indirect Costs	1,182,006	308,674	1,490,680

Table 12: Total Costs[6]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	3,807,322	2,996,404	6,803,726

[3] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[4] Values may not add to total due to rounding.
[5] Ibid.
[6] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 36-37 [redacted] TIMP Project. Through this Project, SoCalGas successfully implemented and managed the requirements set forth in 49 CFR Part 192, Subpart O, including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting an appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $6,803,726.

End of Supply Line 36-37 [redacted] TIMP Project Final Workpaper

I. SUPPLY LINE 36-1007 [redacted] TIMP PROJECT

A. Background and Summary

Supply Line 36-1007 [redacted] Transmission Integrity Management Program (TIMP) Project assessed a [redacted] line that runs approximately 5.1 miles from [redacted], through residential neighborhoods and commercial areas. The pipeline is routed across Class 1, 2, and 3 locations with 0.3 miles within High Consequence Area(s) (HCAs) locations and 4.8 miles within non-HCAs. This Workpaper describes the activities and costs associated with an Inspection using In-Line Inspection (ILI) and the Direct Examinations made to eight sites, of which sites two contained Safety Related Conditions (SRCs), and three contained Immediate Repair Conditions (IRCs). The Project activities were located in Santa Barbara County. The specific attributes of this Workpaper are detailed in Table 1 below. The total loaded cost of the Project is $40,341,177.

SoCalGas

Final Workpaper for Supply Line 36-1007 [redacted] TIMP Project

Table 1: General Project Information

Inspection Details	
Pipeline	36-1007
Segment	[redacted]
Inspection Type	[redacted] Tools
Location	Santa Barbara County
Class	1, 2, 3
HCA Length	0.3 miles
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	Multiple SMYS values from [redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Final Tool Run Date	[redacted]
Inspection Due Date	[redacted]
Direct Examination Details	
Site	1
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Soft Pad and Replacement
Within HCA	Yes
SRC/IRC	Yes
SRC/IRC Discovery Date	[redacted]
Repair Date	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]

Table 1: General Project Information (Continued)

Direct Examination Details	
Site	2
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Soft Pad and Band
Within HCA	No
SRC/IRC	Yes
SRC/IRC Discovery Date	[redacted]
Repair Date	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Direct Examination Details	
Site	3
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Replacement
Within HCA	No
SRC/IRC	Yes
SRC/IRC Discovery Date	[redacted]
Repair Date	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]

SoCalGas

Final Workpaper for Supply Line 36-1007 [redacted] TIMP Project

Table 1: General Project Information (Continued)

Direct Examination Details	
Site	4
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Soft Pad and Replacement
Within HCA	Yes
SRC/IRC	Yes
SRC/IRC Discovery Date	[redacted]
Repair Date	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Direct Examination Details	
Site	5
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Soft Pad and Band
Within HCA	Yes
SRC/IRC	Yes
SRC/IRC Discovery Date	[redacted]
Repair Date	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]

Table 1: General Project Information (Continued)

Direct Examination Details	
Site	6
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Soft Pad
Within HCA	No
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Direct Examination Details	
Site	7
Examination ID	[redacted]
Type	Validation
Mitigation/Remediation Type	Soft Pad and Replacement
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]

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Final Workpaper for Supply Line 36-1007 [redacted] TIMP Project

Table 1: General Project Information (Continued)

Direct Examination Details			
Site	8		
Examination ID	[redacted]		
Type	Validation		
Mitigation/Remediation Type	Soft Pad		
Within HCA	Yes		
SRC/IRC	No		
Pipe Diameter	[redacted]		
MAOP	[redacted]		
SMYS	[redacted]		
Construction Start Date	[redacted]		
Construction Completion Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	35,273,697	5,067,480	40,341,177

B. Maps and Images

Figure 1: Satellite Image of Supply Line 36-1007 [redacted] TIMP Project

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

A. Project Scope

As described in the Prepared Direct Testimony of Jordan Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow the four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Inspection and Direct Examinations.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project. The final scope of this Project is summarized in Tables 2 and 3 below.

1. Inspection – Engineering, Design, and Constructability: SoCalGas identified Supply Line 36-1007 [redacted] TIMP Project for Inspection using ILI. Previous assessments for Supply Line 36-1007 were completed using other methods, however, updates in regulations[1] activated the [redacted]. In order to address this threat, a first-time ILI and the required retrofits to facilitate the Inspection were performed.
   a. ILI from a temporary launcher site within [redacted] to a temporary receiver site within [redacted].
   b. The Project required temporary installation of a launcher barrel and associated piping at [redacted]. This location also required retrofits to permanently replace valves within [redacted] and replace a [redacted] pipeline with 508 feet of new [redacted] pipeline.
   c. The Project required temporary installations of a receiver barrel, associated piping, and filter separator at [redacted] as well as a retrofit to install a permanent receiver valve.

[1] [redacted]

d. The Project required retrofits at three additional locations to remove unpiggable features from the pipeline prior to the Inspection.

2. Direct Examination – Engineering, Design, and Constructability: Following the completion of the Inspections using ILI, eight Direct Examination sites were identified for validation.
   a. Direct Examination Site #1 consisted of soft pad repairs and 48 foot pipeline replacement. This location contained one IRC.
   b. Direct Examination Site #2 consisted of soft pad and band repairs.
   c. Direct Examination Site #3 consisted of a 197 foot pipeline replacement.
   d. Direct Examination Site #4 consisted of soft pad repairs and 90 foot pipeline replacement. This location contained one IRC.
   e. Direct Examination Site #5 consisted of soft pad and band repairs. This location contained one IRC.
   f. Direct Examination Site #6 consisted of soft pad repairs.
   g. Direct Examination Site #7 consisted of soft pad repairs and 86 foot pipeline replacement. This location contained one SRC.
   h. Direct Examination Site #8 consisted of soft pad repairs. This location contained one SRC.
   i. Following completion of the Direct Examinations, one additional Direct Examination site was identified for validation and will be addressed after 2023.
3. Post-Assessment – Engineering, Design, and Constructability: The validation analysis of the Direct Examinations following the Inspection resulted in additional examinations that will be addressed after 2023.
4. Final Project Scope: The final project scope of this Workpaper includes Inspection using ILI and eight Direct Examinations.

SoCalGas

Final Workpaper for Supply Line 36-1007 [redacted] TIMP Project

Table 2: Final Inspection Project Scope – ILI

Final Project Scope					
Line	Inspection Length	Threat Type	Inspection Technology	Tool Method of Travel	Retrofits
36-1007	5.1 mi	[redacted]	[redacted]	[redacted]	Yes
36-1007	5.1 mi	[redacted]	[redacted]	[redacted]	Yes

Table 3: Final Direct Examination Project Scope

Final Project Scope							
Line	Site	Within HCA	SRC/ IRC	Examination Length	Mitigation/ Remediation Type	Replacement Length	Cost Category
36-1007	1	Yes	Yes	50 ft	Soft Pad and Replacement	48 ft	Capital
36-1007	2	No	Yes	47 ft	Soft Pad and Band	N/A	Capital
36-1007	3	No	Yes	29 ft	Replacement	197 ft	Capital
36-1007	4	Yes	Yes	54 ft	Soft Pad and Replacement	90 ft	Capital
36-1007	5	Yes	Yes	45 ft	Soft Pad and Band	N/A	Capital
36-1007	6	No	No	64 ft	Soft Pad	N/A	O&M
36-1007	7	Yes	No	50 ft	Soft Pad and Replacement	86 ft	Capital
36-1007	8	Yes	No	17 ft	Soft Pad	N/A	O&M

B. Engineering, Design, and Constructability Factors – Inspection

SoCalGas initiated the planning process for the Supply Line 36-1007 [redacted] TIMP Project by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate Inspection methods, and select the Inspection tools. Key factors that influenced the engineering and design of this Project are as follows:

1. Site Description: The Project consisted of an ILI from a temporary launcher site within [redacted] to a temporary receiver site within [redacted]. The Project also required retrofits to the pipeline to facilitate the Inspection.
2. HCA Threats:
   [redacted]
3. Pipe Vintage: [redacted].
4. Long Seam Type:
   [redacted]
5. Inspection Tools and Technologies:
   a. The Project utilized [redacted] capabilities during the Inspection of the pipeline. [redacted] were also utilized in preparation for the Inspection.
   b. The Project required multiple tool runs to retrieve acceptable data due to sensor loss and speed excursions in the initial runs.
6. Inspection Retrofits: The Project required a total of five retrofits to install permanent features and to remove unpiggable features from the pipeline to facilitate the Inspection.

[redacted]

a. [redacted] required permanent valve installations for the receiver to facilitate the ILI.
b. The Project Team replaced unpiggable features near [redacted] to complete the Inspection, including back-to-back elbows and a mainline valve.
c. The Project Team replaced two valves near [redacted].
d. The Project Team replaced unpiggable features near [redacted].
e. [redacted] required permanent valve installations and installation of approximately 508 feet of new [redacted] pipe.

7. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the following:
   a. Retrofits in preparation for the Inspection required adjustments to normal operating conditions, installation of four temporary bypasses to complete the retrofits.
   b. The Inspection could be completed without system impacts.
8. Customer Impacts:
   a. The Project Team determined that customer service could be maintained by adjusting normal operating conditions and installing multiple bypasses during the retrofit activities.
   b. There were no customer impacts during Inspection activities.
9. Community Impacts: The Project Team notified various nearby locations of project activities and schedules, including schools in the Project vicinity.
10. Substructures: The Project required hand excavations at various retrofit locations due to existing substructures.
11. Environmental: The Project Team evaluated all project locations and considered the following environmental impacts:
    a. [redacted] is located adjacent to a jurisdictional water that is tributary to [redacted]. Nesting bird survey and biological monitoring was required.

b. One of the selected pothole locations impacted a jurisdictional waterway and required additional water permitting. The Project Team obtained all required permits prior to construction activities at this location. However, the Project Team encountered concrete and determined that full exposure of the pipeline was unfeasible due to increased risk of debris entering the waterway. This pothole location was backfilled and no longer used for the Project.

12. Permit Restrictions: The Project Team obtained approved permits from the following entities:
    a. Encroachment Permit from the City of Santa Maria Department of Public Works for [redacted] to install temporary receiver assemblies and complete retrofit activities near [redacted].
    b. Encroachment Permit from the City of Santa Maria Department of Public Works for retrofit activities near [redacted].
    c. Encroachment Permit from the City of Santa Maria Department of Public Works for retrofit activities near [redacted].
13. Land Use: The Project required various Temporary Right of Entry (TRE) agreements from the following:
    a. TRE from a private landowner near [redacted] to utilize land as a laydown yard during retrofit activities.
    b. Various TRE's from a private landowner to utilize land as laydown area and workspace during retrofits activities.
    c. TRE from The [redacted] to access a retrofit location near [redacted].
    d. TRE from a private landowner to access temporary workspace and a laydown yard during the Inspection.
    e. TRE and Grant of Exclusive Easement from a private landowner to utilize land as workspace area near [redacted] to install temporary launcher assemblies and complete retrofit activities at this location.

14. Traffic Control: The Project Team obtained approved Traffic Control Plans (TCPs) from the following entities:
    a. City of Santa Maria and Santa Barbara County for retrofit activities near [redacted].
    b. City of Santa Maria and Santa Barbara County for retrofit activities near [redacted].
15. Schedule Delay: The Project Team experienced delayed approvals for permanent easements from the following entities:
    a. Grant of Exclusive Easement from a private landowner near the launcher site, [redacted].
    b. City of Santa Maria for land near the receiver location, [redacted].
16. Constructability:
    a. The Project scope included two pipeline spans that required temporary supports during the Inspection.
    b. The Project required a total of 14 hydrotests prior to the Inspection.
    c. After the Inspection, the Project remained mobilized due to pending site restorations for retrofit locations and upcoming SRC/IRCs.
    d. The Project required additional construction team support to meet compliance timelines for the Inspection, resulting in extended work hours and days.

C. Engineering, Design, and Constructability Factors – Direct Examination

SoCalGas reviewed Inspection reports, completed various site evaluations, and communicated with project stakeholders. Key factors that influenced the engineering and design of the Project are as follows:

1. Engineering Assessment: There were eight Direct Examination Sites selected for validation of the ILI within the Supply Line 36-1007 [redacted] TIMP Project.

a. Direct Examination Site #1 consisted of soft pad repairs and 48 foot pipeline replacement.
b. Direct Examination Site #2 consisted of soft pad and band repairs.
c. Direct Examination Site #3 consisted of a 197 foot pipeline replacement.
d. Direct Examination Site #4 consisted of soft pad repairs and 90 foot pipeline replacement.
e. Direct Examination Site #5 consisted of soft pad and band repairs.
f. Direct Examination Site #6 consisted of soft pad repairs.
g. Direct Examination Site #7 consisted of soft pad repairs and 86 foot pipeline replacement.
h. Direct Examination Site #8 consisted of soft pad repairs.
i. Following completion of the Direct Examinations, one additional Direct Examination site was identified for validation and will be addressed after 2023.

2. SRC/IRC: Direct Examination Sites #1, #2, #3, #4, and #5 each contained an SRC or IRC and required expedited project schedules.
3. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded each Direct Examination location required installation of two permanent Pressure Control Fittings (PCFs) and a temporary bypass to minimize system impacts.
4. Customer Impacts: The Project Team determined that customer service could be maintained by installing temporary bypasses for each Direct Examination Site.
5. Community Impacts: The Project Team notified various nearby locations of project activities and schedules, including schools in the Project vicinity.
6. Substructures: The Project required hand excavation for Direct Examination Site #4 due to an existing 12-inch water main, as well as abandoned and unmarked lines within the excavation.
7. Environmental:
   a. Direct Examination Site #1 required an arborist present during construction activities due to an adjacent row of eucalyptus trees requiring pruning.

b. Direct Examination Site #3 required biological monitoring due to potential federally threatened California red-legged frog (CRLF) activity near the Project site. This site was located within [redacted], federal and state regulated water, and required additional environmental permits.
c. Direct Examination Site #7 required nesting bird surveys.
d. The Project Team obtained a Workers Environmental Awareness Procedure (WEAP) for the Direct Examinations.

8. Permit Restrictions: The Project Team obtained approved permits and notices from the following entities:
   a. Encroachment Permit from the City of Santa Maria Department of Public Works for Direct Examination Sites #1 and #2.
   b. Utility Encroachment Permit from the County of Santa Barbara Department of Public Works for Direct Examination Site #3.
   c. Nationwide Permit from the United States Army Corps of Engineers (USACE) for Direct Examination Site #3.
   d. Notice of Applicability under the State Water Board General Order for the Corps' Nationwide Permits for Direct Examination Site #3.
   e. California Department of Fish and Wildlife Notification of Lake or Streambed Alteration for Direct Examination Site #3.
   f. Utility Encroachment Permit from the County of Santa Barbara Department of Public Works for Direct Examination Site #4.
   g. Utility Encroachment Permit from the County of Santa Barbara Department of Public Works for Direct Examination Site #5.
   h. Utility Encroachment Permit from the County of Santa Barbara Department of Public Works for Direct Examination Site #6.
   i. Encroachment Permit from the City of Santa Maria Department of Public Works for Direct Examination Site #7. An extension of this permit was also obtained through June 2023.

9. Land Use:
   a. TRE from a private landowner to utilize land as laydown area for all Direct Examination Sites.
   b. TRE from a private landowner to access Direct Examination Sites #1 and #2.
   c. TRE from private landowners to access Direct Examination Site #3 and Site #5 and utilize area as temporary workspace.
   d. TRE from a private Homeowner's Association to utilize land as temporary workspace and a laydown yard for Direct Examination Site #3.
   e. TRE from The [redacted] District to access Direct Examination Site #8.
10. Traffic Control: The Project Team obtained approved TCPs from the following entities:
   a. City of Orcutt for Direct Examination Site #3.
   b. County of Santa Barbara for Direct Examination Site #4.
   c. County of Santa Barbara for Direct Examination Site #5.
   d. City of Orcutt for Direct Examination Site #6.
11. Schedule Delay: Direct Examination Site #8 was near the [redacted] and experienced a two month delay due to an air show.
12. Constructability: The Project Team executed repairs for Direct Examination #3 in two phases: installation of PCFs and a temporary bypass, followed by jack and bore activities for installation of new pipeline due to the site being located within [redacted].

D. Engineering, Design, and Constructability Factors – Post-Assessment

During the Post-Assessment step, the Project Team used the data collected from the Inspection and Direct Examinations to determine the effectiveness of the Inspection and evaluate the tool's performance to review the integrity of the pipeline, identify potential required examinations or remediations, and to establish the next reassessment interval

for the threats assessed. This analysis resulted in additional examinations that will be addressed after 2023.

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the criteria for this Project.

B. Construction Schedule

Table 4: Construction Timeline – Retrofits and Inspection

Construction Start Date	[redacted]
Construction Completion Date	
Inspection Due Date	

Table 5: Construction Timeline – Direct Examinations

Construction Start Date	[redacted]
Construction Completion Date	

Table 5: Construction Timeline – SRC and IRC

IRC Discovery Date – Site #1	[redacted]
Repair Date – Site #1	
SRC Discovery Date – Site #2	
Repair Date – Site #2	
SRC Discovery Date – Site #3	
Repair Date – Site #3	
IRC Discovery Date – Site #4	
Repair Date – Site #4	
IRC Discovery Date – Site #5	
Repair Date – Site #5	

Figure 2: Temporary Launcher at [redacted]

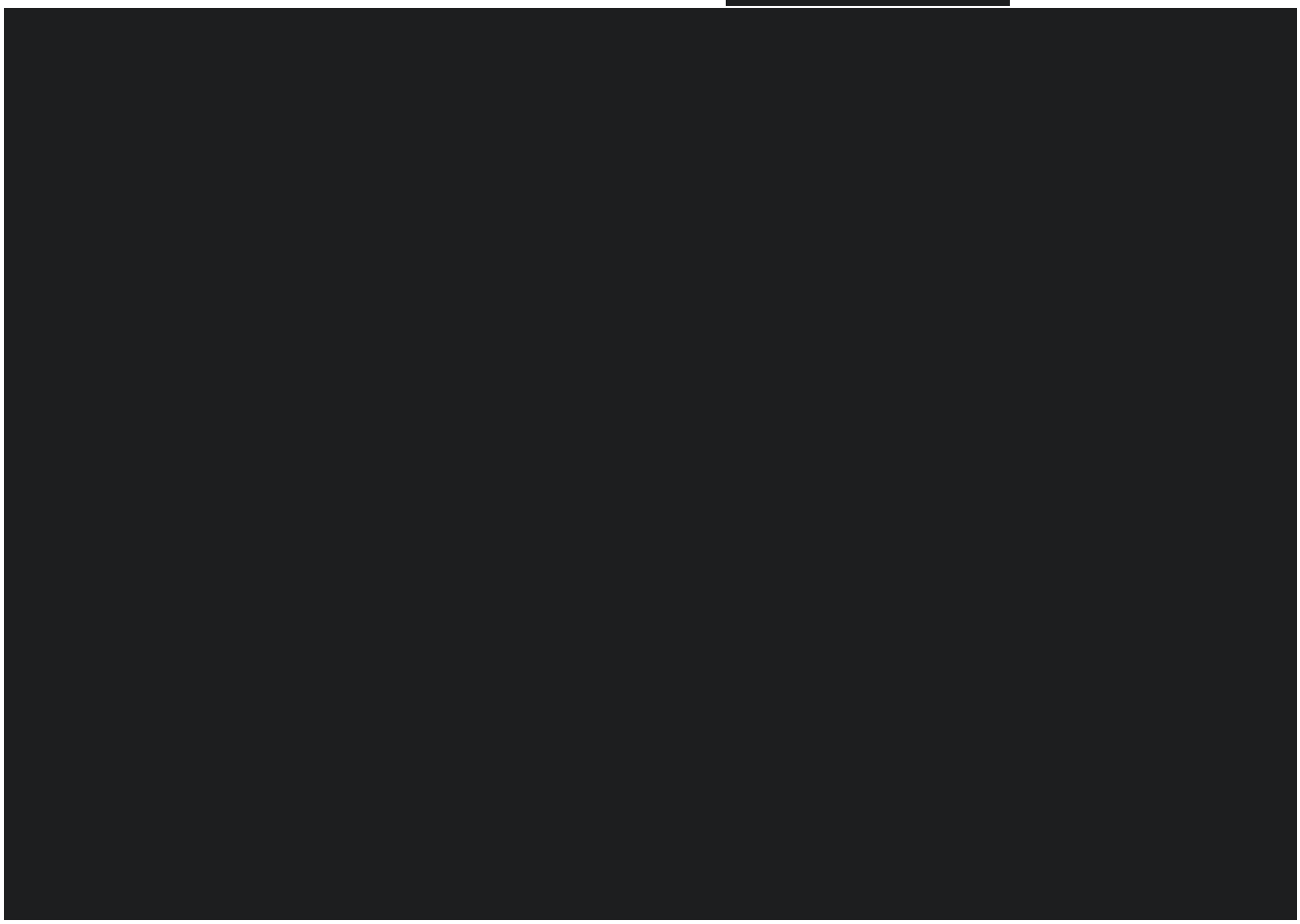


Figure 3: Span Requiring Support during ILI

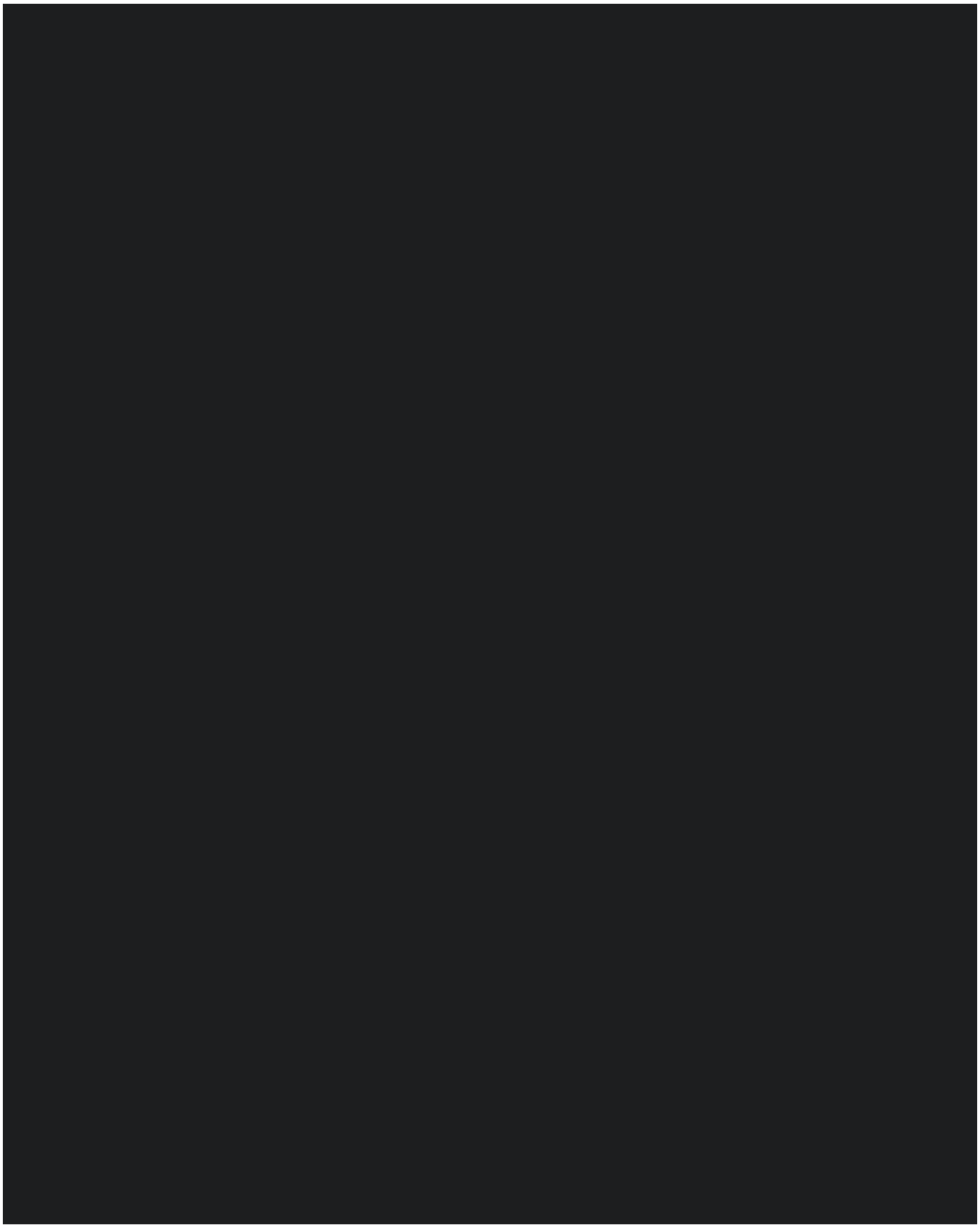
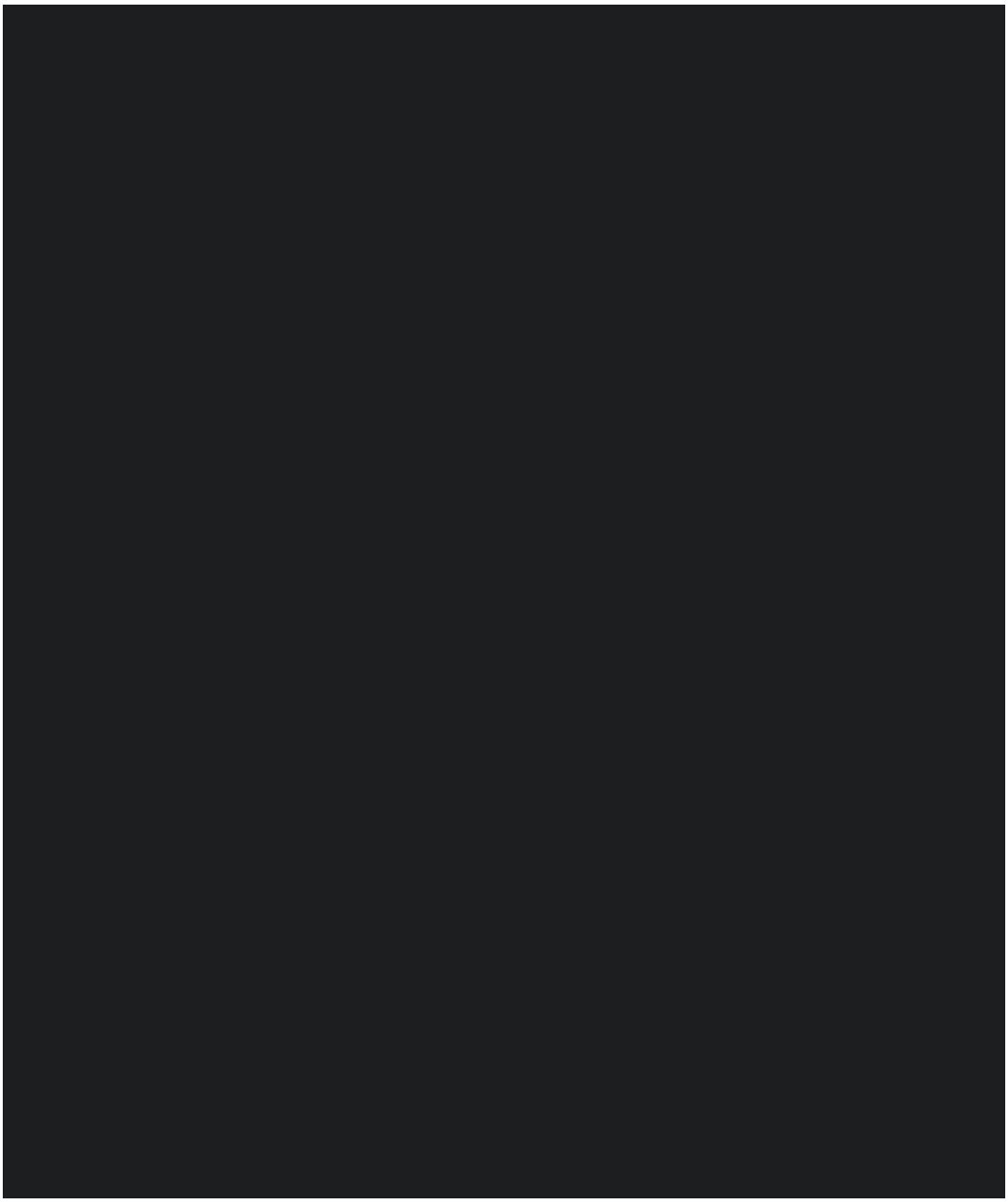


Figure 4: Direct Examination Site #1

Figure 5: Direct Examination Site #4



C. Commissioning and Site Restoration

Commissioning activities include restoration of the site; final Inspection and returning pipeline to normal operating conditions, transportation and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs where appropriate. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the Project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Project Design: Initial project design required CNG for three customer locations impacted near retrofit location #1. The Project Team instead maintained service to the customers by installing a temporary alternate bypass, resulting in cost savings to the Project.
2. Schedule Coordination: The Project Team completed all construction activities for this Project under one mobilization, minimizing costs for various mobilization and demobilization efforts.
3. Construction Execution: The Project Team completed construction activities for Direct Examination Site #3 in two phases, allowing the Project to progress while pending environmental permits.

B. Actual Costs[4]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $40,341,177.

Table 6: Actual Direct Costs[5]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	1,200,947	423,358	1,624,305
Contract Costs	17,201,414	2,777,373	19,978,787
Material	1,239,363	85,605	1,324,968
Other Direct Charges	5,455,669	1,276,891	6,732,559
Total Direct Costs	25,097,392	4,563,227	29,660,620

Table 7: Actual Indirect Costs[6]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	9,870,687	504,253	10,374,940
AFUDC	224,563	0	224,563
Property Taxes	81,055	0	81,055
Total Indirect Costs	10,176,305	504,253	10,680,557

Table 8: Total Costs[7]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	35,273,697	5,067,480	40,341,177

[4] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[5] Values may not add to total due to rounding.
[6] Ibid.
[7] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 36-1007 [redacted] TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 CFR Part 192, Subpart O, including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting an appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting findings of the assessment. The total loaded cost of the Project is $40,341,177.

End of Supply Line 36-1007 [redacted] TIMP Project Final Workpaper

I. SUPPLY LINE 41-6505 [redacted] TIMP PROJECT

A. Background and Summary

Supply Line 41-6505 [redacted] Transmission Integrity Management Program (TIMP) Project assessed a [redacted] diameter line that runs approximately 789 feet on [redacted], through commercial areas. The Project also assessed one short segment of [redacted] pipeline using the [redacted] assessment method. The pipeline is routed across Class 2 and 3 locations with 320 feet within High Consequence Area(s) (HCAs) and 469 feet within non-HCAs. This Workpaper describes the activities and costs associated with a TIMP Assessment that includes an Inspection using [redacted] and the Direct Examination made to one site. The Project activities were located in the City of Rancho Cucamonga. The specific attributes of this Workpaper are detailed in Table 1 below. The total loaded cost of the Project is ~~$2,382,631~~ $2,403,434.

SoCalGas

Final Workpaper for Supply Line 41-6505 [redacted] TIMP Project

Table 1: General Project Information

Inspection Details	
Pipeline	41-6505
Segment	[redacted]
Inspection Type	[redacted] Tool
Location	Rancho Cucamonga
Class	2, 3
HCA Length	320 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Final Tool Run Date	[redacted]
Inspection Due Date	[redacted]
Direct Examination Details	
Line	41-6505
Site	1
Examination ID	[redacted]
Type	[redacted]
Mitigation/Remediation Type	No Repairs
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Due Date	[redacted]

Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	~~951,856~~ 1,040,209	~~1,430,775~~ 1,363,226	~~2,382,631~~ 2,403,434

B. Maps and Images

Figure 1: Satellite Image of Supply Line 41-6505 [redacted] TIMP Project

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

A. Project Scope

As described in the Prepared Direct Testimony of Jordan Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow the four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Inspection and Direct Examinations.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project. The final scope of this Project is summarized in Tables 2 and 3 below.

1. Inspection – Engineering, Design, and Constructability: SoCalGas identified Supply Line 41-6505 for Inspection using [redacted].
   a. [redacted] from two temporary launcher and receiver locations south of the intersection of [redacted].
   b. The Project Team installed two [redacted] to insert the [redacted] tool on the north and south side of a relocated check valve in the center of Supply Line 41-6505.
2. Direct Examination – Engineering, Design, and Constructability: One Direct Examination site was identified to assess pipeline segments that could not accommodate an ILI tool.
   a. Direct Examination Site #1 consisted of no repairs.
3. Post-Assessment – Engineering, Design, and Constructability: The analysis of the [redacted] using a validation spool piece resulted in no additional examinations.
4. Final Project Scope: The final project scope of this Workpaper includes Inspection using [redacted] and one Direct Examination.

Table 2: Final Inspection Project Scope – ILI

Final Project Scope					
Line	Inspection Length	Threat Type	Inspection Technology	Tool Method of Travel	Retrofits
41-6505	789 ft	[redacted]	[redacted]	[redacted]	Yes

Table 3: Final Direct Examination Project Scope

Final Project Scope							
Line	Site	Within HCA	SRC /IRC	Examination Length	Mitigation/ Remediation Type	Replacement Length	Cost Category
41-6505	3	Yes	No	15 ft	No Repair	N/A	O&M

B. Engineering, Design, and Constructability Factors – Inspection

SoCalGas initiated the planning process for the Supply Line 41-6505 [redacted] Project by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate Inspection methods, and select the Inspection tools. Key factors that influenced the engineering and design of this Project are as follows:

1. Site Description: [redacted] of Supply Line 41-6505 [redacted] intersection through two temporary launcher and receiver sites.
2. HCA Threats:
   [redacted]

[redacted]

[redacted]

3. Pipe Vintage: [redacted].
4. Long Seam Type: [redacted].
5. Inspection Tools and Technologies: The Project utilized a [redacted] technology during the Inspection of the pipeline.
6. Inspection Retrofits: The Project Team relocated a check valve and then installed two [redacted] on each side of the valve in order to inspect the north and south sides of the pipeline using the [redacted] tool.
7. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the pipeline could be inspected without system impacts.
8. Customer Impacts: No customer impacts.
9. Community Impacts: No identified impacts.
10. Substructures: The Project Team did not identify any existing substructures that impacted the design and engineering.
11. Environmental: No identified impacts.
12. Permit Restrictions: The Project Team obtained the following permits:
    a. Construction Permit from the City of Rancho Cucamonga.
    b. Lane Closure Permit from the City of Rancho Cucamonga.
13. Land Use: The Project Team obtained a Temporary Right of Entry (TRE) from a private landowner for a laydown yard in the City of Fontana.
14. Traffic Control: The Project Team required and obtained approved Traffic Control Plans (TCP) from the City of Rancho Cucamonga. The TCP included a one-lane closure on [redacted] during construction.
15. Constructability: The [redacted] Site was assessed during the Inspection Phase of the Project.

C. Engineering, Design, and Constructability Factors – Direct Examination

SoCalGas reviewed Inspection reports, completed various site evaluations, and communicated with project stakeholders. Key factors that influenced the engineering and design of the Project are as follows:

1. Engineering Assessment:
   a. There was one [redacted] Site selected to assess a pipeline segment that could not accommodate an ILI tool within the Supply Line 41-6505 [redacted] TIMP Project.
      i. Direct Examination Site #1 resulted in no repairs.
   b. SoCalGas completed the Direct Examination for the Supply Line 41-6505 [redacted] using a validation spool piece and it was determined that no additional Direct Examination Sites were required for validation.
2. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the Direct Examinations could be completed without system impacts.
3. Customer Impacts: No customer impacts.
4. Community Impacts: No identified impacts.
5. Substructures: The Project Team did not identify any existing substructures that impacted the design and engineering.
6. Environmental: No identified impacts.
7. Permit Restrictions: No identified impacts.
8. Land Use: No identified impacts.
9. Traffic Control: The Project Team required and obtained an approved TCP from the City of Rancho Cucamonga. The TCP included K-Rail on the shoulder of [redacted] to provide a safe work area during construction.
10. Constructability: The Project Team completed the Direct Examination Site #1 during the Inspection Phase of the Project.

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the criteria for this Project.

B. Construction Schedule

Table 4: Construction Timeline – Inspection

Construction Start Date	[redacted]	
Construction Completion Date		
Inspection Due Date		

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 2: [redacted] Launcher and Receiver Location

Figure 3: [redacted] Launcher and Receiver Excavation

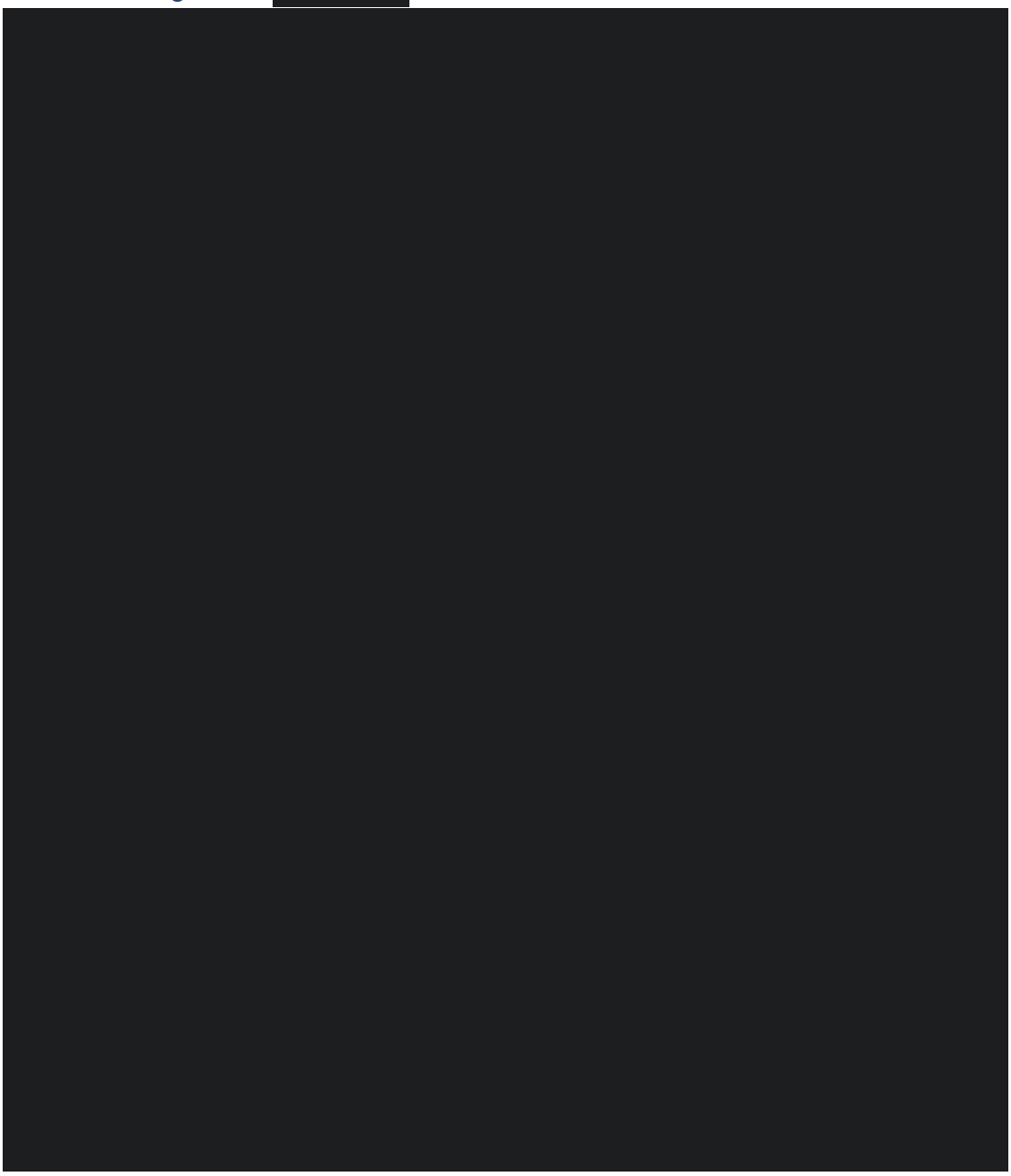


Figure 4: Direct Examination Site #1 Excavation

Figure 5: Direct Examination Site Overview

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site; final Inspection and returning pipeline to normal operating conditions, transportation and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas executed the design, planning, and construction activities for this Project to minimize or avoid costs where appropriate. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the project plan and design.

B. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is ~~$2,382,631~~$2,403,434.

Table 6: Actual Direct Costs[3]

~~Direct Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~Company Labor~~	~~55,825~~	~~85,599~~	~~141,423~~
~~Contract Costs~~	~~495,974~~	~~972,888~~	~~1,468,862~~
~~Material~~	~~450~~	~~53,854~~	~~54,304~~
~~Other Direct Charges~~	~~145,692~~	~~210,451~~	~~356,143~~
~~**Total Direct Costs**~~	~~697,940~~	~~1,322,791~~	~~2,020,732~~

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	55,825	85,599	141,423
Contract Costs	557,867	911,085	1,468,952
Material	450	53,854	54,304
Other Direct Charges	145,692	210,451	356,143
Total Direct Costs	759,833	1,260,989	2,020,822

Table 7: Actual Indirect Costs[4]

~~Indirect Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~Overheads~~	~~250,581~~	~~107,983~~	~~358,565~~
~~AFUDC~~	~~2,022~~	~~0~~	~~2,022~~
~~Property Taxes~~	~~1,313~~	~~0~~	~~1,313~~
~~**Total Indirect Costs**~~	~~253,916~~	~~107,983~~	~~361,899~~

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.

Final Workpaper for Supply Line 41-6505 [redacted] TIMP Project

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	277,041	102,237	379,278
AFUDC	2,022	0	2,022
Property Taxes	1,313	0	1,313
Total Indirect Costs	280,376	102,237	382,613

Table 8: Total Costs[5]

~~Total Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~**Total Loaded Costs**~~	~~951,856~~	~~1,430,775~~	~~2,382,631~~

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	1,040,209	1,363,225	2,403,434

[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 41-6505 [redacted] TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 CFR Part 192, Subpart O, including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting an appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is ~~$2,382,631~~$2,403,434.

End of Supply Line 41-6505 [redacted] TIMP Project Final Workpaper

I. SUPPLY LINE 45-163 TIMP PROJECT

A. Background and Summary

Supply Line 45-163 Transmission Integrity Management Program (TIMP) Project assessed a [redacted] diameter cased line that runs approximately 0.3 miles underneath Interstate 5, near commercial areas. The pipeline is routed across [redacted] locations with all project mileage within High Consequence Area(s) (HCAs). This Workpaper describes the activities and costs associated with one Post-Assessment location. The Project activities were located in the City of Santa Clarita. The specific attributes of this Workpaper are detailed in Table 1 below. The total loaded cost of the Project is $5,434,735.

SoCalGas

Final Workpaper for Supply Line 45-163 TIMP Project

Table 1: General Project Information

Post-Assessment Details			
Site	1		
Examination ID	N/A		
Remediation Type	Replacement		
Within HCA	Yes		
SRC/IRC	No		
Pipe Diameter	[redacted]		
MAOP			
SMYS			
Construction Start Date			
Construction Completion Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	5,434,735	0	5,434,735

B. Maps and Images

Figure 1: Satellite Image of Supply Line 45-163 TIMP Project

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

A. Project Scope

As described in the Prepared Direct Testimony of Jordan Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow the four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project. The final scope of this Project is summarized in Table 2 below.

1. Inspection – Engineering, Design, and Constructability: SoCalGas identified Supply Line 45-163 for Inspection using [redacted], activities related to execution of the ILI were completed for this Project before the TY 2019 General Rate Case (GRC) cycle.
2. Direct Examination – Engineering, Design, and Constructability: Validation was completed on a validation spool piece at the time of the Inspection.
3. Post-Assessment – Engineering, Design, and Constructability: Following the completion of the Inspection, validation was completed on a validation spool piece and it was determined that one Post-Assessment Site required remediation.
   a. Post-Assessment Site #1 consisted of a 440 foot pipeline replacement.
   b. The Project also included installation of 400 feet of casing at the Project location.
4. Final Project Scope: The final project scope of this Workpaper includes one Post-Assessment location.

Table 2: Final Post-Assessment Project Scope

Final Project Scope							
Line	Site	Within HCA	SRC/ IRC	Examination Length	Mitigation/ Remediation Type	Replacement Length	Cost Category
45-163	1	Yes	No	N/A	Replacement	440 ft	Capital

B. Engineering, Design, and Constructability Factors – Inspection

SoCalGas completed the Inspection for the Supply Line 45-163 TIMP Project before the TY 2019 GRC cycle.

C. Engineering, Design, and Constructability Factors – Direct Examination

SoCalGas completed the Direct Examination for the Supply Line 45-163 TIMP Project using a validation spool piece and it was determined that one Post-Assessment location required remediation.

D. Engineering, Design, and Constructability Factors – Post-Assessment

During the Post-Assessment step, the Project Team used the data collected from the Inspection and spool piece validation to determine the effectiveness of the Inspection and evaluate the tool's performance to review the integrity of the pipeline, identify potential required examinations or remediations, and to establish the next reassessment interval for the threats assessed. This analysis resulted in one Post-Assessment Site requiring remediation to enhance the overall integrity and safety of the pipeline. Key factors that influenced the engineering and design of the Project are as follows:

SoCalGas

Final Workpaper for Supply Line 45-163 TIMP Project

1. Engineering Analysis:
   a. Post-Assessment Site #1 consisted of a 440 foot pipeline replacement.
   b. The Project also included installation of 400 feet of casing at the Project location.
2. SRC/IRC: There were no SRCs or IRCs during Post-Assessment.
3. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded Post-Assessment activities could be completed without system impacts.
4. Customer Impacts: The Project Team determined that service for one customer would be temporarily interrupted throughout the duration of the Project. Interruption of service to the customer was communicated and deemed feasible.
5. Community Impacts: The Project Team coordinated closely with private landowners impacted by construction activities throughout the duration of the Project.
6. Permit Restrictions: The Project Team obtained an approved Encroachment Permit from the State of California Department of Transportation (DOT).
7. Substructures: The Project Team did not identify or encounter any existing substructures that impacted the engineering, design, and constructability for the Project.
8. Environmental: The Project required removal of a non-native oak tree within Los Angeles County boundaries to facilitate the Project. Los Angeles County initially required an environmental application to be submitted including extensive surveying of the Project site. Upon submitting the application, the Project Team was informed a permit was no longer required.
9. Traffic Control: No identified impacts.
10. Land Use:
    a. The Project Team obtained two Temporary Right of Entry (TRE) agreements from private property owners on either end of the replacement scope.
    b. The Project Team cooperated with another utility regarding existing non-exclusive easements near one of the excavation sites.

11. Schedule Delay: The Project experienced several schedule delays due to unforeseen circumstances prior to and during construction such as the need to change the proposed tie-in location and boring equipment malfunction.
12. Constructability:
    a. Post-Assessment Site #1 was located on carrier pipe within casing pipe underneath the Interstate Highway. After evaluating options with various stakeholders, the Project Team concluded replacement of the pipeline was most feasible.
    b. Post-Assessment Site #1 consisted of abandon-in-place activities that isolated and abandoned the existing pipeline. These activities included filling the abandoned carrier pipe with slurry to adhere to DOT requirements.
    c. New installations for Post-Assessment Site #1 required boring new casing pipe underneath and across the Interstate 5, followed by installation of new pipeline within the casing with insulating spacers every 20 feet.
    d. The Project required additional structural support for a privately owned bridge in the Project vicinity to withstand the weight of equipment used for the Project.
    e. The project incurred additional costs due to specific site restoration requirements requested by the private property owner.

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the criteria for this Project.

B. Construction Schedule

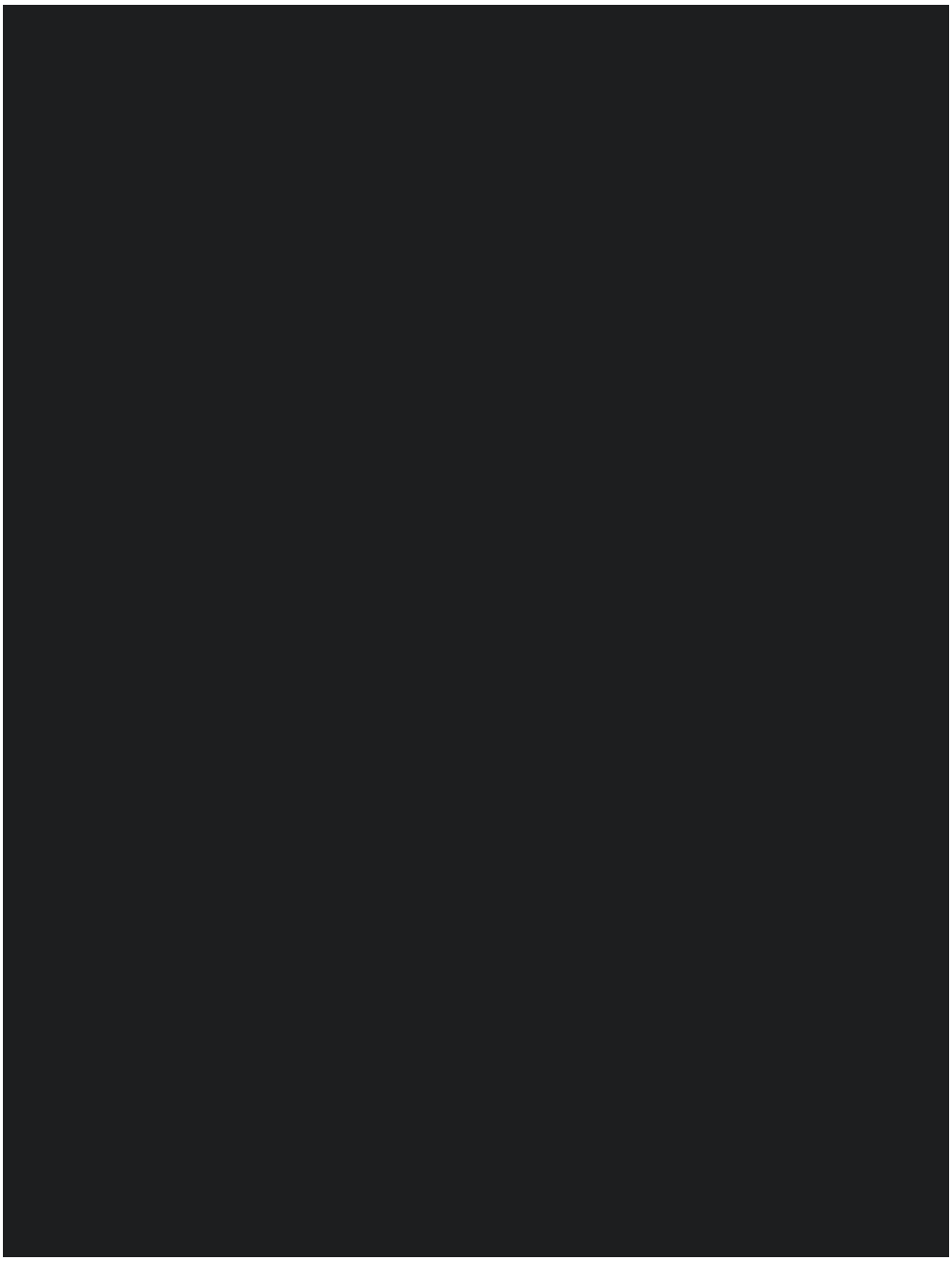
Table 3: Construction Timeline – Post-Assessment

Construction Start Date	[redacted]	
Construction Completion Date		

SoCalGas

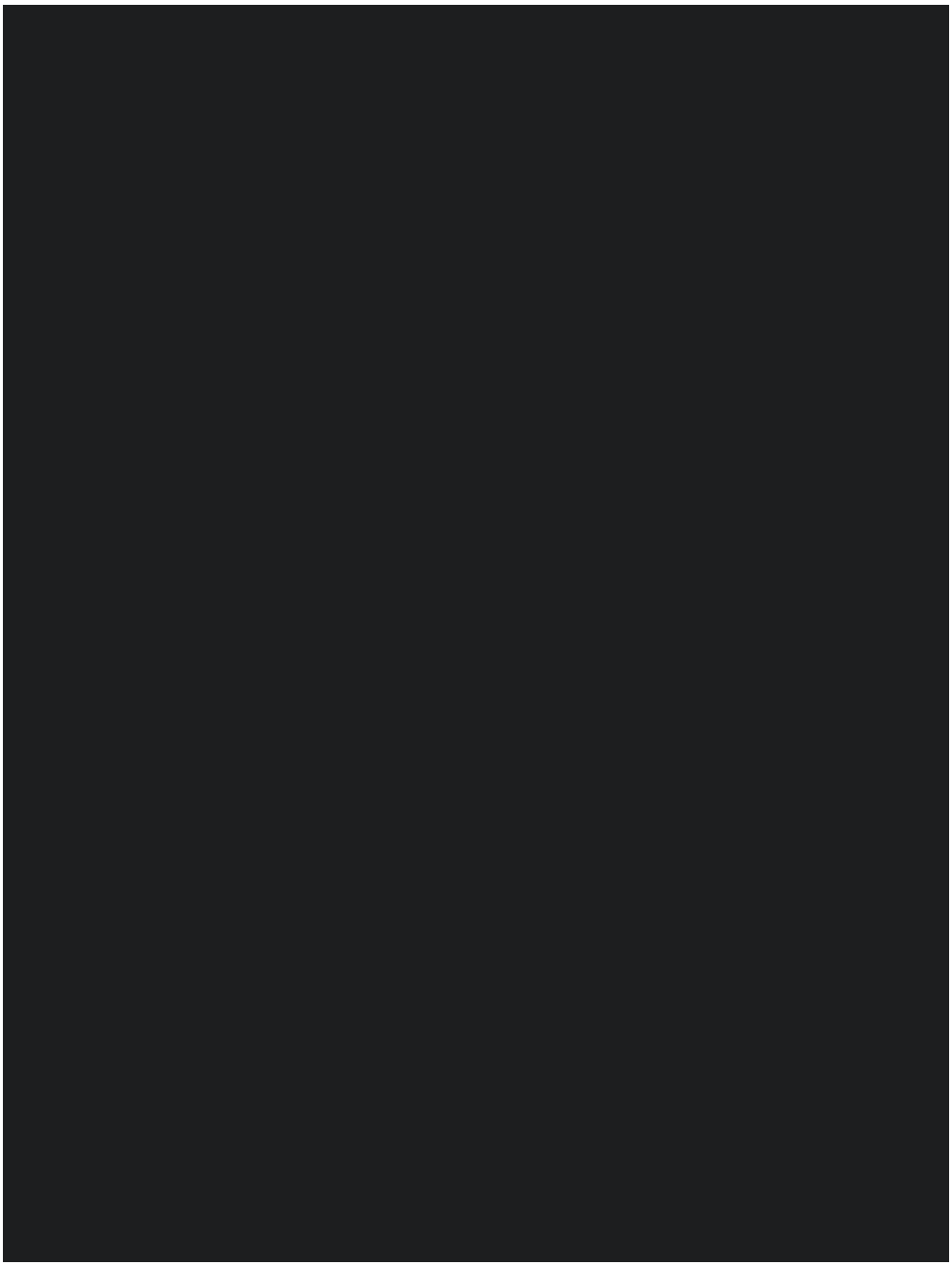
Final Workpaper for Supply Line 45-163 TIMP Project

Figure 2: Overview of Boring Launching Excavation



Final Workpaper for Supply Line 45-163 TIMP Project

Figure 3: Boring Rail System



Final Workpaper for Supply Line 45-163 TIMP Project

Figure 4: Bore Shaft and Casing Pipe at the Receiving Excavation

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site; final Inspection and returning pipeline to normal operating conditions, transportation and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs where appropriate. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the project plan and design.

B. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $5,434,735.

Table 4: Actual Direct Costs[2]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	252,343	0	252,343
Contract Costs	2,390,059	0	2,390,059
Material	206,371	0	206,371
Other Direct Charges	820,539	0	820,539
Total Direct Costs	3,669,311	0	3,669,311

Table 5: Actual Indirect Costs[3]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	1,729,694	0	1,729,694
AFUDC	30,513	0	30,513
Property Taxes	5,217	0	5,217
Total Indirect Costs	1,765,425	0	1,765,425

Table 6: Total Costs[4]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	5,434,735	0	5,434,735

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.
[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 45-163 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 CFR Part 192, Subpart O, including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting an appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting findings of the assessment. The total loaded cost of the Project is $5,434,735.

End of Supply Line 45-163 TIMP Project Final Workpaper

I. SUPPLY LINE 45-1106 [redacted] TIMP PROJECT

A. Background and Summary

Supply Line 45-1106 [redacted] Transmission Integrity Management Program (TIMP) Project assessed a [redacted] diameter line that runs approximately 0.13 miles along [redacted]. The pipeline is routed across [redacted] locations with 0.13 miles within High Consequence Area(s) (HCAs) and no non-HCAs. This Workpaper describes the activities and costs associated with an Inspection using [redacted] The Project activities were located in the City of Los Angeles. The specific attributes of this Workpaper are detailed in Table 1 below. The total loaded cost of the Project is ~~$1,170,424~~ $1,171,380.

SoCalGas

Final Workpaper for Supply Line 45-1106 [redacted] TIMP Project

Table 1: General Project Information

Inspection Details			
Pipeline	45-1106		
Segment	[redacted]		
Inspection Type	[redacted] Tool		
Location	Los Angeles		
Class	[redacted]		
HCA Length	0.13 miles		
Vintage	[redacted]		
Pipe Diameter	[redacted]		
MAOP	[redacted]		
SMYS	Multiple SMYS values from [redacted]		
Construction Start Date	[redacted]		
Construction Completion Date	[redacted]		
Final Tool Run Date	[redacted]		
Inspection Due Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	~~0~~ 0	~~1,170,424~~ 1,171,380	~~1,170,424~~ 1,171,380

B. Maps and Images

Figure 1: Satellite Image of Supply Line 45-1106 [redacted] TIMP Project

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

A. Project Scope

As described in the Prepared Direct Testimony of Jordan Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow the four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Inspection.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project. The final scope of this Project is summarized in Table 2 below.

1. Inspection – Engineering, Design, and Constructability: SoCalGas identified Supply Line 45-1106 for Inspection using [redacted].
   a. [redacted] of 0.4 miles of pipeline along [redacted].
   b. The [redacted] was completed using a [redacted] tool which can access the pipeline through an existing [redacted] and did not require launcher or receiver locations.
2. Direct Examination – Engineering, Design, and Constructability: Following the completion of the Inspection using [redacted], Direct Examination was done on a validation spool piece, and it was determined that no additional Direct Examination sites were required for validation.
3. Post-Assessment – Engineering, Design, and Constructability: The validation analysis of the spool piece following the Inspection resulted in no additional examinations.
4. Final Project Scope: The final project scope of this Workpaper consists of Inspection using [redacted].

Table 2: Final Inspection Project Scope – ILI

Final Project Scope					
Line	Inspection Length	Threat Type	Inspection Technology	Tool Method of Travel	Retrofits
SL45-1106	0.4 mi	[redacted]	[redacted]	[redacted]	No

B. Engineering, Design, and Constructability Factors – Inspection

SoCalGas initiated the planning process for the Supply Line 45-1106 [redacted] TIMP Project by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate Inspection methods, and select the Inspection tools. Key factors that influenced the engineering and design of this Project are as follows:

1. Site Description: The [redacted] inspected 0.4 miles of pipeline along [redacted] and was completed using a [redacted] which can access the pipeline through an existing [redacted] and did not require launcher or receiver locations.
2. HCA Threats:
   [redacted]
3. Pipe Vintage: [redacted]
4. Long Seam Type:
   [redacted]
5. Inspection Tools and Technologies: The Project utilized a [redacted] technology during the Inspection of the pipeline.
6. System Analysis: The Project Team completed a review of the Pipeline system to evaluate project feasibility, which concluded the pipeline could be inspected without system impacts.

7. Customer Impacts: The Project Team did not identify any anticipated service disruptions to customers.
8. Community Impacts: Traffic impacts and occasional noise.
9. Substructures: The Project Team did not identify any existing substructures that impacted the design and engineering.
10. Environmental: No identified impacts.
11. Permit Restrictions: The Project Team required an Encroachment Permit from the City of Los Angeles.
12. Land Use: The Project Team obtained a Temporary Right of Entry (TRE) for the use of a laydown yard on the corner of [redacted].
13. Traffic Control: The Project Team required a Traffic Control Plan (TCP) from the City of Los Angeles at the [redacted] site. The TCP consisted of a one lane closure.

C. Engineering, Design, and Constructability Factors – Direct Examination

SoCalGas completed the Direct Examination for the Supply Line 45-1106 [redacted] TIMP Project using a validation spool piece and it was determined that no additional Direct Examination Sites were required for validation.

D. Engineering, Design, and Constructability Factors – Post-Assessment

During the Post-Assessment step, the Project Team used the data collected from the Inspection to determine the effectiveness of the Inspection and evaluate the tool's performance to review the integrity of the pipeline, identify potential required examinations or remediations, and to establish the next reassessment interval for the threats assessed. This analysis resulted in no additional examinations.

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the criteria for this Project.

B. Construction Schedule

Table 3: Construction Timeline – Inspection

Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Inspection Due Date	[redacted]

Figure #2: Temporary Piping During Inspection

Final Workpaper for Supply Line 45-1106 [redacted] TIMP Project

Figure #3: Temporary Piping During Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site; final Inspection and returning pipeline to normal operating conditions, transportation and disposal of hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas executed the design, planning, and construction activities for this Project to minimize or avoid costs where appropriate. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the project plan and design.

B. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is ~~$1,170,424~~ $1,171,380.

Table 4: Actual Direct Costs[2]

~~Direct Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~Company Labor~~	~~0~~	~~102,356~~	~~102,356~~
~~Contract Costs~~	~~0~~	~~538,659~~	~~538,659~~
~~Material~~	~~0~~	~~1,464~~	~~1,464~~
~~Other Direct Charges~~	~~0~~	~~424,856~~	~~424,856~~
~~**Total Direct Costs**~~	~~0~~	~~1,067,335~~	~~1,067,335~~

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	102,962	102,962
Contract Costs	0	538,659	538,659
Material	0	1,464	1,464
Other Direct Charges	0	425,244	425,244
Total Direct Costs	0	1,068,328	1,068,328

Table 5: Actual Indirect Costs[3]

~~Indirect Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~Overheads~~	~~0~~	~~103,090~~	~~103,090~~
~~AFUDC~~	~~0~~	~~0~~	~~0~~
~~Property Taxes~~	~~0~~	~~0~~	~~0~~
~~**Total Indirect Costs**~~	~~0~~	~~103,090~~	~~103,090~~

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	103,052	103,052

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.

AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	0	103,052

Table 6: Total Costs[4]

~~Total Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~**Total Loaded Costs**~~	~~0~~	~~1,170,424~~	~~1,170,424~~

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	1,171,380	1,171,380

[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the safety of its natural gas system by executing the Supply Line 45-1106 [redacted] TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 CFR Part 192, Subpart O, including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting an appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is ~~$1,170,424~~ $1,171,380.

End of Supply Line 45-1106 [redacted] TIMP Project Final Workpaper

BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF TRAVIS T. SERA REGARDING CONFIDENTIALITY OF CERTAIN DOCUMENTS PURSUANT TO D.21-09-020

I, Travis T. Sera, do declare as follows:

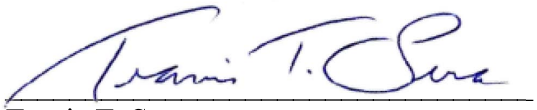
1. I am the Director of Integrity Management for Southern California Gas Company (SoCalGas). I have been delegated authority to sign this declaration by Amy Kitson, Vice President of Gas Engineering and System Integrity for SoCalGas. I have reviewed the confidential information included within SoCalGas-02-WP Amended Workpapers Supporting the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis T. Sera (Technical – Project Execution and Management) ("TIMP Amended Workpapers"). I am personally familiar with the facts and representations in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or information and belief.

2. I hereby provide this Declaration in accordance with Decision ("D.") 21-09-020 and General Order ("GO") 66-D to demonstrate that the confidential information ("Protected Information") provided in the TIMP Amended Workpapers is within the scope of data protected as confidential under applicable law.

3. In accordance with the legal authority described in Attachment A, the Protected Information should be protected from public disclosure.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge.

Executed this 5th day of September, 2025 at Los Angeles, California.



Travis T. Sera
Director of Integrity Management
Southern California Gas Company

ATTACHMENT A

SoCalGas Request for Confidentiality on the following Protected Information in its Amended Transmission Integrity Management Program (TIMP) Workpapers

Location of Data	Applicable Confidentiality Provisions	Basis for Confidentiality
SCG-02-WP (Volumes I, IV, V, and VII); Amended Workpapers Supporting the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis T. Sera (Technical – Project Execution and Management) have been marked/highlighted as confidential pursuant to PUC Section 583, GO 66-D, and D.21-09-020. Confidential Information: Critical Energy Infrastructure Information (CEII), Pipe attributes (SMYS, MAOP/MOP, Diameter, Seam type, Install date, Class location, HCA segment information, Assessment method, Assessment date, Coating type, Construction dates/schedules, Inspection results, Directional flow of natural gas), Threat type, Specific locational information and system pipeline map.	CPRA Exemption, Gov't Code § 7927.705 ("Records, the disclosure of which is exempted or prohibited pursuant to federal or state law") • Cal. Civil Code §§ 3426 *et seq.* (Uniform Trade Secrets Act) • *TMX Funding Inc. v. Impero Technologies, Inc.*, 2010 WL 2745484 at *4 (N.D. Cal. 2010) (defining trade secret in an injunction to include "business plans and strategies") • *O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc.*, 420 F. Supp. 2d 1070, 1089–1090 (N.D. Cal. 2006) ("It does not matter if a portion of the trade secret is generally known, or even that every individual portion of the trade secret is generally known, so long as the combination of all such information is not generally known.") • 18 CFR § 388.113(c) (defining CEII) • FERC Order Nos. 630, 643, 649, 662, 683, and 702 (defining CEII) • FERC Order 833 (including amendments to the CEII regulations, required by The FAST Act) • Critical Energy Infrastructure Information, 68 Fed. Reg. 9857, 9862 (Dep't of Energy Mar. 3, 2003) (final rule) (listing what **gas** information qualifies as CEII) • FERC's Guidelines for Filing Critical Energy/Electric	It is SoCalGas's practice to designate certain data as confidential because this data is similar to data protected by CEII regulations and, if made publicly available, could potentially present a risk to public and pipeline safety. Engineering design values (i.e., Pipe attributes and production data) for existing critical infrastructure could be used to determine the criticality of a gas facility and identify vulnerabilities of the gas delivery network. Because of the critical nature of these attributes, they have been identified by PHMSA to be restricted attributes available only to government officials. Inspection results (including assessment results/dates) are forms of production data that is protected and includes details related to the transmission and distribution of energy. This information if released to the public can be used to predict repair schedules and availability of segments of the transportation network. It may affect market pricing for gas transportation and delivery and lead to speculation in the energy markets that may be detrimental to consumers. This information could also be used to identify vulnerabilities of the gas network. It is SoCalGas's practice to designate portions of their threat analysis, such as threat types, as confidential because this data is considered proprietary, not currently published by PHMSA, and, if made publicly available, could potentially present a risk to public and

	Infrastructure Information, (Feb. 21, 2017), *available at* https://www.ferc.gov/sites/default/files/2020-04/CEII-Filing-guidelines.pdf o Exhibits G, G-1, G-II of pipeline certificate applications. 18 CFR § 157.14 o Exhibit V of abandonment applications. 18 CFR § 157.18 o FERC Form 567. 18 CFR § 260.8 • CPUC Res. L-436, at 8 (stating CPUC will "refrain from making available to the public detailed maps and schematic diagrams showing the location of specific utility regulator stations, valves, and similar facilities") • Cal. Pub. Util. Code § 364(d) ("The commission may, consistent with other provisions of law, withhold from the public information generated or obtained pursuant to this section that it deems would pose a security threat to the public if disclosed.") • The Pipeline and Hazardous Materials Safety Administration's (PHMSA) guidelines consider the data to be restricted pipeline information. PHMSA Guidelines, 81 Fed. Reg. 40757, 40764 (June 22, 2016). • PHMSA also issued an advisory bulletin on December 9, 2016: ABD-2016-0137; Pipeline Safety: Safeguarding and Securing Pipelines from Unauthorized Access detailing	pipeline safety, as well as a potential financial loss of future revenue as these documents could be monetized. Pipeline locations (including street names) and maps at a scale of 1 inch to 24,000 feet scale or less are identified as confidential because the data would provide sufficient information to be used by a third party to excavate or access above ground facilities without notifying the Utility through the local Underground Service Alert (USA) or could be used to identify locations for illegal tapping or other acts that could impact the safety of residents living near the natural gas pipeline or gas facility.

	the need for operators to protect their gas systems • *See* Administrative Law Judge's Ruling Granting Applicant's Motion for Leave to Submit Confidential Materials Under Seal as to Appendix K Geographic Information System (GIS) Data at 2, Application 16-07-016 (December 1, 2016); Administrative Law Judge's Ruling Granting Applicant's Motion to File Specified Documents Under Seal, Application 16-04-022 (June 2, 2016) • *See Mr. Doug Hall*, 114 FERC ¶ 62194, 2006 WL 463906 (Feb. 27, 2006) (letter from the FERC Office of External Affairs to an applicant seeking to review information containing CEII, explaining that "precise dam coordinates which could be used to target the dam. In addition, providing coordinate data for all facilities in a specific geographic region increases the vulnerability of those facilities to attack . . . this information could be used to compromise the dams, placing lives at risk.") • *Ms. Alison Arnold*, 108 FERC ¶ 62287, 64538 (Sept. 30, 2004) (ruling on a request to the U.S. Department of Interior for a copy of GIS data regarding hydropower projects located in the State of Washington that "contains critical energy infrastructure information (CEII)") • *N. Dakota Pipe Line Co., LLC 24-Inch Crude Oil Pipeline - Sandpiper Project Siting Application*, GE-13-193, 2014	

	WL 2567685, at *1 (May 13, 2014) (deeming confidential all the information in "a sealed envelope containing a CD and labeled 'Critical Energy Infrastructure Information.' The information also includes GIS mapping data, GIS data, and two plots of Souris River Crossing relating to the location of the Sandpiper Pipeline.") CPRA Exemption, Gov't Code § 7929.205 (Critical Infrastructure Information)	