#### **BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms.

Rulemaking 11-02-019 (Filed February 24, 2011)

## PACIFIC GAS AND ELECTRIC COMPANY'S PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT

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Dated: January 30, 2014

Attorneys for PACIFIC GAS AND ELECTRIC COMPANY

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## I. INTRODUCTION

Pursuant to Ordering Paragraph 10 of Decision 12-12-030, attached is PG&E's PSEP

Quarterly Compliance Report, for the reporting period October 1, 2013 through December 31,

2013.

Respectfully Submitted,

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Attorneys for PACIFIC GAS AND ELECTRIC COMPANY

Dated: January 30, 2014

# PACIFIC GAS AND ELECTRIC COMPANY

## PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT

NO. 2013-04

REPORTING PERIOD OCTOBER 1, 2013 – DECEMBER 31, 2013

IN COMPLIANCE WITH CPUC DECISION 12-12-030

SUBMITTED JANUARY 30, 2014



## PACIFIC GAS AND ELECTRIC COMPANY PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT NO. 2013-04 REPORTING PERIOD OCTOBER 1, 2013 – DECEMBER 31, 2013 IN COMPLIANCE WITH CPUC DECISION 12-12-030 SUBMITTED JANUARY 30, 2014

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### PACIFIC GAS AND ELECTRIC COMPANY PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT NO. 2013-04 REPORTING PERIOD OCTOBER 1, 2013 – DECEMBER 31, 2013 IN COMPLIANCE WITH CPUC DECISION 12-12-030 SUBMITTED JANUARY 30, 2014

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# PACIFIC GAS AND ELECTRIC COMPANY PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT NO. 2013-04 IN COMPLIANCE WITH CPUC DECISION 12-12-030

### Introduction

In response to the California Public Utilities Commission's (CPUC or Commission) order in the Gas Pipeline Safety Order Instituting Rulemaking (R.) 11-02-019, Pacific Gas and Electric (PG&E) filed its Pipeline Safety Enhancement Plan (PSEP or Implementation Plan) on August 26, 2011 with the goal of enhancing safety and improving operations. Subsequently, the Commission issued Decision (D.) 12-12-030 on December 28, 2012. Ordering Paragraph (OP) 10 of that decision directs PG&E to file and serve quarterly compliance reports to keep the CPUC and the public informed of PG&E's progress and actual cost experience related to the Implementation Plan. Per OP 10, the PSEP Compliance Reports are to be submitted in compliance with instructions set forth in Attachment D of the decision, which is separated into 29 specific requirements.

PSEP Compliance Report No. 2013-04<sup>1</sup> is submitted in compliance with the instructions set forth in Attachment D and reflects the reporting period of October 1, 2013 through December 31, 2013. It is being served on the directors of the Commission's Energy Division and the Safety and Enforcement Division, and to the service list in Rulemaking 11-02-019. It will also be posted on the PG&E website at http://apps.pge.com/regulation.<sup>2</sup>

<sup>1</sup> This report is labeled "No. 2013-04," to designate that it covers the reporting period ending the fourth quarter of 2013. The first PSEP Compliance Report No. 2013-01 covered the reporting period from program inception (April 1, 2011) through the first quarter of 2013.

<sup>2</sup> Click on "Search" under Public Case Documents. Select "Gas Pipeline Safety OIR" from the "Case" dropdown menu. Select filing date of January 30, 2014 to narrow the search criteria. Then click "Search."

## Summary

PSEP is an essential part of PG&E's commitment to rigorous safety standards, improved operations and better service for its customers and the public. As a result of the commitment and investment through December 31, 2013, PG&E's accomplishments through PSEP include:

- Completing 538 miles of strength testing.<sup>3</sup>
- Validating records for 119 miles of prior strength tests as meeting the "traceable, verifiable and complete" standard.<sup>4</sup>
- Replacing 104 miles of pipeline.<sup>5</sup>
- Upgrading 194 miles of pipeline to accept In-Line Inspection (ILI) technology, of which 78 miles have already been in-line inspected.
- Automating 134 valves.
- Completing the records collection and Maximum Allowable Operating Pressure (MAOP) validation of PG&E's entire transmission pipeline system.
- Making material improvements in PG&E's records processes and tools.
- Completed all planned ILI upgrades for Phase 1 as of January 2014.

The following table highlights the progress of PG&E's construction activities during the fourth quarter of 2013 and on a year-to-date basis.

<sup>3</sup> Includes 51.1 miles proposed in PG&E's PSEP Update Application to be funded outside of PSEP.

PG&E completed MAOP validation of all gas transmission pipeline in July 2013. Through that process, PG&E verified records for 162 miles for which PSEP work is no longer required in 2013 and 2014. Of that, 119 miles of records found related to work that would have otherwise been completed in 2013 and 43 miles of records found related to work that would have otherwise been completed in 2014. Although PG&E has already validated MAOP for these 162 miles of pipeline, PG&E engineering performs an additional validation of records of prior strength tests as meeting the "traceable, verifiable and complete" standard upon planning for the execution of 2013-2014 work.

<sup>5</sup> Miles of pipeline replaced is based on pipe installed and backfilled, retired, and downrated; may not be operative.

#### TABLE 1 PACIFIC GAS AND ELECTRIC COMPANY SUMMARY OF PSEP CONSTRUCTION ACTIVITY QUARTER ENDING DECEMBER 31 AND YEAR-TO-DATE

	Q4 2013	YTD 2013
Pipeline Replacement (miles)	27.0(a)	64.0(b)
Strength Testing (miles)	78.1	198.8(c)
In-Line Inspection (ILI) (miles)	_	78.0
Pipeline Upgrades to Allow ILI (miles)	61.3	116.3
Valve Automation (valves)	36.0	75.0

- (a) PSEP-funded Pipeline Replacement for Q4 accounted for 20.0 miles. In addition, PG&E replaced 7.0 miles of non-PSEP funded Pipeline Replacement miles in Q4.
- (b) PSEP-funded Pipeline Replacement for year-to-date (YTD) accounted for 57.0 miles. In addition, PG&E replaced 7.0 miles of non-PSEP funded Pipeline Replacement miles YTD.
- (c) PSEP-funded Strength Testing for YTD accounted for 186.6 miles. In addition, PG&E strength tested 12.2 miles of non-PSEP funded Strength Testing miles YTD.

In addition to the units completed as shown in the table above, in the current reporting period, PG&E has delivered tangible improvements to the safety of the gas transmission system, met key program milestones, and demonstrated material improvements in project success criteria, including:

- Delivered significantly improved annual safety performance in 2013, in comparison with 2012, with an increased annual construction volume.
- As a part of ongoing construction contractor alliance (Alliance), executive leadership from both PG&E and the Alliance contractors assessed performance and participated in key planning activities. The team reviewed topics including: analysis of benefits realized from 2013-completed Alliance projects as compared to 2012-completed competitively bid projects; plans to complete the closeout of the remaining 2013 construction projects; and a preliminary review of Gas Transmission's 2014 construction portfolio. The team also discussed the successes and opportunities for improvement within the Alliance, including areas to realize additional efficiencies. Additionally, the team completed initial allocation of all currently planned 2014 construction projects to Alliance construction contractors and PG&E's Gas Transmission General Construction.
- Completed earlier design of the next year's project portfolio in 2013. At year end, out of 200 projects planned for 2014, approximately 12 percent of projects have

-3-

reached 30 percent engineering completion, 29 percent of projects have reached 60 percent engineering completion, and 14 percent of projects have reached 90 percent engineering completion.<sup>6</sup>

- Successfully moved the last month of the peak PSEP construction period in 2013 (based upon construction hours worked) from November to October. At the same time, the construction hours worked increased by 23.9 percent in 2013, as compared to 2012.
- Successfully identified and remediated two pipeline leaks/failures for the reporting period (11 year-to-date)—which resulted in approximately 75 feet of pipeline replacement for the reporting period (approximately 455 feet year-to-date) to replace sections of pipeline that failed or leaked during strength tests.
- Successfully identified and addressed pipeline anomalies prior to conducting a Strength Test (T-303) on a six-mile section of Line 186 near Dos Palos, as part of PG&E's piloting of an-ultrasonic ILI tool on November 9, 2013.
- Successfully completed weld re-inspection activities on the Line 114 pipeline replacement project, which included facilitating the onsite review by the Pipeline and Hazardous Materials Safety Administration and CPUC field representatives. The new pipeline was placed into service on October 19, 2013.
- Continued improvement in environmental compliance performance and cost efficiencies associated with implementing storm water and best management practices.
- Filed the PSEP Update Application (A.) 13-10-017 on October 29, 2013, to present the results of the MAOP Validation Project, and to update the revenue requirements and budgets related to the Pipeline Modernization Program (pipeline replacement and strength testing), consistent with D.12-12-030.

Table 2 provides a summary of the PSEP activities and actual costs from program inception in April 1, 2011 to December 31, 2013. (See the response to Question 20 for further detail.)

**<sup>6</sup>** The percentages presented are based upon the highest stage of engineering completion.

#### TABLE 2 PACIFIC GAS AND ELECTRIC COMPANY SUMMARY OF PSEP FILED VS. ACTUAL COSTS BY WORKSTREAM REPORTING PERIOD OCTOBER 1, 2013 – DECEMBER 31, 2013 (IN MILLIONS OF DOLLARS)

	PG&E Filing Estimate	Authorized Program Costs(a)	Actual Costs Program Inception-to-Date (2011 – 12/31/13)(b)(d)	Actual Costs Reporting Period (10/1/13 – 12/31/13)(b)
Pipeline Modernization				
Pipeline Replacement	\$839.1		\$552.6	\$82.4
Strength Testing	456.8		564.8	56.9
In-Line Inspections/Upgrades	39.9		55.8	10.4
Subtotal	\$1,335.8	\$1,002.0	\$1,173.6	\$149.8
Valve Automation	143.6	135.7	96.7	6.7
Pipeline Records Integration	286.0	0.0	319.6	8.4
Interim Safety Enhancement Measures	3.2	2.1	4.7	0.7
Program Management Office (PMO) and Other(c)	34.8	28.9	49.5	3.0
Risk-Based Contingency	380.5	0.0	0.0	0.0
Total	\$2,183.9	\$1,168.8	\$1,644.1	\$168.6

(a) Authorized amounts as provided in Attachment E, Table E-4, of D.12-12-030. The authorized amounts for pipeline replacement and strength testing may change in the future pending the outcome of PG&E's PSEP Update Application filed on October 29, 2013.

(b) Includes Stanpac costs incurred of approximately \$10.29 million and \$0.26 million on a program inception-to-date basis and for the reporting period, respectively. Amounts include reallocation of prior period amounts consistent with PSEP scope decisions and cost allocation.

(c) "Other" includes costs of activities pending assignment to an individual workstream or determined as not directly associated with an individual workstream.

(d) Inception-to-Date amounts include reallocation of prior period amounts consistent with PSEP scope decisions and cost allocation.

## **Decision-Making Process**

### 1. Project Planning and Prioritization of Work

Describe PG&E's project planning process including how the projects were and are being scheduled and sequenced and what measures were and are being taken to conduct the work in a cost effective manner.

#### Response

PSEP's prioritization and scheduling processes remain consistent with the descriptions previously provided in PSEP Compliance Report No. 2013-01 and testimony supporting PG&E's August 26, 2011 Implementation Plan.<sup>7</sup>

During the fourth quarter of 2013, work prioritization for pipeline replacement and strength testing projects has been driven from the results of applying PSEP Decision Trees to validated pipeline segment attribute data as presented in PG&E's PSEP Update Application (A.13-10-017). Work prioritization for valve automation and ILI projects continues to be driven from the results of applying PSEP Decision Trees to pipeline segment attribute data as detailed in PG&E's August 2011 Implementation Plan. In addition, project scheduling in the current reporting period has incorporated ongoing assessments of pipeline system operational safety, customer service requirements, permitting restrictions, and cost effectiveness. Material project-level changes to scope and schedule, during the reporting period, as a result of these processes are also provided within the "comments" column of the table responses to Questions 11 through 13.

Of the 12 projects identified in PSEP Compliance Report No. 2013-03 as scheduled to commence construction in the fourth quarter of 2013, nine projects commenced construction as planned, and three projects have been rescheduled to commence construction in 2014. Of the nine projects that commenced as planned within the reporting period, five projects were completed.

PG&E's PSEP Update Application, filed on October 29, 2013, provides an updated list of 2011-2014 pipe replacement and strength testing projects.

<sup>7</sup> PG&E PSEP Implementation Plan (R.11-02-019) Prepared Testimony, Chapter 3 – Gas Transmission Pipeline Modernization Program, Section A.5, and Chapter 4 – Gas Transmission Valve Automation Program, Section K.1.

## **Resource Procurement and Oversight**

## 2. Resource Planning

Explain how PG&E decided whether to do the work in-house (e.g., use own employees and equipment) or contract the work out to other parties.

## Response

PSEP's resource planning process remains consistent with the description previously provided in PSEP Quarterly Compliance Report 2013-01. To ensure that Implementation Plan work is completed on a timely basis, PG&E has implemented a resource management model whereby the skills and experience of PG&E employees are augmented by contractor resources. PG&E also uses contractor resources where it has identified the need to efficiently leverage new skills or equipment within an accelerated timeframe, or where the use of a contractor provides additional expertise.

During the current reporting period, program activities related to the selection of contractors have included, but are not limited to:

- Ongoing review of results of safety, environmental and quality assurance inspection activities at construction contractor project sites.
- Quality Assurance review of the update of pipeline segment data, the associated PSEP Decision Tree outputs, and their incorporation into construction projects (see PG&E's Update Application filed October 29, 2013, Chapter 3, "Quality Assurance").
- Alliance construction contractor regional work allocation meetings to monitor and coordinate on outcomes of work allocation process (in partnership with PG&E Gas Transmission General Construction) and Alliance contractor executive leadership meetings.
- Completion of the year-end annual contractor performance scorecard review for each of the Alliance construction contractors.

## 3. Contractor Selection Process

For work contracted out to other parties, what criteria did PG&E use to select the contractors and did PG&E use a competitive bidding process to select the contractor(s)? If not, explain why.

## Response

No material changes in PG&E's contractor selection and competitive bidding processes,<sup>8</sup> as previously outlined in the PSEP Compliance Report No. 2013-01, have been made during the current reporting period. PSEP has continued the implementation of an Alliance construction contractor delivery model through the 2013 PSEP construction projects with PG&E Gas Transmission General Construction and Alliance construction contractors. A majority of these projects have already completed construction and are entering the validation process whereby initial target prices are subject to a final update based upon approved change orders and final costs verification. The primary objectives of the alliance strategy remain the establishment of best-in-class safety performance, a robust construction delivery model, and the maintenance of a qualified/skilled workforce to perform work planned in 2013 and the future. The alliance model includes the following key components:

## Resources and Planning

- Consistent "A" team availability and scalable crew composition.
- Commitment to provide early constructability feedback via joint planning and co-location.
- Bundling of work across PSEP workstreams and within four regional areas that span PG&E's entire service area to reduce "peaks and valleys" in resource requirements.
- Collaboration on industry best practices and lessons learned.

## Performance Measurement

 Increased transparency and alignment across construction cost estimation models using negotiated standardized "open book" labor and equipment rates and consistent overhead (general and administrative) expenses.

**<sup>8</sup>** PSEP construction contracts are competitively bid when PG&E and Alliance contractors are unable to negotiate a target price. As reported in PSEP Compliance Report No. 2013-03, one such instance has occurred in 2013.

- Shared project risk/incentive model using negotiated "target pricing" model, which shares under and over runs on a 50:50 basis.
- Project completion cost true-up and lessons learned—costs being fully auditable where appropriate.
- Five-year agreement with cancellation off ramps, including option to bid any portion of work to maintain pricing/cost discipline.
- Monthly program score carding and quality leadership reviews.

Construction-related project activities performed outside of either the Alliance contracting process or PG&E's Gas Transmission General Construction are assigned to existing suppliers using existing Master Service Agreements (MSA) that were previously subject to competitive bidding, or assigned on a Direct Award basis, based on the nature of the specific services required by the project.<sup>9</sup>

**<sup>9</sup>** Please refer to PSEP Compliance Report No. 2013-01, Question 3, p. 11, for a description of Direct Award.

## 4. Quality Assurance – Outside Contractors

How does PG&E monitor the quality of work performed by outside contractors? Has PG&E found any instances where a contractor failed to do the work properly? If so, what actions did PG&E take in response?

## Response

No material changes in PG&E's procedures that monitor the quality of work performed by outside contractors, and as previously outlined in prior PSEP Compliance Reports occurred in the current reporting period.

PG&E has found instances where the contractor did not perform quality work according to PG&E's internal standards. In such situations, and as appropriate, PG&E takes specific actions to maintain the integrity of its gas transmission system and ensure such instances do not reoccur. Examples<sup>10</sup> of such quality monitoring activities and related issues identified during the reporting period include:

- PG&E's Quality Assurance/Quality Control (QA/QC) department performed 235 field assessments in Q4 (686 year-to-date) of gas transmission contractor construction work. These field assessments were conducted on 38 individual projects in Q4 (154 year-to-date). These assessments resulted in 83 "Corrective Action Notices" in Q4 issued by PG&E (263 year-to-date) and were primarily related to errors in documentation of the work performed. The majority of the "Corrective Action Notices" have already been resolved or are still being tracked to resolution with PG&E's QA/QC department.<sup>11</sup>
- Completion of 372 job-site safety observations in Q4 (2,032 year-to-date). Through these observations, 163 observable items were identified in Q4 (689 year-to-date). All of the observable items were mitigated to align with the on-site contractor site-specific safety plan. As a result, 57 "good catches"<sup>12</sup> were identified and addressed in Q4 (250 year-to-date) to raise the worksite safety awareness of every contractor or employee working on a PG&E project.

**<sup>10</sup>** The information provided includes contractors and employees.

**<sup>11</sup>** Quality performance metrics derived from the aforementioned field assessments for Q4, remained within PG&E's quality thresholds.

**<sup>12</sup>** Good catches are potentially unsafe situations that were brought to site personnel's attention and rectified.

- PSEP Leadership Observation Teams<sup>13</sup> visited 80 construction sites during Q4 (350 year-to-date) to engage work crews and promote best practices.
- As part of PG&E's internal standards, PG&E completed 2,534 environmental inspections in Q4 to comply with PG&E standards (7,747 year-to-date). The environmental inspections identified 133 compliance deficiencies<sup>14</sup> in Q4 (592 year-to-date), 4 compliance issues<sup>15</sup> in Q4 (31 year-to-date) and 2 non-compliance issues<sup>16</sup> in Q4 (5 year-to-date). The non-compliance issues in Q4 and year-to-date are typically related to not meeting PG&E standards and lack of communication on change of scope of work. The issues were addressed through a correction action plan investigation and lessons learned were implemented.

**<sup>13</sup>** PSEP Leadership Observation Team visits at construction project sites to ensure safety compliance and to promote best practices.

**<sup>14</sup>** Compliance deficiencies are correctable items that do not have significant impact on resources or environmental resources.

<sup>15</sup> A compliance issue is a situation or minor problem that needs to be addressed immediately to prevent resource damage or environmental noncompliance.

**<sup>16</sup>** A non-compliance issue does not fulfill PG&E's internal environmental requirements and results in an impact on resources or places environmental resources at risk.

## 5. Quality Assurance – Internal Resources

What quality assurance procedures does PG&E have in place to determine whether the project work is being done correctly by its own employees? Has PG&E found any instances where the work was not done properly? If so, what actions did PG&E take in response?

## Response

No material changes in PG&E's procedures that monitor the quality of work performed by internal resources, as previously outlined in prior PSEP Compliance Reports, occurred in the current reporting period.

PG&E has found instances where employees did not perform quality work. In such situations, and as appropriate, PG&E takes specific actions to maintain the integrity of its gas transmission system and ensure such instances do not reoccur. Please refer to the response to Question 4 for examples of such quality issues identified during the reporting period.

## 6. **Project Management Office Overview**

Describe the role of the Program Management Office (PMO) (see p. 7-10 of Prepared Testimony) in containing project costs. Provide specific examples where the PMO's recommendations led to cost savings.

## Response

The role of the PMO, as described in the prepared testimony referenced in the question above, remains unchanged and its objectives can be summarized as follows:

- To help manage the overall Program execution and to coordinate the activities of inter-related projects or workstreams.
- To provide oversight and provide observations and recommendations for process improvements and enhanced performance.
- To provide assurance that Program control tools and procedures are operating in the way they are intended to achieve Program objectives.

The operation of each of the groups within the PMO support these objectives, and in doing so, contribute to the cost-effective execution of the Implementation Plan. While it is not possible to accurately segregate and quantify individual cost savings impacts, during the current reporting period the PMO has continued to work with each workstream on a series of improvement initiatives that are designed to lead to cost savings. These initiatives include, but are not limited to:

- Construction Contractor Alliance
  - Project Performance Measurement and Target Pricing: As part of the continued implementation of an Alliance construction contractor delivery model, the PSEP PMO has developed and continues the implementation of a performance measurement process. This process finalizes approved change orders and incorporates cost validation activities with construction contractors that ultimately result in "true-up" payments to or from the construction contractor based upon a 50:50 sharing of validated costs in excess of, or below, the final target price. Within the current reporting period, PG&E had completed four project true-ups with a realized increase in cost to PG&E against the target price of approximately \$136,814 or 3 percent of the final target price. Extended change order negotiations and processing as well as gathering and receipt of actual costs from Alliance Partners have increased the time required to true-up

and close out projects. It is anticipated that the completion of construction activities and invoicing documentation will extend these activities on the majority of 2013 portfolio projects into the first quarter of 2014.

- <u>Construction Resource Availability and Efficiency</u>: Weekly reviews of Alliance construction contractor commitments to provide consistent and sustained access to "A-team" resources across a bundle of PSEP work in an assigned geographical region (e.g., mitigating individual project delays by bringing forward work on future projects).
- <u>Continuous Improvement and Lessons Learned</u>: In partnership with the PMO, Shared Services has worked to collect Alliance-contractor-identified potential improvements and is in the process of reviewing and assessing these for potential incorporation into 2014 activities.
- Increasing the consistency of delivery on best practices and efficiency across the PSEP program, including continued support of environmental management best practices and site restoration activities which resulted in the beneficial reuse of 2,282,425 gallons of water in Q4 (4,033,915 gallons year-to-date) and the reuse between strength-testing segments of 243,000 gallons of water in Q4 (1,443,200 gallons year-to-date). The application of these best practices resulted in an annual reduction of 74 percent in the generation of hazardous waste from 796,450 gallons in 2012 to 205,900 gallons in 2013.
- A broader list of lessons learned is being implemented and tracked within each workstream and is provided in response to Question 17.

## 7. Project Management Office Costs and Benefits

Provide the costs incurred by the PMO year-to-date and describe the specific work they did for the benefit of PG&E customers.

## Response

The PSEP PMO incurred approximately \$12.3 million during the period January 1, 2013 through December 31, 2013. Consistent with PG&E's commitment to customers to provide safe, reliable, and affordable gas service, the PSEP PMO is responsible for the successful delivery of all projects within PG&E's Implementation Plan.

Throughout 2013 and during the current reporting period, the PMO, in partnership with project teams and cross-functional leads including PG&E's Customer Care and Corporate Communications organizations, has focused on many areas that directly benefit PG&E customers including:

- <u>Improving Construction Site Safety</u>: Implemented a series of safety-focused activities designed to improve construction site safety for employees, customers, and local communities, including leadership site visits, "good catch" or "near hit" reporting, after-hours site security audits and job hazard mitigation analyses. In addition, the program maintains metrics that track a targeted 10 percent performance improvement in 2013 (compared to 2012) for the incidence of construction-related public safety incidents and at-fault "dig-ins." These metrics improved by 86 percent and 63 percent, respectively, and remain on track to meet or exceed 2013 targets. PSEP's year-to-date 2013 recordable incident rate was 0.96<sup>17</sup> as of December 31, 2013.
- Improving Environmental Compliance: Inspection findings and feedback to PG&E and contractor construction resources have focused on addressing compliance performance related to approved soil off-haul procedures, storm water management plans, dust control readiness and implementation, and fire prevention and response readiness. Through December 31, 2013, PSEP remained significantly ahead of plan to meet or exceed a 10 percent reduction

<sup>17</sup> Includes hours worked by Alliance contractors, Construction Management inspectors, and PG&E General Construction resources on PSEP construction projects.

in inspection findings compared to its 2012 environmental compliance incidence rate.

- <u>Maintaining Consistency of Pre-Construction Customer Communications</u>: During the current reporting period, PG&E has consistently communicated with customers on PSEP-related activities through distributing pre-venting notifications, hosting open houses, and providing customer communication materials.
- Improving Construction Project Planning and Bundling: During the current reporting period, PG&E has continued to better align PSEP construction schedules and regionally bundle work across workstreams, including non-PSEP projects. Bundling enables potential reductions in the required system clearances, clearance resources, and the duration and impact of construction-related service and traffic disruptions. During the current reporting period, this increased alignment enabled PG&E to meet the majority of its targeted project tie-ins in spite of a prolonged cold spell during December 2013 that severely restricted the availability of system clearances.
- Improving Customer Outage Management: PG&E continued to leverage its increased Compressed Natural Gas/Liquefied Natural Gas (CNG/LNG) fleet. Project planning improvements implemented during 2013 increasingly deliver earlier and better visibility into customer demand requirements and enable better planning of CNG/LNG resources and flexibility with customer schedules. This improvement has helped minimize planned customer outages and reduce the risk of unplanned customer outages.

Finally, the PMO's role continued during the current reporting period to include many activities that also indirectly support customer services including the implementation and management of consistent program controls and governance, quality control, reporting and initiatives designed to improve project success and increase cost efficiencies.

## **Budgeting and Spending**

## 8. Factors Impacting Cost Effectiveness

Describe any factors, either internal or external, that may have prevented or affected PG&E from conducting the work in a more cost effective manner. Quantify the cost impact of such factors.

## Response

PG&E's PSEP has consistently identified project uncertainties, and implemented risk mitigation activities and remediation measures. Despite best efforts, PG&E has not been able to fully mitigate the potential impact of cost uncertainties. Factors that have driven these cost impacts in projects completed in the current reporting period include:

- <u>Project Definition</u>: Changes in project scope upon completion of data validation and prioritization of individual pipeline segments to maintain system integrity and public safety (i.e., shortened project lengths, increased project counts and reduced development schedules).
- <u>Pipeline Routing Restrictions</u>: Increased complexity and cost of pipeline routing due to the limitations on the use of urban franchise areas, existing utilities and infrastructure (i.e., increased construction costs and duration).
- <u>Geographical Conditions</u>: High water table, trench dewatering costs, poor or weak soil, excessive permitting conditions, site specific contamination, and excessive waste disposal fees (i.e., increased construction costs and duration).
- <u>Permitting and Land Rights</u>: Delays and uncertainty in receiving permits from state and local authorities while acquiring additional land rights from customers (i.e., project being forced to adopt costly "in-road" construction within franchise rather than being able to pursue more cost-effective verge construction that is subject to extended permitting timelines.) Increased permitting conditions, restricted work hours to avoid road/lane closures during heavy commute hours (i.e., compacted construction schedules).
- <u>Unidentified Pipeline Field Conditions</u>: Additional construction activities, including pipeline cleaning (to meet unique wastewater disposal requirements), the removal of pipeline anomalies, the repair and replacement of pipe, valves and fittings due to condition, and construction obstructions and

re-engineering due to previously unidentified non-PG&E structures or other utilities (i.e., increased construction duration and costs).

 <u>Gas System and Customer Service Constraints</u>: Limited availability of gas system clearances due to seasonal customer demand and system operations, safety-related pressure reductions, CNG/LNG resource requirements, and the availability of PG&E and contract construction crews to complete tie-ins, particularly during peak summer construction periods and towards the end of the calendar year (i.e., increased construction durations and costs).

Our response to Question 19 provides PG&E's most recent risk management assessment with a project-by-project analysis of unexpected or unforeseen items that have affected 2013 completed projects and the resulting cost and schedule impacts.

## 9. Procurement Policy and Practices

Describe PG&E's procurement policy and practices for pipe and other materials used for projects. Was a competitive bidding process used? If not, explain why. Describe what factors PG&E considers in procuring material ranked by importance. Identify the manufacturer(s) or suppliers of the pipe used for the replacement projects and for any material that cost more than \$100,000 per item.

## Response

The majority of material is purchased from existing suppliers through MSAs, the terms and conditions of which (including unit pricing) are the result of a competitive bidding process.

Material supplier selection, the competitive bidding processes, and factors previously described in PSEP Compliance Report No. 2013-01 were unchanged during the current reporting period.

Manufacturers or suppliers of the pipe used for PSEP replacement projects are:

- Berg Pipe
- Durabond Industries
- California Steel Industries
- U.S. Pipe
- Tenaris
- Voestalpine
- PTC Alliance
- Wheatland Tube

No materials procured during the current reporting period cost more than \$100,000 per item.

## **10.** Pipeline Disposition Procedures and Costs

What was the disposition (e.g., sold) of replaced pipe and other material? Identify all the amounts earned for the disposition of the material, costs incurred to transport or dispose of the material and regulatory treatment of the incurred costs and revenues.

## Response

The disposition of transmission pipeline and other material replaced as part of the PSEP program—stored, hazardous waste, retired-in place or salvage—and related cost allocations as described in PSEP Compliance Report No. 2013-01 remain unchanged during the reporting period. PG&E has recovered approximately \$93,296 in Q4 (\$221,632 year-to-date) as a result of salvage activities.

## **Project Status Summaries**

## 11. Projects Completed Year-to-Date

Provide a complete description or a specific reference to proceeding workpapers, of projects completed during this reporting period and those completed Year-to-Date, include the start and finish dates. On a projectby-project basis, provide the amount budgeted for the project and an itemized list of the costs, including labor and material, incurred completing of the project. Identify the amount that a project was over or under-budget. Indicate whether the work was done in-house or by outside contractor(s). Identify the outside contractor(s). Explain how the work was done in compliance with D.11-06-017 and PG&E's Decision Tree and, if so, provide the Decision Tree outcome identifier associated with each project. Identify costs that shareholders will absorb.

## Response

Table 11-1 of the appendix provides details on 142 individual projects across five PSEP construction workstreams<sup>18</sup> that were completed by PG&E during the current reporting period and year-to-date.<sup>19</sup> With respect to these projects, Table 11-1 includes specific reference to proceeding workpapers, including the construction start and finish dates.<sup>20</sup> In addition, it provides, on a project-by-project basis, the amount budgeted for the project and an itemized list of the costs (e.g., including labor and materials incurred in completing the project); the amount that a project was over or under budget; and whether the work was completed in-house or by outside contractor(s), including the identification of the outside contractor(s).

All work detailed in Table 11-1 was undertaken in compliance with D.11-06-017; each project includes pipeline segments for which a prior strength test has previously not been performed and/or for which traceable, verifiable and

**<sup>18</sup>** Includes: pipeline replacement, strength testing, ILI, pipeline ILI upgrades, and valve automation.

**<sup>19</sup>** For the purposes of this report, the completion of a project is the date the pipeline segments and valves are returned to operations.

**<sup>20</sup>** For projects completed during the reporting period, construction finish dates may reflect the forecast completion date of construction activities.

complete records of such a test do not exist.<sup>21</sup> PG&E's Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update, of the PSEP Update Application provides descriptions of how each of the pipeline replacement and strength testing projects listed in Table 11-1 was performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier. PG&E's Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program, of the August 26, 2011 PSEP filing provides descriptions of all planned PSEP ILI and valve projects that have been or will be performed in compliance with D.11-06-017.

As PG&E progressed from the preliminary work scope and associated estimates and work plans included in its August 2011 Implementation Plan filing, it developed more specific work plans and estimates. These refined estimates, or "Job Estimates," are used in this report for Questions 11 through 13 and 15, to represent the budgeted amount by project for a more meaningful comparison to total costs. Upon completion of the Phase 1 work scope, PG&E will have to reconcile its total incurred costs for the work scope to the amounts adopted by the Commission in order to determine the final disposition of shareholder costs. See Table 20-1 in this report for the total amount of costs that shareholders have absorbed year-to-date based upon amounts previously authorized by the CPUC, shown by month and broken down by activity.

Table 11-2 provides a reference for the specific data points requested in Question 11 to their corresponding columns in Table 11-1 of the appendix. Additional data points are included for context in navigating the tables.

**<sup>21</sup>** Table 11-1 also includes strength testing of pipeline segments for which a specification changed (e.g., class location or load requirements) that necessitated a new test to comply with applicable code. The costs associated with such testing are not included in PSEP costs.

#### TABLE 11-2 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 11-1 COLUMN REFERENCE

Column Name	Description	
Line #	Reference number for this report.	
PSEP Filing PSRS	PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing.	
New PSRS	PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition.	
Order Number	Financial system of record reference number to track specific costs, e.g. on individual projects.	
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing. Includes project reference IDs that start with a letter that reflects the construction activity or workstream (i.e., R – pipe replacement, T - strength testing, V – valve automation, and I – in-line inspection).	
City	Location of project.	
Construction Contractor	Contractor who performed the work ("GC" refers to PG&E in-house).	
Mobilization Date	Project start date.	
Tie-In Date	Project finish date.	
Job Estimate Amount	Amount budgeted for project after completing project engineering, routing, permitting and construction bids.	
Total Cost	Itemized costs per project completed.	
Labor Cost		
Materials Cost		
Contracts Cost		
Other Cost(a)		
Variance to Budget	Variance between Total Cost and Job Estimate (see Question 19).	
PSEP Disallowed Cost	Project costs disallowed per CPUC Decision 12-12-030, i.e., post-1955 pipe work (does not include any estimation of amounts in excess of individual workstream authorized expenses and capital expenditures).	
Non-PSEP Costs	Project costs not recoverable within PSEP.	
>10% Over Budget	Projects greater than 10 percent over Job Estimate.	
Comments	Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations.	

(a) Other costs include costs not included in Labor, Materials, or Contracts such as overhead.

## 12. Projects Started, Pending Completion

Provide a complete description, or a specific reference to proceeding workpapers, of projects that have begun but are currently unfinished, include the start and anticipated completion dates. On a project-by-project basis, provide the amount budgeted for each project. Explain how the work is being done in compliance with D.11-06-017 and PG&E's Decision Tree and, if so, provide the Decision Tree outcome identifier associated with each project.

### Response

Table 12-1 of the appendix provides details on 13 individual projects across five construction workstreams where construction has commenced but the project has not yet been returned to operations (tied-in) as of December 31, 2013. Table 12-1 includes specific reference to workpapers of projects that have started construction but are not yet completed<sup>22</sup> as of the end of the reporting period. Table 12-1 includes the construction start and anticipated finish dates. In addition, it provides, on a project-by-project basis, the amount budgeted for the project.

All work detailed in the table was undertaken in compliance with D.11-06-017; each project includes pipeline segments for which a prior strength test has previously not been performed and/or for which traceable, verifiable and complete records of such a test do not exist. PG&E's PSEP Update Application Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update provides descriptions of how each of the pipeline replacement and strength test projects listed in Table 12-1 is being performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier. PG&E's August 26, 2011 PSEP filing, Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program, provides descriptions of all planned PSEP ILI and valve projects that have been and will be performed in compliance with D.11-06-017.

**<sup>22</sup>** For the purposes of this report, the completion of a project is considered the date the pipeline segments are returned to operations.

Table 12-2 provides a reference for the specific data points requested in Question 12 to their corresponding column in Table 12-1 of the appendix. Additional data points are included for context in navigating the tables.

#### TABLE 12-2 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 12-1 COLUMN REFERENCE

Column Name	Description		
Line #	Reference number for this report.		
PSEP Filing PSRS	PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing.		
New PSRS	PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition.		
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing.		
Mobilization Date	Project start date.		
Tie-In Date	Anticipated project finish date.		
Job Estimate Amount	Amount budgeted for project after completing project engineering, routing permitting and construction bids.		
Comments	Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations.		

#### 13. Projects Planned, But Yet to Start

Provide a complete description, or a specific reference to proceeding workpapers, of projects that were forecasted for Phase 1 that have yet to start, include the anticipated start and anticipated completion dates. Rank the priority of these projects and explain the ranking. On a project-by-project basis, provide the amount budgeted for the project. Explain how the work was done in compliance with D.11-06-017 and PG&E's Decision Tree and, if so, identify the Decision Tree outcome identifier associated with each project.

#### Response

Table 13-1 of the appendix provides detail on 194 individual projects across five construction workstreams where pre-construction activities have commenced but construction resources have not yet mobilized as of December 31, 2013.

Table 13-1 provides specific reference to proceeding workpapers, of projects that have yet to commence construction as of the end of the reporting period.<sup>23</sup> For each project, PG&E has supplied the current anticipated construction start and finish dates which reflect the updated output of the prioritization and schedule procedures or ranking noted in response to Question 1. In addition, the table provides, on a project-by-project basis, the amount budgeted for the project.

All work detailed in the table was undertaken in compliance with D.11-06-017. PG&E's PSEP Update Application, Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update, and provides descriptions of how each of the pipeline replacement and strength testing projects listed in Table 13-1 will be performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier. PG&E's August 26, 2011 PSEP filing, Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program, provides descriptions of all planned PSEP ILI and valve projects that have been and will be performed in compliance with D.11-06-017.

Table 13-2 provides a reference for the specific data points requested in Question 13 to their corresponding column in Table 13-1 of the appendix. Additional data points are included for context in navigating the tables.

**<sup>23</sup>** Table 13-1 includes projects that have commenced pre-construction activities, but not yet mobilized.

#### TABLE 13-2 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 13-1 COLUMN REFERENCE

Column Name	Description		
Line #	Reference number for this report.		
PSEP Filing PSRS	PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing.		
New PSRS	PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition.		
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing.		
Mobilization Date	Anticipated project start date.		
Tie-In Date	Anticipated project finish date.		
Job Estimate Amount	Amount budgeted for project after completing project engineering, routing, permitting and construction bids.		
Comments	Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations.		

## 14. Additional Projects Not in Original Workpapers

Describe, in detail, projects that PG&E has completed, are work-in-progress, or have yet to start that were not included in the workpapers submitted in *R*.11-02-019. Explain why these projects have been included in Phase 1 and whether these projects have lowered the priority of other projects identified in proceeding workpapers and, if so, why. Explain how this work complies with *D*.11-06-017 and PG&E's Decision Tree and provide the Decision Tree outcome identifier associated with each project.

### Response

In the tables referenced in PG&E's prior responses to Questions 11-13, PG&E has identified 12 projects that were not included in the workpapers submitted in the August 2011 PSEP filing. In each case, an explanation of why these projects have been included in Phase 1 is provided in the column titled, "Comments."

PG&E's PSEP Update Application, Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update provides descriptions of how each of the pipeline replacement and strength testing projects listed in Tables 11-1, 12-1, and 13-1 will be performed in compliance with D.11-06-017, including the associated segment-level PSEP Decision Tree outcome identifier.

## 15. Project Costs > 10% Above Estimate

For completed projects that are 10% or more over estimated costs, provide a detailed explanation why the overrun occurred.

### Response

As PG&E progressed from the preliminary work scope and associated estimates and work plans included in its Implementation Plan, it developed more specific work plans and estimates. These refined estimates, or "Job Estimates," are used in this report to represent the budgeted amount by project for a more meaningful comparison to total costs. Table 11-1 of the appendix referenced in the response to Question 11 includes 31 projects that have cost variances equal to or greater than 10 percent of this budgeted amount, on a project-by-project basis. Identification of the cost and schedule impacts that have driven these cost variances are included within the project-by-project risk analysis on Table 19-1 provided in response to Question 19.

In addition, in the response to Question 19, PG&E has summarized the primary cost drivers that have in many cases resulted in significantly higher total actual project costs than the budgeted amount.

## 16. Pipeline Piggability Status

Provide a list and map of pipelines that are currently piggable, highlighting pipe that was made piggable as a result of projects conducted under the PSEP. Provide the total mileage of transmission pipelines, the total mileage of pipelines that are currently piggable and percentage of the total that is piggable.

#### Response

As shown in Table 16-1 below, 197.00 miles of transmission pipeline (95.59 miles from Line 300A, 94.62 miles from Line 300B, and 6.79 miles from Line 132) were made piggable under PSEP from program inception through December 31, 2013. This increase reflects the completion of two additional pipeline retrofit/upgrade projects during the current reporting period (Line 132 mile points (MP) 31.93-38.40 and Line 300B MP 299.00-353.80).

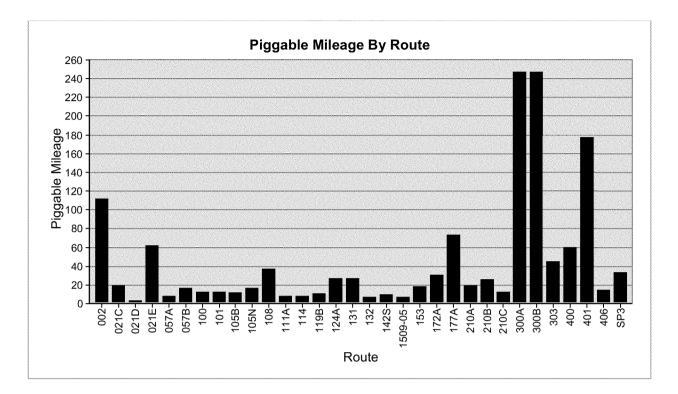
Route ID	Launch Mile Point	Receiver Mile Point	Piggable Distance(a)
132	31.93	38.40	6.79
300A	299.00	353.80	56.24
300A	354.19	393.53	39.35
300B	299.00	353.80	54.84
300B	354.09	393.61	39.78

#### TABLE 16-1 PACIFIC GAS AND ELECTRIC COMPANY SEGMENTS MADE PIGGABLE UNDER PSEP

 Piggable Distance is measured in PG&E's Geographic Information System (GIS) and does not necessarily equal the difference between launch mile point and receiver mile point.

Figure 16-1 shows PG&E's total piggable mileage by transmission pipeline. In total, there are 1,415.55 miles of piggable transmission pipeline (see Table 16-2), which amounts to 21 percent of PG&E's approximately 6,750 total transmission pipeline miles (as of December 31, 2013). Figure 16-2 provides a map of pipelines that are currently piggable, highlighting pipe that was made piggable as a result of projects conducted under the PSEP.

#### FIGURE 16-1 PACIFIC GAS AND ELECTRIC COMPANY PIGGABLE MILEAGE BY TRANSMISSION LINE



### TABLE 16-2 PACIFIC GAS AND ELECTRIC COMPANY PIGGABLE TRANSMISSION PIPELINE SEGMENTS

		line Segments	
	Launch	Receiver	Piggable
Route	Mile Point	Mile Point	Distance*
002	43.45	118.02	75.28
002	122.05	158.00	36.39
021C	35.05	53.12	18.67
021D	18.64	21.88	3.24
021E	53.12	64.36	11.39
021E	64.54	93.67	30.77
021E	93.67	114.89	20.20
057A	9.20	16.68	7.39
057B	0.00	16.68	16.62
100	138.43	150.13	12.13
101	0.00	11.92	12.36
105B	0.00	11.81	11.84
105N	7.75	23.00	16.27
108	0.00	37.15	37.05
111A	20.32	27.58	7.26
114	9.03	16.59	8.02
119B	0.00	10.16	10.68
124A	0.00	26.03	26.42
131	24.88	50.57	26.65
132**	31.93	38.40	6.79
1425	0.00	9.01	9.06
1509-05	0.00	6.49	6.45
153	0.00	17.65	17.86
172A	40.07	69.81	29.78
177A	88.80	163.04	74.48
210A	1.38	19.47	18.98
210B	1.37	25.98	25.85
210C	19.46	32.11	12.75
300A	256.21	299.00	43.39
300A**	299.00	353.80	56.24
300A**	354.19	393.53	39.35
300A	393.53	450.83	57.29
300A	450.83	502.24	52.11
300B	256.64	299.00	43.22
300B**	299.00	353.80	54.84
300B**	354.09	393.61	39.78
300B	393.76	450.79	57.18
300B	450.79	502.64	52.42
303	0.00	42.83	44.72
400	82.33	142.61	60.28
401	82.34	149.19	67.01
401	317.95	427.98	110.06
406	0.00	13.80	13.84
SP3	167.31	198.49	33.19
Total	<u>; 201.02</u>		1,415.55

<sup>\*</sup> Piggable Distance is measured in GIS and does not necessarily equal the difference between launcher mile point and receiver mile point.

<sup>\*\*</sup> PSEP segment.

#### **PSEP Piggable Lines** 1774 401 Norwala ut e 1509-05 124A 0216 408 172A 1108 0210 2108 0210 210A 114 1058 2100 0578 8.03 057A 108 131 153 Legend 303 N rach www.Rochas.made.prggable.by.PSEP 132 002 1 All Piggable Lines (by Route IO) 100 147\* 101 3008 401 ----- 100 ----- 101 ----- 1050 1114 3054 ---- 126A ---- 131 ---- 132 ----- 1428 - 1309-05 - 153 - 1724 - 1774 3008 1423 - 2104 308% -----A00% 300A 303 1 in = 32 miles nishini 🚧 eres MM \*A delay on completion of planned 2013 work was due to the depressuration of L-147. ···· \$#3

## FIGURE 16-2 PACIFIC GAS AND ELECTRIC COMPANY MAP OF PIGGABLE PIPELINES

## 17. Lessons Learned in Phase 1 Work

Describe any lessons learned from undertaking the Phase 1 work that has led to cost efficiencies and quantify any cost savings.

## Response

During the current reporting period, PSEP has continued to apply lessons learned and associated process improvements from prior reporting periods, including those previously reported in prior PSEP Compliance Reports. In addition, PSEP workstreams have also identified additional lessons learned during the current reporting period, including:

- <u>Strength Testing In-Series</u>: Successfully reused test water on several Strength Tests (T-211B-13 & T-209-13, T-318-14 & T-225-13, T-284-13 & TIM-269B-13, T-303B-14 & T-404-14) which resulted in reducing water management and disposal costs. This in-series testing also allowed the contractor to reduce mobilization costs and be more efficient with crew utilization. The contractor could send the digging crew out ahead of the testing crew and work on multiple tests at the same time to reduce stand-by costs. PG&E estimates that the average cost per mile of these longer in-series tests is approximately 36 percent less the average test cost which, over the 40.89 mile length of these in-series tests identified above, represents a comparative cost avoidance of approximately \$529,000.
- Establishment of Transmission Project Clearance Operations Team: A dedicated team of qualified employees was established to plan, prepare, and execute pipeline and station system clearances across the PG&E transmission system based upon project locations. The team has been focused on supporting large project work and has proven to be an essential element in enabling these projects to execute system clearances and meet peak demands in work in any given area. As part of supporting Alliance contractors' execution of "cut-and-cap" and "Tie-In" activities, this improvement is estimated to have potentially avoided costs in 2013 of approximately \$3.5 million to \$5.0 million.
- <u>Ultrasonic ILI Tool</u>: The Ultrasonic ILI tool was piloted on strength test projects (T-303B & T-304) as a pre-testing measure to identify any potential ruptures, leaks, or any other failures that could fail the strength test.
   Resultant anomalies were: multiple dent features interacting on longitudinal

seams, metal loss features of greater than 50 percent, dents on lamination, etc. The results for anomalies with immediate concerns were addressed prior to strength test or addressed afterwards. In addition, the ultrasonic technology found that the wall thickness of elbows was thicker than expected, which allowed the pipe to be strength tested at a higher pressure than originally planned. Overall, the tool provides additional information about the pipeline which may not be detected with a strength test—making the transmission pipeline system even safer.

During the current reporting period, PSEP workstreams commenced the compilation and assessment of cumulative lessons learned followed by identifying potential additional process improvements for implementation within the 2014 project portfolio.

## 18. Potential Enhancements to Phase 2 Planning and Budgeting

How will the work PG&E conducts in Phase 1 influence how PG&E will plan and estimate the costs of its proposed projects for Phase 2?

## Response

Consistent with our response in prior PSEP Compliance Reports, the work PG&E conducts in Phase 1 will directly influence how PG&E will plan and estimate the costs of proposed future pipeline safety work. This is reflected in PG&E's 2015 Gas Transmission and Storage (GT&S) Rate Case Application (A.13-12-012), filed on December 19, 2013 for the period of 2015-2017. Beginning January 1, 2015, PG&E is not forecasting PSEP work separately from other GT&S work.

In PSEP, PG&E selected and prioritized the work using the PSEP Decision Trees approved by the Commission in D.12-12-030. The focus was on enhancing the pipeline integrity in segments that had not previously been subjected to a pressure test. The work was prioritized based on location of pipeline segments in High Consequence Areas (HCA) and Class 3 and 4 locations that were operating at a Specified Minimum Yield Strength of 30 percent or greater.

This served as a good foundation to manage the potential risk by pipeline segments that had not previously been subjected to pressure testing. As demonstrated in the mitigation plans set forth in PG&E's 2015 GT&S Rate Case, PG&E is moving towards a more holistic approach to prioritizing the management of risk arising from the threats to its Transmission Pipe assets.

PG&E has implemented changes as a result of lessons learned from PSEP work about how to better enhance the integrity of its natural gas transmission system using components of the plan, such as strength testing, pipeline replacement, valve automation, retrofitting to make pipeline segments capable of ILI, and running ILIs. We used the principles, valuable lessons learned and efficiencies gained during PSEP to develop the mitigation programs in the forecast reflected in A.13-12-012 for these work activities. As such, the cost forecasts in the GT&S Rate Case related to the PSEP workstreams noted above were influenced based on our experience and actual costs incurred to date in PSEP.

These lessons learned and the transition from PSEP to the current mitigation programs, are discussed in Chapter 4 and reflected, as applicable, in the specific

mitigation programs in Chapter 4A of PG&E's December 19, 2013 Prepared Testimony.<sup>24</sup>

PG&E 2015 Gas Transmission and Storage Rate Case (A.13-12-012) Prepared Testimony, Volume 1 of 2, Chapter 4: Asset Family – Transmission Pipe, Sections C2b and D; Chapter 4A: Transmission Pipe Integrity and Emergency Response Programs, Sections C and D.

## **19.** Cost Impacts of Unexpected or Unforeseen Items

What, if any, significant unexpected or unforeseen items did PG&E encounter in undertaking the projects and what were the resulting cost impacts on a project-by-project basis?

## Response

Table 19-1 of the appendix provides PG&E's most recent risk management assessment with a project-by-project analysis of unexpected or unforeseen items that have affected 2013 completed projects and the resulting cost and schedule impacts,<sup>25</sup> and identifies ways in which PG&E is addressing these risks on an ongoing basis by incorporating the lessons learned into project delivery processes.

For projects completed in the fourth quarter of 2013, PG&E identified that "Unstable/Weak Soil"<sup>26</sup> and "Productivity Impacts"<sup>27</sup> caused the greatest cost increases totaling approximately \$2.75 million and \$2.33 million, respectively. "Permitting" and "Productivity Impacts"<sup>28</sup> accounted for the greatest number of schedule day delays totaling 204 and 189 days, respectively.

This report identifies the following main risk areas (with associated impacts) with recommendations:

# • Unstable/Weak Soil (Cost and Schedule)

Results: While efforts are made to identify soil conditions and plan accordingly prior to construction start, it is difficult to fully determine the extent and precise area of unstable/weak soil. Only two projects, both replacement, experienced impacts related to weak soil. Construction crews on one had a particularly difficult time overcoming the soil conditions to complete the last 10,000 feet of excavation despite

**<sup>25</sup>** Impacts are determined using baseline schedule and forecasts after completion of Job Estimate and prior to construction commencement.

**<sup>26</sup>** Unstable soils may require additional shoring or other measures which may cause delays and an increase in costs to implement.

<sup>27</sup> Potential impacts to contractor productivity may be caused by multiple issues (e.g., material/resource availability or one project in a group of coordinated or sequenced projects impacting another) which may result in a contractor moving to another construction location on-site or other methods of mitigation.

**<sup>28</sup>** Productivity impacts include unplanned permitting conditions, requirements, and delays from various permitting agencies (e.g., limited working hours, limited access, delays in issuance, etc.) which may result in schedule and/or cost impacts.

implementing several common methods. This resulted in cost increases and a schedule delay related to these efforts.

- <u>Recommendations</u>: Continue taking soil samples by using historical data and research to identify areas where difficult soil conditions may be encountered. Also continue to include costs in the Job Estimate, when appropriate, for handling of such conditions.
- Productivity Impacts (Cost and Schedule)
  - <u>Results</u>: It was necessary to complete some projects in this quarter consecutively in order to ensure continued customer support.
     Consequently, later projects were impacted by delays in earlier projects.
     Regional coordination, particularly with Alliance contractors, enabled construction resources to move efficiently between projects and workstreams, thereby reducing the impact of this realized risk.
  - <u>Recommendations</u>: Continue the increased coordination of PSEP workstream activities with regional construction resources, including combination with non-PSEP activities, when appropriate opportunities are identified. Continue to build portfolio of "back-up" projects available to commence construction, if required, to meet program commitments.

# • Permitting (Cost and Schedule)

- Results: Primarily impacting an ILI project, schedule delays were experienced due to permits with long lead times from the San Francisco Public Utilities Commission (SFPUC) and Caltrans. Communications had been ongoing since 2012 for the SFPUC permit for this and other projects in the area. Alternatives such as condemnation were explored, but that process is also long and an agreement was ultimately reached with the SFPUC instead. The need for a second Caltrans permit was not identified until after construction began due to differing field conditions, and Caltrans' approval process cannot be expedited. Delays and/or cost impacts on other projects were due to a variety of permitting constraints (e.g., requirement of night work, extensive traffic control plans, etc.).
- <u>Recommendations</u>: Continue to apply for permits as early as possible, especially those known to have a long lead time, and keep up regular communications with permitting agencies in an attempt to limit impacts from constraints.

- Unexpected Conditions of Pipe, Valves, or Fittings<sup>29</sup> (Cost and Schedule)
  - Results: Impacts related to this risk varied from conditions such as pipe laminations (i.e., imperfections in pipe wall material), other similar anomalies in pipe walls, or a new valve found to be defective. This risk and the manner in which it may materialize and impact a specific project is being identified as part of planning activities that also incorporate the local knowledge of gas transmission personnel (e.g., the recognition that there is a potential for pipe leaks during a specific strength test due to a history of agricultural land use and prior instances of damage from farming equipment on the pipeline). However, the exact timing, location and extent of impact are highly variable and have the potential to materially impact project cost and schedules (e.g., it may take several days and significant resources to locate a leak along a pipeline undergoing a Strength Test).
  - Recommendations: Continue the monitoring of this risk using project risk registers, in particular for projects on the same line, in close proximity, or with similar pipeline attributes (e.g., shallow pipe). Continue to carry forward lessons learned from these and prior occurrences to improve the efficiency of response to future line damage or leaks (e.g., determining damage/leak location). Also continue exploring new leak detection methods, such as the In Vista inspection tool, an ultrasonic inspection tool, which was piloted on two Strength Test projects this quarter.

PG&E will continue to utilize lessons learned and is implementing plans, with the aid of new risk management software, to take an even more proactive approach to risk management in 2014.

Table 19-2 provides a reference for the specific data points requested in Question 19 to their corresponding column in Table 19-1 of the appendix. Additional data points are included for context in navigating the tables.

**<sup>29</sup>** Pipe, valves, or fittings may be leaking or faulty, requiring additional work to repair or to replace them. This category does not include linear indications on the pipe, the occurrence of which are tracked in a separate category.

### TABLE 19-2 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 19-1 COLUMN REFERENCE

Column Name	Description
Line #	Reference number for this report.
New PSRS	New PSRS number resulting from project split or addition.
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing.
Region	Region where line is located.
Risk	Categorization of risk factor affecting the project.
Description	Description of risk factor.
Cost Impact (\$)	Impact of risk to project cost.
Schedule Impact (Days)	Impact of risk to schedule in number of days.
>10% Variance	Projects greater than 10 percent over Job Estimate.
Comments	Description of how risk factor materialized.

## 20. Program Amount Authorized and Spent

Provide a table showing the total amount authorized for recovery from ratepayers and the total amount spent by PG&E year-to-date shown by month and broken down activity (e.g., hydrotesting, pipe replacement).

## Response

Table 20-1, in the appendix, shows the total amount spent by PG&E in the current reporting period and year-to-date, shown by month and broken down by activity. Amounts authorized for customer recovery are provided at the program activity level, consistent with the presentation in Attachment E of D.12-12-030.

## 21. Shareholder Costs Absorbed

Provide a table showing the total amount of costs that shareholders will absorb year-to-date shown by month and broken down activity (e.g., hydrotesting, pipe replacement).

## Response

Table 20-1, included in response to Question 20, provides the total amount of costs that shareholders have absorbed in the current reporting period and year-to-date, shown by month and broken down by activity. Amounts funded by shareholders are provided at the program activity level, consistent with the presentation in Attachment E to D.12-12-030.<sup>30</sup>

**<sup>30</sup>** Presentation of amounts funded by shareholders may vary for financial reporting purposes.

## 22. Forecast vs. Actual Mileage – Replacements

Provide a table showing the total mileage of pipe PG&E forecast to replace in R.11-02-019 and the mileage PG&E has replaced year-to-date. Identify the location, Line #, milepost, Class of the pipe replaced. Indicate whether the pipe is located in a High Consequence Area.

## Response

As of December 31, 2013, PG&E has replaced over 104 miles of gas transmission pipeline as part of the PSEP program. Table 22-1, below, provides the total pipeline miles PG&E forecast to replace in R.11-02-019 (i.e., PG&E's August 2011 Implementation Plan) and the total pipeline miles replaced from program inception through the end of this reporting period. Table 22-2 of the appendix provides detail on 30 projects completed (tied-in) in 2013 through the end of this reporting period, identifies the location, pipeline number, milepost, and class of the pipeline section replaced, and indicates whether the pipeline is located in a HCA on a project-by-project basis.

Table 22-3 provides a reference for the specific data points requested in Question 22 to their corresponding columns in Table 22-2 in the appendix. Additional data points are included for context in navigating the tables.

Pipeline Replacement	2011	2012	2013		
Forecast R.11-02-019	0.3	39.0	64.0		
Actual Replaced and Tied-in, retired or downrated(a)	0.3	40.0	50.0		
Actual Installed Pending Tie-In			14.0		
<b>Total Actual</b> 0.3 40.0 64.0(b)					
<ul> <li>(a) Mileage reflects pipeline lengths identified in August 26, 2011 PSEP filing and is subject to final engineering review of "as-built" drawings to validate segment-level completion of PSEP scope. Forecast may adjust in the future pending the outcome of PG&amp;E's PSEP Update Application filed on October 29, 2013.</li> <li>(b) PSEP-funded Pipeline Replacement for YTD accounted for 57.0 miles. In addition, PG&amp;E replaced 7.0 miles of non-PSEP funded Pipeline Replacement miles YTD.</li> </ul>					

#### TABLE 22-1 PACIFIC GAS AND ELECTRIC COMPANY TOTAL PIPELINE MILES REPLACED – FORECAST AND ACTUAL APRIL 1, 2011 – DECEMBER 31, 2013

### TABLE 22-3 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 22-2 COLUMN REFERENCE

Column Name	Description
Line #	Reference number for this report.
PSEP Filing PSRS	PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing.
New PSRS	PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition.
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing.
Miles Completed	Miles of pipeline replaced or tested.
Line	Pipeline identifier.
MP1	Beginning project mile point.
MP2	Ending project mile point.
City	Location of project.
HCA	Project includes a High Consequence Area.
Class Code	Class of pipeline included in project.
Clearance Date	Date pipe was cleared and work authorized to begin.
Tie-In Date	Date pipe became operational and project completed.

## 23. Forecast vs. Actual Mileage – Strength Testing

Provide a table showing the mileage of pipe PG&E forecast to hydrotest in R.11-02-019 and the mileage PG&E has tested year-to-date. Identify the location, Line #, milepost, Class of the pipe tested. Indicate whether the pipe is located in a High Consequence Area.

## Response

As of December 31, 2013, PG&E has completed strength testing on over 538 miles of gas transmission pipeline since the inception of the PSEP program, in addition to the validation of the records of over 119 miles of prior strength tests as meeting the "traceable, verifiable and complete" standard. Table 23-1 below, provides the total pipeline miles PG&E forecast to strength test in R.11-02-019 (PG&E's August 2011 Implementation Plan) and the total strength tested through the end of this reporting period. Table 23-2 of the appendix provides detail on 74 completed projects, identifies the location, pipeline number, milepost, and class of the pipe tested, and indicates whether the pipe is located in a HCA on a project-by-project basis.

Table 23-3 provides a reference for the specific data points requested in Question 23 to their corresponding columns in Table 23-2 in the appendix. Additional data points are included for context in navigating the tables.

TABLE 23-1
PACIFIC GAS AND ELECTRIC COMPANY
TOTAL PIPELINE MILES STRENGTH TESTED – FORECAST AND ACTUAL
APRIL 1, 2011 – DECEMBER 31, 2013

Pipeline Strength Testing	2011	2012	2013			
Forecast R.11-02-019	236.0	185.0	204.0			
Actual Tested and Tied-in(a)(b) Actual Records Validated(c)	163.6 50.9	176.2 27.8	198.8 39.7			
Total Actual         214.5         204.0         238.5						
<ul> <li>(a) Mileage reflects pipeline lengths identified in August 26, 2011 PSEP filing and is subject to final engineering review of "as-built" drawings to validate segment-level completion of PSEP scope. Forecast may adjust in the future pending the outcome of PG&amp;E's PSEP Update Application filed on October 29, 2013.</li> </ul>						
(b) Includes 2.6 miles in 2011, 36.3 miles in 2012 and 12.2 miles in 2013 of segments for which costs will not be included within PSEP costs.						

(c) Includes pipeline miles for which records of a prior strength test were validated as meeting the traceable, verifiable and complete records standard.

### TABLE 23-3 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 23-2 COLUMN REFERENCE

Column Name	Description
Line #	Reference number for this report.
PSEP Filing PSRS	PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing.
New PSRS	PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition.
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing.
Miles Completed	Miles of pipeline replaced or tested.
Line	Pipeline identifier.
MP1	Beginning project mile point.
MP2	Ending project mile point.
City	Location of project.
HCA	Project includes a High Consequence Area.
Class Code	Class of pipeline included in project.
Clearance Date	Date pipe was cleared and work authorized to begin.
Tie-In Date	Date pipe became operational and project completed.

## 24. Public Outreach Costs

Provide the costs of the public outreach PG&E has incurred year-to-date by month as compared to the amount authorized. Explain in detail what public outreach activities PG&E has engaged in.

## Response

Customer Outreach is included as an integral part of each PSEP construction project. Customer and community outreach costs incurred since program inception in 2011 are shown annually for 2011-2013 in Table 24-1. Monthly customer and community outreach costs for 2013 are shown in Table 24-2.

### TABLE 24-1 PACIFIC GAS AND ELECTRIC COMPANY PUBLIC OUTREACH COSTS APRIL 1, 2011 – DECEMBER 31, 2013 (IN MILLIONS OF DOLLARS)

2011	2012	2013
\$2.62	\$4.54	\$4.21

## TABLE 24-2 PACIFIC GAS AND ELECTRIC COMPANY 2013 MONTHLY PUBLIC OUTREACH COSTS (IN MILLIONS OF DOLLARS)

Jan 2013	Feb 2013		•	May 2013			•	•			Dec 2013
\$0.36	\$0.35	\$0.38	\$0.38	\$0.35	\$0.38	\$0.44	\$0.36	\$0.34	\$0.33	\$0.28	\$0.26

The CPUC's PSEP decision approved customer outreach costs, including governmental outreach, within individual project estimated costs. PG&E's estimated customer outreach costs varied by workstream driven by the nature of the work and were based upon a percentage of project costs before project management and escalation.

For pipeline replacement and strength testing projects the customer outreach cost estimate was 2.9 percent of estimated construction costs, and for valve automation projects the equivalent was 0.54 percent. Specific monthly authorized amounts cannot be accurately determined from D.12-12-030 due to individual project durations and the timing of activities within projects. Public outreach

activities undertaken by PSEP have included the use of Interactive Voice Responses (IVR or automated phone notifications), letters, open houses, signage, door-to-door canvassing, one-on-one customer phone calls and meetings, and customer group presentations. As of December 31, 2013, 39 open houses have been hosted, 222,155 letters have been mailed, and 368,275 IVR calls have been made to customers impacted by PSEP work during 2013.

Customer Outreach activities are managed on a consistent basis across PSEP workstreams by a dedicated team of Customer Impact Specialists within PG&E's Customer Care organization. Each project follows a standardized process for customer outreach which includes, but is not limited to:

- Site walk with project team to identify customer impacts.
- Letter to impacted customers.
- Invitation to an open house hosted by PG&E within the affected project area.
- Work location signage prior to mobilization.
- IVR sent to area customers prior to significant activities (e.g., venting/release of natural gas).
- Additional customer outreach and accommodations as dictated by the nature of the project (e.g., temporary relocation for nitrogen strength test).
- Local customer canvassing to identify and incorporate feedback into ongoing procedures.

In the second quarter, the Customer Outreach team added another touch point to the communications process for some projects. In an effort to increase open house attendance, the Customer Outreach team sent out an IVR reminder and/or canvassed an impacted area, inviting customers to attend the open house in their area. The IVR reminded customers of the date, time, and location of the open house. Canvassing visits involved leaving behind door hangers that included copies of the letter with an open house invitation that these customers had already received. During the current reporting period, the Customer Impact team has continued to utilize IVRs to remind customers of the date, time, and location of a local open house, along with canvassing visits leaving behind door hangers that include copies of the open house invitation which has resulted in a moderate increase in open house attendance, from an average of six to eight attendees per open house.

Customer Impact inserts additional customer touch points where deemed beneficial, depending on the particular situation. Customer Impact held a second open house on November 12, 2013 for R37, Line 172 Replacement project in West Sacramento. The project runs through the heart of West Sacramento, a heavy commercial area. The first open house was held in August 2013, prior to when construction was mobilized for the project. Complaints regarding loss of revenue due to construction inconvenience were received. In November, customers were sent a status update letter, informing them of the project's progress, and inviting them to attend another informational open house. In order to provide solutions and answers to issues customers were experiencing related to the project, subject matter experts for the replacement project and PG&E Claims representatives were in attendance at the open house. Energy Solutions and Service representatives were also in attendance to provide energy efficiency information to commercial and residential customers. Due to the significant customer impacts of this project, a weekly status update email was sent to the Washington Unified School District, Yolo Bus system, and the City of West Sacramento Fire Department.

In addition and as part of project design and planning activities, PG&E identifies and reviews specific customer impacts. Where customer loads are significant, PG&E will work with assigned account representatives to schedule activities to minimize the impact to customers. This may involve scheduling tests outside of agricultural peak periods as well as scheduling project activities to occur outside of school hours or other key events.

## 25. Service Outage Performance

Describe (e.g., provide date(s), location, Line #) all planned and unplanned service outages PG&E experienced in conducting the project work and explain how PG&E addressed customer needs during the outages. Were customers notified of any outages beforehand?

## Response

PG&E has successfully conducted gas transmission pipeline outages supporting 142 completed construction projects in 2013, with minimal impact to customer service. Tables 22-2 and 23-2 provide pipeline clearance dates, tie-in dates,<sup>31</sup> locations, and pipeline numbers, on a project-by-project basis for 30 completed pipe replacements and 74 strength test projects.

Table 25-1 of the appendix supplements these tables by providing information for 38 completed valve automation, in-line inspection upgrade, and in-line inspection projects in 2013. Table 25-2 provides a reference for the specific data points requested in Question 25 to their corresponding column in Table 25-1 in the appendix. Additional data points are included for context in navigating the tables.

**<sup>31</sup>** The days between the clearance date and the tie-in date provides the number of pipeline outage days.

### TABLE 25-2 PACIFIC GAS AND ELECTRIC COMPANY DATA POINT/TABLE 25-1 COLUMN REFERENCE

Column Name	Description
Line #	Reference number for this report.
PSEP Filing PSRS	PSRS number provided in workpapers supporting PG&E's August26, 2011 filing.
New PSRS	PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition.
Project Description	Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing.
Miles Completed/Valves Automated	Miles of pipeline replaced or tested; Number of valves automated.
Line	Pipeline identifier.
MP1	Beginning project mile point.
MP2	Ending project mile point.
City	Location of project.
HCA	Project includes a High Consequence Area.
Class Code	Class of pipeline included in project.
Clearance Date	Date pipe was cleared and work authorized to begin.
Tie-in Date	Date pipe became operational and project completed.

As previously mentioned, initial project design and planning activities include identification of potential customer impacts. PG&E specifically works to minimize the impact to customers and schedules work where possible to avoid customer outages by using existing system redundancies (e.g., cross compression, parallel pipes, or back-feeds to maintain customer service). This is a primary reason why many construction activities cannot take place during seasonal winter gas demand periods.

To mitigate potential customer impact, PG&E increased its LNG/CNG portable program to enable the increased avoidance of customer outages. Rising from 22 units in 2010 to 177 units targeted in 2013, the program continues to be an integral part of project planning and scheduling activities and has successfully met the significantly increasing demand for its services. The program has supported 7,386 customer tap days through the end of December 2013 using portable CNG equipment, 6,498 customer tap days for the same time period in

2012 and 354 customer tap days for the same period in 2010. This represents supporting approximately 20 separate locations per day for the year of 2013.

Where customer loads are significant, PG&E has worked with assigned account representatives to schedule activities to minimize impact and potentially avoid the significant costs associated with LNG support operations. This has involved scheduling tests outside of agricultural peak periods and commercial work hours and scheduling project activities to occur outside of school hours or key events.

# 26. Forecast Projects Not Completed or Replaced

Describe or provide a specific reference to PG&E's work papers of the projects that were not completed or replaced by a higher priority project and show the uncompleted project's associated costs. Compute the corresponding reduction to the Implementation Plan adopted amounts set out in Attachment E, as required by Ordering Paragraph 6.

## Response

PG&E's PSEP Update Application presents all pipeline replacement and strength testing projects that were not completed or have been cancelled and provides updated cost estimates of all previously authorized and proposed PSEP projects. PG&E's Update Application shows the corresponding reductions and additions to pipeline replacement and strength testing amounts set out in Attachment E, as required by OP 6 of D.12-12-030.

For the current reporting quarter no valve automation or ILI projects, previously listed as planned 2013 projects, with specific reference to prior PG&E workpapers were not completed or replaced by a higher priority project.<sup>32</sup>

**<sup>32</sup>** For similar project data related to 2011 and 2012 projects refer to PSEP Compliance Report 2013-01.

## 27. Project Cost Recovery

Provide a clear explanation, for each project for which expenditures have been incurred, of how the project is necessary to comply with PSEP requirements rather than being included among projects that are already funded in D.11-04-031.

## Response

The scope of PG&E's PSEP is based upon pipeline segments previously identified as not having been strength tested, and/or without traceable, verifiable and complete records of such a test. The specific actions to be taken under PSEP, and the prioritization of such projects, are based upon the results of consistently applying a sequential decision process (PSEP Decision Tree) to pipeline segment features information. PG&E's original PSEP scope was based upon pipeline data as of January 2011 and PG&E anticipated that the update and completion of the review of pipeline segment information would alter the scope of PSEP's projects. During the PSEP proceeding, PG&E confirmed that the PSEP scope as filed excluded any pipeline segments previously included within other recovery mechanisms, including projects approved as part of the Gas Accord V Settlement in D.11-04-031.

To the extent that additional scope has been added to a PSEP project that does not meet the PSEP Decision Tree criteria (or it is a non-adjacent non-HCA, Class 1 or 2 pipe segments) PG&E has identified and is separately tracking costs associated with this increased project scope. Examples would include, an increase in pipeline diameter to support future capacity needs or a project identified in D.11-04-031 that is engineered, permitted and constructed with an adjacent PSEP project to capture efficiencies.

PG&E's August 26, 2011 PSEP filing, Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program provides descriptions of all planned PSEP ILI and valve projects that have been and will be performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier where applicable. PG&E's October 29, 2013 PSEP Update Application, Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update provides descriptions of all planned PSEP pipeline replacement and strength test projects which have been and will be performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier.

## 28. Record Improvement Efforts Progress

Progress report on record improvement efforts, including report on costs absorbed by shareholders.

## Response

PG&E's Mariner Project (formerly referred to as the "GTAM Project"), is part of the Pipeline Records Integration Program proposed in the PSEP filing (R.11-02-019). Mariner costs are included in Table 20-1 and are completely funded by shareholders in compliance with D.12-12-030. The goal of the Mariner Project is to further enhance the safety and reliability of PG&E's gas transmission system through increased access to pipeline systems data, integrated risk management and integrity management analytics, and improved work management. Specifically, the Mariner Project will:

- Improve data availability by eliminating paper-based work processes and installing tools to enable the electronic collection, processing, review, analysis, and integration of pipeline systems data.
- Improve PG&E's pipeline risk management capabilities by integrating different types of asset data into a single system.
- Support PG&E's PSEP and address the CPUC and National Transportation Safety Board concerns by enabling and supporting asset data that are traceable, verifiable and complete.
- Generate operational efficiencies related to the time: required to enter and upload data into the system, required to locate and collect information maintained in different offices and different records management systems, required to correlate and analyze engineering data, and associated with field force dispatch (as work assignments can be automated and optimized to minimize travel). Full realization of benefits is dependent on the integration of the various components of the Mariner Project.

The Mariner project made progress in several functional areas by providing new mobile devices to field personnel, replacing outdated hardware, providing access to electronic maps, deploying integrated risk management tools, and converting records into electronic formats. The Mariner Project is also progressing toward integrating work management and asset systems, and mobilizing corrective and preventative maintenance processes. In PG&E's August 26, 2011 prepared testimony, PG&E described four phases of project development.<sup>33</sup> This report lists the activities that were included in each phase and provides a summary of the activities completed as of December 31, 2013. During October and November 2013, PG&E evaluated the Mariner Project and modified some of its management structure. Most of these changes involve modifying the management structure of the various Mariner initiatives, combining smaller projects into larger initiatives for improved oversight, and revising the schedule of some of the project components. In particular, the completion date for some of the asset maintenance and material traceability work has been extended from the first quarter of 2015 to the second half of 2015.

The following section details work and progress to date by each functional area affected by the Mariner Project in the current reporting period. Please see PSEP Compliance Reports Nos. 2013-02 and 2013-03 for progress made by each functional area prior to this reporting period.

**<sup>33</sup>** Please refer to PSEP Compliance Report No. 2013-02 for a description of the Mariner Project's four phases.

Functional Area	Work Completed in Q4 (October 1 - December 31, 2013)	Mariner Project Phases
Leak Survey	Work continues within this functional area. No major milestones reached within this reporting period.(a)	Phases 0 and 1
Locate and Mark	Work within this functional area is now complete.(b)	Phase 0
Corrective Maintenance	<b>Project Description</b> This effort provides for an accurate and complete dataset of information recorded in IGIS and other corrective maintenance history to be included in SAP.	Phases 0 and 1
	<ul> <li>Progress and Accomplishments</li> <li>Completed testing of the SAP and mobile improvements as of December 31, 2013. The pilot for the corrective maintenance mobile application will commence in January 2014.</li> </ul>	
Records Management	Work continues within this functional area. No major milestones reached within this reporting period.	Phase 1
Mobile Technology Foundation	Work continues within this functional area. No major milestones reached within this reporting period.(c)	Phase 2
Preventive Maintenance	Project Description Paperless process for documenting preventative maintenance work performed in the field	Phase 2
	<ul> <li>Progress and Accomplishments</li> <li>Completed testing of the SAP and mobile improvements as of December 31, 2013. The pilot for the preventive maintenance mobile application will commence in January 2014.</li> </ul>	
GIS	<ul> <li><u>Project Description</u>         Deployment of new Gas Transmission (GT) GIS system using data from the MAOP project that uses Linear Asset Management and is integrated with SAP.     </li> <li><u>Progress and Accomplishments</u> <ul> <li>This functional area is in the process of validating asset data from multiple sources to be included in GT GIS.</li> </ul> </li> </ul>	Phases 1, 2 and 3
	<ul> <li>Implemented internal hosting of GT GIS for desktop and web client release 1.1 along with associated user interfaces.</li> <li>Established proposed retirement timeline of GasMap.</li> </ul>	
	• Continued work to implement SAP Linear Asset Management functionality and system integration (SAP, Documentum, and GIS). Initiated plan/analyzed phase to develop the scope of the business requirements for GT GIS systems integration and data conversion.	
Integrity Management	Project Description Implement industry standard "best practice" technology solutions to automate manual integrity analysis tasks and integrate tools with core enterprise systems	Phase 1
	Progress and Accomplishments     Completed testing of Class Location and Risk Analysis tools.	
Material Traceability	Work within this functional area has been pushed into late 2014 and planned for completion in late 2015.	Phases 0 and 1

<sup>(</sup>a) Major milestones were completed in Quarter 2 of 2013. Please refer to PSEP Compliance Report No. 2013-02 for additional details.

<sup>(</sup>b) Major milestones were completed in Quarter 2 of 2013. Please refer to PSEP Compliance Report No. 2013-02 for additional details.

<sup>(</sup>c) Major milestones were completed in Quarter 2 of 2013. Please refer to PSEP Compliance Report No. 2013-02 for additional details.

# 29. Additional Relevant Information

Any additional relevant information not listed above as specified in hearing Exh. 2 at 8E-1 and 8E-2.

# Response

PG&E considers that the information provided within this report covers all aspects previously outlined in *hearing Exh. 2 at 8E-1 and 8E-2.* 

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX

PSEP Filing	Construction				>10% 0	ver
Line # PSRS New PSRS Order Number Project Descr R-114 L-114 RETIRE 0.70 1 N/A 25791 30894012 PH1		Mobilization Date Tie-In Date Job Estimate Amo 6-Mar-13 24-Apr-13 \$ 264,0		Cost Contracts Cost Other Cost Variar 390.18 \$ 784,227.47 \$ 61,529.12 \$	ce to Budget PSEP Disallowed Cost Non-PSEP costs Budge 707.989.86 S - Yes	Added as new project to replacement workstream to retire this portion of L-114_2 due to redundancy. Completed in conjunction with R-100, R-043, T-015-12, T-279-13.
R-100 L-131 RETIRE 0.58 2 23874 26442 30906224 PH1 I-017 L300A MP353	MI MP 8.56-8.93 Oakley H&M			929.33 \$ 581,793.21 \$ 35,835.52 \$	523,857.74 \$ - \$ - Yes	Added as new retirement project from filed test project to reduce redundant pipeline. Done in conjunction with R-
3 24022 24022 41482736 Inspection F		3-Apr-13 15-Apr-13 \$ 1,484,5	526.00 \$ 1,188,271.99 \$ 352,971.35 \$ 35,	589.14 \$ 402,852.96 \$ 396,758.54 \$	(296,254.01) \$ - \$ - No	Accelerated from 2014 to 2012 to facilitate pressure
4 23864 27569 41699027 T-174-12, Line DFM-1816 R-038 DFM-1813-02 REP 5 23762 23762 30841468 1.06 PH3	.0.01MI MP 1.00-			259.82 \$ 1,670,338.27 \$ (1,779,994.19) \$ 749.57 \$ 195,718.63 \$ 155,423.29 \$	(2,585,047.10) \$ - \$ (71,396.10) No 159,531.24 \$ 169,875.74 \$ - Yes	restoration on the line, subsequently delayed to 2013 as a result of material delivery delays and environmental permitting constraints (CA Tiger Salamander). Delayed from 2012 to 2013 to accommodate other higher priority projects in 2012.
						Delayed tie-in from 2012 to 2013 due to productivity impacts resulting from easement constraints during construction. Job Estimate (JE) created prior to project, split into 3 portions for constructability reasons and then
R-018 L-114_2 REPL 1. 6 23688 26045 30841472 10.50 PH		21-Sep-12 12-Jan-13 \$ 19,494,3	177.81 \$ 20,161,380.13 \$ 1,188,768.43 \$ 1,958,	589.07 \$ 16,054,601.86 \$ 978,016.53 \$	667,202.32 \$ 18,595.76 \$ - No	allocated to each project based on mileage. However, this method did not take into account the 2 additional mob/de- mob costs, site restoration costs and other site specific conditions that vary along the line.
R-023 L-131_1 REPL 1.4 7 23694 23694 30841473 33.77 PH	9MI MP 32.37-		134.00 \$ 19,365,749.12 \$ 2,095,106.62 \$ 1,660;		1,099,815.12 \$ 3,769.31 \$ - No	Delayed from 2012 to 2013 as a result of schedule balancing and permits requiring long lead times. Accelerated from 2014 to 2012 and replaced with Distribution piping to align with PG&E's commitment to
R-041 DFM-1020-01 REP 8 23807 23807 30842178 2.69 PH1 R-122 DFM-1306-01 REP	Butte GT/GC			383.25 \$ 84,586.29 \$ (165,129.62) \$	(3,000,000.70) \$ - \$ - No	retire or replace 1,200 High Pressure Regulators (HPRs) by the end of 2012.
9 23802 31295 30842185 1.48 PH1		16-Sep-13 11-Oct-13 \$ 470,5	34.00 \$ 496,877.53 \$ 177,900.14 \$ 20,0	J92.25 \$ 307,299.30 \$ 96,284.89 \$	26,343.53 \$ 104,699.05 \$ - No	Accelerated from 2014 to 2012 to avoid a pressure reduction and to coordinate with Division work to convert
10         23862         23862         30842187         0.52 PH1           R-148 DFM-1617-01 REP         11         23682         23682         30842195         1.26 PH1	. Yuba GT/GC . 0.85MI MP 0.82- Tracy GT/GC			386.10         \$         116,141.44         \$         122,519.77         \$           469.99         \$         252,462.23         \$         68,405.28         \$	(556,698.41) \$ 47,115.11 \$ - No (1,708,817.49) \$ - \$ - No	to low pressure main and remove HPRs in 2012. Accelerated from 2014 to 2013 to address required Integrity Management assessments.
R-003 DFM-7221-10 R 12 23720 26014 30842201 12.07-16.13 R-006 L-111A REPL 9.7	PH1 Modesto Underground	21-May-13 12-Aug-13 \$ 29,300,0	000.03 \$ 18,711,050.15 \$ 674,202.65 \$ 1,690,	967.44 \$ 18,490,367.95 \$ (2,136,355.04) \$	(10,588,949.88) \$ 8,132.85 \$ - No	Delayed from 2012 to 2013 due to construction difficulties. Delayed tie-in from 2012 to 2013 due to additional Integrity Management (IM) tie-in and construction
13         23832         26029         30842215         27.57 PH           R-005 L-138 REPL 7.29MI           14         23825         26033         30842223         PH1				597.38 \$ 25,112,534.43 \$ 2,958,920.89 \$	(173,014.60) \$ 47,115.11 \$ - No 5,691,259.28 \$ 13,833.97 \$ - Yes	complications, including land acquisition delays. Delayed from 2012 to 2013 as a result of construction complexities requiring more time for engineering and planning.
R-102 L-162A REPL 0.35 15 23731 31029 30842225 PH1 R-105 DFM-1815-02 RI	VI MP 7.40-7.72 Tracy Snelson EPL 0.45MI MP	13-Jun-13 15-Jul-13 \$ 2,387,2	228.00 \$ 2,142,184.10 \$ 237,080.68 \$ 54,	314.21 \$ 1,757,899.83 \$ 104,597.76 \$	(245,043.90) \$ 11,708.38 \$ - No	Accelerated from 2014 to 2013 due to IM flags. Accelerated from 2014 to 2013 to offset delays on other
16         23769         30842226         18.76-19.24           R-137         RFPL 0.24         R-137 L-173 REPL 0.24           17         23824         31696         30842230         PH1           R-011 L-118A REPL 8.11M	11 MP 5.50-5.51 Rocklin GT/GC			\$3,938,751.53         \$239,290.72         \$           \$21.27         \$150,680.81         \$145,900.93         \$	765,369.68         \$         1,261.43         \$         -         Yes           (170,332.65)         \$         133,357.83         \$         -         No	projects.
18         23743         26006         30842245         PH1           R-022 L-109_2A REPL 3.         19         23724         25727         30842248         16.93 PH           U         V-053 Valve Auto - 4th         V-053 Valve Auto - 4th         V-053 Valve Auto - 4th         V-053 Valve Auto - 4th	1 Palo Alto/Stanford ARB		000.00         \$ 40,394,456.49         \$ 1,195,480.37         \$ 6,420,4           000.28         \$ 42,573,582.11         \$ 2,020,810.17         \$ 2,626,5	198.51         \$ 30,950,858.73         \$ 1,956,752.08         \$           157.62         \$ 36,951,520.85         \$ 1,102,084.89         \$	(6,795,543.51) \$ 128,733.20 \$ - No (13,226,418.17) \$ 126,991.42 \$ - No	
20         23655         23655         30842259         Ph. 1           21         23651         23651         30842260         V-052 Valve Auto - 515t /	Oakland ARB			457.37 \$ 919,935.04 \$ 75,550.52 \$ 225.90 \$ 1,068,747.45 \$ 92,232.22 \$	(663,763.25) \$ - \$ - No (281,161.37) \$ - \$ - No	Accelerated from 2014 to 2013 to offset delays on other
22         23656         23656         30842262         V-072 Valve Auto - 8 M           V-069 Valve Auto - Air         23         23662         23662         30842263         Camp, 3V, P	port & French h. 1 Stockton Snelson			320.05 \$ 594,919.49 \$ (5,539.74) \$ 986.60 \$ 556,416.85 \$ 10,691.12 \$	(84,203.62) \$ - \$ - No (270,553.61) \$ - \$ - No	projects. Accelerated from 2014 to 2013 to offset delays on other projects.
V-070 Valve Auto - Airpo 24 23660 23660 30842264 Ph. 1 25 23645 23645 30842268 V-049 Valve Auto - Alva	Stockton Snelson			100.35 \$ 627,353.28 \$ 12,774.13 \$ 266.98 \$ 700,703.58 \$ 76,679.56 \$	21,931.64 \$ - \$ - No (51,749.35) \$ - \$ - No	Accelerated from 2014 to 2013 to offset delays on other projects.
26         23602         23602         30842283         V-015 Valve Auto - Edge           V-051 Valve Auto - Fair         V-051 Valve Auto - Fair         Ph. 1           27         23649         30842285         Ph. 1			138.00 \$ 4,864,950.09 \$ 502,897.35 \$ 2,184, )03.00 \$ 734,962.44 \$ 315,320.35 \$ 130,	318.08 \$ 6,564,832.65 \$ (4,387,597.99) \$	428,512.09 \$ - \$ - No (358,040.56) \$ - \$ - No	Delayed from 2012 to 2013 due to clearance constraints and difficulty in obtaining required permits.
V-028 Valve Auto - Half 28 23970 23970 30842289 2V, Ph. 1	Moon Bay Tap, San Mateo US Pipeline			400.80 \$ 449,006.71 \$ 112,021.76 \$	158,042.57 \$ - \$ - Yes	Delayed from 2012 to 2013 due to difficulties in obtaining
V-013 Valve Auto - Hami           29         23600         23600         1           30         23635         23635         30842300         V-045 Valve Auto - East .	Sunnyvale Snelson Airway, 3V, Ph. 1 Livermore Snelson			984.26 \$ 600,751.96 \$ 64,322.94 \$ 537.49 \$ 393,269.32 \$ 75,451.37 \$	(457,212.56) \$ - \$ - No (234,709.35) \$ - \$ - No	permits from the City of Sunnyvale for electrical service connections.
V-047 Valve Auto - Live 31 23637 23637 30842301 2/, Ph. 1 V-019 Valve Auto - Marti 32 23606 23606 30842303 1	rmore Junction, Livermore Underground	28-Aug-13 25-Sep-13 \$ 1,112,6	513.00 \$ 841,568.26 \$ 277,305.19 \$ 131,	964.50 \$ 379,817.83 \$ 52,480.74 \$ 850.19 \$ 647,314.01 \$ 108,493.89 \$	(271,044.74) \$ - \$ - No (154,341.56) \$ - \$ - No	Delayed from 2012 to 2013 due to clearance constraints and construction complexities.
33 23663 23663 30842308 V-057 Valve Auto - Palm V-061 Valve Auto - Sac C	Tract, 2V, Ph. 1 Brentwood GT/GC Gas Load Center,	11-Jul-13 7-Aug-13 \$ 469,7	761.00 \$ 365,822.01 \$ 175,827.62 \$ 69,1	D10.28 \$ 113,540.27 \$ 7,443.84 \$	(103,938.99) \$ - \$ - No	Accelerated from 2014 to 2013 to offset delays on other
34 23675 23675 30842313 4V, Ph. 1 35 23601 23601 30842316 V-014 Valve Auto - San				195.72 \$ 708,599.51 \$ 47,320.84 \$	(367,150.42) \$ - \$ - No (116,720.83) \$ - \$ - No	projects. Delayed from 2012 to 2013 in order to coordinate with clearance for replacement project on the same Line, L-109.
36 23604 23604 30842319 V-017 Valve Auto - Sulliv				563.09 \$ 453,953.46 \$ 43,502.59 \$	(199,856.01) \$ - \$ - No	Delayed from 2012 to 2013 due to clearance constraints

PSEP Filing	Construction	ation Date Tie-in Date Job Estimate Amount To	tal Cost Labor Cost Materials Cost Contracts Cost	Other Cost Variance to Budget PSEP Disallow	>10% Over
Line # PSRS New PSRS Order Number Project Description V-063 Valve Auto - Valero Refinery Tap, 37 23674 23674 30842322 3V, Ph. 1		Aug-13 14-Oct-13 \$ 1,880,271.00 \$ 1			ed Cost Non-PSEP costs Budget Comments Accelerated from 2014 to 2013 to offset delays on other - \$ - No projects.
38         23631         23631         30842326         V-040 Valve Auto - Walnut Ave, 1V, Ph. 1           V-071 Valve Auto - West Lane &           39         23658         23658         30842327         Hammertown, 3V, Ph. 1		un-13 11-Oct-13 \$ 1,653,709.00 \$ 1 Sep-13 1-Nov-13 \$ 1,599,418.00 \$ 1	566,714.21 \$ 263,442.95 \$ 426,795.76 \$ 2,272,324.06 301,422.85 \$ 262,560.94 \$ 328,428.33 \$ 654,145.49		- \$ - No     Accelerated from 2014 to 2013 to offset delays on other     - \$ - No projects.
V-050 Valve Auto - Winton Avenue, 1V, 40 23647 23647 30842329 Ph. 1			990,926.47 \$ 346,310.26 \$ 124,215.91 \$ 432,022.22		- \$ - No
V-016 Valve Auto - Crystal Springs, 4V, 41 23603 23603 30843884 Ph. 1	Hillsborough Underground 22	Jul-13 5-Dec-13 \$ 4,392,392.00 \$ 4	355,013.51 \$ 412,843.40 \$ 1,292,148.79 \$ 4,836,880.29	\$ (2,186,858.97) \$ (37,378.49) \$	- \$ - No Delayed from 2012 to 2013 due to permitting delays.
R-007 L-108_1A REPL 2.19MI MP 37.14- 42 24077 27594 30843913 38.17 PH1 I-003 L-300B MP 299-351.8 UPGRADE PH-	Stockton Snelson 23	Oct-13 20-Dec-13 \$ 12,691,746.00 \$ 8	.107,777.91 \$ 705,932.44 \$ 1,478,383.19 \$ 5,110,870.00	\$ 812,776.77 \$ (4,583,968.09) \$	Accelerated from 2014 to 2013 to incorporate adjacent segments identified as high priority upon completion of 184.49 \$ - No data validation. Job Estimate (JE) in progress.
43 24017 24017 30846924 1					- \$ - No
44 24023 24023 30846926 I-005 L-300A MP 299-352 UPGRADE PH-1 I-006 L-132 MP 31.96-38.39 UPGRADE PH 45 24025 24025 30846928 1	-	Mar-13 27-Jul-13 \$ 12,223,488.00 \$ 12 Sep-13 13-Dec-13 \$ 2,750,138.00 \$ 5	444,856.38 \$ 3,926,225.65 \$ 2,766,102.95 \$ 4,436,665.77 123,302.10 \$ 530,605.26 \$ 460,598.48 \$ 2,379,414.61		- \$ - No      Delayed from 2012 to 2013 to coordinate with Crystal     Springs Valve Auto project which was rescheduled due to     - \$ - Yes permitting delays for efficiency and cost effectiveness.
R-029 L-109 REPL 0.71MI MP 9.27-9.87					This portion of the original project was tied-in in 2012 with another 149 feet to be completed in 2013 because a school could not take the outage required for clearance in 2012; however, it has now been delayed until 2014 to coincide with other work on the line so that portion has been split to a separate project (PSRS 30791) and this portion is now being reported for completeness despite the 2012 tie-in date. Risks realized on the 2012 portion of this project
46         23365         23366         30847128         Spread GA           V-030 Valve Auto - Antioch Terminal, 5V,         V-030 Valve Auto - Antioch Terminal, 5V,           47         24281         30014         30847360         Ph. 1		Jul-12 20-Dec-13 \$ 11,097,878.39 \$ 13 Jul-13 19-Dec-13 \$ 2,874,570.00 \$ 4	297,348.77 \$ 787,507.59 \$ 652,657.34 \$ 10,369,467.15 442,412.10 \$ 1,021,707.53 \$ 730,898.40 \$ 2,731,705.25		7,088.93 \$ - Yes were reported in Q1-13 Table 19-1.
48         24288         20847365         V-038 Valve Auto - San Pablo, 3V, Ph. 1           V-032 Valve Auto - San Pablo, 3V, Ph. 1         V-032 Valve Auto - San Pablo, 3V, Ph. 1           49         24284         20847366	San Pablo GT/GC 12-	Mar-13 18-Apr-13 \$ 1,103,042.00 \$	541,632.18 \$ 180,621.40 \$ 167,589.21 \$ 362,575.00 303,317.04 \$ 107,506.82 \$ 71,529.14 \$ 481,176.08	\$ (169,153.43) \$ (561,409.82) \$	- \$ - No - \$ - No
49         24264         30847360         40, F11           R-124 DFM-1306-06 REPL 0.01MI MP 0.00           50         24889         24889         30865359         0.01 PH1	-		305,517,04 \$ 107,508,52 \$ 71,525,14 \$ 461,176,06 335,726,48 \$ 278,235,89 \$ 47,962,55 \$ 140,823,08		NO 108,254.70 \$ - No
R-110 DFM-3008-01 REPL 0.05MI MP 7.99 51 24895 24895 30865385 8.02 PH1		un-13 11-Oct-13 \$ 1,136,873.00 \$	206,769.87 \$ 34,259.68 \$ - \$ 6,209.79	\$ 404,897.67 \$ (930,103.13) \$	Project completed in conjunction with and included in Job Estimate (JE) for Valve Auto project Walnut Ave (PSRS 38,597.27 \$ - No 23631).
R-133 L-167 REPL 4.75MI MP 29.77-34.53 52 23845 27960 30894011 PH1 R-051 L-210A REPL 1.27MI MP 24.14-	Yuba City GC/Barnard 8-	Apr-13 24-Jul-13 \$ 27,628,200.00 \$ 22	.824,905.92 \$ 3,704,356.49 \$ 3,043,075.10 \$ 14,444,622.71	\$ 1,632,851.62 \$ (4,803,294.08) \$	- \$ - No Delayed from 2012 to 2013 in order to minimize revenue
53 23698 26843 30915264 25.41 PH1		Vlay-13 27-Aug-13 \$ 7,088,981.00 \$ 5			<ul> <li>- \$ - No impacts to land owners.</li> <li>Valve Automation site selected at California Ave. (1 of 2) will be automated instead of Antioch Town Meter Station</li> </ul>
54         27532         27532         30930252         V-031A Valve Auto - California, 1V, Ph. 1           R-131 L-119B-1 REPL 0.03MI MP 0.00-         R-131 L-119B-1 REPL 0.03MI MP 0.00-           55         24902         27712         30935230         0.03 PH1		Aug-13 14-Nov-13 \$ 2,018,640.00 \$ 1 Aay-13 14-Jun-13 \$ 1,325,977.00 \$ 1			- \$ - No for constructability and cost reasons. Delayed from 2012 to 2013 for efficiency reasons to - \$ - No coordinate work with L-1198 Tests planned in 2013.
R-139 L-131Y REPL 0.01MI MP 0.53-0.54 56 24903 24903 30939632 PH1	Brannan Isid Park GT/GC 25-	Apr-13 10-May-13 \$ 597,584.00 \$	564,345.69 \$ 349,921.68 \$ 18,089.52 \$ 124,631.66	\$ 71,702.83 \$ (33,238.31) \$	Delayed from 2012 to 2013 to allow more time for - \$ - No engineering after a portion of the line was deactivated.
R-132 DFM-7222-01 REPL 10.23MI MP 57 23470 27890 30940034 0.99-11.16 PH1		Jul-13 16-Nov-13 \$ 43,732,738.00 \$ 31			Added as new replacement project from filed test project (PSRS 28511) and accelerated from 2014 to 2013 due to a necessary diameter increase on the line for a capacity 13,352.59 \$ No increase.
V-039A Valve Auto - Clayton Reg Station,					Valve Automation site selected at Clayton Regulator Station instead of Crystal Ranch for constructability and cost reasons. Delayed from 2012 to 2013 to allow time for
58 27893 27893 30941517 1V, Ph. 1 R-134 L-114_2 REPL 3.59MI MP 12.68- 59 23688 27979 30943472 16.54 PH1		un-13 15-Aug-13 \$ 1,956,148.00 \$ 1 Jan-13 19-Oct-13 \$ 25,480,174.37 \$ 25	.530,922.47 \$ 388,506.10 \$ 201,000.59 \$ 818,138.07 .571,711.20 \$ 5,165,114.41 \$ 4,531,428.72 \$ 11,377,821.41		<ul> <li>- \$ - No engineering and planning at this new location.</li> <li>Delayed from 2012 to 2013 due to complicated installation methods which require an additional easement and to 1,992.47 \$ - No coordinate with other work in the City of Brentwood.</li> </ul>
R-069 L-050A Transfer 5.09MI MP 2.55- 60 23790 25790 30943473 7.60 PH1 R-140 L-118A Transfer 6.15MI MP 0.00-			258,885.15 \$ 1,163,199.47 \$ 97,144.71 \$ 608,178.69		Added as new replacement/transfer project from filed test project as a result of data validation. Added new project for this transfer to distribution because a new line is being installed instead of L-111A and L-118A which run parallel. Both of these lines are being transferred to distribution where they connect to the new
61 23743 28091 30947578 5.62 PH1 V-083 Valve Auto - Helm Tap Station, 1V,	Fresno GT/GC	N/A 5-Oct-13 \$ 622,594.00 \$	3,908.04 \$ - \$ 47,770.80 \$ 114,766.53	\$ (158,629.29) \$ (618,685.96) \$	- \$ - No line. JE in progress. New Valve Automation project combined with ILI project to
62         N/A         29461         30969689         Ph. 1           V-084 Valve Auto - West Ford Ave, 1V,           63         N/A         29463         30969692         Ph. 1			448,209.89 \$ 175,653.42 \$ 95,096.69 \$ 143,229.25 424,160.87 \$ 187,036.88 \$ 84,136.35 \$ 111,848.99		- \$ - No increase cost effectiveness and support standardization.     New Valve Automation project combined with ILI project to     increase cost effectiveness and support standardization.
V-087 Valve Auto - L-138 Adams Elm Mtr           64         N/A         29637         30976004         RegStn, 1V, Ph. 1           TIM-042-12, Line L-057A-MD1, McDonald         65         24183         25897         41482931         Island	Fresno Snelson 17		535,066.08 \$ 152,075.14 \$ 84,202.95 \$ 270,135.11	\$ 28,652.88 \$ (159,819.92) \$	New Valve Automation project combined with ILI project to New Valve Automation project combined with ILI project to increase cost effectiveness and support standardization. Delayed from 2012 to 2013 to aid in balancing the use of 36,318.57 \$ - No GC resources.
66 23511 25860 41600040 TIM-022C-12, Line L-191-1, Walnut Creek	Walnut Creek ARB 3-	un-13 26-Jul-13 \$ 4,650,684.00 \$ 3	618,341.80 \$ 1,310,553.53 \$ 36,685.14 \$ 2,829,500.64	\$ 403,440.18 \$ (1,032,342.20) \$ 8	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. JE includes TIM-022C-12 and TIM-022D-12- split occurred post 300,446.16 \$ - No estimate. TIM-022B-12 is ~61% of original length.

PSEP Filing Line # PSRS New PSRS Order Number Project Description City	Construction Contractor Mobilizatio	n Date Tie-in Date Job Estimate Amount Total Co	t Labor Cost Materials Cost Contracts	Cost Other Cost Variance to Budget PSEP	>10% Disallowed Cost Non-PSEP costs Bud	
67 23511 25860 41600040 TIM-022D-12, Line L-191-1, Walnut Creek Walnut Creek	k ARB 3-Jun	3 26-Jui-13 See TIM-022C-12 See TIM-022	-12 See TIM-022C-12 See TIM-022C-12 See TIM-022	2C-12 See TIM-022C-12 See TIM-022C-12 See TIM-	-022C-12 N	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. JE includes TIM-022C-12 and TIM-022D-12- split occurred post estimate. TIM-022B-12 is ~61% of original length.
07 23311 23800 4100040 Hitti-022012, Elle 01311, Walling Creek Walling Creek	וועכע סאא	3 2030F33 366 HWF022C12 366 HWF022	12 See HM-022C-12 See HM-022C-12 See HM-022	2012 See HW-022012 See HW-022012 See HW-	N 1022-12	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. JE includes TIM-022C-12 and TIM-022D-12- split occurred post
68         23511         25860         41600040         TIM-022B-12, Line L-191-1, Walnut Creek         Walnut Creek           69         23511         25861         41600041         T-023-12, Line L-191-1, Martinez         Martinez	k ARB 3-Jun ARB 9-Jul-				-022C-12 N 1,448.39 \$ - Ye	o estimate. TIM-022B-12 is ~61% of original length. Delayed from 2012 to 2013 to accommodate other higher
70         23856         25891         41600049         T-039A-12, Line DFM-1615-01, Modesto         Modesto           TIM-043-12, Line L-057A-MD1, McDonald         TIM-043-12, Line L-057A-MD1, McDonald         McDonald Isla           71         24183         25896         41600051         Island         McDonald Isla	Snelson 10-Jul nd ARB 14-Jar			600.17 \$ 65,950.99 \$ (16,414.04) \$ 846.97 \$ 21,662.27 \$ (657,799.41) \$	2,286.29 \$ - N 1,151,561.59 \$ - N	o priority tests for Integrity Management in 2012. Delayed from 2012 to 2013 to aid in balancing the use of
72         23510         25902         41600053         T-046-12, Line L-138, Fresno         Fresno           73         23493         25820         41600057         T-051A-12, Line L-142N, Bakersfield         Bakersfield	Snelson 12-Ap Snelson 1-Jul-			542.98 \$ 65,970.28 \$ (13,729.84) \$ 665.89 \$ 93,801.87 \$ 1,703,664.26 \$	- \$ - N 303,673.74 \$ - Ye	o during clearance. Delayed from 2012 to 2013 to accommodate other higher
74         23493         25820         41600057         T-051B-12, Line L-142N, Bakersfield         Bakersfield           75         23493         25820         41600057         T-051C-12, Line L-142N, Bakersfield         Bakersfield	Snelson 1-Jul- Snelson 1-Jul-					s priority tests for Integrity Management in 2012. Delayed from 2012 to 2013 to accommodate other higher
76         23493         25820         41600057         T-051D-12, Line L-142N, Bakersfield         Bakersfield           77         23493         25820         41600057         T-051E-12, Line L-142N, Bakersfield         Bakersfield	Snelson 1-Jul- Snelson 1-Jul-					s priority tests for Integrity Management in 2012. Delayed from 2012 to 2013 to accommodate other higher
78 23554 25866 41600069 T-082-12, Line L-119B, Sacramento Sacramento 79 23874 25841 41613030 T-015-12, Line L-131_2, Oakley Øakley	SE Pipe Line 28-Ma H&M 6-Mar			566.62 \$ 59,886.81 \$ (272,196.92) \$ 831.88 \$ (386,084.90) \$ (1,098,735.56) \$	-\$-N	o priority tests for Integrity Management in 2012. Delayed from 2012 to 2013 to accommodate other higher
80         24188         25870         41617917         T-028-12, Line DFM-2403-12, Fremont         Fremont           81         23856         25889         41617922         T-038-12, Line DFM-1615-01, Modesto         Modesto	Underground 6-May Snelson 1-Jul-			623.13 \$ 177,604.33 \$ 173,441.35 \$ 420.30 \$ 142,819.54 \$ 1,834,034.93 \$	- \$ - N 126,636.99 \$ - Ye	Delayed from 2012 to 2013 to accommodate other higher
82         23533         25833         41617931         TIM-065-12, Line L-021C, Penngrove         Penngrove           83         23554         25864         41617941         T-081-12, Line L-119B, North Highlands         North Highlands	ARB 14-Aug ds GT/GE 14-Aug			374.29 \$ (2,725.84) \$ (1,488,767.93) \$ 395.57 \$ 225,442.47 \$ (56,665.52) \$	412,825.40 \$ - N 23,251.12 \$ - N	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
84         24216         25884         41617946         T-093-12, Line L-210C, Vallejo         Vallejo           85         23905         25904         41622643         T-101-12, Line DFM-3010-01, Antioch         Antioch	ARB 1-Apr ARB 21-Jar			561.65 \$ 125,436.12 \$ 364,607.46 \$ 573.49 \$ 14,913.48 \$ (526,377.09) \$	97,351.48 \$ - Ye 1,065,918.54 \$ - N	Delayed from 2012 to 2013 to coordinate with the customer planned shutdown during hydrotest.
86 23690 27760 41710903 T-285-13, Line X6526, Kettleman City Kettleman Cit 87 23872 27648 41743424 TIM-267-13, Line DFM-1813-02, Marina Marina				199.77 \$ 83,643.74 \$ (84,226.62) \$	1,375,652.38 \$ - N 412.892.63 \$ - N	
87         23872         27648         41743424         TIM-267-13, Line DFM-1813-02, Marina         Marina           88         23872         27649         41743426         T-269A-13, Line DFM-1813-02, Monterey         Seaside           89         23872         27649         41743426         T-269B-13, Line DFM-1813-02, Monterey         Monterey	Underground 5-Aug Underground 1-Jul- Underground 23-Jul	3 12-Aug-13 \$ 3,216,887.00 \$ 2,692,5	98.47 \$ 421,772.96 \$ 18,083.35 \$ 2,151,7	715.47 \$ 101,026.69 \$ (524,288.53) \$	2,314.70 \$ - N	o JE includes T-269B-13. T-269A-13 is ~37% of original length.
90         23672         27653         41743428         T-2055-13, Line DFM-7223-01, Turlock         Wolnettey           91         23472         27651         41743428         T-2728-13, Line DFM-7223-01, Turlock         Turlock           92         23478         27652         41743429         TIM-273-13, Line DFM-7226-01, Modesto         Modesto	Underground 23-Jul Snelson 12-Au Snelson 12-Au Snelson 29-Ap	13         24-Oct-13         \$ 2,519,543.00         \$ 3,473,6           13         8-Oct-13         See T-272A-13         See T-272A-1	53.29 \$ 458,598.35 \$ 41,833.25 \$ 2,881,4 3 See T-272A-13 See T-272A-13 See T-272A-	419.73 \$ 91,801.96 \$ 954,110.29 \$	- \$ - Ye	is is
92         23570         27603         41749425         Time 27313, time DFM-0215-01, Belmont         Belmont           94         23532         27604         41744015         T-217-13, time DFM-0215-01, Belmont         Belmont           95         23532         27604         41744017         T-218-13, Line L-021B, Napa         Napa           95         23532         27606         41744221         T-220-13, Line L-021B, Petaluma         Petaluma           96         24212         27608         41744226         T-223A-13, Line L-050A-1, Marysville         Marysville	Underground 14-Jur ARB 29-Ap ARB 19-Jur Barnard 6-May	13         28-Jul-13         \$         2,226,907.00         \$         1,950,3           13         8-Jun-13         \$         2,300,066.00         \$         2,337,6           13         26-Jul-13         \$         2,139,092.00         \$         1,828,4	56.61         \$         288,556.64         \$         15,079.05         \$         1,555,7           22.19         \$         593,504.84         \$         86,213.66         \$         1,452,9           36.53         \$         507,096.32         \$         18,003.83         \$         1,157,9	705.76         \$         91,025.16         \$         (276,540.39)         \$           978.58         \$         205,225.11         \$         37,856.19         \$           949.44         \$         145,386.94         \$         (310,655.47)         \$	1,823,308.09 \$ - N - \$ - N 1,322.02 \$ - N 325,667.68 \$ - Ye	00 0 0
97         23565         27609         41744230         T-224A-13, Line DFM-0604-01, Vacaville         Vacaville           98         23569         27611         41744232         T-225A-13, Line DFM-0604-07, Vacaville         Vacaville	Barnard 21-Ma ARB 23-Au	13 21-Jun-13 \$ 2,318,531.00 \$ 1,884,2	04.62 \$ 325,427.40 \$ 51,812.65 \$ 1,434,2	202.95 \$ 72,761.62 \$ (434,326.38) \$	1,881,982.24 \$ - N	0
99         23569         27611         41744232         T-2258-13, Line DFM-0604-07, Vacaville         Vacaville           100         23876         27613         41744236         T-226-13, Line DFM-0604-07, Vacaville         Vacaville           101         23872         27632         41744767         T-268-13, Line DFM-1813-02, Seaside         Seaside	ARB 23-Au SE Pipe Line 11-Ma Underground 1-Jul-	13         22-Nov-13         See T-225A-13         See T-225A-13           13         4-Apr-13         \$         1,950,753.00         \$         1,575,5	3 See T-225A-13 See T-225A-13 See T-225A- 55.21 \$ 487,643.24 \$ 27,266.98 \$ 991,4			0
102         23550         27614         41748703         T-228-13, Line L-118B, Madera         Madera           103         23550         27615         41748704         T-229A-13, Line L-118B, Madera         Madera	Snelson 14-Jur Snelson 17-Ma	13 15-Aug-13 \$ 2,205,191.00 \$ 3,515,3	16.77 \$ 499,493.17 \$ 42,925.00 \$ 2,806,9	968.53 \$ 165,930.07 \$ 1,310,125.77 \$	62,251.82 \$ - Ye	JE includes both T-229A-13 and T-229C-13 because split occurred post estimate. T-229A-13 is ~11% of original
104         23550         27615         41748704         T-229C-13, Line L-118B, Madera         Madera           105         23550         27617         41748705         T-230-13, Line L-118B, Madera         Madera           106         23499         27621         4174874         T-239-13, Line L-162A, Tracy         Tracy	Snelson 17-Ma Snelson 26-Jul Snelson 12-Jul	13 12-Oct-13 \$ 2,697,204.00 \$ 2,796,6	93.75 \$ 311,421.98 \$ 55,013.84 \$ 2,223,0	008.53 \$ 207,249.40 \$ 99,489.75 \$	9A-13 See T-229A-13 N 1,587,353.71 \$ - N 1,472,396.88 \$ - N	occurred post estimate. T-229A-13 is ~11% of original o length and T-229C-13 ties in in Q3. o
106         23499         27621         41/489/4         1-239-13, Line L-162A, Fracy         Tracy           107         23499         27622         41748975         T-240-13, Line L-162A, Fracy         Tracy           108         23506         27623         41748976         T-241-13, Line L-177B, Chico         Chico           109         23524         28395         41756005         T-206-13, Line L-187, King City         King City           110         23524         28407         41756006         T-207-13, Line L-187, Greenfield         Greenfield	Snelson 12-Ju Snelson 7-Jun Barnard 30-Ma Underground 8-Apr Underground 8-Apr	3         15-Jul-13         \$         2,080,533.00         \$         1,172,5           13         5-Sep-13         \$         3,119,267.00         \$         3,506,7           3         20-May-13         \$         2,495,220.00         \$         2,788,2	45.62 \$ 146,547.36 \$ 5,445.97 \$ 967,7 73.15 \$ 688,696.74 \$ 159,171.74 \$ 2,497,0 12.06 \$ 552,483.03 \$ 53,134.94 \$ 2,123,8	764.03         \$         (907,987.38)         \$           055.68         \$         161,848.99         \$         387,506.15         \$           838.25         \$         58,855.84         \$         293,092.06         \$	1,472,396,88 \$ - № 1,076,22 \$ - № 139,62 \$ - ¥e 812,501,74 \$ - ¥e 600,238,06 \$ - №	0 S S
110         23524         28407         41756005         F-207-15, Line L-167, Steenmend         Greenmend           111         23524         28408         41756007         T-208A-13, Line L-187, Soledad         Soledad	Underground 22-Ma				208,914.49 \$ - N	JE includes T-208A-13, T-208B-13 and T-208C-13 because split occurred post estimate. T-208A-13 is ~29% of original
112 23524 28408 41756007 T-208B-13, Line L-187, Soledad Soledad	Underground 22-Ma					JE includes T-208A-13, T-208B-13 and T-208C-13 because split occurred post estimate. T-208A-13 is ~29% of original

Line #	PSEP Filing PSRS		Order Numbe	r Project Description	City	Construction Contractor	Mobilization Date	Tie-in Date	Job Estimate Amount	Total Cost	Labor Cost	Materials Cost	Contracts Cost	Other Cost	Variance to Budget	PSEP Disallow
113 114 115	23524 23524 23524	28408 28409 28410	41756007 41756008 41756009	T-208C-13, Line L-187, Soledad T-209-13, Line L-187, Soledad T-210-13, Line L-187, Gonzales	Soledad Soledad Gonzales	Underground Underground Underground	22-May-13 20-Jun-13 10-Jul-13	**************************************	See T-208A-13           \$         2,264,813.00           \$         2,029,602.00			\$ 24,900.59	\$ 944,156.43 \$	T-208A-13 Sev 45,440.94 \$ 14,395.72 \$	e T-208A-13 (1,021,828.29 (832,924.66	
116 117	23542 23542	28411 28411	41756012 41756012	T-211A-13, Line L-187, Chualar T-211B-13, Line L-187, Chualar	Chualar Chualar	Underground Underground	15-Aug-13 15-Aug-13		\$ 3,027,083.00 See T-211A-13	\$ 2,585,661.71 See T-211A-13	\$ 400,570.13 See T-211A-13		\$ 2,043,424.40 \$ See T-211A-13 See	69,457.77 \$ T-211A-13 Se	(441,421.29 e T-211A-13	)) \$ See T-211A-13
118	23560	23560	41756013	T-310-14, Line DFM-0141-01, Crockett	Crockett	ARB	6-May-13	19-May-13	\$ 1,620,636.00	\$ 818,575.71	\$ 223,432.99	\$ 17,155.96	\$ 554,823.53 \$	23,163.23 \$	(802,060.29	9)\$1;
119	N/A	28473	41801221	T-038B-11, Line L-132, Daly City	Daly City	Snelson	N/A	25-Feb-13	\$ 331,131.00	\$ 320,125.07	\$ 36,610.26	s -	\$     275,365.96  \$	8,148.85 \$	(11,005.93	8) \$ 3
120 121	23748 23892	28495 29093	41801222 41802284	T-281B-13, Line L-191, Antioch T-227-13, Line DFM-1023-01, Redding	Antioch Redding	ARB Barnard	27-Aug-13 12-Jul-13		\$ 2,647,577.00 \$ 2,229,921.00				\$ 1,533,265.42 \$ \$ 1,308,087.90 \$	153,408.45 \$ 45,356.24 \$	(532,295.79 (573,937.38	
122	23911	31386	41858968	T-331A-14, Line DFM-1501-01, Yuba City	Yuba City	ARB	13-May-13	24-Jul-13	\$ 3,033,154.00	\$ 5,989,808.98	\$ 941,108.53	\$ 102,316.39	\$ 4,799,257.44 \$	147,126.62 \$	2,956,654.98	3\$21
123	23911	31386	41858968	T-331B-14, Line DFM-1501-01, Yuba City	Yuba City	ARB	13-May-13	30-Oct-13	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14 See	e T-331A-14 Se	e T-331A-14	See T-331A-14
124	23483	23483	41859176	T-360-14, Line DFM-7226-13, Modesto	Modesto	Snelson	29-Apr-13	8-Jun-13	\$ 1,972,730.00	\$ 1,305,677.37	\$ 203,319.42	\$ 7,188.63	\$ 1,069,742.87 \$	25,426.45 \$	(667,052.63	3)\$
125	23567	23567	41859416	T-318A-14, Line DFM-0604-06, Vacaville	Vacaville	ARB	8-Aug-13	9-Oct-13	\$ 3,479,729.00	\$ 2,700,791.53	\$ 499,403.74	\$ 61,039.97	\$ 1,971,471.29 \$	168,876.53 \$	(778,937.47	7)\$ 1,0
126	23567	23567	41859416	T-318B-14, Line DFM-0604-06, Vacaville	Vacaville	ARB	8-Aug-13	30-Oct-13	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14 See	e T-318A-14 See	e T-318A-14	See T-318A-14
127	N/A	30025	41867295	T-013C-12, Line L-109, Daly City	Daly City	ARB	26-Jul-13	12-Sep-13	\$ 2,575,831.00	\$ 4,027,231.81	\$ 526,697.67	\$ 76,533.25	\$ 3,300,504.26 \$	123,496.63 \$	1,451,400.81	1 \$ 4,0
128	23926	30056	41867640	T-282A-13, Line L-172A, West Sacramento	West Sacramento	Barnard	23-Aug-13	25-Oct-13	\$ 3,807,986.00	\$ 3,453,008.46	\$ 555,692.69	\$ 24,555.55	\$    2,730,207.35  \$	142,552.87 \$	(354,977.54	<b>1) \$ 3,4</b>
129	23926	30056	41867640	T-282B-13, Line L-172A-1, West Sacramento	West Sacramento	Barnard	23-Aug-13	25-Oct-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13 See	• T-282A-13 Se	e T-282A-13	See T-282A-13
130	N/A	30220	41877582	TS-003-13, Line GCUST5814, Palo Alto	Palo Alto	ARB	17-Jun-13	17-Jul-13	\$ 59,396.00	\$ 72,313.35	\$ 42,550.85	\$ 1,840.35	\$ 27,338.78 \$	583.37 \$	12,917.35	5 \$ ·
131	23769	30531	41899453	T-284-13, Line DFM-1815-02, Monterey	Monterey	Underground	16-Sep-13	31-Oct-13	\$ 2,054,520.00	\$ 1,282,685.69	\$ 183,597.64	\$ 14,430.51	\$ 1,054,497.65 \$	30,159.89 \$	(771,834.31	l) \$ 1,2i
132	23521	31108	41916188	T-303B-14, Line L-186, Dos Palos	Dos Palos	Underground	10-Sep-13	23-Nov-13	\$ 3,498,921.00	\$ 4,031,042.96	\$ 735,088.50	\$ 58,129.46	\$ 3,095,059.72 \$	142,765.28 \$	532,121.96	5\$
133	23521	31109	41916192	T-304-14, Line L-186, Dos Palos	Dos Palos	Underground	10-Sep-13	8-Dec-13	\$ 2,973,163.00	\$ 2,594,837.90	\$ 430,712.28	\$ 59,188.45	\$ 2,002,059.81 \$	102,877.36 \$	(378,325.10	D) \$
134	24219	29707	41918261	T-355-14, Line L-300B, Kern	Bakersfield	Snelson	7-Oct-13	30-Oct-13	\$ 3,071,278.00	\$ 1,799,285.42	\$ 122,750.40	\$ 63,008.59	\$ 1,528,210.10 \$	85,316.33 \$	{1,271,992.58	3)\$1:
135	23733	31372	41931283	T-337-14, Line DFM-1603-03, Manteca	Manteca	GT/GC	23-Sep-13	22-Oct-13	\$ 1,705,098.00	\$ 605,864.33	\$ 275,700.72	\$ 13,504.16	\$ 265,189.55 \$	51,469.90 \$	(1,099,233.67	7)\$5
136	31511	31511	41942319	T-288A-13, Line L-300B, Bear Valley Springs	Bear Valley Springs	Snelson	7-Oct-13	19-Nov-13	\$ 3,566,812.00	\$ 2,663,442.81	\$ 140,030.24	\$ 86,329.88	\$ 2,219,226.42 \$	217,856.27 \$	(903,369.19	9)\$
137	31511	31511	41942319	T-288B-13, Line L-300B, Bear Valley Springs	Bear Valley Springs	Snelson	7-Oct-13	19-Nov-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13 See	e T-288A-13 See	e T-288A-13	See T-288A-13
138	23623	23623	97000504	V-034 Valve Auto - Concord Meter Station, 1V, Ph. 1	Concord	GT/GC	29-Jul-13	12-Sep-13	\$ 1,438,881.00	\$ 897,189.71	\$ 310,858.90	\$ 126,206.60	\$ 252,752.36 \$	207,371.85 \$	(541,691.29	9) \$
139	23624	23624	97000505	V-035 Valve Auto - Vine Hill, 1V, Ph. 1	Martinez	ARB	19-Mar-13	2-Jul-13	\$ 1,539,371.00	\$ 1,955,765.65	\$ 589,262.04	\$ 165,336.02	\$ 1,044,083.42 \$	157,084.17 \$	416,394.65	5 Ş
140	23622	23622	97000521	V-033 Valve Auto - Los Medanos, 3V, Ph. 1	Concord	GT/GC	13-Apr-13	21-Aug-13	\$ 927,949.00	\$ 782,199.44	\$ 273,175.44	\$ 152,963.28	\$ 305,994.91 \$	50,065.81 \$	(145,749.56	5) \$
141	24909	24909	97000661	R-043 SP4Z RETIRE 0.42MI MP 8.18-8.43 PH1	Oakley	H&M	6-Mar-13	24-Apr-13	\$ 259,826.00	\$ 410,405.36	\$ 108,523.21	\$ 3,755.15	\$ 334,784.88 \$	(36,657.88) \$	150,579.36	5 \$
142	24254	28282	97001181	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Antioch	ARB	15-May-13	4-Oct-13		\$ 1,684,588.74			\$ 2,240,066.77 \$		278,543.74	

wed Cost	Nic	on-PSEP costs	>10% Over Budget	Comments
A CONTRACTOR OF A		ALC: CONSTRUCTION DE LA CONSTRUCTICA DE LA CONSTRUC	- Budger	JE includes T-208A-13, T-208B-13 and T-208C-13 because
	Selected and selected	-208A-13	No	split occurred post estimate. T-208A-13 is ~29% of original length and T-208B-13, T-208C-13 tie-in in Q3.
-	\$	-	No	
17,158.88	ş		No	
652.18	Ş	-	No	JE includes T-211B-13 found in Table 12-1.
	see	-211A-13	No	JE includes T-211B-13 found in Table 12-1.
180,067.50	\$	-	No	Accelerated from 2014 to 2013 due to Class 3 Location.
				Delayed from 2011 to 2013 and split from T-038-11 (PSRS 24530) to coordinate this pipeline section within Martin
320,125.07	\$	-	No	Station within that station rebuild project. Added new test project from filed replacement project as a
-	\$	-	No	result of data validation.
172,209.61	\$	•	No	
	4			Accelerated from 2014 to 2013 to offset delays on other
287,733.34	\$		Yes	projects. JE includes T-331B-14 also. Accelerated from 2014 to 2013 to offset delays on other
	See 1	-331A-14	Yes	projects. JE includes T-331B-14 also. Accelerated from 2014 to 2013 to offset delays on other
976.72	\$	-	No	projects.
				Accelerated from 2014 to 2013 to offset delays on other
.005,577.81	\$	-	No	projects. Accelerated from 2014 to 2013 to offset delays on other
	See 1	-318A-14	No	projects. Delayed from 2012 to 2013 due to permitting delays with
,027,231.81	\$		Yes	Caltrans.
				Added as a new test, some segments from replacement
				and some new to PSEP - initially proposed replacement
				project could not be completed due to site conditions
442,933.56	\$	-	No	limiting constructability.
				Added as a new test, some segments from replacement
				and some new to PSEP - initially proposed replacement
	500 T	-282A-13	No	project could not be completed due to site conditions limiting constructability.
	JCC )	-2027-13	no	minung constructionity.
				Added new test from filed replacement project and
72,313.35	\$	-	Yes	accelerated from 2014 to 2013 for constructability reasons.
.282,685.69	\$	-	No	Accelerated to support system needs. Accelerated from 2014 to 2013 to offset delays on other
73,706.49	\$	-	Yes	projects.
				Accelerated from 2014 to 2013 to offset delays on other
•	\$	- 10 A	No	projects.
437 363 65	~			Accelerated from 2014 to 2013 to offset delays on other
127,203.89	\$	-	No	projects. Added test from filed replacement project as a result of
575,889.75	\$	-	No	data validation.
***********************************	Ś		No	Accelerated from 2014 to 2013 to offset delays on other
-	Ş	-	INO	projects. Accelerated from 2014 to 2013 to offset delays on other
	See 1	-288A-13	No	projects.
-	Ś	897,189.71	No	
	u Tuesee			Pending cost reallocation (\$300,000 to StanPac order
				97001801). Once complete, this project will not have a
	\$	1,955,765.65	Yes	>10% variance over the budget.
-	\$	782,199.44	No	
				Delayed from 2012 to 2013 for efficiency reasons to
				coordinate work with other PSEP projects in the Antioch
•	\$	410,405.36	Yes	Terminal Area.
				Valve Automation site selected at Delta Fair (1 of 2) instead of Antioch Town Meter Station for constructability
	Ś	-	Yes	and cost reasons.

Line #	PSEP Filing PSRS	New PSRS	Project Description	Mobilization Date	Tie-in Date	Job	Estimate Amount
1	23867	26041	R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1	7/22/2013	1/10/2014	\$	34,249,047.00 Delayed from 2013 to 2014 due
		***************************************					Delayed from 2012 to 2013 due
2	24009	24009	I-001 L-131 MP 50.5-57.4 UPGRADE PH-1	2/14/2013	1/16/2014	\$	5,786,394.00 resource allocation to other high
							Added to replace filed Valve Aut
3	N/A	30094	V-068A Valve Auto - Airport & Louise, 3V, Ph. 1	10/1/2013	1/17/2014	\$	2,774,933.00 efficiency reasons due to constru
4	23926	29247	R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1	8/19/2013	1/27/2014	\$	34,400,009.99 Added as new replacement proje
							Added as new replacement proje
							removed due to records verified
5	24272	29275	R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH1	9/17/2013	1/27/2014	\$	6,321,674.00 10" transmission line will run par
						******	Delayed from 2012 to 2013 due
							was completed in 2013 with tie-i
							during winter when gas loads are
6	23533	28472	R-144 L-021C REPL 0.89MI MP 50.44-51.40 PH1	10/7/2013	1/30/2014	\$	12,248,463.00 in activities.
							Added as a new Valve Automatic
							efficiency reasons and to allow f
7	N/A	29634	V-085 Valve Auto - L-300A MLV 328.06, 1V, Ph. 1	12/5/2013	3/5/2014	\$	- Estimate) in progress.
							Added as a new Valve Automatic
8	N/A	29635	V-086 Valve Auto - L-300B MLV 327.83, 1V, Ph. 1	12/5/2013	3/6/2014	\$	- efficiency reasons and to allow f
							Delayed from 2013 to 2014 due
							construction and subsequently d
9	23811	23811	R-062 DFM-0603-01 REPL 0.68MI MP 0.00-0.57 PH1	7/15/2013	4/21/2014	Ş	2,006,181.00 winter gas loads.
-				,,			Delayed from 2013 to 2014 due
							construction and subsequently d
10	23780	29401	R-064 DFM-0604-16 REPL 0.19 MI MP 0.00-0.18 PH1	10/1/2013	4/24/2014	\$	895,352.00 winter gas loads.
						T.	Accelerated from 2014 to 2013 t
11	24890	27904	R-202 DFM-1607-01 REPL 1.11MI MP 0.00-1.62 PH1	7/1/2013	5/29/2014	\$	5,486,817.00 to 12" to increase system capacit
12	23657	23657	V-054 Valve Auto - Brentwood Terminal, 8V, Ph. 1	9/3/2013	11/14/2014	\$	- Delayed from 2013 to 2014 due
13	23597	23597	V-010 Valve Auto - Commercial Way, 0V, Ph. 1	4/17/2013	1/7/2014	Ś	4,793,539.00 Delayed from 2012 to 2013 due
	23331			7/17/2013		7	

## Comments

e to construction related delays. e to workspace limitations at Milpitas Station and gher priority PSEP work.

uto project Airport & Yosemite (PSRS 23664) for cost and truction complexities at the filed project site.

oject as a result of data validation.

oject from filed test project after most of test was ed. Downgrading to distribution pressure because a new parallel.

ue to schedule and workload balancing. Pipe installation e-in delayed to 2014 due to resource planning constriants are high with the T&R crews which are necessary for tie-

tion project (originally part of ILI scope) for cost / for standardization of Valve Automation. JE (Job

tion project (originally part of ILI scope) for cost / for standardization of Valve Automation. JE in progress. e to environmental/species impacts experienced during / due to clearance schedule balancing related to high

e to environmental/species impacts experienced during y due to clearance schedule balancing related to high

3 to accommodate a planned diameter increase from 8" city.

e to scheduling and workload balancing. JE in progress. e to clearance constraints.

	PSEP Filing			Mobilization		Job Estimate
Line #	PSRS	New PSRS	Project Description	Date	Tie-in Date	Amount
1	23776	31978	RT-029 DREG5483-NV REPL PH1	1/8/2014	1/21/2014 \$	5 - JE (Job Estimate) in progress.
2	23749	31970	RT-022 DREG4873-MI REPL PH1	1/15/2014	1/24/2014 \$	
3	23776	31979	RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1	1/20/2014	1/31/2014 \$	5 - JE in progress.
4	23785	32017	RT-066 STUB6099-YO REPL PH1	1/24/2014	2/5/2014 \$	· , č
5	23787	31998	RT-043 DREG4548-SI REPL PH1	2/1/2014	2/15/2014 \$	5 - JE in progress.
6	23689	31993	RT-047 DCUST2473-SJ REPL PH1	2/1/2014	2/15/2014 \$	5 - JE in progress.
7	23749	31972	RT-024 STUB7837-MI REPL PH1	2/17/2014	2/21/2014 \$	5 - JE in progress.
8	23785	32015	RT-064 DREG4453-YO REPL PH1	2/8/2014	2/21/2014 \$	
						Delayed from 2013 to 2014 due to difficulty i
9	23780	29425	R-152 DFM-0604-16 DWNRT 0.31MI MP 0.18-0.50 PH1	2/3/2014	2/27/2014 \$	
10	23787	31999	RT-044 DREG4567-SI REPL PH1	2/17/2014	3/1/2014 \$	
11	23749	31969	RT-021 DREG4872-MI REPL PH1	3/3/2014	3/7/2014 \$	
12	24890	31595	R-211 L-220 Dresser Coupling Mitigation MP3.02	3/1/2014	3/8/2014 \$	
						Added from filed valve auto project then dela
13	23657	31596	R-212 L-220 Dresser Coupling Mitigation MP34.11	3/1/2014	3/8/2014 \$	
14	23749	31971	RT-023 GCUST5901-MI REPL PH1	2/24/2014	3/8/2014 \$	
15	23787	32000	RT-045 STUB6039-SI REPL PH1	3/3/2014	3/8/2014 \$	
16	23789	31822	R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH1	3/1/2014	3/14/2014 \$	
17	23787	32001	RT-046 STUB6041-SI REPL PH1	3/10/2014	3/15/2014 \$	
18	23689	31996	RT-050 DREG4161-SJ REPL PH1	3/3/2014	3/15/2014 \$	
						Added as short replacement project for cost e
						removed from PH1 due to records verification
19	23529	29053	R-145 L-306 REPL 0.01MI MP 43.30-43.31 PH1	3/19/2014	3/25/2014 \$	
20	23750	31948	RT-001 DF3429-CC REPL PH1	3/17/2014	3/29/2014 \$	
21	24202	30907	T-300-14, Line L-2, Los Banos	2/11/2014	3/31/2014	
						Added as new nitrogen test project from filec
						under a railroad, then delayed from 2013 to 2
22	24898	29426	TS-001-13, Line L-105N-3, Oakland	2/24/2014	3/31/2014 \$	
23	23787	30979	TS-015-14, Line GCUST5765, Live Oak	3/3/2014	3/31/2014 \$	
24	23673	23673	V-060 Valve Auto - N Sac Ugnd Hldr, 3V, Ph. 1	1/21/2014	4/3/2014 \$	
25	N/A	31693	R-066 L-119B REPL 1.12MI MP 0.59-2.23 PH1	1/29/2014	4/10/2014 \$	
26	23740	31981	RT-032 DREG3759-PN REPL EXPENSE PH1	4/4/2014	4/11/2014 \$	
27	23728	29124	R-230 L-103 REPL 0.01MI MP 22.20-22.21 PH1	3/12/2014	4/12/2014 \$	
28	23668	23668	V-066 Valve Auto - Cordelia, 6V, Ph. 1	1/22/2014	4/19/2014 \$	
29	23471	23471	T-235-13, Line L-131Z, Rio Vista	3/3/2014	4/21/2014 \$	•
30	24202	30908	T-301-14, Line L-2, Westley	3/6/2014	4/28/2014 \$	
31	23665	23665	V-058 Valve Auto - 24th & 20th Ave, 3V, Ph. 1	1/31/2014	4/28/2014 \$	· · · · · · · · · · · · · · · · · · ·
32	23828	31369	T-405-14, Line DFM-1209-01, Fowler	3/11/2014		5 - JE in progress.
33	23652	23652	V-074 Valve Auto - Union Ave Meter Reg Sta, 1V, Ph. 1	3/15/2014	4/29/2014	
						Delayed from 2013 to 2014 due to design cor
34	23539	31771	T-215-13, Line L-400, Antioch	3/13/2014	5/1/2014 \$	
35	23973	23973	V-077 Valve Auto - Cummings Creek, 1V, Ph. 1	3/1/2014	5/1/2014	
36	23974	23974	V-078 Valve Auto - Tompkins Hill, 2V, Ph. 1	3/11/2014	5/5/2014 \$	
37	23907	29715	T-358-14, Line DFM-6603-01, Ridgecrest	3/4/2014	5/6/2014	
38	23849	23849	R-201 DFM-0404-11 REPL 0.02MI MP 0.00-0.04 PH1	3/17/2014	5/8/2014 \$	
39	23750	31951	RT-004 DREG5148-CC REPL PH1	4/28/2014	5/10/2014	
40	23731	30881	R-195 L-162A REPL 0.85MI MP 6.62-7.40 PH1	4/2/2014	5/14/2014 \$	· · ·
41	23667	23667	V-067 Valve Auto - Ripon-Modesto, 3V, Ph. 1	2/17/2014	5/16/2014	
42	23579	23579	T-335-14, Line DFM-1502-11, Marysville	4/18/2014	5/17/2014 \$	5 - JE in progress.
			R-200 L-114 REPL 0.12MI MP 16.75-16.86 PH1	3/13/2014	5/20/2014 \$	5 - Added as new project as a result of data valid
43	N/A	31293		nterentinterenterenterenterenterenterent		t
44	23912	30945	T-332A-14, Line DFM-1501-02, Yuba City	4/3/2014	5/20/2014	
44 45	23912 23750	30945 31952	T-332A-14, Line DFM-1501-02, Yuba City RT-005 STUB6203-CC REPL PH1	4/3/2014 5/12/2014	5/24/2014 \$	5 - JE in progress.
44	23912	30945	T-332A-14, Line DFM-1501-02, Yuba City	4/3/2014	NIN MALAN MANANANANANANANANANANANANANANANANANAN	5 - JE in progress. 5 - JE in progress.

Comments in acquiring initial as-builts and subsequent design completion. JE in layed from 2013 to 2014 to coordinate with other work in the vicinity. t efficiency reasons because all except these 50 ft. of filed test was on; subsequently delayed from 2013 to 2014 due to schedule and ed replacement project for cost efficiency reasons because the line runs 2104 due to long lead permitting required from the railroad company. test project as a result of data validation. JE in progress. ith other work in the vicinity. JE in progress. complexities related to the building of a bypass to support power plants ata validation. JE in progress. idation that identified a class location change. JE in progress.

	PSEP Filing			Mobilization		Job Estimate	
Line #	PSRS	New PSRS	Project Description	Date	Tie-in Date	Amount	
48	23690	31961	RT-014 DREG4794-FR REPL PH1	5/16/2014	5/30/2014	\$-	JE in progress.
49	24059	32296	T-406-14, Line L-057A, Discovery Bay	4/8/2014	5/30/2014	\$ -	Added as new test from filed replacement pro
50	23741	31956	RT-009 STUB8203-DI REPL EXPENSE PH1	5/19/2014	5/31/2014	\$ -	JE in progress.
51	23785	32011	RT-060 DF3338-DREG4460-YO REPL PH1	5/13/2014	5/31/2014	\$-	JE in progress.
52	23648	23648	V-076 Valve Auto - Bakersfield Tap, 3V, Ph. 1	4/15/2014	6/2/2014	\$-	JE in progress.
53	23520	30925	T-345B-14, Line L-197B, Woodbridge	4/10/2014	6/4/2014	\$-	JE in progress.
54	24055	31276	R-206 L-021H REPL 0.01MI MP 1.07-1.07 PH1	5/2/2014	6/6/2014	\$-	JE in progress.
55	23912	30946	T-332B-14, Line DFM-1501-02, Yuba City	4/3/2014	6/10/2014	\$-	JE in progress.
56	23796	29633	R-153 L-021C REPL 0.19MI MP 34.84-35.04 PH1	5/20/2014	6/12/2014	\$-	JE in progress.
57	23815	23815	R-010 L-108_2 REPL 0.14MI MP 48.16-48.20 PH1	4/5/2014	6/13/2014	\$-	JE in progress.
58	23895	31054	T-348-14, Line DFM-2408-01, Pleasanton	4/17/2014	6/13/2014	\$-	JE in progress.
59	23741	31957	RT-010 STUB9046-DI REPL EXPENSE PH1	6/2/2014	6/14/2014	\$-	JE in progress.
60	23740	31983	RT-034 DREG4339-PN REPL EXPENSE PH1	6/2/2014	6/14/2014	\$-	JE in progress.
61	23785	32012	RT-061 DREG4420-YO REPL PH1	6/2/2014	6/14/2014	\$-	12 m p 08 000
62	23481	30889	T-375-14, Line DFM-7226-02, Modesto	5/9/2014	6/14/2014	\$ -	Delayed from 2013 to 2014 due to schedule and
							Delayed from 2013 to 2014 because this proje
							requires an outage on Line 57B, on which then
63	23661	23661	V-056 Valve Auto - Bixler Rd, 3V, Ph. 1	1/21/2014	6/14/2014	\$ -	PG&E's storage facilities on McDonald Island.
64	24055	31267	R-199 L-021H REPL 0.06MI MP 6.38-6.42 PH1	5/14/2014	6/17/2014	\$ -	· - ·
65	23867	31042	R-188 L-220 REPL 0.52MI MP 19.37-19.92 PH1	5/10/2014	6/20/2014	ş -	
00	23007	31042	1100 E 220 ALI E 0.52100 WI 15.57 15.52 111	5/10/2014	0,20,2014	<del>7</del>	Delayed from 2012 to 2014 to allow time for a
66	23934	30944	TIM-364-14, Line DFM-1401-01, San Francisco	5/6/2014	6/20/2014	\$-	specifications prior to testing. JE in progress.
67	23672	23672	V-064 Valve Auto - East Fairfield Crossover, 4V, Ph. 1	5/5/2014	6/20/2014	\$ -	
68	23894	23894	T-322-14, Line DFM-1027-01, Oroville	5/15/2014	6/21/2014	\$ -	JE in progress.
69	23669	23669	V-059 Valve Auto - Yolo Causeway Blvd Tie, 2V, Ph. 1	3/26/2014	6/23/2014	ş -	
		20005		572572521	0,20,202.	×	Added from filed test project due to short leng
70	27628	30338	R-187 DFM-1816-15 REPL 0.03MI MP 3.04-3.07 PH1	5/29/2014	6/25/2014	\$-	hydrotest. JE in progress.
71	23679	23679	V-062 Valve Auto - Paramount Court, 1V, Ph. 1	4/15/2014	6/26/2014	\$ -	
72	23718	31973	RT-025 BD8547-X6342-NB REPL PH1	6/16/2014	6/28/2014	\$ -	JE in progress.
73	23740	31982	RT-033 DREG4198-PN REPL EXPENSE PH1	6/16/2014	6/28/2014	\$ -	JE in progress.
74	23911	31370	T-368-14, Line DFM-1501-01, Yuba City	5/16/2014	6/30/2014	\$ -	JE in progress.
75	23559	23559	T-325-14, Line L-126A, Humboldt Hill	5/20/2014	7/10/2014	\$ -	JE in progress.
76	23753	31953	RT-006 DFDS3587-DA REPL PH1	5/15/2014	7/12/2014	\$ -	
77	23718	31974	RT-026 DF3223-DREG3870-NB REPL PH1	6/30/2014	7/12/2014	\$ -	
78	23928	31984	RT-035 DFDS3613-DREG4482-SA REPL PH1	6/24/2014	7/12/2014	\$ -	JE in progress.
79	23744	32003	RT-053 X6335-SO REPL PH1	6/30/2014	7/12/2014	Ś	JE in progress.
80	23644	23644	V-080 Valve Auto - Mojave River Crossing, 2V, Ph. 1	5/28/2014	7/14/2014	\$-	
81	23650	23650	V-075 Valve Auto - Gosford Rd Mtr Sta, 3V, Ph. 1	5/28/2014	7/15/2014	\$ -	JE in progress.
82	23646	23646	V-079 Valve Auto - 2AX Pls, 2V, Ph. 1	6/11/2014	7/15/2014	\$ -	JE in progress.
83	23785	32019	RT-068 STUB6104-YO REPL PH1	6/24/2014	7/16/2014	\$ -	JE in progress.
84	23724	25719	R-067 L-109_2B REPL 0.18MI MP 2.82-10.15 PH1	4/24/2014	7/18/2014	, \$-	Delayed from 2013 to 2014 due to permitting
	22575	00575		= /20 /2014	- 40 /004 4	A	Delayed from 2012 to 2013 initially to coordin
85	23575	23575	T-075-12, Line DFM-0611-01, Sacramento	5/30/2014	7/18/2014	\$ -	the impact on customers and to coordinate wo
86	23794	31964	RT-016 DCUST9089-HB REPL PH1	5/16/2014	7/23/2014	\$-	JE in progress.
87	23794	31965	RT-017 DREG3841-HB REPL PH1	5/16/2014	7/23/2014	\$ -	JE in progress. Delayed from 2013 to 2014 to balancing of res
88	23929	25886	T-094-12, Line DFM-1816-01, Monterey	6/11/2014	7/23/2014	\$-	during clearance. JE in progress.
-			,,	· ,, ·	, , ,		Delayed from 2013 to 2014 to balancing of res
89	23929	25888	T-095-12, Line DFM-1816-01, Capitola	6/11/2014	7/23/2014	\$ -	during clearance. JE in progress.
90	23783	23783	R-177 DFM-1509-01 REPL 0.27MI MP 0.05-0.33 PH1	5/23/2014	7/26/2014	\$ -	JE in progress.
91	23718	31975	RT-027 DFDS3544-DREG3876-NB REPL PH1	7/14/2014	7/26/2014	\$ -	
JT							

Comments	
project. JE in progress.	
le and workload balancing. JE in progress.	
roject requires ordering of long lead items. In addition, this project there is limited clearance availability as this line is the sole feed to nd. All engineering will be completed in 2013. JE in progress.	
requiring long lead times. JE in progress. or a direct assessment in September of 2013 to confirm pipe ss.	
length. It is more cost efficient to replace this short length rather thar	I
ing and planning constraints. JE in progress.	
rdinate work with other 2013 tests, but then delayed further to reduc e work with other projects scheduled for 2014. JE in progress.	e
f resources (CNG/LNG) related to providing adequate customer suppo	rt
f resources (CNG/LNG) related to providing adequate customer suppo	rt

Line #	PSEP Filing PSRS	New PSRS	Project Description	Mobilization Date	Tie-in Date		Estimate mount
Lille #	F31(3	NEW F3N5	rioject description	Date	mean Date	~	Delayed from 2012 to 2014 to coordinate wo
93	23535	30909	T-379-14, Line L-021H, San Rafael	6/10/2014	7/29/2014	\$	- Road. JE in progress.
							A portion of this original project was tied-in in
							because a school could not take the outage re
04	23365	30791	D 102 L 100 DEDL 0 02MI MD 0 87 0 88 Sprood CD	6/2/2014	7/31/2014	ć	2014 to coincide with other work on the line
94 95	23305	32016	R-192 L-109 REPL 0.03MI MP 9.87-9.88 Spread 6B RT-065 DREG4454-YO REPL PH1	7/17/2014	7/31/2014	\$ \$	<ul> <li>portion reported as complete. JE in progress.</li> <li>JE in progress.</li> </ul>
	237,03	520+0		77 277 2023	,,51,201,	4	Delayed from 2012 to 2014 as a result of data
96	23533	25836	T-066-12, Line L-021C, Cotati	6/17/2014	8/1/2014	\$	- progress.
							Delayed from 2013 to 2014 due to the numb
97	23634	23634	V-043 Valve Auto - Irvington, 7V, Ph. 1	6/11/2014	8/2/2014	\$	<ul> <li>engineering and permitting activities are targ</li> </ul>
98	23786	27752	R-104 DFM-0405-01 REPL 0.50MI MP 3.03-3.30 PH1	5/8/2014	8/5/2014	\$	- Delayed from 2013 to 2014 due to scheduling
00	NI/A	21226		7/8/2014	8/5/2014	ć	Added new project due to a class location cha
99	N/A	31336	R-197 DFM-6605-01 REPL 0.05MI MP 0.00-0.05 PH1	7/8/2014	8/5/2014	\$	<ul> <li>cost efficient to replace this short length rath</li> </ul>
							Added as new project as a result of data valid
100	N/A	31366	R-204 L-301C REPL 0.01MI MP 17.25-17.26 PH1	6/26/2014	8/5/2014	\$	- short length. It is more cost efficient to replace
							Delayed from 2013 to 2014 for constructabili
101	23633	23633	V-042 Valve Auto - Vargas Crossover 2V, Ph. 1	6/13/2014	8/5/2014	\$	- progress.
102	23785	32018	RT-067 STUB6102-YO REPL PH1	8/1/2014	8/6/2014	\$	- JE in progress.
103	23561	23561	T-326-14, Line L-126B, Humboldt Hill	6/16/2014	8/7/2014	\$	- JE in progress.
104	22074	25047	T 016 10 Line L 121 0 Francest	C /17 /201 A	0/0/2014	ć	Delayed from 2012 to 2013 to accommodate
104 105	23874 23928	25847 31986	T-016-12, Line L-131_2, Fremont RT-037 DREG4095-SA REPL PH1	6/17/2014 7/28/2014	8/8/2014 8/9/2014	\$ \$	<ul> <li>further delayed to 2014 due to schedule and</li> <li>JE in progress.</li> </ul>
103	23928	32002	RT-052 DREG3803-DREG3808-SO REPL PH1	7/28/2014	8/9/2014	ې \$	- JE in progress.
107	N/A	30948	T-022A-12, Line L-191-1, Lafayette	6/24/2014	8/12/2014	\$	- JE in progress.
108	23822	28468	R-059 L-123 REPL 4.01MI MP 0.00-9.74 PH1	2/27/2014	8/13/2014	\$	<ul> <li>Accelerated from 2014 to 2013 to accommod</li> </ul>
109	24196	31161	R-194 DFM-0611-05 REPL 0.07MI MP 0.00-0.12 PH1 < <t-076b-12>&gt;</t-076b-12>	6/24/2014	8/13/2014	\$	- JE in progress.
							Deleved from 2012 to 2012 in the lister around
110	23577	26124	T-076B-12, Line DFM-0611-02, Sacramento	6/24/2014	8/13/2014	ć	Delayed from 2012 to 2013 initially to coordi - the impact on customers and to coordinate w
110	23577	26124	1-076B-12, Line DFM-0611-02, Sacramento	6/24/2014	8/13/2014	\$	- the impact on customers and to coordinate w
							Delayed from 2012 to 2013 initially to coordi
111	24196	25856	T-077-12, Line DFM-0611-05, Sacramento	6/24/2014	8/13/2014	\$	- the impact on customers and to coordinate w
112	23706	32005	RT-054 DCUST1739-ST REPL PH1	8/1/2014	8/16/2014	\$	- JE in progress.
					ne and Anna Statione		Delayed from 2013 to 2014 due to efforts rel
113	23659	23659	V-055C Valve Auto - Lakes Valve Lot, 1V, Ph. 1	6/30/2014	8/16/2014	\$	- in progress.
114	24079	26053	R-057 L-124A REPL 4.71MI MP 20.63-26.27 PH1	5/30/2014	8/19/2014	\$	<ul> <li>Delayed from 2013 to 2014 due to scheduling</li> </ul>
115	23704	30361	R-165 L-109_3AA REPL 0.27MI MP 17.01-17.11 PH1	7/1/2014	8/21/2014	\$	- JE in progress.
116	N/A	30891	T-374-14, Line L-189, Humboldt	7/3/2014	8/21/2014	\$	- Added as new project as a result of data valid
110	23514	23514	T-343-14, Line L-191A, Lafayette	7/8/2014	8/26/2014	\$	- JE in progress.
118	23717	23717	R-171 DFM-1209-05 REPL 0.03MI MP 4.99-5.02 PH1	7/31/2014	8/27/2014	\$	- JE in progress.
119	24901	24901	R-203 L-118-1 REPL 0.02MI MP 0.01-0.03 PH1	8/1/2014	8/28/2014	\$	- Delayed from 2013 to 2014 due to schedule a
Strahmanic (Special Sector)						******	Delayed from 2012 to 2013 to accommodate
120	23574	25814	T-002-12, Line DFM-0401-01, San Rafael	7/11/2014	8/28/2014	\$	- further delayed to 2014 due to schedule and
							Delayed from 2012 to 2013 to accommodate
121	23574	25817	T-003-12, Line DFM-0401-01, San Rafael	7/11/2014	8/28/2014	\$ ¢	- further delayed to 2014 due to schedule and
122 123	23706 23785	32006 32020	RT-055 DREG4921-ST REPL PH1	8/18/2014 8/8/2014	8/30/2014	\$	- JE in progress.
125	23/03	32020	RT-069 STUB6183-YO REPL PH1	0/0/2014	8/30/2014	\$	<ul> <li>JE in progress.</li> <li>Delayed from 2013 to 2014 for constructabili</li> </ul>
124	23584	27607	T-221-13, Line DFM-0405-01, Napa	7/14/2014	9/5/2014	\$	<ul> <li>which this line runs. JE in progress.</li> </ul>
	-		.,	, . , ·· ·	, . ,	Start Tanka	Delayed from 2013 to 2014 in order to coord
125	23636	23636	V-046 Valve Auto - Dalton Crossover, 2V, Ph. 1	5/3/2014	9/11/2014	\$	- Crossover for construction efficiency reasons
L	20000	20000		J J L J L J I T	J/ 11/ 2017	- <del></del>	crossover for construction empleticity (Casu

Comments work with a potential rebuild of the Regulator Station at Miller Creek

n in 2012 (PSRS 23366) with this 149 feet to be completed in 2013 e required for clearance in 2012; however, it has now been delayed until ne so this portion has been split to a separate project and the other ss.

ata validation and due to schedule and workload balancing. JE in

nber of other projects currently in progress at Irvington. Design, argeted to be completed in 2013. JE in progress.

ing and workload balancing. JE in progress.

change. The segment will be replaced due to its short length. It is more ather than hydrotest. JE in progress.

alidation due to lack of strength test records and will be replaced due to place this short length rather than hydrotest. JE in progress. bility reasons and due to scheduling and workload balancing. JE in

te other higher priority tests for Integrity Management in 2012. Then nd workload balancing. JE in progress.

odate a required Integrity Management assessment. JE in progress.

dinate work with other 2013 tests, but then delayed further to reduce e work with other projects scheduled for 2014. JE in progress.

dinate work with other 2013 tests, but then delayed further to reduce work with other projects scheduled for 2014. JE in progress.

related to combining work for scheduling and cost efficiency reasons. JE

ing and workload balancing. JE in progress.

lidation and some added segments due to proximity. JE in progress.

le and workload balancing. JE in progress. ate other higher priority tests for Integrity Management in 2012. Then nd workload balancing. JE in progress. ate other higher priority tests for Integrity Management in 2012. Then

nd workload balancing. JE in progress.

pility reasons related to a construction moratorium on the road under

rdinate with Non-PSEP ILI Retrofit project (PSRS 24224) at Dalton ns. JE in progress.

Line #	PSEP Filing PSRS	New PSRS	Project Description	Mobilization Date	Tie-in Date	Job Estimate Amount	
126	23928	31987	RT-038 DREG4327-SA REPL PH1	9/2/2014	9/13/2014	\$ -	JE in progress.
120	23706	32007	RT-056 BD428-ST REPL PH1	9/2/2014	9/13/2014	ş -	JE in progress.
128	23785	32013	RT-062 DREG4446-YO REPL PH1	9/2/2014	9/15/2014	\$-	JE in progress.
129	23670	23670	V-065 Valve Auto - Fairfield Crossover 4V, Ph. 1	6/7/2014	9/16/2014	\$ -	JE in progress.
130	23704	31059	T-400-14, Line L-109, Woodside	8/6/2014	9/17/2014	ş - \$ -	Added as a new test from a filed replacement
130	TBD	TBD	T-407-14, Line DFM-0206-01, Woodside	8/6/2014	9/17/2014	ş -	Added as a new test from a ned replacement
131	100	100		0/0/2014	5/17/2014	4	Delayed from 2012 to 2013 to accommodate
132	23574	25818	T-004-12, Line DFM-0401-01, San Rafael	8/1/2014	9/18/2014	\$ -	further delayed to 2014 due to schedule and
175	23374	25010		0/1/2014	5/16/2014		Delayed from 2012 to 2013 to accommodate
133	23574	25823	T-005-12, Line DFM-0401-01, Greenbrae	8/1/2014	9/18/2014	ş -	further delayed to 2014 due to schedule and
100	23574	23623	1-005-12, time DI M-0401-01, Greenblae	0/1/2014	5/16/2014	· · · ·	Delayed from 2012 to 2013 as a result of envi
							where numerous protected species are prese
134	23599	23599	V-012 Valve Auto - Lomita Park, 1V, Ph. 1	5/14/2014	9/23/2014	\$-	period that the CEQA process for the environ
134	23972	23972	V-044 Valve Auto - Sheridan Rd, 2V, Ph. 1	7/7/2014	9/25/2014	ş -	Delayed from 2013 to 2014 due to the preser
135	23972	31988	RT-039 STUB8028-SA REPL PH1	9/15/2014	9/27/2014	<b>,</b> - \$-	JE in progress.
130	23706	32008	RT-057 DREG4892-ST REPL PH1	9/15/2014	9/27/2014	ş -	JE in progress.
137	23700	52008		5/15/2014	5/2//2014	· · · · · · · · · · · · · · · · · · ·	Delayed from 2013 to 2014 due to permits re
138	23489	27619	T-236-13, Line L-137B, Eureka	8/1/2014	9/29/2014	\$-	JE in progress.
130	23405	27019	1-230-15, LIIIE L-137 D, EUIEKa	0/1/2014	5/25/2014		Delayed from 2012 to 2013 to accommodate
139	23590	25832	T-010-12, Line DFM-0407-01, Napa	8/12/2014	9/30/2014	ş -	further delayed to 2014 due to schedule and
139	23540	23540	T-313-14, Line L-050A, Oroville	9/2/2014	9/30/2014	ş -	JE in progress.
140	23340	23340	1-515-14, LINE L-050A, OTOVINE	5/2/2014	9/30/2014	 -	JE III progress.
141	24052	29743	D 159 L 031D DEDLO C3MLMD 18 CE 10 37 DH1	8/16/2014	10/2/2014		Delayed from 2012 to 2014 due to permite re
141	24052		R-158 L-021D REPL 0.62MI MP 18.65-19.27 PH1	8/10/2014	10/2/2014	\$ - ¢	Delayed from 2013 to 2014 due to permits re
142	054/00000000000000000000000000000000000	26049	R-060 L-021D REPL 2.65MI MP 19.27-24.49 PH1	NOTION DESCRIPTION OF A	000100700000000000000000000000000000000	\$ -	Delayed from 2013 to 2014 due to scheduling
143	23796	29631	R-205 L-021C REPL 0.55MI MP 31.85-32.39 PH1	8/8/2014	10/4/2014	\$ -	JE in progress.
144	23702	27951	R-061 L-196A REPL 2.00MI MP 11.58-13.45 PH1	6/17/2014	10/7/2014	\$ -	Delayed from 2013 to 2014 due to scheduling
145	23704	27018	R-052 L-109_3C REPL 0.78 MI MP 23.30-24.00 PH1	6/10/2014	10/11/2014	\$ -	JE in progress.
146	23688	26048	R-103 L-114_2 REPL 2.17MI MP 10.50-12.68 PH1	4/8/2014	10/11/2014		4 Delayed from 2012 to 2014 due to permits re
147	N/A	30922	T-363-14, Line L-142S, Bakersfield	8/26/2014	10/17/2014	\$ -	Added as new project as a result of data valid
148	23632	23632	V-041 Valve Auto - Foley's Ranch Crossover, 6V, Ph. 1	6/7/2014	10/20/2014	\$ -	Delayed from 2013 to 2014 to coordinate wo
149	23883	23883	T-341-14, Line DFM-1869-01, Salinas	9/22/2014	10/24/2014	\$ -	JE in progress.
150	23692	26025	R-048 L-109_4C REPL 1.26MI MP 30.52-31.76 PH1	6/21/2014	10/25/2014	\$-	JE in progress.
151	23704	26516	R-031 L-109_3B_1 REPL 1.29MI MP 18.61-19.71 PH1	4/19/2014	11/3/2014 11/4/2014	\$ -	JE in progress.
152	24219	30927	T-350-14, Line L-300B, Hinkley	9/17/2014	NEW CONTRACTOR AND A CONTRACTOR OF A CONTRACTOR	\$ -	JE in progress.
153	23692	26023	R-046 L-109_4A_1 REPL 2.35MI MP 24.84-27.26 PH1	7/1/2014	11/13/2014	\$	JE in progress.
154	24219	30928	T-351-14, Line L-300B, Boron	10/10/2014	11/24/2014	\$ -	JE in progress.
155	24900	24900	R-016 L-108_3 REPL 2.55MI MP 63.49-65.96 PH1	8/6/2014	11/25/2014	\$ <u>-</u>	Delayed from 2013 to 2014 due to scheduling
156	23736	31368	T-404-14, Line DFM-0107-01, Oakland	10/15/2014	11/25/2014	\$-	JE in progress.
157	23822	30616	R-167 L-123 REPL 1.73MI MP 4.35-13.74 PH1	8/26/2014	11/26/2014	\$ - ¢	JE in progress.
158	23704	30589	R-166 L-109_3B_2 REPL 1.64MI MP 20.38-22.20 PH1	4/23/2014	11/29/2014	\$ -	JE in progress.
159	23728	31033	R-190 L-103 REPL 0.17MI MP 9.71-9.86 PH1	10/1/2014	12/9/2014	\$ -	JE in progress.
160	24059	26057	R-055 L-057A REPL 1.58MI MP 8.83-10.44 PH1	8/19/2014	12/12/2014	\$ -	Delayed from 2013 to 2014 due to scheduling
161	24077	30790	R-189 L-108_1B REPL 0.05MI MP 38.17-38.22 PH1	8/18/2014	12/13/2014	\$ -	Added new project as a result of data validati
162	22602	20007		11/12/2014	4/10/2015	~	Delayed from 2014 to 2015 due to environme
162	23692	30667	R-185 L-109_4A_2 REPL 1.62MI MP 28.60-30.11 PH1	11/13/2014	4/10/2015	\$ -	permitting required. JE in progress.
163	24027	24027	I-060 L-101(S) MP 0.00-11.62 ILI & Analysis PH1	TBD	TBD	\$ -	JE in progress.
164	24028	24028	I-061 L-101 MP 11.62-33.68 ILI & Analysis PH1	TBD	TBD	\$ -	JE in progress.
165	24026	24026	I-062 L-132 MP 31.7-38.4 ILI & Analysis PH-1	TBD	TBD	<u></u>	JE in progress.
166	24010	24010	I-063 L-131 MP 50.5-57.4 ILI & Analysis PH-1	TBD	TBD	\$ -	JE in progress.
167	24024	24024	I-064 L-300A MP 299.00-352 ILI & Analysis PH-1	TBD	TBD	\$ -	JE in progress.
168	24018	24018	I-065 L-300B MP 299-351.8 ILI & Analysis PH-1	TBD	TBD	\$-	JE in progress.
169	23728	18025	R-008 L-108 REPL 1.92MI MP 38.17-40.27 (Non-PSEP)	TBD	TBD	\$	JE in progress.
170	24077	18579	R-009 L-108 REPL 3.05MI MP 40.27-43.46 (Non-PSEP)	TBD	TBD	\$-	JE in progress.
171	23727	26010	R-058 L-021F REPL 2.16MI MP 0.00-2.15	TBD	TBD	- ,	JE in progress.
172	23728	23788	R-068 L-103 REPL 0.17MI MP 9.71-9.88	TBD	TBD	\$-	JE in progress.

Comments
ent project for constructability reasons. JE in progress.
te other higher priority tests for Integrity Management in 2012. Then ad workload balancing. JE in progress.
te other higher priority tests for Integrity Management in 2012. Then
id workload balancing. JE in progress. nvironmental/species issues. This valve is in a marsh in San Francisco
sent. Then delayed further from 2013 to 2014 due to the extended time
onmental/species issues took. JE in progress.
ence of CA Tiger Salamander. JE in progress.
ence of CA figer Salamander. Je in progress.
requiring long lead times related to an environmentally sensitive area.
te other higher priority tests for Integrity Management in 2012. Then
nd workload balancing. JE in progress.
requiring long lead times and land acquisition challenges. JE in progress.
ing and workload balancing. JE in progress.
ing and workload balancing. JE in progress.
requiring long lead times.
lidation. JE in progress.
vork with the station rebuild at Foley's Ranch. JE in progress.
ing and workload balancing. JE in progress.

ing and workload balancing. JE in progress. ation. JE in progress.

mental/species concerns around San Mateo Creek and related long lead

	PSEP Filing			Mobilization		Job Estim	ate
Line #	PSRS	New PSRS	Project Description	Date	Tie-in Date	Amoun	t
173	23470	28494	R-143 DFM-7222-01 REPL 0.62MI MP 0.00-0.61	TBD	TBD	\$	- JE in progress.
174	23728	28164	R-146 L-103 REPL 1.29MI MP 17.99-22.21	TBD	TBD	\$	- JE in progress.
175	24553	29067	R-149 L-153 REPL 0.12MI MP 3.45-3.58	TBD	TBD	\$	- JE in progress.
176	23750	31949	RT-002 DF3441-CC REPL PH1 [Postponed]	TBD	TBD	\$	- JE in progress.
177	23750	31950	RT-003 DFD\$3572-CC REPL PH1	TBD	TBD	\$	- JE in progress.
178	23690	31958	RT-011 BD8772-FR REPL PH1	TBD	TBD	\$	- JE in progress.
179	23690	31959	RT-012 DF6856-FR REPL PH1	TBD	TBD	\$	- JE in progress.
180	23690	31963	RT-015 STUB7093-FR REPL PH1	TBD	TBD	\$	- JE in progress.
181	23928	31990	RT-041 X6405-SA REPL PH1	TBD	TBD	\$	- JE in progress.
182	23928	31991	RT-042 X6921-SA REPL PH1	TBD	TBD	\$	- JE in progress.
183	23689	31995	RT-049 DF3475-SJ REPL PH1	TBD	TBD	\$	- JE in progress.
184	23706	32009	RT-058 STUB9112-ST REPL PH1	TBD	TBD	\$	- JE in progress.
185	23785	32010	RT-059 BD453-YO REPL PH1	TBD	TBD	\$	- JE in progress.
186	23785	32014	RT-063 DREG4449-YO REPL PH1	TBD	TBD	\$	- JE in progress.
187	23785	32021	RT-070 STUB6314-YO REPL PH1	TBD	TBD	\$	- JE in progress.
188	23657	23657	V-054B Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	\$	- Delayed from 2013 to 2014 due to scheduling
189	23657	23657	V-054C Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	\$	- Delayed from 2013 to 2014 due to scheduling
190	23657	23657	V-054D Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	\$	- Delayed from 2013 to 2014 due to scheduling
191	23657	23657	V-054E Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	\$	- Delayed from 2013 to 2014 due to scheduling
192	23657	23657	V-054F Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	\$	- Delayed from 2013 to 2014 due to scheduling
193	23740	31980	RT-031 DF3216-PN REPL EXPENSE PH1	8/25/2014	8/30/2014	\$	- JE in progress.
							Delayed from 2012 to 2014 after scope chang
							verified in 2012 to allow completion of engine
194	24254	31367	R-042 SP-3 REPL 0.01MI MP 174.29-174.29 (HWY4) PH1	9/25/2014	11/5/2014	\$	- scheduling and workload balancing. JE in prog

Comments
ng and workload balancing. JE in progress.
ng and workload balancing. JE in progress.
ng and workload balancing. JE in progress.
ng and workload balancing. JE in progress.
ng and workload balancing. JE in progress.
nge that added segments after others were removed due to records
neering and constructability analysis. Then delayed further due to
ogress.

	New						Schedule		
Line #	PSRS	Project Description	Region	Risk	Description Additional work or resources may be required to adequately	Cost Impact (\$)	Impact (Days)	>10% Varianc	e
					support customer loads during clearance and to meet potentially				CNG
1	25861	T-023-12, Line L-191-1, Martinez	Bay	Clearance	tight clearance windows.	\$70,000	1	Yes	a sch
					Any changes to the project scope that were excluded from or				PG&
	05064			Changes After IFB (Issue For	occurred after IFB (e.g. additional sniff holes, expanded	¢22.000			and
2	25861	T-023-12, Line L-191-1, Martinez	Bay	Bid) Field Conditions Differ from	excavation, added replacement/test length, etc.). As-built drawings and/or GIS may not match what is encountered	\$33,000	N/A	Yes	Depa Addi
3	25861	T-023-12, Line L-191-1, Martinez	Bay	Expected Conditions	in the field.	\$13,000	N/A	Yes	engii
		· · · · · · · · · · · · · · · · · · ·			Pipe, valves or fittings may be leaking or faulty requiring				A thi
				Unexpected Condition of Pipe,	additional work to repair or replace them, including linear				exca
4	28411	T-211B-13, Line L-187, Chualar	Ctr Cst	Valves or Fittings	indications on the pipe.	\$66,000	N/A	No	This The 1
									Stati
					Any changes to the project scope that were excluded from or				mitie
					occurred after IFB (e.g. additional sniff holes, expanded				repla
5	28411	T-211B-13, Line L-187, Chualar	Ctr Cst	Changes After IFB	excavation, added replacement/test length, etc.).	\$200,000	N/A	No	2014
			******		Pipe, valves or fittings may be leaking or faulty requiring				
_				Unexpected Condition of Pipe,	additional work to repair or replace them, including linear	A == == = = = = = = = = = = = = = = = =			Pipe
6	27617	T-230-13, Line L-118B, Madera	Ctr Vly	Valves or Fittings	indications on the pipe. Potential issues may occur while pigging the line that cause	\$60,000	N/A	No	so it
7	27617	T-230-13, Line L-118B, Madera	Ctr Vly	Pigging	delays or cost increases to resolve them.	\$50,000	2	No	The I they
	27017	1 230 13, Ence 1100, Wadera	Cerviy	1/1851116		\$30,000	<i>6</i>	140	cricy
					Potential impacts to contractor productivity caused by multiple				
					issues which may result in contractor moving to another				Clear
8	27617	T-230-13, Line L-118B, Madera	Ctr Vly	Productivity Impacts	construction location on-site or other methods of mitigation.	\$500,000	36	No	proje Sludj
									took
				Contaminated or Dirty Test	Any variety of contaminants could be found in the water and				and
9	27617	T-230-13, Line L-118B, Madera	Ctr Vly	Water (other than Hg)	require additional costs to sample, clean, etc.	\$500,000	N/A	No	clear
					Potential impacts to contractor productivity caused by multiple				<u> </u>
10	27644	T-225A-13, Line DFM-0604-07, Vacaville	N	Droductivity los as sta	issues which may result in contractor moving to another	¢600.000	10	NI _	The t
10	27611	T-225B-13, Line DFM-0604-07, Vacaville	North	Productivity Impacts	construction location on-site or other methods of mitigation. Pipe, valves or fittings may be leaking or faulty requiring	\$600,000	18	No	avail
		T-225A-13, Line DFM-0604-07, Vacaville		Unexpected Condition of Pipe,	additional work to repair or replace them, including linear				Woo
11	27611	T-225B-13, Line DFM-0604-07, Vacaville	North	Valves or Fittings	indications on the pipe.	\$50,000	2	No	pigs
									On tl
					Cleaning Hg from piping associated prior to strength testing. This				resu
10	27611	T-225A-13, Line DFM-0604-07, Vacaville	Mauth	Mercury Cleaning - Strength	includes the requirement to meet drinking water standards of	¢ 40,000	2	Ne	porti
12	27611	T-225B-13, Line DFM-0604-07, Vacaville	North	Test	rinse water prior to hydrostatically testing.	\$40,000	۷	No	need
					Unplanned support (equipment or labor) was provided to other				
		T-225A-13, Line DFM-0604-07, Vacaville			teams such as GC, CNG, or LNG because they did not have				Exte
13	27611	T-225B-13, Line DFM-0604-07, Vacaville	North		sufficient resources available at the time that they were needed.	\$80,000	N/A	No	they
14	27644	T-225A-13, Line DFM-0604-07, Vacaville	N	Field Conditions Differ from	As-built drawings and/or GIS may not match what is encountered	¢60,000	NI / A	NI _	Ther
14	27611	T-225B-13, Line DFM-0604-07, Vacaville	North	Expected Conditions	in the field.	\$60,000	N/A	No	impa Somi
					Potential interference with unmarked and unknown obstructions				exca
		T-318A-14, Line DFM-0604-06, Vacaville		Unknown Obstructions During	found during the construction excavation or incorrect drawings				built
15	23567	T-318B-14, Line DFM-0604-06, Vacaville	North	Excavation	potentially delaying construction and resulting in additional cost.	Mitigated	Mitigated	No	done
		T 2404 44 12 - 271 2007 - 1							Seve
10	225.67	T-318A-14, Line DFM-0604-06, Vacaville	NI+-l	Field Conditions Differ from	As-built drawings and/or GIS may not match what is encountered	NI / A	NI / A	KI	were
16	23567	T-318B-14, Line DFM-0604-06, Vacaville	North	Expected Conditions	in the field.	N/A	N/A	No	expe
					Unplanned support (equipment or labor) was provided to other				
		T-318A-14, Line DFM-0604-06, Vacaville			teams such as GC, CNG, or LNG because they did not have				The
17	23567	T-318B-14, Line DFM-0604-06, Vacaville	North	Support for Other Work Teams	sufficient resources available at the time that they were needed.	N/A	N/A	No	durir
									<b>.</b> .
10	20707	T 2EE 14 Line L 2000 Korn	C+~ \/	Errors and Omissions	Impacts resulting from contractor or sub-contractor negligence or	ÉE0.000	NI / A	Ma	An ir
18	29707	T-355-14, Line L-300B, Kern	Ctr Vly	Errors and Omissions	oversight related to the work, product or property.	\$50,000	N/A	No	addit

Comments NG (Compressed Natural Gas) resources were not available when needed so

schedule delay was experienced. S&E agreed to re-rock a trail through Briones Park that was used for ingress In egress during construction in order to appease the Parks and Recreation.

nd egress during construction in order to appease the Parks and Recreation epartment.

dditional fitting work and welding was necessary related to a change in gineering design.

third party line strike was encountered which will now require additional cavation so that GE can do a pit survey on the pipe and check for corrosion. his resulted in additional costs to this project.

ne test length was extended to do a nitrogen test inside the Harkins Rd Reg ation in order to facilitate work scheduled to be done in 2014. Testing was a itigation effort because otherwise the pipe would have needed

placement in 2014 which is more expensive. This was a mitigation effort for 014.

pe with laminations (imperfections in pipe wall material) were encountered it was necessary to replace a section of pipe.

e PIGs (Pipeline Inspection Gauges) became stuck delaying the project while ey were freed.

earance crews and CNG resource availability has caused delays to this operation of other test schedules slipping.

udge was left over in the Baker tanks after the hydrotest due to the time it ok to analyze a sample. PSC was called to properly clean the Baker tanks id additional costs were also incurred for rental of the tanks and labor while eaning was conducted.

ne test was split into 2 clearances and 2 tests due to limited CNG resource vailability.

ood was encountered in the portion of the line for test A which was causing gs to become stuck. This resulted in a delay and cost increase to resolve. In the B portion of the test, high levels of mercury were encountered sulting in a delay and cost increases for additional cleaning because other portions of the line had not required cleaning so it had not been identified as seeded here.

tended support was supplied to T & R for the clearances and tie-ins since ey were above the contracted 10 hour day.

nere was difficulty in locating PCFs (Pressure Control Fittings) resulting in cost apacts, but no schedule delays.

me non-PG&E unknown/un-marked utilities were encountered during ccavation requiring some re-engineering to work around. NOTE: Float was uilt into the schedule which avoided an impact and the re-engineering was one very efficiently avoiding further impacts.

everal PCFs were not where the drawings indicated they should be so costs ere incurred for additional excavations and a schedule delay was sperienced.

e contractor provided support in the form of labor to the T & R group uring clearance.

n insufficient number of baker tanks were rented so it was necessary to rent Iditional tanks.

Line #	New PSRS	Project Description	Region	Risk	Description	Cost Impact (\$)	Schedule Impact (Days) >	10% Varian	ce
19	27760	T-285-13, Line X6526, Kettleman City	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	\$50,000	12	No	A ru cost und
		T-288A-13, Line L-300B, Bear Valley Springs			Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded				A ch sche
20	31511	T-288B-13, Line L-300B, Bear Valley Springs	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$50,000	N/A	No	char
	24544	T-288A-13, Line L-300B, Bear Valley Springs	e: 14		Impacts resulting from contractor or sub-contractor negligence or	615 000	- 1/ A		The
21	31511	T-288B-13, Line L-300B, Bear Valley Springs	Ctr Vly	Errors and Omissions	oversight related to the work, product or property. Additional measures may be necessary to appease customer	\$15,000	N/A	No	tank In oi
					complaints related to construction activities such as noise				com
22	25820	T-051D-12, Line L-142N, Bakersfield T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Customer Support	reduction, additional restoration, etc. and sometimes customer compensation.	\$80,000	N/A	Yes	syst miti
	23820	1-051E-12, Lille L-142N, Dakeisheid	CUIVIY	customer support	compensation.	\$80,000	N/A	Tes	IIIII
					Difficulty acquiring land due to a variety of complications (e.g.				A de
23	25820	T-051D-12, Line L-142N, Bakersfield T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Land Acquisition	resistant land owners) that could result in schedule delays or increased cost (e.g. purchase land via eminent domain).	See T-051A/B/C-12	See T-051A/B/C- 12	Yes	Kerr the
23	23820	T-051D-12, Line L-142N, Bakersfield	CU VIY	Land Acquisition	Potential rupture or leak during a hydrostatic test results in	See 1-051A/b/C-12	. 12	Tes	A ru
24	25820	T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Hydrostatic Test Rupture/Leak		\$330,000	6	Yes	of pi
		T-051D-12, Line L-142N, Bakersfield			Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded				The
25	25820	T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$18,000	N/A	Yes	resu
							•		
		T-282A-13, Line L-172A, West Sacramento		Unknown Obstructions During	Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings				Con
26	30056	T-282B-13, Line L-172A, West Sacramento	North	Excavation	potentially delaying construction and resulting in additional cost.	\$100,000	N/A	No	cem
					Any changes to the project scope that were excluded from or				
27	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	North	Changes After IFB	occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.).	\$125,000	N/A	No	Post and
	50050	1-202D-13, Line L-172A, West Sacramento	NOLU	Clidilges Alter IFD	excavation, added replacement/test length, etc.j.	\$125,000	NYA	INU	anu
					Potential impacts to contractor productivity caused by multiple				
28	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	North	Productivity Impacts	issues which may result in contractor moving to another construction location on-site or other methods of mitigation.	\$250,000	N/A	No	Add clea
28	30056	1-282B-13, Line L-172A, West Sacramento	NOTIN		construction location on-site of other methods of mitigation.	\$250,000	N/A	NO	ciea
									The
		T-282A-13, Line L-172A, West Sacramento		Unexpected Condition of Pipe,	Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear				In ac addi
29	30056	T-282B-13, Line L-172A, West Sacramento	North	Valves or Fittings	indications on the pipe.	\$300,000	6	No	cont
		T-282A-13, Line L-172A, West Sacramento			A high water table is encountered resulting in unplanned				
30	30056	T-282B-13, Line L-172A, West Sacramento	North	Dewatering	dewatering costs and delays in construction. Any changes to the project scope that were excluded from or	\$200,000	N/A	No	Grou It wa
					occurred after IFB (e.g. additional sniff holes, expanded				exist
31	25891	T-039A-12, Line DFM-1615-01, Modesto	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$45,000	N/A	No	cost
									This
					Potential impacts to contractor productivity caused by multiple				038-
					issues which may result in contractor moving to another				supp
32	25891	T-039A-12, Line DFM-1615-01, Modesto	Ctr Vly	Productivity Impacts	construction location on-site or other methods of mitigation.	\$237,300	36	No	and
					Potential interference with unmarked and unknown obstructions				A bi
				Unknown Obstructions During	found during the construction excavation or incorrect drawings				loca
33	28495	T-281B-13, Line L-191, Antioch	Bay	Excavation	potentially delaying construction and resulting in additional cost.	No cost impact	N/A	No	incro The
					The availability of labor and materials necessary to execute the				tank
34	28495	T-281B-13, Line L-191, Antioch	Вау	Resource Availability	work may result in schedule and/or cost impacts.	\$40,000	N/A	No	rent
				Illinoving entrol Canaditization of Di	Pipe, valves or fittings may be leaking or faulty requiring				Whe
35	28495	T-281B-13, Line L-191, Antioch	Bay	Unexpected Condition of Pipe, Valves or Fittings	additional work to repair or replace them, including linear indications on the pipe.	\$55,000	N/A	No	and incre
<b></b>	20723	1 2010 15, thre L-121, Allefoen	υαγ	A CHACO OL H IICH [BO	maleadono un tric pipe.	999,000	197 P	110	nich

Comments a rupture was experienced so a 40 ft section of pipe was replaced resulting in ost increases and a schedule delay. NOTE: Despite this issue, the project was inder budget.

change was made in the test execution plan to decrease the length of the chedule so it was necessary to rent additional baker tanks to support this hange.

he discharge rate was slower than anticipated so rental costs for the baker anks were increased.

n order to avoid the need for excessively large amounts of CNG/LNG, ompression was used to back-feed the line from a different transmission ystem and the valve for the GET busses was installed as planned in the nitigation.

delay was experienced in acquiring land from the City of Bakersfield and ern County to install new valves. The impact of this delay was captured in he risk register for tests A, B and C.

rupture was experienced during testing so an approximately 60 feet portion figure was replaced and the line retested successfully.

he pipe at location M was not per design plan so changes were required esulting in additional costs.

Concrete and rock debris were encountered in the excavation. Two sack ement was also encountered requiring hand excavation.

ost IFB requests from engineering were received to remove additional pipe nd replace a valve.

dditional Base work was combined with the hydrotest work to reduce learance requirements.

he IFC plans did not accurately depict the excavation required for clearance. n addition, several valves required for clearance were leaking, requiring dditional excavation, re-write of the clearance procedure and tripling ontractor and T&R resources required for clearance.

around water was encountered, requiring de-watering t was necessary to relocate AT&T and Modesto Irrigation Power Plant xisting utility poles. Work was completed on time, but at some additional osts.

his project could not begin until after a replacement project (R-003), test T-38-12 and a cross tie installation completed in order to ensure sufficient upport for the Modesto Irrigation District. Delays were experienced on R-003 nd T-038-12 thus delaying this project and resulting in cost increases.

biohazard (medical needles) was encountered during excavation at ocations A and C which will require additional work to safely remove, ncreasing project costs. PSC was contacted to handle the removal. The project was planned with the assumption that the PG&E owned Baker anks would be available, but they were not when needed so tanks were ented instead resulting in cost increases.

Vhen excavating a wedding band (a band around the pipe) was encountered nd it was determined that it was necessary to remove it resulting in cost ncreases.

ne#	New PSRS	Project Description	Region	Risk	Description	Cost Impact (\$)	Schedule Impact (Days)	>10% Variance	•
116 11	1 0110	Toject Description	negion	mon	Pipe, valves or fittings may be leaking or faulty requiring		naali didi nadad Kalinin		
				Unexpected Condition of Pipe,	additional work to repair or replace them, including linear				A 6"
36	28495	T-281B-13, Line L-191, Antioch	Bay	Valves or Fittings	indications on the pipe.	\$1,785	N/A	No	in co
					Additional measures may be necessary to ensure the safety of			an a	An ai
37	28495	T-281B-13, Line L-191, Antioch	Вау	Safety and Security	personnel and the public around the job site.	\$23,240	N/A	No	bell ł
****************	***************************************		******		Additional work or resources may be required to adequately			*****	
					support customer loads during clearance and to meet potentially				Addi
38	28495	T-281B-13, Line L-191, Antioch	Bay	Clearance	tight clearance windows.	\$22,340	N/A	No	requ
					Unplanned permitting conditions, requirements and delays from				The o
					various permitting agencies (e.g. limited working hours, limited				impa
39	25833	TIM-065-12, Line L-021C, Penngrove	North	Permitting	access, delays in issuance, etc.).	\$124,700	12	No	the a
	25022			F 1 1/0 1 1 1	Potential delays in construction due to the presence of protected	¢4.000			lt wa
40	25833	TIM-065-12, Line L-021C, Penngrove	North	Environmental/Species Impacts	or endangered species at the construction site.	\$4,860	N/A	No	Frog
					Difficulty acquiring land due to a variety of complications (e.g.				<b>T</b> L -
					resistant land owners) that could result in schedule delays or				The of the to lin
41	25833	TIM-065-12, Line L-021C, Penngrove	North	Land Acquisition	increased cost (e.g. purchase land via eminent domain).	\$12,330	N/A	No	inste
+1	23033	Tim-085-12, Line L-021C, Peringrove	NOLU		increased cost (e.g. purchase land via ennitent domain).	512,550	INZA	NO	ana ana amin'ny sorana amin'ny sorana amin'ny sorana amin'ny sorana amin'ny sorana amin'ny sorana amin'ny sora
					The availability of labor and materials necessary to execute the				The J woul
42	25833	TIM-065-12, Line L-021C, Penngrove	North	Resource Availability	work may result in schedule and/or cost impacts.	\$61,800	N/A	No	resul
T <b>L</b>	23033	1111 005 12, Line 2-0210, Feinigi 0Ve	NOTUT	Resource Availability	work may result in solicatic and/of cost impacts.	<b>401,000</b>	1197	NU	1050
					Potential impacts to contractor productivity caused by multiple				lt wa
					issues which may result in contractor moving to another				High
3	25833	TIM-065-12, Line L-021C, Penngrove	North	Productivity Impacts	construction location on-site or other methods of mitigation.	\$27,602	N/A	No	the l
	23033	1111 000 12, Line 2 0210, 1 climbrote	HOICH	/reddetwity impacts	construction relation on site of outer methods of mitigation	<i>\$21,002</i>			Duri
									beca
									iden
									valve
					Impacts resulting from contractor or sub-contractor negligence or				resu
4	25833	TIM-065-12, Line L-021C, Penngrove	North	Errors and Omissions	oversight related to the work, product or property.	\$61,850	N/A	No	weel
					Pipe, valves or fittings may be leaking or faulty requiring				
				Unexpected Condition of Pipe,	additional work to repair or replace them, including linear				
5	25833	TIM-065-12, Line L-021C, Penngrove	North	Valves or Fittings	indications on the pipe.	\$1,940	N/A	No	A blo
***************				Field Conditions Differ from	As-built drawings and/or GIS may not match what is encountered	********			
6	31386	T-331B-14, Line DFM-1501-01, Yuba City	North	Expected Conditions	in the field.	\$100,000	N/A	Yes	An a
					Additional work or resources may be required to adequately				
					support customer loads during clearance and to meet potentially				A de
7	31386	T-331B-14, Line DFM-1501-01, Yuba City	North	Clearance	tight clearance windows.	\$800,000	64	Yes	sche
									A dir
									repa
					Potential rupture or leak during a hydrostatic test results in				be w
8	31372	T-337-14, Line DFM-1603-03, Manteca	Ctr Vly	Hydrostatic Test Rupture/Leak	increased cost.	\$15,000	1	No	estin
					Difficulty acquiring land due to a variety of complications (e.g.				Since
		T-272A-13, Line DFM-7223-01, Turlock			resistant land owners) that could result in schedule delays or				the v
9	27651	T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Land Acquisition	increased cost (e.g. purchase land via eminent domain).	\$500	N/A	Yes	traff
					Additional measures may be necessary to appease customer				
					complaints related to construction activities such as noise				
		T-272A-13, Line DFM-7223-01, Turlock	<b>A A A</b>		reduction, additional restoration, etc. and sometimes customer	4			The
0	27651	T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Customer Support	compensation.	\$200,000	N/A	Yes	cost
					Any changes to the project scope that were excluded from or				Due
		T-272A-13, Line DFM-7223-01, Turlock			occurred after IFB (e.g. additional sniff holes, expanded				coul
1	27651	T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$30,000	N/A	Yes	grou
					Potential impacts to contractor productivity caused by multiple				
52	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Productivity Impacts	issues which may result in contractor moving to another construction location on-site or other methods of mitigation.	\$100,000	5	Yes	A scł of so

6" ball valve was found to be broken, requiring replacement which resulted cost increases.

Comments

armed guard service was hired after a homeless man attempted to jump in the Il hole and a drive-by shooting occurred down the street.

dditional clearance support in the form of equipment and overtime hours were quired to meet the clearance window.

e city of Petaluma's request of night work resulted in cost increases, but did not apact the schedule. We were limited because of other work already approved in e area.

was necessary to relocate an isolation cap due to its proximity to a Red-Legged og known habitat.

e city of Petaluma requested that we not stock pile soil from the excavation due limited space on East Washington Street so it was necessary to off-haul the soil stead.

e project was planned with the assumption that the PG&E owned Baker tanks ould be available, but they were not when needed so tanks were rented instead sulting in cost increases.

was necessary to install a bypass to support the regulator station Old Redwood ghway during clearance because CNG would not be able to sufficiently support e load and the load had increased due to colder weather.

uring pigging the valves on the bridle set at a MLV were left open so the pig ecame stuck just before the MLV. Another pig was pushed through which entified that there was a pressure difference that was catching the pig. The ilves on the bridle set were then closed and pigging was completed. This esulted in cost increases related to the delay and because this was during a eekend.

blow down flange was found to be damaged, requiring replacement.

additional TAP was identified as necessary.

delay was experienced as a result of tight clearance windows. Adjusting of the hedule was necessary in order to find a suitable clearance window.

direct leak was detected during the leak check test resulting in cost impacts to pair the section of pipe and a minor delay. Despite this issue, this project should within budget. It was a small nitrogen test constructed by GC so the initial timate appears to have been higher than necessary.

nce a private landowner did not agree to grant access, it was necessary to install e valve lot in the sidewalk requiring street closure which resulted in additional affic control costs.

ne test was split in order to reduce the need to support a DREG. Only a minor list impact was incurred mitigating a potentially large impact.

ue to unknown pipe depth it was not determined whether one of the test heads uld be below or above ground. It was necessary to have the test head above ound which required additional traffic control.

schedule delay and related costs were experienced while waiting on the results soil sampling due to issues at the lab.

New PSRS	Project Description	Region	Risk	Description	Cost Impact (\$)	Schedule Impact (Days)	>10% Variand	ce
27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	\$300,000	7	Yes	The loca was trace corr
27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost. Pipe, valves or fittings may be leaking or faulty requiring	\$350,000	9	Yes	A se pres Corr
27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vlv			\$110.000	4	Yes	An e deci
31108	T-303B-14, Line L-186, Dos Palos	Ctr Vly	Productivity Impacts	Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation.	\$84,000	N/A	Yes	A co cost land
31108	T-303B-14, Line L-186, Dos Palos	Ctr Vly	Unexpected Condition of Pipe, Valves or Fittings	Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. Any changes to the project scope that were excluded from or	\$480,600	18	Yes	An ir 14 a whic sign Afte
31108	T-303B-14, Line L-186, Dos Palos	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$350,000	12	Yes	insp and
31108	T-303B-14, Line L-186, Dos Palos	Ctr Vly	Safety and Security Field Conditions Differ from	Additional measures may be necessary to ensure the safety of personnel and the public around the job site. As-built drawings and/or GIS may not match what is encountered	\$52,000	N/A	Yes	K rai A PC
30531	T-284-13, Line DFM-1815-02, Monterey	Ctr Cst	Expected Conditions	in the field.	\$26,759	N/A	No	addi
25790	R-069 L-050A TRANSFER 5.09MI MP 2.55- 7.60 PH1	North	Productivity Impacts	Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation.	N/A	12	No	Two proje
25790	R-069 L-050A TRANSFER 5.09MI MP 2.55- 7.60 PH1	North	Changes After IFB	Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.).	N/A	12	No	One tran: worl
31295	R-122 DFM-1306-01 REPL 0.01MI MP 1.48- 1.48 PH1	North	Unknown Obstructions During Excavation	Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost.	\$4,000	1	No	A no the p
31295	R-122 DFM-1306-01 REPL 0.01MI MP 1.48- 1.48 PH1	North	Productivity Impacts	Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation.	N/A	6	No	This pulle
27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99- 11 16 PH1	Ctr Vlv	Permitting	Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access delays in issuance, etc.)	\$350.000	N/A	No	An a road requ are s
27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99- 11.16 PH1	Ctr Vly	Unexpected Condition of Pipe, Valves or Fittings	access, delays in issuance, etc.). Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe.	\$17,000	2	No	nego One to be
	PSRS 27651 27651 27651 31108 31108 31108 31108 31108 31108 31108 31108 31108 31108 31108 31108 31108 31108	PSRS         Project Description           27651         T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock           27651         T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock           27651         T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock           31108         T-303B-14, Line L-186, Dos Palos           31108         T-284-13, Line DFM-1815-02, Monterey           R-069 L-050A TRANSFER 5.09MI MP 2.55- 25790         R-069 L-050A TRANSFER 5.09MI MP 2.55- 1.60 PH1           31295         R-122 DFM-1306-01 REPL 0.01MI MP 1.48- 1.48 PH1           31295         R-122 DFM-1306-01 REPL 0.01MI MP 1.48- 1.48 PH1           31295         R-132 DFM-7222-01 REPL 10.23MI MP 0.99- 11.16 PH1           R-132 DFM-7222-01 REPL 10.23MI MP 0.99-         R-132 DFM-7222-01 REPL 10.23MI MP 0.99-	PSRS         Project Description         Region           27651         T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock         Ctr Vly           27651         T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock         Ctr Vly           27651         T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock         Ctr Vly           31108         T-303B-14, Line L-186, Dos Palos         Ctr Vly           31108         R-069 L-050A TRANSFER S.09MI MP 2.55-         North           25790         R-069 L-050A TRANSFER S.09MI MP 2.55-         North           31295         R-122 DFM-1306-01 REPL 0.01MI MP 1.48-         North           31295         R-132 DFM-7222-01 REPL 10.23MI MP 0.99-         Ctr Vly           27890         R-1	PSRSProject DescriptionRegionRisk27651T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, TurlockCtr VlyHydrostatic Test Rupture/Leak27651T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, TurlockCtr VlyHydrostatic Test Rupture/Leak27651T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, TurlockUnexpected Condition of Pipe, Valves or Fittings31108T-303B-14, Line L-186, Dos PalosCtr VlyValves or Fittings31108T-303B-14, Line L-186, Dos PalosCtr VlySafety and Security Field Condition SD Iffer from Expected Conditions31108T-303B-14, Line L-186, Dos PalosCtr VlySafety and Security Field Conditions31108T-303B-14, Line L-186, Dos PalosCtr VlySafety and Security Field Conditions31108T-303B-14, Line L-186, Dos PalosCtr VlyProductivity Impacts31108T-303B-14, Line L-186, Dos PalosCtr VlyField Condition S31108T-303B-14, Line L-186, Dos PalosCtr VlyField Condition S31109T-260-1RANSFER S.09MI MP 2.55- T.60 PH1NorthProductivity Impacts31295R-122 DFM-1306-01 REPL 0.01MI MP 1.	PNS         Project Description         Refor         Refor         Ref         Ref         Description           2763.1         1-277A-13, Line DTM-7223-01, Turlock         Cirr Viv         Hydrostatic Test Nupture Usek         Increased cost.           77551         1-277A-13, Line DTM-7223-01, Turlock         Cirr Viv         Hydrostatic Test Nupture Usek         Increased cost.           77551         1-277A-13, Line DTM-7223-01, Turlock         Cirr Viv         Hydrostatic Test Nupture Alask         Increased cost.           77553         1-277A-13, Line DTM-7223-01, Turlock         Cirr Viv         Hydrostatic Test Nupture Alask         Increased cost.           7553         1-272B-13, Line DTM-7223-01, Turlock         Cirr Viv         Hydrostatic Test Nupture Alask         Increased cost.           7553         1-272B-13, Line DTM-7223-01, Turlock         Cirr Viv         Productivity Impacts         Patiential Impacts Constructor Productivity caused by multiple           31106         T-3038-14, Line L-186, Dos Palos         Cirr Viv         Valves or Fittings         Productivity Impacts         Productivity Impacts           31108         T-3038-14, Line L-186, Dos Palos         Cirr Viv         Valves or Fittings         Productivity Impacts         Productivity Impacts           31108         T-3038-14, Line L-186, Dos Palos         Cirr Viv         Valves or Fittings	PRD         Project Description         Region         Bale         Description         Cost Impact (3)           2755         T22724-33, Line DFM 7223-03, Turlock         CV VP         Apriculation Tass Support (2)         Potential opport or leak during a hydrostalic test reads in recreased cost.         S300000           27551         T22724-33, Line DFM 7223-03, Turlock         Cr VP         Hydrostalic Test Support (2)         Potential opport or leak during a hydrostalic test reads in recreased cost.         S300000           77551         T22724-33, Line DFM 7223-03, Turlock         Cr VP         Hydrostalic Test Support (2)         Potential opport of last y copling discipation of leak gor leaking or	PPOS         Product Description         Petron         Part of the second of	Justice         Depart decomption         Page on the field         Description         Description

he pipe was found to be leaking during leak check resulting in additional costs to cate and replace. Praxair tracer gas was used to locate the leak. Also one site as excavated per the engineer's request, but the leak was not found there. The acer gas revealed the leak location. Corrosion was found at the leak site and all proded pipe replaced.

Comments

second leak in the line was found 9 days after the first while ramping to spike essure. Praxair tracer gas was again used successfully to locate the leak. prrosion was found at the leak site and all corroded pipe replaced.

n engineering investigation conducted during the second leak resulted in a rcision to replace 30 ft of pipe.

cotton field was used for staging which had the potential to increase project osts. LNG piping was installed which avoided interference with the cotton field and owner's business mitigating a potentially greater cost impact.

n in vista inspection using an ultrasonic tool was conducted of the line in T-303B-I and T-304-14 which identified numerous anomalies (laminations, dents, etc.) hich will delay both projects while these anomalies are addressed and result in gnificant cost increases.

fter initial planning, this project was selected as a pilot project to test a new spection tool called In Vista inspection by Quest. As a result, additional labor in material costs were incurred.

rails were required in order to protect the CNG/LNG equipment. PCF was encountered that was not identified on the drawings requiring Iditional work.

vo out of the five clearances were each delayed a week due to delays on other ojects or emergent work.

ne HPR was not mapped so additional time was required to plan then do the ansfer once it was located. This HPR was part of the Gas Distribution portion of ork therefore any cost impacts were covered by that budget.

non-PG&E unknown corrugated pipe that was abandoned was encountered so e pipe was removed.

his is a GC constructed job and the crew had an emergency project come up that ulled them away from this one resulting in a delay.

n agreement was made to pay the City of Hughson (\$1/squ. ft.) to repave the ad after the project completes. As site restoration was set to begin, the city quested that all 5 lanes of the road be repaved instead of just one. Negotiations e still underway as of 5-Dec-13. The cost reflects an estimate of a potential egotiated outcome.

he 4" valve was delivered and found to be defective when tested so another had be acquired and tested. Costs were incurred to test twice.

	New						Schedule		
Line #	PSRS	Project Description	Region	Risk	Description	Cost Impact (\$)	Impact (Days)	>10% Variance	e
									Despi
									traffi
									about
									durin
		D 133 DEM 7333 01 DEDI 10 33MI MD 0 00			Unplanned permitting conditions, requirements and delays from				half o
67	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99- 11.16 PH1	Ctr Vly	Permitting	various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.).	\$1,100,000	N/A	No	agree prior
	27050		CEI VIY	renniting		\$1,100,000	N/A	140	Pothc
					Potential interference with unmarked and unknown obstructions				Const
		R-132 DFM-7222-01 REPL 10.23MI MP 0.99-		Unknown Obstructions During	5				(dowi
68	27890	11.16 PH1	Ctr Vly	Excavation	potentially delaying construction and resulting in additional cost.	\$500,000	N/A	No	wks).
		R-132 DFM-7222-01 REPL 10.23MI MP 0.99-			Additional measures may be necessary to ensure the safety of				Addit
69	27890	11.16 PH1	Ctr Vly	Safety and Security	personnel and the public around the job site.	\$500,000	N/A	No	clear proje
0.5	27050		Cli Viy	Succe and Security	personner and the public around the job site.	000,000	14/25	140	proje
					Potential interference with unmarked and unknown obstructions				
		R-132 DFM-7222-01 REPL 10.23MI MP 0.99-		Unknown Obstructions During	0				lt was
70	27890	11.16 PH1	Ctr Vly	Excavation	potentially delaying construction and resulting in additional cost.	\$250,000	6	No	due te
									Signif
									horizo
									result
					Unplanned permitting conditions, requirements and delays from				city ic
		R-011 L-118A REPL 8.11MI MP 5.62-12.55			various permitting agencies (e.g. limited working hours, limited				origin
71	26006	PH1	Ctr Vly	Permitting	access, delays in issuance, etc.).	\$200,000	12	No	a con
					Difficulty acquiring land due to a variety of complications (e.g.				امما
		R-011 L-118A REPL 8.11MI MP 5.62-12.55			resistant land owners) that could result in schedule delays or				Land valve
72	26006	PH1	Ctr Vly	Land Acquisition	increased cost (e.g. purchase land via eminent domain).	\$50,000	24	No	pipe t
					Any changes to the project scope that were excluded from or				Statio
		R-011 L-118A REPL 8.11MI MP 5.62-12.55			occurred after IFB (e.g. additional sniff holes, expanded				identi
73	26006	PH1	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$67,000	6	No	to acc
		R-011 L-118A REPL 8.11MI MP 5.62-12.55			Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded				lt was
74	26006	PH1	Ctr Vly	Changes After IFB	excavation, added replacement/test length, etc.).	\$500,000	18	No	increa
	20000	R-011 L-118A REPL 8.11MI MP 5.62-12.55	en viy	changes / iter in D	Poor soil conditions may result in the need for off haul of	2300,000	10		Unsui
75	26006	PH1	Ctr Vly	Poor Soil	unsuitable soil and import of suitable soil.	\$711,000	12	No	acqui
									Signif
									last 1 samp
									const
		R-011 L-118A REPL 8.11MI MP 5.62-12.55			Unstable soils may require additional shoring or other measures				witho
76	26006	PH1	Ctr Vly	Unstable/Weak Soil	which may cause delays and increase in costs to implement.	\$2,600,000	30	No	and if
					Determined construction delayers and assurational little of the second				
		D 134   114 3 DEDI 3 COMUNID 13 CO 10 F4			Potential construction delays and resulting additional costs due to rain days. Potential rain interaction with species (e.g. CTS				
77	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Bay	Weather Impacts	to rain days. Potential rain interaction with species (e.g. CTS breading migration) delaying construction and increasing cost.	\$50,000	1	No	Addit
	בונוג	THE	Day	weather anpacts	second ingration actaying construction and increasing cost.	900,000	<b>4</b>	UVI	Addit
		R-134 L-114_2 REPL 3.59MI MP 12.68-16.54			Unstable soils may require additional shoring or other measures				
78	27979	PH1	Bay	Unstable/Weak Soil	which may cause delays and increase in costs to implement.	\$150,000	6	No	Peat (
		R-134 L-114_2 REPL 3.59MI MP 12.68-16.54		Mercury Cleaning - Pipe				aniana 🖓 🖓 ana	
79	27979	PH1	Bay	Replacement	Cleaning Hg from piping associated with asset retirement.	\$400,000	N/A	No	Clean
		R-134 L-114 2 REPL 3.59MI MP 12.68-16.54			If work is found to be below standards, time may be lost and				NDE ( due te
80	27979	PH1	Bay	Quality	costs incurred to resolve the situation.	N/A	96	No	in a se
				1					

espite extensive early outreach with Stanislaus County to receive buy-in on the affic control plan (full road closures with detours) they later changed their mind out the traffic control plan, requiring that one lane of traffic remain open ring construction. Also, in lieu of trench cut fees, the county required overlay of If of the road where trenches were located. After further negotiations, an reement was reached that PG&E will pay the county to pave their detour roads ior to construction start allowing for full road closures.

Comments

otholing identified 117 unmarked/unknown utilities so redesign was necessary. onstruction methods were changed to shallow HDDs which helped mitigate cost own from estimated \$2 million) and schedule impacts (down from estimated 4 ks).

Iditional traffic control has been necessary to ensure public safety to make it ear that the road is closed, including during non-working hours impacting oject costs.

was necessary to select a new tie-in location on the west side of Whitmore Ave le to conflicts with other existing utilities.

gnificant issues were experienced with the city of Fresno regarding vrizontal/vertical separation requirements which caused delays particularly as a sult of the inability to acquire a particular easement. During construction the cy identified an intersection where work was taking place as not covered by the iginal encroachment permit. Plans were to cut, but the city preferred a bore. As compromise for cutting, additional restoration measures were made.

nd was acquired at higher costs than anticipated at a specific property where a lve lot was planned was not acquired so it was necessary to relocate 4000 ft of be that would have been on private property, but now will be in franchise. ation engineering conducted a more in depth review of station drawings and entified additional materials needed which added to project costs and took time acquire.

was necessary to move the line into franchise so re-design was required, creasing project costs.

nsuitable bedding sand material resulted in cost increases to haul it off and quire import sand from the quarry.

gnificant impacts were realized due to sugar sands and hard pans soils on the st 10,000 ft of work, increasing project costs and slowing production rates. Soil mples were taken to gain a better understanding of the conditions prior to onstruction start so plans could be made accordingly. A tackifier was applied, but ithout success. Boring was also explored, but the sand was not dense enough ad if it were then it would have been possible to dig through.

Iditional rock was purchased due to a rain event.

at gravel was encountered while digging, resulting in increased costs to handle.

eaning costs were higher than anticipated.

DE Contractor Inspection method requires rework. Re-inspection was necessary te to inspection not to code. NOTE: The cost impact of \$4,800,000 was captured a separate expense account.

	New						Schedule		
Line #	PSRS	Project Description	Region	Risk	Description	Cost Impact (\$)	Impact (Days)	>10% Varian	te
		R-134 L-114_2 REPL 3.59MI MP 12.68-16.54			Potential construction delays and resulting additional costs due to rain days. Potential rain interaction with species (e.g. CTS				Due
81	27979	- PH1	Bay	Weather Impacts	breading migration) delaying construction and increasing cost.	\$50,000	N/A	No	warr
					Potential interference with unmarked and unknown obstructions				
		R-105 DFM-1815-02 REPL 0.45MI MP 18.76-		Unknown Obstructions During	found during the construction excavation or incorrect drawings				Old
82	23769	19.24 PH1	Ctr Cst	Excavation	potentially delaying construction and resulting in additional cost.	\$35,000	3	Yes	requ
					Potential impacts to contractor productivity caused by multiple				Due
		R-105 DFM-1815-02 REPL 0.45MI MP 18.76-			issues which may result in contractor moving to another				could
83	23769	19.24 PH1	Ctr Cst	Productivity Impacts	construction location on-site or other methods of mitigation.	\$60,000	4	Yes	expe
	*****				Any changes to the project scope that were excluded from or				
			-		occurred after IFB (e.g. additional sniff holes, expanded	405.000			lt wa
84	23631	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	Bay	Changes After IFB	excavation, added replacement/test length, etc.). Any changes to the project scope that were excluded from or	\$85,000	12	No	intru
					occurred after IFB (e.g. additional sniff holes, expanded				The 1
85	23631	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	Bay	Changes After IFB	excavation, added replacement/test length, etc.).	\$50,000	N/A	No	pote
									A sat
					Additional measures may be necessary to ensure the safety of				site
86	23651	V-052 Valve Auto - 51St Avenue, 1V, Ph. 1	Bay	Safety and Security	personnel and the public around the job site.	\$20,000	N/A	No	were
					Potential interference with unmarked and unknown obstructions				Rede
				Unknown Obstructions During	found during the construction excavation or incorrect drawings				beca us of
87	23655	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	Bay	Excavation	potentially delaying construction and resulting in additional cost.	\$50,000	24	No	plan
					Additional measures may be necessary to ensure the safety of				Ther
88	23655	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	Bay	Safety and Security	personnel and the public around the job site.	\$20,000	N/A	No	expe
					Potential impacts to contractor productivity sourced by multiple				
					Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another				A mi
89	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Productivity Impacts	construction location on-site or other methods of mitigation.	\$3,680	1	No	A mi it ha
	20002		ou est	reducincy impacts	Additional work or resources may be required to adequately	<i>,,,,,,,,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,	-		
					support customer loads during clearance and to meet potentially				The
90	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Clearance	tight clearance windows.	\$6,200	2	No	origii
									71
									The Mate
									30"
									weld
									proc
					Potential impacts to contractor productivity caused by multiple				any a
					issues which may result in contractor moving to another	anna (	and the second	Number of State	spen
91	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Productivity Impacts	construction location on-site or other methods of mitigation.	\$39,000	3	No	each
					Unplanned support (equipment or labor) was provided to other				
					teams such as GC, CNG, or LNG because they did not have				Supp
92	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Support for Other Work Teams	sufficient resources available at the time that they were needed.	\$44,000	N/A	No	clea
					Determining the second state of the second sta				
					Potential impacts to contractor productivity caused by multiple				Othe
93	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Productivity Impacts	issues which may result in contractor moving to another construction location on-site or other methods of mitigation.	\$7,755	2	No	so w proje
22	23002	tors value nato - Lugewood, UV, Fill I		. rouncurity inipacto	construction rotation on site of other methods of mugation.	<i></i>	£	TXO -	թւմյ
					Impacts resulting from contractor or sub-contractor negligence or				
94	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Errors and Omissions	oversight related to the work, product or property.	\$54,000	10	No	Aspe
					Any changes to the project scope that were excluded from or				Desig
05	22602	VOIE Value Auto, Edeance d. CV DL 4	Ctr C-t	Changes After ICD	occurred after IFB (e.g. additional sniff holes, expanded	¢17.000	NI/A	NI	Retai
95	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Changes After IFB	excavation, added replacement/test length, etc.).	\$17,000	N/A	No	revis

e to other delays, the slurry seal will be conducted in 2014 so that it can be arrantied during better weather.

Comments

ld city duct banks and pavement (i.e. city infrastructure) were encountered equiring additional work to work around.

ue to sequenced work, a hydrotest required completion before this project huld begin. Since a delay was experienced on the test project, a delay was perienced on this one also.

was necessary to remove 4 major Redwood trees because the roots were truding on the gas lines which resulted in increased project costs.

ne fencing around the station required replacement from metal to wood due to otential overhead transmission fault current issues.

satellite site was acquired with a security guard present; however, the satellite ite was only used for a week so a PG&E service center was used which costs vere incurred to move to.

edesign of the valve grade box from subsurface to above ground was necessary ecause a BART communication bank was encountered which BART did not notify of. This eliminated the need to potentially relocate a fence as previously anned.

nere was 24 hour security on the site at additional cost due to issues operienced on previous projects in the area.

miscommunication resulted in potholing being done in the incorrect location so had to be re-done.

ne parameters of the clearance grew so the blow down time was longer than riginally anticipated resulting in additional construction crew labor costs.

the 30" pipe delivered to the Edgewood site was X-65, not X-60 like the Bill of aterials had specified. This error had not been identified until after two (2) each "welds had been completed using the incorrect welding procedure. These elds had to be subsequently cut out and the joints re-beveled. New weld ocedures had to be generated, uploaded, and brought to the welders before by additional welding could commence. Requesting evaluation on PCO for time ent on prep work, welding the X-65 pipe, the regroup time and the cutout of (2) to 30" welds.

apport in the form of personnel (monitors) was provided to air movers during earance.

ther projects (Base) in the vicinity were using this site as a blow down location welding could not occur while those lines were blown down delaying this oject and resulting in related cost increases.

spects of the design were identified as requiring additonal update. esign changes were made to the fence design after construction commenced. etaining wall attachments were changed and the maintenance access gates were vised.

Line #	New PSRS	Project Description	Region	Risk	Description	Cost Impact (\$)	Schedule Impact (Days)	>10% Varianc	e
					Potential impacts to contractor productivity caused by multiple				
					issues which may result in contractor moving to another				Due
96	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Productivity Impacts	construction location on-site or other methods of mitigation.	\$264,000	N/A	No	over
					Any changes to the project scope that were excluded from or				Desi
					occurred after IFB (e.g. additional sniff holes, expanded				equi
97	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Bay	Changes After IFB	excavation, added replacement/test length, etc.).	\$20,000	N/A	Yes	devis Takı
									issue
					Additional work or resources may be required to adequately				was
					support customer loads during clearance and to meet potentially				confl
98	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Bay	Clearance	tight clearance windows.	\$100,000	N/A	Yes	dela
				Field Conditions Differ from	As-built drawings and/or GIS may not match what is encountered				Pipe
99	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Bay	Expected Conditions	in the field.	\$100,000	36	Yes	costs
		V-030 Valve Auto - Antioch Terminal, 5V, Ph.			If work is found to be below standards, time may be lost and				Dela
100	30014	1	Bay	Quality	costs incurred to resolve the situation.	\$120,000	36	Yes	issue
		V 020 Value Auto Antisch Terminal EV Ph			Additional work or resources may be required to adequately				Due
101	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Bay	Clearance	support customer loads during clearance and to meet potentially tight clearance windows.	\$40,000	24	Yes	proje same
101	20014	V-030 Valve Auto - Antioch Terminal, 5V, Ph.	Day	Field Conditions Differ from	As-built drawings and/or GIS may not match what is encountered	340,000	24	ies	Sailit
102	30014	1	Bay	Expected Conditions	in the field.	\$70,000	N/A	Yes	Conc
			1						Clea
					Additional work or resources may be required to adequately				Due
		V-030 Valve Auto - Antioch Terminal, 5V, Ph.			support customer loads during clearance and to meet potentially				were
103	30014	1	Bay	Clearance	tight clearance windows.	\$150,000	N/A	Yes	poss
					Additional work or resources may be required to adequately				
	20044	V-030 Valve Auto - Antioch Terminal, 5V, Ph.			support customer loads during clearance and to meet potentially	¢50.000	10		V-20
104	30014	1	Bay	Clearance	tight clearance windows.	\$50,000	12	Yes	scop
					Potential impacts to contractor productivity caused by multiple				lt wa
					issues which may result in contractor moving to another				Rebu
105	23635	V-045 Valve Auto - East Airway, 3V, Ph. 1	Ctr Cst	Productivity Impacts	construction location on-site or other methods of mitigation.	N/A	64	No	proje
					Unplanned permitting conditions, requirements and delays from				
					various permitting agencies (e.g. limited working hours, limited				A de
106	27532	V-031A Valve Auto - California, 1V, Ph. 1	Bay	Permitting	access, delays in issuance, etc.).	N/A	6	No	cont
				Field Conditions Differ from	As-built drawings and/or GIS may not match what is encountered			theorem	A PC
107	27532	V-031A Valve Auto - California, 1V, Ph. 1	Bay	Expected Conditions Field Conditions Differ from	in the field. As-built drawings and/or GIS may not match what is encountered	\$35,000	N/A	No	to be
108	27532	V-031A Valve Auto - California, 1V, Ph. 1	Bay	Expected Conditions	in the field.	\$65,000	N/A	No	
109	27552		Bay	Expected conditions	in the held.	202,000	N/A	INO	
									One
									acce
									more
									addit
					Difficulty acquiring land due to a variety of complications (e.g.				any p
		R-007 L-108_1A REPL 2.19MI MP 37.14-38.17			resistant land owners) that could result in schedule delays or				after
109	27594	PH1	Ctr Vly	Land Acquisition	increased cost (e.g. purchase land via eminent domain).	\$927,000	36	No	remo
									The
									pern
					Unplanned permitting conditions, requirements and delays from				feasi
		R-148 DFM-1617-01 REPL 0.85MI MP 0.82-			various permitting agencies (e.g. limited working hours, limited				the c
110	23682	1.26 PH1	Ctr Vly	Permitting	access, delays in issuance, etc.).	\$40,000	18	No	were
									As a
									Dece
					Potential construction delays and resulting additional costs due				whic
		R-148 DFM-1617-01 REPL 0.85MI MP 0.82-			to rain days. Potential rain interaction with species (e.g. CTS				signi
111	23682	1.26 PH1	Ctr Vly	Weather Impacts	breading migration) delaying construction and increasing cost.	\$30,000	2	No	effec

ue to delays caused by other issues, the contractor is also being reimbursed for verhead costs.

Comments

esign was done with plans to reuse a building currently on site for control uppment; however, asbestos was found in the building so an alternate plan was evised.

aking the clearance on the SP-5 line was expected to be challenging due to issues experienced on other projects. Also a minimum inventory verification vas completed which delayed clearance. In addition, due to scheduling onflicts with other work, that was higher priority, this project experienced elays.

pe depth and other location specifications were not as expected resulting in osts to adjust the design/work.

elays were experienced related to the quality of engineering. The quality sues could not be resolved so a new contractor was selected.

ue to a delay on an earlier consecutive replacement project on L-114, this oject was delayed in taking clearance because L-303 could not be out at the me time as L-114.

onditions were different than expected, resulting in additional work. earance delays and poor planning impacted the project cost and schedule. ue to the delays in taking clearance, CNG and additional sniff hole locations ere required because of the colder weather. This was not identified as a possibility.

-201 and V-9.03 were not commissioned as scheduled with the rest of the cope due to clearance conflicts with other projects.

was necessary to complete R-23 on L-131 and Livermore and Airway Station build (Base) projects prior to this project. As a result of delays on those ojects, this project was delayed also.

delay was experienced waiting for the Caltrans permit despite early and portinued communication.

PCF stopple was not where the as-builts identified it to be so the design had be adjusted resulting in a cost increase.

ne landowner required that we remove the retired line in order to grant us cess to his land. This requires additional permitting, etc. and will result in ore cost increases and delays in site restoration. This delay will also result in Iditional repaying costs because the San Joaquin County does not consider by paving completed between Nov-April as permanent so we will repaye ter that time frame. Additional costs may still be incurred related to the moval of the retired line and repaying.

he city of Tracy required removal of the retired line in order to grant the ermit which requires an additional trench because replace in place was not easible. This resulted and cost increases and a delay while negotiating with he city and exploring mitigation options such as replace in place. Nine days vere required for redesign and additional construction time each. s a result of the permitting delay, the project was scheduled to tie-in in recember. A delay and associated costs were incurred due to cold weather which resulted in an increased customer load and would have required ignificantly more CNG. Accepting the delay was more reasonable and cost ffective.

Unbased permitting conditions, requirements and delays from various permitting conditions, requirements and various permitting conditions, requirements and delays from various permitting conditions, requirements and various permitting various permit		Schedu	ile	
11224021-005 L 122 MP 31.95-38.39 UPGRADE PH1Cu CuPermitting Permitting access. delays in liceance, it.l.N/A72Y11324025-005 L 122 MP 31.95-38.39 UPGRADE PH1Cu CuPermitting Permitting access. delays in liceance, it.l.N/A72Y11324025-005 L 122 MP 31.95-38.39 UPGRADE PH1Cu CuPermitting Permitting access. delays in liceance, it.l.Cu Out68Y114246-37V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuPermitting Permitting access. delays in liceance, it.l.N/A4N115236-31V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuPermitting Permitting access. delays in liceance, it.l.N/A4N115236-31V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuPermitting Permitting PermittingPermitting access. delays in liceance, it.l.N/A4N115236-31V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuPermitting PermittingPermitting access. delays in liceance, it.l.N/AN116236-33V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuPermitting PermittingPermitting access delays in liceance, it.l.N/AN117236-33V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuValve or FittingPermitting access delays in liceance, it.l.N/AN118236-32V-016 Valve Auto- Crytel Springs. 4V, Ph 1Cur CuValve or FittingPermitting access delays i		ost Impact (\$) Impact (D	Days) >10% Variance	
1122023LODE L132 MP 31.95-38.30 UNGRADE PH-1CY C3Permitting performance constraints and performance constraints a				
Upperced		N/4 70		Signif
133         2402         FUDE L-232 MF 31.96-38-39 UPGRADD FML         Cur (L)         Permitting         excess, delays in issuance, etc.)         5100,000         66         Y           135         23608         V-015 Vale Auto - Crystal Springs, 4V, Ph. 1         Crr Cs1         Permitting         cacess, delays in issuance, etc.)         N/A         4         N           136         23608         V-015 Vale Auto - Crystal Springs, 4V, Ph. 1         Crr Cs1         Permitting         cacess, delays in issuance, etc.)         N/A         4         N           136         23608         V-015 Vale Auto - Crystal Springs, 4V, Ph. 1         Crr Cs1         Permitting         cacess, delays in issuance, etc.)         N/A         4         N           137         23608         V-015 Vale Auto - Crystal Springs, 4V, Ph. 1         Crr Cs1         Productivity mpact         creation on state or Cristal Springs, 4V, Ph. 1         Crr Cs1         Vales or Titings         cacess, delays in issuance, etc.)         340,000         1         N           138         V-015 Vale Auto - Crystal Spring, 4V, Ph. 1         Crr Cs1         Vales or Titings         cacess, delays in issuance, etc.)         340,000         1         N           139         V-015 Vale Auto - Crystal Spring, 4V, Ph. 1         Crr Cs1         Vales or Titings         cacestrate or total ding dinder or		N/A /2		his a The n
11120131008 L 132 Mer 3 Je 0.78 Job Version Job UPGRADD FP1-14Chr CallPermittingsenses, adely win issuence, etc.).51.00,00065Y11420603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatPermittingacross-dely in issuence, etc.).N/A4N11523603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatPermittingacross-dely in issuence, etc.).N/A4N11523603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatPermittingacross-dely insuence, etc.).N/A4N11623603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatPermittingacross-dely insuence, etc.).81.02001N11623603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatProducting Virgosaacross-dely insuence, etc.).\$100001N11723603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatCharges After JBacross-dely insuence, etc.).\$10000N/AN11723603V.016 Valve Auto - Crystal Springs, AV, Ph. 1Chr CatCharges After JBacross-dely insuence international influence insuence international influence insuence influence influ				and s
114     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Permitting       115     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Permitting     Score and the spring of th		\$100.000 66		addit
118         2803         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Permitting         variance permitting agendes (e.g., Inneted working hours, limited         N/A         A           118         24603         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Productivity impacts         Creases, delay in instance, etc.).         N/A         A         N           118         23603         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Productivity impacts         Creases, delay in instance, etc.).         S10,000         N/A         N           117         23603         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Ourspected Condition of Piese, advance indulty insert         S10,000         N/A         N           117         23603         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Ourspected Condition of Piese         S10,000         N/A         N           118         23603         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Value or Fittings         Productivity inspected         S10,000         N/A         N           118         23603         V-016 Value Auto - Crystal Springs, 4V, Ph. 1         Cr. Cr.         Value or Fittings         Productivity inspected         S10,000         N/A         N      <		3100,000 00		t was
111     2803     2616 Yahe Auto - Crystal Sorings, AV, Ph.1     Cr. Cl.     Permitting     various permitting agendes (e.g., limited working hours, limited     NA     A       115     23603     Volis Vahe Auto - Crystal Sorings, AV, Ph.1     Cr. Cl.     Permitting agendes (e.g., limited working hours, limited     \$137,800     1     Na       116     23603     Volis Vahe Auto - Crystal Sorings, AV, Ph.1     Cr. Cl.     Productivity impacts     Construction in contractor indivisition of moles in the contractor inditentime moles in the contractor inditentime moles in the c			d	desig
114     28603     V-916 Value Auto - Crystal Sorings, 4V, Ph. 1     Cr. Ct.     Permitting     access, delays in issuance, etc.     N/A     4     N       115     23603     V-916 Value Auto - Crystal Sorings, 4V, Ph. 1     Cr. Ct.     Productivity (mparts)     Description (mparts) <t< td=""><td>Unplanned permitting conditions, requirements and delays from</td><td></td><td></td><td>applio</td></t<>	Unplanned permitting conditions, requirements and delays from			applio
114     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr. Ct.     Permitting     access, delays in issuance, etc.     N/A     4     N       115     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr. Ct.     Productivity Impacts     construction of the crystal contractor module in contractor construct constructon construct construct				at iss
115     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir Cat     Productivity impacts     Construction function on one to or other including linear     S137,800     1     N       116     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir Cat     Productivity impacts     S40,000     1     N       117     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir Cat     Cir Cat     Changes After 1FB     Cir Cat		N/A 4	No SI	SFPU
315     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir. Cit.     Productivity impacts     Sums which may result in constraic or mothod: on migration     5137,800     1     N       116     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir. Cit.     Valves or Fittings     Additional work to requiring     540,000     1     N       117     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir. Cit.     Cir. Cit.     Changes After IPB     Additional work to require rescheded from or accurred atter IPI (e.g. additional work to require rescheded from or accurred atter IPI (e.g. additional work to require rescheded from or accurred atter IPI (e.g. additional work to require rescheded from or accurred atter IPI (e.g. additional work to require rescheded from or accurred to require rescheded from or accurred atter IPI (e.g. additional work to require rescheded from or accurred to require rescheded from or accurred to require rescheded from or accurred to response the wind works to response the min. Including linear     N/A     N       118     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir. Cit.     Valves or Fittings     N/A     N       119     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir. Cit.     Cir. Cit.     Valves or Fittings     Sci. 000     N/A     N       119     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cir. Cit.     Cir. Cit.     Valves or Fittings     Sci. 000     N/A     N				
115       23603       V-016 Valve Auto : Crystal Springs, 4V, Ph. 1       Cir. Cet.       Poductivity Impacts       construction location on other project coope that were excluded from or near project them, including linear including li	Potential impacts to contractor productivity caused by multiple			
115     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Valves or Fittings     Pipe, valves or fittings may be leaking or foulty requiring     540,000     1     N       117     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Changes After IF 8     excaurbon, addet ineplacement/test length, including linear     510,000     N/A     N       118     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Changes After IF 8     excaurbon, addet ineplacement/test length, including linear     57,300     N/A     N       118     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Clearance     Unexpected Condition of Pipe, valves or fittings may be leaking or faulty requiring     minutational work to repair or replace them, including linear     indications on the pipe.     57,300     N/A     N       119     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Pipe, valves or fittings may be leaking or faulty requiring       120     23603     V-016 Valve Auto - Crystal Springs, 4V, Ph. 1     Ctr Cst     Ctr Cst     Productivity Impacts     Sto Contractor productivity caued by multiple lisses which may result in contractor moving to another     Sto Contother     N/A     N <td>issues which may result in contractor moving to another</td> <td></td> <td>A</td> <td>\ppro</td>	issues which may result in contractor moving to another		A	\ppro
115     23603     V016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr C xt     Valves or Fittings     Additional work to regain or replace them, including linear     540,00     1     N       117     23603     V016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr C xt     Charges Atter IBB     Additional work to regain or replace them, including linear     510,000     N/A     N       118     23603     V016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr C xt     Charges Atter IBB     Additional work to regain or replace them, including linear     510,000     N/A     N       118     23603     V016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr C xt     Charges Atter IBB     Additional work to regain or replace them, including linear     57,300     N/A     N       119     23603     V016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr C xt     Clearance     Clearance     Stallitonal work to regain or replace them, including linear     Stallitonal work to regain or replace them, including linear     Stallitonal work to regain or replace them, including linear     N/A     N       119     23603     V016 Valve Auto - Crystal Springs, 4V, Ph. 1     Cr C xt     Clearance     Clearance     Clearance     Clearance     Stallitonal work to regain or replace them, including linear     Stallitonal work to regain or replace them, including linear     N/A     N       120     23603     V016 Valve Auto	• •	\$137,800 1	No pi	oroje
116       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Valves or Fittings       Initiations on the pipe.       S40,000       1       N         117       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After (FB       crystal Springs, 4V, Ph. 1       Ctr Cst       Ctr Cst       Clearance       Unexpected Condition of Pipe, addutional work to resources may be required to adequately support custal springs, 4V, Ph. 1       Ctr Cst       Clearance       Unexpected Condition of Pipe, addutional work to resources may be required to another construction non-site or other methods of mitigation.       S20,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Ctr Cst       Productivity Impacts       contractor moning to another contractor moning to another construction non-site or other methods of mitigation.       S20,000       N/A       N <td></td> <td></td> <td></td> <td></td>				
119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr. Ctt       Changes After IFB       excavation, added topbacement/test length, etc.)       \$10,000       N/A       N         118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr. Ctt       Changes After IFB       excavation, added topbacement/test length, etc.)       \$10,000       N/A       N         118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr. Ctt       Ctr. Ctt       Ctr. Ctt       Ctr. Ctt       N/A       N         119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr. Ctt       Ctr. Ctt       Clearance       Indications on the pipe.       Additional work for resources may be required to adequately support customer loads during clearance and to meet potentially traduiting       S62,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr. Ctt       Ctr. Ctt       Productivity Impacts       contractor productivity caused by multiple issues which may result in contractor moving to another construction non-site or other methods of mitigation.       \$20,000       1       N         120       23675       Ph. 1       Ctr. Ctt       Ctr. Ctt       Unexpected Condition of Pipe. Valves or fittings may be leaking or faulty requiring additional work to respart them, including linear inclactains on the pipe. Valves or fittings con t				Remo
11723603V 036 Valve Auto - Crystal Springs, 4V, Ph. 1Ctr. CstChanges After IFBexcavation added replacement/test length, etc.)\$10,000N/AN11823603V 016 Valve Auto - Crystal Springs, 4V, Ph. 1Ctr. CstChanges After IFBexcavation added replacement/test length, etc.)\$10,000N/AN11823603V 016 Valve Auto - Crystal Springs, 4V, Ph. 1Ctr. CstCtr. CstCt		\$40,000 1		equi
117       23683       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Changes After IFB       excuvition, added replacement/(rest length, ret.)       \$10,000       N/A       N         118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       stability requiring       57,300       N/A       N         118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       stability requiring       stability requiring       52,000       N/A       N         119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Clearance       tptt clearance windows.       \$62,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       construction location on-site or other methods of mitigation.       \$20,000       1       N         121       23673       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Valves or fittings may be leaking or faulty requiring       stability adjuity adjuity or sate fast construction location on-site or other methods of mitigation.       \$20,000       1       N         121       23673       Ph. 1       Ctr Cst       Valves or fi				Studs
Pipe, values or fittings may be leaking or faulty requiring       Pipe, values or fittings may be leaking or faulty requiring         118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cts       Valves or Fittings       Miditional work for resources may be required to adequately       S7,300       N/A       N         119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cts       Clearance       Walves or Fittings       S0,000       N/A       N         119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cts       Clearance       Walves or Fittings       Potential impacts to contractor productivity caused by multiple issues which may required to adequately       S0,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cts       Productivity impacts       Potential impacts to contractor productivity caused by multiple issues which may requires moving to another construction nowing to another       S20,000       1       N         121       23675       Ph. 1       Ctr Cts       Productivity impacts       Valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       S20,000       N/A       N         122       23675       Ph. 1       Ctr Cts       Vives or Fittings       Valves or fittings may be leaking or faulty requiring additiona		¢10.000 N/24		aunc
118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph.1       Cr Cr St       Unepected Condition of Ph       indiciona on the pipe.       \$7,30       N/A       N         119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph.1       Cr Cr St       Clearance       tight Clearance and to meet potentially.       S2,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph.1       Cr Cr St       Clearance       Tight Clearance       S2,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph.1       Cr Cr St       Poductivity Impacts       Construction location on-site or other methods of mitigation.       S20,000       1       N         121       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph.1       Cr Cr St       Poductivity Impacts       Construction location on-site or other methods of mitigation.       S20,000       1       N         121       23673       V-061 Valve Auto - Sar Gas Load Center, 4V, Ph.1       Cr Cr St       Unexpected Condition of Ph       Pipe. Valves or fittings with the repair or replace them, including linear       S20,000       N/A       N         122       3109       T-304-14, Line L-186, Dos Palos       Cr VIV       Premitting       Pipe. Valves or fittings with the repair or replace them, including linear       Pipe. Valve		⇒10,000 N/A	No w	voul
118       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       \$7,30       N/A       N         119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Clearance       tipht Clearance windows.       \$62,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Clearance       Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation.       \$20,000       1       N         121       23605       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       construction location on-site or other methods of mitigation.       \$20,000       1       N         122       23605       V-016 Valve Auto - Sac Gas Load Center, 4V, Vitor Ctr Cst       Productivity Impacts       construction location on-site or other methods of mitigation.       \$20,000       N/A       N         122       23605       Ph. 1       Ctr Cst       Productivity Impacts       construction location on-site or other methods of mitigation.       \$20,000       N/A       N         123       3109       T-304-14, Line L-186, Dos Palos       Ctr Vitor Partings       Unexpected Condition of Pipe.			т	There
119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Clearance       Potential impacts to contractor productivity caused by multiple issues which may resources and to meet potentiality         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       Potential impacts to contractor productivity caused by multiple issues which may resource moving to another       \$20,000       1       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       construction location on-site or other methods of mitigation.       \$20,000       1       N         121       23675       Ph. 1       Ctr Cst       Valves or fittings       Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       indications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       additional work to repair or replace them, including linear       indications on the pipe.       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or fittings       additional work to repair or replace them, including linear       indications on the pipe.       \$1,058,000       18       N         124		\$7.300 N/A		collap
support customer loads during clearance and to meet potentially11923603V-016 Valve Auto - Crystal Springs, 4V, Ph. 1Ctr CtrCtr CtrClearancePotential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation.\$20,0001N12023603V-016 Valve Auto - Crystal Springs, 4V, Ph. 1Ctr CstProductivity ImpactsPotential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another 		φ. ,	,,,, U	
119       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Clearance       tight clearance windows.       \$62,000       N/A       N         120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation.       \$20,000       1       N         121       23603       V-016 Valve Auto - Sac Gas Load Center, 4V.       Unexpected Condition of Pipe, Valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr VI       Permitting       Pripe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe.       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr VI       Permitting       Pripe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe.       N/A       2       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr VI       Pripe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, inclu			Α	\ Addit
120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       construction location on -site or other methods of mitigation.       \$20,000       1       N         121       23675       Ph. 1       Ctr Cst       V-061 Valve Auto - Sac Gas Load Center, 4V,       Unexpected Condition of Pipe,       additional work to repair or replace them, including linear       includications on the pipe.       \$50,000       N/A       N         121       23675       Ph. 1       Ctr Cst       Valves or Fittings       Unexpected Condition of Pipe,       additional work to repair or replace them, including linear       includications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       caccess, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excease access and excease accluded from or occcure of after IFB (e.g. additional w		\$62,000 N/A	No oi	on L-:
12023603V-016 Valve Auto - Crystal Springs, 4V, Ph. 1Ctr CstProductivity Impactsconstruction location on-site or other methods of mitigation.\$20,0001N12123675V-061 Valve Auto - Sac Gas Load Center, 4V, Ph. 1Ctr CstUnexpected Condition of Pipe, valves or FittingsPipe, valves or fittings may be leaking or faulty requiring, additional work to repair or replace them, including linear 				
120       23603       V-016 Valve Auto - Crystal Springs, 4V, Ph. 1       Ctr Cst       Productivity Impacts       construction location on-site or other methods of mitigation.       \$20,000       1       N         121       2367       Ph. 1       Ctr Cst       Unexpected Condition of Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       \$1,058,000       N/A       2       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded       \$1,058,000       18       N         124 <t< td=""><td></td><td></td><td>D</td><td>Delay</td></t<>			D	Delay
V-061 Valve Auto - Sac Gas Load Center, 4V,       Unexpected Condition of Pipe,         121       23675       Ph. 1         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Verpected Condition of Pipe,       indications on the pipe.       \$1,058,000         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Verpected Condition of Pipe,       indications on the pipe.       N/A         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Verpected Condition of Pipe,       additional work to repair or replace them, including linear         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Vipe, valves or fittings       additional work to repair or replace them, including linear         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Valves or Fittings       indications on the pipe.       \$1,058,000         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Valves or Fittings       indications on the pipe.       \$1,058,000         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly         Ctr Vly       Changes After IFB       excavation, added replacement, text length, etc.).       \$438,497       12				owe
V-061 Valve Auto - Sac Gas Load Center, 4V,       Unexpected Condition of Pipe,       additional work to repair or replace them, including linear         121       23675       Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permittings       pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Addition	ductivity Impacts construction location on-site or other methods of mitigation.	\$20,000 1		at the
V-061 Valve Auto - Sac Gas Load Center, 4V,       Unexpected Condition of Pipe,       additional work to repair or replace them, including linear         121       23675       Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       indications on the pipe.       \$100       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be nec				hree
V-061 Valve Auto - Sac Gas Load Center, 4V,       Unexpected Condition of Pipe,       additional work to repair or replace them, including linear         121       23675       Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear       indications on the pipe.       \$100       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be nec	Dies unling as fittings and he hading a faulture and			addit
121       23675       Ph. 1       Ctr Cst       Valves or Fittings       indications on the pipe.       \$50,000       N/A       N         122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permittings       indications on the pipe.       Pipe, valves or fittings may be leaking or faulty requiring       Unexpected Condition of Pipe,       additional work to repair or replace them, including linear       123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of				s an
122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       additional work to repair or replace them, including linear         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N		¢50,000 N/A		epai
<ul> <li>122 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Permitting access, delays in issuance, etc.).</li> <li>123 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Valves or Fittings</li> <li>123 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Valves or Fittings</li> <li>124 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Changes After IFB</li> <li>125 excert after IFB (e.g. additional sniff holes, expanded</li> <li>126 excert after IFB (e.g. additional sniff holes, expanded</li> <li>127 Additional measures may be necessary to ensure the safety of</li> </ul>		ຈັວ0,000 N/A	NO Ş	\$1,70
122       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Permitting       access, delays in issuance, etc.).       N/A       2       N         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       additional work to repair or replace them, including linear       additional work to repair or replace them, including linear         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N				
Pipe, valves or fittings may be leaking or faulty requiring Unexpected Condition of Pipe, additional work to repair or replace them, including linear 123 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Valves or Fittings indications on the pipe. \$1,058,000 18 N Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded 124 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Changes After IFB excavation, added replacement/test length, etc.). \$438,497 12 N Additional measures may be necessary to ensure the safety of		N/A 2	No D	Despi
Unexpected Condition of Pipe, additional work to repair or replace them, including linear         123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         Any changes to the project scope that were excluded from or         occurred after IFB (e.g. additional sniff holes, expanded         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of				
123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of			A	As a r
123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of			ar	anom
123       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$1,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Valves or Fittings       indications on the pipe.       \$4,058,000       18       N         124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of       Additional measures may be necessary to ensure the safety of       State Participation       State Partipation       S	Pipe, valves or fittings may be leaking or faulty requiring		rr	esult
Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded 124 31109 T-304-14, Line L-186, Dos Palos Ctr Vly Changes After IFB excavation, added replacement/test length, etc.). \$438,497 12 N Additional measures may be necessary to ensure the safety of	expected Condition of Pipe, additional work to repair or replace them, including linear		ar	nom
124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of       Additional measures may be necessary to ensure the safety of		\$1,058,000 18		uptu
124       31109       T-304-14, Line L-186, Dos Palos       Ctr Vly       Changes After IFB       excavation, added replacement/test length, etc.).       \$438,497       12       N         Additional measures may be necessary to ensure the safety of				After
Additional measures may be necessary to ensure the safety of			ir	nspe
		\$438,497 12		abor
125 31109 I-304-14 Line I-186 Dos Palos Ctr VIV Satety and Security personnel and the nublic around the ioh site S12.466 N/A N				t was
	ety and Security personnel and the public around the job site.	\$12,466 N/A	No Cl	CNG/
Unplanned permitting conditions, requirements and delays from	Unplanned normitting conditions, requirements and delays from		т	Гhe А
various permitting agencies (e.g. limited working hours, limited				and a
		\$200.000 24		watei
	אווננווד מננדיז, עלומיז וו וזגעמוונל, לנג.).	۶ <u>۲</u> 00,000 24	UN W	Jatel
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			tł	he st
Potential delays in construction due to the presence of protected			e	exper
127 24017 I-003 L-300B MP 299-351.8 UPGRADE PH-1 Ctr Vly Environmental/Species Impacts or endangered species at the construction site. \$30,000 24 N	Potential delays in construction due to the presence of protected			exper ourro

gnificant delays were experienced in acquiring permits from the SFPUC on is and other projects.

Comments

e necessity to apply for an additional permit with Caltrans was identified in since Caltrans permits cannot be expedited a delay was experienced and iditional clearance required.

was necessary to install facilities outside of the permitted area due to esign changes after the permitting process began so an additional

plication was submitted to the SFPUC which has been historically long lead issuing permits. Commissioning was delayed one month waiting for the PUC approval of the updated permit.

pproximately 18" of additional cut was necessary resulting in increased oject costs.

emoval and replacement of coating on 2 lines feeding into the station was quired resulting in cost increases.

uds were replaced and bleed valves were increased from 3/4" to 2" on the uncher/receiver because they were not accepted by the local district that ould be operating them.

nere was an existing culvert at the entrance to the valve lot which had Ilapsed so it was necessary to replace for grading purposes.

Iditional labor was required for spotting because of operating restrictions 1 L-101 and L-109 due to L-147 shut down.

elays were experienced in getting telecommunications work completed and wer positioning due to labor availability. This issue will be explored further the program level to avoid occurrences in the future.

ree existing valves were found to be leaking during commissioning so Iditional work will be required post commissioning. The cost recorded here an estimate and could vary when the work completes. The current plan is to pair the valves, but if any require replacement the cost could be \$200,000-.,700,000.

espite early application, a delay was experienced in receiving a permit.

a result of the pilot use of the In Vista inspection tool, various pipe iomalies (laminations, dents, etc.) were identified, requiring repair which sulted in cost increases and a schedule delay. Identification of these iomalies using this tool was a mitigation effort to avoid leaks and/or a pture during hydrotest and ensures greater safety of the line.

ter initial planning, this project was selected as a pilot project to test a new spection tool called In Vista inspection by Quest. As a result, additional por and material costs were incurred.

was identified that K rails should be installed in order to protect the NG/LNG equipment.

e Air District delayed the start of construction due to time taken to review ad approve the permit. Dust control requirements required numerous (6) ater trucks and covering of soil piles which resulted in cost increases.

survey identified as necessary for the Blunt Nosed Leopard Lizard delayed e start of construction for clearance 4. Additional delay was then perienced because the Department of Fish and Wildlife observed urrowing holes of the Blunt Nose Leopard Lizard so exclusion fencing need be installed with a mitigation plan submitted to the department.

	New						Schedule		
Line #	PSRS	Project Description	Region	Risk	Description Any changes to the project scope that were excluded from or	Cost Impact (\$)	Impact (Days)	>10% Variance	A des
120	24047		CL 14		occurred after IFB (e.g. design changes, expanded excavation,	¢25.000	24		conci
128	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Ctr Vly	Changes After IFB	added replacement/test length, etc.).	\$35,000	24	No	neces
					Potential impacts to contractor productivity caused by multiple				
					issues which may result in contractor moving to another				A hyc
129	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Ctr Vly	Productivity Impacts	construction location on-site or other methods of mitigation.	N/A	5	No	ruptu
					Pipe, valves or fittings may be leaking or faulty requiring				A nev
				Unexpected Condition of Pipe,	additional work to repair or replace them, including linear				to he
130	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Ctr Vly	Valves or Fittings	indications on the pipe.	\$20,000		No	result
					Any changes to the project scope that were excluded from or				
		TS-003-13 TS-003-13, Line GCUST5814, Palo			occurred after IFB (e.g. design changes, expanded excavation,				It wa
131	30220	Alto	Ctr Cst	Changes After IFB	added replacement/test length, etc.).	\$8,000			work
		TS-003-13 TS-003-13, Line GCUST5814, Palo			Specific cost assumptions in the Job Estimate proved to be				
132	30220	Alto	Ctr Cst	Low Estimate	inaccurate.	\$4,500			
		V-069 Valve Auto - Airport & French Camp,							This p
133	23662	3V, Ph. 1	Ctr Vly	Opportunity: Bundling of Work	Bundling of work with other projects may result in cost savings.	(\$100,000)	N/A	No	const
									_
		R-007 L-108_1A REPL 2.19MI MP 37.14-38.17		Opportunity: Alternate	Use of alternate construction methods may result in cost and/or				Const
134	27594	PH1	Ctr Vly	Construction Methods	time savings.	(\$1,500,000)	N/A	No	reduc
					Any changes to the project scope that were excluded from or				One s
					occurred after IFB (e.g. additional sniff holes, expanded	14			inclu
135	30531	T-284-13, Line DFM-1815-02, Monterey	Ctr Cst	Opportunity: Changes After IFB	excavation, added replacement length, etc.).	(\$15,000)	N/A	No	order

Comments design change of the concrete thrust blocks for the blow-offs and the oncrete supports that included rebar to be larger and more detailed was ecessary.

hydrotest on the cross-tie between L-300A and L-300B experienced a pture which caused delays on this project.

newly installed valve failed during hydrotest so the manufacturer was called help evaluate and repair the valve. The hydrotest was then re-done sulting in additional costs to the project.

was determined to be necessary to cut off a TAP, resulting in additional ork.

nis project was combined with 5 other PG&E projects in the area during onstruction, allowing for a 40% cost savings on this project.

onstruction methods were altered in order to eliminate crop loss thus educing project costs related to paying the land owners for their lost crops. ne sniff hole that was planned did not need to be dug because it was cluded in the adjacent replacement project instead so a deductive change rder.

		Actual Costs			Authorized <sup>2</sup>		Shareholder Funded <sup>4</sup>
All values in millions of dollars							
PSEP Expense Pipeline Modernization	2011 2012 2013	2013 JAN 2013 FEB 2013 MAR 2013 APR 2013 MAY 2013 JUN 2013 JULY 2013 AUG 2013 SEP 2013 OCT 2013 N	PSEP Costs NOV 2013 DEC to Date	2011-2014 PSEP Authorized	2011 2012 2013 2014 Authorized Authorized Authorized	ITD Sharehold er Funded	2011 2012 2013 2013 JAN 2013 FEB 2013 MAR 2013 APR 2013 MAY 2013 JUN 2013 JULY 2013 AUG 2013 SEP 2013 OCT 2013 NOV 2013 DEC
Pipe Replacement	0.00 0.00 0.13		0.00) 0.08 0.13				
In Line Inspection <sup>1</sup> Strength Test	0.00 0.00 2.40	0.04 0.04 0.14 0.46 (0.02) 0.43 0.05 0.25 0.43 0.28 0	0.21 0.10 2.40				
<sup>3</sup> Pre-1955 Installation <sup>3</sup> Post 1955 Installation Strength Text Total Eng Cond / Fatigue Analysis	125.09 33.92 228.17 130.70 159.01 0.00 0.00 0.32	1.43         0.93         1.70         0.83         5.25         6.57         7.50         8.70         (7.63)         4.43         [1]           2.04         4.08         3.39         7.73         14.31         17.29         18.30         17.50         20.22         25.07         12           0.01         0.01         0.04         0.05         0.03         (0.03)         0.01         0.02         0.01         0.10         0	10.62           1.84)         6.04           2.42         16.67         517.88           0.04         0.05         0.32				
Pipeline Modernization Total	228.17 130.70 161.86	2.08 4.13 3.56 8.24 14.32 17.69 18.36 17.77 20.66 25.48 12	2.67 16.89 520.74	149.53	0.00 2.35 65.93 81.25	452.49	228.17 128.35 95.96 1.47 1.01 1.81 0.91 6.52 5.36 12.87 12.27 15.17 19.99 7.18 11.40
Pipeline Records Integration MAOP Mariner Pipeline Records Integration Total	90.46 120.25 29.31 1.16 3.80 1.41 91.62 124.05 30.72	<u>0.38 0.47 0.79 1.71 (0.64) (1.62) (0.36) 0.49 0.08 (0.07) 0</u>	0.68) 0.03 240.02 0.13 0.06 6.37 0.55) 0.09 246.39	0.00	0.00 0.00 0.00	246.39	91.62         124.05         30.72         4.94         5.98         11.09         4.41         4.29         (1.83)         (1.43)         4.86         (1.77)         0.64         (0.55)         0.09
Valve Automation Interim Safety Measures	0.01 0.50 1.85 0.00 2.40 2.29	(0.03) 0.05 0.49 0.31 (0.03) (0.01) 0.42 0.34 0.04 0.32 0	0.07 0.20 2.36 0.03 0.37 4.69	6.73 2.09	0.00 0.08 3.01 3.64 0.00 0.03 1.04 1.02	0.43 3.55	0.01 0.42 0.00 0.02 0.13 0.08 (0.20) (0.05) 0.03 0.00 0.00 (0.00) 0.00 0.00 0.00 0.00 2.37 1.19 (0.12) (0.04) 0.40 0.22 (0.12) (0.10) 0.33 0.25 (0.06) 0.22 (0.06) 0.28
PMO Other	5.05 6.50 3.47 6.83 6.25 5.21		0.27) 0.65 15.01 3.85 (2.41) 18.30	6.73 0.00	0.00 0.11 3.34 3.28 0.00 0.00 0.00 0.00	11.60 18.30	5.05 6.39 0.17 0.16 (0.13) (0.25) 0.21 0.08 (0.01) 0.30 0.68 (0.96) 0.27 (0.24) 0.07 6.83 6.25 5.21 0.33 0.36 0.71 0.32 (1.37) 0.10 2.00 (0.52) 1.42 0.43 3.85 (2.41)
Total PSEP Expense	331.68 270.40 205.41		5.80 15.79 807.49	165.08	0.00 2.58 73.31 89.19	732.77	$- \underbrace{0.03}_{331.68} \underbrace{0.63}_{267.82} \underbrace{1.33.7}_{133.26} \underbrace{0.03}_{6.80} \underbrace{0.04}_{7.11} \underbrace{0.04}_{3.52} \underbrace{0.10}_{2.00} \underbrace{0.02}_{2.00} \underbrace{1.0.7}_{1.55} \underbrace{1.3.0}_{1.80} \underbrace{2.1.54}_{2.1.54} \underbrace{1.0.17}_{1.7} \underbrace{9.43}_{2.1.54} \underbrace{0.13}_{2.1.7} \underbrace{0.43}_{2.1.7} 0.43$
PSEP Capital Pipeline Modernization <sup>1</sup> Pipeline Replacement Pipeline Replacement less Post: 3255 Strength Test <sup>2</sup> Ost <sup>3</sup> Post: 1355 Strength Test Cost Pipeline Replacement Total Strength Test Related In Line Inspection Retrofitting Pipeline Modernization Total	11.89         226.28         310.06           0.00         2.07         2.20           11.89         228.36         312.26           5.86         12.30         28.79           0.62         16.00         36.78           18.37         256.66         377.83	2.50         0.00         0.00         (0.50)         0.30         2.70         0.24         0.37         (4.06)         0.11         0           18.01         11.54         16.31         20.92         34.44         27.96         26.98         35.10         38.72         39.30         25           1.01         0.71         0.13         (1.27)         4.88         3.22         6.54         5.16         5.69         2.34         0           1.99         3.86         5.51         2.22         2.72         2.30         3.45         2.39         2.55         3.07         2	1.96         17.49         548.23           1.47         0.07         4.27           5.43         17.56         552.50           0.89         (0.50)         46.95           2.92         3.79         53.40           0.24         20.85         652.85	852.48	<b>30.49 214.93 290.11 316.95</b>	4.27	0.00 2.07 2.20 2.50 0.00 0.00 (0.50) 0.30 2.70 0.24 0.37 (4.06) 0.11 0.47 0.07
Pipeline Records Integration MAOP Mariner Pipeline Records Integration Total	1.67         0.28         0.00           4.87         29.30         37.11           6.54         29.58         37.11	<u>2.30 1.22 3.72 0.62 3.72 4.13 5.41 4.54 3.28 4.08 0</u>	0.00 0.00 1.95 0.91 3.20 71.28 0.91 3.20 73.23	0.00	0.00 0.00 0.00 0.00	73.23	6.54         29.58         37.11         2.30         1.22         3.72         0.62         3.72         4.13         5.41         4.54         3.28         4.08         0.91         3.20
<sup>1</sup> Valve Automation Interim Safety Measures PMO Other Total PSEP Capital	12.98         29.51         51.89           0.00         0.00         0.00           2.27         2.10         8.82           0.00         2.96         0.04           40.16         320.81         475.69	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	4.45)         2.90         94.38           0.00         0.00         0.00           0.63         1.40         13.18           0.59         (2.18)         3.00           5.92         26.16         836.65	129.04 0.00 22.29 <u>0.00</u> 1003.81	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.00 0.00 <u>3.00</u> 80.50	0.00         0.00 <th< th=""></th<>

StanPac included in Actual and Forecasted Costs and Authorized Recovery.
 Authorized Amount from D-12.12.030.
 Pre/Post 1955 spend has been updated based on MAOP Validation.
 Shareholder Funded Portion does not tie to SEC Financials as our financial statements have been updated to reflect revenue numbers consistent with the Update Application.
 Inception-to-Date (ITD) amounts include reallocation of prior period amounts consistent with PSEP scope decisions and cost allocation.

Line #	PSEP Filing PSRS	New PSRS	Project Description	Miles Completed	Line	MP1	MP2	City	HCA	Class Code	Clearance Date	Tie-in Date
1	24909	24909	R-043 SP4Z RETIRE 0.42MI MP 8.18-8.43 PH1	0.42	SP4Z	8.18	8.43	Oakley	Yes	3,SPLIT	12-Apr-13	24-Apr-13
2	26442	26442	R-100 L-131 RETIRE 0.58MI MP 8.56-8.93 PH1	0.58	L-131	8.56	8.93	Oakley	Yes	3	29-Mar-13	24-Apr-13
3	25791	25791	R-114 L-114 RETIRE 0.70MI MP 8.18-8.91 PH1	0.70	L-114	8.18	8.91	Oakley	Yes	2	12-Apr-13	24-Apr-13
4	23862	23862	R-071 DFM-1502-08 REPL 0.25MI MP 0.01-0.52 PH1	0.52	DFM-1502-08	0.01	0.52	Yuba	No	2,Split	21-Dec-12	3-Jan-13
5	26045	26045	R-018 L-114_2 REPL 1.89MI MP 9.04-10.50 PH1	1.72	L-114_2	9.04	10.50	Oakley	Yes	3	12-Jan-13	12-Jan-13
6	23807	23807	R-041 DFM-1020-01 REPL 2.47MI MP 0.00-2.69 PH1	2.69	DFM-1020-01	0.00	2.69	Butte	No	2,3,SPLIT	14-Jan-13	14-Jan-13
7	26029	26029	R-006 L-111A REPL 9.78MI MP 20.32-27.57 PH1	8.80	L-111A	20.32	27.57	Fresno	Yes	1,2,3,Split	17-Dec-12	28-Feb-13
8	24903	24903	R-139 L-131Y REPL 0.01MI MP 0.53-0.54 PH1	0.01	L-131Y	0.53	0.54	Brannan Isld Park	No	3	10-May-13	10-May-13
9	27712	27712	R-131 L-119B-1 REPL 0.03MI MP 0.00-0.03 PH1	0.03	L-119B-1	0.00	0.03	Sacramento	Yes	3,SPLIT	14-May-13	14-Jun-13
10	25727	25727	R-022 L-109_2A REPL 3.50MI MP 13.65-16.93 PH1	3.50	L-109_2A	13.65	16.93	Palo Alto/Stanford	Yes	3	16-Dec-12	19-Jun-13
11	23762	23762	R-038 DFM-1813-02 REPL 0.01MI MP 1.00-1.06 PH1	0.01	DFM-1813-02	1.00	1.06	Salinas	Yes	3	9-Jul-13	9-Jul-13
12	31029	31029	R-102 L-162A REPL 0.35MI MP 7.40-7.72 PH1	0.35	L-162A	7.40	7.72	Tracy	No	3	15-Jul-13	15-Jul-13
13	27960	27960	R-133 L-167 REPL 4.75MI MP 29.77-34.53 PH1	4.75	L-167	29.77	34.53	Yuba City	Yes	1,2,3,SPLIT	24-Jul-13	24-Jul-13
14	31696	31696	R-137 L-173 REPL 0.02MI MP 5.50-5.51 PH1	0.02	L-173	5.50	5.51	Rocklin	No	3	18-Jul-13	29-Jul-13
15	26014	26014	R-003 DFM-7221-10 REPL 4.65MI MP 12.07-16.13 PH1	4.65	DFM-7221-10	12.07	16.13	Modesto	Yes	3	12-Aug-13	12-Aug-13
16	26033	26033	R-005 L-138 REPL 7.29MI MP 38.36-45.08 PH1	6.82	L-138	38.36	45.08	Fresno	Yes	2,3,Split	21-Nov-12	12-Aug-13
17	24889	24889	R-124 DFM-1306-06 REPL 0.01MI MP 0.00-0.01 PH1	0.01	DFM-1306-06	0.00	0.01	Sonoma	No	3	16-Aug-13	16-Aug-13
18	23694	23694	R-023 L-131_1 REPL 1.49MI MP 32.37-33.77 PH1	1.49	L-131_1	32.37	33.77	Livermore	Yes	3	24-Aug-13	24-Aug-13
19	26843	26843	R-051 L-210A REPL 1.27MI MP 24.14-25.41 PH1	1.27	L-210A	24.14	25.41	Napa	Yes	1,3,SPLIT	28-Aug-13	27-Aug-13
20	28091	28091	R-140 L-118A Transfer 6.15MI MP 0.00-5.62 PH1	6.15	L-118A	0.00	5.86	Fresno	Yes	2,3,SPLIT	5-Oct-13	5-Oct-13
21	24895	24895	R-110 DFM-3008-01 REPL 0.05MI MP 7.99-8.02 PH1	0.05	DFM-3008-01	7.99	8.02	Walnut Creek	No	3	5-Jul-13	11-Oct-13
22	31295	31295	R-122 DFM-1306-01 REPL 0.01MI MP 1.48-1.48 PH1	0.00	DFM-1306-01	1.48	1.48	Sonoma	No	3	11-Oct-13	11-Oct-13
23	27979	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	3.59	L-114_2	12.68	16.54	Brentwood	Yes	3	16-Oct-13	19-Oct-13
24	23769	23769	R-105 DFM-1815-02 REPL 0.45MI MP 18.76-19.24 PH1	0.45	DFM-1815-02	18.76	19.24	Monterey	Yes	3	23-Sep-13	31-Oct-13
25	25790	25790	R-069 L-050A Transfer 5.09MI MP 2.55-7.60 PH1	5.09	L-050A	2.55	7.60	Yuba City	Yes	2,3	5-Sep-13	1-Nov-13
26	27890	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	10.23	DFM-7222-01	0.99	11.16	Turlock	Yes	3,SPLITS	12-Nov-13	16-Nov-13
27	26006	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	7.10	L-118A	5.62	12.55	Fresno	Yes	2,3,SPLIT	23-Nov-13	23-Nov-13
28	27594	27594	R-007 L-108_1A REPL 2.19MI MP 37.14-38.17 PH1	2.19	L-108_1A	37.14	38.17	Stockton	Yes	1,2,3	20-Dec-13	20-Dec-13
29	23682	23682	R-148 DFM-1617-01 REPL 0.85MI MP 0.82-1.26 PH1	0.85	DFM-1617-01	0.82	1.26	Tracy	Yes	3,SPLIT	20-Dec-13	20-Dec-13
30	23366	23366	R-029 L-109 REPL 0.71MI MP 9.27-9.87 Spread 6A	0.59	L-109	9.27	9.87	Mountain View	Yes	3	18-Dec-12	20-Dec-13

Line #	PSEP Filing PSRS	New PSRS	Project Description	Miles Completed	Line	MP1	MP2	City	HCA	Class Code	Clearance Date	Tie-in Date
1	23905	25904	T-101-12, Line DFM-3010-01, Antioch	0.61	DFM-3010-01	0.64	1.27	Antioch	Yes	3	1-Feb-13	4-Feb-13
2	24183	25897	TIM-042-12, Line L-057A-MD1, McDonald Island	0.61	L-057A-MD1	0.0043	0.616	McDonald Island	Yes	1,3	25-Jan-13	15-Feb-13
3	24183	25896	TIM-043-12, Line L-057A-MD1, McDonald Island	0.16	L-057A-MD1	0.97	1.13	McDonald Island	Yes	1	25-Jan-13	15-Feb-13
4	N/A	28473	T-038B-11, Line L-132, Daly City	0.02	L-132	46.59	46.6059	Daly City	Yes	3	23-Feb-13	25-Feb-13
5	23876	27613	T-226-13, Line DFM-0817-01, San Jose	0.46	DFM-0817-01	0	0.4687	San Jose	Yes	3	22-Mar-13	4-Apr-13
6	23554	25866	T-082-12, Line L-119B, Sacramento	1.35	L-119B	8.8900	10.1500	Sacramento	Yes	3	14-Apr-13	27-Apr-13
7	23874	25841	T-015-12, Line L-131 2, Oakley	0.13	L-131_2	8.45	8.58	Oakley	Yes	3	28-Mar-13	1-May-13
8	24216	25884	T-093-12, Line L-210C, Vallejo	0.41	L-210C	31.27	31.68	Vallejo	Yes	3	19-Apr-13	4-May-13
9	23560	23560	T-310-14, Line DFM-0141-01, Crockett	0.43	DFM-0141-01	0	0.43	Crockett	No	3	17-May-13	19-May-13
10	23524	28395	T-206-13, Line L-187, King City	10.24	L-187	22.82	33.04	King City	No	1,3	29-Apr-13	20-May-13
11	23510	25902	T-046-12, Line L-138, Fresno	2.46	L-138	35.91	38.38	Fresno	Yes	1,2,3	3-May-13	24-May-13
12	23532	27604	T-218-13, Line L-021B, Napa	2.68	L-021B	0.01	2.31	Napa	Yes	1,2,3	13-May-13	8-Jun-13
13	23478	27652	TIM-273-13, Line DFM-7226-01, Modesto	4.59	DFM-7226-01	0	4.59	Modesto	Yes	3	15-May-13	8-Jun-13
14	23483	23483	T-360-14, Line DFM-7226-13, Modesto	0.25	DFM-7226-13	0	0.25	Modesto	No	3	15-May-13	8-Jun-13
15	23524	28407	T-207-13, Line L-187, Greenfield	7.98	L-187	33.04	41.08	Greenfield	Yes	1,2,3	24-May-13	13-Jun-13
16	23565	27609	T-224A-13, Line DFM-0604-01, Vacaville	0.79	DFM-0604-01	3.926	4.711	Vacaville	Yes	3	6-Jun-13	21-Jun-13
17	23550	27615	T-229A-13, Line L-118B, Madera	0.26	L-118B	8.46	8.72	Madera	Yes	3	14-Jun-13	21-Jun-13
18	23524	28408	T-208A-13, Line L-187, Soledad	1.60	L-187	41.08	42.64	Soledad	Yes	2,3	21-Jun-13	28-Jun-13
19	23550	27615	T-229C-13, Line L-118B, Madera	2.06	L-118B	8.46	8.72	Madera	Yes	3	14-Jun-13	8-Jul-13
20	24212	27608	T-223A-13, Line L-050A-1, Marysville	1.27	L-050A-1	1.56	2.87	Marysville	Yes	1,3	12-Jun-13	12-Jul-13
20	23499	27622	T-240-13, Line L-162A, Tracy	1.34	L-162A	7.72	9.03	Tracy	No	3	13-Jun-13	15-Jul-13
22	N/A	30220	TS-003-13, Line GCUST5814, Palo Alto	0.00	GCUST5814	0.1	0.1	Palo Alto	Yes	3	8-Jul-13	17-Jul-13
23	24188	25870	T-028-12, Line DFM-2403-12, Fremont	2.83	DFM-2403-12	0.05	2.8771	Fremont	Yes	3	9-Jun-13	21-Jul-13
23	23911	31386	T-331A-14, Line DFM-1501-01, Yuba City	4.00	DFM-1501-01	0.03	3.99	Yuba City	Yes	3	14-Jun-13	24-Jul-13
24 25	23511	25860	TIM-022C-12, Line L-191-1, Walnut Creek	1.70	L-191-1	19.65	21.35	Walnut Creek	Yes	3	21-Jun-13	26-Jul-13
26	23511	25860	TIM-022D-12, Line L-191-1, Walnut Creek	1.04	L-191-1	19.65	21.35	Walnut Creek	Yes	3	21-Jun-13	26-Jul-13
20	23524	28408	T-208B-13, Line L-187, Soledad	3.39	L-191-1	41.08	42.64	Soledad	Yes	2,3	21-Jun-13	26-Jul-13
27	235324	27606	T-220-13, Line L-021B, Petaluma	4.15	L-187 L-021B	10.64	42.04	Petaluma	No	1,2	8-Jul-13	26-Jul-13
28	23532	27603	T-217-13, Line DFM-0215-01, Belmont	0.74	DFM-0215-01	0.02	0.78	Belmont	Yes	3	20-Jul-13	28-Jul-13
30	23370	27569	T-174-12, Line DFM-1816-05, Watsonville	0.74	DFM-1816-05	0.02	1.2	Watsonville	No	2,3	15-Jul-13	29-Jul-13
31	23524	28408	T-208C-13, Line L-187, Soledad	0.60	L-187	41.08	42.64	Soledad	Yes	2,3	21-Jun-13	92656668666626956929726025656868686668669266926692
32	23324	27632			DFM-1813-02	05080905558808385059595905808555592922	42.64		No	<u>2,5</u> 3		9-Aug-13
WWW.CONTRACTOR CONTRACTOR	23872	27632	T-268-13, Line DFM-1813-02, Seaside T-269A-13, Line DFM-1813-02, Monterey	0.38	DFM-1813-02	11.75 12.52	12.05	Seaside Seaside	Yes	3	12-Jul-13 12-Jul-13	12-Aug-13
33 34	23499	27649	T-239-13, Line D-M-1615-02, Monterey	0.45 0.35	L-162A	4.41	4.76		Yes	3		12-Aug-13
35		27614			L-118B	1.04	0.0000000000000000000000000000000000000	Tracy Madera	CONSTRUCTION FOR STATE OF A DESCRIPTION OF A		2-Aug-13 22-Jul-13	14-Aug-13
36	23550 23892	29093	T-228-13, Line L-118B, Madera T-227-13, Line DFM-1023-01, Redding	6.69 1.16	DFM-1023-01	0.82	7.72 1.97	Redding	Yes Yes	1,2,3	0029610000000000000000000000000000000000	15-Aug-13
Saudi Martin Martin Polation Station Containing	23524	28409	T-209-13, Line L-187, Soledad	4.04	L-187	46.63	50.67	Soledad		3	1-Aug-13	16-Aug-13
37 38	23524	25860	TIM-022B-12, Line L-191-1, Walnut Creek	4.33	L-187 L-191-1	40.03 19.65	21.35	Walnut Creek	Yes Yes	1,3	10-Aug-13	17-Aug-13
39	23524	International and a second	T-210-13, Line L-191-1, Walnut Cleek	menters and the second se	L-191-1 L-187	50.67	56.55		and a state of the second second second second	3	21-Jun-13	23-Aug-13
is the second	23524	28410 27623	T-241-13, Line L-177B, Chico	5.89	L-107 L-177B	0.86	7.51	Gonzales Chico	No Yes	1,3	20-Aug-13	30-Aug-13
40				6.65	8844074040307448387878787878787878787878787878787878	00400340000009220797920808080808080	NARTHON & COMPANY AND A COMPANY AND A COMPANY		annan sa	1,2,3	29-Jul-13	5-Sep-13
41	N/A	30025	T-013C-12, Line L-109, Daly City	0.24	L-109 DFM-1813-02	44.7195	45.39	Daly City	Yes	3	14-Aug-13	12-Sep-13
42	23872	27649	T-269B-13, Line DFM-1813-02, Monterey	3.48	01294293394492039429121490342943956922022929294929629259944253629	12.52	12.95	Monterey	Yes	3	12-Jul-13	12-Sep-13
43	23856	25889	T-038-12, Line DFM-1615-01, Modesto	10.14	DFM-1615-01	0.02	10.12	Modesto	Yes	1,3	25-Jul-13	15-Sep-13
44 45	23542	28411	T-211A-13, Line L-187, Chualar	3.59	L-187	56.55	60.03	Chualar	Yes	1,2,3	10-Sep-13	20-Sep-13
45	23493	25820	T-051A-12, Line L-142N, Bakersfield	0.47	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	21-Sep-13
46	23493	25820	T-051B-12, Line L-142N, Bakersfield	0.06	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	21-Sep-13
47	23493	25820	T-051C-12, Line L-142N, Bakersfield	1.66	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	21-Sep-13
48	23872	27648	TIM-267-13, Line DFM-1813-02, Marina	1.22	DFM-1813-02	8.50	9.71	Marina	Yes	1,3	12-Sep-13	23-Sep-13
49	23748	28495	T-281B-13, Line L-191, Antioch	2.62	L-191	3.88	6.4753	Antioch	Yes	3	11-Sep-13	1-Oct-13
50	23493	25820	T-051D-12, Line L-142N, Bakersfield	1.37	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	3-Oct-13
51	23533	25833	TIM-065-12, Line L-021C, Penngrove	8.39	L-021C	35.05	43.26	Penngrove	Yes	3,SPLIT	15-Sep-13	6-Oct-13

Line #	PSEP Filing PSRS	New PSRS	Project Description	Miles Completed	Line	MP1	MP2	City	HCA	Class Code	Clearance Date	Tie-in Date
52	23554	25864	T-081-12, Line L-119B, North Highlands	4.64	L-119B	2.23	6.88	North Highlands	Yes	3,SPLITS	8-Sep-13	7-Oct-13
53	23472	27651	T-272B-13, Line DFM-7223-01, Turlock	0.54	DFM-7223-01	9.475	10.10	Turlock	No	3	5-Sep-13	8-0ct-13
54	23690	27760	T-285-13, Line X6526, Kettleman City	0.28	X6526	0	0.26	Kettleman City	Yes	1	8-Jul-13	8-Oct-13
55	23567	23567	T-318A-14, Line DFM-0604-06, Vacaville	2.37	DFM-0604-06	0.49	2.968	Vacaville	Yes	3	16-Sep-13	9-Oct-13
56	23542	28411	T-211B-13, Line L-187, Chualar	5.70	L-187	56.55	60.03	Chualar	Yes	1,2,3	10-Sep-13	10-Oct-13
57	23550	27617	T-230-13, Line L-118B, Madera	9.27	L-118B	10.87	20.07	Madera	Yes	1,2,3	25-Sep-13	12-Oct-13
58	23511	25861	T-023-12, Line L-191-1, Martinez	3.68	L-191-1	31.9	35.83	Martinez	Yes	1,3	9-Sep-13	15-Oct-13
59	23856	25891	T-039A-12, Line DFM-1615-01, Modesto	4.82	DFM-1615-01	10.12	14.88	Modesto	Yes	3	23-Sep-13	18-Oct-13
60	23493	25820	T-051E-12, Line L-142N, Bakersfield	1.34	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	19-Oct-13
61	23733	31372	T-337-14, Line DFM-1603-03, Manteca	0.48	DFM-1603-03	0	0.4829	Manteca	No	3	8-Oct-13	22-Oct-13
62	23472	27651	T-272A-13, Line DFM-7223-01, Turlock	1.17	DFM-7223-01	9.475	10.10	Turlock	No	3	5-Sep-13	24-Oct-13
63	23926	30056	T-282A-13, Line L-172A, West Sacramento	0.60	L-172A	78.53	79.11	West Sacramento	Yes	3	30-Sep-13	25-Oct-13
64	23926	30056	T-282B-13, Line L-172A-1, West Sacramento	0.19	L-172A	78.53	79.11	West Sacramento	Yes	3	30-Sep-13	25-Oct-13
65	23569	27611	T-225A-13, Line DFM-0604-07, Vacaville	2.38	DFM-0604-07	4.1	6.41	Vacaville	Yes	1,3	10-Oct-13	30-Oct-13
66	23567	23567	T-318B-14, Line DFM-0604-06, Vacaville	0.48	DFM-0604-06	0.49	2.968	Vacaville	Yes	3	16-Sep-13	30-Oct-13
67	23911	31386	T-331B-14, Line DFM-1501-01, Yuba City	1.30	DFM-1501-01	0.04	3.99	Yuba City	Yes	3	14-Jun-13	30-Oct-13
68	24219	29707	T-355-14, Line L-300B, Kern	2.84	L-300B	269.33	272.176	Bakersfield	No	1,2	15-Oct-13	30-Oct-13
69	23769	30531	T-284-13, Line DFM-1815-02, Monterey	0.25	DFM-1815-02	19.24	19.49	Monterey	Yes	3	23-Sep-13	31-Oct-13
70	23569	27611	T-225B-13, Line DFM-0604-07, Vacaville	3.87	DFM-0604-07	4.1	6.41	Vacaville	Yes	1,3	10-Oct-13	22-Nov-13
71	23521	31108	T-303B-14, Line L-186, Dos Palos	8.96	L-186	10.14	19.17	Dos Palos	Yes	1,3	28-Oct-13	23-Nov-13
72	23521	31109	T-304-14, Line L-186, Dos Palos	6.93	L-186	19.17	26.13	Dos Palos	Yes	1,2,3	28-Oct-13	8-Dec-13
73	31511	31511	T-288A-13, Line L-300B, Bear Valley Springs	1.53	L-300B	241.4	242.91	Bear Valley Springs	Yes	1,2	1-Nov-13	19-Nov-13
74	31511	31511	T-288B-13, Line L-300B, Bear Valley Springs	0.86	L-300B	241.4	242.91	Bear Valley Springs	Yes	1,2	1-Nov-13	19-Nov-13

				Miles								
				Completed/Valves								
Line #	PSEP Filing PSRS	New PSRS	Project Description	Automated	Line	MP1	MP2	City	НСА	Class Code	Clearance Date	Tie-in Date
1	23970	23970	V-028 Valve Auto - Half Moon Bay Tap, 2V, Ph. 1	2	L-109	N/A	N/A	San Mateo	N/A	N/A	13-Feb-13	13-Feb-13
2	24284	24284	V-032 Valve Auto - SP3-Line 191 Mtr Sta, 4V, Ph 1	4	L-151	N/A	N/A	Pittsburg	N/A	N/A	19-Mar-13	19-Mar-13
3	23600	23600	V-013 Valve Auto - Hamlin Court, 1V, Ph. 1	1	L-109	N/A	N/A	Sunnyvale	N/A	N/A	26-Oct-12	1-Apr-13
4	23604	23604	V-017 Valve Auto - Sullivan Ave, 1V, Ph. 1	1	L-109	N/A	N/A	Daly City	N/A	N/A	6-Apr-13	6-Apr-13
5	23601	23601	V-014 Valve Auto - Sand Hill, 2V, Ph. 1	2	L-109	N/A	N/A	Menlo Park	N/A	N/A	1-Dec-12	16-Apr-13
6	24288	24288	V-038 Valve Auto - San Pablo, 3V, Ph. 1	3	L-105A	N/A	N/A	San Pablo	N/A	N/A	18-Apr-13	18-Apr-13
7	23606	23606	V-019 Valve Auto - Martin Station, 4V, Ph. 1	4	L-132	N/A	N/A	Daly City	N/A	N/A	25-Apr-13	25-Apr-13
8	23649	23649	V-051 Valve Auto - Fairway Avenue, 2V, Ph. 1	2	L-153	N/A	N/A	San Leandro	N/A	N/A	28-Jun-13	28-Jun-13
9	23624	23624	V-035 Valve Auto - Vine Hill, 1V, Ph. 1	1	SP-3	N/A	N/A	Martinez	N/A	N/A	14-Apr-13	2-Jul-13
10	23645	23645	V-049 Valve Auto - Alvarado, 1V, Ph. 1	1	L-153	N/A	N/A	Union City	N/A	N/A	10-Jul-13	10-Jul-13
11	23647	23647	V-050 Valve Auto - Winton Avenue, 1V, Ph. 1	1	L-153	N/A	N/A	Hayward	N/A	N/A	11-Jul-13	11-Jul-13
12	23663	23663	V-057 Valve Auto - Palm Tract, 2V, Ph. 1	2	L-057B	N/A	N/A	Brentwood	N/A	N/A	7-Aug-13	7-Aug-13
13	27893	27893	V-039A Valve Auto - Clayton Reg Station, 1V, Ph. 1	1	L-191-1	N/A	N/A	Concord	N/A	N/A	1-Jul-13	15-Aug-13
14	23622	23622	V-033 Valve Auto - Los Medanos, 3V, Ph. 1	3	SP-3	N/A	N/A	Concord	N/A	N/A	21-Aug-13	21-Aug-13
15	N/A	29461	V-083 Valve Auto - Helm Tap Station, 1V, Ph. 1	1	L-300A	N/A	N/A	Fresno	N/A	N/A	22-Aug-13	22-Aug-13
16	N/A	29463	V-084 Valve Auto - West Ford Ave, 1V, Ph. 1	1	L-300B	N/A	N/A	Fresno	N/A	N/A	29-Aug-13	29-Aug-13
17	N/A	29637	V-087 Valve Auto - L-138 Adams Elm Mtr RegStn, 1V, Ph. 1	1	L-138	N/A	N/A	Fresno	N/A	N/A	30-Aug-13	30-Aug-13
18	23623	23623	V-034 Valve Auto - Concord Meter Station, 1V, Ph. 1	1	SP-3	N/A	N/A	Concord	N/A	N/A	12-Sep-13	12-Sep-13
19	23660	23660	V-070 Valve Auto - Airport & Sonora, 3V, Ph. 1	3	L-108	N/A	N/A	Stockton	N/A	N/A	19-Sep-13	19-Sep-13
20	23637	23637	V-047 Valve Auto - Livermore Junction, 2V, Ph. 1	2	L-303	N/A	N/A	Livermore	N/A	N/A	25-Sep-13	25-Sep-13
21	23656	23656	V-072 Valve Auto - 8 Mile Pls, 2V, Ph. 1	2	L-108	N/A	N/A	Stockton	N/A	N/A	25-Sep-13	25-Sep-13
22	24254	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	1	SP-5	N/A	N/A	Antioch	N/A	N/A	16-Aug-13	4-Oct-13
23	23631	23631	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	1	L-191-1	N/A	N/A	Walnut Creek	N/A	N/A	5-Jul-13	11-Oct-13
24	23674	23674	V-063 Valve Auto - Valero Refinery Tap, 3V, Ph. 1	3	L-210C	N/A	N/A	Benicia	N/A	N/A	14-Oct-13	14-Oct-13
25	23651	23651	V-052 Valve Auto - 51St Avenue, 1V, Ph. 1	1	L-105N	N/A	N/A	Oakland	N/A	N/A	25-Oct-13	25-Oct-13
26	23658	23658	V-071 Valve Auto - West Lane & Hammertown, 3V, Ph. 1	3	L-108	N/A	N/A	Stockton	N/A	N/A	1-Nov-13	1-Nov-13
27	23635	23635	V-045 Valve Auto - East Airway, 3V, Ph. 1	3	L-131	N/A	N/A	Livermore	N/A	N/A	4-Nov-13	4-Nov-13
28	23655	23655	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	1	L-105N	N/A	N/A	Oakland	N/A	N/A	11-Oct-13	6-Nov-13
29	27532	27532	V-031A Valve Auto - California, 1V, Ph. 1	1	L-191	N/A	N/A	Pittsburg	N/A	N/A	1-Oct-13	14-Nov-13
30	23602	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	6	L-109	N/A	N/A	Redwood City	N/A	N/A	15-Jul-13	27-Nov-13
31	23662	23662	V-069 Valve Auto - Airport & French Camp, 3V, Ph. 1	3	L-108	N/A	N/A	Stockton	N/A	N/A	2-Dec-13	2-Dec-13
32	23603	23603	V-016 Valve Auto - Crystal Springs, 4V, Ph. 1	4	L-109	N/A	N/A	Hillsborough	N/A	N/A	12-Sep-13	5-Dec-13
33	23675	23675	V-061 Valve Auto - Sac Gas Load Center, 4V, Ph. 1	4	L-108	N/A	N/A	Sacramento	N/A	N/A	17-Dec-13	17-Dec-13
34	24281	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	5	L-303	N/A	N/A	Antioch	N/A	N/A	9-Nov-13	19-Dec-13
35	24022	24022	L-300A MP353 to MP391 ILI Inspection P&A	39.00	L-300A	352.3	391.2	Kettleman City	Yes	1,2	3-Apr-13	15-Apr-13
36	24023	24023	I-005 L-300A MP 299-352 UPGRADE PH-1	54.80	L-300A	299	352	Fresno	Yes	1,3	20-Apr-13	27-Jul-13
37	24017	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	54.80	L-300B	299	351.8	Fresno	No	1	24-Mar-13	25-Oct-13
38	24017	24025	I-006 L-132 MP 31.96-38.39 UPGRADE PH-1	6.50	L-132	31.96	38.39	Hillsborough	Yes	3	8-Nov-13	13-Dec-13