



PACIFIC GAS AND ELECTRIC COMPANY  
LABOR RELATIONS  
375 N. WIGET LANE, SUITE 130  
WALNUT CREEK, CA 94598  
925.974.4461  
MATTHEW LEVY  
SENIOR DIRECTOR

ENGINEERS AND SCIENTISTS OF CALIFORNIA  
LOCAL 20, IFPTE, AFL-CIO AND CLC  
810 CLAY STREET  
OAKLAND, CA 94607  
510.238.8320

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CARL HARLAND  
ASSISTANT EXECUTIVE DIRECTOR

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**R1-22-04-ESC**

April 14, 2022

Carl Harland, Assistant Executive Director  
Engineers and Scientists of California, Local 20  
IFPTE (AFL-CIO & CLC)  
810 Clay Street  
Oakland, CA 94607

Dear Mr. Harland:

The Company and Union have concluded negotiations for newly represented Specialists and Engineers in the Gas Storage Reservoir group. The agreed upon contract language and job descriptions are included as attachments to this agreement.

**1. Implementation Date, GWI and PWI**

All employees in the group will be included in the general ESC-PG&E contract as of the first of the month following the signing of this Agreement. If the agreement is ratified and signed prior to March 11, 2022, all current incumbents hired prior to September 1, 2021, will receive the 3.75% General Wage Increase effective January 1, 2022, and Progressive Wage Increase, if eligible, effective March 1, 2022, and current incumbents hired prior to October 1, 2021, will receive the Progressive Wage Increase, if eligible, effective March 1, 2022. If the agreement is ratified and signed March 12, 2022, or thereafter, each employee's current salary, as of March 1, 2022, will be moved into the salary range for their respective classification, effective the first of the month following the signing of this Agreement.

**2. Classification Groups**

All Classifications will be part of one Classification Group in the Contract, to be called "Gas Storage Reservoir Engineering." There will be two lines of progression: Gas Storage Reservoir Engineer and Gas Storage Reservoir Specialist. The Gas Storage Asset Management Analyst, Principal classification will be part of the Gas Storage Reservoir Engineer line of progression, next higher to Sr. Consulting Engineer, but will not have a reverse line of progression unless the individual has previously held the Sr. Consulting Engineer classification.

**3. Seniority**

Seniority shall be determined per Title 13 using each employee's date of hire at PG&E.

**4. STIP**

STIP target participation rate will remain at current rates: 10% for Associate, Journey, Senior, and Senior Consulting level positions, and 15% for Principal level classifications. Future hires' STIP target will be 10% for all classifications except Principal, which is 15%.

**5. Recognition Clause**

The parties agree to modify Title 3 of the Contract to reflect the inclusion of these groups by referring to the NLRB case numbers as shown below and adding the next number to the list in section 3.1:

**TITLE 3. RECOGNITION****3.1 RECOGNITION**

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XX. NLRB Case 20-RC-183497, October 31, 2016, Gas Storage Asset Management Group

**6. Exhibit A, Exhibit D and Appendix 1**

The new Classification Group will be added to Exhibit A with salary ranges as shown in Attachment 1. Pre-bid codes will be established for all positions. Classification-specific working conditions (Attachment 2) will be added to Exhibit D and job descriptions (Attachment 3) will be added to Appendix 1.

**7. Title Change**

Upon Implementation, the Gas Asset Management Specialist, Principal, title will be changed to Gas Storage Asset Analyst, Principal. Incumbent Gas Asset Management Specialist, Principal will have the title changed accordingly.

**8. Transition and Placement of Reservoir Engineer, Expert and Associate Gas Engineer Incumbents**

- a. Reservoir Engineer, Expert
  - i. Upon implementation, the Company will place incumbent employees who are designated as Reservoir Engineer, Experts into the Reservoir Engineer, Senior Consulting classification, at the employee's current wage rate. This includes all employees hired prior to the implementation of this Agreement.
- b. Associate Gas Engineer
  - i. Upon implementation, the Company will place incumbent employees who are designated as Associate Gas Engineer in the Reservoir Engineer, Associate classification, at the employee's current wage rate.

**9. Promotional Consideration**

Effective at the time of the signing of this Agreement, incumbents in the Reservoir Engineer, Senior classification will be eligible for promotional consideration to Sr. Consulting Engineer based on the experience level used to convert the above Senior Engineer Expert to Sr. Consulting Engineer.

**Attachment 1. Salary ranges**

	2022 Min (Annual)	2022 Max (Annual)	2023 Min (Annual)	2023 Max (Annual)
<b>GAS STORAGE RESERVOIR ENGINEERING</b>				
Gas Storage Reservoir Engineer, Associate	\$ 87,520	\$ 116,694	\$ 90,802	\$ 121,070
Gas Storage Reservoir Engineer	\$ 113,103	\$ 141,379	\$ 117,344	\$ 146,681
Gas Storage Reservoir Engineer, Senior	\$ 126,600	\$ 168,800	\$ 131,348	\$ 175,130
Gas Storage Reservoir Engineer, Senior Consulting	\$ 144,703	\$ 186,373	\$ 150,129	\$ 193,362
Gas Storage Reservoir Engineer, Principal	\$ 156,204	\$ 206,340	\$ 162,062	\$ 214,078
Gas Asset Management Specialist, Principal	\$ 149,470	\$ 199,292	\$ 155,075	\$ 206,765
Gas Storage Reservoir Specialist, Associate	\$ 77,316	\$ 101,519	\$ 80,215	\$ 105,326
Gas Storage Reservoir Specialist	\$ 93,355	\$ 118,066	\$ 96,856	\$ 122,493
Gas Storage Reservoir Specialist, Senior	\$ 103,697	\$ 138,263	\$ 107,586	\$ 143,448
Gas Storage Reservoir Specialist, Expert	\$ 124,356	\$ 159,289	\$ 129,019	\$ 165,262

**Attachment 2: Additions to Exhibit D****GAS STORAGE RESERVOIR ENGINEERING****A. Non-Represented Work Jurisdiction**

The Director and Supervisor of Reservoir Specialists and Engineers will continue to perform the shared bargaining unit work as has been historically performed, up to 25% of their time.

**B. 2-hour minimum**

When employees are required to report for work on workdays outside of their regular work hours, they shall be paid at the straight-time rate of pay for not less than two hours including any travel time, provided, however, that if they continue to work into or beyond regular work hours, they shall be paid additional compensation only for travel time from their homes and for actual work time up to regular hours. When employees are required to report for work on non-workdays or on holidays, they shall be paid at the straight-time rate of pay for not less than two hours including any travel time.

Such reporting may include telephone, remote computer access, and other methods of response; however incidental phone calls of less than 5 minutes will not be considered a callout.

**C. Vehicles**

Currently, there are two Reservoir Specialists who take vehicles home. These two individuals, Scott Morris, and Jason Alga, will be allowed to continue to take vehicles home until one of the following occurs:

1. The Company only operates one gas storage facility.
2. The Company standardizes vehicle policy company-wide, including other bargaining units, such that there are no other employees permitted to take vehicles home or certain conditions apply for other employees permitted to take vehicles home. In this case, the new standard policy will apply to Reservoir Specialists on the same date as it applies to the last other group of affected employees.
3. In the event an individual vacates their current position, that individual will no longer be eligible.

Following the first occurring date, use of company vehicle shall be assigned at the Company's discretion based upon Company standards and business needs.

For all newly hired employees following the date of implementation, use of take-home Company vehicle shall be assigned at the Company's discretion based upon Company standards and business needs.

All employees will be required to follow all Company policies, regulations, and procedures regarding use of a Company vehicle. An employee who fails to follow Company standards may be removed from eligibility for vehicle take-home.

- Assignment and use of light duty company vehicles under 10,000 GVWR shall be in accordance with Utility Standards TRAN-1017S Enterprise Take Home Vehicle Standard. Employees are responsible for reporting commute miles in accordance with IRS regulations as outlined in TRAN-1017S.

Mr. Carl Harland

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- Operation of owned, leased or rented company vehicles shall be in accordance with Utility Standards TRAN-1002S Company Vehicle Standard, SAFE-1002S Motor Vehicle Safety Standard, SAFE-1018S Phone Free Driving Standard, Employee Code of Conduct and Code of Safe Practices, as well as federal, state, and local laws.
- The security of the assigned vehicle and compliance with local parking requirements are the responsibility of the employee and must be adhered to at all times. Vehicles will be parked at the employee's residence, or other agreed-to secure area, with all doors and tool compartments locked. When a vehicle is taken home, if the lap top computer is removable, the computer is to be removed and stored in the employee's home, locked bin, or other location as directed by department security requirements.

If you agree, please so indicate in the space provided below and return one executed copy of this letter to the Company.

Very truly yours,

PACIFIC GAS AND ELECTRIC COMPANY

By:   
 Matthew Levy  
 Senior Director

The Union is in agreement.

ENGINEERS AND SCIENTISTS OF CALIFORNIA  
LOCAL 20, IFPTE, AFL-CIO and CLC

21 APRIL, 2022

By:   
 Carl Harland  
 Assistant Executive Director

**Attachment 3: Job Descriptions**

<b>Gas Storage Reservoir Engineer, Associate (52872742)</b>	
Summary	<p>This is an entry-level Engineer job that works under the general technical direction of more experienced Management and Gas Storage Reservoir Engineers. This job is responsible for assessing and monitoring the integrity and reliability of gas storage wells and reservoirs operated by PG&amp;E. In addition, this position provides technical engineering support for underground gas storage assets and routine projects, including, but not limited to: collecting, reviewing, and assessing technical data; applying engineering principles to investigate, analyze, and propose solutions to maintain the integrity of the gas storage wells and reservoirs and developing project scope and cost estimates. This position analyzes test results to identify, diagnose, troubleshoot and solve storage well technical and operational problems. It oversees the engineering of natural gas storage well entry/intervention work and applies knowledge of concepts, principles, and practices to resolve problems with a high level of direction. The responsibility level of this position increases with experience.</p>
Job Duties:	<p>Initial assignments from the tasks below will require direction and supervision. With experience, the independence and responsibility will expand, and the need for supervision will decrease.</p> <ol style="list-style-type: none"> <li>1. Engineering assignments include: <ol style="list-style-type: none"> <li>a. Perform daily review of field activities, verification of pressure and rate data, gas sample data, and comparison of rates to deliverability curves</li> <li>b. Perform weekly review and update of hysteresis plots</li> <li>c. Provide weekly updates on assignments, field activities, and review and verification of data</li> <li>d. Review and update Monthly the field inventory to be used for engineering analysis</li> <li>e. Review, update, and assess monthly liquids production reports</li> <li>f. Compile, prepare, and seek approval of monthly, quarterly, and annual reports for submission to DOGGR</li> <li>g. Perform storage field inventory analysis semi-annually and reporting findings</li> <li>h. Monitor injection and withdrawal performance of storage fields and provide forecasts and reports including assessment of flow test data.</li> <li>i. Assess well Integrity and reporting anomalies</li> </ol> </li> <li>2. Supports administration, review, and retention of records and data per company policies.</li> <li>3. Participates in geologic and Reservoir engineering evaluation.</li> <li>4. Obtains gas well pressure readings at all storage fields for testing and verification of data accuracy when Specialist is not available.</li> <li>5. Reviews and troubleshoots any potential issues with storage volume and pressure readings as needed.</li> <li>6. Performs individual well and full field flow tests, surface casing blowdown test based on test specifications and assist with scheduling and data collection as needed. Witness testing of downhole safety valves as needed.</li> <li>7. Evaluate sand production inspections, and safety valve testing of downhole safety valves results.</li> <li>8. Act as technical expert to witness factory acceptance test for well components.</li> <li>9. Assists or participates (if qualified) as PG&amp;E well site manager during reworks and wireline surveys, which include overseeing contractors on the well entry/intervention tasks, ensuring written entry/intervention plans are followed, safety measures are in place and followed, and all environmental procedures are followed by workers on site.</li> <li>10. Obtains approval when necessary, following the Change Management process for any deviation from the well entry/intervention plans.</li> </ol>

	11. Assists with coordinating the resources assigned to the project including managing costs, interacting with gas storage maintenance and operations on clearances, resources and schedule to optimize the work. Documenting daily activities to be filed, updating well files, identifying opportunities for improvement, and participating in incident reviews with the appropriate parties.
<b>Scope</b>	Resolves problems of limited scope. Assignments typically require standard solutions. Assignments are regularly reviewed.
<b>Interaction</b>	External contacts typically require coordinating with contractors and providing information to third parties. Internal contacts are with clients and project team members and typically include discussing and reporting progress, exchanging and coordinating information, managing meetings and providing scope documents.
<b>Job Qualifications:</b>	
<b>Education</b>	A minimum education of a 4-year BS Degree in Engineering from an accredited curriculum in the US or the equivalent from outside the US. Bachelor's degree in geological, petroleum engineering, or related discipline desired.
<b>Licenses / Certifications</b>	Current and active EIT Certification or Professional Engineer (PE) license desired.
<b>Experience</b>	1-2 years of experience in engineering desired.
<b>Knowledge / Abilities</b>	<ol style="list-style-type: none"> <li>1. Strong interpersonal and communication skills</li> <li>2. Ability to work well in diverse team environments.</li> <li>3. Able to apply basic engineering principles and theory.</li> <li>4. Able to prioritize, plans, and recommends solutions for routine duties.</li> <li>5. Effectively communicates both written and orally.</li> <li>6. Able to plan work in an organized manner to meet project commitments.</li> <li>7. Demonstrates good judgment when making decisions and recommendations.</li> <li>8. Frequently shows initiative and takes action proactively.</li> <li>9. Knowledge of relevant regulations and standards that relate to the entry/intervention projects.</li> <li>10. Familiarity with Well Control and Blow out contingency, as well as Spill Response plans</li> </ol>

	<b><u>Gas Storage Reservoir Engineer, Journey (52872743)</u></b>
<b>Summary</b>	This is a journey-level engineer job that requires proficiency of the Gas Storage Reservoir Engineer, Associate skills and duties, this position is responsible for assessing and monitoring the integrity of gas storage wells and reservoirs operated by PG&E. The position also performs testing and analysis services and is able to identify, diagnose, troubleshoot and solve storage well technical and operational problems. Monitor the safety of the day to day operation on the execution of natural gas storage well entry/intervention work. Uses independent judgment in applying engineering concepts, principles, and practices to resolve problems with minimal direction. The responsibility level of this position increases with experience.

<b>Job Duties:</b>	Perform functions of Associate level Engineer and in addition: <ol style="list-style-type: none"> <li>1. Performs reservoir engineering assignments which include: <ol style="list-style-type: none"> <li>a. Storage field inventory analysis semi-annually and reports findings</li> <li>b. Assess well Integrity and report anomalies and findings</li> </ol> </li> <li>2. Assist in development of design standards and new processes, procedures and tools.</li> <li>3. Provide technical expertise, perform engineering analyses, studies, and develop conceptual and detail designs.</li> <li>4. Participate in project design reviews</li> <li>5. Solicit, prepare, and evaluate contracts and proposals from engineering consultants. Review consultant contracts for technical compliance and reviews the work of consultant and contract engineers. Project Managers may also perform this function.</li> <li>6. Under general direction apply applicable codes and regulations.</li> <li>7. Evaluate innovative and practical well workover design solutions with a focus on cost reductions, safety and reliability.</li> <li>8. Performing engineering for well isolations, and participate in on-site commissioning activities</li> </ol>
<b>Scope</b>	Resolves problems of moderate scope. Assignments typically require standard solutions. Under general direction, independently plans work to meet assigned objectives; progress is reviewed periodically for technical accuracy and adequacy in process and upon completion.
<b>Interaction</b>	External contacts are primarily coordinating with contractors and vendors. Internal contacts are with clients and project team members. May guide the work of less experienced team members. Exchanges information with others outside the team. May partner to solve problems or explore alternative solutions.
<b>Job Qualifications:</b>	
<b>Education</b>	A 4-year BS Degree in Engineering from an accredited curriculum in the US or the equivalent from outside the US. Bachelor's degree in geological, petroleum engineering, or related discipline desired.
<b>Licenses / Certifications</b>	Current and active Professional Engineer (PE) license desired.
<b>Experience</b>	Mastery of the Associate level Engineer job duties or equivalent and demonstrated knowledge and ability to perform the basic duties of the Journey Level Engineer. Meets specific technical requirements gained through a minimum of three (3) years of cumulative and relevant experience in engineering and design, preferably in an oil or gas reservoir-related field.
<b>Knowledge / Abilities</b>	Demonstrates knowledge and abilities required for the Associate level engineer and also: <ol style="list-style-type: none"> <li>1. Capable of working on and influencing diverse teams.</li> <li>2. Demonstrates ability to work with limited supervision and guidance to meet commitments.</li> <li>3. Able to work with internal and external customers and suppliers.</li> <li>4. Able to effectively communicate technical requirements to a diverse range of personnel with various knowledge and abilities</li> <li>5. Demonstrates informed judgment and thorough analysis when making recommendations.</li> <li>6. Uses judgment in applying engineering principles and techniques to determine cost effective and practical solutions.</li> <li>7. Ability to manage and complete duties concurrently, depending on scope and scope variance.</li> <li>8. Demonstrates knowledge to apply applicable codes, industry standards and regulations and educates others.</li> <li>9. Understanding of Well Control and Blow out contingency, as well as Spill Response plans</li> </ol>

	<b><u>Gas Storage Reservoir Engineer, Senior (52872744)</u></b>
<b>Summary</b>	This is a Senior-level Gas Reservoir Engineer job that requires mastery of the Gas Storage Reservoir Engineer, Journey job duties and is responsible for assessing and monitoring the



	integrity of gas storage wells and reservoirs operated by PG&E. In addition, this position provides technical engineering support for underground gas storage assets and routine well activities, including, but not limited to: obtaining, review, and assessment of technical data; applying reservoir engineering principles to investigate, analyze, and propose solutions to maintain the integrity of the gas storage wells and reservoirs. Applies knowledge of reservoir engineering concepts, principles, and practices to resolve problems with only general direction. Provide leadership, coaching, technical direction, knowledge transfer and assistance to technical employees and teams. Additional responsibilities include, but are not limited to, the following: Deliver presentations, lead team meetings, interpret industry practices and codes with some oversight.
<b>Job Duties:</b>	Perform functions of Associate and Journey level Engineers and in addition: <ol style="list-style-type: none"> <li>1. Manage large projects and perform reservoir engineering analyses, studies, and develop conceptual designs with general direction.</li> <li>2. Lead, coach, direct, and assist technical employees and teams on technical issues.</li> <li>3. Act as an engineering mentor.</li> <li>4. Assist in finalizing contract project specification and technical evaluation of contract project bids.</li> <li>5. Provide technical support to other departments in land, permitting, and legal issues.</li> <li>6. Assist in developing business case/justifications for presentation to upper management.</li> <li>7. Provide input to the design criteria for the well design, integrity monitoring, and reliability of the natural gas storage fields.</li> <li>8. Provide onsite engineering leadership during specialized well entry activities as required.</li> <li>9. Approve basic or moderately complex work of consultant and contract engineers.</li> </ol>
<b>Scope</b>	Resolves problems of varying scope. Assignments may provide an opportunity for creative or non-standard approaches. Under general direction, independently plans work to meet assigned general objectives. Work may be reviewed upon completion; solution may provide an opportunity for creative/non-standard approaches.
<b>Interaction</b>	External contacts are with contractors, vendors and local public agencies with ministerial authority. Internal contacts are with clients, project team members, and company management and leadership. May provide technical direction to less experienced team members. Exchanges information and solves problems with others outside the team.
<b>Job Qualifications:</b>	
<b>Education</b>	A 4-year BS Degree in Engineering from an accredited curriculum in the US or the equivalent from outside the US. Bachelor's degree in geological, petroleum engineering, or related discipline desired.
<b>Licenses / Certifications</b>	Current and active Professional Engineer (PE) license desired.
<b>Experience</b>	Mastery of the Associate and Journey level Engineer job duties and demonstrated knowledge and ability to perform the basic duties of the Senior level Engineer. Meets specific technical requirements gained through a minimum of eight (8) years of cumulative experience in storage reservoir engineering and design.
<b>Knowledge / Abilities</b>	Demonstrate knowledge and abilities required for the Associate and Journey level Engineer and also: <ol style="list-style-type: none"> <li>1. Ability to handle multiple large scale and large projects with limited supervision.</li> <li>2. Demonstrate presentation skills including knowledge transfer presentations.</li> <li>3. Capable of leading for an engineering team including outside contractors.</li> <li>4. Capable of completing assignments of broad and varying scope.</li> <li>5. Demonstrate knowledge to integrate information from a variety of sources.</li> <li>6. Demonstrate individual has extensive knowledge and ability to lead process improvement initiatives.</li> <li>7. Knowledge of reservoir principles, reservoir protection, reservoir management, gas storage rights and regulations as needed to perform at the job level</li> <li>8. Knowledge of geological and gas engineering theories, concepts, methods, best practices, and techniques as needed to perform at the job level</li> </ol>

<b><u>Gas Storage Reservoir Engineer, Senior Consulting (52872737)</u></b>	
<b>Summary</b>	This is an Senior Consulting -level Gas Reservoir Engineer job that requires mastery of the senior engineer duties. The Senior Consulting -level Gas Reservoir Engineer is responsible for assessing and monitoring the integrity of gas storage wells and reservoirs operated by PG&E including leading well entry/intervention and natural gas storage reservoir engineering projects, is a recognized expert within their area of responsibility, and applies extensive knowledge of concepts, principles, and practices to resolve problems with only general direction. Provides technical leadership and coaching. Can researches and identifies practical solutions to problems. Identifies opportunities and brings in ideas to help improve company performance.
<b>Job Duties:</b>	May perform the functions of Associate, Journey and Senior level Engineer and in addition: <ol style="list-style-type: none"> <li>1. Manage multiple projects and perform engineering analyses, studies, and develop conceptual designs with general direction.</li> <li>2. Act as an engineering mentor and role model.</li> <li>3. Lead assessment of well Integrity and reports anomalies.</li> <li>4. Develop innovative solutions to solve challenging technical issues.</li> <li>5. May act as a lead in root cause analysis and makes recommendations to address problems.</li> <li>6. Able to participate as a company witness, liaison, and/or information provider to outside parties.</li> <li>7. Develop technical process and procedures, and contribute to the development of standards, specifications, construction documents, and guidelines.</li> <li>8. Participate in external industry associations, committees, trade organizations and other inter-utility groups.</li> <li>9. Coordinate and lead implementing and maintaining geologic and geographic maps and mapping systems or provide technical oversight of consultants performing work.</li> <li>10. Model storage field/reservoir operations and use models to perform prediction and performance enhancement studies or provide technical oversight of consultants performing work.</li> <li>11. Openly shares and applies expertise within PG&amp;E</li> <li>12. Develop business case/justifications for presentation to upper management</li> <li>13. Approve highly complex work of consultant and contract engineers.</li> </ol>
<b>Scope</b>	Resolves problems of varying scope. Serves as a key technical resource within area of specialization. Regularly expected to apply creativity or new approaches to assignments that may be unique. May lead others on technical projects. Customarily and regularly uses discretion and independent judgment in fulfilling these job functions.
<b>Interaction</b>	May establish and maintain good external relations with counterparts in third party organizations, e.g., governmental, regulatory, business partner or community entities under general direction. Internal contacts include project team members, company management across various departments. Serves as the expert level on the team. Act as technical coach for others.
<b>Job Qualifications:</b>	
<b>Education</b>	A 4-year BS Degree in Engineering from an accredited curriculum in the US or the equivalent from outside the US. Bachelor's degree in geological, petroleum engineering, or related discipline desired.
<b>Licenses / Certifications</b>	Current and active Professional Engineer (PE) license required. California Petroleum Engineer PE license desired.
<b>Experience</b>	Mastery of the Associate, Journey, and Senior level engineer job duties and demonstrated knowledge and ability to perform the basic duties of the Senior Level Engineer. Meets specific technical requirements gained through a minimum of thirteen (13) years of cumulative experience in storage reservoir engineering and design.
<b>Knowledge / Abilities</b>	Demonstrates knowledge and abilities required for the Associate, Journey and Senior level Engineer and also: <ol style="list-style-type: none"> <li>1. Demonstrates ability to handle multiple large and varying in scope projects without or limited supervision and serve as team leader.</li> <li>2. Provide leadership, direction, and assistance to engineers and coach and develop of engineers with guidance.</li> <li>3. Capable of developing cost effective solutions beneficial to our customers and PG&amp;E.</li> </ol>

	<ol style="list-style-type: none"> <li>4. Complete assignments with few or no precedents or standards.</li> <li>5. Apply extensive knowledge of concepts, principles and practices in a specific field or area of expertise to resolve problems.</li> </ol>
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<b><u>Gas Storage Reservoir Engineer, Principal (52872745)</u></b>	
<b>Summary</b>	This is a Principal-level Gas Reservoir Engineer job that requires mastery of the all Gas Reservoir Engineer Senior Consulting-level duties. The Principal-level Gas Reservoir Engineer leads engineering projects, is recognized as Subject Matter Expert within the gas storage area of responsibilities, and applies extensive knowledge of petroleum engineering concepts, principles, and practices to resolve problems of variable scope with no or minimal direction. Provides technical leadership and coaching. Researches and identifies practical solutions to problems and variability. Identifies opportunities and ideas to help improve asset performance and efficiency. Additional responsibilities beyond the Senior Consulting-level Gas Reservoir Engineer may include, but are not limited to, developing programs in a multifunctional business process, and providing high-level advice and expertise to various PG&E lines of business.
<b>Job Duties:</b>	<p>Perform functions of Associate, Journey, Senior and Senior Consulting level engineers and in addition:</p> <ol style="list-style-type: none"> <li>1. Manage gas storage well and reservoir development and perform engineering analyses, studies, and develop conceptual designs and analyses for wells and reservoirs.</li> <li>2. Act as a subject matter expert and leader and demonstrates ability to apply expertise.</li> <li>3. Lead numerous varying in scope and/or unique projects of broad scope.</li> </ol>
<b>Scope</b>	Resolves problems of high variability in scope. Serves as a key technical resource and subject matter expert within area of specialization. Regularly expected to apply creativity or new approaches to assignments that may be unique. Lead others on technical projects. Customarily and regularly uses discretion and independent judgment in fulfilling these job functions.
<b>Interaction</b>	Establish and maintain external relations with counterparts and higher level representatives in third party organizations, e.g., governmental, regulatory, business partner or community entities under general direction. Internal contacts include project team members, company management across various departments. Serves as the subject matter technical expert on the team. Often is a technical coach for others.
<b>Job Qualifications:</b>	
<b>Education</b>	A 4-year BS Degree in Engineering from an accredited curriculum in the US or the equivalent from outside the US. BS Degree in Petroleum Engineering Preferred
<b>Licenses / Certifications</b>	Current and active Professional Engineer (PE) license required. California Petroleum Engineer PE license desired.
<b>Experience</b>	Mastery of the Associate, Journey, and Senior and Senior Consulting level engineer job duties and demonstrated knowledge and ability to perform all level engineering duties without supervision. Meets specific technical requirements gained through a minimum of fifteen (15) years cumulative experience in storage reservoir engineering and design. Experience in project management
<b>Knowledge / Abilities</b>	<ol style="list-style-type: none"> <li>1. Demonstrates knowledge and abilities required for the Associate, Journey, Senior and Senior Consulting level Engineer and also:</li> <li>2. Able to handle multiple large programs and projects of varying scopes with no or minimal guidance and serve as expert team leader.</li> <li>3. Provide leadership and direction to engineers and designers. Coach and develop engineers.</li> <li>4. Capable of developing cost effective solutions beneficial to our customers and PG&amp;E.</li> <li>5. Able to complete assignments with no precedents or standards.</li> <li>6. Apply extensive knowledge of concepts, principles and practices in a specific field or area of expertise to resolve problems of varying scopes.</li> <li>7. Deploying resources effectively and efficiently</li> </ol>

<b><u>GAS STORAGE ASSET ANALYST, Principal (52872738)</u></b>	
<p>This is a Principal-level job that supports the Gas Safety Excellence Asset Management Plan for the Gas Storage Asset Family Owner. Supports development and implementation of the asset management framework and consults the lines of business on risk analysis and aid in develop asset management plans under the direction of the Asset Family Owner. Manages facilitation of input into the asset risk register. Maintains the Asset Management Plan document and prepares supporting reports and analysis at the direction of the Asset Family Owner. Assists with development of testimony for rate cases, including supporting analysis.</p>	
<p>May perform the functions of Associate, Journey, Senior and Expert level Reservoir Engineer and in addition:</p> <ol style="list-style-type: none"> <li>1. Can develop an asset management data quality improvement plan for the Storage Asset Family.</li> <li>2. Can support and lead deployment of best practices in risk management across the Storage Asset Family.</li> <li>3. Can monitors implementation of effective risk management in the Storage Asset Family under the direction of the Gas Storage Asset Family Owner</li> <li>4. Can collaborate with line of business departments to develop, implement, and monitor appropriate risk mitigation activities and controls for the Storage Asset Family.</li> <li>5. Can lead updates of risk register or collaborate on its development and maintenance for the Storage Asset Family.</li> <li>6. May coach and assist lower level engineers</li> <li>7. May participate and lead on industry roundtables and groups as related to Gas Storage Asset and Risk management</li> </ol>	
<p>Resolves problems of very complex scope. Serves as a key technical resource within area of specialization. Regularly expected to apply creativity or new approaches to assignments that may be unique. May lead others on technically complex projects. Customarily and regularly uses discretion and independent judgment in fulfilling these job functions.</p>	
<p>Externally, establishes and maintains good relations with counterparts in third party organizations, e.g., governmental, regulatory, business partner or community entities under general direction. Internal contacts include project team members, company management across various departments. Serves as the expert level on the team. Act as technical coach for others.</p>	
<p>A 4-year BS Degree from an accredited curriculum in the US or the equivalent from outside the US.</p>	
<p>Current PE license desired</p>	
<p>Meets requirement gained through a minimum of ten (10) years cumulative experience in natural gas operations and processing, oil and gas industry experience, or gas storage reservoir engineering and design.</p>	
<p>Demonstrates knowledge and abilities:</p> <ol style="list-style-type: none"> <li>1. Capable of communicating (oral and written) recommendations and findings to high level leaders and officers.</li> <li>2. Knowledge of risk and compliance assessment and management theories, concepts, methods, best practices, and techniques as needed to perform at the job level</li> <li>3. Can present findings and make recommendations to management or others within organization.</li> <li>4. Demonstrates ability to plan and prioritize work to meet commitments aligned with organizational goals</li> <li>5. Demonstrates competency in using compelling arguments to gain the support and commitment of others</li> <li>6. Demonstrates competency in anticipating and balancing the needs of multiple stakeholders</li> <li>7. Can lead and organize teams in making sense of complex, high quantity, and sometimes contradictory information to effectively solve problems</li> <li>8. Competency in gaining the confidence and trust of others through honesty, integrity, and authenticity</li> <li>9. Demonstrates knowledge of gas operations processes, procedures, methodologies, and regulatory issues as needed to perform at the job level</li> <li>10. Ability to work independently with limited or no oversight</li> </ol>	
<b><u>Gas Reservoir Specialist, Associate (52872523)</u></b>	
<b>Summary</b>	This is an entry-level Specialists job that works under the general technical direction of more

	<p>experienced Management, Specialists, and Engineers. The Gas Reservoir Specialist Associate Level serves to ensure execution of the natural gas storage well entry or intervention work activities. The position performs testing and analyses services and is able to identify, diagnose, troubleshoot and solve storage well technical and operational problems. It may oversee the safety of the day to day execution of natural gas storage well entry/intervention work. Applies knowledge of concepts, principles, and practices to resolve problems with a high level of direction. The responsibility level of this position increases with experience. This is a DOT (Department of Transportation) covered classification and is subject to random drug and/or alcohol screening.</p>
<b>Job Duties:</b>	<p>Initial assignments from the tasks below will require direction and supervision; with experience, the independence and responsibility will expand and the need for supervision will decrease.</p> <ol style="list-style-type: none"> <li>1. Obtains gas well pressure readings once per week at storage fields for testing and verification of data accuracy, also daily during Inventory Verification periods, and spot pressure reads to address abnormal operating conditions.</li> <li>2. Reviews and troubleshoots any potential issues with pressure readings and other well and reservoir data provided by operations to meet regulatory compliance.</li> <li>3. Inspect, measure, and report sand production.</li> <li>4. Performs individual well and full field flow tests, surface casing blowdown test based on test specifications (GPOM may vent surface casings if pressure or volume are outside of the operating parameters as defined in the Storage Well Risk and Integrity Management Plan) and assist with scheduling and data collection as needed. Witness testing of downhole safety valves as needed.</li> <li>5. Participate in project teams involving wells, gas reservoirs and well head related equipment.</li> <li>6. Obtain gas samples for storage well and reservoir integrity management. Obtain samples from outside producers when needed.</li> <li>7. Assists or participates if qualified as PG&amp;E well site manager during reworks and wireline surveys, which include overseeing following activities: overseeing contractors on the well entry/intervention tasks, ensuring written entry/intervention plans are followed, safety measures are in place and followed, and all environmental procedures are followed by workers on site. Obtains approval when necessary, from Management for any deviation from the written well entry/intervention plans.</li> <li>8. Assists with coordinating the resources assigned to the project including managing costs, interacting with gas storage maintenance and operations on clearances, resources and schedule to optimize the work. Documenting daily activities to be filed, updating well files, identifying opportunities for improvement, and participating in incident reviews with the appropriate parties.</li> <li>9. Participates in process safety hazard reviews as required.</li> <li>10. Act as technical expert to witness factory acceptance test for well components.</li> </ol>
<b>Scope</b>	Resolves problems of limited scope. Assignments typically require standard solutions. Assignments are regularly reviewed.
<b>Interaction</b>	External contacts typically require coordinating with contractors and providing information to third parties. Internal contacts are with clients and project team members and typically include discussing and reporting progress, exchanging and coordinating information, managing meetings and providing scope documents. Acts as liaison with various internal departments such as gas operations, maintenance, and General Construction.
<b>Job Qualifications:</b>	

<b>Education</b>	High School Diploma, but a Bachelor of Science Degree in Engineering is desired
<b>Licenses / Certifications</b>	Current and active California Drivers License required. Well Control Certification desired.
<b>Experience</b>	Minimum 3 years' experience in PG&E gas storage operations and/or gas maintenance or external experience in oil and gas wells.
<b>Knowledge / Abilities</b>	<ol style="list-style-type: none"> <li>1. Be able to use math to establish well depths from various data (e.g., Kelly bushing Depth) tubing tally, perform calculations using equations, hydrostatic pressure, drift of pipe, and accuracy of drawings and details.</li> <li>2. Ability to review, identify, and recognize different types of inspections performed on the wells.</li> <li>3. Understanding of the different types of fluids to be used in the well as it pertains to hydrostatic pressure, mud weight, properties and overbalance.</li> <li>4. Familiarity with Well Control and Blow out contingency, as well as Spill Response plans.</li> <li>5. Understanding of well control</li> <li>6. Knowledge of relevant regulations and standards that relate to the entry/intervention projects.</li> <li>7. Understanding of PG&amp;E's Contract Work Authorization and Purchase Orders</li> <li>8. Understanding of PG&amp;E's gas standards that relate to the work including other pertinent PGE standards.</li> <li>9. Able to read well bore schematics.</li> <li>10. Prioritizes, plans, and recommends solutions for routine duties or projects.</li> <li>11. Effectively communicates both written and orally.</li> <li>12. Approaches and plans work in an organized manner to meet duties and project commitments.</li> <li>13. Demonstrates good judgment when making decisions and recommendations.</li> <li>14. Frequently shows initiative and takes action proactively.</li> </ol>
	<b><u>Gas Reservoir Specialist, Journey (52872524)</u></b>
<b>Summary</b>	This is a journey level specialist job that requires mastery of the associate level specialist duties. The Gas Reservoir Specialist Journey Level serves to ensure execution of the natural gas storage well entry or intervention work activities. Looks for opportunities to help improve company performance. Applies knowledge of concepts, principles, and practices to resolve problems with direction. This is a DOT (Department of Transportation) covered classification and is subject to random drug and/or alcohol screening.
<b>Job Duties:</b>	<p>May perform the functions of Associate level Specialists and in addition:</p> <ol style="list-style-type: none"> <li>1. Oversees-contractors on the entry/intervention projects, ensuring written entry/intervention plans are followed, safety measures are in place and followed, and all environmental procedures are followed.</li> <li>2. Acts as PG&amp;E well site manager during reworks and wireline surveys, which include overseeing following activities: overseeing contractors on the well entry/intervention tasks, ensuring written entry/intervention plans are followed, safety measures are in place and followed, and all environmental procedures are followed by workers on site.</li> <li>3. Coordinate the resources assigned to the project including managing costs; working with GPOM on clearances and schedule to optimize the work; documenting daily activities to be filed; updating well files; identifying opportunities for improvement; and participating in incident reviews with the appropriate parties.</li> <li>4. Provides on-site field support and training to the gas storage operations and maintenance personnel as directed.</li> </ol>

	<ol style="list-style-type: none"> <li>5. Prepares and submits "Notice of Intention" to rework or re-drill wells to State agencies.</li> <li>6. Writes detailed programs for well rework, drilling and assessments based on scope.</li> <li>7. Performs inspections, testing, scheduling and data collection to troubleshoot unusual issues associated with gas wells and reservoirs as needed, not to include duties performed by other personnel.</li> </ol>
<b>Scope</b>	Can be used as a technical resource. May help others on technical projects. Customarily and regularly uses discretion and independent judgment in fulfilling job functions.
<b>Interaction</b>	External contacts are with contractors, vendors and local public agencies. Internal contacts are with clients, project team members, and company management and leadership. May provide technical direction to less experienced team members. Exchanges information and solves problems with others outside the team.
<b>Job Qualifications:</b>	
<b>Education</b>	High School Diploma but a Bachelor of Science Degree in Engineering is desired
<b>Licenses / Certifications</b>	Current and active California Driver's License required. Well Control Certification desired
<b>Experience</b>	Mastery of the Associate Journey level Gas Reservoir Specialist job duties and demonstrated knowledge and ability to perform the basic duties of the Gas Reservoir Specialist. Meets specific technical requirements gained through a minimum of three (3) years of cumulative experience in gas storage well operations, gas storage maintenance, and/or gas well drilling and rework operations experience.
<b>Knowledge / Abilities</b>	Demonstrates knowledge and abilities required for the Associate, Journey level Specialist and also: <ol style="list-style-type: none"> <li>1. Understand how to handle multiple entry/intervention projects with minimal supervision and may serve as team leader.</li> </ol>
	<b><u>Gas Reservoir Specialist, Senior (52872525)</u></b>
<b>Summary</b>	This is a senior level specialist job that requires mastery of the journey and associate level specialist duties. The Gas Reservoir Specialist senior may serve to ensure execution of the natural gas storage well entry or intervention work activities. Able to Identify opportunities to help improve company performance. Able to provide technical leadership and coaching. Applies knowledge of concepts, principles, and practices to resolve problems with only general direction. This is a DOT (Department of Transportation) covered classification and is subject to random drug and/or alcohol screening.
<b>Job Duties:</b>	May perform the functions of Associate, Journey level Specialists, and in addition: <ol style="list-style-type: none"> <li>1. Provides input to the development of long term strategy and resolution of complex issues.</li> <li>2. Develop innovative solutions to solve technical issues.</li> <li>3. May contribute to the development of technical policies, standards, specifications, construction documents, and guidelines.</li> <li>4. Acts as a mentor and role model for other specialist levels and provide training as directed.</li> <li>5. Provides functional expertise and input to support Project Engineering/Manager to design, procure, construct and commission well and well head equipment.</li> </ol>
<b>Scope</b>	Serves as a technical resource within area of specialization. Regularly expected to apply new approaches to assignments that may be unique. May lead others on technical projects.

	Customarily and regularly uses discretion and independent judgment in fulfilling these job functions.
<b>Interaction</b>	External contacts are with contractors, vendors and local public agencies with authority. Internal contacts are with clients, project team members, and company management and leadership. May provide technical direction to less experienced team members. Exchanges information and solves problems with others outside the team. Often is a technical coach for others.
<b>Job Qualifications:</b>	
<b>Education</b>	High School Diploma, but a Bachelor of Science Degree in Engineering is desired
<b>Licenses / Certifications</b>	Current and active California Driver's License required. Well Control Certification desired Incident Command training desired
<b>Experience</b>	Mastery of the Associate, Journey level Gas Reservoir Specialist job duties and demonstrated knowledge and ability to perform the basic duties of the senior level Gas Reservoir Specialist.- Meets specific technical requirements gained through a minimum of eight (8) years of cumulative experience in gas storage well operations, gas storage maintenance, and/or gas well drilling and rework operations experience.
<b>Knowledge / Abilities</b>	Demonstrates knowledge and abilities required for the Associate, Journey level Specialist and also: <ol style="list-style-type: none"> <li>1. Able to handle multiple large projects</li> <li>2. Demonstrate knowledge and ability to provide direction, assistance to engineers and contractors, coach and develop lower level specialists.</li> <li>3. Able to develop innovative and cost effective solutions to solve technical issues.</li> <li>4. Complete assignments with minimal guidance.</li> <li>5. Apply general knowledge of concepts, principles and practices in a specific field or area of expertise to resolve problems.</li> <li>6. Able to provide input to the development of long term strategy and resolution of complex issues.</li> </ol>



<b><u>Gas Reservoir Specialist, Expert (52872726)</u></b>	
<b>Summary</b>	This is an expert level specialist job that requires mastery of the senior specialist duties. The Gas Reservoir Specialist Expert serves to ensure execution of the natural gas storage well entry or intervention work activities. Identifies opportunities and brings in ideas to help improve company performance. Provides technical leadership and coaching. Applies knowledge of concepts, principles, and practices to resolve problems with only general direction. This is a DOT (Department of Transportation) covered classification and is subject to random drug and/or alcohol screening.
<b>Job Duties:</b>	Perform the functions of Associate, Journey and Senior level Specialists and in addition: <ol style="list-style-type: none"> <li>1. May attend 30-60-90 design reviews to ensure compliance with relevant Standards associated with gas storage wells.</li> <li>2. May attend job scope walk downs.</li> <li>3. Utilizes advanced knowledge of wellhead and wellbore configuration principals to resolve complex issues.</li> <li>4. Applies wellbore hydraulics knowledge related to hydrostatic pressure and volume calculations for complex well killing operations and isolations.</li> <li>5. Ensures compliance with relevant API Standards associated with gas wells.</li> <li>6. Provide direction, assistance to engineers and contractors, coach and develop lower level specialists.</li> <li>7. May provide input to negotiate cost effective solutions beneficial to our customers and PG&amp;E.</li> </ol>
<b>Scope</b>	Serves as a key technical resource within area of specialization. Regularly expected to apply creativity or new approaches to assignments that may be unique. May lead others on technical projects. Customarily and regularly uses discretion and independent judgment in fulfilling these job functions.
<b>Interaction</b>	External contacts are with contractors, vendors and local public agencies with ministerial authority. Internal contacts are with clients, project team members, and company management and leadership. May provide technical direction to less experienced team members. Exchanges information and solves problems with others outside the team. Often is a technical coach for others.
<b>Job Qualifications:</b>	
<b>Education</b>	High School Diploma but a Bachelor of Science Degree in Engineering or related discipline is desired
<b>Licenses / Certifications</b>	Current and active California Driver's License required. Well Control Certification desired
<b>Experience</b>	Mastery of the Associate, Journey, and Senior level Gas Reservoir Specialist job duties and demonstrated knowledge and ability to perform the basic duties of the Expert level Gas Reservoir Specialist. Meets specific technical requirements gained through a minimum of thirteen (13) years of cumulative experience in gas storage well operations, gas storage maintenance, and/or gas well drilling and rework operations experience.
<b>Knowledge / Abilities</b>	Demonstrates knowledge and abilities required for the Associate, Journey and Senior level Specialist and also: <ol style="list-style-type: none"> <li>1. Able to handle and lead multiple large projects without supervision</li> <li>2. Demonstrates knowledge and ability to develop innovative and cost effective solutions to solve technical issues.</li> <li>3. Able to complete assignments with minimal guidance.</li> <li>4. Able to apply extensive knowledge of concepts, principles and practices in a specific field or area of expertise to resolve problems.</li> </ol>