Signal Hill Petroleum Conditional Use Permit 97-03 Extension Project

CEQA Draft Environmental Impact Report 2nd Public Review Meeting

June 24, 2024

CITY OF SIGNAL HILL

Catalyst's Experience and Qualifications Are On Point for City's Review of SHP Project

Daniel Tormey, PhD, PG

- CEQA Project Manager with over 80 documents, 30 in SoCal
- Over 25 years of environmental work on California's oil fields with emphasis on urban oil fields
- Co Author of CCST reports on oil and gas to governor and legislature
- Appointed to numerous government and agency panels on oil and gas
- Actively supporting SoCal municipalities on oil and gas environmental analysis and CEQA
- Led studies benchmarking current environmental and liability protection for oil and gas

Megan Schwartz, MESM

- 18 years experience managing CEQA projects
- Work on oil and gas fields since 2008, including projects at most urban drill sites in LA and Orange County
- Regularly coordinates with CalGEM, Water Boards, EPA to on oil field permitting issues on behalf of CIPA and WSPA
- Currently leading CEQA analysis for three well drilling and underground injection projects with CalGEM lead agency
- Lead analyst and Deputy Project Manager for the SCAQMD-led EIR: Santa Fe Springs Oil Field Transport Project

Paden Voget, PE

- Technical analyst with over 20 years experience in key resource areas: Air Quality, GHG, Energy, Hazards, Noise, Transportation
- Leading physical science analyses for multiple oil and gas CEQA analyses currently
- Expert in necessary models, data inputs, and regulatory thresholds for the region.

David (Chip) Blankenhorn, PG

- Has over two decades of experience working on various oil fields across California and, as such, is familiar with the environmental issues associated oil and gas production
- Experienced in leading on-call service contracts
- Currently working on behalf of a large land development company to oversee the decommissioning and remediation of a former 1,200-acre oil field in Los Angeles County.

Agenda

- CEQA Process
- Project Overview and Objectives
- Project Components
- Results of CEQA Analysis
- How to Submit Written Draft EIR Comments

Photos Source: (ECORP Consulting, Inc. 2022)

Purpose - CEQA

❖What is CEQA?

- California Environmental Quality Act (CEQA) adopted by the State Legislature in 1970
- Applies to all governmental agencies with a discretionary action
- Purpose of CEQA is to provide disclosure
  - Inform decision makers about environmental effects
  - Involve public participation in the planning process
  - Identify and incorporate feasible means of reducing environmental impacts

The CEQA Process

- *Notice of Preparation/Initial Study - completed*
- Public Scoping Period – *completed*
- Prepare Draft EIR – *completed*
- Publish Notice of Availability for Draft EIR
  Start of Draft EIR Public Comment Period
- Develop Final EIR, Mitigation Monitoring and Reporting Plan
- Hearings with the Planning Commission and City Council to consider Project and certify the EIR

CEQA Draft EIR Comment Period

❖Notice of Availability (NOA)

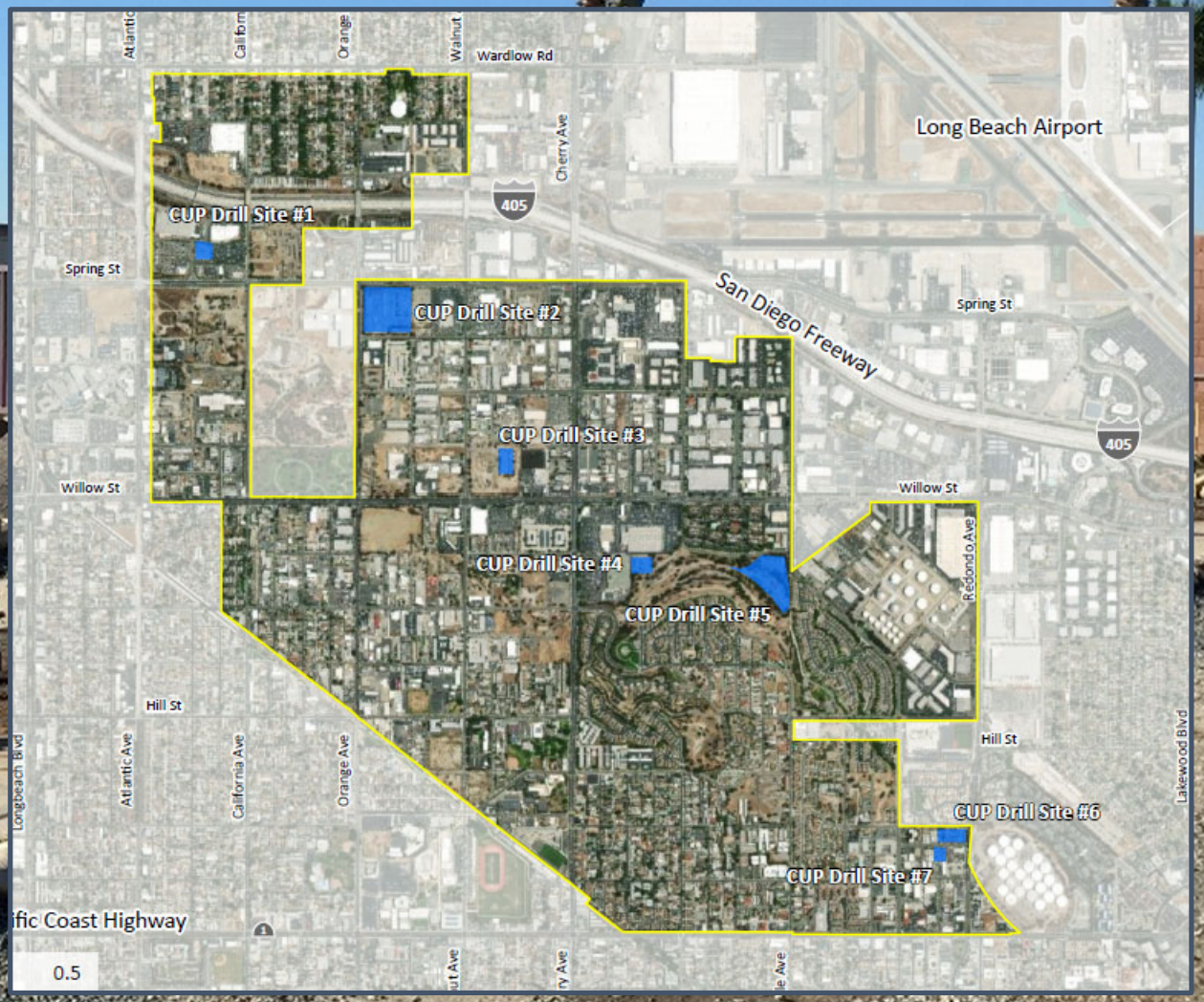
- Lead agency: City of Signal Hill
- NOA and Draft EIR published May 10, 2024, available on city website, State Clearinghouse, and County Clerk website
- Notices mailed to all who submitted scoping comments and all residents within 300 feet of drill sites

❖Objectives of Draft EIR Public Review

- Obtain agency and public input on content of the Draft EIR
- Comment on the impact analysis, range of alternatives, mitigation measures, and potentially significant effects analyzed in the EIR
- Identify remaining concerns in the environmental review process
- Respond and incorporate comments on the Draft into the Final EIR

Study Area

- Seven drill sites located within the urban area of the City of Signal Hill
- Project footprint entirely contained within the boundaries of the existing drill sites
- Surrounding land uses include: commercial and residential areas and main roadways located throughout the City.



What is a Drill Site?

CUP Drill Site #1

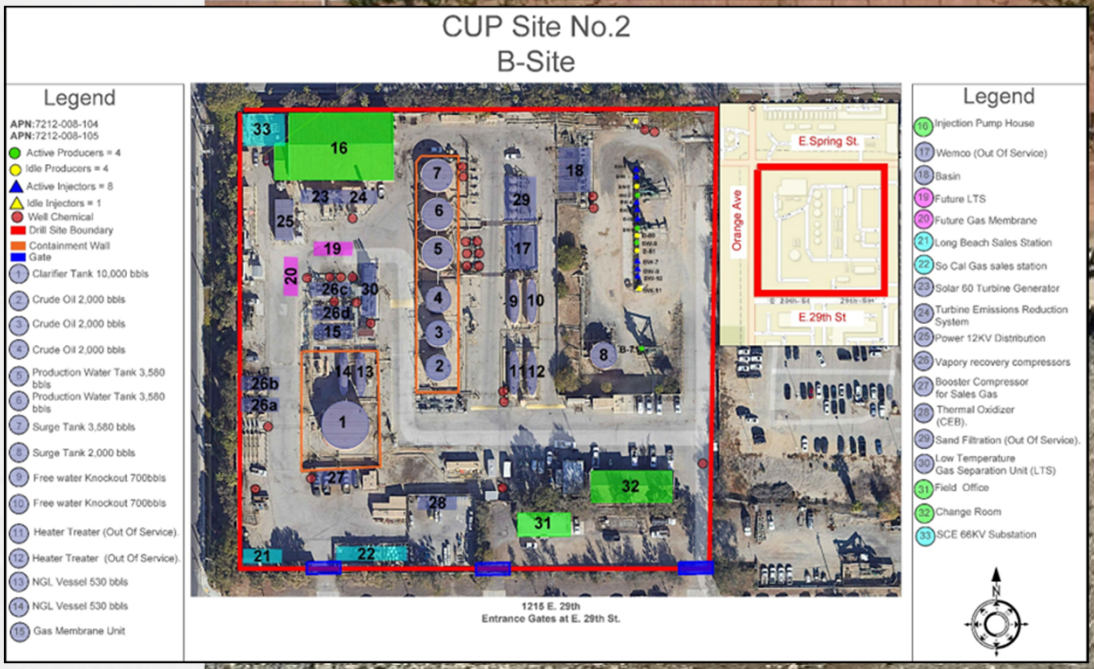
Proposed Project

- The City is considering adoption of a 20-year extension of the Conditional Use Permit (CUP) for 7 drill sites (Proposed Project).
- If the 20-year extended CUP period is approved, Signal Hill Petroleum (SHP) proposes to:
  - Install new equipment at the existing natural gas processing facility at CUP Drill Site #2
  - Drill up to 46 new wells, at a maximum rate of 5 wells per year
  - All other operational activity, such as site maintenance, inspections, redrilling (max of 6 wells per year up to 28 total) and well operation and fluid processing would remain the same

Photos Source: (ECORP Consulting, Inc. 2022)

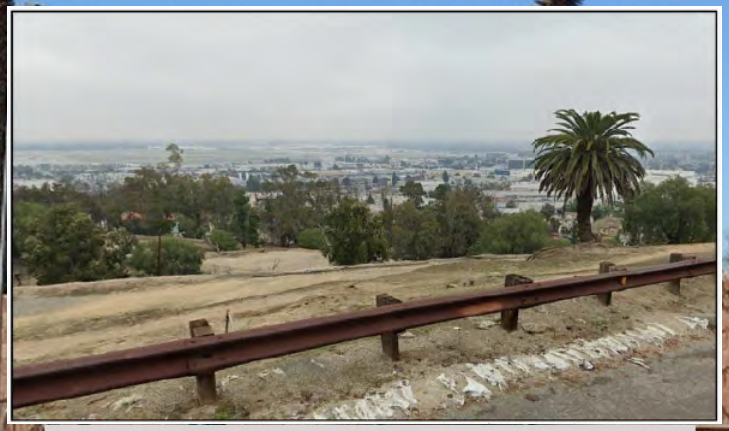
Upgrades to Natural Gas Processing Facility

- Install upgrades to facility at CUP Site #2 to facilitate sale of excess natural gas to Southern California Gas Company and promote efficiency and redundancy in operations
- Area of disturbance is approximately 0.1 to 0.2 acres within the existing developed CUP Site #2

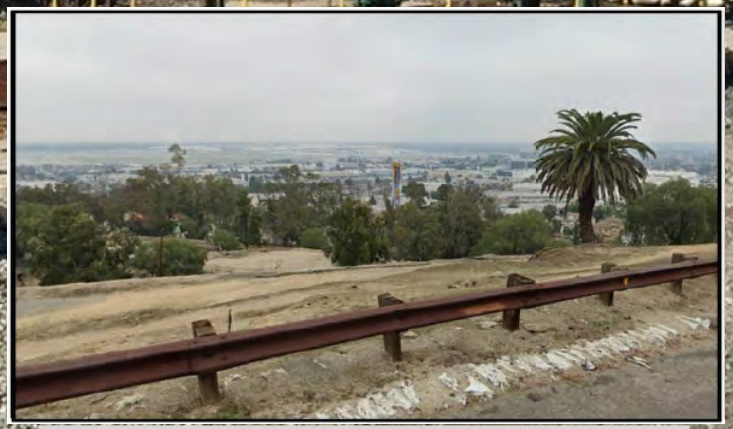


Drilling New Wells

- SHP proposes to drill up to **<u>46</u>** new wells within the drill sites over the 20-year period
  - Maximum new wells drilled in any year: **5**
  - Average new wells to be drilled in any year: **2**
  - Combined maximum of new drills/redrills in any year: **9**
- All new wells located within existing drill site boundaries
- May be drilled within existing open slot in well cellars present onsite or new wells cellars may be constructed for the new wells
- Drilling new wells requires a permit to drill from the California Geologic Energy Management division (CalGEM)



View of drill site with no drill rig present (CUP Site #5)



Simulated view of drilling rig for drilling new wells (CUP Site #5)

Photos Source: (Sespe Consulting, Inc. 2022)

Proposed Project – Limits by Drill Site

Drill Site	Maximum Limits on Activities		
	New Wells Drilled	Existing Wells Redrilled	New Well Cellars
#1	10	10	10
#2	10	15	5
#3	15	10	5
#4	15	10	5
#5	15	12	5
#6	2	2	2
#7	2	1	2

Photos Source: (ECORP Consulting, Inc. 2022)

Continued Operations

- Continue existing operations at the current activity level for the duration of the 20-year extension. EIR evaluated the effects of continued operations for the CUP term.
- Continued compliance with all federal, state, local regulations and facility permits.
- No new drill sites and no expansion outside existing drill site footprints.
- Activities consist of:
  - Well servicing and maintenance
  - Redrilling operations
  - Oil processing, storage and transfer
  - Natural gas and natural gas liquids processing, storage and transfer
  - Operation of recently-permitted flare at Drill Site #2 (installation currently in progress)
  - Produced water separation and injection
  - Electricity production from a natural gas turbine-powered generator

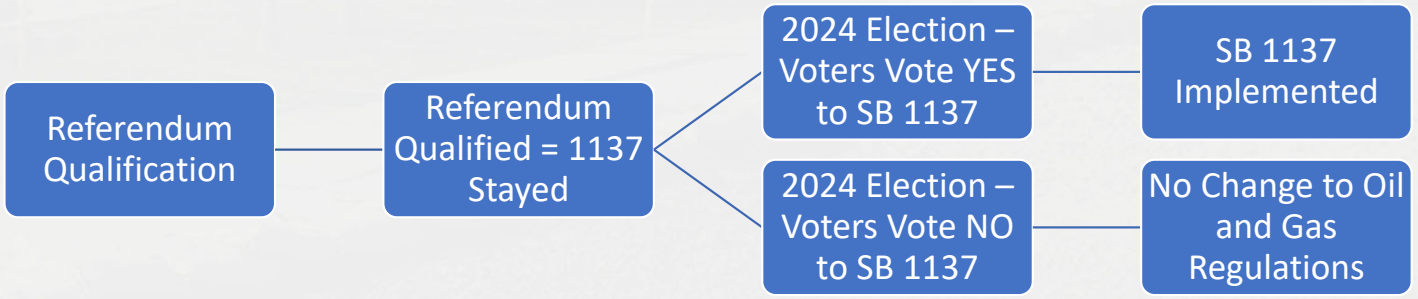
View of Drill Site #7 during normal operations (no drill rig present)

Simulated view of drilling rig for ongoing redrilling operations (Drill Site #7)

Photos Source: (Sespe Consulting, Inc. 2022)

Senate Bill 1137 and Emergency Public Health Regulations

- SB 1137 is subject of a qualified voter referendum and subject to a vote in November 2024 election
- EIR evaluates the project as proposed by Signal Hill Petroleum, in order to provide a conservative and complete analysis of potential environmental impacts
- If and/or when SB 1137 is implemented, SHP would be required to comply with all implementing regulations



Photos Source: (Sespe Consulting, Inc. 2022)

Senate Bill 1137 and Emergency Public Health Regulations

- Under SB 1137 and Emergency Regulations:
  - All 7 Drill Sites are located with a “Health Protection Zone”
  - If adopted, CalGEM would not issue permits to drill new wells or rework existing wells within a Health Protection Zone
  - Currently operating wells and production facilities (i.e., tanks, pipelines) within a “Health Protection Zone” are subject to new safety and monitoring requirements that will be phased in over a period of years:
    - Water sampling and reporting
    - Annual submission of sensitive receptor inventory and map
    - Leak Detection and Response Plan
    - Engineering controls to monitor and minimize sound, light, and dust
    - Chemical testing of produced water

Photos Source: (Sespe Consulting, Inc. 2022)

CEQA Analysis

Based on results of the Initial Study, the Draft EIR analyzed potential effects of Proposed Project:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Transportation
- Tribal Cultural Resources

CEQA Analysis

For all resource categories:

- Impacts determined to be LESS THAN SIGNIFICANT or LESS THAN SIGNIFICANT WITH MITIGATION
- No Significant and Unavoidable Impacts Identified

Air Quality Analysis Results

Air Quality impacts were found to be Less than Significant under the Proposed Project

Emissions Source	ROG (lb/day)	NO_X (lb/day)	CO (lb/day)	SO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Redrilling	1.71	0.00	0.00	0.00	0.00	0.00
Drilling New Wells	0.14	1.59	2.75	0.00	0.02	0.02
New Well Cellars	1.75	0.00	0.00	0.00	0.00	0.00
Continued Operations of Existing Facilities	38.35	24.73	15.28	1.03	8.45	0.03
Total Daily Emissions	**42.16**	**27.64**	**20.32**	**1.03**	**8.48**	**0.06**
SCAQMD Significance Threshold	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Air Quality Analysis Results

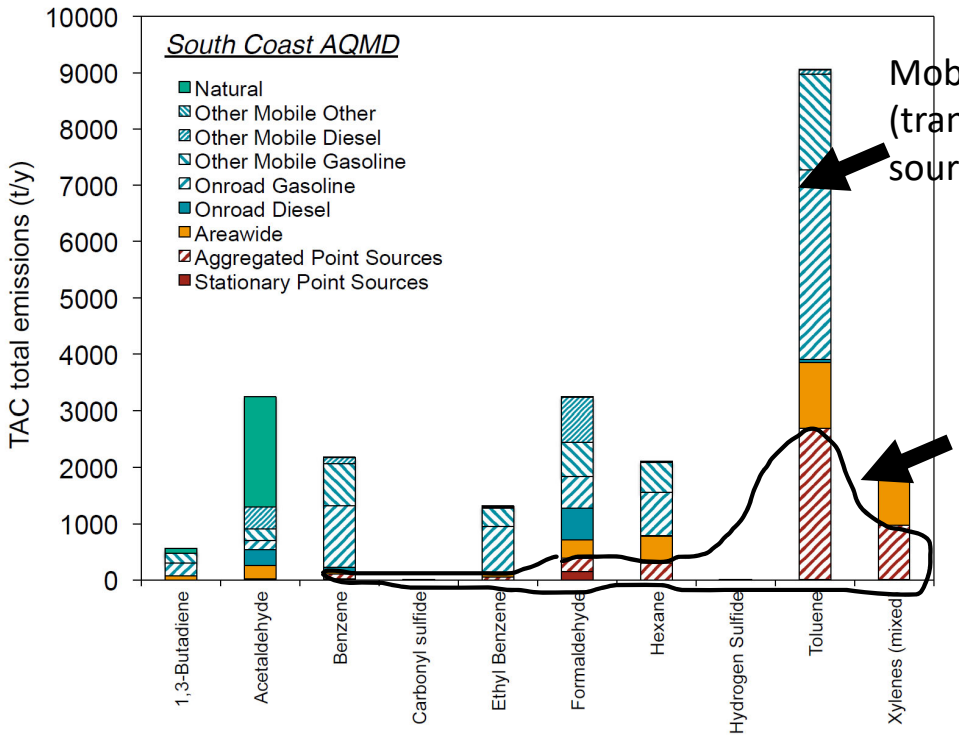
Air Quality impacts were found to be Less than Significant under the Proposed Project

Voluntary Measure AQ-1: Dust Control Measures

- Limit and remove mud at adjacent public roadways at end of each day
- Cover and contain all soils during transport
- Stabilize the surface of storage piles
- Cease grading activity during high wind periods (over 20 mph) and first stage ozone alerts
- Cease construction activities during first stage smog alerts and first stage ozone alerts
- Maintain all equipment according to standards and shut down when not in use for extended periods
- Construction equipment (for well cellars and natural gas upgrades) limited to operating 8 hours per day
- Use diesel particular filters and cooled exhaust gas recirculation on diesel equipment
- All equipment equipped with proper emissions control technology

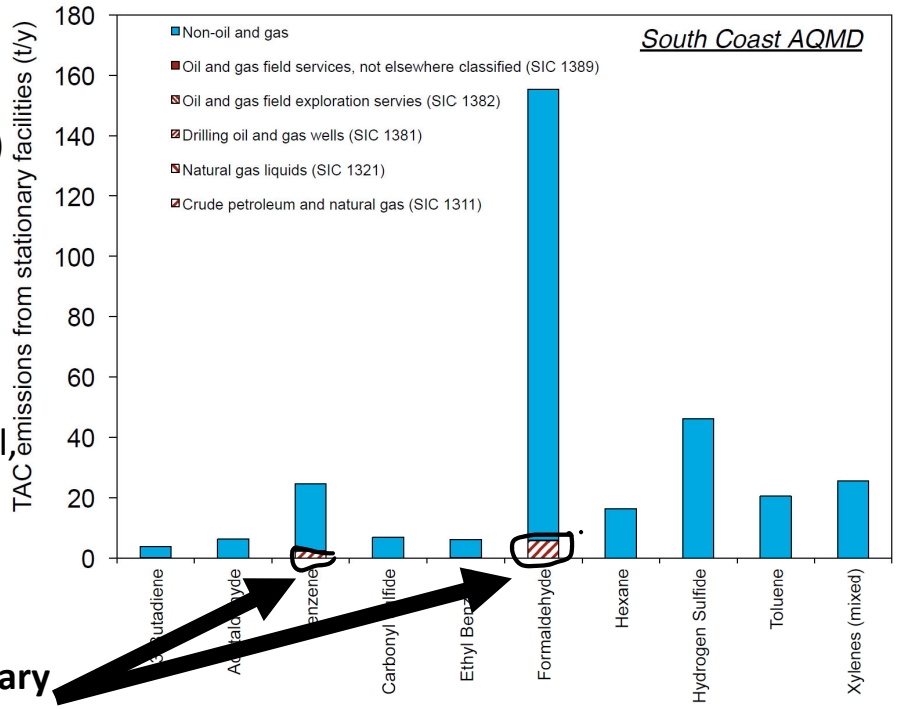
Sources of Toxic Air Contaminants in Southern California

For context, most toxic air contaminants are from transportation (ports, freeways), and less than 1% are oil and gas



Mobile (transportation) sources

Stationary Sources (all, including oil fields)



Of **stationary** sources, oil and gas contribution

Figure 3.3-9. Total TACs releases for 10 indicator species in SC region. Results for calendar year 2010, most recent available (CARB, 2013c). Emissions are in tonnes per year (1,000kg/y).

Figure 3.3-11. Summed facility-level TAC emissions in South Coast (SC) air district CARB, 2014j). Emissions plotted for indicator species for SIC codes 1311, 1321, 1381, 1382, and 1389. Facility-level emissions derived from CARB facility emissions tool. Total emissions are emissions from all SIC codes in the air district, including gasoline fueling stations.

Site-Specific Human Health Risk Assessment

- Assessment followed California OEHHA Risk Assessment Guidelines
- Evaluation based on
  - the maximum number of wells to be drilled at each Drill Site, to be drilled at the maximum rate of five wells per year
  - the maximum number of redrilling operations to existing wells that could be conducted at each drill site each year
- Results compared to Risk Thresholds adopted by SCAQMD and State of California (AB 2588)

Cumulative Cancer Health Risks Results		
Category	**Maximum Exposed Individual Resident**	**Maximum Exposed Individual Worker**
Continued Operation of Existing Facilities	4.42 in a million	0.74 in a million
Construction	0.2693 in a million	0.005 in a million
Operation of Additional Project Components	1.4452 in a million	0.036 in a million
Total	6.1345 in a million	0.781 in a million
Threshold	10 in a million	10 in a million
Exceeds Threshold?	**No**	**No**

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- Evaluation based on
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  - the maximum number of redrilling operations to existing wells that could be conducted at each drill site each year
- Results compared to Risk Thresholds adopted by SCAQMD and State of California (AB 2588)

Cumulative Non-Cancer Chronic Impact Results		
Category	**Maximum Exposed Individual Resident**	**Maximum Exposed Individual Worker**
Continued Operation of Existing Facilities	0.02	0.02
Construction	0.00032	0.002
Operation of Additional Project Components	0.00183	0.001
Total	0.022	0.023
Threshold	1.0	1.0
Exceeds Threshold?	**No**	**No**

Site-Specific Human Health Risk Assessment

- Assessment followed California OEHHA Risk Assessment Guidelines
- Evaluation based on
  - the maximum number of wells to be drilled at each Drill Site, to be drilled at the maximum rate of five wells per year
  - the maximum number of redrilling operations to existing wells that could be conducted at each drill site each year
- Results compared to Risk Thresholds adopted by SCAQMD and State of California (AB 2588)

Cumulative Non-Cancer Acute Impact Results		
Category	**Maximum Exposed Individual Resident**	**Maximum Exposed Individual Worker**
Continued Operation of Existing Facilities	0.01	0.01
Construction	0.000	0.000
Operation of Additional Project Components	0.001	0.002
Total	0.011	0.012
Threshold	10 in a million	10 in a million
Exceeds Threshold?	**No**	**No**

Greenhouse Gas Analysis Results

Greenhouse Gas emissions were found to be Less than Significant under the Proposed Project

SHP is subject to California Air Resources Board Cap-and Trade-Regulations, which puts a limit on the total number of GHG emissions from covered facilities each year (cumulatively).

- The state limit on GHG emissions declines annually to meet California's 2030 GHG reduction target of 40% below 1990 levels.
- Project would result in 1,197 metric tons CO_2e per year over the CUP period, which would be accounted for under the Cap-and-Trade program.
- Project would be consistent with the California Air Resources Board AB52 Scoping Plan and would not conflict with any plan adopted for the purposes of reducing GHG emissions.

Mitigation Measures

Resource Categories for Which Potentially Significant Impacts Were Identified	Mitigation Measures to Reduce and/or Avoid Potentially Significant Impacts
Aesthetics	Reduce impacts from nighttime lighting through downward shielding
Biological Resources	Preconstruction surveys for bats and nesting birds
Cultural Resources	Retain qualified archaeologist in event of unanticipated discovery
Geology and Soils	Worker Environmental Awareness Program training related to paleontological resources
Noise	On-site noise monitoring for drilling and operation of natural gas processing facility for triggers when additional noise control measures required
	No drilling or redrilling within 210 feet of homes north of drill site #5, 270 feet of homes north of drill site #6, 150 feet of commercial bldg. east of drill site #7
Transportation	Peak hour delivery avoidance
Tribal Cultural Resources	Retain Native American monitor during ground disturbance, protocols for discovery and burial of tribal cultural resources, human remains, grave goods

Cumulative Impacts

- Cumulative Effects Analysis considered the potential impacts of the Project when considered with:
  - Continued operation of wells outside drill sites
  - 14 proposed commercial and/or residential development projects in the City
  - City development of its updated General Plan Elements: Housing Element and Environmental Justice Element
- For all resources, cumulative effects found to be less than significant or less than significant with mitigation

Alternatives

- The Draft EIR evaluated the potential effects of the No Project Alternative
  - The City would not approve the CUP extension
  - The Drill Sites would continue to operate but no new wells could be drilled
- Two Additional Alternatives were identified during scoping and evaluated in the Draft EIR:
  - 2-Year Permit Term Alternative
  - 10-Year Permit Term Alternative
- Based on the analysis in the EIR, the City determined the Project is the Environmentally Superior Alternative

How to Provide Comments

Email to: cdoan@cityofsignalhill.org

Mail to: Colleen Doan
Community Development Director
2175 Cherry Avenue
Signal Hill, CA 90755

Include your name, email address, telephone number, address, and an **RE: Signal Hill Petroleum CUP 97-03 Extension EIR** at the top of your comment.

Comments due by end of this meeting today, June 24, 2024

Project information available at: https://www.cityofsignalhill.org/612/Current-Projects