Attachment C

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Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Porter Estates (Trio Petroleum) Production Testing Project

Lead Agency: Monterey County Resource Management Agency- Planning
Contact Person: Grace Bogdan
Mailing Address: 168 W Alisal St 2nd Floor
Phone: (831)796-6414
City: Salinas Zip: 93901
County: Monterey

Project Location: County: Monterey City/Nearest Community: Bradley
Cross Streets: Jolon Rd Zip Code: 93426
Longitude/Latitude (degrees, minutes and seconds): 120 ° 51 ′ 39.94″ N / 35 ° 52 ′ 13.51″ W Total Acres: 29.23
Assessor's Parcel No.: 424-081-082-000 Section: 2 Twp.: 24 Range: 10 Base: Mount Dia
Within 2 Miles: State Hwy #: Highway 101 Waterways: Hames Creek
Airports: Railways: Schools:

Document Type:

CEQA: ☐ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☒ Mit Neg Dec Other: ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other:

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☒ Other: Oil and Gas Production Testing

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☐ Vegetation
☒ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☐ Sewer Capacity ☐ Wetland/Riparian
☒ Biological Resources ☒ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☒ Noise ☐ Solid Waste ☒ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☒ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Permanent Grazing and Farmland/Agricultural Farmlands

Project Description: *(please use a separate page if necessary)*

The project would include production testing (exploration) for oil and gas using an existing oil well (Bradley Minerals 2-2) located at 72327 Jolon Rd, Bradley. The project does not include the drilling of new wells, and does not include long-term production. The proposed project is an exploratory effort to assist in determining whether oil is available in commercial quantities at the project location.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X	Air Resources Board	____	Office of Historic Preservation
____	Boating & Waterways, Department of	____	Office of Public School Construction
____	California Emergency Management Agency	____	Parks & Recreation, Department of
____	California Highway Patrol	____	Pesticide Regulation, Department of
X	Caltrans District #5	____	Public Utilities Commission
____	Caltrans Division of Aeronautics	X	Regional WQCB #3
____	Caltrans Planning	____	Resources Agency
____	Central Valley Flood Protection Board	____	Resources Recycling and Recovery, Department of
____	Coachella Valley Mtns. Conservancy	____	S.F. Bay Conservation & Development Comm.
____	Coastal Commission	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	____	Santa Monica Mtns. Conservancy
X	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	____	SWRCB: Water Quality
____	Energy Commission	____	SWRCB: Water Rights
X	Fish & Game Region #4	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	____	Toxic Substances Control, Department of
____	Forestry and Fire Protection, Department of	____	Water Resources, Department of
____	General Services, Department of		
____	Health Services, Department of	X	Other: Division of Oil, Gas, and Geothermal Resources
____	Housing & Community Development	____	Other:
____	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date February 27, 2015 Ending Date April 1, 2015

Lead Agency (Complete if applicable):

Consulting Firm: Rincon Consultants
Address: 437 Figueroa St #203
City/State/Zip: Monterey, CA 93940
Contact: Megan Jones
Phone: (831)333-0310

Applicant: Trio Petroleum
Address: 5041 Business Park S Suite 115
City/State/Zip: Bakersfield, CA 93309
Phone: (661)324-3911

Signature of Lead Agency Representative: _____ **Date:** 2/25/2015

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

County of Monterey
State of California

MITIGATED NEGATIVE DECLARATION

Project Title:	Porter Estates (Trio Petroleum) Production Testing Project
File Number:	PLN140395
Owner:	Porter Estate Company Bradley Ranch Inc
Project Location:	72327 Jolon Road, Bradley
Primary APN:	424-081-082-000
Project Planner:	Grace Bogdan
Permit Type:	Temporary Use Permit
Project Description:	The project would include production testing (exploration) for oil and gas using an existing oil well. The project does not include the drilling of new wells, and does not include long-term production. The proposed project is an exploratory effort to assist in determining whether oil is available in commercial quantities at the project location.

THIS PROPOSED PROJECT WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AS IT HAS BEEN FOUND:

a) That said project will not have the potential to significantly degrade the quality of the environment.

b) That said project will have no significant impact on long-term environmental goals.

c) That said project will have no significant cumulative effect upon the environment.

d) That said project will not cause substantial adverse effects on human beings, either directly or indirectly.

Decision Making Body:	Monterey County Planning Commission
Responsible Agency:	County of Monterey
Review Period Begins:	February 27, 2015
Review Period Ends:	April 1, 2015

Further information, including a copy of the application and Initial Study are available at the Monterey County Planning & Building Inspection Department, 168 West Alisal St, 2nd Floor, Salinas, CA 93901 (831) 755-5025

MONTEREY COUNTY

RESOURCE MANAGEMENT AGENCY – PLANNING
168 WEST ALISAL, 2ND FLOOR, SALINAS, CA 93901
(831) 755-5025 FAX: (831) 757-9516

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
MONTEREY COUNTY PLANNING COMMISSION

NOTICE IS HEREBY GIVEN that Monterey County Resource Management Agency – Planning has prepared a draft Mitigated Negative Declaration, pursuant to the requirements of CEQA, for a Use Permit (Porter Estates, PLN140395) at 72327 Jolon Road, Bradley (APN 424-081-082-000) (see description below). The project involves the production testing for oil and gas using an existing oil well.

The Mitigated Negative Declaration and Initial Study, as well as referenced documents, are available for review at Monterey County Resource Management Agency – Planning, 168 West Alisal, 2nd Floor, Salinas, California. The Mitigated Negative Declaration and Initial Study are also available for review in an electronic format by following the instructions at the following link:
http://www.co.monterey.ca.us/planning/docs/environmental/circulating.htm.

The Planning Commission will consider this proposal at a meeting on April 29, 2015 at 9 a.m. in the Monterey County Board of Supervisors Chambers, 168 West Alisal, 2nd Floor, Salinas, California. Written comments on this Mitigated Negative Declaration will be accepted from February 27th to April 1st 2015. Comments can also be made during the public hearing.

Project Description: Temporary Use Permit to allow production testing and the exploration for oil and gas using an existing well (Bradley Well 2-2).

We welcome your comments during the 30-day public review period. You may submit your comments in hard copy to the name and address above. The Agency also accepts comments via e-mail or facsimile but requests that you follow these instructions to ensure that the Agency has received your comments. To submit your comments by e-mail, please send a complete document including all attachments to:

CEQAcomments@co.monterey.ca.us

An e-mailed document should contain the name of the person or entity submitting the comments and contact information such as phone number, mailing address and/or e-mail address and include any and all attachments referenced in the e-mail. To ensure a complete and accurate record, we request that you also provide a follow-up hard copy to the name and address listed above. If you do not wish to send a follow-up hard copy, then please send a second e-mail requesting confirmation of receipt of comments with enough information to confirm that the entire document was received. If you do not receive e-mail confirmation of receipt of comments, then please submit a hard copy of your comments to ensure inclusion in the environmental record or contact the Agency to ensure the Agency has received your comments.

Facsimile (fax) copies will be accepted with a cover page describing the extent (e.g. number of pages) being transmitted. A faxed document must contain a signature and all attachments referenced therein. Faxed document should be sent to the contact noted above at **(831) 757-9516**. To ensure a complete and accurate

record, we request that you also provide a follow-up hard copy to the name and address listed above. If you do not wish to send a follow-up hard copy, then please contact the Agency to confirm that the entire document was received.

For reviewing agencies: Resource Management Agency – Planning requests that you review the enclosed materials and provide any appropriate comments related to your agency's area of responsibility. The space below may be used to indicate that your agency has no comments or to state brief comments. In compliance with Section 15097 of the CEQA Guidelines, please provide a draft mitigation monitoring or reporting program for mitigation measures proposed by your agency. This program should include specific performance objectives for mitigation measures identified (CEQA Section 21081.6(c)). Also inform this Agency if a fee needs to be collected in order to fund the mitigation monitoring or reporting by your agency and how that language should be incorporated into the mitigation measure.

All written comments on the Initial Study should be addressed to:

County of Monterey
Resource Management Agency – Planning
Attn: Mike Novo, Director of Planning
168 West Alisal, 2nd Floor
Salinas, CA 93901

Re: Porter Estates; File Number PLN140395

From: Agency Name: RMA-Planning
Contact Person: Grace Bogdan
Phone Number: (831)796-6414

___ No Comments provided
___ Comments noted below
___ Comments provided in separate letter

COMMENTS: _____

DISTRIBUTION

1. State Clearinghouse (15 CD copies + 1 hard copy of the Executive Summary) – include the Notice of Completion
2. County Clerk's Office
3. CalTrans District 5 (San Luis Obispo office)
4. Association of Monterey Bay Area Governments
5. Monterey Bay Unified Air Pollution Control District
6. California Department of Fish & Wildlife, Marine Region, Attn: Eric Wilkins
7. Cal-Fire South County (Art Black)
8. Monterey County Agricultural Commissioner
9. Monterey County Water Resources Agency
10. Monterey County RMA-Public Works
11. Monterey County RMA-Environmental Services
12. Monterey County Parks Department
13. Monterey County Environmental Health Bureau
14. Monterey County Sheriff's Office (Dave Crozier)
15. Bradley Union Elementary School District
16. King City Union School District
17. Porter Estate Company Bradley Ranch LLC, Owner
18. Steve Rowlee, Trio Petroleum, Agent
19. Hollin Kretzman, Center for Biological Diversity
20. Kevin Colllins & Rita Dalessio, Sierra Club Ventana Chapter
21. Steve Craig, Citizen Planning Alliance
22. Tia Lebherz, Food and Water Watch
23. Sara Rubin, Monterey County Weekly
24. The Open Monterey Project
25. LandWatch
26. Property Owners within 300 feet (**Notice of Intent only**)

Distribution by e-mail only (Notice of Intent only):

27. U.S. Army Corps of Engineers (San Francisco District Office: Katerina Galacatos: galacatos@usace.army.mil)
28. Emilio Hipolito (ehipolito@nccrc.org)
29. United Brotherhood of Carpenters & Joiners (nedv@nccrc.org)
30. Molly Erickson (Erickson@stamplaw.us)
31. Margaret Robbins (MM_Robbins@comcast.net)
32. Michael Weaver (michaelrweaver@mac.com)
33. Monterey/Santa Cruz Building & Construction (Office@mscbctc.com)
34. Tim Miller (Tim.Miller@amwater.com)

MONTEREY COUNTY

RESOURCE MANAGEMENT AGENCY - PLANNING DEPARTMENT
168 WEST ALISAL ST., 2nd FLOOR, SALINAS, CA 93901
PHONE: (831) 755-5025 FAX: (831) 757-9516

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

I. BACKGROUND INFORMATION

Project Title:	Porter Estates (Trio Petroleum) Production Testing Project
File No.:	PLN140395
Project Location:	72327 Jolon Road
Name of Property Owner:	Porter Estate Company Bradley Ranch
Name of Applicant:	Trio Petroleum LLC
Assessor's Parcel Number(s):	424-081-082-000
Acreage of Property:	29.23 acres
General Plan Designation:	Agricultural Farmlands (40-160 Acre Minimum)
Zoning District:	Permanent Grazing (PG) and Farmland (F)
Lead Agency:	Monterey County Resource Management Agency Planning Department
Prepared By:	Rincon Consultants, Inc.
Date Prepared:	January 9, 2015
Contact Person:	Grace Bogdan, Assistant Planner bogdang@co.monterey.ca.us
Phone Number:	831-796-6414

II. DESCRIPTION OF PROJECT AND ENVIRONMENTAL SETTING

A. Description of Project:

Background. The Bradley Minerals Well 2-2 was originally constructed with a temporary use permit in 2007 (PLN070173) and was granted an extension in 2009 (PLN080457). The extension permit expired on March 29, 2010. There is a second well existing on this site, Bradley Minerals Well 1-2, which was drilled under a separate use permit and has since expired. Bradley Minerals Well 1-2 currently sits idle and is not proposed to be tested under this use permit; however, if production of Well 2-2 is determined to be feasible as a result of this project, it is reasonably foreseeable that Well 1-2 may also be used for production. Therefore, this analysis considers a scenario in which both wells are used for production as a reasonable worst case.

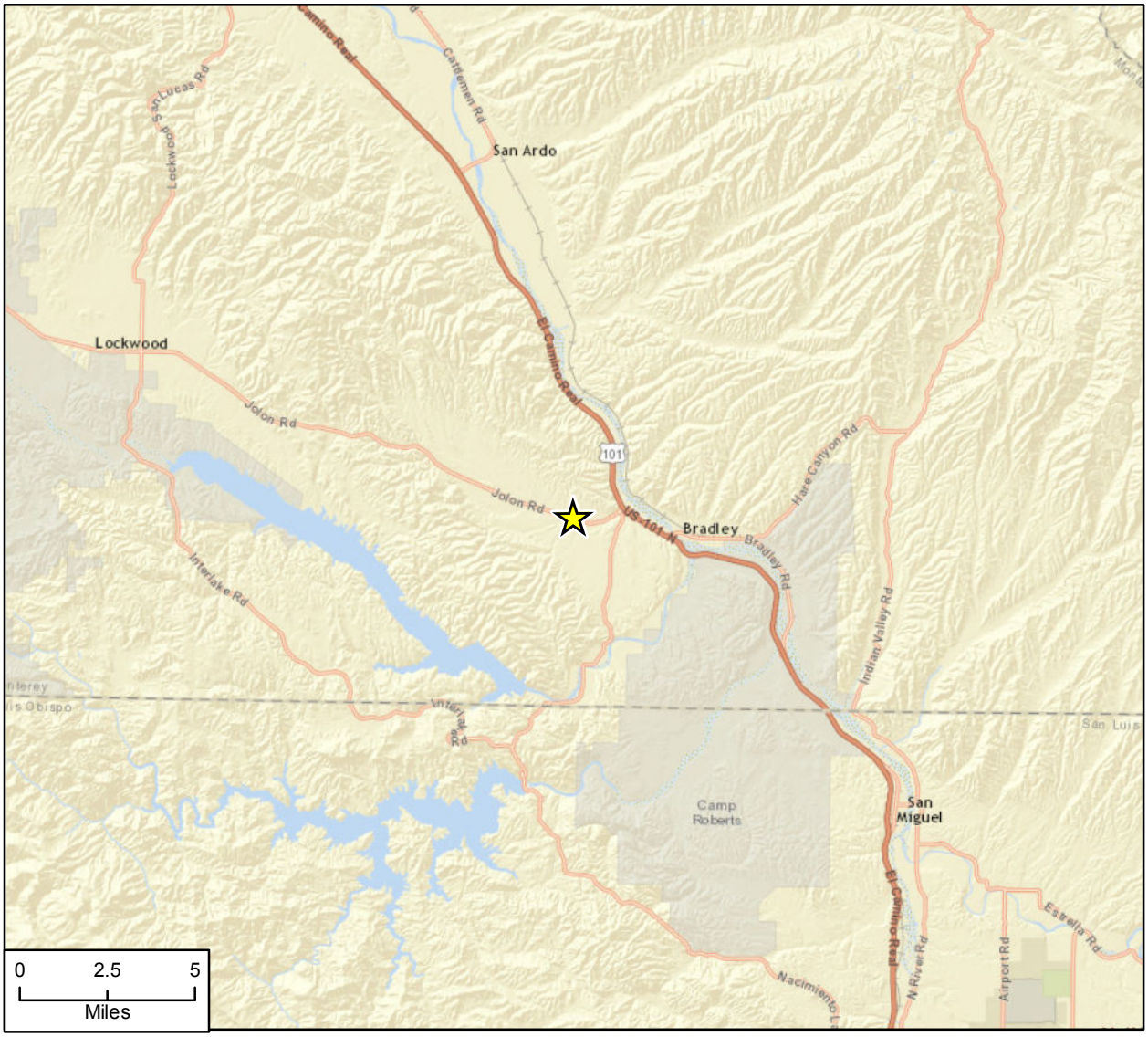
See Figure 1 for the regional location of the wells, Figure 2 for the specific project site location, and Figure 3 for a zoning map that includes the project site.

Production Testing. The project would include production testing (exploration) for oil and gas using an existing oil well. The project does not include the drilling of new wells, and does not include long-term production. The proposed project is an exploratory effort to assist in determining whether oil is available in commercial quantities at the project location.

The proposed production testing would involve testing specific zones within the existing well borehole (of Bradley Minerals Well 2-2) that is approximately 10,400 feet in depth. Production testing would involve creating perforations in specific zones of the existing well followed by pumping of the well to determine if commercial quantities can be produced. The previous applicant (Venoco) tested certain zones within the well borehole; Trio Petroleum proposes testing of a zone in the existing borehole that was not previously tested by Venoco. Acid may be used for ongoing maintenance for oil and domestic wells to clean calcium and other build up on the perforations of the well. However, no well stimulation (including steam injection or hydraulic fracturing) is proposed.

The project would result in the recovery of salt water and oil from the existing well during testing. To store these materials, five temporary, fully-enclosed steel storage tanks would be placed on the site, immediately south of the existing well (see Figure 4). Each tank would be approximately 10 feet wide, 30 feet long, and 12 feet tall. The tanks would each hold five-hundred barrels of material. Vacuum trucks would connect to the temporary storage tanks to remove the salt water and recover the oil, and would then transport the materials off-site. Recovered water would be delivered to a wastewater disposal facility in Monterey County, California for disposal. Any oil would be sold on-site and trucked to the purchasers. Approximately three vacuum trucks per week would be used to recover these materials.

Before production testing begins, a temporary cement platform (approximately six feet wide, fifteen feet long and twenty-four inches thick) would be installed and a pumping unit would be assembled and mounted on this platform. The pumping unit would be approximately 25 feet tall.



Imagery provided by ESRI and its licensors © 2014.

N

Project Location

Regional Location

Figure 1

Initial Study File # PLN140395
Porter Estates (Trio Petroleum) Production Testing Project

Imagery provided by ESRI and its licensors © 2014.

Project Location

Figure 2

Initial Study File # PLN140395
Porter Estates (Trio Petroleum) Production Testing Project

Imagery provided by ESRI and its licensors © 2014. Additional data from Monterey County GIS - Open Data, downloaded December 8, 2014.

Zoning Map

Figure 3

The proposed project would also require a natural gas flare to be located in the northwest corner of the project site where there is existing infrastructure that was used for the previous well (see Figure 4). The flare could burn 24 hours a day, 7 days a week at about 50 thousand cubic feet (mcf) of natural gas per day.

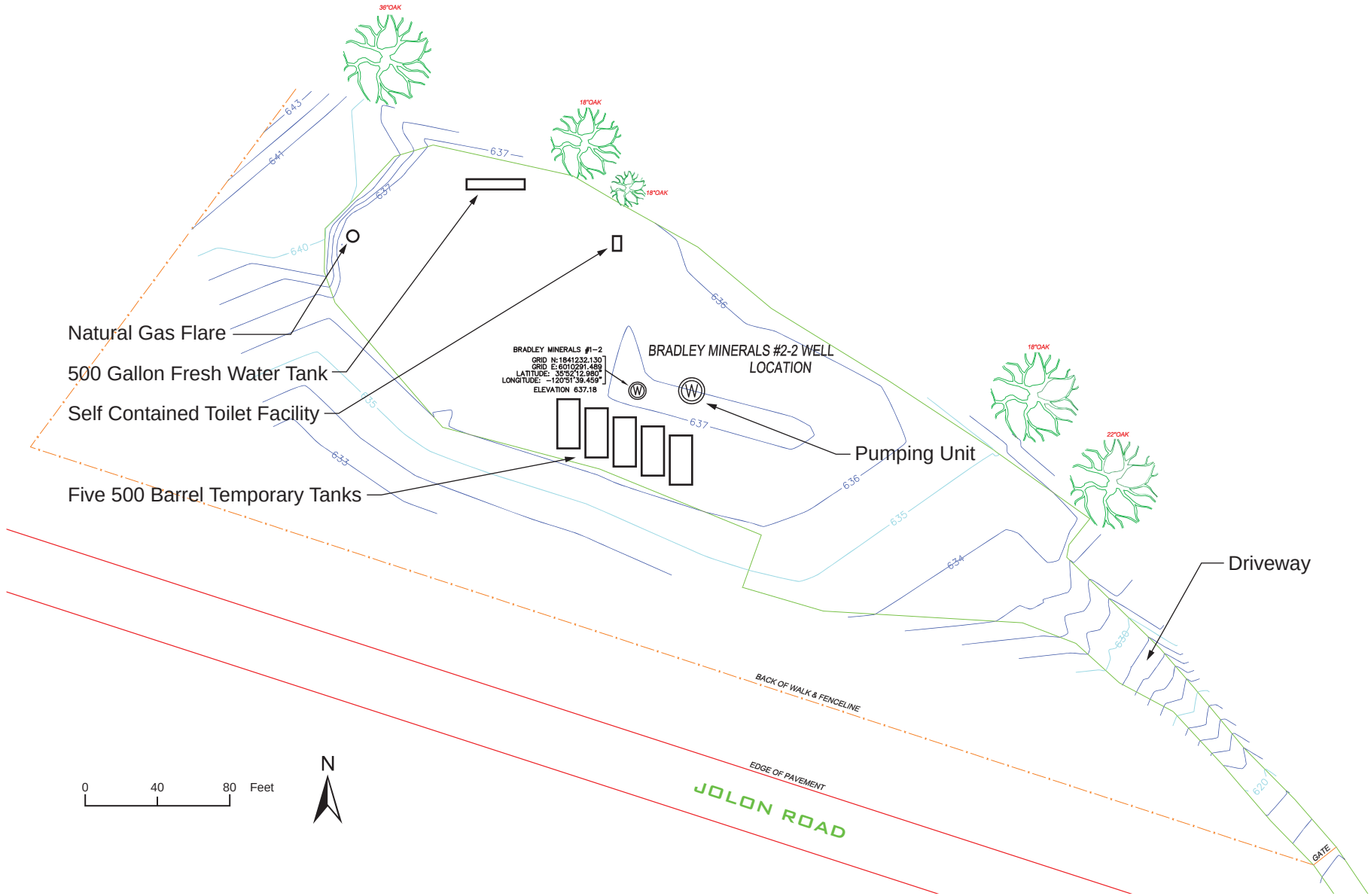
A 500-gallon fresh water tank would be located at the northernmost edge of the site. The water would be used by employees on-site for hand-washing and is also required for fire safety. A self-contained toilet facility and a trailer for storage of files are currently located on-site and would be used for project operations. The existing fencing around the perimeter of the site would remain.

Production testing may occur for up to one year; however, it is possible that reasonable conclusions regarding the commercial viability of the well may be obtained sooner. If the well were eventually determined to be economically viable, at the end of the 12 month production testing period the well would be shut-in and, taking into consideration the new information obtained during the production testing, the applicant would submit a comprehensive conditional use permit (CUP) application to the County requesting permission to develop and equip the well and the site for long term production.

Production. Although the applicant does not currently propose long-term production, and although production would require a new CUP application and subsequent CEQA review, reasonably foreseeable long-term production of Bradley Minerals Well 2-2 may occur as a result of this project. Therefore, this analysis considers the reasonably foreseeable impacts of long-term production. If the applicant determines from the production testing of Well 2-2 that there is likely a significant quantity of oil, other wells could also be drilled elsewhere on the site and within the region. If production were to be feasible for Bradley Minerals Well 2-2, Well 1-2 could foreseeably be re-drilled to use for oil production. This analysis considers a production scenario in which both Well 2-2 and Well 1-2 would be used for production. However, given that Bradley Minerals Well 2-2 has been tested by another applicant (Venoco) in the past, the likelihood of discovering large quantities of oil not previously discovered by Venoco is considered small. Further, any future drilling would require separate permits from the County of Monterey and would undergo environmental review at that time.

Based on the production rates at the nearby San Ardo oil field, it is assumed that Bradley Minerals Well 2-2 and Well 1-2 could produce approximately 150 barrels of oil each, for a total of 300 barrels of oil per day. If these wells can produce large quantities of oil can, it is possible that future wells would be drilled in the vicinity. However, the probability of this occurring, as well as the associated details, such as future well locations, is speculative at this time.

To facilitate long-term production, five temporary steel tanks would be removed from the site and replaced with permanent tanks. Three permanent tanks would be added to the site: one tank to separate oil and water and two shipping tanks. The tanks would be round and approximately 60 feet wide and 30 feet high. The tanks would be placed on cement footings with berms.



Basemap Source: WM Holdings, Inc.

Site Plan

Figure 4

Initial Study File # PLN140395
Porter Estates (Trio Petroleum) Production Testing Project

During operation, appropriate spill prevention and containment measures would be implemented. These would include, but not be limited to: design and implementation of a spill prevention control plan and/or construction of a spill containment berm. Industry standard well maintenance would also occur, including the periodic acid or diesel wash of the well bore in order to clean out the perforations in the production string of casing. In addition, new perforations would be punctured along the well bore in zones not previously tested. The applicant has indicated that long-term production of the Bradley Minerals Well 2-2 and Well 1-2 would not include well stimulation, including hydraulic fracturing (fracking). All prior and potential future well operations have been and would continue to be regulated by the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR).

Site Access and Vehicle Trips. Vehicles accessing the site would use an existing improved driveway that extends northwest from Jolon Road. No new roads or improvements to the existing driveway would be required.

Production Testing. Set up of the temporary tanks and pumping unit would take approximately two to three days. Installation of the cement platform and pumping unit would be completed by a third party contractor and would require approximately two roundtrips per day for heavy-duty trucks and two to four round trips per day by employee vehicles. During the testing phase, one person would travel from the San Ardo area to the site up to twice per day to monitor operations. As a result, during the testing phase (which would last up to 12 months), the project would generate up to four vehicle trips per day. Large vacuum trucks would travel to and from the site approximately three times per week during production testing to remove the pumped fluids.

Production. Four to six people would work for approximately six months to install permanent tanks. This would involve approximately 12 one-way truck trips (or six round trips) each day. During operation, approximately four truck trips per week would be required to haul the estimated amount of oil and water being produced from each well.

This analysis assumes that oil would be sold and transported to the San Ardo Oil Field, located approximately five miles north of the project site; or to the Coalinga Oil Field, located approximately 37 miles northeast of the project site. Transport off-site would be via oil tanker, should exploration be successful. Oil tanker traffic would travel from Jolon Road and east to U.S. Highway 101 (U.S. 101).

Power and Fuel Storage. Power for testing would be electrical and would be provided by existing facilities. Approximately 1,405 kilowatt-hours (kWh) would be required to operate one well. If production occurs, this would require a total of 2,810 kWh for operation of both wells. During production, the gas being produced by the well could be used for power.

Waste. Any municipal solid waste generated at the site would be contained in dumpsters and hauled to a public waste site probably within Monterey County. Recovered water would be delivered to an existing and approved disposal well, or wastewater disposal facility, possibly located in Monterey County, California. If delivered to an existing injection well, the well would

be regulated by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act. The EPA's Underground Injection Control (UIC) program (40 CFR Parts 144-148) is a permit program that protects underground sources of drinking water by regulating five classes of injection wells. Class II wells inject fluids associated with oil and natural gas production operations. Most of the injected fluid is brine that is produced when oil and gas are extracted from the earth. The UIC permit program is primarily state-enforced. In California, Class II injection wells are regulated by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources, under provisions of the state Public Resources Code and the federal Safe Drinking Water Act. Class II injection wells fall under the Division's UIC program, which is monitored and audited by the U.S. Environmental Protection Agency. In 1983, the Division received EPA primary authority, *primacy*, to regulate Class II wells. The main features of the UIC program include permitting, inspection, enforcement, mechanical integrity testing, plugging and abandonment oversight, data management, and public outreach.

Any oil would be sold on-site and trucked to the purchasers. All domestic sewage would be contained in the existing on-site portable restroom facility and would be disposed of via sanitary services provided by vendors.

B. Environmental Setting and Surrounding Land Uses:

The project site is currently a graded pad with gravel. The entire area has been previously disturbed. It is occupied by two existing wells, an on-site trailer, and a self-contained restroom facility. A driveway with access from Jolon Road provides access to the site at its eastern edge. Trees border the site to the north and other sparse vegetation surrounds the entire site. A wire fence is located between the site and Jolon Road and along the entire perimeter of the site. The site is flat at approximately 190 feet above mean sea level (msl). As Jolon Road stretches from southeast to northwest adjacent to the project site, its elevation rises from 185 msl to 189 msl.

As noted previously, the site is designated Agricultural Farmlands in the County's Land Use Plan for South County and zoned Permanent Grazing (PG) and Farmland (F) in the County's Zoning Code (see Figure 3).

Unnamed drainages are located approximately 90 feet north of the site's northern boundary. Hames Creek is located across Jolon Road approximately 800 feet south of the project site. All other surrounding land is currently used for grazing and agriculture.

C. Other public agencies whose approval is required:

The proposed project includes temporary production testing of an existing well, which would require a temporary use permit from the County of Monterey. In addition, a Supplementary Notice (OG123) must be submitted to the California Division of Oil, Gas, & Geothermal Resources (DOGGR) and approval received prior to changing any previously approved well operations. The project may also require a permit to operate from the Monterey Bay Air Pollution Control District (MBUAPCD).

If the proposed testing project determines that oil is available in commercially viable quantities, the well would be shut-in and a new, comprehensive conditional use permit (CUP) application would be submitted to the County of Monterey for long-term production. To support the use permit, additional CEQA review of production would be required. Production of the well would also require a permit to operate from DOGGR.

III. PROJECT CONSISTENCY WITH OTHER APPLICABLE LOCAL AND STATE PLANS AND MANDATED LAWS

Use the list below to indicate plans applicable to the project and verify their consistency or non-consistency with project implementation.

General Plan	■	Air Quality Mgmt. Plan	■
Master Plan	□	Airport Land Use Plans	□
Water Quality Control Plan	■	Local Coastal Program-LUP	□

General Plan. The proposed project was reviewed for consistency with the 2010 Monterey County General Plan. This Initial Study discusses whether the project physically divides an established community; conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project; or conflicts with any applicable habitat conservation plan or natural community conservation plan. The project is consistent with these General Plan policies. (Source: IX. 7) **CONSISTENT**

Water Quality Control Plan. Monterey County is included in the Central Coast Regional Water Quality Control Board – Region 3 (CCRWQCB). The CCRWQCB regulates the sources of water quality related problems which could result in actual or potential impairment or degradation of beneficial uses or degradation of water quality. Because the proposed project would not increase on-site impervious surfaces and does not include land uses that would introduce new sources of pollution that could not be effectively mitigated, it would not contribute runoff that would exceed the capacity of stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed project would not result in water quality impacts or be inconsistent with objectives of this plan. (Source: IX. 8) **CONSISTENT**

Air Quality Management Plan. Consistency with the Air Quality Management Plan is an indication of a project's cumulative adverse impact on regional air quality (ozone levels). It is not an indication of project-specific impacts, which are evaluated according to the Air District's adopted thresholds of significance. Inconsistency with the AQMP is considered a significant cumulative air quality impact. The Monterey Bay Unified Air Pollution Control District (MBUAPCD) prepared the Air Quality Management Plan (AQMP) for the Monterey Bay Region. The AQMP addresses the attainment and maintenance of State and federal ambient air quality standards within the North Central Coast Air Basin. The proposed project would not conflict with or obstruct the implementation of the AQMP. The proposed project would generate construction and stationary emissions; however, as shown in Air Quality 3(a-d), emissions would be less than the MBUAPCD *CEQA Air Quality Guidelines* thresholds and would not result in a significant impact. The project would be consistent with the AQMP. (Source: IX.17, 48) **CONSISTENT**

IV. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

A. FACTORS

The environmental factors checked below would be potentially affected by this project, as discussed within the checklist on the following pages.

■ Aesthetics	■ Agriculture Resources	■ Air Quality
■ Biological Resources	■ Cultural Resources	■ Geology/Soils
■ Greenhouse Gas Emissions	■ Hazards/Hazardous Materials	■ Hydrology/Water Quality
■ Land Use/Planning	■ Mineral Resources	■ Noise
☐ Population/Housing	■ Public Services	☐ Recreation
■ Transportation/Traffic	■ Utilities/Service Systems	

Some proposed applications that are not exempt from CEQA review may have little or no potential for adverse environmental impact related to most of the topics in the Environmental Checklist; and/or potential impacts may involve only a few limited subject areas. These types of projects are generally minor in scope, located in a non-sensitive environment, and are easily identifiable and without public controversy. For the environmental issue areas where there is no potential for significant environmental impact (and not checked above), the following finding can be made using the project description, environmental setting, or other information as supporting evidence.

☐ Check here if this finding is not applicable

FINDING: For the above referenced topics that are not checked off, there is no potential for significant environmental impact to occur from either construction, operation or maintenance of the proposed project and no further discussion in the Environmental Checklist is necessary.

EVIDENCE:

13. Population/Housing The proposed project includes production testing (exploration) for oil and gas using an existing oil well. Currently, the project site consists of a graded pad with an oil well and a temporary trailer. Neither exploration, nor potential future production of the wells on-site, would result in any change in housing units. The project would not, therefore, result in any

additional population. (Source: IX. 1) The project would not alter the location, distribution, or density of human population in the area. The project would not create a demand for additional housing or the extension of infrastructure. There would be *no impact*.

15. Recreation. No parks, trail easements, or other recreational opportunities would be adversely impacted by the proposed project. The proposed project would not generate population growth. Therefore, it would not affect the use of existing recreational facilities. The project would not create recreational demands. (Source: IX.1) There would be *no impact.*

B. DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature
Grace Bogdan
Project Planner

2/25/2015
Date

V. EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on project-specific screening analysis).

2) All answers must take into account the whole action involved, including offsite as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a

previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

VI. ENVIRONMENTAL CHECKLIST

1. AESTHETICS Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista? (Source: IX. 1)	☐	☐	■	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Source: IX. 2)	☐	☐	☐	■
c)	Substantially degrade the existing visual character or quality of the site and its surroundings? (Source: IX. 1)	☐	☐	■	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Source: IX. 2, 3)	☐	☐	■	☐

Discussion, Analysis and Conclusions:

Aesthetics 1(a, c) – Less than Significant. The proposed project includes production testing (exploration) for oil and gas using an existing oil well. The project does not include the drilling of new wells. The project site is located north of Jolon Road. Views from Jolon Road toward the project site include the existing perimeter fence in the foreground and open space, trees, and agricultural land in the background. This site is not a designated scenic vista. Furthermore, the site is located at a higher elevation than Jolon Road, which partially blocks views of the site from the roadway.

The proposed project would require the installation of one temporary pumping unit during exploration, which would be approximately 25 feet tall and would be visible from Jolon Road. (Source: IX. 1) If production were determined to be feasible, up to two permanent pumping units would be installed. The pumping unit(s) would partially obstruct views of the agricultural land to the north of the project site. However, views would be obstructed for an insubstantial amount of time as vehicles would pass the site. Therefore, no scenic vistas would be adversely affected.

The entire site is currently disturbed land, consisting of a gravel pad, two oil wells, and a small building. The project is a rectangular plot of land that extends approximately 600 feet in length along Jolon Road. The visual character of the surrounding agricultural land, which extends for over half a mile in each direction from the project site and which is much larger in scale than the project site, would not be impacted by the project. Impacts would be *less than significant.*

Aesthetics 1(b) – No Impact. The project site is located north of Jolon Road, which is not a designated scenic highway. (Source: IX. 2) The site is not visible from any other scenic highways. As a result, there would be *no impact* to scenic resources or historic buildings within a state scenic highway.

Aesthetics 1(d) – Less than Significant. There is no existing lighting on the project site. The nearest sensitive receptors to the project site are a chapel located approximately 1.5 miles northwest of the project site on Jolon Road and a residence located approximately 1.7 miles northwest of the project site on Jolon Road. The proposed project would require a natural gas flare to be located in the northwest corner of the project site. (Source: IX. 1) The flare could burn 24 hours a day, 7 days a week, at about 50 thousand cubic feet (mcf) of natural gas per day. The flare would not be a significant source of light based on its size and the distance to sensitive receptors. (Source: IX. 1, 3)

Night security lighting would be installed as part of the proposed project. As required by the County, all exterior lighting would be unobtrusive, down-lit, harmonious with the local area, and constructed or located so that only the intended area is illuminated and off-site glare is fully controlled. The applicant would be required to submit three copies of an exterior lighting plan which would indicate the location, type, and wattage of all light fixtures and include catalog sheets for each fixture. The lighting would be required to comply with the requirements of the California Energy Code set forth in California Code of Regulations, Title 24, Part 6. The exterior lighting plan would be be subject to approval by the Director of Resource Management Agency - Planning, prior to the issuance of any permits. Lighting would not have a light or glare impact that would affect day or nighttime views in the surrounding area, as the nearest sensitive receptors to the project are a chapel located approximately 1.5 miles northwest of the project site on Jolon Road and a residence located approximately 1.7 miles northwest of the project site on Jolon Road. (Source: IX. 1, 3) Therefore, impacts would be *less than significant*.

2. AGRICULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (Source: IX. 4)	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Source: IX. 5, 6)	☐	☐	■	☐

2. AGRICULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (Source: IX. 3, 7)	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use? (Source: IX. 7)	☐	☐	☐	■
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

Discussion, Analysis and Conclusions:

Agricultural Resources 2(a) – No Impact. The project site is located on Grazing Land, according to the Farmland Mapping and Monitoring Program's California Important Farmland Finder (2014). (Source: IX. 4) Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. There would be *no impact.*

Agricultural Resources 2(b) – Less than Significant. The proposed project site is zoned for Permanent Grazing and Farmlands under the County Zoning Ordinance. The project site is also under a Land Conservation (Williamson) Act Contract. As described in Section X, Land Use and Planning, "The exploration for and the removal of oil and gas" is allowed on Permanent Grazing and Farmlands sites with a use permit. (Source: IX. 5, 6) Therefore, the proposed project would be consistent with the Monterey County Zoning Ordinance if a use permit is granted and would not conflict with the Williamson Act contract. In addition, the proposed area of disturbance is limited to previously disturbed areas (see Figure 4) and would not impact existing grazing or farmland. Impacts would be *less than significant.*

Agricultural Resources 2(c,d) – No Impact. There are no forest land or timberland resources within the project area. (Source: IX. 3, 7) Therefore, there would be *no impact* to forest or timberland resources.

Agricultural Resources 2(e) – No Impact. The proposed project would not require any changes, such as zoning or land use changes, which would result in the conversion of farmland to non-agricultural use. There would be *no impact*.

3. AIR QUALITY Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan? (Source: IX.17)	☐	☐	☐	■
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Source: IX. 26, 48)	☐	☐	■	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Source: IX. 26, 48)	☐	☐	■	☐
d) Expose sensitive receptors to substantial pollutant concentrations? (Source: IX. 48)	☐	☐	■	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	■

Discussion, Analysis and Conclusions:

Air Quality 3(a) – No Impact. According to the Monterey Bay Unified Air Pollution Control District's (MBUAPCD's) CEQA Air Quality Guidelines (2008), a project that conflicts with or obstructs implementation of the Air Quality Management Plan (AQMP) would have a significant cumulative effect on regional air quality. Consistency of an industrial or institutional facility subject to MBUAPCD permit authority is determined by assessing whether the emission source complies with all applicable MBUAPCD rules and regulations, including emission offset and emission control requirements and/or whether project emissions are accommodated in the AQMP. Emissions from sources not subject to MBUAPCD permit authority may be deemed consistent with the AQMP if such emissions are forecasted in the AQMP emission inventory.

All stationary sources within the project area would be subject to MBUAPCD standards to ensure that new development does not result in net increases in stationary sources of criteria pollutants. The project incorporates policy-and rule-required implementation measures that would reduce related emissions, including MBUAPCD Rule 207 (New and Modified Stationary Source Review), Rule 200 (Authority to Construct and Permit to Operate), Rule 402 (Nuisance), and California Clean Air Act (CCAA) and AQMP transportation control measures to reduce vehicular emissions.

As discussed in Section XIII, Population and Housing, the proposed project would not require the extension of infrastructure or otherwise result in population growth. Therefore, the project would not contribute to the AMBAG population growth forecasts on which the AQMP is based.

Furthermore, as shown below, the project would not exceed MBUAPCD thresholds for criteria pollutants, including thresholds for ozone precursors (ROG and NO_X) and large particulate matter (PM_{10}), for which the North Central Coast Air Basin (NCCAB) is in nonattainment.

The project applicant is required to submit applications to the MBUAPCD in order to receive the necessary Title V Permit to Operate for installation of the proposed oil exploratory drilling program. Therefore, the project would not conflict with the 2008 AQMP and there would be *no impact.*

Air Quality 3(b,c) – Less than Significant. Applicable air quality criteria for evaluation of the project's impacts are federal air pollutant standards established by the U.S. Environmental Protection Agency (USEPA) and reported as National Ambient Air Quality Standards (NAAQS), and the California Ambient Air Quality Standards (CAAQS), which are equal to or more stringent than the federal standards. The California Air Resources Board (CARB) coordinates and oversees both state and federal air quality control programs in California. The CARB has established 14 air basins statewide. The project site is located in the North Central Coast Air Basin (NCCAB), which is under the jurisdiction of the MBUAPCD. The CARB has established air quality standards and is responsible for the control of mobile emission sources, while the MBUAPCD is responsible for enforcing standards and regulating stationary sources. At present, Monterey County is in attainment for all federal air quality standards and state standards for Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), and fine particulate matter ($PM_{2.5}$). Monterey County is in non-attainment for PM_{10} and is designated as a nonattainment area for the state 1 hour and 8-hour ozone standard. (Source: IX. 26)

Long-term emissions include activities that would occur during project operation and are the primary focus of the MBUAPCD. The proposed production testing would occur over a maximum period of one year. The potential future production would take place on an ongoing basis for an unknown period of time.

Short-term emissions are primarily related to construction phases of a project and are recognized to be short in duration and without lasting impacts on air quality. The project would include production testing (exploration) for oil and gas using an existing oil well, and potential future production of two existing oil wells. The emissions generated during exploration would be temporary, as they would not occur for longer than one year. Set-up and installation emissions for both exploration and production are considered to be short-term emissions. Project generated emissions would include the following:

Exploration Set-Up/Installation (2-3 days):

- Trucks with cranes for installation of tanks and pumping unit; and
- Vehicle emissions from employee trips

Exploration Operations (no more than 12 months):

- Temporary staging and storage of gross fluid (oil and water) in above ground tanks;

- Operation of pumping unit, well head, piping, separator (vessels), storage tanks; and
- Vehicle emissions for employee trips and fluid removal trips

There are two wells existing on the project site, Bradley Minerals Well 2-2 and Well 1-2. Bradley Minerals Well 2-2 is proposed for production testing (exploration). Bradley Minerals Well 1-2 currently sits idle and is not proposed to be tested under this use permit; however, if production of Well 2-2 is determined to be feasible as a result of this project, it is reasonably foreseeable that Well 1-2 may also be used for production. Therefore, this analysis considers a scenario in which both wells are used for production.

Production Set-Up/Installation (6 months):

- Trucks with cranes for installation of tanks and pumping unit; and
- Vehicle emissions from employee trips

Production Operations (ongoing):

- Staging and storage of gross fluid (oil and water) in above ground tanks;
- Operation of two (2) pumping units, well heads, piping, separator (vessels), storage tanks; and
- Vehicle emissions for employee trips and fluid removal trips

Set-up and operational emissions for exploration and production were estimated using general assumptions for equipment requirements and vehicle trip information provided by the project applicant for both exploration set-up and production set-up.

Exploration Set-Up. Four passenger vehicle roundtrips per day and two heavy-duty truck roundtrips per day were included for the exploration set-up, which would occur over two to three days. Emissions from vehicle trips were calculated based on a round-trip to the project site from San Miguel for employees and from Paso Robles for trucks.

Exploration. Two passenger vehicle roundtrips per day and three heavy-duty vacuum truck roundtrips per week were included for the exploration phase, which would occur for no more than 12 months. Emissions from vehicle trips were calculated based on a round-trip to the project site from San Miguel for employees and from Paso Robles for trucks. Sam Miguel is the nearest city from which employees are likely to originate their trips and Paso Robles is the nearest city from which larger heavy-duty trucks are likely to originate. In order to present the most conservative approach to estimate emissions from the project, the pumping unit was assumed to be in use 24 hours per day at full power. It was assumed that 150 barrels of fluid would be produced per day from Well 2-2. Emissions also include operation of the flare 24 hours per day 7 days per week.

Production Set-Up. Six passenger vehicle roundtrips per day and two heavy-duty truck roundtrips per day were included for the production set-up, which would occur over

approximately six months. Emissions from vehicle trips were calculated based on a round-trip to the project site from San Miguel for employees and from Paso Robles for trucks.

Production. Two passenger vehicle roundtrips per day and four heavy-duty truck round trips per week were included for the production phase. Emissions from vehicle trips were calculated based on a round-trip to the project site from San Miguel for employees and from Paso Robles for trucks. In order to present the most conservative approach to estimate emissions from the project, the pumping unit was assumed to be in use 24 hours per day at full power. It was assumed that Well 1-2 and Well 2-2 would each produce 150 barrels of fluid (total 300 barrels of fluid) per day. Emissions also include operation of the flare 24 hours per day 7 days per week.

Project emissions were estimated from several emissions models and associated spreadsheet calculations, depending on the source type and data availability. The CARB on-road vehicle emission factor model (EMFAC2007) and CARB off-road vehicle emissions factor model (OFFROAD2007) were used along with emission factors obtained from the USEPA AP-42 Compilation of Air Pollutant Emissions Factors (as amended). Refer to Appendix A for details on equipment fleet, hours of operation, vehicle miles traveled and other assumptions and calculations used.

The MBUAPCD reviews temporary projects on a case-by-case basis. In addition, the MBUAPCD has a threshold of significance for construction impacts of 82 lbs/day of PM_{10} from direct (non-vehicular) sources. In order to offer a conservative assessment of potential impacts from the proposed project, project emissions are compared to this threshold, as well as the MBUAPCD long-term operational thresholds, shown in the tables, below. Table 1 presents the proposed project's unmitigated peak-day emissions during exploration set-up, exploration, production set-up, and production phases.

Table 1
Peak-Day Project Emissions

	ROG* (lbs/day)	**NO_X*** (lbs/day)	**CO*** (lbs/day)	**SO_X*** (lbs/day)	**PM_{10}** (lbs/day)	**PM_{10}** (off-site)
Exploration Set-Up	15.1	12.4	9.7	0.0	0.3	1.1
Exploration	2.8	30.2	40.0	0.0	1.2	0.4
Maximum Daily Emissions from Exploration	**15.1**	**30.2**	**40.0**	**0.0**	**1.2**	**1.1**
MBUAPCD Daily Threshold	137	137	550	150	82	N/A
Is Threshold Exceeded?	*No*	*No*	*No*	*No*	*No*	*N/A*
Production Set-Up	29.1	12.8	13.1	0.0	0.3	1.3
Production	5.4	51.2	37.6	0.0	2.4	0.4
Maximum Daily Emissions from Production	**29.1**	**51.2**	**37.6**	**0.0**	**2.4**	**1.3**
MBUAPCD Daily Threshold	137	137	550	150	82	N/A
Is Threshold Exceeded?	*No*	*No*	*No*	*No*	*No*	*N/A*

**Source: IX. 48*

As shown in Table 1, the proposed project would not exceed any MBUAPCD thresholds of significance during set-up or operation of either phase.

As calculated (see Appendix A) the maximum daily emissions over the duration of the proposed project would not exceed MBUAPCD significance thresholds. Therefore, the proposed project's impacts on air quality would be *less than significant.*

Air Quality 3(d) – Less than Significant. Localized carbon monoxide "hotspots" can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal AAQS of 35.0 parts per million (ppm) or the state AAQS of 20.0 ppm. Under certain meteorological conditions, CO concentrations along a congested roadway or intersection may reach unhealthful levels for sensitive receptors, e.g., children, the elderly, hospital patients, etc.

According to the MBUAPCD *CEQA Air Quality Guidelines*, there are five criteria under which CO hotspot modeling is required (Source: IX. 48):

I. Intersections or road segments that operate at levels of service (LOS) D or better that would operate at LOS E or F with the project's traffic; or
II. Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic; or
III. Intersections that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic; or
IV. Unsignalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic. This criterion is based on the turning movement with the worst reserve capacity; or
V. Project would generate substantial heavy duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO.

The project would not generate sufficient vehicle trips to significantly affect area traffic, particularly given the relatively low AADT on Jolon Road and the use of US 101. Due to the rural location of the site and relatively low volume of traffic that would be generated by the project, potentially impacted intersections and roadway segments are expected to operate at a LOS that does not exceed any of the MBUAPCD's significance criteria. Therefore, CO hotspot modeling was not conducted for this project and no concentrated excessive CO emissions are expected once the proposed project is completed. Based on the predicted emissions from the project during both set-up and operation, the project would not have any adverse impacts on any known sensitive receptor. The sensitive receptor nearest to the project is a chapel located approximately 1.5 miles northwest of the project site on Jolon Road. An additional sensitive receptor, a residence, is located approximately 1.7 miles northwest of the project site on Jolon Road. Given the distance of the project site to nearby receptors, the project would not result in any adverse impacts related to air pollutants. Impacts would be *less than significant.*

Air Quality 3(e) – Less than Significant. The project site is located in the unincorporated area of Monterey County. The project site is bordered by Jolon Road to the south, and surrounded on all sides by grazing land and agricultural uses. There is no existing urban development in the vicinity of the project site.

The proposed project, which includes oil production testing and potential future oil production, is not expected to result in objectionable odors. The sensitive receptor nearest to the project is a chapel located approximately 1.5 miles northwest of the project site on Jolon Road. An additional sensitive receptor, a residence, is located approximately 1.7 miles northwest of the project site on Jolon Road. Given the distance of the project site to nearby receptors, the project would not result in adverse odor impacts that would affect a substantial number of people or any sensitive receptors. Impacts would be *less than significant.*

4. BIOLOGICAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Source: IX. 3, 7, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24)	☐	■	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Source: IX. 3, 7, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21)	☐	■	☐	☐
c) Have a substantial effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Source: IX. 3, 7, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21)	☐	■	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Source: IX. 3, 7, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21)	☐	☐	■	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Source: IX. 3, 7, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21)	☐	■	☐	☐

4. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Source: IX. 3, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21)	☐	☐	☐	■

Discussion, Analysis and Conclusions

Environmental Setting

Information regarding the biological resources at the project site is based on a review of available literature and databases that includes the following: Biological Assessment (Source: IX. 9); CDFW California Natural Diversity Data Base (CNDDB) (Source: IX. 10); CDFW Special Animals List (Source: IX. 17); CDFW Special Vascular Plants, Bryophytes, and Lichens List (Source: IX. 18); California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (Source: IX. 11); and U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal. (Source: IX. 12) A site visit was conducted by a Rincon Consultants senior biologist on November 21, 2014. (Source: IX. 13)

The project site is located at the existing Bradley Minerals 2-2 well site within an unincorporated area of southern Monterey County and includes the well pad and existing access road. As described in the Biological Assessment, a biological survey was conducted on the well pad and a 500-foot buffer area around the well pad for sensitive wildlife, special status plant species, and their habitats on May 12, 2014. (Source: IX. 9) This report was supplemental to previously conducted biological surveys completed in 2007; results were consistent between the two reports. (Source: IX. 9) All project related activities are expected to occur on the existing maintained well pad and access road.

Vegetation. The majority of the project site is highly altered, consisting of a gravel pad, two oil wells, and structure temporary trailer, and lacks vegetation. Two vegetation types occur along the margins of the project site in the biological survey buffer (approximately 500 feet): non-native annual grassland and ruderal/disturbed. (Source: IX. 9, 13) In addition, blue oak (*Quercus douglasii*) woodland is present immediately north of the project site, within the fenced area, and a few coast live oak (*Quercus agrifolia*) are also present. (Source: IX. 9, 13) An ephemeral drainage is present downslope of the project site, about 90 feet north of the project, outside the fenced area. (Source: IX. 9, 13) The project would occur in existing disturbed and ruderal areas. The project would not remove oak woodland and would not directly impact stream habitat off-site.

Wildlife. Wildlife species observed or expected to occur on and near the project site include species typical of oak woodland, annual grassland, and disturbed habitats. Approximately 10 species of vertebrate wildlife have been observed within the project site and/or a surrounding 500-foot survey buffer used for the biological assessment report. Habitat within the project site is important in providing temporary foraging habitat for wide-ranging species and for allowing cover and food for animals traveling between other areas. Oak woodland on-site north of the project area contains bird breeding habitat, particularly for tree-nesting birds. Annual grassland habitat provides foraging, nesting, and denning opportunities for a variety of birds and small mammals as well as foraging opportunities for birds of prey. Ruderal/disturbed habitat type can provide foraging habitat for several species of birds and mammals, but is altered such that it does not provide suitable breeding habitat due to lack of cover and compacted surfaces that prevent den or burrow excavation. (Source: IX. 9, 13)

Special Status Plant Species. A total of 58 special status plant species are known to occur within the vicinity of the project site (the USGS quadrangle containing the site and/or the eight quadrangles surrounding it) and recorded in the CNDDB and CNPS Online Inventory. (Source: IX. 9, 10, 11) Of these, 46 special status plant species have the potential to occur within a 500-foot buffer of the project site. However, no suitable habitat for special status plant species exists within the project site itself. Due to the lack of suitable habitat, the literature and database reviews, and the findings of the biological surveys, no special status plants are expected to occur or become established within the project site. (Sources: IX. 9, 10, 11)

Special Status Animal Species. A total of 25 special status animal species are known to occur within the vicinity of the project site (the USGS quadrangle containing the site and/or the eight quadrangles surrounding it) and recorded in the CNDDB. (Source: IX. 9, 10, 11) Seven special status species documented in the general region have potential to occur within or immediately adjacent to the project site, and one species, San Joaquin kit fox, was documented in close proximity to the project site; however, no special status species were observed within the project site during biological surveys. (Source: IX. 9) Due to the disturbed nature of the site, lack of prey base, and limited vegetative cover in the project area, special status wildlife are not expected to be resident in the project footprint, but some special status wildlife species may move through the site while hunting or foraging. Eight special status animals recognized by CDFW as Fully Protected, Watch List, or Species of Special Concern and those that are state and/or federally listed, that have some potential to occur on or immediately adjacent to the project site, or that warrant further discussion, are discussed in further detail below. The remaining species were dismissed from having a potential to occur due to lack of suitable habitat and/or lack of potential to be directly or indirectly impacted by the proposed project.

California Tiger Salamander: California tiger salamander (CTS; *Ambystoma californiense*) is an amphibian known from Monterey County that is state and federally listed as threatened. CTS is a lowland species found primarily in grasslands and low foothill and oak woodland habitats located within approximately 2,200 feet (ft) (671 meters [m]) of breeding pools. (Source: IX.19) CTS breed in long-lasting rain pools (e.g., seasonal ponds, vernal pools, slow-moving streams) that are often turbid, and occasionally in permanent ponds lacking fish predators. Juveniles emigrate at night from the drying pools to upland refuge sites, such as rodent

burrows and cracks in the soil. Following breeding, adults move 9 to 518 ft (3 to 158 m) away from breeding ponds within the first night. (Source: IX. 19, 20) Most salamanders continue to move to different burrow systems further from the pond over the next one to four months, with an average distance of 374 ft (114 m) from the pond. (Source: IX. 21) Trenham and Shaffer (Source: IX. 19) estimated that conserving upland habitats within 2,200 ft (671 m) of breeding ponds would protect 95 percent of CTS at their study location in Solano County. During the non-breeding season, adults occur in upland habitats and typically occupy ground squirrel or pocket gopher burrows. They migrate nocturnally to aquatic sites to breed during relatively warm winter or spring rains. The nearest reported occurrence of CTS is a 2000 report of an adult in a pond approximately 18 miles west of the subject site. (Source: IX. 10) The project site lacks aquatic habitat and is approximately 0.45 mile (2,450 ft) from the nearest potentially suitable pond, which is south of Jolon Road and surrounded by vineyards and plowed fields. (Source: IX. 3) Suitable aestivation burrows are not present in the project site, but do occur in the 500-foot survey buffer area. Because agricultural land uses completely surround many of the potential breeding ponds in the regional vicinity it would be difficult for CTS to disperse into upland habitat far from these ponds with high success. Therefore, because of the lack of breeding habitat on the project site, low connectivity between the project site and known breeding ponds within the dispersal distance for the species, and lack of upland habitat which contains small mammal burrows within the proposed area of disturbance, it is very unlikely CTS would occur; if present they would only occur transiently during suitable movement conditions (during rainfall at night) as they disperse to other more suitable upland areas adjacent to the project site.

San Joaquin Whipsnake: San Joaquin whipsnake (*Masticophis flagellum ruddocki*) is a CDFW Species of Special Concern (SSC) known from the vicinity; it is reported from Camp Roberts as close as five miles from the project site and as recently as 2009, though it has not been documented on or near the project site. (Source: IX. 10) The project site is unfavorable for whipsnake due to lack of suitable habitat and limited prey base; however, there is suitable habitat in the surrounding buffer and snakes could move across the project site. (Source: IX. 9)

Coast Horned Lizard: Coast horned lizard (*Phrynosoma blainvillii*) is a CDFW SSC reported from Camp Roberts approximately eight miles east of the project site near the Salinas River in 2007, though it has not been documented on or near the project site. (Source: IX. 9) The project site is unfavorable for horned lizard due to lack of suitable habitat to support its typical prey; however, there is suitable habitat in the surrounding buffer and lizards could move across the project site. (Source: IX. 9)

Burrowing Owl: Western burrowing owl (*Athene cunicularia*) is a CDFW SSC known from the vicinity; it is reported from Camp Roberts as close as eight miles from the project site and continued presence in that area has been verified as recently as 2004, though it has not been documented on or near the project site. (Source: IX. 10) The project site is unfavorable for burrowing owls due to lack of suitable habitat; however, there is potential for occasional foraging, though current lack of vegetative cover and corresponding low potential prey base make foraging within the project area unlikely. (Source: IX. 9, 13) Suitable habitat for this species was observed within the 500-foot buffer surrounding the well pad in annual grassland areas with short vegetation. (Source: IX. 9, 13)

California Condor: California condor (*Gymnogyps californianus*) is a federally listed as endangered bird that has been reintroduced to the wild; the nearest reintroduction sites to the project site are at Big Sur approximately 50 miles to the northwest and Pinnacles National Park (formerly Pinnacles National Monument) approximately 45 to the north. (Sources: IX. 3, 9, 13) Condors feed mainly on carrion and can travel great distances and forage over large areas and could conceivably pass over the project site from one of the known populations to the north. However, the project site lacks suitable nest sites and also lacks roosting sites such as cliffs or prominent trees; the site is relatively flat and small in size, and does not contain prominent features suitable for taking off. (Source: IX. 9) Cattle do not have access to the site, and the majority of the fenced area is not vegetated, thus having limited ability to support wildlife. Therefore, potential for carrion that could attract condors as a food source is very low. There is potential for occasional foraging in the vicinity of the project area, though the project site itself is not suitable. (Source: IX. 9, 13)

San Joaquin Kit Fox: San Joaquin kit fox (*Vulpes macrotis mutica;* SJKF) is a mammal historically known from the vicinity of the project that is federally listed as endangered and state-listed as threatened. Reports from the vicinity include several records from the 1970s, including a roadkill reported from Jolon Road near the project site (CNDDB Occurrence No. 992) and numerous reports from Camp Roberts in the 1990s and 2000s. (Source: IX. 10) The most recent report is a 2004 roadkill reported from approximately eight miles east of the site along the Salinas River in Bradley. SJKF are also reported from Fort Hunter Liggett approximately 17 miles west of the site from as recently as 2000. (Source: IX. 10) The project site does not support suitable resident habitat for SJKF; however, the biological assessment documents suitable habitat immediately adjacent to the project site in non-native annual grassland habitat, and fences surrounding the project site would not restrict movement of SJKF through the site. (Source: IX. 9, 13) California ground squirrels burrows were observed within 100 ft of the project site and can serve as a primary food source for SJKF in the absence of kangaroo rats and other preferred prey; however, small mammal burrows are not currently present in the project area itself. (Source: IX. 9) USFWS provides guidance on protection of SJKF for small projects of approximately one acre or less that recommends surveys for dens and subsequent avoidance of any suitable dens within 200 ft of project areas. (Source: IX. 22) No burrows or dens suitable for SJKF denning were observed within the project site during the surveys; however, it is possible the site may accommodate movement; active ground squirrel burrows potentially useable by SJKF were noted approximately 100 feet east of the well site, though no SJKF sign was present during 2014 site surveys. (Source: IX. 9, 13)

American Badger: American badger (*Taxidea taxus*) is a CDFW SSC reported from within five miles of the project site at Camp Roberts. (Source: IX. 10) Potential habitat is reported from the survey buffer around the project site, and badgers could move through the project site, though suitable denning habitat and prey base are not present in the project site in its current condition. (Source: IX. 9, 13)

Salinas pocket mouse: Salinas pocket mouse (*Perognathus inornatus psammophilus*) is a CDFW SSC reported from the general vicinity of the project along the Salinas River valley to the east, and Camp Roberts to the south. (Source: IX. 10) Potential habitat is reported from grassland

and ruderal areas around the margins of the project site, although this species has not been reported there. (Source: IX. 9)

Wildlife Movement Corridors. No regional wildlife movement corridors are known to exist in the vicinity of the project site. (Source: IX. 9, 12) Local wildlife movement is typically focused on areas of low human disturbance, high availability of cover, and ease of travel. The project site is currently disturbed and of low quality for wildlife movement due to low vegetative cover and past disturbance. Wildlife movement can be limited in areas containing human development, roads, fences, and cultivated areas lacking in cover. The existing disturbed site is small in size, less than 500 feet long and less than 200 feet wide, and thus although it does not present optimum conditions for wildlife movement, it also does not constitute a major obstacle to movement. Existing fencing consists of 4- and 5-strand wire fence near the perimeters of the project site; this fencing would not obstruct movement of common mammalian wildlife expected to occur in the area, including raccoons, foxes, coyotes, and bobcats. (Source: IX. 13) Oak woodlands and ephemeral drainages offsite north of the project provide additional higher quality movement options for small to large-sized mammals to move freely.

Native Trees. The Monterey County General Plan 2010 and the Monterey County Zoning Ordinance (Section 21.64.260) contain elements which provide protections for any oak tree with a trunk that is over six inches in diameter at breast height (DBH). (Source: IX. 7, 14) Blue oak trees occur immediately north of the project area, and several of these trees have trunks greater than six inches DBH. However, activities associated with the project are not anticipated to have an adverse effect on the trees.

Biological Resources 4(a) – Less Than Significant With Mitigation Incorporated. As discussed above, the 500-foot survey buffer area has potential to support San Joaquin whipsnake, coast horned lizard, burrowing owl, SJKF, American badger, and Salinas pocket mouse, and it is possible that these species could move through the project site. Activities within the project site could also impact breeding of these species should they take up residence nearby in the surrounding habitats. The site is also within the range of California condor, and although the site lacks conditions optimal for foraging, it is possible that this species could occur in the vicinity. The following subsections assess specific project-generated impacts and provide mitigation measures to reduce impacts to a *less than significant level.*

Worker Environmental Training. In order to minimize potential biological impacts to special status species with potential to occur within the project site, the following measures shall be implemented prior to and during grading and construction activities:

BIO-1. Worker Environmental Awareness Program. A County-approved biological monitor shall prepare a worker environmental awareness program (WEAP) training to be given to all personnel (site supervisors, equipment operators and laborers) which emphasizes the potential for special status species and nesting birds to occur within and immediately adjacent to the project site. Because the operations phase may occur over an extended period, an initial training shall be conducted by a qualified biologist for site supervisors and project managers prior to initiation of site activities. WEAP materials

shall be provided in written form to be used for subsequent trainings. The WEAP shall cover identification of these species, their habitat requirements, and applicable regulatory policies and provisions regarding their protection, and measures being implemented to avoid and/or minimize potential impacts. The WEAP shall also address the presence of native trees adjacent to the project site, drainage features adjacent to the project site, and appropriate measures to avoid impacts to these adjacent resources. A fact sheet or other supporting material containing this information shall be prepared and distributed to all of the workers on-site. Upon completion of training, employees shall sign a form stating that they attended the training and understand all the conservation and protection measures.

During training, contractors and personnel shall be instructed to allow any wildlife observed within the project area to move out of harm's way of their own accord, unimpeded.

The WEAP must contain the following specific information regarding SJKF: photographs describing and illustrating potentially occurring SJKF, description of SJKF habitat needs, a discussion of measures to be implemented for avoidance if one is observed, the identification of an on-site contact in the event the species is seen on the site, an explanation of the status of the species and its protection under the federal and state Endangered Species Acts, and a report of the historic occurrence of kit fox in the project area. The WEAP must specify the reporting process to the designated on-site contact if SJKF are seen on site. This contact is responsible for notifying the County-RMA Planning Department of any sightings, and notifying regulatory agencies if warranted as specified in measure BIO-3.

The WEAP must contain the following specific information regarding California condor: photographs describing and illustrating California condor and differentiating this species from the common turkey vulture, a definition of microtrash, and description of specific microtrash measures to be implemented to avoid potential for impacts, measures for avoidance if a condor is observed, and the identification of an on-site contact in the event the species is seen on the site.

The WEAP must contain the following specific information regarding California tiger salamander: photographs describing and illustrating California tiger salamander, measures to be implemented to avoid potential for impacts, and the identification of an on-site contact in the event the species is seen on the site.

Timing and Monitoring: Training shall be conducted for new personnel before they initiate equipment mobilization onto the site. The contractor shall be responsible for ensuring that all personnel working on-site comply with the guidelines.

Prior to the start of equipment mobilization, a copy of all written materials shall be provided to employees as part of the WEAP training. Because the operations phase may occur over an extended period, an initial training shall be conducted by a qualified biologist for site supervisors and project managers prior to initiation of equipment

mobilization activities. WEAP materials shall be provided in written form to be used for subsequent trainings. Prior to new personnel beginning work, the previously trained site supervisor or project manager shall provide WEAP training materials for new employees and document that personnel who will work on site have received WEAP training. A sign-in log identifying all trained employees shall be submitted to the County within one week of each training session.

Preconstruction Surveys. The project site does not currently support special status species, though suitable unoccupied habitat has been identified adjacent to the project site. In order to minimize potential biological impacts to special status species with potential to occur within the project site, the following measure shall be implemented prior to start of equipment mobilization and construction activities:

BIO-2. Pre-disturbance Surveys for Special Status Species. Prior to equipment mobilization, within 14 days prior to start of activities, a qualified biologist shall conduct two pre-activity surveys to determine if special status species have moved into the project site or within the 500-foot buffer (where visible and legally accessible). Species-specific measures are provided below in the event that special status species or their sign are found during preconstruction surveys.

Timing and Monitoring: The initial preconstruction survey shall be conducted within 14 days prior to construction activities. An additional survey shall be conducted immediately prior to the start of equipment mobilization (within 24 hours) to verify absence of SJKF and burrowing owl. A report documenting results of the preconstruction surveys shall be submitted to County RMA-Planning within one week of completing the second and final survey.

San Joaquin Kit Fox (SJKF). SJFK are not expected to reside within the project site; however, this species has been historically documented within the project vicinity by the CNDDB. (Source: IX. 10) Additionally, the biological assessment report documents suitable habitat immediately adjacent to the project site in non-native annual grassland habitat. (Source: IX. 9) Denning is not expected to occur within the project site due to lack of suitable habitat; however, denning could occur immediately adjacent to the project site and individuals foraging may occur within the project site. Should an individual enter the project area, direct impacts could occur through entrapment or death of the animal, such as through vehicle strikes or as a result of prolonged entrapment. If SJKF occupy dens within 200 feet of the project, indirect impacts could occur if vibrations or noise from the project result in abandonment of active dens. The project would not result in removal of suitable SJKF habitat or impacts to prey availability. The following mitigation measure, in combination with preconstruction surveys described under BIO-2, and WEAP training described under BIO-1, would reduce potential impacts to SJKF to less than significant.

BIO-3. SJKF Avoidance and Minimization Measures. The following avoidance and minimization measures shall be incorporated pursuant to USFWS guidance for small projects. (Source: IX. 22)

1. If dens are located within 200 feet of proposed project activity areas, during pre-activity surveys, exclusion zones shall be established prior to construction by a qualified biologist. Exclusion zones shall be roughly circular with a radius of the following distances measured outward from the entrance:

    a) Potential den: 50 feet
    b) Atypical den: 50 feet
    c) Known den: 100 feet
    d) Natal/pupping den: USFWS must be contacted (occupied and unoccupied)

2. Protective exclusion zones shall be placed around all known and potential dens which occur outside the project footprint, or alternatively, the project site boundary shall be demarcated such that dens are protected.

3. If the project site is not clearly marked or fenced, exclusion zones around known dens shall be demarcated by fencing that encircles each den on the project site at the appropriate distance and does not prevent access to the den by kit foxes. Acceptable fencing includes untreated wood particle-board, silt fencing, or orange construction fencing, as long as it has openings for kit fox ingress/egress and keeps humans and equipment out.

4. For potential and/or typical dens, placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing shall not be required, but the exclusion zone must be observed.

5. If exclusion zones extend into project areas, only essential vehicle operation on the existing driveway and foot traffic shall be permitted. Otherwise, all construction, vehicle operation, material storage, or any type of surface-disturbing activity shall be prohibited or greatly restricted within the exclusion zones.

6. If a natal/pupping den is located within 200 feet of the project site, work within 200 feet of the den shall cease, the USFWS shall be notified immediately and under no circumstances shall the den be disturbed or destroyed without prior authorization.

7. Project-related vehicles shall observe a daytime speed limit of 15 miles per hour (mph) throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active.

8. Night-time activities shall be minimized to the extent possible, because SJKF are nocturnal. During night work the speed limit shall be reduced to 10 mph. Off-road traffic outside of designated project areas shall be prohibited.

9. To prevent inadvertent entrapment of kit foxes or other animals, any excavated, steep-walled holes or trenches more than two feet deep shall be covered at the close of each

working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, work shall cease immediately and the USFWS and CDFW shall be contacted.

10. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored on-site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the Service has been consulted.

11. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.

12. No firearms shall be allowed on the project site.

13. No pets, such as dogs or cats, shall be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

14. Use of rodenticides and herbicides shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

15. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a SJKF shall immediately report the incident to the designated representative identified under measure BIO-1. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045.

16. New sightings of kit fox shall be reported to the CNDDB. A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the USFWS Ventura Fish and Wildlife Office.

Timing and Monitoring: If required based on results of pre-activity surveys, exclusion zone barriers shall be maintained until all construction activities or operational disturbances have been terminated. At that time all fencing shall be removed to avoid attracting subsequent attention to the dens. If fencing is required for protection of dens, a

report shall be submitted to the County RMA-Planning Department by the project biologist documenting that exclusion zone buffers are in place.

SJKF Avoidance and Minimization Measures shall be included in the WEAP training (see BIO-1); documentation of WEAP training is monitored under measure BIO-1. Prior to equipment mobilization, signage shall be posted specifying speed limits, and work limits shall be clearly marked in the field. If SJKF are observed on or within 200 feet of the project site, the project applicant or representative shall contact the County RMA-Planning Department reporting the observation and documenting compliance with SJKF measures, as applicable. An annual report shall be submitted for production testing and production phases documenting compliance with SJKF measures. This report can be submitted with documentation of compliance with other conditions.

If SJKF are sighted in the project area, the project applicant or representative shall immediately notify CDFW, USFWS, and the County RMA-Planning Department.

Western Burrowing Owl. Western burrowing owls are not expected to reside within the project site but have been historically documented within the project vicinity by the CNDDB, and could occur in grassland habitat surrounding the project site. (Source: IX. 10) Burrowing owls are not currently known from the project site or immediate surroundings; however, should an individual enter the project area, direct impacts could occur through death of the animal, such as through vehicle strikes or prolonged entrapment. If burrowing owls nest within the vicinity of the project, indirect impacts could occur if vibrations or noise from the project result in abandonment of active nests. The project would not result in removal of suitable burrowing owl habitat. The following measures are consistent with current CDFW take avoidance guidance and, in combination with preconstruction surveys described under BIO-2 and WEAP training described under BIO-1, would reduce potential impacts to burrowing owls to less than significant.

BIO-4. Prepare a Burrowing Owl Mitigation Plan. If preconstruction surveys determine that burrowing owls are present within the project site and/or buffer area, a burrowing owl mitigation plan shall be prepared consistent with the CDFW 2012 Staff Report on Burrowing Owl Mitigation. (Source: IX. 23) This plan shall describe site-specific avoidance and minimization measures and incorporate the following:

- Occupied burrows shall be avoided during burrowing owl nesting season unless a qualified biologist approved by CDFW verifies that birds have not begun egg laying or juveniles are foraging independently and are capable of independent survival.
- Outside breeding season, between September 1 and January 31, or during breeding season with express written approval from CDFW, burrowing owls within 500 feet of project disturbance area shall be moved away from disturbance areas using passive relocation techniques. Prior to relocation, a relocation plan must be prepared and approved by CDFW. A minimum of one week or more is required to relocate owls. The relocation plan must follow the CDFW 2012 Staff Report on Burrowing Owl Mitigation guidelines and include the following:

- Install one-way doors in burrow entrances. Leave doors in place for 48 hours to ensure owls have left the burrow.
- Allow one or more weeks for owls to acclimate to off-site burrows. Daily monitoring is required during passive relocation.
- Once owls have relocated off-site, collapse existing burrows in project areas. Prior to burrow excavation, flexible plastic pipe shall be inserted into the tunnels to allow escape of any remaining owls during excavation. Excavation shall be conducted by hand whenever possible.
- Burrows outside the project site but within the buffer shall be fitted with temporary exclusion devices.
- Destruction of burrows shall occur only pursuant to a management plan approved by CDFW.
- As an alternative (if approved by CDFW), all occupied burrows identified off-site within 500 feet of project activities outside of nesting season (September through January) and during nesting season (February1 through August 31) could be buffered by hay bales, fencing (e.g. sheltering in place) or as directed by a qualified biologist and the CDFW.

Timing and Monitoring: If required, the Burrowing Owl Mitigation Plan shall be submitted to the County RMA-Planning Department and CDFW prior to work that affects burrowing owls. The plan shall be approved by the County prior to implementation. Documentation shall be submitted to CDFW following approval.

California condor. As discussed above, the project site does not contain features suitable for condor roosting or nesting, is relatively flat and small in size, and does not contain prominent features suitable for taking off. The site is unlikely to provide large carrion attractive to condors as a food source due to low wildlife abundance and lack of livestock access. The project would not directly remove condor habitat or food sources, and would not obstruct condor movement. The project could generate microtrash that could be spread into surrounding habitats with some potential for condor foraging. "Microtrash" refers to small bits of trash such as broken glass, bottle caps, can tabs, and other smaller, broken down pieces of trash that can be ingested by condors. Condors are attracted to small bits of trash that stand out from surroundings; they consistently find and consume micro-trash. Trash cannot be digested and in large quantities can result in death of the animal. (Source: IX. 24) Because condors could forage in fields adjacent to the site, the following measure in combination WEAP training described under BIO-1 shall be implemented to ensure the project does not result in any impacts to California condors.

BIO-5. Remove microtrash. During periods when personnel are present on site, such as during equipment mobilization, pump and tank installation, project personnel shall regularly check project areas, pick up and contain microtrash, and remove from the site at least once weekly.

Timing and Monitoring: Microtrash cleanup and containment shall occur daily and removed from the site weekly. . The applicant shall submit an annual report to the County RMA-Planning Department documenting compliance with microtrash cleanup requirements. This report can be submitted with documentation of compliance with other conditions.

California tiger salamander (CTS). As discussed above, CTS breeding habitat does not occur on or immediately adjacent to the project site, and the nearest potential breeding pool is 0.45 mile away. Because the project would occur in areas already disturbed and compacted and does not require removal of small mammal burrows, the project would not remove potential aestivation habitat. However, CTS could occur transiently at night during rain storms while moving to breeding ponds. Implementation of the following measure would avoid potential impacts to CTS.

BIO-6. Work Limitations. No non-automated work or vehicular site access shall occur at night during rain storms. During WEAP training (BIO-1) contractors and personnel shall be instructed regarding these limitations on site for work and access.

Timing and Monitoring: Documentation of WEAP training shall occur as part of measure BIO-1. During periods of project activity, the applicant shall submit an annual report to the County RMA-Planning Department documenting compliance with work limitations. This report can be submitted with documentation of compliance with other conditions.

San Joaquin whipsnake and coast horned lizard. Coast horned lizard and San Joaquin whipsnake are known from the vicinity though not documented on the project site. If encountered during preconstruction surveys, the following measure shall be implemented.

BIO-7. Relocate SSC reptiles out of work area. If encountered during preconstruction surveys, San Joaquin whipsnake and coast horned lizard shall be relocated out of direct project impact areas by the qualified biologist. During WEAP training (BIO-1) contractors and personnel shall be instructed to allow any reptiles observed within the project area to move out of harm's way of their own accord, unimpeded.

Timing and Monitoring: If relocations occur, the biologist shall submit results with the preconstruction survey report to the County RMA-Planning Department. Documentation of WEAP training shall occur as part of measure BIO-1.

American badger. As discussed above, American badger could occur in the buffer surrounding the project site and could move through the project area. The project site consists of existing compacted and graveled work areas, unsuitable for badger den excavation. The project would not remove habitat or prey base for badger, but could result in direct impacts if a badger dens in close proximity to the project site. If potential American badger dens are discovered within 100 feet of the project site during preconstruction surveys, the following measure shall be implemented to reduce impacts to a less than significant level.

BIO-8. Badger Avoidance Measures. If potential badger dens are identified in close proximity to project activity areas, exclusion zones shall be established to prevent intrusion of workers on foot, vehicles, and equipment in close proximity to dens. During natal season (March 1 through June 30) dens within 100 feet of work areas shall be marked and avoided unless they are located outside existing fencing. Outside breeding season, dens within 50 feet must be flagged and avoided.

Timing and Monitoring: If required based on results of pre-activity surveys, exclusion zone barriers shall be maintained until all construction activities or operational disturbances have been terminated. At that time all fencing shall be removed to avoid attracting subsequent attention to the dens. If fencing is required for protection of dens, a report shall be submitted to the County RMA-Planning Department by the project biologist documenting that exclusion zone buffers are in place.

Salinas pocket mouse. As discussed above, Salinas pocket mouse could occur in the buffer surrounding the project site. The project is limited to existing disturbed and compacted areas, and would not remove habitat for Salinas pocket mouse. Direct impacts to this species could occur during night work when the species is active if an individual runs into the work area or is struck by a vehicle. Implementation of speed limit restrictions listed under Measure BIO-3 would reduce potential impacts to a less than significant level.

***Nesting Raptors/Birds*:** The oak woodland and annual grassland habitats immediately adjacent to the project site contains potential nesting habitat for a wide variety of birds. Species could range from less common avian species such as burrowing owl to common species protected under Fish and Game Code and the Migratory Bird Treaty Act. Project activity that occurs during the avian nesting season (February 1 to September 15) has the potential to directly impact nesting birds if nests are destroyed, or if project activity is sufficiently disruptive that birds abandon active nests. The following measures are required to reduce impacts to nesting birds to a less than significant level.

BIO-9. Preconstruction Nesting Bird Surveys. Prior to equipment mobilization that commences within the nesting season, February 1 through September 15, a qualified biologist shall conduct preconstruction surveys for nesting birds, including raptors, in all areas within 500 feet of proposed disturbance areas, where accessible. The required survey dates may be modified based on local conditions, as determined by the biologist based on observations in the field. Early removal of nest starts (incomplete nests in which eggs have not been laid) can be performed by the qualified biologist for common species to discourage mated pairs from nesting in areas subject to disturbance. Nest starts of special status birds shall not be disturbed without consultation with CDFW.

Active nests of native birds shall be protected with a no-work buffer. Buffer distance shall be a minimum of 100 feet for songbirds and 500 feet for raptors. Prescribed buffers may be adjusted to reflect existing conditions such as ambient noise, topography, and level of disturbance from proposed activities in consultation with CDFW and the County.

Any nest buffer zones shall be clearly delineated to avoid disturbance to nesting birds. Depending on their proximity to disturbance areas, buffer zones may be designated in the field in various ways, including flagging, fencing, and/or signage.

Timing and Monitoring: Surveys shall be completed within 14 days prior to equipment mobilization. If buffers and follow-up monitoring are required, the biologist shall submit a monthly monitoring report identifying active nests, monitoring results, and condition of buffer zones. Reports can be combined with other reporting requirements where appropriate.

Biological Resources 4(b, c) – Less Than Significant with Mitigation Incorporated. The project site does not contain riparian habitat or sensitive natural communities described within local or regional plans, policies, or regulations, nor does it contain wetlands; however, an ephemeral stream channel that is a potentially jurisdictional water of the State and the U.S. is present approximately 90 feet north of the project site. (Source: IX. 9, 13) The project would not result in any direct impacts to this stream. However, the stream is downslope of the project site and is not separated from the project site by a complete natural or artificial topographic barrier. In the event of spills or leaks of fuels, hydraulic fluids, gas, or oil on the project site during testing or future production, indirect impacts to this drainage could occur if these materials were not contained and were allowed to wash downslope into the drainage. To reduce potential impacts to the ephemeral stream adjacent to the project site, the following mitigation measure shall be implemented.

BIO-10. Spill Containment/Prevention Plan. Prior to commencing the project, the applicant shall submit a plan describing spill preventions and containment measures to be implemented, and location(s) of spill containment , if proposed. The plan shall describe specific methods for avoiding spills of hazardous materials, containment and cleanup measures in the event such spills occur, and means by which materials would be prevented from being washed offsite into the adjacent drainage during rain events. Such measures can include containment berms, temporary containment devices such as fiber rolls with oil pads around sites, drip pans under generators and equipment. The plan shall describe steps taken in the event of a spill and how contaminated materials shall be collected and contained. If spill containment berms are used, such berms must be located within the existing disturbed project site rather than adjacent undisturbed habitat.

Timing and Monitoring: A plan shall be submitted to County RMA-Planning Department for approval prior to commencement of the project. During project activities, the applicant shall submit an annual report documenting compliance with plan measures.

Biological Resources 4(d) – Less than Significant. The project site lacks any stream for migratory fish, and is not located within any critical habitat or otherwise identified wildlife migration or wildlife movement corridor. (Source: IX. 9, 10) Existing 4- and 5-strand wire fencing would not be altered. Implementation of the proposed project would not substantially reduce movement opportunities for wildlife, and would have little effect on native vegetation

cover. Therefore impacts to migratory fish and wildlife movement corridors would be *less than significant*.

Biological Resources 4(e) – Less than Significant with Mitigation Incorporated. Activities associated with the project are not anticipated to require removal or pruning of the blue oak trees located immediately adjacent to the project area. However, some ground-disturbing activities may occur adjacent to oak trees, such as for creation of spill prevention/containment berms. Additionally, passenger vehicles are expected to be on-site periodically. Because two blue oak trees are very close to the project area, root and branch damage could occur if vehicles or equipment are operated or parked under trees. The following mitigation measure shall be implemented to avoid damage to trees immediately adjacent to the project area. Incorporation of the following mitigation measure would reduce impacts to native oak trees to a less than significant level.

BIO-11. Tree Protection. To minimize root disturbance to the protected native oaks that would not be removed by the project, the following tree protection measures shall be implemented:

1. Limits of any ground-disturbing work within 25 feet of native trees shall be clearly flagged in the field. Parking shall be restricted to existing graveled areas and shall not be permitted under trees. Parking locations for passenger vehicles shall be designated away from oak trees. Workers will be informed of the need to avoid parking under oaks as part of WEAP training (Measure BIO-1).
2. Soils shall not be deposited around or over any trees in the project area.

Timing and Monitoring: Prior to the start of equipment mobilization, the applicant shall provide documentation that tree protection measures prohibiting parking underneath oak trees are incorporated into the WEAP training materials.

Biological Resources 4(f) – No Impact. The project site is not located within an area covered under any adopted or proposed Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state conservation plan; therefore, there would be *no impact*. (Source: IX. 15, 16)

5. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5? (Source: IX.1, 15)	☐	☐	☐	■
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5? (Source: IX.1, 15)	☐	☐	☐	■
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Source: IX.1, 15)	☐	☐	☐	■
d) Disturb any human remains, including those interred outside of formal cemeteries? (Source: IX. 1, 15)	☐	☐	☐	■

Discussion, Analysis and Conclusions:

An Archaeological Survey Report, including a literature search, Native American consultation, and archaeological survey was completed for the proposed project site by Robert Booher Consulting and Pacific Legacy, Inc., in 2007. (Source: IX. 25) The purpose of the study was to identify historical or prehistoric resources which may be adversely impacted by the Bradley Minerals 2-2 well. At the time, Venoco was proposing to drill the well, which is now proposed for use for further production testing under this project. The archaeological survey was to identify cultural resources within the Area of Potential Effect (APE), defined as a 50-foot buffer area surrounding the proposed drilling and production site, which also includes Well 1-2.

Cultural Resources 5(a) – No Impact. The project would include production testing (exploration) for oil and gas using an existing oil well, and potential future production of two existing on-site wells. No grading or clearing would be required. Before production testing begins, a temporary cement platform (six feet wide and fifteen feet long) would be installed and a pumping unit would be assembled on this platform. Tanks, a self-contained toilet facility, and a trailer for file storage would also be on the site. (Source: IX. 1)

A record and information search of the project area was conducted by Pacific Legacy staff at the Northwest Information Center (NWIC) of the California Historical Resources Information System located at Sonoma State University in Rohnert Park on June 5, 2007. (Source: IX. 25) The record and information search revealed that one cultural resource study has been conducted that included the project area and one more cultural resource study had been completed within 0.5 miles of the project area. The record search also revealed that no historic properties, either prehistoric or historic, are known to exist within the project area or within 0.5 miles of the project area. There are no permanent structures on the project site, only a temporary/portable trailer, and therefore no structures that could be considered potentially historic. (Source: IX. 25)

The proposed project would not impact any known historical resources. There would be *no impacts* to currently known historical resources.

Cultural Resources 5(b, c, d) – No Impact. The proposed project is located within an area that has undergone previous ground disturbance during drilling of the existing wells. Pacific Legacy requested a search of the "Sacred Lands Inventory" maintained by the Native American Heritage Commission (NAHC) on June 7, 2007. No responses were received. A pedestrian survey of the project area was conducted as part of the Archeological Survey Report. (Source: IX. 25) No prehistoric deposits or historic resources were observed during the survey. The conclusion of the Archaeological Survey Report was that no further studies should be necessary unless project plans changed to include unsurveyed area, to include construction of additional facilities, or cultural materials are encountered during construction. The proposed project would not include construction of new facilities or earthwork. The berms that could be created, as described in BIO-10, would be located on the disturbed project site. Therefore, cultural resources or human remains would not be encountered. (Source: IX. 1, 15) There would be *no impacts* archaeological or paleontological resources or human remains.

6. GEOLOGY AND SOILS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Source: IX. 1, 27, 28, 29)	☐	☐	■	☐
ii) Strong seismic ground shaking? (Source: IX. 1, 27, 28, 29)	☐	☐	■	☐
iii) Seismic-related ground failure, including liquefaction? (Source: IX. 1, 5a, 13, 14, 25)	☐	☐	■	☐
iv) Landslides? (Source: IX. 1, 7, 30)	☐	☐	■	☐
b) Result in substantial soil erosion or the loss of topsoil? (Source: IX. 1, 31, 32)	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? (Source: IX. 7, 31)	☐	☐	■	☐

6. GEOLOGY AND SOILS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Source: IX. 31)	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	■

Discussion, Analysis and Conclusions:

Geology and Soils 6(a) – Less than Significant.

Fault Rupture and Groundshaking: The United States Geological Survey (USGS) defines active faults as those that have had surface displacement within Holocene time (approximately within the last 11,000 years); no active faults are known to cross the project site. (Source: IX. 27) The nearest Alquist-Priolo fault zone is the San Andreas Fault, which is approximately 20 miles west of the project site. (Source: IX. 27) Therefore, the potential for surface-fault rupture on the site is low. There would not be any habitable structures or facilities that would be occupied by people. Testing would require only a few employees to be present for short periods of time and during production, a maximum of one employee may be on-site for longer periods of time. (Source: IX. 1) Impacts related to faulting rupture and groundshaking would be *less than significant*.

Seismic Ground Failure: Liquefaction is defined as the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from seismic groundshaking. Liquefaction most often occurs in loose saturated silts and saturated, poorly graded, fine-grained sands. The site is located on Lockwood shaly loam, 9 to 15 percent slopes. (Source: IX. 28) The site has a moderate potential for liquefaction or other seismic ground failure. (Source: IX. 29) Exploration and the potential future production, as proposed by the project, would not include habitable structures that would be occupied by people, and would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death resulting from liquefaction. (Source: IX. 1) Therefore, impacts related to seismic ground failure would be *less than significant*.

Slope Stability and Landslides: Landslides result when the driving forces that act on a slope (i.e., the weight of the slope material, and the weight of objects placed on it) are greater than the slope's natural resisting forces (i.e. the shear strength of the slope material). According to the Monterey County General Plan, development shall be discouraged in areas that are within or adjacent to large active landslides. The proposed project site does not meet this criterion. (Source: IX. 7) The site is entirely flat and according to the General Plan, the site is in an area

with low earthquake induced landslide susceptibility. (Source: IX. 30) Furthermore, exploration and the potential future production, as proposed by the project, would not include habitable structures that would be occupied by people, and would not expose people or structures to potential substantial adverse effects. (Source: IX. 1) Impacts related to slope stability and landslides to a *less than significant* level.

Geology and Soils 6(b) – Less than Significant. Soil erosion is the removal of soil by water and wind. Soils in the project area are in the Lockwood complex, which has a moderate erosion hazard. (Source: IX. 31) According to the Monterey County General Plan, the site is located in an area with moderate soil erosion hazard. (Source: IX. 32) No grading, clearing, or other activities that would expose soil or result in erosion would be required for the proposed project, as the site is currently graded and cleared. (Source: IX. 1) The project would involve the installation of cement pads and pumping units, as well as the associated tanks for storage of water and oil, and the drilling of existing wells. Berms could be constructed, as described in BIO-10, but would not require a substantial amount of earth work that could cause erosion. Therefore, impacts to soil erosion would be *less than significant.*

Geology and Soils 6(c) - Less than Significant. Subsidence occurs when a large land area settles due to over saturation or extensive withdrawal of groundwater, oil, or natural gas. Areas susceptible to subsidence are typically composed of open textured soils that become saturated. These areas are usually composed of soils with high silt or clay content. The silt content of the soil on the site is 38 percent and the clay content is 23 percent; therefore, subsidence could occur. However, there is little documentation of widespread subsidence in Monterey County. (Source: IX. 7, 31)

The proposed project consists of production testing (exploration) for oil and gas using an existing oil well, and potential future production of two existing wells. The project does not include the drilling of new wells. The project also does not include well stimulation or hydraulic fracturing and would not require any groundwater extraction. If the production testing found large quantities of oil, testing would be stopped and a new permit would be required for further oil extraction. Exploration would not, therefore, result in extensive withdrawal of groundwater or oil. While testing may extract water mixed with some oil, the water would not be from a groundwater basin, as the well would be sealed from all groundwater.

If the production testing found economically viable quantities of oil, it is reasonably foreseeable that both Well 2-2 and the adjacent Well 1-2 would be used for production. Production from the two wells would increase the risk of subsidence, as it would result in more withdrawal of water and oil from beneath the site. However, the impacts associated with such subsidence would be insignificant because the anticipated extraction rate of 300 barrels per day (as is estimated for this project), accompanied by production from relatively deep, consolidated formations (approximately 10,400 feet below the ground surface) would likely cause only minor subsidence at the project site and immediate surroundings. Furthermore, the nearest structures are located over one mile from the site and would not be impacted by the slight subsidence. Therefore, the potential for subsidence resulting from the proposed project to adversely impact people or structures would be *less than significant*.

Geology and Soils 6(d) – Less than Significant. Expansive soils experience volumetric changes with changes in moisture content, swelling with increases in moisture content and shrinking with decreasing moisture content. These volumetric changes can cause distress resulting in damage to concrete slabs and foundation. Shrinking and swelling are related to the clay content of soils, with clay rich soils being prone to swelling, and sand or gravel soils experiencing very little shrinking and swelling. The site is located on Lockwood shaly loam, 9 to 15 percent slopes, which has 23 percent clay content and therefore likely to have a shrink-swell potential. (Source: IX. 31) However, all structures would be temporary and the wells have been constructed and certified according to DOGGR regulations. Therefore, the proposed project would not construct structures or roadways that would create substantial risks to life or property and impacts due to expansive soils would be *less than significant.*

Geology and Soils 6(e) – No Impact. The project site would not require a septic system, as a self-contained portable toilet facility would be used by employees. There would be *no impact*.

7. GREEN HOUSE GAS EMISSIONS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Source IX. 33, 34, 35, 44, 49)	☐	☐	■	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Source IX. 33, 34, 35, 44, 49)	☐	☐	■	☐

The accumulation of greenhouse gases (GHGs) in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler. (Source: IX. 33) However, emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are the GHGs that are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion. CH_4 results from fossil fuel combustion as well as off-gassing associated with agricultural practices and landfills. N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes.

Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21^{s}t century than were observed during the 20th century. According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. (Source: IX. 34) While these potential impacts identify the possible effects of climate

change at a global and potentially statewide level, in general scientific modeling tools are currently unable to predict what impacts would occur locally with a similar degree of accuracy.

In response to an increase in man-made GHG concentrations over the past 150 years, California has implemented AB 32, the "California Global Warming Solutions Act of 2006." AB 32 codifies the Statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms.

In May 2014, ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use. (Source: IX. 35)

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

Greenhouse Gas Emissions 7(a, b) – Less than Significant. The MBUAPCD has not established thresholds of significance for GHG emissions; however, it has recommended a threshold of 10,000 metric tons (MT) of CO_2e per year for stationary source projects. (Source IX. 49) Although this threshold is not intended for short-term construction emissions, it is used conservatively in this analysis and compared to total emissions for each phase, including emissions generated by set-up activities (electricity, trips, stationary equipment). This is a conservative method of analysis, as it includes set-up activity emissions (which are similar to construction emissions) in the total emissions for each phase, rather than removing them from the operational emissions total. Electricity demand would be 1,405 kWh/day/well. (Source: IX. 44) This analysis does not include transportation, refining, or combustion of oil, as the oil would be

sold on-site, and emissions associated with transportation, refining, and combustion of produced oil are appropriately attributed to entities that purchase and consume the produced oil.

Project emissions were estimated from several emissions models and associated spreadsheet calculations, depending on the source type and data availability. On-road vehicle emissions were estimated using emission factors from the California Climate Action Registry (CCAR) General Reporting Protocol. The CARB off-road vehicle emissions factor model (OFFROAD2007) was used to calculate on-site equipment emissions, the California EMFAC2011 model was used for calculating mobile emissions from passenger vehicle and heavy-duty trucks, and other emission factors, including factor for fugitive emissions during tank loading, were obtained from the USEPA AP-42 Compilation of Air Pollutant Emissions Factors (as amended). Refer to Appendix A for details on equipment fleet, hours of operation, vehicle miles traveled and other assumptions used. Table 2 presents the project's unmitigated GHG emissions.

Table 2
Annual Project GHG Emissions

	Mobile			Stationary			
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	Total CO_2e
Exploration: Total (lbs)	183,353.0	0.1	0.00	1,364,607.1	1,087.8	0.00	1,840,968
Exploration: Total (metric tons)	83.17	0.00	0.00	618.98	0.49	0.00	**835.1**
Threshold (metric tons)							**10,000**
Exploration to Exceed Daily Threshold?							***NO***
Production: Total (lbs)	373,187.2	0.3	0.00	2,583,7890.0	184.8	0.00	3,548,816
Production: Total (metric tons)	169.3	0.00	0.00	1,171.0	0.1	0.00	**1,609.7**
Threshold (metric tons)							**10,000**
Production to Exceed Daily Threshold?							***NO***

As described above, the project's contribution to GHG emissions impacts and climate change would be considered significant if the project would produce in excess of 10,000 metric tons of CO_2e per year. The proposed project's GHG emissions of 835 metric tons of CO_2e during exploration and 1,610 MT of CO_2e during production are below this threshold.

The proposed project would also be required to comply with all State and local regulations intended to reduce GHG emissions. Consistency with these State regulations and goals and the level of greenhouse gas emissions that would result from exploration and production at the site illustrates that the project would not conflict with the State's greenhouse gas-related legislation and would not contribute to the inability to meet reduction goals. Therefore, the proposed project's impacts on greenhouse gas emissions, plans and policies would be *less than significant.*

8. HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Source: IX. 1, 3)	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Source: IX. 1, 3)	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4-mile of an existing or proposed school? (Source: IX. 1, 3)	☐	☐	☐	■
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Source: IX. 36, 37)	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (Source: IX.1, 3)	☐	☐	☐	■
f) For a project in the vicinity of a municipal airstrip, would the project result in a safety hazard for people residing or working in the area? (Source: IX. 1, 3)	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Source: IX.1, 7)	☐	☐	☐	■
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Source: IX. 1, 38)	☐	☐	■	☐

Discussion, Analysis and Conclusions:

Hazards and Hazardous Materials 8(a, b) – Less than Significant. Oil exploration and potential future production would result in "gross fluid," consisting of both oil and water. The oil and water would be separated in a wash tank and stored on-site in above ground tanks. (Source IX. 1) When the tanks fill up, both the oil and water would be disposed of in an appropriate

location. Oil would be sold and transported to the either the San Ardo Oil Field, located approximately five miles north of the project site; or to the Coalinga Oil Field, located approximately 37 miles northeast of the project site. (Source IX. 3) Water would be disposed of either through an existing off-site injection well, or would be delivered to a wastewater disposal facility for disposal. Transportation of hazardous materials would be required to comply with all California Department of Transportation, California Environmental Protection Agency, California DTSC, California Highway Patrol, and California State Fire Marshal regulations for transporting hazardous materials.

Minor quantities of chemicals may also be needed on-site for well maintenance. For well maintenance where acid is used, the chemical would be 15 percent hydrogen chloride, 13.5 percent-1.5 percent hydrogen chloride/hydrogen fluoride, and 5 percent ammonium chloride. If a non-acid treatment was selected, Oil Safe AR®, a replacement for traditional hydrochloric acid treatments that is found to be 100 percent biodegradable, would be used. (Source: IX. 22) Quantities of the chemicals required for well maintenance would vary, but all such maintenance is conducted at pressures well below 'fracturing' pressures and immediately after maintenance, the well is produced (meaning fluid is pumped out of it). Consequently, anything put down the well during maintenance is the first to be recovered. Because maintenance liquids, including acid, would be recovered immediately after maintenance activities, risk of exposure due to a hazardous release of chemicals belowground is *less than significant.*

During operation, appropriate spill prevention and containment measures would be implemented. These would include, but not be limited to: design and implementation of a spill prevention control plan and/or construction of a spill containment berm. Industry standard well maintenance would also occur, including the periodic acid or diesel wash of the well bore in order to clean out the perforations in the production string of casing. All prior and potential future well operations have been and would continue to be regulated by the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR). This would reduce the potential for aboveground spills to occur and would ensure that if a spill did occur, it would be contained. Therefore, risk of exposure due to a hazardous release of chemicals aboveground is also *less than significant*.

The nearest sensitive receptor to the project is a chapel located approximately 1.5 miles northwest of the project site on Jolon Road. An additional sensitive receptor, a residence, is located approximately 1.7 miles northwest of the project site on Jolon Road. (Source: IX. 3) Based on this distance, the potential for impacts associated with contact with hazardous materials is not anticipated to be significant. Drivers along Jolon Road could be exposed to hazardous materials as they pass the approximately 600 foot length of roadway adjacent to the project site. However, the spill prevention and containment measures described above would reduce this risk. In addition, the project would be required to adhere to handling and disposal requirements as outlined in Title 22 CCR. Safety requirements, such as proper maintenance of tanks, regular inspections, emergency preparedness plans, and appropriate tracking and reporting for shipping of materials would be required per Title 22 CCR. (Source: IX. 45) Compliance with applicable federal, state, and local ordinances, regulations, and standards would be required. These would include, but are not limited to, AB 1960, which requires that operators develop a spill

contingency plan and file it with DOGGR and OSHA, which provides standards and directives pertaining to flammable and combustible liquids, handling and storage of oil, and fire protection. Adherence to these regulations and requirements would reduce impacts on the environment and human health from hazardous materials to *less than significant.*

Hazards and Hazardous Materials 8(c) – No Impact. No schools are located within ¼ mile of the project site. The nearest school to the project site is Bradley Elementary School, located approximately three miles east of the project site. (Source: IX. 1, 3) There would be *no impact.*

Hazards and Hazardous Materials 8(d) – No Impact. The project site is not included on a list of hazardous materials sites. (Source: IX. 36, 37) There would be *no impact.*

Hazards and Hazardous Materials 8(e, f) – No Impact. The proposed project is not located within an airport land use plan or within two miles of an airport. The nearest airport, the San Ardo Field, is approximately 11 miles north of the site. The location of the project is not anticipated to be threatened by air traffic hazards. (Source: IX. 1, 3) *No impact* would result.

Hazards and Hazardous Materials 8(g) – No Impact. All public thoroughfares and private roads are considered potential evacuation routes according to the Monterey County General Plan. (Source: IX. 7) However, no specific evacuation or emergency plan is included in the General Plan and the project would not alter the site in any way that would impair an adopted emergency response or evacuation plan. (Source: IX. 1, 7) There would be *no impact*.

Hazards and Hazardous Materials 8(h) – Less than Significant. According to the California Department of Forestry and Fire Protection (CAL FIRE), the proposed project is located in a moderate fire hazard severity area. (Source: IX. 38) However, the proposed project would not construct habitable structures nor add a permanent workforce to the site. Workers would be on-site for brief periods of time approximately twice per day to observe operations. (Source: IX. 1) The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts would be *less than significant.*

9. HYDROLOGY AND WATER QUALITY **Would the project:**		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements? (Source: IX. 1)	☐	☐	■	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (Source: IX. 1)	☐	☐	■	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation? (Source: IX. 1, 46)	☐	☐	■	☐
d)	Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (Source: IX. 1, 46)	☐	☐	■	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Source: IX. 1)	☐	☐	☐	■
f)	Otherwise substantially degrade water quality? (Source: IX. 1)	☐	☐	■	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Source: IX. 39)	☐	☐	■	☐
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (Source: IX. 39)	☐	☐	■	☐
i)	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? (Source: IX. 39)	☐	☐	☐	■
j)	Inundation by seiche, tsunami, or mudflow? (Source: IX. 1)	☐	☐	☐	■

Discussion, Analysis and Conclusions:

Hydrology and Water Quality 9(a, f) – Less than Significant. The project would include production testing (exploration) for oil and gas using an existing oil well, and potential future production of two existing oil wells. The project does not include the drilling of new wells. The proposed project is an exploratory effort to assist in determining whether oil is available in commercial quantities at the project location. During exploration and potential future production, the gross fluid would be separated into oil and water in a wash tank. (Source IX. 1) The water would be disposed of either through an existing off-site injection well, or would be delivered to a wastewater disposal facility for disposal.

If an injection well is used, the well would be regulated by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act. The EPA's Underground Injection Control (UIC) program (40 CFR Parts 144-148) is a permit program that protects underground sources of drinking water by regulating five classes of injection wells. Class II wells inject fluids associated with oil and natural gas production operations. Most of the injected fluid is brine that is produced when oil and gas are extracted from the earth. The UIC permit program is primarily state-enforced. In California, Class II injection wells are regulated by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources, under provisions of the state Public Resources Code and the federal Safe Drinking Water Act. Class II injection wells fall under the Division's UIC program, which is monitored and audited by the U.S. Environmental Protection Agency. In 1983, the Division received EPA primary authority, *primacy,* to regulate Class II wells. The main features of the UIC program include permitting, inspection, enforcement, mechanical integrity testing, plugging and abandonment oversight, data management, and public outreach.

If the water is disposed of at a wastewater disposal facility, the facility would be subject to Waste Discharge Requirements, National Pollutant Discharge Elimination System (NPDES) permit requirements, and/or Monitoring and Reporting Programs as required by the California Regional Water Quality Control Bard (RWQCB). A licensed contractor would remove the produced water from the site and treat it off-site at which point water quality would be expected to be of sufficient standards for discharge.

Because all wastewater generated by the project, including during potential future long-term production, would be disposed of off-site at existing, permitted, and regulated facilities, impacts related to water quality and waste discharge requirements would be *less than significant.*

Hydrology and Water Quality 9(b) – Less than Significant. A 500-gallon fresh water tank would be located at the northernmost edge of the site during exploration. The water would be used by employees on-site for hand-washing and is also required for fire safety. During potential future production of both on-site wells, two (2) 500-gallon water tanks would be required. This water would be delivered from off-site and would be topped off once or twice during exploration and infrequently during production. No additional water demand would be generated by the proposed project and the approximately 1,000 gallons of water demanded would not substantially affect surface or groundwater supplies.

The proposed production testing would involve testing specific zones within the existing well borehole (of Bradley Minerals Well 2-2) that is approximately 10,400 feet in depth. Well 1-2 is approximately the same depth. Public-supply wells are typically drilled to depths of 200 to 650 feet, which is intended to approach the bottom of the groundwater basin. (Source: IX. 50) Both boreholes are at depths lower than the groundwater table and all perforations would also be lower than the groundwater table, ensuring that the wells would not pump within the groundwater table. Furthermore, the wells would be sealed from the groundwater table using casing. Casing is typically a hollow pipe that lines the inside of the borehole to ensure that groundwater would not be affected. The American Petroleum Institute has established standards for the casing, which would be adhered to by the project proponent. Therefore, the oil well(s) would be sealed from the groundwater table and all water that would be pumped to the surface during exploration and production would not be from the groundwater basin. Therefore, the pumping of oil during exploration and production would not affect groundwater levels.

Because the proposed exploration and production would use existing oil wells in already-developed areas and the only additional impervious surface would be the pads for installation of the pumps (six feet wide and fifteen feet long), the project would not substantially increase impervious surface coverage of the site. (Source IX. 1) Therefore, the project would not inhibit groundwater recharge.

Overall, impacts related to groundwater supplies and groundwater recharge would be *less than significant*.

Hydrology and Water Quality 9(c, d) – Less than Significant. The proposed project would be required to implement County ordinances relating to erosion, including the general provision requiring that no person cause or allow the continued existence of a condition on any site that is causing or is likely to cause accelerated erosion. (Source: IX. 46) The project would not increase impervious surfaces that would increase run-off, and does not include any changes to drainage on-site. (Source: IX. 1) Disturbance on-site would be minimal, as the equipment needed to install the tanks and pumps would be relatively small and powered by electricity. Impacts to on- and off-site sedimentation would be *less that significant*.

Hydrology and Water Quality 9(e) – No Impact. There are existing drainages located approximately 90 feet north of the project site, which would not be affected by the proposed project, as the project would not require any substantial ground disturbance or result in a substantial change in impervious surfaces. The project would therefore not increase runoff compared to existing conditions. (Source: IX. 1) It would not, therefore, exceed the capacity of existing or planned stormwater drainage facilities. Refer also to Item 9(c, d) above. There would be *no impact.*

Hydrology and Water Quality 9(g,h) – Less than Significant. The western portion of the project site is located in a 100-year floodplain. (Source: IX. 39) However, there would not be any habitable structures or facilities that would be occupied by people. Testing would require only a few employees to be present for short periods of time and during production, a maximum of one

employee may be on-site for longer periods of time. Therefore, the project would not expose people or structures to flooding hazards and impacts would be *less than significant*.

Hydrology and Water Quality 9(i) – No Impact. The project is not within an inundation area from a dam or levee. (Source: IX. 39) There would be *no impact.*

Hydrology and Water Quality 9(j) – No Impact. Tsunamis, or seismic sea waves, are generated from undersea seismic movement. Due to its location approximately 30 miles from the Pacific Ocean and five miles from Lake San Antonio, the project site would not be unsafe during such an event. (Source: IX. 1) There would be *no impact.*

10. LAND USE AND PLANNING **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community? (Source: IX. 1,3)	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (Source: IX. 40a, 40b)	☐	☐	☐	■
c) Conflict with an applicable habitat conservation plan or natural community conservation plan? (Source: IX. 7)	☐	☐	☐	■

Discussion, Analysis and Conclusions:

Land Use and Planning 10(a) – No Impact. The proposed project would be located on an existing property in Monterey County. The proposed project would not construct any structures that would physically divide an established community. (Source: IX. 1, 3) The perimeter of the site is fenced and the site contains two oil wells. The proposed project does not include drilling of any additional oil wells and the fences would be maintained. There would be *no impact.*

Land Use and Planning 10(b) – Less than Significant. The proposed project site is in an area designated as Agricultural Farmlands by the Monterey County General Plan. The site is zoned for Permanent Grazing and Farmlands under the County Zoning Ordinance. "The exploration for and the removal of oil and gas" is allowed on Permanent Grazing sites with a use permit. (Source: IX. 40a) "The exploration for and the removal of oil and gas" is also allowed on Farmlands with a use permit. (Source: IX.40b) Therefore, the proposed project would be consistent with the Monterey County Zoning Ordinance if a use permit is granted.

The proposed project would not conflict with any existing land use plans regarding geology, hazards, hydrology, noise, or utilities. (Refer to Section IV.6, IV.8, IV.9, IV.12 and IV.17)

Overall, there would be *no impact* related to consistency with applicable land use policies.

Land Use and Planning 10(c) – No Impact. The proposed project would not conflict with any habitat conservation plan or natural community conservation plan, as none are applicable to the project site. (Source: IX. 7) There would be *no impact.*

11. MINERAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	■	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	■	☐

Discussion, Analysis and Conclusions:

Mineral Resources 11(a,b) – Less than Significant. Crude oil is a raw material used to manufacture petroleum-based products, such as diesel and gasoline. The proposed project consists of production testing (exploration) for oil and gas using an existing oil well to determine the economic viability of potential oil resources underlying the project site. This project would provide the data necessary to determine whether a permanent oil production operation would be feasible. Oil production at the two wells located on the project site could occur in the future if it were determined to be feasible during exploration. Production would improve access to mineral resources (oil) on the site. There is a potential that other mineral resources may occur on the project site, based on known mineral resources in the vicinity. The proposed project may reduce the availability of access to mineral resources other than oil at the project site, if future production is determined to be feasible. Overall, the impact of the project on mineral resources would be *less than significant.*

12. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Source: IX. 7, 41)	☐	☐	■	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? (Source: IX. 7, 41)	☐	☐	■	☐
c) A substantial permanent increase in ambient noise levels above levels existing without the project? (Source: IX. 7, 41)	☐	☐	■	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Source: IX. 7, 41)	☐	☐	■	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (Source: IX. 3)	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise? (Source: IX. 3)	☐	☐	☐	■

The noise standards shown in Table 3 can be generally applied to the proposed project site based on the Monterey General Plan and the Office of Planning and Research, General Plan Guidelines (2003). (Source IX. 7, 41)

Table 3
Land Use Compatibility for Noise Environments

Land Use Category	Community Noise Exposure Level			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Low Density, Single-Family, Duplex, Mobile Homes	50-60	55-70	70-75	75-85
Residential – Multiple Family	50-65	60-70	70-75	70-85
Transient Lodging – Motel, Hotels	50-65	60-70	70-80	80-85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	80-85

Table 3
Land Use Compatibility for Noise Environments

Land Use Category	Community Noise Exposure Level			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	NA	50-70	NA	65-85
Sports Arenas, Outdoor Spectator Sports	NA	50-75	NA	70-85
Playgrounds, Neighborhood Parks	50-70	NA	67.5-75	72.5-85
Golf Courses, Riding Stable, Water Recreation, Cemeteries	50-70	NA	70-80	80-85
Office Buildings, Business Commercial and Professional	50-70	67.5-77.5	75-85	NA
Industrial, Manufacturing, Utilities, Agriculture	50-75	70-80	75-85	NA

(Source IX. 41)
Notes: NA - Not Applicable
Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements
Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable – New construction or development should be discouraged, and if it does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable – New construction or development should generally not be undertaken.

Noise 12(a-d) – Less than Significant. The proposed project would involve production testing (exploration) for oil and gas using an existing oil well. Generally, the exploration process would involve the recovery of water and oil from the existing well and transfer to temporary storage tanks. Recovered oil would be transported off-site. Installation of temporary storage tanks and potential future installation of permanent storage tanks for production would generate noise and groundborne vibration. In addition, operation of the well during testing and potential future production would generate noise and groundborne vibration. The closest noise sensitive receptors to the project are the chapel located approximately 1.5 miles northwest of the project site on Jolon Road and a residence located approximately 1.7 miles northwest of the project site on Jolon Road. At these distances, noise associated with installation of tanks and operation of the well(s) would not be audible.

In addition, the proposed project would generate noise from traffic associated with workers and trucks traveling to and from the project site. Workers and trucks would access the site from Jolon Road. As shown in Table 4 in Section IV.16, Traffic, the proposed project would generate at most 12 worker trips per day and 6 heavy truck trips per week. This incremental increase in traffic would not substantially increase noise levels on Jolon Road. Therefore, impacts would be *less than significant.*

Noise 12(e, f) – No Impact. The proposed project is not located within an airport land use plan or in the vicinity of a private airstrip. There nearest airfield is San Ardo Field, approximately 11 miles north of the project site; therefore there would be *no impact.* (Source: IX. 3)

13. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (Source: IX. 1)	☐	☐	☐	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Source: IX. 1)	☐	☐	☐	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Source: IX. 1)	☐	☐	☐	■

Discussion, Analysis and Conclusions: See Sections II and IV.

14. PUBLIC SERVICES Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection? (Source: IX. 1, 3)	☐	☐	■	☐
b) Police protection? (Source: IX. 1, 3, 42)	☐	☐	■	☐
c) Schools? (Source: IX. 1)	☐	☐	☐	■
d) Other public facilities? (Source: IX. 1)	☐	☐	☐	■

Discussion, Analysis and Conclusions:

Public Services 14(a) – Less than Significant. CAL FIRE provides protection to most of southeast Monterey County, including the project site. The proposed project would not result in significant additional demand for fire protection services as the project would not construct any habitable structures and employees would only be on-site for short periods of time approximately

twice per day. During production, a maximum of one employee may be on-site for longer periods of time. As such, the proposed project would not result in the provision of or need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts. Impacts related to fire protection service would be *less than significant.* (Source: IX. 1, 3)

Public Services 14(b) – Less than Significant. The Monterey County Sheriff's Office provides police services to the unincorporated portions of the County. These services include patrol, crime prevention, and crime investigation provided out of stations in Monterey, Salinas, and King City. The project site is served by the South County station, located at 250 Franciscan Way in King City, approximately 27 miles north of the site. (Source: IX. 3, 42) The proposed project would not result in significant additional demand for police protection services as the project does not include new residential or commercial development. (Source: IX. 1) As such, the proposed project would not result in the provision of or need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts. Impacts related to police protection services would be *less than significant*.

Public Services 14(c,d) – No Impact. The proposed project would not increase the number of residents in the County, as the project does not include residential units nor include a new source of permanent jobs that would induce population growth. Because the demand for schools and other public facilities is driven by population, the proposed project would not increase demand for those services. As such, the proposed project would result in *no impacts* on these public services. (Source: IX. 1)

15. RECREATION **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Source: IX. 1)	☐	☐	☐	■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (Source: IX. 1)	☐	☐	☐	■

Discussion, Analysis and Conclusions: See Sections II and IV.

16. TRANSPORTATION/TRAFFIC **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? (Source: IX. 47)	☐	☐	■	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (Source: IX. 47)	☐	☐	■	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Source: IX. 1, 3, 7)	☐	☐	☐	■
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible use (e.g. farm equipment)? (Source: IX. 1)	☐	☐	■	☐
e) Result in inadequate emergency access? (Source: IX. 3)	☐	☐	☐	■
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? (Source IX. 1)	☐	☐	☐	■

Transportation/Traffic 16(a, b) – Less than Significant. The proposed project would result in worker trips and heavy truck trips to and from the project site. Table 4 shows the potential trip generation associated with the proposed project.

Table 4
Trip Generation

Phase	One-Way Trips
Exploration – Set-Up[1]	
Heavy Trucks	4 per day
Workers	8 per day
Exploration[2]	
Heavy Trucks	6 per week
Workers	4 per day
Production – Set-Up[3]	
Heavy Trucks	4 per day
Workers	12 per day
Production – Operation[4]	
Heavy Trucks	4 per week
Workers	4 per day

1 Installation and set-up for production testing would occur for approximately 2-3 days.

2 Production testing would occur for up to 12 months. Vacuum trucks would recover the oil and transport off-site approximately 3 times per week. One worker would travel to the site up to twice per day to monitor operations

3 Installation and set-up of permanent tanks to support production would occur over approximately 6 months and involve up to 6 people.

4 During operation of future production, approximately one truck trip per week would be required to haul extracted oil from each well. One worker would travel to the site up to twice per day to monitor operations.

As shown in Table 4, the proposed project would result in no more than 16 trips per day. The phase with the highest number of trips would during the installation of production equipment, should future production occur. In this phase, up to six people would work for approximately six months to install permanent tanks. Assuming normal work hours, these six workers would arrive during the morning peak hour and leave during the evening peak hour. The trucks used for installation could also travel to and from the site during peak hours. Therefore, at most, the proposed project would introduce 16 peak hour trips. The trucks and passenger vehicles would access Jolon Road and the site from US Highway 101 (US 101), which has approximately 20,000 average daily trips near Jolon Road. The additional 16 trips would not affect traffic on US 101. (Source: IX. 47) Jolon Road is not heavily traveled and the additional trips resulting from the project would not significantly impact traffic. Therefore, this increase in trips is not substantial and would not generate a substantial amount of congestion or create a substantial impact on area roadways. Impacts would be *less than significant.*

Transportation/Traffic 16(c) – No Impact. The project site is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private airstrip. The nearest airstrip is located 11 miles north of the site at San Ardo Field. (Source: IX. 1, 3, 7) The proposed project would not cause any change to existing air traffic patterns. There would be *no impact*.

Transportation/Traffic 16(d) – Less than Significant. The existing access driveway from Jolon Road would be used for production testing and for potential future production activities. (Source: IX. 1) Large vacuum trucks would travel to and from the site approximately three times per week during production testing. During potential future production, up to four heavy truck

trips per week would occur. These trucks would use Jolon Road and would not affect the use of the road by agricultural type equipment or other vehicles. There would not be any design features associated with the project that would affect the existing roadways and impacts would be *less than significant.*

Transportation/Traffic 16(e) – No Impact. The project site is surrounded by agricultural and grazing land, and the nearest residence is located approximately 1.7 miles north of the project site. Use of Jolon Road would not be affected by the proposed project. (Source: IX. 3) There would be *no impact* to emergency access.

Transportation/Traffic 16(f) – No Impact. The proposed project would not result in any changes regarding alternative transportation, bicycle, or pedestrian facilities. (Source: IX. 1) The project site is located in an unincorporated area of Monterey County and would not conflict with any public transit, bikeways or pedestrian facilities. There would be *no impact.*

17. UTILITIES AND SERVICE SYSTEMS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	■	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Source: IX. 1)	☐	☐	☐	■
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Source: IX. 1)	☐	☐	■	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Source: IX.1, 2)	☐	☐	■	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Source: IX. 43)	☐	☐	■	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste? (Source: IX. 43)	☐	☐	■	☐

17. UTILITIES AND SERVICE SYSTEMS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Result in a Substantial increase in demand of existing sources of energy or require the development of new sources of energy? (Source: IX. 1, 44)	☐	☐	■	☐

Discussion, Analysis and Conclusions:

Utilities and Service Systems 17(a, b) – Less than Significant. The proposed project would not generate municipal wastewater, and therefore would not require traditional wastewater treatment. However, the production testing and potential future production of two existing wells would recover fluid, including oil and water. This "gross fluid" would be pumped into the temporary (or permanent, during the potential future production phase) storage tanks on-site. Recovered water would be picked up by a licensed contractor and taken to either an existing off-site injection well or existing treatment facility for disposal. The contractor would treat the removed wastewater off-site before taking it to the well or facility, both of which would be regulated for water quality. If the water is disposed of at a wastewater disposal facility, the facility would be subject to Waste Discharge Requirements, National Pollutant Discharge Elimination System (NPDES) permit requirements, and/or Monitoring and Reporting Programs as required by the California Regional Water Quality Control Bard (RWQCB). Impacts would be *less than significant.*

Utilities and Service Systems 17(c) – No Impact. Because the proposed exploration and potential future production would use existing wells in already-developed areas and the only additional impervious surface would be the pads for installation of the pumps (six feet wide and fifteen feet long), the project would not substantially increase impervious surface coverage of the site. The project would therefore not increase runoff compared to existing conditions. (Source: IX. 1) It would also not exceed the capacity of existing or planned stormwater drainage facilities. There would be *no impact.*

Utilities and Service Systems 17(d) – Less than Significant. A 500-gallon fresh water tank would be located at the northernmost edge of the site during exploration. The water would be used by employees on-site for hand-washing and is also required for fire safety. During potential future production of both on-site wells, two (2) 500-gallon water tanks would be required. This water would be delivered from off-site and would be topped off once or twice during exploration and infrequently during production. No additional water demand would be generated by the proposed project and the approximately 1,000 gallons of water demanded would not require new or expanded entitlements. Impacts would be *less than significant.*

Utilities and Service Systems 17(e) – Less than Significant. The proposed project would not generate municipal wastewater, and therefore would not require traditional wastewater treatment. However, the production testing and potential future production would result in the generation of fluids consisting of both oil and water. The maximum amount of wastewater generation would

occur during potential future production, when up to 300 barrels (12,600 gallons) of oil and water could be recovered per day during the production phase. The rate of extraction during potential future production and the ratio of oil to water from the substances extracted are unknown at this time. Assuming recovered substances are 25 percent water, approximately 3,160 gallons of wastewater per day could be extracted during production. Recovered water would be picked up by a licensed contractor and taken to either an existing off-site injection well or existing treatment facility for disposal. It is expected that the contractor would contract with a facility that has adequate capacity to accept the water or would send the recovered water to injection wells. Therefore, impacts would be *less than significant.*

Utilities and Service Systems 17(f, g) – Less than Significant. Monterey County is served by two active solid waste landfills, Johnson Canyon Sanitary Landfill, which is located approximately 60 miles north of the project site at 31400 Johnson Canyon Road in Gonzales, CA and Monterey Peninsula Landfill, which is located approximately 90 miles north of the project site at 14201 Del Monte Boulevard in Marina, CA, both of which may serve the proposed project site. Johnson Canyon Sanitary Landfill has an estimated 7 million cubic yards of remaining capacity. Monterey Peninsula Landfill has an estimated 48.5 million cubic yard of remaining capacity. (Source: IX. 43)

Solid waste generated by the proposed project would be limited to food and other waste from on-site employees and minimal excess materials from installation of the pumping unit and tanks. Employees would be on-site for brief periods of time approximately twice per day during exploration and during production, a maximum of one employee may be on-site for longer periods of time. Employees would therefore generate insubstantial amounts of waste. The two landfills have remaining capacities that ensure that the proposed project would not have a significant impact on either. Impacts would be *less than significant*.

Utilities and Service Systems 17(h) – Less than Significant. The proposed project would involve exploration of an existing oil well and potentially could result in production at two existing oil wells. (Source: IX. 1) Power for testing would be electrical and would be provided by existing facilities. During production, the gas being produced by the well could be used for power. Approximately 1,405 kilowatt-hours per day (kWh) would be required to operate a single well. (Source: IX. 44) Therefore, the exploration phase would require an estimated 1,405 kWh per day and the potential future production would require an estimated 2,810 kWh per day. An average U.S. household used 10,837 kWh in 2012, which is approximately one-third of that required for the proposed project. Therefore, the proposed project would not be expected to result in a substantial increase in demand, nor require the development of a new energy source. Impacts would be *less than significant.*

VII. MANDATORY FINDINGS OF SIGNIFICANCE

Does the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of past projects and the effects of probable future projects)?	☐	☐	■	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	■	☐	☐

Discussion, Analysis and Conclusions:

(a) Less than Significant with Mitigation Incorporated. Based upon the analysis throughout this Initial Study, the proposed project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. All potential impact areas are deemed less than significant with Conditions of Approval and mitigation measures set forth within this Initial Study. Impacts would be *less than significant with mitigation incorporated.*

(b) Less than Significant. The project would not contribute cumulative impacts to air quality degradation, as described in Section VI.3 (Air Quality). The project would not result in significant impacts related to transportation or traffic, nor would it contribute to cumulative groundwater depletion. As described in this Initial Study, the incremental air quality, noise, transportation/traffic, and utilities impacts of the project, when considered in combination with the effects of past projects and probable future projects in the planning area, would result in *less than significant* impacts upon incorporation of conditions of project approval. Project impacts related to several issue areas, including geology and hazards and hazardous materials would be site-specific and would result in no cumulative impacts.

(c) Less than Significant. The project itself would not create environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

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Appendix A

Emissions Calculations and Assumptions

SUMMARY TABLES

Porter Estates (Trio Petroleum Project)

Oil Well Production and Demobilization

Maximum	ROG	NOx	CO	SO2	CO2	CH4	N2O	PM10	PM10 (Off Site)
Exploration Set-Up (1 well)									
Truck with Crane	0.80	5.64	2.36	0.00	1,088.36	0.08	0.00	0.20	
Tanks	13.92						--		
Vehicle Trips (subcontractors)	0.34	6.72	7.31	0.00	1,502.13	0.00	0.00	0.07	1.06
Maximum Day lbs/day:	*15.06*	*12.36*	*9.67*	*0.00*	*2,590.49*	*0.08*	*0.00*	*0.27*	*1.06*
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Production Testing (1 well)									
Pumping Unit (ICE)	2.64	24.96	17.04	0.00	3,360.00	0.24	0.00	1.20	
Flare	0.00	3.57	19.43	0.00	369.18	2.74	0.00	0.00	
Vehicle Trips (employee, crude)	0.15	1.68	3.55	0.00	492.05	0.00	0.00	0.02	0.39
Maximum Day lbs/day:	*2.79*	*30.21*	*40.02*	*0.00*	*4,221.23*	*2.98*	*0.00*	*1.22*	*0.39*
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Production Set-Up (2 wells)									
Truck with Crane	0.80	5.64	2.36	0.00	1,088.36	0.08	0.00	0.20	
Tanks	27.85						--		
Vehicle Trips (subcontractors)	0.47	7.15	10.78	0.00	1,799.91	0.00	0.00	0.08	1.34
Maximum Day lbs/day:	*29.12*	*12.79*	*13.14*	*0.00*	*2,888.27*	*0.08*	*0.00*	*0.28*	*1.34*
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Production (2 wells)									
Pumping Unit (ICE)	5.28	49.92	34.08	0.00	6,720.00	0.48	0.00	2.40	
Flare	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Vehicle Trips (employee, fuel, crude)	0.14	1.27	3.53	0.00	427.29	0.00	0.00	0.01	0.35
Maximum Day lbs/day:	*5.42*	*51.19*	*37.61*	*0.00*	*7,147.29*	*0.48*	*0.00*	*2.41*	*0.35*
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Demobilization (2 wells)									
Vehicle Trips (employee, fuel, equipment transport)	0.29	5.37	6.36	0.00	1,235.04	0.00	0.00	0.06	0.88
Maximum Day lbs/day:	*0.29*	*5.37*	*6.36*	*0.00*	*1,235.04*	*0.00*	*0.00*	*0.06*	*0.88*
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Maximum Daily (single well) (lbs/day)	***15.06***	***30.21***	***40.02***	***0.00***	***4,221.23***	***2.98***	***0.00***	***1.22***	***1.06***
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Maximum Daily (two wells) (lbs/day)	***29.12***	***51.19***	***37.61***	***0.00***	***7,147.29***	***0.48***	***0.00***	***2.41***	***1.34***
MBUAPCD Daily Threshold:	137	137	550	150	None	None	None	82	None
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***	***No***

Operational Phase Greenhouse Gas Emissions

	Mobile			Stationary			
	CO2	CH4	N2O	CO2	CH4	N2O	*Total CO2e*
Exploration: Total (lbs)	183,352.96	0.14	0.00	1,632,591.20	1,087.80	0.00	1,840,968
Exploration: Total (metric tons)	83.17	0.00	0.00	740.53	0.49	0.00	835.05
Production: Total (lbs)	373,187.23	0.28	0.28	3,120,843.80	184.80	0.00	3,548,816
Production: Total (metric tons)	169.27	0.00	0.00	1,415.59	0.08	0.00	1,609.72
					Threshold (metric tons):		10,000
				Exploration to Exceed Daily Threshold?			***No***
				Production to Exceed Daily Threshold?			***No***

CH4: 23 GWP

N2O: 296 GWP

1 ton (short, US) = 0.907185

Porter Estates (Trio Petroleum)
Mobile Vehicle Emission Factors Used in Analysis

Source: Monterey County EMFAC 2011 Annual Average
Year 2015 emissions

		Emissions, grams/mile					
Vehicle Type	Speed	ROG	NOx	CO	SO2	CO2	PM10
LDT1, All - Employees	25	0.256	0.529	5.414	0.000	475.298	0.007
LDT1, All - Employees	35	0.179	0.475	4.469	0.000	365.459	0.005
LDT1, All - Employees	55	0.149	0.485	3.940	0.000	337.683	0.004
T6 In-State Heavy, All	25	0.181	7.454	0.677	0.000	1303.817	0.086
T6 In-State Heavy, All	35	0.122	6.906	0.519	0.000	1157.449	0.064
T6 In-State Heavy, All	55	0.089	6.648	0.408	0.000	1028.008	0.076

	GHG Emission Factors, grams/mile	
Vehicle Type	CH4	N2O
LDT1	0.001	0.0015
T6	0.0051	0.0048

* CA Climate Action Registry, 2011 Climate Registry Default Emissions Factors, Table 13.4, January 2011

Equipment per Well

Stationary Source Emissions

Equipment	Number	Maximum daily use in hours	Hp	Emission Factors, lbs/hr *							
				CO	NOx	PM10	SOx	VOC	CO2	CH4	N2O
Truck w/ Crane	1	4	325	0.59	1.41	0.05	0.00	0.20	272.09	0.02	0.00
Pumping Unit (ICE)	1	24	50	0.71	1.04	0.05	0.00	0.11	140.00	0.01	0.00
				Estimated Maximum Daily Emissions, lbs/day							
				CO	NOx	PM10	SO2	ROG	CO2	CH4	N2O
Truck w/ Crane	1	4	325	2.36	5.64	0.20	0.00	0.80	1,088.36	0.08	0.00
Pumping Unit (ICE)	1	24	50	17.04	24.96	1.20	0.00	2.64	3,360.00	0.24	0.00

* Source: Developed using OFFROAD2007.

Fugitive Hydrocarbon Emissions from Loading Operations and Tanks During Testing

	Production, gal	Uncontrolled HC, lbs/1000 gal **	Correction to ROG **	Uncontrolled ROG, Lbs/day	Control Efficiency ***	ROG Emissions, lbs/day
Loading Emissions	6,300	2	0.85	10.71	35%	6.96
Unloading Emissions	6,300	2	0.85	10.71	35%	6.96

* Assumes maximum average production of 150 brrls crude oil/day (standard 42 gallons per barrel), per project description

** Emission factor for tank loading [submerged bottom load] per Table 5.2-5, USEPA AP-42 Section 5.2, updated June 2008.

*** MBUAPCD 2008 AQMP page 6-4

Fugitive Hydrocarbon Emissions from Loading Operations and Tanks During Production

	Production, gal	Uncontrolled HC, lbs/1000 gal **	Correction to ROG **	Uncontrolled ROG, Lbs/day	Control Efficiency ***	ROG Emissions, lbs/day
Loading Emissions	12,600	2	0.85	21.42	35%	13.92
Unloading Emissions	12,600	2	0.85	21.42	35%	13.92

* Assumes maximum average production of 150 brrls crude oil/day per well (standard 42 gallons per barrel), per project description

** Emission factor for tank loading [submerged bottom load] per Table 5.2-5, USEPA AP-42 Section 5.2, updated June 2008.

*** MBUAPCD 2008 AQMP page 6-4

Project: Porter Estates

Road Dust PM10 Emissions

Employee Trips	14 miles
Truck Trips	25 miles

Vehicle Specifications	Average Weight, tns	Pre-Exploration Set-up ADT	Exploration ADT	Pre-Production Set-up ADT	Production ADT	Demobilization ADT
LDT1 one-way trip/day	2	8.0	4.0	12.0	4.0	7.0
T6 In-State one-way trip/day	5	4.0	0.9	4.0	0.6	3.2

	Paved Road, lbs/VMT *
Site Preparation average weight, tons:	0.00499
Exploratory average weight, tons:	0.00499

* Paved Road EF per AP-42 Section 13.1, 11/2006; assumes default silt load of 0.23 g/sq.m. and average vehicle w
(tonnage includes all traffic on highways, not just trucks).

Please note that emission factors are to be calculated based on all traffic on road, not just project traffic. However, gravel and unpaved road emission factors based solely on project traffic since level of current use is unknown and is
Use of lighter vehicles in the equation reduces the overall emission factor; therefore estimate is conservative.

MAXIMUM DAY	Net PM10 Without Proposed Graveled Roads, lbs/day
	Paved Road
Pre-Exploration Set-up	1.06
Exploration	0.39
Pre-Production Set-up	1.34
Production	0.35
Demobilization	0.88

Energy Use

0.524	lbs CO2 per kWh
1,405	kwh per well per day
512,825	kwh per well per year
268720.3	**annual lbs CO2 - one well**
537440.6	**annuallbs CO2 - two wells**

*Source: PG&E Carbon Footprint Calculator Assumptions.
Available online at: http://www.pge.com/includes/docs/pdfs/about/environment/calculator/assumptions.pdf

Unrecovered Process Vapor

	Inflow (from PD)
Daily flare flow (scf/day) from PD	50,000
Annual flare flow (scf/year)	*18,250,000*
*Unrecovered Methane Vapor (btu) **	*1.92E+10*

*0.045 lbs/scf = Density of methane at ambient temp/pressure ***

density = .042 lb/scf, AP-42 Table 1.4-2 note (B)

Virtually all carbon in the LPG is converted to CO2 on a mole by mole basis

propane is C3H8 = 44 grams; CO2 = 44 grams; every g of propane burned results in 1 g CO2

For methane CH4 = 16, so every g methane burned results in 2.75 g of CO2

	THC	ROG	NOx	CO	PM10	CO2	CH4	N2O
Flared Natural Gas Emfacs (lb/10E6 btu) (AP-42 Table 13.5-1)	0.14	Note: CH4 not reactive	0.068	0.37	n/a			n/a
Flared Methane Emfacs (lb/lb CH4)***						2.75	1	
Total lbs/year	**2,682.75**		**1,303.05**	**7,090.13**		**134,750.00**	**1,000.00**	
lbs/day	**7.35**	**0.00**	**3.57**	**19.43**	**0.00**	**369.18**	**2.74**	**0.00**
tons/year	**1.34**	**0.00**	**0.65**	**3.55**	**0.00**	**67.38**	**0.50**	**0.00**
MT/year						**61.12**	**0.45**	**0.00**

** Methane = 950-1,050 btu/scf*

*** http://www.engineeringtoolbox.com/gas-density-d_158.html*

*** Natural gas is primarily composed of methane. For the purpose of GHg emissions calculations, methane conversion is assumed.*

Flare Pilot

consumes 50 SCFH = 438,000 ft^3 natural g (include in total flare emissions [unrecovered process vapor] above)