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BUREAU OF OCEAN ENERGY MANAGEMENT

PXP

Plains Exploration & Production Company

February 15, 2013

Ms. Joan Barminski
Regional Supervisor, Office of Strategic Resources
Pacific OCS Region
Bureau of Ocean Energy Management
770 Paseo Camarillo, 2nd Floor
Camarillo, CA 93010-6064

Re: Platform Hidalgo Development and Production Plan (DPP) Revision to Include the Development of the Western Half of the Northwestern Quarter (NW/4) of Federal Lease OCS-P 0450 (western half NW/4 of lease OCS-P 0450)

Dear Ms. Barminski:

Plains Exploration & Production Company (PXP) has reviewed the four letters you forwarded (via email) on January 31, 2102 (Attachment 1). These letters include comments/questions from the Bureau of Safety and Environmental Enforcement (BSEE), California Coastal Commission (CCC), California Department of Fish and Wildlife (CDFW), and Santa Barbara County Air Pollution Control District (SBCAPCD). Included below and attached are PXP's responses.

The BSEE letter points out that the worst case oil spill scenario conforms to the same scenario in PXP's approved Oil Spill Response Plan, and we believe no response is required.

The CCC letter had previously been responded to in a letter from myself dated December 13, 2011 (Attachment 2).

The CDFW letter contained four bullet points. PXP can respond to the second and fourth bullet points. With regards to the second bullet, PXP does not believe the proposed project would result in the need to replace any of the offshore or onshore components over and above what may need to occur for the ongoing Point Arguello Unit operations. With regards to the fourth bullet, the Biological Assessment prepared for the proposed project addresses all of the applicable federally listed species as required for a Section 7 consultation with the USF&WS. This document is not required to address State listed species, or species of concern which are not federally listed.

The SBCAPCD letter correctly identified some minor inconsistencies in the Accompanying Information Volume, Environmental Evaluation and Attachment D - Air Emissions and Traffic Data of our DPP revision document, respectively. These require small corrections but they are insignificant, and including these corrections, the project does not exceed any policy or guidance threshold limits. Nonetheless I am including four revised pages of the Environmental

Evaluation section (pages 93-96, Attachment 3), as well as a revised Attachment D in its entirety, Attachment 4). Along with the revised pages I am including a document entitled Responses to SBCAPCD Comments/Questions (Attachment 5) which responds to each of the 10 SBCAPCD comments/questions and also makes reference to the above mentioned page revisions.

If you have any questions or comments please contact me at (805) 934-8220.

Sincerely,

David Rose
Manager
Environmental, Health & Safety

Attachments

Cc: Alison Dettmer, CCC (With attachments)

Attachment 1

United States Department of the Interior
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
WASHINGTON, DC 20240-0001

January 14, 2013

Ms. Joan Barminski
Regional Supervisor, Office of Strategic Resources
Pacific Outer Continental Shelf Region
Bureau of Ocean Energy Management
770 Paseo Camarillo, 2nd Floor
Camarillo, California 93010

Re: Revisions to the Development and Production Plan for Point Arguello to Develop Additional Oil and Gas Reserves

Dear Ms. Barminski:

In response to the BOEM letter dated November 16, 2012, subject as stated, the Bureau of Safety and Environmental Enforcement (BSEE), Oil Spill Response Division (OSRD) received a copy of a revision to the oil and gas Development and Production Plan (DPP) for Plains Exploration and Development Company (PXP) from the Bureau of Ocean Energy Management (BOEM). The BOEM requested that the BSEE OSRD conduct a technical review of the revised DPP to determine if the outlined worst-case discharge scenarios conform to PXP's approved Oil Spill Response Plan (OSRP).

The BSEE OSRD has reviewed the worst-case discharge scenario in PXP's revision to the DPP and found that it conforms to PXP's approved OSRP. If you have any questions, please contact Mr. Craig Ogawa at (805) 389-7569 or Craig.Ogawa@bsee.gov.

Sincerely,

David M. Moore
Chief, Oil Spill Response Division

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400
TDD (415) 597-5885

December 5, 2012

Joan Barminski
Bureau of Ocean Energy Management
Pacific OCS Region
770 Paseo Camarillo, CM 215
Camarillo, CA 93010

David Rose
Manager, Environmental Health & Safety
Plains Exploration & Production Company
201 S Broadway Street
Orcutt, CA 93455

RE: **Revisions to Platform Hidalgo DPP - Consistency Certification CC-058-12**

Dear Ms. Barminski and Mr. Rose:

On November 19, 2012, the California Coastal Commission (Commission) staff received a consistency certification from the Bureau of Ocean Energy Management (BOEM) on behalf of the Plains Exploration & Production Company (PXP) for a revision to the Platform Hidalgo Development and Production Plan (DPP) to include development of the western half NW/4 of Lease OCS-P 0450. The eastern half of lease OCS-P 0450 is already being developed as part of the Point Arguello Unit. This proposal is to drill a maximum of two wells (using existing well slots) to produce oil and gas on the western half of lease OCS-P 0450. In addition to this consistency certification, the Commission also received supplemental information such as an Environmental Evaluation and an analysis of consistency with the California Coastal Management Program (CCMP) to inform our evaluation of the project's conformity with the CCMP, specifically, the resource protection and use policies included in Chapter 3 of the California Coastal Act.

The Commission staff has reviewed your consistency certification and supporting materials and determined that the consistency certification is incomplete and cannot be filed pursuant to Section 930.58 of the Coastal Zone Management Act (CZMA) until the following additional information is provided.

1. Emissions of GHG were not evaluated as part of the original Point Arguello Project proposal. The Environmental Evaluation (Page 91) for this DPP revision concludes that the proposed project will result in an increase in emissions of greenhouse gases (GHG) as compared to existing operations, but that impacts are insignificant because GHG

emissions are less than the Santa Barbara County Air Pollution Control District's (SBCAPCD) significant threshold of 10,000 metric tonnes of CO2e. PXP estimates 9,175 metric tonnes CO2e from drilling of the new wells and 63 metric tonnes per year due to ongoing operations (increased fugitive emissions). During the drilling phase, will Platform Hidalgo's total GHG emissions exceed SBCAPCD's threshold? If so, will SBCAPCD require PXP to offset GHG emissions or require other measures to reduce GHG to below the significance threshold? Please describe any SBCAPCD requirements and how and when they would be implemented.

2. As of April 25, 2008, the CCMP has been amended to require filing fees for consistency certifications. The fees for consistency certifications are the same as the fees for coastal development permits (CDPs). Since this project requires a revision to the Platform Hidalgo DPP, it is akin to a material amendment to a CDP. Therefore, please refer to the Coastal Commission's fee schedule (see attachment) to determine the appropriate fee for this project. The material amendment fee is 50% of the fee applicable if the underlying consistency certification were submitted today.

Pursuant to 15 CFR §930.83, the three-month time period for review of this submittal has not begun and will not begin until the Commission staff receives all of the items discussed in this letter. If you need any further assistance or have any additional questions, please contact me at (415) 904-5205.

Sincerely,

ALISON DETTMER
Deputy Director

APPENDIX E

FILING FEE SCHEDULE

(EFFECTIVE JULY 1, 2012)

FEES WILL BE ADJUSTED EACH YEAR ON JULY 1, ACCORDING TO THE CALIFORNIA CONSUMER PRICE INDEX

- Pursuant to Government Code section 6103, public entities are exempt from the fees set forth in this schedule.

- Permits shall not be issued without full payment for all applicable fees. If overpayment of a fee occurs, a refund will be issued. Fees are assessed at the time of application, based on the project as proposed initially. If the size or scope of a proposed development is amended during the application review process, the fee may be changed. If a permit application is withdrawn, a refund will be due only if no significant staff review time has been expended (e.g., the staff report has not yet been prepared). Denial of a permit application by the Commission is not grounds for a refund.

- If different types of development are included on one site under one application, the fee is based on the sum of each fee that would apply if each development were applied for separately, not to exceed $106,100 for *residential* development and $265,250 for all other types of development.

- Fees for after-the-fact (ATF) permit applications shall be five times the regular permit application fee unless the Executive Director reduces the fee to no less than two times the regular permit application fee. The Executive Director may reduce the fee if it is determined that either: (1) the ATF application can be processed by staff without significant additional review time (as compared to the time required for the processing of a regular permit,) or (2) the owner did not undertake the development for which the owner is seeking the ATF permit.

- In addition to the above fees, the Commission may require the applicant to reimburse it for any additional reasonable expenses incurred in its consideration of the permit application, including the costs of providing public notice.

- The Executive Director shall waive the application fee where requested by resolution of the Commission. Fees for green buildings or affordable housing projects may be reduced, pursuant to Section 13055(h) of the Commission's regulations.

SEE SECTION 13055 OF THE COMMISSION'S REGULATIONS
(CALIFORNIA CODE OF REGULATIONS, TITLE 14)
FOR FULL TEXT OF THE REQUIREMENTS

I. RESIDENTIAL DEVELOPMENT[1]

De minimis waiver	☐	$ 531
Administrative permit	☐	$ 2,653[2]

A. Detached residential development

Regular calendar for up to 4 detached, single-family dwelling(s)[3,4]

1,500 square feet or less	☐	$ 3,183/ea
1,501 to 5,000 square feet	☐	$ 4,775/ea
5,001 to 10,000 square feet	☐	$ 6,366/ea
10,001 or more square feet	☐	$ 7,958/ea

Regular calendar for more than 4 detached, single-family dwellings[3,4]

1,500 square feet or less	☐	$ 15,915 or $1,061/ea[5] whichever is greater
1,501 to 5,000 square feet	☐	$ 23,873 or $1,592/ea[5] whichever is greater
5,001 to 10,000 square feet	☐	$ 31,830 or $2,122/ea[5] whichever is greater
10,001 or more square feet	☐	$ 39,788 or $2,653/ea[5] whichever is greater

B. Attached residential development

2–4 units	☐	$ 7,958
More than 4 units	☐	$ 10,610 or $796/ea[6] whichever is greater

C. Additions or improvements

If not a waiver or an amendment to a previous coastal development permit, the fee is assessed according to the schedule in A. above (i.e., based on the calendar and/or size of the addition, plus the grading fee, if applicable).

If handled as an amendment to a previous coastal development permit, see Amendments (in Section III.F).

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[1] Additional fee for grading applies. (See Section III.A of this fee schedule.)
[2] Additional fee will apply if the project is removed from the Administrative Calendar and rescheduled on the Regular Calendar.
[3] "Square footage" includes gross internal floor space of main house and attached garage(s), plus any detached structures (e.g., guest houses, detached bedrooms, in-law units, garages, barns, art studios, tool sheds, and other outbuildings).
[4] For developments that include residences of different sizes, the fee shall be based upon the average square footage of all the residences.
[5] Not to exceed $106,100.
[6] Not to exceed $53,050.

II. OFFICE, COMMERCIAL, CONVENTION, INDUSTRIAL (INCLUDING ENERGY FACILITIES), AND OTHER DEVELOPMENT NOT OTHERWISE IDENTIFIED IN THIS SECTION[7,8,9]

A. Based on Gross Square Footage

1,000 square feet (gross) or less	☐	$ 5,305
1,001 to 10,000 square feet (gross)	☐	$ 10,610
10,001 to 25,000 square feet (gross)	☐	$ 15,915
25,001 to 50,000 square feet (gross)	☐	$ 21,220
50,001 to 100,000 square feet (gross)	☐	$ 31,830
100,001 or more square feet (gross)	☐	$ 53,050

B. Based on Development Cost[10]

Development cost up to and including $100,000	☐	$ 3,183
$100,001 to $500,000	☐	$ 6,366
$500,001 to $2,000,000	☐	$ 10,610
$2,000,001 to $5,000,000	☐	$ 21,220
$5,000,001 to $10,000,000	☐	$ 26,525
$10,000,001 to $25,000,000	☐	$ 31,830
$25,000,001 to $50,000,000	☐	$ 53,050
$50,000,001 to $100,000,000	☐	$ 106,100
$100,000,001 or more	☐	$ 265,250

III. OTHER FEES

A. Grading[11]

50 cubic yards or less	☐	$ 0
51 to 100 cubic yards	☐	$ 531
101 to 1,000 cubic yards	☐	$ 1,061
1,001 to 10,000 cubic yards	☐	$ 2,122
10,001 to 100,000 cubic yards	☐	$ 3,183
100,001 to 200,000 cubic yards	☐	$ 5,305
200,001 or more cubic yards	☐	$ 10,610
	☐	$ 3,183

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[7] The fee shall be based on either the gross square footage or the development cost, whichever is greater.

[8] Additional fee for grading applies. (See section III.A of this schedule).

[9] Pursuant to section 13055(a)(5) of the Commission's regulations, this category includes all development not otherwise identified in this section, such as seawalls, docks and water wells.

[10] Development cost includes all expenditures, including the cost for planning, engineering, architectural, and other services, made or to be made for designing the project plus the estimated cost of construction of all aspects of the project both inside and outside the Commission's jurisdiction.

[11] The fee for grading is based on the cubic yards of cut, plus the cubic yards of fill.

C. Subdivision[13]

Up to 4 new lots	☐	$ 3,183/ea
More than 4 new lots	☐	$ 12,732 plus $1,061 for each lot above 4

D.	Administrative permit	☐	$ 2,653[14]
E.	Emergency permit	☐	$ 1,061[15]

F. Amendment

Immaterial amendment	☐	$ 1,061
Material amendment ..... [50% of fee applicable to underlying permit if it were submitted today]	☐	$ _____ (calculate fee)

G. Temporary event which requires a permit pursuant to Public Resources Code section 30610(l)

If scheduled on administrative calendar	☐	$ 1,061
If not scheduled on administrative calendar	☐	$ 2,653

H. Extension[16] and Reconsideration

Single-family residence	☐	$ 531
All other development	☐	$ 1,061

I. Request for continuance

1st request	☐	No charge
Each subsequent request (where Commission approves the continuance)	☐	$ 1,061

J.	De minimis or other waivers	☐	$ 531
K.	Federal Consistency Certification[17] [The fee is assessed according to sections I, II, and III, above]	☐	$ ____
L.	Appeal of a denial of a permit by a local government[18] [The fee is assessed according to sections I, II, and III, above]	☐	$ ____
M.	Written Permit Exemption	☐	$ 265
N.	Written Boundary Determination	☐	$ 265

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[12] A lot line adjustment is between adjoining parcels where the land taken from one parcel is added to an adjoining parcel, and where a greater number of parcels than originally existed is not thereby created.

[13] The fee is charged for each parcel created in addition to the parcels that originally existed.

[14] Additional fee will apply if the project is removed from the Administrative Calendar and rescheduled on the Regular Calendar.

[15] The emergency application fee is credited toward the follow-up permit application fee.

[16] If permit extension is objected to by the Commission and the application is set for a new hearing, then a new application fee is required, based on type of development and/or applicable calendar.

[17] Fees for federal consistency items will be assessed now that the Commission has received approval from NOAA to amend the California Coastal Management Program.

[18] Pursuant to Public Resources Code section 30602 or 30603(a)(5).

O. Coastal Zone Boundary Adjustment..... ☐ $ 5,305

TOTAL SUBMITTED	$

TO BE COMPLETED BY STAFF

SUBMITTED FEE VERIFIED BY:	*DATE:*

IS SUBMITTED AMOUNT CORRECT?

☐ Yes. Applicant has correctly characterized the development, and payment is appropriate.

☐ Applicant did not fill out form, thus staff has marked the form to compute the fee, and applicant has paid fee.

☐ No. Why?

_____

_____

REFUND OR ADDITIONAL FEE REQUIRED? (STATE REASON)

☐ Refund amount (_____)

☐ Additional fee amount (_____)

REMINDER: RECORD FEE PAYMENT IN PERMIT LOG

FINAL FEE VERIFIED BY: (TO BE COMPLETED AFTER COMMISSION ACTION)	*DATE:*

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
4665 Lampson Ave, Suite C
Los Alamitos, CA 90720
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

January 24, 2013

Ms. Joan Barminski
Regional Supervisor -Bureau of Ocean Resources Management
Pacific OCS Region
770 Paseo Camarillo, CM 215
Camarillo, CA 93010-6064

Subject: Plains Exploration and Production Company Platform Hidalgo Development and Production Plan

Dear Ms. Barminski:

The California Department of Fish and Wildlife (Department) has received the November 16, 2012 letter addressed to Secretary Laird of the California Natural Resources Agency regarding the proposed development of the platform Hidalgo, located within the Point Arguello Unit (Project), by Plains Exploration and Production Company (PXP). This proposed Project involves a revision to the Development and Production Plan (DPP) to allow for the development of the Western Half of the NW/4 federal oil lease (number OCS-P 0450). Department staff has been in contact with Ms. Susan Zaleski with your Camarillo office, and has reviewed the information found on your website pertaining to the revisions. (See http://boem.gov/Oil-and-Gas-Energy-Program/Leasing/Regional-Leasing/Pacific-Region/Arguello-DPP.aspx).

Based on our inquiries and review of information found on the above website, it appears the Project includes plans to utilize platform Hidalgo to drill two oil production wells into an oil-bearing formation located outside of the California three-mile territorial limit adjacent to the Vandenberg Air Force Base and the County of Santa Barbara. Drilling is expected to span a 6-12 month period. It is our understanding that your agency is in the beginning stages of doing the environmental assessments for the proposed Project. Department staff has reviewed the preliminary biological information provided by PXP and has the following comments and concerns.

- The Department requests the Bureau of Ocean Energy Management (BOEM) consult with the Department early in the planning process to determine the scope of any National Environmental Policy Act (NEPA) required environmental assessments or other environmental studies that will be conducted to assess the environmental impacts of the PXP proposal.

- The current PXP proposal may result in the extension or replacement of associated pipelines and offshore facilities, some of which are located on State lands and in State waters. If it is reasonably foreseeable that drilling into the new federal formation would lead to a need to replace any offshore or onshore components to

platform Hidalgo, then an analysis of impacts should be included in the present studies before BOEM approves the proposed Project.

- As the State's trustee agency for wildlife resources, the Department appreciates the opportunity to provide input regarding any proposed mitigation measures for this Project, preferably, before any final measures have been chosen.

- The preliminary environmental information provided by PXP does not include an impact analysis of all state and federally listed species or other species of concern to the State of California. Department staff would be willing to assist BOEM in conducting impact analysis of all species of concern to the State of California. (See http://www.dfg.ca.gov/wildlife/nongame/ssc/).

We appreciate the opportunity to comment on this proposal prior to the completion of the required environmental studies. Should you have further questions regarding our comments and concerns, please contact Tom Napoli, Staff Environmental Scientist at 562-342-7164 or Tom.Napoli@wildlife.ca.gov.

Sincerely,

Paul Hamdorf

Paul Hamdorf
Acting Regional Manager
Marine Region

ecc: Chris Potter, California Natural Resources Agency, Chris.Potter@resources.ca.gov
Alison Dettmer, California Coastal Commission, ADettmer@coastal.ca.gov
Cy Oggins, California State Lands Commission, Cy.Oggins@slc.ca.gov
Melissa Boggs, California Department of Fish and Wildlife-OSPR, Melissa.Boggs@wildlife.ca.gov
Becky Ota, California Department of Fish and Wildlife, Becky.Ota@wildlife.ca.gov

Santa Barbara County
Air Pollution Control District

January 17, 2013

Joan Barminski
Bureau of Ocean Energy Management
Pacific OCS Region
770 Paseo Camarillo, CM 215
Camarillo, CA 93010

Re: APCD Comments on Application Completeness for Revisions to the Platform Hidalgo DPP for Development of the Western Half NW/4 of Lease OCS-P 0450

Dear Ms. Barminski:

The Air Pollution Control District (APCD) has reviewed the referenced case, which consists of developing the oil and gas reserves from the western half NW/4 of lease OCS-P 0450 from platform Hidalgo. The proposal is to drill a maximum of two new wells directionally drilled using existing well slots on platform Hidalgo. A temporary drill rig would be used for approximately 100 days to drill the wells. The drill rig and supporting equipment would be brought to the platform by boat. Production from these wells is expected to last about six years. Produced oil will be combined with oil produced from the Point Arguello Unit and Rocky Point and transported to the Gaviota Oil Heating Facility through existing pipelines. From the Gaviota Facility, the produced oil will be transported to refineries through the All American Pipeline. Produced gas will be used for platform electricity needs, sold to shore, or re-injected into the reservoir.

The proposed project includes equipment and activities at a stationary source that is under active APCD permits and is subject to APCD prohibitory rules. Therefore, APCD will need to evaluate project-related impacts in compliance with the California Environmental Quality Act (CEQA). Responses to the comments and questions below are necessary to adequately address CEQA compliance and consistency with APCD rules and permit requirements:

1. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Section 2.4 Oil and Gas Processing, Pg. 8:** The discussion of oil processing in the last paragraph refers to oil metering and transport to the Gaviota facility. If this metering and transport has any associated fugitive emissions, they should be included in the operational emissions quantification. Information on any incremental increase of emissions from oil heating, storage tanks, or other processes at the Gaviota facility will result in additional emissions; this increase in emissions should be addressed and quantified as appropriate.

2. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Section 2.4 Oil and Gas Processing, Pg. 9:** The discussion of the possible increase in dehydration and stabilization capacity for Platform Hidalgo refers to new equipment including a vessel and re-boiler. Please identify whether the heat source for the re-boiler will be an additional combustion unit. The application should identify all potential equipment scenarios and include any new emissions (including fugitive ROCs) from them in the quantification of operational emissions.

3. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Section 2.4 Oil and Gas Processing, Pg. 10:** The first sentence on the page refers to two options for oil dehydration on the platform. The first listed option is conversion of a portion of vessel V-8. The second option is not clearly identified in this section. Please revise the text to clarify the two options.

4. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Gas Processing, Pg. 10:** The discussion identifies two different options for processing produced gas. Any emissions from gas processing should be included in the project quantification of operational emissions. If there are different emissions associated with these scenarios, they should both be presented.

5. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Air Quality Impacts, Pg. 91:** In the discussion of turbine emissions during drilling, please include more detailed information on the use of generator engines that may be needed to supplement the electricity provided by the turbines, and quantify generator emissions.

6. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Air Quality Impacts, Pg. 92:** In the last paragraph of this page, the text states that 20 boat trips are needed for transport of the drill rig from the port to the platform, and that 20 boat trips are needed to transport it back after drilling is complete. Note #1 of Table 4.26 on page 93 states that estimated boat emissions for drill rig transport are based on 14 trips to deliver the drill rig and 14 trips to remove it. Please revise the text and emissions calculation to resolve this conflicting information in this section and in the appendices.

   Also, in the discussion of project-related increases in boat trips on this page, please indicate whether additional crew boat trips will be needed during construction or operation of the project and include the quantified emissions from any additional crew boat trips in this section.

7. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Air Quality Impacts, Pg. 94:** The second paragraph discusses operational emissions of the project. If processing of the oil and gas from the two new wells increases emissions at other facilities, such as the Gaviota Facility, Platform Hermosa, or Platform Harvest, these processes and related emissions should also be detailed in this section. For example, the additional load on the Harvest turbine engines (for compression and injection of produced gas from the two new wells), and associated emissions, should be quantified.

8. **Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Air Quality Impacts, Pg. 96:** The discussion at the top of the page refers to APCD preliminary thresholds for greenhouse gases (GHGs). APCD has not adopted significance thresholds for GHGs. Please remove the reference to APCD's GHG significance thresholds.

9. **Revisions to the Platform Hidalgo DPP, Attachment D, Air Emissions and Traffic Data, Pg. D-1:** The summary table data for CO2e depicts an approximate 10% reduction from the corresponding CO2 values. Please explain the methodology used to calculate CO2e and clarify the unit of measurement.

10. **Revisions to the Platform Hidalgo DPP, Attachment D, Air Emissions and Traffic Data, Pg. D-7:** The supply boat fuel usage assumptions in the "Notes" on page D-6 include platform offloading time totaling four hours of operation of bow thrusters and two hours of generator engines. These emissions do not appear to be included in the tables on page D-7 for "Santa Barbara County Supply Boat Emissions" lbs/day and tons/years. Please explain why emissions from offloading were not included. If offloading emissions are included in the calculation, lbs/day emissions for supply boats are estimated to exceed the permitted daily maximum.

    Also, regarding the "Supply Boat Emission Estimates" tables on Page D-7:
    a. Please indicate why the tons/quarter and tons/year emissions values for drill rig transport and supply boats during drilling are the same, for all pollutants, in the second table but are different, for all pollutants except CO2, in the first and third tables.
    b. Emissions for "Ventura County Supply Boat Emissions" include negative values, please correct this.

If you or the project applicant have any questions regarding these comments, please feel free to contact Eric Gage at (805) 961-8893 or via email at edg@sbcapcd.org.

Sincerely,

Louis D. Van Mullem, Jr.
Director

cc: Project File
TEA Chron File
Mike Goldman, Manager, APCD Engineering & Compliance Division

Attachment 2

PXP

Plains Exploration & Production Company

December 13, 2012

Ms. Alison Dettmer
Deputy Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

RE: **Revisions to Platform Hidalgo DPP – Consistency Certification CC-058-12**

Dear Ms. Dettmer:

Plains Exploration & Production Company (PXP) received your December 5, 2012 letter stating that the subject consistency certification was incomplete.

This letter is in response to your determination of incompleteness, which was based on the need for 1) additional information about emissions of greenhouse gases (GHG), and 2) the required filing fee.

With regard to emissions of GHG the Point Arguello Project facilities have Part 70/Title V permits to operate (PTO) issued by the Santa Barbara County Air Pollution Control District (SBCAPCD). PTO 9105 was issued for Platform Hidalgo operations. Until recently, Part 70 permits were not required to list GHG emissions from processes. However, all of the Point Arguello Project permits are in a renewal process that will have GHGs listed as now required by EPA regulations (Part 70 Tailoring Rule).

The GHG emissions from Platform Hidalgo are predominately from fuel combustion in turbine generators and crane engines. Platform Hidalgo has four gas and diesel fired turbine power generators permitted by SBCAPCD. These turbines provide all power on the platform. Based on existing permitted fuel use, the maximum GHG emissions (potential to emit) from Platform Hidalgo would be approximately 69,892 tonnes per year (listed in Platform Hidalgo Development and Production Plan [DPP], Attachment D, page D-1).

Baseline emissions for Platform Hidalgo (also listed in Attachment D, page D-1) for 2011 were 34,025 tonnes, as reported to EPA under the GHG Mandatory Reporting Regulation (MRR, 40CFR Part 98). None of these emissions are required to be offset by existing applicable regulations.

201 S Broadway Street ■ Orcutt, CA 93455 ■ 805.739.9111 ■ Fax: 805.937.0237

The drilling of two wells for the Electra Project at Platform Hidalgo (which is the subject of this DPP revision effort) would involve small amounts of GHG emissions from existing platform power generation turbines, the existing supply vessel, drill rig mud system and support equipment, and onshore transportation equipment. The total estimated GHG emission from the proposed drilling project (listed in Attachment D, page D-1) are 9,123 tonnes. The result of adding these emissions to the baseline (for a total of 43,148 tonnes) is within the maximum permitted emissions for the facility.

After drilling is completed, there would also be a small increase in GHGs associated with the operation of the two new wells from fugitive emissions (63 tonnes per year). The total emissions considering the additional operational emissions would also be within the established project envelope.

The Point Arguello Project offshore facilities are not part of the California AB-32 regulated entities.

Table 4.22 on Page 91 of the DPP refers to the 10,000-tonne significance threshold temporarily set by the Santa Barbara County Planning and Development Department for GHG evaluations on recent projects. The total peak GHG emissions (during drilling) from this project will be less than this significance threshold.

I have enclosed PXP check #440050 to pay the required filing fee.

If you have any further questions or comments please contact me at (805) 934-8220.

Sincerely,

David Rose
Manager
Environmental, Health & Safety

Enclosure

CC: Joan Barminski, Bureau of Ocean Energy Management (without enclosure)

Attachment 3

Table 4.24 Estimated Emissions from Drilling Operation Support Equipment Engines

Support Equipment Drilling Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}
Total Quarterly Emissions	***0.90***	***0.12***	***0.33***	***0.00***	***0.11***	***0.11***
tons/yr or tons						
Well Logging Unit	1.48	0.20	0.53	0.00	0.18	0.18
Acidizing Pump	0.16	0.02	0.06	0.00	0.02	0.02
Emergency Generator	0.17	0.02	0.06	0.00	0.02	0.02
Cement Pump	0.20	0.03	0.07	0.00	0.02	0.02
Total Emissions	2.01	0.27	0.73	0.00	0.24	0.24

Notes:
1. Muds would be discharged to the ocean or transported back to shore.
2. Assumes 2 wells at Hidalgo.
3. Assumes each well takes 2 months to complete.

Table 4.25 Estimated Emissions from the Mud Handling Equipment

Source	ROC Emissions				
	lbs/hr	lbs/day	lbs/well	lbs/yr	Total[1] (lbs)
Mud-gas Separator/Mud Degasser Vent	0.041	0.980	19.590	39.180	39.180
Fugitives from Mud Tanks	0.001	0.020	0.400	0.800	0.800
Total Emissions	0.042	0.999	19.990	39.980	39.980

1. Assumes 2 wells at Hidalgo.
See Attachment D for detailed emission calculations.

Table 4.26 Estimated Emissions from Drilling Supply Boat Trips

Estimated Supply Boat Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}
Drill Rig Transport from Port Hueneme to the Platform (round-trip)[1]						
lbs./hr[2]	96.55	4.19	15.38	0.04	5.97	5.73
lbs./day[3]	1,187.57	43.38	177.22	0.44	71.59	68.73
tons/qr[4].	8.15	0.43	1.77	0.00	0.72	0.69
tons/yr[4]	16.30	0.87	3.54	0.01	1.43	1.37
Additional Supply Boat Usage During Drilling(round-trip)[5]						
lbs./hr[2]	96.55	4.19	15.38	0.04	5.97	5.73
lbs./day[3]	1,187.57	43.38	177.22	0.44	71.59	68.73
tons/qr[4].	4.89	0.26	1.06	0.00	0.43	0.41
tons/yr[4]	8.15	0.43	1.77	0.00	0.72	0.69
Total Drilling Operations[6]						
lbs./hr[2]	96.55	4.19	15.38	0.04	5.97	5.73
lbs./day[3]	1,187.57	43.38	177.22	0.44	71.59	68.73
tons/qr[4].	13.04	0.69	2.84	0.01	1.15	1.10
tons/yr[4]	24.45	1.30	5.32	0.01	2.15	2.06

1. Drill rig transport based on 40 round trips total, 20 to deliver and 20 to remove.
2. lbs/hr maximum based on all engines running simultaneously, and assumes uncontrolled main engines.
3. Assumes one round trip per day, and assumes uncontrolled main engines.
4. Assumes that uncontrolled main engines are used 10% of the time. (Same assumption as PTOs 9103, 9104, and 9105.)
5. Supply boat trips for operations assume 1 round trip per week during drilling.

Numbers may not add up due to rounding.
See Attachment D for the basis and detailed emission calculations.

The SBCAPCD regulates the fuel use, hp limit on the main and auxiliary engines and the emission factors for the engines. The Point Arguello Project is permitted to consume 90,269 gallons per quarter of fuel on supply boat main engines within Santa Barbara County. Even with the additional supply boat trips, the quarterly fuel use within Santa Barbara County should be below the permitted levels, estimated to peak at 51,401 gallons per quarter (including emissions to transport the drilling rig). The SBCAPCD also limits the daily fuel use by the supply boat main engines to 1,967 gallons. This represents one round trip per day. With the development of the western half of OCS-P 0450, it is not expected that more than one supply boat will service the platforms in any one day. Therefore, it does not appear that any new permitting will be required for the supply boat trips associated with the proposed project.

Once the wells are brought into production, there will be fugitive emissions associated with the components on each of the wells on Platform Hidalgo. For this analysis it has been assumed that two (2) wells will be drilled and that each well has 229 leak-paths. The number of leak paths per well was estimated for existing well data. Table 4.27 provides an estimate of the fugitive emissions associated with the proposed project.

Table 4.27 Estimated Fugitive Emission Increase from Proposed Project

Component Type	Quantity[1]	Emission Factor[2] (lbs/day-clp)	ROC Emissions			
			lbs/hr	lbs/day	tons/qr	tons/yr
Oil – controlled[3]	216	0.0009	0.008	0.194	0.009	0.035
Gas – controlled[4]	242	0.0147	0.148	3.557	0.162	0.649
Stabilizer Oil Leakpaths	100	0.0009	0.004	0.090	0.004	0.016
Stabilizer Gas Leakpaths	25	0.0147	0.015	0.368	0.017	0.067
Total Western Half of OCS-P 0450[5]	***583***		***0.175***	***4.209***	***0.192***	***0.768***

1. Component counts are estimates only. Actual counts will be developed when wells are installed.
2. Emission Factors from SBCAPCD PTOs 9103, 9104, and 9105.

Includes 108 oil leak paths and 121 gas leak paths per wellNumbers may not add up due to rounding.
See Attachment D for the basis and detailed emission calculations.

The fugitive emissions are relatively small when compared with the entire project ROC emissions. The peak daily ROC emissions are estimated to be less than 5 lbs, which is below the deminimus level of 24 lbs/day. Therefore, these wells will not have to be offset assuming that the total deminimus ROC emissions for the Point Arguello Facilities are below 24 lbs/day. In addition, the wells should not need BACT since the total ROC emissions are below 25 lbs/day. If the new wells plus any other Point Arguello Field deminimus emissions result in fugitive ROC emissions of 24 lbs/day or greater, then offset would be required. In addition, if the wells result in new fugitive ROC emissions of 25 lbs/day or greater, then BACT requirements would have to be met (personal communication with Mike Goldman, SBCAPCD). All of the well drilling and operational activities will be conducted consistent with the applicable requirements of the SBCAPCD.

Each well is expected to have a life of approximately seven years. Therefore, after the first seven years of production the fugitive emissions will begin to decline as wells are taken out of service.

Table 4.28 provides an estimate of the proposed project's peak annual emissions for each of the platforms and the supply boats. This table also shows the annual permitted emission levels and the 2011 actual emissions for each Point Arguello platform and the supply boats.

Table 4.28 Comparison of Proposed Project's Peak Annual Emissions to Total Permitted Emissions

Platform/Emission Category	NO_X	ROC	CO	SO_X	PM	PM_{10}
Platform Hidalgo[1]						
Total Permitted Emissions (tons/yr) [PTO 9105]	204.15	61.36	94.54	26.49	17.77	17.34
2011 Actual Emissions (tons/yr)	51.36	24.9	33.84	6.3	1.85	1.82
Estimated Peak Project Emissions (tons/yr)[4]	28.49	4.48	14.33	0.18	3.77	3.71
Excess Permitted Emissions (tons/yr)[3]	124.30	31.98	46.37	20.01	12.15	11.81

Notes:
1. Supply, Crew and Emergency Response vessel emissions included.
2. Peak Year at Hidalgo would include 200 days of drilling.
3. The excess permitted emissions = total permitted emissions minus the 2011 actual emissions minus the estimated peak emissions from the project.
4. Boat emissions are from SB County line to the platforms, consistent with Total Permitted Emissions from the PTOs.

See Attachment D for the basis and detailed emission calculations

When the peak annual emissions for the proposed project are combined with the 2011 actual emissions they do not exceed any of the permitted level, specified in the SBCAPCD PTOs 9103, 9104, and 9105 for the Point Arguello platforms.

The peak annual emissions from the proposed project would occur during drilling, which is expected to last about 4 months. Since drilling will only occur at one platform at a time, the peak emissions would be the sum of one platform's emissions plus the supply boat emissions. Once the drilling is complete, the only emissions would be associated with fugitive components.
During the drilling phase of the project there will be offsite truck emissions associated with the delivery of drilling supplies to Port Hueneme. In addition, if drilling muds and cuttings are sent ashore for disposal, there would be truck trips associated with these activities. Table 4.29 provides an estimate of the truck emissions associated with the project.

Table 4.29 Estimated Offsite Truck Emissions Associated with the Proposed Project

Source	Tons					
	NO_x	ROC	CO	SO_x	PM	PM_{10}
Truck Trips for Drill Rig Delivery/Removal	0.38	0.02	0.09	0.00	0.01	0.01
Truck Trips for Drilling Supplies	1.21	0.06	0.28	0.00	0.05	0.05
Truck Trips for misc materials	0.08	0.00	0.02	0.00	0.00	0.00
Total Tons	**1.66**	**0.08**	**0.38**	**0.00**	**0.06**	**0.06**

1. Assumes all wells use water based muds.
2. Assumes 2 wells at Hidalgo.

See Attachment D for the basis and detailed emission calculations.

Emissions of GHG would be associated with the combustion of gas/diesel in the Hidalgo turbines to supply electricity for the drilling rig, as well as the combustion of diesel fuel in equipment associated with drilling. An increase in the use of supply boats would also contribute to GHG emissions. Some minor GHG emissions would occur during operations due to the

fugitive emissions from additional wellhead components. GHG emissions associated with the project would be 9,175 metric tonnes CO2e associated with drilling within Santa Barbara County and 9,509 metric tonnes CO2e in all counties. Emissions of GHG were not examined in the EIR as GHG were not an issue at that time. However, in order to examine the significance, the SBC Planning and Development Department has established a preliminary guidance value of 10,000 metric tonnes per year CO_2e for stationary sources to determine significance in CEQA documents. The emissions from the project are below that level, particularly if amortized over a period of time as might be the case with short-duration, construction projects, and would therefore be considered less than significant. Operational GHG emissions associated with increased fugitive emissions at the additional wellheads would total a nominal 63 metric tonnes per year.

4.2.2.2 Mitigation Measures

Impact No. 1. NO_x and ROC emissions from offshore platforms and support activities may contribute to violations of the ozone standard.

Mitigating Measure: The existing Point Arguello Project provides emission offsets for the maximum allowable project emissions. The increase in emissions due to the drilling rig operations for the proposed project would be covered by the existing emission offsets in place for the offshore turbines on the Point Arguello platforms. No additional emission offsets should be needed for these incremental emissions. It also appears that the increased supply boat trip emissions can be covered by the existing offsets that are in place for the supply boats. Additional offsets and BACT do not appear to be need for the fugitive emissions associated with the two (2) proposed wells.

4.3 Oil Spill Risk

Oil spill risks described in the Development Plan EIR/EIS for the Point Arguello Field and Gaviota Process Facility were evaluated with respect to their applicability to the proposed project. The category of impacts described in the Point Arguello Field EIR/EIS and those anticipated from proposed project are compared in Table 4.30. Activities that are proposed for the western half of OCS-P 0450 have essentially been analyzed in the Point Arguello Field DP.

Table 4.30 Comparison of Oil Spill Risk Contained in the Arguello Project EIR/EIS and Additional Risks Potentially Caused by the Proposed Project

Impact/Issue	Addressed in Arguello Project EIR/EIS	Additional Impact Caused by Development of the Western Half of OCS-P 0450
Potential for offshore oil spill from platform and offshore pipeline.	Yes	Development of the western half of OCS-P 0450 will increase the likelihood of an offshore oil spill over what is currently occurring for the Point Arguello Field due to the addition of up to 2 new wells. The proposed project would also increase the maximum spill size on Platforms Hidalgo due to higher flowing wells and the addition of oil processing equipment on Platform Hidalgo.

Attachment 4

Attachment D – Air Emission and Traffic Data

Western Half of OCS-P 0450 Development Project
Summary of Emissions by Platform and Activity, tons/year

Platform/Emission Category	NO_x	ROC	CO	SO_x	PM	PM_{10}	CH_4	N_2O	CO_2	CO_2e
Platform Hidalgo Drilling Emissions (All in SBC)										
Turbine Emissions	7.68	2.41	9.51	0.16	1.89	1.89	0.32	0.06	8775	7920
Other Drilling Equipment	2.01	0.27	0.73	0.00	0.24	0.24	0.00	0.00	125	113
Mud Emissions	0.00	0.01999	0.00	0.00	0.00	0.00	0.10	0.00	0	2
Drilling: Offsite Emissions										
Supply Boats - Total (all counties)	24.45	1.30	5.32	0.01	2.15	2.06	0.06	0.01	1419	1282
Supply Boats - SBC Only	18.80	1.01	4.09	0.01	1.65	1.58	0.04	0.01	1086	981
Supply Boats - Ventura County Only	5.66	0.29	1.23	0.00	0.50	0.48	0.01	0.00	333	301
Trucks, Ventura County Only	1.66	0.08	0.38	0.00	0.06	0.06	0.00	0.00	245	221
Platform Hidalgo Operational Emissions										
Fugitive Emissions (SBC Only)	0.00	0.77	0.00	0.00	0.00	0.00	3.75	0.00	0	71
Total Emissions										
Total Emissions SBC	28.49	4.48	14.33	0.18	3.77	3.71	4.21	0.07	9986	9086
Total Emissions	35.81	4.85	15.94	0.18	4.34	4.25	4.22	0.07	10565	9609
Excess Emissions, SBC Permit	124.30	31.98	46.37	20.01	12.15	11.81	32.54	0.03	29064	26781

Notes: CO_2e emissions in metric tonnes per year. GHG not included in permit at this time

The excess permitted emissions = total permitted emissions minus the 2011 actual emissions minus the estimated peak emissions from the project with SBC

*CO_2e emissions=(CH_4 emissions*21 + N_2O emissions*310+CO_2 emissions)*0.9*

Permitted Emissions

	NO_x	ROC	CO	SO_x	PM	PM_{10}	CH_4	N_2O	CO_2	CO_2e
Platform Harvest	367.58	85.26	204.18	43.61	26.11	25.71	88.54	0.42	215424	195672
Platform Hermosa	198.8	76.25	114.48	36.87	17.64	17.16	61.78	0.17	77498	70963
Platform Hidalgo	204.15	61.36	94.54	26.49	17.77	17.34	37.36	0.17	76821	69892
Supply Boats	76.25	3.99	16.67	0.04	6.79	6.51	0.18	0.04	4,512	4074

Notes

Criteria pollutants from PXP, Glenn Oliver, May 4, 2012 email (to Chittick on 5/8)

GHG Platform emissions from PXP email calculated, not part of permit

GHG Supply boat emissions calculated

Emissions for Platforms from PTOs include supply boats

2011 Emissions

Location	NOx	ROC	CO	SOx	PM	PM10	CH_4	N_2O	CO_2	CO_2e
Platform Harvest	87.06	45.73	63.27	9.73	9.35	9.32	1.63	0.18	101225	91184
Platform Hermosa	51.15	40.98	36.39	5.3	1.72	1.66	0.58	0.07	32923	29661
Platform Hidalgo	51.36	24.9	33.84	6.3	1.85	1.82	0.61	0.07	37771	34025
Total	189.57	111.61	133.5	21.33	12.92	12.8	2.82	0.32	171919	154870

Western Half of OCS-P 0450 Development Project
Drilling Emission Estimates - Turbines

Estimated Quantity, Size and Load Factors for Electrical Driven Drilling Equipment

Rocky Point Drill Rig Data	Quantity	Load (hp)	Load (kW)	Load Factor
Draw Works	2	1,000	1,492	0.25
Mud Pumps	2	1,000	1,492	0.6
Rotary Table	1	1,000	746	0.6
Top Drive	1	1,000	746	0.5

Notes:
Estimated data. Actual data for rig will not be known until a contract has been issued.

Platform Turbine Emission Factors, assumes all produced gas operations

Turbine Emission Factors	lbs/hr									
	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2	Size, kW
Hidalgo Emission Factors - G91g	6.89	0.72	4.54	0.28	0.10	0.10	0.10	0.01	5250.33	2800.00
Hidalgo Emission Factors - G92g	6.89	0.72	4.54	0.28	0.10	0.10	0.10	0.01	5250.33	2800.00
Hidalgo Emission Factors - G93g	6.89	0.72	4.54	0.28	0.10	0.10	0.10	0.01	5250.33	2800.00
Hidalgo Emission Factors - G94g	3.70	0.36	3.72	0.31	0.11	0.11	0.11	0.01	5729.14	3100.00
Hidalgo Emission Factors - G91d	6.90	2.46	8.86	0.06	1.99	1.99	0.30	0.06	7323.92	2800.00
Hidalgo Emission Factors - G92d	6.90	2.46	8.86	0.06	1.99	1.99	0.30	0.06	7323.92	2800.00
Hidalgo Emission Factors - G93d	6.90	2.46	8.86	0.06	1.99	1.99	0.30	0.06	7323.92	2800.00

Platform Turbine Emission Factors, weighted composite

Turbine Emission Factors	lbs/kW-hr								
	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Hidalgo Emission Factors-g	2.10E-03	2.17E-04	1.50E-03	1.00E-04	3.57E-05	3.57E-05	3.57E-05	3.48E-06	1.87E+00
Hidalgo Emission Factors-d	2.10E-03	6.59E-04	2.60E-03	4.49E-05	5.16E-04	5.16E-04	8.65E-05	1.62E-05	2.40E+00

Notes:
A composite emission factor was used for turbines in estimating the turbine emissions. Turbine G91 has hisotrically not been used, but was included
Emission factors taken from PTO 9105 for Hidalgo (October 2008)
PTO turbine emission factors are in lbs/hr. These were converted to lbs/kW-hr by dividing by the rating on each turbine.
GHG emission factors based on PXP part 70 permit

Peak Turbine Emissions from Drilling on the Western Half of OCS-P 0450

Turbine Drilling Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Platform Hidalgo									
lbs./hr	4.39	1.38	5.43	0.09	1.08	1.08	0.18	0.03	5009
lbs./day	105.27	33.02	130.33	2.25	25.86	25.86	4.34	0.81	120211
tons/qr	3.80	1.51	5.95	0.10	1.18	1.18	0.20	0.04	5485
tons/yr[B]	7.68	2.41	9.51	0.16	1.89	1.89	0.32	0.06	8775
Total Drilling Emissions (tons)									
Western Half of OCS-P 0450[C,D,E]	7.68	2.41	9.51	0.16	1.89	1.89	0.32	0.06	8775

Notes:
A. Tons/yr assumes drilling occurs for 100 days per well on Platform Hidalgo (2 wells).
C. Assumes 2 wells at Hidalgo, 70 days drilling, 30 days completion
D. Assumes completion is 10% the load of well drilling
E. Assumes emissions from diesel turbines
F. Assumes 91.25 days per quarter

Western Half of OCS-P 0450 Development Project
Drilling Emission Estimates - Other Equipment

Rocky Point Drill Rig Data	Quantity	Load (hp)	Fuel	Note
Well Logging Unit	1	100	Diesel	1
Acidizing Pump	1	100	Diesel	2
Emergency Generator	1	1,350	Diesel	3
Cement Pump	1	200	Diesel	4
Slurry Pump	1	1,000	Diesel	5

Notes:
Estimated data. Actual data for rig will not be known until a contract has been issued.
1. Well logging unit operates 10 days per month
2. Each acidizing pump is operated 5 days per well, 8 hours per day.
3. Each emergency generator tested 2 hours per month.
4. Cement pump operates 2 days per month, 8 hours per day.
5. Slurry Pump operates for 8 hrs per day, 70 days per well. This pump would only be needed if oil/synthetic based muds are injected offshore.

Emission Factors	g/hp-hr								
	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Well Logging Unit	8.4	1.14	3.03	0.0063	1	1	0.020	0.004	521.6
Acidizing Pump	8.4	1.14	3.03	0.0063	1	1	0.020	0.004	521.6
Emergency Generator	8.4	1.14	3.03	0.0063	1	1	0.020	0.004	521.6
Cement Pump	8.4	1.14	3.03	0.0063	1	1	0.020	0.004	521.6
Slurry Pump	8.4	1.14	3.03	0.0063	1	1	0.020	0.004	521.6

Notes:
Diesel I.C. Engines raw factors from AP-42, Table 3.3-1. NO_x reduced by 40% to reflect optimum injection timing retard.
SO_2 adjusted for 0.0015% sulfur in fuel. HC assumed to be 100% ROC. PM assumed to be 100% PM_{10}.
CO2 EF based on AP-42 Table 3.3-1. CH4 and N2O based on CARB Mandatory reporting requirements

Support Equipment Drilling Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
lbs/hr									
Well Logging Unit	1.85	0.25	0.67	0.00	0.22	0.22	0.00	0.00	115.00
Acidizing Pump	1.85	0.25	0.67	0.00	0.22	0.22	0.00	0.00	115.00
Emergency Generator	25.00	3.39	9.02	0.02	2.98	2.98	0.06	0.01	1552.50
Cement Pump	3.70	0.50	1.34	0.00	0.44	0.44	0.01	0.00	230.00
Total Hourly Emissions	***32.41***	***4.40***	***11.69***	***0.02***	***3.86***	***3.86***	***0.08***	***0.02***	***2012.50***
lbs/day									
Well Logging Unit	44.45	6.03	16.03	0.03	5.29	5.29	0.11	0.02	2760.00
Acidizing Pump	14.82	2.01	5.34	0.01	1.76	1.76	0.04	0.01	920.00
Emergency Generator	50.00	6.79	18.04	0.04	5.95	5.95	0.12	0.02	3105.00
Cement Pump	29.63	4.02	10.69	0.02	3.53	3.53	0.07	0.01	1840.00
Total Daily Emissions	***138.89***	***18.85***	***50.10***	***0.10***	***16.53***	***16.53***	***0.33***	***0.07***	***8625.00***
tons/qr									
Well Logging Unit	0.67	0.09	0.24	0.00	0.08	0.08	0.00	0.00	41.40
Acidizing Pump	0.07	0.01	0.03	0.00	0.01	0.01	0.00	0.00	4.60
Emergency Generator	0.08	0.01	0.03	0.00	0.01	0.01	0.00	0.00	4.66
Cement Pump	0.09	0.01	0.03	0.00	0.01	0.01	0.00	0.00	5.52
Total Quarterly Emissions	***0.90***	***0.12***	***0.33***	***0.00***	***0.11***	***0.11***	***0.00***	***0.00***	***56.18***
tons/yr									
Well Logging Unit	1.48	0.20	0.53	0.00	0.18	0.18	0.00	0.00	92.00
Acidizing Pump	0.16	0.02	0.06	0.00	0.02	0.02	0.00	0.00	10.22
Emergency Generator	0.17	0.02	0.06	0.00	0.02	0.02	0.00	0.00	10.35
Cement Pump	0.20	0.03	0.07	0.00	0.02	0.02	0.00	0.00	12.27
Total Annual Emissions	***2.01***	***0.27***	***0.73***	***0.00***	***0.24***	***0.24***	***0.00***	***0.00***	***124.84***
Total Drilling Emissions (tons)									
Western Half of OCS-P 0450[B,C]	2.01	0.27	0.73	0.00	0.24	0.24	0.00	0.00	124.84

Notes:
A. The slurry pump would only be needed if the oil/synthetic based muds are injected at the platforms.
B. Assumes 2 wells at Hidalgo 2 wells
C. Assumes each well takes months to finish --> 3.33 months

Western Half of OCS-P 0450 Development Project
Drilling Emission Estimates - ROC Emissions from Mud System

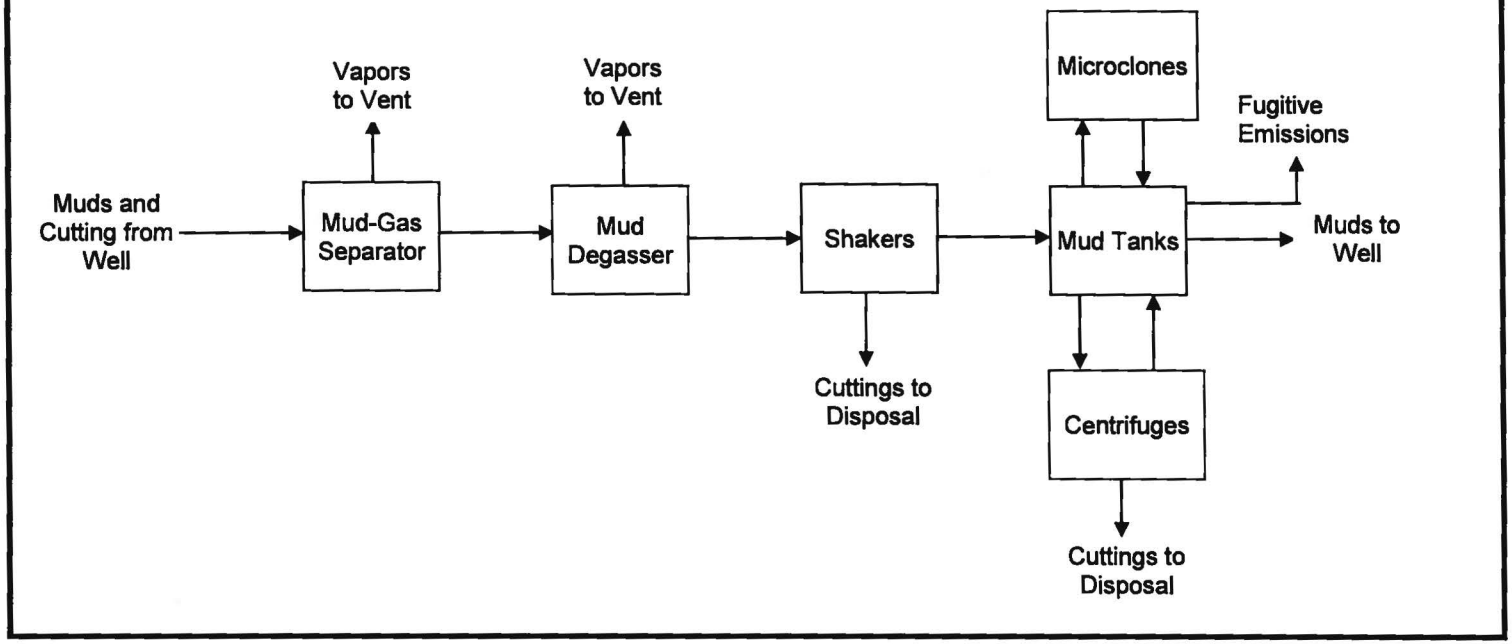
Assumptions
Volume of gas in drilling mud from one well = 85,000 scf
Density of gas =0.0056 lbs/scf
Fraction of gas that is reactive organic compounds=20.5%
Density of reactive organic compound gas = 0.00115 lbs/scf
Time required to drill one well = 100 days
Time when gas may be present in mud per well =20 days
The mud-gas separator and mud degasser removal efficiency = 98%
Mud-gas separator and mud degasser are vented at the top of the derrick

Emissions Estimates per Well

				ROC Emissions				
Source	SCF/hr	SCF/day	% ROC	lbs/hr	lbs/day	lbs/well	lbs/yr	Total[A] (lbs)
Mud-gas Separator/Mud Degasser Vent	174	4165	20.5%	0.041	0.980	19.590	39.180	39.180
Fugitives from Mud Tanks	4	85	20.5%	0.001	0.020	0.400	0.800	0.800
Total	177	4250		0.042	0.999	19.990	39.980	39.980

Note:
A. Assumes 2 wells at Hidalgo

Process Flow Diagram of Typical Mud Handling System



Western Half of OCS-P 0450 Development Project
Supply Boat Emission Estimates

Supply Boat Engine Data

Engine	Fuel	%S	Size (bhp)	Fuel Usage (gals/bhp-hr)	Load Factor	gals/hr
Main Engines-Controlled	D	0.0015	4,000	0.049	0.65	127.4
Main Engines-Uncontrolled	D	0.0015	4,000	0.049	0.65	127.4
Generator Engines	D	0.0015	490	0.055	0.5	13.5
Bow Thruster	D	0.0015	515	0.055	1.0	28.3

Notes:
Data taken from PTO 9104 for Hermosa, PTO 9105 for Hidalgo, and PTO 9103 for Harvest and PXP information/permits

Supply Boat Emission Factors

	lbs/1,000 gals								
Emission Source	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Main Engines-Controlled	337	16.80	78.30	0.21	33.00	31.68	0.910	0.180	22538
Main Engines-Uncontrolled	561	16.80	78.30	0.21	33.00	31.68	0.910	0.180	22538
Generator Engines	600	48.98	129.26	0.21	42.18	40.49	0.910	0.180	22538
Bow Thruster	600	48.98	129.26	0.21	42.18	40.49	0.910	0.180	22538

Notes:
Emission factors taken from PTO 9104 for Hermosa, PTO 9105 for Hidalgo, and PTO 9103 for Harvest (October 2008)
GHG EF based on CARB Mandatory Reporting

Supply Boat Fuel Usage, gallons

		Port Hueneme to Platforms/trip (hours/round trip)		Port Hueneme to Platforms/trip (gals/round trip)	
Fuel Usage	gals/hr	Total	SBC	Total	SBC
Main Engines-Controlled	127.4	14.5	11.0	1,847.30	1,401.40
Main Engines-UnControlled	127.4	14.5	11.0	1,847.30	1,401.40
Generator Engines	13.5	14.5	11.0	195.39	148.23
Bow Thruster	28.3	2.0	2.0	56.65	56.65

Notes:
A. Total is from Port Hueneme to the platforms (round trip assumes 14.5-hrs main engines and generator engines, 2-hrs bow thrusters).
B. SBC is from SB County line to the platforms (round trip assumes 11-hrs main engines and generator engines, 2-hrs bow thrusters).
C. PTO 9105 states SBC is within 25 miles of the platforms
D. Platform offload at Platform Hidalgo included in round trip numbers as per PTO 9105 (trip includes to, from and at Platform)
E. Total qtr fuel use 67,179 all areas 51,401 SBC only

Western Half of OCS-P 0450 Development Project
Supply Boat Emission Estimates

Total Supply Boat Emissions (Port Hueneme to the Platforms)

Estimated Supply Boat Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Drill Rig Transport from Port Hueneme to the Platforms									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	1,187.57	43.38	177.22	0.44	71.59	68.73	1.91	0.38	47,315
tons/qr	8.15	0.43	1.77	0.00	0.72	0.69	0.02	0.00	473
tons/yr	16.30	0.87	3.54	0.01	1.43	1.37	0.04	0.01	946
Additional Supply Boat Useage During Drilling									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	1,187.57	43.38	177.22	0.44	71.59	68.73	1.91	0.38	47,315
tons/qr	4.89	0.26	1.06	0.00	0.43	0.41	0.01	0.00	284
tons/yr	8.15	0.43	1.77	0.00	0.72	0.69	0.02	0.00	473
Drilling Transport and Supply Boat Daily Useage Total									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	1,187.57	43.38	177.22	0.44	71.59	68.73	1.91	0.38	47,315
tons/qr	13.04	0.69	2.84	0.01	1.15	1.10	0.03	0.01	757
tons/yr	24.45	1.30	5.32	0.01	2.15	2.06	0.06	0.01	1,419

Notes:

A. lbs/hr maximum based on all engines running simultaneously, and assumes uncontrolled main engines.

B. Assumes one round trip per day, peak day assumes uncontrolled main engines.

C. Drill rig transport based on 20 round trips over a 30-day period. Annual emissions assumed transport of drill rig back also

D. Annual emissions assume 20 trips to deliver drill rig and 20 trips to remove drill rig

E. Supply boat trips for drilling assume 1 additional round trip per week over current operations for 20 weeks per year (2 wells).

F. Assumes that uncontrolled main engines are used 10% of the time. (Same assumption as PTOs 9103, 9104, and 9105.)

G. Total length of drilling project, weeks — 20 weeks, drilling only (not completions)

H. Time to transport drill rig, days — 20 days

Santa Barbara County Supply Boat Emissions (SB County Line to the Platforms)

Estimated Supply Boat Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Drill Rig Transport from Port Hueneme to the Platforms									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	909.12	33.58	136.21	0.34	54.89	52.69	1.46	0.29	36,202
tons/qr	6.27	0.34	1.36	0.00	0.55	0.53	0.01	0.00	362
tons/yr	12.53	0.67	2.72	0.01	1.10	1.05	0.03	0.01	724
Additional Supply Boat Useage During Drilling									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	909.12	33.58	136.21	0.34	54.89	52.69	1.46	0.29	36,202
tons/qr	3.76	0.20	0.82	0.00	0.33	0.32	0.01	0.00	217
tons/yr	6.27	0.34	1.36	0.00	0.55	0.53	0.01	0.00	362
Drilling Transport and Supply Boat Daily Useage Total									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	909.12	33.58	136.21	0.34	54.89	52.69	1.46	0.29	36,202
tons/qr	10.03	0.54	2.18	0.01	0.88	0.84	0.02	0.00	579
tons/yr	18.80	1.01	4.09	0.01	1.65	1.58	0.04	0.01	1,086

Ventura County Supply Boat Emissions (Port Hueneme to SB County Line)

Estimated Supply Boat Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Drill Rig Transport from Port Hueneme to the Platforms									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	278.45	9.80	41.01	0.10	16.70	16.04	0.45	0.09	11,113
tons/qr	1.89	0.10	0.41	0.00	0.17	0.16	0.00	0.00	111
tons/yr	3.77	0.20	0.82	0.00	0.33	0.32	0.01	0.00	222
Additional Supply Boat Useage During Drilling									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	278.45	9.80	41.01	0.10	16.70	16.04	0.45	0.09	11,113
tons/qr	1.13	0.06	0.25	0.00	0.10	0.10	0.00	0.00	67
tons/yr	1.89	0.10	0.41	0.00	0.17	0.16	0.00	0.00	111
Drilling Transport and Supply Boat Daily Useage Total									
lbs/hr (max.)	96.55	4.19	15.38	0.04	5.97	5.73	0.15	0.03	3,813
lbs/day	278.45	9.80	41.01	0.10	16.70	16.04	0.45	0.09	11,113
tons/qr	3.02	0.16	0.66	0.00	0.27	0.26	0.01	0.00	178
tons/yr	5.66	0.29	1.23	0.00	0.50	0.48	0.01	0.00	333

Western Half of OCS-P 0450 Development Project
Supply Boat Emission Estimates - Permitted Emissions from PTO

Supply Boat Engine Data

Engine	Fuel	%S	Size (bhp)	Fuel Usage (gals/bhp-hr)	Load Factor	gals/hr
Main Engines-Controlled	D	0.0015	5,000	0.055	0.65	178.75
Main Engines-Uncontrolled	D	0.0015	5,000	0.055	0.65	178.75
Generator Engines	D	0.0015	600	0.055	0.5	16.5
Bow Thruster	D	0.0015	515	0.055	1.0	28.325

Notes:
Data taken from PTO 9104 for Hermosa, PTO 9105 for Hidalgo, and PTO 9103 for Harvest

Supply Boat Emission Factors

	lbs/1,000 gals								
Emission Source	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Main Engines-Controlled	337	16.80	78.30	0.21	33.00	31.68	0.910	0.180	22537.9
Main Engines-Uncontrolled	561	16.80	78.30	0.21	33.00	31.68	0.910	0.180	22537.9
Generator Engines	600	48.98	129.26	0.21	42.18	40.49	0.910	0.180	22537.9
Bow Thruster	600	48.98	129.26	0.21	42.18	40.49	0.910	0.180	22537.9

Notes:
Emission factors taken from PTO 9104 for Hermosa, PTO 9105 for Hidalgo, and PTO 9103 for Harvest (October 2008)
GHG EF based on CARB Mandatory Reporting

Supply Boat Usage, hours

Fuel Usage	Hrs	day	qtr	yr
Main Engines-Controlled	1	11	459	1,837
Main Engines-Uncontrolled	1	11	46	184
Generator Engines	1	11	459	1,837
Bow Thruster	1	2	78	312

Supply Boat Usage

Fuel Usage	gals/hr
Main Engines-Controlled	178.8
Main Engines-Uncontrolled	178.8
Generator Engines	16.5
Bow Thruster	28.3

Notes:
A. Total is from Port Hueneme to the platforms (round trip assumes 14.5-hrs main engines and generator engines, 2-hrs bow thrusters).
B. SBC is from SB County line to the platforms (round trip assumes 11-hrs main engines and generator engines, 2-hrs bow thrusters).
C. PTO is within 25 miles of the platforms (round trip assumes 4-hrs main engines and generator engines, 2-hrs bow thrusters).
D. Platform transfer at Platform Hidalgo (round trip assumes 2-hrs generator engines, 4-hrs bow thrusters).

Total Supply Boat Emissions (Port Hueneme to the Platforms)

Estimated Supply Boat Emissions	NO_X	ROC	CO	SO_X	PM	PM_{10}	CH_4	N_2O	CO_2
Permitted Emissions									
lbs/hr (max.)[A]	127.18	5.20	19.79	0.05	7.79	7.48	0.20	0.04	5,039
lbs/day[B]	1,245.97	44.70	184.74	0.46	74.93	71.93	2.01	0.40	49,683
tons/qr[C]	19.07	1.00	4.17	0.01	1.70	1.63	0.05	0.01	1,127
tons/yr[C]	76.30	3.99	16.67	0.04	6.79	6.51	0.18	0.04	4,512

Notes:
A. lbs/hr maximum based on all engines running simultaneously, and assumes uncontrolled main engines.
B. Assumes one round trip per day, and assumes uncontrolled main engines.
C. Assumes that uncontrolled main engines are used 10% of the time. (Same assumption as PTOs 9103, 9104, and 9105.)
D. Emissions do not include emergency response or survival craft emissions, as per PTO 9105, as these emissions would not change under the project

Western Half of OCS-P 0450 Development Project
Fugitive Emission Estimates

Component Type	Quantity[A]	Emission Factor[B] (lbs/day-clp)	ROC Emissions			
			lbs/hr	lbs/day	tons/qr	tons/yr
Oil - 2 wells controlled[C]	216	0.0009	0.008	0.194	0.009	0.035
Gas - 2 wells controlled[D]	242	0.0147	0.148	3.557	0.162	0.649
Stabilizer Oil Leakpaths	100	0.0009	0.004	0.090	0.004	0.016
Stabilizer Gas Leakpaths	25	0.0147	0.015	0.368	0.017	0.067
Total	***583***		***0.175***	***4.209***	***0.192***	***0.768***

Notes:

A. Well component counts are estimates only and are based upon existing well data. Actual counts will be developed when wells are installed.

B. Emission Factors from SBCAPCD PTOs 9103, 9104, and 9105.

C. Include 108 oil leak paths and 121 gas leak paths per well

Western Half of OCS-P 0450 Development Project
Offsite Truck Emissions

Truck Equipment List and Parameters

Source	Parameters					
	Vehicle Type	Number of Round Trips per Day	Number of Trips per Week	Number of Weeks per Year	Distance Round Trip (mi)	Total Round Trips
Truck Trips for Drill Rig Delivery/Removal	HHT Diesel	1	5	20	300	100
Truck Trips for Drilling Supplies	HHT Diesel	1	4	80	300	320
Truck Trips for Misc Wastes	HHT Diesel	1	1	20	300	20
	HHT Diesel	0	0	0	0	0

Notes:

A. Assumes all wells use water based muds, but some transported by truck.

B. These truck trips would not be needed if the cutting are injected at the platform.

Truck Emission Factors

	NO_x	ROC	CO	SO_x	PM	PM_{10}	CH_4	N_2O	CO_2
Exhaust Emission Factor (g/mile)	11.44	0.53	2.64	0.02	0.43	0.43	0.0051	0.0048	1686.50

Notes:

Emissions calculations based on EMFAC2011 for Ventura County, year 2013, T7 Tractor

GHG emissions based on CARB Mandatory reporting for diesel heavy duty trucks

Truck Emissions

Source	lbs/day[C]					
	NO_x	ROC	CO	SO_x	PM	PM_{10}
Truck Trips for Drill Rig Delivery/Removal	7.57	0.35	1.74	0.01	0.28	0.29
Truck Trips for Drilling Supplies	7.57	0.35	1.74	0.01	0.28	0.29
Truck Trips for Misc Wastes	7.57	0.35	1.74	0.01	0.28	0.29
Total[C]	**22.70**	**1.06**	**5.23**	**0.03**	**0.85**	**0.86**

	tons								
	NO_x	ROC	CO	SO_x	PM	PM_{10}	CH_4	N_2O	CO_2
Truck Trips for Drill Rig Delivery/Removal	0.38	0.02	0.09	0.00	0.01	0.01	0.00	0.00	56
Truck Trips for Drilling Supplies	1.21	0.06	0.28	0.00	0.05	0.05	0.00	0.00	178
Truck Trips for Misc Wastes	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.00	11
Total[C]	**1.66**	**0.08**	**0.38**	**0.00**	**0.06**	**0.06**	**0.00**	**0.00**	**245**

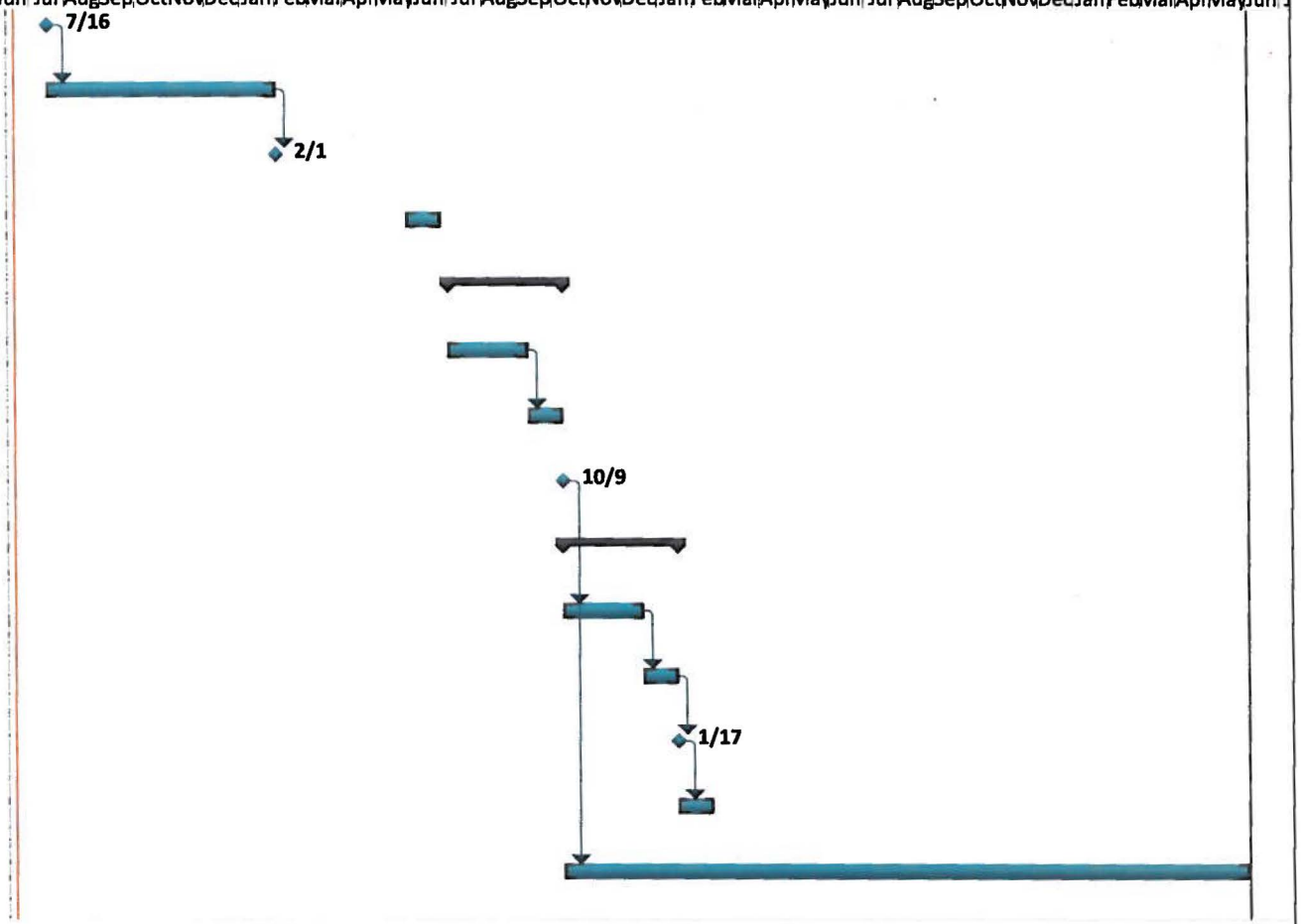
Notes:

A. Daily emission total based upon one round trip for drill drig delivery, drilling supplies and misc waste removal.

B. Assumes 2 wells at Hidalgo

Estimated Development Scheudle for Western Half of OCS-P 0450

ID	Task Name
1	Submit Permit Applications
2	Permit Processing
3	Obtain Permit Approvals
4	Prepare and Mobilze Rig
5	**Well C16**
6	Drilling Well
7	Complete Well
8	First Production
9	**Well C17**
10	Drill Well
11	Complete Well
12	First Production
13	DeMobilize Rig
14	Ongoing Production



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Traffic Impacts for Western Half of OCS-P 0450 Truck Trips in Ventura County

Roadway and Intersection Classification

Circulation conditions are often described in terms of levels of service (LOS). Level of service is a means of describing the amount of traffic on a roadway versus the design capacity of the roadways. The design capacity of a roadway is defined as the maximum rate of vehicle travel that can reasonably be expected along a section of roadway. Capacity is dependent on a number of variables including road classification and number of lanes, weather and driver characteristics. The LOS rating reflects qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists. These measures include freedom of movement, speed and travel time, traffic interruptions, types of vehicle, comfort, and convenience. Ideal conditions for a roadway would include good lane widths and roadside clearances, the absence of trucks or other heavy vehicles and level terrain. LOS is generally computed as function of the ratio of traffic volume (V) to the capacity (C) of the roadway or intersection, which provides the V/C ratio (see the table below).

Trucks impact the LOS by occupying more roadway space and by having poorer operating qualities than passenger cars. Because heavy vehicles accelerate slower than passenger cars, gaps form in traffic flow that affect the efficiency of the roadway. Also, intersections present a number of variables that can influence LOS including curb parking, transit buses, turn lanes, signal spacing, pedestrians, and signal timing.

The Transportation Research Board has developed the Highway Capacity Manual, which details the procedures to be used in predicting LOS for a range of roadways and intersections. The LOS of a roadway is defined with scales ranging from A to F, with A indicating excellent traffic flow quality and F indicating stop-and-go traffic. Level E is normally associated with the maximum design capacity that a roadway can accommodate. The highest quality of traffic service occurs on roadways when motorists are able to drive their desired speed without strict enforcement and are not delayed by slow-moving vehicles more than 30 percent of the time. This condition is representative of LOS A. The classifications of LOS B and C are characterized when average drivers are delayed up to 45 and 60 percent of the time, respectively, by slow moving vehicles. The LOS of A, B, and C are generally considered satisfactory.

When an area drops to a LOS of E, the speed of traffic is restricted 71 to 100 percent of the time; and intersection signal cycles have one or more vehicles waiting through more than one signal cycle during peak traffic periods. The LOS of D is considered tolerable in urban areas, since during peak hours 31 to 70 percent of the signal cycles have one or more vehicles which wait through at least one signal cycle. Current design practices indicate that a LOS of D during peak hours is acceptable due to the cost of improving roadways up to a LOS of C.

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Western Half of OCS-P 0450 Truck Traffic

Truck traffic in Ventura County for the Western Half of OCS-P 0450 project will originate in Port Hueneme. Trucks will exit the port at Hueneme Rd., heading east for several miles. They will turn left at Las Posas Rd. and enter the ramp of southbound Highway 101. The trucks will then take Highway 101 south to Los Angeles County.

The project will involve 10 truck trips per work week, or approximately 2 truck trips per week day. The project will result in traffic increases of 0.03%, 0.04%, 0.003%, and 0.0025% at Hueneme Rd., Las Posas Rd., Highway 101 at Las Posas Rd., and Highway 101 at Kanan Rd, respectively. These small increases will not affect the LOS of any of these roadways.

Road/ Route	Class	Current ADT	ADT LOS	Design Cap	V/C Ratio	Ref.
Port Hueneme to Ventura/L.A. County Border						
Hueneme Rd.	Major - 2 Lanes	11,900	C	16,000	0.74	1
Las Posas Rd.	Major - 2 Lanes	9,200	A	16,000	0.58	1
101 Southbound at Las Posas Rd.	Freeway 6 - Lanes	140,000	B	195,000	0.72	2
101 Southbound at Kanan Rd.	Freeway - 8 to 10 Lanes	163,000	B	292,500	0.56	2

References

1. *Traffic counts from Ventura County Department of Public Works – 2011 Traffic Volumes*
2. *Traffic counts and average design capacity of 32,500 vehicles per lane per day from CalTrans.*

Attachment 5

PXP Responses to SBCAPCD Comments/Questions
(Refer to SBCAPCD Letter to Joan Barminski dated January 17, 2013)

APCD Comment #1 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Section 2.4 Oil and Gas Processing, Pg.8: The discussion of oil processing in the last paragraph refers to oil metering and transport to the Gaviota facility. If this metering and transport has any associated fugitive emissions, they should be included in the operational emissions quantification. Information on any incremental increase of emissions from oil heating, storage tanks, or other processes at the Gaviota facility will result in additional emissions; this increase in emissions should be addressed and quantified as appropriate.

PXP Response - The project at Platform Hidalgo will not require any new equipment at the Gaviota Oil Heating Facility. No emission increases are expected. The fugitive emissions associated with metering, transport, oil heating, oil storage, and other processes at the facility are not dependent on throughput. The emissions are determined on a per component per day basis.

APCD Comment #2 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Section 2.4 Oil and Gas Processing, Pg.9: The discussion of the possible increase in dehydration and stabilization capacity for Platform Hidalgo refers to new equipment including a vessel and re-boiler. Please identify whether the heat source for the re-boiler will be an additional combustion unit. The application should identify all potential equipment scenarios and include any new emissions (including fugitive ROCs) from them in the quantification of operational emissions.

PXP Response - Addition of an oil stabilization vessel or oil reboiler would result in small increase in fugitive emissions (oil stabilizer and oil reboiler are the same vessel). The stabilizer/reboiler vessel would use heat transfer from the existing heat medium system on the platform; no fuel combustion is associated with the operation of the reboiler. The increased fugitive emissions from the vessel would be approximately 0.5 lbs ROC per day or 0.09 tons ROC per year. At this level of emissions the addition of the reboiler would qualify as a deminimis project and not need to be permitted or offset under APCD Rule 202. At the time when this equipment might be installed, if the total amount of deminimis emissions at the Point Arguello stationary source exceeds 24 lbs/day limit, then the new reboiler would be permitted and the emissions offset according to SBCAPCD rules. This emission estimate is based on existing permitted stabilizer/reboiler equipment on Platforms Hermosa and Harvest. Table 4.27 on page 94 of the Environmental Evaluation document, and page D-9 of Attachment D have been updated to include the fugitive emissions associated with a possible new oil stabilization vessel. This small increase in fugitive emissions is insignificant and below the APCD deminimis threshold. In addition, Table 4.28 on page 95 of the Environmental Evaluation document, and page D-1 of Attachment D have been updated to include the additional fugitive emissions. This change is insignificant and still shows that the emissions from the project are well within the permitted emissions for Platform Hidalgo.

APCD Comment #3 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Section 2.4 Oil and Gas Processing, Pg.10: The first sentence on the page refers to two options for oil dehydration on the platform. The first listed option is conversion of a portion of vessel V-8. The second option is not clearly identified in this section. Please revise the text to clarify the two options.

PXP response - Conversion of the V-8 oil surge tank to a dehydrator vessel is not expected to have an increase in emissions. The vessel is already operating in oil service and the conversion would only change some of the operating parameters. If dehydration equipment other than this vessel conversion was needed, emissions would be evaluated similar to a new stabilizer/reboiler and permitted as

necessary. Estimated emissions for a new dehydration vessel would be approximately 0.6 lbs ROC per day or 0.10 tons ROC per year. This has not been included in the emission estimates since PXP is not currently proposing a new dehydration vessel at this time.

APCD Comment #4 - Revisions to the Platform Hidalgo DPP - Environmental Evaluation, Gas Processing, Pg. 10: The discussion identifies two different options for processing produced gas. Any emissions from gas processing should be included in the project quantification of operational emissions. If there are different emissions associated with these scenarios, they should both be presented.

PXP Response - This project is expected to increase gas production on the platform with an associated increased need for gas dehydration, sweetening, and compression. The equipment needed for these processes is already in operation on the platform. No new emissions are anticipated from increased gas dehydration, sweetening, and compression. Existing equipment can be used at Platforms Hidalgo, Hermosa, or Harvest if additional gas injection back into the reservoirs is needed; no new emissions would be associated with gas injection.

APCD Comment #5 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Air Quality Impacts, Pg. 91: In the discussion of turbine emissions during drilling, please include more detailed information on the use of generator engines that may be needed to supplement the electricity provided by the turbines, and quantify generator emissions.

PXP Response - Turbine emissions listed in Table 4.23 on page 91 are associated with approximately 1200 kW of additional power production needed to operate the electric drilling rig. The turbine already exists on the platform and is permitted for this operation. The only additional power equipment needed is an emergency generator for safety of the well system while platform power (turbines) is not available; the generator is not capable of operating the entire rig, only keeping the well in a safe condition until power is restored and this would only be required during drilling operations.

APCD Comment #6 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Air Quality Impacts, Pg. 92: In the last paragraph of this page, the text states that 20 boat trips are needed for transport of the drill rig from the port to the platform, and that 20 boat trips are needed to transport it back after drilling is complete. Note #1of Table 4.26 on page 93 states that estimated boat emissions for drill rig transport are based on 14 trips to deliver the drill rig and 14 trips to remove it. Please revise the text and emissions calculation to resolve this conflicting information in this section and in the appendices.

Also, in the discussion of project-related increases in boat trips on this page, please indicate whether additional crew boat trips will be needed during construction or operation of the project and include the quantified emissions from any additional crew boat trips in this section.

PXP Response - The footnote on Table 4.26 on page 93 is incorrect. The correct number of round trips is 40; 20 trips to mobilize the drilling rig to Platform Hidalgo and 20 trips to return the rig to Port Hueneme. The emissions in the table represent 40 round trips. The footnote in Table 4.26 on page 93 of the Environmental Evaluation document has been corrected.

PXP Responses to SBCAPCD Comments/Questions
(Refer to SBCAPCD Letter to Joan Barminski dated January 17, 2013)

The project does not require an increase in crew boat trips.

APCD Comment #7 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Air Quality Impacts, Pg. 94: The second paragraph discusses operational emissions of the project. If processing of the oil and gas from the two new wells increases emissions at other facilities, such as the Gaviota Facility, Platform Hermosa, or Platform Harvest, these processes and related emissions should also be detailed in this section. For example, the additional load on the Harvest turbine engines (for compression and injection of produced gas from the two new wells), and associated emissions, should be quantified.

PXP Response - As noted in the response to comment #1, the increased oil and gas production at Platform Hidalgo would not increase fugitive emissions from processes at the Gaviota Oil Heating Facility, Platform Harvest, or Platform Hermosa.

APCD Comment #8 - Revisions to the Platform Hidalgo DPP- Environmental Evaluation, Air Quality Impacts, Pg. 96: The discussion at the top of the page refers to APCD preliminary thresholds for greenhouse gases (GHGs). APCD has not adopted significance thresholds for GHGs. Please remove the reference to APCD's GHG significance thresholds.

PXP Response - Page 96 incorrectly states that the Santa Barbara County Air Pollution Control District (SBCAPCD) has established the 10,000 metric ton CO_2e preliminary threshold of significance for GHG emissions. PXP previously replied to a California Coastal Commission (CCC) comment (D. Rose letter to A. Dettmer December 13, 2012) correcting the reference as being to a preliminary guidance that has been established by the by the Santa Barbara County Planning and Development Department (SBCP&D) for use in CEQA documents SBCP&D has been using this guidance value for determine the significance of GHG emissions.

The Environmental Evaluation prepared for the Hidalgo DPP Revision was prepared for the Bureau of Ocean Energy Management (BOEM) to provide information that could support their required National Environmental Policy Act (NEPA) review.

BOEM does not have an established NEPA threshold for GHG emission, and as such, PXP used the SBCP&D guidance for evaluating the significance of GHG emissions..

The project does not have any emissions or impacts associated with the operation of the onshore Gaviota Oil Heating Facility. The only increase in emissions from the proposed project is associated with the offshore components that are part of the drilling operations. These emissions are temporary and would only occur during the drilling operations. The total GHG emissions from the project are estimated to be 9,609 metric tons CO_2e, which is less than the guidance value of 10,000 metric tons CO2e used by the SBCP&D. As such, based upon this guidance value, the GHG impacts would be less than significant. Being an offshore project, the CCC has an obligation to evaluate the project in the context of consistency with the California Coastal Zone Management Act and the California Coastal Management Program. That program in itself does not contain any reference to or limitations for GHG. No real guidance on GHG emissions for a consistency determination is available. PXP feels that the guidance currently being used the SBCP&D represents the best available method for determining significance of GHG emissions from the proposed project.

PXP Responses to SBCAPCD Comments/Questions
(Refer to SBCAPCD Letter to Joan Barminski dated January 17, 2013)

Of the total estimated GHG emissions (9609 tonnes, revised estimate), 83 percent are from existing permitted turbines and 16 percent are associated with operation of mobile sources, the supply vessel and delivery trucks. The criteria pollutant emissions (NOx, ROC, etc.) from the turbines and the supply boats have been completely offset under agreements with SBCP&D (Energy Division) and the SBCAPCD. Although GHGs were never evaluated under those agreements it is likely that the combustion sources of emissions used to provide the offsets also had GHGs of similar magnitude. Hence the GHG emissions from these permitted turbines have in effect been "offset" already.

The text on page 96 of the Environmental Evaluation document has been modified to state that the 10,000 tonne value is from the SBCP&D Department and not the SBCAPCD. This change has no effect on the analysis in the Environmental Evaluation.

APCD Comment #9 - Revisions to the Platform Hidalgo DPP, Attachment D, Air Emissions and Traffic Data, Pg. D-1: The summary table data for C02e depicts an approximate 10% reduction from the corresponding C02 values. Please explain the methodology used to calculate C02e and clarify the unit of measurement.

PXP Response - The footnote to the emissions summary table on page D-1 indicates that the CO2e emissions are in metric tons (tonnes, where 1 tonne = 2205 lbs.). The other pollutant parameters, including CO_2, are listed as standard tons.

APCD Comment #10 - Revisions to the Platform Hidalgo DPP, Attachment D, Air Emissions and Traffic Data, Pg. D-7: The supply boat fuel usage assumptions in the "Notes" on page D-6 include platform offloading time totaling four hours of operation of bow thrusters and two hours of generator engines. These emissions do not appear to be included in the tables on page D-7 for "Santa Barbara County Supply Boat Emissions" lbs./day and tons/years. Please explain why emissions from offloading were not included. If offloading emissions are included in the calculation, lbs./day emissions for supply boats are estimated to exceed the permitted daily maximum.

Also, regarding the "Supply Boat Emission Estimates" tables on Page D-7:

a. Please indicate why the tons/quarter and tons/year emissions values for drill rig transport and supply boats during drilling are the *same,* for all pollutants, in the second table but are different, for all pollutants except *C02,* in the first and third tables.
b. Emissions for "Ventura County Supply Boat Emissions" include negative values, please correct this.

PXP Response - The emission estimates for the supply boat use for mobilizing and demobilizing the drill rig have been revised to correct the errors identified by SBCAPCD comments. A total of 20 trips for each of the mobilizing and demobilizing tasks have been assumed. Each trip is calculated by applying the same engine operating parameters established with the permitted emissions at the platform: total trip time of 14.5 hours (11 in Santa Barbara County) with main engines and generator, plus two hours of use with the bow thruster; offloading occurs while using bow thrusters. Table 4.26 on page 93 of the Environmental Evaluation document, has been updated to reflect the total of 40 round trips for mobilizing and demobilizing the drill rig. The Table on page D-6, D-7, and D-8 of Attachment D have been updated to reflect the 40 round trips for mobilizing and demobilizing the drill rig, and to clarify the total trip hours for the supply boats. These changes only affected the tons/qr and tons/yr emissions. This change is insignificant and the emissions are still below the permitted levels allowed for the Point

Arguello Platforms. In addition, Table 4.28 on page 95 of the Environmental Evaluation document, and page D-1 of Attachment D have been updated to include the change in supply boat emissions. This change is insignificant and still shows that the emissions from the project are well within the permitted emissions for Platform Hidalgo.