



APR 10 2013

Shams Hasan  
E&B Natural Resources  
34740 Merced Ave  
Bakersfield, CA 93308

**RE: Notice of Final Action - Authority to Construct**  
**Facility Number: S-1624**  
**Project Number: S-1124268**

Dear Mr. Hasan:

The Air Pollution Control Officer has issued the Authority to Construct permits to E&B Natural Resources for three new crude oil storage tanks, 585 new thermally enhanced oil wells and to add vapor control to three crude oil storage tanks, at the Anza and Tyson leases in sec 4, T28S/R27E and sec 28, T27S/R27E, respectively. Enclosed are the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on 2/20/2013. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on 2/15/2013. All comments received following the District's preliminary decision on this project were considered.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,



David Warner  
Director of Permit Services

DW:DBT/st

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email  
cc: Gerardo C. Rios, EPA (w/enclosure) via email  
Seyed Sadredin

Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

Bakersfield Californian

Newspaper notice for publication in Bakersfield Californian and for posting on  
valleyair.org

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**NOTICE OF FINAL ACTION  
FOR THE ISSUANCE OF  
AUTHORITY TO CONSTRUCT PERMITS**

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued the Authority to Construct permits to E&B Natural Resources for three new crude oil storage tanks, 585 new thermally enhanced oil wells and to add vapor control to three crude oil storage tanks, at the Anza and Tyson leases in sec 4, T28S/R27E and sec 28, T27S/R27E, respectively.

All comments received following the District's preliminary decision on this project were considered.

The application review for Project #1124268 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please contact the District at (661) 392-5500.



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-81-3

ISSUANCE DATE: 03/29/2013

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT

MAILING ADDRESS: ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL CENTRAL  
CA

SECTION: NW04 TOWNSHIP: 28S RANGE: 27E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,760 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK WITH PV VENT #2GK32 (ANZA): ADD VAPOR CONTROL SYSTEM SHARED WITH S-1624-82 AND '84 AND CORRECT TANK VOLUME TO 2000 BBL

## CONDITIONS

1. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
2. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]
3. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule]
4. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 4623]
5. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

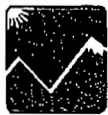
**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-1624-81-3; Mar 29 2013 1:23PM - TORID : Joint Inspection NOT Required

6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
7. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.6 lb/day. [District Rule 2201]
8. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
9. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-82-3

ISSUANCE DATE: 03/29/2013

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT

MAILING ADDRESS: ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL CENTRAL  
CA

SECTION: NW04 TOWNSHIP: 28S RANGE: 27E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 4,330 BBL FIXED ROOF CRUDE-OIL PRODUCTION TANK WITH PV VENT, WASH #2 (ANZA);  
ADD VAPOR CONTROL LISTED ON S-1624-81 AND CORRECT TANK VOLUME TO 5000 BBL

### CONDITIONS

1. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
2. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 4623]
3. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.2 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-1624-82-3 : Mar 29 2013 1:23PM - TCRIID : Joint Inspection NOT Required

7. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-84-3

ISSUANCE DATE: 03/29/2013

**LEGAL OWNER OR OPERATOR:** E&B NATURAL RESOURCES MGMT  
**MAILING ADDRESS:** ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL CENTRAL  
CA

**SECTION:** NW04 **TOWNSHIP:** 28S **RANGE:** 27E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 1,760 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK WITH PV VENT #2GK33 (ANZA): ADD VAPOR CONTROL LISTED ON S-1624-81

### CONDITIONS

1. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
2. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 4623]
3. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
5. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.2 lb/day. [District Rule 2201]
6. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-1624-84-3 : Mar 29 2013 1:23PM - TORID : Joint Inspection NOT Required

7. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]





## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1624-97-4

**ISSUANCE DATE:** 03/29/2013

**LEGAL OWNER OR OPERATOR:** E&B NATURAL RESOURCES MGMT

**MAILING ADDRESS:** ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL CENTRAL  
CA

**SECTION:** 04 **TOWNSHIP:** 28S **RANGE:** 27E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 99 STEAM ENHANCED WELLS WITH GAS/LIQUID SEPARATORS, WATER-COOLED HEAT EXCHANGER, AND AIR-COOLED HEAT EXCHANGER (POSO): INCREASE TOTAL NUMBER OF ALLOWED WELLS TO 400 AND ADD LOCATION SECTION 28, T27S, R27E

### CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. TEOR operation is authorized at the following locations: Sections 20, 28, 29, 32, 33 and 34 of T27S/R27E and Sections 4, 5, 8, 9, 16, 17, 20 and 21 of T28S, R27E. [District Rule 2201]
4. No more than 400 steam-enhanced oil recovery wells shall be operated at all locations authorized by this permit. [District Rule 2201]
5. Volatile Organic Compound (VOC) emissions from the components associated with the TEOR system including the oil/gas separator tank shall not exceed 12.3 lb-VOC in any one day. [District Rule 2201]
6. Permittee shall maintain an accurate fugitive component count and resulting emissions calculated using emission factors from CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c(Feb 199), Screening Range Emission Factors for <10,000 ppmv (no leaks). [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S-1624-97-4 : Mar 29 2013 1:23PM - TORID : Joint Inspection NOT Required

7. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401]
8. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401]
9. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401]
10. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, record keeping, and notification requirements of Rule 4401 for all components containing or contacting VOC's at this facility except for those components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401]
11. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401]
12. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401]
13. The well vent vapor collection and control system shall be maintained in a leak-free condition. [District Rule 2201]
14. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201]
15. Permittee shall maintain a current roster of wells connected to well vent vapor collection and control system, and such roster shall be made readily available for District inspection upon request. [District Rule 1070]
16. Permittee shall keep records of date of inspection or leak detection, method used for leak detection (i.e. visual, hydrocarbon detection instrument etc.), instrument calibration date, component leaking, leak magnitude (ppmv as methane, number of liquid drops per minute excluding seal lubricant), identification tag, date of repair, method of repair and post-repair measurement. Such records shall be maintained current and shall be made readily available for District inspection upon request. [District Rules 2201 and 4401]
17. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070 and 4401]
18. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407]



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-208-1

ISSUANCE DATE: 03/29/2013

**LEGAL OWNER OR OPERATOR:** E&B NATURAL RESOURCES MGMT  
**MAILING ADDRESS:** ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL CENTRAL  
CA

**SECTION:** NW14 **TOWNSHIP:** 27S **RANGE:** 27E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF TEOR OPERATION WELL VENT VAPOR CONTROL SYSTEM, INCLUDING UP TO 16 STEAM ENHANCED WELLS, AND COMPRESSED VAPOR PIPING TO DISTRICT AUTHORIZED DISPOSAL/INCINERATION DEVICES (POSO): INCREASE TOTAL NUMBER OF ALLOWED WELLS TO 200 AND ADD LOCATIONS SECTIONS 10, 11, 14 AND 15 OF T27S, R27E

### CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. TEOR operation is authorized at the following locations: Sections 10,11, 14 and 15 of T27S/R27E. [District Rule 2201]
4. No more than 200 steam-enhanced oil recovery wells shall be operated at all locations authorized by this permit. [District Rule 2201]
5. Volatile Organic Compound (VOC) emissions from the components associated with the TEOR system including the oil/gas separator tank shall not exceed 6.2 lb-VOC in any one day. [District Rule 2201]
6. Permittee shall maintain an accurate fugitive component count and resulting emissions calculated using emission factors from CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c(Feb 199), Screening Range Emission Factors for <10,000 ppmv (no leaks). [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S-1624-208-1 : Mar 29 2013 1:23PM - TORID : Joint Inspection NOT Required

7. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401]
8. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401]
9. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401]
10. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, record keeping, and notification requirements of Rule 4401 for all components containing or contacting VOC's at this facility except for those components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401]
11. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401]
12. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401]
13. The well vent vapor collection and control system shall be maintained in a leak-free condition. [District Rule 2201]
14. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201]
15. Permittee shall maintain a current roster of wells connected to well vent vapor collection and control system, and such roster shall be made readily available for District inspection upon request. [District Rule 1070]
16. Permittee shall keep records of date of inspection or leak detection, method used for leak detection (i.e. visual, hydrocarbon detection instrument etc.), instrument calibration date, component leaking, leak magnitude (ppmv as methane, number of liquid drops per minute excluding seal lubricant), identification tag, date of repair, method of repair and post-repair measurement. Such records shall be maintained current and shall be made readily available for District inspection upon request. [District Rules 2201 and 4401]
17. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070 and 4401]
18. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407]



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-244-1

ISSUANCE DATE: 03/29/2013

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT

MAILING ADDRESS: ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL CENTRAL  
CA

SECTION: TOWNSHIP: 27S RANGE: 27E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF TEOR OPERATION WITH UP TO 100 STEAM-ENHANCED PRODUCTION WELLS WITH CLOSED CASING VENTS: INCREASE TOTAL NUMBER OF ALLOWED WELLS TO 200, INCREASE TEOR VOC VAPOR CONCENTRATION LIMIT TO 100% AND ADD LOCATION SECTION 28, T27S, R27E

## CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Steam enhanced wells authorized by this permit shall only be located in Sections 20, 28, and 29, T27S, R27E. [District Rule 2201]
3. Produced fluids shall only be routed to vapor-controlled vessels achieving 99% capture efficiency. [District Rule 2201]
4. Volatile Organic Compound (VOC) emissions from the components associated with the TEOR system including the oil/gas separator tank shall not exceed 6.2 lb-VOC in any one day. [District Rule 2201]
5. Permittee shall maintain an accurate fugitive component count and resulting emissions calculated using emission factors from CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c(Feb 199), Screening Range Emission Factors for <10,000 ppmv (no leaks). [District Rule 2201]
6. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401]

CONDITIONS CONTINUE ON NEXT PAGE

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Sayed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

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7. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401]
8. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401]
9. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, record keeping, and notification requirements of Rule 4401 for all components containing or contacting VOC's at this facility except for those components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401]
10. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401]
11. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401]
12. The well vent vapor collection and control system shall be maintained in a leak-free condition. [District Rule 2201]
13. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201]
14. Permittee shall maintain a current roster of wells connected to well vent vapor collection and control system, and such roster shall be made readily available for District inspection upon request. [District Rule 1070]
15. Permittee shall keep records of date of inspection or leak detection, method used for leak detection (i.e. visual, hydrocarbon detection instrument etc.), instrument calibration date, component leaking, leak magnitude (ppmv as methane, number of liquid drops per minute excluding seal lubricant), identification tag, date of repair, method of repair and post-repair measurement. Such records shall be maintained current and shall be made readily available for District inspection upon request. [District Rules 2201 and 4401]
16. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070 and 4401]
17. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407]
18. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rule 1070]
19. Formerly S-6983-24.



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1624-248-0

**ISSUANCE DATE:** 03/29/2013

**LEGAL OWNER OR OPERATOR:** E&B NATURAL RESOURCES MGMT  
**MAILING ADDRESS:** ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL CENTRAL  
CA

**SECTION:** 28 **TOWNSHIP:** T27S **RANGE:** R27E

**EQUIPMENT DESCRIPTION:**  
500 BBL FIXED ROOF CRUDE OIL WASH TANK WITH PV VENT, TYSON LEASE

### CONDITIONS

1. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rules 2201 and 4623]
3. Tank shall operate at a constant level. [District Rule 2201]
4. Fluid throughput shall not exceed 500 barrels per day based on a monthly average. [District Rules 2201 and 4623]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.2 psia under all storage conditions. [District Rule 2201 and 4623]
6. VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

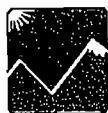


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8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
11. Permittee shall maintain monthly records of average daily fluid throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623]
12. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4623]





## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-249-0

ISSUANCE DATE: 03/29/2013

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT

MAILING ADDRESS: ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL CENTRAL  
CA

SECTION: 28 TOWNSHIP: T27S RANGE: R27E

**EQUIPMENT DESCRIPTION:**

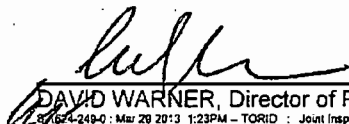
500 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VENT, TYSON LEASE

### CONDITIONS

1. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rules 2201 and 4623]
3. Fluid throughput shall not exceed 50 barrels per day based on a monthly average. [District Rules 2201 and 4623]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.2 psia under all storage conditions. [District Rule 2201]
5. VOC emission rate from the tank shall not exceed 1.4 lb/day. [District Rule 2201]
6. Permittee shall maintain monthly records of average daily fluid throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623]
7. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4623]

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## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1624-250-0

**ISSUANCE DATE:** 03/29/2013

**LEGAL OWNER OR OPERATOR:** E&B NATURAL RESOURCES MGMT

**MAILING ADDRESS:** ATTN: SHAMS HASAN  
3000 JAMES ROAD  
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL CENTRAL  
CA

**SECTION:** 28 **TOWNSHIP:** T27S **RANGE:** R27E

**EQUIPMENT DESCRIPTION:**  
500 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VENT, TYSON LEASE

### CONDITIONS

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2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rules 2201 and 4623]
3. Fluid throughput shall not exceed 50 barrels per day based on a monthly average. [District Rules 2201 and 4623]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.2 psia under all storage conditions. [District Rule 2201]
5. VOC emission rate from the tank shall not exceed 1.4 lb/day. [District Rule 2201]
6. Permittee shall maintain monthly records of average daily fluid throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623]
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