

# LISKOW & LEWIS

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August 23, 2010

Richard W. Revels, Jr.  
rwrevels@liskow.com

Honorable James H. Welsh  
Commissioner of Conservation  
Office of Conservation  
P. O. Box 94275  
Baton Rouge, LA 70804-4275

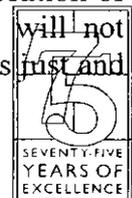
Re: **Commingling Application**  
Lake Washington Commingling Facility No. 1 (927270)  
E RB SUA; Cockrell-Moran No. 325 Well (LUW 615978)  
Lake Washington Field  
Plaquemines Parish, Louisiana

Dear Commissioner Welsh:

Application is hereby made on behalf of **SWIFT ENERGY OPERATING, LLC** for the calling of a public hearing after legal notice to consider the following matters:

1. To permit the applicant to commingle production from the E RB SUA, established by Office of Conservation Order No. 149-CCC-1, effective January 19, 2010, and from the designated unit well, the Cockrell-Moran No. 325 Well, by use of monthly well tests at its Lake Washington Commingling Facility No. 1 (Facility Code 927270), in the Lake Washington Field, Plaquemines Parish, Louisiana, in the manner previously approved for other leases and units at this facility, and as further described in the narrative and shown on the schematic attached hereto and made a part hereof.
2. To grant such exceptions to Statewide Order No. 29-D-1 as are required by the proposed procedures and to grant such additional authority and approval that may be needed for such procedures.
3. To consider such other matters as may be pertinent.

Swift Energy Operating, LLC ("Swift") is seeking to expand its existing commingling authority to include production from the E RB SUA at its Lake Washington Commingling Facility No. 1 in Lake Washington Field. It is the opinion of Swift that the use of well tests for allocation of production in the manner proposed will provide reasonably accurate measurement, will not create inequities, and will afford the owner of any interest the opportunity to recover his just and



August 23, 2010

equitable share of production. Swift was unable to obtain 100% approval from the interested parties. Therefore, Swift is requesting this matter to be set for hearing.

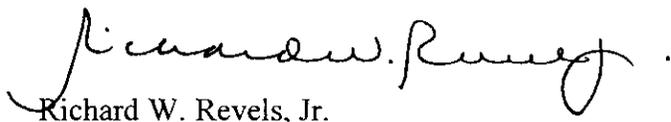
Attached hereto and made a part hereof are:

- a) Narrative explanation of the manner in which commingling will be accomplished
- b) Commingling Schematic
- c) List of Interested Owners, Represented Parties, Interested Parties

Copies of this application with attachments are being mailed to the Commissioner of Conservation and to the Lafayette District Manager of the Office of Conservation. Finally, enclosed is our check on behalf of the applicant, Swift Energy Operating, LLC, in the amount of \$755.00 made payable to the Office of Conservation and representing the required application fee.

Very truly yours,

LISKOW & LEWIS



Richard W. Revels, Jr.

RWRjr/dbf  
Attachments

cc: Mr. Richard Hudson, Lafayette District Office of Conservation  
cc: All parties on attached list

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**SWIFT ENERGY OPERATING LLC  
LAKE WASHINGTON FIELD  
PLAQUEMINES PARISH, LOUISIANA**

**Lake Washington Commingling Facility No. 1**

**E RB SUA; Cockrell-Moran No. 325**

The Cockrell-Moran No. 325 production flows into CM3 process facility, a part of the Lake Washington Commingling Facility No. 1, through the CM3 South Header No. 1. The CM3 process facility and Caseload gas service facility include the following:

- 1) An inlet header that directs flow to either the bulk or test separators
- 2) A bulk separator that handles all bulk fluid and acts as the major gas separation point for the facility
- 3) Four 1500 bbl oil tanks
- 4) Three 1000 bbl tanks for water
- 5) Four test separators
- 6) Five heater treaters
- 7) Four 400 bbl test tanks
- 8) Three compressors
- 9) An amine gas sweetening unit
- 10) A glycol dehydration system

All producing wells connected to the facility, either directly or through a field gathering header, are commingled at the inlet header and sent to the bulk separator. Alternately, each individual well can be directed through a separate flowline to a test separator.

Oil, gas, and water from the commingled production are separated at the bulk separator. The gas from the bulk separator is measured and sent to a compressor either on the CM3 process facility or at the Caseload platform through a low-pressure line. The gas exits the second compressor stage to the amine plant and then back to the third compressor stage for final compression. The gas exits the final compressor stage through the glycol dehydrator and into the high-pressure system for various uses.

Oil from the bulk separator is sent to a heater treater for reduction of any emulsion and on to the oil storage tanks after measurement. Any minimal gas separated in the heater treater flows to the flare system. Oil is pumped from the storage tanks to the ODS (Oil Delivery System) and on to either the EMPCO pipeline or the oil transport barge. Oil pumped from the tanks is measured exiting the facility. Water from the bulk separator is measured and is sent to the water storage tanks. Water from the heater treater is also sent to the water storage tanks. Water from the storage tanks is pumped into the company operated disposal wells.

Individual wells being tested flow through a separate line from the inlet header to a test separator where oil, gas, and water are separated and measured. Gas from the test separator is measured and sent to a compressor on the CM3 process facility or at the Caseload Platform through a low-pressure line. Each gas lift supply manifold is outfitted with a test meter to measure the gas lift

volume used during test. The gas lift supply volume measured during testing is subtracted from the total measured gas test volume to calculate the formation gas production. Oil from the test separator flows to the test heater treater to reduce any emulsion. Oil from the test heater treater flows to the test tanks for a final measurement by strapping to ensure accurate test oil volumes and is then pumped to the oil storage tanks. Any minimal gas volume separated in the heater treater flows to the flare system. Water from the test separator is measured and can be sent directly to the water storage tank, or sent to a test tank for a second measurement and then transferred to the water storage tanks for disposal. Water from the test heater treater is also sent to the water storage tanks. The test separators are maintained at pressures to match normal operating conditions as closely as possible with back pressure applied if necessary.

## **WELL TEST AND ALLOCATION METHODOLOGY**

### Well Tests

Each well is tested at least monthly and when well conditions are known to have changed. Changes in well conditions that will trigger tests include significant changes in flowing tubing pressure, noted change in oil cut, significant sand production, replacement or design changes in gas lift valves, significant changes in gas lift injection rates and any remedial well work or stimulation.

Well tests are twenty-four hours in duration where possible and four hours at a minimum depending on the number of wells flowing to a particular facility. Currently, twenty-four hour tests are possible at each facility based on the number wells flowing.

Test separator pressures are regulated for each test to simulate normal well operations as closely as possible. Flowline sizes have been designed to prevent excessive backpressure on the producing wells. There should be only minimal frictional differential experienced, if any, when the wells are switched from normal operations to test. When necessary, the test separator backpressure is regulated to approximate well conditions under normal operations.

The meters used for measuring oil volumes for test and allocation are rotated monthly. The meters are sent for third party proving and, if necessary, calibration. Gas meters used for test and allocation purposes are inspected monthly and calibrated every quarter.

### Allocation Methods

#### 1). Liquids

Oil exits each platform and is delivered into either the Exxon Mobil (EMPCO) pipeline through a LACT unit or into an oil transport barge through a LACT unit. The exit point from each platform has an oil meter measuring the oil volume leaving the facility. Total oil volume is measured at the LACT units. Swift monitors the volumes measured leaving each platform daily to make sure balance is observed with the total volume measured at the LACT units. The LACT meters are proved monthly.

Exxon Mobil and the transport barge operator provide total delivered volumes to Swift on a

monthly basis. Assuming the volumes provided compare with the checks Swift has in place, these volumes are used for allocation back to each individual well. Well tests are normalized with any downtime experienced by individual wells. Once a monthly well volume is calculated, it is divided by the total of the oil volumes from all well tests. This number is used as the pro rata percentage to allocate to each well by multiplying the subject percentage by the total production and sales volume. This method will allocate the sales volumes directly back to individual wells without the intermediate step of first allocating to the platforms.

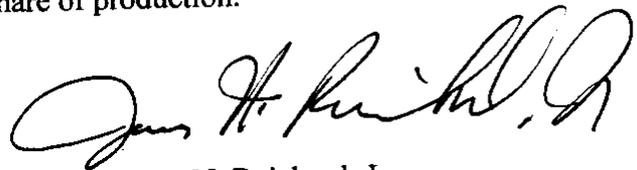
## 2). Gas

All natural gas produced in Swift's Lake Washington Field operations is sold, utilized in gas lift or as fuel/lease use. All gas separated from well production streams enters the low-pressure gas line on the particular platform and is measured through an electronic flow meter (EFM) before entering the suction of a compressor. This volume is used to allocate production back to individual wells. The well test volume is normalized by the number of days a particular well produced. With run time considered, a total monthly volume based on well tests is calculated. Normalized individual well test volumes are divided by the total monthly volume based on well tests, with the resulting percentage used to allocate well production. The calculated percentage is multiplied by the total measured platform production to calculate individual well production.

Gas lift injection is allocated in the same manner using total measured gas lift volumes and gas lift volumes measured during well tests. The allocated gas lift volume for an individual well is subtracted from the allocated actual production for that well to calculate formation production. The gas lift system is considered a closed system with no volumes lost. The only losses in the overall system will be fuel, flare, fugitives, and shrinkage. Fuel and flare volumes are measured at each platform and allocated back to the individual wells based on throughput. The remaining formation production volumes are utilized to allocate gas sales.

## EQUITY STATEMENT

Swift Energy Operating, LLC believes the commingling of gas and liquid hydrocarbons and the use well tests for allocation of production in the manner proposed will provide reasonably accurate measurement, will not create inequities, and will afford the owner of any interest the opportunity to recover his just and equitable share of production.



James N. Reichard, Jr.  
Agent for Swift Energy Operating, LLC

# TYPICAL WELL FLOW PATH LAKE WASHINGTON FIELD

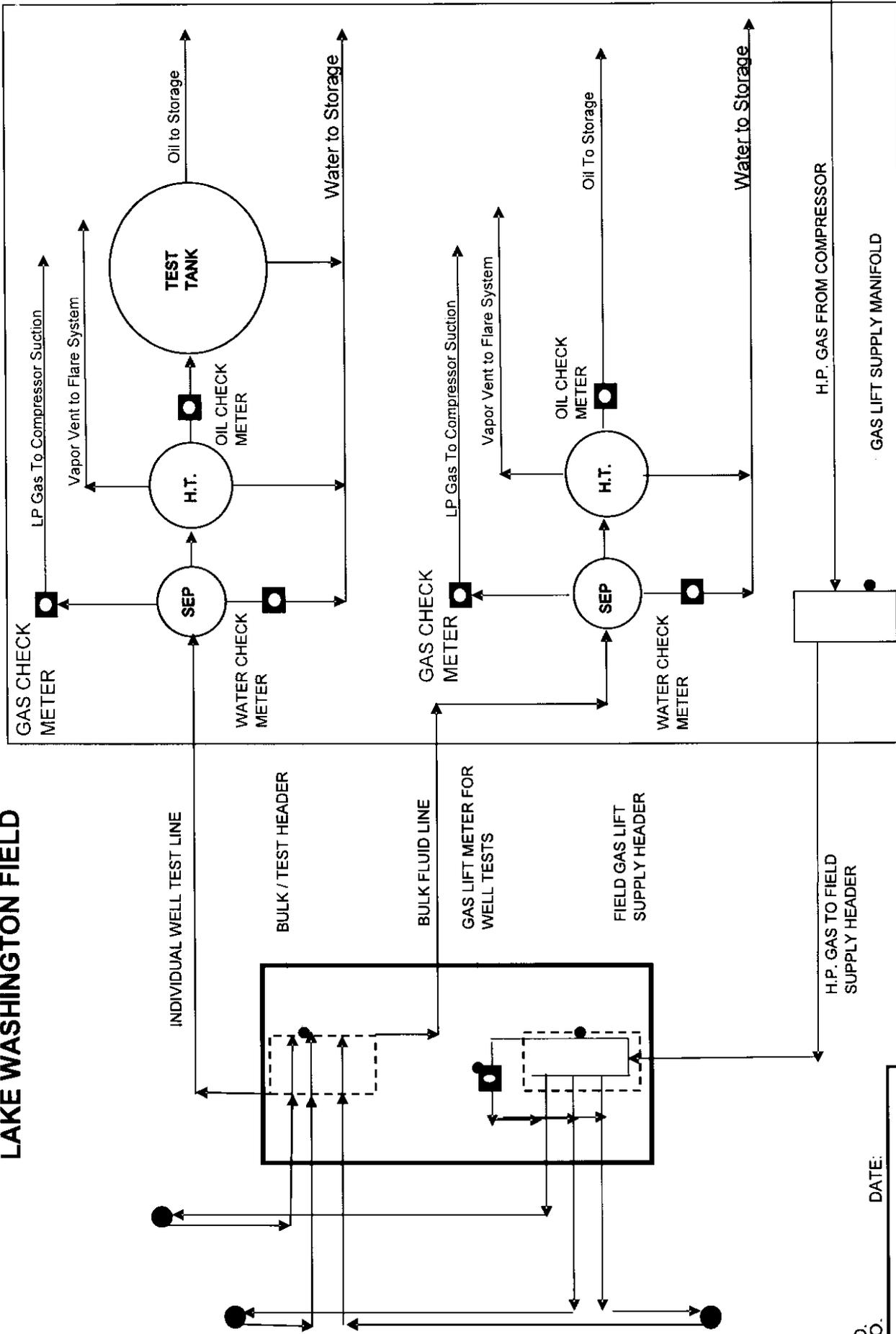


EXHIBIT NO. \_\_\_\_\_ DATE: \_\_\_\_\_  
DOCKET NO. \_\_\_\_\_

<b>SWIFT ENERGY OPERATING, LLC</b>	
LAKE WASHINGTON FIELD PLAQUEMINES PARISH, LOUISIANA	
Lake Washington Commingling Facility No. 1 CM3 Process Facility	
E RB SUA; Cockrell-Moran No. 325	
FRANK A. CORMIER & ASSOC.	PET. ENGR.