State of Louisiana

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION
ENHANCED RECOVERY PROJECT QUESTIONNAIRE

Complete And Return To:
Engineering Division
P.O. Box 94275
Baton Rouge, LA 70804-9275

Operator: ____________________________ Date: ____________________________

Note: Data given herein reflects the status of the project as of ____________________________

I. GENERAL INFORMATION
Field: ____________________________ Conservation District: ____________________________
Parish: ____________________________ Reservoir: ____________________________
Name of lease (or leases) in project: ________________________________________________
List other Operators active in this project: ___________________________________________

Mark Which Type of Project Is Planned:
1. Gas Injection
   a. Dispersed ____________________________ b. Crestal ____________________________
2. Improved Gas Drives
   a. Miscible Slug LPG ____________________________ b. Miscible Slug Alcohols ____________________________
   c. Enriched LPG Gas ____________________________
3. Waterflooding
   a. Pattern ____________________________ b. Peripheral ____________________________
4. Thermal Methods
   a. Forward Combustion ____________________________ b. Reverse Combustion ____________________________
   c. Stream Combustion Gas ____________________________
5. Miscellaneous Projects
   a. Updp Recovery ____________________________ b. Downdp Recovery ____________________________
6. Other (Specify): ____________________________________________________________

II. RESERVOIR INFORMATION
1. Completion date of first well in reservoir:
Oil ____________________________ Gas ____________________________ Water ____________________________
Proposed Injection ____________________________ Plugged & Abandoned ____________________________
Alternate Injection and Production ____________________________ TOTAL ____________________________

3. Original Productive area of reservoir: ____________________________ acres
4. Type of structure (Indicate Dip):
   (attach field plot, cross-section and structure map)
5. Original reservoir pressure: ____________________________ psi Date: ____________________________
6. Latest reservoir pressure: ____________________________ psi Date: ____________________________
7. Type of Drive Mechanism present and degree to which each was effective:
   a. Originally: __________________________________________________________
   b. Currently: __________________________________________________________
8. Average depth of top of pay: ____________________________ feet
9. Average effective thickness (oil & gas): ____________________________ feet
10. Average effective oil sand thickness: ____________________________ feet
11. Area of oil sand: ____________________________ acres
12. Average effective gas sand thickness: ____________________________ feet
13. Area of gas sand: ____________________________ acres
14. Average effective porosity: ____________________________ %
15. Average horizontal permeability: ____________________________ md Range: ____________________________ md
16. Average vertical permeability: ____________________________ md

III. FLUID CONTENT CHARACTERISTICS
1. API gravity: ____________________________ API
2. Viscosity of oil (centipoises): _______________ cp
3. Saturation pressure: _______________ psi
4. Solution GOR at saturation pressure: _______________ mcfd/bbl
5. Conrate water content (% of pore space): _______________ %
6. Present average GOR: _______________ mcfd/bbl
7. Enrichment of produced gas (Pentanes plus): ____________________________________________

(Form ERQ)
IV. PRODUCTION HISTORY
NOTE: Attach graphic history of oil, gas, water production, BHP and water and/or gas injection, if any, from discovery to present.

1. Cumulative Production to (date):
   a. Oil
   b. Gas
   c. Water

2. Estimated original oil in place: _______________ bbls
3. Ratio of gas cap volume to oil volume: _______________
4. Gas/Oil ratio trend: ____________________________
5. Water Cut trend: _______________________________
6. Rate of pressure decline (psi per month): __________ psi/mo
7. Present average well density in acres per well: ___
8. Present estimated oil saturation (% of pore space): __
9. Average daily production as of (date):
   a. Oil
   b. Gas
   c. Water

10. Original estimated production life: _______________

V. UNITIZATION INFORMATION
1. Is this project presently covered by an Office of Conservation Order? Yes/No _______________
   Order No. ____________________________________________
2. Date injection and/or cycling began or proposed: ____________________________

Effective Date: _______________

VI. WATER INJECTION INFORMATION
1. Source of injected water
2. Fresh or Salt water
3. Treatment, if any, before injection:
4. Proposed average daily injection rate: ___________ bbls/day
5. Number of proposed injection wells: ____________________
6. Average distance from injection well to producing well: ___
7. Is water (to be) injected below water/oil contact? Yes/No _______________
8. Has this reservoir undergone gas injection? Yes/No _______________
   If so, give details, amounts of gas injected and resume of results:

VII. GAS INJECTION INFORMATION
1. Type of Injection gas:
2. Source of injected gas:
   a. Is gas purchased? Yes/No _______________
   b. If so, from whom?
3. Is gas (to be) processed before injection? Yes/No _______________
4. Proposed average daily injection rate: __________ mcf/day
5. Number of proposed injection wells as of (date): __________
6. Average distance from injection well to producing well: ___
7. Is gas (to be) injected in gas cap, oil zone, or water zone? Yes/No _______________
8. Has this reservoir undergone water injection? Yes/No _______________
   If so, give details, amounts of gas injected and resume of results:

VIII CYCLING INFORMATION
1. Describe cycling operation on separate sheet and attach schematic diagram.
2. Estimated average initial cost for cycling installation per well: __________
3. Complete Section VII above.

IX. PRESENT PREDICTION OF RESULTS
1. Estimated ultimate recovery from gas sand: (bbls)
2. Estimated ultimate recovery from oil sand: (bbls)
3. Estimated ultimate recovery from gas sand: (bbls/acre-ft)
4. Estimated ultimate recovery from oil sand: (bbls/acre-ft)
5. Estimated recovery - TOTAL: (bbls/acre-ft)
6. Estimated increase in ultimate recovery: (bbls)
7. Estimated ultimate recovery from gas sand: (%)

With Project
Without Project

X. RECOMMENDATIONS AND REMARKS
1. On a separate sheet, explain why is an injection program necessary to aid the primary mechanism?
2. On a separate sheet, describe the present producing mechanism and how it is expected to be affected by the injection program.

3. On a separate sheet, supply recommendations as to how the Office of Conservation could help Institute and maintain Enhanced Recovery projects.

Completed by: ____________________________________________
Title: ____________________________________________________

Future Inquiries should be Addressed to: ____________________________

(FORM ERQ)