

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
 PETROLEUM STORAGE TANK PROGRAM
 CAP WORKSHEETS**

Date Prepared:

DUAL PHASE EXTRACTION (DPE)

Facility Name:	LPST ID No.:
Facility Address/City:	CAPM:
Facility County:	RCAS:
Facility ID No.:	P.E.:
TCEQ Region:	Prepared By:

Please refer to the appropriate section in the EPA CAP Manual for definitions, equations and tables to assist you when completing these worksheets. When supplying the information requested below, please make certain that any calculations and methodology used to arrive at the value or conclusion you have entered is included in the CAP. This document must not be altered in any manner.

SOIL/GROUNDWATER CHARACTERISTICS

Hydraulic Conductivity K (m/ sec) obtained by:			
	Feasibility Test	Laboratory Analysis	Other:
Hydraulic conductivity K < 10 ⁻⁹ (m/sec)?		YES	NO
Average depth to water ≤ 3 ft?		YES	NO
Soil water content ≥ 85%?		YES	NO
Soil water content obtained by:	Laboratory Analysis	Other:	

If the answer to any of the questions above is **yes**, DPE is not likely to be effective and needs further evaluation.

CONSTITUENT CHARACTERISTICS

Non-aqueous phase liquid (NAPL) type released:	Gasoline	Diesel	Other:
Do any of the target COCs present have a vapor pressure < 0.5 mm Hg?		YES	NO
Do any of the target COCs present have a boiling temperature > 250° – 300°C?		YES	NO
Do any of the target COCs present have a Henry's Law constant < 100 atm?		YES	NO

If the answer to any of the questions above is **yes**, the SVE component is not likely to be effective.

FEASIBILITY TEST

Feasibility test duration (hrs):		Method:	One pump	Two pump
DPE test well construction				
Diameter:	Total Depth:	Screen Interval:	Depth to Water:	
Observation well construction				
Diameter:	Total Depth:	Screen Interval:	Depth to Water:	
Additional information:				
Observed SVE radius of influence (ft):		Observed maximum airflow rate (scfm):		
Vacuum at the vacuum source (H ₂ O") when generating the maximum airflow rate:		Vacuum at the DPE well head (H ₂ O") when generating the maximum airflow rate:		
Vapor concentrations* (mg/m ³) - During test		Groundwater concentrations* (mg/L)		
*Use this format for data entry: XXX mg/m ³ or mg/L (MW-1), XXX mg/m ³ or mg/L (MW-2), XXX mg/m ³ or mg/L (MW-3), etc.				
Benzene:		Benzene:		
Ethylbenzene:		Ethylbenzene:		
Toluene:		Toluene:		
Xylenes:		Xylenes:		
TPH:		TPH:		
MTBE:		MTBE:		
Vapor Recovery Rate (lbs/hr):		Groundwater Recovery Rate (lbs/hr):		
Observed groundwater pumping/ extraction radius of influence (ft):		Average groundwater pumping/ extraction rate (gpm):		
Observed maximum drawdown in the test well during DPE testing:				

REMEDIATION SYSTEM DESIGN

Target concentrations:				
DPE well construction				
Diameter:	Total Depth:	Screen Interval:	Depth to Water:	
SVE well construction				
Diameter:	Total Depth:	Screen Interval:	Depth to Water:	
The design of the DPE wells must be the same diameter size as the DPE feasibility test well.				
Designed drawdown in the DPE well(s) (ft):		Designed radius of influence for ground-water in pumping/extraction well(s) (ft):		
Designed vacuum at the DPE well head (H ₂ O"):		Designed radius of influence for SVE well(s) (ft):		
Area of plume above the target concentrations (ft ²):		Number of DPE wells:		

REMEDIATION SYSTEM DESIGN (cont.)

Number of SVE-only wells:		Designed pumping rate per well (gpm):	
Total designed pumping rate (gpm):		Designed airflow rate per well (scfm):	
Total airflow rate (scfm):		Estimated hydrocarbon mass at startup (lbs):	
Total recovery rate at startup (lbs/hr):		Estimated cleanup time (years):	
Estimated total recovery rate in final year (lbs/hr):		Estimated final hydrocarbon mass remaining (lbs):	
Groundwater treatment method:	Air Stripper	Carbon Absorption System (CAS)	
Groundwater treatment unit capacity:			
Vapor treatment method:			
Thermox	Catox	Internal Combustion Engine (ICE)	Carbon Absorption System (CAS)
Vapor treatment unit capacity (scfm):			
Remediation system component utility requirement:			
Electricity voltage (volts):		Gas pressure (psi):	
Utility supplied at the site:			
Electricity voltage (volts):		Gas pressure (psi):	
Is a telemetry unit included?		YES	NO
Permit requirements:			

OPERATION, MONITORING AND PERFORMANCE (OMP) PLAN

Does OMP Plan include daily monitoring for the start-up phase (up to 7 days)?		YES	NO
What is the scheduled frequency of long term monitoring?	Weekly	Monthly	Other:
Which of the following will be included in the OMP Plan?			
BTEX	TPH	Other:	

CLOSURE PLAN

Does the closure plan include the following?		
Confirmation of target concentrations	Submission of site closure request	Removal of equipment
Plugging of wells	Waste disposal	Paving/resurfacing
Deed Recordation	Institutional Controls	