

**APPENDIX C**  
**RECAP FORMS**

## **RECAP FORMS**

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# RECAP FORM 1

## RECAP SUBMITTAL SUMMARY

A completed RECAP Submittal Summary form shall be included as the first page of the RECAP Submittal.

1. Agency Interest Name: \_\_\_\_\_

2. AI#: \_\_\_\_\_

3. Name of Area of Investigation: \_\_\_\_\_

4. Facility Owner Name: \_\_\_\_\_

5. Facility Owner Mailing Address: \_\_\_\_\_

\_\_\_\_\_

6. Facility Operator Name: \_\_\_\_\_

7. Facility Operator Mailing Address: \_\_\_\_\_

\_\_\_\_\_

8. Facility Physical Address: \_\_\_\_\_

\_\_\_\_\_

9. Parish: \_\_\_\_\_

10. Latitude/Longitude of Primary Facility Entrance: \_\_\_\_\_

11. Latitude/Longitude Method: \_\_\_\_\_

12. Facility Contact Person: \_\_\_\_\_

13. Facility Contact Person's Phone Number: \_\_\_\_\_

14. Facility Contact Person's Mailing Address: \_\_\_\_\_

\_\_\_\_\_

15. Facility Contact Person's E-mail Address: \_\_\_\_\_

16. Area of Investigation Location: \_\_\_\_\_

17. Area of Investigation Size: \_\_\_\_\_

18. Horizontal and Vertical Extent of the Area of Investigation has been identified? [ ] Yes [ ] No

19. Describe the Current and Historical Uses of the Property on which the AOI is located and the Time Periods for Each Use/Activity: \_\_\_\_\_

\_\_\_\_\_

20. Indicate How Release Occurred (if known): \_\_\_\_\_

21. List Constituents Released (if known): \_\_\_\_\_

\_\_\_\_\_

22. RECAP Submittal Date: \_\_\_\_\_

23. RECAP Submittal Prepared by: \_\_\_\_\_

24. RECAP Submittal Preparer's Employer: \_\_\_\_\_

25. RECAP Submittal Preparer's Phone Number: \_\_\_\_\_

26. Site Ranking:  Class 1  Class 2  Class 3  Class 4

27. Media Impacted:

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Surface Soil           | <input type="checkbox"/> Groundwater 1A                        | <input type="checkbox"/> Surface water |
| <input type="checkbox"/> Potential Surface Soil | <input type="checkbox"/> Groundwater 1B                        | <input type="checkbox"/> Sediment      |
| <input type="checkbox"/> Subsurface Soil        | <input type="checkbox"/> Groundwater 2A                        | <input type="checkbox"/> Biota         |
|   | <input type="checkbox"/> Groundwater 2B                        |  |
|   | <input type="checkbox"/> Groundwater 2C                        |  |
|   | <input type="checkbox"/> Groundwater 3A                        |  |
|   | <input type="checkbox"/> Groundwater 3B                        |  |
|   | <input type="checkbox"/> Groundwater Classification<br>Unknown |  |

28. Is soil present at 0-3 ft bgs impacted?  Yes  No

29. Release volume: \_\_\_\_\_

30. Is NAPL Present?  Yes  No

31. Aquifer: \_\_\_\_\_

(a) Distance from AOC/AOI to the nearest downgradient property boundary: \_\_\_\_\_

(b) Distance from AOC/AOI to the nearest downgradient surface water body: \_\_\_\_\_

(c) Depth from known contamination to the nearest Groundwater Classification 1 aquifer: \_\_\_\_\_

(d) If a GW 1 or 2 aquifer, distance from POC to nearest downgradient drinking water wells: \_\_\_\_\_

32. Distance from known contamination to nearest enclosed occupied structure: \_\_\_\_\_

33. Depth Groundwater First Encountered: \_\_\_\_\_

34. Distance from POC to POE: \_\_\_\_\_

35. Dilution Factor Applied: \_\_\_\_\_

36. Fractional Organic Carbon Content: \_\_\_\_\_

37. Current Land Use:  Non-Industrial  Industrial NAICS: \_\_\_\_\_

38. Potential Future Land Use:  Non-Industrial  Industrial NAICS: \_\_\_\_\_

39. Is There Offsite Contamination?  Yes  No

(a) If Yes, Land Use Offsite:  Non-Industrial  Industrial NAICS: \_\_\_\_\_

(b) If Yes, Identify the Landowner(s), Lessee(s), and/or Servitude Holder(s): \_\_\_\_\_  
 \_\_\_\_\_

40. Management Option(s) Applied at the AOI:  SO  MO-1  MO-2  MO-3

41. Provide documentation that the AOI meets the criteria for the Option implemented: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

42. Current Status of the AOI:

(a) The AOI will be further evaluated under:  MO-1  MO-2  MO-3.

(b) Medium for further evaluation: \_\_\_\_\_

(c) Exceedances:

COC	<input type="checkbox"/> AOIC <input type="checkbox"/> CC	<input type="checkbox"/> LSS <input type="checkbox"/> MO-1 LRS <input type="checkbox"/> MO-2 LRS

43.  The AOI will be remediated under:  SO  MO-1  MO-2  MO-3.

(a) Medium requiring remediation: \_\_\_\_\_

(b) Corrective Action Standards:  Non-industrial  Industrial

(c) Institutional Controls Are Proposed?  Yes  No  Institutional Controls Already Present

(d) Interim Corrective Actions Have Been Performed?  Yes  No  Not Applicable

(e) If yes, explain.  
 \_\_\_\_\_  
 \_\_\_\_\_

44. Exceedances and Corrective Action Standards to be applied:

COC	<input type="checkbox"/> AOIC <input type="checkbox"/> CC	<input type="checkbox"/> LSS <input type="checkbox"/> MO-1 LRS <input type="checkbox"/> MO-2 LRS <input type="checkbox"/> MO-3 LRS <input type="checkbox"/> Alternate MO-3 RS

45. All constituent concentrations in all impacted media:



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51. Is There a Current or Potential Ecological Impact?       Yes     No





**RECAP FORM 2**  
**ANALYTICAL DATA SUMMARY**  
**Definitions**

**COC/CAS:** *The potential or actual constituent of concern analyzed, and its defining Chemical Abstract service number. EXAMPLE: Butyl benzyl pthlate/ 85-68-7*

**DATE:** *Date of completion of this report (yy,mm,dd). EXAMPLE: 970131.*

**LOCATION & DEPTH:** *The unique identification assigned by the site to the location where the sample was collected, and the approximate depth of collection in feet. EXAMPLE: B-1 (12ft)*

**LIMITING STANDARD:** *The lowest RECAP Standard (RS) or Screening Standard (SS) of all standards applicable to the given COC or source medium. All results are to be reported in Parts per Million (PPM) such as mg/kg or mg/L.*

**LINE # :***Assigned per unit of reported information. Used to ease reference in finding information and identifying possible QA/QC Flags.*

**MEDIA SAMPLED:** *The environmental medium that was sampled. EXAMPLE: SOIL, WATER, AIR*

**METHOD:** *The analytical method(s) used to prepare and quantify a COC. EXAMPLE: SW-846-8260. Note: Any alternate method outside of EPA or published RECAP methods must be pre-approved by the Department.*

**OPTION USED:** *Management option used to determine the limiting standard. EXAMPLE: SO, MO-1, MO-2, or MO-3.*

**PAGE \_\_ of \_\_:** *Page sequence of report. EXAMPLE: PAGE 1 OF 2.*

**PQL:** *The practical Quantitation Limit used. All results are to be reported in Parts per Million (PPM) such as mg/kg or mg/L.*

**QA/QC Flag:** *Any factor associated with the sample analysis that may cause results to be rejected unless properly explained. See additional instruction section.*

**SAMPLE DATE:** *The date that the sample was collected (yy,mm,dd). EXAMPLE: 970101.*

**SAMPLE IDENTIFICATION NO.:** *The unique identification number that was used to identify this sample at the time of collection. EXAMPLE: 970101-A. NOTE: Analytical (Laboratory) Sample IDs and Collection IDs are to be IDENTICAL.*

**SAMPLE QUANTITATION LIMIT:** *The lowest level at which the constituent could accurately and reproducibly be quantitated during the analysis of this sample. EXAMPLE: 0.005. All results are to be reported in Parts per Million (PPM) such as mg/kg or mg/L.*

**SAMPLE RESULT:** *The concentration of a constituent in the sample as determined by the laboratory. If a constituent was not detected this value should be reported as less than the sample quantitation limit. EXAMPLE: < .005. All results are to be reported in Parts per Million (PPM) such as mg/kg or mg/L.*

**SITE NAME:** *The name by which the site is referred to in correspondence to the LDEQ. EXAMPLE: RBCA Corporation, Baton Rouge Terminal.*

**SITE PHYSICAL ADDRESS:** *The physical address of the site that has been sampled. EXAMPLE: 7290 BLUEBONNET BLVD, BATON ROUGE LA 70809.*

**ADDITIONAL INSTRUCTIONS:**

1. The QA/QC Flag box should be marked (with an X or appropriate qualifier) **only if there is a QA/QC Flag**. Each Flag should be listed by Line number with a brief explanation of the QA/QC discrepancy provided at the end of the form. **EXAMPLE:**

Line # 5: The sample duplicate was out of range by 5 percent most likely due to error from dilution necessitated by the high presence of sought analyte in the samples.

Line #6 and Line #8: While the field blank was found to exceed the limiting standard, both samples were found to be below the MO-1 standards, and all other field and instrument verification QA/QC passed.

2. It is not necessary to report information within a cell that would be a duplicate of facts given in a cell directly above. **EXAMPLE: If Line # 1, 2, 3, 4, and 5 were all associated with the same sample location and depth, it is only necessary to list the location and depth in the appropriately provided space in Line # 1.**

**RECAP FORM 3  
ANALYTICAL DATA EVALUATION**

Date \_\_\_\_\_

Facility Name \_\_\_\_\_

Agency Interest (AI #) \_\_\_\_\_

Physical Site Location \_\_\_\_\_

Operation Address \_\_\_\_\_

Owner/Responsible Party Address \_\_\_\_\_

**1. Data Generation**

- 1.A All sample collection was done in accordance to applicable RECAP collection guidelines.  Yes  No
- 1.B All generated data was obtained using EPA Methodology, RECAP approved methodology (as found in text), or methodology pre-approved by the Department. Any modifications to methodology have been noted, explained and pre-approved by the Department.  Yes  No
- 1.C All Data are analyte-specific and the identity and concentration are confirmed.  Yes  No
- 1.D All data were generated by a LDEQ certified laboratory.  Yes  No

**2. Data Evaluation and Usability**

- 2.A Methods used are appropriate for analyzed constituents:
  - 1. Analysis used is specific for COCs.  Yes  No
  - 2. Results are produced with the most appropriate sensitive method. (e.g. not using portable field analytical instruments).  Yes  No
- 2.B Sample Quantitation Limits (SQL)

**Note: The SQL is not synonymous with the IDL (instrument detection limit) or the MDL (minimum detection limit). The SQL is derived after considering the effects**

**of dilutions, loss of instrument sensitivity, matrix interferences, and other interferences effecting the lower-end accuracy of analysis, and therefore resulting in the elevation of the method detection limit. The SQL will be the only detection limit considered for comparison to limiting standards.**

1. All SQLs are less than reference concentrations (RS or SS).  Yes  No  
(If yes, proceed to Section 2C, Qualifiers and Codes).
2. Samples with SQLs greater than the limiting standard are not being reported as non-detected. (If yes, proceed to Item # 3 of this section).  Yes  No

If the SQL is higher than the limiting standard, and a non-detect is being reported, data may still be considered by the Department if all the below conditions are met:

- (a) The non-detect results make up less than 5-10 percent of a sample set for a considered individual COC.
- (b) The ND is not classified as being from a key sampling location (e.g. drinking water well).
- (c) Documentation provided by a LDEQ accredited laboratory (with supporting evidence) is included in the document demonstrating that a practical quantitation limit was not achievable due to site or sample-specific conditions.

Have the above three conditions been met?  Yes  No

Note: If one or more of the above conditions cannot be met, the total (100%) value of the PQL may be reported as a positive detected result.

Will this option be used and annotated in the Report?  Yes  No

**Note: If all answers in this item are “no,” analytical results will be rejected and re-sampling will be required.**

3. Are sample results higher than both the PQL and the limiting standard?  
 Yes  No (If so, results may be used despite elevated PQL).

## 2.C Qualifiers and Codes

1. All qualifiers and codes for flagged data have been noted on form 3 and supporting documentation has been included in the laboratory information package.  Yes  No

2. All data with a qualifier of “R” (unusable data) do not come from critical sample points (if so, resample will be required). [ ] Yes [ ] No
3. All data with a qualifier of “J” (estimated concentrations) have been included as positive results. [ ] Yes [ ] No

#### 2.D Blank Samples

1. Field and laboratory blanks showed no signs of contamination, and no constituents were detected in blanks. (If no constituents or contaminants were detected, proceed to 2E, Tentatively Identified Compounds). [ ] Yes [ ] No
2. Contaminants or constituents found in blanks can be considered common laboratory contaminants as defined by EPA (acetone, 2-butanone, methylene chloride, toluene, or phthalates); and the same contaminants found in site samples are present at quantities less than 10 times the levels found in blanks. (If no, constituents are to be reported as detected COCs). [ ] Yes [ ] No
3. Contaminants or constituents found in blanks are not considered common laboratory contaminants as defined by EPA; and the same contaminants found in site samples are present at quantities less than 5 times the levels found in blanks (If no, constituents are to be reported as detected COCs). [ ] Yes [ ] No

#### 2.E Tentatively Identified Compounds (TIC)

All possible TIC have been identified, evaluation is supported with documentation in the text, and information conforms to the requirements as listed in Section 2.5 of the RECAP. [ ] Yes [ ] No

#### 2.F Historical Data

1. All quantitative historical data has been reviewed by current QA/QC guidelines, and all applicable supporting information is justified and included in the report. [ ] Yes [ ] No
2. All qualitative historical data is verifiable, has not been used quantitatively, and has only been used in the development of a conceptual model. [ ] Yes [ ] No

### 3. Documentation

3.A Laboratory information package assembled as follows  Yes  No:

1. Sample documentation (chains of custody, preparation time, time of analysis).
2. Sample and analyte identification and quantification.
3. Determination and documentation of sample quantitation limits (SQLs).
4. Initial and continuing calibration.
5. Performance evaluation samples (external QA or laboratory control samples)
6. Matrix spike recoveries.
7. Analytical error determination (determined with replicate samples).
8. Total measurement error determination summary. (Evaluates overall precision of measurement system from sample acquisition through analysis. Determined with field duplicate and matrix spike with matrix spike duplicate).
9. Explanation and supporting documentation for flagged data.

3.B All methods used in all analysis have produced tangible raw data (e.g. chromatograms, spectra, digital values), and are available to the Department upon request.

Yes  No

1. Representative data is included in documentation as examples of method procedures.  Yes  No
2. All flagged data is supported with complete associated tangible raw data. (e.g. depiction of matrix interferences, spiked recoveries reported outside of control limits, evidence for need for dilution etc.).  Yes  No

**Note: Any “no” answer must be explained at the conclusion of this form. Items not applicable should be left unmarked.**

### 4. Submitter Information

Date \_\_\_\_\_

Name of Person submitting this evaluation \_\_\_\_\_

Affiliation \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Additional Preparers \_\_\_\_\_



**RECAP FORM 4  
SAMPLING INFORMATION SUMMARY**

**DATE:** \_\_\_\_\_

**Page \_\_ of**

**Site Name:** \_\_\_\_\_

**Site Physical Address:** \_\_\_\_\_

\_\_\_\_\_

**LDEQ Site I.D. Number(s):** \_\_\_\_\_

<b>Sample Location No.</b>				
<b>Sample Identification No.</b>				
<b>Laboratory Sample I.D. No.</b>				
<b>Date Sampled (yy,mm,dd)</b>				
<b>Media Sampled</b>				
<b>Sample Type</b>				
<b>Sample Collection Point</b>				
<b>Sampling Equipment</b>				
<b>Sample Depth (BGS)</b>				
<b>Sample Elevation (NGVD)</b>				
<b>Ground Surface Elevation (NGVD)</b>				
<b>Sampling Comments</b>				
<b>Replicate?</b>	Y / N	Y / N	Y / N	Y / N
<b>Replicate Sequence Number</b>				



**RECAP FORM 4**  
**SAMPLING INFORMATION SUMMARY**  
**Definitions**

**DATE:** *Date of completion of this report (yy,mm,dd). EXAMPLE: 970131*

**PAGE \_\_ of \_\_:** *Page sequence of report. EXAMPLE: PAGE 1 of 2*

**SITE NAME:** *The name by which the site is referred to in correspondence to the LDEQ. EXAMPLE: RECAP Corporation, Baton Rouge Terminal.*

**SITE PHYSICAL ADDRESS:** *The physical address of the site that is being evaluated. EXAMPLE: 7290 BLUEBONNET BLVD, BATON ROUGE LA 70809.*

**LDEQ SITE I.D. NUMBER(S):** *LDEQ identification numbers that are assigned to this site. EXAMPLE: LAD000000001, GD-033-0001, LA000000001, etc.*

**SAMPLE LOCATION NO.:** *The unique identification number assigned by the site to the location where the sample was collected. EXAMPLE: B-1, MW-1, SW-3, etc.*

**SAMPLE IDENTIFICATION NO.:** *The unique identification number that was used to identify this sample during the sampling event. EXAMPLE: 970101-A.*

**LABORATORY SAMPLE I.D. NO.:** *The unique identification number that was assigned to the sample by the laboratory performing an analysis of the sample. EXAMPLE: 27020.01*

**DATE SAMPLED:** *The year, month and day the well was sampled. EXAMPLE: 970101.*

**MEDIA SAMPLED:** *The media collected for analyses. EXAMPLE: Air, Surface Water, Sediment, Ground Water, Surface Soil, Subsurface Soil, etc.*

**SAMPLE TYPE:** *The sampling technique that was used to collect this sample. EXAMPLE: Grab, Composite.*

**SAMPLE COLLECTION POINT:** *Description of the point where sample is taken. EXAMPLE: Borehole, Monitoring Well, Outfall Canal, etc.*

## SAMPLING INFORMATION SUMMARY

### Definitions (Continued)

**SAMPLING EQUIPMENT:** *The equipment used to collect the sample. EXAMPLE: Bailer, Bladder pump, etc.*

**SAMPLE DEPTH (BGS):** *The depth below ground surface where the sample was collected measured in feet. If not applicable (above ground air sample) NA should be placed in this field. EXAMPLE: 10 Feet, 5 Feet.*

**SAMPLE ELEVATION (NGVD):** *The elevation, in feet, of the interval where the sample was collected relative to the National Geodetic Vertical Datum of 1929. If this information has not been evaluated NE should be placed in this field. EXAMPLE: +32 Feet.*

**GROUND SURFACE ELEVATION (NGVD):** *The elevation of the ground surface, in feet, at the location where the sample was collected relative to the National Geodetic Vertical Datum of 1929. If this information has not been evaluated NE should be placed in this field. EXAMPLE: +2 Feet.*

**SAMPLING COMMENTS:** *Comments pertaining to the sampling event or relative to any value that was provided for the previously listed fields.*

**REPLICATE:** *Sample(s) collected from a well to be analyzed for the same parameter(s) during one sampling event. Please circle Y (Yes) or N (No).*

**REPLICATE SEQUENCE NUMBER:** *Sequential number of replicate sample(s).*  
*EXAMPLE: REPLICATE? Y            REPLICATE SEQUENCE NUMBER 1*

**RECAP FORM 5  
GROUND WATER MONITORING WELL CHARACTERISTICS**

DATE: \_\_\_\_\_  
Site Name:

Page \_\_ of \_\_

*Monitoring Well Characteristics*

<b>SITE MONITORING WELL NO.</b>				
<b>PERMIT NUMBER/AUTHORIZATION</b>				
<b>DOTD I.D.</b>				
<b>LATITUDE</b>				
<b>LONGITUDE</b>				
<b>LAT/LONG METHOD</b>				
<b>UNIT/AREA MONITORED</b>				
<b>WELL LOCATION</b>				
<b>WELL TYPE</b>				
<b>WELL STATUS</b>				
<b>GRADIENT</b>				
<b>CASING DIAMETER (INCHES)</b>				
<b>CASING MATERIAL</b>				
<b>DATE COMPLETED (yy,mm,dd)</b>				
<b>ZONE MONITORED</b>				
<b>ZONE THICKNESS (FEET)</b>				
<b>ELEV. OF MEASURING POINT (NGVD)</b>				
<b>WELL DEPTH AT INSTALLATION (FEET BGS)</b>				
<b>GROUND SURFACE ELEVATION (NGVD)</b>				
<b>TOP OF SCREENED INTERVAL (NGVD)</b>				
<b>BOTTOM OF SCREENED INTERVAL (NGVD)</b>				
<b>SUMP LENGTH (FEET)</b>				

**RECAP FORM 5**  
**GROUND WATER MONITORING WELL CHARACTERISTICS**  
**Definitions/List of Values**

**DATE:** *Date of completion of this report (yymmdd). Example 970131*

**PAGE \_\_ of \_\_:** *Page sequence of report. Example Page 1 of 2*

**SITE NAME:** *The name by which the site is referred to in correspondence to the LDEQ.*  
**EXAMPLE:** *Ground Water Corporation, Baton Rouge Terminal*

**SITE MONITORING WELL NO.:** *The identification commonly used by the site to identify this well in correspondence to the LDEQ. EXAMPLE: MW-1*

**PERMIT NUMBER / AUTHORIZATION:** *The permit number or other authorization under which the well was installed. EXAMPLE: GD-001-1234, LAD 000000001, GW-001*

**DOTD I.D. NO.:** *The identification number assigned to this well by the Louisiana Department of Transportation and Development (DOTD). EXAMPLE: 295706090105501*

**LATITUDE:** *Latitude of the well rounded to the nearest .01 of a second. EXAMPLE: 30°28'50.01"*

**LONGITUDE:** *Longitude of the well rounded to the nearest .01 of a second. EXAMPLE: 90°11'30.01"*

**LAT/LONG METHOD:** *The method used to obtain the latitude and longitude of the well. The following are valid:*

<i>SUR-GPS</i>	<i>= surveyed using differential-mode global positioning system (GPS)</i>
<i>NAV-GPS</i>	<i>= surveyed using absolute-mode (navigation-quality) GPS</i>
<i>SUR-C</i>	<i>= cadastral survey</i>
<i>MAP</i>	<i>= digital or manual interpolation from a map or photo</i>
<i>LORAN-C</i>	<i>= Loran-C navigation device or radiotriangulation</i>
<i>ADDMAT</i>	<i>= address-matched to a sub-portion of a street block</i>
<i>PHOTO-GM</i>	<i>= aerial photography</i>
<i>SPCSCONV</i>	<i>= conversion from state plane coordinate system</i>
<i>TSRCONV</i>	<i>= conversion from township-section-range system</i>
<i>UTMCONV</i>	<i>= conversion from Universal Transverse Mercator (UTM) coordinates</i>
<i>OTHER</i>	<i>= method other than those listed above</i>

**UNIT/AREA MONITORED:** *The designated Unit or Area intended to be monitored or from which contaminants are being recovered by this well. EXAMPLE: Aeration Basin #1*

**GROUND WATER MONITORING WELL CHARACTERISTICS**  
**Definitions/List of Values**  
**(Continued)**

**WELL LOCATION:** *A general description of the physical location of the well within the site, which may be described by relationship to surrounding appurtenances or plant data points. **EXAMPLE:** SW Corner of Tank 101*

**WELL TYPE:** *The designation of the usage of this well. Please choose one of the following: piezometer (P), monitoring (M), recovery (R). If other, please note.*

**WELL STATUS:** *The current status of the well. Please choose one of the following: active (A), inactive (I), plugged and abandoned (P & A). If other, please note.*

**GRADIENT:** *The location of this well in relation to the Unit or Area monitored and the direction of ground water flow. Please choose from the following: up (UG), down (DG), lateral (L). If other, please note.*

**CASING DIAMETER:** *The diameter of the well casing, expressed in inches.*

**CASING MATERIAL:** *The construction material of the inner well casing.*

*The following construction materials are valid:*

PVC	PVC
OTHPL	Other plastic
TEFLON	Teflon
SS305	Stainless steel 305
SS316	Stainless steel 316
OTHSS	Other stainless steel
STEEL	Steel
CTSTL	Coated steel
OTHRM	Other metal
TILE	Tile
OTHER	Other material

**DATE COMPLETED:** *The date the well was initially developed subsequent to installation (yymmdd). **Example:** 940101*

**ZONE MONITORED:** *The name of the water bearing zone in which this well is screened and is commonly referred. **EXAMPLE:** Norco Aquifer, B-Zone, 60-Foot Zone*

**ZONE THICKNESS:** *The thickness of the zone monitored at this well location, expressed in number of feet or ND if not determined. **EXAMPLE:** 5'*

**ELEVATION OF MEASURING POINT:** *Elevation from the National Geodetic Vertical Datum (NGVD) of the point on top of the inner casing of the well which is used as a reference point for well measurements, to .01 feet. **EXAMPLE:** + 23.55 ft*

**WELL DEPTH AT INSTALLATION:** *Elevation from the NGVD of the depth of well at time of installation, to .01 feet. **EXAMPLE:** - 23.01 ft*

**GROUND WATER MONITORING WELL CHARACTERISTICS**  
**Definitions/List of Values**  
**(Continued)**

**GROUND SURFACE ELEVATION:** *Elevation from the NGVD of the ground surface at the well location, to .01 feet. EXAMPLE: + 20.55 ft*

**TOP OF SCREENED INTERVAL:** *Elevation from the NGVD of the top of the well screen, to .01 feet. EXAMPLE: - 25.01 ft*

**BOTTOM OF SCREENED INTERVAL:** *Elevation from the NGVD of the bottom of the well screen, to .01 feet. EXAMPLE: - 30.01 ft*

**SUMP LENGTH:** *Length of the blank section of casing below the base of the screened interval, to .01 feet. EXAMPLE: 2.00 ft*

**RECAP FORM 6  
GROUND WATER MONITORING WELL SAMPLING EVENT SUMMARY**

DATE: \_\_\_\_\_

Page \_\_\_ of \_\_\_

Site Name : \_\_\_\_\_

<b>SITE MONITORING WELL NO.</b>				
<b>DOTD I.D.</b>				
<b>Date Sampled (yy,mm,dd)</b>				
<b>Gallons purged</b>				
<b>Purge Method</b>				
<b>Sampling Equipment</b>				
<b>Depth to Ground Water (ft)</b>				
<b>Ground Water Elevation Prior to Purging (NGVD)</b>				
<b>Well Depth for this Sampling Event (NGVD)</b>				
<b>Comments</b>				
<b>Sampling Frequency</b>				





**RECAP FORM 6**  
**GROUND WATER MONITORING WELL SAMPLING EVENT SUMMARY**  
**Definitions/List of Values**

**DATE:** *Date of completion of this report (yymmdd). Example: 970131*

**PAGE\_of\_:** *Page sequence of report. Example: Page 1 of 2.*

**SITE NAME:** *The name by which the site is referred to in correspondence to the LDEQ. EXAMPLE: Ground water Corporation, Baton Rouge Terminal*

**SITE MONITORING WELL NO.:** *The identification which is commonly used by the site to identify this well in correspondence to the LDEQ. EXAMPLE: MW-1*

**DOTD I.D. NO.:** *The identification number which has been assigned to this well by the Louisiana Department of Transportation and Development (DOTD). EXAMPLE: 295706090105501*

**DATE SAMPLED:** *The year, month and day the well was sampled. EXAMPLE: 940101*

**GALLONS PURGED:** *The total volume of liquids removed from the well prior to sampling, expressed in gallons. EXAMPLE: 25.5 gal.*

**PURGE METHOD:** *The method used to purge liquids from each well prior to sampling. EXAMPLE: bailer*

**SAMPLING EQUIPMENT:** *The equipment used to collect the sample. EXAMPLE: bailer*

**DEPTH TO GROUND WATER:** *The depth to ground water measured from the reference point to .01 feet. EXAMPLE: 7.77 ft*

**GROUND WATER ELEVATION PRIOR TO PURGING:** *The elevation from the NGVD of the ground water prior to purging the well. EXAMPLE: -7.77 ft*

**WELL DEPTH FOR THIS SAMPLING EVENT:** *The total depth of the well, relative to NGVD, as measured during this sampling event. If no total depth measurement is taken during the sampling event please state NM (not measured). EXAMPLE -35.33 ft*

**COMMENTS:** *Note any pertinent comments regarding the sampling event. EXAMPLE: Very Turbid, Sample Dilution*

**SAMPLING FREQUENCY:** *The frequency that the well is sampled. Please use Monthly (M), Quarterly (Q), Semi-Annually (SA), Annually (A). Note any other sampling frequency.*

# SITE-SPECIFIC ENVIRONMENTAL FATE AND TRANSPORT DATA SUMMARY

Area of Investigation: \_\_\_\_\_

[ ] Soil<sub>b</sub>, [ ] Soil<sub>ni</sub>, Soil<sub>i</sub>-PEF [ ] or Soil<sub>ni</sub>- PEF [ ]:

**VF:**

Area of impacted soil (acre): \_\_\_\_\_  
D<sub>A</sub> (cm<sup>2</sup>/s) \_\_\_\_\_  
T (sec) \_\_\_\_\_  
Q<sub>a</sub> (L<sub>air</sub>/L<sub>soil</sub>) \_\_\_\_\_  
n (L<sub>air</sub>/L<sub>soil</sub>) \_\_\_\_\_  
Q/C (g/m<sup>2</sup>-s per kg/m<sup>3</sup>): \_\_\_\_\_  
ρ<sub>b</sub> (g/cm<sup>3</sup>): \_\_\_\_\_  
θ<sub>w</sub> (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
ρ<sub>s</sub> (g/cm<sup>3</sup>): \_\_\_\_\_  
f<sub>oc</sub> (g/g): \_\_\_\_\_

**PEF:**

Area of impacted soil (acre): \_\_\_\_\_  
Q/C (g/m<sup>2</sup>-s per kg/m<sup>3</sup>): \_\_\_\_\_  
V (unitless): \_\_\_\_\_  
U<sub>m</sub> (m/s): \_\_\_\_\_  
U<sub>t</sub> (m/s): \_\_\_\_\_  
F(x) (unitless): \_\_\_\_\_

[ ] Soil<sub>es</sub>:

**VF:**

ρ<sub>s</sub> (g/cm<sup>3</sup>): \_\_\_\_\_  
ρ<sub>b</sub> (g/cm<sup>3</sup>): \_\_\_\_\_  
D<sub>s</sub> (cm<sup>2</sup>/sec) \_\_\_\_\_  
n (L<sub>pore</sub>/L<sub>soil</sub>) \_\_\_\_\_  
L<sub>s</sub> (cm): \_\_\_\_\_  
θ<sub>w</sub> (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
θ<sub>a</sub> (L<sub>airr</sub>/L<sub>soil</sub>): \_\_\_\_\_  
ER (l/s): \_\_\_\_\_  
L<sub>B</sub> (cm): \_\_\_\_\_  
D<sub>crack</sub> (cm<sup>2</sup>/s) \_\_\_\_\_  
L<sub>crack</sub> (cm): \_\_\_\_\_  
f<sub>oc</sub> (g/g): \_\_\_\_\_  
FC (cm<sup>2</sup> cracks/cm<sup>2</sup> total area): \_\_\_\_\_

**D<sub>s</sub>:**

$\rho_b$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\theta_w$  (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $\theta_a$  (L<sub>air</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $n$  (L<sub>pore</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $\rho_s$  (g/cm<sup>3</sup>): \_\_\_\_\_

**D<sub>crack</sub>:**

$\rho_b$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\theta_{wcrack}$  (cm<sup>3</sup>-H<sub>2</sub>O/cm<sup>3</sup>-total volume): \_\_\_\_\_  
 $\theta_{acrack}$  (cm<sup>3</sup>-air/cm<sup>3</sup>-total volume): \_\_\_\_\_  
 $n$  (L<sub>pore</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $\rho_s$  (g/cm<sup>3</sup>): \_\_\_\_\_

**[ ] Soil<sub>GW</sub> Method 1:**

GW<sub>1,2,3DW,3NDW</sub> (mg/l) \_\_\_\_\_  
 $\rho_b$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\theta_w$  (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $f_{oc}$  (g/g): \_\_\_\_\_  
 $\rho_s$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\theta_a$  (L<sub>air</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $n$  (L<sub>pore</sub>/L<sub>soil</sub>): \_\_\_\_\_

**Summers Model:**

Area of impacted soil (acre): \_\_\_\_\_  
 $Q_A$  (m<sup>3</sup>/d): \_\_\_\_\_  
 $Q_p$  (m<sup>3</sup>/d): \_\_\_\_\_  
 $C_l$  (mg/l) \_\_\_\_\_

**Q<sub>p</sub>:**

I (m/yr): \_\_\_\_\_  
 $S_w$  (m): \_\_\_\_\_  
L (m): \_\_\_\_\_

**Q<sub>a</sub>:**

$D_v$  (m/yr): \_\_\_\_\_  
 $S_d$  (m): \_\_\_\_\_  
 $S_w$  (m): \_\_\_\_\_

**C<sub>i</sub>:**

C<sub>TW</sub> (mg/kg): \_\_\_\_\_  
ρ<sub>b</sub> (g/cm<sup>3</sup>): \_\_\_\_\_  
n (cm<sup>3</sup>/cm<sup>3</sup>): \_\_\_\_\_  
θ<sub>W</sub> (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
f<sub>oc</sub> (g/g): \_\_\_\_\_

**S<sub>d</sub>:**

h<sub>adv</sub> (ft): \_\_\_\_\_  
h<sub>disp</sub> (ft): \_\_\_\_\_

**H<sub>adv</sub>:**

I (ft/yr): \_\_\_\_\_  
D<sub>v</sub> (ft/yr): \_\_\_\_\_  
B (ft): \_\_\_\_\_  
L (ft): \_\_\_\_\_

**h<sub>disp</sub>:**

α<sub>z</sub> (ft): \_\_\_\_\_  
L (ft): \_\_\_\_\_

**Domenico Model:**

Area of impacted soil (acre): \_\_\_\_\_  
S<sub>w</sub> (ft): \_\_\_\_\_  
D<sub>v</sub> (ft/yr): \_\_\_\_\_  
n (unitless): \_\_\_\_\_  
λ<sub>i</sub> (unitless): \_\_\_\_\_  
R<sub>i</sub> (unitless) : \_\_\_\_\_  
i (ft/ft): \_\_\_\_\_  
x (ft): \_\_\_\_\_  
S<sub>d</sub> (ft): \_\_\_\_\_  
K (ft/yr): \_\_\_\_\_  
V: \_\_\_\_\_  
α<sub>x</sub> (ft) \_\_\_\_\_  
α<sub>y</sub> (ft) \_\_\_\_\_  
α<sub>z</sub> (ft) \_\_\_\_\_  
erf \_\_\_\_\_

**S<sub>d</sub>:**

h<sub>adv</sub> (ft): \_\_\_\_\_  
h<sub>disp</sub> (ft): \_\_\_\_\_

**[ ] Soil<sub>GW</sub> Method 2:**

GW<sub>1,2,3DW,3NDW</sub> (mg/l) \_\_\_\_\_  
GW<sub>conc</sub> (mg/l): \_\_\_\_\_  
Soil<sub>conc</sub> (mg/kg): \_\_\_\_\_

**Soil<sub>sat</sub>:**

$\rho_b$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $f_{oc}$  (g/g): \_\_\_\_\_  
 $\theta_w$  (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $\rho_s$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\theta_a$  (L<sub>air</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $n$  (L<sub>pore</sub>/L<sub>soil</sub>): \_\_\_\_\_

**[ ] GW<sub>2</sub> or [ ] GW<sub>3</sub>:**

**Domenico Model:**

Area of impacted soil (acre): \_\_\_\_\_  
 $S_w$  (ft): \_\_\_\_\_  
 $D_v$  (ft/yr): \_\_\_\_\_  
 $n$  (unitless): \_\_\_\_\_  
 $\lambda_i$  (unitless): \_\_\_\_\_  
 $R_i$  (unitless): \_\_\_\_\_  
 $i$  (ft/ft): \_\_\_\_\_  
 $x$  (ft): \_\_\_\_\_  
 $S_d$  (ft): \_\_\_\_\_  
 $K$  (ft/yr): \_\_\_\_\_  
 $V$ : \_\_\_\_\_  
 $\alpha_x$  (ft) \_\_\_\_\_  
 $\alpha_y$  (ft) \_\_\_\_\_  
 $\alpha_z$  (ft) \_\_\_\_\_  
 $erf$  \_\_\_\_\_

**S<sub>d</sub>:**

$h_{adv}$  (ft): \_\_\_\_\_  
 $h_{disp}$  (ft): \_\_\_\_\_

**[ ] GW<sub>es</sub>:**

$C_a$  (ug/m<sup>3</sup>): \_\_\_\_\_  
VF (mg/m<sup>3</sup>/mg/l): \_\_\_\_\_

**VF:**

$L_{GW}$  (cm): \_\_\_\_\_  
ER (l/s): \_\_\_\_\_  
 $L_B$  (cm): \_\_\_\_\_  
 $L_{crack}$  (cm): \_\_\_\_\_  
FC ( $\text{cm}^3$  cracks/ $\text{cm}^3$  total area): \_\_\_\_\_  
 $D_{ws}$  ( $\text{cm}^2/\text{s}$ ): \_\_\_\_\_  
 $D_{crack}$  ( $\text{cm}^2/\text{s}$ ): \_\_\_\_\_

**$D_{ws}$ :**

$h_{cap}$  (cm): \_\_\_\_\_  
 $h_v$  (cm): \_\_\_\_\_  
 $D_{cap}$  ( $\text{cm}^2/\text{s}$ ): \_\_\_\_\_  
 $D_s$  (mg/kg): \_\_\_\_\_

**$D_{crack}$ :**

$\theta_{acrack}$  ( $\text{cm}^3$ -air/ $\text{cm}^3$  total volume): \_\_\_\_\_  
 $\theta_{wcrack}$  ( $\text{cm}^3$ -water/ $\text{cm}^3$  total volume): \_\_\_\_\_  
 $n$  ( $\text{cm}^3/\text{cm}^3$ -soil): \_\_\_\_\_  
 $\rho_b$  ( $\text{g}/\text{cm}^3$ ): \_\_\_\_\_  
 $\rho_s$  ( $\text{g}/\text{cm}^3$ ): \_\_\_\_\_

**$D_{cap}$ :**

$n$  ( $\text{cm}^3/\text{cm}^3$ -soil): \_\_\_\_\_  
 $\rho_b$  ( $\text{g}/\text{cm}^3$ ): \_\_\_\_\_  
 $\rho_s$  ( $\text{g}/\text{cm}^3$ ): \_\_\_\_\_  
 $\theta_{acap}$  ( $\text{cm}^3$ -air/ $\text{cm}^3$ -soil) \_\_\_\_\_  
 $\theta_{wcap}$  ( $\text{cm}^3$ -H<sub>2</sub>O/ $\text{cm}^3$ -soil) \_\_\_\_\_

**$D_s$ :**

$\theta_a$  ( $L_{air}/L_{soil}$ ): \_\_\_\_\_  
 $\rho_b$  ( $\text{g}/\text{cm}^3$ ): \_\_\_\_\_  
 $\rho_s$  ( $\text{g}/\text{cm}^3$ ): \_\_\_\_\_  
 $\theta_w$  ( $L_{water}/L_{soil}$ ): \_\_\_\_\_  
 $n$  ( $L_{pore}/L_{soil}$ ): \_\_\_\_\_

**[ ]  $GW_{air}$ :**

$C_a$  ( $\mu\text{g}/\text{m}^3$ ): \_\_\_\_\_  
VF ( $\text{mg}/\text{m}^3/\text{mg}/\text{l}$ ): \_\_\_\_\_

**VF:**

$D_{ws}$  (cm<sup>2</sup>/s): \_\_\_\_\_  
 $L_{GW}$  (cm): \_\_\_\_\_  
 $U_{air}$  (cm/s): \_\_\_\_\_  
 $W$  (cm): \_\_\_\_\_  
 $\delta_{air}$  (cm): \_\_\_\_\_

**D<sub>ws</sub>:**

$h_{cap}$  (cm): \_\_\_\_\_  
 $h_v$  (cm): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**D<sub>cap</sub>:**

$\theta_{acap}$  (cm<sup>3</sup>-air/cm<sup>3</sup>-soil) \_\_\_\_\_  
 $n$  (cm<sup>3</sup>/cm<sup>3</sup>-soil): \_\_\_\_\_  
 $\theta_{wcap}$  (cm<sup>3</sup>-water/cm<sup>3</sup>-soil) \_\_\_\_\_  
 $\rho_b$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\rho_s$  (g/cm<sup>3</sup>): \_\_\_\_\_

**D<sub>s</sub>:**

$\theta_a$  (L<sub>air</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $\rho_b$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\rho_s$  (g/cm<sup>3</sup>): \_\_\_\_\_  
 $\theta_w$  (L<sub>water</sub>/L<sub>soil</sub>): \_\_\_\_\_  
 $n$  (L<sub>pore</sub>/L<sub>soil</sub>): \_\_\_\_\_

**RECAP FORM 8  
CHEMICAL-SPECIFIC DATA SUMMARY**

**Hierarchy of References for Chemical-Specific Values:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**Hierarchy of References for Toxicity Values:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**[ ] Soil<sub>i</sub>, [ ] Soil<sub>ni</sub>, [ ] Soil<sub>i</sub>-PEF, or [ ] Soil<sub>ni</sub>-PEF:**

**Toxicity Data:**

COC	RfD <sub>o</sub> mg/kg-d	Ref	RfD <sub>i</sub> mg/kg-d	Ref	Target(s)	Ref	SF <sub>o</sub> (mg/kg-d) <sup>-1</sup>	Ref	SF <sub>i</sub> (mg/kg-d) <sup>-1</sup>	Ref



**VF:**

COC	$D_i$ ( $\text{cm}^2/\text{s}$ )	Ref	H ( $\text{atm}\cdot\text{m}^3/\text{mol}$ )	H' (unitless)	Ref	$D_w$ ( $\text{cm}^2/\text{s}$ )	Ref	$K_d$ ( $\text{cm}^3/\text{g}$ )	Ref	$K_{oc}$ ( $\text{cm}^3/\text{g}$ )	Ref

[ ] Soils:

**Toxicity Data:**

COC	RfD <sub>o</sub> mg/kg-d	Ref	RfD <sub>i</sub> mg/kg-d	Ref	Target(s)	Ref	SF <sub>o</sub> ( $\text{mg}/\text{kg}\cdot\text{d}$ ) <sup>-1</sup>	Ref	SF <sub>i</sub> ( $\text{mg}/\text{kg}\cdot\text{d}$ ) <sup>-1</sup>	Ref

**VF:**

COC	$D_i$ ( $\text{cm}^2/\text{s}$ )	Ref	H ( $\text{atm}\cdot\text{m}^3/\text{mol}$ )	H' (unitless)	Ref	$D_w$ ( $\text{cm}^2/\text{s}$ )	Ref	$K_d$ ( $\text{cm}^3/\text{g}$ )	Ref	$K_{oc}$ ( $\text{cm}^3/\text{g}$ )	Ref

**$D_s$  and  $D_{\text{crack}}$ :**

COC	H ( $\text{atm}\cdot\text{m}^3/\text{mol}$ )	H' (unitless)	Ref	$D_{\text{air}}$ ( $\text{cm}^2/\text{s}$ )	Ref	$D_{\text{wat}}$ ( $\text{cm}^2/\text{s}$ )	Ref









**VF:**

COC	$D_i$ ( $\text{cm}^2/\text{s}$ )	Ref	H ( $\text{atm}\cdot\text{m}^3/\text{mol}$ )	H' (unitless)	Ref	$D_w$ ( $\text{cm}^2/\text{s}$ )	Ref	$K_d$ ( $\text{cm}^3/\text{g}$ )	Ref	$K_{oc}$ ( $\text{cm}^3/\text{g}$ )	Ref

**$D_{cap}$  and  $D_s$ :**

COC	H ( $\text{atm}\cdot\text{m}^3/\text{mol}$ )	H' (unitless)	Ref	$D_{air}$ ( $\text{cm}^2/\text{s}$ )	Ref	$D_{wat}$ ( $\text{cm}^2/\text{s}$ )	Ref

**RECAP FORM 9**  
**MANAGEMENT OPTION 3 SITE-SPECIFIC EXPOSURE DATA SUMMARY**

Receptor: \_\_\_\_\_

<b>Parameter</b>	<b>Definition</b>	<b>Input Value</b>	<b>Reference</b>
TR	target excess individual lifetime cancer risk (unitless)		
EF	exposure frequency (days/yr)		
ED	exposure duration (yr)		
ET	exposure time (hr)		
BW	body weight (kg)		
IRS	soil ingestion rate (mg/day)		
IRA	inhalation rate (m <sup>3</sup> /day)		
IRW	water ingestion rate (L/day)		
SA	skin surface area (cm <sup>2</sup> /day)		
AF	soil-to-skin adherence factor (mg/cm <sup>2</sup> )		
IRF	fish/shellfish ingestion rate (kg/day)		
IRW <sub>i</sub>	incidental water ingestion rate (L/day)		
Other:			



**RECAP FORM 10  
SCREENING OPTION SUBMITTAL FOR SOIL**

**SOIL - Identification of the Limiting SO SS:**

COC	<input type="checkbox"/> Soil <sub>ssi</sub> <input type="checkbox"/> Soil <sub>ssni</sub>	Soil <sub>ssgw</sub>	Limiting SS

**SOIL – Identification of the AOIC:**

COC	Maximum Concentration

**SO SOIL RECAP ASSESSMENT:**

COC	Limiting SS	Maximum Concentration	AOIC Exceeds LSS?

**RECAP FORM 11  
MANAGEMENT OPTION 1 SUBMITTAL FOR SOIL 0-15 FT BGS**

**SOIL 0-15 ft bgs - Identification of the Limiting MO-1RS:**

COC	<input type="checkbox"/> Soil <sub>i</sub> <input type="checkbox"/> Soil <sub>ni</sub>	Additivity Divisor	Final <input type="checkbox"/> Soil <sub>i</sub> <input type="checkbox"/> Soil <sub>ni</sub>	<input type="checkbox"/> Soil <sub>GW1</sub> <input type="checkbox"/> Soil <sub>GW2</sub> <input type="checkbox"/> Soil <sub>GW3DW</sub> <input type="checkbox"/> Soil <sub>GW3NDW</sub>	<input type="checkbox"/> NO DF <input type="checkbox"/> DF2 <input type="checkbox"/> DF3 <input type="checkbox"/> DF3	Final Soil <sub>GW</sub>	<input type="checkbox"/> Soil <sub>es</sub>	Soil <sub>sat</sub>	Limiting MO-1 RS

**SOIL 0-15 ft bgs – Identification of the AOIC:**

COC	Maximum Concentration	95%UCL-AM Concentration	AOI Concentration

**MO-1 SOIL 0-15 ft bgs RECAP ASSESSMENT:**

COC	Limiting MO-1 RS	AOI Concentration	AOIC Exceeds MO-1 LRS?

**RECAP FORM 12  
MANAGEMENT OPTION 1 SUBMITTAL FOR SOIL > 15 FT BGS**

**SOIL >15 ft bgs - Identification of the Limiting MO-1RS:**

COC	<input type="checkbox"/> Soil <sub>GW1</sub> <input type="checkbox"/> Soil <sub>GW2</sub> <input type="checkbox"/> Soil <sub>GW3DW</sub> <input type="checkbox"/> Soil <sub>GW3NDW</sub>	<input type="checkbox"/> NO DF <input type="checkbox"/> DF2 <input type="checkbox"/> DF3 <input type="checkbox"/> DF3	Final Soil <sub>GW</sub>	Soil <sub>sat</sub>	Limiting MO-1RS

**SOIL >15 ft bgs – Identification of the AOIC:**

COC	Maximum Concentration	95%UCL-AM Concentration	AOI Concentration

**MO-1 SOIL > 15 FT BGS RECAP ASSESSMENT:**

COC	Limiting MO-1 RS	AOI Concentration	AOIC Exceeds MO-1 LRS?

**RECAP FORM 13  
MANAGEMENT OPTION 2 or 3 SUBMITTAL FOR SOIL 0-15 FT BGS**

**SOIL 0-15 ft bgs - Identification of the Limiting RS:**

<b>COC</b>	<input type="checkbox"/> Soil <sub>i</sub> <input type="checkbox"/> Soil <sub>ni</sub>	<b>Additivity Divisor</b>	<b>Final</b> <input type="checkbox"/> Soil <sub>i</sub> <input type="checkbox"/> Soil <sub>ni</sub>	<input type="checkbox"/> Soil <sub>GW1</sub> <input type="checkbox"/> Soil <sub>GW2</sub> <input type="checkbox"/> Soil <sub>GW3DW</sub> <input type="checkbox"/> Soil <sub>GW3NDW</sub>	<input type="checkbox"/> NO DAF <input type="checkbox"/> DAF2 <input type="checkbox"/> DAF3 <input type="checkbox"/> DAF3	<b>Final Soil<sub>GW</sub></b>	<b>Soil<sub>sat</sub></b>	<b>Soil<sub>es</sub></b>	<b>Additivity Divisor</b>	<b>Final Soil<sub>es</sub></b>	<b>Limiting RS</b>

**SOIL 0-15 ft bgs – Identification of the AOIC:**

<b>COC</b>	<b>Maximum Concentration</b>	<b>95%UCL-AM Concentration</b>	<b>AOI Concentration</b>

**MO-2 SOIL 0-15 ft bgs RECAP ASSESSMENT:**

<b>COC</b>	<b>Limiting RS</b>	<b>AOI Concentration</b>	<b>AOIC Exceeds LRS?</b>

**RECAP FORM 14  
MANAGEMENT OPTION 2 or 3 SUBMITTAL FOR SOIL > 15 FT BGS**

**SOIL > 15 ft bgs- Identification of the Limiting RS:**

COC	<input type="checkbox"/> Soil <sub>GW1</sub> <input type="checkbox"/> Soil <sub>GW2</sub> <input type="checkbox"/> Soil <sub>GW3DW</sub> <input type="checkbox"/> Soil <sub>GW3NDW</sub>	<input type="checkbox"/> NO DAF <input type="checkbox"/> DAF2 <input type="checkbox"/> DAF3 <input type="checkbox"/> DAF3	Final Soil <sub>GW</sub>	Soil <sub>sat</sub>	Soil <sub>es</sub>	Additivity Divisor	Final Soil <sub>es</sub>	Limiting RS

**SOIL > 15 ft bgs – Identification of the AOIC:**

COC	Maximum Concentration	95%UCL-AM Concentration	AOI Concentration

**MO-2 SOIL > 15 ft bgs RECAP ASSESSMENT:**

COC	Limiting RS	AOI Concentration	AOIC Exceeds LRS?

**RECAP FORM 15  
SCREENING OPTION SUBMITTAL FOR GROUNDWATER**

**GROUNDWATER - Identification of the SO SS:**

COC	GW <sub>SS</sub>

**GROUNDWATER – Compliance Concentration:**

COC	Compliance Concentration

**SO GROUNDWATER RECAP ASSESSMENT:**

COC	GW <sub>SS</sub>	Compliance Concentration	CC Exceeds SS?

**RECAP FORM 16  
MANAGEMENT OPTION 1 SUBMITTAL FOR GROUNDWATER**

**GROUNDWATER - Identification of the Limiting MO-1RS:**

COC	<input type="checkbox"/> GW <sub>1</sub>	<input type="checkbox"/> NO DAF	<b>Final</b>	<input type="checkbox"/> GW <sub>es</sub>	<input type="checkbox"/> GW <sub>air</sub>	Water <sub>sol</sub>	Limiting MO-1 RS
	<input type="checkbox"/> GW <sub>2</sub>	<input type="checkbox"/> DAF2	<input type="checkbox"/> GW <sub>1</sub>	<input type="checkbox"/> GW <sub>2</sub>			
	<input type="checkbox"/> GW <sub>3DW</sub>	<input type="checkbox"/> DAF3	<input type="checkbox"/> GW <sub>3DW</sub>				
	<input type="checkbox"/> GW <sub>3NDW</sub>	<input type="checkbox"/> DAF3	<input type="checkbox"/> GW <sub>3NDW</sub>				

**GROUNDWATER – Compliance Concentration:**

COC	Compliance Concentration

**MO-1 GROUNDWATER RECAP ASSESSMENT:**

COC	Limiting MO-1 RS	Compliance Concentration	CC Exceeds MO-1 LRS?

**RECAP FORM 17  
MANAGEMENT OPTION 2 or 3 SUBMITTAL FOR GROUNDWATER**

**GROUNDWATER - Identification of the Limiting RS:**

COC	<input type="checkbox"/> GW <sub>1</sub>	<input type="checkbox"/> NO DAF	Final	Water <sub>sol</sub>	<input type="checkbox"/> GW <sub>es</sub>	<input type="checkbox"/> GW <sub>air</sub>	Limiting RS
	<input type="checkbox"/> GW <sub>2</sub>	<input type="checkbox"/> DAF2	<input type="checkbox"/> GW <sub>1</sub>		<input type="checkbox"/> GW <sub>2</sub>		
	<input type="checkbox"/> GW <sub>3DW</sub>	<input type="checkbox"/> DAF3	<input type="checkbox"/> GW <sub>3DW</sub>				
	<input type="checkbox"/> GW <sub>3NDW</sub>	<input type="checkbox"/> DAF3	<input type="checkbox"/> GW <sub>3NDW</sub>				

**GROUNDWATER – Compliance Concentration:**

COC	Compliance Concentration

**MO-2 GROUNDWATER RECAP ASSESSMENT:**

COC	Limiting RS	Compliance Concentration	CC Exceeds LRS?



**RECAP FORM 18  
ECOLOGICAL CHECKLIST**

**Section 1 - Facility Information**

1. Name of facility: \_\_\_\_\_
2. Location of facility: \_\_\_\_\_  
Parish: \_\_\_\_\_
3. Mailing address: \_\_\_\_\_
4. Type of facility and/or operations associated with AOC:  
\_\_\_\_\_
5. Name of AOC or AOI: \_\_\_\_\_
6. If available, attach a USGS topographic map of the facility and/or aerial or other photographs of the release site and surrounding areas.

**Section 2 - Land Use Information**

1. Describe land use at and in the vicinity of the AOC/AOI: \_\_\_\_\_  
\_\_\_\_\_
2. Describe land use adjacent to the facility: \_\_\_\_\_  
\_\_\_\_\_
3. Provide the following information regarding the nearest surface water body which has been impacted or has the potential to be impacted by COC migrating from the AOC/AOC:
  - a) Name of the surface water body: \_\_\_\_\_
  - b) Type of surface water body:  
 freshwater river or stream  
 freshwater swamp/marsh/wetland  
 saltwater or brackish swamp/marsh/wetland  
 lake or pond  
 bayou or estuary  
 drainage ditch  
 other: \_\_\_\_\_
  - c) Designated use of the segment/subsegment of the surface water body (LAC 33:IX): \_\_\_\_\_  
\_\_\_\_\_
  - d) Distance from the AOC/AOI to nearest surface water body: \_\_\_\_\_

4. Do any potentially sensitive environmental areas exist adjacent to or in proximity to the site, e.g., federal and state parks, national and state monuments, wetlands, etc?  Yes  No

If yes, explain:

\_\_\_\_\_

### Section 3 - Release Information

1. Nature of the release: \_\_\_\_\_

2. Location of the release (within the facility): \_\_\_\_\_

3. Location of the release with respect to the facility property boundaries: \_\_\_\_\_

\_\_\_\_\_

4. Constituents known or suspected have been released: \_\_\_\_\_

\_\_\_\_\_

5. Indicate which media are known or suspected to be impacted and if sampling data are available:

- |   |  |
|---|--|
| <input type="checkbox"/> soil 0 - 3 feet bgs    | <input type="checkbox"/> yes <input type="checkbox"/> no |
| <input type="checkbox"/> soil 0 - 15 feet bgs   | <input type="checkbox"/> yes <input type="checkbox"/> no |
| <input type="checkbox"/> soil >15 feet bgs      | <input type="checkbox"/> yes <input type="checkbox"/> no |
| <input type="checkbox"/> groundwater            | <input type="checkbox"/> yes <input type="checkbox"/> no |
| <input type="checkbox"/> surface water/sediment | <input type="checkbox"/> yes <input type="checkbox"/> no |

6. Has migration occurred outside the facility property boundaries?  yes  no

If yes, describe the designated use of the offsite land impacted:

\_\_\_\_\_

### Section 4 - Criteria for Further Assessment

If the AOI meets **all** of the criteria presented below, then typically no further ecological evaluation shall be required. If the AOI **does not** meet **all** of the criteria, then a screening level ecological risk shall be conducted. The Submitter should make the initial decision regarding whether or not a screening level ecological risk assessment is warranted based on compliance of the AOI with criteria listed below. After review of the ecological checklist and other available site information, the Department will make a final determination on the need for a screening level ecological risk assessment. If site conditions at the AOI change such that one or more of the criteria are not met, then a screening level ecological risk assessment shall be conducted. Answers shall be based on current site conditions (i.e., shall not consider future remedial actions or institutional or engineering controls).

Indicate if the AOI meets the following criteria:

- (1) The area of impacted soil is approximately 5 acres or less in size (based on the AOI identified for the human health assessment) and it is not expected that the COC will migrate such that the soil AOI becomes greater than 5 acres in size.  yes  no
- (2) There is no current release or demonstrable long-term threat of release (via runoff or groundwater discharge) of COC from the AOI to a surface water body.  yes  no

- (3) Recreational species, commercial species, threatened or endangered species, and/or their habitats are not currently being exposed, or expected to be exposed, to COC present at or migrating from the AOI.  
 yes  no
- (4) There are no obvious impacts to ecological receptors or their habitats and none are expected in the future.  
 yes  no

**Is further ecological evaluation required at this AOI?**  yes  no  
This determination is subject to Department concurrence.

**Section 5 - Site Summary**

The ecological checklist submittal shall include a site summary that presents sufficient information to verify that the AOI meets or does not meet the criteria for further assessment.

**Section 6 - Submitter Information**

Date: \_\_\_\_\_

Name of person submitting this checklist: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Additional Preparers: \_\_\_\_\_