

**Texas Commission on Environmental Quality**

**CHECKLIST WORKSHEET**

**IHW HYDROGEOLOGIC CHECKLIST**

Reg Ent Name : \_\_\_\_\_

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

Add ID \_\_\_\_\_

Investigator Name \_\_\_\_\_

Item No.	Description	Answer	Citations	Notes
	SECTION A -- INTRODUCTION			
1	Facility Description: [description of facility location, surrounding land use, facility age, operations/processes, generated wastes, brief summary of permit/compliance plan (if applicable)].			
2	Chronology of Ground-Water Monitoring Activities Since the Previous CME (or inception of ground-water activities if no CME conducted).			
3	RCRA Regulated Waste Management Unit(s) (WMU) Requiring Ground-Water Monitoring:			
A	Indicate all WMUs subject to RCRA Ground-Water Monitoring and the location of the monitoring wells on a site diagram(s) as Attachment.			
B	Unit Information - ( Include: Unit name, ID number, size, year put into service, status construction material, and brief description/history of each RCRA unit.			
	SECTION B -- TECHNICAL REVIEW			
1	Regional Geology: (Provide brief description of regional geology including stratigraphy, depositional environments, structure, etc.)			
A	Formation(s) - (Provide geologic description of formations that include regional aquifers; one of several possible sources of this information is Geologic Atlas of Texas, Bureau of Economic Geology)			
B	Regional Dip and Gradient: Reference:			
2	Site Geology : (brief description of geology of site, including surface geology, topography, faulting, subsidence, etc.)			
A	Site Diagram - Attachment #.			
B	Site Stratigraphy - i. Depth of investigation: ii. Geologic Units - (Provide unit name, depth interval encountered, and brief description of each geologic unit, or Attachment #).			
C	Cross-sections provided as Attachment #.			
3	Regional Hydrology: brief discussion of regional aquifers/aquifers.			

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**IHW HYDROGEOLOGIC CHECKLIST (Cont)**

A	Regional groundwater flow - i.Direction: ii. Reference:			
B	Is the site located on the recharge area of a major aquifer? i. If Yes, identify major aquifer			
C	Is the site located on the recharge area of a minor aquifer? i. If Yes, identify minor aquifer			
4	Site Hydrology: (brief discussion of hydrology of site, including nearby surface water bodies and other recharge/discharge features or wells, summarize the zones that are confined, semi-confined, water table, etc.)			
A	Saturated zone(s) and aquitard(s) - (List all saturated zone(s) and aquitard(s) and include the following information: depth interval encountered (ft-ft); saturated thickness; confined/unconfined; potentiometric rise (if confined); horizontal hydraulic conductivity (kh) and source of kh value; vertical hydraulic conductivity (kv) and source of kv)			
B	Is the first water-bearing zone identified in Section B.4.a., above, in communication with a deeper zone(s)? i. If Yes, describe communication between affected zones.			
C	Is the aquitard(s) continuous beneath the site?			
D	Geologic unit(s) monitored during interim status:			
E	Geologic unit designated as the uppermost aquifer in the Part B application/permit: i. Concur with designation?			
5	Site Ground-Water Movement			
A	Potentiometric surface map(s) provided as Attachment #.			
B	Calculations of minimum and maximum observed gradients (i) in units of feet/foot. i. i(min) = ii. i(max) =			
C	Calculation of Ground-Water Velocity (v) in feet/day. (For k=hydraulic conductivity; ne=effective porosity; i=gradient, $v = ki/ne$ ) v = i. Reference:			
6	Monitor Well Construction and Vertical Placement.			
A	Table of well construction details provided as Attachment #. (Required)			
B	Vertical placement of wells satisfactory? If No, explain:			
C	Are detailed well installation diagrams, including lithologic logs, available for all monitor wells? If No, identify missing information.			

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