

Texas Commission on Environmental Quality

CHECKLIST WORKSHEET

IHW HYDROGEOLOGIC CHECKLIST

Regulating Entity Name

Date :

Additional I D:

Investigator Name:

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

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CHECKLIST WORKSHEET

IHW HYDROGEOLOGIC CHECKLIST (Cont)

Item Number A	Description	Regional groundwater flow - i. Direction: ii. Reference:	
		Answer	Citations
			Notes
Item Number B	Description	Is the site located on the recharge area of a major aquifer? i. If Yes, identify major aquifer	
		Answer	Citations
			Notes
Item Number C	Description	Is the site located on the recharge area of a minor aquifer? i. If Yes, identify minor aquifer	
		Answer	Citations
			Notes
Item Number 4	Description	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.)	
		Answer	Citations
			Notes
Item Number A	Description	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)	
		Answer	Citations
			Notes
Item Number B	Description	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.	
		Answer	Citations
			Notes
Item Number C	Description	Is the aquitard(s) continuous beneath the site?	
		Answer	Citations
			Notes
Item Number D	Description	Geologic unit(s) monitored during interim status:	
		Answer	Citations
			Notes
Item Number E	Description	Geologic unit designated as the uppermost aquifer in the Part B application/permit: i. Concur with designation?	
		Answer	Citations
			Notes
Item Number 5	Description	Site Ground-Water Movement	
		Answer	Citations
			Notes
Item Number A	Description	Potentiometric surface map(s) provided as Attachment #.	
		Answer	Citations
			Notes
Item Number B	Description	Calculations of minimum and maximum observed gradients (i) in units of feet/foot. i. i(min) = ii. i(max) =	
		Answer	Citations
			Notes
Item Number C	Description	Calculation of Ground-Water Velocity (v) in feet/day. (For k=hydraulic conductivity; ne=effective porosity; i=gradient, $v = ki/ne$) v = i. Reference:	
		Answer	Citations
			Notes
Item Number 6	Description	Monitor Well Construction and Vertical Placement.	
		Answer	Citations
			Notes
Item Number A	Description	Table of well construction details provided as Attachment #. (Required)	
		Answer	Citations
			Notes
Item Number B	Description	Vertical placement of wells satisfactory? If No, explain:	
		Answer	Citations
			Notes

Texas Commission on Environmental Quality

CHECKLIST WORKSHEET

IHW HYDROGEOLOGIC CHECKLIST (Cont)

Item Number C

Description Are detailed well installation diagrams, including lithologic logs, available for all monitor wells? If No, identify missing information.

Answer

Citations

Notes