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# 1 alerts

Creation: Jun 16, 2025 at 02:11 PM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
alert_id	int(11)		No		auto_increment			
location_id	int(11)		No			-> mine_locations.location_id ON UPDATE RESTRICT ON DELETE RESTRICT		
type_id	int(11)		No			-> alert_types.type_id ON UPDATE RESTRICT ON DELETE RESTRICT		
condition_id	int(11)		No			-> alert_conditions.condition_id ON UPDATE RESTRICT ON DELETE RESTRICT		
severity	tinyint(4)		No					
threshold_value	decimal(10, 2)		No					
measured_value	decimal(10, 2)		No					
start_time	datetime		No					
end_time	datetime		Yes	NULL				
is_active	tinyint(1)		Yes	1				
notes	text		Yes	NULL				

## 2 alert\_conditions

Creation: Jun 16, 2025 at 02:11 PM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
condition_id	int(11)		No		auto_increment			
type_id	int(11)		No			-> alert_types.type_id ON UPDATE RESTRICT ON DELETE RESTRICT		
condition_name	varchar(50)		No					
description	text		Yes	NULL				
measurement_unit	varchar(20)		Yes	NULL				

### 3 alert\_responses

Creation: Jun 16, 2025 at 02:11 PM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
response_id	int(11)		No		auto_increment			
alert_id	int(11)		No			-> alerts.alert_id ON UPDATE RESTRICT ON DELETE RESTRICT		
response_type	enum('Automatic', 'Manual', 'System', 'Maintenance')		No					
response_time	datetime		No					
responding_crew	varchar(100)		No					
notes	text		Yes	NULL				

## 4 alert\_types

Creation: Jun 16, 2025 at 02:11 PM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
type_id	int(11)		No		auto_increment			
type_name	varchar(50)		No					
description	text		Yes	NULL				
severity_thresh olds	longtext		Yes	NULL				

# 5 mine\_locations

Creation: Jun 16, 2025 at 02:11 PM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
location_id	int(11)		No		auto_increment			
mine_name	varchar(100)		No					
level_number	int(11)		No					
section_name	varchar(100)		No					
coordinates	varchar(100)		Yes	NULL				
depth	decimal(10,2)		Yes	NULL				
ventilation_zone	varchar(50)		Yes	NULL				
is_active	tinyint(1)		Yes	1				
created_at	datetime		No					
updated_at	datetime		No					

# 6 sensor\_data

Creation: Jun 16, 2025 at 02:11 PM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
reading_time	datetime		No					
location_id	int(11)		No			-> mine_locations.location_id ON UPDATE RESTRICT ON DELETE RESTRICT		
temperature	decimal(5,2)		Yes	NULL				
humidity	decimal(5,2)		Yes	NULL				
co2_ppm	decimal(8,2)		Yes	NULL				
pm1_ugm3	decimal(8,2)		Yes	NULL				
pm25_ugm3	decimal(8,2)		Yes	NULL				
pm10_ugm3	decimal(8,2)		Yes	NULL				
no2_ppm	decimal(8,2)		Yes	NULL				
nh3_ppm	decimal(8,2)		Yes	NULL				
co_ppm	decimal(8,2)		Yes	NULL				
methane_percent	decimal(5,2)		Yes	NULL				
oxygen_percent	decimal(5,2)		Yes	NULL				
h2s_ppm	decimal(8,2)		Yes	NULL				
airflow_ms	decimal(5,2)		Yes	NULL				

mine_locations
location_id
mine_name
level_number
section_name
coordinates
depth
ventilation_zone
is_active
created_at
updated_at

alert_types
type_id
type_name
description
severity_thresholds

alert_responses
response_id
alert_id
response_type
response_time
responding_crew
notes

sensor_data
id
reading_time
location_id
temperature
humidity
co2_ppm
pm1_ugm3
pm25_ugm3
pm10_ugm3
no2_ppm
nh3_ppm
co_ppm
methane_percent
oxygen_percent
h2s_ppm
airflow_ms

alert_conditions
condition_id
type_id
condition_name
description
measurement_unit

alerts
alert_id
location_id
type_id
condition_id
severity
threshold_value
measured_value
start_time
end_time
is_active
notes

