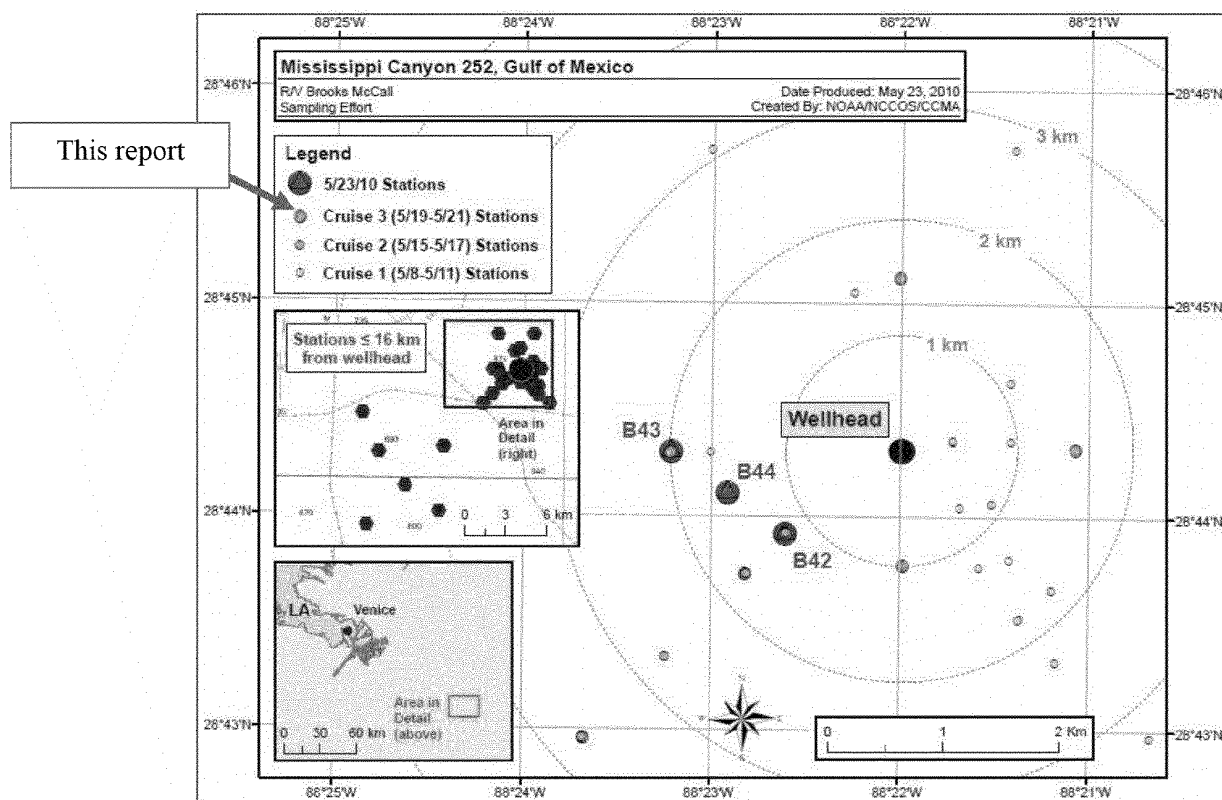


Research Vessel Brooks McCall

Cruise #3 May 18th – 23rd 2010

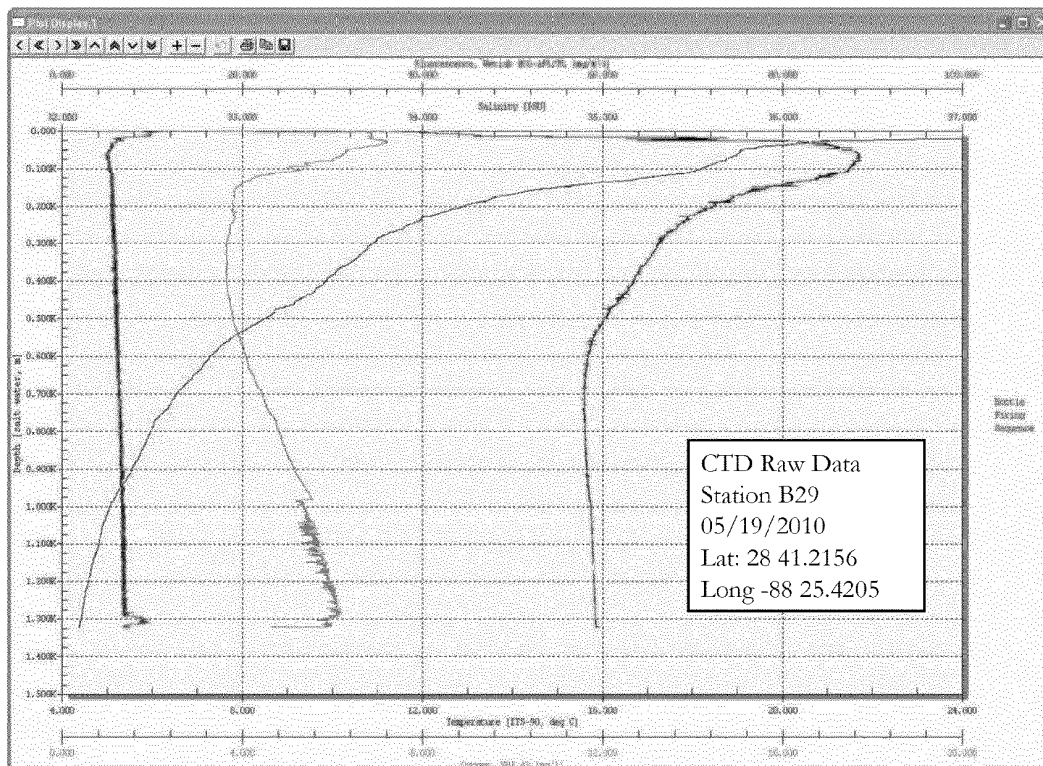
Monitoring Water Quality and Chemistry in the vicinity of the MC252 Oil Spill Location



These data are being collected to analyze the water column near the MC252 oil spill for Hydrocarbon and Dissolved Oxygen content, and Toxicity.

Summary Table Cruise 3		Number of Samples With :-	
Total CTD Runs	Significant Hydrocarbon Content	Dissolved Oxygen below Specified Limit	Toxicity Indicated
13	0	0	2 Samples with Impact Less than EPA Threshold

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B29**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	10 parts per <u>billion</u>	1320 meters 4331 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	375 meters 1230 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

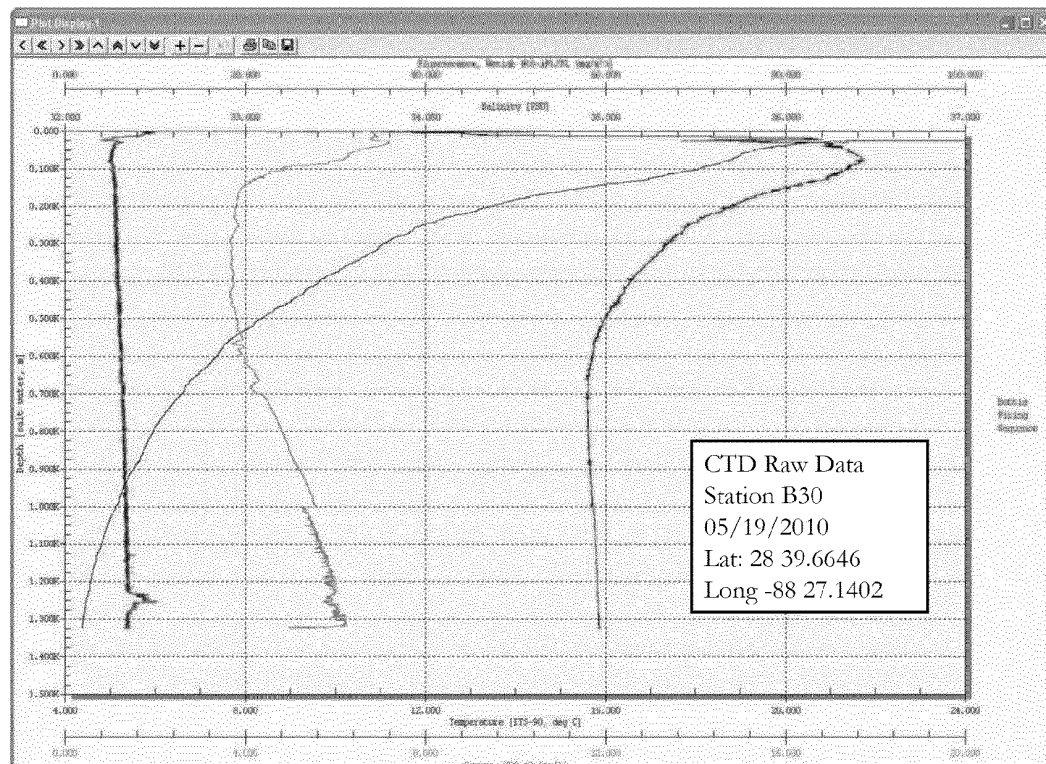
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B30**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	11 parts per <u>billion</u>	1250 meters 4101 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	300 meters 984 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

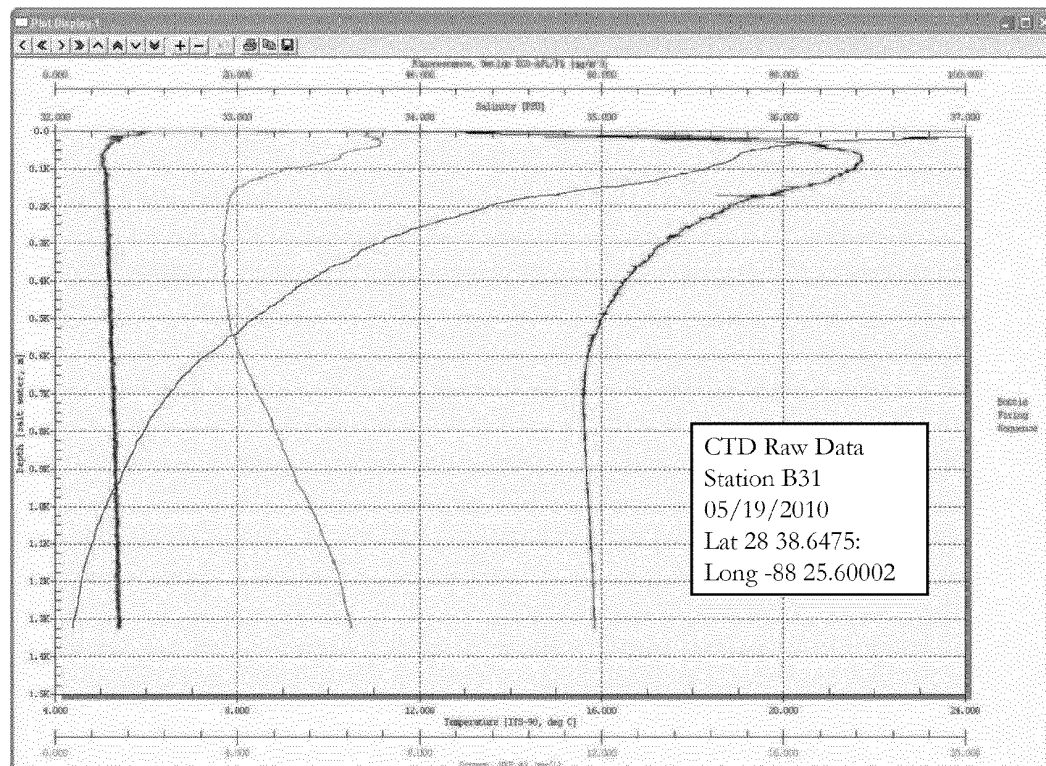
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B31**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	<u>No Anomaly</u> 8 parts per billion <u>background</u>	N/A	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.7 ml/l	300 meters 984 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

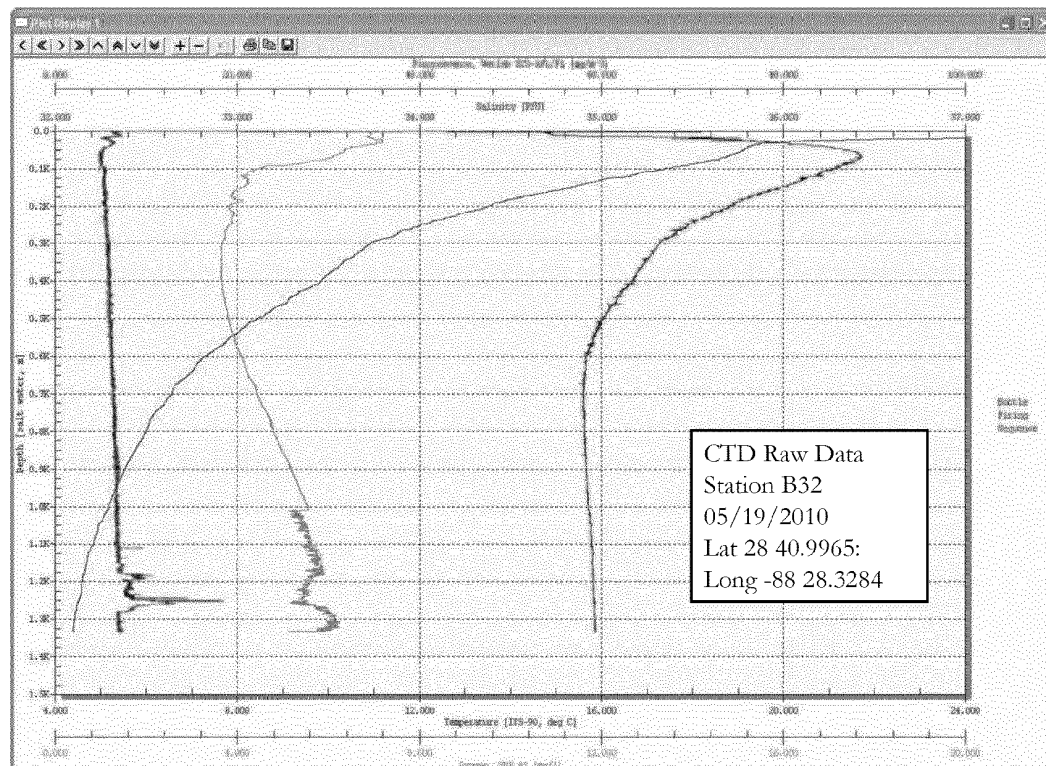
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B32**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	18 parts per <u>billion</u>	1250 meters 4101 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	350 meters 1148 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

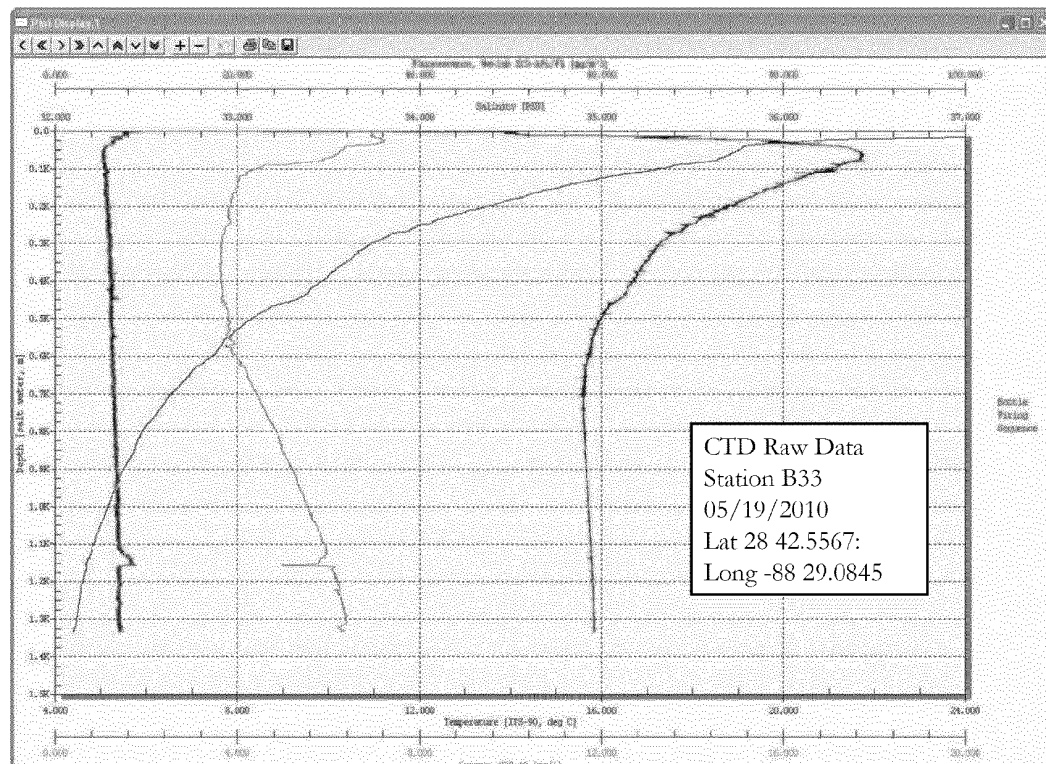
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B33**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	9 parts per <u>billion</u>	1150 meters 3773 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	360 meters 1181 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

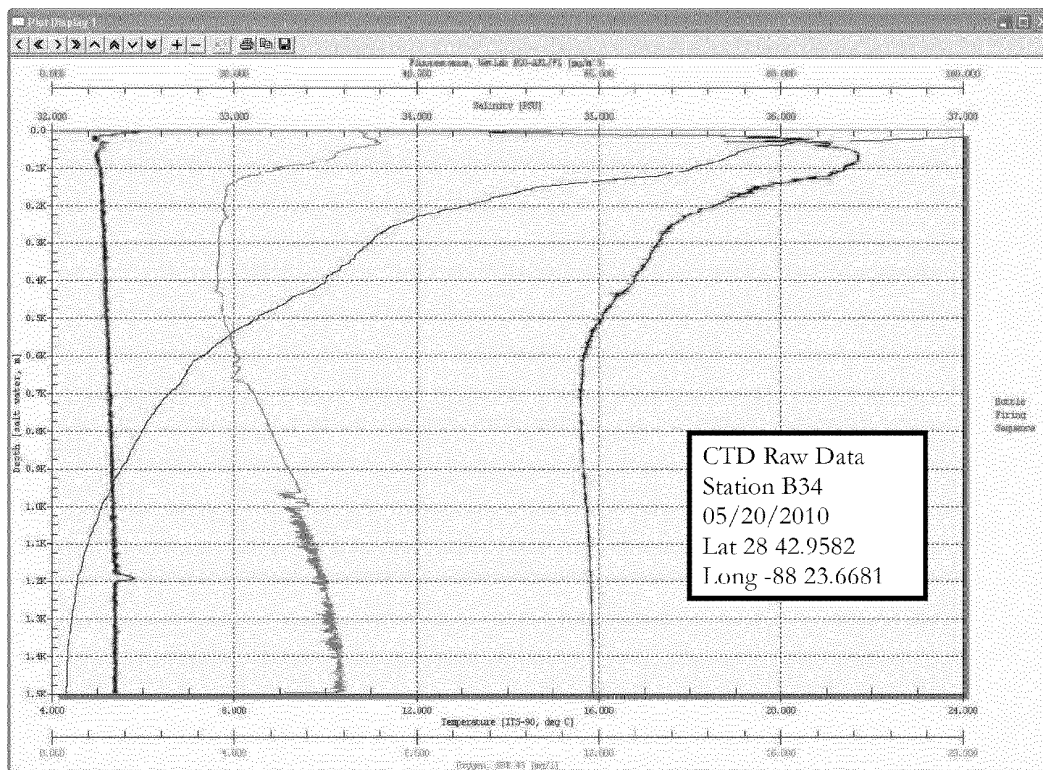
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

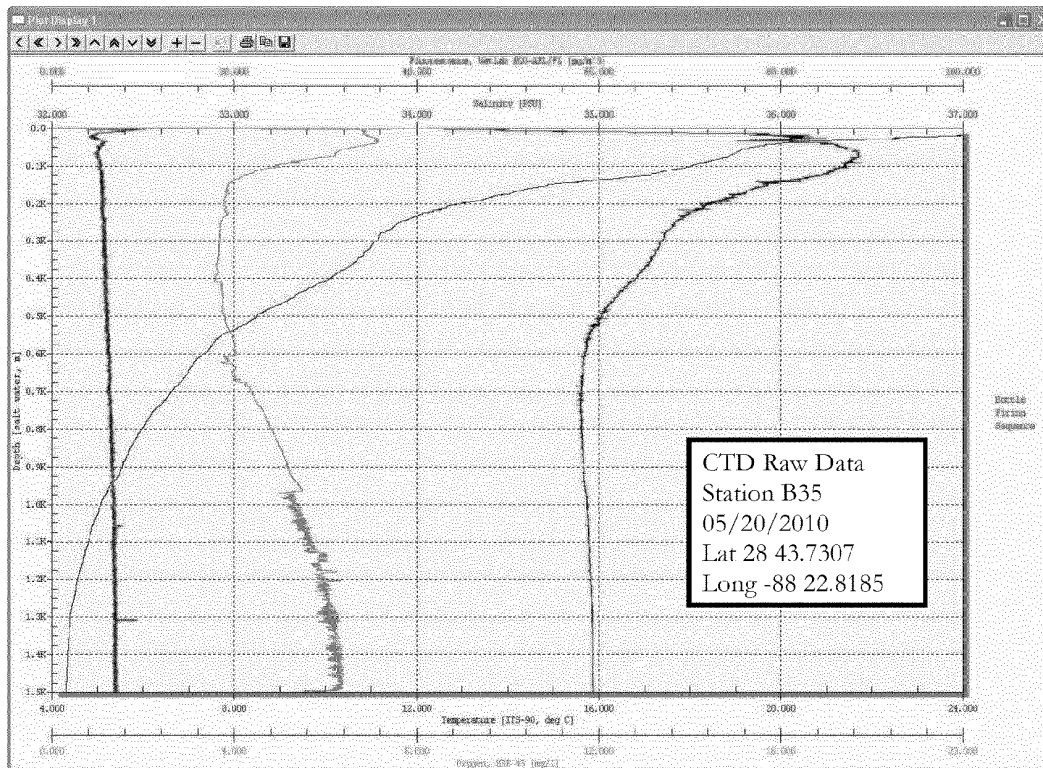
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Conductivity, Temperature Depth (CTD) Sensor Information Station B34				
Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	9 parts per <u>billion</u>	1190 meters 3904 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	425 meters 1394 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References
Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.
Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.
Note #3. Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion) Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit) Red Curve is Salinity on a scale of 32 to 37 parts per thousand

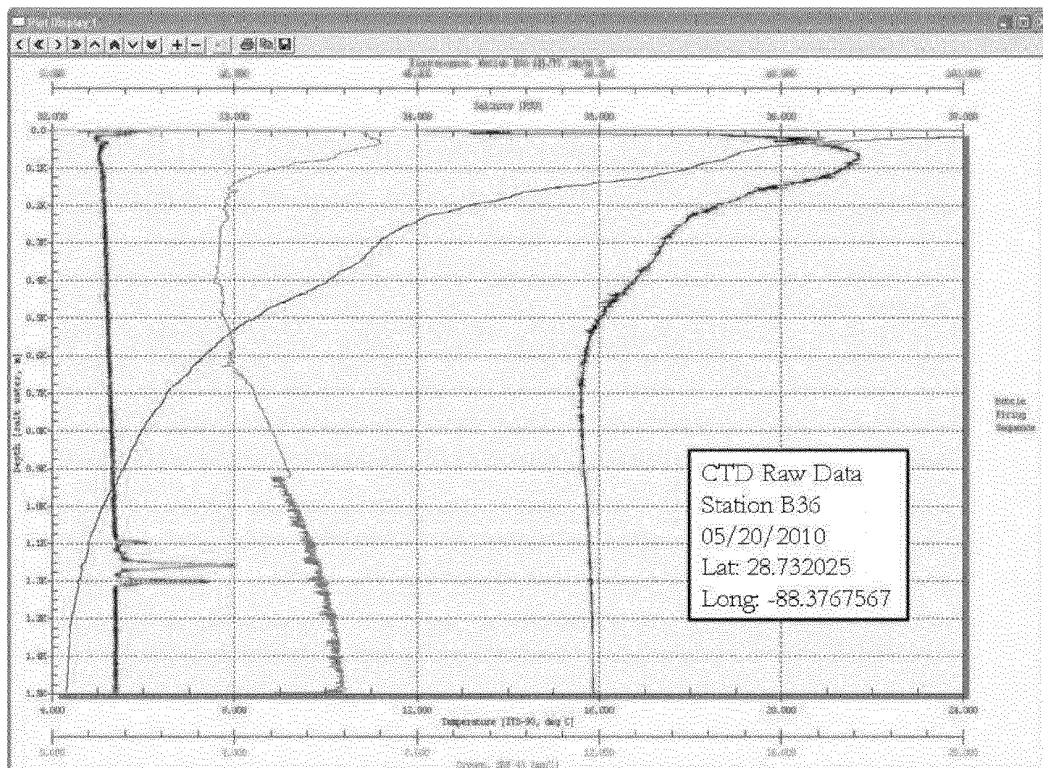
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Conductivity, Temperature Depth (CTD) Sensor Information <u>Station B35</u>				
Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	9 parts per <u>billion</u>	1300 meters 4265 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.5 ml/l	400 meters 1312 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References
Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.
Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.
Note #3. Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion) Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit) Red Curve is Salinity on a scale of 32 to 37 parts per thousand

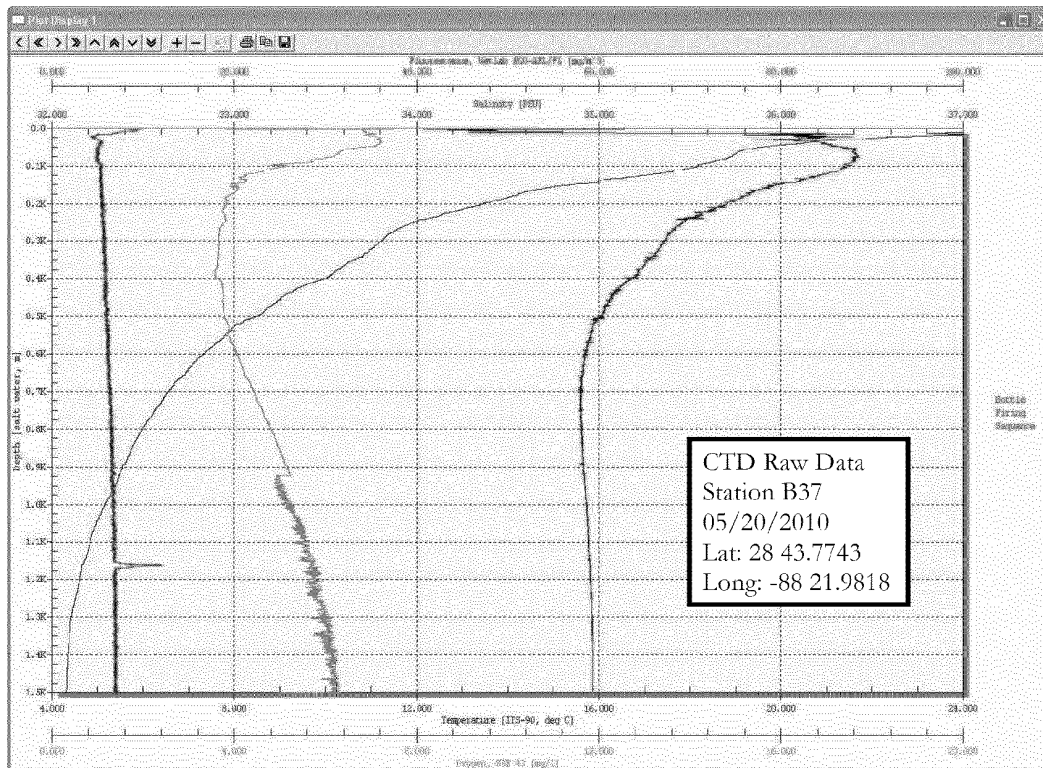
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Conductivity, Temperature Depth (CTD) Sensor Information Station B36				
Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	20 parts per <u>billion</u>	1150 meters 3773 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.7 ml/l	375 meters 1230 feet	
Toxicity Results	Impact less than EPA Test Threshold		99 meters 325 feet	
Toxicity Results	Impact less than EPA Test Threshold		1299 meters 4262 feet	
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References
Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.
Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.
Note #3. Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion) Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit) Red Curve is Salinity on a scale of 32 to 37 parts per thousand

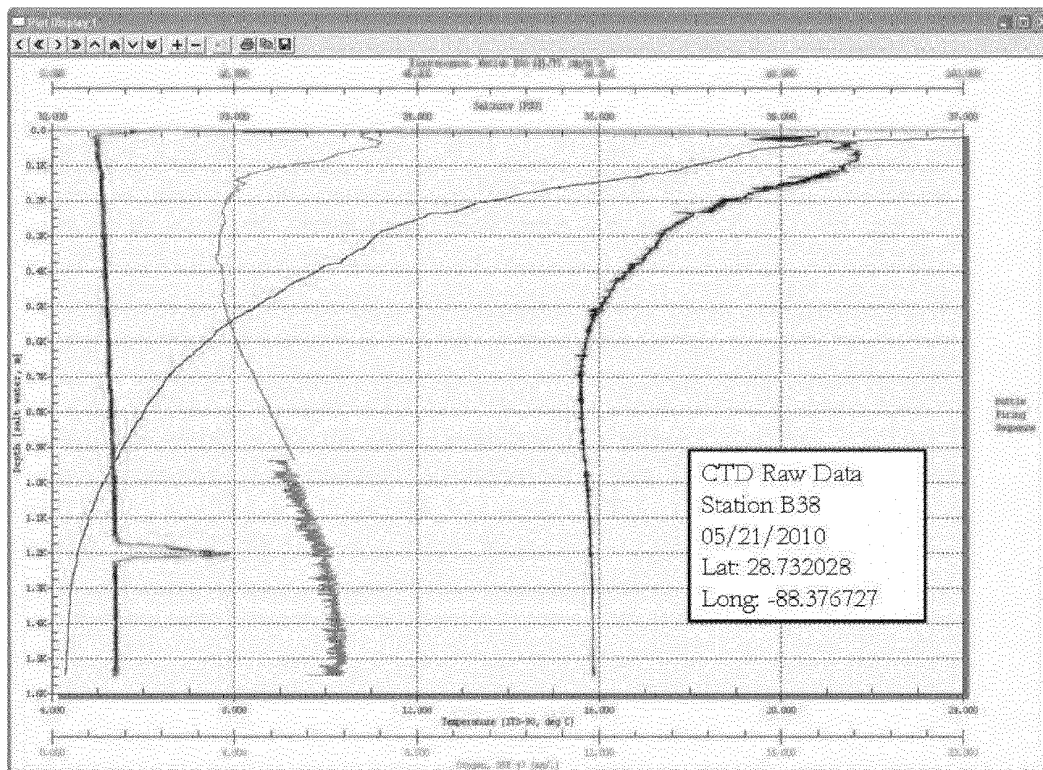
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Conductivity, Temperature Depth (CTD) Sensor Information Station B37				
Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	12 parts per <u>billion</u>	1160 meters 3806 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.5 ml/l	375 meters 1230 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References
Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.
Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.
Note #3. Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion) Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit) Red Curve is Salinity on a scale of 32 to 37 parts per thousand

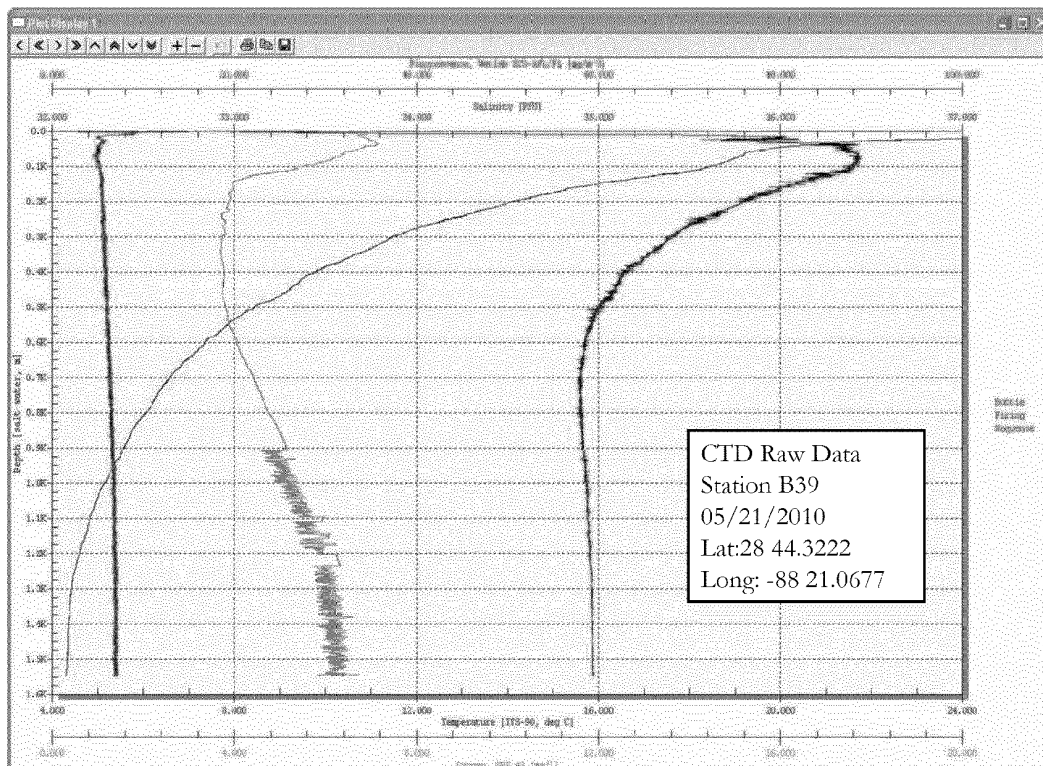
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Conductivity, Temperature Depth (CTD) Sensor Information Station B38				
Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	20 parts per <u>billion</u>	1200 meters 3937 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	360 meters 1181 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References
Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.
Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.
Note #3. Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion) Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit) Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B39**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	<u>No Anomaly</u> 8 parts per billion <u>background</u>	N/A	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.7 ml/l		
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

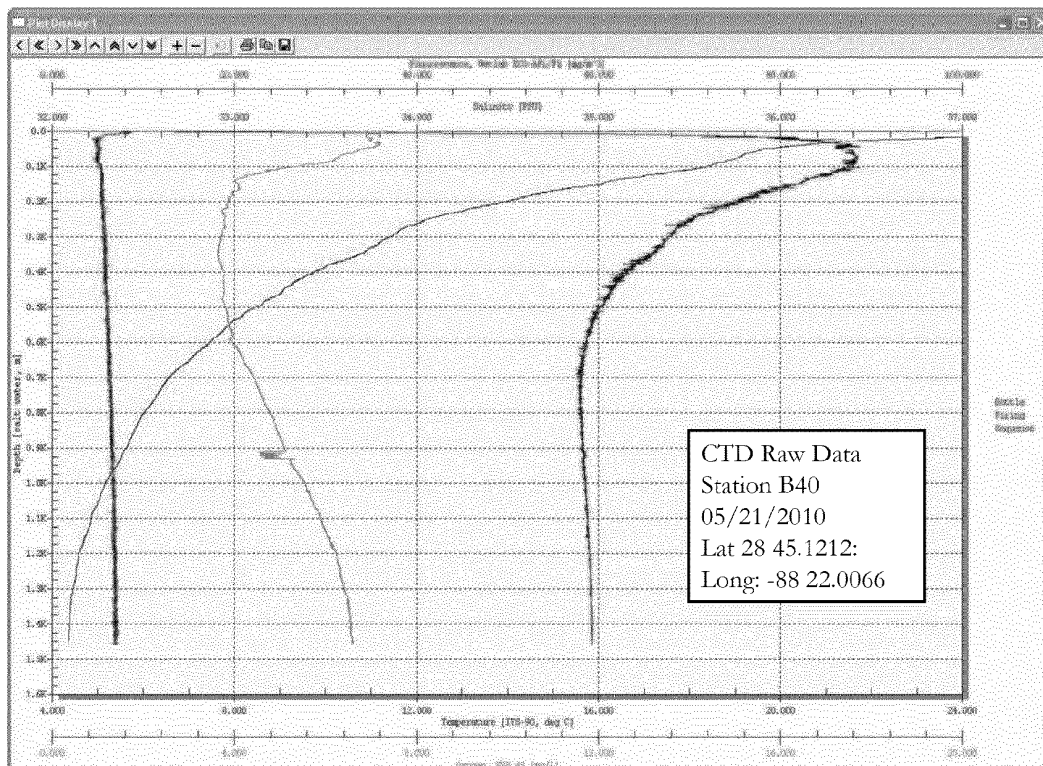
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B40**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	<u>No Anomaly</u> 8 parts per billion <u>background</u>	N/A	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.7 ml/l		
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

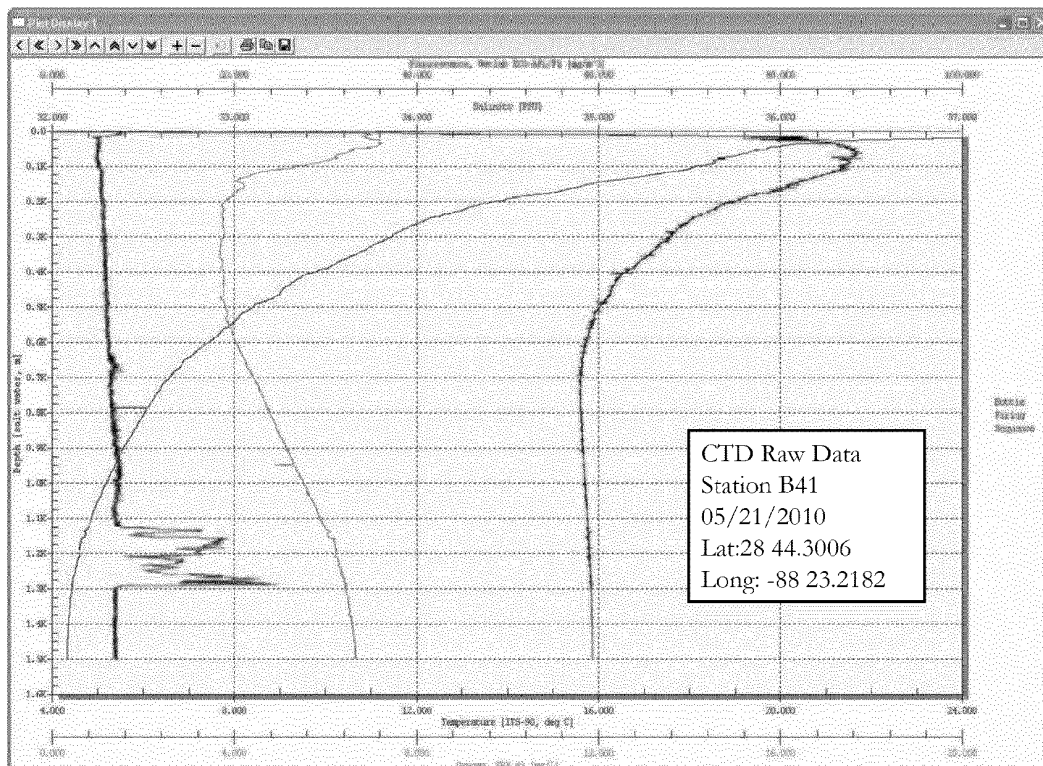
Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand

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Conductivity, Temperature Depth (CTD) Sensor Information **Station B41**

Measurement	Reference Point	Value from Station	Depth below sea level	Status
Hydrocarbon Concentration in Water Maximum Fluorometry Reading (Note #1)	29 parts per million	25 parts per <u>billion</u>	1280 meters 4199 feet	
Minimum Dissolved Oxygen ml/l (Note #2)	2 ml/l	3.6 ml/l	350 meters 1148 feet	
Toxicity Results	No Available Data			
Data Source	Brooks McCall Cruise Science team - NOAA, EPA, & BP representatives on board			

Sources and References

Note #1 As a reference point, The EPA NPDES (National Pollutant Discharge Effluent Standard) permits for Offshore Gulf of Mexico installations contain a NOT TO EXCEED limit of 42 mg/L (42 parts per million) on a daily basis AND a NOT TO EXCEED limit of 29 mg/L per day (29 parts per million) on a monthly basis.

Note #2. 2 milliliters per Liter (2 parts per million) is the lower limit for Dissolved Oxygen specified by the applicable documents controlling the use of dispersant in subsea injection for the MC 252 oil spill.

Note #3.

Green Curve is Fluorescence on a scale of 0 to 100 milligrams per cubic meter (0 to 100 parts per billion)

Grey Curve is Dissolved Oxygen on a scale of 0 to 20 milliliters per Liter

Blue curve is Temperature on a scale of 4 to 24 degrees Centigrade (39 to 75 degrees Fahrenheit)

Red Curve is Salinity on a scale of 32 to 37 parts per thousand