

**Ranger Mission Challenges
Judge's Score Sheet**

School/Team: _____ Competition class: _____

Team Captain: _____

Judges: _____

5-Minute Set-Up and Safety Check

Judges must OK each safety item before the team can proceed with the mission. *A judge's decision to disqualify a team due to safety concerns is final.*

- All power cords, power bars, pressurized cylinders, etc. are secured.
- A fuse is present in the vehicle's electrical system. Note: MATE will also place a 25-amp fuse in-line between the positive battery terminal and the vehicle.
- No hazardous materials are leaking onto the pool deck.
- Vehicle is hand-launched by team members in a safe manner.
- No team member has entered the water in order to prepare and/or launch vehicle.
- Vehicle is in the water near the side of the control shack at the end of the 5 minute set-up period.

Judge's notes: _____

Team is ready for the mission: _____ (judge's initials)

Mission Scoring

Time Score

Each team has 25 minutes to complete the mission. Your team will be awarded a time bonus if you successfully complete all 7 tasks in less than 25 minutes.

Duration of mission: _____

Time score = 30 min. – Duration of mission time (max. 25 min.) _____ = _____ points

Mission Score

The mission score is determined by tasks worth a total of 100 points. The tasks can be performed in any order. Your team has completed its mission performance period when either your 25-minutes are up or you have completed all 7 mission tasks and have your ROV at the surface alongside the pool's edge.

Task 1: Find and recover the lost towfish

Task 1 scoring – 10 points

_____ Attach the hook to the towfish (5 points)

_____ Bring the towfish to the surface and place it in the crate at the control shack (5 points)

2004 MATE/MTS ROV Committee National ROV Competition

Judges initials: _____

Total Task 1 score: _____

Task 2: Find and identify the *Luckenbach's* brass bell

Task 2 scoring – 10 points

_____ Find the bell (5 points)

_____ Reading and correctly recording the inscription (5 points)

Inscription: _____

Judges initials: _____

Total Task 2 score: _____

Task 3: Patch the hole in the leaking barrel

Task 3 scoring – 10 points

_____ Find the leaking barrel and deliver the patch to it (5 points)

_____ Place the patch completely over the hole (5 points)

Judges initials: _____

Total Task 3 score: _____

Task 4: Find and collect a specific species of fish

Color/geometric pattern

Species name

Black

Demon Bohm

White

Angelic Bohm

White w/ 3 black stripes

Slanted Jailhouse Bohm

White w/ 2 black stripes

Muzzled Bohm

White w/ 1 black stripe

Black-bottom Bohm

Task 4 scoring – 10 points

_____ Find the correct fish species (5 points)

_____ Collect one fish and bring it to the control shack deck (5 points)

Judges initials: _____

Total Task 4 score: _____

Task 5: Find the source of the methane and tag the tubeworm cluster next to it

Task 5 scoring – 10 points

_____ Find the source of the methane bubbles (5 points)

_____ Tag the tubeworm cluster (5 points)

2004 MATE/MTS ROV Committee National ROV Competition

Judges initials: _____

Total Task 5 score: _____

Task 6: Find and tag the mussel bed

Task 6 scoring – 10 points

_____ Find the mussel bed (5 points)

_____ Tag the mussel bed (5 points)

Judges initials: _____

Total Task 6 score: _____

Task 7: Find the authigenic carbonate formation and bring back one sample

Task 7 scoring – 10 points

_____ Find an authigenic carbonate piece (5 points)

_____ Collect a sample and bring it back to the deck of the control shack (5 points)

Judges initials: _____

Total Task 7 score: _____

Total score = Time score _____ **+ Mission score** _____ **=** _____

Team captain's initials: _____