On Saturday, August 3, Kevin Magee arrived on the northeast coast of Michigan at Rogers City after driving eight hours north of Cleveland. Joining him there were Dean Ziegler, Greg Millinger, and Gary Gentile. Dean and Greg are both Bay Area Divers (BAD) from Sandusky, OH, and Gary drove from Philadelphia, PA, to join them. The purpose of this trip was to dive deep, well-preserved wrecks in Lake Huron.

Dean towed his 24' Sportscraft boat "Ziggy II" to allow them to reach the wrecks each day from public boat ramps in the area. Greg towed his trailer filled with gas cylinders to allow the mixing of the gases needed. Home base was established at a campground in Rogers City, where the boat was stored each night and gases were mixed. The diving was done using doubles and one or two stage bottles, depending on the depth. Gary and Kevin formed the first team, which would check the anchor, explore the wreck, and report conditions to Dean and Greg, who formed the second team. Bottom times were typically 20-25 minutes with run times of 50-60 minutes. This is the limit for normal thermal tolerances. Bottom temperature was usually found to be 38 deg F with the thermocline at 50'-60' and 70 deg F water above it. Visibility on the surface was always excellent at 20'-40' with bright ambient conditions. Lighting conditions on the bottom were typically subdued and dark initially, but things could usually be seen clearly without a light after several minutes. A light was helpful for making out details.

Immediately upon arriving on Saturday, they put Dean's boat in the water at Rogers City and went to their first wreck, the "F.T. Barney." This was a 2-masted wooden schooner that sank 5 miles from Rogers City in 160' of water in 1868 after colliding with another vessel. A mooring was found at the site, and it was attached to the windlass at the bow (W). Good 25'-30' visibility was found on the bottom with the deck at 145'. An impressive 40'-long bowsprit is evident without a smaller jib boom along its length. Hanging from the bowsprit were pulleys and blocks. Both anchors, which were classic wood stocked designs, were present. The starboard one appeared to be just barely hanging onto the railing and almost ready to fall. Immediately behind the windlass was a companionway with a small roof and stairs heading down below decks. The forward mast was discovered to be broken off, but the fife rail was intact around it, and belaying pins were in place along with deadeyes on the railings. The centerboard winch was near the front mast with chain still wrapped around it and curled onto the deck. In the center of the ship the capstan's base plate was attached to the deck, but the capstan itself was found detached and lying on its side against the starboard railing. Three cargo hatches filled with coal were found, and a hand pump was seen near the rear mast. The rear mast is standing, and fallen sail hoops lie stacked on top of each other at the base of the mast. Blocks and pulleys were also seen hanging from the remains of the mast structures. One boom was seen lying on the deck, and another one had fallen across the starboard railing next to the cabin, crushing the railing.

The cabin is completely intact at the stern. A companionway on the port side leads down into the cabin, and a stove pipe with a metal tubing guard around it comes out of the roof nearby. The cabin has a small separate room, possibly an office, against the port side with a door that is ajar. Interior paneling and broken furniture can be seen littering the cabin's floor along with plates, cups, and dishes. A companionway at the rear leads directly to the steering wheel's location. The wheel is in place with the steering gear visible for easy inspection. A curious box that is attached to the cabin's side next to the companionway appears to have allowed things to be passed between the helm and the cabin's interior. Both yawl boat davits are intact, and they have a graceful upwards curve to them rather than sticking straight out from the back corners. The transom also has a nice appealing shape. The ship stands high off the bottom, and the rudder is exposed for easy viewing.

On Sunday, August 4, the boat was launched to the north at Hammond Bay, and a 15-20 mile run was made to Bois Blanc Island near the Mackinac Straits. The day was initially rainy and not very promising, but conditions improved once we were on the water. The day turned out to be sunny with a beautiful flat lake. The wreck was the "Newell A. Eddy," a large 240'-long three-masted schooner/barge that sank in 165' of water in 1893 after anchoring to ride out a storm. The coordinates proved to be off, but after an hour of searching, what was hoped to be the wreck was found. There was no mooring, so the wreck was hooked with the anchor. Upon descending, the enormous size of the wreck became evident. Enormous 2'-3' diameter masts come up to at least an 80' depth, and all three masts are standing. Hanging from the masts is wire rigging dangling down to the deck or attached to the railings. Enormous turnbuckles, not deadeves, are seen on the railings. All three booms are still in place pressed up against their masts and held there by resting in wooden cradles down the centerline of the deck. The sail hoops on all three masts are in place stacked on top of each other at the base of the masts. Large wooden blocks and pulleys can be seen hanging everywhere from the masts and booms. Furthermore, the deck is shallow at 140', meaning that the wreck towers 25' above the bottom. Many large cargo openings are present and span a good portion of the 40' beam. Visibility was good at 20'-25', but this still only allowed one to see halfway across the width of the ship. Far below inside the cargo openings, Gary found a white paste filling the bottom - the decayed remains of its grain cargo. The wreck was hooked near the bow, and only Kevin made the swim down the length of the ship and back again. It turned out to be a VERY long swim and took a significant portion of the dive. He discovered that the entire stern is missing starting immediately behind the third mast. Maybe 10'-15' of the port railing remains beyond this point, but only about 5' of the starboard side remains. The cabin is completely missing and would have started where the break in the deck is located. The enormous size of the wreck is reminiscent of the "Dundee" found in Lake Erie, except it is deeper and in excellent condition.

The bow (S) is were most exploration was done. There is a large raised forecastle that is 5'-8' above the deck. It is completely enclosed, but a large windlass can be seen housed underneath it where part of the rear wall is peeled away. A large donkey boiler is located on the deck behind the forecastle on the starboard side. It sits standing up on its end, which was the normal way to mount donkey boilers on sailing vessels rather than horizontally on their sides like those found on steamers. A small footrail partitions off a portion of the deck behind the forecastle, and a potbelly stove can be seen lying on its side in one corner of this area. Up on top of the forecastle, Gary found indisputable proof that we were indeed diving the wreck it was thought to be. The capstan on top of the forecastle is engraved with "Newell A. Eddy, 1890" along with the foundry name. Furthermore, name boards were found on the sides very near the bowsprit that have painted "Newell A." on the starboard side and "Eddy" on the port side. Decorative carvings adorn the name boards at the ends. The bowsprit is large and continues out 30'-35' with a smaller jib boom attached at the end. There is supposedly an eagle figurehead under the bowsprit, but no one could see anything that resembled an eagle. Chains can be seen running from the bow out to various points along the bowsprit's length. The port anchor can be seen to be deployed, and its chain stretches out tightly from the hawser pipe into the distance. The starboard anchor is on top of the forecastle, and it is a unique folding design. There is a swivel where the arms and flukes attached to the shank, and the stock is metal and pulls through a hole in the shank to lie flat along the shank's length. Water level load marks were also found running down the sides at the bow. The bottom temperature on this wreck was refreshingly slightly warmer at 40-43 deg F.

The next two days, Monday and Tuesday, were blow days with choppy 4'-6' seas. The best was made of the situation on Monday by visiting Presque Isle and touring its historic lighthouses. On Tuesday Mackinaw and the shipwreck museum at Whitefish Point on Lake Superior were toured.

On Wednesday, August 7, the lake was calm, so the boat was launched from Hammond Bay to again explore the "Newell A. Eddy." The wreck is so massive that no one felt like they'd really seen much of it, so it had to be dove again. Visibility, however, was slightly worse at 15'-20'.

Afterwards, a shallow wreck called the "Perseverance" was searched for in the channel south of Bois Blanc Island. There is some controversy about the true identity of this wreck, and it may actually be the "Robert Burns" with the "Perseverance" lying off Rogers City at another location in 130' of water. In an attempt to check out a possible target, Gary and Kevin ended up doing a fruitless but pleasurable dive in 65' of water with a warm 50-65 deg F bottom temperature and 30'-40' of visibility, but no wreck was found. As luck would have it, a local

named Harold Guys pulled up nearby, put up a dive flag, went diving, and installed a mooring while we waited. Afterwards, Dean, Greg, and Kevin suited up to dive it. It is reminiscent of the wrecks found in Lake Erie since it is mostly broken up. The deck is gone, and the hull's sides are falling outwards. The center of the wreck is deeper than the surrounding lake bottom by about 5', and the insides are littered with the remains of knees, planks, and equipment. The centerboard box is upright and strangely intact with the top fore and aft access holes open and a chain running down inside the box at the rear opening. The bow (N) stands high off the bottom, and several hardeyes (similar to deadeyes) are prominent on the bottom there. The stern appears to be heavily damaged and torn away to the port side. The rudder is lying flat on the bottom out in the debris field. The lake bottom is a hard compact gravel, and the wreck was coated in a fine algae growth that also formed patches on the lake bottom. Crayfish were evident in large numbers on the wreck, and overall it was a cute, photogenic wreck with no deco obligation.

On Thursday, August 8, the boat was taken south to Presque Isle to dive a much prized wreck called the "Windiate," which is supposedly in near perfect condition. Lake conditions were mirror flat, and it was a good thing, too, because a couple of hours were fruitlessly spent searching for it around several sets of coordinates. Finally, another wreck was tried, but it, too, proved elusive until it was finally located after about an hour of searching. This wreck was the "Typo," a 3-masted schooner that sank in 185' of water after colliding with a steamer in 1899. No mooring was evident, so it was hooked with the anchor. Upon descending, it was discovered that the anchor had overshot the wreck and snagged in the rearmost mast, which had fallen off to the port side. However, the wreck's deck could be seen 15'-20' below the anchor line as we descended, so it was easily located. Visibility was about 20'. The deck is at 175', and the stern is completely collapsed. Instead, there is just a large pile of coal with fallen sides and the rudder post sticking up out of the middle of the pile. Swimming forward, amidships the deck begins and a unique horizontal hand pump was seen along with a capstan and centerboard winch. The pump consists of a fat horizontal cylinder with a single lever that is cranked back and forth to move the piston. The front two masts are standing, but their topmasts have fallen down, creating a huge jumble of timbers and a bracing platform in the middle of the ship towards the bow (S). The fife rails around these masts are a unique design with the rail gracefully curving around the rear and sides of the mast but stopping before curving around the front of the mast. At the bow was a small forecastle with a windlass underneath it. The back of this forecastle was open, allowing easy viewing of the area underneath. On the deck behind the forecastle was a ship's bell hanging in a support. The bell was made of steel or iron, and 'rusticles' are hanging from the sides of the bell, obscuring any writing which may have been on it. The bowsprit is intact but the jib boom is missing. Both anchors are in place along the sides of the ship, but the port one is hanging precariously from

the railing. Pulleys could be seen hanging from the cateyes that support the anchors on the railings.

The next day on Friday, August 9, Joyce Hayward of BAD joined the group after having spent time at a geology field station in Wyoming. For her first dive, the "James R. Bentley" was chosen out of Hammond Bay. It was a 3-masted schooner that sank in 165' of water in 1878 after foundering in a storm. It suffers a modern history of actually being private property after the State of Michigan tried to prosecute a diver for raising its unique fallen dragon figurehead that he found in the mud. He preserved it and gave it to a Wisconsin museum, but Michigan took him to court. Ironically, the courts instead awarded him ownership of the wreck. He has since raised both anchors from the wreck, but nothing else. For a refreshing change of pace, a mooring was found at the site. It is attached to the top of the rear mast, which reaches to an 85' depth. The topmast is gone, but the dive begins and ends interestingly by going along the mast's length, allowing a detailed examination of its top structure, hanging blocks, and wood grain. The mast ends at the deck at 140' in the center of what was once the cabin. The cabin is gone, but the floor remains and is littered with dishes, broken crock pots, and broken up wood from the interior paneling. The raised walkarounds on the cabin sides remain, and divers have placed various interesting pieces on them for viewing. The sterncastle is intact, and a center companionway cuts through the middle of it. Behind the companionway lies the remains of the steering gear with the wheel missing. The companionway's stairs rest on top of the gear instead. The yawl boat davits are intact, but the stern is covered in netting on both the port and starboard sides. Resting under the netting on the starboard side can be seen a wooden bucket with its bottom missing. Descending down the transom, the rudder can be viewed standing high off the bottom.

Swimming forward, the deck can be seen to be heavily damaged from fallen masts, which lie all over the deck. The deck's boards are broken upwards in many places, and one hatch frame can be seen to have been lifted up and tilted forward from the force of a falling mast. The cargo hatches can be seen to be filled with coal. The visibility on the wreck was rather poor at 10'-15', so navigation was more difficult than normal. At the bow (NW) a large windlass was seen with chain running in large piles and coils around the bow's deck. The bowsprit is wrenched from the bow and tilts downwards, and there is much damage at the bow. Both anchors are gone, but tightly packed mud deposits against the railings show the outlines of where they were once located.

Afterwards, the "Perseverance" / "Robert Burns" was dove again as a second dive. It was a pleasurable dive, and Gary took many pictures on it. Because of the large distances between the wrecks, the day consisted of a total run of about 50+ miles.

On Saturday, August 10, the boat was launched out of Presque Isle with new coordinates obtained from local sources for the "Cornelia B. Windiate," a 3masted schooner that was originally thought to have sunk in Lake Michigan after disappearing late in the season in 1875. Instead, she was found by surprise to be in Lake Huron, presumably after being stuck in the ice and slowly sinking. She was lost with all hands and lies in 180' of water. There was a mooring albeit somewhat hidden - found on this wreck. It is attached to the top of the forward mast, which rises to within 90' of the surface. The deck is at 165', allowing for a long 70' drop down the mast's length. At the top of the mast is a large square-rigged spar still attached and resting at a 45 deg angle, making her a topsail schooner. There is a platform structure at the top of the mast, and wire rigging hangs down from the platform to the deck below. Reaching the deck, unique three-sided fife rails similar to those found on the "Typo" were seen around the masts with belaying pins still in them. The only damage evident anywhere on this absolutely gorgeous wreck is at the extreme bow (S) where the bowsprit is broken. Everything else is pristine! Both anchors are stowed on the railings between the windlass. The anchor chain runs out of the windlass and up and down the port side in three orderly, looping lengths in an apparent attempt by the crew to correct a starboard tilt of the ship as she lay trapped in the ice. All three masts are standing with wire rigging hanging down from them or fallen onto the deck. All sail hoops are neatly stacked around the masts at the bases. All boom are resting against the masts and held in place by their wooden cradles on the centerline of the deck. All deck equipment is present, including the capstan and centerboard winch amidships with chain running down into the centerboard box. All three cargo holds are sealed tight with the cargo hatches still strapped down, allowing no examination of their interior. On the deck is a strange open crate with 4"-6" thick wooden walls and a metal-lined riveted interior. It almost looks like an ice box to store perishables.

At the stern, the cabin is completely intact. The third mast runs out of the middle of its roof. A front companionway is on the port side, and a stove pipe exits the roof nearby. Entering into the cabin, the stove can be seen on the floor. Two open doors with porcelain doorknobs can be seen leading to small rooms, possibly offices, on the starboard side. A broken stool, table, and other furniture pieces can be seen on the floor. The walls are lined with wood paneling. Windows with glass panes and latticework are on the sides of the cabin. At the rear of the cabin, a graceful winding staircase can be seen making a 90 deg. turn up and out of the cabin on the port side. Exiting up the stairs, one finds the wheel and steering gear with the wheel somewhat tilted up by a fallen mast spar. The davits are a high-standing, arched design like those found on later ocean liners. Two wooden pulleys can be seen hanging from the ends of each davit, and the port one is turned inwards towards the centerline of the ship. Dropping over the transom, one finds decorative metal five-pointed stars attached to the

transom, and it is outlined by a braided nautical rope design made of metal. There are two unique vertical double-lobed portholes on the transom that are reminiscent of the 'keyhole' portholes on the "Willis" in Lake Erie. Sadly, this is where the only sign of vandalism is found - the porthole on at least the starboard side appears to be missing. Dropping down to the bottom, the rudder is turned hard to starboard at a 90 deg angle.

Visibility on the wreck was great at 20'-25', allowing for excellent viewing of all the sights. It will be hard to ever top this wreck and its fabulous condition.

On Sunday, August 11, everyone was tired of diving "yet another intact, upright wooden schooner with standing masts, rigging, deadeyes, anchors, wheels, cabins with furniture, dishes, blah, blah, blah, blah...." So, it was decided to dive the "Norman," a large steel freighter that sank in 200' of water about 10 miles off Presque Isle. It is the sister ship to the "Grecian," which lies just to the south in Thunder Bay. Unlike the "Grecian," however, it was never salvaged and is very much intact. The ship sank in 1895, but it is surprising very modern in appearance and resembles a modern laker in design and size. It is huge at 300' in length with a 40' beam. No mooring was found, so it was hooked amidships. Upon descending, it was found to be lying at a 45 deg angle with the starboard railing up at 160'. The railing, unlike modern ships, is made of wood, and descending over the side to check the anchor at the bottom, a large wooden rub rail was found halfway up its side. Gary and Kevin headed right, and this took them to the stern (W or SW). It was a long swim down the length of this freighter, and there are large cargo openings at frequent intervals. It was very much like being on the cargo deck of the "Edmund Fitzgerald" rather than a freighter which was built and sank before 1900. Visibility was great at 25'-30', but conditions were darker than normal, requiring the use of lights at all times. Despite the good viz, the vast size of the ship did not allow much of a feel for the layout of the ship.

Upon reaching the stern, the whole stern was found to have wrenched itself free from the hull and rotated further to a 90 deg angle. There is a 10'-20' gap between the two pieces that must be jumped. Examining the stern, the face of a large boiler could be seen at the break and again on the backside of the metal engine house. The rest of the cabins and superstructure, however, must have been made of wood, and they were all missing except for a sink and toilet hanging by their plumbing from the steel floor, which was now a vertical wall. Descending towards the extreme stern, the emergency steering tiller and a capstan could be seen attached to the deck. Descending farther to the bottom, the remains of the wooden cabins and deck houses could be seen lying in a cluttered pile at the bottom. Walls, ceilings, glass window panes, tiled floors, and other items all lay in a heap. Swimming back along the metal engine house, the funnel hole was seen. Swimming back along the center of the deck towards

amidships, the cargo holds were investigated and found to be filled with boards and miscellaneous debris but no identifiable cargo. A white-painted mast was also found to be standing attached to the deck and rising upwards at a 45 deg angle with an electrical wire running up its side towards the top. This is pretty modern and impressive for an 1890's ship. Below the anchor line, a deck winch was found and examined.

Because Gary and Kevin had scouted out the ship, Dean, Greg, and Joyce swam towards the bow, where they saw more standing masts, the front deck house but no identifiable bridge, a capstan, an anchor, and furnished interiors. The depth and size of the ship limited the amount of exploration that could be done, and many more dives will be needed to fully explore this ship.

Sunday was Kevin's last day, so he left to go home. Joyce, Gary, Dean, and Greg remained to continue diving for another week or two. Overall, the diving was absolutely spectacular. These were some of the best shipwrecks we've ever seen. All wrecks were free of zebra mussels, there was no silting, all stood high off the bottom, many had standing masts and intact wire rigging, and they were in excellent condition with little stolen artifacts or damage. Let's hope they continue to stay this way for the next hundred years so divers can continue to enjoy these time capsules.