3/1/04 with Coochee River

Groundwater / Surface water interaction Study

Running upriver from Dunellen boat dock 21' wholer 200 Merc. outboard. Using low voltage boomer.

Start at R.R. pilings (upriver from dock) end of Rainbow R.


River stage mid. base flow. 14' feet a bridge


1702 sad 04301 (Start recording) 30

1707 30c cross talk in signal. Returning downstream, grounding generators. Repeat line.

Turning around at bridge

1718 sad 041302 just downstream of bridge.

Grounding caused to help set filter on 480 2400

1735 picking up speed to 3Kts (prev. 2.0 Kts) to test mine

1748 feature at 1625 50ms

175335 Deep feature?

174257 Down-dipping reflectors

1749 Down-dipping - possible window

175321 Possible sink - surface expression.

1822 Tight pass

1818 Possible solution feature (420 on map)

1824

1829 Persistent reflector ~ 28ms

1834 Turning into "core" sink? Starting new line.

1837 sad 09.803 heading into sink area.

1844 Leaving sink area into river

1844 p.s.f. (1844)
185721 psf, downdrifting reflectors
185820 psf down to 50 ms.
190029 reflectors x'ing (noise)
1900 psf
1914 turning into horseshoe bend
1554 191553 turning.
191455 turning.
191525 stuck on river, run away.

1943 started just downstream of previous turn.
50 041049 running off of one generator - noise seems to have dissipated.
1950 psf
1956 grounded generator to water - seemed to reduce noise
2002237 psf
2004 high angle reflectors at 50 ms.
2009 bluff on south shore.
201454 surface expression with ringing at depth.
201537 deep reflectors (70 ms)
202223 downdrifting reflector at 30 ms.
202946 deep psf to 50 ms.
2038 start of low angle downdrifting reflectors @ 30. 40 ms
2041 bend in river
2042 parabolic reflector intersecting 200 2038
2047-2048 window
2057 large feature, low angle reflector
2110-2111 parabolic feature reflector - 35 ms
216630 approached bank to check reflector, appeared to follow.
21733 crossed river other way, 25 ms reflector rose to 20 ms
212107 sharp turn
212145 psf - turn.
2126 window
2130 reflector didn't respond to "bank test"
2131 window
2140 big bend in river
2143 set string reflector coming up ~ 25 ms
2146 bank test, reflectors diverge
2148 bank test the other way, no response
2150, cutting water, running trolling motor for noise test.
2155 call (still on trolling motor)
2156 sal 04/13/65 / under power lines.
prop appears to add noise to signal, still one other noise pattern exists - electrical.
2158 power line interference
2203 resume outboard operation.
2207 pulled in chines to check (at boat ramp)
2209 call.
3/2/04 With La Cochesa River

Starting at Holder Boat Ramp, heading upstream (at end of previous line)

Skies clear, river calm. Crew Dana W., Jim F., Scott M., Dean Y.

Sal 04306 1542 zulu. (1042 local)

1538, running about 2.6 kts, approaching bridge. Very rocky near surface.
1540 - 1550 high river flow, limestone at surface.
1553 bank test, reflector follows at 30 mts follows
1557 bank test, no apparent response.
1602 hit rock, slow down kts 1.69; 1603 resume.
1608 maneuver to avoid log.
1611 hit rock, stop line
move downstream, repostion and start new line which overlaps tail end of previous line.

1616 Sal 04307
1619 nearing end of previous line (along other bank)
1621 bend in river
1627 bank test, reflectors respond
1630 increase river supply volts
1635 river narrows, current increases
1648 terrain opens up into swampy environment (less bank)
1652 bend in river
1654 Slow to avoid tree
1656 bank to bank returns, near blue spring outflow
1659 R. bank diminishes
1704 River calms, picked up speed. So slowed down < 0.5 Kt. Speed < 1.7 Kt
1715 passing blue spring on right
1717 turning around, stop line
Start new line, heading downstream.

1720. Downstream of blue spring, turning around.
1722. Complete turn, heading upstream.
1725. At spring.
1732. Entering Lake Pansofkee / Apopka area.
1741. Ran out of water - end line.


Very shallow water depth in this area.
1811-1815. Water opens up.
1817-1816. Water opens up.
1834. Stuck, stop line.

Tied float to end of hydrophones.

1837. End 04:31:0.
1848.31. Approached bank.
1849. Water opens up.
1857. Bank approaches, see on shallow seismic.
1901. Change is seismic character.
1902. Back into large channel.
1908. Large feature, dropping away. Did a bank test - no response.
1909. Bank approaches, seen in shallow seismic.
1912:30. Making turn; heading downstream.
1913. Deep features.
1914. Turning back upstream. 1915 end turn.
1923. Possible features, no bank. Distance change.
1937, deep reflector, 40 m. During a bank test, reflector appears to respond.

1939 features?

1946-20 passing gum slough.
1948-1949 deep reflector drops away, (30-40 m), is not tracking bank.
1954 bank test, some mid reflectors respond, no response from deep rfh.
1956 pick up speed 1/2 ft. speed ~ 3.0 ft
1958 speed 2 ft. possible solution feature?
2007 reflector @ 20 m possibly bank.
2008 river narrows.

2010-96 deep reflectors, not tracking bank.
2011-2051 reflector dipping down 30-45 m, then back up to 30 m possibly rt. bank.
2018 bank test (heading toward left bank, deep reflector does not respond.

2019 water depth shallows - slow. Mid (30 m) reflectors seen to respond to bank test.
2019 stuck on bottom.
2021 reverse prop to clear weeds.
2024:40 resume normal speed.
2026-2030 river wide.
2050 bank test, reflectors at 40 m, 60 m (?) respond.
2052 head towards left river center - reflector @ 40 m responds.
2054 maneuver to avoid air boat.
2059 start new line (traces 7.33 k)

2100 04/01
2113 bank test, deep (50 m) and mid (80-90 m) reflectors respond.
2112 j.d. possible feature at Slough, turning around for another pass. 2013 turn complete
2125 turning around, heading westward - 2026 turn complete.
2137 reflectors approaching surface. (bank?)
2124 deep ref. flashes (50 ns) not bank.
2152 ast
2205 passing under highway bridge, lose GPS
2209 hit button, slow
2210 end of last run. See 47. See 47.
a lot of weeds noticed on sled
3/3/94 Withlacoochee R. Seismic Survey Day 3  

Boat Ramp at Hwy 44, heading upstream to Wyseong Dam.  
Skies clear, river calm. Crew Dana W., Jim F., Scott M., Danny.

1557: 04/812 turning upstream. 1558 complete turn speed = 1.7 kts
1508: very shallow, losing signal.
1518: ran out of water, maneuvering.
1520: resume speed - direction.
1528: very shallow water depth. Speed 0.4 kts
1528: overhear alarm - end line.
Sled and phones covered with approx. 1,025 kg of weeds.

1551: maneuver to deeper water #2, start new line upstream.
1557: 04/813

1557: Shallow again, slow.
1558: end. maneuvering.

Trying to attack boom & phones to boat sides to reduce depth problems & weed accumulation.
1613: 04/814 upstream of previous.
1618: end. for shallow - maneuver.
1627: went into small spring 30' across started line.
04/14A, moved out of spring within river, speed variable.
1634: moving upstream.
1637: bank test
1637 - 1655 trying different phone/sled config., nothing improves. Going back to old setup. End.
1656 Sol 04/315 be about 1 mile from dam.
1659 ed weed cleaning in upstream of dam. (wysung)

1858 Sol 04/316 heading up "lake"
1851 turning around, heading towards dam
1855 turning crossing lake to other shore
1856 heading up rt. bank
1900 turning around heading downstream diagonal across lake
1902 turning upstream along left bank 1904 straight
1907 turning downstream
1909 turning to cross lake
1910 turning upstream, duplicating 1902 - 1907.
1919 water shallowing - turning around
1942 turning upstream along left bank
1943 60f. parabolic returns 60m
1936 turning around to recruey 1933
1940 turning around heading upstream. 1941 turn complete.
1942, similar features to 1933
1944 deep features 50m
1951 getting shallow
1953 deepening a little high angle reflector at 90°s might be bank
1955 reflectors at 90°s should not be bank
1957 on rt. bank opening up

2000 turning around to investigate high angle reflector
2004 turning around, heading back upstream
20160 ont heading up toward to lake panasoffkee on canal to lake panasoffkee on
2036 bend in river very narrow, winding
2057 re-entering zone of deep parabolic features
Elevation ~50'

2110 psf 40-60ns
2121 mix'd out on traces, end

2122 SSW 04/619 at Jumper creek
2132 deep parabolic features
2134 rock outcropping at surface.
2141 near-surface feature, does not follow bank direction.
2149 psf & N/S.
2153 feature does not seem to follow bank.
2157 maneuvering around trees in river
2158 end fallen tree across river

2203 sod other side of log- heading upstream.
2208 turn well 1/2 mile west, correlate to 25 ms reflector?
2209-2210 surface reflectors may correspond to opening of banks.
2218 river opens up. (Trails end camp)
2234 by lake
2239 deep features 60+ms
2240 turning
2244 banks closing in (leaving lake). Wrong creek end

move from back to lake find next creek. Redepth
2252 SSW 04/619 heading towards Hwy 48 bridge
2255 left bank opens up. Deep bank features 60+ms
2259 features? bank? dunno.
2300 features at 40ms appear too deep to be bank.
2303 could be bank, seems too deep (bank ~30' from sock)
2305 end end at bank camp

NOTE: ALL WAY TO THIS POINT WAS RECORDED IN UTM ZONE 18
3/4/04  Withlacoochee River Survey  Day 4
(CSR 48)
Survey upstream from Wynhaver boat ramp. Skies clear,
river calm. Crew Dave W., Jim F., Scott M., Dennis Y.
USING UTM ZONE 17 FROM HERE ON (GEOV. ZONE 8)

1408  Sid  0413.20  over-looking end of prev. line.
1409  crossing under SR 48 highway bridge.
1411  bank wide open.
1416  turning around to verify record.
1418  turning around, feature appears to have been caused by plant
material on the ground wire (in the water)
1419  portion of feature reappears - may not be ground feature
1422  turning around, heading downstream.  Speed 31 kts
1426  turning around, heading upstream down middle.
1429  could be ringing off the bottom, river bottom thin veneer on
rocky bottom.
1432  rk banks opens up.
1436  being turning 90° towards "lake"
1440  angling back downstream
1442  angling upstream
1444  deep feature (80ms), seen previously ?
1452  leaving "lake" 1453 maneuvering
1515 31 fms
1509  30 fms at spring
1510  maneuvering.  1511 turning around heading downstream.
1514  turning around heading upstream
1515  possible deep features
1521  turning, angling towards mouth inlet.
1522  turning, angling downstream toward river.
Elevation ~ 47°

1524 psf 40 ms.
1525 turning upstream
152548 deep feature
1527 parabolic reflector 40 ms, not related to banks
1528 psf 35 ms.
1531 psf 60 ms.
1532 turning angling across open area.
1534 turning, angling downstream
1536 turning upstream. speed 2.7 kts
1537 deep feature
1540 banks closing in.
1545 possible structure shallow - boil (or edd. current eddy) noted at surface
1547 near surface reflectors may be associated with left bank.
1548 picked up 2 km to counter & current.
1551 rising reflectors at 20 ms may be associated w/ left bank. Deeper reflector is not.
1556 psf 50 ms. Upwelling reflector is not bank.
1559 turning around, heading downstream.
155958 turn complete.
1600 reduce speed
160047 deep features not associated w/ banks.
1602 turning around, upstream 1603 to turn complete.
1604 deep feature -
1605 end, starting new line (max. trace) 04/321
1625 deep feature 60 ms
1642 two bends in river 164348 bends complete
1646 surface depression with
1648 deep features not associated w/ banks
1651 big, deep feature
1653 turning around to re-investigate.
1654 report of 1651
1656 turning around, heading upstream, 1657 turn complete.
1703 parabolic reflectors at depth
1708 wide open and shallow, 1710 muddy bottom.
1721 banks closing in.
1739 end at boat ramp. Hwy 476

1741 sal 045, 22 at Hwy 476 boat ramp.
using additional generator to 5 voltage for power supply. (note this)
1747 very tight banks
1748 bottom hooked up—clear. Decrease voltage
1750 increase voltage to 500, 1751 500 & AC.
1756 turning around, 1757 turn complete.
1759 turning around, heading upstream, 1800 turn complete — 2.65 kts.
1802 past 40-50 m.
1804 at Hwy bridge. 1802 entering Whittacochee State Forest
— deep parallel reflectors are grounding noise —
1822 end. Going back to 1 generator.
1827 sal 045 23 at same spot as end of prev. line.
1842 river very narrow
1845 hit something — slow speed 1.75 kts
1846 very shallow. 1852 bend in river. 1856 hit log
1859 maneuvering difficulty, shortening sled distance

Found different channel (prev. one died)
1920 sal 045 23 heading upstream. Channel narrow, maneuvering slow. 1.7-2.0 kts
1947 end to maneuver around log
1953: sled 04324 a little bit up river. River still narrow & winding. 4/10/15. 2
1956: pulled in sled temporarily to maneuver
2004: dragging sled back (looks like river is opening up a little)
2005: hit log stop 2012 resume 2013 hit log
2016: stop line

04625: started but ran out of generator fuel.

2028: sled 04326

2041: adjacent to Rome wells with Pocosin B & Z
2044: 2 60° bends in river.
2047: bend in river
2053: river widens a little. Change in vegetation (to scrub oak)
2057: bend in river 2058 eel, eel.

Elevation - 5'4".
Near 5.75 + Silver Lake, heading upstream. Skies clear, river calm.
Crew: Dana W., Jim E., Scott M., Don Y.

1404/2 (908 loced) Sale 04827 slightly overlapping end of previous line
speed ~ 2.0 kts.
1419 turning around to investigate reflector. 1420/30 turn complete.
1421/57 turning around, heading upstream.
1427 psf
1430 psf deep 50+ ft.
1431 turning up short branch in river. 1431/56 turning around out of branch.
1433 turning downstream. 1436/27 turning upstream. 1437/15 turn done.
1439 psf repeat.
1444 psf 40 ms, not bank.
1446/47 bank test 1447/27 resume upstream direction
1452 at 7.75 bridge 1453 power lines @ Silver Lake
1457 middle of lake, w.d. ~ 10' with a sandy bottom
1507 slowing, entering small channel. Turning around 1508/19 turn done
1510 turning into channel.
1507-1511 deep reflectors psf. Might be bank associated w/ small island.
1512 psf. Slowing. 1514 heading into narrow channel
1516 heading into river
1524 passing Little Withlacoochee River.
1526 possible shallow feature.
1531 bend in river 1535 bend in river
1540 scour associated w/ bend in river.
1541 bend in river, 1548 showed for maneuver.
1612 end of trace. Bottom variable 5'-10' deep. Hard sand/rock.
1612 sale 04828
1620 slow for maneuvering.
1627 Maneuvered through tight spot
1634 End of deal of obstructions
1639 Slow down 20 resume
1647 Bend in river, 1642 Slow to avoid tree, 1652 Slow to maneuver
1655 Got shallow
1657 2 bends in river, 1703 Bend, 1704 Slow
1704 Feature, or bank?
1705 Turning around, heading downstream
1710 - 1712 Turning around, heading upstream
1716 Bend (1709) , 1717 Bend, 1720 Slow, 1722 27 resume
1725 Slow maneuver, 1726 33 resume, 1728 Slow, 1730 Slow, 1730 resume
Speed = 2.1 kts
1732 Slow for dog, 1733 resume, 1736 bend
1745 Maneuver, Slow, bends - 1748

1750 Slow 041330, 1752 Bend, 1757 Slow
1756 Got shallow
1759 Left Hwy 50 bridge - End stop

Return to Silver Lake, at top river mouth.
2007 Slow 041331, turning in to river mouth to lake.
200928 Normal course.
2011 Turn lakeward, 201130 end turn
201335 Slow Slow, 2014 Turn toward to river mouth, 2015 turn end.
201742 Turn lakeward, 201815 turn complete
2019 Depth 9', sandy bottom, 2020 Massin with phones.
2021 Turning into cove, 2024 Turning out of cove
202527 turning out of cove
2029 turning, 2032 turning, 2033 turning, 2044 turning.
2036 & 2037 PSF

2048 Turned off boat motor, 204900 turn on boat motor
2050 End each end of boat rope.