**MetaData**

Joel, Caleb, Evan, Adam

50F and Sunny

Trimble R10 Survey

Scribe: Adam, Caleb

Survey: Caleb

*Job Information*

Title: Caldera\_102821

Template: NM Training

Survey Style: RKT INFILL NEW

*Base Station*

Set up over paint mark on rock, ~125 m from stream, S/SW

Lever to paint = 1.551m

Base started logging ~10 am MDT

*Rover Points*

Survey Style: RTK INFILL NEW

1. wellgroup\_1&2 – PIEZOMETER NEST 1
   1. Bottom of piezometer @ bottom of (lower) reach
   2. Precision = standard
   3. ~5 min occupation
   4. Bottom surveyed between B & C
2. tpost\_1 = ~1.5m t post – EXPERIMENTAL ISCO T POST
   1. Green with white top
   2. Bottom stream bed survey
   3. ~5 min
   4. Precision = std

\*NOTE—started from bottom of field site and moved upstream

1. pizo\_1 – GROUNDWATER WELL 1
   1. Solitary piezo #1
   2. Not in H2O, at edge of flood plain
      1. River left
   3. ~1 min
   4. Prec = standard
2. pizo\_2 – GROUNDWATER WELL 2
   1. Solo piezo#2
   2. Not in H2O, at river right edge of flood plain
   3. Prec = H3.8cm, V=5.4 cm,
   4. 16 min
   5. Forced store observation w/ enter key
3. tpost\_2 – ISCO 1 INTAKE
   1. 2nd tpost in channel near bottom of reach
   2. 7 min, force stop
   3. Prec = H4.9cm, V=5.8cm
4. pizo\_3 – GROUNDWATER WELL 3
   1. solo piezo #3 at flood plain edge river left.
   2. 11 min, force stop
   3. Prec = H11cm, V20cm

\*NOTE AC plugged 35AH Trimble battery to base @ ~12:05 w/out removing small receiver battery. Noticed receiver was unscrewed at bottom of lever extension/tribrach interface a tiny amount (<1/4 thread). Screwed back in

1. wellgroup\_2 – PIEZOMETER NEST 2
   1. 2nd wellgroup in channel
   2. Cancelled, redone as: wellgroup\_2a
   3. Force stop
   4. Prec=H2.4cm, V1.9cm
2. tpost\_3 – HYDROPHONE 1 MICROPHONE
   1. tpost w/ hose and inlet
   2. measured from end of L bend PVC
   3. manual stop
   4. prec = H7cm, V12cm
3. chacc\_1 – HYDROPHONE 1 PIPE
   1. channel acoustic sensor
   2. metal cylinder on cement slab
   3. measured [from] middle [of cement slab], upstream
   4. force stop
   5. prec = H4.5cm, V3.8cm

\*NOTE: missed “chacc\_1” in point number iteration scheme, so following points are +1 from what is recorded in field book.

1. pizo\_4 – TEMPERATURE PROBE 8
   1. piezometer in middle of stream
      1. just upstream of “chacc\_1”
      2. maybe related to hose tpost
   2. force stop
   3. prec = H4.6cm, V3.6cm
2. tpost\_4 – ISCO 2 INTAKE
   1. 4th tpost
      1. 3rd w/o hose
   2. Only 6 satellites
   3. Stopped after 5 min
      1. Precision never changed
      2. Prec = H2.5cm, V3.9cm
   4. “Required number of measurements not met”
   5. Want to retry later
3. sonde\_1
   1. Measured toward stream center
   2. [at] blue and grey color boundary [on sonde]
   3. force stop
   4. prec = H2.9cm, V5.6cm
4. tpost\_4a – REDO: REAL ONE
   1. redo tpost\_4
   2. force stop
   3. prec = H2.9cm, V5.6cm
5. pizo\_5 – GROUNDWATER WELL 4
   1. stream right, marked #4
   2. by fallen tree with orange flag
   3. force stop at 8 in
   4. prec H7cm, V11.6cm
6. RFID\_1 - CENTER OF ANTENNA 1
   1. lower section RFID sensor
   2. measure at center
   3. force measure 6min
   4. prec=H2.5cm, V7.5cm
7. wellgroup\_3 – PIEZOMETER NEST 3
   1. auto store ~2min
      1. met automated precision requirements)
8. tpost\_5 – HYDROPHONE 2 MICROPHONE
   1. 2nd tpost with hose
   2. 3 min
   3. prec = H1.6cm, V4.6cm
9. chacc\_2 – MIDDLE OF PIPE
   1. measure upstream, center of concrete
   2. auto stored

\*NOTE: missed “chacc\_2” in point number iteration scheme, so following points are now +2 from what is recorded in field book.

1. pizo\_6 – TEMPERATURE PROBE 2
   1. black painted PVC
      1. related to tpost\_5?
   2. just below large fallen tree and blue reflector
   3. stop at 3 min
   4. prec = H2.3cm, V6.1cm
2. pizo\_7 – TEMPERATURE PROBE 1
   1. black painted PVC
   2. upstream log
   3. stop at 15 min
   4. prec = H47.7cm, V29.9cm
   5. 7-12 satellites, denser canopy

End of lower reach/start of upper

1. pizo\_8 – GW5
   1. pizo #5
   2. stream right
   3. auto stored
2. tpost\_6 – ISCO 3 INTAKE
   1. store automatically
3. wellgroup\_4 – PIEZOMETER NEST 4
   1. auto-stored
4. tpost\_7 – HYDROPHONE 3 MICROPHONE
   1. has hose
   2. stream left
   3. measure at inlet
   4. auto stored
5. chacc\_3 – PIPE 3
   1. measure from concrete center, upstream
   2. auto stored

\*NOTE: missed “chacc\_3” in point number iteration scheme, so following points are now +3 from what is recorded in field book.

1. pizo\_9 – TEMPERATURE PROBE 4
   1. painted black PVC
   2. center stream
   3. auto stored
   4. accidentally did pizo\_10 as well
2. pizo\_11 – TEMPERATURE PROBE 5
   1. painted black PVC
   2. center of stream
   3. up from 1st fallen tree
   4. auto store
3. pizo\_12 – GW7
   1. marked #7
   2. river right
   3. auto stored
4. pizo\_13 – GW6
   1. stream left
   2. marked #6
   3. auto stored
5. tpost\_8 – ISCO 4 INTAKE
   1. auto stored
6. wellgroup\_5 – PIEZOMETER NEST 5
   1. stop at 7 min
   2. preec = H2.1cm, V3.2cm
7. pizo\_15 – GW9
   1. stream right, marked #9
   2. stop at 3 min
   3. prec = H10cm, V16.2cm
8. pizo\_16 – GW8
   1. stream left
   2. auto stored
9. chacc\_4 – HYDROPHONE 4 PIPE
   1. measure upstream of metal [cylinder], center of concrete
   2. auto stored
10. tpost\_9 – HYDROPHONE 4 MIC
    1. blue hose, measure at sensor
    2. auto stored
11. wellgrouop\_6 – PIEZOMETER NEST 6
    1. auto stored

End of upper reach

Stop [base] logging at 3:38pm [MDT]