

U.S. DEPT. OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 CLIMATE MONITORING AND DIAGNOSTICS LABORATORY
DIGITAL OZONESONDE CHECKLIST

FLT# VU002

June 2004

RICE UNIV. (0.5% buffered)

INITIAL PREPARATION 3-7 DAYS BEFORE FLIGHT.

- | | | |
|-------------------------------|--|---|
| DATE (LOCAL): <u>4/17/06</u> | 1. Run zero air 10 minutes <input checked="" type="checkbox"/> (✓) | 4. PUMP VAC <u>:22</u> |
| INITIALS: <u>SM</u> | 2. PUMP CURRENT: <u>88</u> | 5. 30 MINUTES HI O ₃ <input checked="" type="checkbox"/> (✓) |
| PUMP NUMBER: <u>225609-05</u> | 3. PUMP PRESSURE: <u>15</u> | 6. 5 MINUTES NO O ₃ <input checked="" type="checkbox"/> (✓) |
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- | | |
|---|---|
| 7. ADD 3.0 CC FRESH CATHODE: <input checked="" type="checkbox"/> (✓) | 14. Run sonde for 10 minutes on NO O ₃ AIR <input checked="" type="checkbox"/> (✓) |
| 8. WAIT 2 Minutes <input checked="" type="checkbox"/> (✓) | 15. Short the cell leads: <input checked="" type="checkbox"/> (✓) |
| 9. ADD 1.5 CC ANODE SOLUTION: <input checked="" type="checkbox"/> (✓) | 16. Add about 2 to 2.5 CC more Cathode Solution <input checked="" type="checkbox"/> (✓) |
| 10. RUN 10 MINUTES on NO O ₃ <input checked="" type="checkbox"/> (✓) | 17. Place Instrument inside plastic bag: <input checked="" type="checkbox"/> (✓) |
| 11. RECORD CURRENT: = <u>0.26</u> μ amps <input checked="" type="checkbox"/> (✓) | 18. Store inside Styrofoam flight box: <input checked="" type="checkbox"/> (✓) |
| 12. RUN 10 MINUTES on 5 μ amps O ₃ <input checked="" type="checkbox"/> (✓) - then switch to NO O ₃ AIR. | |
| 13. RECORD: TIME TO DROP FROM 4 TO 1.5 μ amps: <u>45.4</u> sec. | |

FLIGHT PREPARATION IN LAB.

DATE (LOCAL): 4/20/06
 INITIALS: SH, AF
 Cathode solution # or date written on bottle: Jan 25, 2006
 CHANGE CATHODE SOLUTION (3cc): (✓)
 CHANGE ANODE SOLUTION (1.5cc): (Yes/No)
 RUN ON NO O₃ FOR 5 MINUTES: (✓)
 RECORD THE NO O₃ BACKGRND#1: BG1= 0.015 μ amps
 RUN ON 5 microamps of O₃ for 5 Minutes: (✓)

T100 FLOWRATE TIMES:

FLOWRATE #1: 27.56 sec
 FLOWRATE #2: 27.59
 FLOWRATE #3: 27.69
 FLOWRATE #4: 27.69
 FLOWRATE #5: 27.72

AVERAGE T100: 27.65

DRY T100

#1: _____
 #2: _____
 #3: _____
 DRY AVG: _____

WET T100

#1: _____
 #2: _____
 #3: _____
 WET AVG: _____

RESONSE TIME

SWITCH TO NO O₃ AIR.

RECORD: THE TIME TO DROP FROM 4 TO 1.5 μ amps: 20.47 sec.

*T100 Flowrate correction: _____ %

RECORD: ROOM TEMP (C): 24.2 ROOM REL. HUMID. (%) 32

RECORD: 5 - T100 FLOWRATE TIMES:

SONDE= _____ ppbv @ CALIB= _____

DAY OF FLIGHT @ THE LAUNCH SITE.

FLIGHT NUMBER: VU052
 GMT DATE (YYMMDD): 060420
 GMT LAUNCH TIME: 18:58:44

LOCAL DATE: 4/20/06
 LOCAL TIME: 1:58:44 pm

BALLOON TYPE _____ Gram: Kaymont Scientific Sales _____ (✓ one)

O₃ BACKGROUND (μ amps or HEX value in Y channel): 0.024

VAISALA NUMBER (9 digit): 63530010
 SURFACE PRESSURE: 980
 SURFACE TEMP. (C): 22.6
 SURFACE HUMIDITY: 76

SKY CONDITIONS: clear/cloudy

~ BURST PRESSURE (mb): 11.59 mb 29.7 bar

REMARKS: 425-97700
30k ft in 30 min - ascent 1000 ft/min

41.9473 N - 85.8188 W
- 2695 ft/min

Ventilation Holes: _____

weighoff = 1900 grams

*T100 flow corr (%) = [(WET/DRY)-1.0] X 100