

RESOLUTION NO. 254

A RESOLUTION FOR APPROVAL OF STAFF TO ADVERTISE FOR BIDS OF A PORTABLE WASTEWATER SAMPLER.

WHEREAS, the City Staff has prepared a report on the above captioned subject which is attached hereto as Exhibit "A", and

WHEREAS, the City Council has duly considered the subject and the recommendation(s) contained in the staff report, and

WHEREAS, interested parties, if any, have had an opportunity to be heard on the subject,

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Wilsonville does hereby adopt the staff report attached hereto as Exhibit "A", with the recommendation(s) contained therein and further instructs that action appropriate to the recommendation(s) be taken.

ADOPTED by the City Council of the City of Wilsonville at a regular meeting thereof this 6th day of July, 1982, and filed with the Wilsonville City Recorder this same day.


WILLIAM G. LOWRIE, Mayor

ATTEST:


DEANNA J. THOM, City Recorder

CITY OF WILSONVILLE

MEMO

EXHIBIT "A"

June 16, 1982

DATE

TO: Mayor and City Council

FROM: Larry R. Blanchard *LB*
Public Works Director

SUBJECT: Staff Report - Approval to Advertise for Bid - Portable
Wastewater Sampler

During the 1981/82 Budget Year the Budget Committee approved the allocation to purchase (4) flow meters and (4) portable grab samplers. Due to the problems encountered with revenue receipts not coming in as expected many purchases were delayed, carried over til 1982/83, or totally eliminated.

Recently the City of Wilsonville purchased a NB Portable Flow Meter with a PF8 Portaflume which enables the Wastewater Treatment Plant Staff to monitor flow in pipe sizes ranging from 8" to 21". However in order to provide sampling capabilities so that periodic samples can be taken at predetermined intervals the portable sampler must be purchased. This enables the Wastewater Staff to obtain samples at different times to determine high B.O.D. or Suspended Solid levels or possibly investigate/monitor a potential chemical spill or discharge into the City's Wastewater Distribution System.

Attached are a few open bids for the samplers with a memo from Jerry LaPierre Wastewater Treatment Plant Superintendent. Jerry's memo indicates a potential cost of \$2,000 ± w/o refrigeration \$2,800 w/refrigeration.

Recommendation

Approve staff to advertise for bids of the Portable Wastewater Sampler.

LRB:ks

cc:
Jerry LaPierre
4-3(g)
2-3(g)

EXHIBIT "A"

CITY OF WILSONVILLE

MEMO

June 10, 1982

DATE

TO: Larry R. Blanchard
Public Works Director

FROM: Jerry LaPierre
Wastewater Superintendent

SUBJECT: Samplers

ISCO Sampler

By D.C.I./Alpha
P.O. Box 984
Issaquah, Washington 98027
1-800-228-4373

Model # 2100

Cat. # 68-2100-005	\$1,900.00
Batt. 60-1684-040	included
Batt. charger 60-1684-088	150.00

3/8" I.D. x 20' vinyl
suction line with weighted
strainer

60-1684-035	included
5 gal. container 299-0013-01	<u>39.50</u>

\$2,089.50

Without refrigeration

JL:ks

CITY OF WILSONVILLE

MEMO

June 10, 1982
DATE

TO: Larry R. Blanchard
Public Works Director

FROM: Jerry LaPierre
Wastewater Superintendent

SUBJECT: Samplers

Quality Control Equipment Company

By J.N. Murrell & Associates (Mardell Murrell)
17943 N.W. Tillamook Drive
Portland, Oregon 97229 Ph. 645-9015

Model # Century 2000S

Portable sequential discrete sampler with 12V/115 y Control
9 amp/hr. gell cell battery, built in charger, computer controls,
unsulated fiberglass case.

\$ 2,040.00

Options

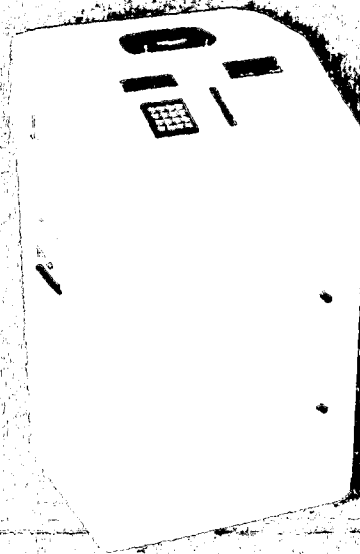
Multiplex and Consecutive Sampling	\$ 130.00
Strainer	30.00
Suspension Harness	25.00
Refrigeration Module	545.00
Convert to Composite (5 gal. poly.)	35.00
	<hr/>
	765.00
	2040.00
	<hr/>
TOTAL	\$ 2805.00

Very good sampler . Had a demonstration
on this one.

JL:ks

THE PROGRAMMABLE WASTEWATER SAMPLER THE "CENTURY 2000"

MICROCOMPUTER CONTROL SYSTEM



16 INDIVIDUALLY PROGRAMMABLE FUNCTIONS

12 VOLT D.C. OR 120 VOLT A.C.

MAXIMUM BATTERY LIFE

BUILT-IN BATTERY CHARGER

INSULATED CASE—STATIONARY OR PORTABLE

SINGLE POINT SUSPENSION

CONSTANT SAMPLE VOLUME

MODULAR FLOW THROUGH SAMPLING

PRE AND POST SAMPLING PURGE

WATERTIGHT CONTROL MODULE

TIMED INTERVAL OR FLOW PROPORTIONAL

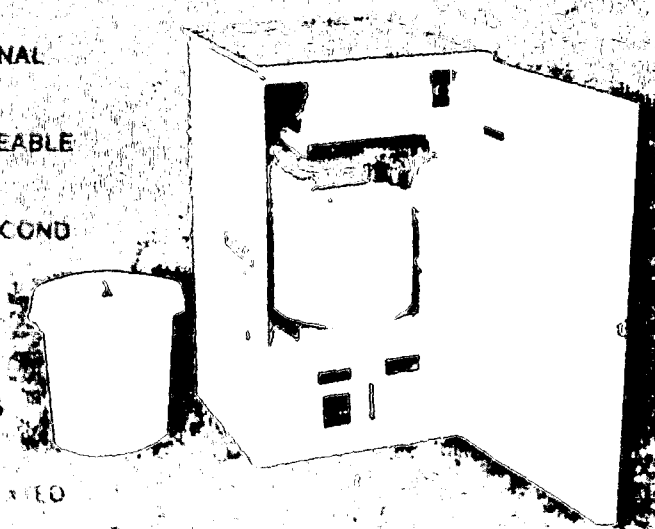
COMPOSITE OR DISCRETE—INTERCHANGEABLE

ADJUSTABLE INTAKE SPEED TO 5' PER SECOND

PATENTED VACUUM SYSTEM

TELEPHONE FOR PRIORITY POLLUTANTS

MODULAR REPLACEMENT OR EXTENDED
CABINET



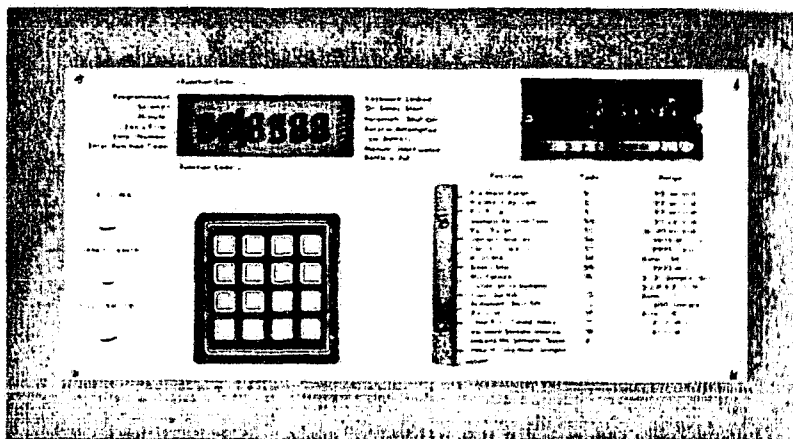
Quality Control Equipment Company

Quality Control Equipment Company

Quality Control Equipment Company

MICROCOMPUTER CONTROL SYSTEM

EVERY FUNCTION COMPLETELY PROGRAMMABLE



The unique Microcomputer control system in the CENTURY 2000 is truly revolutionary to the sampling industry, and has been designed for ease and versatility of operation. Each programmable function is listed on the face plate, and a code number and range is assigned to each function. The function code number appears on the custom Liquid Crystal Display identifying the function to be programmed. If the operator wished to program that function he simply enters the range of the function that he wants the sampler to perform and then depresses the "set" key. The range that the operator has entered will also appear on the LCD. After the "SET" key is depressed the Microcomputer will automatically advance to the next programmable function. If the operator does not wish to utilize a particular function he simply presses the "SET" key after the function code number appears on the LCD. The Microcomputer will then advance to the next programmable function. The custom LCD has annunciator indication of the state of operation in programming. A 1 ampere hour battery is included in each unit to provide weeks of computer memory in the absence of primary power. The keyboard and LCD are watertight and the modular design allows for easy removal should the operator wish to have additional optional functions added to the Microcomputer by the factory. A hinged cover is provided to protect the keyboard while the sampler is operating. An optional cover can be supplied which covers the entire face plate.

Optional programmable functions:

Pre wash purge: initiates a pressurized blowdown of the sample intake tubing prior to pre wash conditioning. Adjustable from 0-99 seconds.

Pre wash vacuum: initiates drawing the sample fluid through the sample intake tubing. This washes the tubing with the sampled fluid before a sample is actually drawn. Adjustable from 0-99 seconds.

4-20ma: to program the sampler to accept an industry standard 4-20ma signal from a Flowmeter and perform its own integration.

Multiplexer: when using the discrete module, the sampler can be programmed to place from 1 to 25 samples into each of the 24 individual bottles before advancing the next bottle.

Consecutive samples: when using the discrete module, the sampler can be programmed to place 1 sample in any of 1 through 24 consecutive bottles at each sampling cycle, and then automatically shuts off.

Standard Programmable functions:

Pre purge: initiates a pressurized blowdown of the sample intake tubing immediately prior to drawing the sample. Adjustable from 0-99 seconds.

Sample vacuum time: determines the length of time that the sampler draws a vacuum so that a complete sample will be consistently drawn. Adjustable from 0-99 seconds.

Post purge: initiates a pressurized blowdown of the sample intake tubing immediately after the sample has been drawn. Adjustable from 10-99 seconds.

Sample interval: determines the time interval between samples when sampling on a timed interval basis. Adjustable from 1-9999 minutes, in 1 minute increments.

Contact closure: to program the sampler to accept a dry contact closure from a Flowmeter and accumulate from 1-9999 contact closures before sampling.

Delay start: to program the sampler for a delay of from 1-9999 minutes before drawing the initial sample.

Automatic shut off: to program the sampler to take from 1 to 999 samples and then automatically shut itself off.

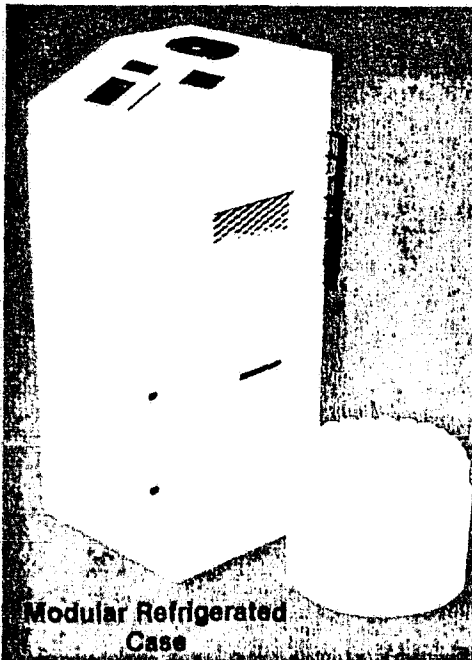
Variable sample interval: to program the sampler so that the time interval between each individual sample can be varied. Adjustable from 1-9999 minutes, through 24 separate intervals.

Float switch: to program the sampler to operate only when it receives a signal from an external float switch. The float switch signal must be a dry contact closure and the sampler will begin operation once the contact has closed.

Recycle: should the sampler fail to draw a sample it can be programmed to immediately initiate a second sampling cycle in an attempt to obtain the sample.

Flow prop/timed index: when using the discrete module, the sampler can be programmed to operate on a flow proportional basis but to index the discrete bottles on a timed interval basis. Adjustable from 1-9999 minutes.

MODULAR HEAVY-DUTY CASE



Modular Refrigerated Case

CONTROL MODULE:

The watertight Control Module contains the Microcomputer, battery and all other electrical components. The modular design permits easy removal for servicing or addition of other CENTURY 2000 case modules.

REFRIGERATION MODULE:

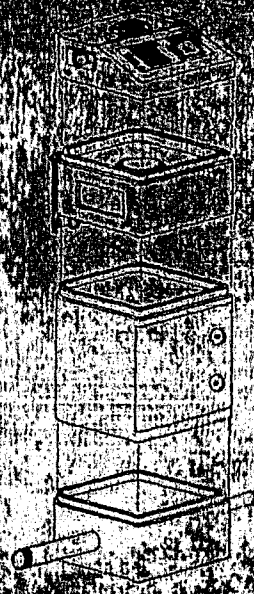
The optional Refrigeration Module is thermostatically controlled to maintain a temperature of 4°C in the Sample Container Module. Requires 120 volt A.C. power.

SAMPLE CONTAINER MODULE:

The insulated, water resistant, Sample Container Module contains the sample chambers and the composite container or the 24 bottle discrete module.

FLOW THROUGH MODULE:

The optional Flow Through Module includes a 3" IPS inlet, a 2" IPS outlet, an access door and a flow control Valve.



MECHANICAL SPECIFICATIONS

Century
2000 CVE-81

CENTURY 2000 Suggested Specification

Compositor: sample receptacle 1 gal. glass	X	X
5 gal. plastic optional	X	X
Discrete: 24 plastic 500ml bottles	X	X
Multiplexer optional	X	
Case: reinforced fiberglass, foam insulated	X	X
Primary sample chamber: 30-50ml capacity, fully adjustable-polypropylene and acrylic.	X	X
Reservoir sample chamber: 500ml capacity, fully adjustable-acrylic.	X	X
Priority Pollutants sample chamber: 30-100ml capacity. Fully adjustable- teflon	X	X
Vacuum pump: diaphragm type, sst valves 12 volt DC 5 amps full load	X	
120 volt AC 6 amps full load		X
Blowdown valve: 4 way, direct acting, single solenoid 12 volt DC 120 volt AC	X	X
Seals and o-rings: viton	X	X
Tubing: internal connection 3/8" i.d. x 5/8" o.d.	X	
Internal connections 1/4" i.d. x 1/2" o.d.		X
Sample intake tubing: 3/8" i.d. x 5.8" o.d.	X	X
Refrigeration module: reinforced fiberglass maintains case at 4°C, 120 volt AC. Thermostatically controlled	X	X
Flow through module: 3" IPS inlet 2" IPS outlet	X	X
Power supply. 12 volt DC or 120 volt AC with or without battery (built in charger)	X	
optional gel cell battery	X	
120 volt AC only		X
Weight: without battery (approx.)	36 lbs	38 lbs.
Case dimensions:	27 1/2" H x 15 1/2" W x 15 1/4" D	
Thermostatically controlled heater-120volts AC only		
Mechanical refrigerated cabinet - 120 volts AC only		

The sampler shall be self contained and shall composite a normally adjustable, volumetrically constant sample. The unit shall also be convertible from composite to a 24 x 500ml discrete sampler in the field without the need of a separate case or any special tools. The sampler shall be designed so that the suction line drains back to the source by gravity and an automatic pressurized blow down of the suction line and the entire system shall take place preceding and subsequent to each sampling cycle.

The sampler shall consist of a Microcomputer control system, vacuum pump, blow down solenoid, power supply and sample container (s) all enclosed in a reinforced fiberglass case. The fiberglass case shall be modular with the control components located in the watertight Control Module upper case, and the sample chambers and the sample container(s) in the insulated Sample Container Module. The Sample Container Module shall also have provisions for storing ice and shall have a fully opening front door for easy access to sample containers. The sampler shall be designed for single point suspension and be capable of passing through a 22" diameter manhole. The modular case shall also be capable of the addition of a completely self contained fiberglass Refrigeration Module for maintaining the samples at 4°C. The sampler shall also have provisions for attaching a Flow Through Module for permanent installation where the sampled fluid is to be pumped through the sampler and the samples collected at that point. The Flow Through Module shall have a 3" IPS inlet and a 2" IPS outlet and shall have an access door for periodic cleaning.

Sampling chamber shall be polypropylene and acrylic. It shall contain dual float checks (one in the primary chamber, a secondary back-up float check, connected in series with the primary chamber and the solenoid and pump, to assure that no liquid passes through any mechanical components of the sampler). The primary chamber shall be adjustable from 30-50ml and shall be capable of being piped in series with a reservoir for sample volumes adjustable from 50-500ml. Sample intake flow rate shall be fully adjustable and shall exceed 3 feet per second and the unit will sample from depths up to 20 feet.

The vacuum pump shall have teflon filled piston skirts with teflon rings and shall be the diaphragm type. All valves to be stainless steel and all tube fittings to be fluoropolyethylene.

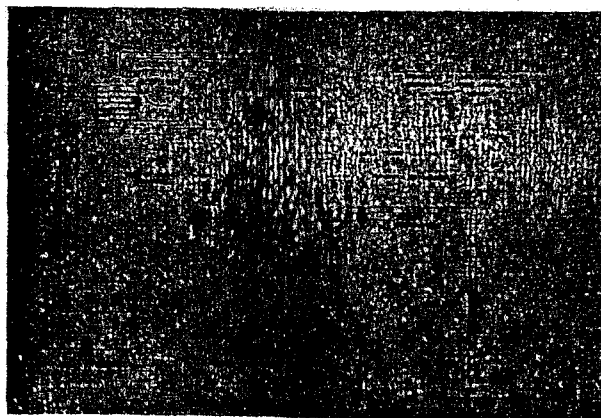
The sampler shall operate from a 12 volt DC battery or 120 volts AC without alteration and shall have a two stage battery charger built into the power supply. A 1 ampere hour stand by battery shall also be included to provide computer memory in the absence of primary power. The Microcomputer control system shall be completely programmable and shall have a custom liquid crystal display of what is programmed. The LCD shall also have annunciator indication of the state of operation in programming. Each unit will be capable of the following programmable functions: pre purge, sample vacuum time, post purge sample interval, contact closure, delay start, variable sample interval and automatic shut off. The optional programmable functions shall be as previously outlined in this brochure.

THE PROVEN PATENTED VACUUM SYSTEM

Developed by Dow Chemical Company and manufactured under license by us. U.S. Patent #3438262

System Operation: the patented vacuum system lifts the liquid through a suction line into the sampling chamber. When filled, a float rises and the chamber is automatically closed to the vacuum. A vacuum has also been created in the sample receptacle and a bleed hole has been provided in the sample chamber so that the sample is forcibly drawn into the receptacle. The bleed hole also allows the suction line to drain back to the source by gravity. No pockets of fluid remain to contaminate subsequent samples. Automatic high-pressure blowdown of the entire system before and after sampling assures that no prior material remains to contaminate the current sample and to clear any particles that may clog the sampler. A backup float check has been provided on the sampling chamber to prevent any material that the primary chamber may have passed from entering any mechanical components of the device. A bleed valve is installed for controlling sample intake velocity.

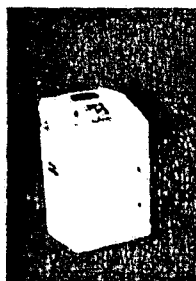
The vacuum system is also available for PRIORITY POLLUTANT SAMPLING. All that the sampled fluid contacts is teflon and glass.



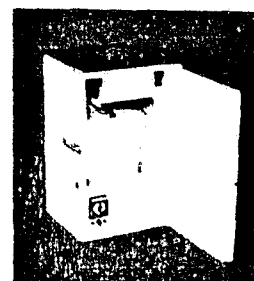
THE CVE-81 STATIONARY SAMPLER

RELIABLE ELECTRO-MECHANICAL CONTROLS

The Model CVE 81 Sampler is available for stationary sampling applications where 120 volt power (220 volt optional) is available. The standard unit utilizes the same modular case as the CENTURY 2000 with all of the control components located in the Control Module. The sample container is located in the insulated lower section of the sampler case. Available in both the standard case and the refrigerated cabinet, the CVE 81 uses reliable electro-mechanical controls with three control modes available; a timed interval control, a timed interval and flow proportional mode or a flow proportional only mode. The standard CVE 81 is available with the same optional Refrigerated Module and Flow Through Module as the CENTURY 2000.



STANDARD CASE



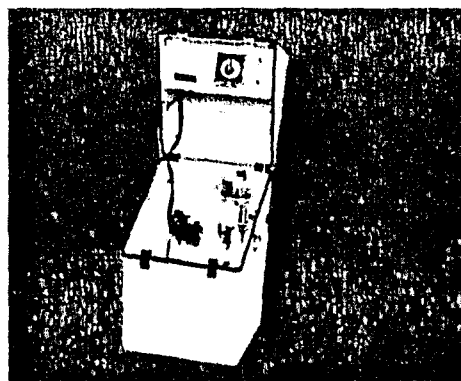
REFRIGERATED CASE

OUTDOOR ENCLOSURE



This enclosure is available for hazardous outdoor installations of either refrigerated or standard Samplers. Constructed from 12 ga. aluminum, the unit is vented and has a waterproof lockable door. Available options are an internal space heater, electrical receptacles, and epoxy exterior coating

MODEL CVE SAMPLER ECONOMICAL COMPOSITE SAMPLER



The Model CVE Sampler continues to be an efficient, reliable, and economical composite Sampler for stationary sampling applications. The CVE utilizes the same reliable electromechanical controls as the CVE 81 and the same vacuum system that is used in all of the QCEC Wastewater Samplers. All equipment is enclosed in a reinforced fiberglass case and the unit is supplied with a 1 gallon glass sample container. 120 volts A.C. is required for operation 220 volt optional.

EXPLOSION PROOF WASTEWATER SAMPLERS

Samplers for Class I, Group D and Class II, Groups E, F, and G installations are available in both the standard case and refrigerated cabinet. They are supplied with the electromechanical controls and are designed for 120 volt - 1 ϕ operation.