AMENDMENT NO. 2

CONTRACT NO. 30000364

FOR

Laboratory Services for Cryptosporidium Analysis

This Contract was made and entered by and between <u>Analytical Services</u>, <u>Inc</u>, hereinafter called Contractor, and the City of Portland, a municipal corporation of the State of Oregon, by and through its duly authorized representatives, hereinafter called City.

- 1. Additional work is necessary as described in the Scope of Work attached as Exhibit A.
- 2. Additional compensation is necessary for the consultation services, interpretation of results, monthly quality assurance, and design of Tier 1 validations and shall not exceed \$575,000 resulting in a total contract amount not to exceed \$825,000. A breakdown of costs is attached in Exhibit B.

All other terms and conditions shall remain unchanged and in full force and effect.

CONTRACTOR SIGNATURE:

This contract amendment may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same contract amendment.

The parties agree the City and Contractor may conduct this transaction by electronic means, including the use of electronic signatures.

Ву:	Psulgulen Date: 22 Mar 2010
Name:	PAUL & WARDEN
Title:	VICE PRESIDENT, ANALYTICAL SERVICES, INC.
Address	: 130 AURN BROOK LN., WILLISTON UT 05495
Telephoi	ne: 800 . 723 . 4432 x15

Contract	No. 30000364	Amename	nt/Change Order N	NO. <u>Z</u>
Contract	Title: Laboratory Services for Cryptosp	ooridium Analysis		-
			<i>;</i>	
CITY OF	PORTLAND SIGNATURES:		4 - 1	
Ву:	N/Д Purchasing Agent		Date:	
Ву:	Elected Official	· .	Date:	
Approve	d:			
Ву:	Office of City Auditor		Date:	
Approved	d as to Form: APPROVED AS TO FORM Office of Phy Attorney	A-1	Date: 3/	25/15

Exhibit B

Cost Breakdown

<u>Budget</u>

Staff Time	Additional consultation, interpretation	
	and reporting as outlined in the	\$ 20,000
	amended scope of work.	
Sample Analysis	Additional sample analysis as a result	
(water and scat)	of EPA feedback and comments to the	\$ 270,000
	Sampling Plan and Study.	
Sample Method	Projected cost to validate and use a	
Contingency	new modification to overcome difficult	\$ 190,000
	water conditions.	
Project Contingency	20% of the total funds required to	
	complete sampling year to cover any	\$ 95,000
	additional requirements or unknown	
	events.	
Amendment 2 Total	Amount of amended scope of work	\$ 575,000
Current Contract Amount	Original contract plus Amendment 1	\$ 250,000
Amended Contact Total	Amount of original contract plus that of	\$ 825,000
	the amended scope of work	

Additional Staffing (labor rate not previously identified)

Staff	Rate
Dr George Di Giovanni	\$143.75/hour

Additional sample analysis charges

Item	Description	Unit Cost
Method 1623 – 5 day	Samples shall be analyzed on a priority basis	\$50/sample
Rush Fee	and results shall be reported within 5	·
	business days from sample receipt	
Sample Containers	Cases of cubitnars for hotspot sample	\$82.50/Box of
	collection	30
Scat 1623A	Crypto. and Giardia Enumeration	\$150/sample
Scat 1623B	Crypto. and Giardia + ColorSeed	\$250/sample
Scat 1623C	Crypto. and Giardia + ColorSeed + NaPP,	\$345/sample
	1gm	,
Scat 1623D	Crypto. and Giardia + NaPP, 2 gm	\$413/sample
1623-SF Method	Method 1623 as Modified by SFWD (raw	\$502/sample
(spike)	water or DI water) + EasySeed (does not	·
	include filter)	
1623-SF Method	Method 1623 as Modified by SFWD (raw	\$452/sample
	water or DI water) (does not include filter)	·
DNA analysis	PCR and Melt analysis (scat and water	\$287.50
(Primary)	matrix slides)	
DNA analysis	Full sequencing analysis (scat and water	\$287.50
(Secondary, optional)	sources)	

Exhibit A

Scope of Work

The Contractor shall perform the following tasks:

Task 1: Consultation Services.

The Contractor shall provide consulting as needed to assist PWB in applying the microbiological results and other data to describe Bull Run watershed conditions and raw water source quality. The Contractor shall, upon request, provide technical assistance and consultation support to the project in collaboration with the City's other consultants including Ecowise Environmental, Clancy Environmental Consultants Inc., David Evans and Associates, Brown and Caldwell, and Black & Veatch.

Task 2: Interpretation of Results.

The Contractor shall provide interpretation of results in the form of a technical memo as needed for the City. This shall include pertinent background literature citations, source review and description of the relationships of physical, chemical and epidemiological processes as they relate to microbial detection and prevalence. This shall also include the contractor providing technical comments on use and presentation of analytical data, such as but not limited to descriptive narratives, models, visual presentations, explanations of DNA analysis.

Task 3: Monthly Quality Assurance and Quality Control (QA/QC) reporting

The Contractor shall prepare and electronically deliver monthly laboratory control charts and cumulative statements of accuracy regarding analysis of City's raw water matrix spike samples and reagent water Ongoing Precision and Recovery (OPR) samples. Monthly reports shall be prepared using MS Excel, in a format approved by EPA for LT2 reporting, or in an alternate format specified by the City.

Task 4: Design and Execute Statistical Tier I Validations

The contractor shall work with the City and the City's other contractors upon request to provide consulting services to formulate strategies for validation of Method 1623 modification(s) using statistical approaches, and to execute the technical validation studies.

The project contingency funds identified shall only be spent after written authorization is given by the City's project manager.