



CITY OF
TUCSON

ENVIRONMENTAL
SERVICES

January 26, 2015

VIA CERTIFIED MAIL

Mr. William Nickerson
7346 E. Calle de la Eternidad
Tucson, AZ 85715

Mr. Bob Schnitzler
4831 E. Los Reales Rd.
Tucson, AZ 85756



Re: Transmittal of Water Quality Laboratory Results: Marble Well

Gentlemen:

Thank you for allowing the City of Tucson, Environmental Services (COT-ES) to sample your exempt well ADWR #55-591750, located at 4831 E. Los Reales Rd., Tucson, AZ. COT-ES appreciates your willingness to assist in the groundwater investigation in the vicinity of the Los Reales Landfill Water Quality Revolving Fund (WQARF) Site.

On July 17, 2014, COT-ES staff collected a sample for volatile organic compounds (VOCs) analysis from your well (denoted as Marble #1) and from the kitchen faucet (denoted as Marble #2). The analytical lab report for this sampling event shows that VOCs typically associated with the Los Reales Landfill such as tetrachloroethene (PCE) and trichloroethene (TCE) were not detected in either sample (Table 1). The field sampling sheet and water quality laboratory report for this sampling event is attached. For additional information on the Los Reales WQARF site, please see the City of Tucson website at <http://es.tucsonaz.gov/es/projects?f=/projects/los-reales-landfill/PRJ3>

COT-ES will continue to coordinate with you to sample the well semiannually in January and July. Thank you again for assistance. If you have any questions, please contact Michael Henrich at (520) 837-3713.

Sincerely,

Nancy Petersen
Deputy Director

NP/LE/je

Enclosures

Table 1: Summary of VOC Results

Attachment 1: Water Quality Data Report and Field Sampling Forms

cc: Gretchen Wagenseller, Arizona Department of Environmental Quality (email)
Andrew H. Quigley, City of Tucson, Environmental Services (email)
Martin Bey, City of Tucson, Environmental Services (email)
Michael Henrich, City of Tucson, Environmental Services (email)
Los Reales Landfill Project File (Hardcopy & SIRE ETS)
Marble Well File (letter only)



TABLE 1
 Private Well
 Summary of VOC Results
 Los Reales Landfill

WELL ID	DATE	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichlorodi-fluoromethane	Tetrachloroethene	Trichloroethene	Trichloro-fluoromethane	Vinyl Chloride
Marble #1	7/17/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #2	7/17/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #1	1/13/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #2	1/13/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #1	7/30/13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #2	7/30/13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #1	5/7/13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Marble #2	5/7/13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

All results are in micrograms per liter (ug/L)
 <0.5 = Not Detected above the limit shown

Marble #1 = sample was obtained from the wellhead. Marble #2 = sample was obtained from the kitchen faucet.

**ATTACHMENT 1
LABORATORY ANALYTICAL DATA PACKAGE
AND
FIELD SAMPLING FORMS**

Tucson Water Quality Lab
 4401 S. Tucson Estates Pkwy.
 Tucson, AZ 85735
 (520) 837-2455

Environmental Services - Tucson AZ, 85726	Project: Los Reales Landfill Project Number: P01049 Project Manager: Lori Ehman	Reported: 08/22/2014 13:00
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Marble # 1
L140870-13 (Aqueous)

Sampled:
07/17/2014 9:40

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

1,1,1,2-TETRACHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,1-TRICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,2,2-TETRACHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,2-TRICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,3-TRICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,3-TRICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,4-TRICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,4-TRIMETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3,5-TRIMETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,4-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
2,2-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
2-CHLOROTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
4-CHLOROTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
4-ISOPROPYLTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tucson Water Quality Lab
 4401 S. Tucson Estates Pkwy.
 Tucson, AZ 85735
 (520) 837-2455

Environmental Services

Project: Los Reales Landfill

Tucson AZ, 85726

Project Number: P01049
 Project Manager: Lori Ehman

Reported:
 08/22/2014 13:00

Marble # 1
L140870-13 (Aqueous)

Sampled:
 07/17/2014 9:40

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

BENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOCHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMODICHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOFORM	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CARBON TETRACHLORIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROFORM	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CIS-1,2-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CIS-1,3-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DIBROMOCHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DIBROMOMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DICHLORODIFLUOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DICHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ETHYLENE DIBROMIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
HEXACHLOROBUTADIENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ISOPROPYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
M/P-XYLENES	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
METHYL-TERT-BUTYL ETHER	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	

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 Tucson AZ, 85726

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 Project Manager: Lori Ehman

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 08/22/2014 13:00

Marble # 1
L140870-13 (Aqueous)

Sampled:
 07/17/2014 9:40

Analyte	Result	Reporting				Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution	Batch				

Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

NAPHTHALENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
N-BUTYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
N-PROPYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
ORTHO-XYLENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
SEC-BUTYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
STYRENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TERT-BUTYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TETRACHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TOTAL TRIHALOMETHANES	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRANS-1,2-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRANS-1,3-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRICHLOROFLUOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
VINYL CHLORIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
XYLENES (TOTAL)	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
Surrogate: BROMOFLUOROBENZENE (SURR.)		88 %	70-130		BG42106	07/18/2014	07/18/2014	EPA 8260B
Surrogate: DIBROMOFLUOROMETHANE (SURR.)		116 %	70-130		BG42106	07/18/2014	07/18/2014	EPA 8260B
Surrogate: TOLUENE-D8 (SURR.)		99 %	70-130		BG42106	07/18/2014	07/18/2014	EPA 8260B

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 Tucson, AZ 85735
 (520) 837-2455

Environmental Services
 -
 Tucson AZ, 85726

Project: Los Reales Landfill
 Project Number: P01049
 Project Manager: Lori Ehman

Reported:
 08/22/2014 13:00

Marble # 2
L140870-12 (Aqueous)

Sampled:
 07/17/2014 9:30

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

1,1,1,2-TETRACHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,1-TRICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,1,2,2-TETRACHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,2-TRICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,3-TRICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,3-TRICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,4-TRICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,4-TRIMETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3,5-TRIMETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,4-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
2,2-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
2-CHLOROTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
4-CHLOROTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
4-ISOPROPYLTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	

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Environmental Services

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Tucson AZ. 85726

Project Number: P01049
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Reported:
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L140870-12 (Aqueous)

Sampled:
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Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

Tucson Water Quality Laboratory

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BROMODICHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOFORM	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CARBON TETRACHLORIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROFORM	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CIS-1,2-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CIS-1,3-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DIBROMOCHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DIBROMOMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DICHLORODIFLUOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DICHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ETHYLENE DIBROMIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
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ISOPROPYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
M/P-XYLENES	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
METHYL-TERT-BUTYL ETHER	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	

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Environmental Services
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 Tucson AZ, 85726

Project: Los Reales Landfill
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Reported:
 08/22/2014 13:00

Marble # 2
L140870-12 (Aqueous)

Sampled:
 07/17/2014 9:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

NAPHTHALENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
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TOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
TOTAL TRIHALOMETHANES	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
TRANS-1,2-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
TRANS-1,3-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
TRICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
TRICHLOROFLUOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
VINYL CHLORIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
XYLENES (TOTAL)	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
Surrogate: BROMOFLUOROBENZENE (SURR.)		89 %		70-130	BG42106	07/18/2014	07/18/2014	EPA 8260B	
Surrogate: DIBROMOFLUOROMETHANE (SURR.)		112 %		70-130	BG42106	07/18/2014	07/18/2014	EPA 8260B	
Surrogate: TOLUENE-D8 (SURR.)		99 %		70-130	BG42106	07/18/2014	07/18/2014	EPA 8260B	

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Tucson Water Quality Lab
 4401 S. Tucson Estates Pkwy.
 Tucson, AZ 85735
 (520) 837-2455

Environmental Services - Tucson AZ, 85726	Project: Los Reales Landfill Project Number: P01049 Project Manager: Lori Ehman	Reported: 08/22/2014 13:00
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L140870-11 (Aqueous)

Sampled:
07/17/2014 7:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

1,1,1,2-TETRACHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,1-TRICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,2,2-TETRACHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1,2-TRICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,1-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,3-TRICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,3-TRICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,4-TRICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2,4-TRIMETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,2-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3,5-TRIMETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,3-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
1,4-DICHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
2,2-DICHLOROPROPANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
2-CHLOROTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
4-CHLOROTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
4-ISOPROPYLTOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	

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Tucson Water Quality Lab
 4401 S. Tucson Estates Pkwy.
 Tucson, AZ 85735
 (520) 837-2455

Environmental Services - Tucson AZ, 85726	Project: Los Reales Landfill Project Number: P01049 Project Manager: Lori Ehman	Reported: 08/22/2014 13:00
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L140870-11 (Aqueous)

Sampled:
07/17/2014 7:20

Analyte	Result	Reporting							Notes
		Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	

Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOCHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMODICHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOFORM	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
BROMOMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CARBON TETRACHLORIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROFORM	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CIS-1,2-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
CIS-1,3-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DIBROMOCHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DIBROMOMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DICHLORODIFLUOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
DICHLOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ETHYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ETHYLENE DIBROMIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
HEXACHLOROBUTADIENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
ISOPROPYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
M/P-XYLENES	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	
METHYL-TERT-BUTYL ETHER	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B	

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Tucson Water Quality Lab
 4401 S. Tucson Estates Pkwy.
 Tucson, AZ 85735
 (520) 837-2455

Environmental Services
 -
 Tucson AZ, 85726

Project: Los Reales Landfill
 Project Number: P01049
 Project Manager: Lori Ehman

Reported:
 08/22/2014 13:00

TRIP BLANK
L140870-11 (Aqueous)

Sampled:
 07/17/2014 7:20

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

Tucson Water Quality Laboratory

Volatile Organic Compounds by GC/MS

NAPHTHALENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
N-BUTYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
N-PROPYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
ORTHO-XYLENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
SEC-BUTYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
STYRENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TERT-BUTYLBENZENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TETRACHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TOLUENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TOTAL TRIHALOMETHANES	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRANS-1,2-DICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRANS-1,3-DICHLOROPROPENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRICHLOROETHENE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
TRICHLOROFLUOROMETHANE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
VINYL CHLORIDE	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
XYLENES (TOTAL)	ND	0.0005	mg/L	1	BG42106	07/18/2014	07/18/2014	EPA 8260B
Surrogate: BROMOFLUOROBENZENE (SURR.)		86 %		70-130	BG42106	07/18/2014	07/18/2014	EPA 8260B
Surrogate: DIBROMOFLUOROMETHANE (SURR.)		117 %		70-130	BG42106	07/18/2014	07/18/2014	EPA 8260B
Surrogate: TOLUENE-D8 (SURR.)		101 %		70-130	BG42106	07/18/2014	07/18/2014	EPA 8260B

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Correction factor _____



CITY OF TUCSON

Environmental Services Sampling Data Form

HP _____

TD _____

D (diameter) _____

d factor _____

Well Name JUNQUE FOR JESUS

Project Los Reales Landfill

Date Jul 14, 2014

Field Personnel GB/HV

Weather SUNNY/COOL

Static Water Level _____

Time _____

Totalizer: End _____

Sounder ID _____

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM) _____

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time:

Start _____

Meters and Type:

YSI #1

YSI #2

YSI QS

End _____

Total (min) _____

Calibration Date: Jul 14, 2014

Parameters: (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20mv

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (°C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0903	7.72	606	27.55	6.34	135.4	-	14.2
0								
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:00:00 Dup Time: _____ Time Ended: 09:03:00

Transferred to: TWQL Relinquished by: George Bejarano Date: Jul 14, 2014

Reason for Sampling: Monthly Quarterly Semi-Annual Annual Investigation

Duplicate GAC Treatment Grab Sample Bail Sample

Comments: SPIGOT SAMPLE FROM WELL AT ROD ROBERTSON'S AUCTION. PURGED WELL FOR 2-3 MINS BEFORE SAMPLING.

Correction factor _____



CITY OF TUCSON

Environmental Services Sampling Data Form

HP _____
TD _____
D (diameter) _____
d factor _____

Well Name MARBLE #1

Project Los Reales Landfill

Date Jul 17, 2014

Field Personnel GB/JVM

Weather SUNNY/COOL

Static Water Level _____

Time _____

Totalizer: End _____

Sounder ID _____

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM) _____

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time:

Start _____

Meters and Type:

YSI #1

YSI #2

YSI QS

End _____

Total (min) _____

Calibration Date: Jul 17, 2014

Parameters: (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20mv

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (°C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0943	7.49	707	28.70	4.65	-27.1	-	47.5
0								
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:40:00 Dup Time: _____ Time Ended: 09:43:00

Transferred to: TWQL Relinquished by: George Bejarano Date: Jul 17, 2014

Reason for Sampling: Monthly Quarterly Semi-Annual Annual Investigation

Duplicate GAC Treatment Grab Sample Bail Sample

Comments: SAMPLE FROM SPIGOT ON WELL OUTSIDE. LOTS OF TINY BUBBLES IN SAMPLE.

Correction factor _____



CITY OF TUCSON

Environmental Services
Sampling Data Form

HP _____

TD _____

D (diameter) _____

d factor _____

Well Name MARBLE #2

Project Los Reales Landfill

Date Jul 17, 2014

Field Personnel GB/JVM

Weather SUNNY/COOL

Static Water Level _____

Time _____

Totalizer: End _____

Sounder ID _____

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM) _____

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time:

Start _____

Meters and Type:

YSI #1

YSI #2

YSI QS

End _____

Total (min) _____

Calibration Date: Jul 17, 2014

Parameters: (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (°C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0933	7.46	705	24.88	7.01	141.3	-	3.60
0								
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:30:00 Dup Time: _____ Time Ended: 09:33:00

Transferred to: TWQL Relinquished by: George Bejarano Date: Jul 17, 2014

Reason for Sampling: Monthly Quarterly Semi-Annual Annual Investigation

Duplicate GAC Treatment Grab Sample Bail Sample

Comments: SAMPLE FROM KITCHEN FAUCET. LOTS OF TINY BUBBLES IN SAMPLE.