



City Analysts Limited, Pigeon House Road, Ringsend, Dublin 4.

Tel: (01) 613 6003 Fax: (01) 613 6008

Email:

reports@cityanalysts.ie

www.cityanalysts.ie

Customer

Pascal Rooney
Irish Water
Water Service
Monaghan County Council
Monaghan
Monaghan

Certificate Of Analysis

Job Number: 16-15609

Issue Number: 1

Report Date: 21 April 2016

Site: Carrickmacross PWS

PO Number: 51125947

Date Samples Received: 24/03/2016

Please find attached the results for the samples received at our laboratory on 24/03/2016.

Should you have any queries regarding the report or require any further services, we would be happy to discuss your requirements. For additional information about the company please log-on to our website at the above address.

Thank you for choosing City Analysts Limited. We look forward to assisting you again.

Authorised By: Authorised Date:

Shane Wilmoth

Chemistry Technical Manager

Notes:

Results relate only to the items tested.

Information on methods of analysis and performance characteristics is available on request. Any opinions or interpretations indicated are outside the scope of our INAB accreditation.

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21 April 2016





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Monaghan Monaghan Report Reference: 16-15609

Report Version: 1

Site: Carrickmacross PWS

N53.98338W006.71640 Inver College Date of Sampling: Sample Description: 24/03/2016 Sample Type: Treated Date Sample Received: 24/03/2016

Lab Reference Number: 314706

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
S/S1016#	31/03/2016	1,2-Dichloroethane	1.00	ug/l	<= 3.00
D/D3001#	29/03/2016	Aluminium, Total	25.73	ug/l	<= 200.00
D/D3000#	29/03/2016	Ammonia as NH4	0.061	mg/l	<= 0.300
*U	-	Antimony	< 0.33	ug/l	<= 5.00
*U	-	Arsenic	0.59	ug/l	<= 10.00
S/S	31/03/2016	Benzene	< 0.50	ug/l	<= 1.00
D/D3001#	29/03/2016	Boron	< 50.00	ug/l	<= 1000.00
U	-	Bromate as BrO3	0.36	ug/l	<= 10.00
U	-	Metaldehyde	< 0.01	ug/l	-
D/D3001#	29/03/2016	Cadmium	0.35	ug/l	<= 5.00
D/D3006	24/03/2016	Chlorine, Free	0.240	mg/l	-
D/D3000#	29/03/2016	Chloride	25.759	mg/l	<= 250.000
D/D3001#	29/03/2016	Chromium	1.84	ug/l	<= 50.00
D/D3010#	29/03/2016	Colour True	< 5.00	Hazen	NAC & ATC
D/D3011#	24/03/2016	Conductivity @ 20 ℃	528.0	uS/cm @20℃	<= 2500.0
D/D3001#	29/03/2016	Copper	20.24	ug/l	<= 2000.00
*U	-	Cyanide, Total	1.80	ug/l	<= 50.00
*U	-	Cypermethrin	< 0.00	ug/l	-
*	-	Epichlorohydrin	< 0.10	ug/l	<= 0.10

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Note:

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*U	-	Acrylamide	< 0.013	ug/l	<= 0.100
D/D3015#	29/03/2016	Fluoride	0.7	mg/l	<= 0.9
*U	-	Glyphosate	< 0.01	ug/l	-
D/D3001#	29/03/2016	Iron	< 7.20	ug/l	<= 200.00
D/D3001#	29/03/2016	Lead	1.82	ug/l	<= 10.00
D/D3001#	29/03/2016	Manganese	< 0.70	ug/l	<= 50.00
*U	-	Mercury	< 0.06	ug/l	<= 1.00
D/D3000#	29/03/2016	Nitrite as N02	< 0.066	mg/l	<= 0.500
D/D3000#	29/03/2016	Nitrate as N03	33.544	mg/l	<= 50.000
D/D3001#	29/03/2016	Nickel	0.91	ug/l	<= 20.00
D/	24/03/2016	Odour	0	N/A	-
D/	24/03/2016	Taste (Nature)	0	N/A	-
D/D1041#	24/03/2016	PH	7.67	pH Unit	6.50 - 9.50
*U	-	Selenium	0.27	ug/l	<= 10.00
D/D3001#		Sodium	24.274	mg/l	<= 200.000
D/D3000#	29/03/2016	Sulphate	< 20.000	mg/l	<= 250.000
S/S1016#	31/03/2016	Tetrachloroethene	< 0.60	ug/l	<= 10.00
S/S3224#	31/03/2016	Total Organic Carbon	0.730	mg/l	NAC & ATC
S/S#	31/03/2016	Trichloroethene	< 0.60	ug/l	<= 10.00

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Sample Description:N53.98338W006.71640 Inver CollegeDate of Sampling:24/03/2016Sample Type:TreatedDate Sample Received:24/03/2016

Lab Reference Number: 314706

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/D3054#	29/03/2016	Turbidity	< 0.10	NTU	NAC & ATC
*U	-	Vinyl Chloride	< 0.50	ug/l	-
*	-	Pesticides Total	0.04	ug/l	-
D/D1214#	24/03/2016	Clostridium perfringens	< 1	cfu/100ml	<= 0
D/D1201#	24/03/2016	Coliforms	< 1.0	MPN/100ml	<= 0.0
D/D1201#	24/03/2016	E.coli	< 1.0	MPN/100ml	<= 0.0
D/D3200	24/03/2016	Faecal Enterococci	< 1.0	MPN/100ml	<= 0.0
D/D1208#	24/03/2016	TVC @ 22 ℃	2	cfu/ml	NAC
Acid Herbicide	es				
*U	-	2,4 D	< 0.01	ug/l	<= 0.10
*U	-	Bentazone	< 0.01	ug/l	<= 0.10
*U	-	Bromoxynil	< 0.01	ug/l	<= 0.10
*U	-	Clopyralid	< 0.02	ug/l	<= 0.10
*U	-	Dicamba	< 0.01	ug/l	<= 0.10
*U	-	Dichlorprop	< 0.01	ug/l	<= 0.10
*U	-	MCPA	< 0.01	ug/l	<= 0.10
*U	-	МСРВ	< 0.01	ug/l	<= 0.10
*U	-	Mecoprop (Total)	0.03	ug/l	-
*U	-	Tricloypr	< 0.02	ug/l	-

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*U	-	Benazolin	< 0.01	ug/l	<= 0.10
*	-	2,3,6 TBA	< 0.01	ug/l	-
*U	-	Fenoprop	< 0.01	ug/l	<= 0.10
OCP					
*U	=	Dieldrin	< 0.01	ug/l	<= 0.03
*U	-	p,p'-DDT	< 0.01	ug/l	-
*U	-	Aldrin	< 0.01	ug/l	<= 0.03
*U	-	Alpha BHC	< 0.01	ug/l	<= 0.10
*U	-	Beta BHC	< 0.01	ug/l	<= 0.10
*U	-	Gamma BHC	< 0.01	ug/l	<= 0.10
*U	-	Chlorothalonil	< 0.01	ug/l	-
*U	-	Dichlobenil	< 0.01	ug/l	<= 0.10
*U	-	Alpha-Endosulphan	< 0.01	ug/l	<= 0.10
*U	-	Endosulphan-beta	< 0.02	ug/l	<= 0.10
*U	-	Endrin	< 0.01	ug/l	<= 0.10
*U	-	Hexachlorobenzene	< 0.01	ug/l	<= 0.10
*U	-	Heptachlor	< 0.01	ug/l	<= 0.03
*U	-	Heptachlor Epoxide	< 0.01	ug/l	<= 0.03
*U	-	Isodrin	< 0.01	ug/l	<= 0.10

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Lab Reference Number: 314706

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
*U	-	Alachlor	< 0.01	ug/l	<= 0.03
*U	=	Heptachlor-endo-epoxide	< 0.01	ug/l	<= 0.10
*U	-	Heptachlor-exo-epoxide	< 0.01	ug/l	-
OPP					
*U	-	Chlorfenvinphos	< 0.01	ug/l	<= 0.10
*U	-	Diazinon	< 0.01	ug/l	<= 0.10
*U	-	Dichlorvos	< 0.01	ug/l	<= 0.10
*U	-	Dimethoate	< 0.01	ug/l	<= 0.10
*U	-	Malathion	< 0.01	ug/l	<= 0.10
*U	-	Propetamphos	< 0.01	ug/l	<= 0.10
PAH EPA Suit	te (6 Constituer	nts)			
*U	-	Fluoranthene	< 0.01	ug/l	-
*U	-	Benzo(b)fluoranthene	< 0.01	ug/l	-
*U	-	Benzo(k)fluoranthene	< 0.01	ug/l	-
*U	-	Benzo(a)pyrene	< 0.01	ug/l	-
*U	-	Benzo(ghi)perylene	< 0.01	ug/l	-
*U	-	Ideno (123cd) pyrene	< 0.01	ug/l	-
*U	-	Anthracene	< 0.01	ug/l	-
*U	-	Total PAH	< 0.01	ug/l	<= 0.10

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THM					•
S/S1016#	31/03/2016	Chloroform	1.00	ug/l	-
S/S1016#	31/03/2016	Bromodichloromethane	5.43	ug/l	-
S/S1016#	31/03/2016	Chlorodibromomethane	10.22	ug/l	-
S/S1016#	31/03/2016	Bromoform	5.89	ug/l	-
S/S1016#	31/03/2016	Total THM	22.53	ug/l	<= 100.00
Triazines	•				
*U	-	Atrazine	< 0.01	ug/l	<= 0.10
*U	-	Prometryn	< 0.01	ug/l	-
*U	-	Propiconazole	< 0.01	ug/l	<= 0.10
*U	-	Propazine	< 0.01	ug/l	<= 0.10
*U	-	Simazine	< 0.01	ug/l	<= 0.10
*U	-	Terbutryn	< 0.01	ug/l	<= 0.10
*U	-	Trietazine	< 0.01	ug/l	<= 0.10
*U	-	Fenpropimorph	< 0.20	ug/l	<= 0.10
*U	-	Pendimethalin	< 0.20	ug/l	-
*U	-	Pirimicarb	< 0.20	ug/l	<= 0.10
*U	-	Propyzamide	< 0.01	ug/l	-

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*U	=	Chlorotoluron	< 0.01	ug/l	-
*U	=	Diuron	< 0.01	ug/l	<= 0.10
*U	=	Isoproturon	< 0.01	ug/l	<= 0.10
*U	=	Linuron	< 0.01	ug/l	<= 0.10
*U	=	Monuron	< 0.01	ug/l	<= 0.10
*U	=	Methabenzthiazuron	< 0.01	ug/l	<= 0.10
*U	=	Metamitron	< 0.01	ug/l	<= 0.10
*U	-	Prothioconazole	< 0.01	ug/l	<= 0.10
*U	=	Tebuconazole	< 0.01	ug/l	<= 0.10
*U	=	Tebuthiuron	< 0.01	ug/l	<= 0.10
*U	=	Epoxiconazole	< 0.01	ug/l	<= 0.10
*U	-	Carbetamide	< 0.01	ug/l	<= 0.10
*U	=	Carbofuran	< 0.01	ug/l	<= 0.10
*U	=	Propiconazole	< 0.01	ug/l	<= 0.10

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