

Permit Reference Number: **NP 3433 BC**

Operator: **Convatec Limited**

Installation: **Convatec Rhymney Hydrocel Plant**

Form Number: **R1**

**Reporting of Waste Disposal and Recovery for the year .....2018.....**

Waste Description	Disposal		Recovery Tonnes
	Route	Tonnes	
Solvent/Water	Tanker	5767	2988
Trickling filter blowdown	Tanker	2505	
Bund water removal	Tanker	40	
Landfill Waste	Containers	1.8	45.5
Recycled Waste	Skip	45.5	
Energy from waste	Skip	40.6	
1) Total hazardous waste		8274	2988
2) Total non-hazardous waste		86.1	45.5
TOTAL WASTE		8360.1	3033.5

Trends in Waste Disposal and Recovery				
Year	Parameter			
	Total hazardous waste disposed and recovered (tonnes)	Total waste disposed and recovered (tonnes)	Total hazardous Waste per unit output (tonnes /tonne)	
2005	-	-	-	
2006	1393	1402	12	
2007	2255	2272	12.6	
2008	2129	2146	12.5	
2009	1628	1641	12.1	
2010	1424	1437	12.3	
2011	1922	1944	12.9	
2012	1750	1776	11.4	
2013	2477	2497	10.2	
2014	2399	2416	9.63	
2015	2345	2350	9.48	
2016	2818	2835	9.36	
2017	3248	3282	9.28	
2018	2988	3033	9.03	

Operator's comments :

Signed .....

(Authorised to sign as representative of the Operator)

Date .....

31 JAN 19

Permit Reference Number: NP 3433 BC

Operator: Convatec Limited

Installation: Convatec Rhymney Hydrocel Plant

Form Number: WU1

**Reporting of Water Usage for the year .....2018.....**

Water Source	Usage (m <sup>3</sup> )	Specific Usage (m <sup>3</sup> /tonne)
Mains water (potable)	31788	94.6
Non potable water	0	0
<b>TOTAL WATER USAGE</b>	<b>31788</b>	<b>94.6</b>

Trends in Water Usage		
Year	Parameter	
	Total Water usage (m <sup>3</sup> )	Total Water Usage per unit output (m <sup>3</sup> /tonne)
2005		
2006	11609	100
2007	10321	57.7
2008	9769	57.5
2009	9827	72.8
2010	7794	56.5
2011	12012	80.6
2012	13516	87.8
2013	28803	119
2014	32171	129.2
2015	25008	100.8
2016	25439	84.5
2017	34323	98.1
2018	31788	94.6

Operator's comments :

Signed .....

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Date .....

31 JAN 2019

Permit Reference Number: **NP 3433 BC**

Operator: **Convatec Limited**

Installation: **Convatec Rhymney Hydrocel Plant**

Form Number: **E1**

**Reporting of Energy Usage for the year .....2018.....**

Energy Source	Energy Usage		Primary CO <sub>2</sub> Produced (tonnes)
	Quantity(MWh)	Primary Energy (MWh)	
Electricity *	3654	8771	3771
Gas	5902	5902	1121
TOTAL	9556	14673	4893

\* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :

Signed .....  
(Authorised to sign as representative of the Operator)

Date 31 JAN 2019

Trends in Energy Usage			
Year	Parameter	Primary CO <sub>2</sub> Produced (tonnes)	Primary CO <sub>2</sub> per tonne product (tonnes/tonne)
2005			
2006	7118	2504	21.6
2007	7401	2628	14.1
2008	8242	2859	16.8
2009	7578	2690	19.9
2010	7718	2723	19.7
2011	8201	2886	19.4
2012	9010	1566	10.2
2013	13516	2382	9.84
2014	13281	2338	9.4
2015	13349	2349	9.4
2016	13815	2435	8.1
2017	14946	4964	14.2
2018	14673	4893	14.6

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Form Number: **PI1**

**Reporting of Performance Indicators for the year .....2018.....**

Annual Production/Treatment	
Production of Hydrocel	239 tonnes
Percentage converted to Silver Hydrocel	35.4 %

Environmental Performance Indicators [EPI's]			Trends in Environmental Performance	
Parameter	Annual EPI	Units	Year	Parameter
VOC emission per tonne of product	178.2	Kg/tonne		VOC released per tonne product
Waste produced per tonne of product	24881	Kg/tonne		
Energy use: primary carbon dioxide per tonne product	14562	Kg/tonne	2005	
			2006	131.1
			2007	92.5
			2008	61.5
			2009	61.1
			2010	62.1
			2011	326.6
			2012	167.1
			2013	306.5
			2014	382.5
			2015	380.8
			2016	468.0
			2017	174.9
			2018	178.2

Operator's comments : Annual U1 production (tonnes):- 2011 – 149, 2012 -154, 2013 – 242, 2014 – 249, 2015 – 248, 2016 – 312, 2017 – 350, 2018 – 336

Signed .....  
(Authorised to sign as representative of the Operator)

Date: **31 Jan 2019**