

## A1: Summary Report

### Patient Details

Patient Name:	CHARLES SMITH	Barcode:	1003
DOB:	19/12/91	NHI:	NHR1256
Gender:	M	Ethnicity:	NZ EUROPEAN
Location:	WELLINGTON	Sample Type:	SPUTUM
Sample Date:	3/03/17	Culture Method:	MGIT CULTURED ISOLATES
Reporting Lab:	LABPLUS	Technician:	DR ROD JACKSON
Sequencing Date:	19/05/20	Sequencing:	WGS
Requested by:	DR. EXAMPLE	Contact:	EMAIL.ADDRESS@DHB.GOV.T.NZ

### Resistance Profile

Drug Class	Resistance	Drug	Mutation
First Line	Sensitive	Isoniazid	No resistance predicted
		Rifampicin	No resistance predicted
		Pyrazinamide	No resistance predicted
	Resistance	Ethambutol	embB Gln497Arg
Second Line	Sensitive	Amikacin	No resistance predicted
		Capreomycin	No resistance predicted
		Ethionamide	No resistance predicted
		Kanamycin	No resistance predicted
		Linezolid	No resistance predicted
		Para-aminosalicylic	No resistance predicted
	Resistance	Streptomycin	No resistance predicted
		Fluoroquinolones	gyrB Asn499Asp

## A2: Whole Genome Sequencing Report

### Genotypic Report

Drug	Genomics Position	Allele		Gene (Mutation)	High Confidence	PMID
		Reference	Alternative			
Ethambutol	4248003	A	G	embB Gln497Arg	yes	20427375
Fluoroquinolones	6734	A	G	gyrB Asn499Asp	yes	17412727
Fluoroquinolones	6735	A	C	gyrB Asn499Thr	yes	24055765
Fluoroquinolones	6741	A	T	gyrB Glu501Val	yes	19721073
Fluoroquinolones	6750	C	T	gyrB Ala504Val	yes	24055765
Fluoroquinolones	7563	G	T	gyrA Gly88Cys	yes	24055765
Fluoroquinolones	7564	G	C	gyrA Gly88Ala	yes	24055765
Fluoroquinolones	7572	T	C	gyrA Ser91Pro	yes	21562102
Fluoroquinolones	7582	A	G	gyrA Asp94Gly	yes	21300839
Fluoroquinolones	7582	A	C	gyrA Asp94Ala	yes	21300839
Fluoroquinolones	6575	C	T	gyrB Arg446Cys	no	19470506
Fluoroquinolones	6749	G	A	gyrB Ala504Thr	no	19470506
Fluoroquinolones	7566	G	A	gyrA Asp89Asn	no	19687244
Fluoroquinolones	7582	A	T	gyrA Asp94Val	no	17434825

**NOTE:** This genotypic report is a prediction of drug resistance based on the detection of known resistance conferring mutations, and should only be used as a guide. The actual drug susceptibility may differ from what is stated in this report.

### A3: Technical Report

#### Pipeline

Pipeline	Resistance V0.01a	Genome	H37Rv
Phred Score	30	Masking	NO

#### Forward Statistics: WRX.R1.fastq.gz

Pre-Trimming		Post-Trimming	
Total Reads	VALUE	Total Reads	VALUE (%)
Average Quality	VALUE	Average Quality	VALUE
GC%	VALUE	GC%	VALUE
Mean read length	VALUE	Mean read length	VALUE
Read range	VALUE	Read range	VALUE

#### Reverse Statistics

File name	NAME		
Pre-Trimming		Post-Trimming	
Total Reads	VALUE	Total Reads	VALUE (%)
Average Quality	VALUE	Average Quality	VALUE
GC%	VALUE	GC%	VALUE
Mean read length	VALUE	Mean read length	VALUE
Read range	VALUE	Read range	VALUE

#### Alignment Statistics

#### Notes