

# MACCY BIOCHAR JOB SHEET

JOB NO....

BATCH NO. 1 of ..

TYPE OF KILN

FLAME-CAPPED TYPE A

NO. OF KILNS

...

START DATE:

.../.../...

FINISH DATE:

.../.../...

CUSTOMER NAME:

LOCATION:

WOOD TYPE:

## CALCULATION OF NEW CO2 EMITTED:

REASON:

Travel to & from site (... vehicles)

FUEL CONSUMPTION (litres):

TYPE OF FUEL:

Petrol: heating value of 47MJ/kg; emits 67 gms CO2/MJ; and weighs 0.7kg/L

TOTAL NEW EMISSION (kg CO2):

0.00

## CALCULATION OF CARBON & CO2 CAPTURED:

BIOCHAR PRODUCTION (litres):

BIOCHAR DRY BULK DENSITY (kg/m3):

BIOCHAR CARBON CONTENT (%):

CARBON CAPTURED (kg)

GROSS TOTAL CAPTURE (kg CO2):

NET TOTAL CAPTURE (kg CO2):

280 est

75 Note 1

0

0

0

## CALCULATION OF KWHR OFFSET:

0.00

(SA emissions factor = 0.51)

## COST OF PRODUCTION:

TRAVEL COST (\$):

0

LABOUR COST (\$):

0

OTHER COSTS (\$):

0

TOTAL COST (\$):

0

BIOCHAR COST (\$/kg)

0

CARBON CAPTURE COST (\$/kg CO2):

0

COMMENTS:

Notes:

1. Assumed.

2. Production vol. measured by % full ..... litre bin.

3. Average dry bulk density estimated based on earlier measurements.

JOB SUPERVISOR:

.....

## Calculation formulae:

New CO2 emitted (kgCO2)  $67 \times 47 \times (\text{Fuel consumption}) \times 0.7 / 1000$

Carbon captured (kg)  $(\text{Biochar production}) / 1000 \times (\text{Biochar dry bulk density}) \times (\text{Biochar carbon content}) / 100$

Gross capture (kgCO2)  $((\text{Biochar production}) / 1000) \times (\text{Biochar drybulk density}) \times (\text{Biochar carbon content}) / 100 \times 3.66$

Net capture (kgCO2)  $\text{Gross total capture} - \text{Total new CO2 emitted}$

KWHR Offset  $(\text{Net total capture kg CO2}) / 1000 \times 1000 / 0.51$

MAKING MACCY CARBON NEUTRAL