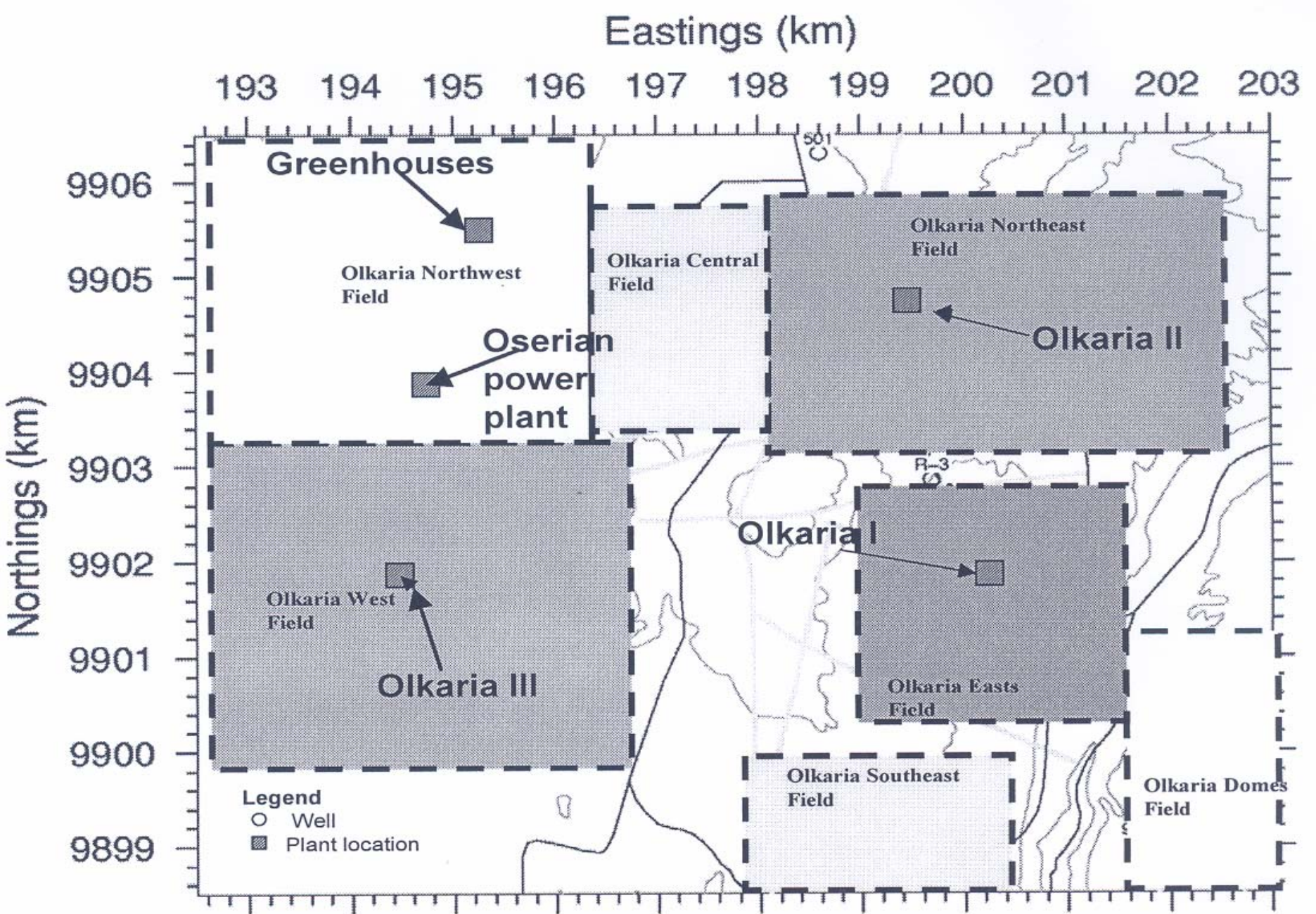


OSERIAN GEOTHERMAL PROJECT

- Oserian Development Company is a flower growing company
 - Power use –
 - Pumping water
 - Cooling facility to maintain flower quality
 - Administration
 - Grid supply –
 - Frequent interruptions
 - Irregular operations and drop in flower quality
 - Diesel Power generators installed
 - High operating costs due to fuel costs



1/2/2007

2

Olkaria geothermal area

- Farm overlies part of the Olkaria Geothermal Field
- Several exploration wells have been drilled there over the years
- Few are on the periphery of the geothermal field
- Outcome was not economically viable to link into the main field

- Well OW 306

- Low output
- Cyclic characteristic
- Well head variations of 3.0 - 7.0 bara
- Steam pressure of 2.5 to 6 bara
- Brine content of 13 to 40 t/hr
- Temperature 150°C

- Further studies of the well flow were carried out and data obtained used to design a suitable binary unit
- Aim was to maximise the brine flow and the heat transfer technology in the Ormat binary system
- Project implementation
 - Recognized the skills available within Oserian
 - Standard equipment manufactured and shipped
 - Oserian personnel assembled the equipment following the drawings and instruction from Ormat
 - Commissioning assistance provided by Ormat engineers

- OPERATION

- Operated by their own staff
- Use of automated controls, manned by two man shift
- Power output of 1.8MW
- Supplies a stand alone load
- Reduces operating costs
- Economically viable
- Use ensures control of the flower quality

CONCLUSION

- Exploit low heat source
- Match the technology to the resource
- Operate and achieve project targets