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Success of Geothermal Wells: A Global Study

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The database on which this report is based was compiled by GeothermEx, Inc. for IFC in partnership with the Government of Japan and the Global Environment Facility (GEF). The analysis in the report was led by Tom Harding-Newman (IFC), with substantial input from James Morrow (GeothermEx, Inc.) and Subir Sanyal (GeothermEx, Inc.). Regression analysis was performed by Zhengjia Meng (World Bank). Peer reviews were received from Mike Allen (Consultant, New Zealand), Patrick Avato (IFC), Magnus Gehringer (World Bank), Jeremy Levin (IFC), Victor Loksha (World Bank), Sonia Moin (IFC), Dr. Akin Oduolowu (formerly Lead Energy Specialist at the World Bank), and Alexios Pantelias (IFC).

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1. Executive Summary

As at end-2011, 10,700 megawatts (MWe) of geothermal electricity generation capacity was in operation around the world.

Geothermal power plants harness the earth's heat to generate electricity. Geothermal energy is a low-carbon, reliable, renewable energy source that has been in use for over 100 years. Despite its comparatively low cost relative to other power sources, the uneven distribution of easily tapped geothermal resources around the world, combined with high upfront costs and the risks attached to locating it, have so far prevented the wider adoption of this high-potential power source.

Drilling costs comprise some 35–40 percent of the total capital costs of a geothermal project – most of which will be incurred in determining the size, location, and power capacity of the geothermal resource. This investment will, of course, be lost if no resource is found. For that reason, it is crucial that project developers and financers have a clear understanding of the level of risk inherent in any specific project, in order to assess the value of such project against its cost of capital.

Despite this, very little work to date has been undertaken on a global scale to assess the probability of success in the drilling of geothermal wells, or on the factors that influence this probability. All previous studies on geothermal drilling risk have focused on examples taken from a very limited set of projects, making it difficult to draw conclusions that can be applied to the industry more widely.

To address this IFC has, for the first time, developed a global database of wells in geothermal fields which together supply power to 71 percent of the world's installed geothermal electricity generating capacity, making it the largest database of its kind. This report analyzes that data to gain a better understanding of the probability of drilling a successful well, and the factors that influence such success.

This database has been compiled from both publicly available sources as well as confidential information from individual geothermal developers that has been shared with GeothermEx, Inc. over the past four decades. Covering a total 2,613 wells, it includes the following information:

(a) completion date;
(b) initial and current status;
(c) power capacity (MWe);
(d) depth;
(e) geology type;
(f) resource type (temperature/enthalpy);
(g) well casing size;

(h) success of the well;
(i) whether a pump is used on the well; and
(j) whether the well has been re-drilled.

There are no universally accepted criteria for defining what constitutes a successful geothermal well. For the purposes of this report, success is defined mainly on the basis of a well's power-generating capacity (MWe), since data on other factors influencing success (including the economics of individual wells) were not universally available.

The key finding of this report is that overall, for those wells for which status could be verified, 78 percent of wells drilled were successful. In two thirds of the fields in the database, more than 60 percent of wells were successful. Although the data did not reveal any basis on which forecasting success in the Exploration Phase of a project could be guaranteed, average success rates in this phase have been improving over the last several decades. This may be related to improving technologies and techniques in geothermal surveys, resulting in more accurate targeting of exploration wells: which would suggest that adherence to international best practice during the exploration phase can make a significant contribution to reducing exploration risks.[1]

There does appear to be a strong learning-curve effect in geothermal drilling, as each resource is developed. While the rate of success for the first well drilled in a field appears to average 50 percent, the success rate averaged over the first five wells drilled is 59 percent. This rises to 74 percent during the Development Phase, increasing to 83 percent for wells drilled during the Operation Phase.

The geology of the resource also appears to affect the success of a well, with fields in a sedimentary basin, in which drilling is above the basement, having the highest success rates.

Sixteen percent of the wells analyzed in this report had been re-drilled. The average success of such wells was shown to be higher (at 87 percent) than for original wells (77 percent). Neither the enthalpy of the resource, the casing size, nor the use of pumping appear to affect success. Well depth does not, either, appear to have any bearing on a well's success.

The average capacity of the wells analyzed in this report is 7.3 MWe. However, the modal average well capacity is three MWe, reflecting the considerable variation in capacity across all wells studied: the maximum capacity of any single well in the database is recorded at 52 MWe.

A well's maximum capacity increases in correlation with the enthalpy of the resource. The combination of enthalpy and resource type contributes about 11 percent of the variation in capacity, and it is therefore crucial that these characteristics are fully assessed before drilling starts. No other factor appears to have a clear impact on the likely capacity of a well.

The uniqueness of individual geothermal projects, and the uncertainty inherent in the development of new fields, make it difficult to translate findings from one field to another. Any risk assessment of a new project must be based on current international best practice in the conduct of all project surveys, as well as thorough analysis of data gained from the project site. Nonetheless, this report highlights several interesting findings that could be usefully applied by developers of geothermal projects, and their financers.

1 Geothermal Exploration Best Practices: A Guide to Resource Data Collection, Analysis, and Presentation for Geothermal Projects, IGA Service GmbH, (2013). Available at: http://www.geothermal-energy.org/ifc-iga_launch_event_best_practice_guide.html.

2. Overview

2.1 Project Background

Geothermal energy is a low-operating-cost, low-carbon, base-load, renewable energy resource that has been exploited for electric power production for more than a century. As at end-2011, the world's total installed geothermal electric power generation capacity stood at more than 10,700 MWe and, despite a considerably lower public profile, in 2010 produced twice the electricity output of solar sources.[2]

By its very nature, geothermal power offers a steady base-load source of electricity, not subject to the intermittent nature and risks of most other renewable energy sources such as solar or wind. Geothermal energy is currently used for electricity generation in 24 countries worldwide; many more countries use lower-temperature geothermal sources for heating applications. The focus of this report, and the database on which it is based, is geothermal power for the generation of electricity.

Geothermal plants generate electricity by extracting energy from the flow of steam through a conventional turbine, or by using geothermal fluids to heat a secondary fluid that drives a turbine in a binary cycle. High-temperature geothermal fluids are produced from aquifers located in geological formations that are heated by natural processes within the earth's core. Since drilling is expensive, it is most economical to extract this energy from those geothermal reservoirs closest to the surface, typically in areas of prior (or recent) volcanic activity. Most geothermal power-plant developments are therefore located close to tectonic plate boundaries such as the Pacific Rim, the East Africa Rift Valley, and the Mid-Atlantic Ridge.

Geothermal fluids are extracted through wells drilled into the geothermal reservoir (or "resource"): these wells are then connected to a power facility. In order to prevent the resource from becoming depleted (and to mitigate possible environmental impacts from the discharge of waste fluids), such geothermal fluids are usually re-injected into the reservoir through additional wells ("injection wells"). As demonstrated in this report, the depths of wells can vary greatly, and can extend to several kilometers. Drilling to such depths incurs significant costs: drilling costs comprise some 35–40 percent of the total capital costs of a geothermal project, and increase exponentially with depth. A single well may cost between $1–7 million, depending on the depth of the well and the local conditions. A significant proportion of the cost of well drilling may need to be committed before the characteristics of the resource are fully determined, requiring the project developer to either self-finance this high-risk phase of development or to source funding from outside agencies in a position to bear such risk.

2 *World Energy Outlook 2010,* International Energy Agency, (2010). Available at: http://www.iea.org/publications/freepublications/publication/weo2010.pdf.

Geothermal fields often exhibit highly disparate and diverse characteristics, both between different fields and, indeed, within the same field. Wells are typically targeted to reach a particular area within a geothermal reservoir since variations in geology, the properties of resource fluids, subsurface temperatures and pressures, as well as the presence of fractured formations, can significantly affect the quality and quantity of production. In order to accurately target a well a project developer must carry out systematic analysis of the resource through the application of both above-ground and below-ground surveying techniques. Above-ground techniques may include magnetic, resistivity, and gravity surveys, as well as geochemical and geological analysis, while below-ground techniques may involve temperature gradient and/or slim-bore drilling. Such investigations allow the progressive construction of a comprehensive reservoir model, essential to the accurate targeting of production wells and subsequent location of reinjection wells to ensure that resource development is optimized for long-term, sustainable production. The costs incurred in carrying out such pre-drilling activities are not insignificant (typically in the order of $1–9 million) but are considerably less than the costs of mounting an exploratory or confirmation deep-drilling program.

Even where extensive surveys are carried out, there is always a risk that the results from full-bore, full-depth drilling will not match expectations. While this can, of course, impact the commercial viability of a project, experienced developers will fully evaluate such risks before drilling is undertaken.

While only one element of a project's ultimate success, the drilling of geothermal wells is critical to the success of any geothermal project. This report addresses only those factors that determine the ultimate success of a geothermal well (the methodology used to define a successful well is discussed in section 2.3, below).

Despite the importance of successful well drilling to the long-term viability of any geothermal project, very little work has, to date, been undertaken on a global level to determine the probability of drilling successful wells, or on the factors that impact this probability. Forecasting the degree of such risk in any specific project is generally a matter of in-house information, speculation, or an educated guess, based on empirical data from individual projects. This report represents the first attempt to develop a single empirical database on geothermal wells, to address these shortfalls in market knowledge. Disparate databases are available from various countries, but there is usually no way of confirming whether the data therein covers all wells drilled within a field. The most significant resources on the analysis of geothermal resource risk are listed in section 6, below. Such research as has been released focuses on the analysis of individual fields (notably the Kamojang field, Indonesia; The Geysers, United States; and the Molasse Basin, Germany), or on the presentation of a theoretical framework for analysis. The limited scope and scale of such works makes strong conclusions difficult to reach. The database on which this report is based has been compiled from both publicly available sources as well as confidential information obtained by GeothermEx, Inc. over the past four decades.

2.2 Aims of the Report

The core objective of this project was to develop a sufficiently large database to allow statistically significant conclusions to be drawn on the success rates of geothermal wells worldwide (expressed as the number of successful wells developed as a proportion of total wells drilled in any given field). This report determines and analyzes that overall success rate, as well as those factors that potentially affect success – including geology, resource enthalpy, and well depth. It seeks to assess the extent of any improvements in well success rates, and how far the likelihood of success increases as a developer learns more about any specific

resource. Since the success of a well is usually determined by its power capacity (MWe), this report also analyzes the power capacity of geothermal wells drilled and the factors affecting such capacity.

This report is targeted at those with an interest in the risks pertaining to geothermal wells, and the subsequent probability of success. The information contained herein will be of interest to geothermal developers, and to financers engaged in the risk assessment of such projects. This report, and the database and analysis on which it is based, may be used by stakeholders in the geothermal industry investigating the range of success rates seen in geothermal projects around the world, and the factors that influence such variation. Such quantification of the risks inherent in geothermal projects will allow investors and operators to develop better models for the assessment of investment priorities. However, every geothermal project exhibits its own unique characteristics and the value of any qualitative and quantitative data in the database will, inevitably, have its limits. Any analysis of the success rate of geothermal wells can, therefore, only be informative rather than instructive.

2.3 Defining Well Success

For those wells for which capacity was either available or estimated, a well was deemed to have been successful only where the capacity was above a certain threshold. In most cases, this threshold was three MWe or higher. The threshold was lower in some fields where data indicated that wells with a lower capacity were still connected to power plants. In those instances where a well exhibited a history of successful supply to a power plant, such wells were deemed to be successful whether or not an estimation of the capacity was possible, since such fact of supply would, itself, indicate a successful well. Likewise, injection wells that have been active for a long time were deemed to be successful wells, since a genuinely unsuccessful well would be unlikely to be used as an injection well in the long term. However, an injection well might represent an unsuccessful production well that has been subsequently reworked, and in such cases it is possible that the drilling success rate may have been overestimated. On balance, however, this assumption is felt to be better than other alternatives for estimating a drilling success rate. Pumped wells were also deemed to be successful.

In geothermal fields, a "dry hole" is a rarity. Almost all geothermal wells flow to some extent, and only 10 wells in the database are marked as dry. However, a geothermal well may be deemed unsuccessful for one or more reasons – for example if:

(a) unexpected mechanical problems are encountered during drilling, and the well is partly filled or bridged by drill cutting and/or casing collapse;
(b) it has an inadequate temperature;
(c) it has too low a static pressure;
(d) it encounters a reservoir that is too "tight" (i.e., the Productivity Index (PI) is low); or
(e) it has unacceptable chemical problems (such as gassy, corrosive, or scaling-prone fluids).

Success also depends, in part, on the difference between a well's intended use prior to drilling, and what the characteristics of such drilled well allow. For example, a well intended for production could instead be used for injection, and could be deemed successful for that purpose.

As well as exhibiting the right physical characteristics, a well must also be economically successful. In addition to the costs of pumping and drilling, the costs of building, operating, and maintaining the attached power plant must also be taken in to account, as well as the

price of the electricity sold. A two-MWe or three-MWe (net) well may be commercially successful if it is, for example, a relatively shallow well costing in the order of $1 million, but such a well may be uneconomic if it is a deep well costing several million dollars. Equally, a two-MWe or three-MWe well at a relatively shallow depth might be considered successful at an electricity price of $100/MWh, but represents a grim prospect at a price of $60/MWh. Effectively, a well's success should be determined on the basis of its return on investment (ROI): however, since the database on which this report is based does not include cost data this has not been directly considered in determining well success.

The success rate is defined as the number of successful wells as a proportion of the total number of wells drilled. Throughout this report, the success rate of wells is averaged across all relevant fields in the database, while the success of fields is averaged across all development wells (unless otherwise stated). The use of the word "rate" in this report makes no reference to the speed of drilling a well (the database does not cover this aspect of drilling).

2.4 Difficulties Encountered

A number of unforeseen difficulties were encountered in conducting this project.

1) There is no universal basis for defining the success of a geothermal well (see section 2.3, above).
2) For many wells, information on power capacity was not directly available. It should be noted that a well's power capacity cannot be directly measured in terms of megawatts (MW) but is derived from the measured production rate and enthalpy ("heat content") of the produced fluid for a given power conversion scheme. Therefore, the power capacity discussed in this report is based on a calculated electrical power output, "MWe". The basis for such calculations is shown in Annex B, below. It should also be noted that the capacity of a well may change over time: unless otherwise stated, the capacities cited in this report are typically those initially produced by the well in question. Power capacity could confidently be verified for 1,087 of 2,613 wells analyzed.
3) Of the 57 fields in the database, only seven had fewer than 10 wells. This suggests that the database is weighted towards larger projects sufficiently successful in the Exploration Phase to warrant progression to the Development Phase. The accuracy of this report is therefore limited with regard to any risk assessment of the Exploration Phase, or of small projects with only a few wells. Additionally, every field in this database showed some successful wells, suggesting that fields that were abandoned after a few unsuccessful wells are not represented. This is likely to skew the results of this analysis towards higher success rates, though the effect should be small as, anecdotally, this is a rare occurrence.
4) As shown in this analysis, the presence of prior wells in a field significantly increases the chances of the ultimate success of subsequent wells. In some cases, wells may have been drilled prior to geothermal development, either for the purposes of oil and gas exploration, or by government research bodies not focused on the identification of geothermal prospects. There is no reasonable way of defining the success for such wells: such early exploration wells may not be included in all fields in this database and no information is available to assess the impacts of any such information on particular fields.
5) The oldest well in this database dates from 1905; the database contains data on wells drilled in every decade since 1940. Some of the techniques used in the surveying and drilling of older wells may now be antiquated, with the result that the analysis reflects historical data and not, necessarily, current trends. The development of new surveying techniques, the adoption of directional drilling, and improvements in drilling techniques may have boosted average well success and capacity: this report attempts to analyze this effect by examining well success by decade in section 4.4, below.

3. Overview of the Database

As at end-2011, the world's total installed geothermal electric power generation capacity stood at more than 10,700 MWe. The database on which this report is based covers 2,613 wells throughout 57 fields in 14 countries. These fields together have a total capacity of 7,575 MWe (see Annex A, below). On that basis, the wells in the database cover about 71 percent of global installed geothermal power capacity. Each of the fields cited in the database is used primarily for electricity production.

To the extent verifiable data are available, the assembled database includes the following parameters for each well:

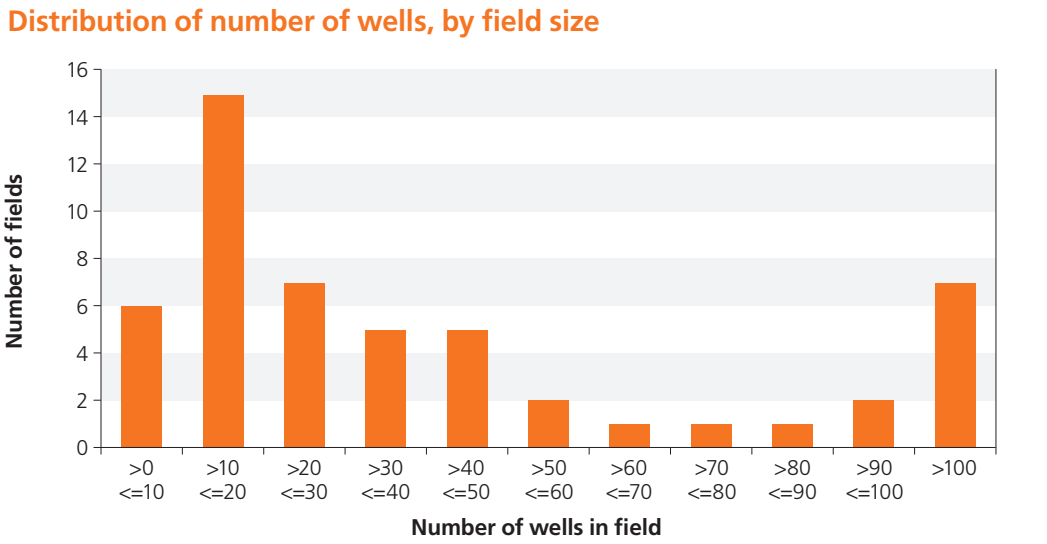
(a) Well Code;
(b) Geology Code;
(c) Resource Code;
(d) completion date;
(e) initial and current status of the well;
(f) gross power capacity (MWe, as at the date such capacity was reported);
(g) total depth;
(h) production casing outer diameter;
(i) whether a well was successful;
(j) whether a well has been pumped; and
(k) whether a well has been re-drilled.

3.1 Wells and Fields

In order to preserve confidential data, each well cited in this report has been assigned a three-digit "Well Code," constructed as follows: an initial digit denoting the country in which the well is located; a second digit representing the geothermal field within such country; and a third digit representing the well number within that field. A sample code would thus appear as "1.2.5." For fields within the United States, the Country Code shown in fact refers to a specific state within the country. The well number refers to the planned drilling sequence in any given field: the order in which wells were actually drilled may differ from this, and can be deduced from the well completion date.

Figure 1, below illustrates the distribution of field size within in the database (as measured by the number of wells per field). It can be seen from this that 10–20 is the most common number of wells typically found in a field; fields with between 20 and 50 fields occur less often, and it is rare for a field to have more than 50 wells.

Figure 1:
Distribution of number of wells, by field size.



As discussed in section 2.4, above the infrequency of fields with fewer than 10 wells suggests that the database may be skewed towards the larger fields. Since the success rate increases as more wells are drilled in a field (see section 4.2, below), the success rates shown in this report may be higher than would be found if the database included more small fields.

3.2 Geology Code

The Geology Code as cited in this document (and the categorizations below) refers to rock type rather than geologic structure and might, arguably, be better described as a "lithology code". Nonetheless, in the context of this report the following categorizations denote the underlying reservoir rock:

1) granitic/higher-grade metamorphic;
2) tertiary and older volcanic/volcaniclastic (large-scale volcanic structures absent);
3) younger volcanic/volcaniclastic (large-scale volcanic structures (volcanoes, calderas) preserved);
4) sedimentary basin (clastic, drilled above basement); and
5) sedimentary basin (clastic, wells drilled into basement).

These geologic categories reflect generic hydraulic rather than chemical or mineralogical properties. The reason for emphasizing hydraulic properties rather than the mineralogy of a geologic category is that the productivity of a well is predominantly a function of the following parameters:

(a) the hydraulic properties of the reservoir (storage capacity and flow capacity);
(b) the diameter and skin factor (an index of well-bore flow efficiency) of the well; and
(c) the enthalpy of the produced fluid.

A well's hydraulic properties are therefore partially dependent on the porosity and permeability of the reservoir; in particular, the presence of fissures in the rock (caused by stresses) will dramatically increase its permeability. It is usually the case that older rocks are more likely to be fractured and will therefore have higher permeability, thus facilitating geothermal wells with higher average capacity, although such fracturing will also be dependent on local seismicity.

3.3 Resource Code

Each well cited in this report has been allocated a "Resource Code," ranging from one to seven, indicating the approximate enthalpy of the fluid produced from the well. This code follows the classification scheme for geothermal reservoirs proposed by Sanyal (2005):[3]

1) non-electrical grade (<100°C);
2) very low temperature (100°C to <150°C);
3) low temperature (150°C to <190°C);
4) moderate temperature (190°C to <230°C);
5) high temperature (230°C to <300°C);
6) ultra-high temperature (300°C+); and
7) steam field (230°C to 240°C).

The Resource Code is useful in checking the correlation between the enthalpy and the capacity of a well and, therefore, the success rate of drilling. While the Geology Code indirectly reflects the hydrological properties of a well, the Resource Code reflects the reservoir fluid enthalpy. As such, the combination of the Geology Code and Resource Code should result in an approximate representation of the production potential (MWe) of a well. Table 1, below summarizes the prevalence of fields and wells in the database by geology, resource type, and temperature, as defined above. This shows that a large proportion of fields and wells are in younger volcanic areas with large-scale volcanic structures preserved (Geology Code 3), and in high-/ultra-high-temperature resources.

Table 1: **Prevalence of fields and wells, by geology and resource type.**

Geology Code	Geologic type	Resource Code	Resource fluid characteristics	No. of fields	No. of wells
1	Granitic/higher-grade metamorphic	4	Moderate temperature	1	38
		5	High temperature	1	150
2	Tertiary and older volcanic/ volcaniclastic (large-scale volcanic structures absent)	3	Low temperature	5	98
		4	Moderate temperature	4	98
		5	High temperature	1	33
		7	100 percent steam	1	378
3	Younger volcanic/volcani-clastic (large-scale volcanic structures (volcanoes, calde-ras) preserved)	4	Moderate temperature	6	155
		5	High temperature	15	522
		6	Ultra-high temperature	12	539
		7	100 percent steam	2	93
4	Sedimentary basin (clastic, drilled above basement)	3	Low temperature	2	178
		5	High temperature	1	13
		6	Ultra-high temperature	2	257
5	Sedimentary basin (clastic, wells drilled into basement)	2	Very low temperature	1	9
		3	Low temperature	1	8
		4	Moderate	2	4

3 S.K. Sanyal, "Classification of Geothermal Systems – A Possible Scheme" (paper presented at the Thirtieth Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, California, January 31–February 2, 2005). SGP –TR-176.

3.4 Completion Date

The completion date of a well is the date by which all drilling and any re-working is complete.

3.5 Well Status

The database refers to both the initial and current status of all wells, in order to give an indication of the state of the well immediately after completion of drilling, and at its most recently known state (normally within the last few years). A definition of each of the statuses used in the database is given in Table 2, below.

Table 2:
Well status – definitions.

Status	Definition
Abandoned/plugged	Well is closed with a concrete plug, not to be reopened
Blow-out	Steam pressure is too high and may not be controllable: well may be shut-in
Discovery well/exploration	Early-stage well used to prove existence and size of geothermal reservoir
Dry hole	No fluid in the well, usually due to low permeability of the reservoir
Gradient	Slim-bore hole used to measure changes in temperature with depth
Idle	Well currently surplus to requirements and closed (although can be reopened if necessary)
Injector	Used to re-inject geothermal fluids into reservoir
Marginal	Low permeability of reservoir or high skin factor of bore make the well of low value
Marginal producer	Low productivity but still used to generate power
Monitoring well/observation	Well used to monitor reservoir conditions: not suitable for production or injection
Never produced	Not economically useful
Non-commercial	Purpose of drilling was not for commercial reasons, may be exploratory
Not productive	Not economically useful
Not tested	Unknown status
Production	Well used to generate power
Re-drilled	Well has been partially re-drilled due to low initial productivity
Replaced	Closed and re-drilled elsewhere, usually due to reduced output of original well
Shut-in	Well is closed to prevent blow-out or unrequired discharge
Stand-by injector	Well not needed, but can be used as injector if required
Suspended/not completed	Well not completed, due to mechanical problems while drilling
Unknown	Status cannot be determined from available data

3.6 Well Capacity

Where cited in this report, the capacity of a well represents its gross electrical power capacity (MWe) as estimated on the date shown in the adjoining column. In most cases such data is sourced on the basis of the initial flow test of the well, and subsequent data is not available to check any degradation of well output over time.

For the purposes of this report the initial capacity of a well is estimated on the basis of its metering history: the methodology used to calculate capacity is shown in Annex B, below. Some injection wells have an attributed capacity as a result of having been converted from productive to injector wells. Figure 2, below presents a histogram of the gross capacities (MWe) of those 1,087 wells for which capacity could be verified.[4]

Figure 2: **Distribution of well capacities (MWe).**

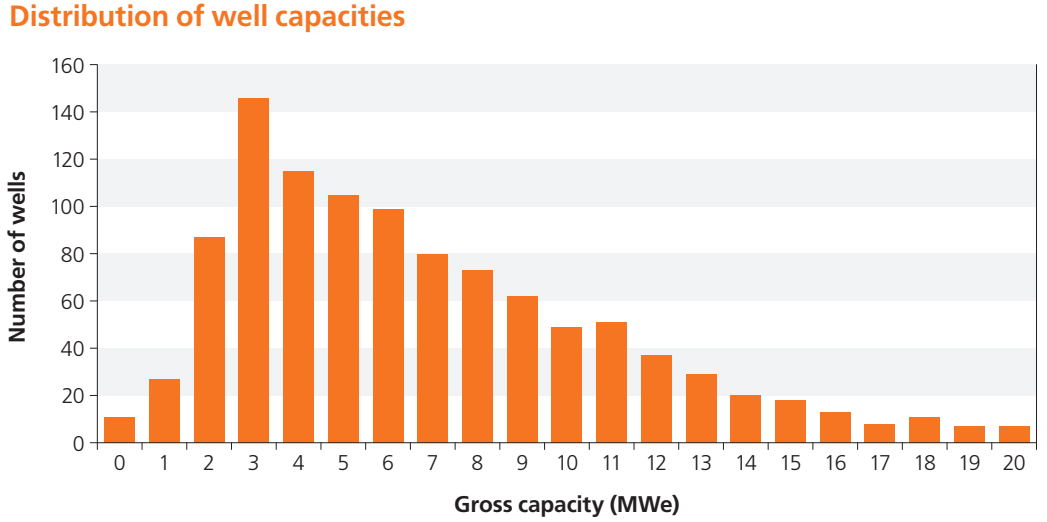


Figure 2, above indicates the most frequent gross capacity of three MWe per well with a positive skew on the distribution of 1.64. This figure shows that a wide range of well capacities is possible, though lower capacities are significantly more likely. The average capacity of all wells in the database is 7.3 MWe, though this is strongly skewed by the inclusion of several very high-capacity wells: the maximum capacity of a single well in the database is 52 MWe. Due to the long tail of the distribution, and in order to avoid any undue distortion of results, capacities greater than three standard deviations from the average of the distribution (i.e., greater than 23.8 MWe) have been ignored when examining the effect of different factors on capacity. When these wells are excluded the average well capacity is 6.8 MWe.

3.7 Well Depth

"Well depth" refers to the total depth of a well as measured from the ground surface to the bottom.

Most fields have a range of well depths (as shown in Figure 3, below) suggesting that most fields have multiple reservoirs, each at different depths.

4 Capacity data was also available for an additional 27 wells that exhibited capacities in excess of 20 MWe. To avoid undue complexity these have not been shown here.

Figure 3:
Average well depths and range of well depth, by field.

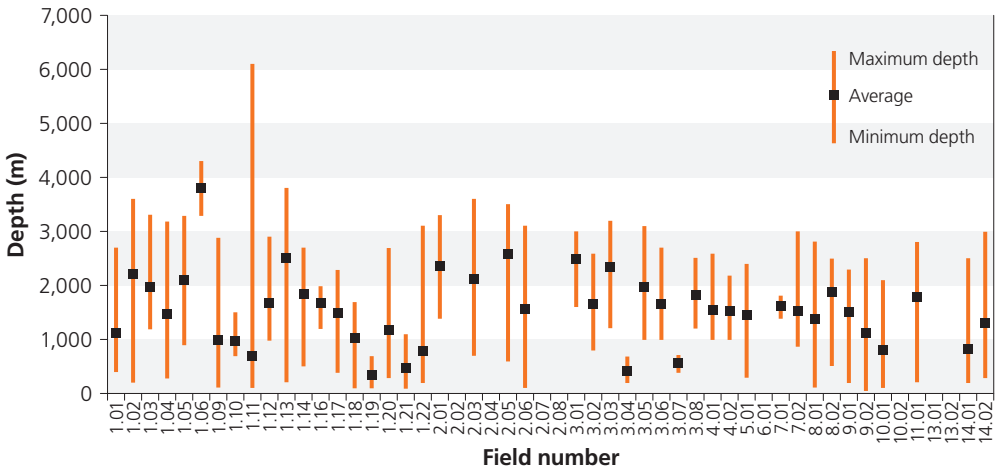


Figure 4, below illustrates the changing distribution of well depths in accordance with project phase (Exploration, Development and Operation, defined in section 3.11, below).

Figure 4:
Prevalence of well depths by project phase.

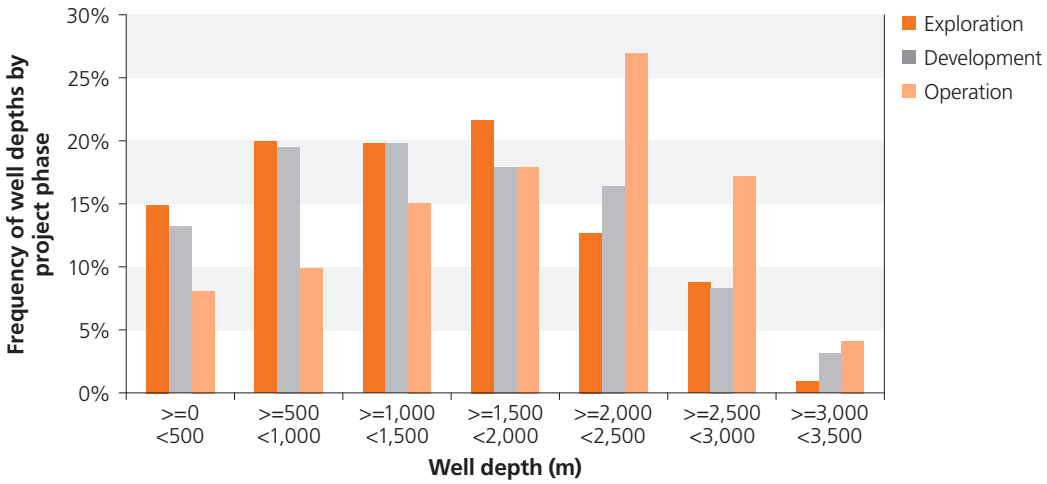


Figure 4 demonstrates that while wells in the Development Phase are typically drilled to similar depths to those in the Exploration Phase, developers move to exploiting deeper reservoirs in the same field as a project becomes more advanced.

3.8 Casing Size

Casing size reflects the outer diameter of the casing of the main section of a well. This is usually measured in inches, but also occasionally in millimeters. For the purposes of the database and for the analysis, diameters were converted from inches to millimeters to facilitate comparison between metric systems. Four hundred and forty one of the wells in the database have a known casing size. In some cases the depth of the casing is also known: where available, this is also shown, in meters.

3.9 Well Success

All wells were categorized accordingly:

(a) "N" denotes a well deemed unsuccessful;
(b) "Y" denotes a successful well; and
(c) "NA" indicates that the information available was not sufficiently adequate to determine whether a well was successful or not.

The criteria used for the definition of a successful well are outlined in more detail in section 2.3, above. Overall, 1,827 wells (70 percent of the total) are deemed to be successful, 560 (21 percent of the total) are deemed unsuccessful, leaving 226 (nine percent of the total) of unknown status.

3.10 Re-drilling and Pumping

The database differentiates between original wells ("Y" – 2,184 wells) and re-drilled wells ("N" – 429 wells), and between those wells which have a pump installed ("Y" – 147 wells) and those which flowed without pumping ("N" – 2,466 wells).

3.11 Exploration, Development, and Operation Wells

As shown in section 4.2 below, the probability of achieving a successful well increases as more wells are drilled in a field. For the purposes of comparing the success of wells in different fields, it is therefore necessary to divide the drilling program into stages. The first several wells drilled in a field are usually to confirm the existence and potential of a reservoir. Then, sufficient numbers of wells are drilled to reach the desired or optimal power output of the field. Once sufficient wells are drilled and the power plant is operational, subsequent wells are drilled in order to replace those old wells whose output has diminished. These phases of drilling can be described respectively as Exploration, Development, and Operation.

For the purposes of this study, the first five wells drilled in a field are deemed to be exploration wells (though in practice this could vary from anywhere between two and 10 wells), the next 25 development wells, and wells drilled thereafter operational wells. The actual number of development wells in a field will vary significantly, depending on the characteristics of the reservoir, the size of the planned power plant, and the success rate in drilling.

Due to the increases in the probability of well success as field exploitation progresses, further analysis of success in this report is focused on those wells drilled during the Development Phase of the field (i.e., the sixth to 30th wells drilled). Three fields in this survey have five or fewer wells (field references 3.1, 7.1, and 12.1) and are therefore excluded from most of the analysis, except where exploration wells are specifically included.

3.12 Excluded Fields

The methodology used in exploring some fields is known to have been below the standards of international best practice, and the success rates of wells in these fields are not, therefore, thought to be representative. For this reason, these fields (field references 1.7, 1.8, 1.15, 5.2, and 12.1, representing 86 wells) have been excluded from the analysis in this report, though they remain in the database.

4. Presentation and Analysis of Results

4.1 Overall Success Rate

The database shows 78 percent of wells (of known status) to be successful. Figure 5, below presents a histogram of the overall success rates of wells across the 52 fields analyzed in the database (including wells from each phase of field development), showing a modal average of 80–90 percent of all wells deemed to be successful. The median is 71 percent.

Figure 5:
Success rates across all fields.

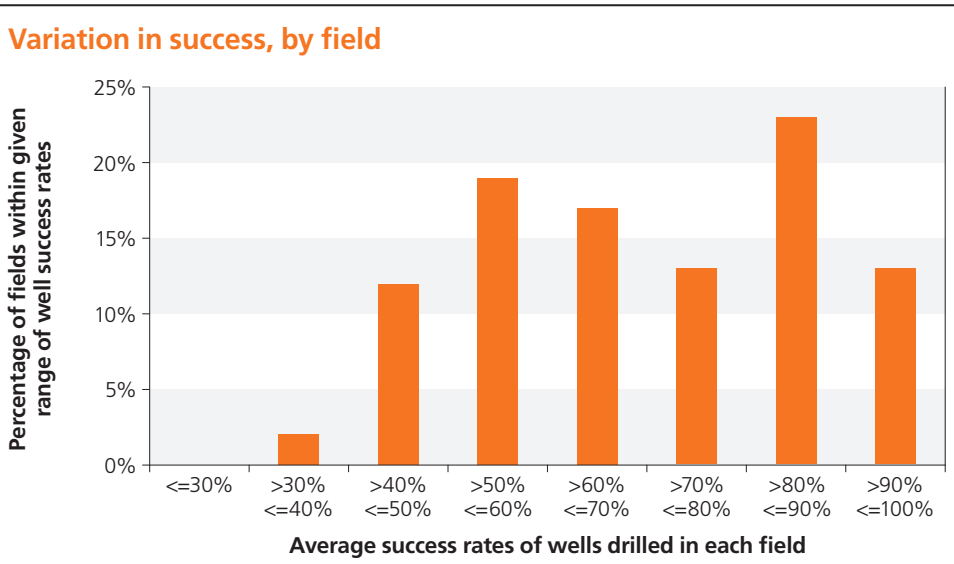
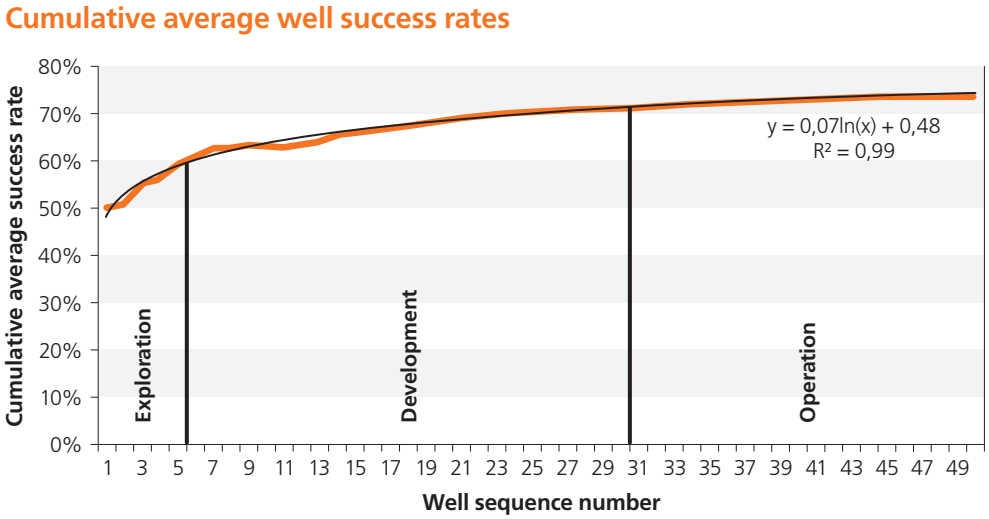


Figure 5 indicates a low probability of a field achieving a success rate of less than 40 percent across all wells drilled. A low success rate does not mean that a project, per se, will be unsuccessful – this being dependent on other factors contributing to the economic viability of the project.

4.2 Learning Curves

It is to be expected that the first wells drilled in a field are less likely to be successful than subsequent wells, as the developer gains a better understanding of the size, location, and dynamics of the targeted reservoir. Figure 6, below shows the improvement in the cumulative average success rate of wells as fields are developed (success is averaged across all fields in the database).

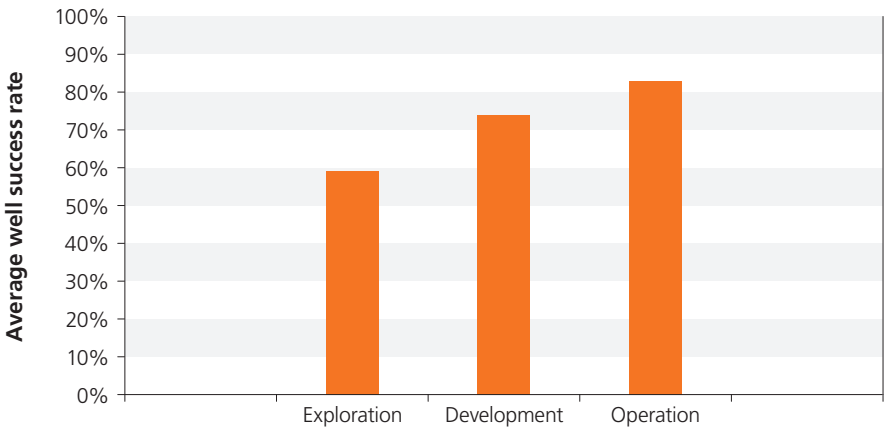
Figure 6:
Learning curve – well success rates.



The designation of wells as "exploration", "development", and "operation" is discussed in section 3.11, above.

While the first well drilled shows an average success rate of 50 percent, the success rate averaged over the first five wells increases to 59 percent, rising to 71 percent over the first 30 wells drilled: a trend which continues beyond the 50th well. As shown in Figure 6, this trend is highly correlated to a logarithmic curve (with R^2 equal to 0.99). Figure 7, below clearly shows the increasing average success rate as a project moves from one phase to the next.

Figure 7:
Success rates by project phase.



During the Exploration Phase an average 59 percent of wells are successful: during the Development Phase this increases to 74 percent, and during the Operation Phase to 83 percent.

Figure 7 demonstrates a clear "learning curve" effect for targeting and drilling geothermal wells, and shows that the success rate improves as a the developer builds on knowledge gained from earlier wells in the field. The possibility that this learning curve is due to a statistical influence of increased sample size on a binomial event has been considered, but

rejected – the binomial distribution assumes each event is independent, and therefore assumes no learning curve as a pre-condition.[5]

Knowledge gained from early wells, while increasing the success rate, does not necessarily lead to greater power capacities of new wells as field development progresses. Figure 8, below shows the cumulative average capacity of the first 50 wells drilled, averaged across all fields. The cumulative average capacity is the average capacity of all wells up to and including a particular well number. The cumulative average capacity across all fields in the database remains largely flat at 6.5 MWe once the Development Phase is started, and remains so into the Operation Phase, showing that there is no learning curve for capacity. This trend continues beyond the first 50 wells.

Figure 8:
Cumulative average capacity of wells (MWe).

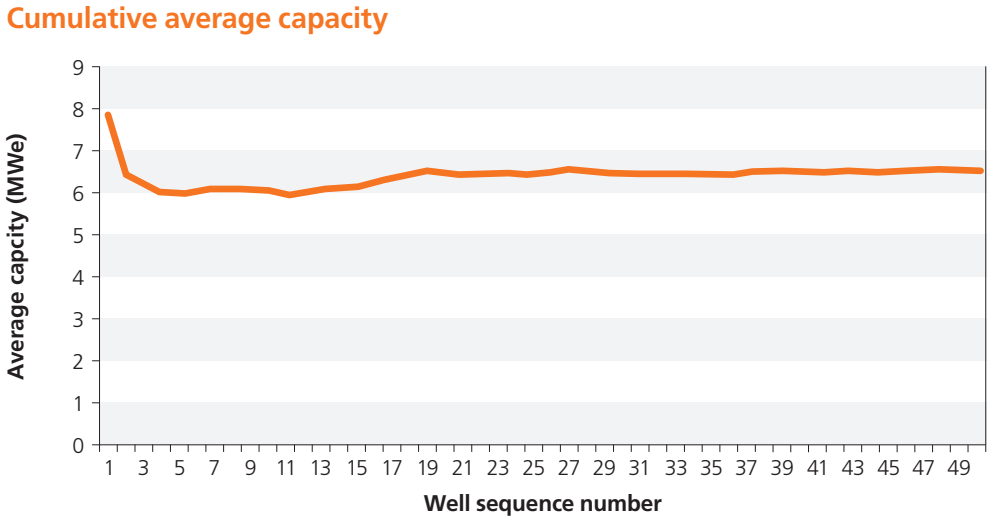


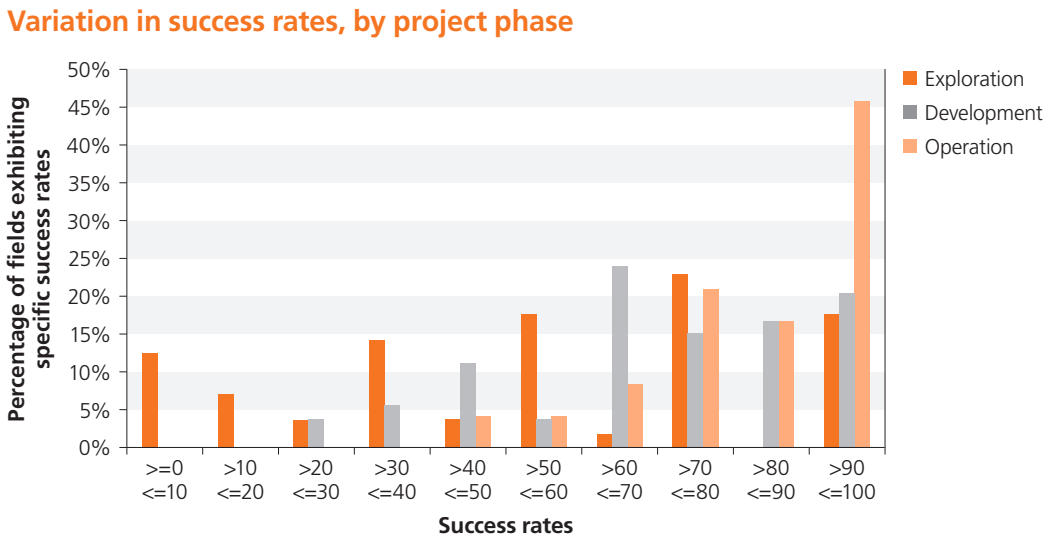
Figure 8 excludes wells with abnormally high capacities, as discussed in section 3.6, above.

4.3 Variation in Success, by Project Phase

An analysis of the variation in well success in each phase of field development (see Figure 9, below) shows that the Exploration Phase has the greatest range of well success rates, making forecasting of likely success very difficult. However, the database shows 63 percent of fields with well success rates of more than 50 percent in the Exploration Phase; and in 42 percent of fields the success rate exceeds 70 percent. Once a project enters the Development Phase the probability of successful wells being achieved is normally in the 60–70 percent range: the database indicates that 75 percent of fields demonstrated more than 60 percent of wells achieving success in this phase. In the Operation Phase, the most common success rate achieved is between 90 and 100 percent. From the investment perspective, therefore, the key challenge is to manage the disparate well failure risk in the various different phases of project development. This analysis suggests that once a project moves beyond the early Exploration Phase, the risks of failure become lower and more predictable.

5 S.K. Sanyal and J.W. Morrow, "Success and the Learning Curve Effect in Geothermal Well Drilling – A Worldwide Survey," (paper presented at the Thirty Seventh Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, California, January 30 - February 1, 2012). SGP-TR-194. Available at: https://pangea.stanford.edu/ERE/pdf/IGAstandard/SGW/2012/Sanyal.pdf.

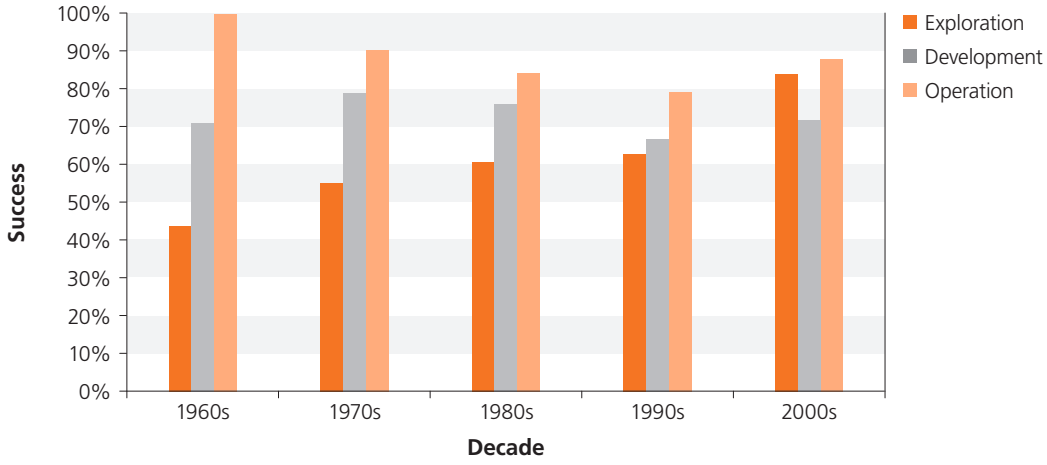
Figure 9:
Variation in success rates, by phase of development.



4.4 Improvements over Time

It would be reasonable to assume that surveying and drilling techniques have improved in recent decades, and that project developers and drilling companies are becoming more adept at locating and reaching geothermal resources. Figure 10, below illustrates trends in the successful drilling of wells for each decade since the 1960s, across each project phase.

Figure 10:
Improvements in drilling success rates over time, by project phase.



It would appear that the success rates of wells drilled during the Exploration Phase (i.e., the first five wells drilled) have improved significantly, although the difficulty of defining success in this phase (see section 2.3, above), combined with the wide variation (see section 4.3, above) makes it difficult to draw strong conclusions. A recent publication from IGA Service GmbH, supported by IFC, on mitigating risks in geothermal exploration could do much to further support developers during this critical stage.[6]

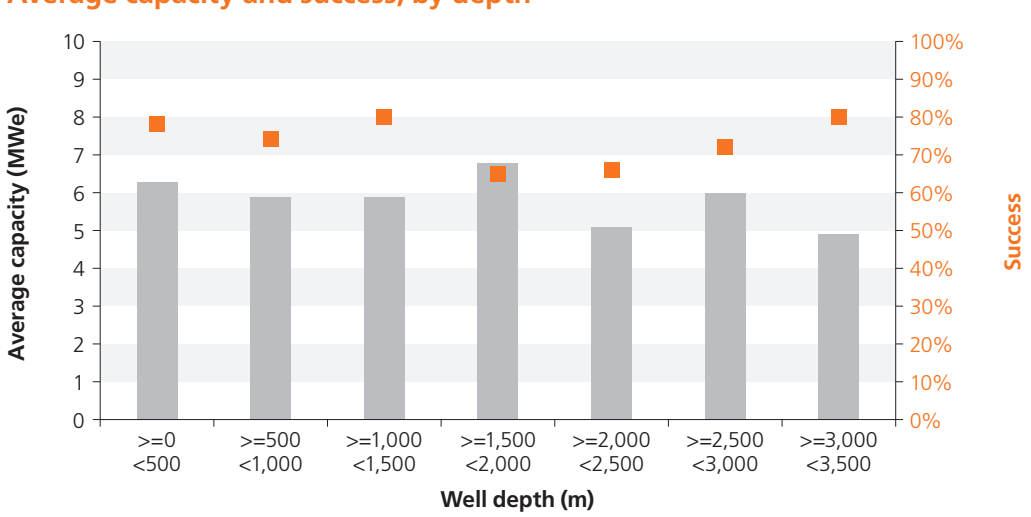
6 Geothermal Exploration Best Practices: A Guide to Resource Data Collection, Analysis, and Presentation for Geothermal Projects, IGA Service GmbH, (2013). Available at: http://www.geothermal-energy.org/ifc-iga_launch_event_best_practice_guide.html.

However, the same trend is not seen in other phases of project development, and success rates for wells drilled during the Operation Phase (i.e., all wells after the 30th well drilled) have generally decreased. This suggests that any improvements in technique have largely been achieved in the initial targeting of wells – the result of improvements in surveying and resource modeling techniques rather than actual drilling. The reduction in the success rate for wells drilled during the Operation Phase may also reflect over-exploitation of those resources into which such wells were drilled.

4.5 Impact of Well Depth

While a well must, of course, reach the reservoir in order to be successful, well depth does not show any clear trend in influencing either well capacity (MWe) or success, suggesting that other factors may be more significant here (see Figure 11, below).

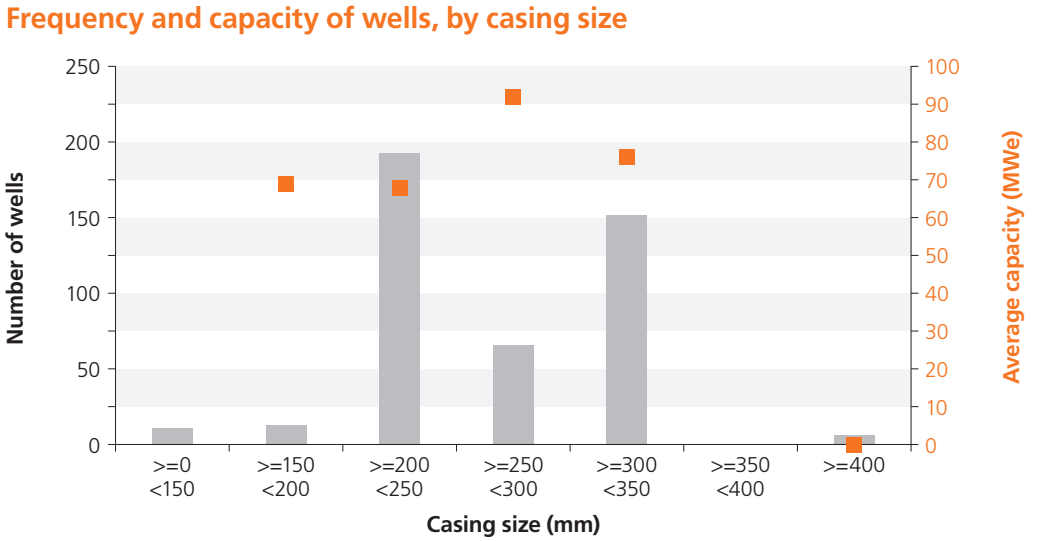
Figure 11:
Average well capacity (MWe) and success, by depth of development wells.



4.6 Impact of Casing Size

It might be assumed that the larger the diameter of a well casing, the greater the flow rate of geothermal fluid and, consequently, the greater the well capacity (MWe). Figure 12, below, however, suggests no obvious relationship between well capacity and casing size. Figure 12 illustrates the correlation between the number of wells by various casing sizes, and the average capacity of each. While most wells use casings of between 200 and 350mm in diameter ($7^{7}/_{8}$–$13^{3}/_{4}$"), there is no obvious relationship between casing size and well capacity (MWe). However, since data on casing size is only available for 441 wells, this result may not be significant. Larger well casings do allow higher flow rates. The casing size is determined before the well is drilled and (in the case of initial exploration wells), before the characteristics of the reservoir are known. Wells with larger casings are more expensive to drill; there is, therefore, a balance to be struck between drilling costs and the maximum flow rate of the well. For that reason, the casing sizes of the wells in the database may not be optimized to match resource characteristics, reducing any correlation between casing size and capacity.

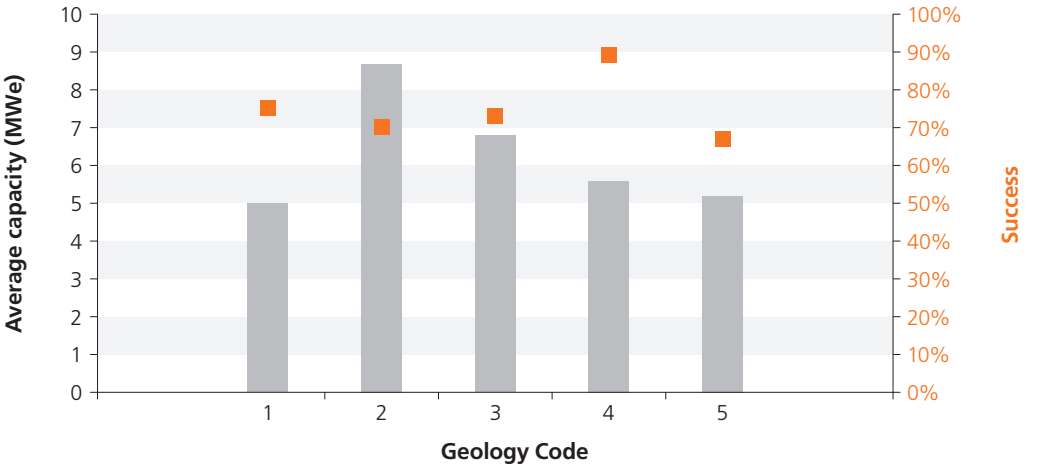
Figure 12:
Frequency and capacity of development wells (MWe), by casing size.



4.7 Impact of Geology

The highest probability of success is seen in sedimentary basins where wells are drilled above the basement (Geology Code 4, Figure 13, below). There is little variation in success rates between other geology types.

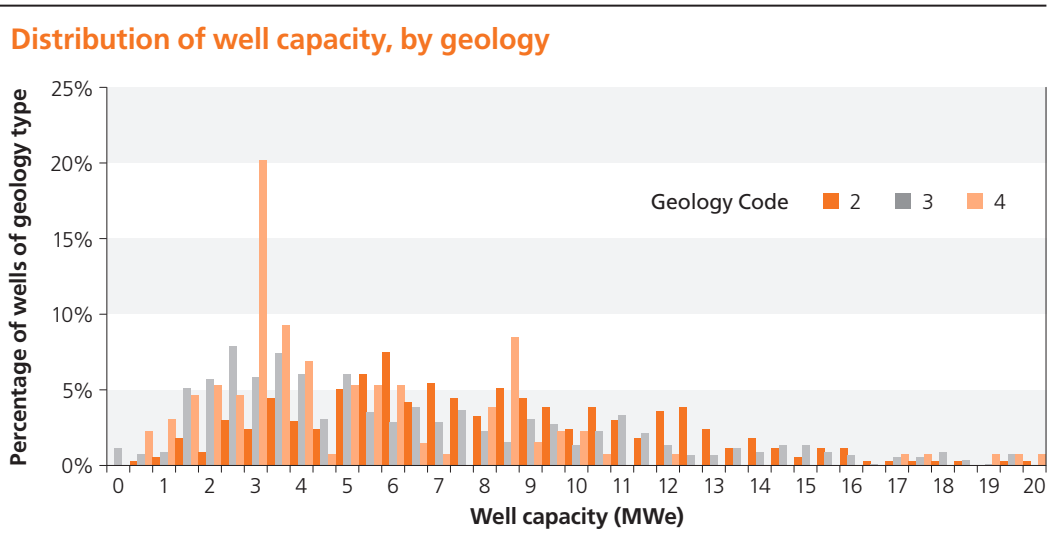
Figure 13:
Well capacity (MWe) and success rates of development wells, by geology.



The highest average capacities are seen in tertiary and older volcanic/volcaniclastic systems (Geology Code 2). This is consistent with expectations – old rocks are more likely to have significant fractures, which increases the permeability of the reservoir and so increases the productivity of the wells. Equally, granitic rock (Geology Code 1) has the lowest average capacity, typically the result of the characteristically low porosity and permeability of such rock, and the low incidence of fracturing.

Limited capacity data on the small number of wells located in fields of Geology Code types 1 and 5 makes it difficult to reliably assess the distribution of capacity for these geologies. However, Figure 14, below illustrates the distribution of well capacity for other Geology Codes.

Figure 14:
Distribution of well capacity (MWe) by geology.

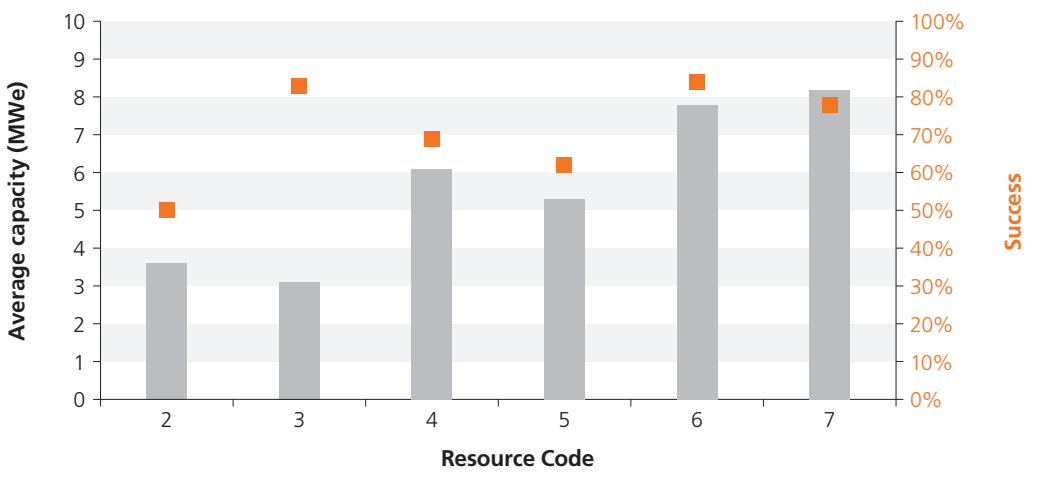


While data fluctuations make definite conclusions difficult to draw, it appears that fields with tertiary and older volcanic characteristics, in which large-scale volcanic structures are absent (Geology Code 2), tend to have higher capacity (a modal capacity of six MWe) in comparison with fields with younger volcanic features (Geology Code 3). Sedimentary basins where drilling is above the basement (Geology Code 4) have a modal capacity of 2.5–3 MWe. This may be because older volcanic structures are more fractured than other geology types, and so permeability of the reservoir is higher, allowing greater flow of geothermal fluids.

4.8 Impact of Resource Enthalpy

It might be reasonable to assume that higher enthalpy resources would result in higher-capacity wells. Figure 15, below, however shows that while this trend is, in general, consistent, discrepancies do occur, indicating other factors are important.

Figure 15:
Well capacity (MWe) and success of development wells, by resource code.



Further analysis suggests that the maximum capacity of a well does increase with increasing enthalpy. The modal capacities for Resource Codes 3, 5, and 6 are all three MWe, whereas those fields with a Resource Code of 4 or 7 have a modal capacity of 5.5 MWe and six MWe, respectively. Enthalpy is not correlated to well success, however, implying that higher-temperature fields do not necessarily yield more successful wells.

4.9 Combining Geology and Enthalpy

As previously mentioned in section 3.3, above the combination of the Geology Code and Resource Code gives an approximate representation of a well's production potential. Table 3, below illustrates the average capacities of various combinations of geology and resource type.

Table 3: **Combined impact of geology and resource types on average capacities (MWe).**

Average capacity (MWe)		Geology Code				
		1	2	3	4	5
Resource Code	1					
	2					3.6
	3		3.4		3.0	
	4	4.8	6.4	6.7		6.1
	5	5.0	5.9	5.4		
	6			7.6	8.2	
	7		8.4	6.9		

These data suggest that various combinations of geology and resource type can give rise to considerable variation in average capacity, although it would appear resource type has a greater impact than geology type.

A regression analysis (Annex C, below) carried out on the impact of geology and resource type on well capacity suggests that about 11 percent of the variation in anticipated energy output is explained by those two factors. A full analysis of variance gives the following anticipated well capacities (MWe) for different combinations of Resource and Geology Codes (see Table 4, below).

Table 4: **Anticipated well capacity (MWe).**

Average capacity (MWe)		Geology Code				
		1	2	3	4	5
Resource Code	1					
	2					
	3	2.8	4.3	3.3		3.4
	4	5.5	6.9	5.9		6.1
	5	5.0	6.4	5.4		5.6
	6	8.4	9.8	8.8		9.0
	7	7.0	8.5	7.5		7.6

No data is available for Resources Codes 1 and 2, nor for Geology Code 4 in Table 4 as these were used as "dummy variables" for the analysis.

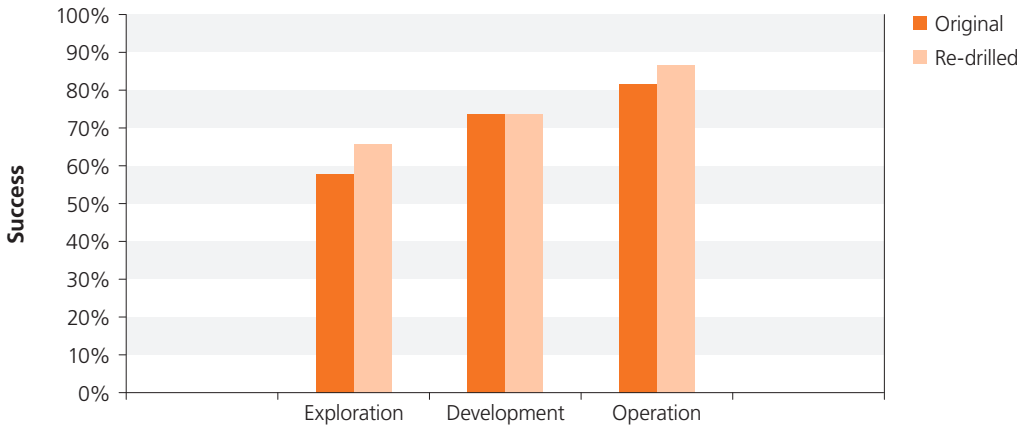
4.10 Impact of Re-drilling

Sixteen percent of the wells cited in the database have been re-drilled. This proportion does not show significant variation across the different project phases (Exploration, Development, and Operation). A well is only re-drilled if the original well was unsuccessful. Overall, the average success rate of re-drilled wells is 87 percent, compared with 77 percent for original

wells. Success rates for re-drilled wells are higher than success rates for original wells in the Exploration and Operation Phases. The success rate of re-drilled wells in the Development Phase is consistent with the success rate of original wells (Figure 16, below). This clearly shows the value of re-drilling (where that option is possible and viable), since re-drilling is generally less expensive than drilling a new well.

Figure 16:
Impact of re-drilling on success rates, by project phase.

Average success of original and re-drilled wells, by stage



The effectiveness of re-drilling is strongly linked to field characteristics. Twenty one percent of the fields in the database indicate a success rate of less than 10 percent under re-drilling, but 49 percent indicate a probable success rate in excess of 90 percent (Figure 17, below). Only a few fields demonstrate moderate success rates.

Figure 17:
Variations in success rates of original and re-drilled development wells.

Variations in success rates of original and re-drilled wells

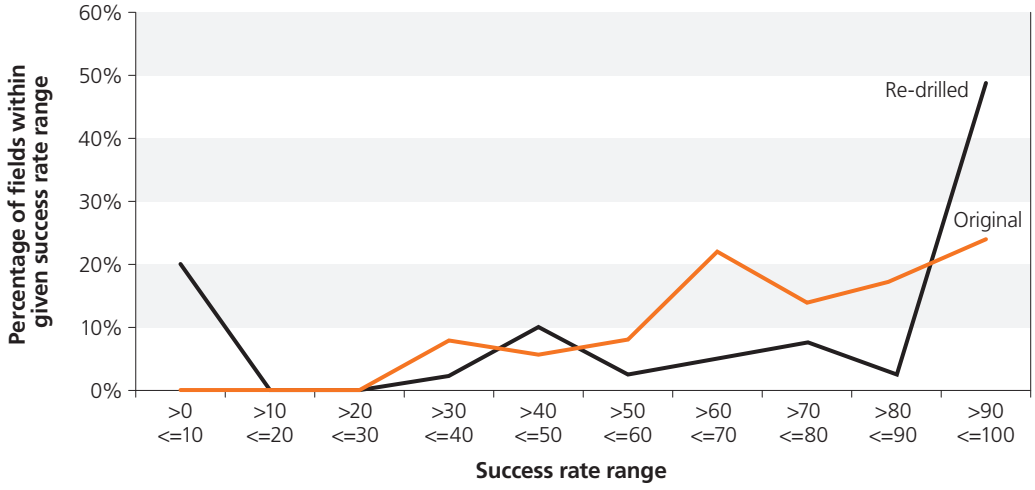
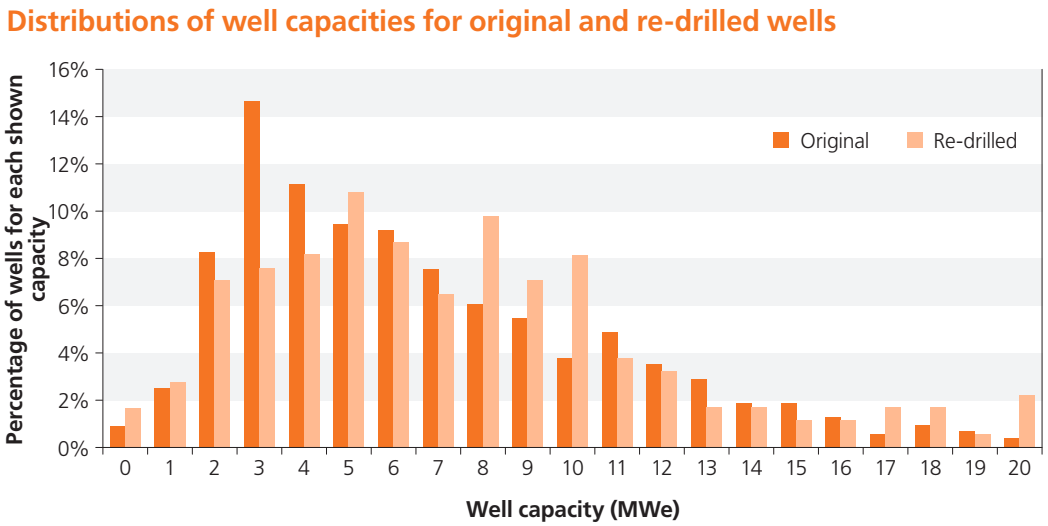


Figure 18, below suggests that re-drilled wells do exhibit slightly higher average capacity (eight MWe compared with seven MWe for original wells) and modal capacity (five MWe compared with three MWe for original wells).

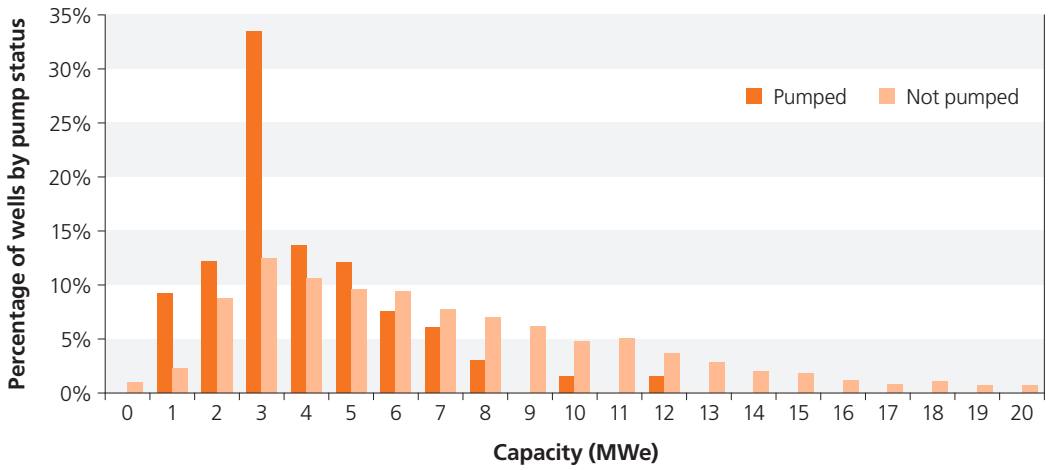
Figure 18:
Distribution of well capacities (MWe) for original and re-drilled wells.



4.11 Impact of Pumping

One hundred and forty seven wells in the database are pumped, while the remainder are not. Wells are only pumped if they are at least partially successful. Figure 19, below illustrates that the distributions of capacities for pumped and non-pumped wells are approximately the same, suggesting that there is little benefit in pumping wells that do not require it. The small sample size makes it difficult to draw strong conclusions, however.

Figure 19:
Distribution of capacity for pumped and non-pumped wells.



5. Conclusions

The "success rate" of geothermal wells is an awkward concept. It is best represented by a calculation of the return on investment (ROI) for each well. In the absence of such data, however, a reasonable approximation might be the drilling cost of a well vs. its capacity.

No such cost data was available during the compilation of this report, however, and for the purposes of this analysis a well is assumed to be successful only if its capacity exceeds a specific threshold. In most cases this threshold is set at three MWe or higher, except in those instances where field data indicates that wells with a lower capacity remain connected to power plants.

Similarly, injection wells that have been active for a long time are also deemed to be successful wells, since a genuinely unsuccessful well is unlikely to be used as an injector in the long term.

5.1 Key Findings

1. Eighty five percent of the wells in the database were drilled in fields with the following geology and resource characteristics (in decreasing order of occurrence).

Table 5: **The most frequently occurring geology and resource characteristics of wells in the database.**

Geology	Resource fluids	No. of wells
Younger volcanic/volcaniclastic (large-scale volcanic structures (volcanoes, calderas) preserved)	Ultra-high temperature	539
Younger volcanic/volcaniclastic (large-scale volcanic structures (volcanoes, calderas) preserved)	High temperature	522
Tertiary and older volcanic/volcaniclastic (large-scale volcanic structures absent)	100 percent steam	378
Sedimentary basin (clastic, drilled above basement)	Ultra-high temperature	257
Sedimentary basin (clastic, drilled above basement)	Low temperature	178
Younger volcanic/volcaniclastic (large-scale volcanic structures (volcanoes, calderas) preserved)	Moderate temperature	155
Granitic/higher-grade metamorphic	High temperature	150

2. Of those wells analyzed, 68 percent were deemed to be successful and 20 percent unsuccessful. The status of the remainder (12 percent) could not be verified. Of those wells for which status could be verified, 78 percent were successful.

3. The probability of a well being successful increases in accordance with the number of wells drilled in a field, demonstrating a strong "learning curve" effect. The average capacities of wells do not show the same trend, however.

4. Of the 52 fields analyzed, the poorest-performing field achieved a success rate of only 35 percent. However, two thirds of all fields surveyed recorded success rates in excess of 60 percent. This demonstrates that the probability of success varies widely across fields – a finding which further emphasizes the unique characteristics of individual geothermal fields.

5. There is no reasonable basis for forecasting the probability of success in the Exploration Phase of a project (defined here as the first five wells). In 63 percent of fields, more than 50 percent of wells proved successful in the Exploration Phase. This low average success rate across exploration wells serves to confirm the high risks of initial drilling, as well as driving high return expectations for early-stage investors. It is clear, therefore, that every effort should be made to reduce risk in the Exploration Phase. This can be partly achieved through the implementation of international best practice in geothermal exploration (to which end IGA Service GmbH has published its *Geothermal Exploration Best Practice Guide*, supported by IFC),[7] through the use of the most current cutting-edge technologies and techniques, and through the input of specialists in the field. This also emphasizes the role of public-sector involvement in geothermal exploration, where public interest may make the inherent higher risks (and lower financial returns) more acceptable.

6. The success rate for wells drilled during the Exploration Phase has steadily improved in recent decades. The success rate in later project phases has not shown the same improvement, however, suggesting that the most effective improvements have been made in the surveying and modeling of reservoirs rather than in drilling per se.

7. A success rate of between 60 and 70 percent was found to be the most common outcome for wells drilled during the Development Phase (the median success rate for wells drilled during the Development Phase is 72 percent). In seventy six percent of all fields surveyed more than 60 percent of wells drilled during the Development Phase were deemed to be successful.

8. Eighty three percent of fields surveyed indicated a success rate of more than 70 percent for wells drilled during the Operation Phase. The modal average success rate for wells drilled in the Operation Phase was 90–100 percent.

9. The modal capacity of all wells surveyed was found to be three MWe. However, 21 percent of all wells surveyed demonstrate a power capacity in excess of 10 MWe (the maximum power capacity recorded for a single well is 52 MWe). This data is useful in estimating the number of wells required for specific power plant capacity in initial project planning.

10. Geothermal wells have successfully been drilled to depths of between 100 m and 6,000 m. Most fields exhibit wells drilled to a wide range of depths: this could indicate the presence of multiple reservoirs in many fields, each at different depths. The depth of a well does not appear to have any impact on the likely success or capacity of a well (although clearly a well needs to reach the reservoir in order to be successful).

7 Geothermal Exploration Best Practices: A Guide to Resource Data Collection, Analysis, and Presentation for Geothermal Projects, IGA Service GmbH (2013). Available at: http://www.geothermal-energy.org/ifc-iga_launch_event_best_practice_guide.html.

11. Most wells use casing sizes of between 200mm and 250mm ($7^{7}/_{8}$–$9^{7}/_{8}$"). Casing size does not have any clear impact on capacity, however, although capacity is throttled by smaller casings.

12. There is considerable variation in well success rates, partially attributable to the underlying geology of the reservoir. The highest success rates are to be found in fields with a sedimentary basin in which drilling is above the basement.

13. The modal capacity of wells surveyed is three MWe. This is consistent across low-, high- and ultra-high-temperature resources. Moderate-temperature and 100-percent-steam resources exhibit modal capacities of 5.5–6 MWe, however. Maximum capacity, in general, increases as a function of the resource category (enthalpy).

14. Regression analysis shows that resource enthalpy does have a significant influence on average well capacity: 11 percent of a well's capacity (MWe) is influenced by a combination of geology and enthalpy.

15. Original and re-drilled wells exhibit no significant differences in capacity. Eighty seven percent of re-drilled wells in the database were deemed to be successful, in comparison with 77 percent of original wells.

16. The success rates of re-drilled wells can vary significantly: of the 31 fields for which such data was available, eight of the fields in the database recorded success rates of under 10 percent on re-drilled wells; 19 other fields with re-drilled wells, however, recorded success rates of more than 90 percent. This variation is attributable to the field in which such wells are located.

17. The statistical distributions of well capacities are similar for both self-flowing and pumped wells, with a peak of three MWe for both.

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ANNEX A
Geothermal fields covered in the database

Country	Field name	Capacity (MWe)
USA - CA	Coso	270
USA - CA	Geysers	1,800
USA - CA	Heber	110
USA - CA	Salton Sea	330
USA - CA	East Mesa	100
USA - CA	North Brawley	50
USA - CA	Surprise Valley	0
USA - HI	Puna	30
USA - ID	Raft River	13
USA - NM	Baca Ranch	0
USA - NV	Beowawe	17
USA - NV	Blue Mountain	50
USA - NV	Brady's	26
USA - NV	Desert Peak	13
USA - NV	Dixie Valley	62
USA - NV	Tuscarora	0
USA - NV	Rye Patch	13
USA - NV	Salt Wells	19
USA - NV	Soda Lake	26
USA - NV	Steamboat Springs	138
USA - NV	Stillwater	47
USA - UT	Roosevelt	36

Country	Field name	Capacity (MWe)
Azores	Pico Alto	0
Costa Rica	Las Pailas	0
Costa Rica	Miravalles	165
El Salvador	Ahuachapan	95
El Salvador	Berlin	104
Guatemala	Amatitlan	24
Guatemala	Zunil	24
Indonesia	Bedugul	0
Indonesia	Darajat	260
Indonesia	Dieng	60
Indonesia	Kamojang	200
Indonesia	Karaha	0
Indonesia	Patuha	0
Indonesia	Sarulla	0
Indonesia	Wayang Windu	227
Italy	Latera	40
Italy	Mofete	0
Japan	Okuaizu	65
Japan	Uenotai	29
Kenya	Olkaria	160
Mexico	Cerro Prieto	720
New Zealand	Wairakei	212
New Zealand	Ohaaki	115
Nicaragua	San Jacinto	10
Nicaragua	Momotombo	77
Philippines	Bacman	150
Philippines	Mahiao	142
Philippines	MakBan	457
Philippines	Mindanao	103
Philippines	Negros	240
Philippines	Tiwi	334
Philippines	Malitbog	233
Philippines	Tongonan	112
Turkey	Germencik	47
Turkey	Kizildere	20

Total capacity 7,575MWe

ANNEX B
Estimating well power capacity

The power capacity (MWe) of a self-flowing or pumped well can be estimated as outlined in Sanyal et al (2007).[8] The relevant issues in assessing the power capacity of both self-flowing and pumped wells are outlined below.

B.1 Self-flowing Wells

From the value of the Productivity Index *(PI)* of a well and maximum allowable pressure drawdown, one can calculate the maximum available production rate *(W)* in kg/s of fluid using:

$$W = (PI)\,\Delta p \qquad (1)$$

where:

$$\Delta p = p_i - p \qquad (2)$$

Data from commercial geothermal wells show a wide range in PI, from about 1 l/s/bar for marginally sub-commercial wells to as high as 40 l/s/bar for exceptionally prolific wells; a good geothermal production well typically shows a PI on the order of 10 l/s/bar.

In equation (2), p_i is initial static pressure in the reservoir and p is flowing bottom-hole pressure at the well, which will decline with time if the well is producing at a constant rate W. It should be noted that Δp is more commonly defined as $(\bar{p} - p)$, where $\bar{p}$ is average static reservoir pressure. Therefore, for a well flowing at a constant rate, p (and consequently PI) declines with time. This decline trend in PI is a function of the hydraulic properties and boundary conditions of the reservoir, and interference effects between wells (if several wells are active simultaneously). For such estimation, it is customary to utilize the so-called "Line-source Solution" of the partial differential equation describing transient pressure behavior in a porous medium filled with a single-phase liquid (Earlougher, 1977).[9] This solution gives the production rate *(W)* from a single well in an infinite system as:

$$W = \frac{2\pi(kh)\rho\Delta p}{\mu p_D} \qquad (3)$$

where:

k = reservoir permeability
h = net reservoir thickness
kh = reservoir flow capacity
ρ = fluid density
μ = fluid viscosity and
p_D = a dimensionless variable that is a function of time.

In equation (3), p_D is given by:

$$p_D = -\frac{1}{2} Ei\left(\frac{-r_D{}^2}{4t_D}\right) \qquad (4)$$

where:

$$t_D = dimensionless\ time = \frac{(kh)t}{(\phi c_t h)\mu r_W{}^2} \qquad (5)$$

8 S.K. Sanyal, J.W. Morrow and S.J. Butler, "Geothermal Well Productivity: Why Hotter is Not Always Better." Geothermal Resources Council: Transactions. 31. (2007): 573–579.
9 Earlougher, R.C. (1977). Advances in Well Test Analysis. SPE Monograph Vol. 5, Society of Petroleum Engineers, Dallas, Texas.

$\varphi c_t h$ = reservoir storage capacity
c_t = total compressibility of rock plus fluid
φ = reservoir porosity
t = time
r_D = dimensionless radius = r/r_w,
r = distance between the "line source" and the point at which the pressure is being considered (equal to well-bore radius if flowing well-bore pressure is being considered) and
r_w = well-bore radius.

In equation (4), Ei represents the Exponential Integral, defined by

$$Ei(-x) = -\int_x^{\infty} \frac{e-u}{u} du \qquad (6)$$

It is seen that the flow capacity (i.e., permeability-thickness product) of a commercial well generally lies within the range of 1 to 100 Darcy-meter (D-m).

Equation (3) is true if the well-bore skin factor is zero – i.e., if the well-bore flow efficiency is 100 percent, the well being neither damaged nor stimulated. If the skin factor(s) is positive (i.e., the well-bore is damaged), for the same flow rate W there will be an additional pressure drop given by:

$$\Delta p_{skin} = \frac{W\mu}{2\pi(kh)\rho} .s \qquad (7)$$

Productive geothermal wells usually display a small negative skin factor, which implies a "stimulated" well (i.e., the well-bore flow efficiency is greater than 100 percent), because such wells intersect open fractures.

The next step is to estimate the net power available from the production rate of W. It is possible to estimate the fluid requirement per kilowatt power capacity, or kilowatt capacity equivalent of a given fluid supply rate, from:

$$Electrical\ energy\ per\ kg\ of\ fluid = eW_{max} \qquad (8)$$

where:

e = utilization efficiency of the power plant and
W_{max} = maximum thermodynamically available work per kg of fluid.

W_{max} in equation *(8)* is derived from the First and Second Laws of Thermodynamics:

$dq = c_p dT$, and (9)
$dWmax = dq(1-T_o/T)$, (10)

where:

c_p = specific heat of water
T = resource temperature (absolute) and
T_o = rejection temperature (absolute).

For calculation of power capacity, T_o can be assumed to be the average ambient temperature (assumed to be 15°C). For the most efficient water-cooled binary power plants, a value of 0.45 can be assumed for utilization efficiency. From the above equations, the fluid requirement per MWe (gross) generation, not counting the parasitic load of production and injection pumps and power plant auxiliaries, can be estimated. We have considered

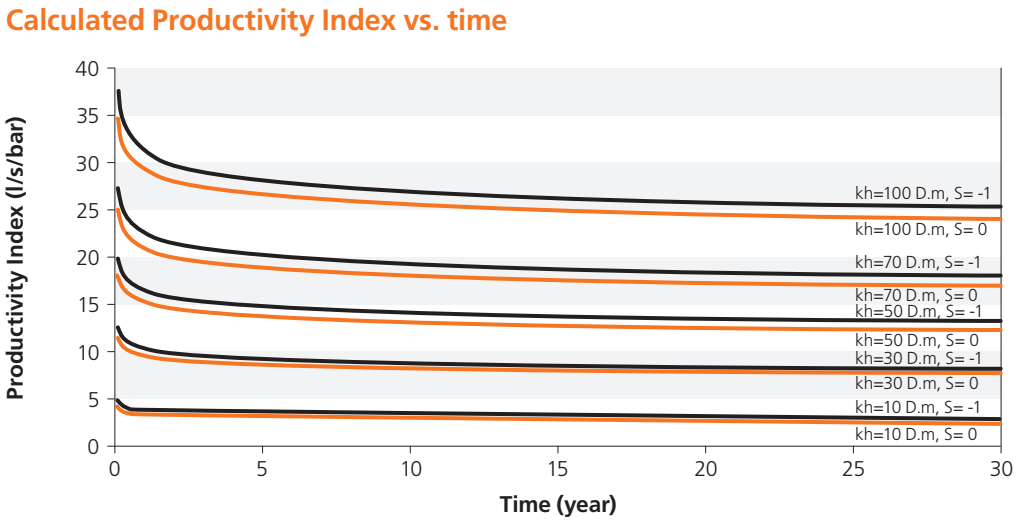
self-flowing wells tapping a reservoir at a temperature of 190°C or more. Table B1, below summarizes the important assumptions used for self-flowing wells in the following analysis.

Table B1:
Parameters used for analysis of self-flowing wells.

Well depth	Variable
Well casing diameter below pump	$9^{5}/_{8}$ inches (244.47 mm)
Reservoir temperature	Variable
Static reservoir pressure	Hydrostatic
Gas content in water	0
Relative roughness of casing wall	0.018 cm
Steam separation pressure	4.46 bar (g)
Steam requirement per MWe generated	2.27 kg/s

This flow behavior analysis has been conducted by numerical well-bore simulation based on the estimated PI of the well. To decide on the appropriate range of PI values to be used in this study, we calculated the PI for estimated ranges of flow capacity (Figure B1) and a skin-factor range of zero to minus one.

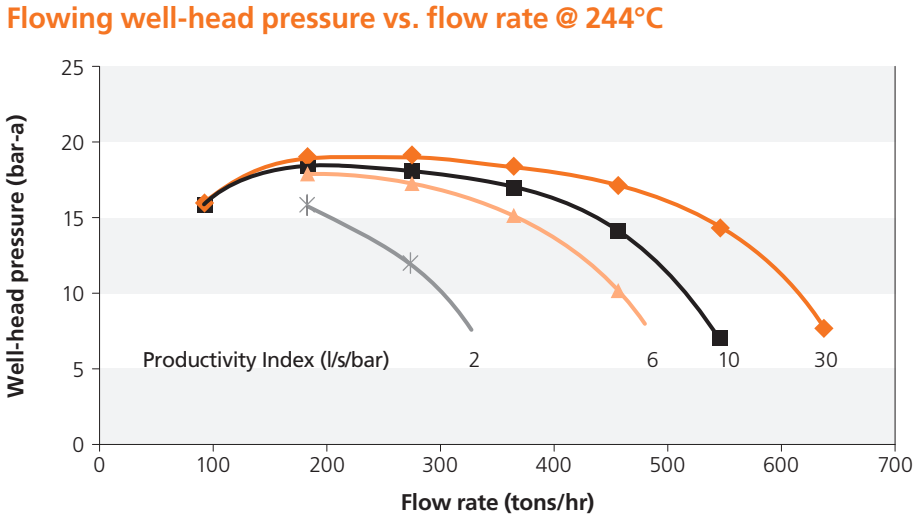
Figure B1:
Change in Productivity Index (PI) over time.



Based on Figure B1, above we chose two to 30 l/s/bar as the broadest realistic range of PI for commercial wells producing from a 100°C to 250°C reservoir.

Numerical well-bore simulation allows the estimation of well-head power capacity vs. flowing well-head pressure, taking into account the hydrostatic, frictional, and acceleration pressure gradients; well-bore heat loss; phase change; steam separation pressure; and steam required by the power plant per MWe. Figure B2, below is an example of the calculated "deliverability curve" of a 2,743m- (9,000ft-) deep self-flowing well for a range of PI values from a 244°C reservoir. Figure B2 presents the simulated well-head pressure as a function of the total flow rate (steam plus water).

Figure B2:
Flowing well-head pressure vs. flow rate @ 244°C.



From this figure and using the assumptions in Table B1, above we can estimate the net capacity of the well for various *PI* values given an assumed steam separation pressure and steam requirement per MWe (Figure B3, below). Similar calculations were conducted for various temperature and *PI* values.

Figure B3:
Net MW capacity vs. temperature for self-flowing wells (flash-cycle power generation).

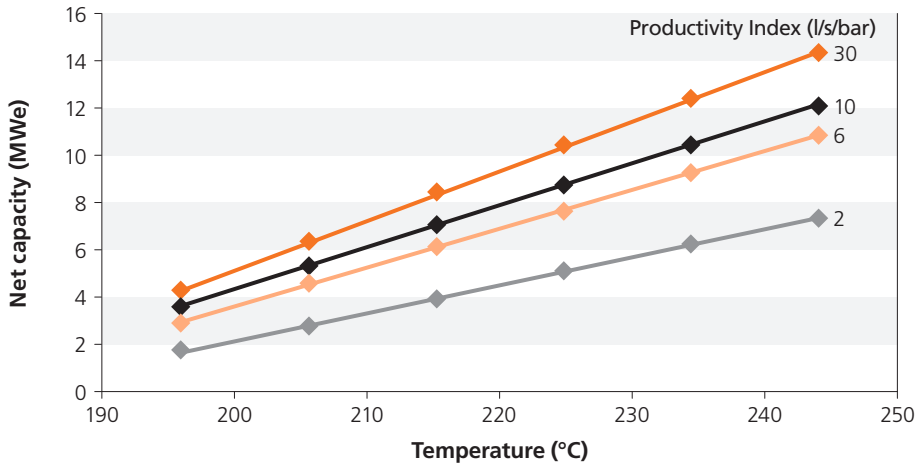


Figure B3 demonstrates that there is no upper limit to the net capacity of a self-flowing well, which is a nearly linear function of temperature, the slope of this linear trend increasing slightly with increasing *PI*.

B.2 Power Capacity of Pumped Wells

In a pumped well, the water level must lie above the pump intake to avoid pump cavitations. For any given pump-setting depth, the maximum available pressure drawdown *(Δp)* in a pumped well without the risk of cavitation can be estimated from:

$$\Delta p = p_i - (h - h_p)G - p_{sat} - p_{gas} - p_{suc} - p_{fr} - p_{sm}, \qquad (11)$$

where:

p_i = initial static reservoir pressure
h = depth to production zone
h_p = pump setting depth
G = hydrostatic pressure gradient at production temperature
p_{sat} = fluid saturation pressure at production temperature
p_{gas} = gas partial pressure
p_{suc} = net positive suction head required by the pump
p_{fr} = pressure loss due to friction in well between h and h_p and
p_{sm} = additional safety margin to ensure that cavitation does not occur at pump intake.

The pressure loss due to friction *(p_{fr})* in equation *(11)* can be calculated as follows:

$$p_{fr} = \frac{f\rho v^2}{2g_c}(h - h_p) \qquad (12)$$

where:

f = Moody friction factor
v = fluid velocity in the well
ρ = fluid density
d = internal diameter of the well bore and
g_c = gravitational unit conversion factor.

The maximum available pressure drawdown can be calculated from equations *(11)* and *(12)*. The pump can be set as deep as 457 m (1,500 ft) if a line-shaft pump is used, but if an electric submersible pump is used it can be set considerably deeper. However, industry experience with electric submersible pumps is quite limited to date. We have assumed a maximum pump setting depth of 457 m so that either line-shaft or electric submersible pumps can be considered.

The power required for pumping must be subtracted from the gross power available from the pumped well. The power required by a pump operating at the maximum allowable drawdown condition is given by:

$$Pumping\ power = (W.H/E_p + h_pL)/E_m, \qquad (13)$$

where:

H = total delivered head
L = shaft horsepower loss per unit length
E_p = pump efficiency and
E_m = motor efficiency.

In equation *(13)*, H is given by:

$$H = (p_d - p_{sat} - p_{gas} - p_{sm})/G + h_p, \qquad (14)$$

Where p_d = pump discharge pressure.

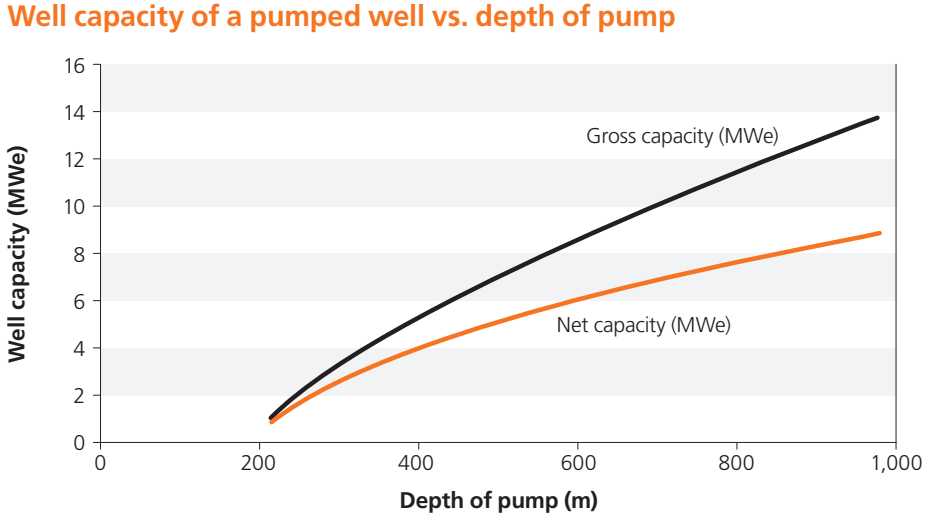
Table B2, below lists the various parameters we have used for the analysis of pumped flow in this exercise.

Table B2:
Parameters used for analysis of pumped flow.

Productivity Index (PI)	Variable
Reservoir temperature	Depends on well depth
Static reservoir pressure	Hydrostatic
Gas partial pressure	0 bar
Pump-suction pressure	3.75 bar
Pressure safety margin	0.68 bar
Relative roughness	0.018 cm
Well-casing diameter above pump	$13^{3}/_{8}$" (339.72 mm)
Well-casing diameter below pump	$9^{5}/_{8}$" (244.47 mm)
Pump discharge pressure	7.2 bar (g)
Pump efficiency	0.75
Motor efficiency	0.95
Power loss per unit length of pump shaft (assuming electric submersible pump)	0
Rejection temperature	21°C
Utilization factor	0.45

Figure B4, below shows an example of the calculated gross and net power capacities versus pump-setting depth for a pumped well with a PI of 10 l/s/bar and producing from a 185°C reservoir at 3,800 m deep.

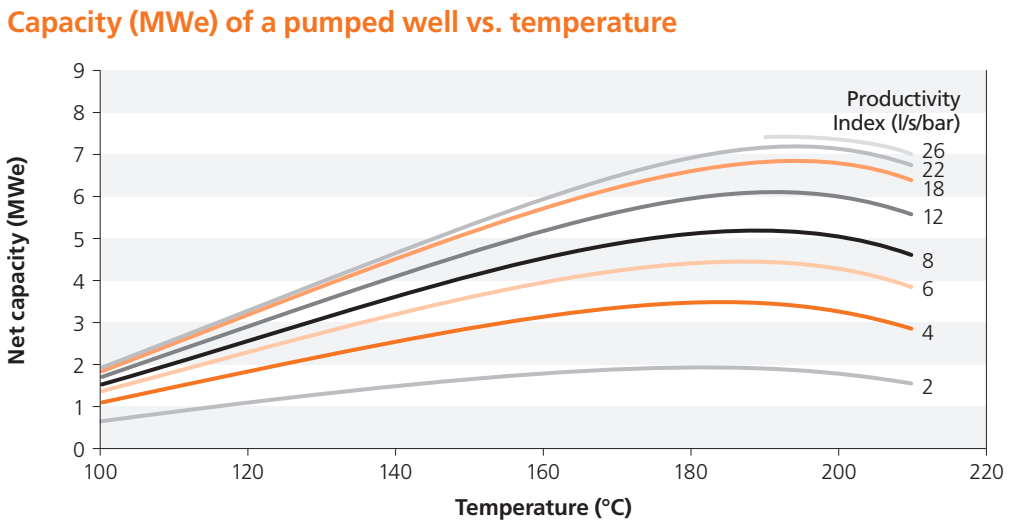
Figure B4:
Net capacity of a pumped well as a function of pump-setting depth.



The vertical separation between the gross and net capacity curves in Figure B4, above represents the parasitic power consumed. This figure shows that with increased pump-setting depth the gross and net capacities increase slowly, but the parasitic load increases rapidly. Given the practical limit of 457 m (1,500 ft) in pump-setting depth today, this well has net a generation capacity of 6.3 MWe. Figure B4 indicates that increasing the maximum possible pump-setting depth beyond 457 m and the maximum possible pumping rate beyond 160 l/s (2,500 gallons per minute) will increase the net power capacity available from a well.

Figure B5, below illustrates the calculated net power capacity of a pumped well vs. temperature for a range of PI values.

Figure B5:
Net capacity of a pumped well vs. temperature (binary-cycle power generation).



This figure shows that for any PI value the net power capacity of a well increases monotonically with temperature until it reaches a maximum at a temperature level of 190–200°C, depending on the well's PI. After reaching this maximum, the net capacity of the well declines with increasing temperature. This decline in net capacity with temperature reflects the decline in the maximum available drawdown which, in turn, is caused by the increasing vapor pressure with temperature.

Figure B5, above shows that little gain in net well capacity (MWe) can be achieved by raising the operating temperature limit of commercial pumps beyond 190°C. Figure B5 shows that irrespective of how high the PI is, a pumped well today cannot deliver significantly more than about 7.3 MWe (net). It should be noted that this maximum capacity was estimated assuming a zero gas saturation in the produced water. The higher the dissolved gas saturation in water the lower will be the available drawdown; this will reduce the maximum net power capacity of a pumped well.

Figure B5, above also presents the relationship between net power capacity and PI for various temperatures. This figure shows that for any temperature level, the net capacity is very sensitive to PI when PI is low; for prolific wells the net capacity is not too sensitive to PI.

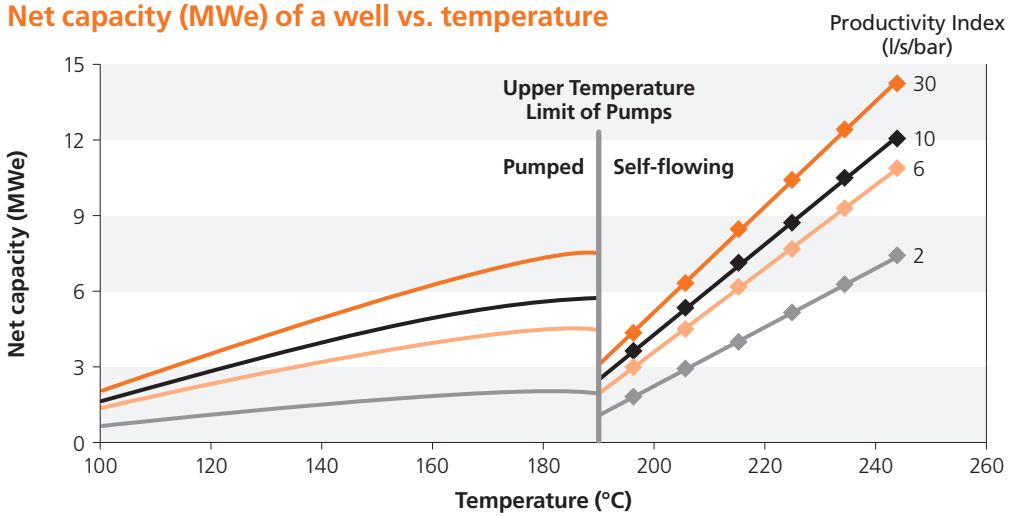
B.3 Summary of Results

Figure B6, below is a composite of the results for pumped and self-flowing wells.

This figure shows that between 190°C and 220°C, a self-flowing well has less power capacity than the maximum net capacity of a pumped well with the same PI.

If a net power capacity higher than 7.3 MWe is sought, either the pumping rate should be greater than 2,500 gpm or the reservoir temperature must be greater than about 220°C.

Figure B6:
Net capacity of a well vs. temperature.



For exceptionally prolific wells this "break point" may be as low as 210°C. In other words, if the reservoir temperature is less than 220°C, the maximum available net power capacity of a geothermal well is 7.3 MWe, whether the well is pumped or self-flowing, and irrespective of how high its PI is. The only way this barrier in net power capacity can be breached is by increasing the maximum pumping rate possible from a pump and making it practically feasible to deepen the pump setting beyond 457 m (1,500 ft). However, for self-flowing wells, there appears to be no way to increase the maximum level of net power capacity beyond this 7.3 MWe limit unless reservoir temperature is greater than about 220°C.

ANNEX C

Analysis of impact of geology and resource types on well capacity (MWe)

The following tables summarize the outputs from a regression analysis which attempted to determine the extent to which Geology Code and Resource Code impact the average capacity of wells.

Summary output

Regression Statistics	
Multiple R	0.34
R Square	0.11
Adjusted R Square	0.11
Standard Error	5.16
Observations	1,087

Analysis of variance

	df	SS	MS	F	Significance F
Regression	9.00	3,643.11	404.79	15.19	0.00
Residual	1,077.00	28,699.78	26.65		
Total	1,086.00	32,342.89			

The null hypothesis for the F test is that there is no correlation between the independent and dependent variables. This result shows that we can safely reject the hypothesis and prove that at least one variable is statistically significant to the expected energy output.

Impact and significance of each independent variable

	Coefficients	Standard error	t Stat	P-value	Lower 95 percent	Upper 95 percent
Intercept	3.20	3.48	0.92	0.36	–3.63	10.04
Geology 1	–0.17	0.94	–0.18	0.86	–2.02	1.68
Geology 2	1.29	0.88	1.46	0.14	–0.44	3.02
Geology 3	0.28	0.68	0.41	0.68	–1.05	1.60
Geology 5	0.43	2.34	0.18	0.85	–4.16	5.02
Resource 3	–0.22	3.53	–0.06	0.95	–7.14	6.71
Resource 4	2.44	3.24	0.75	0.45	–3.91	8.79
Resource 5	1.93	3.43	0.56	0.57	–4.80	8.66
Resource 6	5.35	3.43	1.56	0.12	–1.39	12.09
Resource 7	4.01	3.44	1.17	0.24	–2.73	10.76

ANNEX D

Well database

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.1.1	1	5	12/29/1981	1	Unknown	Production	6.30	12/1989	664	340 mm to 381 m	Y	N	N
1.1.2	1	5	1982	2	Unknown	Injector					N	N	N
1.1.3	1	5	1982	3	Unknown	Injector					N	N	N
1.1.4	1	5	1/29/1982	4	Unknown	Injector			1,231	340 mm to 431 m	N	N	N
1.1.5	1	5	2/22/1982	5	Unknown	Production	5.00		839	333 mm to 386 m	Y	N	N
1.1.6	1	5	3/10/1982	6	Unknown	Production	0.70	12/1989	405	244 mm to 297 m	Y	N	N
1.1.7	1	5	3/29/1982	7	Unknown	Production	3.70	12/1989	465	244 mm to 300 m	Y	N	N
1.1.8	1	5	4/22/1982	8	Unknown	Production	2.80		623	244 mm to 312 m	Y	N	N
1.1.9	1	5	1985	9	Unknown	Production					Y	N	N
1.1.10	1	5	1985	10	Unknown	Abandoned					N	N	N
1.1.11	1	5	1985	11	Unknown	Injector					N	N	N
1.1.12	1	5	1986	12	Unknown	Injector					N	N	N
1.1.13	1	5	1986	13	Unknown	Abandoned					N	N	N
1.1.14	1	5	1986	14	Unknown	Production	0.00				Y	N	N
1.1.15	1	5	7/19/1986	15	Unknown	Production	2.80		523	244 mm to 290 m	Y	N	N
1.1.16	1	5	8/25/1986	16	Unknown	Production	9.00	12/1989	715	340 mm to 318 m	Y	N	N
1.1.17	1	5	1987	17	Unknown	Injector					N	N	N
1.1.18	1	5	1987	18	Unknown	Production	5.00	12/13/1991			Y	N	N
1.1.19	1	5	1987	19	Unknown	Abandoned		12/13/1991			N	N	N
1.1.20	1	5	1987	20	Unknown	Production	7.50	12/13/1991			Y	Y	N
1.1.21	1	5	1987	21	Unknown	Injector					N	N	N
1.1.22	1	5	1987	22	Unknown	Production	1.70				Y	N	N
1.1.23	1	5	1987	23	Unknown	Production	3.50				Y	N	N
1.1.24	1	5	2/3/1987	24	Unknown	Production			1,168	340 mm to 291 m	Y	N	N
1.1.25	1	5	4/17/1987	25	Unknown	Production	5.10	12/1989	810	340 mm to 311 m	Y	N	N
1.1.26	1	5	6/10/1987	26	Unknown	Production	6.90	12/1989	813	340 mm to 316 m	Y	N	N
1.1.27	1	5	9/5/1987	27	Unknown	Production	3.30	12/1989	915	340 mm to 419 m	Y	N	N
1.1.28	1	5	10/12/1987	28	Unknown	Production	2.20		1,021	244 mm to 371 m	Y	N	N
1.1.29	1	5	11/7/1987	29	Unknown	Production	2.20		640	244 mm to 299 m	Y	N	N
1.1.30	1	5	1988	30	Unknown	Abandoned		12/13/1991			N	N	N
1.1.31	1	5	1988	31	Unknown	Production	8.70	12/13/1991			Y	Y	N
1.1.32	1	5	1988	32	Unknown	Production	5.00	12/13/1991			Y	Y	N
1.1.33	1	5	1988	33	Unknown	Production	2.20	12/13/1991			Y	N	N
1.1.34	1	5	1988	34	Unknown	Production	4.20	12/13/1991			Y	N	N
1.1.35	1	5	1988	35	Unknown	Production		12/13/1991			Y	Y	N
1.1.36	1	5	1988	36	Unknown	Production	5.60	12/13/1991			Y	N	N
1.1.37	1	5	1988	37	Unknown	Production	6.80	12/13/1991			Y	N	N
1.1.38	1	5	1988	38	Unknown	Production	5.00	12/13/1991			Y	N	N
1.1.39	1	5	1988	39	Unknown	Production	5.60	12/13/1991			Y	N	N
1.1.40	1	5	1988	40	Unknown	Abandoned		12/13/1991			N	N	N
1.1.41	1	5	1988	41	Unknown	Production	3.30	12/13/1991			Y	N	N
1.1.42	1	5	1988	42	Unknown	Production	3.70	12/13/1991			Y	N	N
1.1.43	1	5	1988	43	Unknown	Production	5.00	12/13/1991			Y	N	N
1.1.44	1	5	1988	44	Unknown	Abandoned		12/13/1991			N	N	N
1.1.45	1	5	1988	45	Unknown	Injector					N	N	N
1.1.46	1	5	1988	46	Unknown	Injector					N	N	N
1.1.47	1	5	1988	47	Unknown	Production					Y	N	N
1.1.48	1	5	1988	48	Unknown	Injector					N	N	N
1.1.49	1	5	1988	49	Unknown	Injector					N	Y	N
1.1.50	1	5	1988	50	Unknown	Injector					N	N	N
1.1.51	1	5	1988	51	Unknown	Production	4.10				Y	N	N
1.1.52	1	5	1988	52	Unknown	Production	10.80				Y	N	N
1.1.53	1	5	1988	53	Unknown	Production	12.40				Y	N	N
1.1.54	1	5	1988	54	Unknown	Production	3.80				Y	N	N
1.1.55	1	5	1/4/1988	55	Unknown	Production	9.80	12/1989	826	340 mm to 428 m	Y	N	N
1.1.56	1	5	2/4/1988	56	Unknown	Production			1,145	340 mm to 386 m	Y	Y	N
1.1.57	1	5	2/16/1988	57	Unknown	Production	5.60	12/1/1989	885	340 mm to 416 m	Y	N	N
1.1.58	1	5	3/14/1988	58	Unknown	Production	0.00		1,722	340 mm to 443 m	Y	N	N
1.1.59	1	5	3/15/1988	59	Unknown	Abandoned			1,239	340 mm to 435 m	N	N	N
1.1.60	1	5	3/15/1988	60	Unknown	Production	1.10		2,028	340 mm to 550 m	Y	N	N
1.1.61	1	5	4/8/1988	61	Unknown	Production	6.90	12/1989	662	340 mm to 362 m	Y	N	N
1.1.62	1	5	5/3/1988	62	Unknown	Unknown			2,067	340 mm to 451 m	N	Y	N
1.1.63	1	5	5/7/1988	63	Unknown	Production	3.30	12/1989	993	340 mm to 420 m	Y	N	N
1.1.64	1	5	5/11/1988	64	Unknown	Production	5.20	12/1/1989	1,304	340 mm to 543 m	Y	N	N
1.1.65	1	5	5/31/1988	65	Unknown	Injector			1,452	340 mm to 427 m	N	N	N
1.1.66	1	5	6/9/1988	66	Unknown	Production	3.80	12/1989	880	340 mm to 293 m	Y	Y	N
1.1.67	1	5	6/24/1988	67	Unknown	Production	8.10	12/1989	686	340 mm to 415 m	Y	N	N
1.1.68	1	5	7/19/1988	68	Unknown	Production	5.50	12/1989	814	340 mm to 432 m	Y	N	N
1.1.69	1	5	8/5/1988	69	Unknown	Production	8.50	12/1989	672	340 mm to 433 m	Y	N	N
1.1.70	1	5	8/22/1988	70	Unknown	Injector			2,041	340 mm to 429 m	N	N	N
1.1.71	1	5	9/22/1988	71	Unknown	Injector			2,245	340 mm to 607 m	N	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
1.1.72	1	5	10/6/1988	72	Unknown	Production	4.40		1,037	340 mm to 436 m	Y	N	N
1.1.73	1	5	12/9/1988	73	Unknown	Abandoned			2,235	340 mm to 532 m	N	N	N
1.1.74	1	5	1989	74	Unknown	Abandoned		12/13/1991			N	N	N
1.1.75	1	5	1989	75	Unknown	Abandoned		12/13/1991			N	N	N
1.1.76	1	5	1989	76	Unknown	Production	6.10	12/13/1991			Y	Y	N
1.1.77	1	5	1989	77	Unknown	Production	3.10				Y	N	N
1.1.78	1	5	1989	78	Unknown	Injector		12/13/1991			N	N	N
1.1.79	1	5	1989	79	Unknown	Production	1.90	12/13/1991			Y	N	N
1.1.80	1	5	1989	80	Unknown	Injector	1.90	12/13/1991			Y	N	N
1.1.81	1	5	1989	81	Unknown	Production	2.80	12/13/1991			Y	N	N
1.1.82	1	5	1989	82	Unknown	Production	6.20	12/13/1991			Y	N	N
1.1.83	1	5	1989	83	Unknown	Production	8.70	12/13/1991			Y	N	N
1.1.84	1	5	1989	84	Unknown	Abandoned		12/13/1991			N	Y	N
1.1.85	1	5	1989	85	Unknown	Production	2.50				Y	N	N
1.1.86	1	5	1989	86	Unknown	Production	3.70	12/13/1991			Y	N	N
1.1.87	1	5	1989	87	Unknown	Production	3.10	12/13/1991			Y	N	N
1.1.88	1	5	1989	88	Unknown	Production	3.70	12/13/1991			Y	N	N
1.1.89	1	5	1989	89	Unknown	Production	3.70				Y	Y	N
1.1.90	1	5	1989	90	Unknown	Production	7.50	12/13/1991			Y	N	N
1.1.91	1	5	1989	91	Unknown	Production	8.30				Y	Y	N
1.1.92	1	5	1989	92	Unknown	Production	6.20				Y	N	N
1.1.93	1	5	1989	93	Unknown	Production	3.70				Y	N	N
1.1.94	1	5	1989	94	Unknown	Production	5.00				Y	N	N
1.1.95	1	5	1989	95	Unknown	Production					Y	N	N
1.1.96	1	5	1990	96	Unknown	Injector					N	Y	N
1.1.97	1	5	5/30/1990	97	Unknown	Production			1,225	340 mm to 1,225 m	Y	N	N
1.1.98	1	5	6/24/1990	98	Unknown	Production	2.80		1,500	340 mm to 1,500 m	Y	Y	N
1.1.99	1	5	1991	99	Unknown	Production	7.20				Y	N	N
1.1.100	1	5	1991	100	Unknown	Production	6.90	12/13/1991			Y	N	N
1.1.101	1	5	1991	101	Unknown	Production	5.90	12/13/1991			Y	Y	N
1.1.102	1	5	1991	102	Unknown	Production	3.90	12/13/1991			Y	Y	N
1.1.103	1	5	1991	103	Unknown	Injector					N	N	N
1.1.104	1	5	1991	104	Unknown	Production					Y	N	N
1.1.105	1	5	3/31/1991	105	Unknown	Production	2.80		1,214	340 mm to 440 m	Y	N	N
1.1.106	1	5	7/6/1991	106	Unknown	Production	2.80		1,219	340 mm to 402 m	Y	N	N
1.1.107	1	5	1992	107	Unknown	Production					Y	N	N
1.1.108	1	5	1992	108	Unknown	Production	5.60				Y	N	N
1.1.109	1	5	1992	109	Unknown	Production	5.60				Y	N	N
1.1.110	1	5	1992	110	Unknown	Abandoned	4.20				Y	N	N
1.1.111	1	5	1992	111	Unknown	Injector					N	N	N
1.1.112	1	5	1992	112	Unknown	Abandoned					N	N	N
1.1.113	1	5	1992	113	Unknown	Abandoned					N	N	N
1.1.114	1	5	1992	114	Unknown	Production					Y	N	N
1.1.115	1	5	1992	115	Unknown	Production	5.60				Y	N	N
1.1.116	1	5	2/3/1992	116	Unknown	Production	2.80		1,219	340 mm to 462 m	Y	N	N
1.1.117	1	5	4/12/1992	117	Unknown	Production	3.30		2,746	340 mm to 553 m	Y	N	N
1.1.118	1	5	5/25/1992	118	Unknown	Production	10.50		1,115	340 mm to 431 m	Y	N	N
1.1.119	1	5	1993	119	Unknown	Production	3.30				Y	N	N
1.1.120	1	5	1993	120	Unknown	Production	5.60				Y	N	N
1.1.121	1	5	1993	121	Unknown	Production	5.60				Y	N	N
1.1.122	1	5	1993	122	Unknown	Injector					N	N	N
1.1.123	1	5	1993	123	Unknown	Injector					N	N	N
1.1.124	1	5	1993	124	Unknown	Production	2.80				Y	N	N
1.1.125	1	5	1994	125	Unknown	Injector					N	N	N
1.1.126	1	5	1994	126	Unknown	Abandoned	16.70				Y	N	N
1.1.127	1	5	1994	127	Unknown	Abandoned					N	N	N
1.1.128	1	5	1994	128	Unknown	Injector					N	N	N
1.1.129	1	5	1994	129	Unknown	Production	5.60				Y	N	N
1.1.130	1	5	1995	130	Unknown	Production	7.20				Y	N	N
1.1.131	1	5	1995	131	Unknown	Production					Y	N	N
1.1.132	1	5	1995	132	Unknown	Production					Y	N	N
1.1.133	1	5	1996	133	Unknown	Injector					N	N	N
1.1.134	1	5	1996	134	Unknown	Production	3.60				Y	N	N
1.1.135	1	5	1997	135	Unknown	Injector	6.70				Y	N	N
1.1.136	1	5	1997	136	Unknown	Injector					N	N	N
1.1.137	1	5	1997	137	Unknown	Injector					N	N	N
1.1.138	1	5	1998	138	Unknown	Production					Y	N	N
1.1.139	1	5	1998	139	Unknown	Production					Y	N	N
1.1.140	1	5	1998	140	Unknown	Production					Y	N	N
1.1.141	1	5	1999	141	Unknown	Production					Y	N	N
1.1.142	1	5	2001	142	Unknown	Production					Y	N	N
1.1.143	1	5	2003	143	Unknown	Production					Y	N	N
1.1.144	1	5	2003	144	Unknown	Injector					N	N	N
1.1.145	1	5	2004	145	Unknown	Production					Y	N	N
1.1.146	1	5	2008	146	Unknown	Abandoned					N	N	N
1.1.147	1	5	2008	147	Unknown	Production					Y	N	N
1.1.148	1	5	2009	148	Unknown	Injector					N	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.1.149	1	5	2009	149	Unknown	Injector					N	N	N
1.1.150	1	5	2009	150	Unknown	Production					Y	N	N
1.2.1	2	7	3/21/1943	1	Unknown	Abandoned			2,160	244 mm to 766 m	N	N	N
1.2.2	2	7	8/11/1957	2	Unknown	Production	4.41		249		Y	N	N
1.2.3	2	7	7/1/1959	3	Unknown	Production	15.00		290		Y	N	N
1.2.4	2	7	8/17/1959	4	Unknown	Abandoned	3.76		236		Y	Y	N
1.2.5	2	7	9/3/1959	5	Unknown	Production	6.94		285		Y	N	N
1.2.6	2	7	9/26/1959	6	Unknown	Production	6.00		167		Y	N	N
1.2.7	2	7	10/22/1963	7	Unknown	Idle	3.00		274		Y	N	N
1.2.8	2	7	11/8/1963	8	Unknown	Production	4.12		663		Y	N	N
1.2.9	2	7	1/11/1964	9	Unknown	Production	5.41		896		Y	N	N
1.2.10	2	7	1/29/1964	10	Unknown	Production	4.24		461		Y	N	N
1.2.11	2	7	7/23/1964	11	Unknown	Abandoned	5.12		665		Y	N	N
1.2.12	2	7	8/26/1964	12	Unknown	Abandoned	1.65		1,442		N	Y	N
1.2.13	2	7	9/1/1964	13	Unknown	Abandoned	2.65		1,059		N	N	N
1.2.14	2	7	9/7/1964	14	Unknown	Production	4.06		895		Y	N	N
1.2.15	2	7	6/10/1965	15	Unknown	Production	8.35		792		Y	Y	N
1.2.16	2	7	6/10/1965	16	Unknown	Abandoned	5.59		1,179		Y	N	N
1.2.17	2	7	7/19/1965	17	Unknown	Idle	7.47		1,161		Y	N	N
1.2.18	2	7	8/4/1965	18	Unknown	Production	12.94		1,120		Y	N	N
1.2.19	2	7	8/8/1965	19	Unknown	Abandoned	6.12		880		Y	N	N
1.2.20	2	7	8/13/1965	20	Unknown	Abandoned	5.06		1,205		Y	N	N
1.2.21	2	7	8/23/1965	21	Unknown	Abandoned	8.65		1,016		Y	N	N
1.2.22	2	7	8/29/1966	22	Unknown	Abandoned	6.24		1,198		Y	N	N
1.2.23	2	7	10/11/1966	23	Unknown	Production	9.65		1,171		Y	N	N
1.2.24	2	7	10/29/1966	24	Unknown	Production	4.94		1,544		Y	N	N
1.2.25	2	7	11/15/1966	25	Unknown	Abandoned	3.12		1,432		Y	N	N
1.2.26	2	7	7/11/1967	336	Unknown	Abandoned	8.76		2,035		Y	Y	N
1.2.27	2	7	8/13/1967	26	Unknown	Abandoned			2,492	219 mm to 1,162 m	N	N	N
1.2.28	2	7	2/17/1968	27	Unknown	Abandoned	11.06		1,260		Y	N	N
1.2.29	2	7	4/14/1968	28	Unknown	Abandoned	9.06		1,679		Y	N	N
1.2.30	2	7	6/22/1968	29	Unknown	Abandoned	10.24		2,051		Y	N	N
1.2.31	2	7	6/27/1968	30	Unknown	Abandoned	1.94		2,416		N	N	N
1.2.32	2	7	1/28/1969	31	Unknown	Abandoned	6.29		2,204		Y	N	N
1.2.33	2	7	2/3/1969	32	Unknown	Abandoned	3.94		2,219		Y	N	N
1.2.34	2	7	2/10/1969	33	Unknown	Abandoned	3.88		2,126		Y	N	N
1.2.35	2	7	2/10/1969	34	Unknown	Abandoned	6.24		2,146		Y	N	N
1.2.36	2	7	5/5/1969	35	Unknown	Production	13.00		1,356		Y	N	N
1.2.37	2	7	8/18/1969	36	Unknown	Production	9.65		1,697		Y	N	N
1.2.38	2	7	9/28/1969	37	Unknown	Abandoned	7.88		1,670		Y	N	N
1.2.39	2	7	10/27/1969	38	Unknown	Production	12.24		1,580	244 mm to 764 m	Y	N	N
1.2.40	2	7	11/14/1969	39	Unknown	Injector	8.18		1,959		Y	N	N
1.2.41	2	7	12/3/1969	40	Unknown	Injector	7.06		2,453	244 mm to 759 m	Y	N	N
1.2.42	2	7	6/12/1970	41	Unknown	Idle	12.59		1,829		Y	N	N
1.2.43	2	7	7/4/1970	42	Unknown	Production	10.59		1,389		Y	N	N
1.2.44	2	7	7/20/1970	43	Unknown	Injector	5.65		1,771		Y	N	N
1.2.45	2	7	7/25/1970	44	Unknown	Production	6.59		1,484		Y	N	N
1.2.46	2	7	8/20/1970	45	Unknown	Production	12.29		2,211		Y	N	N
1.2.47	2	7	9/24/1970	46	Unknown	Production	9.59		1,913		Y	N	N
1.2.48	2	7	10/15/1970	47	Unknown	Production	9.18		1,494		Y	N	N
1.2.49	2	7	10/15/1970	48	Unknown	Production	5.76		2,296		Y	N	N
1.2.50	2	7	11/8/1970	49	Unknown	Abandoned	3.41		2,714	178 mm to 1,737 m	Y	N	N
1.2.51	2	7	11/10/1970	337	Unknown	Production	8.29		2,085	244 mm to 754 m	Y	Y	N
1.2.52	2	7	11/28/1970	50	Unknown	Production	13.82		1,965		Y	N	N
1.2.53	2	7	1/7/1971	51	Unknown	Production	7.35		1,678		Y	N	N
1.2.54	2	7	2/13/1971	52	Unknown	Production	10.88		2,219		Y	N	N
1.2.55	2	7	2/15/1971	53	Unknown	Injector	8.71		1,853		Y	N	N
1.2.56	2	7	3/12/1971	54	Unknown	Injector	10.47		1,301		Y	y	N
1.2.57	2	7	4/2/1971	55	Unknown	Production	15.29		1,888		Y	N	N
1.2.58	2	7	5/24/1971	56	Unknown	Injector	5.06		2,657		Y	y	N
1.2.59	2	7	7/28/1971	57	Unknown	Abandoned	6.71		2,076		Y	y	N
1.2.60	2	7	7/29/1971	58	Unknown	Production	10.24		2,752		Y	y	N
1.2.61	2	7	8/30/1971	59	Unknown	Production	19.65		1,353		Y	y	N
1.2.62	2	7	10/20/1971	60	Unknown	Production	14.41		1,954	244 mm to 763 m	Y	N	N
1.2.63	2	7	10/31/1971	61	Unknown	Abandoned	13.35		2,179		Y	N	N
1.2.64	2	7	2/22/1972	62	Unknown	Abandoned	12.53		2,091		Y	N	N
1.2.65	2	7	5/18/1972	63	Unknown	Abandoned	9.82		2,195		Y	N	N
1.2.66	2	7	6/14/1972	338	Unknown	Injector	10.35		1,312		Y	Y	N
1.2.67	2	7	8/27/1972	64	Unknown	Abandoned	7.06		1,966		Y	Y	N
1.2.68	2	7	9/28/1972	65	Unknown	Production	6.59		2,242		Y	N	N
1.2.69	2	7	10/17/1972	66	Unknown	Idle	11.82		2,335		Y	N	N
1.2.70	2	7	12/8/1972	67	Unknown	Abandoned	8.29		2,366		Y	N	N
1.2.71	2	7	2/8/1973	68	Unknown	Abandoned	3.47		2,655		Y	N	N
1.2.72	2	7	6/15/1973	69	Unknown	Injector	5.35		2,898		Y	N	N
1.2.73	2	7	6/16/1973	70	Unknown	Production	9.82		2,226		Y	y	N
1.2.74	2	7	7/17/1973	71	Unknown	Production	13.24		1,913		Y	N	N
1.2.75	2	7	7/27/1973	72	Unknown	Production	11.88		2,306		Y	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Re-drilled (Y/N)	Pumped (Y/N)
1.2.76	2	7	8/31/1973	73	Unknown	Injector	5.41		2,776		Y	N	N
1.2.77	2	7	9/14/1973	74	Unknown	Idle	5.12		2,293		Y	N	N
1.2.78	2	7	9/17/1973	75	Unknown	Production	10.71		2,166		Y	N	N
1.2.79	2	7	10/17/1973	76	Unknown	Abandoned	8.88		2,174		Y	N	N
1.2.80	2	7	10/29/1973	77	Unknown	Abandoned	9.06		1,881		Y	N	N
1.2.81	2	7	11/9/1973	78	Unknown	Unknown	3.53		2,195		Y	N	N
1.2.82	2	7	11/16/1973	79	Unknown	Production	13.06		1,665		Y	N	N
1.2.83	2	7	12/10/1973	80	Unknown	Production	8.35		2,142	244 mm to 762 m	Y	N	N
1.2.84	2	7	4/10/1974	81	Unknown	Production	10.94		2,822		Y	Y	N
1.2.85	2	7	4/28/1974	82	Unknown	Abandoned	7.29		2,353		Y	N	N
1.2.86	2	7	6/17/1974	83	Unknown	Production	8.76		2,186		Y	N	N
1.2.87	2	7	6/18/1974	84	Unknown	Production	12.88		2,191	244 mm to 762 m	Y	y	N
1.2.88	2	7	7/16/1974	85	Unknown	Production	5.00		2,743		Y	N	N
1.2.89	2	7	7/16/1974	86	Unknown	Production	12.47		1,922		Y	Y	N
1.2.90	2	7	7/21/1974	87	Unknown	Production	12.24		1,261		Y	N	N
1.2.91	2	7	8/13/1974	88	Unknown	Production	7.06		2,451		Y	N	N
1.2.92	2	7	8/27/1974	89	Unknown	Production	7.94		2,460	298 mm to 790 m	Y	N	N
1.2.93	2	7	9/10/1974	90	Unknown	Production	6.59		2,345		Y	N	N
1.2.94	2	7	10/6/1974	91	Unknown	Abandoned	11.41		2,271		Y	N	N
1.2.95	2	7	10/22/1974	92	Unknown	Abandoned	12.65		2,103		Y	N	N
1.2.96	2	7	10/26/1974	93	Unknown	Abandoned	13.82		1,216		Y	N	N
1.2.97	2	7	11/24/1974	94	Unknown	Production	5.53		2,476		Y	N	N
1.2.98	2	7	11/28/1974	95	Unknown	Production	7.00		2,861		Y	N	N
1.2.99	2	7	12/31/1974	339	Unknown	Injector	10.06		1,613	244 mm to 754 m	Y	Y	N
1.2.100	2	7	1/1/1975	96	Unknown	Production					Y	N	N
1.2.101	2	7	1975	340	Unknown	Production					Y	Y	N
1.2.102	2	7	1/18/1975	97	Unknown	Injector	12.12		2,096		Y	Y	N
1.2.103	2	7	2/19/1975	98	Unknown	Production	9.76		1,996	244 mm to 755 m	Y	Y	N
1.2.104	2	7	2/23/1975	99	Unknown	Abandoned	2.53		2,450		N	N	N
1.2.105	2	7	2/24/1975	100	Unknown	Abandoned	9.29		2,268		Y	N	N
1.2.106	2	7	3/15/1975	101	Unknown	Production	6.12		2,608		Y	N	N
1.2.107	2	7	4/18/1975	102	Unknown	Injector	13.06		2,172	298 mm to 917 m	Y	Y	N
1.2.108	2	7	5/4/1975	103	Unknown	Idle	6.88		2,371		Y	Y	N
1.2.109	2	7	5/5/1975	104	Unknown	Abandoned	8.24		2,282		Y	Y	N
1.2.110	2	7	5/16/1975	105	Unknown	Production	15.29		1,511		Y	Y	N
1.2.111	2	7	5/27/1975	106	Unknown	Injector	20.29		1,875	298 mm to 916 m	Y	Y	N
1.2.112	2	7	5/30/1975	107	Unknown	Production	5.24		2,224		Y	N	N
1.2.113	2	7	6/16/1975	108	Unknown	Abandoned	11.12		2,232		Y	N	N
1.2.114	2	7	6/23/1975	109	Unknown	Idle	4.82		2,552		Y	N	N
1.2.115	2	7	6/25/1975	110	Unknown	Idle	12.35		2,308	244 mm to 1,027 m	Y	N	N
1.2.116	2	7	6/25/1975	111	Unknown	Injector	5.76		3,050		Y	N	N
1.2.117	2	7	6/26/1975	112	Unknown	Abandoned			2,509	244 mm to 1,073 m	N	N	N
1.2.118	2	7	8/6/1975	113	Unknown	Production	10.59		1,768		Y	N	N
1.2.119	2	7	8/15/1975	114	Unknown	Injector	9.47		2,152	244 mm to 921 m	Y	N	N
1.2.120	2	7	10/3/1975	115	Unknown	Injector	6.24		2,402	244 mm to 1,063 m	Y	N	N
1.2.121	2	7	10/14/1975	116	Unknown	Production	6.53		1,320		Y	N	N
1.2.122	2	7	11/2/1975	341	Unknown	Unknown	11.76		2,138		Y	Y	N
1.2.123	2	7	11/19/1975	117	Unknown	Production	6.12		1,771		Y	N	N
1.2.124	2	7	12/30/1975	118	Unknown	Production	9.18		2,100		Y	Y	N
1.2.125	2	7	1/29/1976	119	Unknown	Unknown	15.65		1,514		Y	N	N
1.2.126	2	7	2/6/1976	120	Unknown	Production	9.65		1,665		Y	N	N
1.2.127	2	7	3/9/1976	121	Unknown	Production	8.82		1,931		Y	N	N
1.2.128	2	7	4/7/1976	122	Unknown	Abandoned	12.71		2,304		Y	N	N
1.2.129	2	7	4/8/1976	123	Unknown	Unknown	15.65		1,715		Y	N	N
1.2.130	2	7	4/28/1976	124	Unknown	Idle			3,121	244 mm to 1,197 m	N	N	N
1.2.131	2	7	4/30/1976	125	Unknown	Production	9.06		1,726		Y	Y	N
1.2.132	2	7	5/14/1976	126	Unknown	Unknown	7.59		1,689		Y	N	N
1.2.133	2	7	6/3/1976	127	Unknown	Production	9.18		1,850		Y	Y	N
1.2.134	2	7	7/10/1976	128	Unknown	Production	8.94		2,736		Y	N	N
1.2.135	2	7	7/13/1976	342	Unknown	Abandoned	6.24		2,434	178 mm to 1,444 m	Y	Y	N
1.2.136	2	7	7/20/1976	129	Unknown	Suspended	4.71		2,734	178 mm to 1,907 m	Y	N	N
1.2.137	2	7	7/21/1976	130	Unknown	Production	6.59		2,002		Y	N	N
1.2.138	2	7	8/18/1976	131	Unknown	Idle	9.65		2,063		Y	N	N
1.2.139	2	7	10/12/1976	132	Unknown	Abandoned	1.47		2,843	244 mm to 1,655 m	N	Y	N
1.2.140	2	7	12/16/1976	133	Unknown	Production			2,550	244 mm to 1,603 m	Y	N	N
1.2.141	2	7	1/1/1977	134	Unknown	Abandoned					N	N	N
1.2.142	2	7	2/27/1977	135	Unknown	Production	5.29		2,630	178 mm to 2,360 m	Y	Y	N
1.2.143	2	7	3/3/1977	136	Unknown	Unknown	7.12		2,448		Y	N	N
1.2.144	2	7	3/11/1977	137	Unknown	Production	8.71		2,745		Y	N	N
1.2.145	2	7	3/19/1977	138	Unknown	Production	7.94		2,348	244 mm to 1,853 m	Y	N	N
1.2.146	2	7	4/15/1977	139	Unknown	Production	10.65		1,830		Y	y	N
1.2.147	2	7	5/5/1977	140	Unknown	Unknown	6.06		2,768		Y	N	N
1.2.148	2	7	6/30/1977	141	Unknown	Abandoned			3,069	244 mm to 1,876 m	N	N	N
1.2.149	2	7	8/18/1977	142	Unknown	Production	11.71		2,288	244 mm to 1,273 m	Y	N	N
1.2.150	2	7	9/2/1977	143	Unknown	Injector	17.53		1,931	298 mm to 920 m	Y	N	N
1.2.151	2	7	9/23/1977	144	Unknown	Abandoned			3,216	244 mm to 2,479 m	N	y	N
1.2.152	2	7	11/3/1977	145	Unknown	Unknown	6.88		2,124		Y	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.2.153	2	7	11/9/1977	146	Unknown	Injector	7.35		2,119		Y	N	N
1.2.154	2	7	12/4/1977	147	Unknown	Unknown			3,396	244 mm to 1,828 m	N	N	N
1.2.155	2	7	12/25/1977	148	Unknown	Production	10.71		2,473		Y	N	N
1.2.156	2	7	1/1/1978	343	Unknown	Abandoned					N	Y	N
1.2.157	2	7	1/11/1978	149	Unknown	Idle	10.82		2,523		Y	N	N
1.2.158	2	7	3/29/1978	150	Unknown	Production	12.18		2,220	298 mm to 888 m	Y	N	N
1.2.159	2	7	4/1/1978	151	Unknown	Production	9.29		1,698		Y	N	N
1.2.160	2	7	5/15/1978	152	Unknown	Unknown	2.00		2,645		N	N	N
1.2.161	2	7	8/26/1978	153	Unknown	Unknown	2.06		2,746		N	N	N
1.2.162	2	7	10/2/1978	154	Unknown	Abandoned	6.18		2,082		Y	N	N
1.2.163	2	7	12/15/1978	155	Unknown	Abandoned	5.59		1,896		Y	N	N
1.2.164	2	7	1/1/1979	156	Unknown	Injector					Y	N	N
1.2.165	2	7	1/2/1979	157	Unknown	Production	14.53		1,197	298 mm to 734 m	Y	N	N
1.2.166	2	7	2/11/1979	344	Unknown	Production	20.88		1,581	340 mm to 737 m	Y	Y	N
1.2.167	2	7	3/6/1979	158	Unknown	Production	3.59		2,140		Y	N	N
1.2.168	2	7	3/31/1979	159	Unknown	Injector	9.82		2,114	298 mm to 865 m	Y	N	N
1.2.169	2	7	4/23/1979	160	Unknown	Abandoned	5.76		3,142	244 mm to 2,011 m	Y	N	N
1.2.170	2	7	6/7/1979	161	Unknown	Production	14.12		1,667	244 mm to 1,311 m	Y	N	N
1.2.171	2	7	6/20/1979	162	Unknown	Production	5.29		2,262		Y	N	N
1.2.172	2	7	7/3/1979	163	Unknown	Unknown	5.53		2,054		Y	N	N
1.2.173	2	7	8/21/1979	164	Unknown	Abandoned	6.41		2,063		Y	N	N
1.2.174	2	7	9/8/1979	165	Unknown	Production	10.59		2,478		Y	N	N
1.2.175	2	7	9/12/1979	166	Unknown	Unknown	1.65		2,932		N	N	N
1.2.176	2	7	11/26/1979	167	Unknown	Abandoned			2,832	244 mm to 586 m	N	Y	N
1.2.177	2	7	11/29/1979	168	Unknown	Production	9.24		2,471	244 mm to 1,311 m	Y	N	N
1.2.178	2	7	1/1/1980	169	Unknown	Production			0		Y	N	N
1.2.179	2	7	1/1/1980	170	Unknown	Production			2,587	244 mm to 1,668 m	Y	N	N
1.2.180	2	7	1/26/1980	171	Unknown	Production	16.12		2,244	340 mm to 924 m	Y	Y	N
1.2.181	2	7	2/5/1980	172	Unknown	Abandoned	6.88		2,491	244 mm to 1,566 m	Y	N	N
1.2.182	2	7	4/17/1980	173	Unknown	Production	13.76		2,238		Y	Y	N
1.2.183	2	7	4/19/1980	174	Unknown	Production			2,547	244 mm to 1,350 m	Y	N	N
1.2.184	2	7	5/23/1980	175	Unknown	Abandoned	4.35		1,283		Y	N	N
1.2.185	2	7	6/9/1980	176	Unknown	Injector	7.00		1,260		Y	N	N
1.2.186	2	7	6/12/1980	177	Unknown	Production	15.88		1,816		Y	N	N
1.2.187	2	7	6/15/1980	178	Unknown	Unknown	7.88		1,658		Y	Y	N
1.2.188	2	7	6/25/1980	179	Unknown	Production	5.06		1,158		Y	N	N
1.2.189	2	7	6/28/1980	180	Unknown	Unknown	9.06		2,587	244 mm to 1,658 m	Y	N	N
1.2.190	2	7	7/15/1980	181	Unknown	Unknown	6.59		1,655		Y	N	N
1.2.191	2	7	7/30/1980	182	Unknown	Production	3.65		2,933	244 mm to 187 m	Y	N	N
1.2.192	2	7	7/30/1980	183	Unknown	Unknown	13.29		1,727		Y	N	N
1.2.193	2	7	8/1/1980	345	Unknown	Production	12.53		2,348		Y	Y	N
1.2.194	2	7	9/5/1980	184	Unknown	Production	18.71		2,078	244 mm to 1,086 m	Y	N	N
1.2.195	2	7	9/9/1980	185	Unknown	Unknown	12.06		1,795		Y	N	N
1.2.196	2	7	10/10/1980	186	Unknown	Abandoned	2.41		2,491		N	N	N
1.2.197	2	7	11/5/1980	346	Unknown	Production	17.24		1,929	244 mm to 969 m	Y	Y	N
1.2.198	2	7	12/3/1980	187	Unknown	Production	7.29		2,036		Y	N	N
1.2.199	2	7	12/29/1980	188	Unknown	Unknown	8.47		2,163		Y	N	N
1.2.200	2	7	1/6/1981	189	Unknown	Abandoned	6.53		2,184	244 mm to 914 m	Y	N	N
1.2.201	2	7	1/16/1981	190	Unknown	Injector	3.47		2,384	244 mm to 1,235 m	Y	N	N
1.2.202	2	7	2/8/1981	191	Unknown	Unknown	10.88		1,638		Y	N	N
1.2.203	2	7	2/15/1981	192	Unknown	Abandoned	3.41		2,992	244 mm to 1,833 m	Y	N	N
1.2.204	2	7	3/14/1981	193	Unknown	Production	12.06		2,179	244 mm to 851 m	Y	N	N
1.2.205	2	7	3/15/1981	194	Unknown	Unknown	9.65		1,985		Y	N	N
1.2.206	2	7	4/16/1981	195	Unknown	Abandoned	5.53		1,577		Y	N	N
1.2.207	2	7	4/21/1981	196	Unknown	Unknown	24.12		1,407		Y	N	N
1.2.208	2	7	4/25/1981	197	Unknown	Abandoned	1.71		2,968	244 mm to 1,693 m	N	N	N
1.2.209	2	7	5/21/1981	198	Unknown	Unknown	20.53		1,804		Y	N	N
1.2.210	2	7	6/23/1981	199	Unknown	Abandoned	7.65		2,499	244 mm to 1,699 m	Y	N	N
1.2.211	2	7	6/27/1981	200	Unknown	Abandoned	5.12		2,665		Y	N	N
1.2.212	2	7	7/19/1981	201	Unknown	Production	13.12		2,206	244 mm to 985 m	Y	N	N
1.2.213	2	7	9/10/1981	347	Unknown	Production			2,201	219 mm to 1,800 m	Y	Y	N
1.2.214	2	7	9/13/1981	202	Unknown	Abandoned	2.76		2,791	244 mm to 1,642 m	N	N	N
1.2.215	2	7	10/7/1981	203	Unknown	Production	7.41		2,504	244 mm to 1,096 m	Y	N	N
1.2.216	2	7	11/18/1981	204	Unknown	Abandoned	4.24		2,676		Y	N	N
1.2.217	2	7	11/22/1981	205	Unknown	Production	2.88		2,641		Y	Y	N
1.2.218	2	7	12/1/1981	206	Unknown	Abandoned	3.82		2,627	244 mm to 1,614 m	Y	N	N
1.2.219	2	7	12/9/1981	207	Unknown	Production			2,980	298 mm to 398 m	Y	N	N
1.2.220	2	7	1/8/1982	208	Unknown	Production	9.88		2,173	244 mm to 998 m	Y	Y	N
1.2.221	2	7	1/15/1982	209	Unknown	Abandoned	4.88		2,731		Y	N	N
1.2.222	2	7	1/29/1982	348	Unknown	Injector	6.24		2,745		Y	Y	N
1.2.223	2	7	1/29/1982	210	Unknown	Abandoned			2,987	244 mm to 2,033 m	Y	N	N
1.2.224	2	7	3/1/1982	211	Unknown	Abandoned	5.06		2,775	244 mm to 1,523 m	Y	Y	N
1.2.225	2	7	4/22/1982	212	Unknown	Production	15.94		1,182	340 mm to 814 m	Y	N	N
1.2.226	2	7	4/24/1982	213	Unknown	Production			2,547	298 mm to 1,341 m	Y	Y	N
1.2.227	2	7	5/4/1982	214	Unknown	Injector	5.82		2,851		Y	N	N
1.2.228	2	7	5/6/1982	349	Unknown	Production	7.35		2,428	244 mm to 1,503 m	Y	Y	N
1.2.229	2	7	6/11/1982	350	Unknown	Production	9.29		1,819	340 mm to 811 m	Y	Y	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Re-drilled (Y/N)	Pumped (Y/N)
1.2.230	2	7	6/11/1982	215	Unknown	Production	6.94		2,623	244 mm to 2,045 m	Y	Y	N
1.2.231	2	7	6/22/1982	216	Unknown	Abandoned			2,625	298 mm to 1,684 m	N	Y	N
1.2.232	2	7	7/5/1982	351	Unknown	Production	10.59		2,595		Y	Y	N
1.2.233	2	7	8/8/1982	352	Unknown	Production	20.12		2,343	178 mm to 1,695 m	Y	Y	N
1.2.234	2	7	8/8/1982	353	Unknown	Production	5.71		1,940	340 mm to 809 m	Y	Y	N
1.2.235	2	7	8/9/1982	217	Unknown	Abandoned	5.41		2,262		Y	N	N
1.2.236	2	7	8/19/1982	218	Unknown	Abandoned	0.65		3,208		N	N	N
1.2.237	2	7	8/25/1982	354	Unknown	Unknown	8.29		2,810		Y	Y	N
1.2.238	2	7	9/8/1982	219	Unknown	Injector	7.53		2,865		Y	y	N
1.2.239	2	7	9/16/1982	220	Unknown	Production	13.29		2,276	244 mm to 1,230 m	Y	N	N
1.2.240	2	7	10/14/1982	355	Unknown	Production	7.65		1,646	340 mm to 796 m	Y	Y	N
1.2.241	2	7	10/19/1982	221	Unknown	Abandoned	5.88		3,227	244 mm to 2,042 m	Y	N	N
1.2.242	2	7	11/27/1982	222	Unknown	Injector	5.71		2,769		Y	N	N
1.2.243	2	7	12/30/1982	223	Unknown	Production	13.88		2,351	244 mm to 1,668 m	Y	N	N
1.2.244	2	7	1/21/1983	356	Unknown	Production	4.59		2,971	244 mm to 1,897 m	Y	Y	N
1.2.245	2	7	2/3/1983	224	Unknown	Production			2,849	244 mm to 1,490 m	Y	N	N
1.2.246	2	7	2/15/1983	225	Unknown	Abandoned			2,545	298 mm to 1,104 m	N	N	N
1.2.247	2	7	3/9/1983	226	Unknown	Production	11.06		2,861	244 mm to 1,221 m	Y	N	N
1.2.248	2	7	3/21/1983	357	Unknown	Production	5.88		2,748	244 mm to 2,005 m	Y	Y	N
1.2.249	2	7	3/28/1983	227	Unknown	Production	12.35		2,545		Y	N	N
1.2.250	2	7	4/10/1983	228	Unknown	Production	5.71		3,080	244 mm to 1,987 m	Y	N	N
1.2.251	2	7	5/3/1983	358	Unknown	Idle	6.24		2,885	244 mm to 2,027 m	Y	Y	N
1.2.252	2	7	5/13/1983	359	Unknown	Production	11.29		2,743		Y	Y	N
1.2.253	2	7	5/31/1983	229	Unknown	Abandoned			3,543	219 mm to 2,495 m	N	N	N
1.2.254	2	7	6/8/1983	230	Unknown	Injector	13.29		2,403	244 mm to 1,646 m	Y	N	N
1.2.255	2	7	7/10/1983	231	Unknown	Production	12.82		2,547		Y	N	N
1.2.256	2	7	7/27/1983	232	Unknown	Production	8.00		2,754	244 mm to 2,028 m	Y	N	N
1.2.257	2	7	8/13/1983	360	Unknown	Production	8.59		2,338	244 mm to 1,209 m	Y	Y	N
1.2.258	2	7	8/14/1983	233	Unknown	Idle	2.53		2,908		N	N	N
1.2.259	2	7	8/23/1983	234	Unknown	Production	13.88		2,321		Y	N	N
1.2.260	2	7	10/24/1983	235	Unknown	Abandoned			2,823	298 mm to 1,655 m	N	N	N
1.2.261	2	7	11/4/1983	236	Unknown	Injector	6.00		2,886		Y	Y	N
1.2.262	2	7	11/8/1983	237	Unknown	Injector	3.65		2,856	244 mm to 1,665 m	Y	N	N
1.2.263	2	7	11/14/1983	238	Unknown	Production	16.00		2,192	340 mm to 1,056 m	Y	Y	N
1.2.264	2	7	11/20/1983	239	Unknown	Production	12.59		2,658		Y	N	N
1.2.265	2	7	11/21/1983	240	Unknown	Injector	11.18		2,669	244 mm to 1,287 m	Y	N	N
1.2.266	2	7	12/22/1983	241	Unknown	Production	30.29		1,796	340 mm to 1,087 m	Y	N	N
1.2.267	2	7	12/31/1983	242	Unknown	Production	12.06		2,542		Y	N	N
1.2.268	2	7	1984	243	Unknown	Production					Y	N	N
1.2.269	2	7	1984	244	Unknown	Production					Y	N	N
1.2.270	2	7	1/20/1984	245	Unknown	Unknown	6.76		2,743	244 mm to 1,743 m	Y	N	N
1.2.271	2	7	2/7/1984	246	Unknown	Production	14.94		2,156	340 mm to 997 m	Y	N	N
1.2.272	2	7	2/7/1984	247	Unknown	Production	6.76		1,294	340 mm to 853 m	Y	N	N
1.2.273	2	7	2/16/1984	248	Unknown	Unknown	2.82		2,237		N	N	N
1.2.274	2	7	2/24/1984	249	Unknown	Abandoned	2.65		3,002		N	N	N
1.2.275	2	7	3/26/1984	250	Unknown	Production			3,577	298 mm to 2,173 m	Y	N	N
1.2.276	2	7	4/1/1984	251	Unknown	Production	14.53		2,054	244 mm to 853 m	Y	N	N
1.2.277	2	7	4/5/1984	252	Unknown	Abandoned	6.06		2,941	244 mm to 1,827 m	Y	N	N
1.2.278	2	7	5/21/1984	361	Unknown	Production	14.41		2,260	340 mm to 852 m	Y	Y	N
1.2.279	2	7	5/25/1984	253	Unknown	Production			2,514	298 mm to 2,015 m	Y	N	N
1.2.280	2	7	6/11/1984	254	Unknown	Unknown	10.53		1,682		Y	Y	N
1.2.281	2	7	7/5/1984	255	Unknown	Production			2,790	298 mm to 1,759 m	Y	N	N
1.2.282	2	7	7/20/1984	256	Unknown	Injector	2.71		2,403	340 mm to 1,009 m	N	N	N
1.2.283	2	7	7/29/1984	257	Unknown	Idle	1.18		2,459		N	N	N
1.2.284	2	7	8/19/1984	258	Unknown	Production	12.29		2,588	273 mm to 780 m	Y	N	N
1.2.285	2	7	8/27/1984	259	Unknown	Abandoned	3.41		2,859		Y	N	N
1.2.286	2	7	9/26/1984	260	Unknown	Abandoned	9.29		2,752	298 mm to 1,906 m	Y	N	N
1.2.287	2	7	10/3/1984	261	Unknown	Injector	8.47		2,510	244 mm to 1,295 m	Y	N	N
1.2.288	2	7	11/5/1984	362	Unknown	Unknown	5.29		1,453		Y	Y	N
1.2.289	2	7	11/14/1984	262	Unknown	Idle	6.18		2,861	244 mm to 2,073 m	Y	N	N
1.2.290	2	7	11/24/1984	263	Unknown	Unknown	4.82		2,736		Y	N	N
1.2.291	2	7	11/27/1984	363	Unknown	Unknown	6.00		2,186		Y	Y	N
1.2.292	2	7	12/8/1984	264	Unknown	Production	16.71		2,300	244 mm to 985 m	Y	N	N
1.2.293	2	7	1985	265	Unknown	Injector					Y	N	N
1.2.294	2	7	1985	266	Unknown	Production					Y	N	N
1.2.295	2	7	1985	267	Unknown	Injector					Y	N	N
1.2.296	2	7	1985	364	Unknown	Production					Y	Y	N
1.2.297	2	7	1/2/1985	365	Unknown	Suspended	3.06		3,134	244 mm to 2,094 m	Y	Y	N
1.2.298	2	7	1/3/1985	268	Unknown	Unknown	7.94		2,926	298 mm to 1,863 m	Y	N	N
1.2.299	2	7	1/23/1985	269	Unknown	Production	8.18		2,308	340 mm to 899 m	Y	N	N
1.2.300	2	7	3/2/1985	270	Unknown	Production	18.00		2,042	340 mm to 896 m	Y	N	N
1.2.301	2	7	3/29/1985	366	Unknown	Idle	7.35		2,916	244 mm to 2,039 m	Y	Y	N
1.2.302	2	7	4/15/1985	367	Unknown	Injector	5.12		2,438		Y	Y	N
1.2.303	2	7	5/12/1985	271	Unknown	Production			1,739	340 mm to 808 m	Y	N	N
1.2.304	2	7	5/15/1985	272	Unknown	Injector	6.41		3,028	244 mm to 1,900 m	Y	N	N
1.2.305	2	7	6/13/1985	273	Unknown	Unknown	7.06		1,333		Y	N	N
1.2.306	2	7	7/8/1985	274	Unknown	Production			2,526	244 mm to 1,344 m	Y	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.2.307	2	7	7/14/1985	275	Unknown	Abandoned			2,977	219 mm to 2,310 m	N	N	N
1.2.308	2	7	7/17/1985	276	Unknown	Abandoned	5.29		2,687	178 mm to 2,390 m	Y	N	N
1.2.309	2	7	8/23/1985	277	Unknown	Production			2,547	340 mm to 613 m	Y	N	N
1.2.310	2	7	9/5/1985	278	Unknown	Injector	8.47		2,572	244 mm to 1,231 m	Y	N	N
1.2.311	2	7	10/8/1985	279	Unknown	Abandoned			3,356	219 mm to 3,356 m	N	N	N
1.2.312	2	7	10/30/1985	280	Unknown	Production	7.35		3,018	244 mm to 1,981 m	Y	N	N
1.2.313	2	7	11/8/1985	281	Unknown	Production	5.18		1,850		Y	N	N
1.2.314	2	7	11/16/1985	282	Unknown	Abandoned	4.29		2,828		Y	N	N
1.2.315	2	7	11/25/1985	368	Unknown	Unknown	9.53		1,789		Y	Y	N
1.2.316	2	7	12/27/1985	283	Unknown	Production	12.18		2,434	298 mm to 1,416 m	Y	N	N
1.2.317	2	7	12/31/1985	284	Unknown	Unknown	10.82		1,925		Y	N	N
1.2.318	2	7	1986	285	Unknown	Production					Y	N	N
1.2.319	2	7	1986	286	Unknown	Production					Y	N	N
1.2.320	2	7	1986	287	Unknown	Production					Y	N	N
1.2.321	2	7	1986	288	Unknown	Injector					Y	Y	N
1.2.322	2	7	1986	289	Unknown	Production					Y	N	N
1.2.323	2	7	1986	290	Unknown	Production					Y	N	N
1.2.324	2	7	1986	291	Unknown	Production					Y	Y	N
1.2.325	2	7	1986	292	Unknown	Production					Y	Y	N
1.2.326	2	7	1/12/1986	369	Unknown	Unknown	8.47		1,689		Y	Y	N
1.2.327	2	7	1/18/1986	370	Unknown	Unknown	11.06		1,751		Y	Y	N
1.2.328	2	7	1/21/1986	293	Unknown	Abandoned	10.41		2,719	298 mm to 1,698 m	Y	Y	N
1.2.329	2	7	2/7/1986	371	Unknown	Unknown	10.47		2,081		Y	Y	N
1.2.330	2	7	2/8/1986	294	Unknown	Unknown	8.53		1,681		Y	Y	N
1.2.331	2	7	2/12/1986	295	Unknown	Idle			3,072	298 mm to 390 m	N	Y	N
1.2.332	2	7	2/28/1986	372	Unknown	Unknown	6.47		1,985		Y	Y	N
1.2.333	2	7	3/25/1986	373	Unknown	Unknown	10.41		2,314		Y	Y	N
1.2.334	2	7	3/26/1986	296	Unknown	Abandoned	6.94		2,896	298 mm to 1,977 m	Y	Y	N
1.2.335	2	7	3/28/1986	297	Unknown	Production	11.47		2,657	298 mm to 1,686 m	Y	N	N
1.2.336	2	7	3/31/1986	374	Unknown	Unknown	8.24		1,896		Y	Y	N
1.2.337	2	7	4/5/1986	298	Unknown	Unknown	12.65		2,121		Y	N	N
1.2.338	2	7	4/15/1986	299	Unknown	Idle			3,051	273 mm to 578 m	N	N	N
1.2.339	2	7	4/15/1986	300	Unknown	Production			3,266	298 mm to 498 m	Y	N	N
1.2.340	2	7	5/13/1986	301	Unknown	Unknown	11.65		2,029		Y	N	N
1.2.341	2	7	5/14/1986	302	Unknown	Unknown	12.12		1,821		Y	N	N
1.2.342	2	7	5/31/1986	303	Unknown	Production	12.41		2,733	298 mm to 1,622 m	Y	N	N
1.2.343	2	7	7/2/1986	304	Unknown	Unknown	9.53		1,992		Y	N	N
1.2.344	2	7	7/3/1986	305	Unknown	Unknown	3.65		2,225		Y	N	N
1.2.345	2	7	7/9/1986	375	Unknown	Unknown	11.71		2,649	298 mm to 1,838 m	Y	Y	N
1.2.346	2	7	7/13/1986	306	Unknown	Production			2,081	340 mm to 1,049 m	Y	N	N
1.2.347	2	7	7/27/1986	307	Unknown	Production			2,094	340 mm to 977 m	Y	N	N
1.2.348	2	7	12/21/1986	308	Unknown	Production			2,915	244 mm to 701 m	Y	N	N
1.2.349	2	7	1987	309	Unknown	Production					Y	N	N
1.2.350	2	7	1987	310	Unknown	Production					Y	Y	N
1.2.351	2	7	1987	311	Unknown	Production					Y	N	N
1.2.352	2	7	1987	312	Unknown	Production					Y	Y	N
1.2.353	2	7	1987	313	Unknown	Production					Y	Y	N
1.2.354	2	7	4/9/1987	314	Unknown	Abandoned	4.10	1995	2,542	340 mm to 1,208 m	Y	N	N
1.2.355	2	7	5/17/1987	315	Unknown	Abandoned	3.70	1995	3,194	298 mm to 1,771 m	Y	N	N
1.2.356	2	7	6/2/1987	316	Unknown	Production			2,446	340 mm to 1,361 m	Y	N	N
1.2.357	2	7	6/30/1987	317	Unknown	Injector			2,896	244 mm to 1,676 m	Y	N	N
1.2.358	2	7	8/18/1987	318	Unknown	Production					Y	N	N
1.2.359	2	7	8/20/1987	319	Unknown	Production			3,035	244 mm to 671 m	Y	N	N
1.2.360	2	7	8/20/1987	320	Unknown	Unknown	4.00	1995	2,936	273 mm to 1,284 m	Y	N	N
1.2.361	2	7	8/20/1987	321	Unknown	Injector	2.30	1995	3,265	340 mm to 1,223 m	N	N	N
1.2.362	2	7	10/22/1987	322	Unknown	Abandoned	2.80	1995	2,868	298 mm to 1,622 m	N	N	N
1.2.363	2	7	10/29/1987	323	Unknown	Idle			2,564	340 mm to 1,273 m	N	N	N
1.2.364	2	7	6/14/1988	324	Unknown	Injector			2,954	219 mm to 2,726 m	Y	N	N
1.2.365	2	7	1/18/1989	325	Unknown	Abandoned			2,887	244 mm to 1,996 m	N	N	N
1.2.366	2	7	2/15/1990	326	Unknown	Production			2,932	298 mm to 1,889 m	Y	N	N
1.2.367	2	7	9/21/1992	327	Unknown	Unknown			3,027	244 mm to 2,457 m	N	N	N
1.2.368	2	7	12/31/1992	328	Unknown	Production			3,165	244 mm to 2,355 m	Y	N	N
1.2.369	2	7	2/12/1993	329	Unknown	Idle			3,353	114 mm to 3,267 m	N	N	N
1.2.370	2	7	4/22/1993	330	Unknown	Production			3,458	244 mm to 2,451 m	Y	N	N
1.2.371	2	7	7/7/1993	331	Unknown	Idle			3,233	298 mm to 1,633 m	N	N	N
1.2.372	2	7	8/26/1993	376	Unknown	Injector	1.70	1995	3,055	244 mm to 1,982 m	N	Y	N
1.2.373	2	7		332	Unknown	Abandoned	3.53				Y	N	N
1.2.374	2	7		377	Unknown	Unknown	6.76				Y	Y	N
1.2.375	2	7		333	Unknown	Unknown	5.47				Y	N	N
1.2.376	2	7		334	Unknown	Unknown	9.12				Y	N	N
1.2.377	2	7		335	Unknown	Unknown	8.76				Y	N	N
1.2.378	2	7		378	Unknown	Unknown	2.65				N	Y	N
1.3.1	4	3	1945	1	Unknown	Unknown					N	Y	N
1.3.2	4	3	1970	2	Unknown	Unknown			1,843	219 mm to 1,836 m	N	Y	N
1.3.3	4	3	1970	3	Unknown	Unknown			1,230	73 mm to 1,219 m	N	Y	N
1.3.4	4	3	1970	4	Unknown	Unknown			2,174	244 mm to 1,367 m	N	N	N
1.3.5	4	3	1972	5	Unknown	Injector			1,524	219 mm to 1,507 m	Y	N	N

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1.3.6	4	3	1974	6	Unknown	Injector					Y	N	N
1.3.7	4	3	9/4/1982	7	Unknown	Production	0.40		1,982	244 mm to 2,056 m	Y	N	N
1.3.8	4	3	9/20/1982	8	Unknown	Production	1.10		1,415	244 mm to 1,413 m	Y	N	N
1.3.9	4	3	11/9/1982	9	Unknown	Production	0.40		3,304	244 mm to 3,302 m	Y	N	N
1.3.10	4	3	1984	10	Unknown	Injector					Y	N	N
1.3.11	4	3	2/2/1984	11	Unknown	Production	1.40		2,225	273 mm to 1,373 m	Y	N	N
1.3.12	4	3	2/16/1984	12	Unknown	Injector			3,276	273 mm to 2,467 m	Y	N	Y
1.3.13	4	3	3/18/1984	13	Unknown	Production	5.20		1,622	244 mm to 1,605 m	Y	N	Y
1.3.14	4	3	4/15/1984	14	Unknown	Production	0.70		2,286	273 mm to 1,388 m	Y	Y	N
1.3.15	4	3	5/15/1984	15	Unknown	Injector			2,060	273 mm to 1,254 m	Y	N	Y
1.3.16	4	3	6/5/1984	16	Unknown	Injector			1,439	244 mm to 1,439 m	Y	N	Y
1.3.17	4	3	6/13/1984	17	Unknown	Production	2.20		1,941	273 mm to 1,344 m	Y	N	N
1.3.18	4	3	7/20/1984	18	Unknown	Injector			2,225	244 mm to 2,324 m	Y	N	Y
1.3.19	4	3	8/11/1984	19	Unknown	Injector			2,030	244 mm to 2,030 m	Y	N	Y
1.3.20	4	3	8/11/1984	20	Unknown	Production	3.90		2,088	273 mm to 1,309 m	Y	N	N
1.3.21	4	3	8/31/1984	21	Unknown	Injector			1,595	244 mm to 1,595 m	Y	N	Y
1.3.22	4	3	9/27/1984	22	Unknown	Injector			1,467	273 mm to 1,465 m	Y	Y	N
1.3.23	4	3	10/2/1984	23	Unknown	Injector			1,920	244 mm to 3,172 m	Y	N	N
1.3.24	4	3	10/20/1984	24	Unknown	Injector			2,039	273 mm to 2,039 m	Y	N	N
1.3.25	4	3	10/21/1984	25	Unknown	Injector			1,974	273 mm to 1,991 m	Y	N	N
1.3.26	4	3	11/4/1984	26	Unknown	Injector			1,382	194 mm to 487 m	Y	N	N
1.3.27	4	3	11/6/1984	27	Unknown	Injector			1,372	273 mm to 1,368 m	Y	Y	N
1.3.28	4	3	11/25/1984	28	Unknown	Injector			2,050	273 mm to 2,049 m	Y	Y	N
1.3.29	4	3	12/1/1984	29	Unknown	Injector			2,045	273 mm to 2,040 m	Y	N	N
1.3.30	4	3	12/9/1984	30	Unknown	Injector			1,455	273 mm to 1,453 m	Y	N	N
1.3.31	4	3	12/17/1984	31	Unknown	Injector			1,441	273 mm to 1,430 m	Y	N	N
1.3.32	4	3	1985	32	Unknown	Production	1.90				Y	Y	N
1.3.33	4	3	1/4/1985	33	Unknown	Injector			1,471	273 mm to 1,466 m	Y	Y	N
1.3.34	4	3	1/30/1985	34	Unknown	Injector			1,376	178 mm to 1,373 m	Y	N	N
1.3.35	4	3	1/25/1986	35	Unknown	Injector			2,034	273 mm to 2,033 m	Y	N	N
1.3.36	4	3	6/30/1986	36	Unknown	Production	1.60		1,640	244 mm to 1,637 m	Y	N	N
1.3.37	4	3	10/19/1986	37	Unknown	Injector			2,114	273 mm to 2,113 m	Y	N	N
1.3.38	4	3	11/17/1986	38	Unknown	Injector			2,113	273 mm to 2,113 m	Y	N	N
1.3.39	4	3	12/8/1986	39	Unknown	Injector			3,283	244 mm to 2,612 m	Y	N	Y
1.3.40	4	3	12/18/1986	40	Unknown	Production	0.80		2,897	244 mm to 2,889 m	Y	N	N
1.3.41	4	3	1987	41	Unknown	Injector			2,940	244 mm to 2,202 m	Y	N	N
1.3.42	4	3	1/30/1987	42	Unknown	Injector			1,911	273 mm to 1,910 m	Y	N	N
1.3.43	4	3	4/10/1987	43	Unknown	Injector			2,743	244 mm to 2,526 m	Y	Y	N
1.3.44	4	3	4/18/1987	44	Unknown	Production	3.40		1,640	244 mm to 1,637 m	Y	Y	N
1.3.45	4	3	5/20/1987	45	Unknown	Injector			1,751	273 mm to 1,750 m	Y	Y	N
1.3.46	4	3	1992	46	Unknown	Production	5.20				Y	N	Y
1.3.47	4	3	1993	47	Unknown	Production	5.10				Y	N	Y
1.3.48	4	3	1993	48	Unknown	Production	4.80				Y	N	Y
1.3.49	4	3	1993	49	Unknown	Production	5.80				Y	N	Y
1.3.50	4	3	1993	50	Unknown	Production	6.70				Y	N	Y
1.3.51	4	3	1993	51	Unknown	Production	5.20				Y	N	Y
1.3.52	4	3	1993	52	Unknown	Production	6.30				Y	N	Y
1.3.53	4	3	1993	53	Unknown	Production	4.90				Y	Y	Y
1.3.54	4	3	1993	54	Unknown	Production	5.50				Y	N	Y
1.3.55	4	3	1993	55	Unknown	Production	4.70				Y	N	Y
1.3.56	4	3	1993	56	Unknown	Injector					Y	N	N
1.3.57	4	3	1993	57	Unknown	Injector					Y	N	N
1.3.58	4	3	1993	58	Unknown	Injector					Y	N	N
1.3.59	4	3	2005	59	Unknown	Production					Y	N	Y
1.3.60	4	3	2006	60	Unknown	Injector					Y	N	N
1.3.61	4	3	2006	61	Unknown	Injector					Y	N	N
1.3.62	4	3	2006	62	Unknown	Injector					Y	N	N
1.3.63	4	3	2006	63	Unknown	Production					Y	N	Y
1.3.64	4	3	2006	64	Unknown	Abandoned					N	N	N
1.3.65	4	3	2006	65	Unknown	Injector					Y	N	N
1.3.66	4	3	2007	66	Unknown	Injector					Y	Y	N
1.3.67	4	3	2007	67	Unknown	Production					Y	Y	Y
1.3.68	4	3	2007	68	Unknown	Production					Y	Y	Y
1.3.69	4	3	2009	69	Unknown	Production					Y	N	Y
1.3.70	4	3	2010	70	Unknown	Production					Y	N	Y
1.4.1	4	6	1932	1	Unknown	Unknown	8.30		321	340 mm to 172 m	Y	N	N
1.4.2	4	6	1962	2	Unknown	Abandoned			1,594	340 mm to 159 m	NA	N	N
1.4.3	4	6	1963	3	Unknown	Abandoned			1,776	340 mm to 243 m	NA	N	N
1.4.4	4	6	1963	4	Unknown	Abandoned			2,110		NA	N	N
1.4.5	4	6	1964	5	Unknown	Abandoned			1,615	340 mm to 173 m	NA	N	N
1.4.6	4	6	1964	6	Unknown	Abandoned			1,478	340 mm to 169 m	NA	N	N
1.4.7	4	6	1965	7	Unknown	Abandoned			518	273 mm to 469 m	NA	N	N
1.4.8	4	6	1965	8	Unknown	Abandoned	8.30		720	340 mm to 185 m	Y	N	N
1.4.9	4	6	1/21/1972	9	Production	Abandoned					Y	N	N
1.4.10	4	6	3/1/1972	10	Unknown	Abandoned	8.30		1,064	340 mm to 185 m	Y	N	N
1.4.11	4	6	12/19/1978	11	Injector	Injector	5.60				Y	Y	N
1.4.12	4	6	1/24/1979	12	Production	Injector					Y	N	N

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1.4.13	4	6	2/15/1979	13	Injector	Injector	5.60				Y	N	N
1.4.14	4	6	2/18/1979	14	Injector	Abandoned	8.30		450		Y	N	N
1.4.15	4	6	1981	15	Unknown	Abandoned	4.10				Y	N	N
1.4.16	4	6	3/16/1981	16	Production	Abandoned			914		Y	N	N
1.4.17	4	6	4/15/1981	17	Production	Observation	8.30				Y	N	N
1.4.18	4	6	9/6/1981	18	Injector	Abandoned	8.30				Y	Y	N
1.4.19	4	6	12/26/1981	19	Production	Abandoned					Y	Y	N
1.4.20	4	6	1/1/1982	20	Injector	Injector					Y	N	N
1.4.21	4	6	1/17/1982	21	Production	Abandoned					Y	N	N
1.4.22	4	6	4/15/1982	22	Production	Injector					Y	N	N
1.4.23	4	6	10/25/1982	23	Production	Injector					Y	Y	N
1.4.24	4	6	3/22/1983	24	Production	Production	8.30				Y	Y	N
1.4.25	4	6	1984	25	Production	Abandoned					Y	N	N
1.4.26	4	6	1984	26	Unknown	Abandoned					NA	N	N
1.4.27	4	6	1984	27	Unknown	Injector	8.30			340 mm to NA	Y	Y	N
1.4.28	4	6	10/16/1984	28	Production	Injector			1,186		Y	N	N
1.4.29	4	6	11/15/1984	29	Production	Abandoned			1,227		Y	N	N
1.4.30	4	6	11/27/1984	30	Production	Abandoned			1,067		Y	N	N
1.4.31	4	6	12/6/1984	31	Production	Abandoned			1,211		Y	N	N
1.4.32	4	6	12/14/1984	32	Production	Abandoned			1,204		Y	N	N
1.4.33	4	6	12/15/1984	33	Injector	Abandoned	5.60		1,067		Y	N	N
1.4.34	4	6	1/1/1985	34	Production	Production					Y	N	N
1.4.35	4	6	1/4/1985	35	Production	Abandoned			1,383		Y	N	N
1.4.36	4	6	1/17/1985	36	Injector	Injector			1,133		Y	N	N
1.4.37	4	6	1/17/1985	37	Production	Abandoned					Y	N	N
1.4.38	4	6	2/5/1985	38	Injector	Injector			1,191		Y	N	N
1.4.39	4	6	2/5/1985	39	Production	Production					Y	N	N
1.4.40	4	6	2/7/1985	40	Injector	Abandoned			1,195		Y	N	N
1.4.41	4	6	2/24/1985	41	Injector	Abandoned			1,067		Y	N	N
1.4.42	4	6	1986	42	Unknown	Abandoned			3,220		NA	N	N
1.4.43	4	6	7/24/1986	43	Production	Production	31.68	2004		406 mm to NA	Y	N	N
1.4.44	4	6	10/17/1986	44	Production	Abandoned			1,485		Y	N	N
1.4.45	4	6	1987	45	Unknown	Abandoned					NA	N	N
1.4.46	4	6	1987	46	Unknown	Abandoned					NA	N	N
1.4.47	4	6	5/3/1987	47	Production	Injector			2,664		Y	N	N
1.4.48	4	6	8/2/1987	48	Production	Abandoned	2.80				Y	Y	N
1.4.49	4	6	10/17/1987	49	Production	Abandoned					Y	N	N
1.4.50	4	6	11/14/1987	50	Production	Abandoned					Y	N	N
1.4.51	4	6	12/19/1987	51	Production	Injector					Y	N	N
1.4.52	4	6	1988	52	Production	Production	12.24	2004		273 mm to NA	Y	N	N
1.4.53	4	6	1/12/1988	53	Injector	Abandoned					Y	N	N
1.4.54	4	6	1/16/1988	54	Production	Abandoned					Y	Y	N
1.4.55	4	6	1/18/1988	55	Production	Abandoned					Y	N	N
1.4.56	4	6	3/1/1988	56	Injector	Injector					Y	N	N
1.4.57	4	6	3/2/1988	57	Injector	Injector					Y	N	N
1.4.58	4	6	3/7/1988	58	Non-commercial	Abandoned					Y	Y	N
1.4.59	4	6	3/9/1988	59	Injector	Injector					Y	N	N
1.4.60	4	6	4/1/1988	60	Production	Production					Y	Y	N
1.4.61	4	6	4/4/1988	61	Production	Abandoned					Y	N	N
1.4.62	4	6	4/10/1988	62	Production	Abandoned	2.80				Y	Y	N
1.4.63	4	6	4/16/1988	63	Injector	Injector					Y	N	N
1.4.64	4	6	4/21/1988	64	Injector	Injector					Y	N	N
1.4.65	4	6	5/29/1988	65	Injector	Unknown					Y	Y	N
1.4.66	4	6	5/31/1988	66	Injector	Injector					Y	N	N
1.4.67	4	6	6/10/1988	67	Production	Idle					Y	N	N
1.4.68	4	6	6/16/1988	68	Production	Abandoned					Y	N	N
1.4.69	4	6	7/8/1988	69	Injector	Injector					Y	N	N
1.4.70	4	6	8/4/1988	70	Injector	Injector					Y	N	N
1.4.71	4	6	8/10/1988	71	Production	Production					Y	N	N
1.4.72	4	6	8/17/1988	72	Injector	Injector	2.80				N	N	N
1.4.73	4	6	9/8/1988	73	Production	Abandoned	2.80				Y	N	N
1.4.74	4	6	9/8/1988	74	Production	Production					Y	Y	N
1.4.75	4	6	10/26/1988	75	Injector	Injector					Y	N	N
1.4.76	4	6	10/31/1988	76	Production	Production	2.80				Y	N	N
1.4.77	4	6	11/2/1988	77	Non-commercial	Production	2.80				Y	N	N
1.4.78	4	6	11/26/1988	78	Injector	Unknown	2.80				N	Y	N
1.4.79	4	6	2/22/1989	79	Injector	Injector					N	N	N
1.4.80	4	6	3/6/1989	80	Production	Production	6.12	2004		273 mm to NA	Y	N	N
1.4.81	4	6	3/18/1989	81	Non-commercial	Abandoned	3.90				Y	N	N
1.4.82	4	6	3/25/1989	82	Production	Production					Y	Y	N
1.4.83	4	6	4/6/1989	83	Production	Production	8.30				Y	N	N
1.4.84	4	6	5/8/1989	84	Injector	Injector	2.80				N	N	N
1.4.85	4	6	5/12/1989	85	Production	Production	2.80			273 mm to NA	Y	N	N
1.4.86	4	6	5/16/1989	86	Production	Production					Y	N	N
1.4.87	4	6	7/9/1989	87	Production	Unknown					Y	Y	N
1.4.88	4	6	7/29/1989	88	Injector	Injector					Y	N	N
1.4.89	4	6	7/29/1989	89	Injector	Injector					Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
1.4.90	4	6	9/14/1989	90	Injector	Unknown					Y	Y	N
1.4.91	4	6	9/19/1989	91	Injector	Injector					Y	N	N
1.4.92	4	6	10/18/1989	92	Injector	Unknown					Y	Y	N
1.4.93	4	6	11/17/1989	93	Injector	Unknown					Y	Y	N
1.4.94	4	6	12/29/1989	94	Injector	Injector					Y	N	N
1.4.95	4	6	1990	95	Production	Abandoned					Y	N	N
1.4.96	4	6	1990	96	Unknown	Abandoned					N	N	N
1.4.97	4	6	5/29/1990	97	Unknown	Unknown					NA	Y	N
1.4.98	4	6	8/6/1990	98	Unknown	Unknown					NA	N	N
1.4.99	4	6	9/5/1990	99	Production	Production					Y	Y	N
1.4.100	4	6	1991	100	Unknown	Production					Y	N	N
1.4.101	4	6	1/20/1991	101	Production	Production			1,186		Y	Y	N
1.4.102	4	6	2/6/1991	102	Injector	Injector					Y	N	N
1.4.103	4	6	3/11/1991	103	Injector	Unknown					Y	Y	N
1.4.104	4	6	4/29/1991	104	Production	Production	19.62	2004		340 mm to NA	Y	N	N
1.4.105	4	6	4/30/1991	105	Production	Production	10.26	2004		340 mm to NA	Y	N	N
1.4.106	4	6	5/27/1991	106	Production	Production					Y	Y	N
1.4.107	4	6	11/20/1991	107	Production	Production			1,211		Y	Y	N
1.4.108	4	6	2/20/1992	108	Production	Production					Y	N	N
1.4.109	4	6	4/25/1992	109	Production	Production					Y	N	N
1.4.110	4	6	6/2/1992	110	Production	Production					Y	Y	N
1.4.111	4	6	7/16/1992	111	Production	Abandoned					Y	N	N
1.4.112	4	6	1/22/1993	112	Injector	Injector					Y	N	N
1.4.113	4	6	2/15/1993	113	Production	Production			1,199		Y	Y	N
1.4.114	4	6	5/9/1993	114	Production	Production					Y	Y	N
1.4.115	4	6	5/10/1993	115	Production	Abandoned					Y	Y	N
1.4.116	4	6	10/25/1993	116	Injector	Unknown					Y	Y	N
1.4.117	4	6	1/1/1994	117	Unknown	Injector			2,172		NA	N	N
1.4.118	4	6	3/11/1994	118	Injector	Unknown					Y	Y	N
1.4.119	4	6	4/14/1994	119	Production	Production					Y	Y	N
1.4.120	4	6	10/22/1994	120	Production	Production					Y	Y	N
1.4.121	4	6	1995	121	Unknown	Production					Y	N	N
1.4.122	4	6	1995	122	Unknown	Production	20.07	2004		340 mm to NA	Y	N	N
1.4.123	4	6	1995	123	Unknown	Injector					Y	N	N
1.4.124	4	6	1995	124	Unknown	Injector			2,211		Y	N	N
1.4.125	4	6	1996	125	Unknown	Injector			2,256		Y	N	N
1.4.126	4	6	1996	126	Unknown	Production	23.76	2004	0	340 mm to NA	Y	N	N
1.4.127	4	6	1996	127	Unknown	Production	20.61	2004		340 mm to NA	Y	N	N
1.4.128	4	6	1997	128	Unknown	Production	22.05	2004		340 mm to NA	Y	N	N
1.4.129	4	6	1997	129	Unknown	Production					Y	N	N
1.4.130	4	6	1997	130	Unknown	Injector			2,558		Y	N	N
1.4.131	4	6	1998	131	Unknown	Production	9.81	2004		273 mm to NA	Y	N	N
1.4.132	4	6	1998	132	Unknown	Injector			2,177		Y	N	N
1.4.133	4	6	1998	133	Unknown	Injector			2,484		Y	N	N
1.4.134	4	6	1999	134	Unknown	Production	17.64	2004		340 mm to NA	Y	N	N
1.4.135	4	6	2001	135	Unknown	Production	8.91	2004		340 mm to NA	Y	N	N
1.4.136	4	6	2001	136	Unknown	Production	18.99	2004		340 mm to NA	Y	N	N
1.4.137	4	6	2002	137	Unknown	Injector					Y	N	N
1.4.138	4	6	2003	138	Unknown	Injector					Y	N	N
1.4.139	4	6	2008	139	Unknown	Production					Y	N	N
1.4.140	4	6	2009	140	Unknown	Injector					Y	N	N
1.4.141	4	6		141	Unknown	Unknown	9.81	2004		273 mm to NA	Y	Y	N
1.4.142	4	6		142	Unknown	Unknown	21.15	2004		340 mm to NA	Y	Y	N
1.4.143	4	6		143	Unknown	Unknown	6.03	2004		244 mm to NA	Y	Y	N
1.4.144	4	6		144	Unknown	Unknown	6.21	2004		244 mm to NA	Y	Y	N
1.4.145	4	6		145	Injector	Unknown					Y	Y	N
1.4.146	4	6		146	Unknown	Unknown			1,947		NA	Y	N
1.4.147	4	6		147	Production	Production	5.76	2004		244 mm to NA	Y	Y	N
1.4.148	4	6		148	Production	Production	16.92	2004		298 mm to NA	Y	Y	N
1.5.1	4	3	1972	1	Unknown	Injector					N	N	N
1.5.2	4	3	1974	2	Unknown	Injector					Y	N	N
1.5.3	4	3	1974	3	Unknown	Injector			1,829		Y	N	N
1.5.4	4	3	1974	4	Unknown	Abandoned					N	N	N
1.5.5	4	3	1975	5	Unknown	Injector	2.40				N	N	N
1.5.6	4	3	1975	6	Unknown	Production	1.40				Y	N	Y
1.5.7	4	3	1976	7	Unknown	Injector					Y	N	N
1.5.8	4	3	1976	8	Unknown	Injector			2,234	244 mm to 1,569 m	Y	N	N
1.5.9	4	3	1976	9	Unknown	Abandoned			2,293	244 mm to 1,605 m	NA	N	N
1.5.10	4	3	1977	10	Unknown	Production	1.40				Y	N	Y
1.5.11	4	3	1977	11	Unknown	Abandoned			943	340 mm to 657 m	NA	N	N
1.5.12	4	3	1977	12	Unknown	Injector					Y	N	N
1.5.13	4	3	1977	13	Unknown	Production	2.40				Y	N	Y
1.5.14	4	3	1978	14	Unknown	Injector			2,131	244 mm to 1,570 m	Y	Y	N
1.5.15	4	3	1978	15	Unknown	Injector			2,050	244 mm to 1,569 m	Y	Y	N
1.5.16	4	3	1978	16	Unknown	Abandoned			1,967	340 mm to 687 m	NA	Y	N
1.5.17	4	3	1978	17	Unknown	Abandoned			2,079	244 mm to 1,584 m	NA	Y	N
1.5.18	4	3	1978	18	Unknown	Injector	1.00				N	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.5.19	4	3	1979	19	Unknown	Injector					Y	N	N
1.5.20	4	3	1979	20	Unknown	Production	1.40				Y	N	Y
1.5.21	4	3	1979	21	Unknown	Production	1.00				Y	N	Y
1.5.22	4	3	1983	22	Unknown	Injector			2,982	244 mm to 1,372 m	Y	N	N
1.5.23	4	3	1984	23	Unknown	Injector			2,325	244 mm to 618 m	Y	N	N
1.5.24	4	3	1984	24	Unknown	Production	3.20		2,408	178 mm to 2,281 m	Y	N	Y
1.5.25	4	3	1985	25	Unknown	Injector			2,336	178 mm to 1,362 m	Y	N	N
1.5.26	4	3	1985	26	Unknown	Production			1,783	178 mm to 1,211 m	Y	N	Y
1.5.27	4	3	1985	27	Unknown	Injector			1,737	178 mm to 1,211 m	N	N	N
1.5.28	4	3	1986	28	Unknown	Production	1.90				Y	N	Y
1.5.29	4	3	1986	29	Unknown	Injector	2.00				N	N	N
1.5.30	4	3	1987	30	Unknown	Production	2.50				Y	N	Y
1.5.31	4	3	1987	31	Unknown	Production	3.50				Y	N	Y
1.5.32	4	3	1987	32	Unknown	Injector	2.80				N	N	N
1.5.33	4	3	1987	33	Unknown	Injector			3,266	244 mm to 2,505 m	N	N	N
1.5.34	4	3	1987	34	Unknown	Injector	3.60				Y	N	N
1.5.35	4	3	1987	35	Unknown	Injector	2.90				N	N	N
1.5.36	4	3	1987	36	Unknown	Production	4.10				Y	N	Y
1.5.37	4	3	1987	37	Unknown	Injector					Y	N	N
1.5.38	4	3	1987	38	Unknown	Injector					Y	N	N
1.5.39	4	3	1987	39	Unknown	Injector					Y	N	N
1.5.40	4	3	1987	40	Unknown	Production	2.20				Y	N	Y
1.5.41	4	3	1987	41	Unknown	Injector					Y	N	N
1.5.42	4	3	1987	42	Unknown	Production	3.30				Y	N	Y
1.5.43	4	3	1987	43	Unknown	Injector					Y	N	N
1.5.44	4	3	1987	44	Unknown	Injector					Y	N	N
1.5.45	4	3	1987	45	Unknown	Production	3.40				Y	N	Y
1.5.46	4	3	1987	46	Unknown	Production					Y	N	N
1.5.47	4	3	1987	47	Unknown	Production					Y	N	N
1.5.48	4	3	1988	48	Unknown	Abandoned	3.00				Y	N	N
1.5.49	4	3	1988	49	Unknown	Injector					Y	N	N
1.5.50	4	3	1988	50	Unknown	Production	2.80		2,134	340 mm to 1,061 m	Y	N	Y
1.5.51	4	3	1988	51	Unknown	Production	3.20		2,220	340 mm to 1,279 m	Y	N	Y
1.5.52	4	3	1988	52	Unknown	Production	3.20		2,141	340 mm to 1,107 m	Y	N	Y
1.5.53	4	3	1988	53	Unknown	Production	2.90				Y	N	Y
1.5.54	4	3	1988	54	Unknown	Injector	3.30		2,169	340 mm to 1,326 m	Y	N	N
1.5.55	4	3	1988	55	Unknown	Injector	3.70				Y	N	N
1.5.56	4	3	1988	56	Unknown	Injector			2,206	244 mm to 1,283 m	Y	N	N
1.5.57	4	3	1988	57	Unknown	Injector					Y	N	N
1.5.58	4	3	1988	58	Unknown	Injector					Y	N	N
1.5.59	4	3	1988	59	Unknown	Injector	2.60		2,357	340 mm to 1,212 m	N	N	N
1.5.60	4	3	1988	60	Unknown	Production	3.30				Y	N	Y
1.5.61	4	3	1988	61	Unknown	Injector					Y	N	N
1.5.62	4	3	1988	62	Unknown	Injector					Y	N	N
1.5.63	4	3	1988	63	Unknown	Production	3.40		1,972	340 mm to 996 m	Y	N	Y
1.5.64	4	3	1988	64	Unknown	Injector					Y	N	N
1.5.65	4	3	1988	65	Unknown	Production	3.00		2,211	340 mm to 914 m	Y	N	Y
1.5.66	4	3	1988	66	Unknown	Production	2.80		2,362	340 mm to 201 m	Y	N	Y
1.5.67	4	3	1988	67	Unknown	Production	3.20		2,252	340 mm to 1,404 m	Y	N	Y
1.5.68	4	3	1988	68	Unknown	Production	2.80		2,320	340 mm to 1,438 m	Y	N	Y
1.5.69	4	3	1988	69	Unknown	Injector			1,997	244 mm to 1,220 m	Y	N	N
1.5.70	4	3	1988	70	Unknown	Production					Y	N	Y
1.5.71	4	3	1988	71	Unknown	Production					Y	N	Y
1.5.72	4	3	1989	72	Unknown	Injector			2,058	244 mm to 1,161 m	Y	N	N
1.5.73	4	3	1989	73	Unknown	Injector			1,981	244 mm to 762 m	Y	N	N
1.5.74	4	3	1989	74	Unknown	Injector					Y	N	N
1.5.75	4	3	1989	75	Unknown	Injector					Y	N	N
1.5.76	4	3	1989	76	Unknown	Injector			1,981	244 mm to 762 m	Y	N	N
1.5.77	4	3	1989	77	Unknown	Injector					Y	N	N
1.5.78	4	3	1989	78	Unknown	Injector					Y	N	N
1.5.79	4	3	1989	79	Unknown	Production	3.90		2,162	340 mm to 1,347 m	Y	N	Y
1.5.80	4	3	1989	80	Unknown	Injector	3.70				Y	N	N
1.5.81	4	3	1989	81	Unknown	Injector	2.90		1,966	340 mm to 1,042 m	N	N	N
1.5.82	4	3	1989	82	Unknown	Injector					Y	N	N
1.5.83	4	3	1989	83	Unknown	Production	3.70				Y	N	Y
1.5.84	4	3	1989	84	Unknown	Injector	3.30				Y	N	N
1.5.85	4	3	1990	85	Unknown	Injector			1,865	244 mm to 773 m	Y	N	N
1.5.86	4	3	1990	86	Unknown	Production	2.20		2,034	340 mm to 1,081 m	Y	N	Y
1.5.87	4	3	1990	87	Unknown	Production	1.30		1,962	340 mm to 287 m	Y	Y	Y
1.5.88	4	3	1990	88	Unknown	Injector			1,930	244 mm to 822 m	Y	N	N
1.5.89	4	3	1991	89	Unknown	Injector					Y	N	N
1.5.90	4	3	1992	90	Unknown	Injector					Y	N	N
1.5.91	4	3	1992	91	Unknown	Injector			1,679	340 mm to 824 m	Y	Y	N
1.5.92	4	3	1992	92	Unknown	Abandoned			1,948	340 mm to 913 m	NA	N	N
1.5.93	4	3	1993	93	Unknown	Production	3.20				Y	N	Y
1.5.94	4	3	1993	94	Unknown	Production	2.90				Y	N	Y
1.5.95	4	3	1995	95	Unknown	Injector					N	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
1.5.96	4	3	1995	96	Unknown	Production					Y	N	Y
1.5.97	4	3	1995	97	Unknown	Production	2.80				Y	N	Y
1.5.98	4	3	1996	98	Unknown	Injector					Y	N	N
1.5.99	4	3	2001	99	Unknown	Injector					Y	Y	N
1.5.100	4	3	2005	100	Unknown	Production					Y	Y	Y
1.5.101	4	3	2005	101	Unknown	Production					Y	Y	Y
1.5.102	4	3	2005	102	Unknown	Production					Y	N	Y
1.5.103	4	3	2006	103	Unknown	Injector					Y	Y	Y
1.5.104	4	3	2006	104	Unknown	Production					Y	Y	Y
1.5.105	4	3	2006	105	Unknown	Production					Y	N	Y
1.5.106	4	3	2006	106	Unknown	Production					Y	Y	Y
1.5.107	4	3	2009	107	Unknown	Production					Y	Y	Y
1.5.108	4	3		108	Unknown	Unknown	3.90				Y	N	Y
1.6.1	4	5		1	Production	Production			3,404		Y	N	Y
1.6.2	4	5		2	Production	Production			4,269		Y	N	Y
1.6.3	4	5		3	Non-commercial	Abandoned			3,271		N	N	N
1.6.4	4	5		4	Production	Production			3,911		Y	N	Y
1.6.5	4	5		5	Production	Production					Y	N	Y
1.6.6	4	5		6	Non-commercial	Abandoned			4,086		N	N	N
1.6.7	4	5		7	Production	Production			3,606		Y	N	Y
1.6.8	4	5		8	Non-commercial	Abandoned			3,929		N	N	N
1.6.9	4	5		9	Non-commercial	Abandoned			4,097		N	Y	N
1.6.10	4	5		10	Non-commercial	Abandoned					N	N	N
1.6.11	4	5		11	Injector	Injector					Y	N	N
1.6.12	4	5		12	Non-commercial	Abandoned					N	Y	N
1.6.13	4	5		13	Non-commercial	Abandoned					N	Y	N
1.7.1	5	3	12/10/1974	6	Production	Idle	12.00	2005	1,508	340 mm to 322 m	Y	N	Y
1.7.2	5	3	8/9/1959	3	Non-commercial	Abandoned			28		N	N	N
1.7.3	5	3	7/26/1959	2	Non-commercial	Abandoned			600		N	N	N
1.7.4	5	3	9/17/1962	4	Non-commercial	Abandoned			386		N	N	N
1.7.5	5	3	7/20/1959	1	Non-commercial	Abandoned			655		N	N	N
1.7.6	5	3	9/9/1973	5	Non-commercial	Unknown			2,085	244 mm to 304 m	N	Y	N
1.7.7	5	3	4/6/2002	7	Unknown	Observation			1,047		NA	Y	N
1.7.8	5	3	2/12/2008	8	Unknown	Observation			525		NA	Y	N
1.8.1	3	5	1960	1	Dry-hole	Unknown			1,120		N	N	N
1.8.2	3	5	1963	2	Dry-hole	Unknown			780		N	N	N
1.8.3	3	5	1964	3	Dry-hole	Unknown			1,725		N	N	N
1.8.4	3	5	1964	4	Dry-hole	Unknown			671		N	N	N
1.8.5	3	5	1979	19	Non-commercial	Unknown			2,195		N	N	N
1.8.6	3	5	1971	5	Dry-hole	Unknown			877		N	N	N
1.8.7	3	5	1971	6	Dry-hole	Unknown			1,466		N	N	N
1.8.8	3	5	1972	7	Dry-hole	Unknown			1,686		N	N	N
1.8.9	3	5	1972	8	Dry-hole	Unknown			1,686		N	N	N
1.8.10	3	5	1973	9	Production	Unknown	3.00	11/13/1973	1,944		Y	Y	N
1.8.11	3	5	1973	10	Non-commercial	Unknown			1,829		N	N	N
1.8.12	3	5	1973	11	Production	Unknown	2.70	4/19/1976	2,113		Y	N	N
1.8.13	3	5	1973	12	Dry-hole	Unknown			1,616		N	Y	N
1.8.14	3	5	1974	13	Dry-hole	Unknown			3,242		N	Y	N
1.8.15	3	5	1974	14	Production	Unknown	3.90	4/21/1981	2,508		Y	N	N
1.8.16	3	5	1975	15	Dry-hole	Unknown			2,080		N	N	N
1.8.17	3	5	1975	16	Production	Unknown	2.40	8/19/1975	1,466		Y	Y	N
1.8.18	3	5	1975	17	Production	Unknown	5.70	1/6/1977	1,678		Y	N	N
1.8.19	3	5	1975	18	Dry-hole	Unknown			2,134		N	N	N
1.8.20	3	5	3/1/1979	20	Dry-hole	Unknown			1,906		N	Y	N
1.8.21	3	5	1979	21	Dry-hole	Unknown			1,600		N	Y	N
1.8.22	3	5	1979	22	Dry-hole	Unknown			1,710		N	N	N
1.8.23	3	5	1980	23	Non-commercial	Unknown	1.90	1/6/1981	1,943		N	Y	N
1.8.24	3	5	1980	24	Dry-hole	Unknown			914		N	N	N
1.8.25	3	5	1981	25	Non-commercial	Unknown			1,751		N	N	N
1.8.26	3	5	1981	26	Production	Unknown	2.30	9/15/1981	1,677		Y	N	N
1.8.27	3	5	1981	27	Dry-hole	Unknown			2,696		N	Y	N
1.8.28	3	5	1982	28	Dry-hole	Unknown			2,100		N	N	N
1.8.29	3	5	1984	29	Not tested	Unknown			856		NA	N	N
1.8.30	3	5	1986	30	Non-commercial	Unknown			528		NA	N	N
1.9.1	2	4	1905	1	Abandoned	Abandoned			585		NA	N	N
1.9.2	2	4	1960	2	Non-commercial	Abandoned			218		N	N	N
1.9.3	2	4	1960	3	Production	Abandoned			198		Y	Y	Y
1.9.4	2	4	1961	4	Production	Observation			221		Y	Y	Y
1.9.5	2	4	1961	5	Production	Abandoned			242		Y	Y	Y
1.9.6	2	4	1963	6	Non-commercial	Abandoned			72		N	N	N
1.9.7	2	4	1963	7	Non-commercial	Abandoned			146		N	N	N
1.9.8	2	4	1964	8	Non-commercial	Abandoned			283		N	N	N
1.9.9	2	4	1964	9	Non-commercial	Abandoned			131		N	Y	N
1.9.10	2	4	1964	10	Non-commercial	Abandoned			625		N	N	N
1.9.11	2	4	1965	11	Non-commercial	Abandoned			306		N	N	N
1.9.12	2	4	2005	20	Non-commercial	Idle					N	N	N
1.9.13	2	4	1974	12	Production	Production	2.70		2,915		Y	N	Y

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.9.14	2	4	1975	13	Abandoned	Injector			1,829		N	N	N
1.9.15	2	4	1976	14	Non-commercial	Idle			2,199		N	Y	N
1.9.16	2	4	1979	15	Production	Abandoned			396		Y	N	Y
1.9.17	2	4	1980	16	Production	Injector			1,807		Y	N	Y
1.9.18	2	4	1981	17	Non-commercial	Abandoned			2,745		N	N	N
1.9.19	2	4	1985	18	Production	Production	6.00		2,134		Y	N	Y
1.9.20	2	4	1991	19	Production	Production	5.80		2,501		Y	N	Y
1.10.1	2	4	2007	5	Production	Production	7.50	9/28/2007	1,032		Y	N	Y
1.10.2	2	4	2008	6	Production	Production	7.50	1/29/2008	713		Y	N	Y
1.10.3	2	4	2006	3	Production	Production	7.20	1/17/2008	853		Y	Y	Y
1.10.4	2	4	2007	4	Non-commercial	Observation					N	N	N
1.10.5	2	4	2008	7	Production	Observation					Y	N	N
1.10.6	2	4	2008	8	Injector	Injector	8.40	1/1/2008			Y	N	N
1.10.7	2	4	2008	11	Injector	Injector					Y	Y	N
1.10.8	2	4	2002	1	Observation	Observation			858		NA	N	N
1.10.9	2	4	2004	2	Observation	Observation			1,524		NA	N	N
1.10.10	2	4	2009	13	Production	Unknown					Y	N	Y
1.10.11	2	4	2009	16	Production	Unknown					Y	N	Y
1.10.12	2	4	2009	14	Production	Unknown					Y	N	Y
1.10.13	2	4	2009	20	Injector	Unknown					Y	N	N
1.10.14	2	4	2009	18	Injector	Unknown					Y	Y	N
1.10.15	2	4	2009	19	Injector	Unknown					Y	N	N
1.10.16	2	4	2009	15	Injector	Unknown					Y	Y	N
1.10.17	2	4	2010	21	Production	Non-commercial					Y	N	Y
1.10.18	2	4	2008	9	Non-commercial	Unknown					N	N	N
1.10.19	2	4	2008	10	Non-commercial	Unknown					N	Y	N
1.10.20	2	4	2009	17	Unknown	Unknown					NA	Y	N
1.10.21	2	4		22	Unknown	Unknown					NA	N	N
1.10.22	2	4	2008	12	Non-commercial	Unknown					N	N	N
1.10.23	2	4		23	Injector	Unknown					Y	N	N
1.10.24	2	4		24	Injector	Unknown					Y	N	N
1.11.1	2	4	1959	1	Unknown	Abandoned			536		N	N	N
1.11.2	2	4	1960	2	Unknown	Unknown			73		NA	N	N
1.11.3	2	4	1960	3	Unknown	Unknown			186		NA	N	N
1.11.4	2	4	1961	4	Unknown	Unknown			220		NA	N	N
1.11.5	2	4	1961	5	Unknown	Unknown			549		NA	N	N
1.11.6	2	4	1905	6	Unknown	Unknown			235		NA	N	N
1.11.7	2	4	1905	7	Unknown	Unknown			76		NA	N	N
1.11.8	2	4	1964	8	Unknown	Observation			1,543	244 mm to 150 m	N	N	N
1.11.9	2	4	1974	9	Unknown	Abandoned			2,217	219 mm to 1,219 m	NA	Y	N
1.11.10	2	4	1905	10	Unknown	Idle			1,057	346 mm to 318 m	NA	N	N
1.11.11	2	4	1975	11	Unknown	Idle			1,355	340 mm to 360 m	NA	Y	N
1.11.12	2	4	1905	12	Unknown	Idle					NA	N	N
1.11.13	2	4	1985	13	Production	Idle			190	219 mm to 1,219 m	Y	N	N
1.11.14	2	4	1986	14	Unknown	Production			329	324 mm to 84 m	Y	Y	Y
1.11.15	2	4	1986	15	Production	Observation			135	340 mm to 116 m	Y	N	N
1.11.16	2	4	1990	16	Non-commercial	Unknown			889		N	Y	N
1.11.17	2	4	1990	17	Production	Unknown			917		Y	N	Y
1.11.18	2	4	1991	18	Production	Unknown			733	340 mm to 308 m	Y	N	N
1.11.19	2	4	1991	19	Production	Unknown			570	340 mm to 371 m	Y	N	N
1.11.20	2	4	1991	20	Production	Unknown			368	340 mm to 307 m	Y	N	Y
1.11.21	2	4	1991	21	Dry-hole	Unknown			901		N	N	N
1.11.22	2	4	1991	22	Production	Production			591	406 mm to 407 m	Y	Y	Y
1.11.23	2	4	1991	23	Production	Unknown			603	406 mm to 424 m	Y	N	N
1.11.24	2	4	1991	24	Production	Production			585	406 mm to 425 m	Y	N	Y
1.11.25	2	4	1991	25	Production	Production			610	406 mm to 407 m	Y	N	Y
1.11.26	2	4	1991	26	Production	Production			709	340 mm to 434 m	Y	N	Y
1.11.27	2	4	1991	27	Dry-hole	Abandoned			762		N	N	N
1.11.28	2	4	1991	28	Production	Unknown			6,096		Y	Y	Y
1.11.29	2	4	1991	29	Dry-hole	Abandoned			483		N	N	N
1.11.30	2	4	1992	30	Dry-hole	Abandoned			906		N	N	N
1.11.31	2	4	1992	31	Production	Unknown			227		Y	N	Y
1.11.32	2	4	1992	32	Production	Unknown			200		Y	N	Y
1.11.34	2	4	1992	33	Dry-hole	Unknown			497		N	N	N
1.11.35	2	4	1992	34	Injector	Unknown			215	273 mm to 135 m	Y	Y	N
1.11.36	2	4	1992	35	Injector	Unknown			213	273 mm to 87 m	Y	N	N
1.11.37	2	4	1992	36	Injector	Unknown			207	273 mm to 118 m	Y	N	N
1.11.38	2	4	1992	37	Injector	Unknown			235	273 mm to 126 m	Y	N	N
1.11.39	2	4	1992	38	Dry-hole	Abandoned			333		N	N	N
1.11.40	2	4		39	Unknown	Unknown					NA	N	N
1.11.41	2	4		40	Unknown	Production					Y	N	N
1.11.42	2	4		41	Unknown	Production					Y	N	Y
1.11.43	2	4		42	Unknown	Production					Y	Y	Y
1.11.44	2	4		43	Unknown	Unknown					N	N	N
1.12.1	2	4	1974	1	Dry-hole	Abandoned			2,335	340 mm to 237 m	N	N	N
1.12.2	2	4	1976	3	Production	Production			1,265	244 mm to 317 m	Y	N	N
1.12.3	2	4	1976	2	Production	Injector			973	244 mm to 619 m	Y	Y	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.12.4	2	4	1979	4	Non-commercial	Abandoned			2,939	340 mm to 908 m	N	N	N
1.12.5	2	4	1982	5	Production	Production			996	340 mm to 769 m	Y	N	N
1.12.6	2	4	1982	6	Non-commercial	Injector			2,051	340 mm to 764 m	N	Y	N
1.12.7	2	4	1984	7	Production	Production			1,249	340 mm to 767 m	Y	N	N
1.12.8	2	4	2003	8	Production	Production					Y	N	N
1.12.9	2	4	2003	9	Production	Production					Y	N	N
1.12.10	2	4	2004	10	Non-commercial	Abandoned					N	N	N
1.12.11	2	4	2004	11	Non-commercial	Abandoned					N	N	N
1.13.1	2	5	1989	22	Injector	Injector			1,894		Y	N	N
1.13.2	2	5	1997	31	Non-commercial	Idle			296	244 mm to 2,258 m	Y	N	N
1.13.3	2	5	1983	13	Production	Idle	4.80		2,777		Y	N	N
1.13.4	2	5	1990	23	Production	Production	8.20		2,898		Y	N	N
1.13.5	2	5	1986	18	Production	Injector			2,274	340 mm to 1,056 m	Y	N	N
1.13.6	2	5	1994	28	Non-commercial	Idle			3,570		N	N	N
1.13.7	2	5	1997	30	Production	Production	4.70		2,926		Y	N	N
1.13.8	2	5	2000	32	Injector	Injector			1,168		Y	N	N
1.13.9	2	5	1990	24	Injector	Injector			3,273		Y	Y	N
1.13.10	2	5	1979	4	Non-commercial	Idle			2,750		N	N	N
1.13.11	2	5	1983	14	Production	Idle	5.20		3,113	244 mm to 2,294 m	Y	Y	N
1.13.12	2	5	1981	12	Non-commercial	Injector			2,518		Y	N	N
1.13.13	2	5	1980	8	Production	Injector			3,005	244 mm to 2,112 m	Y	N	N
1.13.14	2	5	1980	9	Gradient	Idle			917		N	N	N
1.13.15	2	5	1980	10	Non-commercial	Observation			3,810		N	N	N
1.13.16	2	5	1993	25	Non-commercial	Idle			3,593		N	Y	N
1.13.17	2	5	1989	21	Production	Production	5.40		2,908		Y	Y	N
1.13.18	2	5	1981	11	Production	Injector			2,885	244 mm to 2,555 m	Y	Y	N
1.13.19	2	5	1978	2	Gradient	Idle			564		N	Y	N
1.13.20	2	5	1979	6	Non-commercial	Idle			2,981		N	N	N
1.13.21	2	5	1986	19	Production	Production	5.40		2,713	244 mm to 2,292 m	Y	Y	N
1.13.22	2	5	1995	29	Production	Production	4.40		2,725		Y	N	N
1.13.23	2	5	2003	33	Production	Replaced					Y	N	N
1.13.24	2	5	1986	17	Production	Production	5.90		2,710	340 mm to 1,063 m	Y	N	N
1.13.25	2	5	1984	15	Non-commercial	Observation			3,176		N	Y	N
1.13.26	2	5	1993	26	Production	Production	8.40		2,954	340 mm to 1,220 m	Y	Y	N
1.13.27	2	5	1986	16	Non-commercial	Observation			2,860		N	N	N
1.13.28	2	5	1988	20	Production	Idle	8.30		2,999		Y	Y	N
1.13.29	2	5	1993	27	Production	Idle	4.70		2,546	244 mm to 2,055 m	Y	N	N
1.13.30	2	5	1978	1	Gradient	Abandoned			198		Y	N	N
1.13.31	2	5	1978	3	Production	Injector			2,211		Y	N	N
1.13.32	2	5	1979	5	Non-commercial	Observation			2,313		N	Y	N
1.13.33	2	5	1979	7	Production	Injector			2,782	244 mm to 2,292 m	Y	N	N
1.14.1	3	6	1982	5	Production	Abandoned	2.00	1982		244 mm to 1,283 m	Y	N	N
1.14.2	3	6	1985	8	Production	Injector	3.50	1985	1,983	244 mm to 1,238 m	Y	Y	N
1.14.3	3	6	1981	3	Production	Abandoned	4.00	1982		244 mm to 1,241 m	Y	N	N
1.14.4	3	6	1976	1	Production	Unknown			1,968		Y	N	N
1.14.5	3	6	1981	4	Non-commercial	Non-commercial			2,530		N	N	N
1.14.6	3	6	1981	2	Non-commercial	Non-commercial			2,557		N	N	N
1.14.7	3	6	1983	6	Non-commercial	Non-commercial			1,911		N	Y	N
1.14.8	3	6	1984	7	Non-commercial	Non-commercial			1,511		N	N	N
1.14.9	3	6	1991	10	Production	Injector	2.70	1991	2,257	244 mm to 1,188 m	Y	Y	N
1.14.10	3	6	1990	9	Unknown	Unknown			2,000		NA	N	N
1.14.11	3	6	1991	11	Unknown	Injector			2,664		NA	N	N
1.14.12	3	6	1991	12	Blow out	Abandoned			511	340 mm to 311 m	N	N	N
1.14.13	3	6	1991	13	Unknown	Unknown			1,684		NA	N	N
1.14.14	3	6	1991	14	Unknown	Unknown			2,073		NA	N	N
1.14.15	3	6	1992	15	Blow out	Abandoned			1,063		N	N	N
1.14.16	3	6	1992	16	Injector	Injector			2,071		Y	N	N
1.14.17	3	6	1993	17	Production	Production	17.10	1993	1,391		Y	N	N
1.14.18	3	6	1993	18	Production	Production	16.20	1993	1,549		Y	N	N
1.15.1	2	3	1980	1	Non-commercial	Abandoned			1,663		N	N	N
1.15.2	2	3	1980	2	Unknown	Unknown			1,646	340 mm to 708 m	NA	N	N
1.15.3	2	3	1980	3	Non-commercial	Abandoned			951		N	N	N
1.15.4	2	3	1981	4	Non-commercial	Abandoned			765		N	N	N
1.15.5	2	3	1982	5	Non-commercial	Abandoned			618		N	N	N
1.15.6	2	3	1983	6	Non-commercial	Abandoned			611		N	N	N
1.15.7	2	3	1983	7	Non-commercial	Abandoned			520		N	N	N
1.15.8	2	3	2003	8	Abandoned	Abandoned			158		N	Y	N
1.15.9	2	3	2004	9	Non-commercial	Abandoned			1,173	114 mm to 758 m	N	Y	N
1.15.10	2	3	2007	10	Non-commercial	Idle			921	114 mm to 476 m	Y	N	Y
1.15.11	2	3	2007	11	Production	Idle	6.80	2010	1,492	340 mm to 459 m	Y	N	Y
1.15.12	2	3	2007	12	Production	Idle	2.40	2007	1,722	340 mm to 483 m	Y	Y	Y
1.15.13	2	3	2007	13	Production	Idle	1.20	2007	1,642	340 mm to 494 m	Y	N	Y
1.15.14	2	3	2007	14	Production	Idle	1.60	2007	1,743		Y	N	Y
1.15.15	2	3	2007	15	Unknown	Unknown			1,741	340 mm to 474 m	Y	N	Y
1.15.16	2	3	2010	16	Production	Idle	6.30	2010	1,495		Y	N	N
1.15.17	2	3	2010	17	Injector	Idle			1,928		NA	N	N
1.15.18	2	3	2010	18	Production	Idle	6.50	2010	1,490		Y	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.16.1	5	2	1975	1	Production	Production	4.36		1,521	340 mm to 1,113 m	Y	N	Y
1.16.2	5	2	1976	2	Production	Production	3.88		1,994	340 mm to 1,288 m	Y	Y	Y
1.16.3	5	2	1976	3	Production	Production	3.53		2,037	244 mm to 1,291 m	Y	Y	Y
1.16.4	5	2	1978	7	Non-commercial	Observation			1,529	244 mm to 866 m	N	Y	N
1.16.5	5	2	1978	6	Production	Production	2.77		1,405	244 mm to 1,039 m	Y	N	Y
1.16.6	5	2	1978	4	Injector	Injector			1,175	340 mm to 518 m	Y	N	N
1.16.7	5	2	1978	5	Injector	Injector			1,972	340 mm to 623 m	Y	N	N
1.16.8	5	2		8	Unknown	Unknown			1,856	273 mm to 1,804 m	NA	N	N
1.16.9	5	2		9	Unknown	Unknown			1,736	273 mm to 1,094 m	NA	N	N
1.17.1	3	4	1975	1	Non-commercial	Observation			2,099	140 mm to 1,284 m	N	N	N
1.17.2	3	4	1975	2	Production	Observation			831	178 mm to 704 m	Y	N	N
1.17.3	3	4	1975	3	Production	Production			878	244 mm to 550 m	Y	N	N
1.17.4	3	4	1975	4	Non-commercial	Stand-by injector			2,232	244 mm to 553 m	N	N	N
1.17.5	3	4	1975	5	Production	Production			1,631	244 mm to 523 m	Y	N	N
1.17.6	3	4	1975	6	Non-commercial	Injector			1,837	244 mm to 610 m	Y	N	N
1.17.7	3	4	1976	7	Production	Injector			1,859	244 mm to 550 m	Y	N	N
1.17.8	3	4	1976	8	Production	Observation			2,286	244 mm to 767 m	Y	N	N
1.17.9	3	4	1976	9	Production	Observation			382	244 mm to 335 m	Y	N	N
1.17.10	3	4	1977	10	Non-commercial	Observation			1,861	244 mm to 553 m	N	N	N
1.17.11	3	4	1978	11	Non-commercial	Observation			2,286	244 mm to 512 m	N	N	N
1.17.12	3	4	1982	12	Production	Observation	5.20		1,042	244 mm to 512 m	Y	N	N
1.17.13	3	4	1982	13	Production	Abandoned	8.30		793	340 mm to 489 m	Y	N	N
1.17.14	3	4	1986	14	Production	Production	7.30		1,143	340 mm to 415 m	Y	N	N
1.17.15	3	4	1991	15	Production	Production					Y	N	N
1.18.1	2	3	1977	1	Injector	Idle			559	244 mm to 542 m	Y	N	Y
1.18.2	2	3	1979	3	Dry-hole	Abandoned				244 mm to 1,617 m	N	N	N
1.18.3	2	3	1978	2	Dry-hole	Abandoned					N	N	N
1.18.4	2	3	1991	4	Production	Idle	3.60	2006	1,059	340 mm to 311 m	Y	N	N
1.18.5	2	3	1992	5	Production	Idle	3.30	2006	1,666	340 mm to 611 m	Y	N	Y
1.18.6	2	3	1993	11	Not tested	Abandoned			1,278		NA	N	N
1.18.7	2	3	1993	6	Unknown	Abandoned			143		NA	N	N
1.18.8	2	3	1993	7	Non-commercial	Abandoned			1,560		N	N	N
1.18.9	2	3	1993	8	Production	Idle	3.50	2006	1,017		Y	N	Y
1.18.10	2	3	1993	9	Production	Idle			616		Y	N	N
1.18.11	2	3	1993	10	Non-commercial	Abandoned			1,589		N	N	N
1.18.12	2	3	1993	12	Non-commercial	Abandoned			1,276		N	Y	N
1.18.13	2	3	2002	13	Production	Idle	3.20	2006	636		Y	N	Y
1.19.1	2	3	2005	2	Production	Production			154		Y	N	Y
1.19.2	2	3	2005	1	Production	Production			148		Y	N	Y
1.19.3	2	3	2005	4	Production	Production			148		Y	N	Y
1.19.4	2	3	2011	8	Production	Production			168		Y	N	N
1.19.5	2	3	2011	9	Production	Production			213		Y	N	Y
1.19.6	2	3	2005	3	Injector	Injector			357		Y	N	N
1.19.7	2	3	2005	5	Injector	Abandoned			678		N	N	N
1.19.8	2	3	2011	10	Injector	Injector			503		Y	Y	N
1.19.9	2	3	2011	7	Injector	Injector			500		Y	N	N
1.19.10	2	3	2007	6	Injector	Injector			549		Y	N	N
1.20.1	2	3	1990	9	Production	Abandoned			610	244 mm to 274 m	Y	N	N
1.20.2	2	3	1991	13	Injector	Injector			1,450	244 mm to 492 m	Y	N	N
1.20.3	2	3	1991	10	Injector	Idle			708	244 mm to 273 m	Y	N	N
1.20.4	2	3	1990	5	Injector	Abandoned			1,219	244 mm to 519 m	N	N	N
1.20.5	2	3	1974	1	Injector	Injector			516	340 mm to 307 m	Y	N	N
1.20.6	2	3	1991	12	Injector	Injector			482	340 mm to 392 m	Y	N	N
1.20.7	2	3	1979	2	Production	Abandoned			1,546	244 mm to 409 m	Y	Y	N
1.20.8	2	3	2002	19	Injector	Injector			1,325	340 mm to 688 m	Y	Y	N
1.20.9	2	3	2002	20	Production	Abandoned			1,509	340 mm to 688 m	Y	Y	N
1.20.10	2	3	1991	11	Injector	Abandoned			886	244 mm to 271 m	Y	N	N
1.20.11	2	3	1993	18	Production	Production			1,232	340 mm to 491 m	Y	N	Y
1.20.12	2	3	1991	14	Production	Production			270	340 mm to 239 m	Y	N	Y
1.20.13	2	3	1991	15	Production	Production			335	340 mm to 323 m	Y	N	Y
1.20.14	2	3	2009	22	Unknown	Unknown			2,742	340 mm to 672 m	NA	N	N
1.20.15	2	3	1990	8	Injector	Abandoned			643		NA	N	N
1.20.16	2	3	2009	21	Production	Idle			1,423	340 mm to 1,220 m	Y	N	Y
1.20.17	2	3	1991	16	Injector	Idle			725	244 mm to 366 m	Y	N	N
1.20.18	2	3	1990	4	Injector	Idle			1,422	340 mm to 1,474 m	Y	N	N
1.20.19	2	3	1990	6	Injector	Injector			2,240	340 mm to 580 m	Y	N	N
1.20.20	2	3	1981	3	Production	Idle			2,587	244 mm to 1,521 m	Y	N	Y
1.20.21	2	3	1992	17	Production	Production			1,077	244 mm to 1,077 m	Y	Y	Y
1.20.22	2	3	1990	7	Production	Production			1,141	340 mm to 558 m	Y	Y	Y
1.21.1	1	4	1992	15	Unknown	Production			302		Y	N	Y
1.21.2	1	4	1992	24	Unknown	Production			675		Y	N	N
1.21.3	1	4	1992	16	Unknown	Production			324		Y	N	Y
1.21.4	1	4	1992	25	Unknown	Injector			556		Y	Y	N
1.21.5	1	4	1992	18	Unknown	Production			180		Y	N	Y
1.21.6	1	4	1992	23	Unknown	Production			227		Y	N	Y
1.21.7	1	4	1992	21	Unknown	Production			397		Y	N	Y
1.21.8	1	4	1992	19	Unknown	Production			258		Y	N	Y

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
1.21.9	1	4	1992	22	Unknown	Production			610		Y	N	Y
1.21.10	1	4	1998	30	Production	Observation			222		Y	N	N
1.21.11	1	4	1992	17	Injector	Injector			825		Y	Y	N
1.21.12	1	4		31	Injector	Observation			158		Y	Y	N
1.21.13	1	4	1992	20	Unknown	Injector			822		Y	Y	N
1.21.14	1	4	1992	26	Unknown	Injector			329		Y	N	N
1.21.15	1	4	1986	5	Production	Production	5.30		192		Y	Y	Y
1.21.16	1	4	1985	4	Injector	Production	6.90		162		Y	N	Y
1.21.17	1	4	1986	7	Production	Production	9.60		173		Y	N	Y
1.21.18	1	4		32	Production	Observation			191		Y	Y	N
1.21.19	1	4		33	Production	Observation			174		Y	N	N
1.21.20	1	4		34	Production	Observation			294		Y	N	N
1.21.21	1	4	2001	36	Unknown	Unknown					NA	N	N
1.21.22	1	4	1994	29	Unknown	Observation					NA	N	N
1.21.23	1	4	2001	35	Unknown	Unknown					NA	N	N
1.21.24	1	4	1993	28	Unknown	Observation					NA	N	N
1.21.25	1	4	1991	11	Unknown	Observation					NA	N	N
1.21.26	1	4	1991	12	Unknown	Observation					NA	N	N
1.21.27	1	4	1991	13	Unknown	Observation					NA	N	N
1.21.28	1	4		14	Unknown	Idle			120		NA	N	N
1.21.29	1	4	1993	27	Production	Idle			899	340 mm to 554 m	Y	Y	N
1.21.30	1	4	1979	1	Production	Production	2.30		937	340 mm to 403 m	Y	N	Y
1.21.31	1	4	1985	3	Production	Production	3.10		921	340 mm to 456 m	Y	N	Y
1.21.32	1	4	1987	10	Non-commercial	Unknown			897	340 mm to 624 m	N	N	N
1.21.33	1	4	1987	8	Non-commercial	Unknown			935	340 mm to 609 m	N	N	N
1.21.34	1	4	1987	9	Production	Production	1.50		817	340 mm to 696 m	Y	Y	Y
1.21.35	1	4	1986	6	Non-commercial	Unknown			924	340 mm to 445 m	N	N	N
1.21.36	1	4	1981	2	Non-commercial	Injector			1,058	340 mm to 849 m	N	Y	N
1.21.37	1	4		37	Unknown	Unknown					Y	N	N
1.21.38	1	4		38	Unknown	Unknown					Y	N	N
1.22.1	2	3		2	Unknown	Injector			643		NA	N	N
1.22.2	2	3	1976	4	Unknown	Observation			1,686	244 mm to 320 m	N	N	N
1.22.3	2	3	1989	14	Unknown	Idle			411	340 mm to 320 m	Y	N	Y
1.22.4	2	3	1997	23	Unknown	Idle			1,112	340 mm to 550 m	Y	N	N
1.22.5	2	3	1989	16	Unknown	Production			397	340 mm to 248 m	Y	N	Y
1.22.6	2	3	1989	17	Unknown	Production			381	340 mm to 244 m	Y	N	Y
1.22.7	2	3	1989	13	Unknown	Abandoned			270		N	N	N
1.22.8	2	3	1988	12	Unknown	Idle			890	244 mm to 310 m	Y	Y	N
1.22.9	2	3	1988	9	Unknown	Idle			387	244 mm to 243 m	N	N	N
1.22.10	2	3	1991	22	Unknown	Idle			1,378	340 mm to 456 m	Y	N	N
1.22.11	2	3	1979	7	Unknown	Observation			2,117	244 mm to 364 m	N	N	N
1.22.12	2	3	1988	10	Unknown	Production			457	340 mm to 334 m	Y	N	Y
1.22.13	2	3		18	Unknown	Gradient			152		NA	N	N
1.22.14	2	3	1989	19	Unknown	Injector			872	340 mm to 245 m	Y	N	N
1.22.15	2	3	1991	20	Unknown	Idle			694	340 mm to 315 m	N	N	N
1.22.16	2	3		21	Unknown	Injector			521		N	N	N
1.22.17	2	3	1964	1	Unknown	Abandoned			1,292	273 mm to 457 m	N	N	N
1.22.18	2	3		24	Unknown	Injector			704		NA	N	N
1.22.19	2	3		25	Unknown	Observation			1,347		N	N	N
1.22.20	2	3		26	Unknown	Injector			445		NA	N	N
1.22.21	2	3		27	Unknown	Gradient			152		NA	N	N
1.22.22	2	3		28	Unknown	Production			805		Y	N	Y
1.22.23	2	3	1976	3	Unknown	Observation			1,052	244 mm to 310 m	N	N	N
1.22.24	2	3		29	Unknown	Production			792		Y	N	Y
1.22.25	2	3		30	Unknown	Injector			427		NA	N	N
1.22.26	2	3	1992	31	Unknown	Abandoned			700		Y	N	Y
1.22.27	2	3		32	Unknown	Production			719		Y	N	Y
1.22.28	2	3		33	Unknown	Injector			503		NA	N	N
1.22.29	2	3	1981	8	Unknown	Observation			3,052	340 mm to 424 m	N	N	N
1.22.30	2	3		34	Unknown	Production			563		Y	N	Y
1.22.31	2	3		35	Unknown	Observation			763		N	N	N
1.22.32	2	3	1977	5	Unknown	Production			814	244 mm to 309 m	Y	Y	N
1.22.33	2	3	1978	6	Unknown	Abandoned			1,109	244 mm to 314 m	N	N	N
1.22.34	2	3	1988	11	Unknown	Abandoned			832	340 mm to 330 m	N	N	N
1.22.35	2	3	1989	15	Unknown	Abandoned			285		N	N	N
2.1.1	3	6	06/1979	1	Unknown	Unknown			1,368		NA	N	N
2.1.2	3	6	08/1979	2	Unknown	Unknown			1,637		NA	N	N
2.1.3	3	6	07/1981	3	Unknown	Unknown	11.30	1985	2,547		Y	N	N
2.1.4	3	6	11/1981	4	Unknown	Unknown	4.80	1985	2,583		Y	N	N
2.1.5	3	6	12/1981	5	Unknown	Unknown			2,675		NA	N	N
2.1.6	3	6	03/1982	6	Unknown	Unknown			1,871		NA	N	N
2.1.7	3	6	08/1982	7	Unknown	Unknown	4.00	1985	2,480		Y	N	N
2.1.8	3	6	11/1982	8	Unknown	Unknown	6.00	1985	2,768		Y	N	N
2.1.9	3	6	01/1983	9	Unknown	Unknown	3.60	1985	2,217		Y	N	N
2.1.10	3	6	03/1983	10	Unknown	Unknown	5.00	1985	2,715		Y	N	N
2.1.11	3	6	06/1983	11	Unknown	Unknown	4.80	1985	2,834		Y	N	N
2.1.12	3	6	08/1983	12	Unknown	Unknown			2,897		NA	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
2.1.13	3	6	10/1983	13	Unknown	Unknown	2.40	1985	2,218		N	N	N
2.1.14	3	6	10/1983	14	Unknown	Unknown	14.00	1985	3,333		Y	N	N
2.1.15	3	6	12/1983	15	Unknown	Unknown	3.00	1985	2,004		Y	Y	N
2.1.16	3	6	05/1984	16	Unknown	Unknown			1,777		NA	Y	N
2.1.17	3	6	08/1984	18	Unknown	Unknown	1.80	1985	2,698		N	N	N
2.1.18	3	6	07/1984	17	Unknown	Unknown	3.00	1985	2,930		Y	N	N
2.1.19	3	6	09/1984	19	Unknown	Unknown			2,439		NA	Y	N
2.1.20	3	6	12/1984	20	Unknown	Unknown			1,561		NA	N	N
2.2.1	3	6		1	Unknown	Unknown	2.50	10/1/2004			N	N	N
2.2.2	3	6		2	Unknown	Unknown	2.40	10/2004			N	N	N
2.2.3	3	6		3	Unknown	Unknown	2.80	1/1984			N	N	N
2.2.4	3	6		4	Unknown	Unknown	7.00	2/1/2003			Y	N	N
2.2.5	3	6		5	Unknown	Unknown	7.30	9/22/2004			Y	N	N
2.2.6	3	6		6	Unknown	Unknown	7.90	1978			Y	N	N
2.2.7	3	6		7	Unknown	Unknown	8.50	5/15/2006			Y	N	N
2.2.8	3	6		8	Unknown	Unknown	0.60	11/2007			N	N	N
2.2.9	3	6		9	Unknown	Unknown	3.40	8/26/2008			Y	N	N
2.2.10	3	6		10	Unknown	Unknown	3.80	3/8/2010			Y	N	N
2.2.11	3	6		11	Unknown	Unknown	2.20	10/2/2010			N	N	N
2.2.12	3	6		12	Unknown	Unknown	10.40	1/1995			Y	N	N
2.2.13	3	6		13	Unknown	Unknown	13.30	1/1981			Y	N	N
2.2.14	3	6		14	Unknown	Unknown	14.30	8/1995			Y	N	N
2.2.15	3	6		15	Unknown	Unknown	14.60	1990			Y	N	N
2.2.16	3	6		16	Unknown	Unknown	7.40	11/1995			Y	N	N
2.2.17	3	6		17	Unknown	Unknown	14.70	1/1995			Y	Y	N
2.2.18	3	6		18	Unknown	Unknown	15.00	5/1995			Y	N	N
2.2.19	3	6		19	Unknown	Unknown	15.30	6/1998			Y	N	N
2.2.20	3	6		20	Unknown	Unknown	3.70	9/2008			Y	N	N
2.2.21	3	6		21	Unknown	Unknown	15.90	5/13/2003			Y	N	N
2.2.22	3	6		22	Unknown	Unknown	16.90	1979			Y	N	N
2.2.23	3	6		23	Unknown	Unknown	18.00	1/1995			Y	N	N
2.2.24	3	6		24	Unknown	Unknown	19.30	8/1999			Y	N	N
2.2.25	3	6		25	Unknown	Unknown	13.70	1990			Y	N	N
2.2.26	3	6		26	Unknown	Unknown	9.90	6/1982			Y	N	N
2.2.27	3	6		27	Unknown	Unknown	19.60	11/1995			Y	N	N
2.2.28	3	6	2009	31	Unknown	Unknown	9.30	2008			Y	N	N
2.2.29	3	6	2008	28	Unknown	Unknown	7.90	2008			Y	N	N
2.2.30	3	6	2009	32	Unknown	Unknown	3.20	2008			Y	N	N
2.2.31	3	6	2010	36	Unknown	Unknown	2.90	2008			N	N	N
2.2.32	3	6	2010	38	Unknown	Unknown	7.00	2007			Y	N	N
2.2.33	3	6	2009	29	Unknown	Unknown	11.20	2007			Y	N	N
2.2.34	3	6	2010	33	Unknown	Unknown	3.50	2010			Y	N	N
2.2.35	3	6	2010	35	Unknown	Unknown	3.30	2010			Y	N	N
2.2.36	3	6	2009	30	Unknown	Unknown	1.10	2010			N	N	N
2.2.37	3	6	2010	34	Unknown	Unknown	3.40	2010			Y	N	N
2.2.38	3	6	2010	42	Unknown	Unknown	3.97	2010			Y	N	N
2.2.39	3	6	2010	39	Unknown	Unknown	2.83	2010			N	N	N
2.2.40	3	6	2010	37	Unknown	Unknown					Y	N	N
2.2.41	3	6	2010	43	Unknown	Unknown					Y	N	N
2.2.42	3	6	2010	40	Unknown	Unknown					Y	N	N
2.2.43	3	6	2010	41	Unknown	Unknown					Y	N	N
2.3.1	3	6	1975	1	Production	Production			1,765		Y	N	N
2.3.2	3	6	1975	2	Injector	Abandoned			2,423		Y	N	N
2.3.3	3	6	1975	3	Production	Production			987		Y	Y	N
2.3.4	3	6	1976	4	Production	Production			2,502		Y	N	N
2.3.5	3	6	1976	5	Non-commercial	Abandoned			2,458		N	N	N
2.3.6	3	6	1976	6	Production	Production			906		Y	N	N
2.3.7	3	6	1976	7	Production	Production			1,910		Y	N	N
2.3.8	3	6	1976	8	Production	Production			1,402		Y	N	N
2.3.9	3	6	1976	9	Production	Production			1,224		Y	N	N
2.3.10	3	6	1976	10	Production	Production			1,679		Y	N	N
2.3.11	3	6	1976	11	Production	Production			1,062		Y	N	N
2.3.12	3	6	1977	12	Production	Production			2,134		Y	N	N
2.3.13	3	6	1977	13	Production	Production			1,058		Y	N	N
2.3.14	3	6	1977	15	Production	Production			1,122		Y	N	N
2.3.15	3	6	1977	14	Production	Production			2,669		Y	N	N
2.3.16	3	6	1977	16	Production	Production			1,563		Y	N	N
2.3.17	3	6	1977	17	Production	Production			2,260		Y	N	N
2.3.18	3	6	1977	18	Production	Production			2,600		Y	N	N
2.3.19	3	6	1977	19	Injector	Injector			2,881		Y	Y	N
2.3.20	3	6	1978	20	Production	Production			954		Y	N	N
2.3.21	3	6	1978	21	Production	Production			2,091		Y	N	N
2.3.22	3	6	1978	22	Injector	Abandoned			2,688		N	N	N
2.3.23	3	6	1978	23	Production	Production			992		Y	N	N
2.3.24	3	6	1978	24	Production	Production			1,724		Y	N	N
2.3.25	3	6	1978	25	Injector	Injector			1,672		Y	N	N
2.3.26	3	6	1978	26	Production	Production			876		Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
2.3.27	3	6	1978	27	Production	Production			1,630		Y	N	N
2.3.28	3	6	1978	28	Production	Production			1,879		Y	N	N
2.3.29	3	6	1978	29	Production	Production			1,920		Y	N	N
2.3.30	3	6	1979	30	Injector	Injector			2,861		Y	N	N
2.3.31	3	6	1979	31	Injector	Injector			2,861		Y	Y	N
2.3.32	3	6	1979	32	Injector	Suspended			2,486		Y	N	N
2.3.33	3	6	1979	34	Injector	Injector			2,670		Y	N	N
2.3.34	3	6	1979	33	Production	Production			2,449		Y	N	N
2.3.35	3	6	1979	35	Production	Production			1,965		Y	N	N
2.3.36	3	6	1979	39	Production	Production			1,559		Y	N	N
2.3.37	3	6	1979	36	Injector	Observation			2,377		Y	N	N
2.3.38	3	6	1979	37	Production	Production			1,890		Y	N	N
2.3.39	3	6	1979	40	Production	Production			1,597		Y	N	N
2.3.40	3	6	1979	38	Production	Abandoned			2,088		Y	N	N
2.3.41	3	6	1979	44	Production	Abandoned			2,065		Y	N	N
2.3.42	3	6	1979	41	Production	Abandoned			1,266		Y	N	N
2.3.43	3	6	1979	42	Injector	Idle			2,223		Y	N	N
2.3.44	3	6	1979	43	Production	Production			1,212		Y	N	N
2.3.45	3	6	1979	45	Production	Production			2,415		Y	N	N
2.3.46	3	6	1979	46	Production	Production			2,256		Y	N	N
2.3.47	3	6	1980	49	Production	Production			1,605		Y	N	N
2.3.48	3	6	1979	47	Injector	Idle			2,353		Y	N	N
2.3.49	3	6	1979	48	Production	Production			1,384		Y	N	N
2.3.50	3	6	1980	51	Injector	Injector			2,817		Y	N	N
2.3.51	3	6	1980	50	Production	Production			1,756		Y	N	N
2.3.52	3	6	1980	54	Production	Production			1,606		Y	N	N
2.3.53	3	6	1980	53	Production	Production			2,819		Y	N	N
2.3.54	3	6	1980	52	Injector	Idle			1,375		Y	N	N
2.3.55	3	6	1980	55	Production	Production			2,848		Y	N	N
2.3.56	3	6	1982	67	Production	Abandoned			2,904		Y	N	N
2.3.57	3	6	1980	62	Injector	Idle			2,915		Y	N	N
2.3.58	3	6	1980	56	Injector	Idle			2,894		Y	N	N
2.3.59	3	6	1980	61	Production	Production			2,947		Y	N	N
2.3.60	3	6	1980	57	Production	Production			1,023		Y	N	N
2.3.61	3	6	1980	59	Production	Observation			2,510		Y	N	N
2.3.62	3	6	1982	68	Production	Production			1,504		Y	N	N
2.3.63	3	6	1980	63	Production	Abandoned			3,048		Y	N	N
2.3.64	3	6	1980	58	Production	Production			655		Y	N	N
2.3.65	3	6	1982	70	Production	Production			3,140		Y	N	N
2.3.66	3	6	1983	71	Production	Production			2,247		Y	N	N
2.3.67	3	6	1982	69	Production	Production			2,695		Y	N	N
2.3.68	3	6	1983	72	Injector	Abandoned			3,624		Y	N	N
2.3.69	3	6	1988	73	Injector	Injector			2,713		Y	N	N
2.3.70	3	6	1989	74	Production	Production			1,497		Y	N	N
2.3.71	3	6	1980	60	Production	Production			1,762		Y	N	N
2.3.72	3	6	1989	75	Production	Production			1,433		Y	N	N
2.3.73	3	6	1989	76	Injector	Injector			3,028		Y	N	N
2.3.74	3	6	1989	77	Production	Production			1,829		Y	N	N
2.3.75	3	6	1981	66	Injector	Injector			2,764		Y	N	N
2.3.76	3	6	1981	65	Production	Production			2,370		Y	N	N
2.3.77	3	6	1989	78	Injector	Injector			2,967		Y	N	N
2.3.78	3	6	1990	79	Injector	Injector			2,991		Y	N	N
2.3.79	3	6	1981	64	Production	Production			1,280		Y	N	N
2.3.80	3	6	1990	80	Production	Production			1,981		Y	N	N
2.3.81	3	6	1990	81	Injector	Injector			3,048		Y	N	N
2.3.82	3	6	1990	82	Injector	Injector			2,877		Y	N	N
2.3.83	3	6	1990	83	Production	Production			2,286		Y	N	N
2.3.84	3	6	1990	84	Production	Production			2,289		Y	N	N
2.3.85	3	6	1991	85	Injector	Injector			3,009		Y	N	N
2.3.86	3	6	1991	86	Production	Production			2,286		Y	N	N
2.3.87	3	6	1991	87	Injector	Injector			2,987		Y	N	N
2.3.88	3	6	1992	89	Production	Production			2,283		Y	N	N
2.3.89	3	6	1992	88	Production	Production			2,283		Y	N	N
2.3.90	3	6	1992	90	Production	Production			2,213		Y	N	N
2.3.91	3	6	1992	91	Observation	Observation			2,207		N	N	N
2.3.92	3	6	1993	92	Production	Production			2,287		Y	N	N
2.3.93	3	6	1993	93	Production	Production			2,277		Y	N	N
2.3.94	3	6	1993	94	Injector	Injector					Y	N	N
2.3.95	3	6	1993	95	Production	Production			1,923		Y	N	N
2.3.96	3	6	1993	97	Production	Production			2,147		Y	N	N
2.3.97	3	6	1993	96	Injector	Injector			2,857		Y	N	N
2.4.1	3	6	1987	1	Unknown	Production					Y	N	N
2.4.2	3	6	1988	2	Unknown	Production					Y	N	N
2.4.3	3	6	1992	3	Unknown	Injector					Y	Y	N
2.4.4	3	6	1992	4	Unknown	Injector					Y	Y	N
2.4.5	3	6	1993	5	Unknown	Injector					Y	Y	N
2.4.6	3	6	1993	6	Unknown	Production	10.40	5/3/1999			Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
2.4.7	3	6	1993	7	Unknown	Production	7.40	1/28/1997			Y	N	N
2.4.8	3	6	1993	8	Unknown	Production	10.40	1/28/1997			Y	N	N
2.4.9	3	6	1993	9	Unknown	Injector					Y	Y	N
2.4.10	3	6	1993	10	Unknown	Production	8.90	1/28/1997			Y	N	N
2.4.11	3	6	1993	11	Unknown	Injector					Y	Y	N
2.4.12	3	6	1993	12	Unknown	Abandoned					N	N	N
2.4.13	3	6	1993	13	Unknown	Injector					Y	Y	N
2.4.14	3	6	1993	14	Unknown	Production	6.30	1/28/1997			Y	N	N
2.4.15	3	6	1993	15	Unknown	Production	10.90	5/1/1999			Y	N	N
2.4.16	3	6	1994	16	Unknown	Production	9.40	1/28/1997			Y	N	N
2.4.17	3	6	1994	17	Unknown	Production	4.60	1/28/1997			Y	Y	N
2.4.18	3	6	1994	18	Unknown	Production	6.10	1/28/1997			Y	N	N
2.4.19	3	6	1994	19	Unknown	Abandoned					N	N	N
2.4.20	3	6	1994	20	Unknown	Production	7.00	2/9/1999			Y	N	N
2.4.21	3	6	1994	21	Unknown	Production	9.90	1/28/1997			Y	N	N
2.4.22	3	6	1994	22	Unknown	Unknown					NA	N	N
2.4.23	3	6	1994	23	Unknown	Production	7.30	5/1/1999			Y	N	N
2.4.24	3	6	1995	24	Unknown	Production	6.40	5/3/1999			Y	N	N
2.4.25	3	6	1995	25	Unknown	Production	9.30	2/9/1999			Y	N	N
2.4.26	3	6	1996	26	Unknown	Idle					NA	N	N
2.4.27	3	6	1997	27	Unknown	Production	8.20	2/9/1999			Y	N	N
2.4.28	3	6	1999	28	Unknown	Production	3.50	11/21/2000			Y	N	N
2.4.29	3	6	2000	29	Unknown	Injector					Y	Y	N
2.4.30	3	6	2000	30	Unknown	Production	8.40	11/21/2000			Y	N	N
2.4.31	3	6	2002	31	Unknown	Injector					Y	Y	N
2.4.32	3	6	2008	32	Unknown	Injector					Y	Y	N
2.4.33	3	6	2010	33	Unknown	Injector					Y	Y	N
2.5.1	3	6	1976	1	Unknown	Unknown			607	NA to 242 m	N	N	N
2.5.2	3	6		2	Unknown	Unknown			610	NA to 362 m	N	N	N
2.5.3	3	6		3	Unknown	Unknown			971	NA to 762 m	N	N	N
2.5.4	3	6		4	Unknown	Unknown			1,980	NA to 604 m	N	N	N
2.5.5	3	6	1978	5	Unknown	Unknown	7.40	2/26/1999	1,165	NA to 455 m	Y	N	N
2.5.6	3	6		6	Unknown	Unknown			1,522	NA to 666 m	N	N	N
2.5.7	3	6		7	Unknown	Unknown			2,130	NA to 910 m	N	N	N
2.5.8	3	6		8	Unknown	Unknown			1,975	NA to 1,310 m	N	N	N
2.5.9	3	6		9	Unknown	Unknown			2,771	NA to 1,329 m	N	N	N
2.5.10	3	6	1980	10	Unknown	Unknown	10.80	8/26/1980	2,883	NA to 1,664 m	Y	N	N
2.5.11	3	6		11	Unknown	Unknown			2,982	NA to 1,374 m	N	N	N
2.5.12	3	6	1980	12	Unknown	Unknown	4.50	1/28/1981	2,890	NA to 1,224 m	Y	N	N
2.5.13	3	6	1981	14	Unknown	Unknown	2.60	2/18/1981	3,019	NA to 1,407 m	Y	N	N
2.5.14	3	6		15	Unknown	Unknown			2,818	NA to 1,285 m	N	N	N
2.5.15	3	6		16	Unknown	Unknown			2,797	NA to 1,456 m	N	N	N
2.5.16	3	6	1992	38	Unknown	Unknown	6.00	7/29/1992	2,593	NA to 1,381 m	Y	N	N
2.5.17	3	6	1995	40	Unknown	Unknown	3.20	8/11/1995	1,900	NA to 1,289 m	Y	N	N
2.5.18	3	6	1995	41	Unknown	Unknown	2.00	1/15/1996	2,242	NA to 1,126 m	Y	N	N
2.5.19	3	6	2010	42	Unknown	Unknown	8.60	6/21/2010	2,900	NA to 1,540 m	Y	N	N
2.5.20	3	6	1981	17	Unknown	Unknown	1.40	9/25/1981	2,854	NA to 1,172 m	N	N	N
2.5.21	3	6	1981	18	Unknown	Unknown	5.80	10/2/1981	2,807	NA to 1,594 m	Y	N	N
2.5.22	3	6	1981	19	Unknown	Unknown	3.70	1/11/1982	3,049	NA to 1,478 m	Y	N	N
2.5.23	3	6	1980	13	Unknown	Unknown	4.20	2/24/1983	3,265	NA to 1,389 m	Y	N	N
2.5.24	3	6		21	Unknown	Unknown	5.20	9/22/1982	3,013	NA to 1,279 m	Y	N	N
2.5.25	3	6	1982	26	Unknown	Unknown	5.50	11/30/1982	3,013	NA to 1,279 m	Y	N	N
2.5.26	3	6	1982	23	Unknown	Unknown	2.20	10/12/1980	2,982	NA to 1,230 m	Y	N	N
2.5.27	3	6	1982	25	Unknown	Unknown	5.00	11/1/1982	2,988	NA to 1,466 m	Y	N	N
2.5.28	3	6	1981	20	Unknown	Unknown	5.30	1/21/1983	3,090	NA to 1,312 m	Y	N	N
2.5.29	3	6	1982	24	Unknown	Unknown	3.00	11/30/1982	3,222	NA to 1,414 m	Y	N	N
2.5.30	3	6	1983	28	Unknown	Unknown	3.70	10/19/1984	3,466	NA to 1,536 m	Y	N	N
2.5.31	3	6	1982	27	Unknown	Unknown	4.70	11/17/1982	2,773	NA to 1,574 m	Y	N	N
2.5.32	3	6	1983	29	Unknown	Unknown	7.60	9/8/1983	3,161	NA to 1,240 m	Y	N	N
2.5.33	3	6	1983	30	Unknown	Unknown	6.70	8/23/1983	2,893	NA to 1,095 m	Y	N	N
2.5.34	3	6	1983	31	Unknown	Unknown	6.20	8/12/1983	2,910	NA to 1,393 m	Y	N	N
2.5.35	3	6	1983	32	Unknown	Unknown	5.00	10/11/1983	3,055	NA to 1,354 m	Y	N	N
2.5.36	3	6	1983	35	Unknown	Unknown	7.60	12/4/1983	2,779	NA to 1,000 m	Y	N	N
2.5.37	3	6	1990	37	Unknown	Unknown	2.60	1/1/1991	2,250	NA to 1,118 m	Y	N	N
2.5.38	3	6	1993	39	Unknown	Unknown	1.40	3/11/1994	1,279	NA to 692 m	N	N	N
2.5.39	3	6		43	Unknown	Unknown			2,763		N	N	N
2.5.40	3	6		44	Unknown	Unknown			2,945	NA to 1,217 m	N	N	N
2.5.41	3	6		45	Unknown	Unknown			2,952	NA to 878 m	N	N	N
2.5.42	3	6	1983	33	Unknown	Unknown	9.50	7/2/1983	2,589	NA to 692 m	Y	N	N
2.5.43	3	6	1983	34	Unknown	Unknown	1.60	2/6/2008	2,628	NA to 1,171 m	N	Y	N
2.5.44	3	6	1983	36	Unknown	Unknown	3.50	2/10/2008	3,039	NA to 1,374 m	Y	Y	N
2.5.45	3	6	1982	22	Unknown	Unknown	3.60	9/13/1982	3,077		Y	N	N
2.5.46	3	6		46	Unknown	Unknown					N	N	N
2.5.47	3	6		47	Unknown	Unknown					Y	N	N
2.5.48	3	6		48	Unknown	Unknown					Y	N	N
2.5.49	3	6		49	Unknown	Unknown					N	N	N
2.5.50	3	6		50	Unknown	Unknown					Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
2.5.51	3	6		51	Unknown	Unknown					Y	N	N
2.5.52	3	6		52	Unknown	Unknown					Y	N	N
2.5.53	3	6		53	Unknown	Unknown					N	N	N
2.5.54	3	6		54	Unknown	Unknown					Y	N	N
2.5.55	3	6		55	Unknown	Unknown					Y	N	N
2.5.56	3	6		56	Unknown	Unknown					Y	N	N
2.6.1	3	6	1972	1	Production	Unknown	3.70	1983	1,769		Y	N	N
2.6.2	3	6	1973	2	Production	Unknown	4.10	1983	1,783		Y	N	N
2.6.3	3	6	1973	3	Production	Unknown	3.70	1983	2,377		Y	N	N
2.6.4	3	6	1974	4	Production	Unknown	6.40	1983	1,585		Y	N	N
2.6.5	3	6	1974	5	Non-commercial	Unknown			2,245		N	N	N
2.6.6	3	6	1974	6	Production	Unknown	10.50	1983	1,257		Y	N	N
2.6.7	3	6	1974	7	Injector	Unknown	1.70	1983	1,500		N	N	N
2.6.8	3	6	1975	8	Non-commercial	Unknown	4.00	1983	2,743		Y	N	N
2.6.9	3	6	1975	9	Production	Unknown	4.30	1983	1,931		Y	N	N
2.6.10	3	6	1975	10	Production	Unknown	5.40	1983	579		Y	Y	N
2.6.11	3	6	1975	11	Production	Unknown	6.90	1983	1,585		Y	N	N
2.6.12	3	6	1976	12	Production	Unknown	5.40	1983	1,799		Y	N	N
2.6.13	3	6	1976	13	Production	Unknown	3.70	1983	2,033		Y	N	N
2.6.14	3	6	1976	14	Production	Unknown	6.20	1983	2,277		Y	N	N
2.6.15	3	6	1976	15	Production	Unknown	2.20	1983	2,889		Y	N	N
2.6.16	3	6	1976	16	Production	Unknown	17.70	1983	721		Y	N	N
2.6.17	3	6	1976	17	Non-commercial	Unknown	1.80	1983	1,700		N	N	N
2.6.18	3	6	1976	18	Production	Unknown	11.80	1983	1,524		Y	N	N
2.6.19	3	6	1977	19	Production	Unknown	10.30	1983	1,380		Y	N	N
2.6.20	3	6	1977	20	Production	Unknown	2.50	1983	2,169		Y	N	N
2.6.21	3	6	1977	21	Production	Unknown	3.90	1983	887		Y	Y	N
2.6.22	3	6	1977	22	Production	Unknown	5.40	1983	2,275		Y	N	N
2.6.23	3	6	1977	23	Production	Unknown	5.70	1983	2,269		Y	N	N
2.6.24	3	6	1977	24	Production	Unknown	7.70	1983	1,675		Y	N	N
2.6.25	3	6	1977	25	Injector	Unknown	4.60	1983	2,134		Y	N	N
2.6.26	3	6	1977	26	Production	Unknown	3.50	1983	2,129		Y	N	N
2.6.27	3	6	1978	27	Production	Unknown			2,118		Y	N	N
2.6.28	3	6	1978	28	Production	Unknown	9.30	1983	2,165		Y	N	N
2.6.29	3	6	1978	29	Injector	Unknown			2,316		N	N	N
2.6.30	3	6	1978	30	Production	Unknown	11.10	1983	1,515		Y	N	N
2.6.31	3	6	1978	31	Production	Unknown	13.70	1983	1,293		Y	Y	N
2.6.32	3	6	1978	32	Production	Unknown	7.30	1983	2,200		Y	N	N
2.6.33	3	6	1979	33	Injector	Unknown	7.60	1983	2,096		Y	N	N
2.6.34	3	6	1979	34	Production	Unknown	6.60	1983	1,476		Y	N	N
2.6.35	3	6	1979	35	Non-commercial	Unknown	0.30	1983	1,559		N	Y	N
2.6.36	3	6	1979	36	Production	Unknown	4.40	1983	1,449		Y	N	N
2.6.37	3	6	1979	37	Production	Unknown	10.80	1983	2,112		Y	N	N
2.6.38	3	6	1979	38	Production	Unknown	5.10	1983	1,609		Y	N	N
2.6.39	3	6	1979	39	Production	Unknown	18.50	1983	493		Y	N	N
2.6.40	3	6	1979	40	Production	Unknown	3.90	1983	1,234		Y	N	N
2.6.41	3	6	1979	41	Production	Unknown	6.60	1983	1,128		Y	N	N
2.6.42	3	6	1979	42	Production	Unknown	8.50	1983	1,219		Y	N	N
2.6.43	3	6	1979	43	Production	Unknown	13.10	1983	480		Y	N	N
2.6.44	3	6	1979	44	Non-commercial	Unknown	2.40	1983	1,264		N	N	N
2.6.45	3	6	1979	45	Production	Unknown		1983	380		Y	Y	N
2.6.46	3	6	1979	46	Production	Unknown	5.30	1983	1,788		Y	Y	N
2.6.47	3	6	1979	47	Production	Unknown	6.60	1983	2,063		Y	Y	N
2.6.48	3	6	1979	48	Production	Unknown	19.40	1983	772		Y	Y	N
2.6.49	3	6	1979	49	Production	Unknown	2.10	1983	759		Y	Y	N
2.6.50	3	6	1979	50	Production	Unknown	9.50	1983	1,335		Y	N	N
2.6.51	3	6	1980	51	Production	Unknown	14.30	1983	1,260		Y	N	N
2.6.52	3	6	1980	52	Non-commercial	Unknown	2.70	1983	1,928		N	N	N
2.6.53	3	6	1980	53	Production	Unknown	6.50		1,322		Y	N	N
2.6.54	3	6	1980	54	Production	Unknown	5.20	1983	1,316		Y	N	N
2.6.55	3	6	1980	55	Production	Unknown	11.00	1983	894		Y	N	N
2.6.56	3	6	1980	56	Production	Unknown	4.30	1983	1,203		Y	N	N
2.6.57	3	6	1980	57	Production	Unknown	23.30	1983	636		Y	N	N
2.6.58	3	6	1980	58	Production	Unknown	11.00	1983	938		Y	N	N
2.6.59	3	6	1980	59	Production	Unknown	11.30	1983	1,508		Y	N	N
2.6.60	3	6	1980	60	Production	Unknown	7.70	1983	1,308		Y	N	N
2.6.61	3	6	1980	61	Production	Unknown			2,244		Y	N	N
2.6.62	3	6	1980	62	Production	Unknown	10.50	1983	1,130		Y	N	N
2.6.63	3	6	1980	63	Production	Unknown	5.40	1983	2,134		Y	Y	N
2.6.64	3	6	1980	64	Production	Unknown	5.90	1983	1,455		Y	N	N
2.6.65	3	6	1980	65	Production	Unknown	6.40	1983	1,715		Y	N	N
2.6.66	3	6	1980	66	Production	Unknown	9.60	1983	1,066		Y	N	N
2.6.67	3	6	1980	67	Production	Unknown	9.80	1983	1,344		Y	N	N
2.6.68	3	6	1981	68	Production	Unknown	7.30	1983	1,365		Y	N	N
2.6.69	3	6	1981	69	Production	Unknown	11.90	1983	1,242		Y	Y	N
2.6.70	3	6	1981	70	Production	Unknown	5.40	1983	1,420		Y	N	N
2.6.71	3	6	1981	71	Production	Unknown	11.90	1983	1,170		Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
2.6.72	3	6	1981	72	Production	Unknown	4.30	1983	1,691		Y	N	N
2.6.73	3	6	1981	73	Production	Unknown	7.50	1983	732		Y	N	N
2.6.74	3	6	1981	74	Production	Unknown	14.50	1983	1,204		Y	N	N
2.6.75	3	6	1981	75	Production	Unknown	33.90	1983	648		Y	N	N
2.6.76	3	6	1981	76	Non-commercial	Unknown	1.50	1983	198		N	N	N
2.6.77	3	6	1981	77	Production	Unknown	4.90	1983	1,216		Y	N	N
2.6.78	3	6	1981	78	Production	Unknown	4.90	1983	1,656		Y	N	N
2.6.79	3	6	1981	79	Non-commercial	Unknown	0.70	1983	1,751		N	N	N
2.6.80	3	6	1981	80	Production	Unknown	4.80	1983	2,688		Y	N	N
2.6.81	3	6	1981	81	Production	Unknown	11.40	1983	2,413		Y	N	N
2.6.82	3	6	1981	82	Non-commercial	Unknown	2.20	1983	1,658		N	N	N
2.6.83	3	6	1981	83	Non-commercial	Unknown	3.00	1983	897		Y	Y	N
2.6.84	3	6	1981	84	Non-commercial	Unknown	2.90	1983	2,253		N	N	N
2.6.85	3	6	1981	85	Production	Unknown	5.00	1983	571		Y	N	N
2.6.86	3	6	1982	86	Non-commercial	Unknown			2,449		N	N	N
2.6.87	3	6	1982	87	Production	Unknown	18.20	1983	2,490		Y	N	N
2.6.88	3	6	1982	88	Production	Unknown	3.40	1983	255		Y	N	N
2.6.89	3	6	1982	89	Production	Unknown			1,173		Y	N	N
2.6.90	3	6	1982	90	Production	Unknown			1,219		Y	N	N
2.6.91	3	6	1982	91	Production	Unknown			936		Y	N	N
2.6.92	3	6	1982	92	Non-commercial	Unknown			1,201		N	N	N
2.6.93	3	6	1983	93	Production	Unknown			1,184		Y	N	N
2.6.94	3	6	1983	94	Production	Unknown			1,233		Y	N	N
2.6.95	3	6	1983	95	Production	Unknown			1,414		Y	N	N
2.6.96	3	6	1983	96	Production	Unknown			2,783		Y	N	N
2.6.97	3	6	1984	97	Production	Unknown			1,148		Y	N	N
2.6.98	3	6	1984	98	Non-commercial	Unknown			1,731		N	N	N
2.6.99	3	6	1984	99	Non-commercial	Unknown			2,265		N	Y	N
2.6.100	3	6	1984	100	Production	Unknown			1,311		Y	N	N
2.6.101	3	6	1984	101	Production	Unknown			1,219		Y	N	N
2.6.102	3	6	1985	102	Production	Unknown			1,317		Y	N	N
2.6.103	3	6	1985	103	Marginal	Unknown			1,163		N	N	N
2.6.104	3	6	1985	104	Non-commercial	Unknown			2,108		N	N	N
2.6.105	3	6	1985	105	Production	Unknown			1,381		Y	N	N
2.6.106	3	6	1985	106	Production	Unknown			1,011		Y	N	N
2.6.107	3	6	1985	107	Production	Unknown			1,376		Y	Y	N
2.6.108	3	6	1985	108	Production	Unknown			1,318		Y	N	N
2.6.109	3	6	1986	109	Production	Unknown			1,481		Y	N	N
2.6.110	3	6	1986	110	Production	Unknown			1,207		Y	N	N
2.6.111	3	6	1986	111	Production	Unknown			1,104		Y	N	N
2.6.112	3	6	1986	112	Production	Unknown			3,094		Y	N	N
2.6.113	3	6	1986	113	Production	Unknown			1,829		Y	N	N
2.6.114	3	6	1987	114	Injector	Unknown			2,421		Y	N	N
2.6.115	3	6	1987	115	Injector	Unknown			2,114		Y	Y	N
2.6.116	3	6	1987	116	Injector	Unknown			2,351		Y	N	N
2.6.117	3	6	1988	117	Production	Unknown			1,410		Y	N	N
2.6.118	3	6	1988	118	Unknown	Unknown			1,384		Y	N	N
2.6.119	3	6	1988	119	Production	Unknown			1,459		Y	N	N
2.6.120	3	6	1988	120	Injector	Unknown			2,716		Y	N	N
2.6.121	3	6	1988	121	Production	Unknown			1,433		Y	N	N
2.6.122	3	6	1988	122	Production	Unknown			1,389		Y	N	N
2.6.123	3	6	1989	123	Injector	Unknown			3,048		Y	N	N
2.6.124	3	6	1990	124	Non-commercial	Unknown			1,143		N	N	N
2.6.125	3	6	1990	125	Production	Unknown			1,980		Y	N	N
2.6.126	3	6	1990	126	Production	Unknown			1,053		Y	N	N
2.6.127	3	6	1990	127	Production	Unknown			1,375		Y	N	N
2.6.128	3	6	1991	128	Production	Unknown			1,566		Y	N	N
2.6.129	3	6	1991	129	Production	Unknown			1,955		Y	N	N
2.6.130	3	6	1991	130	Production	Unknown			2,137		Y	N	N
2.6.131	3	6	1992	131	Injector	Unknown			2,581		Y	Y	N
2.6.132	3	6	1992	132	Production	Unknown			117		Y	N	N
2.6.133	3	6	1992	133	Production	Unknown			1,887		Y	N	N
2.6.134	3	6	1992	134	Injector	Unknown			1,981		Y	N	N
2.6.135	3	6	1992	135	Production	Unknown			1,829		Y	N	N
2.6.136	3	6	1993	136	Observation	Unknown			2,438		N	N	N
2.6.137	3	6	1993	137	Production	Unknown			1,188		Y	N	N
2.6.138	3	6	1993	138	Production	Unknown			1,248		Y	Y	N
2.6.139	3	6	1993	139	Production	Unknown			1,707		Y	N	N
2.6.140	3	6	1993	140	Production	Unknown			1,462		Y	N	N
2.6.141	3	6	1993	141	Production	Unknown			1,823		Y	N	N
2.6.142	3	6	1994	142	Production	Unknown			1,421		Y	N	N
2.6.143	3	6	1994	143	Production	Unknown			1,779		Y	N	N
2.6.144	3	6	1994	144	Production	Unknown			1,981		Y	N	N
2.6.145	3	6	1995	145	Production	Unknown			1,981		Y	N	N
2.6.146	3	6	1995	146	Production	Unknown			1,981		Y	N	N
2.6.147	3	6	1995	147	Abandoned	Unknown			2,289		N	Y	N
2.6.148	3	6	1995	148	Production	Unknown			1,511		Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
2.6.149	3	6	2008	149	Non-commercial	Unknown	3.90	1983	1,594		Y	N	N
2.6.150	3	6		150	Production	Unknown			1,190		Y	N	N
2.6.151	3	6		151	Unknown	Unknown			2,538		N	N	N
2.6.152	3	6		152	Non-commercial	Unknown			1,831		N	N	N
2.7.1	3	6		1	Unknown	Unknown	16.80	12/1/1998			Y	N	N
2.7.2	3	6		2	Unknown	Unknown	14.00	11/24/1998			Y	N	N
2.7.3	3	6		3	Unknown	Unknown	11.20	8/14/1998			Y	N	N
2.7.4	3	6		4	Unknown	Unknown	3.90	8/30/1997			Y	N	N
2.7.5	3	6		5	Unknown	Unknown	7.60	2/5/1998			Y	N	N
2.7.6	3	6		6	Unknown	Unknown	11.30	1/12/1998			Y	N	N
2.7.7	3	6		7	Unknown	Unknown	5.80	8/11/1998			Y	N	N
2.7.8	3	6		8	Unknown	Unknown	10.30	4/11/1999			Y	N	N
2.7.9	3	6		9	Unknown	Unknown	13.30	12/15/1996			Y	N	N
2.7.10	3	6		10	Unknown	Unknown	9.00	6/2010			Y	N	N
2.7.11	3	6		11	Unknown	Unknown	1.70	7/2007			N	Y	N
2.7.12	3	6		12	Unknown	Unknown	7.50	1/10/1998			Y	N	N
2.7.13	3	6		13	Unknown	Unknown	3.60	1980			Y	Y	N
2.7.14	3	6		14	Unknown	Unknown	10.30	9/3/1998			Y	Y	N
2.7.15	3	6		15	Unknown	Unknown	16.10	4/21/1999			Y	N	N
2.7.16	3	6		16	Unknown	Unknown	9.80	1/10/1998			Y	N	N
2.7.17	3	6		17	Unknown	Unknown	6.20	8/11/1998			Y	N	N
2.7.18	3	6		18	Unknown	Unknown	11.90	8/21/1998			Y	N	N
2.7.19	3	6		19	Unknown	Unknown	11.60	6/19/2009			Y	N	N
2.7.20	3	6		20	Unknown	Unknown	8.20	1/21/2009			Y	N	N
2.7.21	3	6		21	Unknown	Unknown	2.60	1/10/2010			Y	N	N
2.7.22	3	6		22	Unknown	Unknown	1.90	7/2010			N	N	N
2.7.23	3	6		23	Unknown	Unknown	1.70	10/23/2010			N	N	N
2.7.24	3	6		24	Unknown	Unknown	12.60	9/3/1998			Y	N	N
2.7.25	3	6		25	Unknown	Unknown	3.40	8/14/2003			Y	N	N
2.7.26	3	6		26	Unknown	Unknown	2.10	10/18/2006			Y	N	N
2.7.27	3	6		27	Unknown	Unknown					N	N	N
2.8.1	3	6		1	Unknown	Unknown	23.00	7/1998			Y	N	N
2.8.2	3	6		2	Unknown	Unknown	12.10	8/1998			Y	N	N
2.8.3	3	6		3	Unknown	Unknown	9.70	9/1980			Y	N	N
2.8.4	3	6		4	Unknown	Unknown	10.20	2/1995			Y	N	N
2.8.5	3	6		5	Unknown	Unknown	14.40	11/1996			Y	N	N
2.8.6	3	6		6	Unknown	Unknown	28.00	6/1996			Y	Y	N
2.8.7	3	6		7	Unknown	Unknown	8.60	3/1999			Y	N	N
2.8.8	3	6		8	Unknown	Unknown	30.10	8/1996			Y	N	N
2.8.9	3	6		9	Unknown	Unknown	24.40	5/1997			Y	N	N
2.8.10	3	6		10	Unknown	Unknown	15.10	12/1996			Y	N	N
2.8.11	3	6		11	Unknown	Unknown	11.60	1/1998			Y	N	N
2.8.12	3	6		12	Unknown	Unknown	3.60	7/2006			Y	N	N
2.8.13	3	6		13	Unknown	Unknown	11.10	5/2007			Y	N	N
2.8.14	3	6		14	Unknown	Unknown	14.30	7/2006			Y	N	N
2.8.15	3	6		15	Unknown	Unknown	7.10	1/2006			Y	N	N
2.8.16	3	6		16	Unknown	Unknown	9.60	10/1996			Y	N	N
2.8.17	3	6		17	Unknown	Unknown	10.90	10/1996			Y	Y	N
2.8.18	3	6		18	Unknown	Unknown	6.20	1/1998			Y	N	N
2.8.19	3	6		19	Unknown	Unknown	6.30	8/1996			Y	N	N
2.8.20	3	6		20	Unknown	Unknown	6.60	1/1998			Y	N	N
2.8.21	3	6		21	Unknown	Unknown	7.60	4/1982			Y	N	N
2.8.22	3	6		22	Unknown	Unknown	12.90	1/1996			Y	N	N
2.8.23	3	6		23	Unknown	Unknown	8.80	1/1998			Y	N	N
2.8.24	3	6		24	Unknown	Unknown	15.00	9/1996			Y	N	N
2.8.25	3	6		25	Unknown	Unknown	4.00	1/2004			Y	N	N
3.1.1	3	5	1997	3	Unknown	Unknown	0.00		2,826		N	N	N
3.1.2	3	5	1997	2	Unknown	Unknown	0.00		2,979		N	N	N
3.1.3	3	5	1998	4	Unknown	Unknown	3.50		2,748		Y	N	N
3.1.4	3	5	1995	1	Unknown	Unknown	4.20		1,550		Y	N	N
3.2.1	3	7	1977	1	Unknown	Unknown			762		N	N	N
3.2.2	3	7	1977	2	Unknown	Unknown			1,010		N	Y	N
3.2.3	3	7	1977	3	Unknown	Unknown			760		N	N	N
3.2.4	3	7	1988	4	Unknown	Unknown			2,583		N	N	N
3.2.5	3	7	1988	5	Unknown	Unknown			2,324		N	Y	N
3.2.6	3	7	1988	6	Unknown	Unknown			1,820		N	N	N
3.2.7	3	7		7	Unknown	Unknown	5.30		1,521		Y	N	N
3.2.8	3	7		8	Unknown	Unknown	10.70		1,592		Y	N	N
3.2.9	3	7		9	Unknown	Unknown	13.30		1,974		Y	N	N
3.2.10	3	7		10	Unknown	Unknown	6.30		1,906		Y	N	N
3.2.11	3	7		11	Unknown	Unknown	32.00		1,488		Y	N	N
3.2.12	3	7		12	Unknown	Unknown	17.50		1,858		Y	N	N
3.2.13	3	7		13	Unknown	Unknown	17.50		1,750		Y	N	N
3.2.14	3	7		14	Unknown	Unknown	3.40		1,911		Y	N	N
3.3.1	3	5	1978	1	Unknown	Unknown			1,903		N	N	N
3.3.2	3	5	1979	2	Unknown	Unknown	4.80		1,662		Y	N	N
3.3.3	3	5	1981	3	Unknown	Unknown			1,946		N	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
3.3.4	3	5	1981	4	Unknown	Unknown	11.20		1,911		Y	N	N
3.3.5	3	5	1982	5	Unknown	Unknown			2,501		N	N	N
3.3.6	3	5	1982	6	Unknown	Unknown	10.40		2,501		Y	N	N
3.3.7	3	5	1983	7	Unknown	Unknown	8.20		2,401		Y	N	N
3.3.8	3	5	1984	8	Unknown	Unknown	2.60		2,450		N	N	N
3.3.9	3	5	1984	9	Unknown	Unknown	3.70		2,300		Y	N	N
3.3.10	3	5	1985	10	Unknown	Unknown	4.00		1,866		Y	N	N
3.3.11	3	5	1985	11	Unknown	Unknown	0.00		2,431		N	N	N
3.3.12	3	5	1985	12	Unknown	Unknown			2,104		N	N	N
3.3.13	3	5	1986	13	Unknown	Unknown			2,449		N	Y	N
3.3.14	3	5	1986	14	Unknown	Unknown	7.20		1,853		Y	N	N
3.3.15	3	5	1990	15	Unknown	Unknown	2.70		1,890		N	N	N
3.3.16	3	5	1990	16	Unknown	Unknown			2,073		N	N	N
3.3.17	3	5	1991	17	Unknown	Unknown			2,502		N	N	N
3.3.18	3	5	1991	18	Unknown	Unknown			2,252		N	N	N
3.3.19	3	5	1991	19	Unknown	Unknown			2,700		N	N	N
3.3.20	3	5	1991	20	Unknown	Unknown	8.20		2,348		Y	N	N
3.3.21	3	5	1991	21	Unknown	Unknown			2,372		N	N	N
3.3.22	3	5	1991	22	Unknown	Unknown	4.50		2,176		Y	N	N
3.3.23	3	5	1992	23	Unknown	Unknown			2,118		N	N	N
3.3.24	3	5	1992	24	Unknown	Unknown			2,039		N	N	N
3.3.25	3	5	1992	25	Unknown	Unknown			1,991		N	N	N
3.3.26	3	5	1993	26	Unknown	Unknown			2,410		N	N	N
3.3.27	3	5	1993	27	Unknown	Unknown			2,431		N	N	N
3.3.28	3	5	1993	28	Unknown	Unknown			2,396		N	N	N
3.3.29	3	5	1995	29	Unknown	Unknown	7.90	10/31/997	2,635		Y	Y	N
3.3.30	3	5	1996	30	Unknown	Unknown	0.00		2,359		N	Y	N
3.3.31	3	5	1996	31	Unknown	Unknown	0.00		2,604		N	Y	N
3.3.32	3	5	1996	32	Unknown	Unknown	0.00		2,380		N	N	N
3.3.33	3	5	1996	33	Unknown	Unknown	2.60	10/31/1997	2,726		N	Y	N
3.3.34	3	5	1996	34	Unknown	Unknown			1,209		N	Y	N
3.3.35	3	5	1996	35	Unknown	Unknown	16.70	10/31/1997	2,366		Y	Y	N
3.3.36	3	5	1996	36	Unknown	Unknown	5.90	10/31/1997	2,753		Y	N	N
3.3.37	3	5	1996	37	Unknown	Unknown	23.00	10/31/1997	2,570		Y	Y	N
3.3.38	3	5	1997	38	Unknown	Unknown	15.30		2,717		Y	N	N
3.3.39	3	5	1997	39	Unknown	Unknown	18.00	10/31/1997	2,622		Y	Y	N
3.3.40	3	5	1997	40	Unknown	Unknown	18.00	10/31/1997	2,300		Y	Y	N
3.3.41	3	5	1997	41	Unknown	Unknown	7.00	10/31/1997	2,641		Y	N	N
3.3.42	3	5	1997	42	Unknown	Unknown	21.00	10/31/1997	2,591		Y	N	N
3.3.43	3	5	1997	43	Unknown	Unknown	6.80	10/31/1997	2,640		Y	Y	N
3.3.44	3	5	1997	44	Unknown	Unknown	2.00		3,214		N	N	N
3.3.45	3	5	1997	45	Unknown	Unknown	9.00		2,623		Y	N	N
3.3.46	3	5	1997	46	Unknown	Unknown	18.00		2,566		Y	Y	N
3.3.47	3	5	1998	47	Unknown	Unknown	21.60		2,588		Y	Y	N
3.4.1	3	7	07/1990	47	Unknown	Unknown	2.50		550		Y	N	N
3.4.2	3	7	08/1975	5	Unknown	Unknown			233		N	N	N
3.4.3	3	7	1976	6	Unknown	Unknown	10.60		314		Y	N	N
3.4.4	3	7	07/1977	7	Unknown	Unknown	2.80		457		Y	N	N
3.4.5	3	7	02/1996	78	Unknown	Unknown			457		N	N	N
3.4.6	3	7	1977	9	Unknown	Unknown	7.60		305		Y	N	N
3.4.7	3	7	04/1978	8	Unknown	Unknown			549		N	N	N
3.4.8	3	7	09/1978	10	Unknown	Unknown			390		N	N	N
3.4.9	3	7	1978	12	Unknown	Unknown	9.00		326		Y	N	N
3.4.10	3	7	1979	13	Unknown	Unknown	14.80		285		Y	N	N
3.4.11	3	7	07/1979	14	Unknown	Unknown			413		N	N	N
3.4.12	3	7	03/1981	15	Unknown	Unknown	2.30		382		Y	N	N
3.4.13	3	7	12/1981	18	Unknown	Unknown			616		N	N	N
3.4.14	3	7	1981	17	Unknown	Unknown	11.80		373		Y	N	N
3.4.15	3	7	12/1983	27	Unknown	Unknown			554		N	N	N
3.4.16	3	7	1982	19	Unknown	Unknown	5.90		671		Y	N	N
3.4.17	3	7	1982	20	Unknown	Unknown	3.40		559		Y	N	N
3.4.18	3	7	1983	21	Unknown	Unknown	11.40		396		Y	N	N
3.4.19	3	7	1983	22	Unknown	Unknown	11.50		379		Y	N	N
3.4.20	3	7	1983	23	Unknown	Unknown	7.00		371		Y	N	N
3.4.21	3	7	1983	24	Unknown	Unknown	5.10		366		Y	N	N
3.4.22	3	7	1983	26	Unknown	Unknown	4.00		366		Y	N	N
3.4.23	3	7	1983	25	Unknown	Unknown	5.90		396		Y	N	N
3.4.24	3	7	03/1988	43	Unknown	Unknown			587		N	N	N
3.4.25	3	7	1988	44	Unknown	Unknown	2.90		351		Y	N	N
3.4.26	3	7	1984	29	Unknown	Unknown	6.30		344		Y	N	N
3.4.27	3	7	1984	30	Unknown	Unknown	4.00		381		Y	N	N
3.4.28	3	7	1984	31	Unknown	Unknown	14.80		381		Y	N	N
3.4.29	3	7	1987	42	Unknown	Unknown	9.10		427		Y	N	N
3.4.30	3	7	1984	32	Unknown	Unknown	5.00		439		Y	N	N
3.4.31	3	7	1984	33	Unknown	Unknown	3.10		427		Y	N	N
3.4.32	3	7	1984	34	Unknown	Unknown	3.30		462		Y	N	N
3.4.33	3	7	1985	36	Unknown	Unknown	11.80		389		Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
3.4.34	3	7	1985	37	Unknown	Unknown	9.00		435		Y	N	N
3.4.35	3	7	1985	38	Unknown	Unknown	5.80		352		Y	N	N
3.4.36	3	7	1986	39	Unknown	Unknown	6.60		428		Y	N	N
3.4.37	3	7	1986	40	Unknown	Unknown	3.70		449		Y	N	N
3.4.38	3	7	1987	41	Unknown	Unknown	5.00		430		Y	N	N
3.4.39	3	7	10/1991	48	Unknown	Unknown			461		N	N	N
3.4.40	3	7	08/1989	45	Unknown	Unknown			487		N	Y	N
3.4.41	3	7	1989	46	Unknown	Unknown	9.10		419		Y	N	N
3.4.42	3	7	1991	50	Unknown	Unknown	6.70		461		Y	N	N
3.4.43	3	7	10/1991	49	Unknown	Unknown			457		N	N	N
3.4.44	3	7	03/1992	51	Unknown	Unknown	10.70		396		Y	N	N
3.4.45	3	7	1992	52	Unknown	Unknown	5.50		457		Y	N	N
3.4.46	3	7	1992	53	Unknown	Unknown	8.00		396		Y	N	N
3.4.47	3	7	05/1993	54	Unknown	Unknown			549		N	N	N
3.4.48	3	7	10/1993	55	Unknown	Unknown	2.00		411		Y	N	N
3.4.49	3	7	01/1994	56	Unknown	Unknown	2.10		306		Y	N	N
3.4.50	3	7	1994	57	Unknown	Unknown	4.30		369		Y	N	N
3.4.51	3	7	1994	58	Unknown	Unknown	5.00		411		Y	N	N
3.4.52	3	7	1994	59	Unknown	Unknown	8.00		396		Y	N	N
3.4.53	3	7	10/1974	1	Unknown	Unknown			188		N	N	N
3.4.54	3	7	07/1995	60	Unknown	Unknown			411		N	N	N
3.4.55	3	7	1995	61	Unknown	Unknown	11.20		397		Y	N	N
3.4.56	3	7	1995	62	Unknown	Unknown	11.00		335		Y	N	N
3.4.57	3	7	1996	63	Unknown	Unknown	9.50		457		Y	N	N
3.4.58	3	7	04/1996	64	Unknown	Unknown			610		N	N	N
3.4.59	3	7	05/1996	66	Unknown	Unknown	3.37		366		Y	N	N
3.4.60	3	7	09/1996	67	Unknown	Unknown	2.60		439		Y	N	N
3.4.61	3	7	09/1996	68	Unknown	Unknown	6.60		366		Y	N	N
3.4.62	3	7	12/1996	69	Unknown	Unknown	3.50		416		Y	N	N
3.4.63	3	7	02/1975	2	Unknown	Unknown	2.30		163		Y	N	N
3.4.64	3	7	04/1975	3	Unknown	Unknown			195		N	N	N
3.4.65	3	7	06/1975	4	Unknown	Unknown			233		N	N	N
3.4.66	3	7		70	Unknown	Unknown	3.40		390		Y	N	N
3.4.67	3	7		71	Unknown	Unknown	3.40		367		Y	N	N
3.4.68	3	7		72	Unknown	Unknown	7.40		397		Y	N	N
3.4.69	3	7		73	Unknown	Unknown	9.20		429		Y	N	N
3.4.70	3	7		74	Unknown	Unknown	3.10		457		Y	N	N
3.4.71	3	7		75	Unknown	Unknown	2.60		458		Y	N	N
3.4.72	3	7		76	Unknown	Unknown	7.20		489		Y	N	N
3.4.73	3	7		77	Unknown	Unknown	8.30		549		Y	N	N
3.4.74	3	7		11	Unknown	Unknown					N	N	N
3.4.75	3	7		79	Unknown	Unknown	7.00		525		Y	N	N
3.4.76	3	7		16	Unknown	Unknown					N	N	N
3.4.77	3	7		28	Unknown	Unknown					N	N	N
3.4.78	3	7		35	Unknown	Unknown			610		N	N	N
3.4.79	3	7	05/1991	65	Unknown	Unknown			507		N	N	N
3.5.1	3	5	1996	1	Unknown	Unknown			2,500		N	Y	N
3.5.2	3	5	1996	2	Unknown	Unknown			2,158		N	N	N
3.5.3	3	5	1996	3	Unknown	Unknown			1,029		N	N	N
3.5.4	3	5	1996	4	Unknown	Unknown			1,388		N	N	N
3.5.5	3	5	1996	5	Unknown	Unknown			2,741		Y	Y	N
3.5.6	3	5	1997	6	Unknown	Unknown			1,324		N	N	N
3.5.7	3	5	1997	7	Unknown	Unknown			1,406		N	N	N
3.5.8	3	5	1997	8	Unknown	Unknown	12.50		1,854		Y	N	N
3.5.9	3	5	1997	9	Unknown	Unknown			3,076		N	Y	N
3.5.10	3	5	1997	10	Unknown	Unknown			3,040		N	Y	N
3.5.11	3	5	1997	11	Unknown	Unknown			1,671		N	N	N
3.5.12	3	5	1997	12	Unknown	Unknown	1.70		1,397		N	N	N
3.5.13	3	5	1997	13	Unknown	Unknown			1,579		N	N	N
3.5.14	3	5	1997	14	Unknown	Unknown			2,181		N	N	N
3.5.15	3	5	1997	15	Unknown	Unknown			1,340		Y	N	N
3.5.16	3	5	1997	16	Unknown	Unknown			2,417		Y	Y	N
3.5.17	3	5	1997	17	Unknown	Unknown			1,603		Y	N	N
3.5.18	3	5	1997	18	Unknown	Unknown	4.20		2,443		Y	N	N
3.5.19	3	5	1997	19	Unknown	Unknown			1,825		N	N	N
3.5.20	3	5	1997	20	Unknown	Unknown	5.00		1,781		Y	Y	N
3.5.21	3	5	1997	21	Unknown	Unknown	0.80		2,039		N	N	N
3.5.22	3	5	1997	22	Unknown	Unknown	2.60		2,588		N	N	N
3.5.23	3	5	1998	23	Unknown	Unknown	7.00		2,479		Y	N	N
3.6.1	3	5	1996	1	Production	Unknown	12.50	5/13/1997	1,018		Y	N	N
3.6.2	3	5	1997	2	Non-commercial	Unknown			2,701		N	N	N
3.6.3	3	5	1997	3	Production	Unknown	9.20	7/2/1997	2,089		Y	N	N
3.6.4	3	5	1997	4	Production	Unknown	8.80	6/2/1997	1,760		Y	Y	N
3.6.5	3	5	1997	5	Production	Unknown	13.70	3/13/1997	1,464		Y	N	N
3.6.6	3	5	1997	6	Production	Unknown	9.00	6/6/1997	995		Y	Y	N
3.6.7	3	5	1997	7	Production	Unknown	15.50	7/11/1997	1,154		Y	N	N
3.6.8	3	5	1997	8	Production	Unknown	4.00	7/20/1997	2,172		Y	Y	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
3.6.9	3	5	1997	9	Non-commercial	Unknown			1,755		N	Y	N
3.6.10	3	5	1997	10	Non-commercial	Unknown			1,628		N	Y	N
3.6.11	3	5	1997	11	Production	Unknown	7.00	2/12/1998	1,618		Y	Y	N
3.6.12	3	5	1997	12	Non-commercial	Unknown			2,537		N	Y	N
3.6.13	3	5	1998	13	Suspended	Unknown			974		NA	N	N
3.6.14	3	5	1998	14	Production	Unknown	13.00	1/22/1998	1,700		Y	N	N
3.7.1	3	6		1	Unknown	Unknown			634		N	N	N
3.7.2	3	6		2	Unknown	Unknown			743		N	N	N
3.7.3	3	6		3	Unknown	Unknown			386		N	N	N
3.7.4	3	6		4	Unknown	Unknown			501		N	N	N
3.7.5	3	6		5	Unknown	Unknown			619		N	N	N
3.7.6	3	6		6	Unknown	Unknown	40.00		710		Y	Y	N
3.7.7	3	6		7	Unknown	Unknown	52.00		658		Y	N	N
3.7.8	3	6		8	Unknown	Unknown			668		N	N	N
3.7.9	3	6		9	Unknown	Unknown	9.00		679		Y	N	N
3.7.10	3	6		10	Unknown	Unknown	30.00		525		Y	N	N
3.7.11	3	6		11	Unknown	Unknown	25.00		406		Y	Y	N
3.7.12	3	6		12	Unknown	Unknown	27.00		518		Y	N	N
3.7.13	3	6		13	Unknown	Unknown	16.00		512		Y	N	N
3.8.1	3	6	1986	1	Unknown	Unknown	15.50		2,306		Y	N	N
3.8.2	3	6	1996	2	Unknown	Unknown	4.00		2,503		Y	N	N
3.8.3	3	6	1996	3	Unknown	Unknown	2.60		1,441		Y	N	N
3.8.4	3	6	1996	4	Unknown	Unknown			2,165		N	N	N
3.8.5	3	6	1996	5	Unknown	Unknown	2.00		1,300		Y	Y	N
3.8.6	3	6	1996	6	Unknown	Unknown	4.50		2,049		Y	N	N
3.8.7	3	6	08/1996	7	Unknown	Unknown	1.50		1,182		N	Y	N
3.8.8	3	6	09/1996	8	Unknown	Unknown	4.50		2,049		Y	Y	N
3.8.9	3	6	1996	9	Unknown	Unknown	11.00		1,650		Y	N	N
3.8.10	3	6	12/1996	10	Unknown	Unknown			2,153		N	N	N
3.8.11	3	6	1997	11	Unknown	Unknown			2,134		N	N	N
3.8.12	3	6	1997	12	Unknown	Unknown	24.30		1,613		Y	N	N
3.8.13	3	6	1997	13	Unknown	Unknown	8.00		2,500		Y	N	N
3.8.14	3	6	1997	14	Unknown	Unknown			2,255		N	Y	N
3.8.15	3	6	1997	15	Unknown	Unknown	9.50		1,630		Y	Y	N
3.8.16	3	6	10/1997	16	Unknown	Unknown	19.70		2,510		Y	Y	N
3.8.17	3	6	10/1997	17	Unknown	Unknown	20.80		2,246		Y	N	N
3.8.18	3	6	10/1997	18	Unknown	Unknown	28.20		1,600		Y	N	N
3.8.19	3	6	11/1997	19	Unknown	Unknown	12.30		1,527		Y	N	N
3.8.20	3	6	12/1997	20	Unknown	Unknown			1,430		N	N	N
3.8.21	3	6	12/1997	21	Unknown	Unknown			2,050		N	N	N
3.8.22	3	6	12/1997	22	Unknown	Unknown	14.80		1,600		Y	N	N
3.8.23	3	6	12/1997	23	Unknown	Unknown	15.50		2,306		Y	N	N
3.8.24	3	6	01/1998	24	Unknown	Unknown			1,800		N	N	N
3.8.25	3	6	01/1998	25	Unknown	Unknown			2,355		N	N	N
3.8.26	3	6	01/1998	26	Unknown	Unknown	14.20		2,510		Y	N	N
3.8.27	3	6	02/1998	27	Unknown	Unknown	18.50		1,307		Y	N	N
3.8.28	3	6	03/1998	28	Unknown	Unknown	6.60		2,329		Y	N	N
3.8.29	3	6	11/2003	29	Unknown	Unknown			1,484		N	N	N
3.8.30	3	6	09/2006	30	Unknown	Unknown	30.80		1,347		Y	N	N
3.8.31	3	6	01/2007	31	Unknown	Unknown	11.00		1,650		Y	N	N
3.8.32	3	6	03/2007	32	Unknown	Unknown	24.30		1,613		Y	N	N
3.8.33	3	6	05/2007	33	Unknown	Unknown	28.20		1,600		Y	N	N
3.8.34	3	6	06/2007	34	Unknown	Unknown	23.00		1,310		Y	N	N
3.8.35	3	6	06/2007	35	Unknown	Unknown	27.30		1,710		Y	N	N
3.8.36	3	6	09/2007	36	Unknown	Unknown	19.20		1,387		Y	N	N
4.1.1	3	5		1	Unknown	Unknown	2.50	1990	1,660	244 mm to 854 m	N	N	N
4.1.2	3	5		2	Unknown	Unknown	2.50	1990	1,758	244 mm to 964 m	N	N	N
4.1.3	3	5		3	Unknown	Unknown	3.70	1990	1,655	244 mm to 912 m	Y	N	N
4.1.4	3	5		4	Unknown	Unknown	3.70	1990	1,560	244 mm to 810 m	Y	N	N
4.1.5	3	5		5	Unknown	Unknown	4.00	1990	1,662	244 mm to 899 m	Y	N	N
4.1.6	3	5		6	Unknown	Unknown	4.90	1990	1,655	244 mm to 806 m	Y	N	N
4.1.7	3	5		7	Unknown	Unknown	9.00	1990	2,011	244 mm to 950 m	Y	N	N
4.1.8	3	5		8	Unknown	Unknown	10.00	1990	2,609	244 mm to 1,500 m	Y	N	N
4.1.9	3	5		9	Unknown	Unknown	11.70	1990	1,860	244 mm to 967 m	Y	Y	N
4.1.10	3	5		10	Unknown	Unknown			1,005	89 mm to 503 m	NA	N	N
4.1.11	3	5		11	Unknown	Unknown			1,004	76 mm to 507 m	NA	N	N
4.1.12	3	5		12	Unknown	Unknown			1,500	102 mm to 1,005 m	NA	N	N
4.1.13	3	5		13	Unknown	Unknown			1,305	76 mm to 1,000 m	NA	N	N
4.1.14	3	5		14	Unknown	Unknown			1,007	76 mm to 500 m	NA	N	N
4.1.15	3	5		15	Unknown	Unknown			1,500	90 mm to 1,004 m	NA	N	N
4.1.16	3	5		16	Unknown	Unknown			1,004	102 mm to 701 m	NA	N	N
4.1.17	3	5		17	Unknown	Unknown					Y	N	N
4.1.18	3	5		18	Unknown	Unknown					Y	N	N
4.1.19	3	5		19	Unknown	Unknown					Y	N	N
4.1.20	3	5		20	Unknown	Unknown					Y	N	N
4.1.21	3	5		21	Unknown	Unknown					Y	N	N
4.1.22	3	5		22	Unknown	Unknown					Y	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
4.1.23	3	5		23	Unknown	Unknown					Y	N	N
4.1.24	3	5		24	Unknown	Unknown					N	N	N
4.1.25	3	5		25	Unknown	Unknown					N	N	N
4.1.26	3	5		26	Unknown	Unknown					N	N	N
4.1.27	3	5		27	Unknown	Unknown			1,655	114 mm to 404 m	N	Y	N
4.1.28	3	5		28	Unknown	Unknown			1,505	340 mm to 600 m	N	N	N
4.1.29	3	5		29	Unknown	Unknown			1,460	340 mm to 605 m	N	N	N
4.2.1	3	6	9/1/1980	1	Unknown	Unknown	2.50		1,150		N	N	N
4.2.2	3	6	9/7/1982	2	Unknown	Unknown	5.40		1,400		Y	N	N
4.2.3	3	6	8/9/1983	3	Unknown	Unknown	2.70		1,405		N	N	N
4.2.4	3	6	8/16/1985	5	Unknown	Unknown	4.10		1,679		Y	N	N
4.2.5	3	6	6/23/1985	4	Unknown	Unknown	3.20		1,711		Y	N	N
4.2.6	3	6	9/23/1986	7	Unknown	Unknown	1.70		1,849		N	Y	N
4.2.7	3	6	11/13/1986	8	Unknown	Unknown	0.50		1,800		N	Y	N
4.2.8	3	6	7/24/1986	6	Unknown	Unknown	5.50		1,777		Y	N	N
4.2.9	3	6	10/29/1991	10	Unknown	Unknown	2.50		2,013		N	N	N
4.2.10	3	6	8/16/1991	9	Unknown	Unknown	1.60		2,230		N	N	N
4.2.11	3	6		11	Unknown	Unknown			1,166		NA	N	N
4.2.12	3	6		12	Unknown	Unknown			1,684		NA	N	N
4.2.13	3	6		13	Unknown	Unknown			1,003		Y	N	N
4.2.14	3	6		14	Unknown	Unknown			1,087		Y	N	N
4.2.15	3	6		15	Unknown	Unknown			1,094		NA	N	N
4.2.16	3	6		16	Unknown	Unknown			1,500		NA	Y	N
4.2.17	3	6		17	Unknown	Unknown			1,493		NA	N	N
4.2.18	3	6		18	Unknown	Unknown			1,500		NA	N	N
4.2.19	3	6		19	Unknown	Unknown			1,500		NA	N	N
5.1.1	5	4	1982	1	Unknown	Unknown			1,001		N	N	N
5.1.2	5	4	1982	2	Unknown	Unknown			976		N	N	N
5.1.3	5	4	1983	3	Unknown	Unknown			1,195		Y	N	N
5.1.4	5	4	1984	4	Unknown	Unknown			285		NA	N	N
5.1.5	5	4	1984	5	Unknown	Unknown	5.20		1,302		Y	N	N
5.1.6	5	4	1984	6	Unknown	Unknown	5.40		1,100		Y	N	N
5.1.7	5	4	1985	7	Unknown	Unknown			2,398		Y	N	N
5.1.8	5	4	1986	8	Unknown	Unknown			2,000		N	N	N
5.1.9	5	4	1986	9	Unknown	Unknown			1,464		N	N	N
5.1.10	5	4		10	Unknown	Unknown	5.50		1,518		Y	N	N
5.1.11	5	4		11	Unknown	Unknown	4.53		960		Y	N	N
5.1.12	5	4		12	Unknown	Unknown	11.10		1,200		Y	N	N
5.1.13	5	4		13	Unknown	Unknown	5.70		1,701		Y	N	N
5.1.14	5	4		14	Unknown	Unknown	5.10		1,646		Y	N	N
5.1.15	5	4		15	Unknown	Unknown			2,255		N	N	N
5.1.16	5	4		16	Unknown	Unknown			1,247		NA	N	N
5.1.17	5	4		17	Unknown	Unknown			1,833		NA	N	N
5.1.18	5	4		18	Unknown	Unknown			2,427		NA	N	N
5.1.19	5	4		19	Unknown	Unknown			1,654		NA	N	N
5.2.1	5	4	1968	1	Abandoned	Abandoned			540	178 mm to 450 m	N	N	N
5.2.2	5	4	1969	3	Abandoned	Injector			655	244 mm to 405 m	Y	Y	N
5.2.3	5	4	1968	2	Non-commercial	Injector			991	168 mm to 650 m	Y	Y	N
5.2.4	5	4	1969	4	Non-commercial	Abandoned			370	244 mm to 258 m	N	N	N
5.2.5	5	4	1969	6	Non-commercial	Abandoned			486	244 mm to 314 m	N	N	N
5.2.6	5	4	1970	7	Production	Observation			851	168 mm to 526 m	Y	Y	N
5.2.7	5	4	1971	12	Production	Observation			668	168 mm to 531 m	Y	Y	N
5.2.8	5	4	1970	8	Abandoned	Observation			620	244 mm to 505 m	N	N	N
5.2.9	5	4	1970	9	Non-commercial	Abandoned			1,241	168 mm to 734 m	N	N	N
5.2.10	5	4	1970	10	Non-commercial	Abandoned			405	244 mm to 300 m	N	N	N
5.2.11	5	4	1971	13	Production	Production	1.20		760	244 mm to 597 m	Y	N	N
5.2.12	5	4	1970	11	Production	Production	2.10		597	244 mm to 456 m	Y	N	N
5.2.13	5	4	1971	14	Production	Production	1.60		510	244 mm to 389 m	Y	N	N
5.2.14	5	4	1973	15	Production	Production	2.50		667	244 mm to 497 m	Y	N	N
5.2.15	5	4	1975	16	Abandoned	Observation			365		N	N	N
5.2.16	5	4	1986	19	Production	Production	1.50		810	244 mm to 496 m	Y	N	N
5.2.17	5	4	1985	17	Production	Production	2.00		898	244 mm to 458 m	Y	N	N
5.2.18	5	4	1985	18	Production	Production	1.70		888	244 mm to 567 m	Y	N	N
5.2.19	5	4	1969	5	Non-commercial	Abandoned			505	168 mm to 313 m	N	N	N
5.2.20	5	4	1998	20	Production	Idle			2,261	244 mm to 1,167 m	Y	N	N
5.2.21	5	4	2001	21	Injector	Injector			1,482	340 mm to 780 m	Y	N	N
5.2.22	5	4	2006	22	Production	Production	2.00		2,250	244 mm to 1,001 m	Y	N	N
5.2.23	5	4	2009	23	Production	Idle			2,184	244 mm to 1,078 m	Y	N	N
5.2.24	5	4	2010	24	Unknown	Idle			1,468	244 mm to 1,143 m	N	N	N
5.2.25	5	4	2010	25	Production	Idle			2,703	244 mm to 1,691 m	Y	N	N
6.1.1	4	6	1964	1	Unknown	Unknown					Y	Y	N
6.1.2	4	6	1966	2	Unknown	Unknown					N	Y	N
6.1.3	4	6	1967	3	Unknown	Unknown					Y	Y	N
6.1.4	4	6	1967	4	Unknown	Unknown					N	N	N
6.1.5	4	6	1967	5	Unknown	Unknown					Y	Y	N
6.1.6	4	6	1967	6	Unknown	Unknown					Y	Y	N
6.1.7	4	6	1968	7	Unknown	Unknown					Y	Y	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
6.1.8	4	6	1972	8	Unknown	Unknown					Y	Y	N
6.1.9	4	6	1972	9	Unknown	Unknown					Y	N	N
6.1.10	4	6	1972	10	Unknown	Unknown					Y	Y	N
6.1.11	4	6	1972	11	Unknown	Unknown					Y	N	N
6.1.12	4	6	1972	12	Unknown	Unknown					Y	N	N
6.1.13	4	6	1972	13	Unknown	Unknown					Y	N	N
6.1.14	4	6	1973	14	Unknown	Unknown					N	Y	N
6.1.15	4	6	1973	15	Unknown	Unknown					Y	Y	N
6.1.16	4	6	1973	16	Unknown	Unknown					N	Y	N
6.1.17	4	6	1973	17	Unknown	Unknown					Y	Y	N
6.1.18	4	6	1973	18	Unknown	Unknown					Y	N	N
6.1.19	4	6	1973	19	Unknown	Unknown					Y	Y	N
6.1.20	4	6	1973	20	Unknown	Unknown					Y	Y	N
6.1.21	4	6	1974	21	Unknown	Unknown					Y	Y	N
6.1.22	4	6	1974	22	Unknown	Unknown	3.90				Y	Y	N
6.1.23	4	6	1974	23	Unknown	Unknown	3.99				Y	Y	N
6.1.24	4	6	1977	24	Unknown	Unknown	6.01				Y	Y	N
6.1.25	4	6	1977	25	Unknown	Unknown	9.43				Y	Y	N
6.1.26	4	6	1977	26	Unknown	Unknown	10.00				Y	Y	N
6.1.27	4	6	1977	27	Unknown	Unknown	9.42				Y	N	N
6.1.28	4	6	1977	28	Unknown	Unknown	8.94				Y	Y	N
6.1.29	4	6	1978	29	Unknown	Unknown					Y	Y	N
6.1.30	4	6	1978	30	Unknown	Unknown	5.69				Y	Y	N
6.1.31	4	6	1978	31	Unknown	Unknown	8.39				Y	Y	N
6.1.32	4	6	1978	32	Unknown	Unknown	5.21				Y	Y	N
6.1.33	4	6	1978	33	Unknown	Unknown					Y	Y	N
6.1.34	4	6	1978	34	Unknown	Unknown					Y	Y	N
6.1.35	4	6	1979	35	Unknown	Unknown					NA	N	N
6.1.36	4	6	1979	36	Unknown	Unknown					Y	Y	N
6.1.37	4	6	1979	37	Unknown	Unknown					Y	Y	N
6.1.38	4	6	1979	38	Unknown	Unknown					NA	Y	N
6.1.39	4	6	1980	39	Unknown	Unknown					Y	Y	N
6.1.40	4	6	1980	40	Unknown	Unknown					Y	N	N
6.1.41	4	6	1981	41	Unknown	Unknown					Y	Y	N
6.1.42	4	6	1981	42	Unknown	Unknown					N	Y	N
6.1.43	4	6	1981	43	Unknown	Unknown					Y	Y	N
6.1.44	4	6	1981	44	Unknown	Unknown					Y	N	N
6.1.45	4	6	1982	45	Unknown	Unknown					Y	Y	N
6.1.46	4	6	1982	46	Unknown	Unknown					Y	N	N
6.1.47	4	6	1982	47	Unknown	Unknown					NA	Y	N
6.1.48	4	6	1982	48	Unknown	Unknown	1.90				N	N	N
6.1.49	4	6	1982	49	Unknown	Unknown					Y	Y	N
6.1.50	4	6	1982	50	Unknown	Unknown					Y	Y	N
6.1.51	4	6	1982	51	Unknown	Unknown					Y	N	N
6.1.52	4	6	1982	52	Unknown	Unknown	6.78				Y	N	N
6.1.53	4	6	1983	53	Unknown	Unknown					Y	N	N
6.1.54	4	6	1983	54	Unknown	Unknown					Y	N	N
6.1.55	4	6	1984	55	Unknown	Unknown	3.77				Y	Y	N
6.1.56	4	6	1984	56	Unknown	Unknown	7.91				Y	N	N
6.1.57	4	6	1984	57	Unknown	Unknown	2.31				N	Y	N
6.1.58	4	6	1984	58	Unknown	Unknown	6.17				Y	N	N
6.1.59	4	6	1985	59	Unknown	Unknown	2.58				N	Y	N
6.1.60	4	6	1985	60	Unknown	Unknown	7.80				Y	N	N
6.1.61	4	6	1985	61	Unknown	Unknown	2.78				N	Y	N
6.1.62	4	6	1986	62	Unknown	Unknown	5.53				Y	N	N
6.1.63	4	6	1987	63	Unknown	Unknown	8.10				Y	N	N
6.1.64	4	6	1987	64	Unknown	Unknown	7.84				Y	N	N
6.1.65	4	6	1987	65	Unknown	Unknown	5.32				Y	N	N
6.1.66	4	6	1988	66	Unknown	Unknown	8.13				Y	N	N
6.1.67	4	6	1988	67	Unknown	Unknown	9.27				Y	Y	N
6.1.68	4	6	1994	68	Unknown	Unknown	8.69				Y	N	N
6.1.69	4	6	2004	69	Unknown	Unknown					Y	N	N
6.1.70	4	6	2004	70	Unknown	Unknown					Y	N	N
6.1.71	4	6	2005	71	Unknown	Unknown					Y	N	N
6.1.72	4	6	2005	72	Unknown	Unknown					Y	N	N
6.1.73	4	6	2005	73	Unknown	Unknown					Y	N	N
6.1.74	4	6	2005	74	Unknown	Unknown					Y	N	N
6.1.75	4	6	2005	75	Unknown	Unknown					Y	N	N
6.1.76	4	6	2005	76	Unknown	Unknown					Y	N	N
6.1.77	4	6	2005	77	Unknown	Unknown					Y	N	N
6.1.78	4	6	2005	78	Unknown	Unknown					Y	N	N
6.1.79	4	6	2005	79	Unknown	Unknown					Y	Y	N
6.1.80	4	6	2005	80	Unknown	Unknown					Y	N	N
6.1.81	4	6	2005	81	Unknown	Unknown					Y	N	N
6.1.82	4	6	2005	82	Unknown	Unknown					Y	N	N
6.1.83	4	6	2005	83	Unknown	Unknown					Y	N	N
6.1.84	4	6	2005	84	Unknown	Unknown					Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
6.1.85	4	6	2005	85	Unknown	Unknown					Y	N	N
6.1.86	4	6	2006	86	Unknown	Unknown					Y	Y	N
6.1.87	4	6	2006	87	Unknown	Unknown					Y	N	N
6.1.88	4	6	2006	88	Unknown	Unknown					Y	Y	N
6.1.89	4	6	2006	89	Unknown	Unknown					Y	Y	N
6.1.90	4	6	2006	90	Unknown	Unknown					Y	Y	N
6.1.91	4	6	2008	91	Unknown	Unknown					N	N	N
6.1.92	4	6	2008	92	Unknown	Unknown					Y	N	N
6.1.93	4	6	2008	93	Unknown	Unknown					NA	N	N
6.1.94	4	6	2008	94	Unknown	Unknown					Y	N	N
6.1.95	4	6	2008	95	Unknown	Unknown					Y	N	N
6.1.96	4	6	2008	96	Unknown	Unknown					N	N	N
6.1.97	4	6	2008	97	Unknown	Unknown					Y	N	N
6.1.98	4	6	2008	98	Unknown	Unknown					Y	N	N
6.1.99	4	6	2008	99	Unknown	Unknown					Y	N	N
6.1.100	4	6	2008	100	Unknown	Unknown					Y	N	N
6.1.101	4	6	2008	101	Unknown	Unknown					Y	N	N
6.1.102	4	6	2008	102	Unknown	Unknown					Y	N	N
6.1.103	4	6	2009	103	Unknown	Unknown					Y	N	N
6.1.104	4	6	2009	104	Unknown	Unknown					N	N	N
6.1.105	4	6	2009	105	Unknown	Unknown					N	N	N
6.1.106	4	6	2009	106	Unknown	Unknown					N	N	N
6.1.107	4	6	2009	107	Unknown	Unknown					Y	N	N
6.1.108	4	6	2009	108	Unknown	Unknown					NA	N	N
6.1.109	4	6	2009	109	Unknown	Unknown					NA	N	N
7.1.1	3	5	2/15/2002	3	Exploration	Production			1,418		Y	N	N
7.1.2	3	5	10/6/2001	2	Exploration	Production			1,764		Y	N	N
7.1.3	3	5	5/11/2001	1	Exploration	Production			1,773		Y	N	N
7.1.4	3	5	6/15/2002	4	Exploration	Production			1,419		Y	N	N
7.1.5	3	5	11/21/2002	5	Exploration	Injector			1,827		Y	N	N
7.2.1	3	5		1	Unknown	Unknown	5.60		1,300		Y	N	N
7.2.2	3	5		2	Unknown	Unknown			2,025		N	Y	N
7.2.3	3	5		3	Unknown	Unknown	8.10		1,150		Y	N	N
7.2.4	3	5		4	Unknown	Unknown			2,300		N	N	N
7.2.5	3	5		5	Unknown	Unknown	4.10		1,850		Y	Y	N
7.2.6	3	5	1999	6	Unknown	Unknown			1,180		N	N	N
7.2.7	3	5		7	Unknown	Unknown	14.80		1,150		Y	N	N
7.2.8	3	5		8	Unknown	Unknown			1,900		N	N	N
7.2.9	3	5		9	Unknown	Unknown	2.40		2,050		Y	N	N
7.2.10	3	5		10	Unknown	Unknown	4.80		1,300		Y	N	N
7.2.11	3	5		11	Unknown	Unknown			1,500		N	N	N
7.2.12	3	5		12	Unknown	Unknown	3.00		1,400		Y	N	N
7.2.13	3	5		13	Unknown	Unknown			3,000		NA	Y	N
7.2.14	3	5		14	Unknown	Unknown	3.40		1,380		Y	N	N
7.2.15	3	5		15	Unknown	Unknown	8.80		1,300		Y	N	N
7.2.16	3	5		16	Unknown	Unknown			1,100		NA	N	N
7.2.17	3	5		17	Unknown	Unknown	7.20		1,700		Y	N	N
7.2.18	3	5		18	Unknown	Unknown	13.90		1,700		Y	N	N
7.2.19	3	5		19	Unknown	Unknown	11.60		1,300		Y	N	N
7.2.20	3	5		20	Unknown	Unknown	6.70		2,000		Y	N	N
7.2.21	3	5		21	Unknown	Unknown			1,600		NA	N	N
7.2.22	3	5		22	Unknown	Unknown	4.10		1,600		Y	N	N
7.2.23	3	5		23	Unknown	Unknown			1,200		NA	N	N
7.2.24	3	5		24	Unknown	Unknown					NA	N	N
7.2.25	3	5		25	Unknown	Unknown	6.90		1,700		Y	N	N
7.2.26	3	5	2000	27	Unknown	Unknown			923		N	N	N
7.2.27	3	5	2000	26	Unknown	Unknown			1,056		N	N	N
7.2.28	3	5		28	Unknown	Unknown					NA	N	N
7.2.29	3	5		29	Unknown	Unknown					NA	N	N
7.2.30	3	5		30	Unknown	Unknown					NA	N	N
7.2.31	3	5		31	Unknown	Unknown					NA	N	N
7.2.32	3	5		32	Unknown	Unknown	12.90		1,200		Y	N	N
7.2.33	3	5		33	Unknown	Unknown			1,950		NA	N	N
7.2.34	3	5		34	Unknown	Unknown			1,300		NA	N	N
7.2.35	3	5		35	Unknown	Unknown					NA	N	N
7.2.36	3	5		36	Unknown	Unknown					NA	N	N
7.2.37	3	5		37	Unknown	Unknown					NA	N	N
7.2.38	3	5		38	Unknown	Unknown					NA	N	N
7.2.39	3	5	1999	39	Unknown	Unknown			1,759		NA	N	N
7.2.40	3	5	2000	40	Unknown	Unknown			1,247		NA	N	N
7.2.41	3	5	2000	41	Unknown	Unknown			1,597		NA	N	N
7.2.42	3	5		42	Unknown	Unknown			853		NA	N	N
8.1.1	3	5	1968	4	Unknown	Unknown			1,195		Y	N	N
8.1.2	3	5	1973	18	Unknown	Unknown			1,200		Y	N	N
8.1.3	3	5	1973	17	Unknown	Unknown			802		N	N	N
8.1.4	3	5	1972	13	Unknown	Unknown			788		N	N	N
8.1.5	3	5	1997	55	Unknown	Unknown			650		NA	Y	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
8.1.6	3	5	1970	12	Unknown	Unknown			952		N	N	N
8.1.7	3	5	1970	8	Unknown	Unknown			591		N	N	N
8.1.8	3	5	1970	11	Unknown	Unknown			950		Y	N	N
8.1.9	3	5	1972	14	Unknown	Unknown			988		Y	N	N
8.1.10	3	5	1970	9	Unknown	Unknown			1,424		NA	N	N
8.1.11	3	5	1970	10	Unknown	Unknown			1,524		NA	N	N
8.1.12	3	5	1973	15	Unknown	Unknown			943		NA	N	N
8.1.13	3	5	1973	16	Unknown	Unknown			1,003		NA	N	N
8.1.14	3	5	1974	19	Unknown	Unknown			860		NA	N	N
8.1.15	3	5	1974	20	Unknown	Unknown			822		NA	N	N
8.1.16	3	5	1974	22	Unknown	Unknown			773		NA	N	N
8.1.17	3	5	1974	21	Unknown	Unknown			1,006		NA	N	N
8.1.18	3	5	1998	65	Unknown	Unknown			1,459		NA	Y	N
8.1.19	3	5	1976	30	Unknown	Unknown			1,200		NA	N	N
8.1.20	3	5	1977	31	Unknown	Unknown			1,256		NA	N	N
8.1.21	3	5	1978	33	Unknown	Unknown			1,415		Y	N	N
8.1.22	3	5	1974	23	Unknown	Unknown			850		Y	N	N
8.1.23	3	5	1975	24	Unknown	Unknown			850		Y	N	N
8.1.24	3	5	1975	25	Unknown	Unknown			660		Y	N	N
8.1.25	3	5	1977	32	Unknown	Unknown			924		Y	N	N
8.1.26	3	5	1975	26	Unknown	Unknown			850		Y	N	N
8.1.27	3	5	1975	27	Unknown	Unknown			943		NA	N	N
8.1.28	3	5	1975	28	Unknown	Unknown			804		Y	N	N
8.1.29	3	5	1978	34	Unknown	Unknown			800		NA	N	N
8.1.30	3	5	1978	36	Unknown	Unknown			1,000		Y	N	N
8.1.31	3	5	1976	29	Unknown	Unknown			1,200		Y	N	N
8.1.32	3	5	1979	37	Unknown	Unknown			1,204		NA	N	N
8.1.33	3	5	1981	42	Unknown	Unknown			1,508		Y	N	N
8.1.34	3	5	1981	43	Unknown	Unknown			1,500		NA	N	N
8.1.35	3	5	1997	57	Unknown	Unknown			1,608		NA	N	N
8.1.36	3	5	1997	59	Unknown	Unknown			1,600		NA	N	N
8.1.37	3	5	1997	56	Unknown	Unknown			1,601		NA	N	N
8.1.38	3	5	1997	58	Unknown	Unknown			1,628		NA	N	N
8.1.39	3	5	1998	73	Unknown	Unknown			1,645		NA	N	N
8.1.40	3	5	1998	70	Unknown	Unknown			1,507		NA	N	N
8.1.41	3	5	1998	69	Unknown	Unknown			1,552		NA	N	N
8.1.42	3	5	06/1999	78	Unknown	Unknown			750		NA	N	N
8.1.43	3	5	1968	7	Unknown	Unknown			985		NA	N	N
8.1.44	3	5	1989	44	Unknown	Unknown			1,500		NA	N	N
8.1.45	3	5	1991	47	Unknown	Unknown			1,345		NA	Y	N
8.1.46	3	5	1990	45	Unknown	Unknown			2,556		NA	N	N
8.1.47	3	5	1990	46	Unknown	Unknown			1,999		NA	N	N
8.1.48	3	5	1992	48	Unknown	Unknown			2,700		NA	N	N
8.1.49	3	5	01/1993	49	Unknown	Unknown			2,750		NA	Y	N
8.1.50	3	5	1993	50	Unknown	Unknown			1,500		NA	N	N
8.1.51	3	5	1968	5	Unknown	Unknown			325		NA	N	N
8.1.52	3	5	1968	6	Unknown	Unknown			1,458		NA	N	N
8.1.53	3	5	1998	74	Unknown	Unknown			2,330		NA	N	N
8.1.54	3	5		79	Unknown	Unknown			2,432		NA	N	N
8.1.55	3	5		80	Unknown	Unknown			2,495		NA	N	N
8.1.56	3	5	1978	35	Unknown	Unknown			1,903		NA	N	N
8.1.57	3	5	1979	38	Unknown	Unknown			2,300		NA	N	N
8.1.58	3	5	1980	39	Unknown	Unknown			2,379		NA	N	N
8.1.59	3	5	1997	62	Unknown	Unknown			2,157		NA	N	N
8.1.60	3	5	1998	67	Unknown	Unknown			2,292		NA	N	N
8.1.61	3	5	1998	71	Unknown	Unknown			2,220		NA	N	N
8.1.62	3	5	1981	41	Unknown	Unknown			2,086		NA	N	N
8.1.63	3	5	1998	72	Unknown	Unknown			2,220		NA	N	N
8.1.64	3	5	12/1998	75	Unknown	Unknown			2,208		NA	N	N
8.1.65	3	5	1998	68	Unknown	Unknown			2,342		NA	N	N
8.1.66	3	5	10/1994	53	Unknown	Unknown			140		NA	N	N
8.1.67	3	5	10/1999	81	Unknown	Unknown			750		NA	N	N
8.1.68	3	5	06/1994	52	Unknown	Unknown			2,323		NA	Y	N
8.1.69	3	5	05/1999	77	Unknown	Unknown			2,590		NA	N	N
8.1.70	3	5	1980	40	Unknown	Unknown			2,300		NA	N	N
8.1.71	3	5	1995	54	Unknown	Unknown			2,350		NA	N	N
8.1.72	3	5	1997	60	Unknown	Unknown			2,500		NA	N	N
8.1.73	3	5	1997	61	Unknown	Unknown			2,049		NA	Y	N
8.1.74	3	5	1998	63	Unknown	Unknown			504		NA	N	N
8.1.75	3	5	1998	64	Unknown	Unknown			614		NA	N	N
8.1.76	3	5	1998	66	Unknown	Unknown			800		NA	N	N
8.1.77	3	5	1998	76	Unknown	Unknown			740		NA	N	N
8.1.78	3	5	1994	51	Unknown	Unknown			2,200		NA	N	N
8.1.79	3	5	1960	1	Unknown	Unknown			525		NA	N	N
8.1.80	3	5	1960	2	Unknown	Unknown			400		NA	N	N
8.1.81	3	5	1960	3	Unknown	Unknown			552		NA	N	N
8.1.82	3	5		82	Unknown	Unknown					NA	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
8.2.1	3	5		1	Unknown	Unknown			1,458		N	N	N
8.2.2	3	5		2	Unknown	Unknown			2,214		N	N	N
8.2.3	3	5		3	Unknown	Unknown			2,307		N	N	N
8.2.4	3	5		4	Unknown	Unknown			2,396		NA	N	N
8.2.5	3	5		5	Unknown	Unknown	9.70		1,903		Y	N	N
8.2.6	3	5		6	Unknown	Unknown			2,300		NA	N	N
8.2.7	3	5		7	Unknown	Unknown			2,379		NA	N	N
8.2.8	3	5		8	Unknown	Unknown			1,993		NA	N	N
8.2.9	3	5		9	Unknown	Unknown	3.10		2,197		Y	N	N
8.2.10	3	5		10	Unknown	Unknown	8.60		2,133		Y	N	N
8.2.11	3	5		11	Unknown	Unknown	9.30		2,086		Y	N	N
8.2.12	3	5		12	Unknown	Unknown	9.90		2,194		Y	N	N
8.2.13	3	5		13	Unknown	Unknown	5.50		2,158		Y	N	N
8.2.14	3	5		14	Unknown	Unknown	5.10		2,246		Y	N	N
8.2.15	3	5		15	Unknown	Unknown			2,465		NA	N	N
8.2.16	3	5		16	Unknown	Unknown	3.90		2,300		Y	N	N
8.2.17	3	5		17	Unknown	Unknown			2,350		NA	N	N
8.2.18	3	5		18	Unknown	Unknown			1,343		NA	Y	N
8.2.19	3	5		19	Unknown	Unknown			504		NA	N	N
8.2.20	3	5		20	Unknown	Unknown			593		NA	N	N
8.2.21	3	5		21	Unknown	Unknown			800		NA	N	N
8.2.22	3	5		22	Unknown	Unknown			733		NA	N	N
8.2.23	3	5		23	Unknown	Unknown			2,326		NA	N	N
8.2.24	3	5		24	Unknown	Unknown			2,200		NA	N	N
9.1.1	3	5	9/12/1993	2	Not productive	Abandoned			2,322	244 mm to 919 m	N	N	N
9.1.2	3	5	6/3/1993	1	Not productive	Abandoned			1,471	324 mm to 322 m	N	N	N
9.1.3	3	5	12/6/1993	3	Not productive	Abandoned			1,871	244 mm to 961 m	N	N	N
9.1.4	3	5	2/14/1994	4	Production	Production			725	244 mm to 485 m	Y	N	N
9.1.5	3	5	6/24/1994	5	Production	Production			2,339	244 mm to 1,212 m	Y	N	N
9.1.6	3	5	12/1994	6	Production	Production			1,881	219 mm to 989 m	Y	N	N
9.1.7	3	5	6/2008	12	Production	Production			2,000	340 mm to 598 m	Y	N	N
9.1.8	3	5	3/30/1995	7	Suspended	Abandoned			1,263	244 mm to 1,261 m	NA	N	N
9.1.9	3	5	6/12/2007	8	Suspended	Abandoned			156	610 mm to 48 m	NA	N	N
9.1.10	3	5	11/20/2007	9	Production	Production			1,200	244 mm to 509 m	Y	N	N
9.1.11	3	5	1/9/2008	10	Non-commercial	Abandoned			1,725	340 mm to 548 m	N	Y	N
9.1.12	3	5	3/23/2008	11	Injector	Injector			1,200	244 mm to 509 m	Y	N	N
9.2.1	3	5	4/1970	1	Production	Unknown			608	NA to 49 m	Y	N	N
9.2.2	3	5	1/1975	2	Non-commercial	Unknown			1,890	NA to 425 m	NA	Y	N
9.2.3	3	5	6/1975	3	Production	Production	4.40		490	NA to 356 m	Y	N	N
9.2.4	3	5	9/1975	4	Production	Unknown			310	NA to 282 m	Y	N	N
9.2.5	3	5	12/1975	5	Production	Unknown	1.40	1998	1,094	NA to 377 m	Y	Y	N
9.2.6	3	5	12/1975	6	Unknown	Injector			580	NA to 518 m	NA	N	N
9.2.7	3	5	2/1976	7	Unknown	Unknown			1,798	NA to 594 m	NA	N	N
9.2.8	3	5	3/1976	8	Production	Production			1,435	NA to 684 m	Y	Y	N
9.2.9	3	5	4/1976	9	Non-commercial	Unknown	1.40	1998	1,757	NA to 949 m	N	N	N
9.2.10	3	5	5/1976	10	Production	Unknown			616	NA to 232 m	Y	N	N
9.2.11	3	5	6/1976	11	Unknown	Unknown			2,105	NA to 761 m	NA	N	N
9.2.12	3	5	9/1976	12	Production	Production			1,886	NA to 915 m	Y	Y	N
9.2.13	3	5	10/1976	13	Non-commercial	Unknown	5.10		402	NA to 234 m	Y	N	N
9.2.14	3	5	10/1976	14	Non-commercial	Unknown			1,829	NA to 261 m	NA	Y	N
9.2.15	3	5	11/1976	15	Unknown	Injector			671	NA to 232 m	NA	N	N
9.2.16	3	5	12/1976	16	Unknown	Unknown			649	NA to 649 m	NA	N	N
9.2.17	3	5	3/1977	17	Production	Unknown			2,251	NA to 827 m	Y	N	N
9.2.18	3	5	6/1977	18	Unknown	Unknown	2.60	1998	328	NA to 285 m	N	N	N
9.2.19	3	5	7/1977	19	Non-commercial	Unknown			1,124	NA to 256 m	NA	N	N
9.2.20	3	5	7/1977	20	Production	Production			540	NA to 259 m	Y	N	N
9.2.21	3	5	8/1977	21	Non-commercial	Unknown	5.00		311	NA to 260 m	Y	N	N
9.2.22	3	5	8/1977	22	Production	Production			488	NA to 258 m	Y	N	N
9.2.23	3	5	9/1977	23	Production	Production	2.30	1998	376	NA to 259 m	Y	N	N
9.2.24	3	5	10/1977	24	Non-commercial	Unknown	2.50		823	NA to 260 m	N	N	N
9.2.25	3	5	10/1977	25	Non-commercial	Unknown			457	NA to 250 m	NA	N	N
9.2.26	3	5	11/1977	26	Production	Idle			457	NA to 253 m	Y	N	N
9.2.27	3	5	12/1977	27	Production	Non-commercial	2.70		640	NA to 366 m	Y	N	N
9.2.28	3	5	1/1978	28	Unknown	Production	6.30		442	NA to 368 m	Y	N	N
9.2.29	3	5	2/1978	29	Unknown	Unknown			614	NA to 341 m	NA	N	N
9.2.30	3	5	3/1978	30	Unknown	Unknown			944	NA to 481 m	NA	N	N
9.2.31	3	5	5/1978	31	Production	Production			1,852	NA to 369 m	Y	N	N
9.2.32	3	5	7/1978	32	Unknown	Unknown	6.70		582	NA to 235 m	Y	N	N
9.2.33	3	5	8/1978	33	Unknown	Unknown			934	NA to 865 m	NA	N	N
9.2.34	3	5	9/1978	34	Unknown	Unknown			34		NA	N	N
9.2.35	3	5	12/1982	35	Production	Production			1,564	NA to 562 m	Y	N	N
9.2.36	3	5	2/1983	37	Production	Production			1,170	NA to 592 m	Y	N	N
9.2.37	3	5	5/1983	39	Unknown	Unknown			1,650	NA to 516 m	NA	N	N
9.2.38	3	5	12/1984	40	Production	Production	9.30	1989	1,295	NA to 603 m	Y	N	N
9.2.39	3	5	4/1985	41	Unknown	Unknown	4.60	1992	1,653	NA to 650 m	Y	N	N
9.2.40	3	5	11/1985	42	Unknown	Unknown			1,532	NA to 576 m	NA	N	N
9.2.41	3	5	4/1992	43	Production	Production	5.10	1992	1,139	NA to 616 m	Y	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
9.2.42	3	5	7/1994	44	Unknown	Unknown			2,019	NA to 828 m	NA	Y	N
9.2.43	3	5	12/1995	45	Production	Production	11.60	1996	1,697	NA to 684 m	Y	N	N
9.2.44	3	5	09/1996	46	Unknown	Unknown			2,138	NA to 1,510 m	NA	N	N
9.2.45	3	5	01/1997	47	Production	Production	5.10	1998	2,093	NA to 1,360 m	Y	N	N
9.2.46	3	5	01/1997	48	Production	Production	5.80	1998	2,500	NA to 1,683 m	Y	N	N
9.2.47	3	5	12/1982	36	Unknown	Idle			1,564		NA	N	N
9.2.48	3	5	02/1983	38	Injector	Injector			1,170		NA	N	N
10.1.1	3	4	1993	2	Unknown	Production			1,590		Y	N	N
10.1.2	3	4	1993	3	Unknown	Production			1,500		Y	N	N
10.1.3	3	4	1993	4	Exploration	Injector			1,500		Y	N	N
10.1.4	3	4	1993	5	Unknown	Injector			2,080		Y	N	N
10.1.5	3	4	2000	14	Unknown	Production			1,698		Y	N	N
10.1.6	3	4	2000	15	Unknown	Production			1,705		Y	N	N
10.1.7	3	4	1993	1	Exploration	Abandoned			85		N	N	N
10.1.8	3	4	1994	6	Non-commercial	Production			213		Y	N	N
10.1.9	3	4		7	Not productive	Unknown			167		N	N	N
10.1.10	3	4	1998	8	Unknown	Production			168		Y	N	N
10.1.11	3	4	1998	9	Not productive	Injector			197		N	N	N
10.1.12	3	4	1999	13	Production	Production			243		Y	Y	N
10.1.13	3	4	1999	10	Unknown	Abandoned			192		NA	N	N
10.1.14	3	4	1999	12	Production	Production			200		Y	N	N
10.1.15	3	4	1999	11	Production	Production			608		Y	N	N
10.2.1	3	4	1980	4	Production	Production	2.50	1993			Y	N	N
10.2.2	3	4	1981	6	Non-commercial	Production	3.50	1993			Y	N	N
10.2.3	3	4	1992	9	Unknown	Unknown	4.50	1993			Y	N	N
10.2.4	3	4	1980	3	Production	Production	4.80	1993			Y	N	N
10.2.5	3	4	1981	5	Production	Production	5.70	1993			Y	N	N
10.2.6	3	4	1991	8	Production	Production	11.00	1993			Y	N	N
10.2.7	3	4	1991	7	Production	Production	14.00	1993			Y	N	N
10.2.8	3	4	1980	1	Not productive	Idle					N	Y	N
10.2.9	3	4	1980	2	Non-commercial	Injector					NA	N	N
11.1.1	3	5	1973	1	Non-commercial	Unknown			1,003		N	Y	N
11.1.2	3	5	1974	2	Production	Unknown	2.90		1,350		Y	N	N
11.1.3	3	5	1974	3	Non-commercial	Unknown			1,357		N	N	N
11.1.4	3	5	1974	4	Non-commercial	Unknown	2.10		1,661		Y	N	N
11.1.5	3	5	1975	5	Non-commercial	Unknown			910		N	N	N
11.1.6	3	5	1997	97	Production	Unknown	5.40		2,200		Y	Y	N
11.1.7	3	5	1975	6	Non-commercial	Unknown	1.60		1,685		N	N	N
11.1.8	3	5	1978	7	Production	Unknown	2.50		1,308		Y	N	N
11.1.9	3	5	1978	8	Idle	Unknown			1,600		N	N	N
11.1.10	3	5	1978	9	Non-commercial	Unknown			1,181		N	N	N
11.1.11	3	5	1979	10	Production	Unknown	2.50		1,183		Y	N	N
11.1.12	3	5	1979	11	Production	Unknown	2.40		1,221		Y	N	N
11.1.13	3	5	1979	12	Non-commercial	Unknown	2.80		901		Y	N	N
11.1.14	3	5	1980	14	Production	Unknown	2.20		1,049		Y	N	N
11.1.15	3	5	1980	15	Non-commercial	Unknown	2.10		1,049		Y	Y	N
11.1.16	3	5	1980	16	Production	Unknown	2.70		1,302		Y	N	N
11.1.17	3	5	1980	17	Production	Unknown	3.60		1,304		Y	N	N
11.1.18	3	5	1980	18	Non-commercial	Unknown	1.60		1,234		N	N	N
11.1.19	3	5	1980	13	Production	Unknown	3.10		1,406		Y	N	N
11.1.20	3	5	1981	19	Production	Unknown	2.50		2,485		Y	N	N
11.1.21	3	5	1981	20	Non-commercial	Unknown	2.80		1,406		Y	N	N
11.1.22	3	5	1981	21	Non-commercial	Unknown	1.60		1,348		N	N	N
11.1.23	3	5	1981	22	Production	Unknown	2.20		1,406		Y	N	N
11.1.24	3	5	1982	24	Production	Unknown	1.60		1,329		Y	N	N
11.1.25	3	5	1982	25	Non-commercial	Unknown	1.00		1,620		N	N	N
11.1.26	3	5	1983	28	Non-commercial	Unknown	1.60		1,600		N	N	N
11.1.27	3	5	1984	30	Production	Unknown	3.30		1,607		Y	N	N
11.1.28	3	5	1988	44	Production	Unknown	2.10		2,004		Y	N	N
11.1.29	3	5	1988	47	Non-commercial	Unknown	1.60		1,605		N	N	N
11.1.30	3	5	1988	49	Production	Unknown	4.70		1,599		Y	N	N
11.1.31	3	5	1988	50	Production	Unknown	8.10		1,602		Y	N	N
11.1.32	3	5	1992	83	Non-commercial	Unknown	1.90		2,006		N	N	N
11.1.33	3	5	1992	84	Production	Unknown	5.00		2,005		Y	N	N
11.1.34	3	5	1992	85	Production	Unknown	3.20		2,006		Y	N	N
11.1.35	3	5	1992	86	Production	Unknown	3.30		2,136		Y	N	N
11.1.36	3	5	1982	23	Non-commercial	Unknown	1.60		1,617		N	N	N
11.1.37	3	5	1996	94	Non-commercial	Unknown			2,211		N	N	N
11.1.38	3	5	1983	27	Production	Unknown	3.70		2,116		Y	N	N
11.1.39	3	5	1993	89	Production	Unknown	3.00		2,200		Y	N	N
11.1.40	3	5	1996	93	Not tested	Unknown			2,143		N	N	N
11.1.41	3	5	1996	95	Not tested	Unknown			2,207		N	N	N
11.1.42	3	5	1983	26	Production	Unknown	5.00		1,912		Y	N	N
11.1.43	3	5	1986	38	Non-commercial	Unknown	1.20		2,202		N	N	N
11.1.44	3	5	1985	36	Abandoned	Unknown			350		N	N	N
11.1.45	3	5	1986	37	Abandoned	Unknown			1,101		N	Y	N
11.1.46	3	5	1989	52	Non-commercial	Unknown			2,094		N	N	N

Well Code	Geology Code	Resource Code	Completion Date	Order of Drilling	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Successfull	Redrilled (Y/N)	Pumped (Y/N)
11.1.47	3	5	1990	64	Non-commercial	Unknown			2,099		N	Y	N
11.1.48	3	5	1989	54	Non-commercial	Unknown	1.70		2,005		N	N	N
11.1.49	3	5	1989	53	Non-commercial	Unknown	1.10		2,162		N	N	N
11.1.50	3	5	1990	63	Non-commercial	Unknown	1.60		2,004		N	N	N
11.1.51	3	5	1994	91	Non-commercial	Unknown			730		N	N	N
11.1.52	3	5	1997	96	Non-commercial	Unknown	1.70		1,845		N	Y	N
11.1.53	3	5	1983	29	Non-commercial	Unknown	1.60		2,504		N	N	N
11.1.54	3	5	1984	31	Non-commercial	Unknown			1,801		N	N	N
11.1.55	3	5	1984	32	Dry-hole	Unknown			2,590		N	N	N
11.1.56	3	5	1985	33	Production	Unknown	4.00		1,804		Y	N	N
11.1.57	3	5	1985	34	Idle	Unknown			1,744		N	N	N
11.1.58	3	5	1987	41	Non-commercial	Unknown			1,886		N	Y	N
11.1.59	3	5	1987	39	Non-commercial	Unknown	2.00		2,195		Y	N	N
11.1.60	3	5	1987	40	Non-commercial	Unknown			2,007		N	N	N
11.1.61	3	5	1987	42	Production	Unknown	3.00		2,006		Y	N	N
11.1.62	3	5	1988	43	Production	Unknown	4.00		2,099		Y	N	N
11.1.63	3	5	1989	55	Production	Unknown	3.10		1,802		Y	N	N
11.1.64	3	5	1989	58	Production	Unknown	2.00		1,804		Y	N	N
11.1.65	3	5	1989	59	Production	Unknown	9.00		1,898		Y	N	N
11.1.66	3	5	1990	62	Production	Unknown	3.00		1,801		Y	N	N
11.1.67	3	5	1990	68	Production	Unknown	2.00		1,802		Y	N	N
11.1.68	3	5	1990	65	Production	Unknown	3.00		2,015		Y	N	N
11.1.69	3	5	1990	66	Production	Unknown	2.00		1,800		Y	N	N
11.1.70	3	5	1990	67	Production	Unknown	11.00		2,502		Y	N	N
11.1.71	3	5	1990	69	Production	Unknown	4.00		2,003		Y	N	N
11.1.72	3	5	1990	70	Production	Unknown	5.00		2,296		Y	N	N
11.1.73	3	5	1990	71	Non-commercial	Unknown			2,101		N	N	N
11.1.74	3	5	1990	72	Production	Unknown	2.20		1,899		Y	N	N
11.1.75	3	5	1990	74	Production	Unknown	4.00		2,210		Y	N	N
11.1.76	3	5	1990	75	Production	Unknown	2.00		2,177		Y	N	N
11.1.77	3	5	1990	61	Production	Unknown	4.00		2,201		Y	N	N
11.1.78	3	5	1991	77	Non-commercial	Unknown			2,198		N	N	N
11.1.79	3	5	1991	78	Non-commercial	Unknown			2,205		N	N	N
11.1.80	3	5	1991	79	Non-commercial	Unknown	2.00		2,206		Y	N	N
11.1.81	3	5	1991	80	Production	Unknown	3.00		2,198		Y	N	N
11.1.82	3	5	1991	81	Production	Unknown	4.00		2,207		Y	N	N
11.1.83	3	5	1991	82	Production	Unknown	3.00		2,004		Y	N	N
11.1.84	3	5	1993	87	Production	Unknown	5.00		2,206		Y	N	N
11.1.85	3	5	1993	88	Production	Unknown			2,267		Y	N	N
11.1.86	3	5	1998	98	Non-commercial	Unknown			2,010		N	N	N
11.1.87	3	5		99	Non-commercial	Unknown					N	N	N
11.1.88	3	5	1998	100	Non-commercial	Unknown	1.50		2,204		N	N	N
11.1.89	3	5	1999	101	Not tested	Unknown			2,206		N	N	N
11.1.90	3	5	1999	102	Not tested	Unknown			2,207		N	N	N
11.1.91	3	5	1988	45	Observation	Unknown			605		N	N	N
11.1.92	3	5	1988	46	Observation	Unknown			606		N	N	N
11.1.93	3	5	1988	48	Observation	Unknown			602		N	N	N
11.1.94	3	5	1985	35	Injector	Unknown			187		Y	N	N
11.1.95	3	5	1993	90	Injector	Unknown			2,205		Y	Y	N
11.1.96	3	5	1994	92	Non-commercial	Unknown	1.70		2,205		N	N	N
11.1.97	3	5	1989	51	Non-commercial	Unknown	2.30		2,471		Y	N	N
11.1.98	3	5	1989	56	Non-commercial	Unknown			2,791		N	N	N
11.1.99	3	5	1989	57	Non-commercial	Unknown			2,299		N	N	N
11.1.100	3	5	1989	60	Non-commercial	Unknown			2,469		N	N	N
11.1.101	3	5	1990	73	Non-commercial	Unknown			2,223		N	N	N
11.1.102	3	5	1990	76	Non-commercial	Unknown			2,486		N	N	N
12.1.1	3	4	2006	1	Not productive	Unknown			1,580		N	N	N
12.1.2	3	4	2009	2	Production	Unknown			1,030		Y	Y	N
12.1.3	3	4	2009	4	Marginal producer	Unknown			1,013		Y	N	N
12.1.4	3	4	2009	3	Not tested	Unknown			1,237		NA	N	N
12.1.5	3	4	2009	5	Marginal producer	Unknown			1,897		Y	N	N
13.1.1	3	4	1976	1	Non-commercial	Unknown					N	N	N
13.1.2	3	4	1976	2	Production	Unknown					Y	N	N
13.1.3	3	4	1976	3	Production	Unknown					Y	N	N
13.1.4	3	4	1976	4	Non-commercial	Unknown					N	N	N
13.1.5	3	4	1976	5	Production	Unknown					Y	N	N
13.1.6	3	4	1976	6	Non-commercial	Unknown					N	N	N
13.1.7	3	4	1976	7	Non-commercial	Unknown					N	N	N
13.1.8	3	4	1976	8	Production	Unknown					Y	N	N
13.1.9	3	4	1976	9	Production	Unknown					Y	N	N
13.1.10	3	4	1976	10	Production	Unknown					Y	N	N
13.1.11	3	4	1976	11	Non-commercial	Unknown					N	N	N
13.1.12	3	4	1976	12	Production	Unknown					Y	N	N
13.1.13	3	4	1976	13	Production	Unknown					Y	N	N
13.1.14	3	4	1976	14	Production	Unknown					Y	N	N
13.1.15	3	4	1976	15	Non-commercial	Unknown					N	N	N
13.2.1	3	5		1	Unknown	Unknown					Y	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
13.2.2	3	5		2	Unknown	Unknown					Y	N	N
13.2.3	3	5		3	Unknown	Unknown					Y	N	N
13.2.4	3	5		4	Unknown	Unknown					N	N	N
13.2.5	3	5		5	Unknown	Unknown					N	N	N
13.2.6	3	5		6	Unknown	Unknown					Y	N	N
13.2.7	3	5		7	Unknown	Unknown					Y	N	N
13.2.8	3	5		8	Unknown	Unknown					N	N	N
13.2.9	3	5		9	Unknown	Unknown					N	N	N
14.1.1	3	4		1	Production	Unknown			832		Y	N	N
14.1.2	3	4		2	Production	Unknown			682		Y	N	N
14.1.3	3	4		3	Production	Unknown			621		Y	Y	N
14.1.4	3	4		4	Production	Unknown			679		Y	Y	N
14.1.5	3	4		5	Production	Unknown			613		Y	N	N
14.1.6	3	4		6	Production	Unknown			606		Y	N	N
14.1.7	3	4		7	Production	Unknown			682		Y	N	N
14.1.8	3	4		8	Production	Unknown			172		Y	N	N
14.1.9	3	4		9	Never produced	Unknown			301		N	N	N
14.1.10	3	4		10	Never produced	Unknown			972		N	N	N
14.1.11	3	4		11	Never produced	Unknown			552		N	N	N
14.1.12	3	4		12	Never produced	Unknown			490		N	N	N
14.1.13	3	4		13	Never produced	Unknown			617		N	N	N
14.1.14	3	4		14	Never produced	Unknown			606		N	N	N
14.1.15	3	4		15	Never produced	Unknown			611		N	N	N
14.1.16	3	4		16	Production	Unknown			487		Y	N	N
14.1.17	3	4		17	Production	Unknown			481		Y	Y	N
14.1.18	3	4		18	Production	Unknown			481		Y	N	N
14.1.19	3	4		19	Production	Unknown			699		Y	N	N
14.1.20	3	4		20	Production	Unknown			723		Y	N	N
14.1.21	3	4		21	Production	Unknown			643		Y	N	N
14.1.22	3	4		22	Production	Unknown			732		Y	N	N
14.1.23	3	4		23	Production	Unknown					Y	N	N
14.1.24	3	4		24	Never produced	Unknown			917		N	N	N
14.1.25	3	4		25	Production	Unknown			670		Y	N	N
14.1.26	3	4		26	Production	Unknown			827		Y	N	N
14.1.27	3	4		27	Production	Unknown			975		Y	N	N
14.1.28	3	4		28	Injector	Unknown			622		Y	Y	N
14.1.29	3	4		29	Injector	Unknown			637		Y	N	N
14.1.30	3	4		30	Production	Unknown			249		Y	N	N
14.1.31	3	4		31	Production	Unknown			623		Y	N	N
14.1.32	3	4		32	Production	Unknown			668		Y	N	N
14.1.33	3	4		33	Production	Unknown			657		Y	N	N
14.1.34	3	4		34	Production	Unknown			524		Y	N	N
14.1.35	3	4		35	Production	Unknown			478		Y	N	N
14.1.36	3	4		36	Production	Unknown			620		Y	N	N
14.1.37	3	4		37	Production	Unknown			726		Y	N	N
14.1.38	3	4		38	Production	Unknown			631		Y	N	N
14.1.39	3	4		39	Never produced	Unknown			651		N	N	N
14.1.40	3	4		40	Production	Unknown			697		Y	N	N
14.1.41	3	4		41	Production	Unknown			590		Y	N	N
14.1.42	3	4		42	Non-commercial	Unknown			604		N	N	N
14.1.43	3	4		43	Production	Unknown			653		Y	N	N
14.1.44	3	4		44	Production	Unknown			637		Y	N	N
14.1.45	3	4		45	Production	Unknown			647		Y	N	N
14.1.46	3	4		46	Production	Unknown			667		Y	N	N
14.1.47	3	4		47	Production	Unknown			660		Y	N	N
14.1.48	3	4		48	Production	Unknown			711		Y	N	N
14.1.49	3	4		49	Non-commercial	Unknown			681		N	N	N
14.1.50	3	4		50	Production	Unknown			649		Y	N	N
14.1.51	3	4		51	Production	Unknown			650		Y	N	N
14.1.52	3	4		52	Production	Unknown			641		Y	N	N
14.1.53	3	4		53	Production	Unknown			630		Y	Y	N
14.1.54	3	4		54	Production	Unknown			631		Y	N	N
14.1.55	3	4		55	Unknown	Unknown			878		NA	N	N
14.1.56	3	4		56	Production	Unknown			701		Y	N	N
14.1.57	3	4		57	Never produced	Unknown			2,256		N	N	N
14.1.58	3	4		58	Never produced	Unknown			906		N	N	N
14.1.59	3	4		59	Production	Unknown			826		Y	N	N
14.1.60	3	4		60	Production	Unknown			1,104		Y	N	N
14.1.61	3	4		61	Never produced	Unknown			862		N	N	N
14.1.62	3	4		62	Never produced	Unknown			917		Y	N	N
14.1.63	3	4		63	Never produced	Unknown			1,229		N	N	N
14.1.64	3	4		64	Never produced	Unknown			925		N	N	N
14.1.65	3	4		65	Never produced	Unknown			864		N	N	N
14.1.66	3	4		66	Production	Unknown			819		Y	N	N
14.1.67	3	4		67	Production	Unknown			698		Y	N	N
14.1.68	3	4		68	Never produced	Unknown			1,077		N	N	N
14.1.69	3	4		69	Never produced	Unknown			1,174		N	N	N

Well Code	Geol-ogy Code	Re-source Code	Comple-tion Date	Order of Drill-ing	Initial Status	Current Status	Gross Capacity (MWe)	Date	Total Depth (m)	Production Casing (size to depth)	Success-full	Re-drilled (Y/N)	Pumped (Y/N)
14.1.70	3	4		70	Never produced	Unknown			928		N	N	N
14.1.71	3	4		71	Never produced	Unknown			1,077		N	N	N
14.1.72	3	4		72	Never produced	Unknown			942		N	N	N
14.1.73	3	4		73	Never produced	Unknown			1,366		N	N	N
14.1.74	3	4		74	Never produced	Unknown			1,260		N	N	N
14.1.75	3	4		75	Never produced	Unknown			1,082		N	N	N
14.1.76	3	4		76	Never produced	Unknown			1,078		N	N	N
14.1.77	3	4		77	Production	Unknown			394		Y	N	N
14.1.78	3	4		78	Production	Unknown			641		Y	N	N
14.1.79	3	4		79	Abandoned	Unknown			595		N	N	N
14.1.80	3	4		80	Never produced	Unknown			594		N	N	N
14.1.81	3	4		81	Unknown	Unknown			435		NA	N	N
14.1.82	3	4		82	Production	Unknown			459		Y	Y	N
14.1.83	3	4		83	Production	Unknown			384		Y	Y	N
14.1.84	3	4	11/1987	84	Production	Unknown			1,399		Y	N	N
14.1.85	3	4	1995	85	Production	Unknown			343		Y	N	N
14.1.86	3	4	1997	86	Production	Unknown			491		Y	N	N
14.1.87	3	4		87	Injector	Unknown			1,984		Y	N	N
14.1.88	3	4		88	Observation	Unknown			572		NA	Y	N
14.1.89	3	4		89	Injector	Unknown			939		Y	N	N
14.1.90	3	4		90	Observation	Unknown			1,467		NA	N	N
14.1.91	3	4	06/1995	91	Injector	Unknown			1,554		Y	N	N
14.1.92	3	4		92	Abandoned	Unknown			2,496		N	N	N
14.1.93	3	4		93	Abandoned	Unknown			2,228		N	N	N
14.1.94	3	4		94	Injector	Unknown			750		Y	N	N
14.1.95	3	4		95	Abandoned	Unknown			1,052		N	N	N
14.1.96	3	4		96	Abandoned	Unknown			2,240		N	N	N
14.2.1	3	5	1965	1	Observation	Unknown			1,396		N	N	N
14.2.2	3	5	1966	2	Abandoned	Unknown			1,034		N	N	N
14.2.3	3	5	1967	3	Abandoned	Unknown			912		N	N	N
14.2.4	3	5	1967	4	Observation	Unknown			1,020		N	N	N
14.2.5	3	5	1967	5	Observation	Unknown			1,350		N	N	N
14.2.6	3	5	1967	6	Injector	Unknown			1,082		Y	N	N
14.2.7	3	5	1967	8	Injector	Unknown			1,119		Y	N	N
14.2.8	3	5	1967	7	Production	Unknown			1,334		Y	N	N
14.2.9	3	5	1968	9	Production	Unknown			1,367		Y	N	N
14.2.10	3	5	1968	10	Non-commercial	Unknown			1,087		N	N	N
14.2.11	3	5	1987	44	Abandoned	Unknown			760		N	N	N
14.2.12	3	5	1968	12	Injector	Unknown			1,369		Y	N	N
14.2.13	3	5	1968	11	Production	Unknown			1,080		Y	N	N
14.2.14	3	5	1968	13	Production	Unknown			1,282		Y	N	N
14.2.15	3	5	1969	15	Redrilled	Unknown					N	Y	N
14.2.16	3	5	1995	50	Production	Unknown			2,114		Y	Y	N
14.2.17	3	5	1969	14	Injector	Unknown			1,403		Y	N	N
14.2.18	3	5	1969	16	Production	Unknown			1,082		Y	N	N
14.2.19	3	5	1970	17	Production	Unknown			1,214		Y	N	N
14.2.20	3	5	1970	19	Abandoned	Unknown			1,077		N	N	N
14.2.21	3	5	1970	18	Production	Unknown			1,555		Y	N	N
14.2.22	3	5	1970	20	Abandoned	Unknown			1,120		N	N	N
14.2.23	3	5	1970	21	Production	Unknown			1,016		Y	N	N
14.2.24	3	5	1970	22	Abandoned	Unknown			1,500		N	N	N
14.2.25	3	5	1970	23	Production	Unknown			1,404		Y	N	N
14.2.26	3	5	1971	24	Production	Unknown			1,256		Y	N	N
14.2.27	3	5	1978	32	Observation	Unknown			1,518		N	N	N
14.2.28	3	5	1975	27	Production	Unknown			1,162		Y	N	N
14.2.29	3	5	1974	25	Abandoned	Unknown			330		N	N	N
14.2.30	3	5	1974	26	Injector	Unknown			1,023		Y	N	N
14.2.31	3	5	1975	29	Injector	Unknown			1,145		Y	N	N
14.2.32	3	5	1975	28	Production	Unknown			1,252		Y	N	N
14.2.33	3	5	1976	30	Non-commercial	Unknown			1,269		N	N	N
14.2.34	3	5	1976	31	Observation	Unknown			358		N	N	N
14.2.35	3	5	1979	35	Observation	Unknown			2,587		N	N	N
14.2.36	3	5	1978	33	Abandoned	Unknown			1,374		N	N	N
14.2.37	3	5	1979	34	Production	Unknown			1,402		Y	N	N
14.2.38	3	5	1980	36	Observation	Unknown			1,403		N	N	N
14.2.39	3	5	1981	37	Non-commercial	Unknown			1,554		N	N	N
14.2.40	3	5	1981	38	Injector	Unknown			1,615		Y	N	N
14.2.41	3	5	1982	39	Injector	Unknown			455		Y	N	N
14.2.42	3	5	1993	46	Injector	Unknown			428		Y	N	N
14.2.43	3	5	1983	40	Non-commercial	Unknown					N	Y	N
14.2.44	3	5	1995	51	Production	Unknown			1,509		Y	N	N
14.2.45	3	5	1983	41	Production	Unknown			1,546		Y	N	N
14.2.46	3	5	1983	42	Production	Unknown			1,555		Y	N	N
14.2.47	3	5	1984	43	Production	Unknown			961		Y	N	N
14.2.48	3	5	1989	45	Injector	Unknown			803		Y	N	N
14.2.49	3	5	1995	48	Never produced	Unknown			2,987		N	N	N
14.2.50	3	5	1995	47	Production	Unknown			2,284		Y	N	N
14.2.51	3	5	1995	49	Production	Unknown			2,798		Y	N	N

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