

Appendix 1

The Statement of Claim

Statement of Claim in Respect of the Ngawha Geothermal Resource

1. *The Claimants*

The claimants are:

The Trustees of Parahirahi C1 Maori Reservation for and on behalf of the whanau and hapu having an interest in the Ngawha Geothermal resource.

Tamehana Tamehana for and on behalf of Ngati Hine hapu.

Ellen Reihana for and on behalf of Te Hikutu hapu.

Rewa Marsh for and on behalf of Te Uri Taniwha hapu.

Bob Cassidy for and behalf of Te Mahurehure hapu.

Ron Wihongi for and on behalf of Te Uriohua hapu.

Tu Kemp for and on behalf of Ngati Rehia hapu.

Kataraina Sarich, Te Arama Pou, Te Haua Witehira, Manga Tau for and on behalf of Ngati Tawake hapu.

Wereta Hauraki for and on behalf of Ngati Hau hapu.

Bishop Waiohua Te Haara for and on behalf of Ngati Rangi hapu.

Joe Pihemau for and on behalf of Ngati Tautahi hapu.

The claimants are collectively referred to in this statement of claim as "Nga hapu o Ngawha".

2. In this Statement of Claim, the Ngawha Geothermal Resource means the Ngawha geothermal field in its entirety.

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3. *Nga Hapu o Ngawha Do Hereby Claim* under the Treaty of Waitangi Act 1975 that we are Maori and that we and our hapu having rights in the Ngawha Geothermal Resource have been and continue to be prejudicially affected by the various ordinances, acts, regulations, orders, proclamations, notices and other laws and by the various policies, practices and omissions adopted by or on behalf of the Crown which were or are inconsistent with the terms and the principles of the Treaty of Waitangi in the following particulars:
 4. *Title to and Rangatiratanga in respect of the Ngawha Geothermal Resource*
 - 4.1 The Ngawha Geothermal Field is a taonga of immense cultural and spiritual significance to Nga hapu o Ngawha.
 - 4.2 The traditions of our people abound with references to this sacred taonga.
 - 4.3 The Ngawha Geothermal Resource is central to the mana and mauri of our people and we are kaitiaki of it.
 - 4.4 The Ngawha Geothermal Resource is a taonga protected by Article 2 of the Treaty of Waitangi.
 - 4.5 Nga hapu o Ngawha were guaranteed ownership of and rangatiratanga over the Ngawha Geothermal Resource so long as it was our wish to retain the same.
 - 4.6 Ownership and rangatiratanga are not dependent upon title to the surface of land and are based upon a separate Treaty guarantee.
 - 4.7 Ownership of the Ngawha Geothermal Resource denotes an exclusive right to utilise the Resource or to consent to utilisation of the Resource by others.
 - 4.8 Rangatiratanga in respect of the Ngawha Geothermal Resource denotes the right to manage it in accordance with the priorities of the hapu having rights in it

Wherefore We Claim:

- 4.9 The Crown has failed to recognise the cultural and spiritual significance of the Ngawha Geothermal Resource to Nga hapu o Ngawha and to make proper provision for its protection.
- 4.10 The Crown has failed to recognise and protect the ownership of Nga hapu of Ngawha of the Ngawha Geothermal Resource.
- 4.11 The Crown has failed to recognise the right of Nga hapu o Ngawha to manage the Ngawha Geothermal resource in accordance with our own priorities.

Wherefore We Seek the Following Findings:

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- 4.12 A finding that the Treaty guarantees ownership and rangatiratanga in respect of the Ngawha Geothermal Resource to Nga hapu o Ngawha.
- 4.13 A finding that ownership and rangatiratanga do not depend upon title in the surface land.
- 4.14 A finding that the Ngawha Geothermal Resource may not be exploited by third parties without the prior consent of Nga hapu o Ngawha.
- 4.15 A finding that the right to manage the Ngawha Geothermal Resource is, in terms of the principles of the treaty, vested in Nga hapu o Ngawha.

5. Alienation of the Parahirahi Block

- 5.1 From 1873 to 1948 the Crown progressively acquired substantially the entire Parahirahi Block upon which a substantial proportion of the Ngawha Geothermal resource is located.
- 5.2 The methods used in acquisition included:
 - (a) Acquisition of land declared to be inalienable.
 - (b) Acquisition of land pursuant to the Public Works Act or its predecessors including acquisition of the land for public works where no public works were in fact undertaken.
 - (c) Avoiding tribal title by acquiring undivided interests from individual members of Nga hapu o Ngawha.
 - (d) Aggregating those interests and partitioning them as a single block.
 - (e) Effectively playing off individual hapu members against each other.
 - (f) Acquisition of land without properly obtaining the consent of the individual land owners.
- 5.3 As a result of the acts, policies and omissions referred to at 5.2 herein, Nga hapu o Ngawha stand possessed now of 1 acre of the original Parahirahi Block comprising some 5097 acres.
- 5.4 the remaining one acre is known as the Parahirahi C1 Reservation and contains a portion of the Ngawha Geothermal Springs.

Wherefore We Claim

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- 5.5 The Crown acted in breach of the principles of the Treaty of Waitangi by progressively acquiring substantially the whole of the Parahirahi Block through all or any of the acts, policies and omissions referred to herein.
- 5.6 The Crown did not acquire ownership of the Ngawha Geothermal Resource in its acquisition of the Parahirahi Block.
- 5.7 Maori did not indicate any wish to alienate the Ngawha Geothermal Resource.
- 5.8 The fact that Maori sought the complete and inalienable reservation of the Ngawha Springs area in the Parahirahi C Block is conclusive evidence that Maori in fact intended to retain the Ngawha Geothermal Resource.

Wherefore We Seek the Following Findings

- 5.9 A finding that Nga hapu o Ngawha retain ownership of the Ngawha Geothermal Resource.
- 5.10 A finding that the acquisition of surface title by the Crown pursuant to acts, policies and omissions in breach of the principles of the Treaty of Waitangi did not involve the transfer of Maori ownership of the Ngawha Geothermal Resource.
- 5.11 A finding that the clear Maori intention to reserve Parahirahi C, containing Ngawha Springs, in Maori title is conclusive evidence of the Maori intention to retain the Ngawha Geothermal Resource.

6. *Resource Management Consents*

- 6.1 By Part III of the Resource Management Act 1991 Parliament delegated to the Far North Council and the Northland Regional Council the power to grant consents necessary for third parties to exploit the Ngawha Geothermal Resource.
- 6.2 By application dated 9 July 1992 a Joint Venture comprising the Bay of Islands Electric Power Board and the Taitokerau Maori Trust Board sought consents pursuant to the Resource Management Act to exploit the Ngawha Geothermal Resource for the purpose (inter alia) of electricity generation.
- 6.3 Nga hapu o Ngawha have lodged submissions in opposition to the applications referred to (an example of which is attached hereto as exhibit 1).
- 6.4 Any grant of resource consents to exploit the Ngawha Geothermal Resource will directly contravene the title and rangatiratanga of Nga hapu o Ngawha to the Ngawha Geothermal Resource and will deny the right of Nga hapu o Ngawha to act as kaitiaki of this taonga.

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- 6.5 Any grant of the resource consents sought by the Joint Venture will directly contravene the Waitangi Tribunal claim lodged herein and will pre-empt any rights which may be found to subsist in Nga hapu o Ngawha by virtue of the principles of the Treaty of Waitangi.
- 6.6 No consideration of the Joint Venture applications by the Far North District Council and the Northland Regional Council should proceed until the claim of Nga hapu o Ngawha is heard before this Tribunal and any rights found to subsist in Nga hapu o Ngawha by virtue of the principles of the Treaty of Waitangi have been duly adjudicated upon.

We Seek the Following Findings:

- 6.7 A finding that ownership of and rangatiratanga over the Ngawha Geothermal Resource is and remains vested in Nga hapu o Ngawha.
- 6.8 A finding that the grant of resource consents to the Joint Venture applicants would be in breach of those rights unless and until the consent of Nga hapu o Ngawha is procured.

7. In Consideration of the Foregoing We Seek the Following Urgent Recommendation:

- 7.1 An urgent recommendation that the Far North District Council and Northland Regional Council should not proceed to consider the Joint Venture applications until the claim of Nga hapu o Ngawha is heard before this Tribunal and duly reported upon.

8. Amendment of Claim

- 8.1 We reserve the right to further particularize our claim and to seek further findings and recommendations as the claim progresses.

Dated at Auckland this 8th day of September 1992

J V Williams, Counsel for the Claimants

Appendix 2

Record of Hearing

2.1 Appointments

The tribunal was constituted to comprise:

Gordon Stewart Orr (presiding officer)
Ian Hugh Kawharu
William MacDonald Taylor
Joanne Robin Morris

Mrs Rewarewa and Te Aroha Beaumont assisted the tribunal as interpreters.

Rosemary Daamen assisted the tribunal as staff researcher; Hine Henry and Lynette Fussell were claims administrators.

2.2 Hearings and Appearances

1 Te Kotahitanga Marae, Kaikohe, 12-15 October 1992

For the claimants:

Joseph Williams, Victoria Petraska

For the Crown:

Malcolm Parker, Annsley Kerr

Also appearing:

Peter Salmon QC - Joint Venture

Submissions and evidence were received from:

Ron Wihongi	A54(a)
Waiororo Pene	A54(b)
Twinnie Padlie	A54(c)
Karewa Marsh	A54(d)
Hohepa Cassidy	A54(e)

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Rewi Maihi	A54(f)
William Dalton	A54(g)
Hoterene Pine Mau	A54(h)
Anaru Sarich	A54(i)
Tamehana Tamehana	A54(j) and (k)
Manga Tau	A54(l)
Richard Boast	A52 and (a)
Paengatai Wihongi	A54(m)
Ngatihaua Paora Witehira	A54(n)
Hetaraka Aperahama	A54(o)
Taoko Wihongi	A54(p)
Kereama Rankin	A54(q)
Mereana Williams	A54(r)
Rau Kirikiri	
Nicole Butler	A50, (a) and (b)
Rima Edwards	
John Lumb	A51(a) to (e)
Morris Te Whiti Love	A49

Site visit to Ngawha Hot Springs Recreation Reserve and Parahirahi C1 Maori reservation.

Documents A1 to A56 were admitted to the record.

2 Kaikohe District Return Servicemen's Association, 158 Broadway, Kaikohe, 14-18 December 1992

For the claimants:

Joseph Williams, Victoria Petraska

For the Crown:

Malcolm Parker, Harriet Kennedy

Also appearing:

Peter Salmon QC - Joint Venture

Joe Malcolm - Te Arawa

Submissions and evidence were received from:

Victoria Brown B42
Hita Hape
Graham Rankin
Suzanne Robertson

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Te Ruru Ihaia Kahiwai	
Raymond Edwards	
Pat Hohepa	B25
Sir Graham Latimer	B38
Rose Daamen	B35
Judge Kevin Cull	B33
David Williams	B41 and (a)
David George	B45
Roger De Bray	B40
Doug Blakely	
Arnold Watson	B39
Margaret Beadle	B47, (a) and (b)
Craig Lawson	B43
Donald Loveridge	B34, (a) and (b)
Douglas Sheppard	B37
Hepa Solomon	B46

Tom Bennion read the evidence of Rose Daamen and David Williams.

Site visit to hot springs and lake on Margaret Beadle's Tuwhakino block property, the Ngawha Recreation Reserve and the Parahirahi C1 Maori reservation.

Documents B1 to B48 were admitted to the record.

3 Auckland District Court, Department of Justice, 3 Kingston Street, Auckland, 20-21 January 1993

For the claimants:

Joseph Williams, Victoria Petraska

For the Crown:

Malcolm Parker, Harriet Kennedy

Also appearing:

Peter Salmon QC - Joint Venture

Nicola Ngawati - Charles S Brown and Suzanne Robertson

Joe Malcolm - Te Arawa geothermal

Documents C1 to C16 were admitted to the record.

Appendix 3

Record of Inquiry

Record of Proceedings

1. **Claims**

- | | | |
|-----|-------------|--|
| 1.1 | Wai: | 304 |
| | Date: | 8 September 1992 |
| | Claimant: | Tamehana Tamehana |
| | Concerning: | Ngawha geothermal resource |
| 1.2 | Wai: | 58 (d) |
| | Date: | 9 October 1992 |
| | Claimant: | Sandra Gates on behalf of Matilda J Saies & others |
| | Concerning: | Ngawha geothermal resource |
| 1.3 | Wai: | 123 |
| | Date: | 12 December 1989 |
| | Claimant: | Charles S Brown |
| | Concerning: | Ngawha geothermal resource |

2. **Papers in Proceedings**

- 2.1 Tribunal directions requesting an urgent hearing, 2 September 1992
- 2.2 Tribunal directions on appointment of tribunal, 9 September 1992
- 2.3 Memorandum of counsel for claimants on hearing dates and timeframe, 8 September 1992
- 2.4 Minute of pre-hearing conference, 15 September 1992
- 2.5 Public notice and notification list of hearing 16 September 1992
- 2.6 Memorandum on behalf of Te Arawa claimants, 8 October 1992
- 2.7 Memorandum from Mr P Salmon QC for Joint Venture Company, 14 October 1992
- 2.8 Memorandum from J Malcome on behalf of Tuhourangi and Ngati Uenu Ku Kopako (supported by Federation of Maori Authorities, Te Arawa), 12 October 1992

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- 2.9 Public notice of the second hearing, dated 14 December 1992
- 2.10 Public notice of the second notice for the second hearing, 14 December 1992
- 2.11 Tribunal directions on discussion of issues, 7 December 1992
- 2.12 Submission by the claimants for Wai 153 on geothermal resource ownership, 8 December 1992
- 2.13 Statement of issues as re-drafted by the tribunal, 22 December 1992
- 2.14 Opening submission of counsel for Crown, 14 December 1992
- 2.15 Public notice of the third hearing, 20 January 1993
- 2.16 Draft issues on behalf of Tai Tokerau Maori Trust Board/Bay of Islands Electric Power Board (Joint Venture Company)
- 2.17 Synopsis of closing submission of counsel for claimants, 20 January 1993
- 2.18 Submission of counsel for claimants for Wai 123 claim, 20 January 1993
- 2.19 Closing submission on behalf of counsel for Tai Tokerau Maori Trust Board and Bay of Islands Electric Power Board), 20 January 1993
- 2.20 Closing submission of counsel for Crown, 21 January 1993
- 2.21 Submission of counsel for claimants in reply, 3 March 1993

- 3. **Research Commissions and Agreements**
- 3.1 Authority for claimants to commission research - Nicole Butler, Te Aroha Henare, Tom Lumb, 15 September 1992
(a) Memorandum - Amendment to Research Direction, 8 October 1992
- 3.2 Authority for claimants to commission researcher Richard Boast, 30 September 1992
- 3.3 Authority for claimants to commission researcher Morris Te Whiti Love, 30 September 1992
- 3.4 Directions of tribunal to commission research re: Judge Cull, 5 October 1992
- 3.5 Memorandum of tribunal - proposal to commission Rose Daamen, 7 October 1992
- 3.6 Directions of tribunal to commission research - Dr Pat Hohepa, 9 October 1992

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- 3.7 Directions of tribunal to commission research - David Williams, 8 December 1992
- 4. **Transcripts**
 - 4.1 Transcripts to the evidence of Pat Hohepa (B25(a))
 - 4.2 Transcripts to the Kaumatua evidence of the first hearing, 12-15 October 1992 (B36)
 - 4.3 Transcripts to the cross-examination of the second hearing 14-18 December 1992 (C12)

Record of Documents

- A **First hearing at Kotahitanga Marae, Kaikohe, 12-15 October 1992**
 - A1 "Geothermal Energy in New Zealand - Summary" by J Healy and R James, reprinted from Circum-Pacific Energy and Mineral Resources, Memoir No.25, the American Association of Petroleum Geologists, 1976, pp 130-134 [Wai 153, A6]
(registrar)
 - A2 "Geothermal Prospects Around the Pacific" by J Healy, reprinted from Circum-Pacific Energy and Mineral Resources, Memoir No.25, the American Association of Petroleum Geologists, 1976, pp 110-117 [Wai 153, A7]
(registrar)
 - A3 "The Preservation of Hydrothermal System Features of Scientific and Other Interest", a report to the Geological Society of New Zealand, B F Houghton, E F Lloyd, and R F Keam, Nature Conservation Council, April 1980 [Wai 153, A9]
(registrar)
 - A4 Article "Power Stations on Maori Land", by Dr E Stokes, Geography Department, Waikato University, published in People & Planning, September 1980, pp 10-13. [Wai 153, A10]
(registrar)
 - A5 "Maori Values in Geothermal Areas", paper presented to Nature Conservation Council Seminar: Geothermal Systems: Energy Tourism Conservation, Rotorua, October 1981, by E Stokes, University of Waikato [Wai 153, A11]
(registrar)
 - A6 "Management of Geothermal Resources Issues and Options" By P Gresham, O

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Cox, and C Chung, ed. A Voice, issues and options paper No. 1983/1, issued by Commission for the Environment [Wai 153 A13]
(registrar)

- A7 "Analysis of Existing Statutes: Departmental Views" Resource Management Law Reform Working Paper No 2
a) Lynette Clelland, Geothermal Coordination Group to Director General Department of Science and Industrial Research with attached comments by Department of Science and Industrial Research on Geothermal Energy Act 1953
b) Summary of Geothermal Energy Act 1953 [Wai 153, A17]
(registrar)
- A8 "Public Policy and Geothermal Energy Development: The Competitive Process on Maori Lands", paper presented to Symposium on New Zealand and the Pacific: Structural Change and Societal Responses, School of Social Sciences, University of Waikato, 19-20 June 1987, by Dr E Stokes. [Wai 153, A18]
(registrar)
- A9 Letter of 26 September 1988 , L Clelland Geothermal Co-ordination Group to Ministry for the Environment enclosing a paper prepared by Geothermal Co-ordination Group, Department of Science and Industrial Research, in relation to management of geothermal resources [Wai 153, A23]
(registrar)
- A10 Report "Maori Issues Relating to Geothermal Resource" by T. Tutua-Nathan, Waikato Catchment Board, Hamilton, undated [Wai 153, A24]
(registrar)
- A11 Copy of claim by Ngati Whakaue for exemption from geothermal rentals, unsigned and undated [Wai 153, A25]
(registrar)
- A12 Treasury Report, 19 May 1987 RD Judge for Secretary to the Treasury to Minister of Finance [Wai 153, A27]
(registrar)
- A13 John McCraw. Maori Legends as an Aid in Teaching Earth Sciences in NZ Science Teacher No. 65 Spring/summer 1990 [Wai 153, A29]
(registrar)
- A14 John McCraw - The Early Maori as an Earth Scientist - paper presented to Geological Association of NZ Annual Conference, Napier, November 1990 [Wai 153, A30]
(registrar)
- A15 Crown Law Office. "Use of Geothermal Steam" by Tasman Pulp and Paper Company Ltd, 7 July 1953. Crown Law Office Opinions Vol 125 p 359 [Wai 153, A31]
(registrar)

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- A16 AD Tarlock & RL Waller "Geothermal Bibliography" in Land and Water Law Review 1977 Vol XIII p 349 (Library) [Wai 153, A32]
(registrar)
- A17 G Griffith. "Indian Claims to Groundwater: Reserved Rights or Beneficial Interest?" in 33 Stanford LR pp 103-130 1980/81 [Wai 153, A33]
(registrar)
- A18 JL Merrill. "Aboriginal Water Rights" in 20 Natural Resources Journal 1980, pp45-70 [Wai 153, A34]
(registrar)
- A19 Janet Owen " Scientific Conservation Values of Geothermal Areas in NZ" in Landscape, May 1980 [Wai 153, A35]
(registrar)
- A20 R P Boast "The Treaty of Waitangi and Natural Resources: A Case Study" [Wai 153, A36]
(registrar)
- A21 Interdepartmental Committee Report to Consider the Interests of Departments in the Possible Use of Geothermal Resources in New Zealand [Wai 153, A38]
(registrar)
- A22 Ministry of Energy - copy of letter to Evelyn Stokes listing all existing geothermal energy licences located on the major geothermal fields, excluding Rotorua urban field, 26 July 1989 [Wai 153, A39]
(registrar)
- A23 Manatu Maori - The Ownership, Management and Development of the Geothermal Resource - A Discussion Document, February 1991 [Wai 153, A47]
(registrar)
- A24 "The Developing Law Relating to the Treaty of Waitangi and Environmental Law" R P Boast 1988 [Wai 153, A49]
(registrar)
- A25 Memorandum, Commissioner of Works to Minister of Works, 23 July 1953 concerning geothermal energy taking at Te Teko for pulp and paper purposes [Wai 153, A54]
- a) memorandum, Attorney-General to Cabinet concerning Maori ownership of lake beds and electric power generation
(registrar)
- A26 "The Maori Use of Geothermal Energy" Paora Maxwell April 1990 [Wai 153, A56]
a) appendices
(registrar)

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- (
- A27 "Geothermal Energy: Maori and Related Issues Resource" Management Law Reform Working Paper No 26, prepared by R Boast [Wai 153, A57]
(registrar)
 - A28 *Taking the Waters. Early Spas in New Zealand* Ian Rockel 1986 [Wai 153, A58]
(registrar)
 - A29 *Maori Place Names of the Thermal Regions and their Meanings* James Cowan [Wai 153, A59]
(registrar)
 - A30 "New Zealand Law and the Geothermal Resource" Tom Bennion 22 July 1991 [Wai 153, A60]
(registrar)
 - A31 "The Geothermal Resource: A Possible Strategic Plan for Future Management and Development" Barbara Simpson July 1991 [Wai 153, A61]
(registrar)
 - A32 Particulars of Title to Land, Parahirahi Block. Material compiled by Rex Wilson, Maori Land Court, Whangarei [Wai 153, A64(b)]
(registrar)
 - A33 Extract from New Scientist "The Successful Alchemist" by Bruce Yardley [Wai 153, A65]
(registrar)
 - A34 "The Legal Framework for Geothermal Resources A Historical Study" by R P Boast [Wai 153, A66]
(a) supporting documents to A66, volumes 1 & 2
(registrar)
 - A35 Consolidated legislation affecting geothermal energy as at 1 October 1991 [Wai 153, A67]
(registrar)
 - A36 Browne and others: "The Ngawha Geothermal Area. Department of Science and Industrial Research Geothermal Report No. 7" Wellington [Wai 153, A68]
(registrar)
 - A37 Lawless, J V, J T Lumb, L Clelland, D Kear and S R Drew, 1981: *Geothermal Energy for New Zealand's Future*, Department of Science and Industrial Research Bulletin 229, Wellington. [Wai 153, A71]
(registrar)
 - A38 Mongillo, M A and L Clelland, 1984: "Concise Listing of Information on the Geothermal Areas and Thermal Springs of New Zealand" Department of Science and Industrial Research Geothermal Report No. 9, Geothermal Co-ordination Group, Department of Science and Industrial Research, Wellington.

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- (Relevant Extracts) [Wai 153, A72]
(registrar)
- A39 Correspondence from the Far North District Council concerning an application for a resource consent, received 13 July 1992. [Wai 153, A74]
(registrar)
- A40 Papers of the Proceedings of 13th New Zealand Geothermal Workshop 1991
D A Edmunds and R P Boast, "Geothermal Resources and the Law" [Wai 153, A76]
M P Hochstein and D H Freeman "Geothermal Resource Management Concepts"
C Gunn "Geothermal Resource Management Under The Resource Management Act 1991"
(registrar)
- A41 A J Bradbrook "Environmental Controls Over Geothermal Energy Exploitation" Environmental and Planning Law Journal vol 4 1987 [Wai 153, A77]
(registrar)
- A42 Tikitu Tutua-Nathan "Maori Tribal Rights to Ownership and Control: The Geothermal Resource in New Zealand" Applied Geography (1992) vol 12 pp 192-198 [Wai 153, A78]
(registrar)
- A43 KRTA Ltd to Ms Robertson, 20 July 1992, enclosing information about application for Resource Consents
(registrar)
- A44 Papers relating to Wiremu Tairua's MLIO application for information relating to the alienation of Parahirahi, Tuwhakino, Waiparaheka, Tokakopuru, Otutaorau and Kohewhata blocks from Maori ownership (extracts) with supporting documents produced by Department of Survey and Land Information, Auckland (full copy), 4/1/72/13, Maori Land Court, Whangarei.

(registrar)
- A45 Maori land plans, Department of Survey and Land Information, Auckland:

ML 870 Plan of Ngatokaturua, surveyed by J Russell, received 16 March 1868

ML 1164 Plan of Waikahikatea, surveyed by J Russell, received 14 December 1868

ML 1533 Waiwhariki, surveyed under the supervision of Sidney David Taiwhanga, 30 June 1869

ML 2624 Plan of Tuwhakino block, surveyed by R A Fairburn, October 1872

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- ML 2752 Plan of Otutaorau, surveyed by R A Fairburn, March 1873
- ML 2753 Plan of Tokakopuru, surveyed by R A Fairburn, March 1873
- ML 2730 Plan of the Parahirahi block [originally the Ngawha Tuakino block], surveyed by P E Cheal, 8 April 1873
- ML 2730A Parahirahi block, [Cheal], [8-15 December 1873]
- ML 4807A Mangatawai block, surveyed by R A Fairburn, February 1880
- ML 3680 Waiparaheka block, surveyed by R A Fairburn, March 1880
- ML 4807B Plan of Mangatawai Nos 1 & 2, surveyed under H J Sealy's supervision, 2 July 1883
- ML 6589 Sketch plan of Maungaturoto or Tuhakino (compiled in office), 9 April 1895
(registrar)
- A46 Maori land plan register entries for blocks listed in A45, Maori land plan register, Department of Survey and Land Information Office, Auckland
(registrar)
- A47 Papers on petition 12 of 1942, Hirini Taiwhanga Heremaia and 48 others' petition regarding Parahirahi C block, Le 1 1/1942/8, National Archives, Wellington (extract)
(registrar)
- A48 Report on the alienation of land at Ngawha, Maungaturoto, Waiwhariki, Waikahikatea, Ngatokaturua and Mangatawai blocks 6825-C2030-1, Department of Survey and Land Information Office, Auckland
(registrar)
- A49 Evidence of Morris Te Whiti Love in respect of the Ngawha Geothermal claim, received 9 October 1992
- A50 Evidence of Nicole Butler re:Parahirahi Block, received 9 October 1992
(a) Supporting Papers to Statement of Nicole Butler
(b) Supplementary evidence of Nicole Butler
(registrar)
- A51 (a) Statement of evidence of J T Lumb
(b) Addendum to statement of evidence of J T Lumb
(c) "Reservoir Modelling of Development Impacts at Ngawha", Mark McGuinness
(d) "Ngawha geothermal resource" Linus K Constable
(e) Amendments to evidence of J T Lumb
(registrar)

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- A52 Report by Richard Boast, Ngawha Springs dated October 1992
(a) Eden, J R - "The Letters & Journals of Samuel Marsden" - Conlles, Somerville
Wilkie Ltd & A H Reed 1932
(registrar)
- A53 Opening submission of counsel for claimants
- A54 Kaumatua evidence on behalf of Nga Hapu O Ngawha,
(a) Ron Wihongi
(b) Waiororo Pene
(c) Twinnie Padlie
(d) Karewa Marsh
(e) Hohepa Cassidy
(f) Rewi Maihi
(g) William Dalton
(h) Hoterene Pine Mau
(i) Anaru Sarich
(j) Tamehana Tamehana
(k) Tamehana Tamehana
(l) Manga Tau
(m) Paengatai Wihongi
(n) Ngatihaua Paora Witehira
(o) Hetaraka Aperahama
(p) Taoko Wihongi
(q) Kereama Rankin
(r) Merana Williams
(counsel for claimants)
- A55 Volume II, Statements of technical evidence on behalf of Nga Hapu O Ngawha
(including A49-A51)
(registrar)
- A56 Site visit itinerary for first hearing
(registrar)
- B Second Hearing at Kaikohe & District R.S.A. Club,
158 Broadway, Kaikohe, 14-18 December 1992**
- B1 Parahirahi C1 block 16 Omapere SD, 7/2/165, land claims and alienations
series box 2, head office Maori affairs closed files (held in storage) (extracts)
(registrar)
- B2 Memorial of ownership for the Parahirahi block, 10 November 1874, deed
book, Maori Land Court, Whangarei
(registrar)
- B3 Parahirahi block record sheet and Parahirahi A2 and C1 schedules of
ownership orders and memorial schedules, Parahirahi title binder 138, Maori

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- Land Court, Whangarei (extracts)
(registrar)
- B4 Omapere SD block XV record sheet, Omapere title binder 98, Maori Land Court, Whangarei (extract)
(registrar)
- B5 Northern minute book 3, pp 379 - 380, Maori Land Court, Whangarei
(registrar)
- B6 Northern minute book 6, pp 258 - 260, 283 - 297, 316 - 317, Maori Land Court, Whangarei
(registrar)
- B7 Northern minute book 54, pp 286 - 288, Maori Land Court, Whangarei
(registrar)
- B8 Bay of Islands minute book 4, p 62, Maori Land Court, Whangarei
(registrar)
- B9 Bay of Islands minute book 32, pp 95 - 97, 325 - 328, 380 -381, Maori Land Court, Whangarei
(registrar)
- B10 Parahirahi block order file no 1, Maori Land Court, Whangarei (extracts)
(registrar)
- B11 Parahirahi block order file no 2, Maori Land Court, Whangarei (extracts)
(registrar)
- B12 Omapere SD block order file, Maori Land Court, Whangarei (extracts)
(registrar)
- B13 Order assessing compensation for portions of sections 1A and 2, block XV Omapere SD taken under the Public Works Act 1928, 15 August 1958, order binder, Maori Land Court, Whangarei (extracts)
(registrar)
- B14 Parahirahi block correspondence file MA BI 414 (applications only), Maori Land Court, Whangarei (extracts)
(registrar)
- B15 Parahirahi block correspondence file MA BI 414, Maori Land Court, Whangarei (extracts)
(registrar)
- B16 Parahirahi block correspondence file MA BI 414A, Maori Land Court, Whangarei (extracts)
(registrar)

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- B17 Tuwhakino block correspondence file MA BI 85 (land transfer vol 9 fol 11, part of land sold to William Earl), Maori Land Court, Whangarei (extracts)
(registrar)
- B18 Tuwhakino block file MA BI 85 (court correspondence), Maori Land Court, Whangarei (extracts)
(registrar)
- B19 Parahirahi block 1885 - 1898, BABN, 1108, Box 92, file 2215, National Archives, Auckland (extracts)
(registrar)
- B20 Parahirahi A2, BAAI, A139, Box 168, file 5079, National Archives, Auckland (extracts)
(registrar)
- B21 Parahirahi B1, BAAI, A139, Box 184, file 5372, National Archives, Auckland (extracts)
(registrar)
- B22 Section 1A block XV Omapere SD, BAAI, A139, Box 239, file 6346, National Archives, Auckland (extracts)
(registrar)
- B23 "Quicksilver mining rights - Agreement with chiefs of Kaikohe - dated 6/12/72", NZ MS 714/2 no 35 in John White "Papers and memoranda relating to the Maori; collected, and in many instances written by John White. Collated and arranged by George Graham and John Barr - Maori section volume II", Auckland City Library, Auckland
(registrar)
- B24 Supporting papers to the evidence of Don Loveridge
(see also B 34)
(counsel for Crown)
- B25 Evidence of Pat Hohepa in respect of Ngawha geothermal claim
a) translation of evidence
(registrar)
- B26 Submission of Ngati Te Ara/Ngati Kopaki Whanau Trust, received 12 October 1992
(registrar)
- B27 (a) Schedule of present-day land holdings within the Parahirahi block prepared by Department of Survey and Land Information, Auckland
(registrar)
- (b) Plan of present-day land holdings within the Parahirahi block (excluding the Ngawha township) prepared by Department of Survey and Land Information, Auckland, is held at the Waitangi Tribunal Division, Seabridge

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House, 110 Featherston Street, Wellington
(registrar)

- B28 Minutes of the 1945 inquiry into petition 12 of 1942, Bay of Islands minute book 19 pp 343-354, Maori Land Court, Whangarei
(registrar)
- B29 Minutes of the 1892 hearing into the application of Matenga Taiwhanga for succession to Hirini Taiwhanga's interests in Parahirahi A, B and C and the hearing of the Native Minister's application for the Crown's interests in Parahirahi to be determined, Judge Von Sturmer's minute book 3 pp 13-14, Maori Land Court, Hamilton
(registrar)
- B30 Copy of the minutes of the June 1926 hearing considering application for Parahirahi C1 to be set aside as a reserve and made inalienable, Bay of Islands minute book 7 pp 160-161, Maori Land Court, Whangarei
(registrar)
- B31 Minutes of the hearing to determine compensation for land taken from Parahirahi A1 in 1948 (Bay of Islands minute book 24 p 257), Parahirahi block order file no 1, Maori Land Court, Whangarei
(registrar)
- B32 Review of Rotorua Geothermal Royalties by Ministry for the Environment
(registrar)
- B33 Evidence of Kevin B Cull in respect of the Ngawha geothermal claim
(registrar)
- B34 Evidence of Don Loveridge on the acquisition of Parahirahi D Block
a) Supplementary evidence of Don Loveridge (see also B24)
b) The Acquisition of Parahirahi D Block, Deed No 1886
(counsel for Crown)
- B35 Evidence of Rose Daamen on the alienation of the Parahirahi block
(registrar)
- B36 Transcripts of Kaumatua evidence for hearing of 12-15 October 1992
(registrar)
- B37 Evidence of Douglas Sheppard on the Ngawha geothermal claim
(counsel for crown)
- B38 Evidence of Graham Latimer on the Ngawha geothermal claim (for Tai Tokerau Maori Trust Board and Tai Tokerau District Maori Council)
- B39 Evidence of Arnold Watson on the Ngawha geothermal resource (for Joint Venture Company)

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- B40 Evidence of Roger de Bray on the Ngawha geothermal resource (for Joint Venture Company)
- B41 Commissioned legal opinion of David Williams, 11 December 1992 (registrar)
 - a) Supplementary opinion, 14 December 1992
- B42 Evidence of Victoria Brown (counsel for claimants)
- B43 Evidence of Craig Lawson (counsel for Crown)
- B44 Opening submission of Peter Salmon on behalf of Tai Tokerau Maori Trust Board and Bay of Islands Electric Power Board, 16 December 1992
- B45 Evidence of David George (in support of Joint Venture Company)
- B46 Evidence of H Solomon (for Federation of Maori Authorities Te Arawa)
- B47 Evidence of Margaret Beadle
 - (a) letter of 9 July 1969 from Department of Lands & Survey
 - (b) letter of 24 May 1976 from Mines Department
- B48 Opening submission of counsel for Crown

- C Third hearing at Auckland District Court Buildings, Auckland, 20-21 January 1993**
- C1 R P Boast, "The Hot Lakes: Maori Use and Management of Geothermal Areas from the evidence of European visitors"
 - (a) Annexures Early Travellers' Records Vol 1 1831-1847
 - (b) Annexures Early Travellers' Records Vol 2 1850-1884(registrar)
- C2 Ngawha hot springs domain, L&S 8/12 vol 1, Department of Conservation, Whangarei extracts on the 1925 - 1961 identification of huts on the domain, the fencing in of C by local Maori, proposals for the development of the domain and surrounding area and the eviction of those living on the domain (registrar)
- C3 Ngawha springs domain court proceedings, L&S 8/3/169/1, Department of Conservation, Whangarei extracts on hearings regarding the 1942 petition and the eviction of those living on the domain in the early-mid 1960s (includes 1895 plan of reserves and 1926 Maori opposition to proposal that the Crown buy the remainder of C) (registrar)
- C4 [Ngawha springs domain] L&S 8/3/169 vol 1, Department of Conservation,

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- Whangarei extracts on 1960s proposal for development of the domain, eviction of those living there and moves to the change of management of the domain (registrar)
- C5 [Ngawha springs domain] L&S 8/3/169, Department of Conservation, Whangarei extracts on 1970 - 1991 planned development of the domain, issue of title, reserve classification and plans to lease (registrar)
- C6 Ngawha springs recreation reserve, LRC 313, Department of Conservation, Whangarei extracts on draft 1991 lease of the reserve by the Far North District Council to the Waiariki Trust Incorporated, shift of administration to the Department of Conservation (registrar)
- C7 Ngawha hot springs [file closed November 1960], Bay of Islands County Council file 12/14, Far North District Council, Kaikohe extracts on 1935-44 consideration of proposals for Ngawha to be a government spa, 1949 consideration of board membership, 1959 Maori complaint regarding roadway (registrar)
- C8 Ngawha hot springs, Bay of Islands County Council file 12/14, Far North District Council, Kaikohe extracts on 1960s eviction, membership of the domain board and domain development (registrar)
- C9 [Ngawha Township], file 31/N/1, Far North District Council, Kaikohe contains 1969 and 1971 development plans (registrar)
- C10 Ngawha hot springs, Bay of Islands County Council file 12/14, 15 September 1980 - 31 May 1989, Far North District Council, Kaikohe extracts on 1980s management plan and proposed lease (registrar)
- C11 Ngawha hot springs, Bay of Islands County Council file 12/14, Far North District Council, Kaikohe extract entitled "Tikanga Maori" iwi and resource management decision making, Ngawha geothermal resource case study, received August 1989 (registrar)
- C12 Cross-examination on the second Ngawha Hearing
14-18 December 1992 of:
(a) Craig Lawson
(b) Don Loveridge/*
(c) Roger De Bray
(d) Arnold Watson
(registrar)

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- C13 Synopsis of closing submission of counsel for claimants
20 January 1993
(a) translation of evidence
- C14 Submission of counsel for claimants for Wai 123 claim, 20 January 1993
- C15 Closing submission, counsel for Tai Tokerau Maori Trust Board and Bay of Islands Electric Power Board - Joint Venture Working Party, 20 January 1993
- C16 Closing Submissions of counsel for Crown
21 January 1993
(a) Native Land Court Acts Amendment 1889 pp134,136
(b) J1/1894/173, National Archives, Wellington
(extracts)
- C17 **Submission in reply of counsel for claimants, 3 March 1993**

- D1 Transfer 7067, 14 May 1885, Heta Te Haara to William Earl,
Land and Deeds, Auckland
(registrar)
- D2 Lease 1134, 16 December 1892, Heta Te Haara to GWS Patterson, Lands and
Deeds, Auckland
(registrar)
- D3 Ngawha Hot Springs Domain Certificate of Title, 24D/1409,
Land and Deeds, Auckland
(registrar)

Appendix 4

Extract from Evidence of Dr Sheppard (B37 pp 2-3)

2 THE NATURE AND SETTING OF GEOTHERMAL SYSTEMS

- 2.1 Geothermal systems are a part of regional hydrological systems. The water in geothermal systems is derived mostly from outside the immediate geothermal system, and ends up outside the system. Geothermal systems may or may not discharge water, steam, gases and minerals to the ground surface. They differ from the usual subsurface hydrological system in that they are at higher temperatures than the waters around them. The heat is derived more or less directly from the hot sub-crust or upper mantle deep beneath them. In some places, the waters are warmed by general conductive heating from below, and because they are warm and less dense, they rise towards the earth's surface. On the way they react with the rocks through which they are passing, and carry away some of the components of the rocks. Hot waters react more rapidly with the rocks than cold waters.
- 2.2 In some places the heat is carried from depth by rising molten material (called magma) which can penetrate right through the crust to form volcanoes and lava flows during volcanic eruptions. The heat carried by these rocks is dispersed in part into the crust and can be carried away by the waters that are able to circulate them. This is why many geothermal systems are associated with volcanoes: that at Ketetahi on Tongariro is a good New Zealand example.
- 2.3 These connections of geothermal systems with magma (liquid or solidified after cooling) are not always obvious. Quite often, the magma body does not reach the surface. In this situation, the heat is transported at least in part by the circulation of groundwaters, which in addition to picking up heat, may leach volatile and soluble chemicals from the magma. This is the situation at Ngawha. Because the waters are hot and have dissolved chemicals in them which help attack the rocks, these waters react with the other rocks through which they travel, and lose and gain chemicals in a complex way which we only partially understand. The end results are the waters which are discharged at the surface and are encountered by wells at depth. The chemical composition can be characteristic of the depth at which the water is encountered, and different chemical compositions.
- 2.4 The water which saturates the upper few kilometers of the crust is, in most places, derived from rainwater. The rainwater may have fallen some distance away, and travelled on the surface and underground in response to gravity. Once water is underground (hence "groundwater"), it can travel through the

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cracks and pores in the rocks, and in some places, cavern and tunnel. It can become trapped and be under pressure, giving artesian waters; it can emerge at low points as springs; and it can be heated and rise to the surface or circulate, in response to heating, for instance. Movement of water in groundwater systems can be very slow, and timescales of thousands or tens of thousands of years are usual for the waters to flow through geothermal systems.

- 2.5 For water circulation in a system to occur, as well as a heat source, waters must be able to pass through the rock pores and channels. This is called permeability, and while virtually all rocks are permeable, some are more permeable than others. This can be related to the material of which the rocks are made (a coarse sandstone will be more permeable than a fine mudstone, all other things being equal), and by how many cracks there are.
- 2.6 Cracking in rocks occurs by many mechanisms, for instance, because they are being bent, because they are being heated, because they are being sheared. In some places in the surface layers of the earth, forces are at play which cause rafts of rock to move around, causing earthquakes, and as they do they can be torn apart or pushed together, with resulting fractures. When these are large enough, they are called faults. Regions where this happens can become weakened and the crust can become thin as well as weak. When this happens, volcanic activity is frequently found. A good example is the Bay of Plenty-Rotorua-Taupo area. There seems to be a similar situation, on a smaller scale, around Ngawha.